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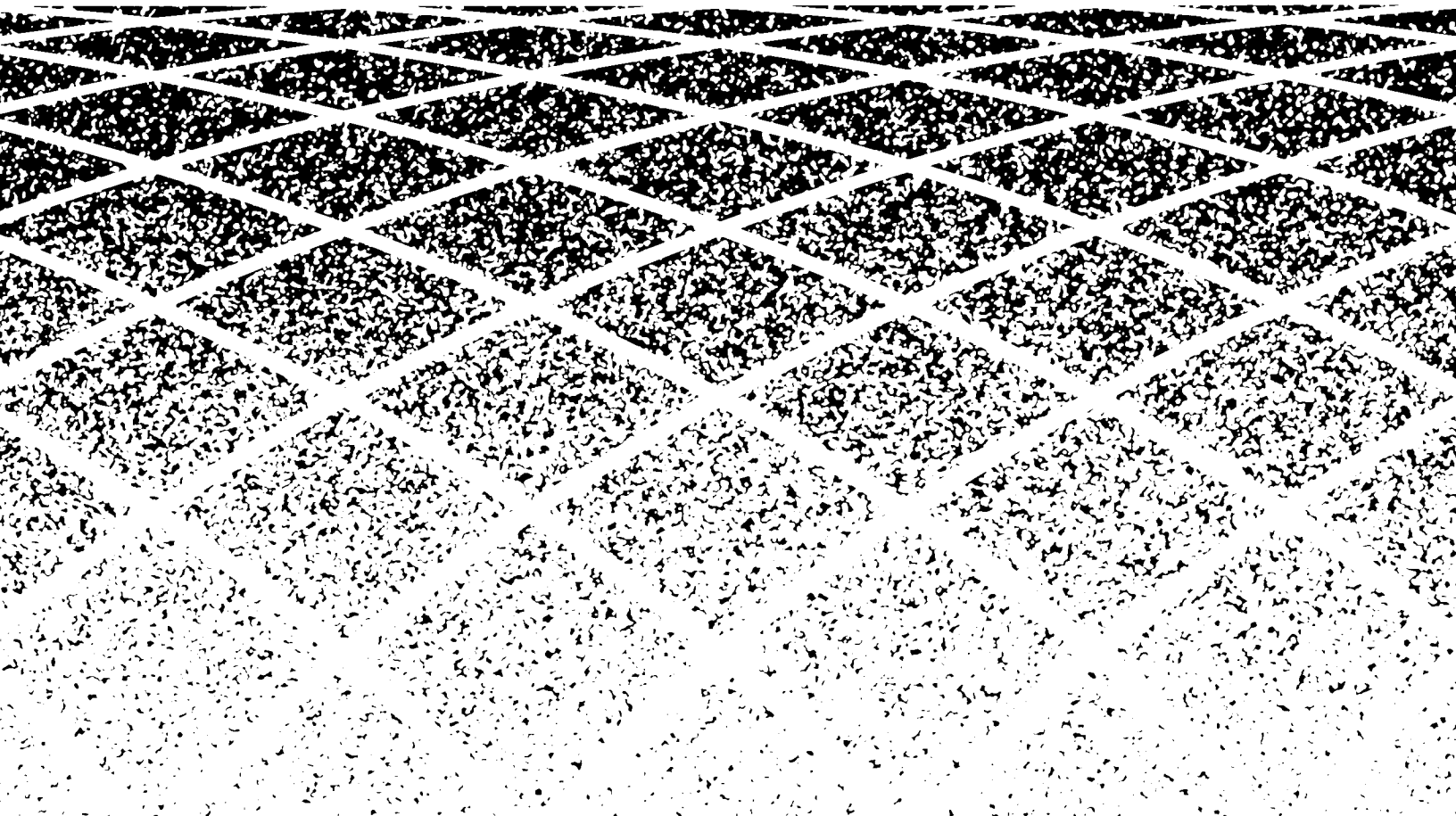
System 85
Release 2, Version 4n

Administration Procedures



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About This Document

Purpose of This Document

This document was written for system administrators and AT&T services personnel who administer and maintain the AT&T System 85. This document is used primarily as a reference to the administration proce- dures. This document replaces AT&T System 85 Release 2 Version 4 Feature Translations (555-103-107, Issue 2).

Prerequisite Skills and Knowledge

Users of this manual should have a working knowl- edge of System 85 features and capabilities. Users should also be familiar with their particular administration tool, usually the Maintenance and Administra- tion Panel (MAAP).

Organization and Use of This Document

This manual is organized numerically by procedure number. You can easily locate the procedures you are looking for by using the table of contents or the page footers.

The procedures in this manual use a generic heading structure. This heading structure makes it quick and easy to locate desired information. The subheadings are as follows:

- Purpose

  This section explains what attributes a procedure administers. This section is in all procedures.

- Prerequisite Procedures

  This section explains administration that must be completed in other procedures before a given procedure can be used. This section is only in procedures where it applies.

- Related Procedures

  This section explains administration in other procedures that may be of concern when a given procedure is used. This section is only in procedures where it applies.

- Cautions

  This section explains administration in a given procedure that must be completed using an extra measure of care. Cautions are used to flag changes to a procedure that could hinder system operation. This section is only in procedures where it applies.

- Flipchart

  This section shows a picture of the procedure flipchart.

- Fields Used or Required for Command RoutInes

  This section lists the five most common administration commands used with the MAAP and explains how the command is used in a given procedure.

  The five most common administration command sequences are referred to in this manual as "routines". The following is a list of these routines and the key presses required to do them.

  — Display Routine

    A display routine is executed by pressing **DISPLAY** **EXECUTE**

  — Add Routine

    An add routine is executed by pressing **ADD** **EXECUTE** **DISPLAY** **EXECUTE**

  — Change Routine

    A change routine is executed by pressing **CHANGE** **EXECUTE** **DISPLAY** **EXECUTE**

— Remove Routine

A remove routine must always be done after you have done a display routine and the item you want to remove is currently displayed on the screen. A remove routine is executed by pressing REMOVE EXECUTE DISPLAY EXECUTE

— Next Data Routine

A next data routine is typically executed by pressing NEXT DATA repeatedly. The next data routine operates differently for different procedures.

In each section, you are given information about what fields interact with each of the five commands. The fol- lowing is an example from Procedure 027 Word 1.

Display:	Field 1.
Add:	Fields 1-8.
Change:	Fields 1-8.
Remove:	Fields 1-8.
Next Data:	Displays recorded announcement assignments for all assigned splits.

This information tells you the following:

— To do a display, you must first enter data into field 1

— You can add new data into fields 1-8.

— You can do a change on data already displayed in fields 1-8.

— If you do a remove after first doing a valid display, the data in fields 1-8 is removed.

— A next data will step through and display the recorded announcements for all assigned splits.

This information varies with all procedures. Check each one to find the commands you can use on that procedure.

■ Field Ranges and Encodes

The Field Ranges and Encodes section is organized by the following headings:

— Group Headers

Group headers are used to group fields together that have something in common. The group header is fol- lowed by a range of fields (in parenthesis) that make up the group. Help information is often included for the group and follows the group header. This

help information typically applies to all the fields in a given group and is referred to as "Group Help".

Even if help information isn't provided, a set of encodes and their definitions or a range value follow the group header. These encodes or the range value apply to all the fields in the group.

— Subgroup Headers

Occasionally subgroup headers are used to group fields within a larger group. Subgroup sections are structured the same as groups.

— Fields

Fields occur either individually or under a group or subgroup header. Fields each have a field number in a given procedure. If "Field Help" is available for that field, it follows the field name. If no field help is pro- vided, a list of encodes and their definitions follow the field name. If field help or encodes are not provided, the valid range of numbers is shown to the right of the field name.

One level of help may be provided for any particular field or group of fields. The levels of help are set up as a hierarchy. The highest level of help is group help, followed by subgroup help, and finally field help.

1. Group Help - help that applies to a group of fields
2. Subgroup Help - help that applies to a group of fields which is part of a larger group of fields
3. Field Help - help that applies to a single field.

- Notes

  This section provides extra information about a given procedure. This section is in procedures where extra information is necessary.

- Special Error Codes

  This section lists the special error codes that the sys- tem uses to inform the administrator of an administra- tion error. These error codes are listed in numerical order. These error codes should not be confused with the Standard Error Codes.

How To Use the Maintenance and Administration Panel (MAAP)

1

Overview

Most features and services are activated with changes to translation memory using the translation procedures. All of the translation changes may he made locally using the Maintenance and Administration Panel (MAAP). This section describes how the MAAP is used to add, change, remove, and display the translation procedures and how to respond to error conditions.

Connecting the MAAP and Accessing Procedures

1. Remove the MAAP from the cabinet and plug its connector into the MAAP connector located on the alarm panel of the common control cabinet. Once connected the Procedure MODE is automatically displayed. If Field 9 displays a dash, enter 1. Field 1 now displays 1, indicating that the MAAP is ready to accept administrative procedures. If Field 9 displays anything other than a dash, the system administration port is active (already being used by another agent). Refer to Procedure MODE for more information.
2. Turn the flipcharts to the desired procedure number and word.
3. Press the PROC NO button. The procedure number fields go blank and dashes appear in the data fields.
4. Enter the procedure number using the data entry pad. All three digits must be entered. The entered procedure number is displayed in the procedure display field.

5. Press the ENTER button. When the WAIT lamp goes out, Word 1 of a procedure is ready to be used.
6. If the selected procedure consists of more than one word, Word 1 is automatically displayed when the procedure is entered. Another word may be entered by pressing the WORD NO button, entering the required word number on the key pad, and pressing the ENTER button. The selected word is displayed in the data field.
7. Field indicator decimal points displayed in the data display should correspond to the field identifiers on the flipchart. Deviations indicate that the flipchart issue is not compatible with the tape issue.

Select Entry Field, Enter Data, and Correct Data

When a procedure is called up, the dashes and decimal point in Field 1 flash indicating that the procedure is ready to he used and Field 1 is ready to receive input data.

Data is entered into the field by entering the appropriate digit(s) on the entry pad and pressing the ENTER button. The entered data is displayed and the dashes and decimal point in the next higher-numbered field flash.

A specific higher-numbered field may be selected either by pressing the ENTER button repeatedly until the desired field flashes or by pressing the CHANGE FIELD button, entering the desired field number, and pressing the ENTER button. The specific field goes blank indicating that data may be entered.

If it is necessary to return to a lower-numbered field, use the CHANGE FIELD sequence or reset the procedure to Field 1 by pressing the RESET button. In the second case all previously entered data is removed.

If incorrect data is entered into a field, one of the following steps should be used to correct the input.

a. If the error in the field is realized before the ENTER button is pressed: Press CLEAR ENTRY then reenter the correct data.
b. If the error in the field is realized after the ENTER button is pressed:

   Press CHANGE FIELD ENTER then enter the correct data and press ENTER

   OR

   Press RESET In this case, the procedure is cleared of all data and Field 1 flashes for data entry.

Data is not entered into or removed from memory until the EXECUTE button is pressed in conjunction with an add, remove, or change button press.

If the EXECUTE button has been pressed and incorrect data was entered, it will be necessary to correct the data input using the change routine or a remove routine then an add routine as described later.

Display Translations

Translation procedures are used to display translations stored in the machine. The display routine does the following:

a. The records of existing translations are displayed to assure the data being added or changed will not conflict with the translation in memory.

b. The display routine must be used before the remove routine. Translations cannot be removed from memory without first displaying them.

c. The display routine is used to do translation searches to verify records and locate spare equipment.

Add, Change, or Remove Translations

These routines change the configuration of translations memory and impact customer service. Each routine begins with a display of the translation. The necessary data is entered into the required fields as stated for the particular procedure in the "Fields Used of Required for Command Routines" section of each procedure. If more than one translation procedure is required to affect the service change, specific procedure sequences must be followed. The procedure sequences are specified in the AT&T System 85 Release 2 Version 4 Administration of Features and Hardware (555-103-507).

Each routine involving a particular translation procedure is completed by pressing the ADD CHANGE or REMOVE button followed by pressing the EXECUTE button. A note on the associated flipchart indicates which command, add, change, or remove is permissible for a particular procedure. The execute command causes the translation memory to be revised in accordance with the data entered in the procedure.

When removing translations, any caution concerning the removal of data from a particular procedure should be heeded.

When all translation procedures have been done and the necessary feature and service changes have been verified, the translation changes must be transferred from memory to the program tape. To transfer translation to the tape, see Procedure TPE (Run Tape).

When the Run Tape sequence has been completed and the required program tape inserted in the mini-recorder, the MAAP may be unplugged and returned to the document storage cabinet.

CAUTION:
To maintain the electromagnetic interference (EMI) integrity of the system, local maintenance personnel must ensure that after performing any administrative or maintenance activity, all cabinet panels, covers, etc., are firmly secured in place.

Responding to Error Displays

An error code is displayed in the 2-digit error code display field if an invalid operation has been attempted or if invalid data has been entered into a field on the MAAP.

a. Operator error: Invalid button operation for the procedure involved. The error code decal identifies the invalid operation and the necessary corrective action.

b. Input data incompatible with existing translations or program tape: Corrective action requires a review of the input data and the feature/service requirements of the customer.

   Any time Standard Error Code 76 is displayed, refer to Procedure MODE.

   Special Error Codes 40 through 59 and 80 through 98 are unique to the particular procedure being used. The codes are explained in the Special Error Code section on the flipchart associated with the procedure. The error codes identify problems with the procedure sequencing, translation incompatibilities, and feature/service interactions. Resolution of these errors requires a review of the input data and the service translations and requirements of a particular customer.

Procedure MODE — System Management Access Port Status

2

Purpose

Use Procedure Mode to gain control of the administration and maintenance procedures or the tape system. Agents are blocked from doing administration, maintenance, or tape operations unless the agent's current port is activated for each of these three operations. Procedure Mode also displays the current port status, the mode controllers, and the agents controlling the modes.

Flipchart

FLIPCHART
ISSUE 9

SYSTEM MANAGEMENT ACCESS PORT STATUS

845552223

NOTES:
1. TO GAIN CONTROL OF THE ADMINISTRATION PROCEDURES, TYPE 1 THEN <CR>. TO RELEASE CONTROL OF THE ADMINISTRATION PROCEDURES, TYPE 1 THEN <CR>.
2. TO GAIN CONTROL OF THE MAINTENANCE PROCEDURES, TYPE 2 THEN <CR>. TO RELEASE CONTROL OF THE MAINTENANCE PROCEDURES, TYPE 2 THEN <CR>.
3. TO GAIN CONTROL OF THE TAPE SUBSYSTEM, TYPE 3 THEN <CR>. TO RELEASE CONTROL OF THE TAPE SUBSYSTEM, TYPE 3 THEN <CR>.
4. IF ERROR CODE 76 IS DISPLAYED, PROCEDURE MODE HAS ALREADY BEEN USED BY ANOTHER AGENT TO GAIN CONTROL OF ONE OF THE MODES. FIELDS 11-15 DISPLAY ENCODES THAT TELL WHICH PORT HAS CONTROL OF THE GIVEN MODE. FIELDS 4-10 DISPLAY A CODE THAT TELLS WHICH AGENT HAS CONTROL OF THE GIVEN MODE.
5. IF MAAP IS LEFT UNUSED IN PROCEDURE MODE FOR 10 MINUTES, PROCEDURE MODE DEFAULTS THE CURRENT PORT STATUS(FIELDS 1, 2, AND 3) TO ALL ZEROS TO PREVENT BLOCKING OTHER AGENTS TRYING TO ACCESS THE SYSTEM.
6. IF MAAP IS LEFT UNUSED IN A PROCEDURE OTHER THAN PROCEDURE MODE FOR 24 HOURS, PROCEDURE MODE DEFAULTS THE CURRENT PORT MODE STATUS TO ALL ZEROS TO PREVENT BLOCKING OTHER AGENTS TRYING TO ACCESS THE SYSTEM.

CURRENT PORT			AGENTS					MODE CONTROLLERS							SYS MGMT PORT STATUS
ADMIN 1	MAINT 2	TAPE 3	REMOTE PORT 0 4	REMOTE PORT 1 5	PSEUDO PORT 0 6	PSEUDO PORT 1 7	DCIU PORT 8	ADMIN 9	MAINT 10	TAPE 11	RAMP 12	SMAP 13			MODE

Fields Used or Required for Command Routines

None.

Field Ranges and Encodes

CURRENT PORT (Fields 1-3)

0	Not active
1	Mode active

1. Administration 0, 1

2. Maintenance 0, 1

3. Tape 0, 1

AGENTS (Fields 4-8)

0	Unused
1	MAAP
2	RMATS I
3	RMATS II
4	INADS - green
5	INADS - red
6	Remote carrier group maintenance
7	TRACS
8	SHARP
9	Shops
10	Run tape
11	Delayed termination
12	EMAP
13	VMAAP
14	Park tape
15-29	Other
30-59	AP 16
60	CSM - Telco
61-69	CSM - Customer
70-79	Spare
80	LMAAP
81-99	Spare
100	Translation audit
101-255	Spare

REMOTE PORTS (Fields 4-5)

4. Remote Port 0 0-255

5. Remote Port 1 0-255

PSEUDO PORTS (Fields 6-7)

6. Pseudo Port 0 0-255

7. Pseudo Port 1 0-255

DCIU (Field 8)

8. DCIU Port 0-255

MODE CONTROLLERS (Fields 9-13)

-	Mode not active
0	Local MAAP
1	Remote port 0
2	Remote port 1
3	Pseudo port 0
4	Pseudo port 1
5	DCIU

9. Administration -, 0-5

10. Maintenance -, 0-5

11. Tape -, 0-5

12. RAMP -, 0-5

13. SMAP -, 0-5

Notes

1. To gain control of the administration procedures, press 1. To release control of the administration procedures, press 1.
2. To gain control of the maintenance procedures, press 2. To release control of the maintenance procedures, press 2.

3. To gain control of the tape system, press 3. To release control of the tape system, press 3.
4. If error code 76 is displayed, Procedure Mode has already been used by another agent to gain control of one of the modes. Fields 9-13 display encodes that tell which port has control of the given mode. Fields 4-10 display a code that tells which agent is connected to the different ports. This way, you can identify who has control of the different modes.

Special Error Codes

None.

Procedure TPE Word 1 — Run Tape

3

Purpose

Use Procedure TPE (run tape) to copy translations from memory to tape for the system. Do this after completing all customer translation changes made during one administrative session.

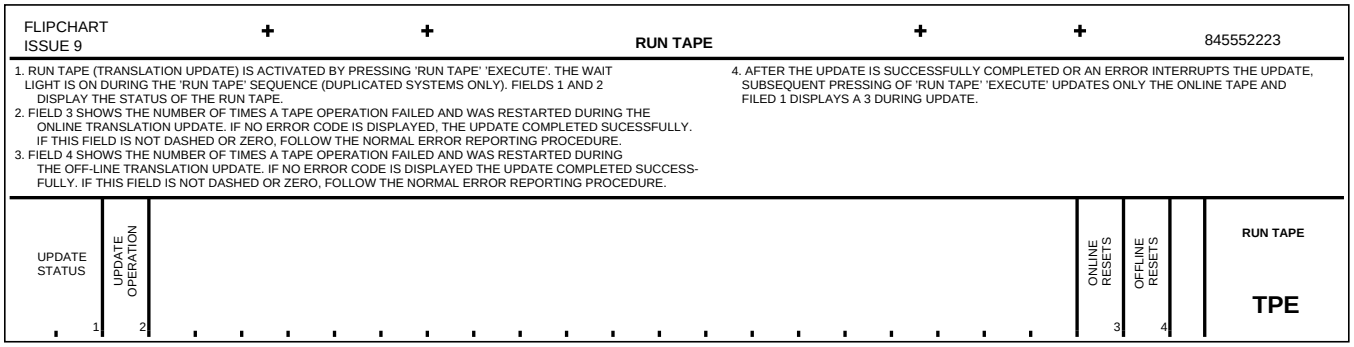
Prerequisite Procedures

Activate the tape and administration mode from Procedure Mode in order to run tape.

Cautions

Do a run tape after all customer translation changes. If this is not done, the translation changes will be lost if the system were to initialize and reload from a tape that doesn't have the latest administration changes. As a safety measure, the system does an automatic Run Tape every 29 hours after a previous run tape. This is done whether the previous Run Tape was manual or automatic.

Flipchart



Fields Used or Required for Command Routines

None.

Field Ranges and Encodes

1. Update Status
   - `-` Update(s) completed or error detected
   - `1` On-line update in progress
   - `2` Off-line update in progress
   - `3` Subsequent on-line update in progress

2. Update Operation
   - `-` When field 1 = 2, off-line update is starting
   - `1` Translation memories being compared
   - `2` Updating tape
   - `3` Comparing tape to memory
   - `4` Parking tape

   If a 1 is displayed and the memories do not agree, Standard Error Code 75 is displayed.

3. Tape Restarts During On-line Updates
   - `-` The update completed successfully
   - `0-9` Number of operations failed and restarted

   This field shows the number of times a tape operation failed and was restarted during the on-line translation update. If no error code is displayed, the update completed successfully. If this field is not dashed or zero, report trouble.

4.	Tape Restarts During Off-line Updates	-	The update completed successfully
		0-9	Number of operations failed and restarted

This field shows the number of times a tape operation failed and was restarted during the off-line translation update (duplicated systems only). If no error code is displayed, the update completed successfully. If this field is not dashed or zero, report trouble.

Notes

1. The Run Tape operates differently between duplicated and unduplicated systems. On duplicated systems, the Run Tape must update both the on-line and off-line tape. On the unduplicated system, you only have one tape.
2. On the tape cartridge you will find a set-screw that controls the writability of the tape. For run tape, set the set-screw opposite from the ''SAFE'' position. This allows you to write changes on this tape.
3. Insert the cartridge tape into the tape drive. The tape will ''click'' into position when successfully inserted. Under most conditions, this tape should remain in the tape drive at all times.
4. To start the Run Tape, press RUN TAPE, EXECUTE.

   When the process begins, Procedure TPE displays status of the run tape in fields 1 and 2.

   If on a duplicated system, the translations between both processors are compared (field 2 = 1). If they are not the same, Standard Error Code 75 (mismatch memories) is displayed. You can continue by pressing RUN TAPE, EXECUTE. By continuing with memories mismatch, only the on-line tape is updated.

   During the copy, field 1 = 1 and field 2 = 2.

   If everything copies correctly, the tape is parked. Field 1 = 1 and field 2 = 4 (very briefly).

   This process is now repeated for the off-line tape in a duplicated system. Field 1 = 2 during the off-line update.

Special Error Codes

80 - Cannot access the on-line tape subsystem. Follow the normal error reporting procedures.

81 - The on-line side is on holdover power.

82 - Manual diagnostics preclude doing an on-line run tape.

83 - The on-line tape failed to complete the update.

84 - The on-line tape cartridge is not in the tape drive.

85 - Cannot access the off-line processor.

86 - The on-line tape cartridge is write protected.

87 - The on-line compare operation failed to complete.

88 - The on-line translation and tape do not agree.

89 - Cannot initiate an off-line run tape, follow the normal error reporting procedures.

90 - Cannot access the off-line tape subsystem, follow the normal error reporting procedures.

91 - The off-line side is on holdover power.

92 - Manual diagnostics preclude doing an off-line run tape.

93 - The off-line tape failed to complete the update.

94 - The off-line tape cartridge is not in the tape drive.

96 - The off-line tape cartridge is write protected.

97 - The off-line compare operation failed to complete.

98 - The off-line translation and tape do not agree.

Procedure 000 Word 1 — Single Terminal Translation

4

Purpose

Use Procedure 000 Word 1 to:

- — Administer an extension to an equipment location and class of service (COS). See the ‘‘Related Procedures’’ section when displaying multiappearance terminals.
- — Administer a transmission test line to a carrier for testing.
- — Administer a vector directory number (VDN).

Prerequisite Procedures

Use Procedure 010 Word 1 to enable the ACD member flag when administering extensions in an ACD class of service.

Before you can administer an extension in field 1, use Procedure 350 Word 1 and Procedure 354 Word 1 to assign the extension in the dialing plan.

Before you can remove an extension, all appearances of that extension must be removed from all procedures displayed in field 11. Use the next data routine to display all the procedures associated with an extension.

Use Procedure 276 Word 1 field 5 to enable Call Vectoring before administering a VDN here.

Related Procedures

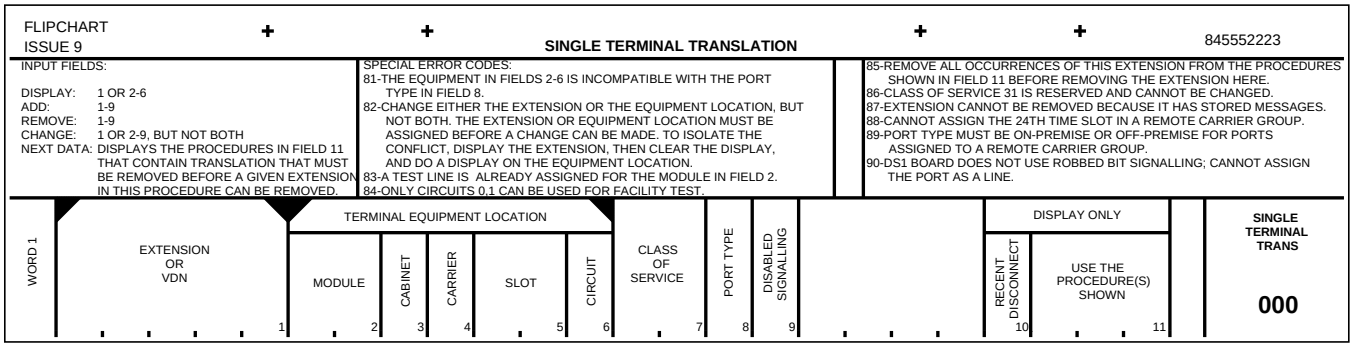
Use Procedure 010 Words 1-4 to define features and restrictions assigned to an extension COS (field 7).

Use Procedure 075 Word 1 to display extensions that are assigned to the same extension COS.

Use Procedure 052 Word 2 to display extension assignments on multiappearance terminals.

Use Procedure 290 Word 1 to find unassigned equipment locations (fields 2-6). After finding unassigned equipment locations in Procedure 290 Word 1, going directly to Procedure 000 Word 1 and doing a display routine displays that unassigned equipment location.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2-6.
Add:	Fields 1-9.
Change:	Fields 1-9 (field 1 or fields 2-6 can be changed, but not both). Fields 7 and 8 cannot be changed when field 8 is set to 4 (VDN).
Remove:	Fields 1-9.
Next Data:	Displays the procedures in field 11 that contain translations that must be removed before a given extension in this procedure can be removed.

Field Ranges and Encodes

1. Extension or VDN

-, 000-99999

The first digit of an extension cannot be a * or #.

The port type (field 8) must be compatible with the number entered in this field. For example, if a VDN is entered in this field, field 8 must contain a 4 (VDN).

TERMINAL EQUIPMENT LOCATION (Fields 2-6)

The equipment entered in fields 2-6 must be compatible with the port type in field 8. Typically, every port type shown in field 8 requires an equipment location in fields 2-6. The main exception occurs when you are assigning an extension that will be used on a multiappearance terminal administered in the 050-series of procedures. For these extensions, the port type in field 8 is dashed.

2. Module — 0-30

3. Cabinet — 0-7

4. Carrier — 0-3

5. Slot — 0-3, 5-8, 13-16, 18-21

6. Circuit — 0-7

7. Class of Service — -, 1-30, 32-63

   Class of service 31 cannot be administered because it is reserved for callers using remote access. Class of service 31 is also used for testing.

8. Port Type
   - Extension administered in Procedure 052 Word 1
   1 On-premises extension
   2 Off-premises extension (OPS)
   3 Test line
   4 Vector Directory Number (VDN)
   5 Reserved for OSS
   6 OPS with terminal balance
   9 DS1 OPS line

   Use Procedure 276 Word 1 field 5 to enable Call Vectoring before administering a VDN here.

9. Disable Signaling
   - Non-DS1 lines
   0 Signaling enabled for DS1 OPS line
   1 Signaling disabled for DS1 OPS line

DISPLAY ONLY (Fields 10-11)

10.	Recent Disconnect	0 1	Extension is not in recent disconnect Extension is in recent disconnect A remove routine on an assigned extension places it in recent disconnect. A remove routine on an extension in recent disconnect completely removes the extension. See Procedure 003 Word 1.
11.	Use the Procedure(s) Shown to remove extension assignments	000-999 This field displays all procedures associated with an extension. You must use these procedures to disassociate an extension from the applicable features before it can be removed or changed.	

Notes

1. When a multiappearance terminal extension is displayed, the extension COS field (field 7) and display-only fields (fields 10 and 11) contain data. The equipment-location fields (fields 2-6) contain dashes.
2. If after displaying an extension number with an equipment location, you attempt to change either the extension or the equipment location, you may get Special Error Code 82. This happens when the extension or the equipment location is already assigned. To resolve this problem, do a display on the new extension or equipment location to see if it is already assigned. If it is already assigned, you must make another selection.
3. When a multiappearance terminal extension is displayed, the following change routines produce the results indicated:
   - — When changing an unassigned extension to an unassigned equipment location, Special Error Code 82 is displayed.
   - — When changing an assigned extension (multiappearance) to a valid unassigned equipment location (analog), the change is made.
   - — When changing an assigned multibutton terminal extension (that is not assigned to a button) to an unassigned equipment location, the change is made.
   - — When changing an assigned multibutton terminal extension (that is assigned to a button) to an unassigned equipment location, Special Error Code 85 is displayed (field 11 = 052).
   - — When changing an unassigned extension (analog) to an assigned analog equipment location, the change is made.

- — When changing the extension COS on an assigned terminal, the change is made.
- — When changing an assigned extension (that is not assigned to a multibutton terminal button) to an assigned equipment location, Special Error Code 82 is displayed.
- — When changing an unassigned extension to a multibutton terminal, Special Error Code 85 is displayed (field 11 = 051).
- — When changing an assigned extension to a multibutton terminal extension, the change is made.
- — When changing the extension COS on an assigned multibutton terminal extension that is not assigned to a button, the change is made.
- — When changing the extension COS on an assigned multibutton terminal extension that is assigned to a button, the change is made.
- — Unless Special Error Code 85 is displayed after a change routine, all features associated remain assigned to the extension (no changes occur in any other procedures).

4. When an SN261C facility test circuit pack is to be used, the following applies:
   - — Only one SN261C is required per system.
   - — The SN261C must be installed in a port carrier.
   - — The SN261C can be installed in any of slot positions 0-3, 5-8, 13-16, or 18-21.
   - — The SN261C circuits 0 and 1 should be administered the same as port circuits.
   - — The SN261C circuits 2 and 3 must be administered the same as circuits 0 and 1, except 2 and 3 must be assigned to an extension COS for inward restriction.
5. To add a VDN, enter data in fields 1, 7, and 8 only.
6. A touch-tone hot-line terminal that uses manual digit entry must be assigned with a touch-tone COS and, similarly, a rotary terminal to a rotary COS.
7. The following chart shows equipment location-to-channel number conversion for a DS1 line-only configuration.

	Slot		
	0 5 13 18	1 6 14 19	2 7 15 20
Ckt.	Channel		
0	1	2	3
1	4	5	6
2	7	8	9
3	10	11	12
4	13	14	15
5	16	17	18
6	19	20	21
7	22	23	24

8. The following chart shows equipment location-to-channel number conversion for a line on a DS1 trunk board.

	Slot					
Circuit	0 or 13	1 or 14	2 or 15	5 or 18	6 or 19	7 or 20
0	13	14	15	1	2	3
1	16	17	18	4	5	6
2	19	20	21	7	8	9
3	22	23	24	10	11	12

Special Error Codes

81 - The equipment in fields 2-6 is incompatible with the port type in field 8.

82 - You can change either the extension or the equipment location, but not both. The extension or equipment location must be assigned before a change can be made. To isolate the conflict, display the extension, then clear the display, and do a display on the equipment location.

83 - A test line is already assigned for the module in field 2.

84 - Only circuits 0 and 1 can be used for facility test.

85 - Remove all occurrences of this extension from the procedures shown in field 11 before removing the extension in Procedure 000 Word 1.

86 - Class of Service 31 is reserved, and cannot be changed.

87 - This extension cannot be removed because it has stored messages associated with it.

88 - You cannot assign the 24th time slot in a remote carrier group.

89 - The port type must be on-premises or off-premises for ports assigned to a remote carrier group.

90 - The DS1 board does not use robbed bit signaling; you cannot assign the port as a line.

91 - The number of circuits per slot on a DS1 board has been exceeded.

92 - The slot already has a trunk assigned; you cannot add a line.

93 - DCP data lines are the only multiappearance terminals that can be assigned as a hot line. See Procedure 000 Word 3.

94 - A change is not allowed when a vector directory number (VDN) is indicated in fields 1 or 8.

95 - The extension cannot be changed or removed because it has a personal list or default dialing assigned. Use Procedure 059 Word 1 for personal lists and Procedure 059 Word 4 for default dialing.

96 - The ACD member flag must be set in Procedure 010 Word 1 for this Class of Service.

Procedure 000 Word 2 — Single Terminal - Feature and Restriction Groups

5

Purpose

Use Procedure 000 Word 2 to administer the following:

- — Call Pickup groups
- — Hunt-to extensions
- — Auxiliary Automatic Number Identification (ANI) number
- — Call Coverage groups
- — Controlled restriction groups associated with an extension.

Prerequisite Procedures

Use Procedure 000 Word 1 to administer an extension to an equipment location and class of service.

If field 3 is to be set to 1, use Procedure 275 Word 1 to assign an auxiliary ANI number for toll call billing.

Before removing an extension with this procedure, make sure that the associated extension is unassigned with Procedure 001 Word 1.

If removing an extension that is also an ACD member, remove it first in Procedure 026 Word 3 before removing it in this procedure.

Related Procedures

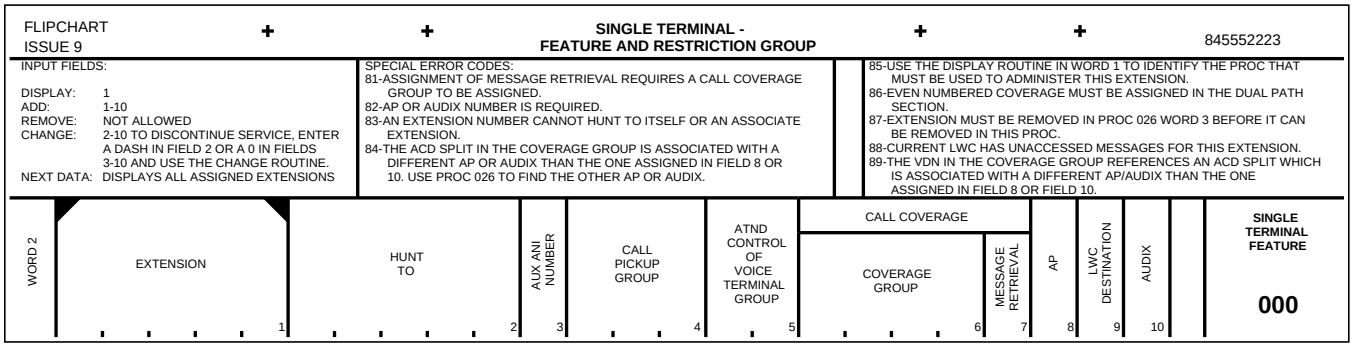
Extensions that hunt to the extension in field 1 can be found using Procedure 076 Word 1.

The number of extensions in a Call Pickup group are limited only by the number available in the system. To find other extensions in the same group,

use Procedure 075 Word 1. Also use Procedure 075 Word 1 to find other members of the same controlled restriction group.

If an ACD split in the coverage group is associated with a different AP or AUDIX than the one assigned in field 8 or 10, use Procedure 026 Word 1 to find the other AP or AUDIX.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-10.
Change:	Fields 2-10. To discontinue services, enter a dash in field 2 or enter a single zero in each of fields 3-10 and use the change routine.
Remove:	Not allowed.
Next Data:	Displays all assigned extensions.

Field Ranges and Encodes

1. Extension 000-99999

   The first digit of an extension cannot be # or *.

   A VDN cannot be entered in this field.

2. Hunt to -, 000-99999

   The extension in this field is hunted-to by the extension in field 1. A VDN cannot be entered in this field.

   If the extension in field 1 is to hunt to an extension with a one- or two-digit access code, the regular extension must be entered in field 2. When an extension is removed, all terminals change their hunting sequence as follows:

Original sequence: A hunts to B; B hunts to C; C does not hunt.
- — If B is removed; A hunts to C.
- — If C is removed; A hunts to B.
- — If A is removed; B hunts to C.

3.	Auxiliary ANI Number	0 1	Disabled Enabled

Setting this field assigns an extension to an auxiliary ANI number that is set up in Procedure 275 Word 1 field 4. The auxiliary ANI number is used for billing a group of extensions under the same number. If this field is not enabled, billing is made to the extension in field 1.

4.	Call Pickup Group	0 1-999	Not assigned Assigned
5.	Attendant Control of Voice Terminal Group	0 1-63	Not assigned Assigned

CALL COVERAGE (Fields 6-7)

6.	Coverage Group	- 0 1-1999 2000-4095	No coverage Not assigned Single path Dual path

When assigning dual path coverage to an extension, the allowed values are even numbers from 2000-4094.

7.	Message Retrieval	-	No coverage in system
		0	Disabled
		1	Enabled
			Enabling this field allows this coverage point to retrieve messages for the principal(s).
8.	AP	0	Not assigned
		1-7	Assigned to Message Center
9.	LWC Destination	0	Not assigned
		1	Switch
		2	AP
		3	AUDIX
10.	AUDIX	0	Not assigned
		1-8	Assigned

Notes

1. ADFTCs hunt to each other in the order that they are assigned in Procedure 051 Word 1 and 052 Word 1. Procedure 000 Word 2 displays the hunting of ADFTCs, but does not allow the assignment of hunting to ADFTCs. If an extension is only given a class of service in Procedure 000 Word 1, it can be assigned as a hunt extension. If later it is assigned as an ADFTC, it is removed from the extension hunting and assigned as ADFTC hunting.

Special Error Codes

81 - Assignment of message retrieval requires a call coverage group to be assigned.

82 - An AP or AUDIX number is required.

83 - An extension cannot hunt to itself or an associated extension.

84 - The ACD split in the coverage group is associated with a different AP or AUDIX than the one assigned in field 8 or 10. 0se Procedure 026 Word 1 to find the other AP or AUDIX.

85 - Use the display routine in Word 1 to identify the procedure that must be used to administer this extension.

86 - You must assign even-numbered coverage groups in the dual path section (2000-4094).

87 - The extension must be removed in Procedure 026 Word 3 before it can be removed in this procedure.

88 - The current LWC destination has unaccessed messages for this extension. The messages must be delivered before changing the destination.

89 - The VDN in the coverage group references an ACD split which is associated with a different AP/AUDIX than the one assigned in field 8 or field 10.

90 - The Call Pickup group translations for this extension are incorrect.0his could lead to serious switch problems including switch reload. Follow the standard escalation procedure.

Procedure 000 Word 3 — Single Terminal - Miscellaneous Features

6

Purpose

Use Procedure 000 Word 3 to administer the following:

- Hot Line
- Dedicated Switch Connection messages
- Audible Message Waiting - Automatic

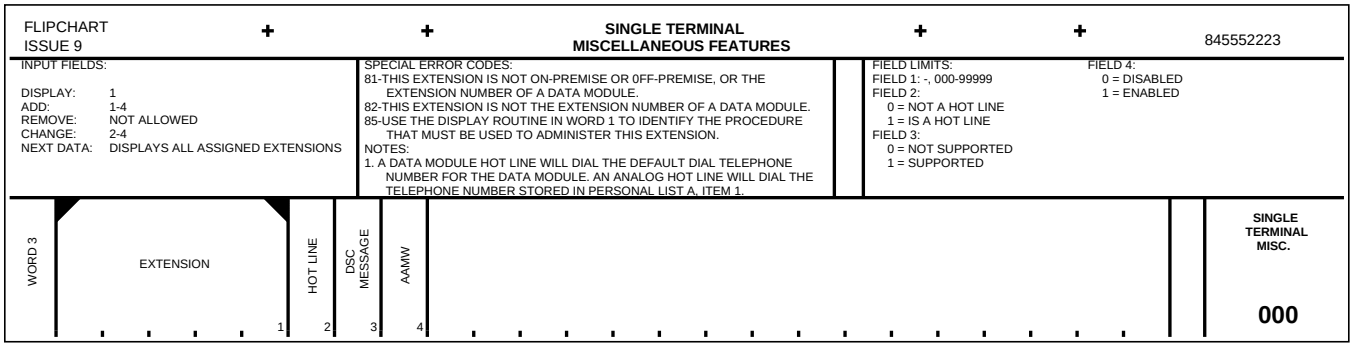
Prerequisite Procedures

Use Procedure 000 Word 1 to administer an extension to an equipment location and a class of service.

Related Procedures

Use Procedure 063 Word 1 to administer Message Waiting - Automatic to a voice terminal.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or field 4.
Add:	Fields 1-4.
Change:	Fields 2-4.
Remove:	Not allowed.
Next Data:	On field 1, it displays all assigned extensions.

Field Ranges and Encodes

1. Extension -, 000-99999

2. Hot Line
   - 0 Not a hot line
   - 1 Is a hot line

   A multiappearance terminal cannot be a hot line.

   A data module hot line will dial the default dial telephone number for the data module. An analog hot line will dial the telephone number stored in the Abbreviated Dialing personal list A, item 1.

3. Dedicated Switch Connection Messages
   - 0 Not supported (TDM, PDM, DTDM)
   - 1 Supported (7400 or 3270 DM)

4.	Audible Message Waiting - Automatic	0 1	Disabled Enabled

Special Error Codes

81 - This extension is not on-premises, off-premises, or the extension of a data module.

82 - This extension is not the extension of a data module.

85 - Use the display routine in Procedure 000 Word 1 to identify the procedure that must be used to administer this extension.

Procedure 000 Word 4 — Extension NPA-NXX/Partition Assignment

7

Purpose

Use Procedure 000 Word 4 to administer the extension partition number to an extension or group of extensions and the NPA-NXX Designator to an extension or a group of extensions.

Prerequisite Procedures

Use Procedure 276 Word 1 field 6 to enable the Tenant Services feature.

An extension must be assigned first in Procedure 000 Word 1 and it cannot be an associated extension or VDN.

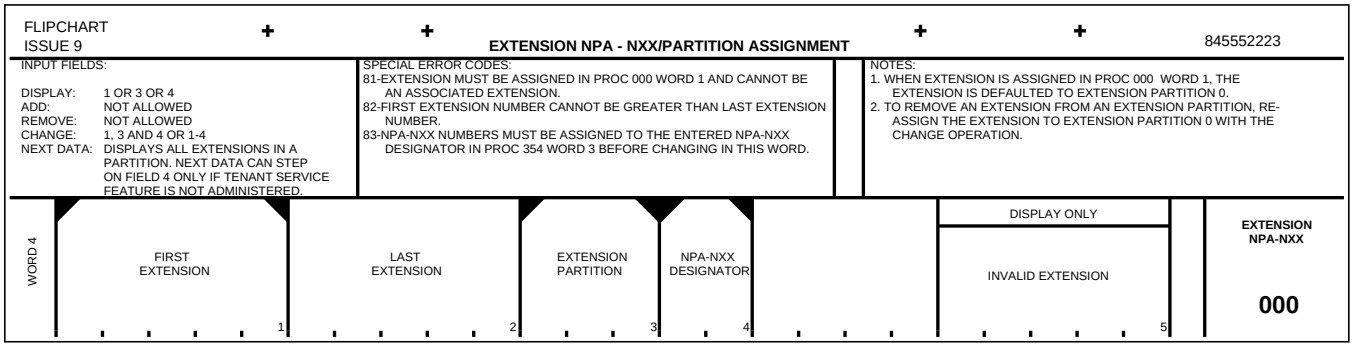
NPA-NXX numbers must be assigned to the entered NPA-NXX designator in Procedure 354 Word 3 before changing translations in this procedure.

Related Procedures

When an extension is assigned in Procedure 000 Word 1, the extension is defaulted to extension partition 0.

Use Procedure 354 Word 2 to determine the type of invalid extension that is displayed in field 5.

Flipchart



Fields Used or Required for Command Routines

Display: Fields 1, 3, or 4. If both the extension (field 1) and partition (field 3) is given, the display routine will key on the extension.

Add: Not allowed.

Change: Fields 1, 3, and 4 or fields 1-4.

Remove: Not allowed. To remove an extension from an extension partition, reassign the extension to extension partition 0 by using the change routine.

Next Data: Displays all extensions in a partition. The next data routine can step on field 4 only if the Tenant Services feature is not administered.

Field Ranges and Encodes

1. First Extension — 000-99999

2. Last Extension — -, 001-99999

3. Extension Partition — -, 0-999

   A voice terminal in extension partition 0 is allowed to place calls to or receive calls from any extension in the switch.

   If Tenant Services is enacted in Procedure 276 Word1, field 3 must be 0-999. If Tenant Services is not activated, enter a dash in field 3.

4. NPA-NXX Designator — -, 1-99

   If the extension in field 1 is not assigned an NPA-NXX designator, and the extension originates an ISDN/PRI call, the setup message will not contain a calling party number information element.

   An NPA-NXX designator can be assigned to a range of extensions as long as all extensions in the range are assigned.

DISPLAY ONLY (Field 5)

5. Invalid Extension — -, 000-99999

Special Error Codes

81 - An extension must be assigned first in Procedure 000 Word 1 and it cannot be an associated extension.

82 - The first extension cannot be greater than the last extension.

83 - NPA-NXX numbers must be assigned to the entered NPA-NXX designator in Procedure 354 Word 3 before changing the designator in this procedure.

Procedure 001 Word 1 — Terminal Translation - Multiple Extensions

8

Purpose

Use Procedure 001 Word 1 to administer extensions associated with existing extensions. These associated extensions are often used as Listed Directory Numbers (LDNs) that provide access to Automatic Call Distribution (ACD) splits. An associated extension cannot be an extension that has already been assigned in Procedure 000 Word 1.

Prerequisite Procedures

Use Procedure 000 Word 1 to assign the primary extension.

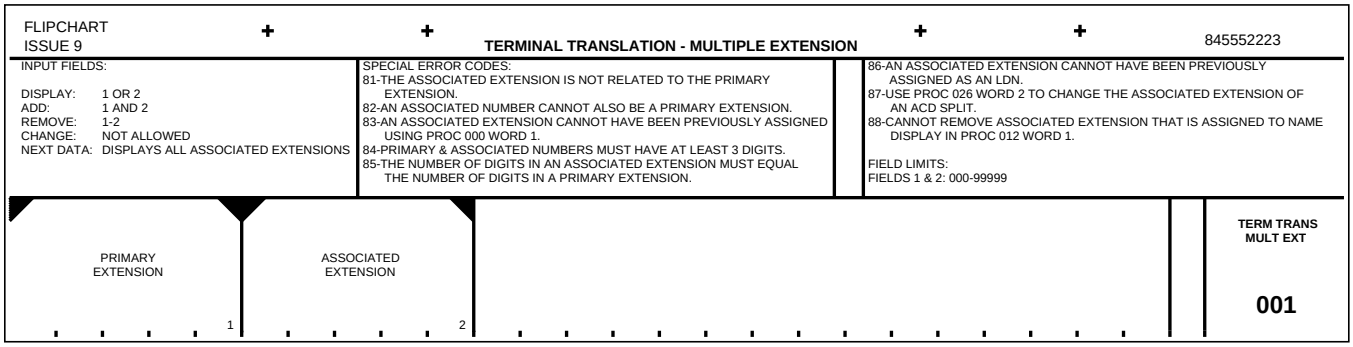
Use Procedure 354 Word 1 to assign the associated extension to the numbering plan.

Use Procedure 012 Word 1 to remove an assigned name display used by an associated extension before removing that associated extension in this procedure.

Related Procedures

Use Procedure 026 Word 2 to change the associated extension of an ACD split.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 2.
Add:	Fields 1 and 2.
Change:	Not allowed.
Remove:	Fields 1 and 2.
Next Data:	Displays all associated extensions.

Field Ranges and Encodes

1. Primary Extension

   000-99999

   Use Procedure 000 Word 1 to assign the primary extension.

2. Associated Extension

   -, 000-99999

   Use Procedure 354 Word 1 to assign the associated extension to the numbering plan.

Notes

1. When an associated extension that is not assigned to an ACD split is dialed, the system treats the call as if the primary extension were dialed.
2. If the associated extension is assigned to a primary extension that is the controlling extension of an ACD split, the call enters the group queue and is answered by the first idle group member.
3. To find the associated extension of an ACD split, enter the split supervisor's extension (as assigned in Procedure 026 Word 2) into field 1 and do a display routine.

Special Error Codes

81 - The associated extension is not related to the primary extension.

82 - An associated extension cannot also be a primary extension.

83 - An associated extension cannot have been previously assigned using Procedure 000 Word 1.

84 - Primary and associated extensions must have at least three digits.

85 - The number of digits in the associated extension must equal the number of digits in the primary extension.

86 - An associated extension cannot have been previously assigned as an LDN.

87 - Use Procedure 026 Word 2 to change the associated extension of an ACD split.

88 - You cannot remove an associated extension that is assigned to a name display in Procedure 012 Word 1.

Procedure 003 Word 1 — Recently Disconnected Extensions

9

Purpose

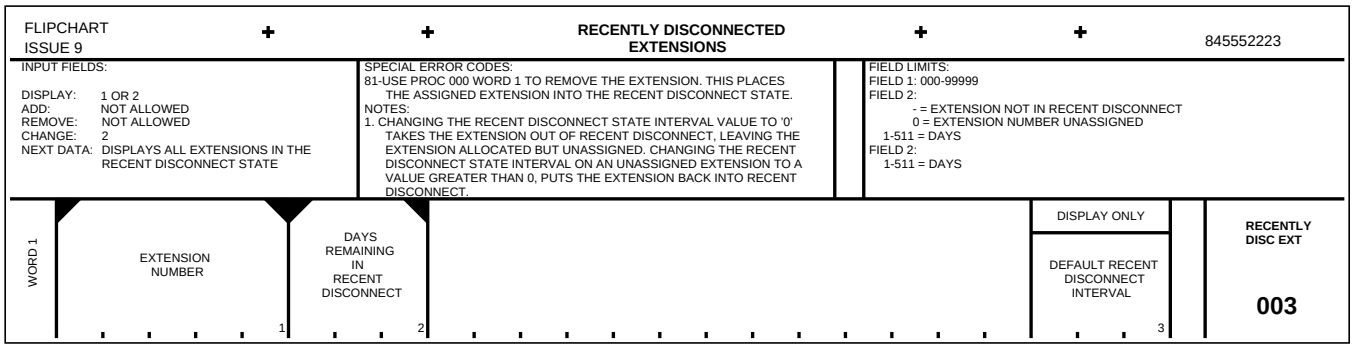
Use Procedure 003 Word 1 to display recently disconnected extensions and to administer the number of days (0-511) that the extension will remain in the recent disconnect state.

Related Procedures

Use Procedure 000 Word 1 to remove an extension. This places the assigned extension into the recently disconnected state.

The default value for the days remaining in recent disconnect is administered in Procedure 275 Word 4 (field 6).

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 2.
Add:	Not allowed.
Change:	Field 2.
Remove:	Not allowed.
Next Data:	Displays all extensions in the recent disconnect state.

Field Ranges and Encodes

1. Extension -, 000-99999

2. Days Remaining in Recent Disconnect

-	Extension not in recent disconnect
0	Extension unassigned
1-511	Days

Changing the recent disconnect state interval to 0 takes the extension out of the recently disconnected state, leaving the extension allocated but unassigned. On an unassigned extension, changing the recent disconnect state interval to greater than 0 puts the extension back into recent disconnect.

DISPLAY ONLY (Field 3)

3. Default Recent Disconnect Interval (days) 1-511

Special Error Codes

81 - Use Procedure 000 Word 1 to remove the extension. This places the assigned extension into the recent disconnect state.

Procedure 010 Word 1 — Extension Class of Service - Features

10

Purpose

Use Procedure 010 Word 1 to administer features associated with an extension class of service (COS).

Related Procedures

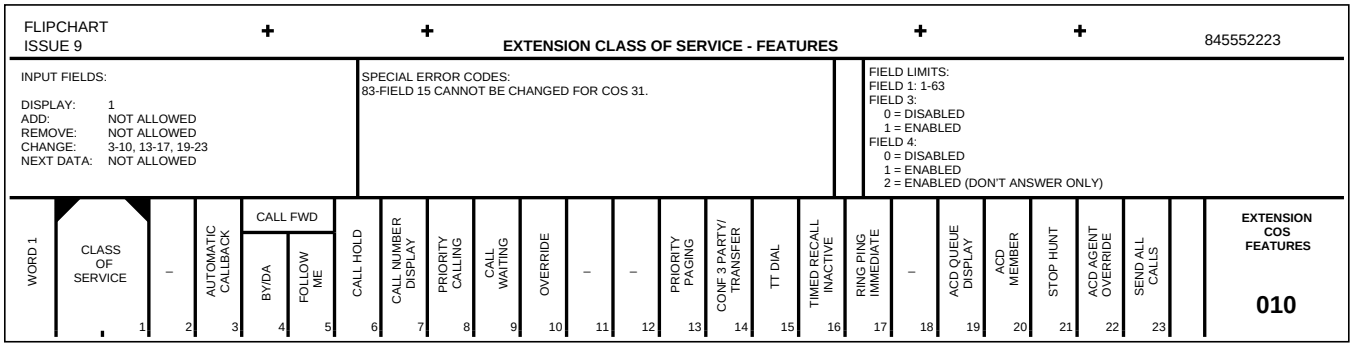
Use Procedure 010 Word 2 to administer other COS features and Procedure 010 Words 3 and 4 to administer COS restrictions.

Use Procedure 075 Word 1 to find extensions with the same COS and to find unused classes of service.

Cautions

Changes made in this procedure affect all extensions assigned to a given COS.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 3-10, 13-17, and 19-23.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Class of Service — 1-63

   A COS cannot be removed, it can only be displayed and changed. A COS with zeros in all fields is legitimate, but none of the features in this procedure are enabled. A COS with all zeros has rotary dialing (field 15), timed recall inactive (field 16), ring ping immediate (field 17), and hunting (field 21).

   COS 31 is reserved for test circuits and is the COS applied to callers using the Remote Access feature once they have gained access into the switch.

3. Automatic Callback
   - 0 Disabled
   - 1 Enabled

CALL FORWARDING (Fields 4-5)

4. Busy and Don't Answer
   - 0 Disabled
   - 1 Enabled
   - 2 Enabled (don't answer only)

5.	Follow Me	0	Disabled
		1	Enabled
6.	Call Hold	0	Disabled
		1	Enabled
7.	Calling Number Display	0	Disabled
		1	Enabled with calling number display unit
8.	Priority Calling	0	Disabled
		1	Enabled
9.	Call Waiting	0	Disabled
		1	Enabled
10.	Override	0	Disabled
		1	Enabled
13.	Priority Paging	0	Disabled
		1	Enabled
14.	Conference 3 Party/Transfer	0	Disabled
		1	Enabled
15.	Touch-tone Dialing	0	Disabled (rotary dialing only)
		1	Enabled (touch-tone and rotary dialing)

This field is set to 1 for COS 31 and cannot be changed.

Extensions equipped with a rotary dial:

- — Can originate calls within the system
- — Cannot originate calls using features with a * or # in their Dial Access Codes (DAC)
- — Cannot place outside calls using through-dialing (via the attendant).

16.	Timed Recall Exempt	0 1	Disabled Enabled

Enabling this field for an extension class of service makes the users exempt from getting timed recall from the attendant. Enable this field for outgoing trunk callers that are not to be interrupted.

17.	Ring Ping Immediate	0 1	Disabled Enabled
19.	ACD Queue Display	0 1	Disabled Enabled
20.	ACD Member	0 1	Disabled Enabled
21.	Stop Hunt	0 1	Hunting No hunting
22.	ACD Agent Override	0 1	Disabled Enabled
23.	Send All Calls	0 1	Disabled Enabled

Special Error Codes

83 - Field 15 cannot be changed in class of service 31.

Procedure 010 Word 2 — Extension Class of Service - Features

11

Purpose

Use Procedure 010 Word 2 to administer the following features and capabilities to an extension class of service (COS):

- Leave Word Calling
- Call Forwarding Off-Net
- Call Detail Recording (CDR) Forced Entry of Account Codes (FEAC)
- Malicious Call Trace.

Related Procedures

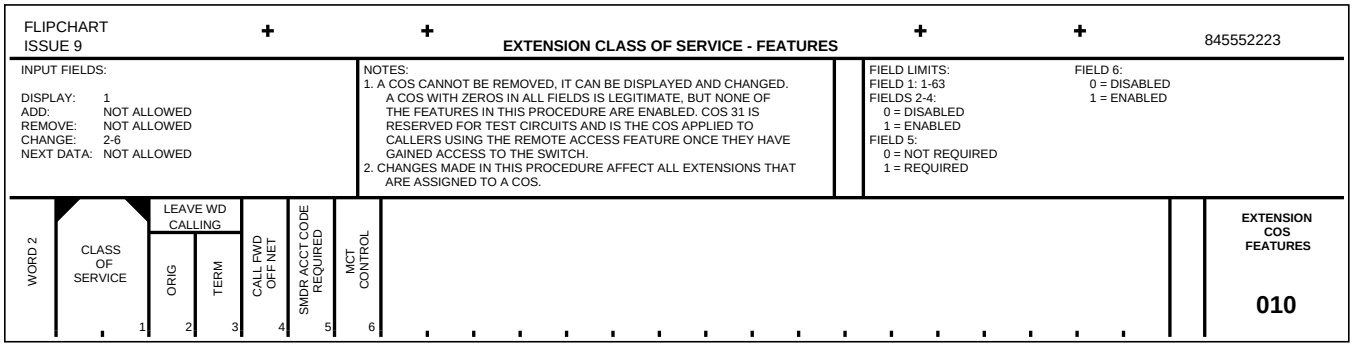
Use Procedure 010 Word 1 to administer other COS features and Procedure 010 Words 3 and 4 to administer COS restrictions.

Use Procedure 075 Word 1 to find extension numbers that share the same COS and to find unused classes of service.

Cautions

Changes made in this procedure affect all extensions that are assigned to a given COS.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 2-6.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Class of Service — 1-63

   A COS cannot be removed, it can only be displayed and changed. A COS with zeros in all fields is legitimate, but none of the features in this procedure are enabled.

   COS 31 is reserved for test circuits and is the COS applied to callers using the Remote Access feature once they have gained access into the switch.

LEAVE WORD CALLING (Fields 2-3)

2. Originating
   - 0 Disabled
   - 1 Enabled

3. Terminating
   - 0 Disabled
   - 1 Enabled

4.	Call Forwarding Off-Net	0 1	Disabled Enabled

When enabling this field, all three ARS plans should be administered to contain patterns with at least one preference in Procedure 309 Word 1. Otherwise, when activating this field, the ARS access code cannot be used as part of the destination's telephone number.

Also, when enabling this field, the desired local office codes should be specified in the ARS toll table (Procedure 309 Word 2 and Procedure 309 Word 1). Otherwise, when activating this field, an office code that is not specifically assigned as local is presumed by the software to be a toll office code.

5.	CDR Account Code	0 1	Not required Required

If account codes are administered as part of the format, all CDR configurations (SMDR, VFCDR, CMDR) will record the account codes.

6.	Malicious Call Trace Control	0 1	Disabled Enabled

Special Error Codes

None.

Procedure 010 Word 3 — Extension Class of Service - Restrictions

12

Purpose

Use Procedure 010 Word 3 to administer restrictions that are applicable to an extension class of service (COS).

Related Procedures

Use Procedure 010 Words 1 and 2 to administer extension COS features and Procedure 010 Word 4 to administer other COS restrictions.

Use Procedure 075 Word 1 to find extensions with the same COS and to find unused classes of service.

Use Procedure 102 Word 1 to assign trunk groups to miscellaneous trunk restriction groups.

Use Procedure 175 Word 1 to display miscellaneous trunk restriction groups.

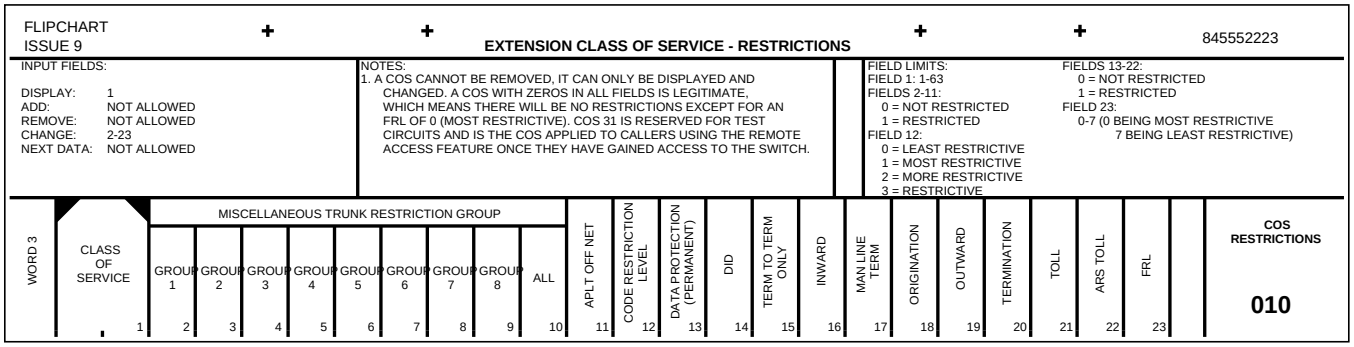
Use Procedure 300 Word 1 to define 0/1 toll nonrestricted codes.

Use Procedures 301 Words 1-4 and 302 Word 1 to define code restrictions.

Cautions

Changes made in this procedure affect all extensions that are assigned a COS.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 2-23.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Class of Service — 1-63

   A COS cannot be removed, it can only be displayed and changed. A COS with zeros in all fields is legitimate, which means there will be no restrictions except for an FRL of 0 (most restrictive).

   COS 31 is reserved for test circuits and is the COS applied to callers using the Remote Access feature once they have gained access into the switch.

MISCELLANEOUS TRUNK RESTRICTION GROUPS (Fields 2-10)

0 Not restricted
1 Restricted

2. Group 1 — 0-1

3. Group 2 — 0-1

4. Group 3 — 0-1

5.	Group 4	0-1	
6.	Group 5	0-1	
7.	Group 6	0-1	
8.	Group 7	0-1	
9.	Group 8	0-1	
10.	All Groups	0-1	
11.	APLT Off-Net	0 1	Not restricted Restricted

This restricts users from making off-network, direct distance dialing calls over APLT/CCSA facilities.

12.	Code Restriction Level	0 1 2 3	Least restrictive Most restrictive More restrictive Restrictive

The code restriction level assigned determines whether extensions are allowed to dial designated office codes, home numbering plan area (NPA) codes, etc.

13.	Data Protection (permanent)	0 1	Not restricted Restricted

This protects data transmission from intrusion by denying requests of bridge-on features (Call Waiting, Priority Calling, Override, attendant call waiting, verification by attendant or voice terminal user).

14. DID
    0 Not restricted
    1 Restricted

    This restricts users from receiving DID and APLT/CCSA calls.

15. Term-to-Term Only
    0 Not restricted
    1 Restricted

    This restricts users from placing or receiving anything but terminal-to-terminal calls.

16. Inward
    0 Not restricted
    1 Restricted

    This restricts users from receiving incoming CO/DID calls that are either direct dial or attendant completing.

17. Manual Line Term
    0 Not restricted
    1 Restricted

    This restricts users from receiving any calls except those from the attendant.

18. Origination
    0 Not restricted
    1 Restricted

    This restricts users from originating any calls. The user can still receive calls.

19. Outward
    0 Not restricted
    1 Restricted

    This restricts users from accessing the exchange network without attendant assistance.

20. Termination
    0 Not restricted
    1 Restricted

    This restricts users from receiving any calls. The user may still originate calls.

21.	Toll	0 Not restricted 1 Restricted This restricts users from completing toll calls to the toll operator without attendant assistance.
22.	ARS Toll	0 Not restricted 1 Restricted This restricts users from completing ARS toll calls to toll facilities.
23.	FRL	0-7 (0 being most restrictive, 7 being least restrictive) Extensions can only access trunk groups that have an FRL that is lower than or equal to the FRL assigned in this field.

Special Error Codes

None.

Procedure 010 Word 4 — Extension Class of Service - Restrictions

13

Purpose

Use Procedure 010 Word 4 to administer the precedence level and Integrated Services Digital Network (ISDN) routing associated with a specific extension class of service (COS).

Related Procedures

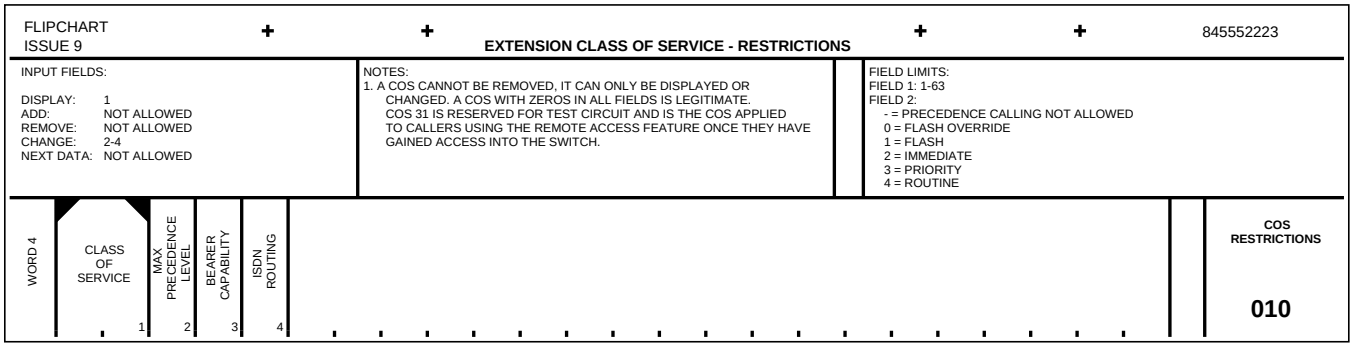
Use Procedure 010 Words 1 and 2 to assign COS features and Procedure 010 Word 3 to assign other COS restrictions.

Use Procedure 075 Word 1 to find extensions that share the same COS and to find unused classes of service.

Cautions

Changes made in this procedure affect all extensions that are assigned a COS.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 2-4.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Class of Service — 1-63

   A COS cannot be removed, it can only be displayed and changed. A COS with zeros in all fields is legitimate.

   COS 31 is reserved for test circuits and is the COS applied to callers using the Remote Access feature once they have gained access into the switch.

2. Maximum Precedence Level

-	Precedence calling not allowed
0	Flash override
1	Flash
2	Immediate
3	Priority
4	Routine

3.	Bearer Capability	0	Voice or voice grade
		1	Mode 1 data
		2	Mode 2 data
		3	Mode 3 data
		4	Mode 4 data

The bearer capability in this field is assumed by the switch for facilities administered with the class of service in field 1. If an extension with this class of service is used for Modem Pooling within an ARS pattern, this bearer capability value must match the bearer capability value of the ARS preference in Procedure 309 Word 5.

4.	ISDN Routing	-	ISDN is not supported
		0	Use any facility
		1	Use ISDN exclusively
		2	Use ISDN if available; if not, use any available facility

This field affects DMI-MOS the same as it does ISDN/PRI.

Special Error Codes

None.

Procedure 011 Word 1 — Call Coverage Criteria - D/A Interval - Path

14

Purpose

Use Procedure 011 Word 1 to administer a Call Coverage group by assigning the group's criteria, principal don't answer interval, and coverage points.

Related Procedures

Remove extensions from all Call Coverage paths before removing them from service in Procedure 000 Word 1.

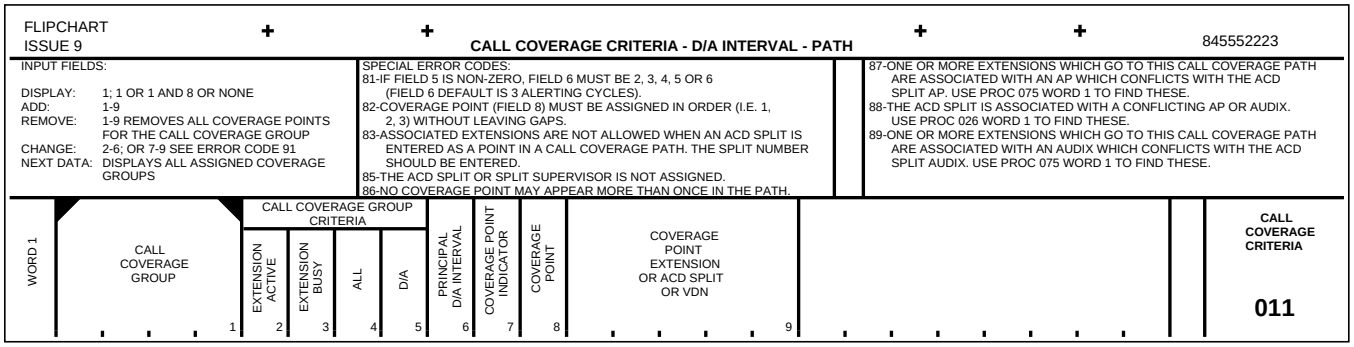
Remove Automatic Call Distribution (ACD) splits from all call coverage paths before removing them from the system in Procedure 026 Word 1.

Use Procedure 075 Word 1 to find Call Coverage groups associated with an ACD split.

Use Procedure 026 Word 1 to find ACD splits associated with an AP or AUDIX.

Use Procedure 031 Word 1 to terminate a vector directory number (VDN) to a vector before adding it to a coverage path.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 1 and 8.
Add:	Fields 1-9.
Change:	Fields 2-6 can only be changed when the coverage point (field 8) is set to 1. Fields 7-9 can be changed when field 8 is set to 1, 2, or 3.
Remove:	Fields 1-9 (this removes all coverage points for the Call Coverage group and removes the coverage group assignment in Procedure 000 Word 2 field 6).
Next Data:	Displays all assigned coverage groups.

Field Ranges and Encodes

1.	Call Coverage Group	1-1999	Single path
		2000-4095	Dual path

Group numbers 1-1999 are reserved for single-path coverage groups and numbers 2000-4095 are reserved for dual coverage paths. Dual coverage paths are administered in even-odd pairs; the even number specifies path 1, the odd number specifies path 2.

For example, group path numbers 2112 and 2113 represent a dual path coverage arrangement. Path 2112 specifies the coverage criteria and the coverage path for path 1. Path 2113 specifies the coverage criteria and the coverage path for path 2. When assigning dual path coverage to an extension (Procedure 000 Word 2 field 6), use the even group number of the even-odd pair.

To use groups 2000-4095 as single path groups, assign the same criteria and coverage points to both even and odd groups of a pair.

CALL COVERAGE GROUP CRITERIA (Fields 2-5)

0 No coverage
1 Extension coverage
2 Attendant or trunk coverage
3 Extension and attendant or trunk coverage

2. Extension Active — 0-3

3. Extension Busy — 0-3

4. All Calls — 0-3

5. Don't Answer — 0-3

6. Principal Don't Answer Interval

0 None
2-6 Ring cycles

This field defines how long a call rings at a principal's voice terminal before going to coverage when the don't answer criteria is active (field 5).

7. Coverage Point Indicator

0 Extension
1 ACD split
2 VDN

8. Coverage Point — 1-3

There can be one, two, or three points in the coverage path.

9.	Coverage Point Extension/ACD Split/VDN	000-99999 for extension and VDN, 1-60 for ACD split VDNs and extensions that are members of the same coverage group should be assigned the same machine number. An ACD split cannot be the final point in a coverage path when Call Vectoring is enabled. An extension belonging to a group of extensions that are in a simple hunting pattern (Procedure 000 Word 2) can be assigned as the final coverage point in a coverage path. You must limit this hunting group to 9 members because the system will not search past the tenth member of the hunting pattern.

Special Error Codes

81 - If field 5 is not zero, field 6 must be 2, 3, 4, 5, or 6.

82 - Assign the coverage points (field 8) consecutively (i.e., 1, 2, 3) without leaving gaps.

83 - Associated extensions are not allowed when an ACD split is entered as a point in a Call Coverage path. The split number should be entered.

85 - The ACD split or split supervisor is not assigned.

86 - No coverage point may appear more than once in the path.

87 - One or more extensions that go to this Call Coverage path are associated with an AP that conflicts with the ACD split AP. Use Procedure 075 Word 1 to find these.

88 - The ACD split is associated with a conflicting AP or AUDIX. Use Procedure 026 Word 1 to find these.

89 - One or more extensions that go to this call coverage path are associated with an AUDIX that conflicts with the ACD split AUDIX. Use Procedure 075 Word 1 to find these.

90 - If an ACD split or a VDN is in the path, it must be the last point (see field 7 limits).

91 - Fields 2-6 can only be changed when the coverage point is set to 1 (field 8); fields 7-9 can be changed when field 8 is set to 1, 2, or 3.

92 - Use Procedure 031 Word 1 for terminating a VDN to a vector before adding it to a coverage path.

93 - The VDN in this coverage group terminates at a vector referencing a Message Center split that has a different AP number (Procedure 026 Word 1) than at least one of the extensions assigned to this coverage group (Procedure 000 Word 2).

94 - The VDN in this coverage group terminates at a vector referencing an AUDIX split that has a different AUDIX number (Procedure 026 Word 1) than at least one of the extensions assigned to this coverage group (Procedure 000 Word 2).

95 - Field 7 indicates a VDN, but an extension is entered in field 9; or field 7 indicates an extension, but a VDN is entered in field 9.

Procedure 012 Word 1 — Name Database - Name To Be Displayed

15

Purpose

Use Procedure 012 Word 1 to administer an extension, vector directory number (VDN), or trunk group for ‘‘name display’’ related features. Specifically, use this procedure to:

- Display ‘‘name display’’ characteristics for a given extension, VDN, or trunk group
- See if a name is administered to display upon use of an outgoing trunk group
- Assign a given extension, VDN, or trunk group to a set of extensions or trunk groups sharing the same name
- Copy a name already assigned to another extension, VDN, or trunk group to this extension or trunk group (administration time-saver)
- View all extensions, VDNs, or trunk groups that share the same name.

Related Procedures

Procedure 012 Word 1 and Word 2 are linked together. For example, if two extensions are administered in Word 1 to share a name, the actual name that is displayed for the two extensions is administered in Word 2.

Use Procedure 012 Word 3 to:

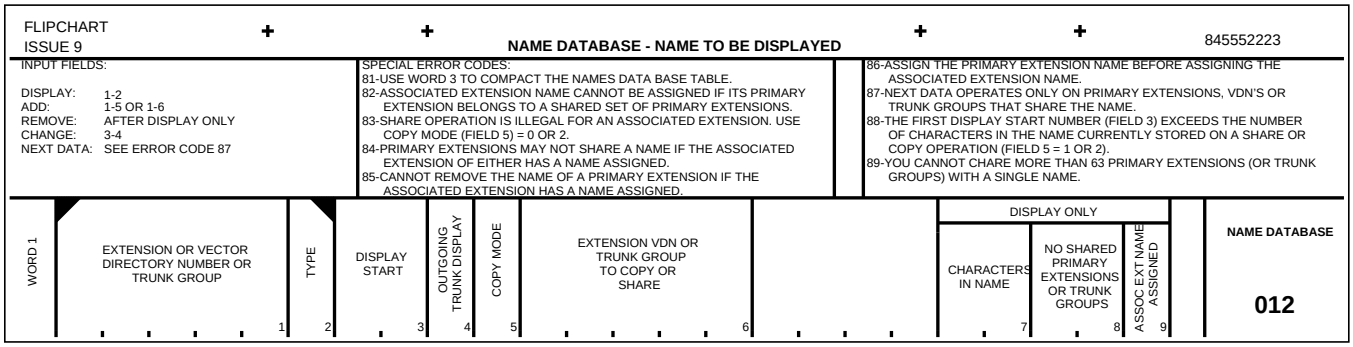
- View the number of names that can still be added
- View the amount of space remaining in the names database
- Compact the names database table to increase usable space.

Cautions

Removal of an entry for one associated extension of a primary extension removes that entry for all associated extensions of that primary extension.

Words 1 and 2 of this procedure are linked together. When moving from Word 1 to Word 2, use the **WORD NO** button to select Word 2. If you go to another procedure before going to Word 2, the link between Word 1 and 2 is lost and you must display the information in Word 1 again.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-6.
Change:	Fields 3 and 4.
Remove:	Fields 1-6.
Next Data:	The next data routine only operates on primary extensions, VDNs, or trunk groups that share names. Field 8 displays the number of extensions sharing a name.

Field Ranges and Encodes

1. Extension, VDN, or Trunk Group

   -, 000-99999 for extensions and VDNs, 18-999 for trunk groups

   Adding a name to a primary extension will add the name for all associated extensions. Removing a name from an associated extension, will remove the name for all associated extensions.

2. Type

   0 Trunk group
   1 Extension or VDN

3. Display Start — 1-30

   This field specifies the character position on the display set that the name display is to start on when the name is to be truncated.

   Any characters entered in Procedure 014 Word 2 field 1 that precede the display start position are overwritten with blanks.

4. Outgoing Trunk Display
   - - Not an outgoing trunk in field 1
   - 0 Name not displayed for outgoing trunk
   - 1 Name displayed for outgoing trunk

5. Copy Mode
   - 0 Use Word 2 to enter, add, or change a name
   - 1 Share key to existing name
   - 2 Create name by copy

   Use copy mode to quickly copy the name associated with the extension (VDN or trunk group) in field 6 to the extension (VDN or trunk group) in field 1. For example, if one extension has the name ‘‘BUILDING MAINTENANCE 1’’ as its name display, and another extension needs the name ‘‘BUILDING MAINTENANCE 2’’, copy mode 2 could be used to copy the name ‘‘BUILDING MAINTENANCE 1’’ over to the other extension. This saves time spent typing the word ‘‘BUILDING MAINTENANCE’’ again in Word 2. After the copy is made, use Word 2 to change the ‘‘1’’ to a ‘‘2’’.

   If field 5 is 1 or 2, then field 6 must be filled.

6. Extension, VDN, or Trunk Group to Copy or Share — -, 000-99999 for extensions and VDNs, 18-999 for trunk groups

   For this field, the type is determined from field 2 (field 5 does not equal 0).

   Extensions and VDNs can share the same name. Extensions and VDNs cannot share the same name with trunk groups.

   Sharing a primary extension with an associated extension name is not allowed.

   Procedure 012 Word 1 and Word 2 are linked together. If two extensions are administered in Word 1 to share

a name, the actual name that is displayed for the two extensions is administered in Word 2.

DISPLAY ONLY (Fields 7-9)

7.	Characters In Name	1-30	
8.	Shared Primary Extensions or Trunk Groups	-	Associated extension
		1-63	Shared extension or trunk group
9.	Associated Extension Name Assigned	-	Trunk group in field 1
		0	Name is not assigned
		1	Name is assigned

Notes

1. A maximum of 63 primary extensions, VDNs, or trunk groups can be assigned to a single name.
2. The data administered in Procedure 012 Words 1 and 2 are used in building the display information element (IE) of ISDN. The display IE is used in the SETUP and CONNECT messages. If data is not assigned for a calling party using an ISDN/PRI trunk, a display information element is not created.

Special Error Codes

81 - Use Procedure 012 Word 3 to compact the names database table.

82 - You cannot assign an associated extension if its primary extension belongs to a shared set of primary extensions.

83 - You cannot use the share operation for an associated extension. Set the copy mode in field 5 equal to 0 or 2.

84 - Two primary extensions may not share a name if the associated extension of either has a name assigned.

85 - You cannot remove the name of a primary extension if the associated extension has a name assigned.

86 - Assign the primary extension name before the associated extension name.

87 - The next data routine operates only on a set of primary extensions (or trunk groups) that share the same name.

88 - The Display Start number (field 3) cannot exceed the number of characters in the name currently stored on a share or copy operation (field 5 = 1 or 2). Lower the number in field 3.

89 - You cannot share more than 63 primary extensions (or trunk groups) with a single name.

90 - You cannot share or copy from an extension (or VDN or trunk group) with no name assigned.

91 - A primary extension and an associated extension cannot share a name.

92 - You cannot set the outgoing trunk display flag (field 4) to 0 or 1 for incoming-only trunk groups.

93 - The name is not assigned.

94 - A name is already assigned. Choose a different name.

Procedure 012 Word 2 — Name Database - Entry

16

Purpose

Use Procedure 012 Word 2 to administer a name in the name database.

Prerequisite Procedures

Do a valid display in Word 1 before using Word 2.

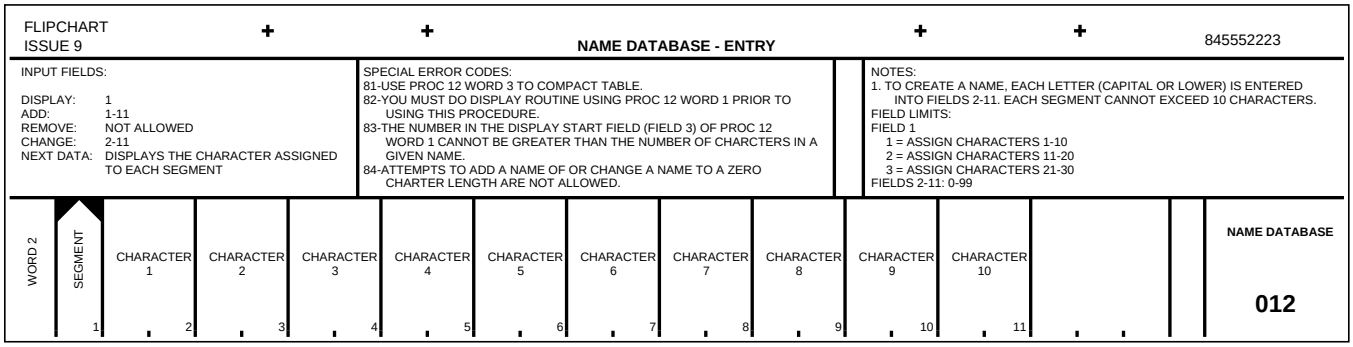
Related Procedures

Use Procedure 012 Word 1 to administer an extension, vector directory number (VDN), or trunk group to be used by ‘‘name display’’ related features. Word 1 and Word 2 are linked together. For example, if two extensions are administered in Word 1 to share a name, the actual name displayed for the two extensions is administered in Word 2.

The number of characters in the display start field (field 3) of Word 1 cannot be greater than the number of characters in a given name.

Use Procedure 012 Word 3 to compact the name database table.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1.
Add: Fields 1-11.
Change: Fields 2-11.
Remove: Not allowed.
Next Data: Displays the characters assigned to each segment.

Field Ranges and Encodes

1. Segment
   - 1 Assign characters 1-10
   - 2 Assign characters 11-20
   - 3 Assign characters 21-30.

CHARACTER ENCODES (Fields 2-11)					
21 = A	11 = Q	44 = g	94 = w	18 = ?	58 = -
22 = B	72 = R	45 = h	95 = x	19 = ;	59 = +
23 = C	73 = S	46 = i	96 = y	20 = :	60 = *
31 = D	81 = T	54 = j	15 = z	27 = "	67 = {
32 = E	82 = U	55 = k	00 = 0	28 = ’	68 = }
33 = F	83 = V	56 = l	01 = 1	29 = ‘	69 = |
41 = G	91 = W	64 = m	02 = 2	30 = ,	70 = \
42 = H	92 = X	65 = n	03 = 3	37 = (	77 = <
43 = I	93 = Y	66 = o	04 = 4	38 =)	78 = >
51 = J	12 = Z	74 = p	05 = 5	39 = _	79 = =
52 = K	24 = a	14 = q	06 = 6	40 = ≈	80 = %
53 = L	25 = b	75 = r	07 = 7	47 = [	87 = #
61 = M	26 = c	76 = s	08 = 8	48 =]	88 = &
62 = N	34 = d	84 = t	09 = 9	49 = ^	89 = @
63 = 0	35 = e	85 = u	10 = . (period)	50 = blank	90 = $
71 = P	36 = f	86 = v	17 = !	57 = /	

2. Character 1 — 00-12, 14, 15, 17-96

3.	Character 2	00-12, 14, 15, 17-96
4.	Character 3	00-12, 14, 15, 17-96
5.	Character 4	00-12, 14, 15, 17-96
6.	Character 5	00-12, 14, 15, 17-96
7.	Character 6	00-12, 14, 15, 17-96
8.	Character 7	00-12, 14, 15, 17-96
9.	Character 8	00-12, 14, 15, 17-96
10.	Character 9	00-12, 14, 15, 17-96
11.	Character 10	00-12, 14, 15, 17-96

Notes

1. To create a name, each letter (capital or lower case) is entered into fields 2 through 11. Each segment cannot exceed 10 characters.
2. The number entered in the ‘‘Display Start’’ field of Procedure 012 Word 1 cannot be greater than the number of characters in the name.

Special Error Codes

81 - Use Procedure 012 Word 3 to compact the table.

82 - You must do a display routine using Procedure 012 Word 1 prior to using this procedure.

83 - The number in the display start field (field 3) of Procedure 012 Word 1 cannot be greater than the number of characters in a given name. Either the name must be lengthened in this procedure or the display start (field 3) changed in Procedure 012 Word 1.

84 - Attempts to add a name or change a name to a zero-character length are not allowed. The remove routine in Procedure 012 Word 1 must be used.

Procedure 012 Word 3 — Name Database Compaction

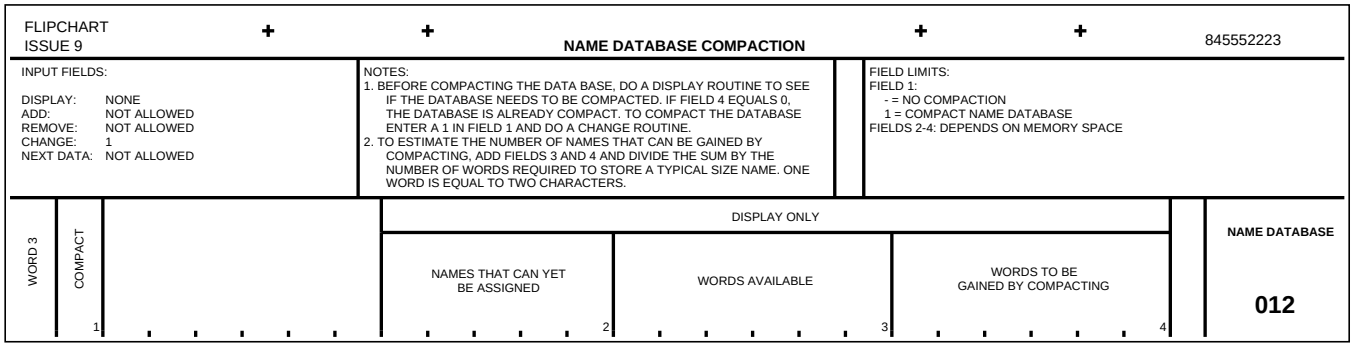
17

Purpose

Use Procedure 012 Word 3 to:

- — Display the number of names that can still be added
- — Display the amount of space remaining in the names database
- — Compact the names database table to increase usable space.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Field 1.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	Compact	-	No compaction
		1	Compact name database

DISPLAY ONLY (Fields 2-4)

2.	Names That Can Yet Be Assigned	Depends on memory space
3.	Words Available	Depends on memory space
4.	Words to Be Gained by Compacting	Depends on memory space

Notes

1. Before compacting the database, do a display routine to see if the database needs to be compacted. If field 4 equals 0, the database is already compact.

   To compact the database enter a 1 in field 1 and do a change routine.

2. To estimate of the number of names that can be gained by compacting, add fields 3 and 4 and divide the sum by the number of words required to store a typical-size name. One word is equal to two characters.

Special Error Codes

None.

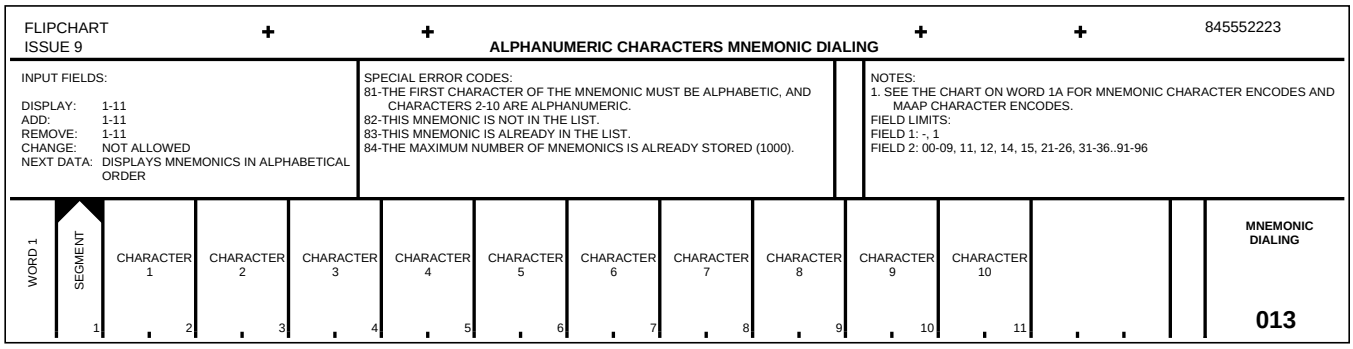
Procedure 013 Word 1 — Mnemonic Dialing - Alphanumeric Characters

18

Purpose

Use Procedure 013 Word 1 to administer alphanumeric mnemonics for mnemonic dialing. The mnemonic assigned in this procedure is used to dial a phone number assigned in Procedure 013 Word 2. Mnemonic dialing is administered on a system-wide basis and is available to all users.

Flipchart



FLIPCHART
ISSUE 9

845552223

ALPHANUMERIC CHARACTERS MNEMONIC DIALING

INPUT FIELDS:

DISPLAY: 1-11
ADD: 1-11
REMOVE: 1-11
CHANGE: NOT ALLOWED
NEXT DATA: DISPLAYS MNEMONICS IN ALPHABETICAL ORDER

SPECIAL ERROR CODES:
81-THE FIRST CHARACTER OF THE MNEMONIC MUST BE ALPHABETIC, AND CHARACTERS 2-10 ARE ALPHANUMERIC.
82-THIS MNEMONIC IS NOT IN THE LIST.
83-THIS MNEMONIC IS ALREADY IN THE LIST.
84-THE MAXIMUM NUMBER OF MNEMONICS IS ALREADY STORED (1000).

NOTES:
1. SEE THE CHART ON WORD 1A FOR MNEMONIC CHARACTER ENCODES AND MAAP CHARACTER ENCODES.
FIELD LIMITS:
FIELD 1: -, 1
FIELD 2: 00-09, 11, 12, 14, 15, 21-26, 31-36..91-96

WORD 1	SEGMENT	CHARACTER 1	CHARACTER 2	CHARACTER 3	CHARACTER 4	CHARACTER 5	CHARACTER 6	CHARACTER 7	CHARACTER 8	CHARACTER 9	CHARACTER 10			MNEMONIC DIALING
	1	2	3	4	5	6	7	8	9	10	11			013

Fields Used or Required for Command Routines

Display:	Fields 2-11.
Add:	Fields 1-11.
Change:	Not allowed.
Remove:	Fields 1-11.
Next Data:	Displays mnemonics in alphabetical order.

Field Ranges and Encodes

1. Segment -, 1

CHARACTER ENCODES (Fields 2-11)

Character Encodes					
21 = A	53 = L	91 = W	44 = g	14 = q	00 = 0
22 = B	61 = M	92 = X	45 = h	75 = r	01 = 1
23 = C	62 = N	93 = Y	46 = i	76 = s	02 = 2
31 = D	63 = O	12 = Z	54 = j	84 = t	03 = 3
32 = E	71 = P	24 = a	55 = k	85 = u	04 = 4
33 = F	11 = Q	25 = b	56 = l	86 = v	05 = 5
41 = G	72 = R	26 = c	64 = m	94 = w	06 = 6
42 = H	73 = S	34 = d	65 = n	95 = x	07 = 7
43 = I	81 = T	35 = e	66 = o	96 = y	08 = 8
51 = J	82 = U	36 = f	74 = p	15 = z	09 = 9
52 = K	83 = V				

The first character of the mnemonic must be alphabetic, and characters 2-10 can be alphanumeric.

2. Character 1 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

3. Character 2 00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

4. Character 3 00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

5. Character 4 00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

6. Character 5 00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

7. Character 6 00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

8. Character 7 00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

9. Character 8 00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

10.	Character 9	00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96
11.	Character 10	00-09, 11, 12, 14, 15, 21-26, 31-36, 41-46, 51-56, 61-66, 71-76, 81-86, 91-96

Notes

1. When using the enhanced mode, you can enter characters or numbers into the data fields without using the encodes. In basic mode, you must use the alphanumeric character encodes.
2. The mnemonics assigned in this procedure are case-sensitive. For example, ‘‘sam’’ is different from ‘‘SAM’’.
3. The maximum number of mnemonics that can be stored in the switch is 1000.

Special Error Codes

81 - Character 1 must be alphabetic and characters 2-10 can be alphanumeric.

82 - This mnemonic is not in the list.

83 - This mnemonic is already in the list.

84 - The maximum number of mnemonics is already stored (1000).

Procedure 013 Word 2 — Mnemonic Dialing - Phone Number

19

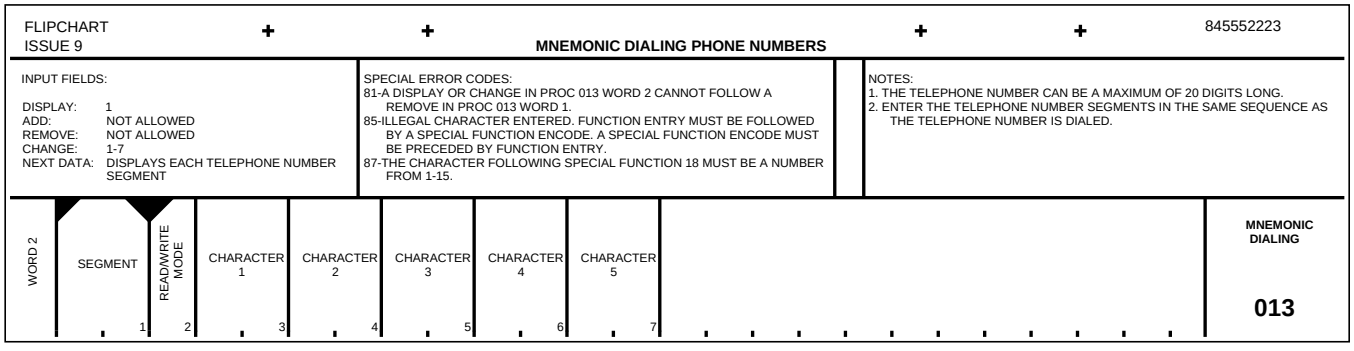
Purpose

Use Procedure 013 Word 2 to administer the telephone numbers associated with alphanumeric mnemonics assigned in Procedure 013 Word 1.

Prerequisite Procedures

Do a display in Procedure 013 Word 1 before using Word 2. This display relates the alphanumeric mnemonic in Word 1 to the telephone number in Word 2.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 1-7.
Remove:	Not allowed.
Next Data:	Displays each telephone number segment.

Field Ranges and Encodes

1.	Segment	1	Characters 1-5
		2	Characters 6-10
		3	Characters 11-15
		4	Characters 16-20
2.	Read/Write Mode	-	Read or write machine-used table
		0	Read or write scratch-pad table
		1	Read or write machine-used table

CHARACTER ENCODES (Fields 3-7)

0-9	Decimal digits
11	*
12	#
13	Function entry
14	Pause
15	Wait
16	Mark
17	Await dial tone
18	Manual digit entry

The function entry encode (13) must be followed by a special function encode (14-19). A special function encode must be preceded by the function entry encode. The function entry encode cannot be the last character in a list item.

The manual digit entry encode (18) must be followed by the number of digits that will be entered manually (1-15).

3.	Character 1, 6, 11, or 16	-, 0-9, 11-18
4.	Character 2, 7, 12, or 17	-, 0-9, 11-18

5. Character 3, 8, 13, or 18 — -, 0-9, 11-18

6. Character 4, 9, 14, or 19 — -, 0-9, 11-18

7. Character 5, 10, 15, or 20 — -, 0-9, 11-18

Notes

1. The telephone number can be a maximum of 20 digits long.
2. Enter the telephone number segments in the same sequence as the telephone number that is dialed. For example, a ten-digit telephone number ''3035382180'' would be entered as follows: segment number 1 (field 1) would be associated with digits ''30353'' entered in fields 3-7 (characters 1-5); segment number 2 (field 1) would be associated with digits ''82180'' entered in fields 3-7 (characters 6-10).
3. The following defines the use of special functions:
   - — Function entry (13) - This encode is required before any of the following special functions.
   - — Pause (14) - This suspends dialing for 1.5 seconds. This is typically used after dialing a trunk dial access code (e.g., 9-13-14-2552323).
   - — Wait (15) - This suspends dialing for up to 10 seconds. This is used when a return dial tone from a distant switch may take this long.
   - — Mark (16) - This is required before the * or # characters (e.g., 13-16-*11).
   - — Await dial tone (17) - This will suspend dialing until the switch actually receives dial tone from the other location.
   - — Manual digit entry (18) - This allows the user to manually enter digits at any point in the dialing sequence. It must always be followed by the number of digits expected (1-15). For example, a user might make many calls to people at one location. They can set up the initial digits ''91303538'' with a manual digit entry for a four-digit extension number. This translates into ''9-13-14-1303538-13-18-4''.
4. If equipment in the call path requires special function encodes (encodes 14-18), then administer the telephone number to account for this. For example, some older electro-mechanical equipment cannot

handle high-speed digit transmission, so you must put delays in the telephone number segments.

Special Error Codes

81 - A display or change in Word 2 cannot follow a remove in Procedure 013 Word 1.

85 - Illegal character entered. Function entry (13) must be followed by a special function (14-18). A special function (14-18) must be preceded by function entry (13).

87 - The character following special function 18 must be a number from 1-15.

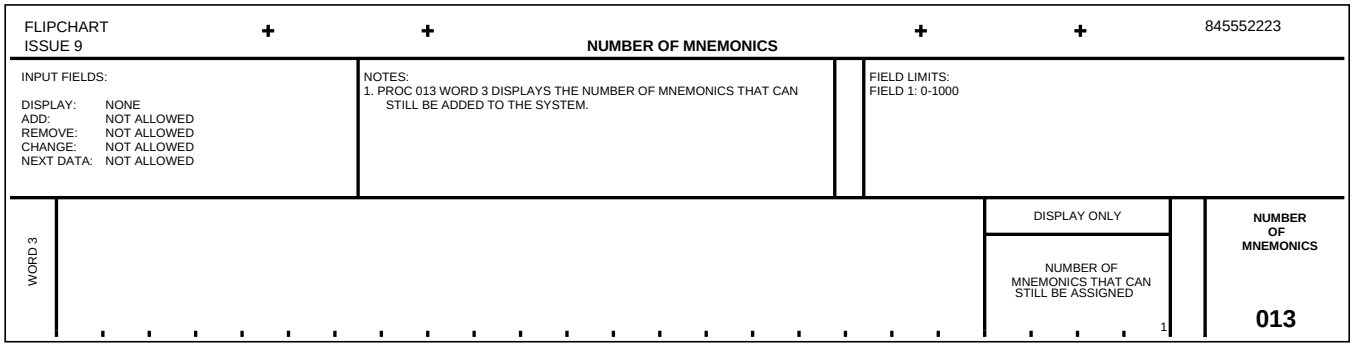
Procedure 013 Word 3 — Number of Mnemonics

20

Purpose

Use Procedure 013 Word 3 to display how many mnemonics can still be added to the system.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

DISPLAY ONLY (Field 1)

1.	Number of Mnemonics That Can Still be Assigned	0-1000

Special Error Codes

None.

Procedure 026 Word 1 — ACD - Split Characteristics

21

Purpose

Use Procedure 026 Word 1 to administer split characteristics for the Automatic Call Distribution (ACD) feature.

Prerequisite Procedures

Use Procedure 026 Words 2 and 3 to remove the split supervisor and members before removing the split in this procedure.

Use Procedure 027 Words 1 and 2 (Procedure 033 Word 1 for Call Vectoring) to remove recorded announcements before removing the split in this procedure.

Use Procedure 028 Word 2 to busy out CMS before making changes in this procedure.

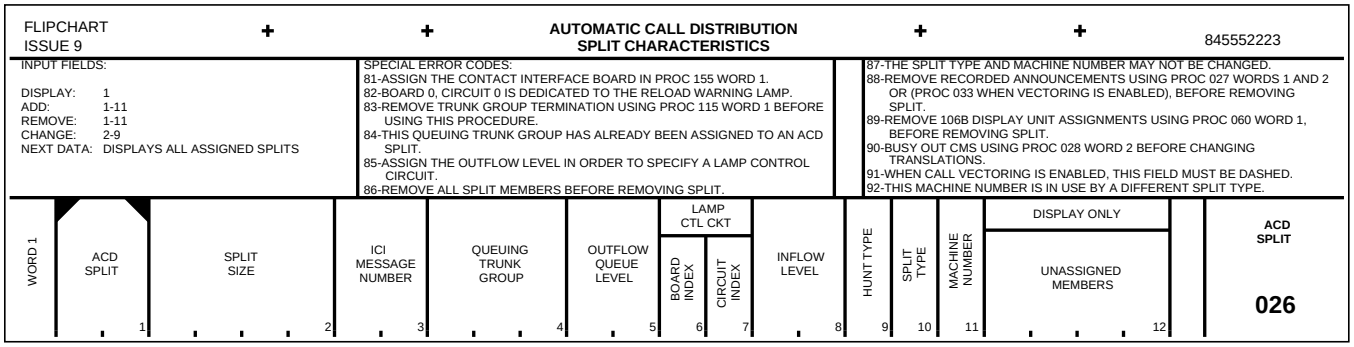
Use Procedure 060 Word 1 to remove 106B display units before removing the split in this procedure.

Use Procedure 100 Word 1 to administer the queuing trunk group.

Use Procedure 115 Word 1 to remove trunk group termination to this split before removing the split in this procedure.

Use Procedure 155 Word 1 to administer the contact interface board if you are setting an outflow level and assigning a warning lamp control circuit.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-11.
Change:	Fields 2-9.
Remove:	Fields 1-11.
Next Data:	Displays all assigned splits.

Field Ranges and Encodes

1. ACD Split — 1-60

2. Split Size — 1-1024 (in multiples of 16)

   The split size is calculated in multiples of 16. Even if you enter something other than a multiple of 16, the number will round up to the nearest multiple (e.g., 30 rounds up to 32).

3. ICI Message Number — -,0 No ICI message
   4-63 ICI message number

   The ICI message used here is administered in Procedure 204 Word 1. For Call Vectoring, put a dash in this field.

4. Queuing Trunk Group — 18-999

5. Outflow/Queue Level -, 1-99

   When Call Vectoring is enabled, field 5 is used as a queue warning lamp level only.

LAMP CONTROL CIRCUIT (Fields 6-7)

6. Board Index -, 0-7

   The board index is administered in Procedure 155 Word 1. Administer a board index to an ACD split (field 1) here.

7. Circuit -, 0-7

   This is a circuit number on the contact interface board (SN241).

8. Inflow Level -, 0-98

   A dash in this field is required for Call Vectoring.

9. Hunt Type
   - 0 Circular hunt (UCD)
   - 1 Terminal hunt (DDC)
   - 2 Most-idle agent hunting (same relative queue position)
   - 3 Most-idle agent hunting (moves to last queue position)

   Encode 2 means the most-idle agent is hunting and remains in the same relative queue position after an outgoing call.

   Encode 3 means the most-idle agent is hunting and moves to the bottom (last) queue position after an outgoing call.

10. Split Type
    - 0 Regular
    - 1 Message Center
    - 2 AUDIX
    - 3 ISDN Gateway (number only)
    - 4 ISDN Gateway (name and number)

11. Machine Number — -, 0-8

    The data in this field depends on the split type in field 10. For regular, enter a dash or 0. For Message Center, enter 1-7. For AUDIX, enter 1-8. For ISDN Gateway, enter 1-7.

DISPLAY ONLY (Field 12)

12. Unassigned Members — 0-1024

Special Error Codes

81 - Assign the contact interface board in Procedure 155 Word 1.

82 - Board 0, circuit 0 is dedicated to the reload warning lamp.

83 - Remove trunk group termination using Procedure 115 Word 1 before using this procedure.

84 - This queuing trunk group has already been assigned to an ACD split.

85 - Assign the outflow level in order to specify a lamp control circuit.

86 - Remove the split members in Procedure 026 Word 3 and then the split supervisor in Procedure 026 Word 2 before removing the split.

87 - The split type and machine number may not be changed.

88 - Remove recorded announcements using Procedure 027 Words 1 and 2 (Procedure 033 Word 1 when Call Vectoring is enabled) before removing the split.

89 - Remove 106B display unit assignments using Procedure 060 Word 1 before removing split.

90 - Busy out CMS using Procedure 028 Word 2 before changing translations.

91 - When Call Vectoring is enabled, this field must be dashed.

92 - This machine number is in use by a different split type.

Procedure 026 Word 2 — ACD - Split Supervisor and Split Characteristics

22

Purpose

Use Procedure 026 Word 2 to administer the Automatic Call Distribution (ACD) split supervisor, queue directory number (QDN), priority extension, multiple call handling, and auto available.

Prerequisite Procedures

Use Procedure 028 Word 2 to busy out CMS before making changes in this procedure.

Use Procedure 000 Word 1 to assign an extension to be used as a priority extension.

Use Procedure 001 Word 1 to assign the QDN as an associated extension.

Use Procedure 010 Word 1 to assign ACD to the member's extension class of service (COS).

Use Procedure 011 Word 1 to remove the split supervisor's extension from a Call Coverage path before removing the extension in this procedure.

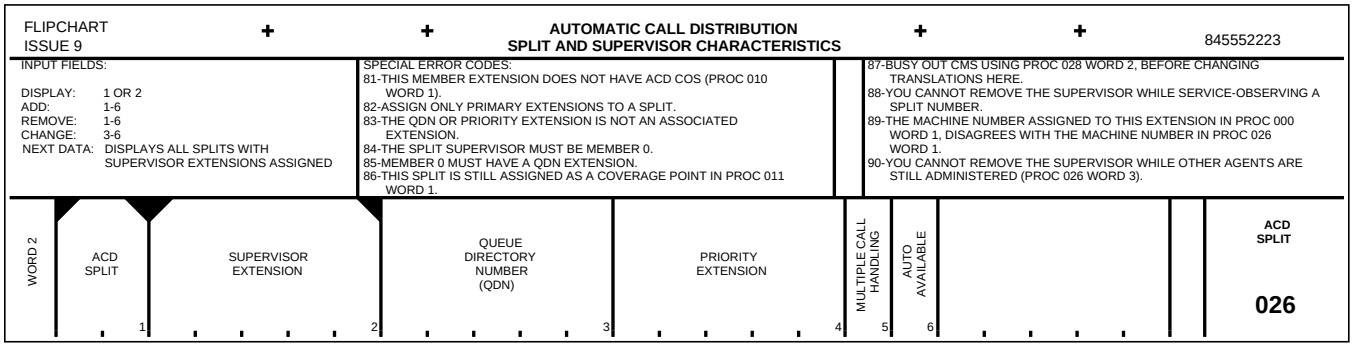
Use Procedure 026 Word 3 to remove all members of a split before removing the split supervisor in this procedure.

Use Procedure 032 Word 1 to display the vector using this split and Procedure 030 Word 3 to remove this split from a vector step before removing the split supervisor in this procedure.

Related Procedures

Use Procedure 000 Word 1 to coordinate the AUDIX and AP machine number assignments as related to the split supervisor's extension.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 2.
Add:	Fields 1-6.
Change:	Fields 3-6.
Remove:	Fields 1-6.
Next Data:	Displays all splits with supervisor extensions assigned.

Field Ranges and Encodes

1. ACD Split — 1-60

2. Supervisor Extension — 000-99999

   This is known as the controlling extension of an ACD split.

3. Queue Directory Number — -, 000-99999

   A dash is required when Call Vectoring is enabled.

4. Priority Extension — -, 000-99999

   The priority extension allows users calling into a queue to be placed at the head of the queue.

5. Multiple Call Handling
   - - Disabled
   - 0 Disabled
   - 1 Enabled

   This allows ACD agents in this split to handle multiple calls.

6. Auto Available
   - - Disabled
   - 0 Disabled
   - 1 Enabled

   This sets all agents in the split to the ''available'' status. This is usually only used when a split is connected to an auxiliary processor where there are no agents to set the agent status. Do not enable this for AUDIX. AUDIX sets the agent availability through DCIU messages.

Special Error Codes

81 - This member's extension does not have an ACD COS (Procedure 010 Word 1).

82 - Assign only primary extensions to a split.

83 - The QDN or priority extension is not an associated extension.

84 - The split supervisor must be member 0.

85 - Member 0 must have a QDN extension.

86 - This split is still assigned as a coverage point in Procedure 011 Word 1.

87 - Busy out CMS using Procedure 028 Word 2 before changing translations here.

88 - You cannot remove a supervisor while service-observing a split member.

89 - The machine number assigned to this extension in Procedure 000 Word 1 disagrees with machine number in Procedure 026 Word 1.

90 - You cannot remove the supervisor while other members are still administered (Procedure 026 Word 3).

91 - Call Vectoring is enabled; the QDN and priority extension must be dashed.

92 - You cannot remove the split supervisor if the split is used in a vector. See Procedure 032 Word 1 to identify the vector and use Procedure 030 Word 3 to remove the split from the vector.

Procedure 026 Word 3 — ACD - Split Members

23

Purpose

Use Procedure 026 Word 3 to administer Automatic Call Distribution (ACD) split member characteristics. Only primary extensions assigned in Procedure 000 Word 1 can be split members.

Prerequisite Procedures

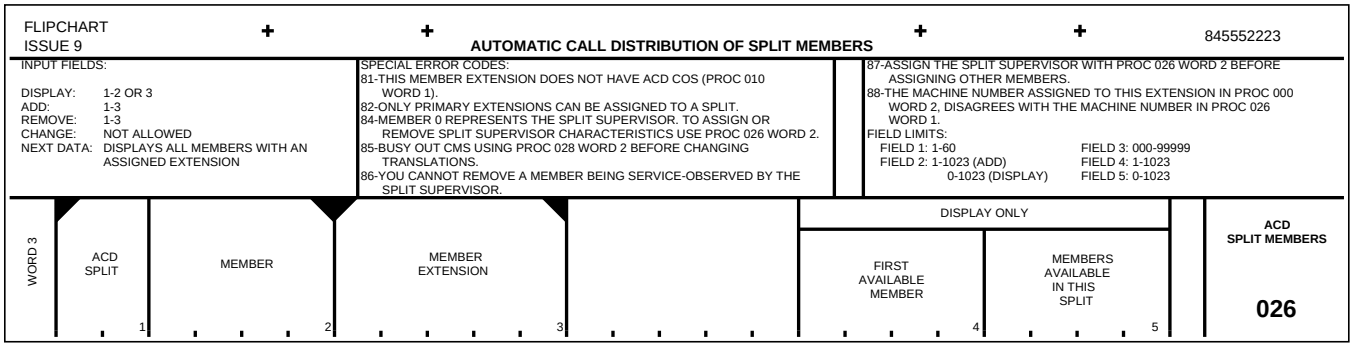
Use Procedure 028 Word 2 to busy out CMS before making changes in this procedure.

Use Procedure 010 Word 1 to assign ACD to the member's extension class of service (COS).

Use Procedure 026 Word 2 to administer a split supervisor before adding split members.

The machine number assigned to a member's extension in Procedure 000 Word 2 must match the machine number assigned to the split in Procedure 026 Word 1.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2 or field 3.
Add:	Fields 1-3.
Change:	Not allowed.
Remove:	Fields 1-3.
Next Data:	Displays all members with an assigned extension.

Field Ranges and Encodes

1. ACD Split — 1-60

2. Member — 0-1023 (0-1023 for display, 1-1023 for add)

   You can't add member 0 (the split supervisor) here but you can display their extension here.

3. Member Extension — 000-99999

DISPLAY ONLY (Fields 4-5)

4. First Available Member — 1-1023

5. Members Available In This Split — 0-1023

Special Error Codes

81 - This member's extension does not have an ACD COS (Procedure 010 Word 1).

82 - Only primary extensions can be assigned to a split.

84 - Member 0 represents the split supervisor. To assign or remove split supervisor characteristics, use Procedure 026 Word 2.

85 - Busy out CMS using Procedure 028 Word 2 before changing translations.

86 - You cannot remove a member being service-observed by the split supervisor.

87 - Assign the split supervisor with Procedure 026 Word 2 before assigning other members.

88 - The machine number assigned to this extension in Procedure 000 Word 2 disagrees with the machine number assigned to this split in Procedure 026 Word 1.

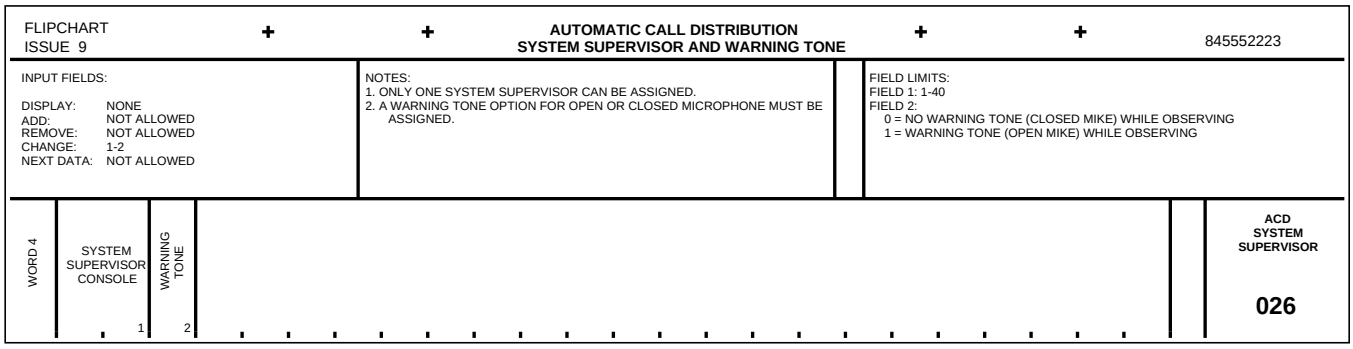
Procedure 026 Word 4 — ACD - System Supervisor and Warning Tone

24

Purpose

Use Procedure 026 Word 4 to administer one of the switch consoles as an ACD system supervisor console. Use this procedure to also administer whether warning tone will be given while observing a split member.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	System Supervisor Console	1-40 Only one console can be assigned as the system supervisor console.	
2.	Warning Tone	0 1	No warning tone while observing Warning tone while observing, (microphone on)

The warning tone, if enabled, is applied to a connection between an agent and a caller. This alerts the agent that a supervisor has joined the call to observe the agent's work by listening to the call.

If the warning tone is disabled, the observer's microphone is muted, but it can later be turned on if the observer wishes to participate in the call. If the warning tone is enabled, the observer's microphone is always on and it cannot be muted.

Special Error Codes

None.

Procedure 027 Word 1 — ACD - First Recorded Announcement

25

Purpose

Use Procedure 027 Word 1 to administer an auxiliary trunk equipment location for a recorded announcement and the recorded announcement wait times for an ACD split.

This procedure is not used when Call Vectoring is enabled. Use Procedure 033 Word 1.

Prerequisite Procedures

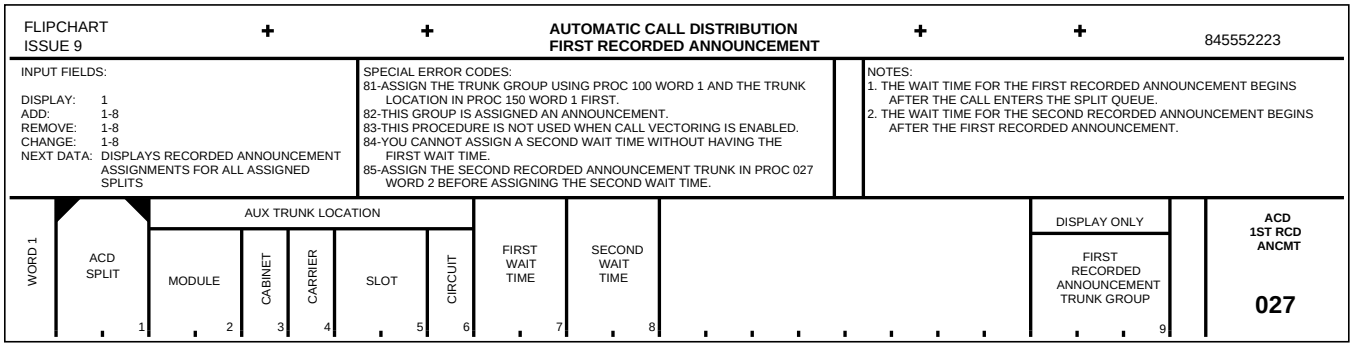
Use Procedure 100 Word 1 to assign the first and second ACD recorded announcement trunk groups.

Use Procedure 150 Word 1 to assign the trunk equipment location.

Use Procedure 026 Word 1 to assign the ACD split before assigning a recorded announcement to the split.

Use Procedure 027 Word 2 to assign the second recorded announcement trunk before assigning the second wait time (field 8).

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-8.
Change:	Fields 1-8.
Remove:	Fields 1-8.
Next Data:	Displays recorded announcement assignments for all assigned splits.

Field Ranges and Encodes

1. ACD Split 1-60

AUXILIARY TRUNK LOCATION (Fields 2-6)

Make sure an SN231 board is in the location specified in fields 2-6..

2. Module 0-30

3. Cabinet 0-7

4. Carrier 0-3

5. Slot 0-3, 5-8, 13-16, 18-21

6. Circuit 0-3

7.	First Wait Time	0-15 in two-second intervals (30 second maximum wait time) The wait time for the first recorded announcement begins after the call enters the split queue.
8.	Second Wait Time	0-15 in two-second intervals (30 second maximum wait time) The wait time for the second recorded announcement begins at the end of the first announcement. To assign the second wait time, follow this sequence: — Enter zero (0) in field 8. — Add the second auxiliary trunk location using Procedure 027 Word 2. — Return to this procedure, enter the second wait time in field 8 and do a change routine.

DISPLAY ONLY (Field 9)

9.	First Recorded Announcement Trunk Group	18-999

Special Error Codes

81 - Assign the trunk group using Procedure 100 Word 1 and the trunk equipment location in Procedure 150 Word 1 first.

82 - This split has already been assigned to a recorded announcement.

83 - This procedure is not used when Call Vectoring is enabled.

84 - You cannot assign a second wait time without having the first wait time.

85 - Assign the second recorded announcement trunk in Procedure 027 Word 2 before assigning the second wait time.

Procedure 027 Word 2 — ACD - Second Recorded Announcement

26

Purpose

Use Procedure 027 Word 2 to administer the auxiliary trunk equipment location for the Automatic Call Distribution (ACD) second recorded announcement. This assignment is on a per-system basis.

After assigning the second recorded announcement equipment location in this procedure, add the second recorded announcement wait-time in Procedure 027 Word 1 (field 8) for every split that has a first recorded announcement. This is on a per-split basis.

This procedure is not used when Call Vectoring is enabled. Use Procedure 033 Word 1.

Prerequisite Procedures

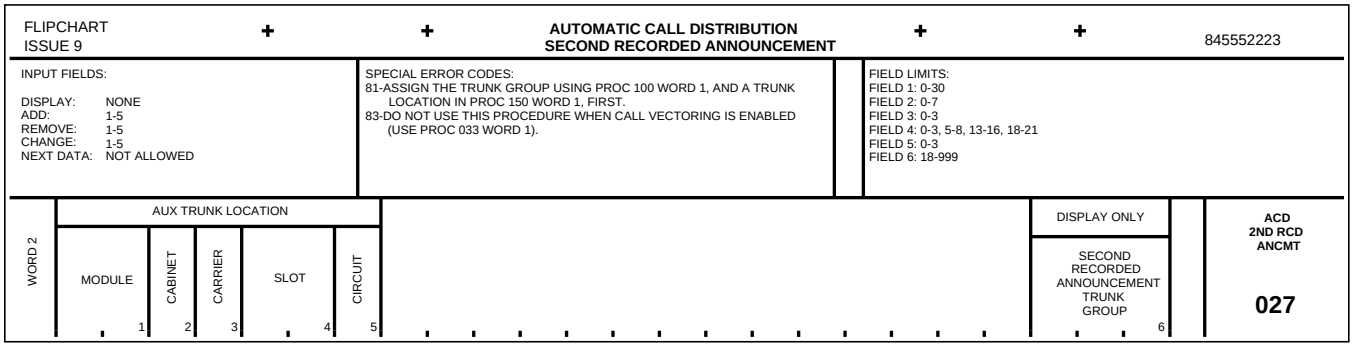
Use Procedure 100 Word 1 to assign the ACD second recorded announcement trunk group.

Use Procedure 150 Word 1 to assign the trunk equipment location.

Related Procedures

Use Procedure 026 Words 1-4 to assign ACD splits.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Fields 1-5.
Change:	Fields 1-5.
Remove:	Fields 1-5.
Next Data:	Not allowed.

Field Ranges and Encodes

AUXILIARY TRUNK LOCATION (Fields 1-5)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0-3, 5-8, 13-16, 18-21

5. Circuit 0-3

DISPLAY ONLY (Field 6)

6. Second Recorded Announcement Trunk Group 18-999

Special Error Codes

81 - Assign the trunk group using Procedure 100 Word 1 and a trunk location in Procedure 150 Word 1 first.

83 - Do not use this procedure word when Call Vectoring is enabled (use Procedure 033 Word 1).

Procedure 027 Word 3 — ACD - Queue-of-Origin/City-of-Origin Announcement

27

Purpose

Use Procedure 027 Word 3 to administer the auxiliary trunk that provides the queue-of-origin announcement for an Automatic Call Distribution (ACD) split or the city-of-origin announcement of an incoming trunk group.

This procedure is not used when Call Vectoring is enabled. If Call Vectoring is enabled, use Procedure 033 Word 1.

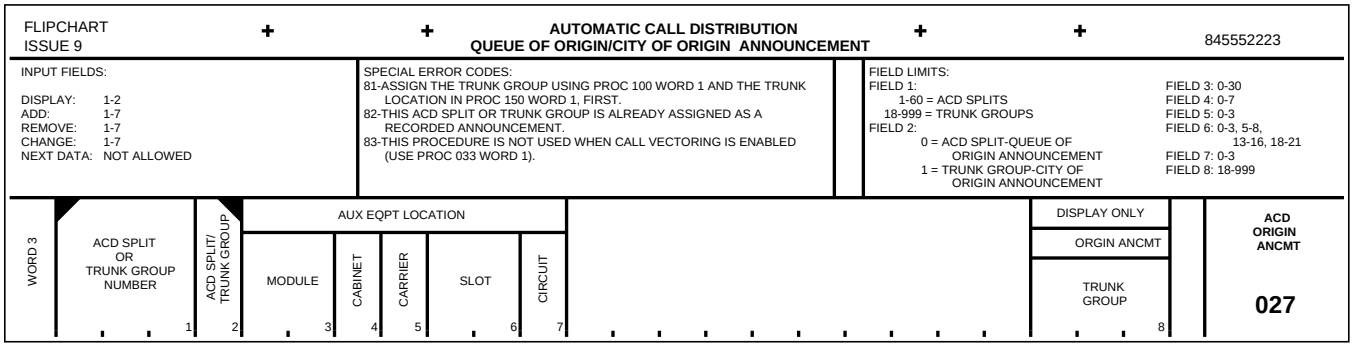
Prerequisite Procedures

Use Procedure 026 Word 1 to assign ACD splits.

Use Procedure 100 Word 1 to assign the ACD city-of-origin announcement incoming trunk group.

Use Procedure 150 Word 1 to assign a trunk equipment location.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-7.
Change:	Fields 1-7.
Remove:	Fields 1-7.
Next Data:	Not allowed.

Field Ranges and Encodes

1. ACD Split/Trunk Group Number — 1-60 for ACD splits, 18-999 for trunk groups

2. ACD Split or Trunk Group
   - 0 — ACD split (queue-of-origin announcement)
   - 1 — Incoming trunk group (city-of-origin announcement)

AUXILIARY EQUIPMENT LOCATION (Fields 3-7)

If Standard Error Code 11 comes up when administering this equipment location, the trunk location is probably unassigned in Procedure 150 Word 1.

3. Module — 0-30

4. Cabinet — 0-7

5. Carrier — 0-3

6.	Slot	0-3, 5-8, 13-16, 18-21
7.	Circuit	0-3

DISPLAY ONLY (Field 8)

8.	Origin Announcement Trunk Group	18-999

Special Error Codes

81 - Assign the trunk group using Procedure 100 Word 1 and a trunk location in Procedure 150 Word 1 first.

82 - This ACD split or trunk group is already assigned as a recorded announcement.

83 - This procedure is not used when Call Vectoring is enabled (use Procedure 033 Word 1).

Procedure 028 Word 1 — Extensions Measured by CMS

28

Purpose

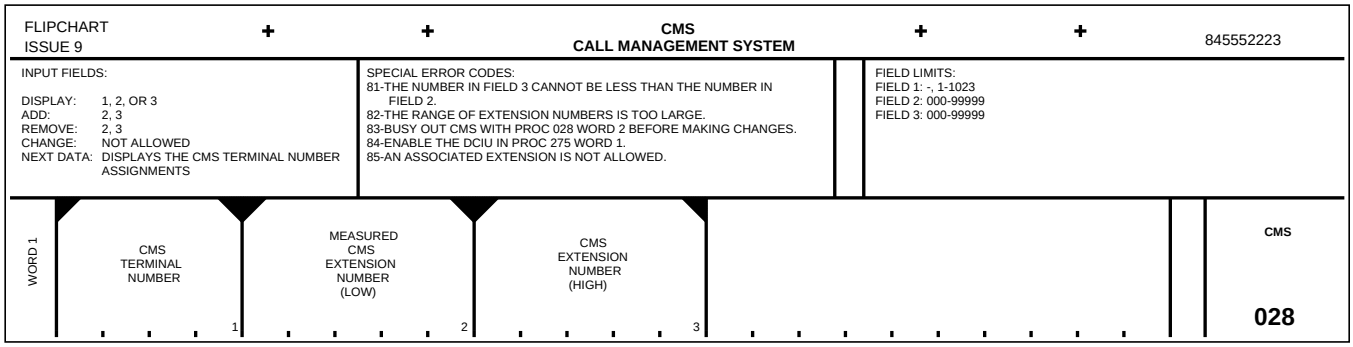
Use Procedure 028 Word 1 to administer Call Management System (CMS) terminal extensions measured by CMS.

Prerequisite Procedures

Use Procedure 028 Word 2 to busy out CMS before making changes in this procedure.

To add a range of CMS extensions, all extensions must be administered as ACD members in Procedure 026 Word 3.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, 2, or 3.
Add:	Fields 2 and 3.
Change:	Not allowed.
Remove:	Fields 2 and 3.
Next Data:	Displays the CMS terminal number assignments.

Field Ranges and Encodes

1.	CMS Terminal Number	1-1023
2.	Measured CMS Extension Low	000-99999
3.	CMS Extension High	000-99999

Special Error Codes

81 - The number in field 3 cannot be smaller than field 2.

82 - The range of extensions is too broad.

83 - Busy out CMS with Procedure 028 Word 2 before making changes.

84 - Enable the DCIU in Procedure 275 Word 1.

85 - An associated extension is not allowed.

Procedure 028 Word 2 — Busy Out CMS

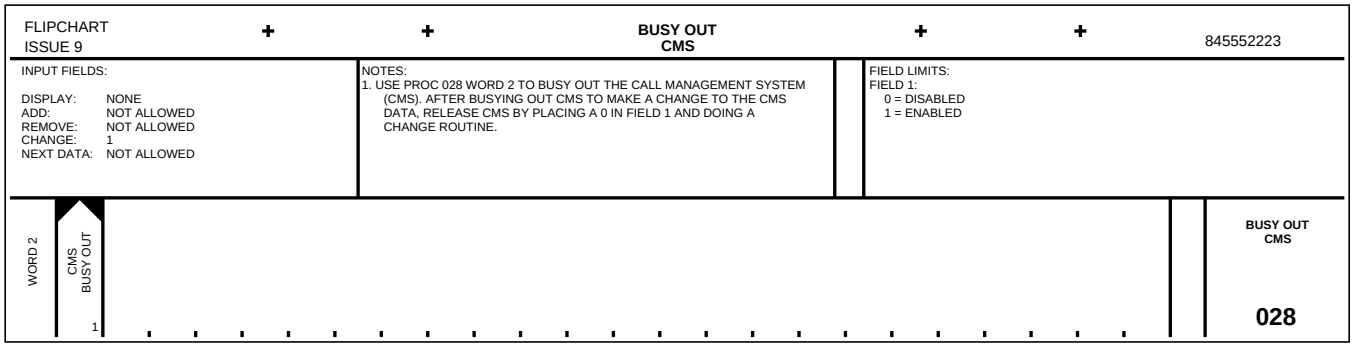
29

Purpose

Use Procedure 028 Word 2 to busy out the Call Management System (CMS). CMS must be busied out in this procedure to make changes in the following Procedures: 026 Words 1-3, 028 Word 1, 031 Word 1, 115 Word 1, 116 Word 1, 150 Word 1, 275 Word 4, and 276 Word 1.

After busying out CMS to make a change to the CMS data, don't forget to release CMS (put a 0 in field 1 and do a change routine).

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Field 1.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	CMS Busy Out	0	Disabled
		1	Enabled

Special Error Codes

None.

Procedure 030 Word 1 — Call Vectoring - Abbreviated Dialing List

30

Purpose

Use Procedure 030 Word 1 to administer the Abbreviated Dialing group list used for the route-to steps within vectors. The vector steps are then assigned in Procedure 030 Word 3. Only one group list is used for Call Vectoring. Items within this group list can be assigned to extensions, the attendant queue, host-computer access trunks, vector directory numbers (VDNs), Centralized Attendant Service (CAS), and remote locations. Up to 95 items can be assigned to this group list.

Related Procedures

Use Procedure 000 Word 1 to administer the VDN port type and the class of service.

Use Procedure 010 Word 3 to administer an FRL to a VDN's class of service.

Use Procedure 011 Word 1 to administer a VDN as the final point in a coverage path.

Use Procedure 012 Words 1 and 2 to administer a name to a VDN.

Use Procedure 030 Word 2 to display which messaging machines are associated with a vector.

Use Procedure 030 Word 3 to administer vector steps.

Use Procedure 031 Word 1 to administer VDN termination to a vector, plus other attributes.

Use Procedure 031 Word 2 to administer termination of a trunk group to a VDN.

Use Procedure 032 Word 1 to display vectors assigned to splits.

Use Procedure 033 Word 1 to administer a VDN-of-origin announcement to a VDN.

Use Procedure 059 Words 1, 2, and 3 to administer the group list used for Call Vectoring.

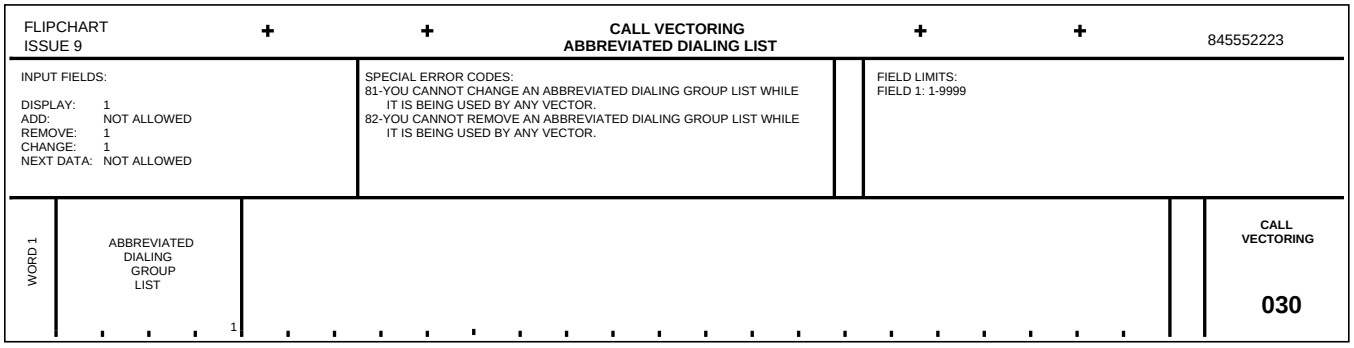
Use Procedure 100 Word 1 to administer the ‘‘Vectoring Announcement’’ trunk group (type 90).

Use Procedure 115 Word 1 to administer trunk group termination used for Call Vectoring.

Use Procedure 150 Word 1 to administer recorded announcement parameters for vectors.

Use Procedure 354 Words 1 and 2 to administer blocks of extension numbers to be used as VDNs.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Field 1.
Remove:	Field 1.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Abbreviated Dialing Group List — 1-9999

Special Error Codes

81 - You cannot change an Abbreviated Dialing group list while being used by any vector.

82 - You cannot remove an Abbreviated Dialing group list while being used by any vector.

Procedure 030 Word 2 — Call Vectoring - Display Machine Usage

31

Purpose

Use Procedure 030 Word 2 to display the AUDIX machine number and the Message Center machine number associated with a vector. The administration that ties a vector and a machine together is a multiple procedure process. This procedure provides a quick way of displaying the vector and machine association.

Related Procedures

Use Procedure 000 Word 1 to administer the VDN port type and the class of service.

Use Procedure 010 Word 3 to administer an FRL to a VDN's class of service.

Use Procedure 011 Word 1 to administer a VDN as the final point in a coverage path.

Use Procedure 012 Word 1 to administer a name to a VDN.

Use Procedure 030 Word 1 to administer the Abbreviated Dialing group list.

Use Procedure 030 Word 3 to administer vector steps.

Use Procedure 031 Word 1 to administer VDN termination, plus other attributes.

Use Procedure 031 Word 2 to administer termination of a trunk group to VDN.

Use Procedure 032 Word 1 to display vectors assigned to splits.

Use Procedure 033 Word 1 to administer a VDN-of-origin announcement to a VDN.

Use Procedure 059 Words 1, 2, and 3 to administer the group list used for Call Vectoring.

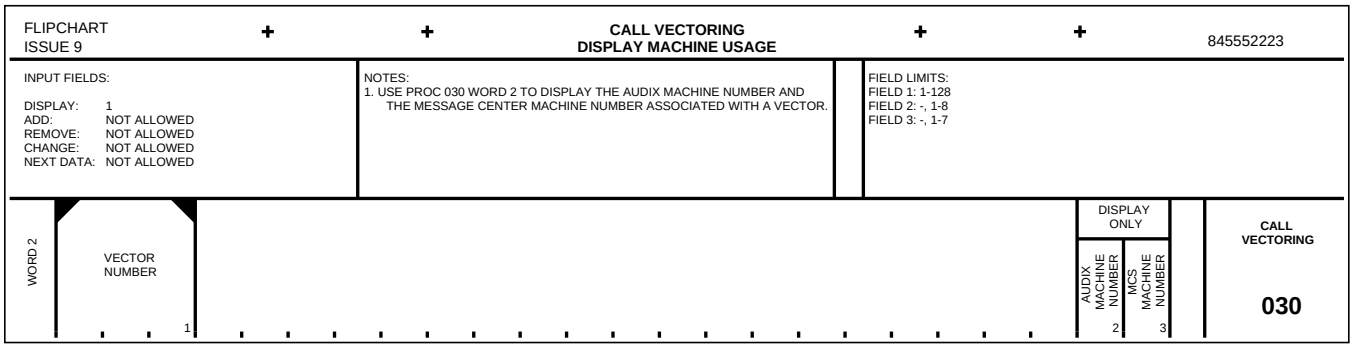
Use Procedure 100 Word 1 to administer the ‘‘Vectoring Announcement’’ trunk group (type 90).

Use Procedure 115 Word 1 to administer trunk group termination used for Call Vectoring.

Use Procedure 150 Word 1 to administer recorded announcement parameters for vectors.

Use Procedure 354 Words 1 and 2 to administer blocks of extension numbers to be used as VDNs.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Vector Number — 1-128

DISPLAY ONLY (Fields 2-3)

2. AUDIX Machine Number — -, 1-8

3.	Message Center Machine Number	-, 1-7

Special Error Codes

None.

Procedure 030 Word 3 — Call Vectoring - Programming Vectors

32

Purpose

Use Procedure 030 Word 3 to define a vector. Each vector may have as many as 15 individual steps. A vector with all its steps is first defined in a scratch-pad memory, then transferred to translation memory as a complete vector.

Prerequisite Procedures

Assign ACD splits with member number 0 in Procedure 026 Word 3 before assigning splits here as part of a vector.

Use Procedure 031 Word 1 to remove all vector directory numbers (VDNs) terminating to a given vector before removing the vector.

Related Procedures

Use Procedure 000 Word 1 to administer the VDN port type and the class of service.

Use Procedure 010 Word 3 to administer an FRL to a VDN's class of service.

Use Procedure 011 Word 1 to administer a VDN as the final point in a coverage path.

Use Procedure 012 Word 1 to administer a name to a VDN.

Use Procedure 030 Word 1 to administer the Abbreviated Dialing group list.

Use Procedure 030 Word 2 to display which messaging machines are associated with a vector.

Use Procedure 031 Word 1 to administer VDN termination, plus other attributes.

Use Procedure 031 Word 2 to administer termination or a trunk group to a VDN.

Use Procedure 032 Word 1 to display vectors assigned to splits.

Use Procedure 033 Word 1 to administer a VDN-of-origin announcement to a VDN.

Use Procedure 059 Words 1, 2, and 3 to administer the group list used for Call Vectoring.

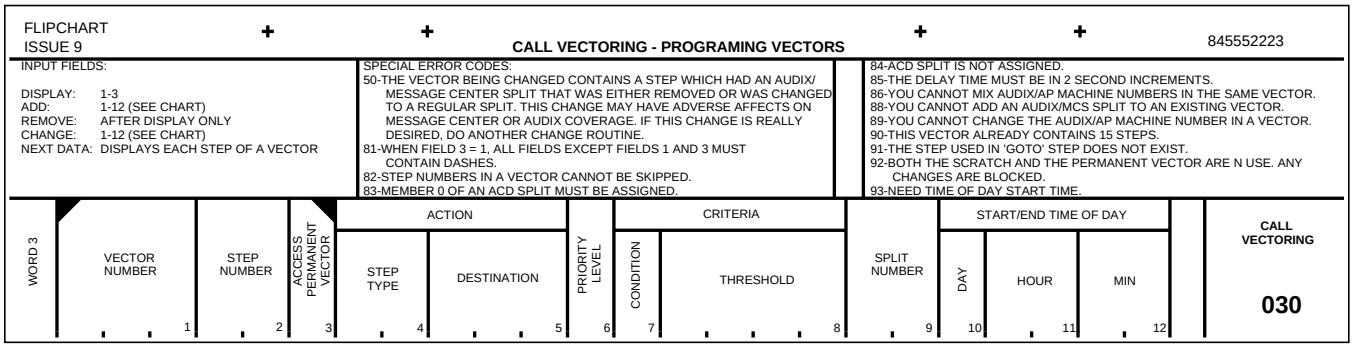
Use Procedure 100 Word 1 to administer the ‘‘Vectoring Announcement’’ trunk group (type 90).

Use Procedure 115 Word 1 to administer trunk group termination used for Call Vectoring.

Use Procedure 150 Word 1 to administer recorded announcement parameters for vectors.

Use Procedure 354 Words 1 and 2 to administer blocks of extension numbers to be used as VDNs.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-3.
Add:	Fields 1-3 for vectors and fields 1-12 for vector steps (See Notes).
Change:	Fields 1-3 for vectors and fields 1-12 for vector steps (See Notes).
Remove:	Fields 1-3 for vectors and fields 1-12 for vector steps (See Notes).
Next Data:	Displays each step in a vector.

Field Ranges and Encodes

1.	Vector Number	-, 0-128	
2.	Step Number	-, 1-15	
3.	Access Permanent Vector	-,0 1	No Yes

When this field is set to dash or 0, the add, change, or remove routine is on a per-step basis.

When this field is set to a 1, the add, change, or remove routine is on a per-vector basis.

Make vector specification additions and changes in scratch-pad memory; that is, with field 3 = dash or 0. After all the steps of the vector have been added or changed as required, the entire vector is transferred from the scratch pad to permanent translation using a 1 in field 3.

ACTION (Fields 4-5)

4.	Step Type	-	Not assigned
		1	Queue-to-main-split
		2	Check-backup-split
		3	Route-to
		4	Announcement
		5	Delay
		6	Go-to-step
		7	Forced-disconnect
		8	Forced-busy
		9	Stop

For a complete description of each step type, see the *DEFINITY(TM) Communications System Generic 2 and System 85 Feature Descriptions* (555-104-301).

5. Destination -, 1-99

Destination equals 1-60 for step types 1 and 2.
Destination equals 1-95 for step type 3.
Destination equals 16-99 for step types 4 and 7.
Destination equals dash for step types 5, 8, and 9.
Destination equals 1-15 for step type 6.

6. Priority Level
- Not applicable
0 Low priority
1 Medium priority
2 High priority
3 Top priority

Priority level equals 0-3 for step types 1, 2, and 6.

CRITERIA (Fields 7-8)

7. Condition -, 0-9

The following encodes apply for step type 5 (field 4 equals 5).
0=Silence
1=Ring back
2=Music

The following encodes apply for step type 2 (field 4 equals 2).
0 = Go to this step if number of available agents is greater than the threshold (field 8)
2 = Go to this step if number of staffed agents is greater than the threshold (field 8)
5 = Go to this step if number of calls queued is less than the threshold (field 8)
7 = Go to this step if oldest call waiting is less than the threshold (field 8)

The following encodes apply for step type 6 (field 4 equals 6).
- = Unconditional branch (null test)
0 = Go to this step if number of available agents is greater than the threshold (field 8)
1 = Go to this step if number of available agents is less than the threshold (field 8)
2 = Go to this step if number of staffed agents is greater than the threshold (field 8)

3 = Go to this step if number of staffed agents is less than the threshold (field 8)
4 = Go to this step if number of calls queued is greater than the threshold (field 8)

5 = Go to this step if number of calls queued is less than the threshold (field 8)
6 = Go to this step if oldest call waiting is greater than the threshold (field 8)
7 = Go to this step if oldest call waiting is less than the threshold (field 8)
8 = Go to this step if time-of-day equal to or after starting time
9 = Go to this step if time-of-day equal to or before starting time

For step types 3, 4, 7, 8, and 9, a dash (-) in this field means ‘‘not applicable’’.

8. Threshold -, 0-1024

Field 8 is 0-1024 for condition 0 or 2 and step type 2.
Field 8 is 1-99 for condition 5 and step type 2.
Field 8 is 0-999 for condition 7 and step type 2.
Field 8 is 2-998 for conditions 0-2 and step type 5.
Field 8 is 0-1024 for conditions 0-3 and step type 6.
Field 8 is 1-99 for conditions 4 or 5 and step type 6.
Field 8 is 0-999 for conditions 6 or 7 and step type 6.

For step types 3, 4, 6, 8, and 9, a dash (-) in this field means ‘‘not applicable’’.

9. Split Number -, 1-60

This field is used when step type is 6 and thresholds are 0-1024, 1-99, and 0-999.

START/END TIME OF DAY (Fields 10-12)

10. Day
- Not applicable
0 Every day
1 Monday
2 Tuesday
3 Wednesday
4 Thursday
5 Friday
6 Saturday
7 Sunday

This field is used when the step type is 6.

11. Hour -, 0-23

    This field is used when the step type is 6.

12. Minute -, 0-59

    This field is used when the step type is 6.

Notes

1. Make vector specification additions and changes in scratch-pad memory—that is, with field 3 = dash or 0. After all the steps of the vector have been added or changed as required, the entire vector is transferred from the scratch pad to permanent translation using a 1 in field 3.
2. The procedure scratch-pad area will be cleared after a vector has been successfully added or changed in translation.
3. To clear out the scratch-pad area:
   a. Put a 0 in field 1.
   b. Put a 1 in field 3.
   c. Put dashes in all other fields.
   d. Do a display routine.
   e. Do a remove routine.
4. If you take out a step, the numbering of steps is compressed.
5. Field limits for fields 5-12 may vary depending on what is entered in fields 4 and 7. Use the following chart to determine the field limits.

4 Step Type	5 Desti- nation	6 Prior- ity	7 Condi- tion	8 Thresh- old	9 Split Number	10 Day	11 Hour	12 Minute
1	1-60	0-3	-	-	-	-	-	-
2	1-60	0-3	0 or 2	0-1024	-	-	-	-
	1-60	0-3	5	1-99	-	-	-	-
	1-60	0-3	7	0-999	-	-	-	-
3	1-95	-	-	-	-	-	-	-
4	16-99	-	-	-	-	-	-	-
5	-	-	0-2	2-998	-	-	-	-
6	1-15	-	-	-	-	-	-	-
	1-15	-	0-3	0-1024	-,1-60	-	-	-
	1-15	0-3	4 or 5	1-99	-,1-60	-	-	-
	1-15	0-3	6 or 7	0-999	-,1-60	-	-	-
	1-15	-	8 or 9	-	-	0-7	0-23	0-59
7	-,16-99	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-

Special Error Codes

50 - The vector being changed contained a step which had an AUDIX/Message Center split that was either removed or was changed to a regular split. This change may have very adverse affects on Message Center or AUDIX coverage. If this change is really desired, do another change routine.

81 - When field 3 = 1, all fields except fields 1 and 3 must contain dashes.

82 - Step numbers in a vector cannot be skipped.

83 - Member 0 of the Automatic Call Distribution (ACD) split must be assigned.

84 - The Automatic Call Distribution (ACD) split is not assigned.

85 - The delay time must be in two-second increments.

86 - You cannot mix AUDIX/AP machine numbers in the same vector.

88 - You cannot add an AUDIX/Message Center split to an existing vector.

89 - You cannot change the AUDIX/AP machine number in a vector.

90 - This vector already contains 15 steps.

91 - The step used in the ‘‘go-to-step’’ does not exist.

92 - Both the scratch and permanent vector are in use. Any changes are blocked.

93 - Need time-of-day start time.

94 - Need time-of-day end time.

95 - A recorded announcement that is continuous cannot be used in a vector.

96 - If the start time is every day, then the end time must also be every day, and vice versa.

97 - Remove all VDNs terminating at this vector (Procedure 031 Word 1) before removing this vector.

98 - The go-to destination step number is the same as the current step number.

Procedure 031 Word 1 — Call Vectoring - VDN Termination and Attributes

33

Purpose

Use Procedure 031 Word 1 to administer:

- The termination of a vector directory number (VDN) to a vector
- The Call Management System (CMS) measurement of calls to VDNs
- VDN incoming call identification (ICI) display on the console
- VDN return-call assignments
- VDN display override.

Prerequisite Procedures

Use Procedure 000 Word 1 to administer extensions as VDNs.

Use Procedure 028 Word 2 to busy out CMS before changing translations in this procedure.

Before removing a given VDN-to-vector termination in this procedure:

1. Use Procedure 031 Word 2 to remove the trunk group terminating to that VDN (if applicable).
2. Use Procedure 011 Word 1 to remove the VDN from a coverage group(s) (if applicable).
3. Use Procedure 033 Word 1 to remove the VDN-of-origin announcement (if applicable).
4. Use Procedure 276 Word 1 to enable Call Vectoring for the feature group class of service (COS).

5. Use Procedure 030 Word 3 to administer vector specifications (vector steps).

Related Procedures

Use Procedure 000 Word 1 to administer the VDN port type and COS.

Use Procedure 010 Word 3 to administer an FRL to a VDN's COS.

Use Procedure 011 Word 1 to administer a VDN as the final point in a coverage path.

Use Procedure 012 Words 1 and 2 to administer a name to a VDN.

Use Procedure 030 Word 1 to administer the Call Vectoring Abbreviated Dialing group list.

Use Procedure 030 Word 2 to display the adjunct number associated with a vector.

Use Procedure 031 Words 1 and 2 to administer trunk group termination to a VDN.

Use Procedure 032 Word 1 to display vector numbers assigned to splits.

Use Procedure 033 Word 1 to administer a VDN-of-origin announcement to a VDN.

Use Procedure 059 Words 1, 2, and 3 to administer the group list used for Call Vectoring.

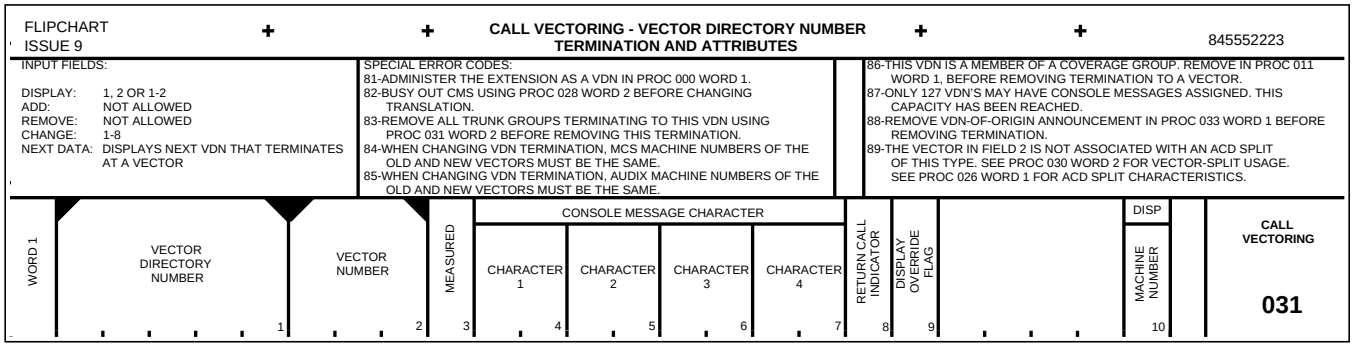
Use Procedure 075 Word 1 to display coverage groups assigned to a VDN.

Use Procedure 100 Word 1 to administer the ''Vectoring Announcement'' trunk group (trunk type 90).

Use Procedure 150 Word 1 to administer recorded announcement parameters for vectors.

Use Procedure 354 Words 1 and 2 to administer blocks of extensions to be used as VDNs.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 2, or 1 and 2 (Displays the data associated with the VDN, or the data associated with a vector).
Add:	Not allowed.
Change:	Fields 1-9.
Remove:	Not allowed.
Next Data:	Displays the next VDN that terminates at a vector (field 2).

Field Ranges and Encodes

1. VDN -, 000-99999

   Up to 127 VDNs may have console messages assigned.

2. Vector -, 1-128

3. Measured
   - 0 VDN is not measured by CMS
   - 1 VDN is measured by CMS

CONSOLE MESSAGE CHARACTER (Fields 4-7)

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Fields 4-7 must all contain encoded characters or they all must remain dashed.

4. Character 1 -, 0-37

5. Character 2 -, 0-37

6. Character 3 -, 0-37

7. Character 4 -, 0-37

8. Return-Call Indicator
   - \- Not a return-call VDN
   - 0 Not a return-call VDN
   - 1 Message Center return-call VDN
   - 2 AUDIX return-call VDN

   A VDN cannot be specified as a return-call VDN if the vector at which the VDN terminates has both AUDIX and Message Center splits associated with it (see Procedure 030 Word 2).

9.	VDN Override Flag	-	Disabled
		0	Disabled
		1	Enabled

When a call is routed to another VDN using vector processing, setting the VDN override flag to 1 allows the ''routed-to'' VDN name to be displayed instead of the ''called'' VDN name.

This does not apply when the call is routed to another VDN by Call Coverage or Call Forwarding.

DISPLAY ONLY (Field 10)

10.	Message Center or AUDIX Machine Number	-, 1-8

Special Error Codes

81 - Administer the extension as a VDN in Procedure 000 Word 1.

82 - Busy out CMS using Procedure 028 Word 2 before changing translation.

83 - Remove all trunk groups terminating to this VDN using Procedure 031 Word 2 before removing this termination.

84 - When changing VDN termination, Message Center machine numbers of the old and new vectors must be the same.

85 - When changing VDN termination, AUDIX machine numbers of the old and new vectors must be the same.

86 - This VDN is a member of a coverage group. Remove it in Procedure 011 Word 1 before removing termination to a vector.

87 - 127 VDNs may have console messages assigned. This capacity has been reached.

88 - Remove VDN-of-origin announcement in Procedure 033 Word 1 before removing termination.

89 - The vector in field 2 is not associated with an ACD split of this type. See Procedure 030 Word 2 for vector-split usage. See Procedure 026 Word 1 for ACD split characteristics.

90 - A VDN cannot be specified as a return-call VDN if the vector to which it terminates has both AUDIX and Message Center splits associated with it.

91 - The return-call indicator field must be 0 or dashed when field 2 is dashed.

Procedure 031 Word 2 — Call Vectoring - Trunk Group Termination

34

Purpose

Use Procedure 031 Word 2 to administer the termination of a trunk group to a vector directory number (VDN).

Prerequisite Procedures

Use Procedure 000 Word 1 to assign extensions as VDNs.

Use Procedure 028 Word 2 to busy out CMS (if the trunk group being changed is being measured by CMS) before changing translations in this procedure.

Use Procedure 030 Word 3 to administer vector specifications (vector steps).

Use Procedure 031 Word 1 to administer VDN termination and console displays.

Use Procedure 276 Word 1 to enable Call Vectoring for the feature group class of service (COS).

Related Procedures

Use Procedure 000 Word 1 to administer the VDN port type and COS.

Use Procedure 010 Word 3 to administer an FRL to a VDN's COS.

Use Procedure 011 Word 1 to administer a VDN as the final point in a coverage path.

Use Procedure 012 Words 1 and 2 to administer a name to a VDN or trunk group.

Use Procedure 030 Word 1 to administer the Abbreviated Dialing group list.

Use Procedure 030 Word 2 to display the adjunct number associated with a vector.

Use Procedure 032 Word 1 to display vector numbers assigned to splits.

Use Procedure 033 Word 1 to administer a VDN-of-origin announcement to a VDN.

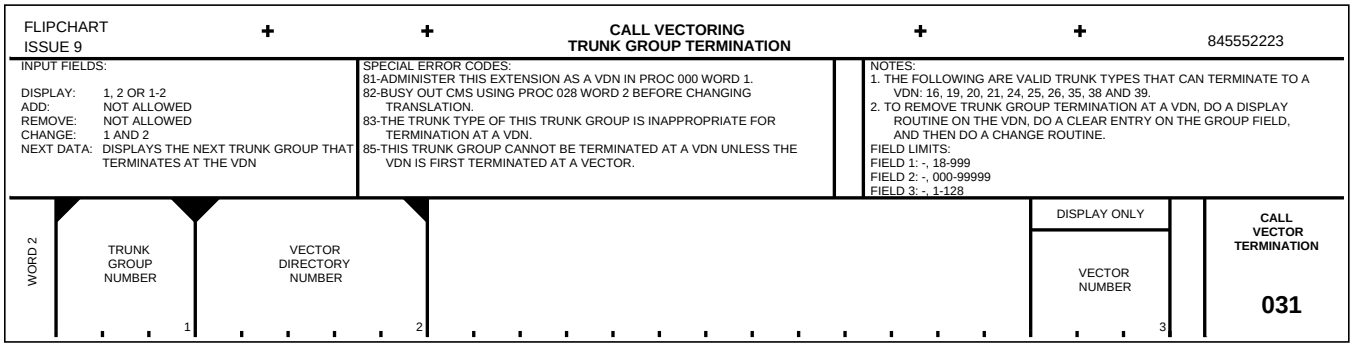
Use Procedure 059 Words 1, 2, and 3 to administer the group list used for Call Vectoring.

Use Procedure 100 Word 1 to administer the ''Vectoring Announcement'' trunk group (trunk type 90).

Use Procedure 150 Word 1 to administer recorded announcement parameters for vectors.

Use Procedure 354 Words 1 and 2 to administer blocks of extensions to be used as VDNs.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 2, or 1 and 2.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed. To remove trunk group termination at a VDN, do a display routine on the VDN, do a clear entry on the trunk group field, and then do a change routine.
Next Data:	Displays the next trunk group that terminates at the VDN.

Field Ranges and Encodes

1. Trunk Group -, 18-999

   The following are the valid trunk types that can terminate to a VDN: 16, 19, 20, 21, 24, 25, 26, 35, 38, and 39. Trunk type 50 (Remote Access 2-way) is available when speaker verification is enabled in Procedure 285 Word 1.

2. VDN -, 000-99999

DISPLAY ONLY (Field 3)

3. Vector -, 1-128

Special Error Codes

81 - Administer this extension as a VDN in Procedure 000 Word 1.

82 - Busy out CMS using Procedure 028 Word 2 before changing translation.

83 - The trunk type of this trunk group is inappropriate for termination at a VDN.

85 - This trunk group cannot be terminated at a VDN unless the VDN is first terminated at a vector.

Procedure 032 Word 1 — Call Vectoring - Display Split Usage

35

Purpose

Use Procedure 032 Word 1 to display the splits being used by vectors.

Related Procedures

Use Procedure 000 Word 1 to administer the VDN port type and the class of service.

Use Procedure 010 Word 3 to administer an FRL to a VDN's class of service.

Use Procedure 011 Word 1 to administer a VDN as the final point in a coverage path.

Use Procedure 012 Word 1 to administer a name to a VDN.

Use Procedure 030 Word 1 to administer the Abbreviated Dialing group list.

Use Procedure 030 Word 2 to display which messaging machines are associated with a vector.

Use Procedure 030 Word 3 to administer vector steps.

Use Procedure 031 Word 1 to administer VDN termination, plus other attributes.

Use Procedure 031 Word 2 to administer termination of a trunk group to a VDN.

Use Procedure 033 Word 1 to administer a VDN-of-origin announcement to a VDN.

Use Procedure 059 Words 1, 2, and 3 to administer the group list used for Call Vectoring.

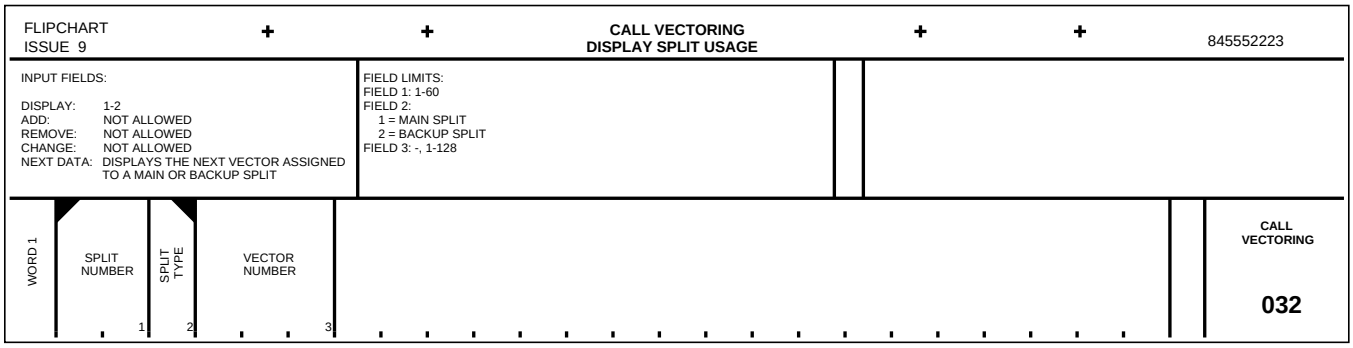
Use Procedure 100 Word 1 to administer the ‘‘Vectoring Announcement’’ trunk group (type 90).

Use Procedure 115 Word 1 to administer trunk group termination used for Call Vectoring.

Use Procedure 150 Word 1 to administer recorded announcement parameters for vectors.

Use Procedure 354 Words 1 and 2 to administer blocks of extension numbers to be used as VDNs.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays the next vector assigned to a main or backup split.

Field Ranges and Encodes

1.	Split Number	1-60	
2.	Split Type	1	Main split
		2	Backup split
3.	Vector Number	-, 1-128	

Special Error Codes

None.

Procedure 033 Word 1 — Call Vectoring - Origin Announcement

36

Purpose

Use Procedure 033 Word 1 to administer queue-of-origin announcements for Automatic Call Distribution (ACD) splits, city-of-origin announcements for trunk groups and Vector Directory Number (VDN)-of-origin announcements for VDNs.

Prerequisite Procedures

Use Procedure 100 Word 1 to administer basic trunk group translations.

Use Procedure 150 Word 1 to administer trunks to trunk groups.

Use Procedure 030 Word 3 to administer vector specifications (vector steps).

Use Procedure 031 Word 1 to administer VDN termination and console displays.

Use Procedure 276 Word 1 to enable Call Vectoring for the feature group class of service (COS).

Related Procedures

Use Procedure 000 Word 1 to administer the VDN port type and COS.

Use Procedure 010 Word 3 to administer an FRL to a VDN's COS.

Use Procedure 011 Word 1 to administer a VDN as the final point in a coverage path.

Use Procedure 012 Words 1 and 2 to administer a name to a VDN or trunk group.

Use Procedure 026 Word 1 to administer ACD characteristics.

Use Procedure 030 Word 1 to administer the Abbreviated Dialing group list.

Use Procedure 030 Word 2 to display the adjunct number associated with a vector.

Use Procedure 032 Word 1 to display vector numbers assigned to splits.

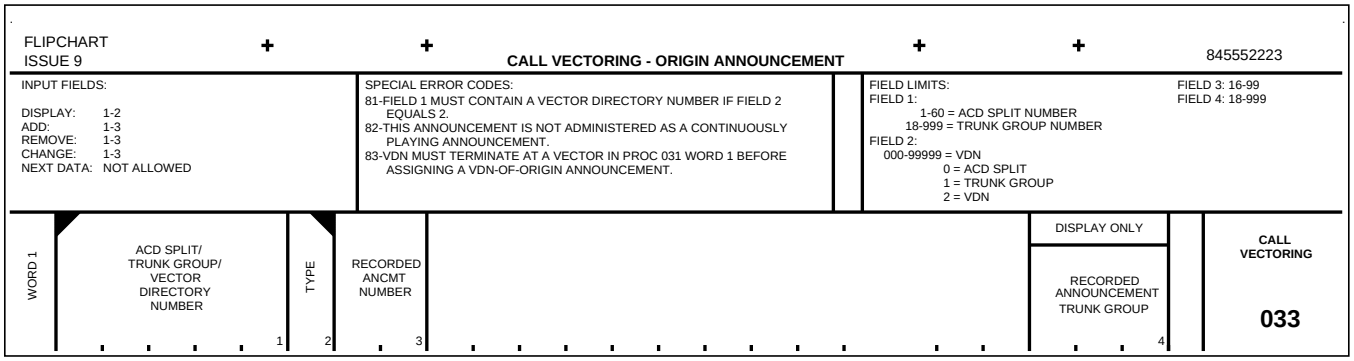
Use Procedure 033 Word 1 to administer a VDN-of-origin announcement to a VDN.

Use Procedure 059 Words 1, 2, and 3 to administer the group list used for Call Vectoring.

Use Procedure 100 Word 1 to administer the ‘‘Vectoring Announcement’’ trunk group (trunk type 90).

Use Procedure 354 Words 1 and 2 to administer blocks of extensions to be used as VDNs.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-3.
Change:	Fields 1-3.
Remove:	Fields 1-3.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	VDN/Trunk Group/ACD Split	000-99999 for VDN, 18-999 for trunk group, 1-60 for ACD split

2.	Type of Data in Field 1	0 1 2	ACD split Trunk group VDN
3.	Recorded Announcement	16-99	

DISPLAY ONLY (Field 4)

4.	Recorded Announcement Trunk Group	18-999

Special Error Codes

81 - Field 1 must contain a VDN if field 2 equals 2.

82 - This announcement is not administered as a continuously playing announcement (see Procedure 150 Word 1 field 11).

83 - VDN must terminate at a vector in Procedure 031 Word 1 before assigning a VDN-of-origin announcement.

Procedure 051 Word 1 — Multiappearance Terminal and Data Module Translation

37

Purpose

Use Procedure 051 Word 1 to administer multiappearance voice terminal and data module translations. This procedure is used to administer:

- The association between a multiappearance voice terminal or data module and an equipment location
- Terminal type
- Terminal size
- Data capability
- Display capability
- Origination preference
- Termination preference
- Lock/unlock available (for terminals with display capability)
- Keyboard dialing
- Leave Word Calling global retrieval

Prerequisite Procedures

Before removing a terminal in this procedure, do the following:

- Retrieve all Leave Word Calling messages associated with the terminal.
- Use Procedure 011 Word 1 to remove the terminal's extension(s) from all Call Coverage paths.

— Use Procedure 052 Word 1 to set the home terminal (field 12) to 0 for the last appearance assigned to the terminal.

— Use Procedure 055 Word 2 to remove all one-button-transfer buttons assigned to the terminal.

— Use Procedure 059 Word 1 to remove all Abbreviated Dialing lists assigned to the terminal.

— Use Procedure 063 Word 1 to remove the Automatic Message Waiting (AMW) lamp assignment(s).

— Use Procedure 360 Word 1 to remove the terminal from a Dedicated Switch Connection (DSC).

Related Procedures

Use Procedure 290 Word 1 to find an unassigned equipment location. Then, go to Procedure 051 Word 1 and do a display routine.

Flipchart

FLIPCHART ISSUE 9

MULTI APPEARANCE TERMINAL AND DATA MODULE TRANSLATION

845552223

INPUT FIELDS:

DISPLAY: 1-5
ADD: 1-14
CHANGE: 6-14 ONLY
NEXT DATA: DISPLAYS NEXT ASSIGNED MULTIAPPEARANCE VOICE TERMINAL OR DATA MODULE

SPECIAL ERROR CODES:

81-REMOVE TERMINAL BUSY WITH PROC 055 WORD 1 AND ONE-BUTTON-TRANSFER WITH PROC 055 WORD 2.
82-ALL BUTTON ASSIGNMENTS IN THE AREA BEING REMOVED MUST BE REMOVED FIRST.
83-DEFINE TERMINAL TYPE AND SIZE BEFORE ASSIGNING THE DTDM.
84-REMOVE DTDM BEFORE YOU REMOVE THE TERMINAL FROM SERVICE.
85-USE PROC 059 WORD 1 TO REMOVE THE SCROLL BUTTON AND THE NORMAL BUTTON BEFORE THE DISPLAY MODULE CAN BE REMOVED.
86-REMOVE ABBREVIATED DIALING LISTS FROM THIS TERMINAL VIA PROC 059 WORD 1, AND REMOVE DEFAULT DIALING WITH PROC 059 WORD 4 BEFORE THE TERMINAL CAN BE REMOVED.
87-AN EXTENSION ASSIGNED TO THIS TERMINAL MUST BE REMOVED FROM CALL COVERAGE PATH IN PROC 011 WORD 1.
88-RETRIEVE LEAVE WORD CALLING MESSAGES BEFORE REMOVING THIS TERMINAL.
89-YOU CANNOT CHANGE THE PREFERENCE ALLOWED ON TERMINALS WITH AUTOMATIC LINE APPEARANCE.

WORD 1	TERMINAL EQUIPMENT LOCATION					TERMINAL TYPE				PREFERENCE						TERMINAL TRANSLATION
	MODULE	CABINET	CARRIER	SLOT	CIRCUIT	TERMINAL TYPE	SIZE	PLUG 1	PLUG 2	ORIG	TERM	LOCK/UNLOCK AVAILABLE	KEYBOARD DIALING	LWC GLOBAL RETRIEVAL		051
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		

Fields Used or Required for Command Routines

Display: Fields 1-5.
Add: Fields 1-14.
Change: Fields 6-14.
Remove: Fields 6-14.
Next Data: Displays next assigned multiappearance voice terminal or data module.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-7

TERMINAL OR DATA MODULE TYPE (Fields 6-9)

6.	Terminal Type	1	SLS
		2	72 Series
		3	74 Series
		4	PDM
		5	DTDM
		6	TDM
		7	515 BCT
		8	ADFTC
		9	73 Series
		10	AP 32
		11	510 BCT
		12	7404D
		13	7407D
		14	EIA
		15	7401D
		16	7406D
		17	PC

Translate MET sets as 72 Series (2) and CallMaster(TM) as 7407D (13).

7.	Size	-	Otherwise
		1	7203H, 7303S, 7403D, 7401D
		2	7205H, 7305S, 7405D, 7407D, 510BCT, or PC/PBX
		3	7404D
		4	7406D
8.	Plug 1	-	Not assigned
		1	Feature
9.	Plug 2	-	Not assigned
		2	Coverage
		3	Display

PREFERENCE (Fields 10-11)

Fields 10 and 11 are not administrable to SLS terminals and data modules (DTDM, TDM, PDM). No matter what is entered in these fields, the preferences for each will default to a preset number.

10.	Origination	0	No line
		1	Idle line
		2	Prime line
		3	Last line

This field specifies the line type that is automatically selected when the user of this terminal originates a call.

11.	Termination	0	None
		1	Calling line
		2	Ringing line

This field specifies the line type that is automatically selected when the user of this terminal answers a call.

12.	Lock/Unlock Available	-	N/A
		0	No
		1	Yes

This field can only be assigned to a multiappearance voice terminal with display capability.

13. Keyboard Dialing
    - - N/A
    - 0 No
    - 1 Yes

14. LWC Global Retrieval
    - - N/A
    - 0 No
    - 1 Yes

    This field specifies that this terminal is allowed to retrieve LWC messages for anyone on the switch.

    This field can only be assigned to a multiappearance voice terminal with display capability.

Notes

1. A 7300 series voice terminal cannot be assigned to slots 5 or 18 in a port carrier.

Field Options Based on Terminal Type

FIELD								
6 Terminal Type	**7 Size**	**8 Plug 1**	**9 Plug 2**	**10 Orig Pref**	**11 Term Pref**	**12 Lock Unlck**	**13 Kybd Dial**	**14 LWC Retr**
1=SLS	-	-	-	2	0	-	-	-
2=72 Series	1,2	-,1	-,2	0-3	0-2	-	-	-
3=74 Series	1,2	-,1	-,2,3	0-3	0-2	-,0,1	-	-
4=PDM or 7400A/B*	-	-	-	2	0	-	-,0,1	-
5=DTDM	-	-	-	2	0	-	-,0,1	-
6=TDM or 7400A*	-	-	-	2	0	-	-,0,1	-
7=515 BCT	1	-	3	0-3	0-2	-,0,1	0,1	0,1
8=ADFTC	-	-	-	2	0	-	-,0,1	-
9=73 Series	1,2	-	-	0-3	0-2	-	-	-
* Depending on the desired configuration, a hardware change is required for the 7400 data module. See the users guide.								

FIELD									
6 Terminal Type	**7 Size**	**8 Plug 1**	**9 Plug 2**	**10 Disp Pref**	**11 Orig Pref**	**12 Term Unlck**	**13 Lock Dial**	**14 Kybd Retr**	**LWC**
10=AP 32	-	-	-	2	0	-	0,1	-	
11=510 BCT	2	-	3	0-3	0-2	-,0,1	-,0-1	0,1	
12= 7404D	3	-,1	-,2,3	0-3	0-2	-,0,1	-,0,1	-,0,1	
13= 7407D	2	-	3	0-3*	0-2	-,0,1	-	0,1	
14=EIA	-	-	-	2	0	0,1	-	-	
15= 7401D	1	-	-,3	0-3	2	-,0,1	-	-,0,1	
16= 7406D	4	-	-,3	0-3*	0-2	-,0,1	-	0,1	
17=PC	2	-,1	3	0-3	0-2	-,0,1	-,0,1	0,1	
* When aliasing a CallMaster(TM) voice terminal, use a ‘‘0’’ for the origination preference.									

Special Error Codes

81 - Remove Terminal Busy with Procedure 055 Word 1 and one-button-transfer with Procedure 055 Word 2.

82 - All button assignments in the area being removed must be removed first.

83 - Define terminal type and size before assigning the DTDM.

84 - Remove the DTDM before you remove the terminal from service.

85 - Use Procedure 059 word 1 to remove the scroll button and the normal button before the display module can be removed.

86 - Remove Abbreviated Dialing lists from this terminal with Procedure 059 Word 1 before removing this terminal. Remove default dialing with Procedure 059 Word 4 before removing this terminal.

87 - An extension assigned to this terminal must be removed from a Call Coverage path with Procedure 011 Word 1.

88 - Retrieve Leave Word Calling (LWC) messages before removing this terminal.

89 - You cannot change the preference allowed on terminals with automatic line appearances.

90 - A 7300-series voice terminal cannot be assigned to slots 5 or 18.

91 - Use Procedure 052 Word 1 to set home terminal to 0 for the last appearance assigned to this terminal.

92 - Cannot assign the 24th time slot in a remote carrier group.

93 - Terminal type cannot be an Analog/Digital Facility Test Circuit (ADFTC) for a remote carrier group.

94 - Terminal must be unassigned from Dedicated Switch Connection (DSC) first with Procedure 360 Word 1.

95 - Remove Automatic Message Waiting with Procedure 063 Word 1.

Procedure 052 Word 1 — Multiappearance Terminal/Data Module - Line Appearance

38

Purpose

Use Procedure 052 Word 1 to administer one or more images of a line appearance for a multiappearance voice terminal or data module. This procedure is also used to administer:

- Line type
- Ringing type
- Home terminal
- Originating only
- Send All Calls (SAC) group.

Prerequisite Procedures

The extension (field 8) must be a valid extension in the numbering plan. Use Procedures 350 Word 1 and 354 Word 1 to redefine the numbering plan, if necessary.

Use Procedure 000 Word 1 to assign a class of service to an extension.

Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

Prime line preference (Procedure 051 Word 1 field 10) must be assigned before a prime line can be assigned.

Before an extension can be removed, it must first be removed from all coverage paths using Procedure 011 Word 1.

All one-button-transfer buttons referring to a particular data module must be removed (Procedure 055 Word 2) before its extension can be removed.

Before an equipment location associated with a Dedicated Switch Connection (DSC) can be changed, the DSC assignment must be removed using Procedure 360 Word 1.

Related Procedures

A ringing type of 2 or 3 (field 11) indicates that the abbreviated/delayed ringing function is associated with a line appearance of the extension (field 8) and additional administration is required.

- To assign either automatic or manual transfer of ringing, use Procedure 052 Word 2 field 3.
- To assign a button for manual transfer of ringing, use Procedure 054 Word 1.
- To specify the number of ringing cycles before automatic transfer of ringing, use Procedure 061 Word 1.

Flipchart

FLIPCHART
ISSUE 9

MULTIAPPEARANCE TERMINAL/DATA MODULE
LINE APPEARANCE

845552223

INPUT FIELDS:

DISPLAY: 1-5 OR 1-7
ADD: 1-14 (12 OPTIONAL)
REMOVE: AFTER DISPLAY ONLY
CHANGE: 10-14 ONLY
NEXT DATA: INCREMENTS FIELDS 6-7

SPECIAL ERROR CODES:
50-IF AN AUTOMATIC LINE APPEARANCE IS ASSIGNED, THE TERMINAL MUST HAVE NO ORIGINATING AND NO TERMINATING PREFERENCE.
51-IF EXTENSION HAS AN AUTOMATIC LINE APPEARANCE, FIELD 11 CAN ONLY BE CHANGED FROM 0 TO 1, 1 TO 0, 2 TO 3, 3 TO 2.
52-ONLY ONE AUTO ANSWER IMAGE PER LINE APPEARANCE CAN BE ADMINISTERED.
53-THIS TERMINAL CAN ANSWER ONLY 1 EXTENSION AUTOMATICALLY.
54-AN AUTOLINE APPEARANCE CANNOT BE ORIGINATING ONLY.

56-THIS EQUIPMENT LOCATION IS ASSIGNED TO DEDICATED SWITCH CONNECTION. REMOVE FROM PROC 360 WORD 1 FIRST BEFORE MAKING CHANGES, ADDITIONS OR DELETIONS.
57-AMW LAMP MUST BE REMOVED FROM THIS TERMINAL IN PROC 063 WORD 1.
58-TERMINAL MUST HAVE AN IMAGE OF LINE APPEARANCE 1 OF THE EXTENSION TO ADMINISTER SAC GROUP (FIELD 14).
59-ALL AUTO ANSWER IMAGES OF AN EXTENSION MUST BE ON SAME TERMINAL.

WORD 1	TERMINAL EQUIPMENT LOCATION					DEVICE ID		EXTENSION APPEARANCE ID							DISPL. ONLY		LINE APPEARANCE
	MODULE 1	CABINET 2	CARRIER 3	SLOT 4	CIRCUIT 5	DEVICE TYPE 6	MEMBER (BUTTON) 7	EXTENSION NUMBER 8	LINE APPEARANCE NUMBER 9	LINE TYPE 10	ALERT TYPE 11	HOME TERMINAL 12	ORIG ONLY 13	SAC GROUP 14	BUTTON TYPE 15		052

Fields Used or Required for Command Routines

Display:	Fields 1-5 or 1-7.
Add:	Fields 1-14 (12 optional).
Change:	Fields 10-14.
Remove:	Fields 6-14.
Next Data:	Displays button assignments.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-7

DEVICE ID (Fields 6-7)

For a straight line set (SLS) or a single channel data module, enter zeros in fields 6 and 7.

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC
7.	Member (button)	0-36	
		If field 6 = 0, the range for field 7 is 0-36.	
		If field 6 = 1, the range for field 7 is 1-24.	
		If field 6 = 2, the range for field 7 is 1-20.	
		If field 6 = 3, the range for field 7 is 1-7.	
		If field 6 = 4, the range for field 7 is 0-1.	

EXTENSION APPEARANCE ID (Fields 8-9)

8.	Extension	000-99999

9.	Line Appearance	1-12 A line appearance may be shared by no more than 16 terminals. Use line appearance #1 for data modules.
10.	Line Type	0 No prime line 1 Prime line 2 Automatic line appearance An automatic line appearance (2) cannot be assigned to a straight-line set (SLS). The SLS is terminal type 10 in Procedure 051 Word 1.
11.	Ringing Type	0 No ringing 1 Ringing 2 Delayed ringing 3 Abbreviated ringing A ringing type must be specified for each assignment, including each image of a line appearance. Assign abbreviated ringing to the primary terminal and delayed ringing to the secondary terminal.
12.	Home Terminal	0 No 1 Yes
13.	Originating Only	0 No 1 Yes If field 13 is changed, all images of the line appearance are changed.
14.	SAC Group	0 No 1 Yes Setting this field to 1 marks the extension in field 8 as being part of a group of extensions used with the Send All Calls attribute of Call Coverage. The ‘‘Send All Calls - group of extensions’’ button is administered in Procedure 054 Word 1.

DISPLAY ONLY (Field 15)

15. Button Type	0	Unassigned
	1	Line appearance (052w1)
	2	Intercom - Manual (056w1)
	3	Intercom - Automatic (056w1)
	4	Intercom - Dial (056w1)
	5	Personal CO line appearance (057w1)
	6	Hold (054w3)
	7	Manual Signaling (053w1)
	8	Manual Exclusion (054w1)
	9	Message Waiting (controlling) (053w2)
	10	Message Waiting (signaled) (053w2)
	11	Ringing Cutoff (054w1)
	12	Ringing Transfer (054w1)
	13	Ringing - Abbreviated and Delayed (052w1, 054w1)
	14-16	Custom calling (054w2)
	18	Automatic Dialing (059w4)
	19	Send All Calls - group of extensions (054w1)
	20	Consult (054w1)
	21	Display features (054w4)
	22	Leave Word Calling - activate (054w1)
	23	Coverage Callback (054w1)
	24	One button transfer/return to voice (055w2)
	25	Abbreviated Dialing - list access (059w3)
	26	ACD features (054w1)
	27	Recall (054w1)
	28	Malicious Call Trace - activate (054w2)
	29	Send All Calls - extension (054w1)
	30	Wait for principal (054w1)
	33	Automatic Message Waiting (063w1)
	34	Terminal Busy Indication (055w1)

Special Error Codes

40 - Lines are not allowed on feature or display module buttons.

50 - If an automatic line appearance is assigned, the terminal must have no originating and no terminating preference (Procedure 051 Word 1 fields 10 and 11).

51 - If extension has an automatic line appearance, field 11 can only be changed from 0 to 1, 1 to 0, 2 to 3, or 3 to 2.

52 - You can administer only one automatic answer image per line appearance.

53 - This terminal can answer only one extension automatically.

54 - An automatic line appearance cannot be originating only.

56 - This equipment location is assigned as a DSC. Remove from Procedure 360 Word 1 before making changes, additions, or deletions.

57 - Automatic Message Waiting (AMW) lamp assignment must be removed from this terminal in Procedure 063 Word 1.

58 - Terminal must have an image of line appearance 1 of the extension to administer Send All Calls group (field 14).

59 - All automatic answer images of an extension must be on same terminal.

81 - Button is already assigned.

82 - Maximum of 16 images per line appearance.

83 - Wrong device ID (fields 6 and 7).

84 - Prime line preference must be assigned to terminal (Procedure 051 Word 1, field 10) before prime line can be assigned.

85 - Only fields 10-14 can be changed.

86 - Only 1 SLS per line.

87 - This extension cannot be an associated extension.

89 - Data module extensions or extensions in a DSC cannot be bridged.

90 - Remove all one-button-transfer buttons referring to this data module (Procedure 055 Word 2) before removing its extension.

93 - Extension must be removed from call coverage path in Procedure 011 Word 1.

94 - Leave Word Calling messages must be retrieved before extension can be removed.

96 - This line appearance is already assigned to this terminal.

97 - If home terminal is set to 1 for an extension, an image of line appearance 1 must be assigned to that terminal.

98 - Automatic line appearances must be assigned in sequential order.

Procedure 052 Word 2 — Multiappearance Terminal/Data Module - Abbreviated and Delayed Ringing

39

Purpose

Use Procedure 052 Word 2 to administer the Ringing - Abbreviated and Delayed and Ringing Transfer features for a multiappearance voice terminal or data module. This procedure is also used to specify whether or not a multiappearance voice terminal has an automatic line appearance and whether or not line appearances are being assigned to the home terminal.

Prerequisite Procedures

The extension (field 1) must be a valid extension in the numbering plan. Use Procedures 350 Word 1 and 354 Word 1 to redefine the numbering plan, if necessary.

Use Procedure 000 Word 1 to assign a class of service to an extension.

Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

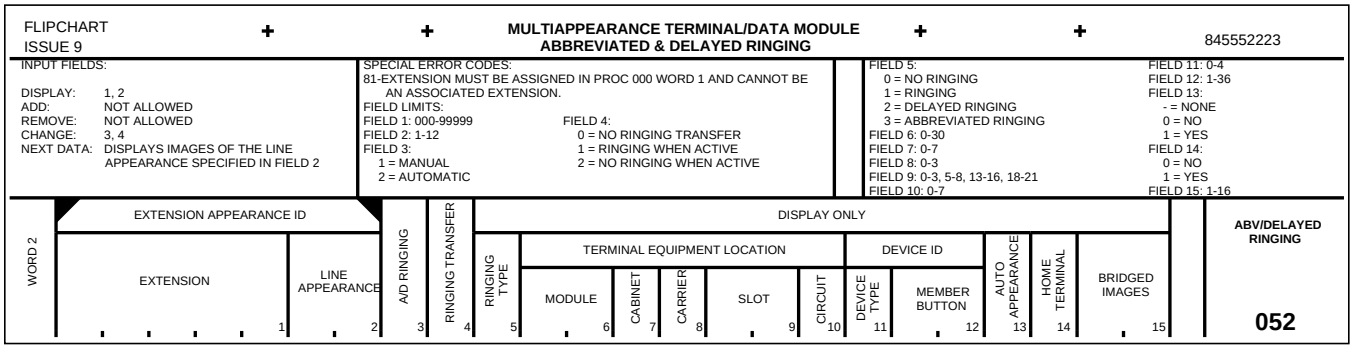
Use Procedure 052 Word 1 to administer one or more images of a line appearance to a multiappearance voice terminal or data module.

Related Procedures

If a terminal is assigned manual transfer of ringing (field 3 = 1), use Procedure 054 Word 1 to assign the manual transfer button.

If a terminal is assigned automatic transfer of ringing (field 3 = 2), use Procedure 061 Word 1 to specify the number of ringing cycles before the automatic transfer occurs.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 2.
Add:	Not allowed.
Change:	Fields 3 and 4.
Remove:	Not allowed.
Next Data:	Displays images of the line appearance specified in field 2.

Field Ranges and Encodes

EXTENSION APPEARANCE ID (Fields 1-2)

1. Extension — 000-99999

2. Line Appearance — 1-12

3. A/D Ringing
   - 1 Manual
   - 2 Automatic

   Use Procedure 061 Word 1 to specify the number of ringing cycles before automatic transfer of ringing.

4. Ringing Transfer
   - 0 No ringing transfer
   - 1 Ringing when active
   - 2 No ringing when active

DISPLAY ONLY (Fields 5-15)

5.	Ringing Type	0	No ringing
		1	Ringing
		2	Delayed ringing
		3	Abbreviated ringing

TERMINAL EQUIPMENT LOCATION (Fields 6-10)

6.	Module	0-30
7.	Cabinet	0-7
8.	Carrier	0-3
9.	Slot	0-3, 5-8, 13-16, 18-21
10.	Circuit	0-7

DEVICE ID (Fields 11-12)

11.	Device Type	0	Basic set
		2	Coverage module
		4	ADFTC

12. Member (button) 0-36

If field 11 = 0, the range for field 12 is 0-36.

If field 11 = 2, the range for field 12 is 1-20.

If field 11 = 4, the range for field 12 is 0-1.

13.	Automatic Appearance	-	None
		0	No
		1	Yes

A dash in field 13 means the extension (field 1) has no automatic line appearances. A zero means the line appearance (field 2) is not an automatic appearance.

14.	Home Terminal	0 1	No Yes
15.	Bridged Images	1-16	

Special Error Codes

81 - Extension must be assigned in Procedure 000 Word 1 and cannot be an associated extension.

Procedure 053 Word 1 — Multiappearance Terminal - Manual Signaling

40

Purpose

Use Procedure 053 Word 1 to administer the Manual Signaling feature for multiappearance voice terminals. This feature permits a multiappearance voice terminal user to signal one or more multiappearance voice terminals assigned to the same switch. Any number of terminals may signal the same terminal.

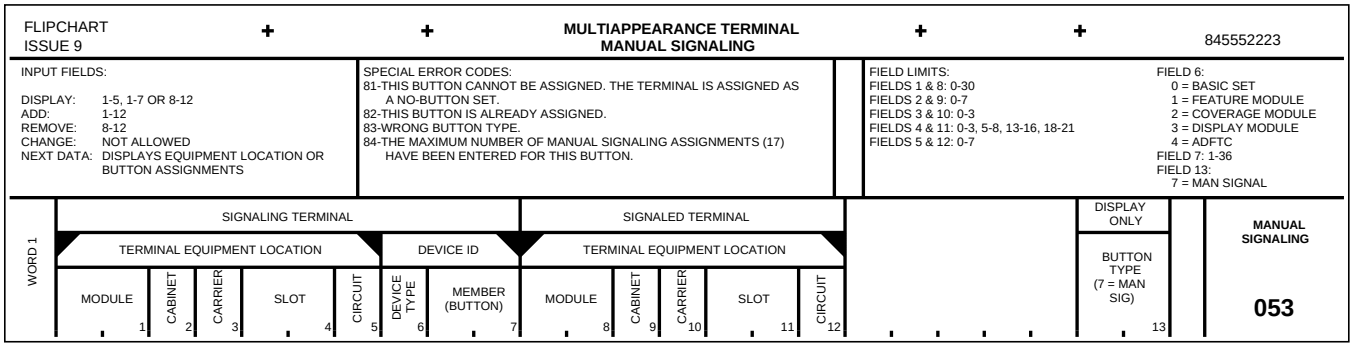
Prerequisite Procedures

Use Procedure 051 Word 1 to assign an equipment location to both the signaling and signaled terminals.

Related Procedures

Use Procedure 056 Word 1 to administer the Intercom-Manual feature.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5, 1-7, or 8-12.
Add:	Fields 1-12.
Change:	Not allowed.
Remove:	Fields 8-12.
Next Data:	Displays the equipment location and button assignments of the signaling terminal or the equipment location of the signaled terminal(s), depending on the information entered.

Field Ranges and Encodes

SIGNALING TERMINAL (Fields 1-7)

EQUIPMENT LOCATION (Fields 1-5)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0-3, 5-8, 13-16, 18-21

5. Circuit 0-7

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC

7.	Member (button)	0-36 If field 6 = 0, the range for field 7 is 0-36. If field 6 = 1, the range for field 7 is 1-24. If field 6 = 2, the range for field 7 is 1-20. If field 6 = 3, the range for field 7 is 1-7. If field 6 = 4, the range for field 7 is 0-1.

SIGNALED TERMINAL (Fields 8-12)

EQUIPMENT LOCATION (Fields 8-12)

8.	Module	0-30
9.	Cabinet	0-7
10.	Carrier	0-3
11.	Slot	0-3, 5-8, 13-16, 18-21
12.	Circuit	0-7

DISPLAY ONLY (Signaling Terminal) (Field 13)

13.	Button Type	0	Unassigned
		1	Line appearance (052w1)
		2	Intercom - Manual (056w1)
		3	Intercom - Automatic (056w1)
		4	Intercom - Dial (056w1)
		5	Personal CO line appearance (057w1)
		6	Hold (054w3)

7	Manual Signaling (053w1)
8	Manual Exclusion (054w1)
9	Message Waiting (controlling) (053w2)
10	Message Waiting (signaled) (053w2)
11	Ringing Cutoff (054w1)
12	Ringing Transfer (054w1)
13	Ringing - Abbreviated and Delayed (052w1, 054w1)
14-16	Custom calling (054w2)
18	Automatic Dialing (059w4)
19	Send All Calls - group of extensions (054w1)
20	Consult (054w1)
21	Display features (054w4)
22	Leave Word Calling - activate (054w1)
23	Coverage Callback (054w1)
24	One button transfer/return to voice (055w2)
25	Abbreviated Dialing - list access (059w3)
26	ACD features (054w1)
27	Recall (054w1)
28	Malicious Call Trace - activate (054w2)
29	Send All Calls - extension (054w1)
30	Wait for principal (054w1)
33	Automatic Message Waiting (063w1)
34	Terminal Busy Indication (055w1)

Field 13 displays the button type associated with the member (button) in field 7.

Special Error Codes

81 - This button cannot be assigned. The terminal is assigned as a no-button set.

82 - This button is already assigned.

83 - Wrong button type.

84 - The maximum number of manual signaling assignments (17) have been entered for this button.

Procedure 053 Word 2 — Multiappearance Terminal - Message Waiting

41

Purpose

Use Procedure 053 Word 2 to administer the Message Waiting — Manual feature for multiappearance voice terminals. Neither the signaling nor signaled terminal can be a straight line set (SLS).

Prerequisite Procedures

Use Procedure 051 Word 1 to assign an equipment location to the controlling and signaled terminals.

Flipchart

FLIPCHART
ISSUE 9

MULTIAPPEARANCE TERMINAL MESSAGE WAITING

845552223

INPUT FIELDS:
DISPLAY: 1-5, 1-7, 9-13 OR 9-15
ADD: 1-7 & 9-15
REMOVE: AFTER DISPLAY
CHANGE: NOT ALLOWED
NEXT DATA: DISPLAYS THE EQUIPMENT LOCATION AND BUTTON ASSIGNMENTS OF THE CONTROLLING OR SIGNALED TERMINAL DEPENDING ON THE INFORMATION ENTERED

SPECIAL ERROR CODES:
81-NEITHER THE CONTROLLING OR SIGNALED TERMINAL CAN BE A STRAIGHT LINE SET.
82-THIS BUTTON IS ALREADY ASSIGNED.
83-WRONG BUTTON TYPE.
84-ONLY ONE MESSAGE WAITING SIGNALED BUTTON CAN BE ASSIGNED PER TERMINAL.

FIELD LIMITS:
FIELDS 1 & 9: 0-30
FIELDS 2 & 10: 0-7
FIELDS 3 & 11: 0-3
FIELDS 4 & 12: 0-3, 5-8, 13-16, 18-21
FIELDS 5 & 13: 0-7

FIELDS 6 & 14:
0 = BASIC SET
1 = FEATURE MODULE
2 = COVERAGE MODULE
3 = DISPLAY MODULE
4 = ADFTC
FIELDS 7 & 15: 1-36
FIELDS 8 & 16: 0-16, 18-30, 33, 34

WORD 2	CONTROLLING TERMINAL								SIGNALED TERMINAL								MESSAGE WAITING
	TERMINAL EQUIPMENT LOCATION					DEVICE ID		DISPLAY ONLY	TERMINAL EQUIPMENT LOCATION					DEVICE ID		DISPLAY ONLY	
	MODULE 1	CABINET 2	CARRIER 3	SLOT 4	CIRCUIT 5	DEVICE TYPE 6	MEMBER (BUTTON) 7	BUTTON TYPE 8	MODULE 9	CABINET 10	CARRIER 11	SLOT 12	CIRCUIT 13	DEVICE TYPE 14	MEMBER (BUTTON) 15	BUTTON TYPE 16	053

Fields Used or Required for Command Routines

Display:	Fields 1-5, 1-7, 9-13, or 9-15.
Add:	Fields 1-7 and 9-15.
Change:	Not allowed.
Remove:	Fields 8 and 16 (button types) are set to 0 (unassigned).
Next Data:	Displays the equipment location and button assignments of the controlling or signaled terminal, depending on the information entered.

Field Ranges and Encodes

CONTROLLING TERMINAL (Fields 1-8)

EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30	
2.	Cabinet	0-7	
3.	Carrier	0-3	
4.	Slot	0-3, 5-8, 13-16, 18-21	
5.	Circuit	0-7	

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC

7. Member (button)

0-36

If field 6 = 0, the range for field 7 is 0-36.

If field 6 = 1, the range for field 7 is 1-24.

If field 6 = 2, the range for field 7 is 1-20.

If field 6 = 3, the range for field 7 is 1-7.

If field 6 = 4, the range for field 7 is 0-1.

DISPLAY ONLY (Controlling Terminal) (Field 8)

8. Button Type

0	Unassigned
1	Line appearance (052w1)
2	Intercom - Manual (056w1)
3	Intercom - Automatic (056w1)
4	Intercom - Dial (056w1)
5	Personal CO line appearance (057w1)
6	Hold (054w3)
7	Manual Signaling (053w1)
8	Manual Exclusion (054w1)
9	Message Waiting (controlling) (053w2)
10	Message Waiting (signaled) (053w2)
11	Ringing Cutoff (054w1)
12	Ringing Transfer (054w1)
13	Ringing - Abbreviated and Delayed (052w1, 054w1)
14-16	Custom calling (054w2)
18	Automatic Dialing (059w4)
19	Send All Calls - group of extensions (054w1)
20	Consult (054w1)
21	Display features (054w4)
22	Leave Word Calling - activate (054w1)
23	Coverage Callback (054w1)
24	One button transfer/return to voice (055w2)
25	Abbreviated Dialing - list access (059w3)
26	ACD features (054w1)
27	Recall (054w1)
28	Malicious Call Trace - activate (054w2)
29	Send All Calls - extension (054w1)
30	Wait for principal (054w1)
33	Automatic Message Waiting (063w1)
34	Terminal Busy Indication (055w1)

SIGNALED TERMINAL (Fields 9-16)

EQUIPMENT LOCATION (Fields 9-13)

9.	Module	0-30	
10.	Cabinet	0-7	
11.	Carrier	0-3	
12.	Slot	0-3, 5-8, 13-16, 18-21	
13.	Circuit	0-7	

DEVICE ID (Fields 14-15)

14.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC
15.	Member (button)	0-36	

If field 14 = 0, the range for field 15 is 0-36.

If field 14 = 1, the range for field 15 is 1-24.

If field 14 = 2, the range for field 15 is 1-20.

If field 14 = 3, the range for field 15 is 1-7.

If field 14 = 4, the range for field 15 is 0-1.

DISPLAY ONLY (Signaled Terminal) (Field 16)

16. Button Type	0	Unassigned
	1	Line appearance (052w1)
	2	Intercom - Manual (056w1)
	3	Intercom - Automatic (056w1)
	4	Intercom - Dial (056w1)
	5	Personal CO line appearance (057w1)
	6	Hold (054w3)
	7	Manual Signaling (053w1)
	8	Manual Exclusion (054w1)
	9	Message Waiting (controlling) (053w2)
	10	Message Waiting (signaled) (053w2)
	11	Ringing Cutoff (054w1)
	12	Ringing Transfer (054w1)
	13	Ringing - Abbreviated and Delayed (052w1, 054w1)
	14-16	Custom calling (054w2)
	18	Automatic Dialing (059w4)
	19	Send All Calls - group of extensions (054w1)
	20	Consult (054w1)
	21	Display features (054w4)
	22	Leave Word Calling - activate (054w1)
	23	Coverage Callback (054w1)
	24	One button transfer/return to voice (055w2)
	25	Abbreviated Dialing - list access (059w3)
	26	ACD features (054w1)
	27	Recall (054w1)
	28	Malicious Call Trace - activate (054w2)
	29	Send All Calls - extension (054w1)
	30	Wait for principal (054w1)
	33	Automatic Message Waiting (063w1)
	34	Terminal Busy Indication (055w1)

Notes

1. Only one message waiting signaled button can be assigned per multiappearance voice terminal.

Special Error Codes

81 - Neither the controlling or signaled terminal can be a straight line set (SLS).

82 - This button is already assigned.

83 - Wrong button type.

84 - Only one message waiting signaled button can be assigned per terminal.

Procedure 054 Word 1 — Multiappearance Terminal - Miscellaneous Features

42

Purpose

Use Procedure 054 Word 1 to administer buttons on a multiappearance voice terminal for the following features and capabilities:

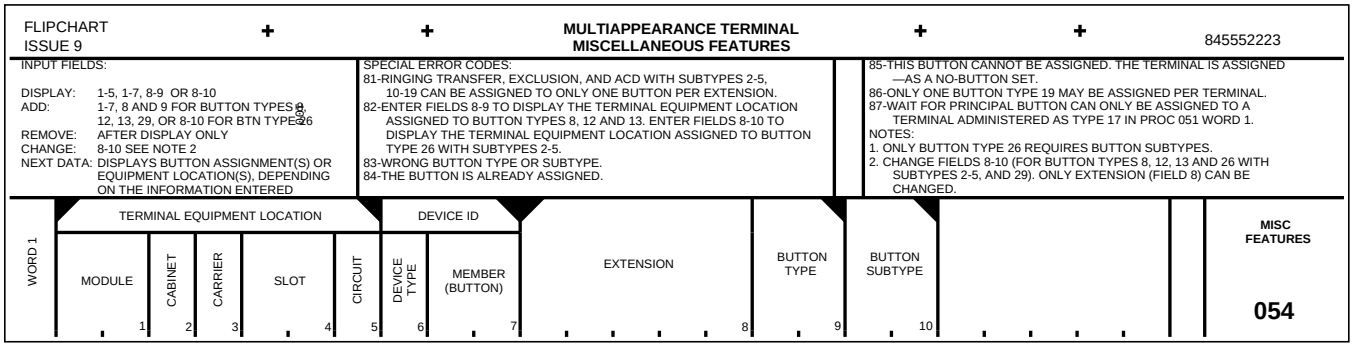
- Automatic Call Distribution (ACD)
- Consult
- Coverage callback
- Leave Word Calling - activate
- Manual exclusion
- Recall
- Ringing Cutoff
- Ringing Transfer
- Ringing - Abbreviated and Delayed
- Send All Calls - extension
- Send All Calls - group of extensions
- Wait for principal.

Prerequisite Procedures

Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

For button types 8, 12, 13, and 26 with subtypes 2-5, use Procedure 052 Word 1 to associate an extension with an equipment location.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5, fields 1-7, fields 8 and 9, or fields 8-10.
Add:	Fields 1-7, fields 8 and 9 (for button types 8, 12, 13, 29), or fields 8-10 (for button type 26 with subtypes 2-5).
Change:	Fields 8-10 (for button types 8, 12, 13, and 26 with subtypes 2-5). Only the extension (field 8) can be changed.
Remove:	Only after a display routine.
Next Data:	Displays button assignment(s) or equipment location(s), depending on the information entered.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-7

DEVICE ID (Fields 6-7)

6. Device Type

0	Basic set
1	Feature module
2	Coverage module
3	Display module
4	ADFTC

7. Member (button)

0-36

If field 6 = 0, the range for field 7 is 0-36.

If field 6 = 1, the range for field 7 is 1-24.

If field 6 = 2, the range for field 7 is 1-20.

If field 6 = 3, the range for field 7 is 1-7.

If field 6 = 4, the range for field 7 is 0-1.

8. Extension

-, 000-99999

9. Button Type

0	Unassigned
1	Line appearance (052w1)
2	Intercom - Manual (056w1)
3	Intercom - Automatic (056w1)
4	Intercom - Dial (056w1)
5	Personal CO line appearance (057w1)
6	Hold (054w3)
7	Manual Signaling (053w1)
8	Manual Exclusion (054w1)
9	Message Waiting (controlling) (053w2)
10	Message Waiting (signaled) (053w2)
11	Ringing Cutoff (054w1)
12	Ringing Transfer (054w1)
13	Ringing - Abbreviated and Delayed (052w1, 054w1)
14-16	Custom calling (054w2)
18	Automatic Dialing (059w4)
19	Send All Calls - group of extensions (054w1)
20	Consult (054w1)
21	Display features (054w4)
22	Leave Word Calling - activate (054w1)
23	Coverage Callback (054w1)
24	One button transfer/return to voice (055w2)
25	Abbreviated Dialing - list access (059w3)
26	ACD features (054w1)

27 Recall (054w1)
28 Malicious Call Trace - activate (054w2)
29 Send All Calls - extension (054w1)
30 Wait for principal (054w1)
33 Automatic Message Waiting (063w1)
34 Terminal Busy Indication (055w1)

Button types 8, 12, 13, 26 (with subtypes 2-5), and 29 require an extension (field 8). The extension must be associated with an equipment location in Procedure 052 Word 1.

Only one ringing transfer button can be assigned to an extension.

The Ringing - Abbreviated and Delayed button can only be assigned to a multiappearance voice terminal that has a line appearance of the extension (field 8).

Wait for principal (Button Type 30) can only be assigned to a terminal assigned as type 99 (PC/PBX) in Procedure 051 Word 1.

10. Button Subtype
- Unequipped
1 Release
2 Auto in
3 Manual in
4 Auxiliary work
5 Staff
6 Repeat city of origin
10-19 Stroke counts 0 through 9.

Stroke counts are collected by CMS as a tally for situations that may occur when an ACD agent is processing a call. Stroke count 0 (button subtype 0) is reserved for use when agents experience audio difficulties on a call. Stroke counts 1-9 (button subtypes 11-19) can be used for other purposes as defined by CMS. An agent can enter an occurrence for a particular stroke count by pressing that button.

Special Error Codes

81 - Ringing Transfer, Manual Exclusion, and ACD (with subtypes 2-5 and 10-19) can be assigned to only one button per extension.

82 - Enter fields 8 and 9 to display a terminal equipment location(s) assigned to button types 8, 12, and 13. Enter fields 8-10 to display a terminal equipment location(s) assigned to button type 26 with subtypes 2-5.

83 - Wrong button type or subtype.

84 - Button is already assigned.

85 - This button cannot be assigned. The terminal is assigned as a no-button set.

86 - Only one button type 19 may be assigned per terminal.

87 - A wait for principal button can only be assigned to a terminal administered as type 17 (PC/PBX) in Procedure 051 Word 1.

Procedure 054 Word 2 — Multiappearance Terminal - Custom Calling Features

43

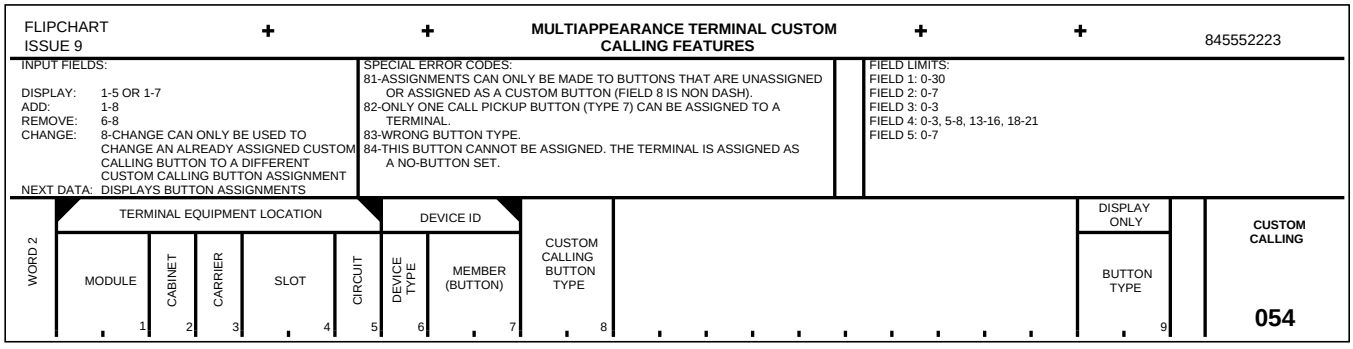
Purpose

Use Procedure 054 Word 2 to administer custom calling buttons for a multiappearance voice terminal.

Prerequisite Procedures

Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or 1-7.
Add:	Fields 1-8.
Change:	Field 8. The change routine can only be used to change an already assigned custom calling button to a different custom calling button assignment.
Remove:	Fields 6-8.
Next Data:	Displays button assignments.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-7

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC
7.	Member (button)	0-36	
		If field 6 = 0, the range for field 7 is 0-36.	
		If field 6 = 1, the range for field 7 is 1-24.	
		If field 6 = 2, the range for field 7 is 1-20.	
		If field 6 = 3, the range for field 7 is 1-7.	
		If field 6 = 4, the range for field 7 is 0-1.	

8.	Custom Calling Button Type	-	Not a custom calling button
		0	Leave Word Calling - cancel
		1	Last Number Dialed
		2	Priority Calling
		3	Call Forwarding - Follow Me
		4	Call Forwarding - Busy and Don't Answer
		5	Override
		6	Automatic Callback
		7	Call Pickup
		8	Service observing
		9	Malicious Call Trace - emergency

Only one Call Pickup button (custom calling button type 7) can be assigned per terminal.

DISPLAY ONLY (Field 9)

9.	Button Type	0	Unassigned
		1	Line appearance (052w1)
		2	Intercom - Manual (056w1)
		3	Intercom - Automatic (056w1)
		4	Intercom - Dial (056w1)
		5	Personal CO line appearance (057w1)
		6	Hold (054w3)
		7	Manual Signaling (053w1)
		8	Manual Exclusion (054w1)
		9	Message Waiting (controlling) (053w2)
		10	Message Waiting (signaled) (053w2)
		11	Ringing Cutoff (054w1)
		12	Ringing Transfer (054w1)
		13	Ringing - Abbreviated and Delayed (052w1, 054w1)
		14-16	Custom calling (054w2)
		18	Automatic Dialing (059w4)
		19	Send All Calls - group of extensions (054w1)
		20	Consult (054w1)
		21	Display features (054w4)
		22	Leave Word Calling - activate (054w1)
		23	Coverage Callback (054w1)
		24	One button transfer/return to voice (055w2)
		25	Abbreviated Dialing - list access (059w3)
		26	ACD features (054w1)
		27	Recall (054w1)
		28	Malicious Call Trace - activate (054w2)
		29	Send All Calls - extension (054w1)
		30	Wait for principal (054w1)

33 Automatic Message Waiting (063w1)
34 Terminal Busy Indication (055w1)

Notes

1. A custom calling capability can only be assigned to an unassigned button or a button that is defined as a custom calling button.
2. The following table lists the custom calling button encodes (field 8) and the button type encodes (field 9).

Custom Calling Feature	Field 8 Encode	Field 9 Encode	Number of Lamps Used
Automatic Callback	6	15	1
Call Forwarding-Busy and Don't Answer	4	16	1
Call Forwarding-Follow Me	3	16	1
Call Pickup	7	14	1
Call Waiting-Originating	2	15	0
Last Number Dialed	1	16	0
Leave Word Calling-Cancel	0	15	0
Malicious Call Trace-Emergency	9	28	1
Override	5	15	0
Service Observing	8	15	1

Special Error Codes

81 - Assignments can only be made to buttons that are unassigned or already assigned as a custom button (field 8 is not dashed).

82 - Only one call pickup button (custom calling button type 7) can be assigned to a terminal.

83 - Wrong button type.

84 - This button cannot be assigned. The terminal is assigned as a no-button set.

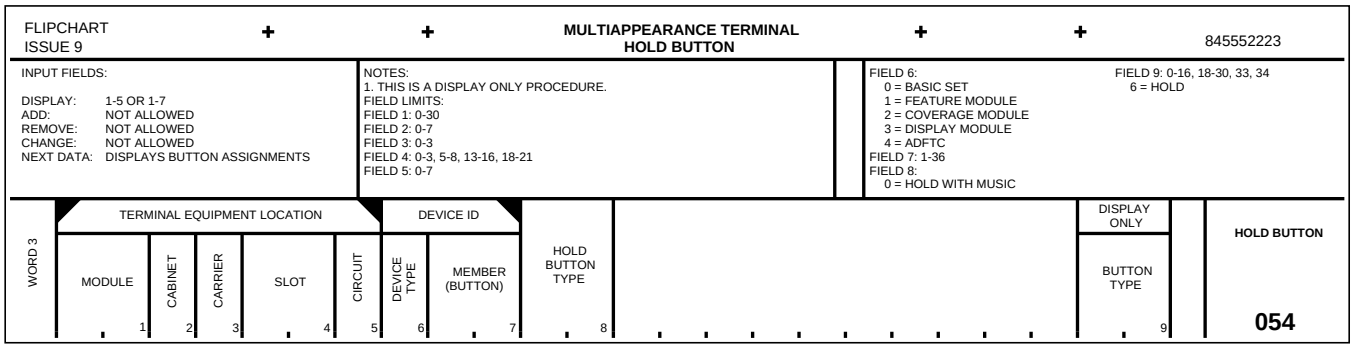
Procedure 054 Word 3 — Multiappearance Terminal - Hold Button

44

Purpose

Use Procedure 054 Word 3 to display the Hold feature button assignment for a multiappearance voice terminal. The Hold button is automatically assigned to button number one and the assignment cannot be changed.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or 1-7.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays button assignments.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30	
2.	Cabinet	0-7	
3.	Carrier	0-3	
4.	Slot	0-3, 5-8, 13-16, 18-21	
5.	Circuit	0-7	

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC
7.	Member (button)	0-36	
		If field 6 = 0, the range for field 7 is 0-36.	
		If field 6 = 1, the range for field 7 is 1-24.	
		If field 6 = 2, the range for field 7 is 1-20.	
		If field 6 = 3, the range for field 7 is 1-7.	
		If field 6 = 4, the range for field 7 is 0-1.	
8.	Hold Button Type	0	Hold with music
9.	Button Type	0	Unassigned
		1	Line appearance (052w1)
		2	Intercom - Manual (056w1)
		3	Intercom - Automatic (056w1)
		4	Intercom - Dial (056w1)

5	Personal CO line appearance (057w1)
6	Hold (054w3)
7	Manual Signaling (053w1)
8	Manual Exclusion (054w1)
9	Message Waiting (controlling) (053w2)
10	Message Waiting (signaled) (053w2)
11	Ringing Cutoff (054w1)
12	Ringing Transfer (054w1)
13	Ringing - Abbreviated and Delayed (052w1, 054w1)
14-16	Custom calling (054w2)
18	Automatic Dialing (059w4)
19	Send All Calls - group of extensions (054w1)
20	Consult (054w1)
21	Display features (054w4)
22	Leave Word Calling - activate (054w1)
23	Coverage Callback (054w1)
24	One button transfer/return to voice (055w2)
25	Abbreviated Dialing - list access (059w3)
26	ACD features (054w1)
27	Recall (054w1)
28	Malicious Call Trace - activate (054w2)
29	Send All Calls - extension (054w1)
30	Wait for principal (054w1)
33	Automatic Message Waiting (063w1)
34	Terminal Busy Indication (055w1)

Special Error Codes

None.

Procedure 054 Word 4 — Multiappearance Terminal - Display Buttons

45

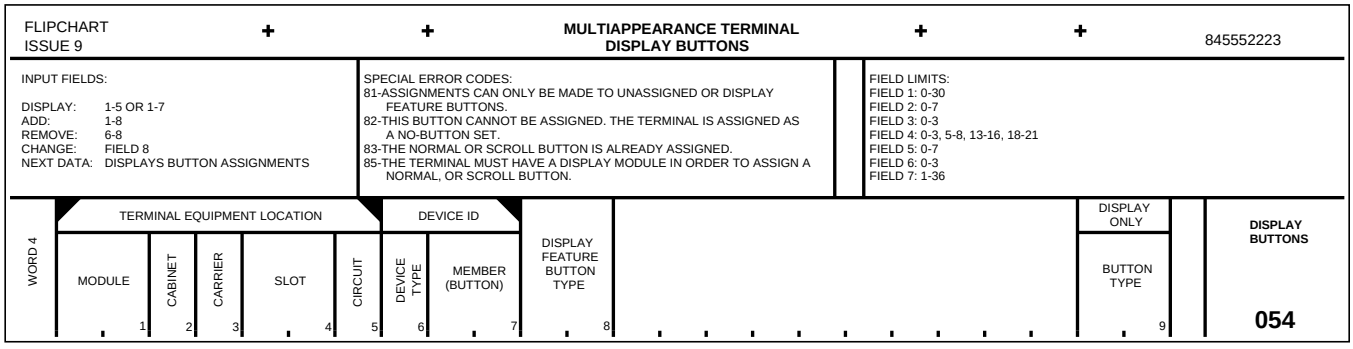
Purpose

Use Procedure 054 Word 4 to administer display buttons for a multiappearance voice terminal.

Prerequisite Procedures

Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or 1-7.
Add:	Fields 1-8.
Change:	Field 8.
Remove:	Fields 6-8.
Next Data:	Displays button assignments.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30	
2.	Cabinet	0-7	
3.	Carrier	0-3	
4.	Slot	0-3, 5-8, 13-16, 18-21	
5.	Circuit	0-7	

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC
7.	Member (button)	0-36	
		If field 6 = 0, the range for field 7 is 0-36.	
		If field 6 = 1, the range for field 7 is 1-24.	
		If field 6 = 2, the range for field 7 is 1-20.	
		If field 6 = 3, the range for field 7 is 1-7.	
		If field 6 = 4, the range for field 7 is 0-1.	

8.	Display Feature Button Type	0	Normal
		1	Inspect
		2	Time of day/date
		3	Message retrieval
		4	Coverage Message retrieval
		5	Step
		6	Delete
		7	Return call
		8	Elapsed time
		9	Scroll

DISPLAY ONLY (Field 9)

9.	Button Type	0	Unassigned
		1	Line appearance (052w1)
		2	Intercom - Manual (056w1)
		3	Intercom - Automatic (056w1)
		4	Intercom - Dial (056w1)
		5	Personal CO line appearance (057w1)
		6	Hold (054w3)
		7	Manual Signaling (053w1)
		8	Manual Exclusion (054w1)
		9	Message Waiting (controlling) (053w2)
		10	Message Waiting (signaled) (053w2)
		11	Ringing Cutoff (054w1)
		12	Ringing Transfer (054w1)
		13	Ringing - Abbreviated and Delayed (052w1, 054w1)
		14-16	Custom calling (054w2)
		18	Automatic Dialing (059w4)
		19	Send All Calls - group of extensions (054w1)
		20	Consult (054w1)
		21	Display features (054w4)
		22	Leave Word Calling - activate (054w1)
		23	Coverage Callback (054w1)
		24	One button transfer/return to voice (055w2)
		25	Abbreviated Dialing - list access (059w3)
		26	ACD features (054w1)
		27	Recall (054w1)
		28	Malicious Call Trace - activate (054w2)
		29	Send All Calls - extension (054w1)
		30	Wait for principal (054w1)
		33	Automatic Message Waiting (063w1)
		34	Terminal Busy Indication (055w1)

Special Error Codes

81 - Assignments can only be made to unassigned or display feature buttons.

82 - This button cannot be assigned. The terminal is assigned as a no-button set.

83 - The normal or scroll button is already assigned.

85 - The terminal must have a display module in order to assign a normal or scroll button.

Procedure 055 Word 1 — Multiappearance Terminal - Terminal Busy

46

Purpose

Use Procedure 055 Word 1 to administer the Terminal Busy Indication feature for a multiappearance voice terminal. Only a multiappearance voice terminal can be assigned as the signaled terminal. The signaling terminal may be either a multiappearance voice terminal or a straight line set (SLS).

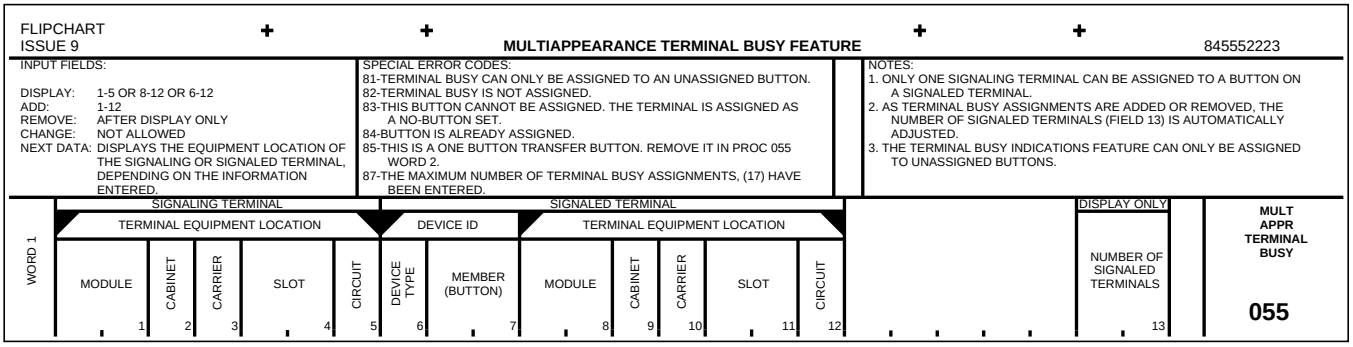
Prerequisite Procedures

Use Procedure 051 Word 1 to assign an equipment location to the signaling and signaled terminals.

Related Procedures

Use Procedure 055 Word 2 to administer one-button-transfer buttons.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or 8-12 or 6-12.
Add:	Fields 1-12.
Change:	Not allowed.
Remove:	Only after a display routine.
Next Data:	Displays the equipment location of the signaling or signaled terminal, depending on the information entered.

Field Ranges and Encodes

SIGNALING TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0-3, 5-8, 13-16, 18-21

5. Circuit 0-7

SIGNALED TERMINAL (Fields 6-12)

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC

7.	Member (button)	0-36 If field 6 = 0, the range for field 7 is 0-36. If field 6 = 1, the range for field 7 is 1-24. If field 6 = 2, the range for field 7 is 1-20. If field 6 = 3, the range for field 7 is 1-7. If field 6 = 4, the range for field 7 is 0-1.

EQUIPMENT LOCATION (Fields 8-12)

8.	Module	0-30
9.	Cabinet	0-7
10.	Carrier	0-3
11.	Slot	0-3, 5-8, 13-16, 18-21
12.	Circuit	0-7

DISPLAY ONLY (Field 13)

13.	Number of Signaled Terminals	0-17

Notes

1. Only one signaling terminal can be assigned to a button on a signaled terminal.

2. As terminal busy assignments are added or removed, the number of signaled terminals (field 13) is automatically adjusted.
3. The Terminal Busy Indications feature can only be assigned to unassigned buttons.

Special Error Codes

81 - Terminal busy can only be assigned to an unassigned button.

82 - Terminal busy is not assigned.

83 - This button cannot be assigned. The terminal is assigned as a no-button set.

84 - Button is already assigned.

85 - This is a one-button-transfer button. Remove it in Procedure 055 Word 2.

87 - The maximum number of terminal busy assignments (17) have been entered.

Procedure 055 Word 2 — Multiappearance Terminal - One Button Transfer/Return to Voice

47

Purpose

Use Procedure 055 Word 2 to administer one button transfer with or without return to voice for a multiappearance voice terminal.

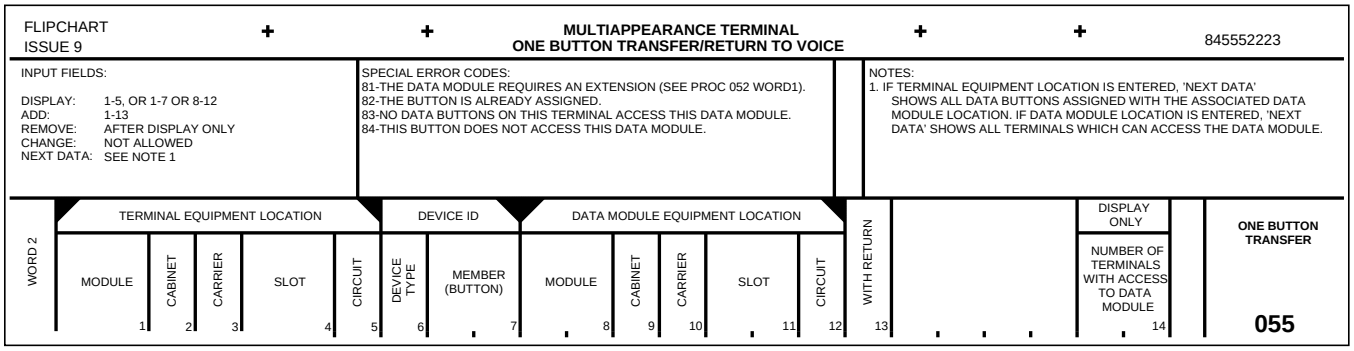
Prerequisite Procedures

Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

Related Procedures

Use Procedure 052 Word 1 to administer multiappearance voice terminal and data module extensions.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or 1-7 or 8-12.
Add:	Fields 1-13.
Change:	Not allowed.
Remove:	Only after a display routine.
Next Data:	If a terminal equipment location is entered, next data displays all data button assignments and the associated data module equipment location. If a data module equipment location is entered, next data displays the equipment location of all terminals that can access the data module.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0-3, 5-8, 13-16, 18-21

5. Circuit 0-7

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC

7.	Member (button)	0-36 If field 6 = 0, the range for field 7 is 0-36. If field 6 = 1, the range for field 7 is 1-24. If field 6 = 2, the range for field 7 is 1-20. If field 6 = 3, the range for field 7 is 1-7. If field 6 = 4, the range for field 7 is 0-1.

DATA MODULE EQUIPMENT LOCATION (Fields 8-12)

8.	Module	0-30
9.	Cabinet	0-7
10.	Carrier	0-3
11.	Slot	0-3, 5-8, 13-16, 18-21
12.	Circuit	0-7

13.	With Return	0	Without return to voice
		1	With return to voice

DISPLAY ONLY (Field 14)

14.	Number of Terminals	0-99

Special Error Codes

81 - The data module requires an extension (see Procedure 052 Word 1).

82 - Button is already assigned.

83 - No data buttons on this terminal access this data module.

84 - This button does not access this data module.

Procedure 056 Word 1 — Multiappearance Terminal - Intercoms

48

Purpose

Use Procedure 056 Word 1 to administer the Intercom-Automatic, Intercom-Dial, and Intercom-Manual features for multiappearance voice terminals.

Prerequisite Procedures

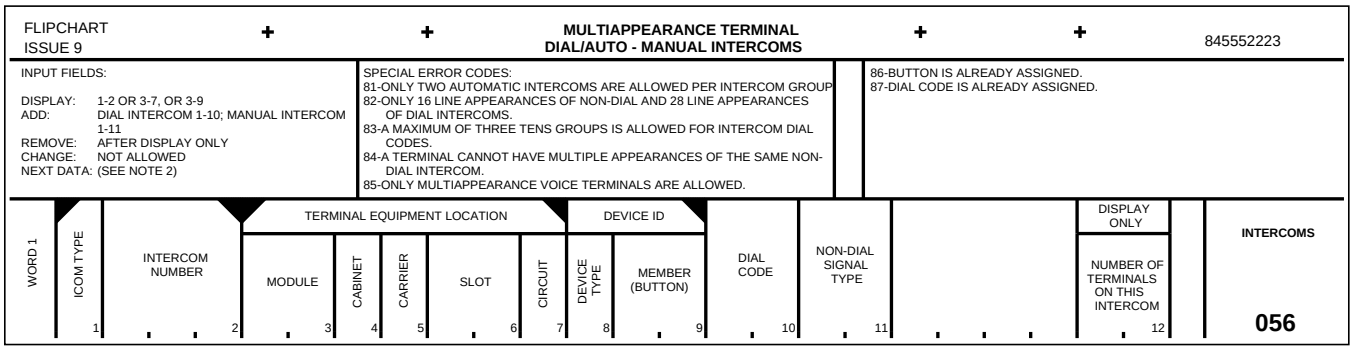
Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

Related Procedures

Use Procedure 061 Word 1 to administer the intercom ring rate.

Use Procedure 053 Word 1 to administer the Manual Signaling feature.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2 or 3-7, or 3-9.
Add:	Fields 1-10 (dial intercom). Fields 1-9, and 11 (manual or automatic intercom).
Change:	Not allowed.
Remove:	Only after a display routine.
Next Data:	If an intercom number is entered, next data displays all equipment locations with intercom assignments. If an equipment location is entered, next data displays all intercom assignments and equipment locations.

Field Ranges and Encodes

1. Intercom Type
   - 0 Manual or automatic
   - 1 Dial

2. Intercom Number — 1-280 for dial intercoms, 1-300 for automatic or manual intercoms

TERMINAL EQUIPMENT LOCATION (Fields 3-7)

3. Module — 0-30

4. Cabinet — 0-7

5. Carrier — 0-3

6. Slot — 0-3, 5-8, 13-16, 18-21

7. Circuit — 0-7

DEVICE ID (Fields 8-9)

8. Device Type
   - 0 Basic set
   - 1 Feature module
   - 2 Coverage module
   - 3 Display module
   - 4 ADFTC

9. Member (button) — 0-36

   If field 8 = 0, the range for field 9 is 0-36.

   If field 8 = 1, the range for field 9 is 1-24.

   If field 8 = 2, the range for field 9 is 1-20.

   If field 8 = 3, the range for field 9 is 1-7.

   If field 8 = 4, the range for field 9 is 0-1.

10. Dial Code — -, 00-99

    Each terminal assigned the Intercom-Dial feature must be assigned a unique dial code. Within an intercom group, a mixture of one-digit and two-digit dial codes is allowed. However, any number used as the first digit of a two-digit code cannot also be used as a one-digit code. Furthermore, no more than two digits can be used as the first digit of a two-digit code. The following is a valid set of dial codes: 0, 1, 3, 4, 6, 7, 8, 9, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59.

11. Signal Type
    - \- Dial
    - 0 Manual
    - 1 Automatic

DISPLAY ONLY (Field 12)

12. Terminals on Intercom 0-28

Notes

1. A dial intercom group may consist of up to 28 terminals. A manual and automatic intercom group may consist of up to 16 terminals. No more than two terminals per group may be assigned the Intercom-Automatic feature. Other terminals within the group must be assigned the Intercom-Manual feature.
2. The Intercom-Dial feature can only be assigned to an unassigned button.
3. A terminal cannot have multiple appearances of the same manual and automatic intercoms.
4. When the first automatic intercom appearance is assigned, it appears twice (as the first and second automatic intercom appearances) and signals itself. Also, the number of terminals on the intercom (field 12) increments by two.

Special Error Codes

81 - Only two automatic intercoms are allowed per intercom group (manual and automatic).

82 - Only 16 line appearances of manual and automatic intercoms and 28 line appearances of dial intercoms are allowed.

83 - A maximum of three tens-groups is allowed for intercom dial codes.

84 - A terminal cannot have multiple appearances of the same manual and automatic intercom.

85 - Only multiappearance voice terminals are allowed.

86 - Button is already assigned.

87 - Dial code is already assigned.

Procedure 057 Word 1 — Multiappearance Terminal - Personal CO Line Appearance

49

Purpose

Use Procedure 057 Word 1 to administer a personal central office (CO) line for a multiappearance voice terminal.

Prerequisite Procedures

Use Procedure 051 Word 1 to assign a multiappearance voice terminal to an equipment location.

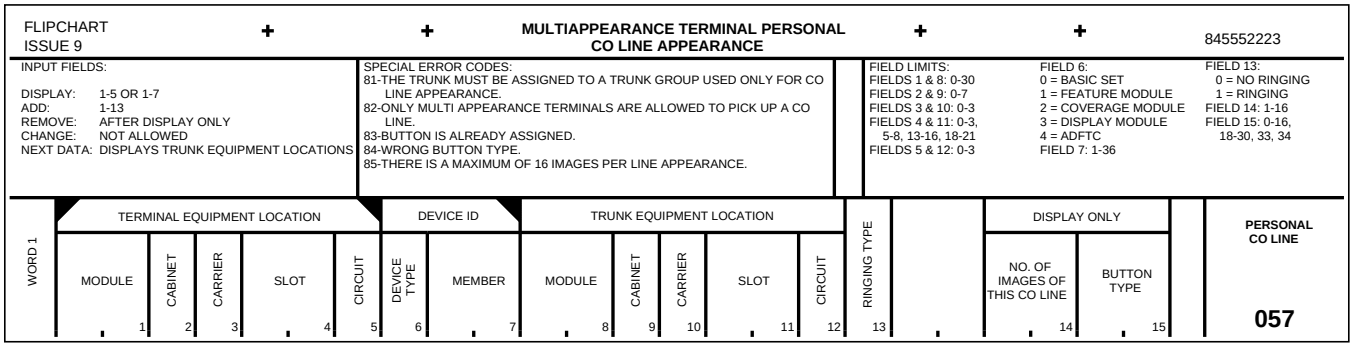
Use Procedure 116 Word 1 or Procedure 150 Word 1 to assign a trunk to a personal CO line trunk group (types 19, 24, 26, 27).

Related Procedures

Use Procedure 057 Word 2 to search for all terminals that pick up a CO line.

Use Procedure 178 Word 1 to display information about trunks in a trunk group.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or 1-7.
Add:	Fields 1-13.
Change:	Not allowed.
Remove:	Only after a display routine.
Next Data:	Displays trunk equipment locations.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0-3, 5-8, 13-16, 18-21

5. Circuit 0-7

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC

7.	Member (button)	0-36 If field 6 = 0, the range for field 7 is 0-36. If field 6 = 1, the range for field 7 is 1-24. If field 6 = 2, the range for field 7 is 1-20. If field 6 = 3, the range for field 7 is 1-7. If field 6 = 4, the range for field 7 is 0-1.

TRUNK EQUIPMENT LOCATION (Fields 8-12)

8.	Module	0-30
9.	Cabinet	0-7
10.	Carrier	0-3
11.	Slot	0-3, 5-8, 13-16, 18-21
12.	Circuit	0-7

13.	Ringing Type	0	No ringing
		1	Ringing

DISPLAY ONLY (Fields 14-15)

14.	Images of this CO Line	1-16

15. Button Type	0	Unassigned
	0	Unassigned
	1	Line appearance (052w1)
	2	Intercom - Manual (056w1)
	3	Intercom - Automatic (056w1)
	4	Intercom - Dial (056w1)
	5	Personal CO line appearance (057w1)
	6	Hold (054w3)
	7	Manual Signaling (053w1)
	8	Manual Exclusion (054w1)
	9	Message Waiting (controlling) (053w2)
	10	Message Waiting (signaled) (053w2)
	11	Ringing Cutoff (054w1)
	12	Ringing Transfer (054w1)
	13	Ringing - Abbreviated and Delayed (052w1, 054w1)
	14-16	Custom calling (054w2)
	18	Automatic Dialing (059w4)
	19	Send All Calls - group of extensions (054w1)
	20	Consult (054w1)
	21	Display features (054w4)
	22	Leave Word Calling - activate (054w1)
	23	Coverage Callback (054w1)
	24	One button transfer/return to voice (055w2)
	25	Abbreviated Dialing - list access (059w3)
	26	ACD features (054w1)
	27	Recall (054w1)
	28	Malicious Call Trace - activate (054w2)
	29	Send All Calls - extension (054w1)
	30	Wait for principal (054w1)
	33	Automatic Message Waiting (063w1)
	34	Terminal Busy Indication (055w1)

Notes

1. A maximum of 16 images per CO line are permitted.
2. A no-button set cannot be assigned to personal CO line.

Special Error Codes

81 - The trunk must be assigned to a trunk group used only for CO line appearance.

82 - Only multiappearance terminals are allowed to pickup a CO line.

83 - Button is already assigned.

84 - Wrong button type.

85 - There is a maximum of 16 images per line appearance.

Procedure 057 Word 2 — Multiappearance Terminal - Display Personal CO Line

50

Purpose

Use Procedure 057 Word 2 to display information about the personal central office (CO) lines assigned to a trunk equipment location.

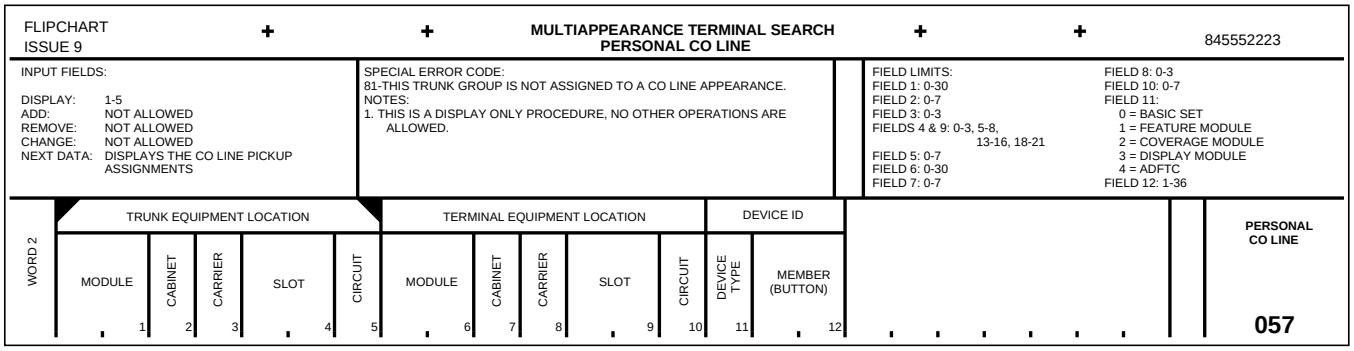
Prerequisite Procedures

Use Procedure 057 Word 1 to assign a trunk (as a personal CO line) to a multiappearance voice terminal.

Related Procedures

Use Procedure 178 Word 1 to display information about the trunks in a trunk group.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays the CO line pickup assignments.

Field Ranges and Encodes

TRUNK EQUIPMENT LOCATION (Fields 1-5)

1. Module 0-30
2. Cabinet 0-7
3. Carrier 0-3
4. Slot 0-3, 5-8, 13-16, 18-21
5. Circuit 0-7

TERMINAL EQUIPMENT LOCATION (Fields 6-10)

6.	Module	0-30
7.	Cabinet	0-7
8.	Carrier	0-3
9.	Slot	0-3, 5-8, 13-16, 18-21
10.	Circuit	0-7

DEVICE ID (Fields 11-12)

11.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module
		4	ADFTC
12.	Member (button)	0-36	
		If field 11 = 0, the range for field 12 is 0-36.	
		If field 11 = 1, the range for field 12 is 1-24.	
		If field 11 = 2, the range for field 12 is 1-20.	
		If field 11 = 3, the range for field 12 is 1-7.	
		If field 11 = 4, the range for field 12 is 0-1.	

Special Error Codes

81 - This trunk group is not assigned to a CO line appearance trunk group.

Procedure 057 Word 3 — Multiappearance Terminal - Display CO Line Trunks

51

Purpose

Use Procedure 057 Word 3 to display information about the trunks in a personal CO line trunk group.

Flipchart

FLIPCHART
ISSUE 9

MULTIAPPEARANCE TERMINAL DISPLAY CO LINE TRUNKS

845552223

INPUT FIELDS:

DISPLAY: SEE NOTE 1
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: NOT ALLOWED
NEXT DATA: DISPLAYS ALL PERSONAL CO LINE AND TRUNK GROUPS

SPECIAL ERROR CODE:
81-THIS TRUNK GROUP IS NOT ASSIGNED TO CO LINE APPEARANCE.
NOTES:
1. DISPLAY FIELD 1 OR NONE. IF NO INFORMATION IS ENTERED, THE LOWEST PERSONAL CO LINE TRUNK GROUP IS DISPLAYED. IF NO TRUNKS ARE ASSIGNED TO A PERSONAL CO LINE TRUNK GROUP, DASHES ARE DISPLAYED IN FIELDS 3 THROUGH 8.

FIELD LIMITS:
FIELD 1: -, 18-999
FIELD 2:
19 = 2-WAY CO, AUTOMATIC IN, DOD
24 = 2-WAY FX, AUTOMATIC IN, DOD
26 = 1-WAY WATS, AUTOMATIC IN
27 = 1-WAY WATS, DOD
FIELD 3: 0-30
FIELD 4: 0-7
FIELD 5: 0-3
FIELD 6: 0-3, 5-8, 13-16, 18-21
FIELD 7: 0-3
FIELD 8: 1-16

WORD 3	TRUNK GROUP NUMBER 1	TRUNK TYPE 2	TRUNK EQUIPMENT LOCATION: MODULE 3	CABINET 4	CARRIER 5	SLOT 6	CIRCUIT 7	NUMBER OF IMAGES 8	CO LINE TRUNKS 057

Fields Used or Required for Command Routines

Display: Field 1 or none. If no information is entered, the lowest personal CO line trunk group is displayed. If no trunks are assigned to a personal CO line trunk group, dashes are displayed in fields 3 through 8.

Add: Not allowed.

Change: Not allowed.

Remove: Not allowed.

Next Data: Displays all personal CO line trunks and trunk groups.

Field Ranges and Encodes

1.	Trunk Group Number	-, 18-999	
2.	Trunk Type	19	2-way CO, automatic in, DOD
		24	2-way FX, automatic in, DOD
		26	1-way WATS, automatic in
		27	1-way WATS, DOD

TRUNK EQUIPMENT LOCATION (Fields 3-7)

3.	Module	0-30
4.	Cabinet	0-7
5.	Carrier	0-3
6.	Slot	0-3, 5-8, 13-16, 18-21
7.	Circuit	0-3
8.	Number of Images	1-16

Special Error Codes

81 - This trunk group is not assigned to a CO line appearance.

Procedure 058 Word 1 — Multiappearance Terminal Swap

52

Purpose

Use Procedure 058 Word 1 to exchange or swap translation data between two multiappearance voice terminals.

Prerequisite Procedures

Both sets must be assigned in Procedure 051 Word 1.

Flipchart

FLIPCHART
ISSUE 9

MULTI APPEARANCE TERMINAL SWAP

845552223

INPUT FIELDS:

DISPLAY: 1-5 AND 10-14
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: TO SWAP TWO TERMINALS, ENTER FIELDS 1-5 AND 10-14, DO A DISPLAY ROUTINE, THEN A CHANGE ROUTINE.
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-ONLY MULTI APPEARANCE TERMINAL AND DATA MODULE TYPES CAN BE SWAPPED.
82-A 74 SERIES TERMINAL WITH A DISPLAY MODULE OR DTDM CANNOT BE SWAPPED WITH A 72 SERIES TERMINAL.
83-A 73 SERIES TERMINAL MAY BE SWAPPED WITH A 72 OR 74 SERIES TERMINAL ONLY WHEN THE 72 OR 74 SERIES TERMINAL DOES NOT HAVE A DTDM OR ANY ADJUNCTS ASSIGNED.
84-CANNOT SWAP TERMINAL ON DSC (SEE PROC 360 WORD 1).

NOTES:
1. A 510 BCT, 515 BCT, 7404D, OR 7407D MAY ONLY BE SWAPPED WITH ANOTHER 74 OR BCT SERIES TERMINAL.

WORD 1	TERMINAL A									TERMINAL B										TERMINAL SWAP
	TERMINAL EQUIPMENT LOCATION					DISPLAY ONLY				TERMINAL EQUIPMENT LOCATION					DISPLAY ONLY					
	MODULE , 1	CABINET 2	CARRIER 3	SLOT , 4	CIRCUIT 5	TERMINAL TYPE , 6	SIZE 7	PLUG 1 8	PLUG 2 9	MODULE , 10	CABINET 11	CARRIER 12	SLOT , 13	CIRCUIT 14	TERMINAL TYPE , 15	SIZE 16	PLUG 1 17	PLUG 2 18		058

Fields Used or Required for Command Routines

Display:	Fields 1-5 and 8-12.
Add:	Not allowed.
Change:	To swap two terminals, enter fields 1-5 and 8-12, do a display routine, then a change routine.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

TERMINAL A (Fields 1-9)

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-7

DISPLAY ONLY (Terminal A) (Fields 6-9)

6. Terminal Type

2	72 Series
3	74 Series
7	515 BCT
9	73 Series
11	510 BCT
12	7404D
13	7407D
15	7401D
16	7406D
17	PC

7.	Size	1	7203H, 7303S, 7401D, 7403D
		2	7205H, 7305S, 7405D, 7407D, 510 BCT or PC
		3	7404D
		4	7406D
8.	Plug 1	-	Not assigned
		1	Feature
		2	Coverage
		3	Display
9.	Plug 2	-	Not assigned
		1	Feature
		2	Coverage
		3	Display

TERMINAL B (Fields 10-18)

TERMINAL EQUIPMENT LOCATION (Fields 10-14)

10.	Module	0-30
11.	Cabinet	0-7
12.	Carrier	0-3
13.	Slot	0-3, 5-8, 13-16, 18-21
14.	Circuit	0-7

DISPLAY ONLY (Terminal B) (Fields 15-18)

15. Terminal Type	2	72 Series
	3	74 Series
	7	515 BCT
	9	73 Series
	11	510 BCT
	12	7404D
	13	7407D
	15	7401D
	16	7406D
	17	PC
16. Size	1	7203H, 7303S, 7401D, 7403D
	2	7205H, 7305S, 7405D, 7407D, 510 BCT or PC
	3	7404D
	4	7406D
17. Plug 1	-	Not assigned
	1	Feature
	2	Coverage
	3	Display
18. Plug 2	-	Not assigned
	1	Feature
	2	Coverage
	3	Display

Notes

1. To swap two terminals, enter fields 1-5 and 10-14, do a display routine, and then a change routine.
2. A 510 BCT, 515 BCT, 7404D, or 7407D may only be swapped with another 74- or BCT-series terminal.
3. A 72-series terminal cannot be swapped with a 74-series terminal with display or data capabilities.
4. A 73-series terminal can only be swapped with a terminal assigned voice only capabilities.

Special Error Codes

81 - Only multiappearance voice terminals with or without data modules can be swapped.

82 - A 74-series terminal with a display module or DTDM cannot be swapped with a 72-series terminal.

83 - A 73-series terminal may be swapped with a 72- or 74-series terminal only when the 72- or 74-series terminal does not have a DTDM or any adjuncts assigned.

84 - Cannot swap terminal on DSC (see Procedure 360 word 1).

Procedure 059 Word 1 — Abbreviated Dialing - Manage Lists

53

Purpose

Use Procedure 059 Word 1 to administer the following Abbreviated Dialing capabilities:

- Display and change information about a group list
- Create a group list
- Create list A or list B for a voice and/or data terminal
- Assign a personal list to a terminal
- Assign or deny voice terminal access to the system list
- Remove a group list.

Prerequisite Procedures

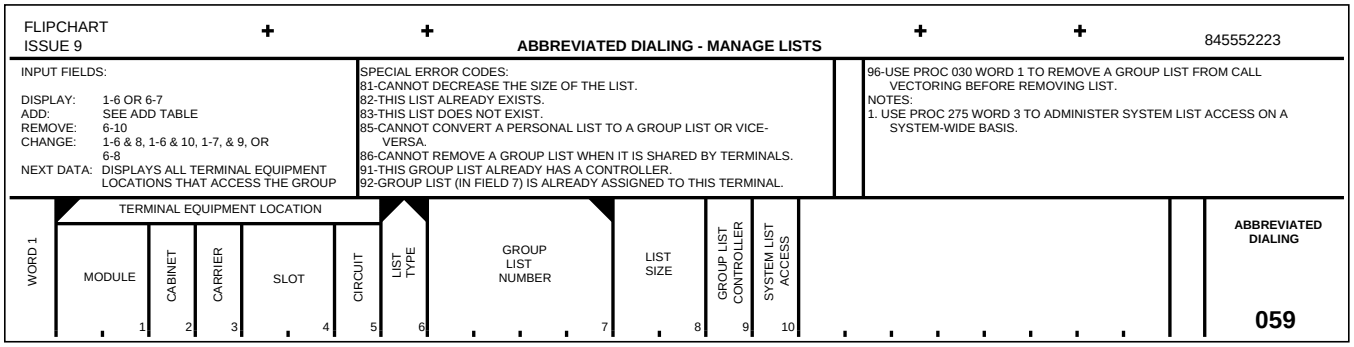
Use Procedure 030 Word 1 to remove a group list from Call Vectoring before removing it in this procedure.

Related Procedures

Use Procedure 059 Word 2 to administer Abbreviated Dialing list items.

Use Procedure 275 Word 3 to administer system list access on a system-wide basis.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-6 or fields 6 and 7.
Add:	See the add table in the Notes section.
Change:	Fields 1-6 and 8, fields 1-6 and 10, fields 1-7 and 9, or fields 6-8.
Remove:	Fields 6-10.
Next Data:	Displays all terminal equipment locations that access the group list specified in field 7.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1. Module -, 0-30

2. Cabinet -, 0-7

3. Carrier -, 0-3

4. Slot -, 0-3, 5-8, 13-16, 18-21

5. Circuit -, 0-7

6.	List Type	0	Group list
		1	List A access
		2	List B access
		3	System list access
			A personal list cannot be converted to a group list or vice-versa.
			A group list cannot be removed while it's being shared by terminals.
7.	Group List Number	-, 1-9999	
8.	List Size	-, 5-95 in increments of 5	
9.	Group List Controller	-	Not applicable
		0	This terminal is not the controller
		1	This terminal is the controller
10.	System List Access	-	Not applicable
		0	No access
		1	Access

Notes

1. The following table shows input specifications for the add routine.

Purpose	Field					
	1-5	6	7	8	9	10
To administer group list	-	0	group #	size	-	-
To share terminal to a group list with control	equipment location	1,2	group #	-	1	-
To share terminal to a group list without control	equipment location	1,2	group #	-	0	-
To assign a personal list to a terminal	equipment location	1,2	-	size	-	-
To assign or deny terminal access to system list	equipment location	3	-	-	-	0,1

Special Error Codes

81 - Cannot decrease the size of the list.

82 - This list already exists.

83 - This list does not exist.

85 - Cannot convert a personal list to a group list or vice-versa.

86 - Cannot remove a group list when it is shared by terminals.

91 - This group list already has a controller.

92 - This group list (field 7) is already assigned to this terminal.

96 - Use Procedure 030 Word 1 to remove a group list from Call Vectoring before removing the list.

Procedure 059 Word 2 — Abbreviated Dialing - Administer List Items

54

Purpose

Use Procedure 059 Word 2 to administer the items in a personal, group, or the system Abbreviated Dialing list.

Related Procedures

Use Procedure 275 Word 3 to administer the size of the system Abbreviated Dialing list and access to the system list on a system-wide basis.

Flipchart

FLIPCHART ISSUE 9

ABBREVIATED DIALING
ADMINISTER LIST ITEMS

845552223

INPUT FIELDS:

DISPLAY: 1-6 & 8-9, 6-9, OR 6-7 & 9, (10 OPTIONAL)
ADD: NOT ALLOWED
REMOVE: REMOVES ALL SEGMENT OF A LIST ITEM
CHANGE: 1-14
NEXT DATA: SEE NOTE 1

SPECIAL ERROR CODES:
81-THIS LIST DOES NOT EXIST.
82-CANNOT OPERATE ON LIST IF NOT THE OWNER OR CONTROLLER.
83-THE LIST INDEX EXCEEDS THE SIZE OF THE LIST.
85-ILLEGAL CHARACTER ENTERED. A FUNCTION ENTRY MUST BE FOLLOWED BY A SPECIAL FUNCTION ENCODE. A SPECIAL FUNCTION ENCODE MUST BE PRECEDED BY FUNCTION ENTRY. FUNCTION ENTRY IS ILLEGAL AS THE LAST CHARACTER.
86-SET FIELD 10 TO 1 TO BRING THE LIST ITEM INTO SCRATCH PAD.

87-THE CHARACTER FOLLOWING SPECIAL FUNCTION ENCODE 18 IS THE NUMBER OF MANUAL DIGITS AND MUST BE A NUMBER FROM 1 TO 15.

WORD 2	TERMINAL EQUIPMENT LOCATION					LIST TYPE	GROUP LIST NUMBER OR SYSTEM LIST ITEM	GROUP OR PERSONAL LIST ITEM	SEGMENT	READ/WRITE MODE	SEGMENT CHARACTERS				ABBREVIATED DIALING
	MODULE	CABINET	CARRIER	SLOT	CIRCUIT						CHARACTER 1	CHARACTER 2	CHARACTER 3	CHARACTER 4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	059

Fields Used or Required for Command Routines

Display:	Fields 1-6, 8, and 9, fields 6-9, or fields 6, 7, and 9 (10 optional).
Add:	Not allowed.
Change:	Fields 1-14.
Remove:	Removes all segments of a list item.
Next Data:	Displays each segment of field 9, then: if field 10 = 1 or dash, next data displays the next item (fields 7 or 8) in the list, if field 10 = 0, next data displays the same item again. The change and next data routines may be used together to accumulate changes in the scratch-pad table before transferring the changes to the machine-used table. To do this, set the read/write mode (field 10) to 0. Make the required changes and then use next data to access the next segment. To transfer the data to the machine-used table, set the read/write mode to 1 and do a change routine.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	-, 0-30	
2.	Cabinet	-, 0-7	
3.	Carrier	-, 0-3	
4.	Slot	-, 0-3, 5-8, 13-16, 18-21	
5.	Circuit	-, 0-7	
6.	List Type	0	Group list
		1	List A
		2	List B
		3	System list
7.	Group List Number or System List Item	-, 0-9999 The system list size is administered in Procedure 275 Word 3. The system list item numbering is either 1-9, 00-99, 000-999, or 0000-9999.	

8. Group or Personal List Item — -, 1-95

9. Segment
   - 1 Characters 1-4
   - 2 Characters 5-8
   - 3 Characters 9-12
   - 4 Characters 13-16
   - 5 Characters 17-20

10. Read/Write Mode
    - \- Read/Write - machine-used table
    - 0 Read/Write - scratch-pad table
    - 1 Read/Write - machine-used table

    Display (read) routine:
    -, 1 = Read list item from machine-used table.
    0 = Read list item from scratch-pad table.
    Change (write) routine:
    1 = Write list item to machine-used table.
    0 = Write list item to scratch-pad table.

SEGMENT CHARACTERS (Fields 11-14)

- 0-9 Decimal digits
- 11 *
- 12 #
- 13 Function entry
- 14 Pause
- 15 Wait
- 16 Mark
- 17 Await dial tone
- 18 Manual digit entry
- 19 Suppress display
- 20 End of dialing

The function entry encode (13) must be followed by a special function encode (14-20). A special function encode must be preceded by the function entry encode. The function entry encode cannot be the last character in a list item.

The manual digit entry encode (18) must be followed by the number digits that will be entered manually (1-15).

11. Character 1 — -, 0-20

12. Character 2 -, 0-20

13. Character 3 -, 0-20

14. Character 4 -, 0-20

Notes

1. The following table shows the input specifications for fields 1-10.

Purpose	Field					
	1-5	6	7	8	9	10
To assign group list item	-	0	group #	item #	1-5	-,0,1
To assign personal list item	equipment location	1,2	-	item #	1-5	-,0,1
To assign system list item	-	3	item #	-	1-5	-,0,1

2. The following defines the use of special functions:

   — Function entry (13) - This encode is required before any of the following special functions.

   — Pause (14) - This suspends dialing for 1.5 seconds. This is typically used after dialing a trunk dial access code (e.g., 9-13-14-2552323).

   — Wait (15) - This suspends dialing for up to 10 seconds. This is used when a return dial tone from a distant switch may take this long.

   — Mark (16) - This is required before the * or # characters (e.g., 13-16-11).

   — Await dial tone (17) - This will suspend dialing until the switch actually receives dial tone from the other location.

   — Manual digit entry (18) - This allows the user to manually enter digits at any point in the dialing sequence. It must always be followed by the number of digits expected (1-15). For example, a user might make many calls to people at one location. They can set up the initial digits ‘‘91303538’’ with a manual digit entry for a four-digit extension number. This translates into ‘‘9-13-14-1303538-13-18-4’’.

— Suppress display (19) - This is used when a security code, such as a password or authorization code, is used in an Abbreviated Dialing list entry and the user also has a display voice terminal. By enclosing the code digits within the suppress display function, the digits of the code are converted to ''s'' on the display, thus hiding the code from unauthorized persons. For example, the code ''5555'' can be suppressed by entering ''13-19-5555-13-19'' as part of the list item.

— End of dialing (20) - This is used to signify that Abbreviated Dialing will send no more digits and the originating register (OR) used for the call can be released. This signifies the same end of dialing as the pound (#) sign. The end of dialing function is recommended for all list items that access trunk facilities on the switch. By using this function, you can save on the holding time of ORs which will allow the switch to operate more efficiently.

3. If equipment in the call path requires special function encodes (encodes 14-20), then administer the telephone number to account for this. For example, some older electro-mechanical equipment cannot handle high-speed digit transmission, so you must put delays in the telephone number segments.

Special Error Codes

81 - This list does not exist.

82 - Cannot operate on a list if not the owner or controller.

83 - The list index exceeds the size of the list.

85 - You entered an illegal character. Function entry must be followed by a special function encode. A special function encode must be preceded by function entry. Function entry is illegal as the last character.

86 - Set field 10 to 1 to bring the list item into scratch-pad.

87 - The character following special function encode 18 is the number of manual digits and must be a number from 1 to 15.

Procedure 059 Word 3 — Abbreviated dialing - List Access and Special Function Buttons

55

Purpose

Use Procedure 059 Word 3 to administer Abbreviated Dialing program, special function, and list access buttons.

Related Procedures

Use Procedure 059 Word 4 to administer automatic dialing buttons.

Flipchart

FLIPCHART
ISSUE 9

ABBREVIATED DIALING
LIST ACCESS AND SPECIAL FUNCTION BUTTONS

845552223

INPUT FIELDS:

DISPLAY:	1-5 OR 1-7
ADD:	1-8 OR 1-9
REMOVE:	AFTER DISPLAY ONLY
CHANGE:	NOT ALLOWED
NEXT DATA:	DISPLAYS ABBREVIATED DIALING BUTTONS THAT ARE ASSIGNED AS PROGRAM, SPECIAL FUNCTION, OR LIST ACCESS BUTTONS

SPECIAL ERROR CODES:
81-THE LIST INDEX EXCEEDS THE SIZE OF THE LIST.
82-THE EQUIPMENT LOCATION IS NOT ASSIGNED AS A MULTI APPEARANCE TERMINAL.
83-THIS LIST DOES NOT EXIST.
84-THIS IS NOT A SPECIAL FUNCTION OR A LIST ACCESS BUTTON.

NOTES:
1. USE PROC 059 WORD 4 TO ASSIGN AUTOMATIC DIALING BUTTONS.

WORD 3	TERMINAL EQUIPMENT LOCATION					DEVICE ID		ABBREVIATED DIALING BUTTON TYPE	LIST ITEM INDEX		ABBREVIATED DIALING
	MODULE	CABINET	CARRIER	SLOT	CIRCUIT	DEVICE TYPE	MEMBER (BUTTON)				
	1	2	3	4	5	6	7	8	9		059

Fields Used or Required for Command Routines

Display:	Fields 1-5 or fields 1-7.
Add:	Fields 1-8 or fields 1-9.
Change:	Not allowed.
Remove:	Fields 6-9.
Next Data:	Displays abbreviated dialing buttons that are assigned as program, special function, or list access buttons.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-7

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module

7.	Member (button)	0-36 If field 6 = 0, the range for field 7 is 1-36. If field 6 = 1, the range for field 7 is 1-24. If field 6 = 2, the range for field 7 is 1-20. If field 6 = 3, the range for field 7 is 1-7.

8. Abbreviated Dialing Button Type

1	List A item button
2	List B item button
3	System list item button
4	List A access button
5	List B access button
6	System list access button
7	Program button
13	Function entry
14	Pause
15	Wait
16	Mark
18	Manual digit entry
19	Suppress display
20	End of dialing

The following table shows the recommended number of lamps for each button type.

Button Type	Number of Lamps
List A item button	0
List B item button	0
System list item button	0
List A access button	0
List B access button	0
System list access button	0
Program button	0
Function entry	0
Pause	0
Wait	1
Mark	1
Manual digit entry	0
Suppress display	0
End of dialing	0

9. List Item Index -, 1-9999 for system list, 1-95 for list A or list B

Special Error Codes

81 - The list index exceeds the size of the list.

82 - The equipment location is not assigned to a multiappearance terminal.

83 - This list does not exist.

84 - This is not a special function or a list access button.

Procedure 059 Word 4 — Abbreviated Dialing - Automatic Dialing/Default Dialing Buttons

56

Purpose

Use Procedure 059 Word 4 to administer default dialing for a data terminal or automatic dialing buttons for a multiappearance voice terminal.

Related Procedures

Use Procedures 059 Words 1-3 to administer abbreviated dialing list options.

Flipchart

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ISSUE 9

ABBREVIATED DIALING AUTOMATIC DIALING/DEFAULT DIALING BUTTON ASSIGNMENT

845552223

INPUT FIELDS:

DISPLAY: 1-5 OR 1-7
ADD: 1-7 OR 1-13
REMOVE: AFTER DISPLAY ONLY
CHANGE: 1-13
NEXT DATA: SEE NOTE 1

SPECIAL ERROR CODES:
81-ENTER A VALID MULTI APPEARANCE TERMINAL EQUIPMENT LOCATION (FIELDS 1-5).
82-NOT AN AUTOMATIC DIALING BUTTON (FOR VOICE TERMINAL); OR DEFAULT DIALING IS NOT ASSIGNED (FOR DATA TERMINAL).
83-ENTER SEGMENTS IN INCREASING SEQUENCE.
84-ILLEGAL CHARACTER ENTERED. FUNCTION ENTRY (13) MUST BE FOLLOWED BY SPECIAL FUNCTION ENCODES (14-19). SPECIAL FUNCTION ENCODE MUST BE PRECEDED BY FUNCTION ENTRY. FUNCTION ENTRY IS ILLEGAL AS LAST CHARACTER.
85-THE CHARACTER FOLLOWING SPECIAL FUNCTION ENCODE 18 MUST BE A NUMBER FROM 1 TO 15.
86-THE EQUIPMENT LOCATION HAS NO DATA TERMINAL ASSIGNED FOR DEFAULT DIALING.

WORD 4	TERMINAL EQUIPMENT LOC					DEVICE ID		SEGMENT	READ/WRITE MODE	BUTTON ASSIGNMENTS						ABBREVIATED DIALING
	MODULE	CABINET	CARRIER	SLOT	CIRCUIT	DEVICE TYPE	MEMBER (BUTTON)			CHARACTER 1	CHARACTER 2	CHARACTER 3	CHARACTER 4			
	1	2	3	4	5	6	7	8	9	10	11	12	13			059

Fields Used or Required for Command Routines

Display:	Fields 1-5 or fields 1-7.
Add:	Fields 1-7 or fields 1-13.
Change:	Fields 1-13.
Remove:	Fields 6-13.
Next Data:	Displays each segment of field 8, then: if field 9 = 1 or dash, next data displays the next item (fields 6 or 7) in the list, if field 9 = 0, next data displays the same item again. Add or change and next data may be used together to accumulate additions or changes in the scratch-pad table before transferring the additions or changes to the machine-used table. To do this, set the read/write mode (field 9) to 0. Make the required additions or changes and then use next data to access the next segment. To transfer the data to the machine-used table, set the read/write mode to 1 and do an add or change routine.

Field Ranges and Encodes

TERMINAL EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30	
2.	Cabinet	0-7	
3.	Carrier	0-3	
4.	Slot	0-3, 5-8, 13-16, 18-21	
5.	Circuit	0-7	

DEVICE ID (Fields 6-7)

6.	Device Type	0	Basic set
		1	Feature module
		2	Coverage module
		3	Display module

7. Member (button)

1-36

If field 6 = 0, the range for field 7 is 1-36.

If field 6 = 1, the range for field 7 is 1-24.

If field 6 = 2, the range for field 7 is 1-20.

If field 6 = 3, the range for field 7 is 1-7.

8. Segment

- Assign automatic dialing button
1 Characters 1-4
2 Characters 5-8
3 Characters 9-12
4 Characters 13-16
5 Characters 17-20

9. Read/Write Mode

- Read/Write - machine-used table
0 Read/Write - scratch-pad table
1 Read/Write - machine-used table

Display (read) routine:

-, 1 = Read list item from machine-used table.

0 = Read list item from scratch-pad table.

Change (write) routine:

1 = Write list item to machine-used table.

0 = Write list item to scratch-pad table.

BUTTON ASSIGNMENT (Fields 10-13)

0-9 Decimal digits
11 *
12 #
13 Function entry
14 Pause
15 Wait
16 Mark
17 Await dial tone
18 Manual digit entry
19 Suppress display
20 End of dialing

The function entry encode (13) must be followed by a special function encode (14-20). A special function encode must be preceded by the function entry encode. The function entry encode cannot be the last

character in a list item.

The manual digit entry encode (18) must be followed by the number digits that will be entered manually (1-15).

10. Character 1 -, 0-9, 11-20

11. Character 2 -, 0-9, 11-20

12. Character 3 -, 0-9, 11-20

13. Character 4 -, 0-9, 11-20

Notes

1. Adding a button without characters assigns a button as an automatic dialing button or gives a data terminal access to default dialing (dash fields 8-13).
2. To assign or display default dialing for a DCP data terminal, specify the equipment location in fields 1-5, device type (field 6 = 0) and member (field 7 = 0) for single channel, 0-1 for dual channel.

Special Error Codes

81 - Enter a valid multiappearance terminal equipment location (fields 1-5).

82 - Not an automatic dialing button (for voice terminal), or default dialing is not assigned (for data terminal).

83 - Enter segments in increasing sequence.

84 - Illegal character entered. Function entry (13) must be followed by special function encodes (14-20). Function entry is illegal as last character.

85 - The character following special function encode 18 must be a number from 1 to 15.

86 - The equipment location has no data terminal assigned for default dialing.

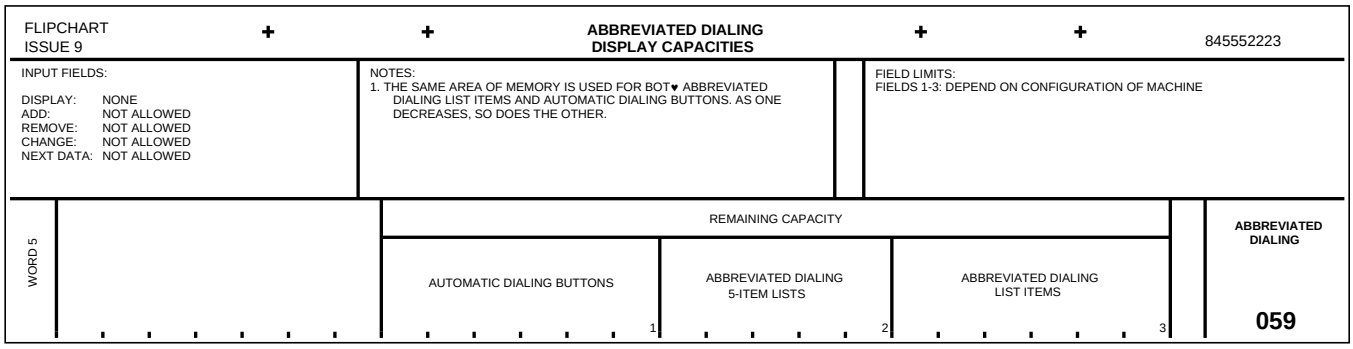
Procedure 059 Word 5 — Abbreviated Dialing - Display Capacities

57

Purpose

Use Procedure 059 Word 5 to display the remaining capacity for Abbreviated Dialing lists, list items, and automatic dialing buttons. The same area of memory is used for both Abbreviated Dialing list items and automatic dialing buttons. As one decreases, so does the other.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Remove:	Not allowed.
Change:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

REMAINING CAPACITY (Fields 1-3)

1.	Automatic Dialing Buttons	Depends on system configuration.
2.	Abbreviated Dialing Lists	Depends on system configuration.
3.	Abbreviated Dialing List Items	Depends on system configuration.

Special Error Codes

None.

Procedure 060 Word 1 — ACD Display - Member Assignments

58

Purpose

Use Procedure 060 Word 1 to administer the 106B display unit used with the Automatic Call Distribution (ACD) feature. The 106B display unit allows a split supervisor to monitor agent activity of an ACD split. The 106B shows agent status for up to 20 ACD agents. Each agent is called a member of an ACD split. The status of each agent is represented on the display unit by a set of five vertical lamps (3 green, and 2 red, from top to bottom). These lamps represent the following:

a. First (top) lamp is lit - the agent is available to handle an ACD call.

b. Second lamp is lit - the agent is handling an ACD call.

c. Third lamp is lit - the agent is engaged in after-call work.

d. Fourth lamp is lit - the agent is in Auxiliary Work mode.

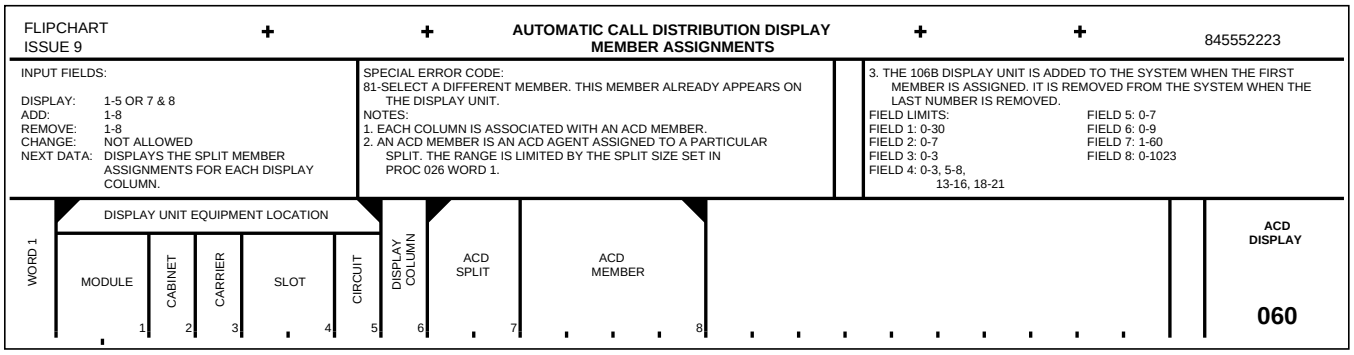
e. Fifth lamp is lit - the agent is not engaged in work-related activity.

f. All lamps off - the agent's position is in the unstaffed mode.

Related Procedures

Use Procedure 060 Word 2 to pair equipment locations. This is necessary only when more than 10 ACD members are reporting to a single display unit. However, it is recommended that each display unit is administered with two equipment locations to ensure that all the lamps on the display unit light up when the test button on the display unit is pushed. Otherwise when using the test button, a split supervisor may think the right half of the display unit is inoperable.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or fields 7 and 8.
Add:	Fields 1-8.
Change:	Not allowed.
Remove:	Fields 1-8.
Next Data:	Displays the the split member assignments for each display column.

Field Ranges and Encodes

DISPLAY UNIT EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-7
6.	Display Column	0-9 Each column is associated with an ACD member.

7. ACD Split 1-60

8. ACD Member 0-1023

   An ACD member is an ACD agent assigned to a particular split. The range is limited by the split size set in Procedure 026 Word 1.

Notes

1. To determine how the display unit is connected to the switch, refer to *DEFINITY(TM) Communications System Generic 2 and System 85 Installation* (555-104-104).
2. The 106B display unit is added to the system when the first member is assigned. It is removed from the system when the last member is removed.
3. Each 106B display unit may require two SN224 circuits (if more than 10 agents are assigned to a display unit). The SN224 has four circuits per pack. If a display unit requires more than one circuit, use Word 2 to pair the equipment locations.

Special Error Codes

81 - Select a different member. This member already appears on the display unit.

Procedure 060 Word 2 — ACD Display - Pair Assignments

59

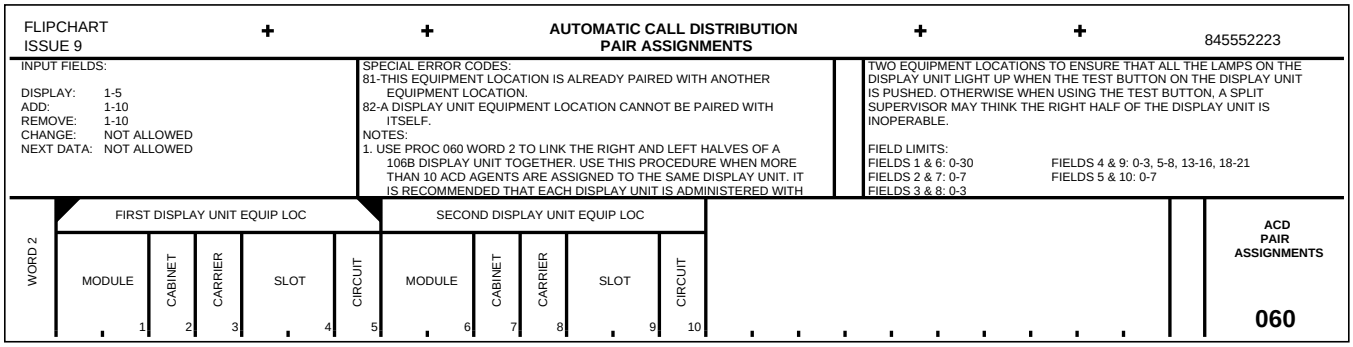
Purpose

Use Procedure 060 Word 2 to link the right and left halves of a 106B display unit together. Use this procedure when more than 10 ACD agents are assigned to the same display unit. It is recommended that each display unit is administered with two equipment locations to ensure that all the lamps on the display unit light up when the test button on the display unit is pushed. Otherwise when using the test button, a split supervisor may think the right half of the display unit is inoperable.

Prerequisite Procedures

Assign the display unit's equipment locations in Procedure 060 Word 1 before assigning the equipment locations in fields 1-5 and 6-10.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Fields 1-10.
Change:	Not allowed.
Remove:	Fields 1-10.
Next Data:	Not allowed.

Field Ranges and Encodes

FIRST EQUIPMENT LOCATION FOR LEFT HALF OF DISPLAY UNIT (Fields 1-5)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0-3, 5-8, 13-16, 18-21

5. Circuit 0-7

SECOND EQUIPMENT LOCATION FOR RIGHT HALF OF DISPLAY UNIT (Fields 6-10)

6.	Module	0-30
7.	Cabinet	0-7
8.	Carrier	0-3
9.	Slot	0-3, 5-8, 13-16, 18-21
10.	Circuit	0-7

Notes

1. To determine which half of the display unit is connected to the switch, refer to *DEFINITY(TM) Communications System Generic 2 and System 85 Installation* (555-104-104).

Special Error Codes

81 - This equipment location is already paired with another equipment location.

82 - A display-unit equipment location cannot be paired with itself.

Procedure 061 Word 1 — Multiappearance Terminal - Intercom Ring Rates and A/D Ringing

60

Purpose

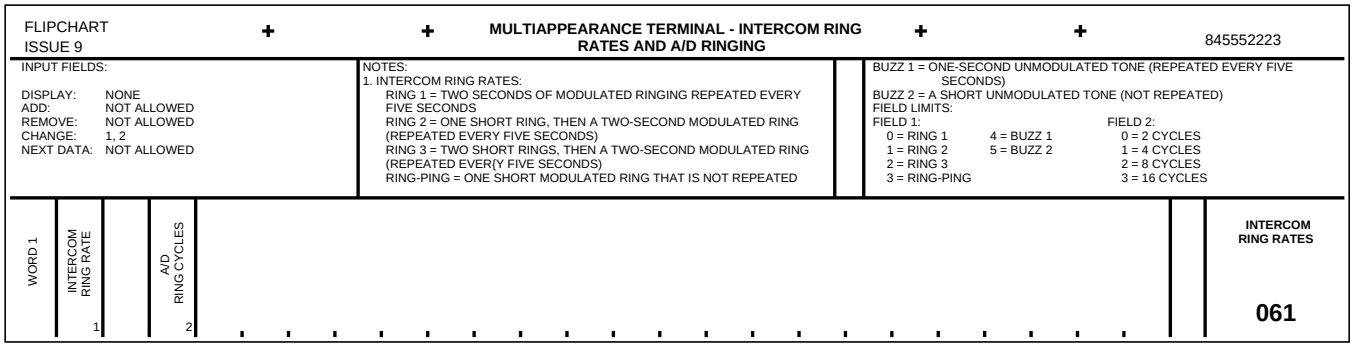
Use Procedure 061 Word 1 to administer intercom ringing rates and abbreviated/delayed ringing cycles for multiappearance voice terminals on a system-wide basis.

Prerequisite Procedures

Use Procedure 056 Word 1 to administer the Intercom features.

Use Procedure 052 Word 2 to administer the Ringing - Abbreviated and Delayed and Ringing Transfer features.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Intercom Ring Rate

0	Ring 1
1	Ring 2
2	Ring 3
3	Ring 4 (Ring-ping)
4	Buzz 1
5	Buzz 2

Ring 1 = 2 seconds of modulated ringing repeated every 5 seconds.

Ring 2 = one short ring, then a 2-second modulated ring. This pattern is repeated every 5 seconds.

Ring 3 = two short rings, then a 2-second modulated ring. This pattern is repeated every 5 seconds.

Ring 4 = one short modulated ring that is not repeated.

Buzz 1 = 1-second unmodulated tone that is repeated every 5 seconds.

Buzz 2 = a short unmodulated tone that is not repeated.

2. A/D Ringing Cycles

0	2 Cycles
1	4 Cycles
2	8 Cycles
3	16 Cycles

Special Error Codes

None.

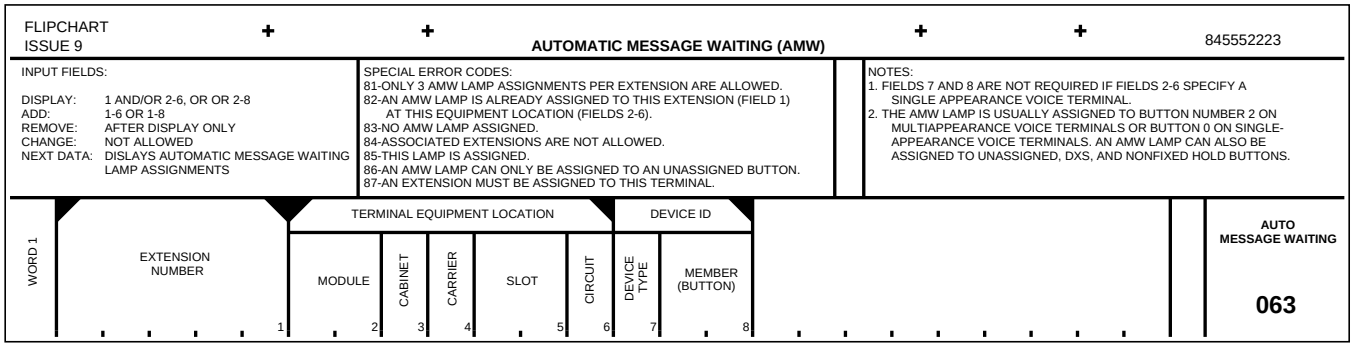
Procedure 063 Word 1 — Automatic Message Waiting

61

Purpose

Use Procedure 063 Word 1 to administer Automatic Message Waiting (AMW) lamps.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 and fields 2-6, or fields 2-8.
Add:	Fields 1-6 or fields 1-8.
Change:	Not allowed.
Remove:	After display only.
Next Data:	Displays Automatic Message Waiting (AMW) lamp assignments.

Field Ranges and Encodes

1. Extension -, 000-99999

TERMINAL EQUIPMENT LOCATION (Fields 2-6)

2. Module 0-30

3. Cabinet 0-7

4. Carrier 0-3

5. Slot 0-3, 5-8, 13-16, 18-21

6. Circuit 0-7

DEVICE ID (Fields 7-8)

A dash may be entered in fields 7 and 8 if fields 2 through 6 specify a single-appearance voice terminal.

7. Device Type
   - -,0 Basic set
   - 1 Feature module
   - 2 Coverage module
   - 3 Display module
   - 4 ADFTC

8. Member (button) -, 0-36

   If field 7 = dash or 0, the range for field 8 is 0-36.

   If field 7 = 1, the range for field 8 is 1-24.

   If field 7 = 2, the range for field 8 is 1-20.

   If field 7 = 3, the range for field 8 is 1-7.

   If field 7 = 4, the range for field 8 is 0-1.

   The AMW lamp is usually assigned to button number 2 on multiappearance voice terminals or button 0 on single-appearance voice terminals. An AMW lamp can

also be assigned to unassigned, DXS, and nonfixed HOLD buttons.

Special Error Codes

81 - Only three AMW lamp assignments per extension are allowed.

82 - An AMW lamp is already assigned to this extension (field 1) at this equipment location (fields 2-6).

83 - No AMW lamp is assigned.

84 - Associated extensions are not allowed.

85 - This lamp is assigned.

86 - An AMW lamp can only be assigned to an unassigned button.

87 - An extension must be assigned to this terminal.

Procedure 063 Word 2 — Automatic Message Waiting

62

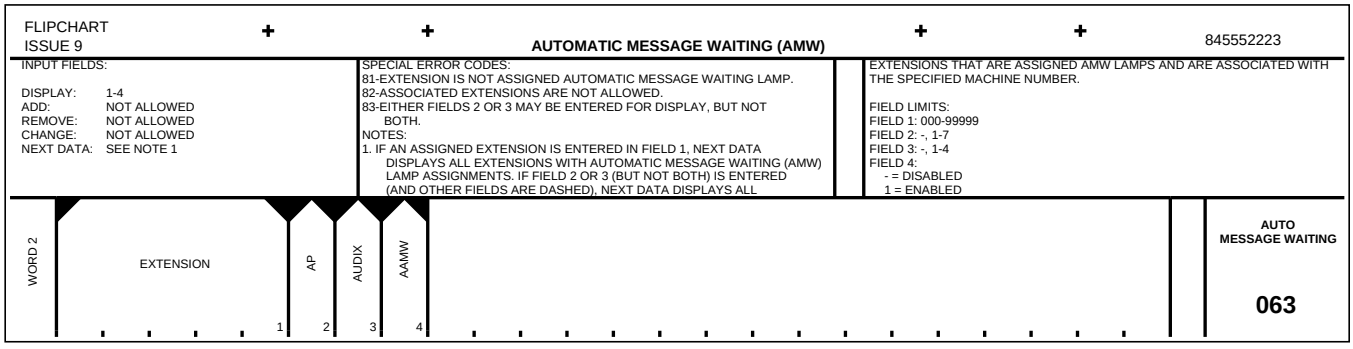
Purpose

Use Procedure 063 Word 2 to display extensions that are assigned Automatic Message Waiting (AMW) lamps, the associated AP or AUDIX machine number, and whether Audible Automatic Message Waiting is assigned.

Prerequisite Procedures

Use Procedure 000 Word 3 to administer Audible Automatic Message Waiting to an extension.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1, 2, or 3.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	If an assigned extension is entered in field 1, next data displays all extensions with Automatic Message Waiting (AMW) lamp assignments. If field 2 or 3 (but not both) is entered (and other fields are dashed), next data displays all extensions that are assigned AMW lamps and are associated with the specified machine number.

Field Ranges and Encodes

1.	Extension	000-99999	
2.	AP	-, 1-7	
3.	AUDIX	-, 1-4	
4.	Audible Automatic Message Waiting	-	Disabled
		1	Enabled

Special Error Codes

81 - Extension is not assigned Automatic Message Waiting (AMW) lamp.

82 - Associated extensions are not allowed.

83 - Either field 2 or 3 may be entered for display, but not both.

Procedure 070 Word 1 — Multiappearance Terminal ID/Peripherals

63

Purpose

Use Procedure 070 Word 1 to display information about multiappearance voice terminal and data module equipment. This information includes the set type, state of health, equipment vintage, and any peripherals attached to the terminal. This procedure only displays information administered in the 050-series of procedures or queried from the terminal.

Related Procedures

Use Procedure 070 Words 2-4 to display other information about multiappearance voice terminals and data modules.

Flipchart

FLIPCHART ISSUE 9 + + **MULTIAPPEARANCE TERMINAL ID/PERIPHERALS** + + 845552223

INPUT FIELDS:

DISPLAY: 1-5
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: NOT ALLOWED
NEXT DATA: DISPLAYS THE NEXT ASSIGNED CIRCUIT OR DTDM ASSOCIATED WITH A MULTIAPPEARANCE TERMINAL

SPECIAL ERROR CODES:
81-ENTER A VALID MULTIAPPEARANCE TERMINAL EQUIPMENT LOCATION IN FIELDS 1-5.
82-THE QUERY FAILED BECAUSE OF A MAINTENANCE CONFLICT.
83-THE QUERY FAILED BECAUSE OF AN UNSUCCESSFUL SCANNER REQUEST.
84-THE QUERY FAILED BECAUSE OF A SCANNER DELAY OR DISCONNECTED MAINTENANCE BUSIED OUT EQUIPMENT.

NOTES:
1. A DTDM HAS THE SAME EQUIPMENT LOCATION AS ITS ASSOCIATED 74 SERIES TERMINAL BUT WITH A TYPE OF 13.
2. THE HEALTH IS BASED ON THE RESULTS OF AN AUTOMATIC SELF-TEST AND ONLY APPLIES WHEN FIELD 6 IS 9, 13, OR 16.
3. THE TERMINAL OR DATA MODULE VINTAGE FURTHER IDENTIFIES THE MODEL OF A MANUFACTURER'S TERMINAL.
4. WHEN THE RING CODE FLAG IS SET TO 0, PERSONALIZED RINGING IS SET AT THE VOICE TERMINAL AT POWER-UP. WHEN SET TO 1, PERSONALIZED RINGING IS SET BY THE VOICE TERMINAL USER.
5. THE PERSONALIZED RINGING PATTERNS ARE ASSIGNED AT THE VOICE TERMINAL. PATTERNS 1-8 AVAILABLE ON A VOICE TERMINAL CORRESPOND WITH PATTERNS 0-7 IN THIS PROCEDURE.

WORD 1	EQUIPMENT LOCATION					TERMINAL OR DATA MODULE			PERIPHERALS												ID PERIPHERALS
	MODULE	CABINET	CARRIER	SLOT	CIRCUIT	TYPE	HEALTH	VINTAGE	DXS	INTERFACE TYPE	RS-366	DISPLAY MODULE	COVERAGE MODULE	FEATURE MODULE	DTDM	PC	RING CODE FLAG	RING CODE			070
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			

Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays the next assigned circuit or DTDM associated with a multiappearance terminal.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-3

TERMINAL OR DATA MODULE (Fields 6-8)

6.	Type	0	Non-standard terminal
		1	7403D
		2	7405D
		3	510 BCT
		4	7407D
		5	7406D
		7	7410D
		9	PDM
		13	DTDM
		15	Dual Port Data
		16	TDM
		22	ADFTC (digital)
		23	ADFTC (analog)
		25	EIA
		32	72-series
		33	73-series

	37	515 BCT
	46	7404D
	47	7401D
	52	7434D
	56	3270C Data Module
	57	3270A or 3270T Data Module

A DTDM has the same equipment location as its associated 74-series terminal, but with a type of 13.

7. Health

0	Test passed or not done
1	Test failed

The health is based on the results of an automatic self-test and only applies when field 6 is 9, 13 or 16.

8. Vintage

0-127

The terminal or data module vintage further identifies the model of a manufacturer's terminal.

PERIPHERALS (Fields 9-19)

9. DXS

-	Not available
0	Absent
1	Present

10. Interface Type

-	None
0	RS-232-C
1	V.35
2	RS-449

11. RS-366

-	Not available
0	Absent
1	Present

12. Display Module

-	Not available
0	Absent
1	Present

13. Coverage Module
    - `-` Not available
    - `0` Absent
    - `1` Present

14. Feature Module
    - `-` Not available
    - `0` Absent
    - `1` Present

15. DTDM
    - `-` Not available
    - `0` Absent
    - `1` Present

16. Personal Computer
    - `-` Not available
    - `0` Absent
    - `1` Present

17. Ring Code Flag

    `-, 0-1`

    When set to 0, personalized ringing is set at the voice terminal at power-up. When set to 1, personalized ringing is set by the voice terminal user.

18. Ring Code

    `-, 0-7`

    The personalized ringing patterns are assigned at the voice terminal. Patterns 1-8 available on a voice terminal correspond with patterns 0-7 in this procedure.

Special Error Codes

81 - Enter a valid multiappearance terminal equipment location in fields 1-5.

82 - The query failed because of a maintenance conflict.

83 - The query failed because of an unsuccessful scanner request.

84 - The query failed because of a scanner delay or disconnected or maintenance busied equipment.

Procedure 070 Word 2 — Data Module Transmission Settings

64

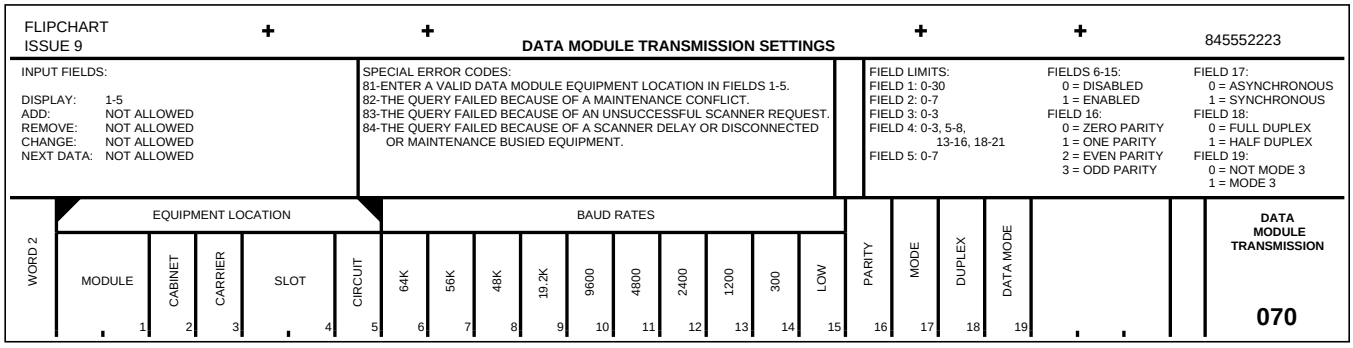
Purpose

Use Procedure 070 Word 2 to display data transmission settings for data modules as set by switches on the data module or as queried on the firmware of the data module. This procedure only displays information about data modules administered in the 050-series of procedures.

Related Procedures

Use Procedure 070 Words 1, 3, and 4 to display other information about these multiappearance voice terminals and data modules.

Flipchart



FLIPCHART
ISSUE 9

DATA MODULE TRANSMISSION SETTINGS

845552223

INPUT FIELDS:

DISPLAY: 1-5
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: NOT ALLOWED
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-ENTER A VALID DATA MODULE EQUIPMENT LOCATION IN FIELDS 1-5.
82-THE QUERY FAILED BECAUSE OF A MAINTENANCE CONFLICT.
83-THE QUERY FAILED BECAUSE OF AN UNSUCCESSFUL SCANNER REQUEST.
84-THE QUERY FAILED BECAUSE OF A SCANNER DELAY OR DISCONNECTED OR MAINTENANCE BUSIED EQUIPMENT.

FIELD LIMITS:
FIELD 1: 0-30
FIELD 2: 0-7
FIELD 3: 0-3
FIELD 4: 0-3, 5-8, 13-16, 18-21
FIELD 5: 0-7

FIELDS 6-15:
0 = DISABLED
1 = ENABLED

FIELD 16:
0 = ZERO PARITY
1 = ONE PARITY
2 = EVEN PARITY
3 = ODD PARITY

FIELD 17:
0 = ASYNCHRONOUS
1 = SYNCHRONOUS

FIELD 18:
0 = FULL DUPLEX
1 = HALF DUPLEX

FIELD 19:
0 = NOT MODE 3
1 = MODE 3

WORD 2	EQUIPMENT LOCATION					BAUD RATES														DATA MODULE TRANSMISSION
	MODULE	CABINET	CARRIER	SLOT	CIRCUIT	64K	56K	48K	19.2K	9600	4800	2400	1200	300	LOW	PARITY	MODE	DUPLEX	DATA MODE	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	070

Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-3

DATA RATES (Fields 6-15)

0	Disabled
1	Enabled

6.	64000 bps	0-1
7.	56000 bps	0-1
8.	48000 bps	0-1
9.	19200 bps	0-1
10.	9600 bps	0-1

11.	4800 bps	0-1	
12.	2400 bps	0-1	
13.	1200 bps	0-1	
14.	300 bps	0-1	
15.	Low	0-1	
16.	Parity	0	Zero parity
		1	One parity
		2	Even parity
		3	Odd parity
17.	Mode	0	Asynchronous
		1	Synchronous
18.	Duplex	0	Full duplex
		1	Half duplex
19.	Data Mode	-	Unsupported data mode
		0	Mode 0
		1	Mode 1

Special Error Codes

81 - Enter a valid data module equipment location in fields 1-5.

82 - The query failed because of a maintenance conflict.

83 - The query failed because of an unsuccessful scanner request.

84 - The query failed because of a scanner delay or disconnected or maintenance busied equipment.

Procedure 070 Word 3 — Data Module Emulation Settings

65

Purpose

Use Procedure 070 Word 3 to display data module emulation settings as queried by the switch. This procedure only displays information about data modules administered in the 050-series of procedures.

Related Procedures

Use Procedure 070 Words 1, 2, and 4 to display other information about these multiappearance voice terminals and data modules.

Flipchart

FLIPCHART
ISSUE 9

DATA MODULE EMULATION SETTINGS

845552223

INPUT FIELDS:

DISPLAY: 1-5
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: NOT ALLOWED
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-ENTER A VALID DATA MODULE EQUIPMENT LOCATION IN FIELDS 1-5.
82-THE QUERY FAILED BECAUSE OF A MAINTENANCE CONFLICT.
83-THE QUERY FAILED BECAUSE OF AN UNSUCCESSFUL SCANNER REQUEST.
84-THE QUERY FAILED BECAUSE OF A SCANNER DELAY OR DISCONNECTED OR MAINTENANCE BUSIED OUT EQUIPMENT.

FIELD LIMITS:
FIELD 1: 0-30
FIELD 2: 0-7
FIELD 3: 0-3
FIELD 4: 0-3, 5-8, 13-16, 18-21
FIELD 5: 0-7
FIELDS 6-15:
0 = DISABLED
1 = ENABLED

WORD 3	EQUIPMENT LOCATION					EMULATION OPTIONS											DATA MODULE EMULATION
	MODULE 1	CABINET 2	CARRIER 3	SLOT 4	CIRCUIT 5	SWITCHED NETWORK/ PRIVATE LINE 6	MB ON LLB 7	DM FOR LLB 8	AUTO ANS 9	SEND - SPACE 10	SIG - LOSS 11	RESERVED 12	SLAVED 13	TIMING 14	KEYBOARD DIALING 15		070

Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Not allowed.
Remove:	Not allowed.
Change:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30	
2.	Cabinet	0-7	
3.	Carrier	0-3	
4.	Slot	0-3, 5-8, 13-16, 18-21	
5.	Circuit	0-3	

EMULATION OPTIONS (Fields 6-15)

6.	Switch Network/Private Line	0 1	Switch Network Private line
7.	Make Busy On Local Loopback	0 1	Disabled Enabled
8.	Data Module For Local Loopback	0 1	Disabled Enabled
9.	Auto Answer	0 1	Disabled Enabled

10.	Send Space	0	Disabled
		1	Enabled
11.	Signal-Loss	0	Disabled
		1	Enabled
12.	Reserved	0	Disabled
		1	Enabled
13.	Slaved	0	Unslaved
		1	Slaved
14.	Timing	0	Internal
		1	External
15.	Keyboard Dialing	0	Disabled
		1	Enabled

Special Error Codes

81 - Enter a valid data module equipment location in fields 1-5.

82 - The query failed because of a maintenance conflict.

83 - The query failed because of an unsuccessful scanner request.

84 - The query failed because of a scanner delay or disconnected or maintenance busied equipment.

Procedure 070 Word 4 — Data Module EIA Lead Status

66

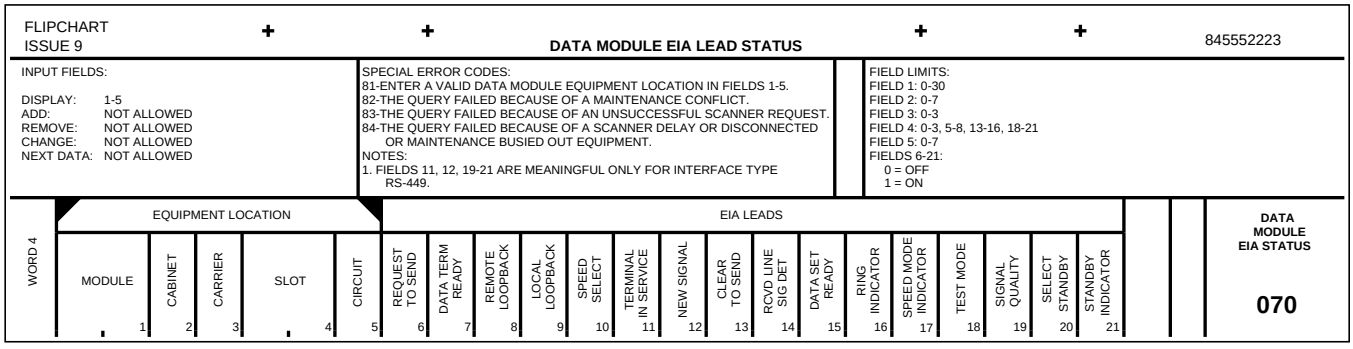
Purpose

Use Procedure 070 Word 4 to display the status of the EIA interface leads on a data module. This procedure only displays information about data modules administered in the 050-series of procedures.

Related Procedures

Use Procedure 070 Words 1-3 to display other information about these multiappearance voice terminals and data modules.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-3

EIA LEADS (Fields 6-21)

0	Off
1	On

6.	Request to Send	0-1
7.	Data Term Ready	0-1
8.	Remote Loopback	0-1
9.	Local Loopback	0-1

10.	Speed Select	0-1
11.	Terminal In Service	0-1
12.	New Signal	0-1
13.	Clear to Send	0-1
14.	Received Line Signal Detector	0-1
15.	Data Set Ready	0-1
16.	Ring Indicator	0-1
17.	Speed Mode Indicator	0-1
18.	Test Mode	0-1
19.	Signal Quality	0-1
20.	Select Standby	0-1
21.	Standby Indicator	0-1

Notes

1. Fields 11, 12, and 19-21 are meaningful for interface type RS-449 only.

Special Error Codes

81 - Enter a valid data module equipment location in fields 1-5.

82 - The query failed because of a maintenance conflict.

83 - The query failed because of an unsuccessful scanner request.

84 - The query failed because of a scanner delay or disconnected or maintenance busied equipment.

Procedure 075 Word 1 — Extension-Related Searches

67

Purpose

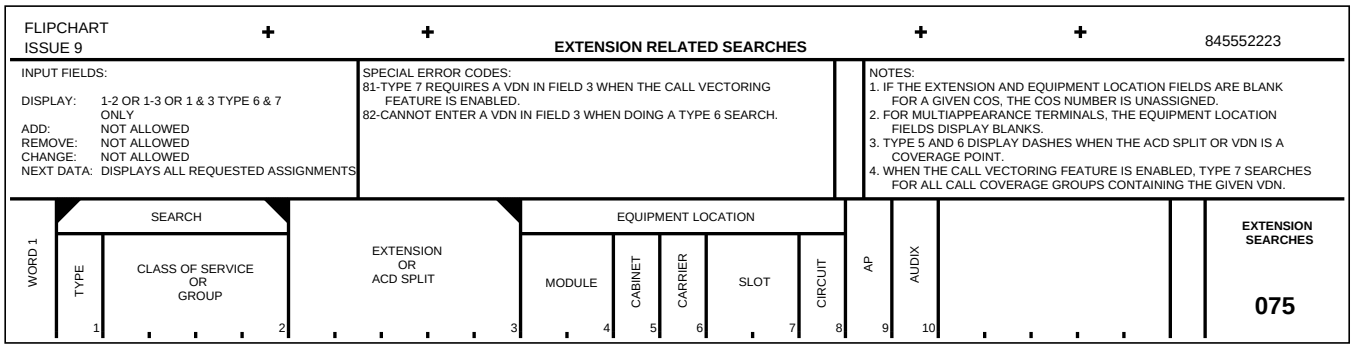
Use Procedure 075 Word 1 to display extensions and equipment locations assigned to a class of service (COS), Call Pickup group, Attendant Control of Voice Terminals restriction group, or Call Coverage group.

Related Procedures

Use Procedure 000 Words 1 and 2 to assign extensions to classes of service, Call Pickup groups, Call Coverage groups, and attendant controlled restriction groups.

Use Procedure 011 Word 1 to assign coverage points in a Call Coverage path.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2 (types 1-5) or fields 1 and 3 (types 6 and 7).
Add:	Not allowed.
Remove:	Not allowed.
Change:	Not allowed.
Next Data:	Displays all requested assignments.

Field Ranges and Encodes

SEARCH (Fields 1-2)

1. Type

1	Extension for class of service (000 Word 1)
2	Extension for Call Pickup group (000 Word 2)
3	Extension controlled by attendant (000 Word 2)
4	Principal for coverage group (000 Word 2)
5	Coverage points for coverage group (011 Word 1)
6	Coverage groups for coverage point extension (011 Word 1)
7	Coverage groups for coverage point ACD split or VDN (011 Word 1)

Encode types 5 and 6 display dashes when the ACD split or VDN is a coverage point.

When the Call Vectoring feature is enabled, type 7 searches for Call Coverage groups containing the given VDN.

2. Class of Service or Group

-, 1-9999

Enter 1-63 for COS, 1-999 for Call Pickup groups, 1-63 for Attendant Control of Voice Terminal groups, and 1-4096 for Call Coverage groups.

3. Extension or ACD Split

-, 000-99999 for extensions or VDNs, 1-60 for ACD splits

EQUIPMENT LOCATION (Fields 4-8)

4. Module

-, 0-30

5. Cabinet

-, 0-7

6.	Carrier	-, 0-3
7.	Slot	-, 0-3, 5-8, 13-16, 18-21
8.	Circuit	-, 0-7
9.	AP	-, 0-7
10.	AUDIX	-, 0-8

Notes

1. If the extension and equipment location fields are dashed for a given COS, the COS number is unassigned.
2. For multiappearance terminals, the equipment location fields display dashes.

Special Error Codes

81 - Type 7 requires a VDN in field 3 when Call Vectoring is enabled.

82 - You cannot enter a VDN in field 3 when doing a type 6 search.

Procedure 076 Word 1 — Search for Hunting Assignments

68

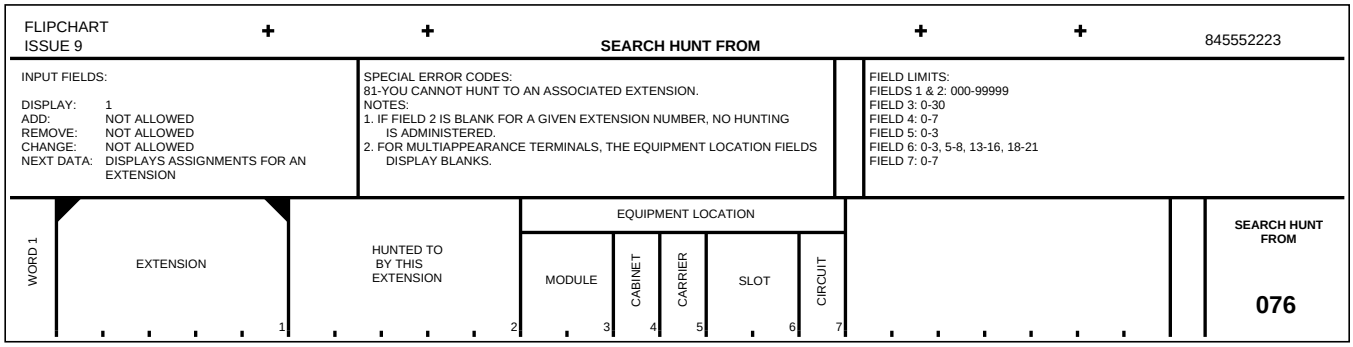
Purpose

Use Procedure 076 Word 1 to display extensions (with their assigned equipment location) that hunt to another specific extension.

Related Procedures

Use Procedure 000 Word 2 to assign extension hunting.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays assignments for an extension.

Field Ranges and Encodes

1.	Extension	000-99999
2.	Hunted to by this Extension	000-99999

EQUIPMENT LOCATION (Fields 3-7)

3.	Module	0-30
4.	Cabinet	0-7
5.	Carrier	0-3
6.	Slot	0-3, 5-8, 13-16, 18-21
7.	Circuit	0-3

Notes

1. If field 2 is dashed for a given extension number, no hunting is administered.
2. For multiappearance terminals, the equipment location fields display dashes.

Special Error Codes

81 - You cannot hunt to an associated extension.

Procedure 100 Word 1 — Trunk Group Translation

69

Purpose

Use Procedure 100 Word 1 to administer the following to trunk groups:

- — Dial access codes (DACs)
- — Trunk type
- — Dial access restriction
- — Personal central office (CO) line appearance (for multiappearance terminals).

Prerequisite Procedures

If assigning a DAC in this procedure, use Procedure 350 Word 1 to administer the first dialed digit and the number of digits for trunk DACs.

Before a given trunk group is removed in this procedure, verify that the trunk group information has been removed in all of the following procedures:

012 Word 1, 026 Word 1, 031 Word 2, 100 Words 2-4, 104 Words 1 and 2, 115 Word 1, 116 Word 1, 150 Word 1, 155 Word 1, 180 Word 1, 211 Word 2, and 212 Word 2.

Related Procedures

Use Procedure 012 Word 1 to administer a name to a trunk group for the name display related features.

Use Procedure 026 Word 1 to administer a queuing trunk group.

Use Procedure 027 Words 1-3 to administer auxiliary trunk equipment locations for recorded announcement.

Use Procedure 031 Word 2 to terminate a trunk group to a vector directory number (VDN).

Use Procedure 057 Words 1-3 to administer a CO line to a trunk equipment location.

Use Procedure 101 Words 1 and 2 to administer characteristics of trunks administered to a trunk group.

Use Procedure 102 Word 1 to administer miscellaneous trunk restriction groups.

Use Procedure 103 Word 1 to administer network trunk group translations.

Use Procedure 104 Words 1 and 2 to administer Main/Satellite trunk group translations.

Use Procedure 106 Word 1 to view trunk maintenance busy information.

Use Procedure 107 Words 1-7 to administer Automatic Transmission Measurement System (ATMS).

Use Procedure 108 Word 1 to administer Integrated Services Digital Network (ISDN) terminating test line telephone digits to an ISDN trunk group.

Use Procedures 110 Word 1 and 111 Word 1 to administer trunk DACs and restricted DAC entry numbers.

Use Procedure 115 Word 1 to administer trunk group termination to special service (SS) attendants, Centralized Attendant Service (CAS), and Automatic Call Distribution (ACD).

Use Procedure 116 Word 1 to administer trunk assignments to a DS1/ISDN interface.

Use Procedure 120 Word 1 to administer Automatic Circuit Assurance (ACA) trunk group information.

Use Procedure 150 Word 1 to administer trunks to trunk groups.

Use Procedure 155 Word 1 to administer contact interface boards.

Use Procedure 175 Word 1 to view trunk restriction groups.

Use Procedure 178 Word 1 to view trunk characteristics.

Use Procedure 180 Word 1 to administer trunk groups to modem pools.

Use Procedures 202 Word 1 and 204 Word 1 for console administration with trunk groups.

Use Procedures 211 Word 1 and 212 Word 1 for CAS administration with trunk groups.

Use Procedure 257 Word 3 to administer Distributed Communications System (DCS) node and trunk group assignments.

Use Procedure 270 Word 5 to administer the association of a trunk group with extension or attendant partitions.

Use Procedure 301 Words 1 and 2 to administer code restriction and digit absorption to trunk groups and code restriction types.

Use Procedure 302 Word 1 to administer the numbering plan area (NPA) and office codes to trunk groups.

Use Procedure 305 Words 1 and 2 to administer AUTOVON trunk group routing patterns.

Use Procedure 309 Word 1 to administer a trunk group to Automatic Route Selection (ARS).

Use Procedure 321 Word 1 to administer a trunk group to Automatic Alternate Routing (AAR).

Use Procedure 330 Words 1 and 2 to administer Queuing trunk group translations.

Use Procedure 354 Word 2 to administer extension number steering for access to trunk groups.

Cautions

If a given trunk group is removed in this procedure, remove translations for that trunk group using the following procedures. This is necessary if the trunk group number is going to be used again later. Any old trunk group translations that have not been removed may cause unwanted results.

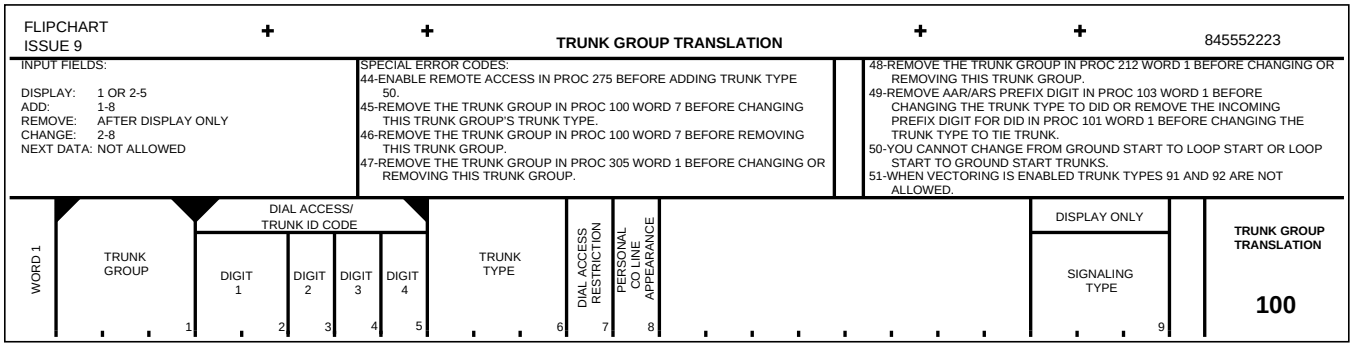
027 Words 1-3, 057 Word 1, 100 Word 5, 101 Words 1 and 2, 102 Word 1, 103 Word 1, 106 Word 1, 107 Words 1-7, 108 Word 1, 110 Word 1, 111 Word 1, 120 Word 1, 202 Word 1, 204 Word 1, 211 Word 2, 212 Words 1 and 2, 257 Word 3, 270 Word 5, 301 Words 1 and 2, 302 Word 1, 305 Word 1, 309 Word 1, 321 Word 1, and 330 Words 1 and 2.

When the trunk type is changed in this procedure, information administered in Procedures 103 Word 1 and 104 Word 1 for the original trunk type may cause Main/Satellite or network problems.

Coordinate removal and change of trunk DACs with DAC assignments made in Procedure 354 Word 2.

Changing DACs affects users of Abbreviated Dialing and Mnemonic Dialing.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2-5.
Add:	Fields 1-8.
Change:	Fields 2-8.
Remove:	Fields 1-8.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group -, 18-999

DIAL ACCESS CODE/TRUNK ID CODE (Fields 2-5)

2. Digit 1 -, 0-9, 11 (*), 12 (#)

3. Digit 2 -, 0-9

4. Digit 3 -, 0-9

5. Digit 4 -, 0-9

6. Trunk Type
   - 0 Unassigned
   - 2 Touch-tone digit register (0)
   - 5 Attendant Conference (0)
   - 6 Queuing (0)
   - 12 CCSA/APLT 2-way with dial tone out (9)
   - 13 CCSA/APLT 2-way with dial tone out (10)

14 CCSA/APLT 2-way (8)
15 CCSA/APLT 2-way (5)
16 CO 1-way in attendant completing (1)
17 CO 1-way out DOD (1)
18 CO 1-way out DOD with party test (2)
19 CO 2-way attendant completing in/DOD out (1)
20 CO 2-way with party test attendant completing in/DOD out (2)
21 FX 1-way in attendant completing (1)
22 FX 1-way out DOD (1)
23 FX 1-way out DOD with party test (2)
24 FX 2-way attendant completing in/DOD out (1)
25 FX 2-way with party test attendant completing in/DOD out (1)
26 WATS 1-way in attendant completing (1)
27 WATS 1-way out DOD or toll terminal access for TSPS (1)
28 WATS 1-way out DOD with party test (2)
30 DID immediate start (3)
31 DID wink start (3)
32 TIE 1-way in dial repeating (4)
33 TIE 1-way out automatic (4)
34 TIE 1-way out dial repeating (4)
35 TIE 1-way in automatic (4)
36 TIE 2-way dial repeating in and out (4)
37 TIE 2-way dial repeating in/automatic out (4)
38 TIE 2-way automatic in/dial repeating out (4)
39 TIE 2-way automatic in and out (4)
40 TIE 1-way in dial repeating (27)
41 TIE ETN 2-way dial repeating (26)
42 TIE ETN 1-way in dial repeating (26)
43 TIE ETN 1-way out dial repeating (26)
44 TIE 2-way dial repeating (27)
45 TIE 2-way dial repeating in/automatic out (27)
46 TIE ETN 2-way dial repeating or delay dial in (24)
47 TIE ETN 2-way dial repeating (24)
50 Remote Access 2-way (1)
51 Telephone dictation interface (7)
52 Recorded Announcement interface (7)
53 Code Calling interface
54 Loudspeaker Paging interface (7)
55 Touch-Tone sender (0)
57 CAS release link trunk 1-way outgoing from branch (13)
58 ANI interface (6)
62 Music on Hold interface (0)
65 SN241 contact interface (0)
66 CAS release link trunk 1-way incoming at main (14)

67 Audio interface (0)
70 Main/Satellite 1-way in (15)
71 Main/Satellite 1-way out (15)
72 Main/Satellite 2-way (15)
73 Main/Satellite 1-way in (16)
74 Main/Satellite 1-way out (16)
75 Main/Satellite 2-way (16)
76 Main/Satellite 1-way in (17)
77 Main/Satellite 1-way out (17)
78 Main/Satellite 2-way (17)
90 ACD first announcement or Call Vectoring announcement (7)
91 ACD second announcement (7)
92 ACD origin announcement (7)
93 Malicious Call Trace recorder (7)
100 Data-tones tone detector (0)
101 Analog data modem pool (4)
102 Digital data modem pool (18)
103 Host access PDM (18)
104 Host access TDM (18)
105 3B5 AP DCPI (18)
106 EIA 4 Port (18)
107 ISN/EIA port (18)
108 DMI host terminating, dial repeating in/automatic out (5)
109 DMI dial repeating in and out (11)
120 ISDN dynamic (20)

The default signaling encode is in parentheses after each trunk type encode. These signaling type encodes are defined in field 9.

When a code call interface is administered in this field, a trunk assignment is not required.

Legal trunk types for DCS are 32-47 and 73-78.

Legal trunk types for multiappearance terminal personal CO line appearances are 19, 24, 26, and 27.

It is recommended that you do not assign a trunk group with trunk type 30 to an ARS pattern.

7.	Dial Access Restriction	0 1	Access is allowed using DAC Access only for tests and night service

When fields 2-5 are dashed, this field is automatically changed to a zero. This can be verified by doing a display routine.

If field 8 is 1, field 7 must be 1.

Do not assign dial access restriction to Main/Satellite trunks that use extension number steering.

8.	Personal CO Line Appearance	0 1	Not used for CO line appearance Used for CO line appearance

DISPLAY ONLY (Field 9)

9.	Signaling Type	0	No signaling required
		1	Ground start
		2	Ground start with party test
		3	Loop/reverse battery, wink start
		4	E&M immediate start in and out
		5	E&M wink start in, immediate start out
		6	ANI signaling
		7	Auxiliary equipment
		8	E&M delay dial in, immediate start out
		9	E&M delay dial in wink/delay with dial tone out
		10	E&M wink start in, wink/delay dial with dial tone out
		11	E&M wink start in, wink/delay dial out (universal sequence)
		12	E&M immediate start in, wink/delay dial out
		13	E&M release link trunk out
		14	E&M release link trunk in
		15	E&M Main/Satellite, immediate start
		16	E&M Main/Satellite, wink start
		17	E&M Main/Satellite, delay dial
		18	S-channel signaling, host access-GPP, host access EIA
		19	Loop start
		20	Digital multiplex interface ISDN message oriented signaling
		21	E&M wink start both ways
		22	E&M delay dial both ways

23 E&M delay dial in, wink/delay dial out
24 E&M delay dial in, wink/delay dial out with fail on timeout
25 E&M immediate start in, wink/delay dial out with fail on timeout
26 E&M wink start in, wink/delay dial out with fail on timeout
27 Analog line loop

Notes

1. ISDN Dynamic Trunk Type 120

   For ISDN trunk groups, as well as other types of trunk groups, the entered trunk type to some extent defines the call handling capabilities for the trunk group. For example, if a trunk group is administered as trunk type 19, all incoming calls over that trunk group are routed to the attendant console. For trunk types 30 and 31 the switch expects station number digits on all incoming trunks. In contrast, the ISDN dynamic trunk type (120) allows the trunk group to process calls as a different trunk type on a call by call basis. For example, one incoming call over the group may expect station number digits, while the next call over the trunk group may expect a network number. Trunk type 120 allows flexibility in processing calls as opposed to a fixed static trunk type. Trunk type 120 is recommended for call by call situations.

   Use the following rules to determine how to process incoming calls over the ISDN dynamic trunk type:

   1. If a network-specific facility (NSF) information element is present in the setup message and the feature/service indication is service then:
      a. If the service indicated is SDN, ETN, or Private Line, process the call like a trunk type 46 call.
      b. Otherwise process the call like a trunk type 31 call.
   2. If a network-specific facility information element is present in the setup message and the feature/service indication is feature or there is no NSF at all, then determine the trunk type as follows (based on values administered in Procedure 116 Word 1 field 10):
      a. If the endpoint specified is ‘‘PBX’’, the call is processed like a trunk type 41 call.
      b. If the endpoint specified is ‘‘Host Computer’’, the call is processed like a trunk type 108 call.
      c. If the endpoint specified is ‘‘Network’’, the call is processed like a call trunk type 31 call.

2. Trunk group 17 is automatically assigned to a touch-tone register (type 2). Assign the trunk group to touch tone sender circuits in Procedure 150 Word 1.
3. Trunk types 90, 91, and 92 have the following meanings based on whether the Call Vectoring feature is enabled or disabled (see Procedure 276 Word 1 field 5).

   Vectoring enabled:
   90 = Vector recorded announcement
   91 and 92 are not used

   Vectoring disabled:
   90 = ACD first recorded announcement
   91 = ACD second recorded announcement
   92 = ACD origin announcement
4. Party test signaling is used by COs to find out which member of a party line is using the line. You can assign party test to trunks on the switch, but this is not recommended.

Special Error Codes

44 - Enable Remote Access in Procedure 275 before adding trunk type 50.

45 - Remove the trunk group in Procedure 100 Word 7 before changing this trunk group's trunk type.

46 - Remove the trunk group in Procedure 100 Word 7 before removing this trunk group.

47 - Remove the trunk group in Procedure 305 Word 1 before changing or removing this trunk group.

48 - Remove the trunk group in Procedure 212 Word 1 before changing or removing this trunk group.

49 - Remove AAR/ARS prefix digit in Procedure 103 Word 1 before changing the trunk type to DID, or remove the incoming prefix digit for DID in Procedure 101 Word 1 before changing the trunk type to tie trunk.

50 - You cannot change from ground start to loop start or loop start to ground start trunks.

51 - When Call Vectoring is enabled, trunk types 91 and 92 are not allowed.

52 - The trunk type is incompatible with ISDN signaling (see Procedure 100 Word 3).

53 - The signaling type is incompatible with the trunk type previously assigned (see Procedure 100 Word 3).

54 - Party test signaling is not valid for DS1 (see Procedure 100 Word 3).

55 - Remove route advance for this trunk group in Procedure 100 Word 4 prior to assigning this trunk type.

56 - The DAC entered is not long enough.

57 - Remove the data in Procedure 100 Word 3 fields 3-7 prior to making a change.

58 - A trunk group assigned to a VDN must be removed in Procedure 031 Word 2 before it can be removed here.

59 - Set up the dialing plan in Procedure 350 Word 1.

80 - This DAC must be removed in Procedure 354 Word 2 before being removed here.

81 - All the trunks in a trunk group must be removed using Procedures 116 Word 1, 150 Word 1, 155 Word 1, and 180 Word 1 before the trunk group can be removed.

82 - Only 1 trunk group can be assigned as an outgoing RLT.

83 - This trunk group is assigned to ETA. The change or remove routine is not allowed. Remove the trunk group in Procedure 104 Word 1 first.

84 - If field 8 is 1, field 7 must be 1.

85 - The allowable trunk types for multiappearance terminal personal CO line appearance are 19, 24, 26, and 27.

86 - These trunk types are not compatible for this change (different circuit packs).

87 - The change routine is not allowed for either the original or changed trunk type.

88 - A queue trunk group assigned to CAS must be removed in Procedure 211 Word 1 before it can be removed here.

89 - A queue trunk group assigned to ACD must be removed in Procedure 026 Word 1 before it can be removed here.

90 - Trunk group is assigned. Remove it in Procedure 115 Word 1 before removing it here.

91 - Remove the trunk group assigned to name database in Procedure 012 Word 1 before removing it here.

92 - A change is not allowed for multiappearance terminal CO line appearances (i.e., changing field 8 from 0-1 or 1-0 is not allowed).

93 - Remove this trunk group in Procedure 309 Word 1 before removing here.

94 - Remove this trunk group in Procedure 321 Word 1 before removing here.

96 - Legal trunk types for DCS are 32-47 and 73-78.

97 - Legal trunk types for AVD are 32-47 and 70-78.

98 - This is an illegal trunk type for a trunk group terminating at CAS, ACD, or VDN.

Procedure 100 Word 2 — Trunk Groups - Data and Modem Pooling

70

Purpose

Use Procedure 100 Word 2 to administer the assignment of the following to a trunk group:

- Modem pool data characteristics
- Modem pool special requirements
- Host computer data characteristics
- Testing criteria for digital data trunks.

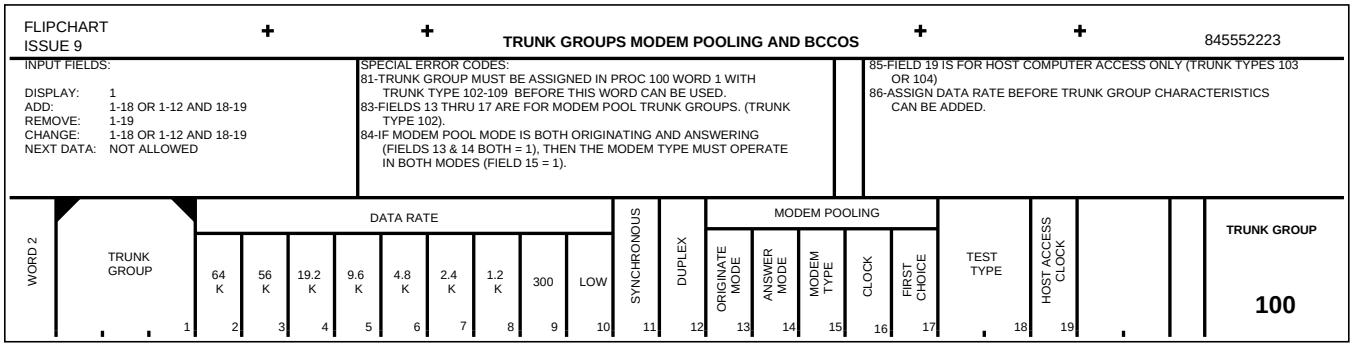
Prerequisite Procedures

For a digital data trunk modem pool, use Procedure 100 Word 1 to assign digital data trunk group with trunk type 102. If dial access code is assigned, set field 7 = 0. If a dial access code is not assigned, set field 7 = 1.

Related Procedures

See the Prerequisite Procedures, Related Procedures, and Cautions in Procedure 100 Word 1 for information on trunk group administration.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-7.
Change:	Fields 2-7.
Remove:	Fields 1-7.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group 18-999

DATA RATE (Fields 2-10)

0 Not active
1 Active

2. 64000 bps 0-1

3. 56000 bps 0-1

4. 19200 bps 0-1

5. 9600 bps 0-1

6. 4800 bps 0-1

7.	2400 bps	0-1	
8.	1200 bps	0-1	
9.	300 bps	0-1	
10.	Low	0-1	
11.	Synchronous	0	Asynchronous
		1	Synchronous
12.	Duplex	0	Full duplex
		1	Half duplex

MODEM POOLING (Fields 13-17)

13.	Originate Mode	0	Disabled
		1	Enabled
14.	Answer Mode	0	Disabled
		1	Enabled
15.	Modem Type	0	Modem can only operate in one mode
		1	Modem can operate in both modes
16.	Clock	0	Internal TDM clock
		1	Slaved TDM clock
17.	First Choice	0	Disabled
		1	Enabled

18.	Test Type	0	Disable digital facility testing
		1	No EIA loopback control
		2	EIA local loopback control
		3	EIA local and EIA remote loopback control
19.	Host Access Clock	0	Internal clock
		1	External clock

Notes

1. The following table lists data attributes for some AT&T analog data sets:

Modem	Duplex	Sync/ Async	Speed (bps)	Answer Mode	Originate Mode
103JR	full	async	up to 300	yes	yes
201CR	half	sync	2400	yes	yes
202SR	half	async	1200	yes	yes
208BR	half	sync	4800	yes	yes
212AR	full	async	low, 1200	yes	yes
212AR	full	sync	1200	yes	yes
2224A	full	async	300, 1200, 2400	yes	yes
2224A	full	sync	1200, 2400	yes	yes
2224G	full	async	300, 1200, 2400	yes	yes
2224G	full	sync	1200, 2400	yes	yes
2248A	full	async	4800	yes	yes
2296A	full	async	4800, 9600	yes	yes

Special Error Codes

81 - Assign the trunk Group in Procedure 100 Word 1 with trunk type 102-109 before using this procedure.

83 - Fields 13-17 are for modem pool trunk groups (trunk type 102).

84 - If modem pool mode is both originating and answering (fields 13 and 14 both = 1), then the modem type must operate in both modes (field 15 = 1).

85 - Field 19 is for Host Computer Access only (trunk types 103 and 104).

86 - Data rate must be assigned before trunk group characteristics can be added.

Procedure 100 Word 3 — Trunk Groups - Signaling and Other Parameters

71

Purpose

Use Procedure 100 Word 3 to administer the following to a trunk group:

- Signaling type
- Glare control
- Retry capability
- Outgoing permanent seizure on maintenance busy out
- Incoming permanent seizure alarming
- Failure threshold
- ISDN information element sending option
- Network service value (NSF).

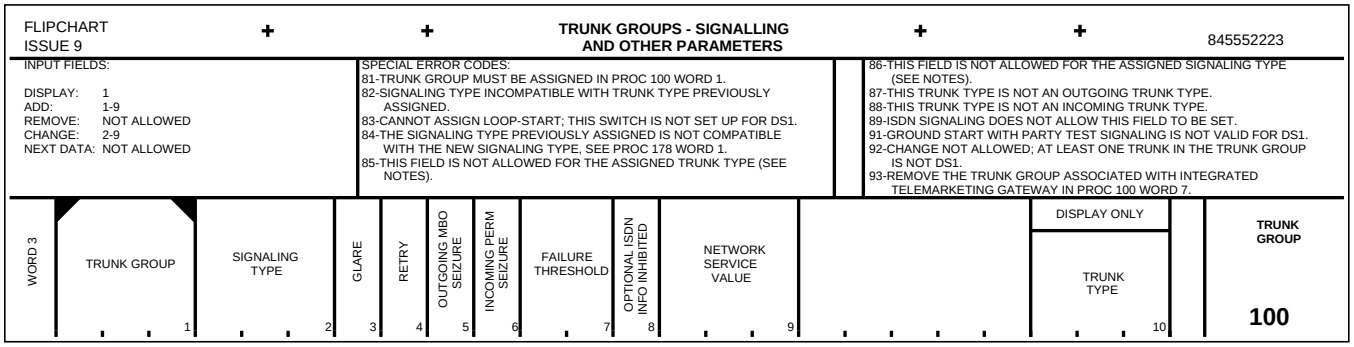
Prerequisite Procedures

Use Procedure 100 Word 1 to assign trunk groups.

Related Procedures

The signaling type administered in this procedure must be compatible with the trunk type assigned in Procedure 100 Word 1. See the tables in the Notes section.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-8.
Change:	Fields 2-8.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group -, 18-999

2. Signaling Type

0	No signaling required
1	Ground start
2	Ground start with party test
3	Loop/reverse battery, wink start
4	E&M immediate start in and out
5	E&M wink start in, immediate start out
6	ANI signaling
7	Auxiliary equipment
8	E&M delay dial in, immediate start out
9	E&M delay dial in wink/delay with dial tone out
10	E&M wink start in, wink/delay dial with dial tone out
11	E&M wink start in, wink/delay dial out (universal sequence)
12	E&M immediate start in, wink/delay dial out
13	E&M release link trunk out
14	E&M release link trunk in
15	E&M Main/Satellite, immediate start
16	E&M Main/Satellite, wink start
17	E&M Main/Satellite, delay dial

18 S-Channel signaling, host access-GPP, host access EIA
19 Loop start
20 Digital Multiplex Interface ISDN message oriented signaling
21 E&M wink start both ways
22 E&M delay dial both ways
23 E&M delay dial in, wink/delay dial out
24 E&M delay dial in, wink/delay dial out with fail on timeout
25 E&M immediate start in, wink/delay dial out with fail on timeout
26 E&M wink start in, wink/delay dial out with fail on timeout
27 Analog line loop

3. Glare

0 Treat glare as a single error (both ends redial)
1 Switch is in control (this switch is given priority)
2 Switch backs off (switch at other end is given priority)

Glare occurs when two switches attempt to seize the same trunk at the same time. This results in intercept treatment if this field is set to 0, and ISDN is not being used. Trunk group access priority must be given to one of the switches in order to avoid intercept treatment at one end.

In order to set this field to 1 or 2, the trunk type must be 41, 46, or 47 and the signaling type must be 21 or 22.

If one end of the trunk is administered as encode 0, the other end of the trunk must be administered as encode 0.

4. Retry

0 Disabled
1 Enabled

If this field is set to a 1 and trunk seizure fails, the switch attempts to place the call a second time without involving the user.

In order to set this field to a 1, the trunk type must be 41, 42, 43, 46, 47, or 120 or the signaling type must be 20.

5. Outgoing Maintenance Busy Out Seizure

   0 Disabled
   1 Enabled

   Maintenance Busy Out (MBO) seizure is put on a trunk so the far end knows when the trunk is busied out. This bit can be set for outgoing trunks.

   If this field is enabled at one end of the trunk, field 6 must be enabled at the opposite end.

6. Incoming Permanent Seizure

   0 Disabled
   1 Enabled

   Permanent seizure is put on trunk, so the far end knows when the trunk is seized. This bit can be set for incoming trunks.

   If field 5 is enabled at one end of the trunk, this field must be enabled at the opposite end.

7. Failure Threshold

   0-99

   In order to set this to a nonzero value, the trunk type must be 41, 42, 43, 46, or 47.

8. Optional ISDN Information Inhibited

   - ISDN not available
   0 Data included in ISDN message
   1 Data not included in ISDN message

   This field must be set to 0 to route Look-Ahead Interflow calls or DCS calls over the trunk group assigned in field 1.

9. Network Service Value

   -, 1-511, 999

DISPLAY ONLY (Field 10)

10. Trunk Type

    0 Unassigned
    2 Touch-tone digit register (0)
    5 Conference - Attendant (0)
    6 Queuing (0)
    12 CCSA/APLT 2-way with dial tone out (9)
    13 CCSA/APLT 2-way with dial tone out (10)

14 CCSA/APLT 2-way (8)
15 CCSA/APLT 2-way (5)
16 CO 1-way in attendant completing (1)
17 CO 1-way out DOD (1)
18 CO 1-way out DOD with party test (2)
19 CO 2-way attendant completing in/DOD out (1)
20 CO 2-way with party test attendant completing in/DOD out (2)
21 FX 1-way in attendant completing (1)
22 FX 1-way out DOD (1)
23 FX 1-way out DOD with party test (2)
24 FX 2-way attendant completing in/DOD out (1)
25 FX 2-way with party test attendant completing in/DOD out (2)
26 WATS 1-way in attendant completing (1)
27 WATS 1-way out DOD or toll terminal access for TSPS (1)
28 WATS 1-way out DOD with party test (2)
30 DID immediate start (3)
31 DID wink start (3)
32 TIE 1-way in dial repeating (4)
33 TIE 1-way out automatic (4)
34 TIE 1-way out dial repeating (4)
35 TIE 1-way in automatic (4)
36 TIE 2-way dial repeating in and out (4)
37 TIE 2-way dial repeating in/automatic out (4)
38 TIE 2-way automatic in/dial repeating out (4)
39 TIE 2-way automatic in and out (4)
40 TIE 1-way in dial repeating, delay dial (27)
41 TIE ETN 2-way dial repeating (26)
42 TIE ETN 1-way in dial repeating (26)
43 TIE ETN 1-way out dial repeating (26)
44 TIE 2-way dial repeating (27)
45 TIE 2-way dial repeating in/automatic out (27)
46 TIE ETN 2-way dial repeating or delay dial in (24)
47 TIE ETN 2-way dial repeating (24)
50 Remote Access 2-way (1)
51 Telephone dictation interface (7)
52 Recorded Announcement interface (7)
53 Code Calling interface (7)
54 Loudspeaker Paging interface (7)
55 Touch-Tone sender (0)
57 CAS release link trunk 1-way outgoing from branch (13)
58 ANI interface (6)
62 Music on Hold interface (0)
65 SN241 contact interface (0)
66 CAS release link trunk 1-way incoming at main (14)

67 Audio interface (0)
70 Main/Satellite 1-way in (15)
71 Main/Satellite 1-way out (15)
72 Main/Satellite 2-way (15)
73 Main/Satellite 1-way in (16)
74 Main/Satellite 1-way out (16)
75 Main/Satellite 2-way (16)
76 Main/Satellite 1-way in (17)
77 Main/Satellite 1-way out (17)
78 Main/Satellite 2-way (17)
90 ACD First announcement (7)
91 ACD Second announcement (7)
92 ACD Origin announcement (7)
93 Malicious Call Trace recorder (7)
100 Data-tones tone detector (0)
101 Analog data modem pool (4)
102 Digital data modem pool (18)
103 Host access PDM (18)
104 Host access TDM (18)
105 3B5 AP DCPI (18)
106 EIA 4 Port (18)
107 ISN/EIA port (18)
108 DMI host terminating, dial repeating in/automatic out (5)
109 DMI dial repeating in and out (11)
120 ISDN dynamic (20)

Notes

1. When changing signaling type for a particular trunk group, make sure the trunk type is compatible with the new signaling type. If trunks are assigned to the trunk group, the old and new signaling type must have the same board type.

   The following table contains, for each trunk code, a list of which signaling code(s) may be used with that trunk type. The signaling codes are defined as follows:

   E&M = Ear and mouth
   GS = Ground start
   RB = Reverse battery
   LS = Loop start
   ISDN = Digital

Trunk Type and Description	Signaling Codes					
Special Trunks:	E&M	GS	RB	LS	ISDN	Other
2 Touch-tone digit register						0
5 Attendant Conference						0
6 Queuing						0

Trunk Type and Description	Signaling Codes					
All 2-way CCSA/APLT Trunks:	E&M	GS	RB	LS	ISDN	Other
12 CCSA/APLT 2-way with delay dial out	9*					
13 CCSA/APLT 2-way with dial tone out	10*					
14 CCSA/APLT 2-way	8*					
15 CCSA/APLT 2-way	5*					
* = Default signaling						

Trunk Type and Description	Signaling Codes					
Regular CO Trunks:	E&M	GS	RB	LS	ISDN	Other
16 1-way in attendant completing	4,21#	1*		19	20	
17 1-way out DOD	4,21#	1*		19	20	
18 1-way out DOD with party test		2*				
19 2-way in attendant completing/DOD	4,21	1*		19	20	
20 2-way with party test attendant completing in/DOD out		2*				
* = Default signaling # = Direct connects to 4 ESS with multifrequency signaling require wink start in						

Trunk Type and Description	Signaling Codes					
Foreign Exchange Trunks:	E&M	GS	RB	LS	ISDN	Other
21 1-way in attendant completing	4,21#	1*		19	20	
22 1-way out DOD	4,21#	1*		19	20	
23 1-way out DOD with party test		2*				
24 2-way attendant completing in /DOD out	4,21#	1*		19	20	
25 2-way with party test attendant completing in/DOD out		2*				
* = Default signaling # = Direct connects to 4 ESS with multifrequency signaling require wink start in						

Trunk Type and Description	Signaling Codes					
WATS Trunks:	E&M	GS	RB	LS	ISDN	Other
26 1-way in attendant completing	4,21#	1*		19	20	
27 1-way out DOD or toll terminal access for TSPS	4,21#	1*		19	20	
28 1-way out DOD with party test		2*				
* = Default signaling # = Direct connects to 4 ESS with multifrequency signaling require wink start in						

Trunk Type and Description	Signaling Codes					
DID Trunks:	E&M	GS	RB	LS	ISDN	Other
30 Immediate start	4		3*		20	
31 Wink start	11		3*		20	
* = Default signaling						

Trunk Type and Description	Signaling Codes					
Tie Trunks:	E&M	GS	RB	LS	ISDN	Other
32 1-way in dial repeating	4*					
33 1-way out automatic	4*					
34 1-way out dial repeating	4*	1				
35 1-way in automatic	4*	1				
36 2-way dial repeating both ways	4*					
37 2-way dial repeating in/auto out	4*					
38 2-way auto in/dial repeating out	4*	1				
39 2-way auto both ways	4*	1				
40 1-way in dial rep., delay dial	27*					
41 ETN 2-way dial repeating	11,21 22,26*				20	
42 1-way in dial repeating	11,21 22,26*				20	
43 1-way out dial repeating	11,21 22,26*				20	
44 2-way dial repeating	27*					
45 2-way dial repeating in/automatic out	27*					
46 ETN 2-way dial repeating or delay dial in	12,21 22,24*,25				20	
47 ETN 2-way dial repeating	21,22 23,24*				20	
* = Default signaling # = Direct connects to 4ESS with multi frequency signaling require wink start in						

Trunk Type and Description	Signaling Codes					
Special Trunks:	E&M	GS	RB	LS	ISDN	Other
50 Remote access 2-way	4,21	1*			20	
51 Telephone dictation interface						7*
52 Recorded announcement interface						7*
53 Code calling interface						7*
54 Loudspeaker paging interface						7*
55 Touch-tone sender						0
57 CAS release link trunk 1-way outgoing from branch	13*					
58 ANI interface						6*
62 Music on hold interface						0
65 Contact interface						0
66 CAS release link trunk 1 way incoming at main	14*					
67 Audio interface						0
90 Vector off: ACD 1st rec. ann Vector on: Vector rec. ann.						7*
91 Vector off: ACD 2nd rec. ann Vector on: Not used						7*
92 Vector off: ACD origin ann Vector on: Not used						7*
93 Malicious Call Trace recorder						7*
* = Default signaling						

Trunk Type and Description	Signaling Codes					
Main/Satellite Tie Trunks:	E&M	GS	RB	LS	ISDN	Other
70 1-Way in immediate start	15*					
71 1-way out immediate	15*					
72 2-way immediate start	15*					
73 1-way in wink start	16*					
74 1-way out wink start	16*					
75 2-way wink start	16*					
76 1-way in delay dial	17*					
77 1-way out delay dial	17*					
78 2-way delay dial	17*					
* = Default signaling						

Trunk Type and Description	Signaling Codes					
Data Trunks	E&M	GS	RB	LS	ISDN	Other
100 Tone detector						0
101 Analog data modem pool	4*					
102 Digital data modem pool						18*
103 Host access PDM						18*
104 Host access TDM						18*
105 3B5 AP DCPI						18*
106 EIA 4 port						18*
107 ISN/EIA port						18*
108 DMI host terminating dial repeating in/auto out	5*				20	
109 DMI dial repeating in and out	11*				20	
* = Default signaling						

Trunk Type and Description	Signaling Codes					
ISDN Trunks	E&M	GS	RB	LS	ISDN	Other
120 ISDN dynamic					20*	
* = Default signaling						

Special Error Codes

81 - Trunk group must be assigned in Procedure 100 Word 1.

82 - The signaling type is incompatible with the trunk type previously assigned.

83 - Cannot assign loop-start; this switch is not set up for DS1.

84 - The signaling type previously assigned is not compatible with the new signaling type; see Procedure 178 Word 1.

85 - This field is not allowed for the assigned trunk type (see Notes).

86 - This field is not allowed for the assigned signaling type (see Notes).

87 - This trunk type is not an outgoing trunk type.

88 - This trunk type is not an incoming trunk type.

89 - ISDN signaling does not allow this field to be set.

91 - Ground start with party test signaling is not valid for DS1.

92 - Change not allowed; at least one trunk in the trunk group is not DS1.

93 - Trunk group associated with Telemarketing Gateway must be removed in Procedure 100 Word 7.

Procedure 100 Word 4 — Trunk Groups - Route Advance

72

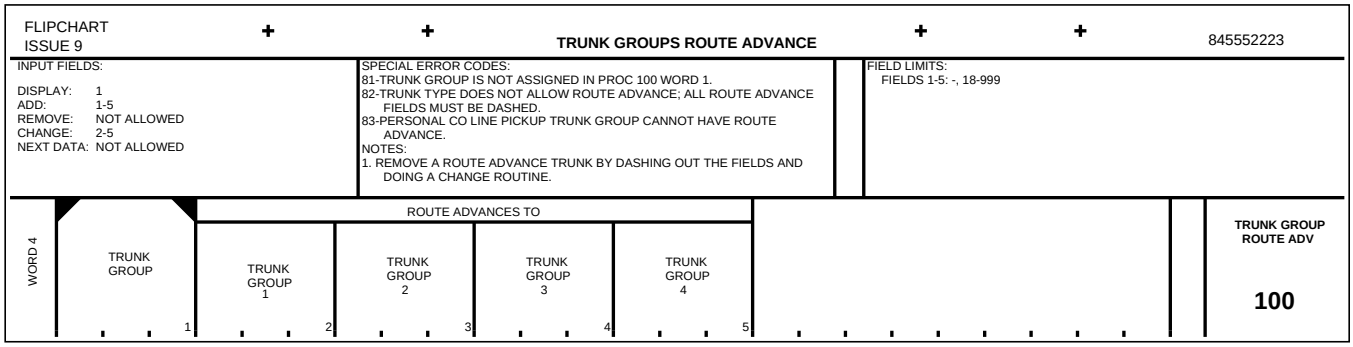
Purpose

Use Procedure 100 Word 4 to administer the trunk group Route Advance feature.

Prerequisite Procedures

Use Procedure 100 Word 1 to assign the trunk group(s).

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-5.
Change:	Fields 2-5.
Remove:	Not allowed (remove a Route Advance trunk group by dashing out the fields and doing a change routine).
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group -, 18-999

ROUTE ADVANCES TO (Fields 2-5)

2. Trunk Group 1 -, 18-999

3. Trunk Group 2 -, 18-999

4. Trunk Group 3 -, 18-999

5. Trunk Group 4 -, 18-999

Notes

1. The following are the trunk types that can be administered to Route Advance (the default signaling type is given in parentheses).

   2 = Touch-tone digit register (0)
   6 = Queuing (0)
   12 = CCSA/APLT 2-way with dial tone out (9)
   13 = CCSA/APLT 2-way with dial tone out (10)
   14 = CCSA/APLT 2-way (8)
   15 = CCSA/APLT 2-way (5)
   17 = CO 1-way out DOD (1)
   18 = CO 1-way out DOD with party test (2)
   19 = CO 2-way attendant completing in/DOD out (1)
   20 = CO 2-way with party test attendant completing in/DOD out (2)
   22 = FX 1-way out DOD (1)
   23 = FX 1-way out DOD with party test (2)
   24 = FX 2-way attendant completing in/DOD out (1)
   25 = FX 2-way with party test attendant completing in/DOD out (2)
   27 = WATS 1-way out DOD or toll terminal access for TSPS (1)

28 = WATS 1-way out DOD with party test (2)
33 = TIE 1-way out automatic (4)
34 = TIE 1-way out dial repeating (4)
36 = TIE 2-way dial repeating in and out (4)
37 = TIE 2-way dial repeating in/automatic out (4)
38 = TIE 2-way automatic in/dial repeating out (4)
39 = TIE 2-way automatic in and out (4)
41 = TIE ETN 2-way dial repeating (26)
43 = TIE ETN 1-way out dial repeating (26)
44 = TIE 2-way dial repeating (27)
45 = TIE 2-way dial repeating in/automatic out (27)
46 = TIE ETN 2-way dial repeating (24)
47 = TIE ETN 2-way dial repeating (24)
50 = Remote Access 2-way (1)
51 = Telephone dictation interface (7)
53 = Code Calling interface (7)
54 = Loudspeaker Paging interface (7)
58 = ANI interface (6)
65 = SN241 contact interface (0)
66 = CAS release link trunk 1-way incoming at main (14)
71 = Main/Satellite 1-way out (15)
72 = Main/Satellite 2-way (15)
74 = Main/Satellite 1-way out (16)
75 = Main/Satellite 2-way (16)
77 = Main/Satellite 1-way out (17)
78 = Main/Satellite 2-way (17)
93 = Malicious Call Trace recorder (7)
102 = Digital data modem pool (18)
103 = Host access PDM (18)
104 = Host access TDM (18)
105 = 3B5 AP DCPI (18)
106 = EIA 4 Port (18)
107 = ISN/EIA port (18)
108 = DMI host terminating, dial repeating in/automatic out (5)
109 = DMI dial repeating in and out (11)
120 = ISDN dynamic (20)

Special Error Codes

81 - Trunk group is not assigned in Procedure 100 Word 1.

82 - Trunk type does not allow route advance; all route advance fields must be dashed.

83 - Personal CO Line Pickup trunk group cannot have route advance.

Procedure 100 Word 7 — ITG Trunk Group Association

73

Purpose

Use Procedure 100 Word 7 to administer trunk groups to ITG links, and to administer software trunk records.

Prerequisite Procedures

Use Procedure 100 Word 1 to administer trunk group translations.

Use Procedure 100 Word 3 to set up the trunk signaling type and other parameters.

Use Procedure 260 Word 1 to administer ISDN/PRI interface characteristics.

Use Procedure 262 Word 1 to administer ISDN/PRI board parameters.

Flipchart

FLIPCHART
ISSUE 9

INTEGRATED TELEMARKETING GATEWAY
TRUNK GROUP ASSOCIATION

845552223

INPUT FIELDS:

DISPLAY: 1, 2-5
ADD: NOT ALLOWED
REMOVE: 1-6
CHANGE: 1-6
NEXT DATA: DISPLAYS THE NEXT ASSIGNED ITG LINK

SPECIAL ERROR CODES:
80-THIS TRUNK GROUP IS NOT ASSOCIATED WITH AN ITG LINK.
81-THIS EQUIPMENT LOCATION IS NOT AN ISDN BOARD.
82-THIS EQUIPMENT LOCATION IS NOT AN ITG LINK LOCATION.
83-TRUNK TYPE MUST BE 47, SIGNALING TYPE MUST BE 20.
84-ALL ITG LINKS ARE ALREADY ASSIGNED.
85-A TRUNK GROUP WITH PHYSICAL TRUNKS ASSIGNED IS NOT ALLOWED FOR ITG LINKS.
86-THERE ARE NOT ENOUGH FREE RECORDS AVAILABLE FOR THIS REQUEST.
87-UNABLE TO FREE ALL THE RECORDS THAT WERE REQUESTED.

FIELD LIMITS:
FIELD 1: -, 18-999
FIELD 2: 0-30
FIELD 3: 0-7
FIELD 4: 0-3
FIELD 5: 5 OR 10
FIELD 6: 1-9999
FIELD 7: 0-10500

WORD 7	TRUNK GROUP 1	EQUIPMENT LOCATION: MODULE 2	CABINET 3	CARRIER 4	SLOT 5	INTEGRATED TELEMARKETING GATEWAY RECORDS 6		DISPLAY ONLY: FREE RECORDS 7	ITG 100

Fields Used or Required for Command Routines

Display:	Fields 1 and 2-5.
Add:	Not allowed. Use a change routine to change trunk groups from regular ISDN/PRI to ISDN/ITG trunk groups.
Remove:	Fields 1-6. The remove routine disassociates trunk group records with ITG. The D-channel trunk groups can then be added in Procedure 116 Word 1 (if desired) for use with B-channels.
Change:	Fields 1-6.
Next Data:	Displays the next assigned Integrated Telemarketing Gateway link.

Field Ranges and Encodes

1. Trunk Group -,18-999

EQUIPMENT LOCATION (Fields 2-5)

2. Module 0-30

3. Cabinet 0-7

4. Carrier 0-3

5. Slot 5 or 18

6. Integrated Telemarketing Gateway Records 1-9999

   This field indicates the total number of ITG records currently on the system. Only administer ITG records that are needed. Excess administration of ITG records can hinder system performance.

DISPLAY ONLY (Field 7)

7. Free Records 0-10500

   This field indicates the total number of free records on the entire system. Take the number in field 7 and subtract it from 10,500 to determine the total number of records available to ITG.

Notes

Use Procedure 276 Word 1 to enable the ISDN/ITG feature. ITG translations are not automatically removed when the feature is disabled in Procedure 276 Word 1.

ISDN/ITG trunk groups can be administered to be recorded by the Call Detail Recording feature.

To free records, do a remove routine on the trunk group in field 1. ITG records cannot be removed if in use.

Special Error Codes

80 - This trunk group is not associated with an ITG link.

81 - This equipment location is not an ISDN Board.

82 - This equipment location is not an ITG link location.

83 - Trunk type must be 47; signaling type must be 20.

84 - All ITG links are already assigned.

85 - A trunk group with physical trunks assigned is not allowed for ITG links.

86 - There are not enough free records available for this request.

87 - Unable to free all the records that were requested.

Procedure 101 Word 1 — Trunk Group Characteristics

74

Purpose

Use Procedure 101 Word 1 to administer the characteristics of trunks assigned to a trunk group.

Prerequisite Procedures

Use Procedure 100 Word 1 to add a trunk group.

Remove all trunks from a trunk group in Procedure 150 Word 1 before changing the DCS assignment in field 5.

Remove the AAR/ARS prefix digit in Procedure 103 Word 1 before adding or changing the additional digit for DID trunks.

Related Procedures

Use Procedure 275 Words 1 and 3 and Procedure 253 Word 1 if activating Call Detail Recording (CDR) on a trunk group.

Cautions

Do not change the pad group (field 13) in this procedure unless you are administering a specific network application. A default option is given automatically.

Flipchart

FLIPCHART
ISSUE 9

TRUNK GROUP CHARACTERISTICS

845552223

INPUT FIELDS:

DISPLAY: 1
ADD: 1-17
REMOVE: NOT ALLOWED
CHANGE: 2-17
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-WHEN ADDING A NEW TRUNK GROUP USE PROC 100 WORD 1 FIRST.
82-FIELD 14 IS ONLY USED WITH TIE TRUNKS.
83-REMOVE ALL TRUNKS FROM THE TRUNK GROUP BEFORE CHANGING THE DCS ASSIGNMENT IN FIELD 5.
84-THIS TRUNK GROUP HAS AN ILLEGAL TRUNK TYPE FOR DCS. LEGAL TRUNK TYPES ARE 32-47 AND 73-78.
85-TRUNKS ASSIGNED TO TRUNK GROUP IN PROC 150 WORD 1 AND/OR PROC 116 WORD 1 WITHOUT 24TH CHANNEL SIGNALING, CANNOT CHANGE AVD (FIELD 17) TO 1.
86-CANNOT ASSIGN AVD TO TRUNK TYPE OF INPUTTED TRUNK GROUP. ALLOWED TRUNK TYPES FOR AVD ARE 32-47, 70-78, 120, AND THOSE THAT HAVE ISDN SIGNALING EXCEPT TRUNK TYPE 108 AND 109.
88-THE DCS TRUNK GROUP NUMBER MUST BE IN THE RANGE OF 18-255.
89-REMOVE THE AAR/ARS PREFIX DIGIT IN PROC 103 WORD 1 BEFORE ADDING OR CHANGING THE INCOMING PREFIX DIGIT FOR DID.

WORD 1	TRUNK GROUP 1	BALANCE 2	BATTERY REVERSAL 3	INCOMING PREFIX 4	DCS 5	TOUCH TONE IN 6	TOUCH TONE OUT 7	SMDR ACTIVE 8	A.I.O.D. BILLING NUMBER 9	TIMED RECALL TIME 10	TIMED RECALL LEVEL 11	SMDR VARIABLE TIMER 12	PAD GROUP 13	TIE TOLL 14	APLT FEATURES ALLOWED 15	DISCONNECT SUPERVISION 16	AVD 17	TRUNK GROUP CHAR
																		101

Fields Used or Required for Command Routines

Display: Field 1.
Add: Fields 1-17.
Change: Fields 2-17.
Remove: Not allowed. Enter dashes or zeros and do a change routine.
Next Data: Not allowed.

Field Ranges and Encodes

1. Trunk Group 18-999

2. Balance
   0 Disabled
   1 Enabled

   When this field is set to ‘‘1’’ for a trunk group, the switch inserts an extra 2 dB of loss to each trunk-to-trunk connection involving an analog Central Office (CO), Foreign Exchange (FX), Wide Area Telecommunications Service (WATS), or Direct Inward Dialing (DID) trunk. This field is set to reduce reflections (including echoes) on analog trunks where the serving CO is not providing enough impedance compensation (i.e., balance) for the trunk group. A trunk is considered balanced with an echo return loss of at least 16 dB.

   Coordinate with the CO to determine if balance is needed.

3. Battery Reversal
   - 0 Disabled
   - 1 Enabled

   Battery reversal is sent from the CO to inform this switch of toll calls.

   Coordinate with the CO to determine if they are providing battery reversal.

4. Incoming Prefix Digit
   - - No additional digit for DID
   - 0-9 Additional digit for DID

   This field only applies to DID trunk types.

   Only one digit can be regenerated per incoming trunk group, but the same digit can be regenerated for all trunk groups.

   In some applications, the number of digits received from the CO may be one less than the number required by the system to complete the call. Since this digit is required, it must be regenerated by the system.

   Don't include a prefix digit for Advanced Private Line Termination (APLT) trunks.

   Coordinate with CO to determine how many digits they are sending.

5. DCS
   - - No DCS in the system
   - 0 Disabled
   - 1 Enabled

   This field must match administration with the distant end.

6. Touch-Tone In
   - 0 Disabled
   - 1 Enabled

   If touch-tone in is specified here, the distant end must specify touch-tone out and vice-versa.

7. Touch-Tone Out
   - 0 Disabled
   - 1 Enabled

   If touch-tone out is specified here, the distant end must specify touch-tone in and vice-versa.

8. CDR Active
   - 0 No
   - 1 Yes
   - 2 Yes and an account code is required

   This field must be set to a 1 or a 2 for Call Detail Recording to be reporting on this trunk group.

   Trunk group DACs should be administered to all trunk groups (Procedure 100 Word 1) reporting to CDR, otherwise the call record cannot identify which trunk facilities are being used.

9. AIOD Billing Number
   -, 0000-9999

   In field 9, leading zeros must be added if they appear on the service order.

   If Automatic Identification of Outward Dialing (AIOD) is not enabled in Procedure 275 Word 1, this field will be dashed.

   Coordinate this field with the CO for billing purposes.

TIMED RECALL (Fields 10-11)

10. Time
    - -,0 Disabled
    - 1-31 Minutes

    The amount of time in minutes which is allowed to pass before recall can be initiated.

11. Level
    - - Disabled
    - 0 Recall occurs when recall time expires
    - 1-7 Idle trunks remaining

    The recall level indicates the number of idle trunks left in the trunk group when recall is to be initiated.

12. CDR Variable Timer

- Default (Procedure 275 Word 3 field 12)
1-99 Seconds

This is the time (in seconds) between trunk seizure and when CDR begins recording the call duration.

13. Pad Group

0 Determined by trunk type in Procedure 100 Word 1
1 ISL Tie (S/DTT or S/ATT)
2 EIA Tie (D/TT)
3 ISL DCO (D/CO option -3/3)
4 EIA DCO (D/CO option 0/6)
5 DTO (D/TO)
6 ATO (A/TO)
7 Reserved
8 Reserved

For more information on interfacing trunks, See *Private Branch Exchange Switching Equipment for Voiceband Applications (EIA/TIA-464A)* or *DEFINITY(TM) Communications System and System 75 and System 85 DS1/DMI/ISDN PRI Reference* (555-025-101).

The following is a list of acronyms and their definitions. These acronyms are used in the encode definitions for this field.

S/DTT - Digital trunk interface to digital satellite PBX tie trunk.

S/ATT - Analog trunk interface to analog satellite PBX tie trunk.

D/TT - Digital trunk interface to a digital tie trunk, combination tie trunk, or any other tie trunk with a digital termination at a PBX that uses the mu-law interfaces.

D/CO - Digital trunk interface to digital CO trunk, combination CO trunk, or any other CO trunk with a digital termination at a PBX that uses the mu-law interfaces.

D/TO - Digital trunk interface to digital toll office trunk, combination toll office trunk, or any other toll office trunk with a digital termination at a PBX that uses the mu-law interfaces.

A/TO - Analog trunk interface to an analog toll office trunk.

To administer a value other than 0, all module processors must be equipped with 380D or 580D circuit packs.

Changes may require threshold changes in Procedure 107 Word 1.

Refer to network engineering documents for correct entries.

14. Tie Toll

0 Not toll restricted
1 Toll restricted

This field only applies to tie trunks.

15. APLT Features Allowed

0 Disabled (CCSA trunk)
1 Enabled (APLT trunk)

A CCSA incoming trunk call is permitted access to attendant and terminals only.

An APLT incoming trunk call, in addition to attendant and terminal access, is permitted access to CO, FX, WATS, TIE, and paging trunks without attendant assistance.

APLT trunks should not have a prefix digit set in field 4.

16. Disconnect Supervision

0 Disabled
1 Enabled

Coordinate with the CO to determine if they provide disconnect supervision. If it's not provided, enable this field to ensure that calls over this trunk group are properly disconnected at the end of a call.

This field is usually disabled because most central offices provide disconnect supervision.

17. AVD

0 Disabled
1 Enabled

Notes

1. The remove routine is not allowed. To delete characteristics from a trunk group, zero fields 2, 3, 5-8, 10, 11, and 13-17. If the trunk type is APLT or CO, zero field 4; if not, dash field 4. Dash fields 9 and 12, and then use the change routine.

Special Error Codes

81 - When adding a new trunk group, use Procedure 100 Word 1 first.

82 - Field 14 is only used with tie trunks.

83 - Remove all trunks from the trunk group before changing the DCS assignment in field 5.

84 - This trunk group has an illegal trunk type for DCS. Legal trunk types are 32-47 and 73-78.

88 - The DCS trunk group number must be in the range of 18-255.

89 - Remove the AAR/ARS prefix digit in Procedure 103 Word 1 before adding or changing the incoming prefix digit for DID trunks.

Procedure 101 Word 2 — Trunk Group Characteristics

75

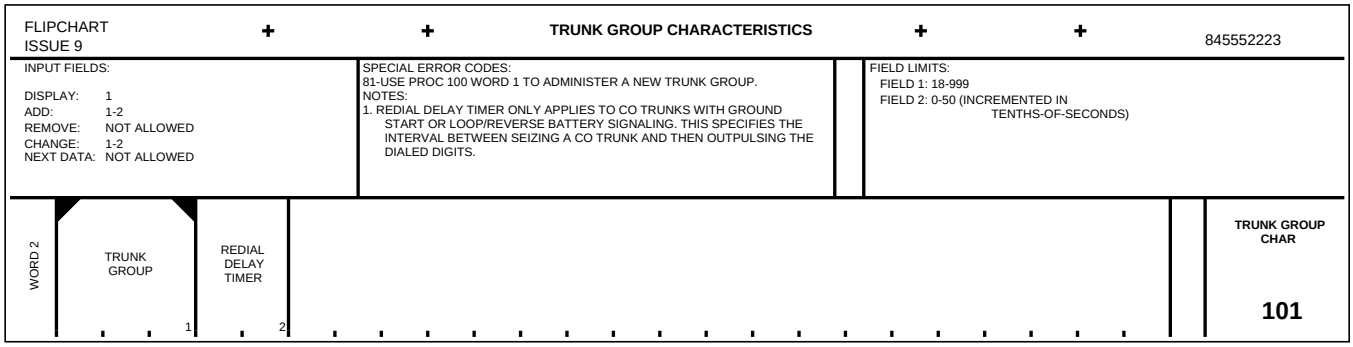
Purpose

Use Procedure 101 Word 2 to administer the redial delay timer, hybrid balance, and tie type compatibility for a trunk group.

Prerequisite Procedures

Assign the trunk group in Procedure 100 Word 1 before assigning characteristics here.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1 and 2.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group — 18-999

2. Redial Delay Timer — 0-50 (incremented in tenths-of-seconds; 0 is default)

   The redial delay timer is used only when a call is dialed using the Last Number Dialed feature and the call is directly accessing a CO or tie trunk that has ground start or loop/reverse battery signaling. The time delay added with this field is inserted between the trunk dial access code and the rest of the dialed digits.

   Typically, no delay is required if the trunks are connected to electronic switching systems. If the trunks are connected to older switching systems (e.g., step-by-step), try inserting a 3-second delay (enter ''30'' in this field). You may want to adjust this figure after a while. If the delay is too short, the calls will not complete; if the delay is too long, extra processor time will be used on the switch.

   This timer is not required for trunk groups that are used only in ARS or AAR patterns.

Special Error Codes

81 - Use Procedure 100 Word 1 to administer a new trunk group.

Procedure 102 Word 1 — Miscellaneous Trunk Restriction Groups

76

Purpose

Use Procedure 102 Word 1 to administer miscellaneous trunk restriction groups associated with a trunk group dial access code (DAC). Extensions are denied access to miscellaneous trunk restriction groups assigned in Procedure 010 Word 3.

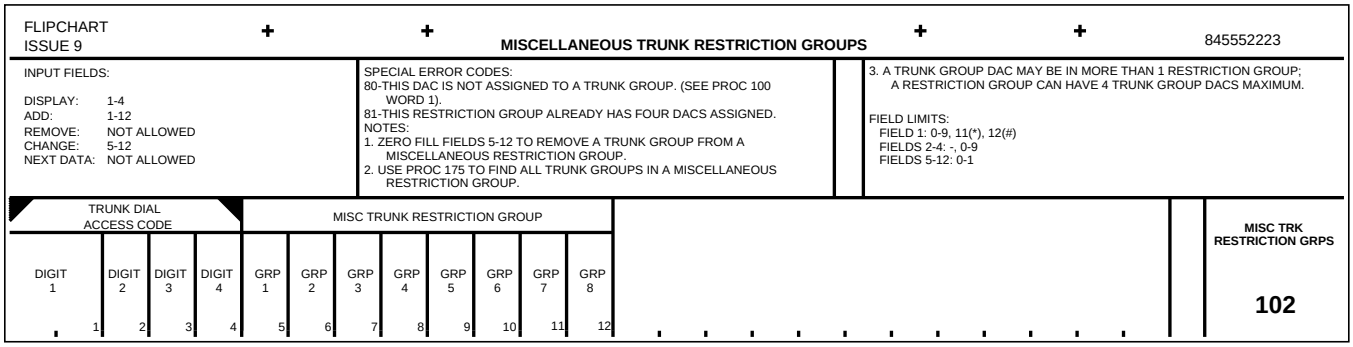
Prerequisite Procedures

Use Procedure 100 Word 1 to administer dial access codes to trunk groups.

Related Procedures

Use Procedure 175 Word 1 to find all trunk groups in a miscellaneous trunk restriction group.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-4.
Add:	Fields 1-12.
Change:	Fields 5-12.
Remove:	Not allowed (enter zeros in fields 5-12 and do a change routine).
Next Data:	Not allowed.

Field Ranges and Encodes

TRUNK GROUP DIAL ACCESS CODE (Fields 1-4)

1. Digit 1 — 0-9, 11 (*), 12 (#)

2. Digit 2 — -, 0-9

3. Digit 3 — -, 0-9

4. Digit 4 — -, 0-9

MISCELLANEOUS TRUNK RESTRICTION GROUP (Fields 5-12)

- 0 Not restricted
- 1 Restricted

5. Group 1 — 0-1

6.	Group 2	0-1
7.	Group 3	0-1
8.	Group 4	0-1
9.	Group 5	0-1
10.	Group 6	0-1
11.	Group 7	0-1
12.	Group 8	0-1

Notes

1. A trunk group DAC may be in more than one restriction group; a restriction group can have 4 trunk group DACs maximum.

Special Error Codes

80 - This DAC is not assigned to a trunk group (see Procedure 100 Word 1).

81 - This restriction group already has four DACs assigned.

Procedure 103 Word 1 — Network Trunk Group Translation

77

Purpose

Use Procedure 103 Word 1 to administer network features (and capabilities) associated with a trunk group. Translations administered by this procedure include:

- Facility Restriction Level (FRL)
- Network association of the trunk group
- System type (main or tandem)
- Automatic Alternate Routing (AAR) and Automatic Route Select (ARS) access by incoming tie trunks, and AAR conditional routing count control flag for routing indicators
- Requirement for an Authorization Code by incoming trunks
- Bridge-on availability for testing
- Trunk reservation limit
- AAR/ARS dialing prefix for accessing network trunks
- Trunk data protection (permanent)
- Remote access echo suppressor control
- Conditional routing traveling class mark (TCM) send/receive
- Digit collection.

Prerequisite Procedures

Use Procedure 276 Word 1 first to activate the standard network feature group before using this procedure.

A trunk group must be assigned before a change can be made to any of its features or capabilities. Use the following procedures to assign a trunk group or change its characteristics:

— Use Procedure 100 Words 1-4 to administer basic trunk group translations.

— Use Procedure 101 Words 1 and 2 to administer trunk group characteristics.

The prefix digit for DID must be removed in Procedure 101 Word 1 field 4 before the AAR/ARS prefix digit can be added or changed.

Related Procedures

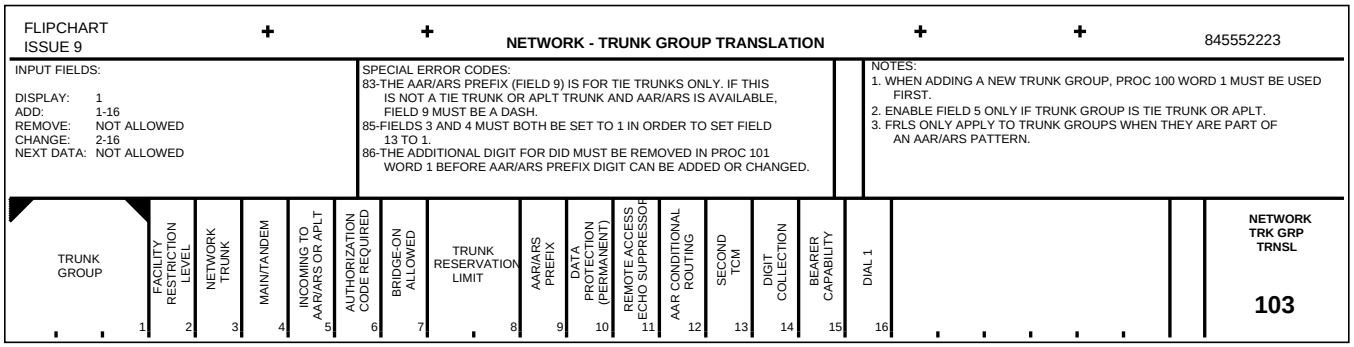
Use Procedure 150 Word 1 to assign trunks to a trunk group.

Cautions

Errors made in the administration of this procedure may result in a change to all trunks in a group that can seriously hamper network operation.

Trunk groups used for conditional routing must be connected to switches capable of accepting a second TCM.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1
Add:	Fields 1-16
Change:	Fields 2-16
Remove:	Not allowed
Next Data:	Not allowed

Field Ranges and Encodes

1. Trunk Group — 18-999

2. Facility Restriction Level — 0-7 (0 being the most restrictive, 7 being the least restrictive)

   FRLs administered on a trunk group basis are only checked on incoming calls tandeming through the switch where TCMs (Traveling Class Marks) are absent.

   FRLs can only be assigned to incoming or 2-way trunk groups. This field defaults to ''0'' if no other assignment is made.

   For outgoing calls, the FRL of the AAR/ARS preference is used, not the FRL of the trunk group.

3. Network Trunk
   - 0 No
   - 1 Yes
   - 2 Yes, but no second dial tone returned

4. Main/Tandem
   - 0 No
   - 1 Yes

   If this field is set on an AAR trunk, the trunk cannot be used for subnetwork trunking.

   The following trunk types may be part of a network and are assigned in Procedure 100 Word 1:
   - — Type 41 for 2-way, wink start incoming/delay dial or wink start outgoing
   - — Type 42 for 1-way incoming, wink start
   - — Type 43 for 1-way outgoing, delay dial, wink start
   - — Type 46 for 2-way dial repeating incoming/delay dial or wink start outgoing

— Type 47 for 2-way dial repeating, delay dial incoming/delay dial or wink start outgoing
— Trunk types 41, 42, and 43 should be limited to use between tandem systems. Trunk types 46 and 47 must be used between tandem and main systems.

5. Incoming Tie to AAR/ARS or APLT

0 Disabled
1 Enabled

Enable field 5 only if the trunk group is a tie trunk or an APLT trunk.

6. Authorization Code Required

0 No
1 Yes

This field applies to incoming calls only.

7. Bridge-On Allowed

0 No
1 Yes

This field applies to both network and nonnetwork trunks.

Attempting to bridge-on with the following features to a trunk that has data protection (permanent) will result in intercept treatment:
— Call Waiting
— Override
— Timed Recall on Outgoing Calls
— Trunk Verification by Attendant
— Trunk Verification by Terminal.

8. Trunk Reservation Limit

0-15

This field is used to reserve trunks in a trunk group for users of the first preference in any AAR/ARS pattern. The number of trunks specified in this field are always reserved for the first preference, and cannot be seized by users of any other preference using this trunk group. This field is only useful when more than one preference uses the same trunk group to route calls.

9. AAR/ARS Prefix

-, 0-9

The following are the AAR and ARS prefix digit requirements:

- The AAR/ARS prefix is for tie trunks only. If this is not a tie trunk or APLT trunk and AAR/ARS is available, this field must be a dash.
- The AAR prefix is the same as assigned in Procedure 350 Word 2 for the AAR feature. When an AAR prefix is required, field 3 must contain a 1 or a 2.
- The ARS prefix is the same as assigned in Procedure 350 Word 2 for the ARS feature. When an ARS prefix is required, the prefix in Procedure 350 Word 1 must be only one digit.
- If AAR and ARS have different dial access codes, enter the AAR access code here.

10. Data Protection (Permanent)

0 Disabled
1 Enabled

This field applies to network and nonnetwork trunks.

11. Remote Access Echo Suppressor

- Dial tone
0 Dial tone
1 Precursor tone/dial tone
2 Abbreviated dial tone

12. AAR Conditional Routing

0 Not a satellite facility
1 Is a satellite facility

Setting this field to 1 increments the hop count. See Procedure 320 Word 1 for related information.

13. Second TCM

0 Disabled
1 Enabled

A second TCM is used in conditional routing to limit the number of satellite links in any AAR end-to-end network circuit.

14. Digit Collection
    - 0 Overlap outpulsing
    - 1 Collect digits before outpulsing

    Overlap outpulsing applies to non-ISDN/PRI trunk group applications

    Collect digits before outpulsing must be set for ISDN/PRI trunk groups.

15. Bearer Capability
    - 0 Voice or voice grade
    - 1 Mode 1 data
    - 2 Mode 2 data
    - 3 Mode 3 data
    - 4 Mode 0 data

16. Dial 1 for 10-digit Calls
    - 0 Not required
    - 1 Required for all 10-digit calls

    Field 16 effects incoming calls and has no effect on outgoing calls.

    If this field is set to 1, time-out digit collection is not necessary for calls which enter the switch on the administered trunk group since 7- and 10-digit calls can be distinguished by the absence or presence of the digit 1 prefix. If this field is set to 0, time-out digit collection may be necessary to distinguish 7- and 10-digit calls.

Notes

1. Fields 3 and 4 enable trunk use as follows:

Trunk Usage	Field 3	Field 4	AAR	ARS
Main	0	0	subnet	no subnet
Network to Main	1 or 2	0	subnet	subnet
Network to Tandem	1 or 2	1	TCMs	TCMs

   If you enter a ‘‘2’’ instead of a ‘‘1’’ in field 3, the trunk usage is still the same, but users will not receive a second dial tone after dialing the AAR or ARS dial access code.

   For DCS trunk groups where AAR is used for routing, field 3 must be set to 1 or 2 and field 4 must be set to 1.

2. The network trunk group translation can be displayed even though a trunk type encode has not been assigned to the trunk group. However, the trunk group number must be within the range of the maximum trunk group number for the system.
3. When assigning a trunk group to an AAR/ARS network, the following procedures are required to associate the trunk group with various network parameters:
   - — Use Procedure 309 Words 1-5 to administer the ARS patterns and preferences
   - — Use Procedure 311 Words 1-3 to administer the ARS toll tables
   - — Use Procedure 321 Words 1-5 to administer the AAR route tables
   - — Use Procedure 320 Word 1 to administer the AAR route tables association to the conditional routing count assignments.
4. When a network trunk group translation is displayed, any field associated with a feature that does not apply will contain a dash. The associated translation cannot be changed.
5. When any trunk group is part of an AAR or ARS route pattern, marking the trunk group network-tandem (field 3 = 1 or 2 and field 4 = 1) causes a Traveling Class Mark (TCM) to be sent as the final digit.

   This is also true when the trunk group is APLT. If an APLT Authorization Code has been dialed, the TCM is sent following the Authorization Code. The TCM has no meaning to the APLT switches. It can be suppressed by avoiding the network-tandem entry for the APLT trunk group.

   This trunk group will also expect to receive a TCM on incoming calls when field 3 = 1 or 2 and field 4 = 1. TCMs are not sent or expected when either field 3 or 4 has a 0.

Special Error Codes

83 - The AAR/ARS prefix (field 9) is for tie trunks only. If this is not a tie trunk or APLT trunk and AAR/ARS is available, field 9 must be a dash.

85 - Field 3 must be set to 1 or 2 and field 4 must be set to 1 in order to set field 13 to 1.

86 - The additional digit for DID must be removed in Procedure 101 Word 1 before the AAR/ARS prefix digit can be added or changed.

Procedure 104 Word 1 — Main/Satellite - System Translation

78

Purpose

Use Procedure 104 Word 1 to administer system parameters for the Main/Satellite feature.

Prerequisite Procedures

Use Procedure 276 Word 1 to activate multipremise before using this procedure.

Use Procedure 100 Word 1 to assign trunk groups. You can only use trunk types 70-78 (special tie trunks for Main/Satellite).

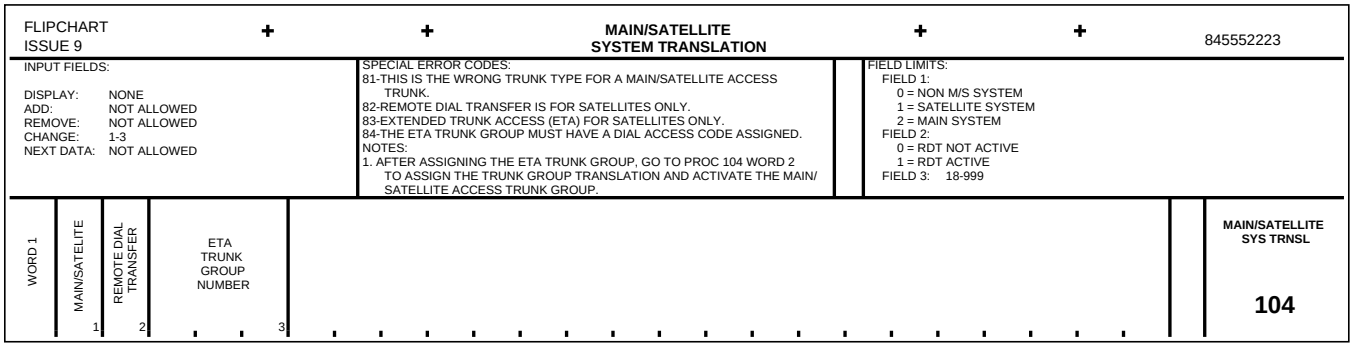
Related Procedures

After assigning the Extended Trunk Access (ETA) trunk group in this procedure, go to Procedure 104 Word 2 to assign the trunk group translation and activate the Main/Satellite access trunk group.

Cautions

Minor changes made in this procedure may drastically affect the Main/Satellite system.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-3.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	Main or Satellite	0	Not available
		1	Satellite
		2	Main
2.	Remote Dial Transfer	0	Not active
		1	Active
			Remote dial transfer is used for satellites only.
3.	ETA Trunk Group	-, 18-999	
			ETA is used for satellites only.

Special Error Codes

81 - This is the wrong trunk type for a Main/Satellite access trunk.

82 - Remote dial transfer is for satellites only.

83 - ETA is for satellites only.

84 - The ETA trunk group must have a dial access code assigned.

Procedure 104 Word 2 — Main/Satellite - Trunk Groups

79

Purpose

Use Procedure 104 Word 2 to administer a trunk group's function in the Main/Satellite system.

Prerequisite Procedures

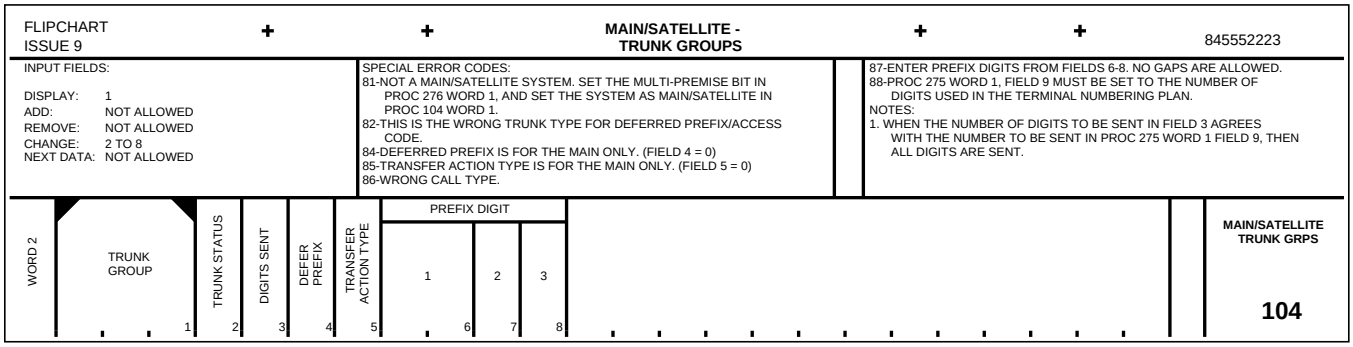
Use Procedure 276 Word 1 to activate the multipremise feature group.

Use Procedure 100 Word 1 to assign trunk groups. You can only use trunk types 70-78 (special tie trunks for Main/Satellite).

Related Procedures

When the number of digits to be sent in field 3 agrees with the number to be sent in Procedure 275 Word 1 field 9, then all digits are sent.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 2-8.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group 18-999

2. Trunk Status
   - 0 Disabled for Main/Satellite
   - 1 Enabled for Main/Satellite

3. Digits Sent -, 1-5

   If the system has a four-digit dialing plan, you can send 1-4 digits. If the system has a five-digit dialing plan, you can send 3-5 digits.

   With single-digit steering, if the number of digits to be sent is equal to the number of digits in the extension dialing plan, all digits are sent. Likewise, if you enter a dash in the field, all digits are sent.

   If the number of digits to be sent is less than the number of digits in the extension dialing plan, all but the first digit are sent. With extension number steering, the number of digits sent is the actual number specified. For example, if two digits are to be sent, when 4385 is dialed, 85 is sent.

4.	Defer Prefix	0	Disabled
		1	Enabled

This field is used only for the main.

5.	Transfer Action Type	0	No action
		1	Attendant transfer
		2	Dial transfer

If the transfer action type for the Main/Satellite trunk group is changed from 0 to a 1 or 2, the entire trunk group must be removed to change the encode back to 0. This field is used only for the main.

PREFIX DIGITS (Fields 6-8)

For incoming trunks, these digits are prepended to the incoming digit stream.

6.	Digit 1	-, 0-9, 11 (*), 12 (#)
7.	Digit 2	-, 0-9
8.	Digit 3	-, 0-9

Special Error Codes

81 - This is not a Main/Satellite system. Set the multipremise bit in Procedure 276, Word 1. Also set the System as Main/Satellite in Procedure 104, Word 1.

82 - This is the wrong trunk type for deferred prefix/access code.

84 - Deferred prefix is for the main only (field 4 = 0).

85 - Transfer action type is for the main only (field 5 = 0).

86 - Wrong call type.

87 - Enter prefix digits from fields 6-8. No gaps are allowed.

88 - Procedure 275 Word 1 field 9 must be set to the number of digits used in the extension numbering plan.

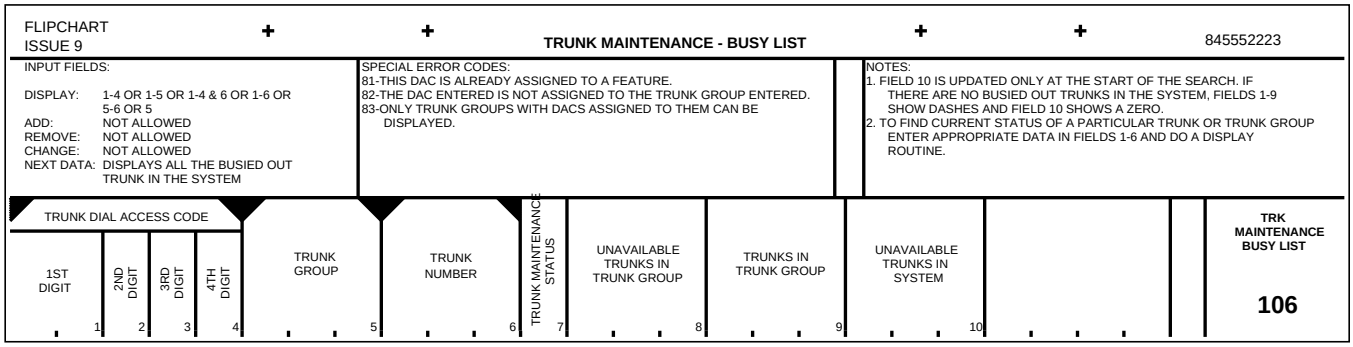
Procedure 106 Word 1 — Trunk Maintenance-Busy List

80

Purpose

Use Procedure 106 Word 1 to display trunk maintenance busy and availability status for trunk groups having a dial access code.

Flipchart



Fields Used or Required for Command Routines

Display:	None, fields 1-4, fields 1-5, fields 1-4 and 6, fields 1-6, fields 5 and 6, or field 5.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays all the busied out trunks in the system. Field 10 is updated only at the start of the search. If there are no busied out trunks in the system, fields 1-9 show dashes and field 10 shows a zero.

Field Ranges and Encodes

TRUNK DIAL ACCESS CODE (Fields 1-4)

1.	Digit 1	0-9, 11 (*), 12 (#)	
2.	Digit 2	-, 0-9	
3.	Digit 3	-, 0-9	
4.	Digit 4	-, 0-9	
5.	Trunk Group	18-999	
6.	Trunk Number	1-999	
7.	Trunk Maintenance Status	0	Available
		1	Busied out by services
		2	Busied out by customer
		3	Automatically busied out
		4	Permanently seized on input
		5	Trunk in failure
		6	Maintenance busy out (far end)
		7	ISDN maintenance (near end)
		8	ISDN maintenance (far end)

8.	Unavailable Trunks in Trunk Group	0-999
9.	Trunks in Trunk Group	0-999
10.	Unavailable Trunks in System	0-999

Special Error Codes

81 - This DAC is already assigned to a feature.

82 - The DAC entered is not assigned to the trunk group entered.

83 - Only trunk groups with DACs assigned to them can be displayed.

Procedure 107 Word 1 — ATMS - Terminating Test Line Assignment

81

Purpose

Use Procedure 107 Word 1 to administer the terminating test line (TTL) assignment for the Automatic Transmission Measurement System (ATMS).

This procedure only applies to two-way and outgoing trunks.

Prerequisite Procedures

Use Procedure 000 Word 1 and Procedure 051 Word 1 to administer an analog/digital facility test circuit (ADFTC).

Use Procedure 107 Word 4 to remove the trunk group from a schedule before removing the test line assignment.

Flipchart

FLIPCHART
ISSUE 9

ATMS TERMINATING TEST LINE ASSIGNMENT

845552223

INPUT FIELDS:

DISPLAY: 1
ADD: 1-18
REMOVE: 1-18
CHANGE: 1-18
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-THIS TRUNK TYPE IS NOT VALID FOR THIS FEATURE.
82-REMOVE THIS TRUNK GROUP FROM SCHEDULE USING PROC 107 WORD 4 BEFORE REMOVING OR DISABLING THE TEST LINE.
83-THE DIGITS MUST BE ENTERED IN FIELDS 3-18 WITHOUT GAPS BETWEEN THE NUMBERS.
NOTES:
1. FIELD 3 MUST NOT CONTAIN A DASH WHEN USING ADD OR CHANGE ROUTINES.

FIELD LIMITS:
FIELD 1: 18-999
FIELD 2:
- = UNASSIGNED
0 = DISABLED
1 = 102 OR OLD 100-TYPE
2 = NEW 100-TYPE
3 = LC145 OR SN260A
4 = SN260B
5 = 56A OR 105 WITHOUT RETURN LOSS
6 = SN261, ZLC12, OR 105 WITH RETURN LOSS
FIELDS 3-18: -, 0-9

WORD 1	TRUNK GROUP 1	TEST LINE TYPE 2	TERMINATING TEST LINE TELEPHONE NUMBER DIGITS D1 3	D2 4	D3 5	D4 6	D5 7	D6 8	D7 9	D8 10	D9 11	D10 12	D11 13	D12 14	D13 15	D14 16	D15 17	D16 18	DISPLAY ONLY TRUNK TYPE 19	TERM TEST LINE ASSIGNMENT 107

Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-18.
Change:	Fields 1-18.
Remove:	Fields 1-18.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group 18-999

2. Test Line Type

-	Unassigned
0	Disabled
1	102-type or old 100-type
2	New 100-type
3	LC145 or SN260A
4	SN260B
5	56A or 105-type without return loss
6	SN261, ZLC12, or 105 with return loss

TTL TELEPHONE DIGITS (Fields 3-18)

The TTL telephone number digits must be entered without gaps.

For Network Main/Tandem trunks, the Traveling Class Mark (TCM) digit (or digits if two TCMs are required) must be administered as part of the TTL Telephone Digits. The TCM digit or digits are placed at the end of the dialed number. Refer to Procedure 103 Word 1 to determine if the trunk group is Network Main/Tandem and whether or not a second TCM digit is required.

Field 3 must not contain a dash when using the add or change routines.

3. Digit 1 -, 0-9

4. Digit 2 -, 0-9

5. Digit 3 -, 0-9

6. Digit 4 -, 0-9

7.	Digit 5	-, 0-9
8.	Digit 6	-, 0-9
9.	Digit 7	-, 0-9
10.	Digit 8	-, 0-9
11.	Digit 9	-, 0-9
12.	Digit 10	-, 0-9
13.	Digit 11	-, 0-9
14.	Digit 12	-, 0-9
15.	Digit 13	-, 0-9
16.	Digit 14	-, 0-9
17.	Digit 15	-, 0-9
18.	Digit 16	-, 0-9

DISPLAY ONLY (Field 19)

19.	Trunk Type	12	CCSA/APLT 2-way with dial tone out (9)
		13	CCSA/APLT 2-way with dial tone out (10)
		14	CCSA/APLT 2-way (8)
		15	CCSA/APLT 2-way (5)
		17	CO 1-way out DOD (1)
		18	CO 1-way out DOD with party test (2)

19 CO 2-way attendant completing in/DOD out (1)
20 CO 2-way with party test attendant completing in/DOD out (2)
22 FX 1-way out DOD (1)
23 FX 1-way out DOD with party test (2)
24 FX 2-way attendant completing in/DOD out (1)
25 FX 2-way with party test attendant completing in/DOD out (2)
27 WATS 1-way out DOD or toll terminal access for TSPS (1)
28 WATS 1-way out DOD with party test (2)
33 TIE 1-way out automatic (4)
34 TIE 1-way out dial repeating (4)
36 TIE 2-way dial repeating in and out (4)
37 TIE 2-way dial repeating in/automatic out (4)
38 TIE 2-way automatic in/dial repeating out (4)
39 TIE 2-way automatic in and out (4)
41 TIE ETN 2-way dial repeating (26)
43 TIE ETN 1-way out dial repeating (26)
44 TIE 2-way dial repeating (27)
45 TIE 2-way dial repeating in/automatic out (27)
46 TIE ETN 2-way dial repeating (24)
47 TIE ETN 2-way dial repeating (24)
50 Remote Access 2-way (1)
71 Main/Satellite 1-way out (15)
72 Main/Satellite 2-way (15)
74 Main/Satellite 1-way out (16)
75 Main/Satellite 2-way (16)
77 Main/Satellite 1-way out (17)
78 Main/Satellite 2-way (17)
120 ISDN dynamic (20)

Special Error Codes

81 - This trunk type is not valid for this feature.

82 - Remove this trunk group from the schedule using Procedure 107 Word 4 before removing or disabling the test line.

83 - The digits must be entered in fields 3-18 without gaps between the numbers.

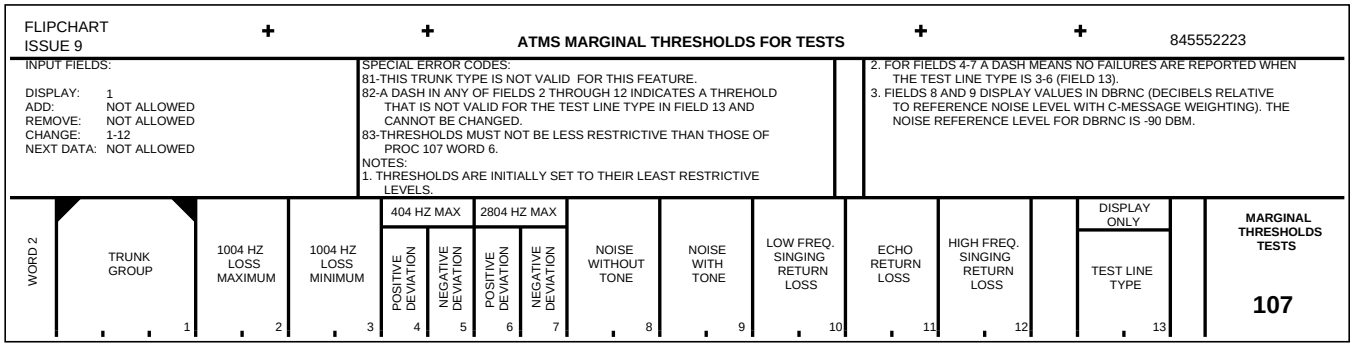
Procedure 107 Word 2 — ATMS - Marginal Thresholds for Tests

82

Purpose

Use Procedure 107 Word 2 to administer the marginal thresholds for the Automatic Transmission Measurement System (ATMS) tests.

Flipchart



FLIPCHART
ISSUE 9

ATMS MARGINAL THRESHOLDS FOR TESTS

845552223

INPUT FIELDS:

DISPLAY: 1
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-12
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-THIS TRUNK TYPE IS NOT VALID FOR THIS FEATURE.
82-A DASH IN ANY OF FIELDS 2 THROUGH 12 INDICATES A THREHOLD THAT IS NOT VALID FOR THE TEST LINE TYPE IN FIELD 13 AND CANNOT BE CHANGED.
83-THRESHOLDS MUST NOT BE LESS RESTRICTIVE THAN THOSE OF PROC 107 WORD 6.
NOTES:
1. THRESHOLDS ARE INITIALLY SET TO THEIR LEAST RESTRICTIVE LEVELS.
2. FOR FIELDS 4-7 A DASH MEANS NO FAILURES ARE REPORTED WHEN THE TEST LINE TYPE IS 3-6 (FIELD 13).
3. FIELDS 8 AND 9 DISPLAY VALUES IN DBRNC (DECIBELS RELATIVE TO REFERENCE NOISE LEVEL WITH C-MESSAGE WEIGHTING). THE NOISE REFERENCE LEVEL FOR DBRNC IS -90 DBM.

WORD 2	TRUNK GROUP 1	1004 HZ LOSS MAXIMUM 2	1004 HZ LOSS MINIMUM 3	404 HZ MAX		2804 HZ MAX		NOISE WITHOUT TONE 8	NOISE WITH TONE 9	LOW FREQ. SINGING RETURN LOSS 10	ECHO RETURN LOSS 11	HIGH FREQ. SINGING RETURN LOSS 12	DISPLAY ONLY TEST LINE TYPE 13	MARGINAL THRESHOLDS TESTS
				POSITIVE DEVIATION 4	NEGATIVE DEVIATION 5	POSITIVE DEVIATION 6	NEGATIVE DEVIATION 7							107

Fields Used or Required for Command Routines

Display: Field 1.
Add: Not allowed.
Change: Fields 1-12. A dash in any of fields 2 through 12 indicates a threshold that is not valid for the test line type in field 13 and cannot be changed.
Remove: Not allowed.
Next Data: Not allowed.

Field Ranges and Encodes

1. Trunk Group — 18-999

2. 1004 HZ Loss Maximum — 0-21 db; 91 -1 db; 92 -2 db

   Field 2 cannot be less than field 3.

3. 1004 HZ Loss Minimum — 0-21 db; 91 -1 db; 92 -2 db

   Field 3 cannot be more than field 2.

404 HZ MAXIMUM (Fields 4-5)

4. Positive Deviation — -, 0-9 (db)

5. Negative Deviation — -, 0-9 (db)

2804 HZ MAXIMUM (Fields 6-7)

6. Positive Deviation — -, 0-9 (db)

7. Negative Deviation — -, 0-9 (db)

8. Noise without Tone — -, 15-55 (dbrnc)

9. Noise with Tone — -, 34-74 (dbrnc)

10. Low Freq., Singing Return Loss -, 0-40 (db)

11. Echo Return Loss -, 0-40 (db)

12. High Freq., Singing Return Loss -, 0-40 (db)

DISPLAY ONLY (Field 13)

13. Test Line Type
- \- Unassigned
- 0 Disabled
- 1 102 or old 100-type
- 2 New 100-type
- 3 LC145 or SN260A
- 4 SN260B
- 5 56A or 105 without return loss
- 6 SN261 or 105 with return loss

Notes

1. The thresholds are initially set to their least restrictive levels.
2. For fields 4-7, a dash means no failures are reported when the test line type is 3-6 (field 13).
3. Fields 8 and 9 display values in dbrnc (decibels relative to reference noise level with C-message weighting). The noise reference level for dbrnc is -90dbm.

Special Error Codes

81 - This trunk type is not valid for this feature.

82 - A dash in any of fields 2 through 12 indicates a threshold that is not valid for the test line type in field 13 and cannot be changed.

83 - Thresholds must not be less restrictive than those of Procedure 107 Word 6.

Procedure 107 Word 3 — ATMS - Test Schedule

83

Purpose

Use Procedure 107 Word 3 to administer the schedule number(s), the starting hour, duration, day(s) of the week, and the week(s) between tests, and to display the number of weeks since the last test execution.

Prerequisite Procedures

Use Procedure 107 Word 4 to remove all trunks from the test schedule before removing the schedule in this word.

Flipchart

FLIPCHART ISSUE 9 + + **ATMS - TEST SCHEDULE** + + 845552223

INPUT FIELDS:

DISPLAY: 1
ADD: 1-11
REMOVE: 1-11
CHANGE: 1-11
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODE:
81-BEFORE A SCHEDULE CAN BE REMOVED, ALL TRUNKS MUST BE REMOVED FROM THIS SCHEDULE IN PROC 107 WORD 4.
NOTES:
1. SETTING FIELD 4 AND/OR FIELDS 5-11 TO 0 WILL IN EFFECT DISABLE THE SCHEDULE.

FIELD LIMITS:
FIELD 1: 1-16
FIELD 2:
0 = SCHEDULE RUN ONLY ONCE
1 = SCHEDULE RUN EVERY WEEK
2 = SCHEDULE RUN EVERY 2 WEEKS
99 = SCHEDULE RUN EVERY 99 WEEKS

FIELDS 3 AND 4:
HOURS ARE BASED ON 24-HOUR CLOCK.
FIELDS 4-11:
0 = DISABLE
1 = ENABLE

WORD 3	SCHEDULE NUMBER 1	TEST SCHEDULE 2	STARTING HOUR 3	DURATION (HOUR) 4	DAYS OF THE WEEK: M 5	TU 6	W 7	TH 8	F 9	SA 10	SN 11		DISPLAY ONLY: WEEKS SINCE LAST TEST 12		ATMS-TEST SCHEDULE 107

Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-11.
Change:	Fields 1-11.
Remove:	Fields 1-11.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	Schedule Number	1-16	
2.	Test Schedule	0	Schedule run only once
		1-99	Weeks between test runs
3.	Starting Hour	0	midnight
		1	1 am
		2	2 am
		3	3 am
		4	4 am
		5	5 am
		6	6 am
		7	7 am
		8	8 am
		9	9 am
		10	10 am
		11	11 am
		12	noon
		13	1 pm
		14	2 pm
		15	3 pm
		16	4 pm
		17	5 pm
		18	6 pm
		19	7 pm
		20	8 pm
		21	9 pm
		22	10 pm
		23	11 pm
4.	Duration	0	Disabled
		1-24	hours

DAYS OF THE WEEK (Fields 5-11)

0 Not active on this day
1 Active on this day

5.	Monday	0-1
6.	Tuesday	0-1
7.	Wednesday	0-1
8.	Thursday	0-1
9.	Friday	0-1
10.	Saturday	0-1
11.	Sunday	0-1

DISPLAY ONLY (Field 12)

12.	Weeks Since Last Test	0-99

Notes

1. Setting field 4 and/or fields 5-11 to 0 will in effect disable the schedule.

Special Error Codes

81 - Before a schedule can be removed, all trunks must be removed from this schedule in Procedure 107 Word 4.

Procedure 107 Word 4 — ATMS - Trunk Assignment to Schedule

84

Purpose

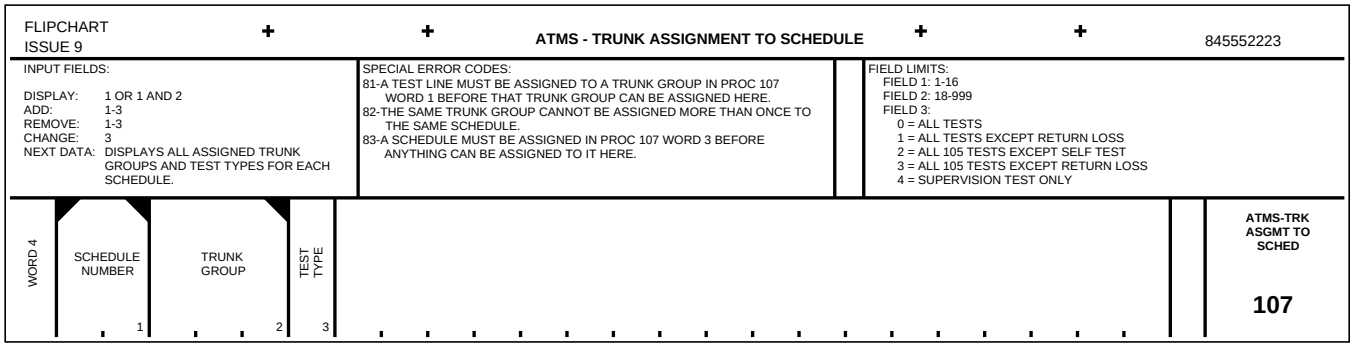
Use Procedure 107 Word 4 to administer the trunk groups to be tested and the type of testing to be done for each schedule.

Prerequisite Procedures

A test line must be assigned to a trunk group in Procedure 107 Word 1 before that trunk group can be assigned in this procedure.

A schedule must be assigned in Procedure 107 Word 3 before anything can be assigned to it here.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 2.
Add:	Fields 1-3.
Change:	Field 3.
Remove:	Fields 1-3.
Next Data:	Displays all assigned trunk groups and test types for each schedule.

Field Ranges and Encodes

1.	Schedule Number	1-16	
2.	Trunk Group	18-999 The same trunk group cannot be assigned more than once to the same schedule.	
3.	Test Type	0	All tests
		1	All tests except return loss
		2	All 105 tests except self test
		3	All 105 tests except self test and return loss
		4	Supervision test only

Special Error Codes

81 - A test line must be assigned to a trunk group in Procedure 107 Word 1 before that trunk group can be assigned in this procedure.

82 - The same trunk group cannot be assigned more than once to the same schedule.

83 - A schedule must be assigned in Procedure 107 Word 3 before anything can be assigned to it in this procedure.

Procedure 107 Word 5 — ATMS - Display of Trunk Assignments By Schedule

85

Purpose

Use Procedure 107 Word 5 to display trunk group assignments with their scheduled test types. Each display shows five trunk groups at a time.

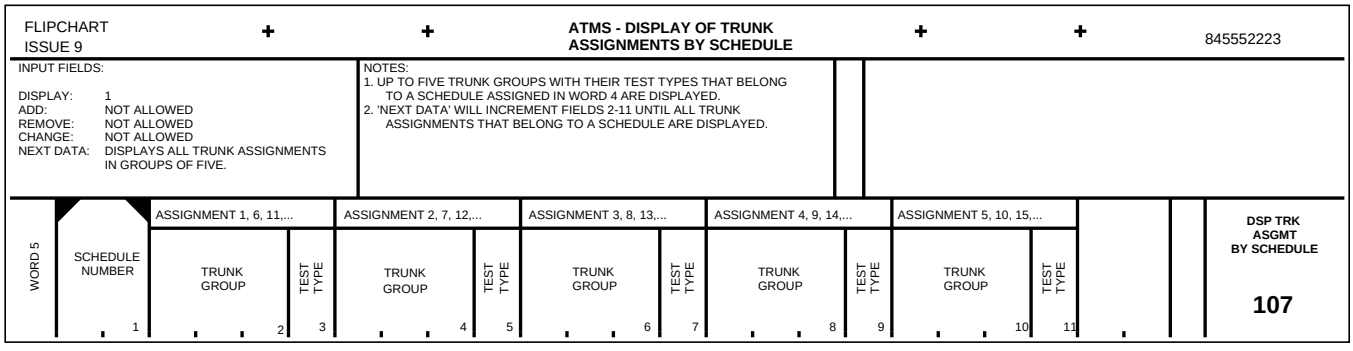
Related Procedures

Use Procedure 107 Word 4 to administer the trunk groups to be tested.

Use Procedure 107 Word 1 to assign test lines to a trunk group.

Use Procedure 107 Word 3 to assign schedules.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Remove:	Not allowed.
Change:	Not allowed.
Next data:	Displays all trunk assignments in groups of five.

Field Ranges and Encodes

1. Schedule Number — 1-16

ASSIGNMENT 1, 6, 11... (Fields 2-3)

2. Trunk Group — 18-999

3. Test Type
   - 0 All tests
   - 1 All tests except return loss
   - 2 All 105 tests except self test
   - 3 All 105 tests except self test and return loss
   - 4 Supervision test only

ASSIGNMENT 2, 7, 12... (Fields 4-5)

4. Trunk Group — 18-999

5. Test Type
   - 0 All tests
   - 1 All tests except return loss
   - 2 All 105 tests except self test
   - 3 All 105 tests except self test and return loss
   - 4 Supervision test only

ASSIGNMENT 3, 8, 13... (Fields 6-7)

6. Trunk Group — 18-999

7.	Test Type	0	All tests
		1	All tests except return loss
		2	All 105 tests except self test
		3	All 105 tests except self test and return loss
		4	Supervision test only

ASSIGNMENT 4, 9, 14... (Fields 8-9)

8.	Trunk Group	18-999

9.	Test Type	0	All tests
		1	All tests except return loss
		2	All 105 tests except self test
		3	All 105 tests except self test and return loss
		4	Supervision test only

ASSIGNMENT 5, 10, 15... (Fields 10-11)

10.	Trunk Group	18-999

11.	Test Type	0	All tests
		1	All tests except return loss
		2	All 105 tests except self test
		3	All 105 tests except self test and return loss
		4	Supervision test only

Special Error Codes

None.

Procedure 107 Word 6 — ATMS - Busy Out Thresholds

86

Purpose

Use Procedure 107 Word 6 to administer the threshold percentage of trunks that may be busied out automatically because of unacceptable measurements. Also use this procedure to set the unacceptable thresholds at their minimum and maximum values for the scheduled and periodic tests.

Related Procedures

Thresholds are not allowed to be more restrictive than the thresholds administered in Word 2.

Flipchart

FLIPCHART
ISSUE 9

ATMS - BUSY OUT THRESHOLDS

845552223

INPUT FIELDS:

DISPLAY: 1
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-13 (SEE ERROR CODE 82 & FIELD 13 LIMITS)
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-THIS TRUNK TYPE IS NOT VALID FOR THIS FEATURE.
82-A DASH IN ANY OF FIELDS 2 THROUGH 12 INDICATES A THRESHOLD THAT IS NOT VALID FOR THE TEST LINE TYPE IN FIELD 14 AND CANNOT BE CHANGED.
83-THRESHOLDS MUST NOT BE MORE RESTRICTIVE THAN THOSE OF PROC 107 WORD 2.
NOTES:
1. THE THRESHOLDS ARE INITIALLY SET TO THEIR LEAST RESTRICTIVE LEVELS.
2. FIELDS 8 AND 9 DISPLAY VALUES IN DBRNC: THE NOISE REFERENCE LEVEL FOR DBRNC IS -90 DBM.
3. FOR FIELDS 4-7 A DASH MEANS NO FAILURES ARE REPORTED WHEN THE TEST LINE TYPE IS 3-6 (FIELD 14).

WORD 6	TRUNK GROUP 1	1004 HZ LOSS MAXIMUM 2	1004 HZ LOSS MINIMUM 3	MAX. 404 HZ POSITIVE DEVIATION 4	MAX 404 HZ NEGATIVE DEVIATION 5	MAX 2804 HZ POSITIVE DEVIATION 6	MAX 2804 HZ NEGATIVE DEVIATION 7	NOISE WITHOUT TONE 8	NOISE WITH TONE 9	LOW FREQ. SINGING RETURN LOSS 10	ECHO RETURN LOSS 11	HIGH FREQ. SINGING RETURN LOSS 12	PERCENT BUSY 13	DISPLAY ONLY: TEST LINE TYPE 14	BUSY OUT THRSHLDS TESTS
															107

Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 1-13 (a dash in any of fields 2 through 12 indicates a threshold that is not valid for the test line type in field 14, and cannot be changed).
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group — 18-999

2. 1004 HZ Loss Maximum — 0-21 db; 91 -1 db; 92 -2 db

   Field 2 cannot be less than field 3.

3. 1004 HZ Loss Minimum — 0-21 db; 91 -1 db; 92 -2 db

   Field 3 cannot be more than field 2.

MAXIMUM 404 HZ (Fields 4-5)

4. Positive Deviation — -, 0-9 (db)

5. Negative Deviation — -, 0-9 (db)

MAXIMUM 2804 HZ (Fields 6-7)

6. Positive Deviation — -, 0-9 (db)

7. Negative Deviation — -, 0-9 (db)

8. Noise Without Tone — -, 15-55 (dbrnc)

9. Noise with Tone — -, 34-74 (dbrnc)

10. Low Freq., Singing Return Loss — -, 0-40 (db)

11. Echo Return Loss — -, 0-40 (db)

12. High Freq., Singing Return Loss — -, 0-40 (db)

13. Percent Busy

0	0%
1	25%
2	50%
3	75%
4	100%

This is the maximum percentage of trunks that may be automatically busied out if transmission quality thresholds have been exceeded.

DISPLAY ONLY (Field 14)

14. Test Line Type

-	Unassigned
0	Disabled
1	102-type or old 100-type
2	New 100-type
3	LC145 or SN260A
4	SN260B
5	56A or 105-type without return loss
6	SN261, ZLC12, or 105 with return loss

Notes

1. The thresholds are initially set to their least restrictive levels.
2. Fields 8 and 9 display values in dbrnc (decibels relative to reference noise level with C-message weighting). The noise reference level for dbrnc is -90dbm.
3. For fields 4-7, a dash means no failures are reported when the test line type is 3-6 (field 14).

Special Error Codes

81 - This trunk type is not valid for this test.

82 - A dash in any of fields 2 through 12 indicates a threshold that is not valid for the test line type in field 14 and cannot be changed.

83 - Thresholds must not be more restrictive than those of Procedure 107 Word 2.

Procedure 107 Word 7 — ATMS - Alarm Thresholds

87

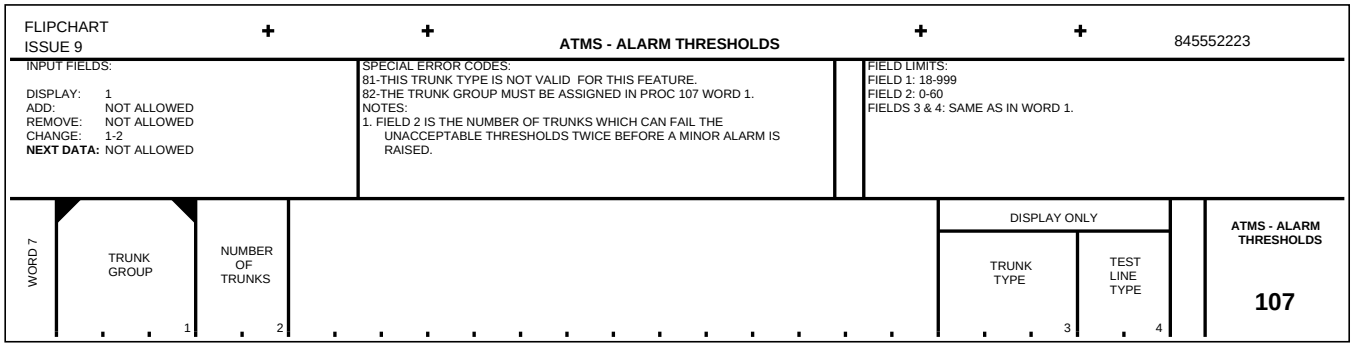
Purpose

Use Procedure 107 Word 7 to administer the number of trunks that are allowed to be maintenance busied (e.g., the quantity of trunks that fail the unacceptable threshold twice) before a minor alarm is raised.

Prerequisite Procedures

Use Procedure 107 Word 1 to assign trunk groups.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group — 18-999

2. Number of Trunks — 0-60

   This is the number of trunks which can fail the unacceptable thresholds twice before a minor alarm is raised.

DISPLAY ONLY (Fields 3-4)

3. Trunk Type

12	CCSA/APLT 2-way with dial tone out (9)
13	CCSA/APLT 2-way with dial tone out (10)
14	CCSA/APLT 2-way (8)
15	CCSA/APLT 2-way (5)
17	CO 1-way out DOD (1)
18	CO 1-way out DOD with party test (2)
19	CO 2-way attendant completing in/DOD out (1)
20	CO 2-way with party test attendant completing in/DOD out (2)
22	FX 1-way out DOD (1)
23	FX 1-way out DOD with party test (2)
24	FX 2-way attendant completing in/DOD out (1)
25	FX 2-way with party test attendant completing in/DOD out (2)
27	WATS 1-way out DOD or toll terminal access for TSPS (1)
28	WATS 1-way out DOD with party test (2)
33	TIE 1-way out automatic (4)
34	TIE 1-way out dial repeating (4)
36	TIE 2-way dial repeating in and out (4)
37	TIE 2-way dial repeating in/automatic out (4)
38	TIE 2-way automatic in/dial repeating out (4)
39	TIE 2-way automatic in and out (4)
41	TIE ETN 2-way dial repeating (26)
43	TIE ETN 1-way out dial repeating (26)
44	TIE 2-way dial repeating (27)

		45	TIE 2-way dial repeating in/automatic out (27)
		46	TIE ETN 2-way dial repeating (24)
		47	TIE ETN 2-way dial repeating (24)
		50	Remote Access 2-way (1)
		71	Main/Satellite 1-way out (15)
		72	Main/Satellite 2-way (15)
		74	Main/Satellite 1-way out (16)
		75	Main/Satellite 2-way (16)
		76	Main/Satellite 1-way in (17)
		77	Main/Satellite 1-way out (17)
		78	Main/Satellite 2-way (17)
		120	ISDN dynamic (20)
4.	Test Line Type	-	Unassigned
		0	Disabled
		1	102 or old 100-type
		2	New 100-type
		3	LC145 or SN260A
		4	SN260B
		5	56A or 105 without return loss
		6	SN261, ZLC12, or 105 with return loss

Special Error Codes

81 - This trunk type is not valid for this feature.

82 - The trunk group must be assigned in Procedure 107 Word 1.

Procedure 108 Word 1 — ISDN Terminating Test Line Assignment

88

Purpose

Use Procedure 108 Word 1 to administer the ISDN terminating test line (TTL) telephone digits to an ISDN trunk group.

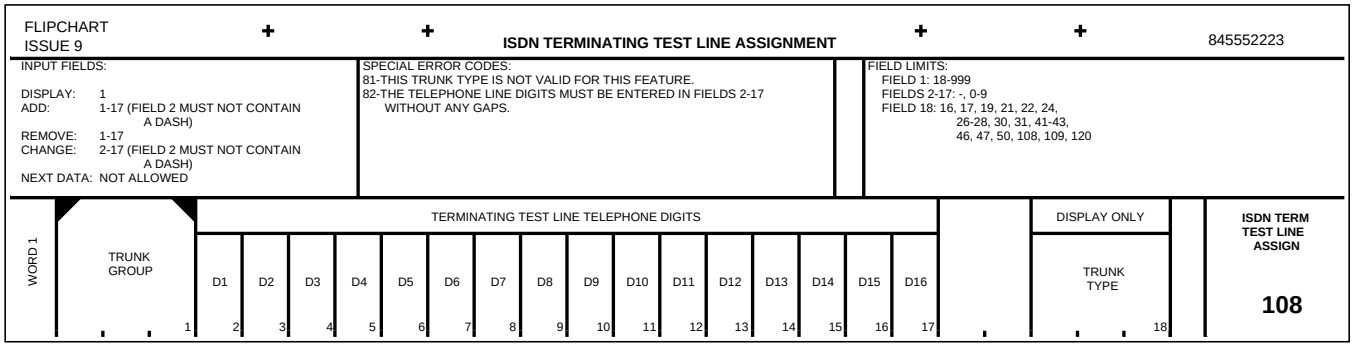
Prerequisite Procedures

Use Procedure 100 Word 1 to administer the trunk groups.

Related Procedures

Use Procedure 107 Words 2-7 to administer testing parameters for the ISDN test line.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-17 (field 2 must not contain a dash).
Change:	Fields 2-17 (field 2 must not contain a dash).
Remove:	Fields 1-17.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Trunk Group 18-999

TERMINATING TEST LINE TELEPHONE DIGITS (Fields 2-17)

The TTL telephone number digits must be entered without gaps.

For Network Main/Tandem trunks, the Traveling Class Mark (TCM) digit (or digits if two TCMs are required) must be administered as part of the TTL Telephone Digits. The TCM digit or digits are placed at the end of the dialed number. Refer to Procedure 103 Word 1 to determine if the trunk group is Network Main/Tandem and whether or not a second TCM digit is required.

Field 2 must not contain a dash when using the add or change routines.

2. Digit 1 -, 0-9

3. Digit 2 -, 0-9

4. Digit 3 -, 0-9

5. Digit 4 -, 0-9

6. Digit 5 -, 0-9

7. Digit 6 -, 0-9

8. Digit 7 -, 0-9

9. Digit 8 -, 0-9

10. Digit 9 -, 0-9

11. Digit 10 -, 0-9

12. Digit 11 -, 0-9

13. Digit 12 -, 0-9

14. Digit 13 -, 0-9

15. Digit 14 -, 0-9

16. Digit 15 -, 0-9

17. Digit 16 -, 0-9

DISPLAY ONLY (Field 18)

18. Trunk Type

16	CO 1-way attendant completing (1)
17	CO 1-way out DOD (1)
19	CO 2-way attendant completing in/DOD out 1)
21	FX 1-way in attendant completing (1)
22	FX 1-way out DOD (1)
24	FX 2-way attendant completing in/DOD out (1)
26	WATS 1-way in attendant completing (1)
27	WATS 1-way out DOD or toll terminal access for TSPS (1)
28	WATS 1-way out DOD with party test (2)
30	DID immediate start (3)
31	DID wink start (3)
41	TIE ETN 2-way dial repeating (26)
42	TIE ETN 1-way in dial repeating (26)
43	TIE ETN 1-way out dial repeating (26)
46	TIE ETN 2-way dial repeating (24)

47 TIE ETN 2-way dial repeating (24)
50 Remote access 2-way (1)
108 DMI host terminating, dial repeating in/automatic out (5)
109 DMI dial repeating in and out (11)
120 ISDN dynamic (20)

Special Error Codes

81 - This trunk type is not valid for this application.

82 - The telephone line digits must be entered in fields 2-17 without any gaps.

Procedure 110 Word 1 — Trunk DAC for Tandem Tie/Trunk-to-Trunk Restrictions

89

Purpose

Use Procedure 110 Word 1 to administer trunk dial access codes (DAC) to restricted dial code entry numbers for tandem tie trunk and trunk-to-trunk restrictions.

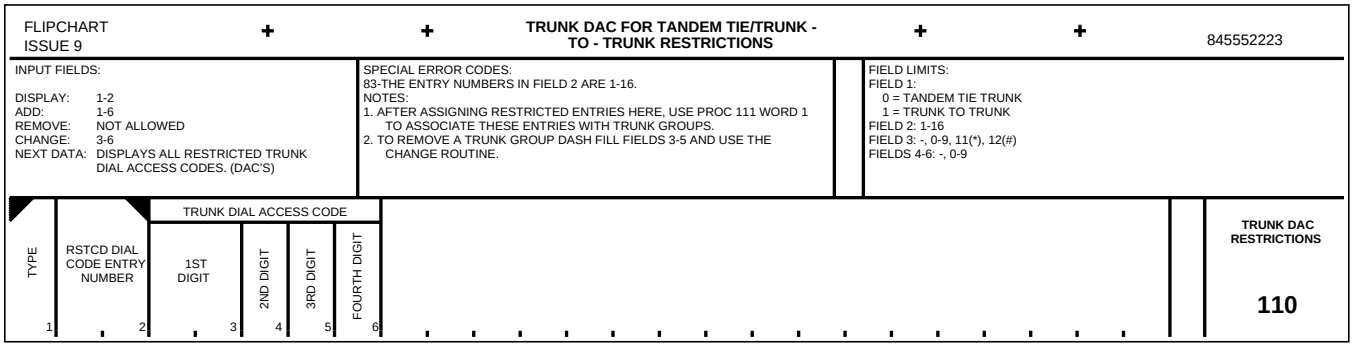
Prerequisite Procedures

Use Procedure 100 Word 1 to associate a trunk group with a DAC.

Related Procedures

After assigning restricted entries here, use Procedure 111 Word 1 to associate these entries with trunk groups.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-6.
Change:	Fields 3-6.
Remove:	Not allowed (enter dashes in fields 3-6 and use the change routine).
Next Data:	Displays all restricted trunk dial access codes (DACs).

Field Ranges and Encodes

1.	Trunk Type	0	Tandem tie trunk
		1	Trunk-to-trunk
2.	Restricted Dial Code Entry	1-16	

TRUNK GROUP DIAL ACCESS CODE (Fields 3-6)

3.	Digit 1	-, 0-9, 11 (*), 12 (#)
4.	Digit 2	-, 0-9
5.	Digit 3	-, 0-9
6.	Digit 4	-, 0-9

Special Error Codes

83 - The entry numbers in field 2 are 1-16.

Procedure 111 Word 1 — Tandem Tie/Trunk-to-Trunk Restrictions

90

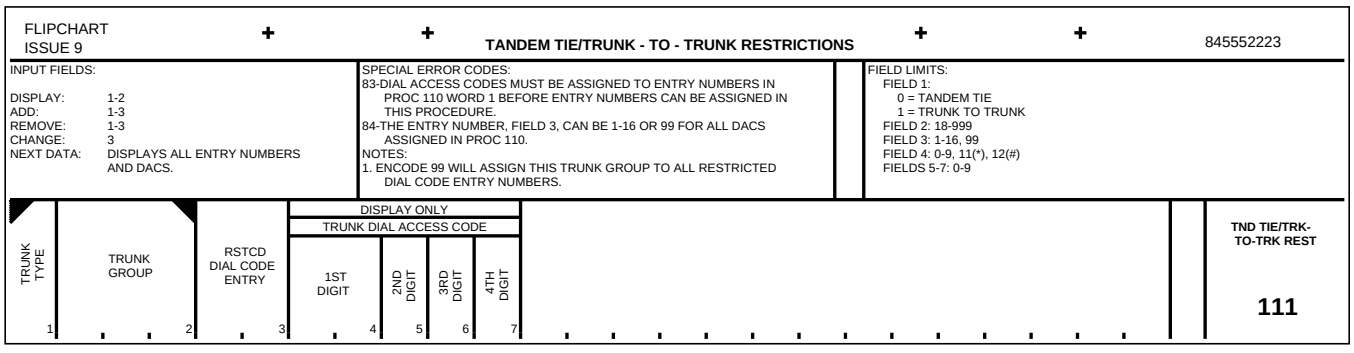
Purpose

Use Procedure 111 Word 1 to administer restricted dial code entry numbers associated with trunk groups for tandem tie trunk and trunk-to-trunk restrictions.

Prerequisite Procedures

Procedure 110 Word 1 must be used to assign restricted dial code entry numbers to trunk DACs.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-3.
Change:	Field 3.
Remove:	Fields 1-3.
Next Data:	Displays all entry numbers and DACs.

Field Ranges and Encodes

1.	Trunk Type	0 1	Tandem tie trunk Trunk-to-trunk
2.	Trunk Group	18-999	
3.	Restricted Dial Code Entry	1-16, 99 Encode 99 will assign this trunk group to all restricted dial code entry numbers.	

DISPLAY ONLY (Fields 4-7)

TRUNK DIAL ACCESS CODE (Fields 4-7)

4.	Digit 1	0-9, 11 (*), 12 (#)
5.	Digit 2	0-9
6.	Digit 3	0-9
7.	Digit 4	0-9

Special Error Codes

83 - Dial access codes must be assigned to entry numbers in Procedure 110 Word 1 before entry numbers can be assigned in this procedure.

84 - The entry number in field 3 can be 1-16 for individual DACs or 99 for all DACs assigned in Procedure 110 Word 1.

Procedure 115 Word 1 — Trunk Group Termination

91

Purpose

Use Procedure 115 Word 1 to administer non-dialing incoming trunk groups to terminate on any of the following services:

- Special services (SS) attendant
- Centralized Attendant Service (CAS)
- Automatic Call Distribution (ACD).

Prerequisite Procedures

Use Procedure 100 Word 1 to assign trunk groups.

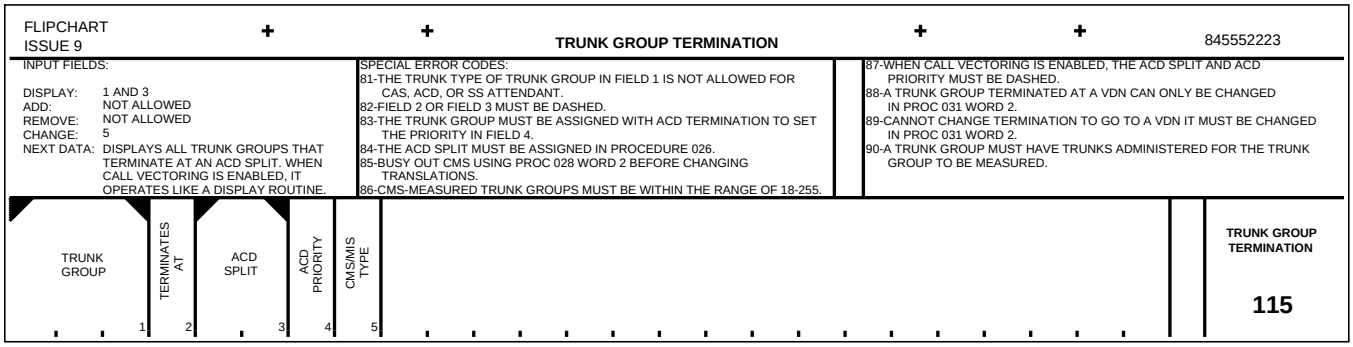
Use Procedure 026 Word 1 to assign ACD split numbers.

Use Procedure 028 Word 2 to busy out CMS before changing translations.

Related Procedures

This procedure only displays vector directory number (VDN) information. If field 2 = 2, the trunk group terminates to a VDN. Use Procedure 031 Word 2 to change the VDN information.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 3.
Add:	Not allowed.
Change:	Fields 2-5.
Remove:	Not allowed.
Next Data:	Displays all trunk groups that terminate at an ACD split. When Call Vectoring is enabled, it operates like a display routine.

Field Ranges and Encodes

1. Trunk Group — 18-999 (18-255 for trunk groups measured by CMS)

   The following are the valid trunk types for trunk group termination.

   16 = CO 1-way in attendant completing (1)
   19 = CO 2-way attendant completing in/DOD out (1)
   20 = CO 2-way with party test attendant completing in/DOD out (2)
   21 = FX 1-way in attendant completing (1)
   24 = FX 2-way attendant completing in/DOD out (1)
   25 = FX 2-way with party test attendant completing in/DOD out (2)
   26 = WATS 1-way in attendant completing (1)
   35 = TIE 1-way in automatic (4)
   38 = TIE 2-way automatic in/dial repeating out (4)
   39 = TIE 2-way automatic in and out (4)

   Type 50 (Remote Access 2-way) is available when speaker verification is enabled in Procedure 285 Word 1.

2.	Terminates At	-	ACD split
		0	SS attendant
		1	CAS attendant
		2	VDN (see Procedure 031 Word 2)
3.	ACD Split	-, 1-60	
4.	ACD Priority	-	Nonpriority ACD split termination
		1	Priority ACD split termination
5.	CMS/MIS Type	-	Group not measured by CMS
		1	Outgoing measurements by CMS
		2	Incoming measurements by CMS
		3	Two-way measurements by CMS

Special Error Codes

81 - The trunk type of the trunk group in field 1 is not allowed for CAS, ACD, or SS attendant.

82 - Field 2 or field 3 must be dashed.

83 - The trunk group must be assigned with ACD termination to set the priority in field 4.

84 - The ACD split must be assigned in Procedure 026 Word 1.

85 - Busy out CMS using Procedure 028 Word 2 before changing translations.

86 - CMS-measured trunk groups must be within the range of 18-255.

87 - When Call Vectoring is enabled, the ACD split and ACD priority must be dashed.

88 - A trunk group terminated at a VDN can only be changed in Procedure 031 Word 2.

89 - Cannot change termination to go to a VDN. It must be changed in Procedure 031 Word 2.

90 - A trunk group must have trunks administered for the trunk group to be measured.

Procedure 116 Word 1 — DS1 and ISDN Trunk Assignments

92

Purpose

Use Procedure 116 Word 1 to administer trunks to a DS1/ISDN interface.

Prerequisite Procedures

Use Procedure 028 Word 2 to busy out CMS before making changes.

Use Procedure 260 Word 1 to administer DS1/ISDN equipment locations.

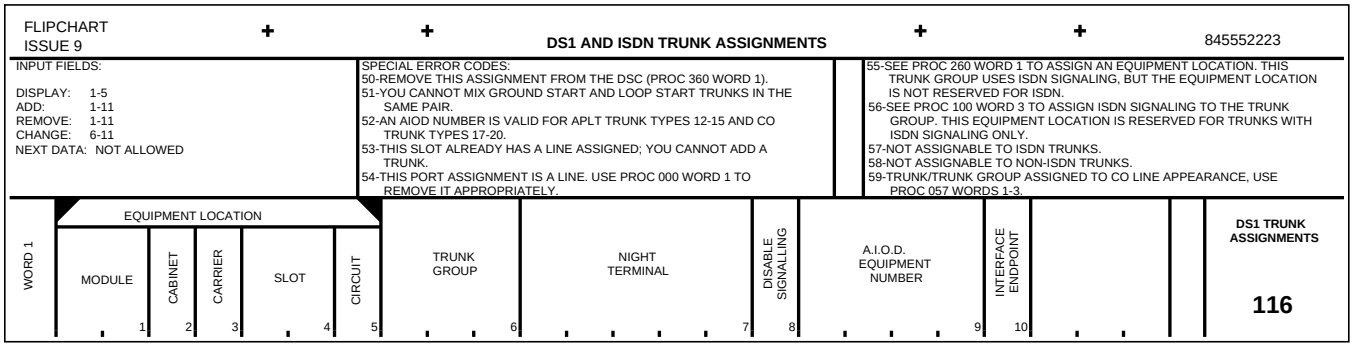
Use Procedure 100 Word 1 to administer trunk groups.

Use Procedure 100 Word 3 to administer signaling types to be compatible with an DS1/ISDN trunk group.

Use Procedure 211 Word 2 to remove release link trunk assignments before removing that trunk in this procedure.

Use Procedure 360 Word 1 to remove assignments for Dedicated Switch Connections (DSC).

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Fields 1-11.
Change:	Fields 6-11.
Remove:	Fields 1-11.
Next Data:	Not allowed.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-5)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0-2, 5-7, 13-15, 18-20

5. Circuit 0-3

6. Trunk Group 18-999

7. Night Terminal -, 000-99999

8. Disable Signaling

- ISDN signaling
0 Signaling enabled (use with DSC)
1 Signaling disabled (for robbed bit signaling)

Enter a ‘‘1’’ to disable signaling for clear channel DS1 applications.

A dash (-) in this field is required for ISDN. Without a dash, field 10 cannot be administered. A dash is also required when administering facilities for nodal service and MEGACOM access.

9. AIOD Equipment Number

-, 0000-9999

The AIOD number (field 9) is applicable to 1-way out, 2-way CO, and CCSA/APLT trunks. If automatic number identification is provided, the associated central office supplies the AIOD equipment number.

Leading zeros must be entered in field 9 if they are on the service order.

10. Interface Endpoint

0 PBX
1 Host computer
2 Network

For incoming calls over a trunk whose type is ISDN dynamic; and if a Network Specific Facility (NSF) information element is present in the SETUP message and the feature/service indication is set to feature; or if there is no NSF at all:

- 0 (PBX) means that the call will be processed like a call with trunk type 41
- 1 (host computer) means that the call will be processed like a call with trunk type 108
- 2 (network) means that the call will be processed like a call with trunk type 31.

Notes

1. The following table illustrates the physical equipment-location-to-channel-number conversion for DS1 trunks:

CIRCUIT	SLOT					
	0 or 13	1 or 14	2 or 15	5 or 18	6 or 19	7 or 20
0	13	14	15	1	2	3
1	16	17	18	4	5	6
2	19	20	21	7	8	9
3	22	23	24	10	11	12

Special Error Codes

50 - Remove this assignment from the DSC (Procedure 360 Word 1).

51 - You cannot mix ground start and loop start trunks in the same pair.

52 - An AIOD number is valid for APLT trunk types 12-15 and CO trunk types 17-20.

53 - This slot already has a line assigned; you cannot add a trunk.

54 - This port assignment is a line. Use Procedure 000 Word 1 to remove if appropriate.

55 - See Procedure 260 Word 1 to assign an equipment location. This trunk group uses ISDN signaling, but the equipment location is not reserved for ISDN.

56 - See Procedure 100 Word 3 to assign ISDN signaling to the trunk group. This equipment location is reserved for trunks with ISDN signaling only.

57 - Not assignable to ISDN trunks.

58 - Not assignable to non-ISDN trunks.

59 - Trunk/trunk group assigned to CO line appearance - see Procedure 057 Words 1-3.

81 - An associated extension cannot be used as a night terminal.

82 - Remove release link trunk assignments in Procedure 211 Word 2 before removing the trunk here.

83 - The circuit number is limited by the type of circuit pack assigned.

84 - A change routine is not allowed for either the original or changed trunk type.

85 - A maximum of 255 trunks can be assigned to a trunk group (99 for types 103-107).

86 - The trunk type assigned to this trunk group is not correct for DS1.

87 - The equipment location is not allocated as a DS1 or DMI port. See Procedure 260 Word 1.

89 - The allowed slots for DS1/ISDN are 0-2 and 5-7 for a circuit pack in slot 5, or 13-15 and 18-20 for a circuit pack in slot 18. Circuit numbers are 0-3.

90 - Trunk cannot be assigned to channel 24 if DS1/ISDN is arranged for 24th channel signaling. You cannot use slot 2 circuit 3 for the circuit pack in slot 5, or slot 15 circuit 3 for the circuit pack in slot 18. See notes section.

91 - A trunk cannot be added to or taken away from a DCS trunk group using the change routine. It must be removed first then added.

92 - Only trunk types 103-107 are valid for a trunk in a remote carrier group (RCG).

93 - Busy out CMS using Procedure 028 Word 2.

94 - The disable signaling bit cannot be changed if the trunk is part of a DSC (Procedure 360 Word 1). If the trunk is not in a DSC, the trunk must be idle or maintenance busy before the disable signaling bit can be changed.

95 - This trunk type is not compatible with the other pair member. Pair members are circuits 0/1 and circuits 2/3. Compatibility groups are: 1) CO/FX/WATS/RA (ground start); 2) CO/FX/WATS (loop start); and 3) TIE/DID/APLT. This rule applies to the ANN11 board only.

96 - CO trunks must use robbed bit signaling.

97 - This equipment location is not a DS1 trunk board.

98 - Physical trunks cannot be added to an ITG trunk group.

Procedure 120 Word 1 — Automatic Circuit Assurance

93

Purpose

Use Procedure 120 Word 1 to administer Automatic Circuit Assurance (ACA) trunk group information (short call limit, long call limit, and short call referral threshold) for any assigned incoming or outgoing, one-way or two-way trunk groups.

Minor changes in fields 2 and 3 can significantly affect the ACA feature.

Prerequisite Procedures

Use Procedure 100 Word 1 to administer basic trunk group translations.

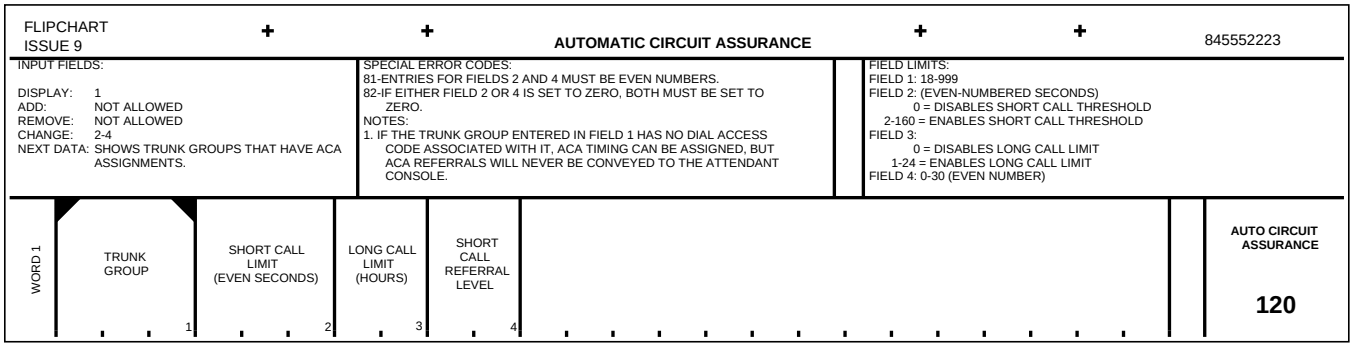
Use Procedure 101 Words 1 and 2 to administer trunk group characteristics.

Use Procedure 116 Word 1 or Procedure 150 Word 1 to assign trunks to a trunk group.

Related Procedures

Use Procedure 285 Word 1 and Procedure 286 Word 1 to enable and disable the Automatic Circuit Assurance for the system COS.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Remove:	Not allowed.
Change:	Fields 2-4.
Next Data:	Shows trunk groups that have ACA assignments.

Field Ranges and Encodes

1. Trunk Group — 18-999

   If the trunk group entered in this field has no dial access code associated with it, ACA timing can be assigned, but ACA referrals will never be conveyed to the attendant console.

2. Short Call Limit (even seconds)

   0 Disables short call threshold
   2-160 Enables short call threshold

   This field is the minimum time limit set for short calls made on a given trunk group. If a call is disconnected prior to the time set in this field, the switch adds a count to the short call referral threshold. When the short call threshold count is met, the switch notifies the designated attendant that this trunk group has met the limit.

3.	Long Call Limit (hours)	0 1-24	Disables long call limit Enables long call limit
			This field is the time limit set for all lengthy calls made on a given trunk group. If a call lasts longer than the number of hours designated in this field, the switch notifies the designated attendant that this trunk group has met the limit.
4.	Short Call Referral Threshold	0-30 (even number)	This field is the even number of short calls made on the switch that will cause the switch to notify a designated attendant. For example, if the referral threshold is set at 6 for a given trunk group, and 6 calls are made on that trunk group that do not stay connected for the short call limit time (field 2), the attendant is notified.

Special Error Codes

81 - Entries for fields 2 and 4 must be even numbers.

82 - If either field 2 or 4 is set to zero, both must be set to zero.

Procedure 150 Word 1 — Trunk - Features

94

Purpose

Use Procedure 150 Word 1 to:

- — Add or remove trunks to or from a trunk group
- — Assign night terminals to a trunk
- — Assign a central office trunk number to be used for Automatic Identified Outward Dialing (AIOD) billing, when the AIOD feature is provided
- — Administer paging zone assignments to equipment locations
- — Assign recorded announcement numbers to equipment locations for Call Vectoring.

Use this procedure to administer the following applications to circuit packs:

Central office trunks

Auxiliary trunks

DID trunks

Analog tie trunks

Touch-Tone receivers

Touch-Tone senders

Conference-Attendant Six Party

Tone detectors

Analog and digital facility test circuit

General Purpose Port for PDM, MDM, and TDM applications

Prerequisite Procedures

Before making changes in fields 10 and 11, check Procedure 276 Word 1 to see if Call Vectoring is active or inactive. The encode definitions for these two fields are based on the status of Call Vectoring (enabled or disabled as administered in Procedure 276 Word 1 field 5).

Use Procedures 350 Word 1 and 354 Word 1 to place the night terminal number (field 7) in the dialing plan. The number must also be associated with a terminal line using Procedure 000 Word 1.

Use Procedure 100 Word 1 to administer trunk group translations.

Use Procedure 101 Word 1 to administer trunk group characteristics.

Use Procedure 155 Word 1 to administer the contact interface boards (SN241).

Before a trunk is removed, the trunk's translations in the following procedures must be removed.

- Use Procedure 027 Word 1 to remove the trunk from any ACD recorded announcement.
- Use Procedure 028 Word 2 to busy out CMS when CMS trunk translations are being altered.
- Use Procedure 030 Word 3 or Procedure 033 Word 1 to remove announcement trunk when vectoring is enabled.
- Use Procedure 211 Word 2 to remove the outgoing release link trunk translations (Type 57).
- Use Procedure 289 Word 1 to remove the recorded announcement number.
- Use Procedure 360 Word 1 to remove the trunk from a Dedicated Switch Connection (DSC).

Related Procedures

Use Procedure 116 Word 1 to administer trunks for remote-DS1, and signaling for ISDN trunk groups.

Use Procedure 155 Word 1 to administer SN241 contact interface boards.

Use Procedure 175 Word 1 to display miscellaneous trunk restriction groups.

Use Procedure 178 Word 1 to find all the trunks in a trunk group.

Use Procedure 180 Word 1 to assign a trunk to a modem pool.

Use Procedure 275 Word 1 when attempting to remove the Music-On-Hold trunk. Set the Music-on-Hold feature to 0. Return to this procedure and do a remove routine.

Use Procedure 290 Word 1 to search for unassigned equipment locations.

Cautions

Loudspeaker Paging zones must be assigned consecutively. If removing a paging zone results in nonconsecutive numbering, the remaining zones should be reassigned to maintain the proper number sequence.

Flipchart

FLIPCHART
ISSUE 9

TRUNK - FEATURES

845552223

INPUT FIELDS:

DISPLAY: 1-5
ADD: 1-11
REMOVE: AFTER DISPLAY ONLY
CHANGE: 6-11
NEXT DATA: NOT ALLOWED.

SPECIAL ERROR CODES:
50-USE PROC 027 FIRST TO REMOVE TRUNK FROM ANY ACD SPLIT.
51-CMS MUST BE BUSIED OUT USING PROC 028 WORD 2 BEFORE TRANSLATIONS CAN BE ALTERED.
52-MUST BE REMOVED FROM DSC FIRST (SEE PROC 360)).
53-USE PROC 116 WORD 1 TO ADMINISTER TRUNKS WITH ISDN SIGNALING TYPE.
54-WHEN VECTORING IS ENABLED, FIRST USE, PROC 30 WORD 3, OR PROC 33.
55-ONLY ONE MUSIC SOURCE PER MODULE IS ALLOWED.

81-CIRCUIT ASSIGNED TO ATTENDANT INTERFACE-SEE PROC 210 WORD 1.
82-TRUNK GROUP DOES NOT REQUIRE TRUNKS.
83-TRUNK/TRUNK GROUP ASSIGNED TO CO LINE APPEARANCE-SEE PROC 057 WORD 1.
84-AN ASSOCIATED EXTENSION CANNOT BE USED AS A NIGHT TERMINAL.
85-TRUNK/TRUNK GROUP ASSIGNED TO CONTACT INTERFACE-SEE PROC 155 WORD 1.
86-RELEASE LINK TRUNK ASSIGNMENTS MUST BE REMOVED IN PROC 211 WORD 2 BEFORE BEING REMOVED HERE.

EQUIPMENT LOCATION												
MODULE 1	CABINET 2	CARRIER 3	SLOT 4	CIRCUIT 5	TRUNK GROUP 6	NIGHT TERMINAL EXTENSION 7	A.I.O.D. EQUIPMENT NUMBER 8	PAGING ZONE 9	RECORDED ANNOUNCE-MENT 10	CONTINUOUS ANNOUNCEMENT BIT 11		TRUNK FEATURES 150

Fields Used or Required for Command Routines

Display:	Fields 1-5.
Add:	Fields 1-11.
Remove:	Fields 1-11.
Change:	Fields 6-11.
Next Data:	Not allowed.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-3

6.	Trunk Group	17-999 Trunk group 17 must always be assigned to touch-tone receivers (trunk type 2 in Procedure 100 Word 1).
7.	Night Terminal Extension	-, 000-99999
8.	AIOD Equipment Number	-, 0000-9999 The AIOD number (field 8) is applicable to 1-way out, 2-way CO ,and CCSA/APLT trunks. If ANI is provided, the associated central office supplies the AIOD equipment number. Leading zeros must be entered in field 8 if they are on the service order.
9.	Paging Zone	-, 1-18
10.	Recorded Announcement	-, 1-99 The range of this field depends on the trunk type of the trunk group in field 6 (defined in Procedure 100 Word 1). When Call Vectoring is disabled (Procedure 276 Word 1), this field must be between 1-15 and field 11 must be dashed unless the trunk type is 90, 91, or 92, then this field is also dashed. When Call Vectoring is enabled and the trunk type is 52, then this field must be between 1-15 and field 11 must be dashed. If the trunk type is 90, then this field must be between 16-99 and field 11 must be 0 or 1.

11.	Continuous Announcement Bit	0 1	Disabled Enabled

When Call Vectoring is disabled (Procedure 276 Word 1), field 10 must be between 1-15 and this field must be dashed. When Call Vectoring is enabled, the range of field 10 depends on the trunk type of the trunk group in field 6 (defined in Procedure 100 Word 1). If the trunk type is 52, then field 10 must be between 1-15 and this field must be dashed. If the trunk type is 90, then field 10 must be between 16-99 and this field must be 0 or 1.

Notes

1. A busy trunk cannot be removed.
2. Trunks in trunk group 17 must be assigned to circuits 0-3.

Special Error Codes

50 - Before removing the trunk, it must be removed from all ACD recorded announcements in Procedure 027 Word 1 first.

51 - CMS must be busied out using Procedure 028 Word 2 before translations can be altered.

52 - Before removing the trunk, the DSC must first be removed in Procedure 360 Word 1.

53 - Use Procedure 116 Word 1 to administer trunks with ISDN signaling type.

54 - When Call Vectoring is enabled, use Procedure 030 Word 3 or Procedure 033 Word 1 to remove announcement trunk.

55 - Only one music source per module is allowed.

81 - Circuit assigned to attendant interface. See Procedure 210 Word 1.

82 - Trunk group does not require trunks.

83 - Trunk/trunk group assigned to CO line appearance. See Procedure 057 Word 1.

84 - An associated extension cannot be used as a night terminal.

85 - Trunk/trunk group assigned to contact interface - see Procedure 155 Word 1.

86 - Release link trunk assignments must be removed in Procedure 211 Word 2 before being removed here.

87 - Circuit number input is limited by type of circuit pack being assigned.

88 - Trunk group assigned to modem pool. See Procedure 180 Word 1.

89 - Change not allowed for either original or changed trunk type.

90 - Cannot change recorded announcement trunk (type 52 or type 90 when Call Vectoring enabled).

91 - Cannot assign night terminal to recorded announcement trunk (type 52 or type 90 when Call Vectoring enabled).

92 - A maximum of 255 trunks (99 for trunk types 103-109) can be assigned to a trunk group.

93 - Remove recorded announcement number in Procedure 289 Word 1 before removing it here.

94 - Can only assign AIOD number to APLT trunk types (12-15) and CO trunk types (17-20).

95 - Circuit pack assigned to voice or data terminal; you cannot administer it here. See Procedure 051 Word 1.

96 - Trunk group assigned for AVD service. Use Procedure 116 Word 1 to administer.

97 - Trunk group assigned as loop-start type. Use Procedure 116 Word 1 to administer.

98 - A trunk cannot change into or out of a DCS trunk group. It must be removed, then added back in.

Procedure 155 Word 1 — Contact Interface

95

Purpose

Use Procedure 155 Word 1 to administer contact interface board translations. The contact interface board (SN241) controls lamps on a 30A8 system status indicator (SSI). The SSI shows the status of release link trunks used by Centralized Attendant Service (CAS) or queue warning for Automatic Call Distribution (ACD) trunk groups.

Prerequisite Procedures

Use Procedure 100 Word 1 to assign a trunk group with trunk type 65.

Related Procedures

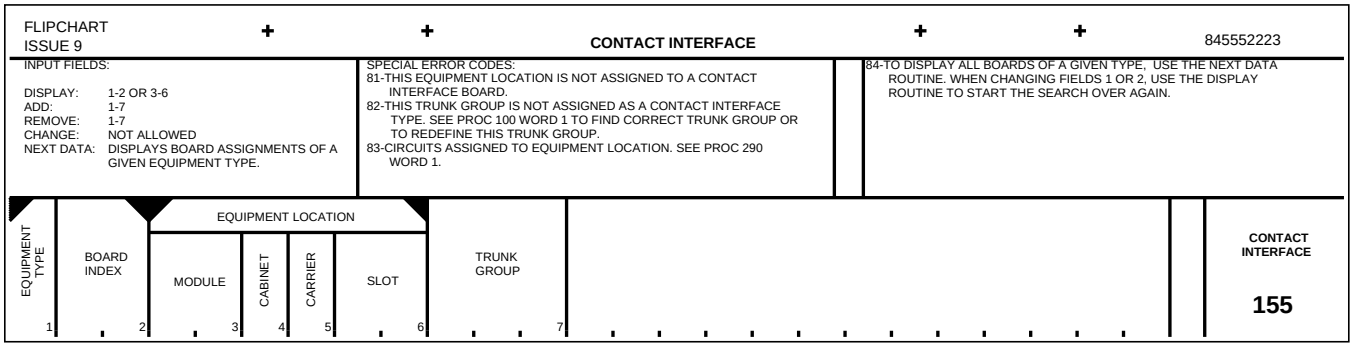
Use Procedure 026 Word 1 to administer contact interface circuits for ACD queue status.

Use Procedure 212 Word 2 to administer contact interface circuits for CAS trunk status.

Cautions

Be careful when removing boards with this procedure to prevent electrical damage. Make sure that all contacts of a board are unassigned before removing the board.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2 or fields 3-6.
Add:	Fields 1-7.
Change:	Not allowed.
Remove:	Fields 1-7.
Next Data:	Displays board assignments of a given equipment type.

Field Ranges and Encodes

1. Equipment Type
   - 1 CAS outgoing RLT status, branch
   - 2 CAS incoming RLT status, main
   - 3 ACD split status

2. Board Index 0-13

   If field 1 = 1, field 2 = 0-2.

   If field 1 = 2, field 2 = 0-13.

   If field 1 = 3, field 2 = 0-7.

EQUIPMENT LOCATION (Fields 3-6)

3. Module 0-30

4. Cabinet 0-7

5. Carrier 0-3

6. Slot 0-3, 5-8, 12-16, 18-20

7. Trunk Group 18-999

   It is necessary to assign only one trunk group per system for all contact interface boards. This single trunk group can contain every type of assignment.

   This trunk group must be administered as trunk type 65 in Procedure 100 Word 1.

Notes

1. Circuits should be added and removed from service using the proper procedures after adding and before removing the board with this procedure. See the following table for those procedures:

Equipment Type	Field 1	Field 2	See Procedure
CAS outgoing RLT status	1	0-2	211 Word 2*
CAS incoming RLT status	2	0-13	212 Word 2
ACD split status	3	0-7	026 Word 1
* These circuits are automatically assigned.			

Special Error Codes

81 - This equipment location is not assigned to a contact interface board.

82 - This trunk group is not assigned as a contact interface type. See Procedure 100 Word 1 to find correct trunk group or to redefine this trunk group.

83 - Circuits are assigned to the equipment location. See Procedure 290 Word 1.

84 - To display all boards of a given type, use the next data routine. When changing fields 1 or 2, use the display routine to start the search over again.

Procedure 175 Word 1 — Display Miscellaneous Trunk Restriction Groups

96

Purpose

Use Procedure 175 Word 1 to display the trunk groups assigned to a restriction group number. Up to four DACs (Dial Access Codes) can be displayed at one time using this procedure.

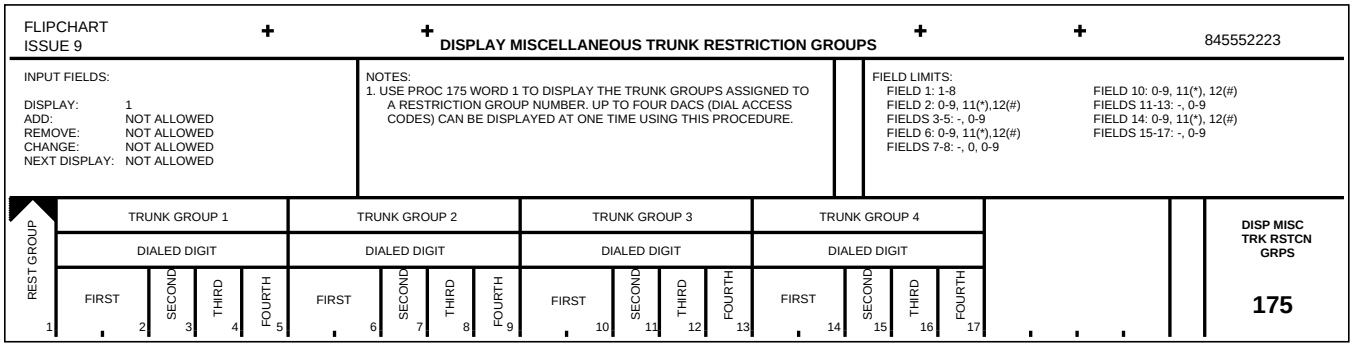
Related Procedures

Use Procedure 102 Word 1 to set up miscellaneous trunk restriction groups.

Use Procedure 100 Word 1 to assign Dial Access Codes (DACs) to trunk groups.

Use Procedure 350 Word 1 to place the first digit of the trunk group DAC in the dialing plan.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Remove:	Not allowed.
Change:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Restriction Group — 1-8

TRUNK GROUP 1 (Fields 2-5)

2. Digit 1 — 0-9, 11 (*), 12 (#)

3. Digit 2 — -, 0-9

4. Digit 3 — -, 0-9

5. Digit 4 — -, 0-9

TRUNK GROUP 2 (Fields 6-9)

6. Digit 1 — 0-9, 11 (*), 12 (#)

7. Digit 2 -, 0-9

8. Digit 3 -, 0-9

9. Digit 4 -, 0-9

TRUNK GROUP 3 (Fields 10-13)

10. Digit 1 0-9, 11 (*), 12 (#)

11. Digit 2 -, 0-9

12. Digit 3 -, 0-9

13. Digit 4 -, 0-9

TRUNK GROUP 4 (Fields 14-17)

14. Digit 1 0-9, 11 (*), 12 (#)

15. Digit 2 -, 0-9

16. Digit 3 -, 0-9

17. Digit 4 -, 0-9

Special Error Codes

None.

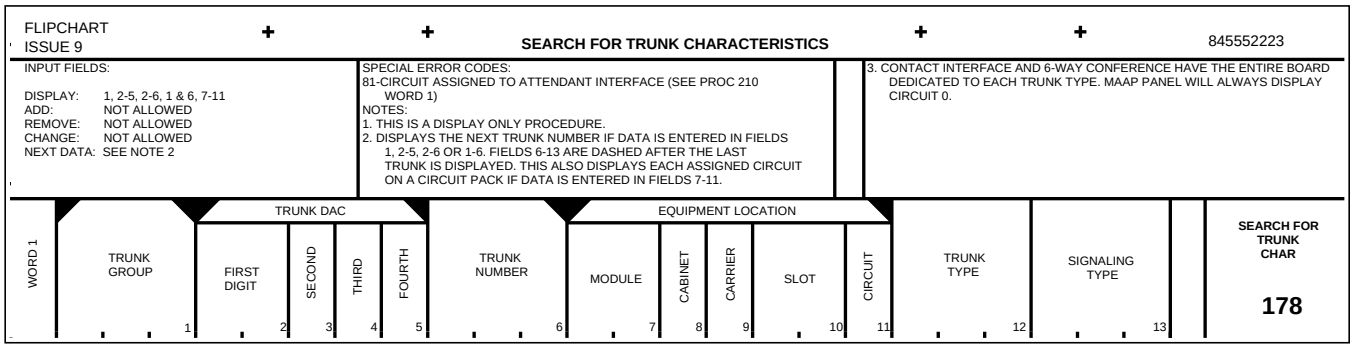
Procedure 178 Word 1 — Search for Trunk Characteristics

97

Purpose

Use Procedure 178 Word 1 to display trunk characteristics such as the dial access code (DAC), trunk number, equipment location, trunk type, and signaling used.

Flipchart



FLIPCHART
ISSUE 9

SEARCH FOR TRUNK CHARACTERISTICS

845552223

INPUT FIELDS:

DISPLAY: 1, 2-5, 2-6, 1 & 6, 7-11
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: NOT ALLOWED
NEXT DATA: SEE NOTE 2

SPECIAL ERROR CODES:
81-CIRCUIT ASSIGNED TO ATTENDANT INTERFACE (SEE PROC 210 WORD 1)

NOTES:
1. THIS IS A DISPLAY ONLY PROCEDURE.
2. DISPLAYS THE NEXT TRUNK NUMBER IF DATA IS ENTERED IN FIELDS 1, 2-5, 2-6 OR 1-6. FIELDS 6-13 ARE DASHED AFTER THE LAST TRUNK IS DISPLAYED. THIS ALSO DISPLAYS EACH ASSIGNED CIRCUIT ON A CIRCUIT PACK IF DATA IS ENTERED IN FIELDS 7-11.
3. CONTACT INTERFACE AND 6-WAY CONFERENCE HAVE THE ENTIRE BOARD DEDICATED TO EACH TRUNK TYPE. MAAP PANEL WILL ALWAYS DISPLAY CIRCUIT 0.

WORD 1	TRUNK GROUP 1	TRUNK DAC: FIRST DIGIT 2	SECOND 3	THIRD 4	FOURTH 5	TRUNK NUMBER 6	EQUIPMENT LOCATION: MODULE 7	CABINET 8	CARRIER 9	SLOT 10	CIRCUIT 11	TRUNK TYPE 12	SIGNALING TYPE 13	SEARCH FOR TRUNK CHAR 178

Fields Used or Required for Command Routines

Display:	Fields 1, 2-5, 1-6, 2-6, 1 and 6, or 7-11.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays the next trunk number if data is entered in fields 1, 2-5, 2-6 or 1-6. Fields 6-13 are dashed after the last trunk is displayed. This also displays each assigned circuit on a circuit pack if data is entered in fields 7-11.

Field Ranges and Encodes

1.	Trunk Group	17-999

TRUNK DIAL ACCESS CODE (Fields 2-5)

2.	Digit 1	-, 0-9, 11 (*), 12 (#)
3.	Digit 2	-, 0-9
4.	Digit 3	-, 0-9
5.	Digit 4	-, 0-9
6.	Trunk Number	-, 1-255

EQUIPMENT LOCATION (Fields 7-11)

7.	Module	0-30
8.	Cabinet	0-7
9.	Carrier	0-3
10.	Slot	0-3, 5-8, 13-16, 18-21

11. Circuit 0-3

12. Trunk Type

2	Touch-tone digit register (0)
5	Conference - Attendant Six-Party (0)
6	Queuing (0)
12	CCSA/APLT 2-way with dial tone out (9)
13	CCSA/APLT 2-way with dial tone out (10)
14	CCSA/APLT 2-way (8)
15	CCSA/APLT 2-way (5)
16	CO 1-way in attendant completing (1)
17	CO 1-way out DOD (1)
18	CO 1-way out DOD with party test (2)
19	CO 2-way attendant completing in/DOD out (1)
20	CO 2-way with party test attendant completing in/DOD out (2)
21	FX 1-way in attendant completing (1)
22	FX 1-way out DOD (1)
23	FX 1-way out DOD with party test (2)
24	FX 2-way attendant completing in/DOD out (1)
25	FX 2-way with party test attendant completing in/DOD out (2)
26	WATS 1-way in attendant completing (1)
27	WATS 1-way out DOD or toll terminal access for TSPS (1)
28	WATS 1-way out DOD with party test (2)
30	DID immediate start (3)
31	DID wink start (3)
32	TIE 1-way in dial repeating (4)
33	TIE 1-way out automatic (4)
34	TIE 1-way out dial repeating (4)
35	TIE 1-way in automatic (4)
36	TIE 2-way dial repeating in and out (4)
37	TIE 2-way dial repeating in/automatic out (4)
38	TIE 2-way automatic in/dial repeating out (4)
39	TIE 2-way automatic in and out (4)
40	TIE 1-way in dial repeating (27)
41	TIE ETN 2-way dial repeating (26)
42	TIE ETN 1-way in dial repeating (26)
43	TIE ETN 1-way out dial repeating (26)
44	TIE 2-way dial repeating (27)
45	TIE 2-way dial repeating in/automatic out (27)
46	TIE ETN 2-way dial repeating (25)
47	TIE ETN 2-way dial repeating (24)
50	Remote Access 2-way (1)
51	Telephone dictation interface (7)
52	Recorded Announcement interface (7)

53 Code Calling interface (7)
54 Loudspeaker Paging interface (7)
55 Touch-Tone sender (0)
57 CAS release link trunk 1-way outgoing from branch (13)
58 ANI interface (6)
62 Music on Hold interface (0)
65 SN241 contact interface (0)
66 CAS release link trunk 1-way incoming at main (14)
67 Audio interface (0)
70 Main/Satellite 1-way in (15)
71 Main/Satellite 1-way out (15)
72 Main/Satellite 2-way (15)
73 Main/Satellite 1-way in (16)
74 Main/Satellite 1-way out (16)
75 Main/Satellite 2-way (16)
76 Main/Satellite 1-way in (17)
77 Main/Satellite 1-way out (17)
78 Main/Satellite 2-way (17)
90 ACD First announcement (7)
91 ACD Second announcement (7)
92 ACD Origin announcement (7)
93 Malicious Call Trace recorder (7)
100 Data-tones tone detector (0)
101 Analog data modem pool (4)
102 Digital data modem pool (18)
103 Host access PDM (18)
104 Host access TDM (18)
105 3B5 AP DCPI (18)
106 EIA 4 Port (18)
107 ISN/EIA port (18)
108 DMI host terminating, dial repeating in/automatic out (5)
109 DMI dial repeating in and out (11)
120 ISDN dynamic (20)

The default signaling type encodes are shown in parentheses.

13. Signaling Type	0	No signaling required
	1	Ground start
	2	Ground start with party test
	3	Loop/reverse battery, wink start
	4	E&M immediate start in and out
	5	E&M wink start in, immediate start out
	6	ANI signaling
	7	Auxiliary equipment
	8	E&M delay dial in, immediate start out
	9	E&M delay dial in wink/delay with dial tone out.
	10	E&M wink start in, wink/delay dial with dial tone out
	11	E&M wink start in, wink/delay dial out (universal sequence)
	12	E&M immediate start in, wink/delay dial out
	13	E&M release link trunk out
	14	E&M release link trunk in
	15	E&M Main/Satellite, immediate start
	16	E&M Main/Satellite, wink start
	17	E&M Main/Satellite, delay dial
	18	S-channel signaling, host access-GPP, host access EIA
	19	Loop start
	20	Digital multiplex interface ISDN message oriented signaling
	21	E&M wink start both ways
	22	E&M delay dial both ways
	23	E&M delay dial in, wink/delay dial out
	24	E&M delay dial in, wink/delay dial out with fail on timeout
	25	E&M immediate start in, wink/delay dial out with fail on timeout
	26	E&M wink start in, wink/delay dial out with fail on timeout
	27	Analog line loop

Notes

1. Contact interface and six-way conference has an entire board dedicated to each trunk.

Special Error Codes

81 - Circuit assigned to attendant interface (see Procedure 210 Word 1).

Procedure 180 Word 1 — Modem Pool

98

Purpose

Use Procedure 180 Word 1 to administer a digital and analog data trunk pair for the modem pool.

Prerequisite Procedures

Use Procedure 100 Words 1 and 2 to assign a digital trunk group with trunk type 102.

Use Procedure 100 Word 1 to assign an analog trunk group with trunk type 101.

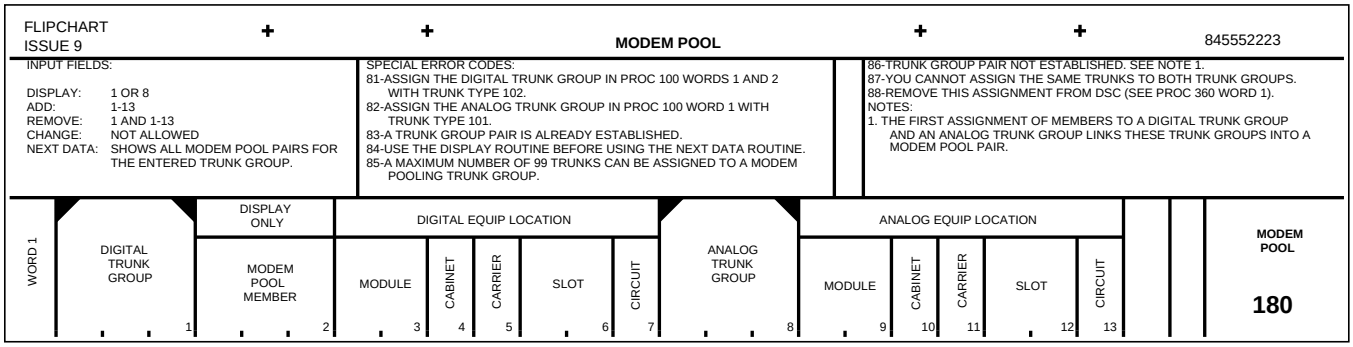
Use Procedure 100 Word 2 to set up trunk groups as a modem pool pair.

Use Procedure 360 Word 1 to remove a trunk from a Dedicated Switch Connection (DSC) before removing the trunk group from this procedure.

Related Procedures

Use Procedure 100 Word 4 to administer Route Advance for modem pool members.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or 8.
Add:	Fields 1-13.
Change:	Not allowed.
Remove:	Fields 1 and 3-13.
Next Data:	Shows all modem pool pairs for the entered trunk group.

Field Ranges and Encodes

1. Digital Trunk Group -, 18-999

DISPLAY ONLY (Field 2)

2. Modem Pool Member 1-99

DIGITAL EQUIPMENT LOCATION (Fields 3-7)

This group administers the SN270 circuit pack.

3. Module 0-30

4. Cabinet 0-7

5. Carrier 0-3

6.	Slot	0-3, 5-8, 13-16, 18-21
7.	Circuit	0-3
8.	Analog Trunk Group	-, 18-999

ANALOG EQUIPMENT LOCATION (Fields 9-13)

This group administers the SN243 circuit pack.

9.	Module	0-30
10.	Cabinet	0-7
11.	Carrier	0-3
12.	Slot	0-3, 5-8, 13-16, 18-21
13.	Circuit	0-3

Notes

1. The first assignment of members to a digital trunk group and an analog trunk group links these trunk groups into a modem pool pair.
2. The trunks must be physically connected to each other as well as being paired by this procedure. This connection is done with RS-232C cables between the digital data module and the analog modem.

Special Error Codes

81 - Assign the digital trunk group in Procedure 100 Words 1 and 2 with trunk type 102.

82 - Assign the analog trunk group in Procedure 100 Word 1 with trunk type 101.

83 - A trunk group pair is already established.

84 - Use the display routine before using the next data routine.

85 - A maximum of 99 trunks can be assigned to a modem pooling trunk group.

86 - A trunk group pair is not established for this trunk group.

87 - You cannot assign the same trunk to both trunk groups.

88 - Remove this assignment from DSC (see Procedure 360 Word 1).

Procedure 200 Word 1 — Console Features

99

Purpose

Use Procedure 200 Word 1 to administer:

- The type of consoles in the system
- The features assigned to the consoles
- The facility restriction level (FRL) for the consoles.

Related Procedures

Use Procedure 201 Word 1 to administer the console terminal Direct Extension Selection/Busy Lamp Field (DXS/BLF) group select buttons.

Use Procedure 201 Word 2 to administer Extended DXS buttons.

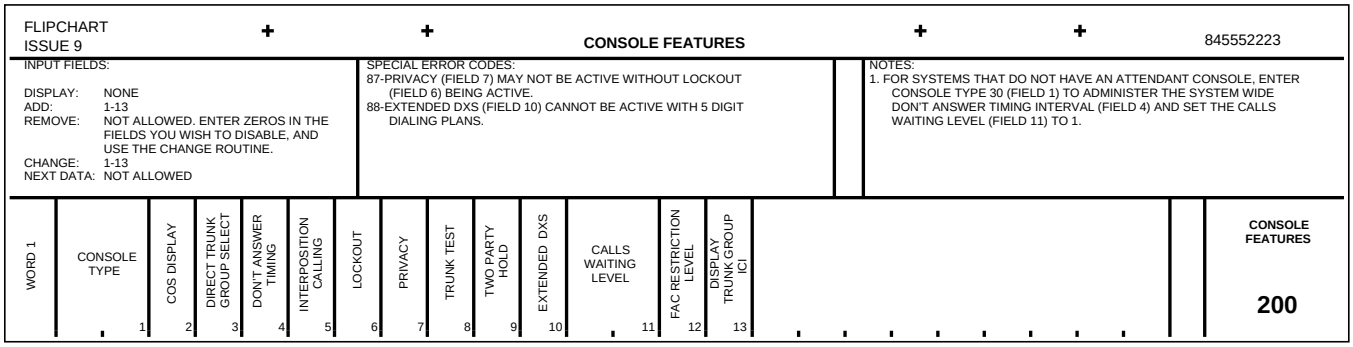
Use Procedure 202 Word 1 to provide the attendant with direct trunk group select buttons.

Use Procedure 203 Word 1 to assign control buttons to the various console features.

Use Procedure 204 Word 1 to assign console incoming call identification (ICI) lamps and alphanumeric character messages.

Use Procedure 210 Word 1 to assign the hardware locations for consoles.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Fields 1-13.
Change:	Fields 1-13.
Remove:	Not allowed. Enter zeros in the fields you wish to disable, and use the change routine.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Console Type

30	No DXS/BLF buttons; 8 character display
33	6 DXS group buttons; 8 character display
34	18 DXS group buttons; 8 character display

The model numbers for the consoles are as follows:

30 = AAG-09AF-03
34 = AGJ-09AF-03

Console type 33 is not manufactured any more, but the encode is still valid for any existing equipment.

2. COS Display

0	Class of service number is displayed
1	FULL, TOLL, REST, and NON are displayed

3. Direct Trunk Group Select

0	Disabled
1	Enabled (see Procedure 202 Word 1)

4. Don't Answer Timing
   1-8 Ringing cycles

   This don't answer timing interval is used by the Call Forwarding - Don't Answer and Automatic Callback features.

5. Interposition Calling
   0 Disabled
   1 Enabled
   2 Enabled plus extension to selected attendant

   A 1 in this field allows calls to be placed between two console positions. A 2 in this field allows calls to be placed between two console positions and from voice terminal users to specific console positions.

6. Lockout
   0 Disabled
   1 Enabled

   When the Privacy feature is enabled, the Lockout feature must also be enabled (i.e., fields 6 and 7 must both equal 1).

7. Privacy
   0 Disabled
   1 Enabled

   When the Privacy feature is enabled, the Lockout feature must also be enabled (i.e., fields 6 and 7 must both equal 1).

8. Trunk Test
   0 Disabled
   1 Enabled

   This feature allows the attendant to do trunk verification.

9. Two-Party Hold
   0 Disabled
   1 Enabled

   This feature allows the attendant to place a two-party call on hold (2 stations, 2 trunks, etc.).

10.	Extended DXS	0 1	Disabled (see Procedure 201 Word 1) Enabled (see Procedure 201 Word 2) Extended DXS cannot be assigned with five-digit dialing plans.
11.	Calls Waiting Level	1-99 This is the number of calls that can be waiting for processing by the attendant before the CW lamp lights on the console.	
12.	FRL	0-7 (0 is most restrictive, 7 is least restrictive)	
13.	Display Trunk Group ICI	0 1	Display ICI of LDN Display ICI of trunk group

Notes

1. For systems that do not have an attendant console, enter console type 30 (field 1) to administer the system-wide Don't Answer Timing Interval (field 4) and set the Calls Waiting Level (field 11) to 1.

Special Error Codes

87 - Privacy (field 7) cannot be active without Lockout (field 6) being active.

88 - Extended DXS (field 10) cannot be active with five-digit dialing plans.

Procedure 201 Word 1 — Console DXS/BLF Group Select Buttons

100

Purpose

Use Procedure 201 Word 1 to administer the terminal extension hundreds group assignments of the Direct Extension Selection/Busy Lamp field (DXS/BLF) group select buttons on the console. This works only for console types 33 and 34 and cannot be used with systems that have a five-digit extension dialing plan. If Extended DXS is enabled in Procedure 200 Word 1, skip this procedure and use Procedure 201 Word 2.

Prerequisite Procedures

Use Procedure 200 Word 1 to assign console features including the Extended DXS feature. If administration has been done in Procedure 201 Word 1 for the standard DXS/BLF feature and then the Extended DXS feature is enabled in Procedure 200 Word 1, the administration in Procedure 201 Word 1 is not deleted. It is only masked from the user.

Use Procedure 354 Word 1 to define the dialing plan extension groups with which the hundreds groups are associated.

Related Procedures

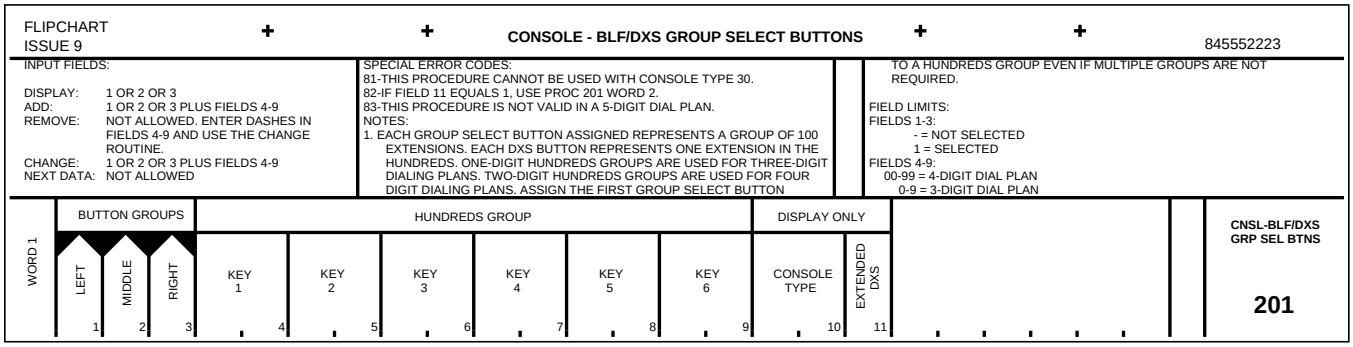
Use Procedure 202 Word 1 to administer Direct Trunk Group Select (DTGS) buttons.

Use Procedure 203 Word 1 to administer console control buttons.

Use Procedure 204 Word 1 to administer incoming call identification (ICI) lamps and alphanumeric messages.

Use Procedure 210 Word 1 to administer console equipment locations.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 2 or 3.
Add:	Fields 1 or 2 or 3 plus fields 4-9.
Change:	Fields 1 or 2 or 3 plus fields 4-9.
Remove:	Not allowed (enter dashes in fields 4-9 and use the change routine).
Next Data:	Not allowed.

Field Ranges and Encodes

BUTTON GROUPS (Fields 1-3)

- \- Not selected
- 1 Selected

1. Left -, 1

2. Middle -, 1

3. Right -, 1

HUNDREDS GROUP (numbered left to right) (Fields 4-9)

0-9 Three-digit dialing plan
00-99
Four-digit dialing plan

Each group select button assigned represents a group of 100 extensions. Each DXS button represents one extension in the hundreds. One-digit hundreds groups are used for three-digit dialing plans. Two-digit

hundreds groups are used for four-digit dialing plans.

Assign the first group select button to a hundreds group even if multiple groups are not required.

4. Button 1 00-99

5. Button 2 00-99

6. Button 3 00-99

7. Button 4 00-99

8. Button 5 00-99

9. Button 6 00-99

DISPLAY ONLY (Fields 10-11)

10. Console Type
    - 30 No DXS/BLF buttons
    - 33 6 DXS group select buttons
    - 34 18 DXS group select buttons

    The model numbers for the consoles are as follows:

    30 = AAG-09AF-03
    34 = AGJ-09AF-03

    Console type 33 is not manufactured any more, but the encode is still valid for any existing equipment.

11. Extended DXS
    - 0 Disabled
    - 1 Enabled (use Procedure 201 Word 2)

Special Error Codes

81 - This procedure cannot be used with console type 30.

82 - Field 11 equals 1. You must use Procedure 201 Word 2.

83 - This procedure is not valid in a five-digit dialing plan.

Procedure 201 Word 2 — Console Extended DXS

101

Purpose

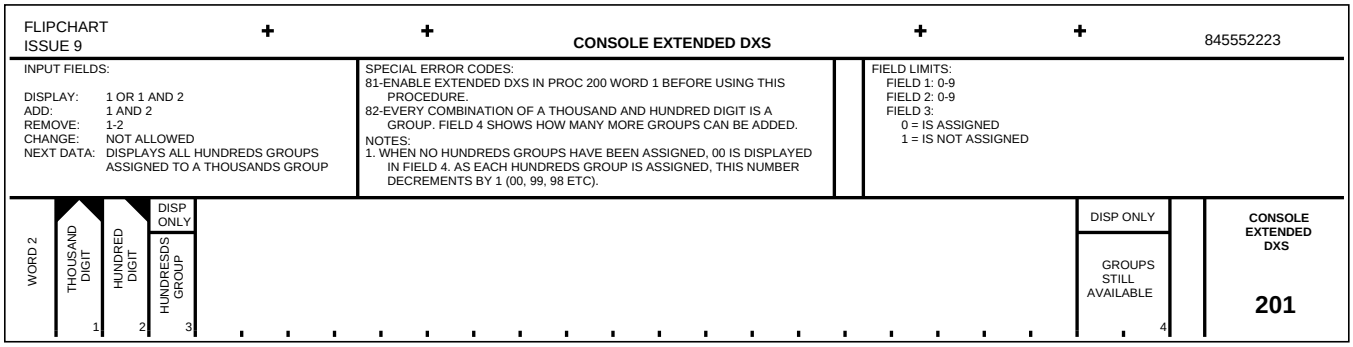
Use Procedure 201 Word 2 to administer terminal extension hundreds groups to the attendant console extended Direct Extension Selection/Busy Lamp Field (DXS/BLF). This only applies to console types 33 and 34 and cannot be used with systems that have a five-digit extension dialing plan.

Prerequisite Procedures

Use Procedure 200 Word 1 to assign console features including the Extended DXS feature. If administration has been done in Procedure 201 Word 1 for the standard DXS/BLF feature and then the Extended DXS feature is enabled in Procedure 200 Word 1, the administration in Procedure 201 Word 1 is not deleted. It is only masked from the user.

Use Procedure 354 Word 1 to define the terminal extension groups with which the thousands and hundreds groups are associated.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 1 and 2.
Add:	Fields 1 and 2.
Change:	Not allowed.
Remove:	Fields 1 and 2.
Next Data:	Displays all hundreds groups assigned to a thousands group.

Field Ranges and Encodes

1. Thousands Digit — 0-9

   The only time you can put 0 in this field is when field 2 has a value from 1-9. You cannot have 0 as both the thousands digit and the hundreds digit. A 0 would be used typically with three-digit dialing plans.

2. Hundreds Digit — 0-9

DISPLAY ONLY (Field 3)

3. Hundreds Group
   - 0 Is assigned
   - 1 Is not assigned

DISPLAY ONLY (Field 4)

4. Hundreds Groups Still Available — 0-99

   When no hundreds groups have been assigned, 00 is displayed in this field. As each hundreds group is assigned, this number decrements by 1 (00, 99, 98, etc).

Notes

1. Every combination of a thousands digit and a hundreds digit is a hundreds group.
2. One-digit hundreds groups are used for three-digit dialing plans. Two-digit hundreds groups are used for four-digit dialing plans.

Special Error Codes

81 - Enable Extended DXS in Procedure 200 Word 1 before using this procedure.

82 - Every combination of a thousand and hundred digit is a group. Field 4 shows how many more groups can be added.

Procedure 202 Word 1 — Console Direct Trunk Group Select Buttons

102

Purpose

Use Procedure 202 Word 1 to administer:

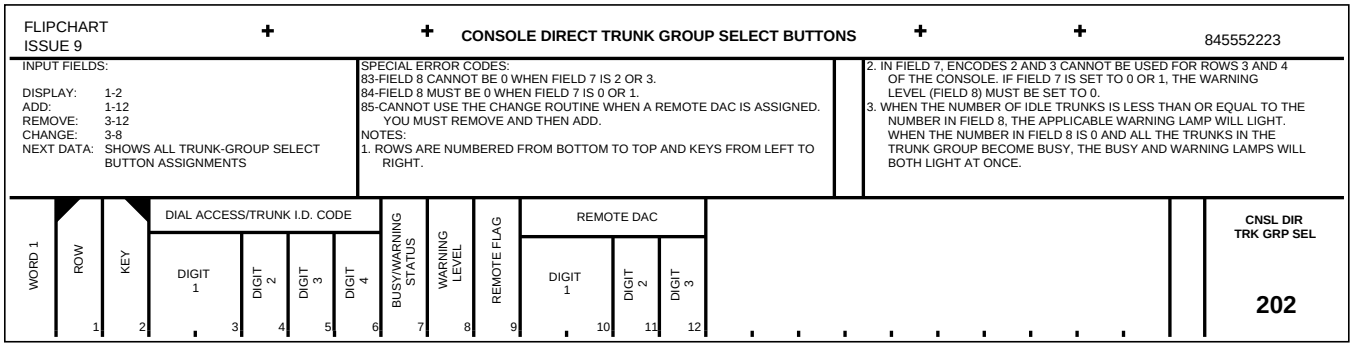
- Trunk-group select buttons to dial access codes
- Busy or busy and warning status lamps for a trunk group
- Warning levels for a trunk group.

Prerequisite Procedures

Use Procedure 350 Word 1 to assign the first-digit dialing plan for trunk dial access codes.

Use Procedure 100 Word 1 to assign dial access codes to a trunk group.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-12.
Change:	Fields 3-8.
Remove:	Fields 3-12.
Next Data:	Shows all trunk-group select button assignments.

Field Ranges and Encodes

BUTTON LOCATION (Fields 1-2)

1. Row — 1-4 (numbered bottom to top)

2. Column — 1-6 (numbered left to right)

DIAL ACCESS CODE/TRUNK ID CODE (Fields 3-6)

3. Digit 1 — -, 0-9, 11 (*), 12 (#)

4. Digit 2 — -, 0-9

5. Digit 3 — -, 0-9

6. Digit 4 — -, 0-9

7.	Busy/Warning Status	0	Busy for this trunk group only
		1	Busy for this and route advance trunk groups
		2	Busy/warning for this trunk group only
		3	Busy/warning for this and route advance trunk groups

In field 7, encodes 2 and 3 cannot be used for rows 3 and 4 of the console. If field 7 is set to 0 or 1, the warning level (field 8) must be set to 0.

8. Warning Level 0-7

When the number of idle trunks is less than or equal to the number in this field, the applicable warning lamp will light. When the number in this field is 0 and all the trunks in the trunk group become busy, the busy and warning lamps will both light at once.

9. Remote Flag 0-1

Having encode 1 in this field when there is no DAC in fields 10-12 means that the trunk group (DAC in fields 3-6) homes on this switch, but may be controlled or selected by a remote switch.

Having encode 1 in this field when there is a DAC in fields 10-12 means that the trunk group is remote to this switch, but may be controlled or selected by this switch. In this event, the local DAC (fields 3-6) will access the tie trunk to the remote switch.

REMOTE DAC (Fields 10-12)

Remote dial access codes (fields 10-12) must be three digits or less. This limit is because of DCIU link constraints.

10. Digit 1 -, 0-9, 11 (*), 12 (#)

11. Digit 2 -, 0-9

12. Digit 3 -, 0-9

Notes

1. Examples of typical trunk-group busy and warning level usage are as follows:

   — A customer has a group of one-way out central office (CO) trunks with route advance to a group of one-way CO trunks. Field 7 contains a 0 (busy indications on original trunk group only). When all the idle one-way trunks become busy, the busy lamp will come on for that original trunk group.

   — If, in the previous example, field 7 contained a 3 (busy and warning indications on original trunk and any route advance trunk groups), the warning lamp would come on only when the warning level was exceeded by both trunk groups.

Special Error Codes

83 - Field 8 cannot be 0 when field 7 is 2 or 3.

84 - Field 8 must be 0 when field 7 is 0 or 1.

85 - You cannot use the change routine when a remote DAC is assigned. You must first remove the assignment and then add it back in.

Procedure 203 Word 1 — Console Control Buttons

103

Purpose

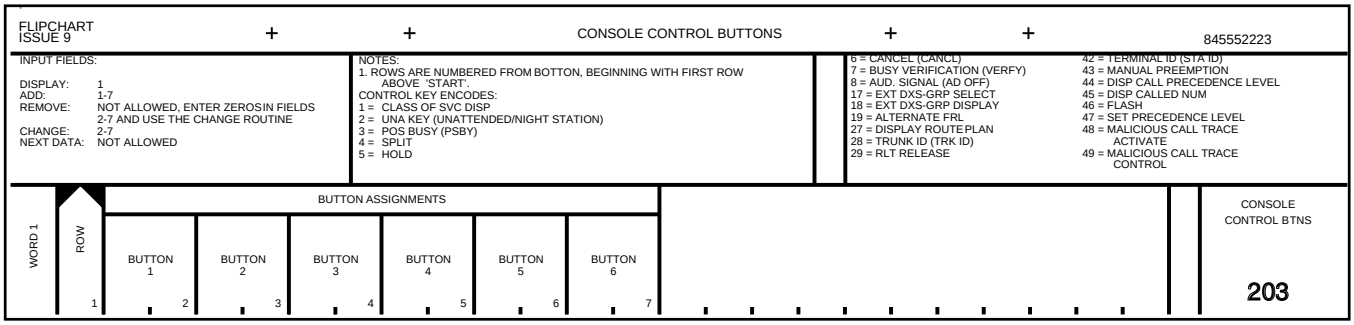
Use Procedure 203 Word 1 to administer console features to the control buttons on the console.

Related Procedures

Use Procedure 200 Word 1 to assign console features.

Use Procedure 210 Word 1 to assign console equipment locations.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-7.
Change:	Fields 2-7.
Remove:	Not allowed (enter zeros in fields 2-7 and use the change routine).
Next Data:	Not allowed.

Field Ranges and Encodes

BUTTON LOCATION (Field 1)

1. Row 1-3 (numbered bottom to top)

BUTTON ASSIGNMENTS (numbered left to right) (Fields 2-7)

0	Unassigned button
1	Class of Service display (CLASS)
2	Unattended console service (UNA)
3	Position busy (POSB)
4	Split (SPLIT)
5	Hold (HOLD)
6	Cancel (CANCL)
7	Busy verification (VERIFY)
8	Audible signal (AUDSIG)
10	Basic paging - all zones
11	Basic paging - zone 1
12	Basic paging - zone 2
13	Basic paging - zone 3
14	Basic paging - zone 4
15	Basic paging - zone 5
16	Basic paging - zone 6
17	Extended DXS group select (SELECT)
18	Extended DXS group display (DISPLY)
19	Alternate FRL (ALT FRL)
20	Priority paging - all zones
21	Priority paging - zone 1
22	Priority paging - zone 2
23	Priority paging - zone 3
24	Priority paging - zone 4
25	Priority paging - zone 5
26	Priority paging - zone 6
27	Display ARS route plan (PLAN)
28	Trunk ID (TRK ID)
29	RLT release (RLT)

42 Terminal ID (STA ID)
43 Manual preemption (MAN PRE)
44 Display call precedence level (DISP LEV)
45 Display called number (DISP NUM)
46 Flash (FLASH)
47 Set precedence level (SET PRE)
48 Malicious call trace activate (MCT ACT)
49 Malicious call trace control (MCT CTRL)

2.	Button 1	0-8, 10-29, 42-49
3.	Button 2	0-8, 10-29, 42-49
4.	Button 3	0-8, 10-29, 42-49
5.	Button 4	0-8, 10-29, 42-49
6.	Button 5	0-8, 10-29, 42-49
7.	Button 6	0-8, 10-29, 42-49

Notes

1. The console control buttons are located on the right one-third of the console. The rows are numbered from the bottom (1-3), beginning with first row above the START button. The buttons are numbered from left to right (1-6).
2. Priority paging (encodes 20-26) is part of the Loudspeaker Paging feature.
3. On system-generated ACA referral calls, the TRK ID button steps through the following data that is displayed on the console:
   a. Type of referral call (long or short)
   b. Trunk group dial access code
   c. Specific trunk number.
4. On attendant-related trunk calls, the TRK ID button steps through the following data:

a. Trunk group dial access code

b. Specific trunk number

c. Original Incoming Call Identification (ICI).

5. To remove button assignments, fill the button fields (2-7) with zeros and use the change routine.

6. When removing a button from use on the attendant console, make sure that the associated lamp on the console is not lit. If the lamp is lit when the change is made, the lamp may not go off.

Special Error Codes

None.

Procedure 204 Word 1 — Console Messages and Listed Directory Numbers

104

Purpose

Use Procedure 204 Word 1 to administer:

- The association between a trunk group or call type and an incoming call identification (ICI) indicator or alphanumeric message
- A message number to the alphanumeric message display
- Listed Directory Numbers (LDNs).

Prerequisite Procedures

Use Procedure 100 Word 1 to assign trunk groups.

Use Procedure 200 Word 1 to assign console features.

Use Procedure 210 Word 2 to remove LDNs before removing them in this procedure.

Related Procedures

Use Procedure 026 Word 1 to assign display messages to ACD splits.

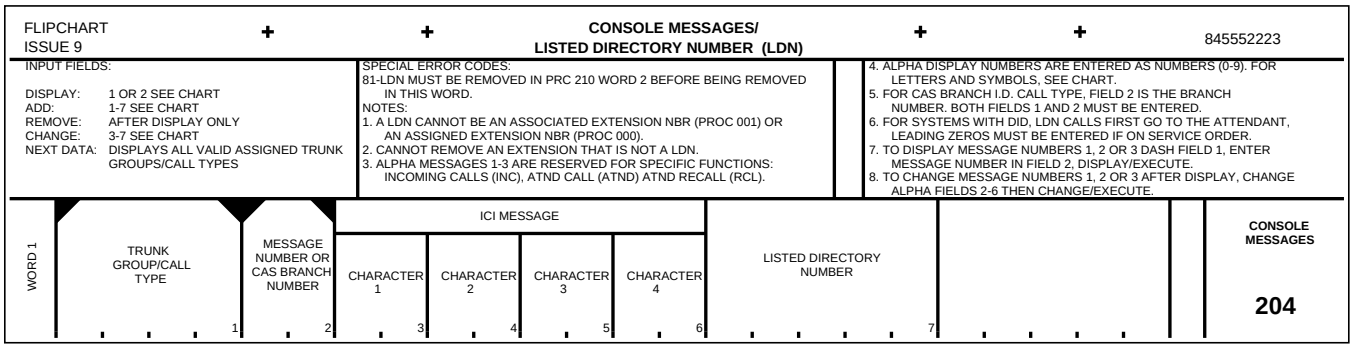
Cautions

In field 2, message numbers 1, 2, and 3 are initially assigned to the INC (incoming call), ATND (attendant call), and RCL (attendant recall) lamps on a type 30 console, respectively. On type 33 and 34 consoles, the messages are also INC, ATND, and RCL. These alphanumeric messages should only be changed under special circumstances.

When an LDN includes leading zeros, they must be entered if specified that

way on the service order.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, field 2, or fields 1 and 2 (see Table 1 in the Notes section).
Add:	Fields 1-7 (see Table 2 in the Notes section).
Change:	Fields 3-7 (see Table 2 in the Notes section).
Remove:	Fields 1-7. After a remove, the data is not removed until a display is performed.
Next Data:	Displays all valid assigned trunk groups/call types.

Field Ranges and Encodes

1. Trunk Group/Call Type

18-999
Trunk group
1001-1999
LDNs
2290 Call Forwarding
2291 Attendant Control of Trunk Group Access
2292 Manual line termination
2293 Controlled restriction
2294 Timed recall on outgoing trunks
2295 Recall from attendant conference
2297 Interposition call
2298 ACA - short call
2299 ACA - long call
2300 Flash override
2301 Flash
2302 Immediate
2303 Priority
2304 Routine

2305 Calls to vacant dial access code
2306 Calls to restricted features or trunks
2307 Calls to recently disconnected terminal
2308 Attendant diversion to recorded announcement
2320 CAS branch identification

2.	Message Number or CAS Branch	-	LDN call type (field 1 equals 1001-1999)
		0	Unassigned
		1-63	Message number (1-63) or CAS branch number (1-40)

ICI MESSAGE (Fields 3-6)

0-9	0-9	19	I	29	S
10	blank	20	J	30	T
11	A	21	K	31	U
12	B	22	L	32	V
13	C	23	M	33	W
14	D	24	N	34	X
15	E	25	O	35	Y
16	F	26	P	36	Z
17	G	27	Q	37	-
18	H	28	R		

3. Character 1 -, 0-37

4. Character 2 -, 0-37

5. Character 3 -, 0-37

6. Character 4 -, 0-37

7. Listed Directory Number 0000-99999

Notes

1. For display routines, Table 1 shows what fields require input.

TABLE 1	
Field 1	**Field 2**
18-999	dash
1001-1999	dash
2290-2295 2297-2308	dash
2320	1-40
dash	1-63

2. For add and change routines, Table 2 shows what fields require input:

TABLE 2			
Field 1	**Field 2**	**Fields 3 - 6**	**Field 7**
18-999	4-63	dash, 00-37	dash
1001-1999	dash	dash, 00-37	0000-99999
2290-2295 2297-2308	4-63	dash, 00-37	dash
2320	1-40	dash, 00-37	dash
dash	1-3	dash, 00-37	dash

3. To make an LDN assignment:
   a. Assign the first digit of the LDN to call type 1 (extensions) in Procedure 350 Word 1.
   b. Assign the extension number group in Procedure 354 Word 1.
   c. Assign the number as an LDN in Procedure 204 Word 1.
4. An LDN cannot be an associated extension number (Procedure 001 Word 1) or an assigned extension number (Procedure 000 Word 1).
5. Fields 3-6 are not used with ICI indicators (lamps) as found on console type 30.
6. For systems with DID, LDN calls first go to the attendant.
7. ICI information will be displayed when a CAS branch call is connected to a CAS main attendant.
8. Only one ICI message is allowed per CAS branch.
9. If error code 15 is displayed, the first digit of the LDN is already assigned as a trunk or feature dial access code (DAC) in Procedure 350 Word 1.

10. This procedure cannot remove an extension that is not an LDN.
11. To display messages assigned for ACD splits, enter the special queue trunk group number in field 1.
12. For CAS branch ID call type, field 2 is the branch number. Both fields 1 and 2 must be entered.
13. To change message numbers 1, 2, or 3, do a display routine, change fields 3-6, and do a change routine.
14. For fields 3-6, you cannot have a combination of dashed and nondashed fields.

Special Error Codes

81 - Remove the LDN in Procedure 210 Word 2 before removing it here.

Procedure 210 Word 1 — Console Assignments - Hardware

105

Purpose

Use Procedure 210 Word 1 to administer the attendant interface equipment location and data channel equipment location associated with each attendant console.

Prerequisite Procedures

A console cannot be removed until it is removed from any nonzero attendant partition (use Procedure 210 Word 2).

Flipchart

FLIPCHART
ISSUE 9

CONSOLE ASSIGNMENTS - HARDWARE

845552223

INPUT FIELDS:

DISPLAY: 1
ADD: 1-9, SEE NOTE 1
REMOVE: 1-9
CHANGE: 2-6 OR 7-9
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-IN MULTI-CONSOLE SYSTEMS, THE CONSOLES MUST BE NUMBERED CONSECUTIVELY. DO NOT LEAVE GAPS.
82-CHANGE EITHER THE ATTENDANT INTERFACE LOCATION OR DATA CHANNEL EQUIPMENT LOCATION, BUT NOT BOTH.
83-ONLY THE HIGHEST NUMBER CONSOLE CAN BE REMOVED.
84-A CONSOLE CANNOT BE REMOVED UNTIL IT IS REMOVED FROM ANY NON ZERO ATTENDANT PARTITION (USE PROC 210 WORD 2).
85-PCC BOARD RESIDES IN THIS SLOT. CHOOSE A DIFFERENT SLOT.

FIELD LIMITS:
FIELD 1: 1-40
FIELD 2: 0-30
FIELD 3: 0-7
FIELD 4: 0-3
FIELD 5: 0-3, 5-8, 13-16, 18-21
FIELD 6: 0-3
FIELD 7: 0 (COMMON CONTROL CARRIER)
FIELD 8: 23-26
FIELD 9: 0-15

WORD 1	CONSOLE NUMBER	ATTENDANT INTERFACE EQUIPMENT LOCATION					DATA CHANNEL EQUIPMENT LOCATION				EQUIPMENT LOCATION
		MODULE	CABINET	CARRIER	SLOT	CIRCUIT	CARRIER	SLOT	CIRCUIT		
	1	2	3	4	5	6	7	8	9		210

Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-9.
Change:	Fields 2-6 or 7-9 (either the attendant interface equipment location or the data channel equipment location can be changed, but not both).
Remove:	Fields 1-9 (only the highest numbered console can be removed; you may not leave gaps between console numbers).
Next Data:	Not allowed.

Field Ranges and Encodes

1.	Console Number	1-40

ATTENDANT INTERFACE EQUIPMENT LOCATION (Fields 2-6)

2.	Module	0-30
3.	Cabinet	0-7
4.	Carrier	0-3
5.	Slot	0-3, 5-8, 13-16, 18-21
6.	Circuit	0-3

DATA CHANNEL EQUIPMENT LOCATION (Fields 7-9)

Use the TN403 data channel circuit pack. This is found in the common control carrier.

7.	Carrier	0 (common control carrier)
8.	Slot	23-26
9.	Circuit	0-15

Notes

1. In multiconsole systems, the consoles must be numbered consecutively. Always remove the last console first. Do not leave gaps in numbering. To remove a console that is not the last console (highest numbered console), follow these steps:
   a. Record the equipment locations of the last console.
   b. Remove the recorded console assignment (last console).
   c. Insert the recorded equipment locations (last console) into the console number to be removed and use the change routine.
2. Before a console can be successfully removed, disconnect either the headset plug or the handset plug from the console jacks, or completely disconnect the console from the system at the wall field.

Special Error Codes

81 - In multiconsole systems, the consoles must be numbered consecutively. Do not leave gaps.

82 - Either the attendant interface equipment location or the data channel equipment location can be changed, but not both.

83 - Only the highest numbered console can be removed. You may not leave gaps between console numbers.

84 - A console cannot be removed until it is removed from any nonzero attendant partition (use Procedure 210 Word 2).

85 - The PCC board resides in this slot. Choose a different slot.

Procedure 210 Word 2 — Console Assignments - Attendant Partitions

106

Purpose

Use Procedure 210 Word 2 to administer an attendant partition to a console position and a console position as a partition's controlling attendant console. This administration is used with Tenant Services.

Prerequisite Procedures

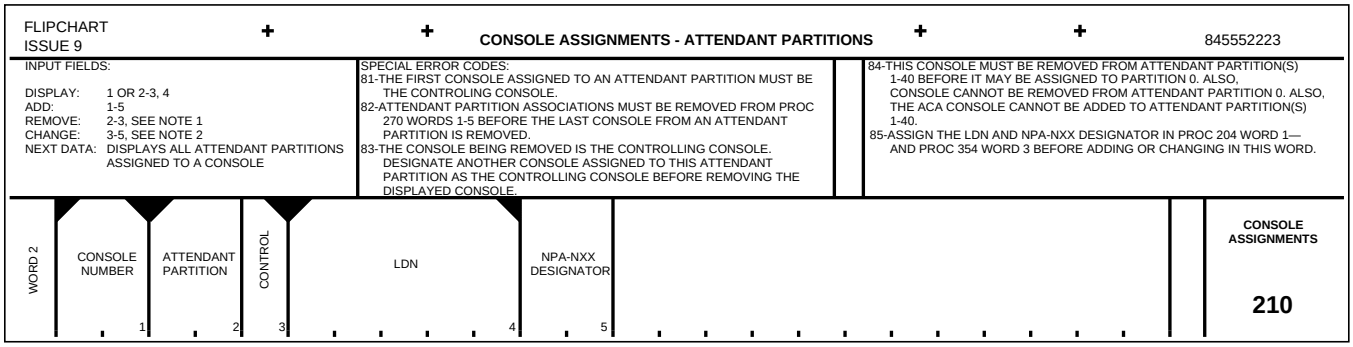
Use Procedure 276 Word 1 field 6 to enable the Tenant Services feature.

Use Procedure 210 Word 1 to administer the attendant interface and data channel equipment locations associated with each attendant console.

Administer the LDN and NPA-NXX designator in Procedure 204 Word 1 and Procedure 354 Word 3 before adding or changing them in this word.

Remove attendant partition associations from Procedure 270 Words 1-5 before removing the last console from an attendant partition.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 2 and 3, or field 4.
Add:	Fields 1-5.
Change:	Fields 3-5. The change routine cannot be used to move a console from one attendant partition to another.
Remove:	Fields 2 and 3. To remove fields 4 and 5, enter dashes in fields 4 and 5 and use the change routine or use the Word 1 remove routine.
Next Data:	Displays all attendant partitions assigned to a console.

Field Ranges and Encodes

1. Console Number — 1-40

2. Attendant Partition — -, 0-40

   Consoles not assigned to a specific tenant are assigned to attendant partition 0. An attendant in attendant partition 0 is allowed to place direct calls to any extension in the system.

3.	Control	-	Not assigned
		0	Not the controlling console
		1	The controlling console
			Only one console in an attendant partition can be the controlling console. If a console is the first one to be assigned to an attendant partition, it must be the controlling console. If a subsequent console is added and designated as the controlling console, control is automatically removed from the previous controlling console.
4.	LDN	-, 000-99999	
5.	NPA-NXX Designator	-, 1-99	

Special Error Codes

81 - The first console assigned to an attendant partition becomes the controlling console.

82 - Attendant partition associations must be removed from Procedure 270 Words 1-5 before the last console from an attendant partition is removed.

83 - The console being removed is the controlling console. Designate another console assigned to this attendant partition as the controlling console before removing the displayed console.

84 - This console must be removed from attendant partition(s) 1-40 before it may be assigned to partition 0. Also, a console cannot be removed from attendant partition 0. Also, the ACA console cannot be added to attendant partition(s) 1-40.

85 - Assign the LDN and NPA-NXX designator in Procedure 204 Word 1 and Procedure 354 Word 3 before adding or changing them in this word.

Procedure 211 Word 1 — CAS - Branch Characteristics

107

Purpose

Use Procedure 211 Word 1 to administer the Centralized Attendant Service (CAS) branch timed reminder time, Listed Directory Number (LDN) tone, and Queue overflow level.

Prerequisite Procedures

Use Procedure 001 Word 1 to administer an associated extension if the recommended numbering plan is not used.

Use Procedure 100 Word 1 to administer trunk groups for the CAS call queue.

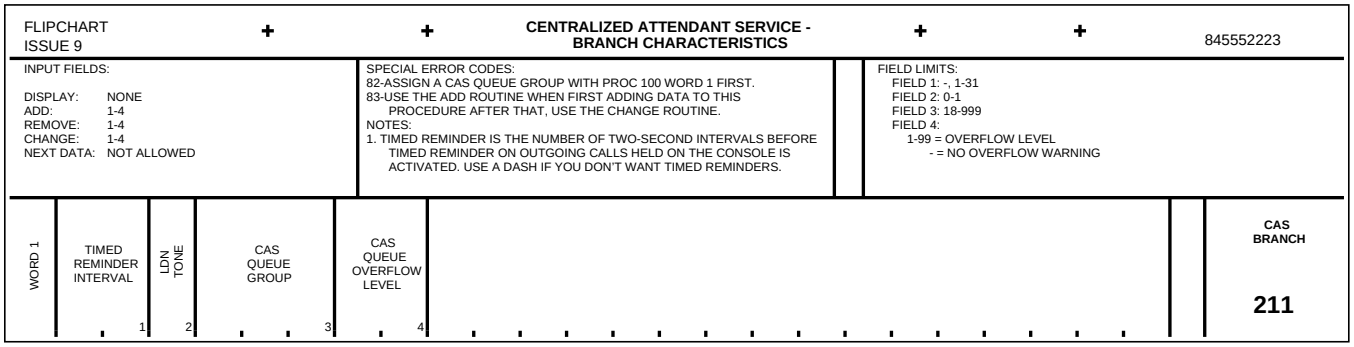
Use Procedure 252 Word 2 to administer auxiliary tone plants.

Use Procedure 350 Words 1 and 2 to define CAS feature dial access codes.

Cautions

The remove routine deactivates all CAS call queuing at the branch location.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Fields 1-4.
Change:	Fields 1-4.
Remove:	Fields 1-4.
Next Data:	Not allowed.

Field Ranges and Encodes

1. **Timed Reminder Interval** — -, 1-31

   This is the number of two-second intervals before timed reminder on outgoing calls held on the console is activated. Use a dash if you don't want timed reminders.

2. **LDN Tone**
   - 0 ICI display is used for LDN calls
   - 1 Special tone is used for LDN calls

3. **CAS Queue Group** — 18-999

4. **CAS Queue Overflow Level**
   - \- No overflow warning
   - 1-99 CAS queue lamp lights on SSI box

Special Error Codes

82 - Assign a CAS queue group with Procedure 100 Word 1 first.

83 - Use the add routine when first adding data to this procedure. After that, use the change routine.

Procedure 211 Word 2 — CAS - Branch Outgoing Release Link Trunks

108

Purpose

Use Procedure 211 Word 2 to administer outgoing release link trunks (RLTs) for the Centralized Attendant Service (CAS) branch. This procedure also assigns backup extensions associated with RLTs and start pulse signaling.

Prerequisite Procedures

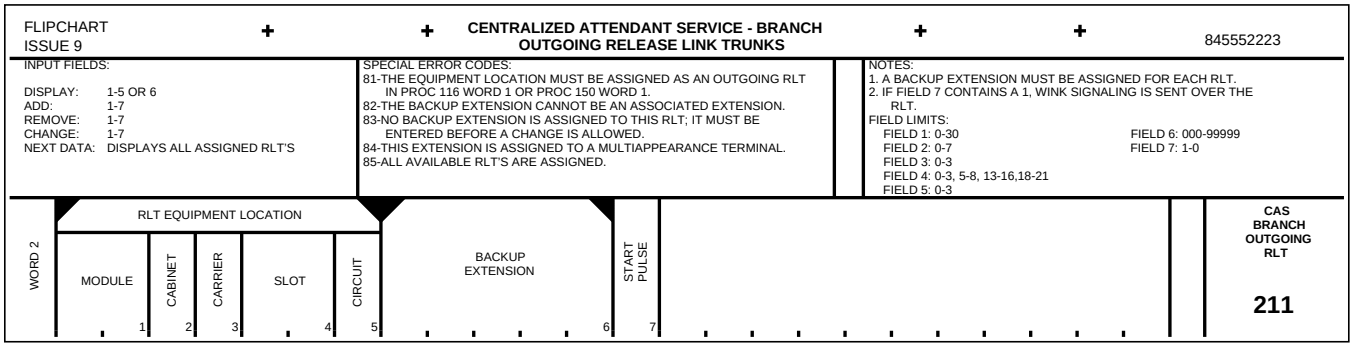
Use Procedure 000 Word 1 to assign the backup extension and equipment location.

Use Procedure 100 Word 1 to assign a trunk group (trunk type 57) for outgoing RLTs.

Use Procedure 115 Word 1 to assign trunk group termination.

Use Procedure 116 Word 1 or Procedure 150 Word 1 to assign trunks to the outgoing RLT trunk group.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-5 or 6.
Add:	Fields 1-7.
Change:	Fields 1-7.
Remove:	Fields 1-7.
Next Data:	Displays all assigned RLTs.

Field Ranges and Encodes

RLT EQUIPMENT LOCATION (Fields 1-5)

1.	Module	0-30
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-3, 5-8, 13-16, 18-21
5.	Circuit	0-3

6.	Backup Extension	000-99999	A backup extension and equipment location must be administered in Procedure 000 Word 1 before it can be administered here. A backup extension must be assigned for each RLT. The backup extension receives calls that are directed to the RLT (fields 1-5) if CAS is in backup mode. It is advised to put CAS in backup mode if the RLT is out of service. The same backup extension can be used for more than one RLT.
7.	Start Pulse	0 Disabled 1 Enabled	With a 1 in this field, wink signaling is sent over the RLT.

Special Error Codes

81 - The equipment location must be assigned as an outgoing RLT in Procedure 116 Word 1 or Procedure 150 Word 1.

82 - The backup extension cannot be an associated extension.

83 - No backup extension is assigned to this RLT; it must be entered before a change is allowed.

84 - This extension is assigned to a multiappearance terminal.

85 - All available RLTs are assigned.

Procedure 212 Word 1 — CAS - Main Branch Number Assignment

109

Purpose

Use Procedure 212 Word 1 to administer the Centralized Attendant Service (CAS) feature for main locations by assigning branch and trunk group associations.

An incoming release link trunk (RLT) group, consisting of all RLTs from a given branch location, is assigned to a branch number. An indicator also defines whether or not the branch location is an ESS(TM) machine.

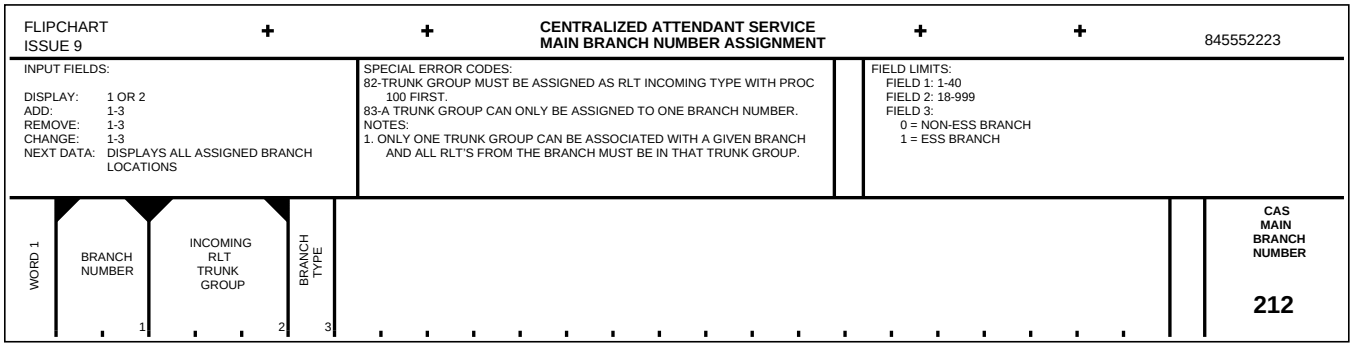
This procedure must be used to define the branch incoming RLT call recognition from the trunk group.

Prerequisite Procedures

Use Procedure 100 Word 1 to define the incoming RLT trunk groups from each branch. Define the trunk as trunk type 66 (CAS incoming RLT).

Use Procedure 116 Word 1 or Procedure 150 Word 1 to assign the incoming RLTs to the trunk groups.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or field 2.
Add:	Fields 1-3.
Change:	Fields 1-3.
Remove:	Fields 1-3.
Next Data:	Displays all assigned branch locations.

Field Ranges and Encodes

1. Branch Number — 1-40

2. Incoming RLT Trunk Group — 18-999

   This trunk group must be administered as trunk type 66 in Procedure 100 Word 1.

3. Branch Type
   - 0 Non-ESS branch
   - 1 ESS branch

Notes

1. Only one trunk group can be associated with a given branch and all RLTs from the branch must be in that trunk group.

Special Error Codes

82 - Assign this trunk group as an incoming RLT trunk type using Procedure 100 Word 1 first.

83 - Assign trunk groups to only one branch number.

Procedure 212 Word 2 — CAS - Main Release Link Trunk Lamp Assignment

110

Purpose

Use Procedure 212 Word 2 to administer lamp status assignments for each incoming release link trunk (RLT) used in the Centralized Attendant Service (CAS) feature for main locations.

Prerequisite Procedures

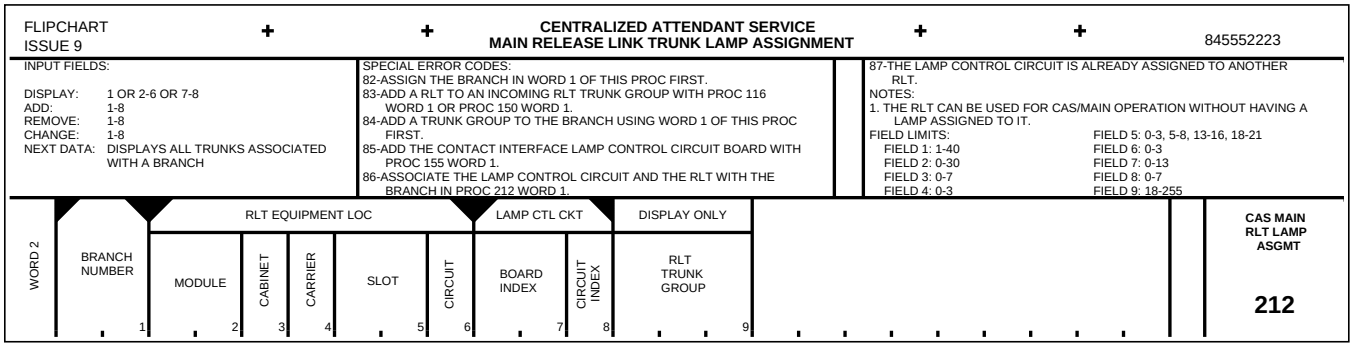
Use Procedure 100 Word 1 to add the RLT trunk type (66) to a trunk group.

Use Procedure 116 Word 1 or Procedure 150 Word 1 to add trunks to the RLT trunk group.

Use Procedure 212 Word 1 to associate the RLT trunk group with a branch.

Use Procedure 155 Word 1 to administer the contact interface boards (lamp control circuit).

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 2-6, or fields 7 and 8.
Add:	Fields 1-8.
Change:	Fields 1-8.
Remove:	Fields 1-8.
Next Data:	Displays all trunks associated with a branch.

Field Ranges and Encodes

1. Branch Number 1-40

RLT EQUIPMENT LOC (Fields 2-6)

2. Module 0-30

3. Cabinet 0-7

4. Carrier 0-3

5. Slot 0-3, 5-8, 13-16, 18-21

6. Circuit 0-3

LAMP CONTROL CIRCUIT (Fields 7-8)

7.	Board Index	0-13 The board index is assigned in Procedure 155 Word 1.
8.	Circuit	0-7 This is a circuit on the contact interface board (SN241).

DISPLAY ONLY (Field 9)

9.	RLT Trunk Group	18-255

Notes

1. The RLT can be used for CAS/Main operation without having a lamp assigned to it.
2. The remove routine removes only the lamp assignment. To remove the RLT, use Procedure 116 Word 1 or 150 Word 1.

Special Error Codes

82 - Assign the branch in Procedure 212 Word 1 first.

83 - Add an RLT to an incoming RLT trunk group with Procedure 116 Word 1 or Procedure 150 Word 1.

84 - Add a trunk group to the branch using Procedure 212 Word 1 first.

85 - Add the contact interface lamp control circuit board with Procedure 155 Word 1.

86 - Associate the lamp control circuit and the RLT with the branch in Procedure 212 Word 1.

87 - The lamp control circuit is already assigned to another RLT.

Procedure 250 Word 1 — Carriers 111

Purpose

Use Procedure 250 Word 1 to administer each carrier type to a carrier location within a cabinet. The carriers administered in this procedure are:

- Common control (CC)
- Remote module interface (RMI)
- Module control
- Time Multiplexed Switch (TMS)
- Port
- DS1 port.

Carriers must be administered before assigning any port circuit packs.

Prerequisite Procedures

Use Procedure 290 Word 1 to display ports (lines and trunks) or remote module interface (RMI) circuit pack assignments that must be removed before removing port, DS1, and RMI carriers. Extensions are removed in Procedure 000 Word 1, and trunks are removed in Procedure 150 Word 1. DS1 trunk assignments are removed in Procedure 116 Word 1. RMI circuit packs are removed in Procedure 260 Word 1.

Use Procedure 260 Word 1 to remove the system clock synchronization (SCS) reference before disabling the SCS circuit pack from a module control carrier in this procedure.

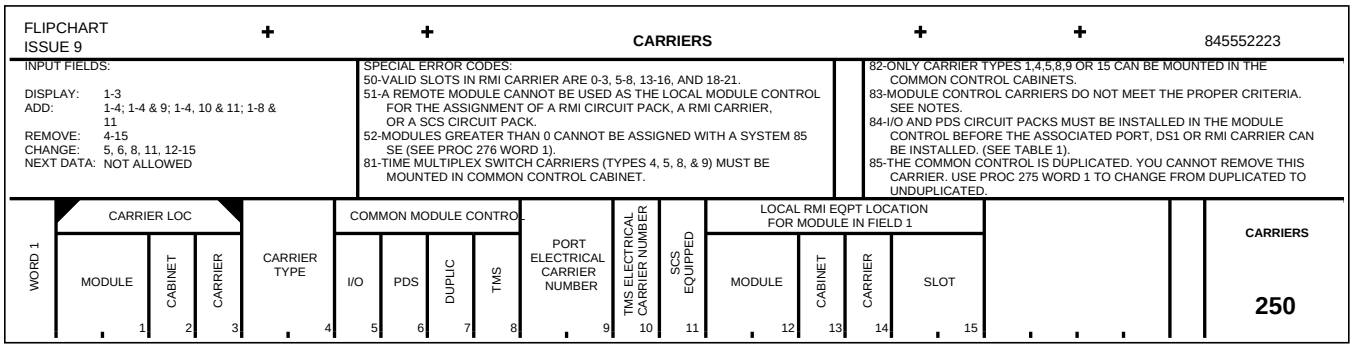
Use Procedure 275 Word 1 to set the common control to unduplicated before disabling the duplicated common control carrier.

Use Procedure 621 Test 2 to switch processors before removing a duplicated module control or TMS processor.

Related Procedures

Use Procedure 275 Word 1 to set the common control carrier as duplicated or unduplicated.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-3.
Add:	Fields 1-4, fields 1-4 and field 9, fields 1-4 and fields 10 and 11, or fields 1-8 and field 11.
Change:	Fields 5, 6, 8, 11, and fields 12-15.
Remove:	Fields 4-15.
Next Data:	Not allowed.

Field Ranges and Encodes

CARRIER LOCATION (Fields 1-3)

1.	Module	0-30	Network
		99	Common control or TMS
2.	Cabinet	0-7	
3.	Carrier	0-3	

4.	Carrier Type	0	Unequipped
		1	Common control
		4	TMS control 0
		5	TMS growth 0
		6	Module control 0
		7	Module control 1
		8	TMS control 1
		9	TMS growth 1
		11	DS1 port
		12	Port
		15	Remote module interface (RMI)

MODULE CONTROL (Fields 5-8)

5.	I/O	-, 1-3	
6.	PDS	-, 1-6	
7.	Duplicated	0	Disabled
		1	Enabled
8.	TMS	0	Disabled
		1	Enabled
9.	Port Electrical Carrier	-, 0-11	
10.	TMS Electrical Carrier	0	TMS control (serves modules 0-6)
		1	TMS growth 1 (serves modules 7-14)
		2	TMS growth 2 (serves modules 15-22)
		3	TMS growth 3 (serves modules 23-30)

TMS growth carriers must be mounted in vertically adjacent positions starting at the lowest position in the cabinet. The carriers must be assigned and removed in numerical order (i.e., add field 10 as 0-1-2-3, and remove field 10 as 3-2-1-0).

11. SCS Equipped
    0 Disabled
    1 Enabled

    This field enables the System Clock Synchronization (SCS) TN463 circuit pack. The SCS provides clock synchronization for all DS1 facilities residing on this switch. If this switch is a multimodule system, the SCS reference resides in the TMS carrier, otherwise it resides in the module control cabinet.

    If a synchronization clock (Stratum 3) is being used as the clock source, this field should be disabled.

LOCAL RMI LOCATION (Fields 12-15)

12. Module 0-30

13. Cabinet 0-7

14. Carrier 0-1

15. Slot 0-3, 5-8, 13-16, 18-21, 25

Notes

1. The time multiplexed switch (TMS) must be available (carrier type 4, 5, 8, or 9) if enabling the TMS (field 8) for the module.
2. The following table shows the number of control circuit packs required per port electrical carrier number.

I/O	PDS	Port Electrical Carrier Number
1	1	0-1
	2	2-3
2	3	4-5
	4	6-7
3	5	8-9
	6	10-11

3. Module control carriers are set up based on the following:
   — Two port data store (PDS) circuit packs may be entered for each I/O circuit pack. Viewing the carrier from the front, circuit packs are mounted in the carrier from left to right.

- — For duplicated module controls, the I/O and PDS circuit packs must be equipped in the same way. That is, if one carrier has an I/O assigned, the other carrier must have an I/O assigned. Also, if module control 0 is remote, both module controls must be remote.
- — Duplicated module controls must be in adjacent positions (carriers 0-1 or a-b).
- — Module control 0 must be added before module control 1.
- — Module control 1 must be removed before module control 0.
- — If an RMI circuit pack is assigned to a local module control for a remote module control, the RMI circuit pack must be removed before the local module control carrier can be removed.

4. In the module control carrier, the change routine is allowed for fields 5, 6, 8, or 11. With a duplicated module control, the I/O, PDS, and SCS circuit packs in both carriers are changed with this routine. When reducing the number of PDS circuit packs or associated ports (lines and trunks), remove DS1 or RMI carriers first.
5. When a local RMI location is defined in fields 12-15, the module in field 1 is a remote module. If you dash out fields 12-15 and do a change routine, the module in field 1 becomes a local module.

   When changing a duplicated module control from a local to a remote, the primary module control must be changed first. When changing a duplicated module control from a remote to a local, the duplicated module control must be changed first. When there is no assignment in fields 12-15, the module in field 1 is a local module. If you add assignments in fields 12-15 and do a change routine, the module in field 1 becomes a remote module.

   Use the change routine to change the location of the RMI circuit pack. The module cannot have assignments of Calling Number Display to Station (see Procedure 253 Word 1).

   Use the following tables to find the legal field entries for each carrier type.

Carr Equip.			Type	Mod Cntrl.			
Mod 1	Cab 2	Car 3	4	I/O 5	PDS 6	Dup 7	TMS 8
0-max	0-7	0-3	1	-	-	-	-
99	0-3	0-3		-	-	-	-
99	0-3	0-3	4,5 8,9	- -	- -	- -	- -
0-max	0-7	0-3	6,7	1-3	1-6	0-1	0-1
0-max	0-7	0-3	11	-	-	-	-
0-max	0-7	0-3	12	-	-	-	-
99	0-3	0-3	15	-	-	-	-
0-max	0-7	0-3	-	-	-	-	

Type 4	Port Elec Carr 9	TMS Elec Carr 10	SCS 11	local RMI equip.			
				Mod 12	Cab 13	Carr 14	Slot 15
1	-	-	-	-	-	-	-
	-	-	-	-	-	-	
4,5, 8,9	- -	0 1-3	0-1 -	- -	- -	- -	- -
6,7	-	-	0-1	-	-	-	-
	-	-	0	0-max	0-7	0-3	25
	-	-	0 (RMI	99 carr)	0-3	0-3	0-3,5-8 13-16 18-21
	-	-	0 (RMI	0-max carr)	0-7	0-3	0-3,5-8 13-16 18-21
11	0-11	-	-	-	-	-	-
12	0-11	-	-	-	-	-	-
15	0-11	-	-	0-max	-	-	-

Special Error Codes

51 - A remote module cannot be used as the local module control for the assignment of an RMI circuit pack, an RMI carrier, or an SCS circuit pack.

52 - Modules greater than 0 cannot be assigned with a System 85 SE (R2V3 only). (See Procedure 276 Word 1.)

81 - TMS carriers (types 4, 5, 8, and 9) must be mounted in the common control cabinet.

82 - Only carrier types 1, 4, 5, 8, 9, or 15 can be mounted in common control cabinets.

83 - Module control carriers do not meet the proper criteria. See Notes.

84 - I/O and PDS circuit packs must be installed in the module control before the associated port, DS1, or RMI carriers can be installed (see Notes).

85 - The common control is duplicated. You cannot remove this carrier. See Procedure 275 Word 1 to change from duplicated to unduplicated.

86 - Port (lines and trunks), DS1, or RMI carriers are still assigned to the module control. Remove those assignments before removing the carrier.

87 - Ports or an RMI circuit pack are still assigned to a port, DS1, or RMI carrier. Remove those assignments before removing the carrier. See Procedure 290 Word 1.

88 - The change routine is unacceptable. See Notes.

89 - TMS carriers for duplicated TMS must meet the following criteria: TMS 0 (types 4 and 5) must be added before TMS 1 (types 8 and 9) and TMS 1 (types 8 and 9) must be removed before TMS 0 (types 4 and 5).

90 - TMS growth carriers must be mounted in vertically adjacent positions starting at the lowest position in the cabinet. The carriers must be assigned and removed in numerical order (i.e., add field 10 as 0-1-2-3, and remove field 10 as 3-2-1-0).

91 - The module control carrier is still assigned to the TMS carriers. It must be removed before the TMS carrier can be removed.

92 - In a multimodule system with TMS, the SCS must be mounted in the TMS carrier, not the module control carrier.

93 - The SCS reference must be removed in Procedure 260 Word 1 before the SCS circuit pack can be removed (using either the change or remove routine).

94 - Only the change routine is allowed for the SCS field in TMS 0 (type 4).

95 - The TMS carrier must be administered (carrier type 4, 5, 8 or 9) before enabling the TMS (field 8).

96 - You cannot remove a duplicated module control or TMS processor when it is on-line. Use Procedure 621 Test 2 to switch processors.

97 - The port electrical carrier for an RMI carrier (assigned to module in field 12) cannot be assigned to module 0, port electrical carrier 0. An RMI carrier cannot be assigned to common control cabinet 0, carrier 0. If an RMI carrier is in a network cabinet, fields 1 and 12 must be the same.

98 - Only four RMI carriers can be assigned per system.

Procedure 252 Word 1 — Standard Tone Plants

112

Purpose

Use Procedure 252 Word 1 to administer tone plants within a module. Tone plants provide call progress tones heard by users (such as ringback). The standard tone plants (SN250) are administered in this procedure while the auxiliary tone plants (SN253), if needed, are administered in Procedure 252 Word 2.

Prerequisite Procedures

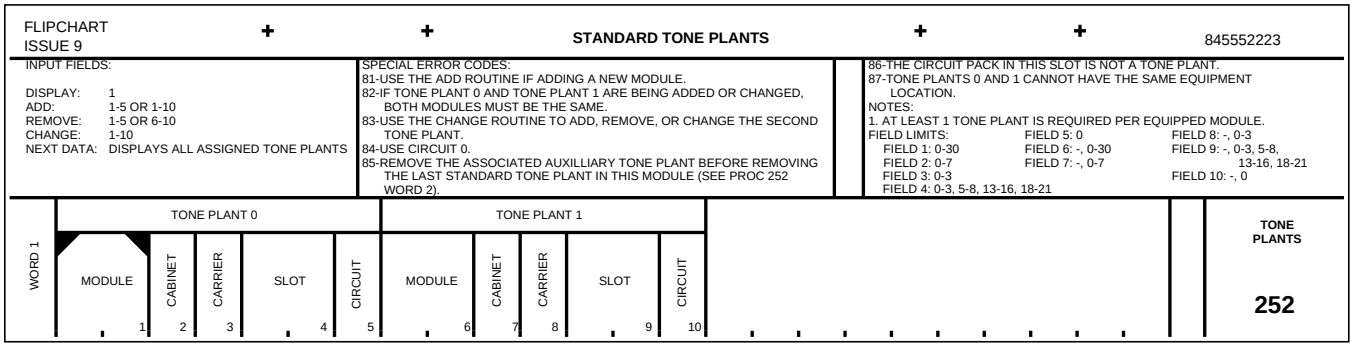
Use Procedure 250 Word 1 to administer carriers.

Use Procedure 252 Word 2 to remove the associated auxiliary tone plant before removing the last standard tone plant in this module.

Related Procedures

Administer auxiliary tone plants with Procedure 252 Word 2.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1.

Add: Fields 1-5 or 1-10. Use the add routine only when a new module is being added to the system.

Change: Fields 1-10. Use the change routine to add or change tone plants. A tone plant can not be removed using the change routine.

Remove: Fields 1-5 or 6-10.

Next Data: Displays all assigned tone plants.

Field Ranges and Encodes

TONE PLANT 0 (Fields 1-5)

1. Module -, 0-30

   At least one tone plant is required in each equipped module.

2. Cabinet -, 0-7

3. Carrier -, 0-3

4. Slot -, 0-3, 5-8, 13-16, 18-21

5. Circuit -, 0

TONE PLANT 1 (Fields 6-10)

6.	Module	-, 0-30
7.	Cabinet	-, 0-7
8.	Carrier	-, 0-3
9.	Slot	-, 0-3, 5-8, 13-16, 18-21
10.	Circuit	-, 0

Special Error Codes

81 - Use the add routine if adding a new module.

82 - If tone plant 0 and tone plant 1 are being added or changed, both module numbers must be the same.

83 - Use the change routine to add, remove, or change the second tone plant.

84 - Use circuit 0.

85 - Remove the associated auxiliary tone plant before removing the last standard tone plant in this module (see Procedure 252 Word 2).

86 - The circuit pack in this slot is not a tone plant.

87 - Tone plants 0 and 1 cannot have the same equipment location.

Procedure 252 Word 2 — Auxiliary Tone Plants

113

Purpose

Use Procedure 252 Word 2 to administer auxiliary tone plants (SN253). This tone plant is used for Centralized Attendant Service (CAS), AUTOVON, tone detector, and Code Calling Access.

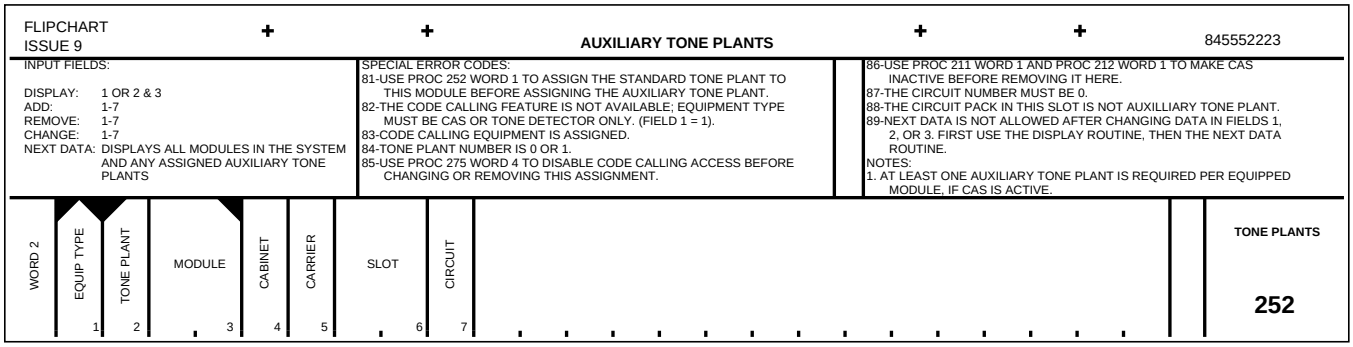
Prerequisite Procedures

Before administering an auxiliary tone plant, you must administer a standard tone plant in the same module (see Procedure 252 Word 1).

Use Procedure 275 Word 4 to disable Code Calling Access before changing or removing the assignment in this procedure.

Use Procedures 211 Word 1 and 212 Word 2 to disable CAS before removing the assignment here.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2 and 3.
Add:	Fields 1-7.
Change:	Fields 1-7.
Remove:	Fields 1-7.
Next Data:	Displays all modules in the system and any assigned auxiliary tone plants.

Field Ranges and Encodes

1. Equipment Type

1	CAS, AUTOVON, and tone detector
2	CAS, AUTOVON, and tone detector with Code Calling

Equipment type 1 denotes that the CAS or AUTOVON features and tone detector trunks have been administered.

Equipment type 2 denotes that the Code Calling Access, CAS, AUTOVON, or tone detector trunks have been administered. The equipment location assignments with this type will be shared for CAS, AUTOVON, and Code Calling Access. Only one equipment location can be assigned with equipment type 2.

2. Tone Plant 0-1

3. Module 0-30

4.	Cabinet	0-7
5.	Carrier	0-3
6.	Slot	0-3, 5-8, 13-16, 18-21
7.	Circuit	0

Notes

1. At least one auxiliary tone plant is required in each equipped module if CAS is active.
2. An auxiliary tone plant is used for Code Calling Access or CAS, AUTOVON, and tone detector, or both.

Special Error Codes

81 - Use Procedure 252 Word 1 to assign the standard tone plant to this module before assigning the auxiliary tone plant.

82 - The Code Calling Access feature is not available. The equipment type must be CAS, AUTOVON, or tone detector (field 1 = 1).

83 - Code Calling Access equipment is assigned.

84 - The tone plant number is 0 or 1.

85 - Use Procedure 275 Word 4 to disable Code Calling Access before changing or removing this assignment.

86 - Use Procedures 211 Word 1 and 212 Word 1 to make CAS inactive before removing it here.

87 - The circuit number must be 0.

88 - The circuit pack in this slot is not an auxiliary tone plant.

89 - Next data is not allowed after changing data in fields 1, 2, or 3. First use the display routine then the next data routine.

Procedure 253 Word 1 — Data Channels

114

Purpose

Use Procedure 253 Word 1 to administer data channels for the following applications:

- Calling number display unit
- Station Message Detail Recording (SMDR)
- Force Administration Data System (FADS) display for Centralized Attendant Service (CAS)
- Centralized Message Detail Recording/Network Control Operations Support System (CMDR/NCOSS) port for call record data sent to a Local Storage Unit (LSU).

Also use this procedure to display other fixed data channel assignments and data channel assignments made in other procedures.

Prerequisite Procedures

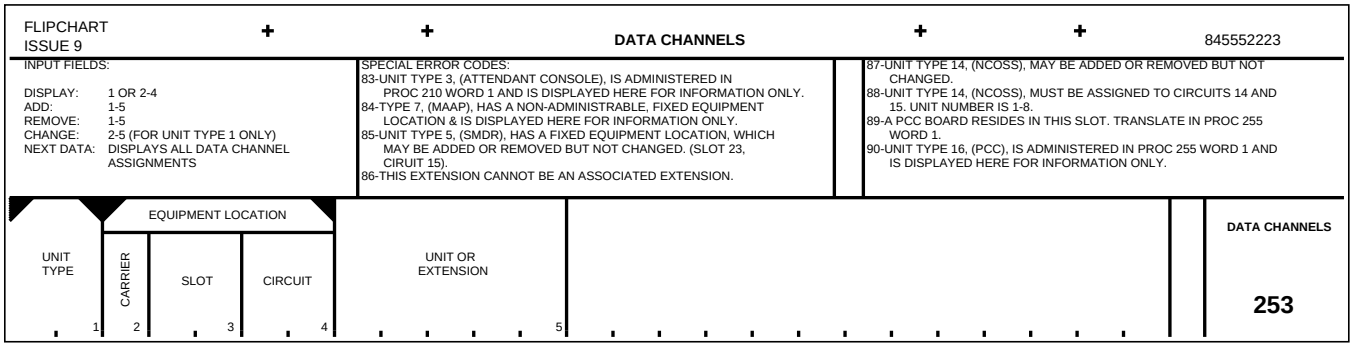
Use Procedures 350 Word 1 and 354 Word 1 to administer extensions in the dialing plan before assigning an extension in field 5.

Related Procedures

Use Procedure 210 Word 1 to administer an attendant console interface equipment location and data channel equipment location.

Use Procedure 255 Word 1 to administer the Processor Communication Circuit (PCC).

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2-4.
Add:	Fields 1-5.
Change:	Fields 2-5. The change routine is used for unit type 1 only.
Remove:	Fields 1-5.
Next Data:	Displays all data channel assignments.

Field Ranges and Encodes

1. Unit Type

0	Not assigned
1	Calling number display
3	Attendant console (administer in Procedure 210 Word 1)
5	SMDR
7	MAAP
13	FADS for CAS
14	CMDR/NCOSS (to LSU)
16	PCC (administer in Procedure 255 Word 1)

Unit types 3, 7, and 16, can only be displayed in this procedure.

EQUIPMENT LOCATION (Fields 2-4)

SMDR (unit type 5) must be assigned to slot 23, circuit 15.

2. Carrier 0 Common control carrier

3. Slot 23-26

4.	Circuit	0-15 Unit type 14 (CMDR/NCOSS) can be assigned to circuits 14 and 15 only.
5.	Unit or Extension	-, 1-99999 Assign a unit number or extension to each unit type (except types 3 and 7) even if only one unit type is allowed per system (e.g., unit type 13, unit number 1). The range for unit type 1 is 000-99999. The range for unit types 5 and 13 is 000-9999. The range for unit type 14 is 1-8. The range for unit type 16 is the logical circuit number plus 1.

Special Error Codes

83 - Unit type 3 (attendant console) is administered in Procedure 210 Word 1 and is displayed here for information only.

84 - Unit type 7 (MAAP) has a nonadministrable, fixed equipment location, and is displayed here for information only.

85 - Unit type 5 (SMDR) has a fixed equipment location which may be added or removed, but not changed (slot 23, circuit 15).

86 - This extension cannot be an associated extension.

87 - Unit type 14 (CMDR/NCOSS) may be added or removed but not changed.

88 - Unit type 14 (CMDR/NCOSS) must be assigned to circuits 14 and 15. The unit number range is 1-8.

89 - A PCC board resides in this slot. Translate the PCC board in Procedure 255 Word 1 and 2.

90 - Unit type 16 (PCC) is administered in Procedure 255 Word 1 and is displayed here for information only.

Procedure 254 Word 1 — Dial Pulse Originating Register and Intercom Records

115

Purpose

Use Procedure 254 Word 1 to administer the number of active dial pulse originating register (OR) records and intercom records. A default number of records is set at installation, but the numbers can be changed as necessary.

Related Procedures

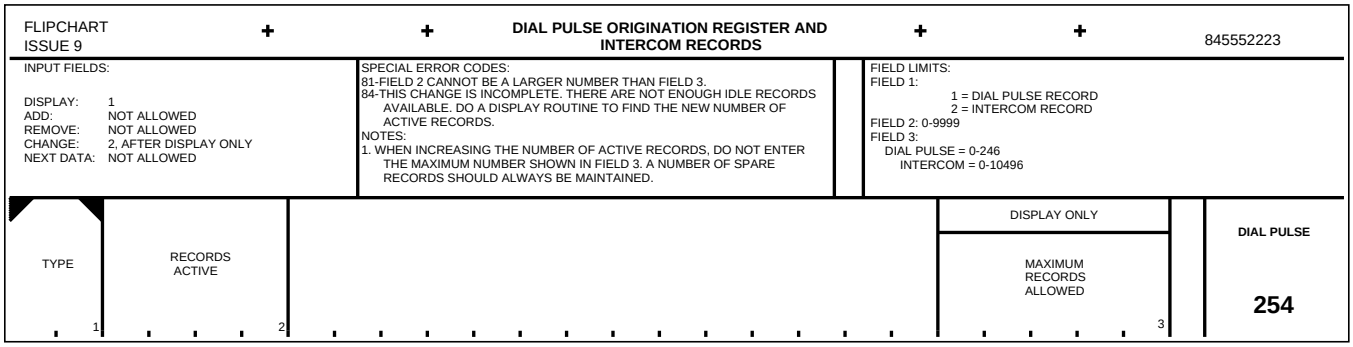
Each time a trunk is administered in Procedure 116 Word 1 and Procedure 150 Word 1, one intercom record is used.

Cautions

Making improper changes administration while using this procedure can adversely affect the traffic handling capacity of the system.

There is a short, traffic-dependent delay between the time of the request to remove intercom records and the time the requested records are actually removed from the idle intercom queue. Due to the random nature of the queue and the necessary real time delay in its restructure, a removed intercom may be selected for a call and the call is subsequently torn down in any of its states. To minimize the possible loss of calls, use this procedure during light traffic periods.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Field 2 (after display only).
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Record Type

1	Dial pulse originating register record
2	Intercom record

Intercom records consist of trunk queues, physical trunk connections, trunk intercom records, and records used for station-to-station calls.

Always do a display on each record type to see how many records are allowed (field 3) before making any changes.

2. Records Active

0-9999

When increasing the number of active records, do not enter the maximum number shown in field 3. A number of spare records should always be maintained.

DISPLAY ONLY (Field 3)

3. Maximum Records Allowed

0-246 for dial pulse records, 0-10494 for intercom records

This number may vary from system to system, based on the configuration.

Special Error Codes

81 - Field 2 cannot be a larger number than field 3.

84 - This change is incomplete. There are not enough idle records available. Do a display routine to find the new number of active records.

Procedure 255 Word 1 — PCC - Link Attributes

116

Purpose

Use Procedure 255 Word 1 to administer the Processor Communications Circuit (PCC) to an equipment location and assign data characteristics to that circuit. The PCC is used for the Call Detail Recording (CDR) feature.

Prerequisite Procedures

Use Procedure 275 Word 1 to turn off CDR before making changes here.

Before making any changes to the PCC, it must be busied out:

a. Call in Procedure 651.

b. Select Test 2.

c. Enter the PCC carrier number, slot number, and circuit number.

d. Run the busy out routine twice.

After making changes to the PCC, the PCC must be released:

a. Call in Procedure 651.

b. Select Test 2.

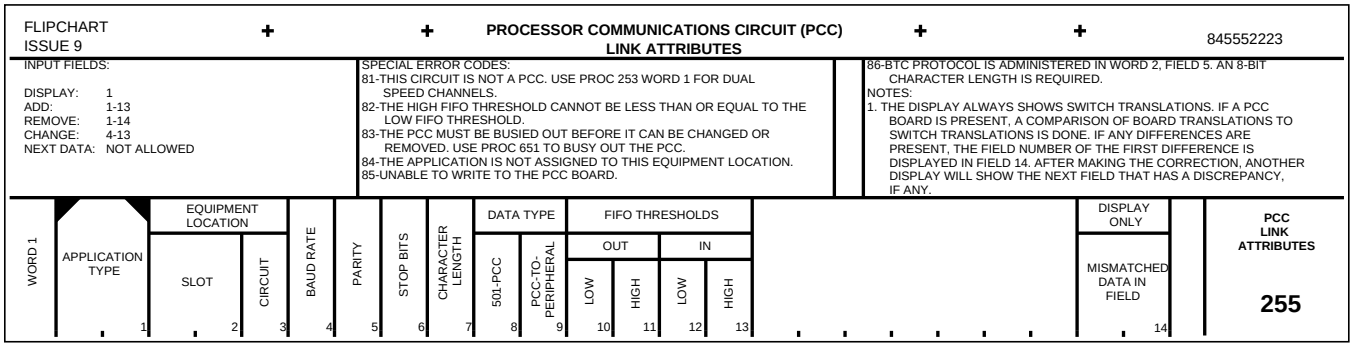
c. Enter the PCC carrier number, slot number, and circuit number.

d. Run the release busy out routine.

Related Procedures

Use Procedure 253 Word 1 for the standard data channel assignments.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-13.
Change:	Fields 4-13.
Remove:	Fields 1-14.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Application Type — 1 Call Detail Recording (CDR)

EQUIPMENT LOCATION (Fields 2-3)

2. Slot — 24-26

3. Circuit — 0, 1

4. Baud
   - 2 300 bps
   - 3 600 bps
   - 4 1200 bps
   - 5 2400 bps
   - 6 4800 bps
   - 7 9600 bps
   - 8 19200 bps

5.	Parity	0	No parity/not assigned
		1	Odd
		2	Even
6.	Stop Bits	1	1 bit
		2	1-1/2 bits
		3	2 bits
7.	Character Length	1	5-bit character
		2	6-bit character
		3	7-bit character
		4	8-bit character (default)

The BTC protocol is administer in Procedure 255 Word 2. If used, it requires an 8-bit character length in this field.

DATA TYPE (Fields 8-9)

8.	501-to-PCC	1	4 hex nibbles (default)
		2	2 ASCII characters
9.	PCC-to-Peripheral	1	2 hex nibbles (default)
		2	1 ASCII character

FIFO THRESHOLDS (Fields 10-13)

0	0-999
1	1000-1999
2	2000-2999
3	3000-3999
4	4000-4999
5	5000-5999
6	6000-6999
7	7000-7999

The high FIFO thresholds cannot be less than or equal to the low FIFO thresholds.

OUT (Fields 10-11)

10. Low 0-7

    Default for this field is 1.

11. High 0-7

    Default for this field is 7.

IN (Fields 12-13)

12. Low 0-7

    Default for this field is 1.

13. High 0-7

    Default for this field is 7.

DISPLAY ONLY (Field 14)

14. Mismatched Data in Field -, 4-13

Notes

1. The display always shows switch translations. If a PCC board is present, a comparison of board translations to switch translations is done. If any differences are present, the field number of the first difference is displayed in field 14. After making the correction, another display will show the next field that has a discrepancy, if any.

Special Error Codes

81 - This circuit is not a PCC. Use Procedure 253 Word 1 for dual speed data channels.

82 - The high FIFO threshold cannot be less than or equal to the low FIFO threshold.

83 - The PCC must be busied out before it can be changed or removed. Use Procedure 651 Test 2 to busy out the PCC.

84 - The application is not assigned to this equipment location.

85 - Unable to write to the PCC board.

86 - BTC protocol is administered in Procedure 255 Word 2 field 5. An 8-bit character length is required.

Procedure 255 Word 2 — PCC - Application Attributes

117

Purpose

Use Procedure 255 Word 2 to administer the one-way communication, message, protocol, and failure threshold to the Processor Communications Circuit (PCC).

Prerequisite Procedures

Use Procedure 275 Word 1 to turn off Call Detail Recording (CDR) before making changes here.

Before making any changes to the PCC, it must be busied out:

a. Call in Procedure 651.

b. Select Test 2.

c. Enter the PCC carrier number, slot number, and circuit number.

d. Run the busy out routine twice.

After making changes to the PCC, the busy out must be released:

a. Call in Procedure 651.

b. Select Test 2.

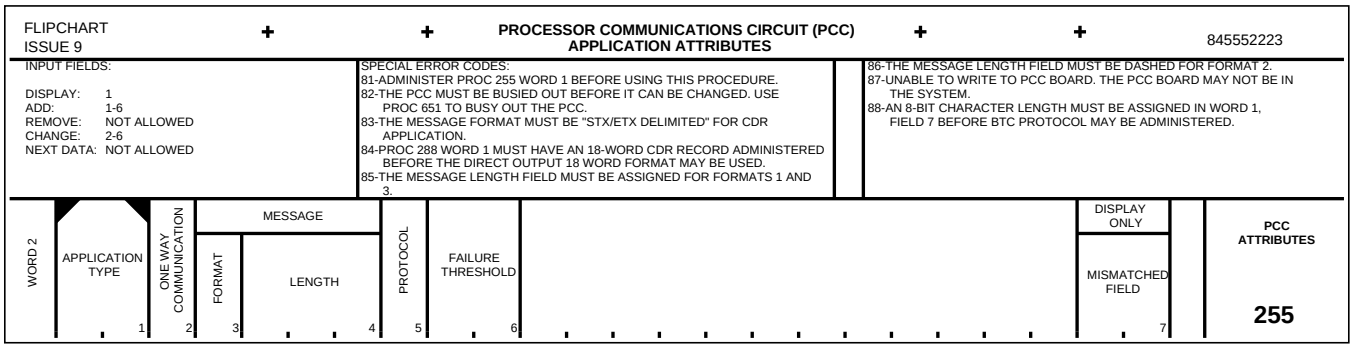
c. Enter the PCC carrier number, slot number, and circuit number.

d. Run the release busy out routine.

Use Procedure 255 Word 1 to set up the PCC. An 8-bit character length must be assigned in field 7 before BTC protocol can be administered here.

Use Procedure 288 Word 1 to administer the 18-word CDR record before the direct output 18-word format is administered in this procedure.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-6.
Change:	Fields 2-6.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Application Type — 1 Call Detail Recording (CDR) (default)

2. One-Way Communication — 1 (default)

MESSAGE (Fields 3-4)

3. Format
   - 1 Message length in message
   - 2 STX/ETX delimited (default)
   - 3 Fixed message length

   STX/ETX stands for start of text/end of text. For CDR, this field must be set to 2.

4. Length

-, 1-128 (default is -)

This specifies the number of characters sent in each call detail record. At this time, only 96 characters including spaces are used (24-word record with 4 characters per word as defined in Procedure 288 Words 1 and 2). A length must be specified if field 3 is 1 or 3 and this field must be dashed if field 3 is 2.

5. Protocol

1 BTC protocol (default)
2 Direct output - 18-word format
3 Direct output - unformatted

The BTC protocol (1) is required when field 3 is 2, Procedure 255 Word 1 field 7 is set to 8-bit characters, and 18-word CDR records are administered in Procedure 288 Word 1.

6. Failure Threshold

1-15 (default is 3)

This is the number of retries attempted to the peripheral before the call record will be deleted.

DISPLAY ONLY (Field 7)

7. Mismatched Field

-, 3-6

The display routine always shows switch translations. If a PCC board is present, a comparison of board translations to switch translations is done. If any differences are present, the field number of the first difference is displayed in this field. After correction, another display will identify the next field that has a discrepancy, if any.

Special Error Codes

81 - Administer Procedure 255 Word 1 before using this procedure.

82 - The PCC must be busied out before it can be changed. Use Procedure 651 Test 2 to busy out the PCC.

83 - The message format must be ‘‘STX/ETX delimited’’ for CDR application.

84 - Procedure 288 Word 1 must have an 18-word CDR record administered before the direct output 18-word format may be used.

85 - The message length field must be assigned for formats 1 and 3.

86 - The message length field must be dashed for format 2.

87 - Unable to write to the PCC board. The PCC board may not be in the system.

88 - An 8-bit character length must be assigned in Procedure 255 Word 1 field 7 before BTC protocol may be administered.

Procedure 256 Word 1 — DCIU - Link Assignment

118

Purpose

Use Procedure 256 Word 1 to administer the following characteristics to a DCIU link:

- The assigned or unassigned status of the link
- The transmission speed used over the link
- The data terminal equipment (DTE) or data circuit-terminating equipment (DCE) status of the link
- The dial up status of the link
- The protocol used on the link
- The type of destination equipment connected to the local switch by the link
- The destination machine number.

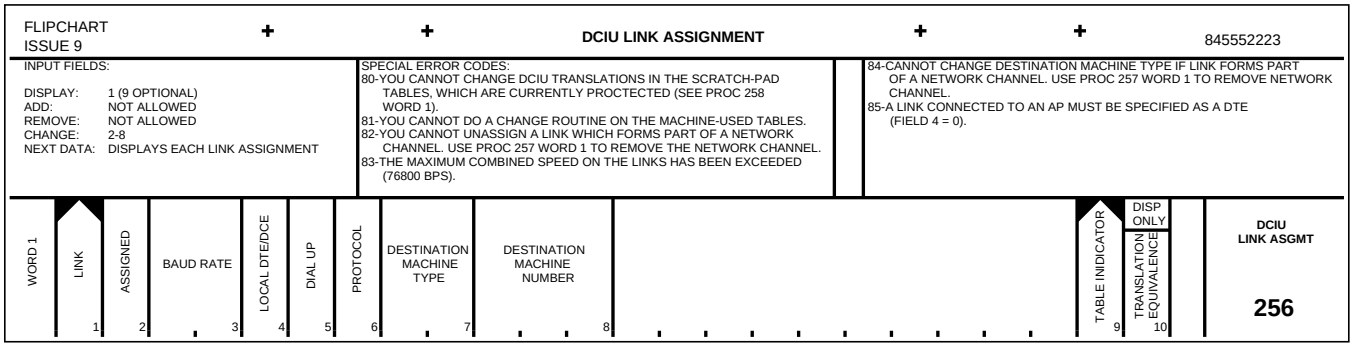
Prerequisite Procedures

You cannot change the destination machine type or unassign a link if they are part of a network channel. Use Procedure 257 Word 1 to remove the network channel first.

Cautions

Link assignment (field 2), baud (field 3), dial-up (field 5), and protocol (field 6) must be administered the same at both ends of the communication link. DCE/DTE (field 4) must be assigned with one end of the communication link being DTE and the other end being DCE.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 9.
Add:	Not allowed.
Change:	Fields 2-8.
Remove:	Not allowed.
Next Data:	Displays each link assignment.

Field Ranges and Encodes

1.	Link	1-8	
2.	Assigned	0	No
		1	Yes
3.	Baud	0	None assigned
		1	300 bps
		2	600 bps
		3	1200 bps
		4	2400 bps
		5	4800 bps
		6	9600 bps
		7	19200 bps
4.	Local DTE/DCE	0	This end is DTE
		1	This end is DCE

5.	Dial-Up	0	Not a dial-up link
		1	Is a dial-up link
6.	Protocol	1	BX.25
7.	Destination Machine Type	1	AP 16
		2	3B5 AP
		3	AUDIX
		4	System 75 or DEFINITY Generic 1 (DCS)
		5	System 85 Release 1 (DCS)
		6	System 85 Release 2 or DEFINITY Generic 2 (DCS)
		7	Enhanced DIMENSION PBX (DCS)
		8	3B2 Messaging Server, CMS, or ISDN Gateway
8.	Destination Machine Number	1-7 for APs, 1-8 for AUDIX, and 1-63 for DCS The values in this field depend on the machine type in field 7. If you put a 1, 2, or 8 in field 7, the range for field 8 is 1-7. If you put a 3 in field 7, the range for field 8 is 1-8. If you put a 4, 5, 6, or 7 in field 7, the range for field 8 is 1-63. These machine numbers may be administered in random order.	
9.	Table Indicator	-	Display scratch-pad table values
		0	Display scratch-pad table values
		1	Display machine-used table values

DISPLAY ONLY (Field 10)

10.	Translation Equivalence	0	Scratch-pad and machine-used values differ
		1	Scratch-pad and machine-used values agree

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables which are currently protected (see Procedure 258 Word 1).

81 - You cannot do a change routine on the machine-used tables.

82 - You cannot unassign a link that forms part of a network channel. Use Procedure 257 Word 1 to remove the network channel first.

83 - The maximum combined speed on the links has been exceeded (76800 bps).

84 - You cannot change the destination machine type if the link forms part of a network channel. Use Procedure 257 Word 1 to remove the network channel first.

85 - A link connected to an AP must be assigned as a DTE (field 4 = 0).

Procedure 256 Word 2 — DCIU - Level 2 Link Characteristics

119

Purpose

Use Procedure 256 Word 2 to administer the DCIU link BX.25 level two timers and counters.

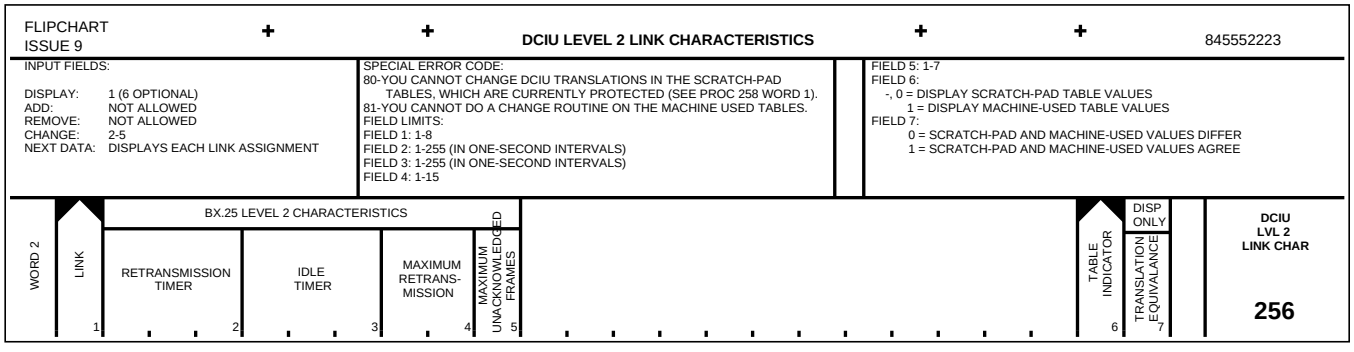
Prerequisite Procedures

Use Procedure 258 Word 1 to unprotect the DCIU translations in the scratch-pad tables before making changes in these tables.

Cautions

The DCIU level 2 characteristics must be the same at both ends of the link.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 6.
Add:	Not allowed.
Change:	Fields 2-5.
Remove:	Not allowed.
Next Data:	Displays each link assignment.

Field Ranges and Encodes

1. Link 1-8

BX.25 LEVEL 2 CHARACTERISTICS (Fields 2-5)

2. Retransmission Timer — 1-255 (in one-second intervals)

   This is the time (in seconds) before the DCIU will retransmit unacknowledged frames. A typical value for this field is 1.

3. Idle Timer — 1-255 (in one-second intervals)

   This is the time (in seconds) allowed without exchanging frames on the link. A typical value for this field is 10.

4. Maximum Retransmissions — 1-15

   This is the maximum number of retransmissions allowed for acknowledged frames. A typical value for this field is 2.

5. Maximum Unacknowledged Frames — 1-7

   This is the maximum number of frames transmitted without acknowledgement. A typical value for this field is 7.

6. Table Indicator
   - \- Display scratch-pad table values
   - 0 Display scratch-pad table values
   - 1 Display machine-used table values

DISPLAY ONLY (Field 7)

7. Translation Equivalence
   - 0 Scratch-pad and machine-used values differ
   - 1 Scratch-pad and machine-used values agree

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables, which are currently protected (see Procedure 258 Word 1).

81 - You cannot do a change routine on the machine-used tables.

Procedure 256 Word 3 — DCIU - Level 3 Link Characteristics

120

Purpose

Use Procedure 256 Word 3 to administer the DCIU link BX.25 level 3 timers and counters.

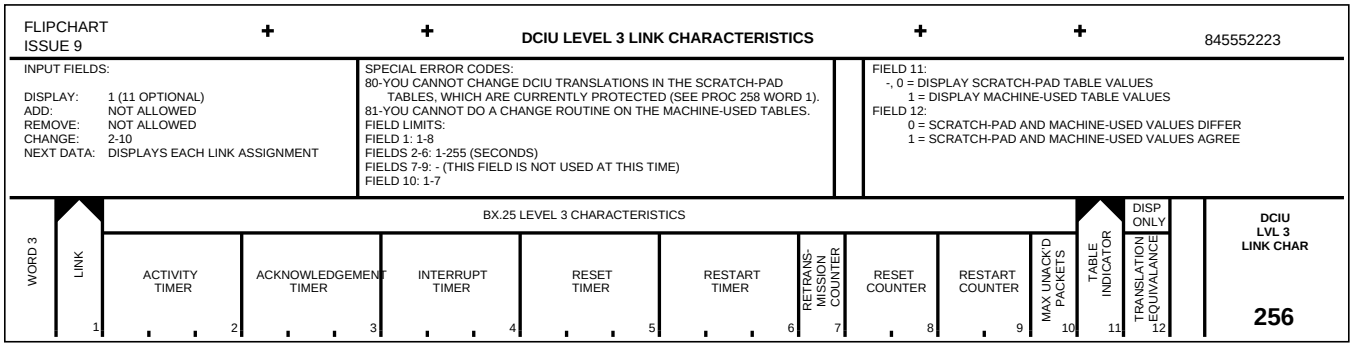
Prerequisite Procedures

Use Procedure 258 Word 1 to unprotect the DCIU translations in the scratch-pad tables before making changes to these tables in this procedure.

Cautions

The DCIU communication link protocol level 3 characteristics must be the same at both ends.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 11.
Add:	Not allowed.
Change:	Fields 2-10.
Remove:	Not allowed.
Next Data:	Displays each link assignment.

Field Ranges and Encodes

1. Link 1-8

BX.25 LEVEL 3 CHARACTERISTICS (Fields 2-10)

2. Activity Timer 1-255

   This is the wait time (in seconds) before sending a window advancement packet to reflect the current condition of a logical channel. A typical value for this field is 180.

3. Acknowledgement Timer 1-255

   This is the wait time (in seconds) for acknowledgement of a data packet before resetting a logical channel. A typical value for this field is 20.

4. Interrupt Timer 1-255

   This is the wait time (in seconds) for confirmation of an interrupt packet before resetting a logical channel. A typical value for this field is 180.

5. Reset Timer — 1-255

   This is the wait time (in seconds) for confirmation of a reset request packet before retransmission. A typical value for this field is 8.

6. Restart Timer — 1-255

   This is the wait time (in seconds) for confirmation of a restart request packet before retransmission. A typical value for this field is 8.

7. Retransmission Counter — -

   This is the maximum number of times an unacknowledged data packet is retransmitted. This field is not used at this time.

8. Reset Counter — -

   This is the maximum number of times an unacknowledged reset request is retransmitted. This field is not used at this time.

9. Restart Counter — -

   This is the maximum number of times an unacknowledged restart request is retransmitted. This field is not used at this time.

10. Maximum Unacknowledged Packets — 1-7

    This is the maximum number of unacknowledged data packets that can be transmitted. A typical value for this field is 4.

11. Table Indicator
    - \- Display scratch-pad table values
    - 0 Display scratch-pad table values
    - 1 Display machine-used table values

DISPLAY ONLY (Field 12)

12. Translation Equivalence
    - 0 Scratch-pad and machine-used values differ
    - 1 Scratch-pad and machine-used values agree

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables which are currently protected (see Procedure 258 Word 1).

81 - You cannot do a change routine on the machine-used tables.

Procedure 257 Word 1 — DCIU - Network Channels

121

Purpose

Use Procedure 257 Word 1 to administer the components, priority, and alternate routing status of DCIU network channels.

Prerequisite Procedures

Before changing assignments in this procedure, you must swap the machine-used and scratch-pad tables in Procedure 258 Word 2.

Assign the link in Procedure 256 Word 1 before adding a network channel.

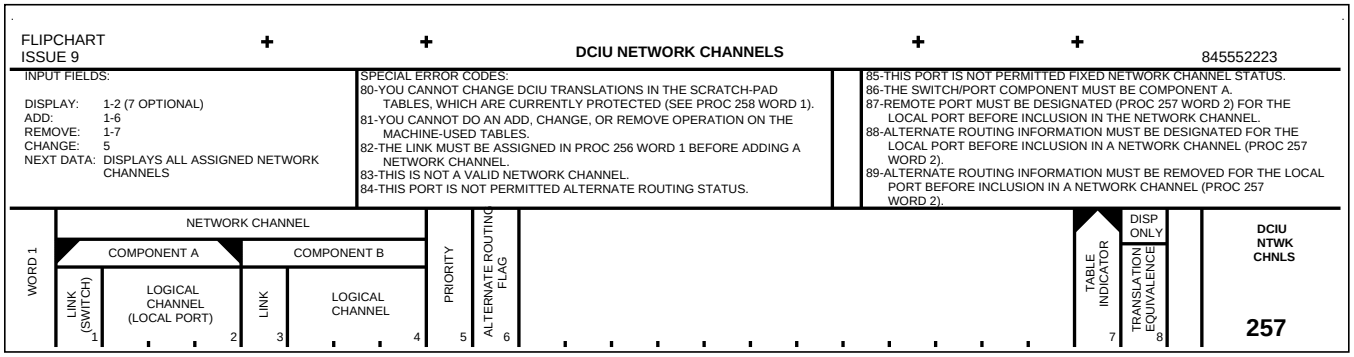
The remote port must be designated for the local port in Procedure 257 Word 2 before including it in a network channel.

Designate alternate routing information in Procedure 257 Word 2 for the local port before including it in a network channel. Alternate routing may only be used on DCS machines (Procedure 256 Word 1 field 7).

Use Procedure 257 Word 3 to disassociate the local port from its trunk group and DCS nodes before removing the local port from a network channel.

After completing the DCIU translations, the scratch-pad values must be moved to the machine-used area with Procedure 258 Word 1. Doing this does not eliminate the original machine-used values. If after using these new DCIU values, more changes are required, the new machine-used values must be moved back into the scratch-pad area. See Procedure 258 Word 1.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2 or fields 1, 2, and 7. Data entered into the Component A fields may move and be displayed in the Component B fields when appropriate.
Add:	Fields 1-6.
Change:	Field 5.
Remove:	Fields 1-7.
Next Data:	Displays all assigned network channels.

Field Ranges and Encodes

NETWORK CHANNEL (Fields 1-4)

COMPONENT A (Fields 1-2)

1.	Link (switch)	0	Local switch link
		1-8	Hardware links
2.	Logical Channel (local port)	1-64	

COMPONENT B (Fields 3-4)

3.	Link (switch)	-	Not assigned
		0	Local switch link
		1-8	Hardware links

This field can be set to 0 only if field 1 is set to 0. That

is, Component B may be a switch port only if Component A is a switch port. Setting both fields to 0 is used for loop around testing applications only.

4. Logical Channel (local port) -, 1-64

5. Priority
   - 0 Low
   - 1 High

   If high priority is set, messages using this link are processed before messages on a link that are set with low priority.

6. Alternate Routing Flag
   - 0 Not an alternate routed network channel
   - 1 Network channel (dash fields 3 and 4).

7. Table Indicator
   - \- Display scratch-pad table values for Component A
   - 0 Display scratch-pad table values for Component A
   - 1 Display machine-used table values for Component A

DISPLAY ONLY (Field 8)

8. Translation Equivalence
   - 0 Scratch-pad and machine-used values for Component A differ
   - 1 Scratch-pad and machine-used values for Component A agree

Notes

1. Conceptually, the DCIU has nine links. Eight are hardware links that can be connected to remote devices (links 1-8). Link 0 is permanently connected to the local switch. Each link (0-8) supports up to 64 logical channels, which are called ports on the local switch link (link 0).
2. When assigning a local switch port to a network channel, additional administration is required in Procedure 257 Word 2 and Word 3 if the remote end of the network channel is a DCS node.
3. For ISDN Gateway, component A will be link 0 (switch) and logical channel 1, 10, 15, 30, 38, 46, or 54. Component B will be link 1-7 (depending on the link connected to the gateway machine) and logical

channel 1. The priority (field 5) should be 1 and the alternate routing flag (field 6) should be 0.

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables that are currently protected (see Procedure 258 Word 1).

81 - You cannot do an add, change, or remove routine on the machine-used tables.

82 - The link must be assigned in Procedure 256 Word 1 before adding a network channel.

83 - This is not a valid network channel.

84 - This port is not permitted alternate routing status.

85 - This port is not permitted fixed network channel status.

86 - The switch/port component must be Component A.

87 - The remote port must be designated for the local port before inclusion in the network channel (Procedure 257 Word 2).

88 - Alternate routing information must be designated for the local port before inclusion in a network channel (Procedure 257 Word 2).

89 - Alternate routing information must be removed for the local port before removing it from a network channel (Procedure 257 Word 2).

90 - Component B may not be designated for alternate routed network channels.

91 - Components A and B of a network channel cannot be identical.

92 - Alternate routing may only be used on DCS machines (Procedure 256 Word 1 field 7).

93 - Disassociate the local port from its trunk group and DCS nodes before removing the local port from a network channel (Procedure 257 Word 3).

Procedure 257 Word 2 — DCIU - Port Characteristics

122

Purpose

Use Procedure 257 Word 2 to administer DCIU ports for the network channels.

Prerequisite Procedures

You cannot assign characteristics to an unreserved port. Use Procedure 257 Word 5 to reserve the port.

After completing the DCIU translations, the scratch-pad values must be moved to the machine-used area with Procedure 258 Word 1. Doing this does not eliminate the original machine-used values. If after using these new DCIU values, more changes are required, the new machine-used values must be moved back into the scratch-pad area. See Procedure 258 Word 1.

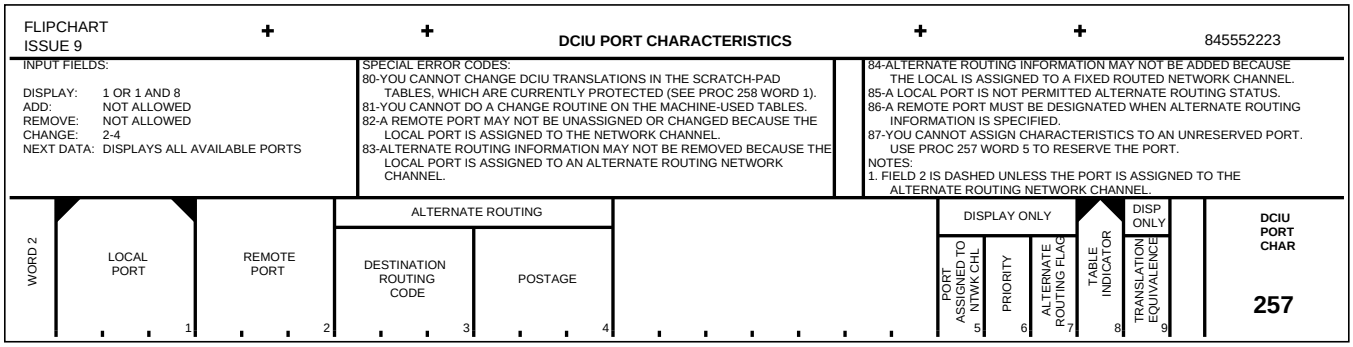
Related Procedures

For destination routing codes with an alternate routed port, use Procedure 257 Word 4 to assign routes associated with the destination routing code.

Cautions

Internal range checks are not made for the various remote machine types.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 8.
Add:	Not allowed.
Change:	Fields 2-4.
Remove:	Not allowed.
Next Data:	Displays all available ports.

Field Ranges and Encodes

1. Local Port 1-64

   The applications assigned (reserved) for the local ports is done in Procedure 257 Word 5.

2. Remote Port -, 1-64

   The following ranges are possible for field 2 (remote port):

   1-11 = AP 16
   1-11 = 3B5 AP
   1-10 = AUDIX
   1-20 = System 85 Release 1
   1-64 = System 85 Release 2 or DEFINITY Generic 2
   1-20 = Enhanced DIMENSION PBX
   1-11 = 3B2 Messaging Server, CMS, or ISDN Gateway

   This field is dashed unless the port is assigned to the alternate routing network channel.

ALTERNATE ROUTING (Fields 3-4)

3. Destination Routing Code

-, 1-255

The destination routing code identifies the node for which a packet is intended. It must be common throughout the network. That is, a given destination routing code must identify the same destination switch from any node in the system. The destination routing code is used at each alternate routing DCIU to select up to three routes (a primary and two alternate routes) that can be used from that DCIU to reach the destination switch. At the DCIU serving the destination switch, only one route (the primary) is used. This route passes the packet to the designated port on the switch link.

Use a dash (-) for ISDN Gateway.

4. Postage

-, 2-255

Postage is the system's way of keeping track of the number of hops that have been used trying to deliver a package to another system. Each time a delivery fails, the postage counter administered in this field is decremented. When the count reaches 0, the package is discarded. Setting the postage too high can cause unnecessary traffic on the DCIU links. Setting the postage too low can cause important packages to be lost.

Use a dash (-) for ISDN Gateway.

DISPLAY ONLY (Fields 5-7)

5. Port Assigned to Network Channel

0 No
1 Yes

6. Priority

0 Low
1 High

The priority is set in Procedure 257 Word 1.

7. Alternate Routing Flag

0 Port not assigned (dash field 3 and 4)
1 Port assigned (field 3 and 4 required)

8.	Table Indicator	-	Display scratch-pad table values for the port
		0	Display scratch-pad table values for the port
		1	Display machine-used table values for the port

DISPLAY ONLY (Field 9)

9.	Translation Equivalence	0	Scratch-pad and machine-used values differ
		1	Scratch-pad and machine-used values agree

Notes

1. Fields 3 and 4 must be administered (not dashed) when the port is assigned to an alternate routing network channel.

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables which are currently protected (see Procedure 258 Word 1).

81 - You cannot do a change routine on the machine-used tables.

82 - A remote port may not be unassigned or changed because the local port is assigned to a network channel.

83 - Alternate routing information may not be removed because the local port is assigned to an alternate routing network channel.

84 - Alternate routing information may not be added because the local port is assigned to a fixed routed network channel.

85 - A local port is not permitted alternate routing status.

86 - A remote port must be designated when alternate routing information is specified.

87 - You cannot assign characteristics to an unreserved port. Use Procedure 257 Word 5 to reserve the port.

Procedure 257 Word 3 — DCIU - Trunk Group and DCS Node Assignment

123

Purpose

Use Procedure 257 Word 3 to administer DCS node and trunk group assignments.

Prerequisite Procedures

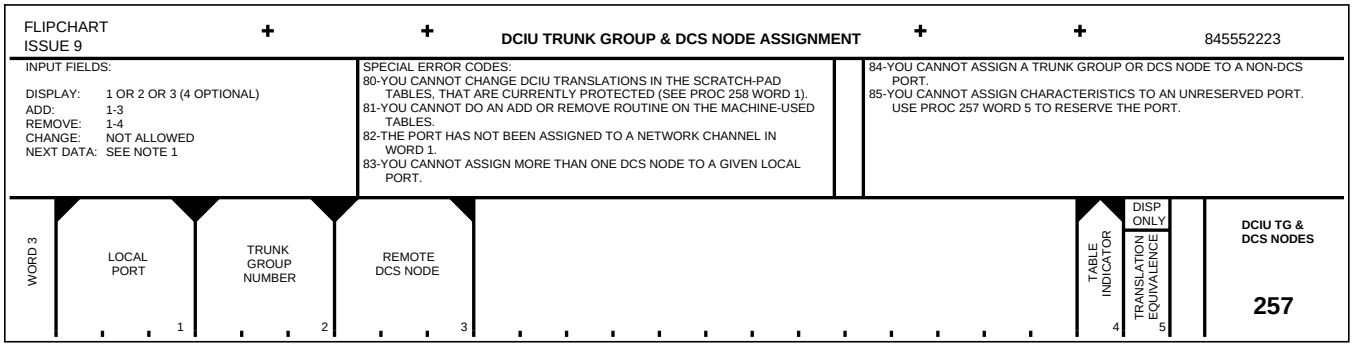
Use Procedure 256 Word 1 to assign a DCS node to a link.

Use Procedure 257 Word 1 to assign a DCIU network channel.

You cannot assign characteristics to an unreserved port. Use Procedure 257 Word 5 to reserve the port.

After completing the DCIU translations, the scratch-pad values must be moved to the machine-used area with Procedure 258 Word 1. Doing this does not eliminate the original machine-used values. If after using these new DCIU values, more changes are required, the new machine-used values must be moved back into the scratch-pad area. See Procedure 258 Word 1.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1, 2, and 3, fields 1 and 4, fields 2 and 4, or fields 3 and 4.
Add:	Fields 1-3.
Change:	Not allowed.
Remove:	Fields 1-4.
Next Data:	If the local port is entered, next data displays all trunk groups associated with the port. If the trunk group is entered, next data displays all local ports and nodes associated with the trunk group. If the DCS node is entered, next data displays all the ports and trunk groups associated with the DCS node.

Field Ranges and Encodes

1. Local Port — 1-64

2. Trunk Group Number — 18-255

   Field 2 must be set to dashes or trunk groups must terminate at the DCS node shown in field 3.

3. Remote DCS Node — 1-63

4. Table Indicator
   - \- Display scratch-pad table values
   - 0 Display scratch-pad table values
   - 1 Display machine-used table values

DISPLAY ONLY (Field 5)

5.	Translation	0	Scratch-pad and machine-used tables differ
	Equivalence	1	Scratch-pad and machine-used tables agree

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables that are currently protected (see Procedure 258 Word 1).

81 - You cannot do an add or remove routine on the machine-used tables.

82 - The port has not been assigned to a network channel with Procedure 257 Word 1.

83 - You cannot assign more than one DCS node to a given local port.

84 - You cannot assign a trunk group or DCS node to a non-DCS port.

85 - You cannot assign characteristics to an unreserved port. Use Procedure 257 Word 5 to reserve the port.

Procedure 257 Word 4 — DCIU - Alternate Routing

124

Purpose

Use Procedure 257 Word 4 to administer the alternate routes associated with a destination map.

Prerequisite Procedures

After completing the DCIU translations, the scratch-pad values must be moved to the machine-used area with Procedure 258 Word 1. Doing this does not eliminate the original machine-used values. If after using these new DCIU values, more changes are required, the new machine-used values must be moved back into the scratch-pad area. See Procedure 258 Word 1.

Flipchart

FLIPCHART ISSUE 9 — DCIU ALTERNATE ROUTING — 845552223

INPUT FIELDS:

DISPLAY: 1 (10 OPTIONAL)
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 2-9
NEXT DATA: DISPLAYS ALL DESTINATION ROUTING CODES

SPECIAL ERROR CODES:
80-YOU CANNOT CHANGE DCIU TRANSLATIONS IN THE SCRATCH-PAD TABLES, WHICH ARE CURRENTLY PROTECTED (SEE PROC 258 WORD 1).
81-YOU CANNOT DO A CHANGE ROUTINE ON THE MACHINE-USED TABLES.
82-THE LOGICAL CHANNEL MUST BE SET TO 0 WHEN THE LOCAL SWITCH IS THE DESTINATION.
83-ONLY ROUTE 1 MAY BE SPECIFIED WHEN THE LOCAL SWITCH IS THE DESTINATION.

NOTES:
1. THE DESTINATION ROUTING CODE IS INSERTED INTO A HEADER FIELD OF AN ALTERNATE ROUTED PACKET. AT EACH TRAVERSED NODE OF THE DCS NETWORK THE CODE IS EXAMINED AND THE NEXT PATH IS CHOSEN FROM ROUTES 1, 2, OR 3 DEPENDING ON THE ALGORITHM ALSO ENCODED IN THE HEADER. THE ENTRIES AT A GIVEN DESTINATION ROUTING CODE AT EVERY DCIU IN THE ALTERNATE ROUTING NETWORK DEFINE A DESTINATION MAP (1-255).
2. IF FIELD 4 IS SET TO 0, PUT A 0 IN FIELD 5 AND LEAVE FIELDS 6-9 DASHED.

WORD 4	DESTINATION ROUTING CODE 1	ROUTING ALGORITHM 2	NUMBER OF ROUTES 3	ROUTE 1		ROUTE 2		ROUTE 3			TABLE INDICATOR 10	DISP ONLY TRANSLATION EQUIVALENCE 11	DCIU ALTERNATE RTNG
				LINK 4	LOGICAL CHANNEL 5	LINK 6	LOGICAL CHANNEL 7	LINK 8	LOGICAL CHANNEL 9				257

Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 10.
Add:	Not allowed.
Change:	Fields 2-9.
Remove:	Not allowed.
Next Data:	Displays all destination routing codes.

Field Ranges and Encodes

1. Destination Routing Code

   1-255

   The destination routing code identifies the node for which a packet is intended. It must be common throughout the network. That is, a given destination routing code must identify the same destination switch from any node in the system. The destination routing code is used at each alternate routing DCIU to select up to three routes (a primary and two alternate routes) that can be used from that DCIU to reach the destination switch. At the DCIU serving the destination switch, only one route (the primary) is used. This route passes the packet to the designated port on the switch link.

2. Routing Algorithm

   0 Fixed routing
   1 Routing on failure

3. Number of Routes

   0 Fields 4-9 must be dashed
   1 Input expected in fields 4-5
   2 Input expected in fields 4-7
   3 Input expected in fields 4-9

ROUTE 1 (Fields 4-5)

4. Link

   \- Not assigned
   0 Local switch logical link
   1-8 Physical link

5. Logical Channel

   -, 0-64

   When the local switch is the destination (field 1), a logical channel cannot be designated.

ROUTE 2 (Fields 6-7)

6.	Link	-	Not assigned
		0	Local switch logical link
		1-8	Physical link
7.	Logical Channel	-, 0-64 When the local switch is the destination (field 1), a logical channel cannot be designated.	

ROUTE 3 (Fields 8-9)

8.	Link	-	Not assigned
		0	Local switch logical link
		1-8	Physical link
9.	Logical Channel	-, 0-64 When the local switch is the destination (field 1), a logical channel cannot be designated.	
10.	Table Indicator	-	Display scratch-pad table values
		0	Display scratch-pad table values
		1	Display machine-used table values

DISPLAY ONLY (Field 11)

11.	Translation Equivalence	0	Scratch-pad and machine-used tables differ
		1	Scratch-pad and machine-used tables agree

Notes

1. If field 4 is set to zero, put a zero in field 5 and leave fields 6-9 dashed.

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables which are currently protected (see Procedure 258 Word 1).

81 - You cannot do a change routine on the machine-used tables.

82 - The logical channel must be set to 0 when the local switch is the destination.

83 - Only route 1 may be specified when the local switch is the destination.

Procedure 257 Word 5 — DCIU - Port Reservation

125

Purpose

Use Procedure 257 Word 5 to administer port reservations for DCIU translations.

Prerequisite Procedures

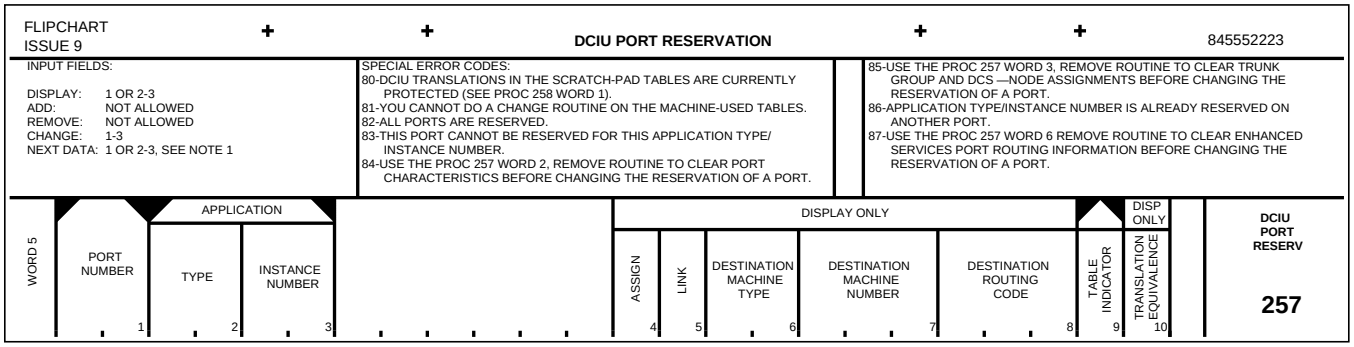
Use Procedure 257 Word 2 for clearing port characteristics before changing the reservation of a port.

Use Procedure 257 Word 3 to clear trunk group and DCS node assignments before changing the reservation of a port.

Use Procedure 257 Word 6 to clear the enhanced services port routing information before changing the reservation of a port.

After completing the DCIU translations, the scratch-pad values must be moved to the machine-used area with Procedure 258 Word 1. Doing this does not eliminate the original machine-used values. If after using these new DCIU values, more changes are required, the new machine-used values must be moved back into the scratch-pad area. See Procedure 258 Word 1.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1 or fields 2 and 3.
Add: Not allowed.
Change: Fields 1-3.
Remove: Not allowed.
Next Data: If port is specified, port assignments are displayed. If application type is specified, the instance number is displayed. If nothing is specified, port assignments are displayed.

Field Ranges and Encodes

1. Port Number -, 1-64

2. Application Type
   - 0 Unreserved
   - 2 AP clock synchronization (CLK)
   - 3 Message Center (MCS) or 3B2 ISDN Gateway
   - 4 LWC high priority (LWCH)
   - 5 LWC low priority (LWCL)
   - 6 Message Waiting-Automatic lamp (AMWL)
   - 7 Traffic (TRAF)
   - 8 Call Detail Recording (CDR)
   - 9 DCS
   - 10 DIP/DCIU test (TEST)
   - 11 Call Management System (CMS)
   - 12 Enhanced Services (ES)
   - 13 AUDIX

3. Instance Number -, 1-64 (see Notes)

DISPLAY ONLY (Fields 4-8)

4.	Port Assignment	-	Not reserved
		0	Not assigned to network channel
		1	Assigned to network channel
5.	Hardware Link	1-8	
6.	Destination Machine Type	1	AP 16
		2	3B5 AP
		3	AUDIX
		4	System 75 or DEFINITY Generic 1 (DCS)
		5	System 85 Release 1 (DCS)
		6	System 85 Release 2 or DEFINITY Generic 2 (DCS)
		7	Enhanced DIMENSION PBX (DCS)
		8	3B2 Messaging Server, CMS, or ISDN Gateway
7.	Destination Machine Number	1-63	
8.	Destination Routing Code	1-255	
9.	Table Indicator	-	Display scratch-pad table values for port
		0	Display scratch-pad table values for port
		1	Display machine-used table values for port

DISPLAY ONLY (Field 10)

10.	Translation Equivalence	0	Scratch-pad and machine-used values differ
		1	Scratch-pad and machine-used values agree

Notes

1. The following table explains the encodes for fields 2 and 3:

	Application Type	Instance Number
Unreserved	0	dash
AP clock synchronization (CLK)	2	dash, 1-7
Message Center (MCS) or 3B2 ISDN Gateway	3	dash, 1-7
Leave Word Calling, high priority (LWCH)	4	dash, 1-7
Leave Word Calling, low priority (LWCL)	5	dash, 1-7
Message Waiting-Automatic lamp (AMWL)	6	dash, 1-7
Traffic (TRAF)	7	dash, 1
Call Detail Recording (CDR)	8	dash, 1
Distributed Communication System (DCS)	9	dash, 1-63*
DIP/DCIU test (TEST)	10	dash, 1 and 2
Call Management System (CMS)	11	dash, 1
Enhanced Service (ES)	12	dash, 1-63*
AUDIX	13	dash, 1-8*

* These limits are provided for flexibility in the use of instance numbers. However, a maximum of 63 DCS and 40 ES ports can be reserved. For AUDIX ports, the instance number used must be the same as the AUDIX machine number.

2. The following table represents the reserved ports by application type and instance number.

	Instance Number						
	1	2	3	4	5	6	7
Application	**Ports**						
CLK	8	9	14	19	37	45	53
MCS or 3B2 ISDN Gateway	1	10	15	30	38	46	54
LWCH	2	11	16	31	39	47	55
LWCL	3	12	17	32	40	48	56
AMWL	4	13	18	33	41	49	57
TRAF	5						
CDR	7						
CMS	64						

3. Use the following table when assigning the port in field 4:

	Field 5	Field 6	Field 7	Field 8
Alternate Routed Port	-	-	-	1-255
Nonalternate Routed Port	1-8	1-8	1-63	-

Special Error Codes

80 - The DCIU translations in the scratch-pad tables are currently protected (see Procedure 258 Word 1).

81 - You cannot do a change routine on the machine-used tables.

82 - All ports are reserved.

83 - This port cannot be reserved for this application type/instance number.

84 - Use the Procedure 257 Word 2 remove routine to clear port characteristics before changing the reservation of a port.

85 - Use the Procedure 257 Word 3 remove routine to clear trunk group and DCS node assignments before changing the reservation of a port.

86 - Application type/instance number is already reserved on another port.

87 - Use the Procedure 257 Word 6 remove routine to clear Enhanced Services port routing information before changing the reservation of a port.

88 - You are exceeding one of the following limits: only 63 DCS ports can be reserved; only 8 AUDIX ports can be reserved; only 40 Enhanced Services ports can be reserved.

Procedure 257 Word 6 — DCIU - Enhanced Services Ports

126

Purpose

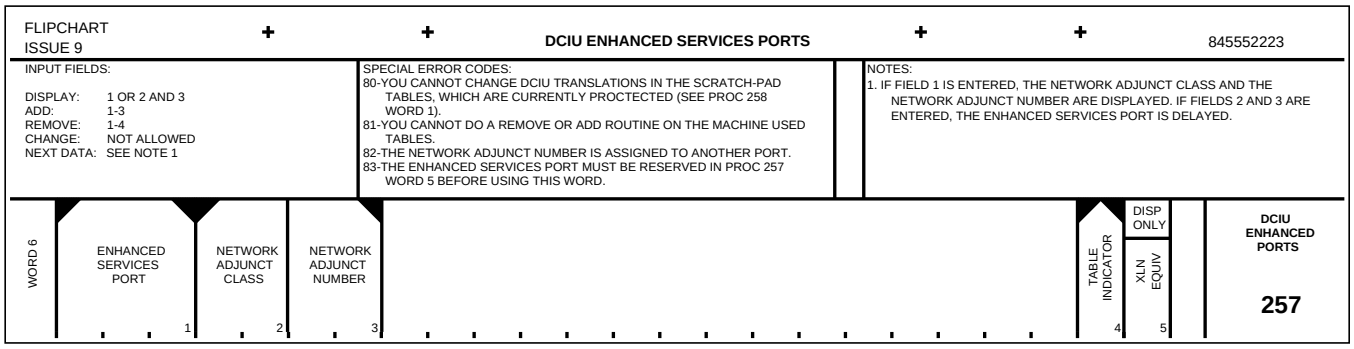
Use Procedure 257 Word 6 to administer the DCIU Enhanced Services (ES) ports.

Prerequisite Procedures

Use Procedure 257 Word 5 to reserve the ES port before using this word.

After completing the DCIU translations, the scratch-pad values must be moved to the machine-used area with Procedure 258 Word 1. Doing this does not eliminate the original machine-used values. If after using these new DCIU values, more changes are required, the new machine-used values must be moved back into the scratch-pad area. See Procedure 258 Word 1.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2 and 3.
Add:	Fields 1-3.
Change:	Not allowed.
Remove:	Fields 1-4.
Next Data:	If field 1 is entered, the network adjunct class and the network adjunct number are displayed. If fields 2 and 3 are entered, the ES port is displayed.

Field Ranges and Encodes

1.	Enhanced Services Port	1-64	
2.	Network Adjunct Class	1	AP
		2	AUDIX
		3	DCS
3.	Network Adjunct Number	1-99 AP = 1-99 AUDIX = 1-99 DCS = 1-63	
4.	Table Indicator	-	Display scratch-pad table values
		0	Display scratch-pad table values
		1	Display machine-used table values

DISPLAY ONLY (Field 5)

5.	Translation Equivalence	0	Scratch-pad and machine-used tables differ
		1	Scratch-pad and machine-used tables agree

Special Error Codes

80 - You cannot change DCIU translations in the scratch-pad tables which are currently protected (see Procedure 258 Word 1).

81 - You cannot do a remove or add routine on the machine-used tables.

82 - The network adjunct number is assigned to another port.

83 - The ES port must be reserved in Procedure 257 Word 5 before using this word.

Procedure 258 Word 1 — Reboot DCIU

127

Purpose

Use Procedure 258 Word 1 to copy translation changes made using Procedures 256 Words 1-3 and 257 Words 1-6 from scratch-pad translation tables (temporary tables) to the DCIU machine-used tables. This procedure should be used after all DCIU translation changes have been made.

Prerequisite Procedures

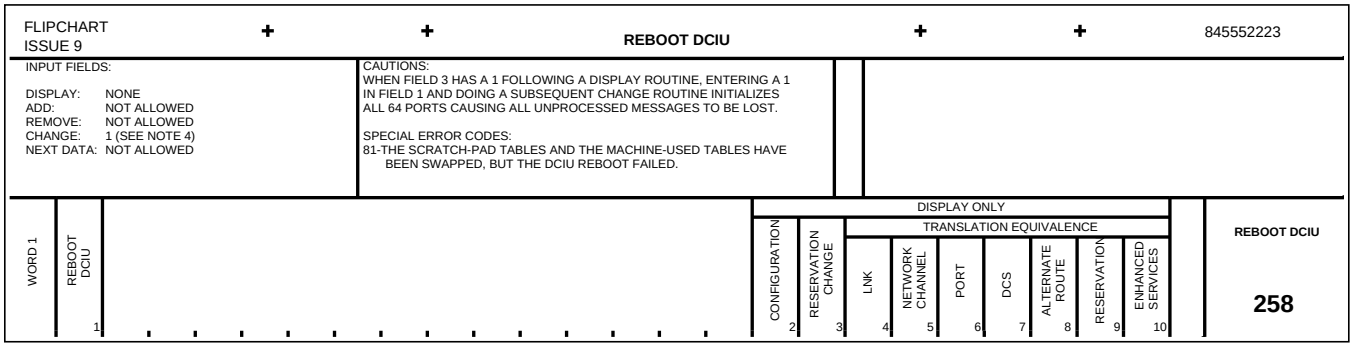
Use Procedure 258 Word 2 to refresh the scratch-pad translation tables. Do this before making changes with Procedures 256 Words 1-3 and 257 Words 1-6.

Use Procedures 256 Words 1-3 and 257 Words 1-6 to make the required changes to the DCIU translations.

Cautions

If field 3 has a 1 following a display routine, entering a 1 in field 1 and doing a change routine initializes all 64 ports causing all unprocessed messages to be lost.

Flipchart



Fields Used or Required for Command Routines

Display: None.
Add: Not allowed.
Change: Field 1. After doing a change, a dash is displayed in field 1. This prevents accidentally swapping configurations twice (see the Cautions).
Remove: Not allowed.
Next Data: Not allowed.

Field Ranges and Encodes

1. Reboot DCIU
   - No reboot being done
   1 Reboot DCIU

DISPLAY ONLY (Fields 2-10)

2. Configuration
   0 New translation in scratch-pad tables is unprotected
   1 Old translation in scratch-pad tables is protected

3. Reservation Change
   0 No change
   1 Has been changed

TRANSLATION EQUIVALENCE (Fields 4-10)

0 Scratch-pad and machine-used tables differ
1 Scratch-pad and machine-used tables agree

4.	Link	0-1 This translation is done in Procedure 256 Words 1-3.
5.	Network Channel	0-1 This translation is done in Procedure 257 Word 1.
6.	Port	0-1 This translation is done in Procedure 257 Words 1 and 2.
7.	DCS	0-1 This translation is done in Procedure 257 Word 3.
8.	Alternate Route	0-1 This translation is done in Procedure 257 Word 4.
9.	Reservation	0-1 This translation is done in Procedure 257 Word 5.
10.	Enhanced Service	0-1 This translation is done in Procedure 257 Word 6.

Notes

1. There are three uses for Procedure 258 Word 1:

   — **Swapping Configurations**

   The change routine swaps scratch-pad and machined-used configurations. After making DCIU translation changes with Procedures 256 Words 1-3 and 257 Words 1-6, set the reboot field (field 1) to 1 to move the new configuration in the scratch-pad to the machine-used tables. The old configuration will be moved to the scratch-pad and will be protected from any attempt to alter its values using Procedures 256 Words 1-3 and 257 Words 1-6. Thus the old configuration may be restored to the machine-used tables intact should the new configuration be incorrect. The two configurations may be swapped indefinitely by setting the reboot field (field 1) to 1.

   — **Keeping Track of Configurations**

   Field 2 will be set to 0 by a display routine when the scratch-pad tables contain the new configuration. Field 2 will be set to 1 by a display routine when the scratch-pad tables contain the old

configurations. Field 2 allows you to keep track of where each configuration resides at all times.

— **Protection of Old Configuration**

When the old configuration resides in the scratch-pad, it is protected from any attempt to alter its values using Procedures 256 Words 1-6 and 257 Words 1-6. Additional work may be done on the new configuration by first performing a swap/change routine. If changes are to be made for a totally new DCIU configuration, use Procedure 258 Word 2 to release the protection placed upon the old configuration in the scratch-pad tables (the old configuration is irrevocably destroyed).

Special Error Codes

81 - The scratch-pad tables and the machine-used tables have been swapped, but the DCIU reboot failed.

Procedure 258 Word 2 — Refresh DCIU Scratch-Pad Tables

128

Purpose

Use Procedure 258 Word 2 to refresh the DCIU scratch-pad translation tables (temporary tables) prior to using Procedure 256 Words 1-3 and 257 Words 1-6. All changes to the DCIU translations made using Procedure 256 Words 1-3 and 257 Words 1-6 are stored in scratch-pad tables. The DCIU uses another set of tables while an administrative session is in progress. During an administrative session, changes to the DCIU translations are stored in the scratch-pad tables and later copied to the DCIU machine-used tables using Procedure 258 Word 1. Before an administrative session, use Procedure 258 Word 2 to refresh the scratch-pad table by setting field 1 equal to 1 and doing a change routine.

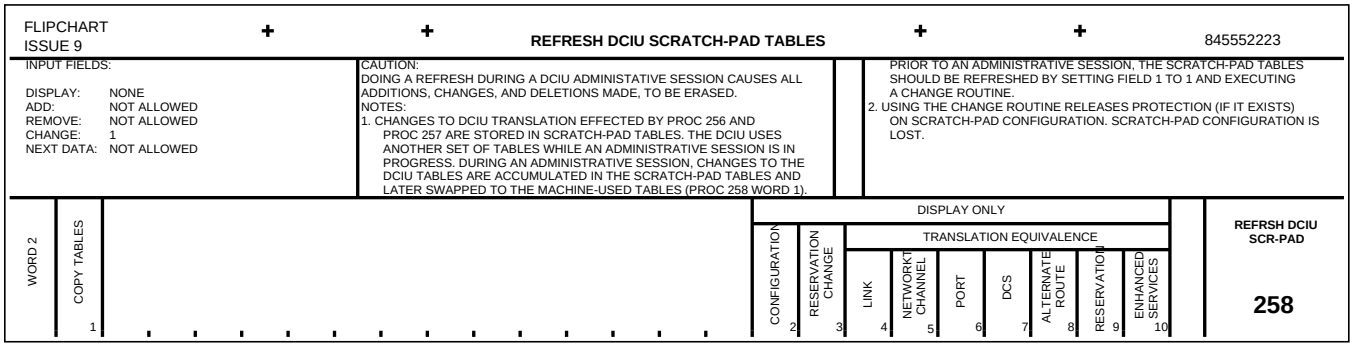
Prerequisite Procedures

Use Procedure 258 Word 1 to transfer changes to DCIU translations from the scratch-pad tables.

Cautions

Doing a refresh during a DCIU administrative session will erase all additions, changes, and deletions that have been made.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Field 1.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Copy Tables -, 1

DISPLAY ONLY (Fields 2-10)

2. Configuration
   - 0 New translation in scratch-pad tables is unprotected
   - 1 Old translation in scratch-pad tables is protected

3. Reservation Change
   - 0 No change
   - 1 Has been changed

TRANSLATION EQUIVALENCE (Fields 4-10)

- 0 Scratch-pad and machine-used tables differ
- 1 Scratch-pad and machine-used tables agree

4. Link 0-1

   This translation is done in Procedure 256 Words 1-3.

5.	Network Channel	0-1 This translation is done in Procedure 257 Word 1.
6.	Port	0-1 This translation is done in Procedure 257 Words 1 and 2.
7.	DCS	0-1 This translation is done in Procedure 257 Word 3.
8.	Alternate Route	0-1 This translation is done in Procedure 257 Word 4.
9.	Reservation	0-1 This translation is done in Procedure 257 Word 5.
10.	Enhanced Service	0-1 This translation is done in Procedure 257 Word 6.

Special Error Codes

None.

Procedure 260 Word 1 — DS1/ISDN and RCG Circuit Pack Assignments

129

Purpose

Use Procedure 260 Word 1 to administer the following interface characteristics:

- Integrated Services Digital Network/Primary Rate Interface (ISDN/PRI) (trunks used for ISDN)
- DS1/DMI-MOS (trunks used to support connections to a compatible host computer)
- DS1/DMI-BOS (Trunks and lines)
- Remote Carrier Group (RCG)
- System clock synchronizer (SCS) reference.

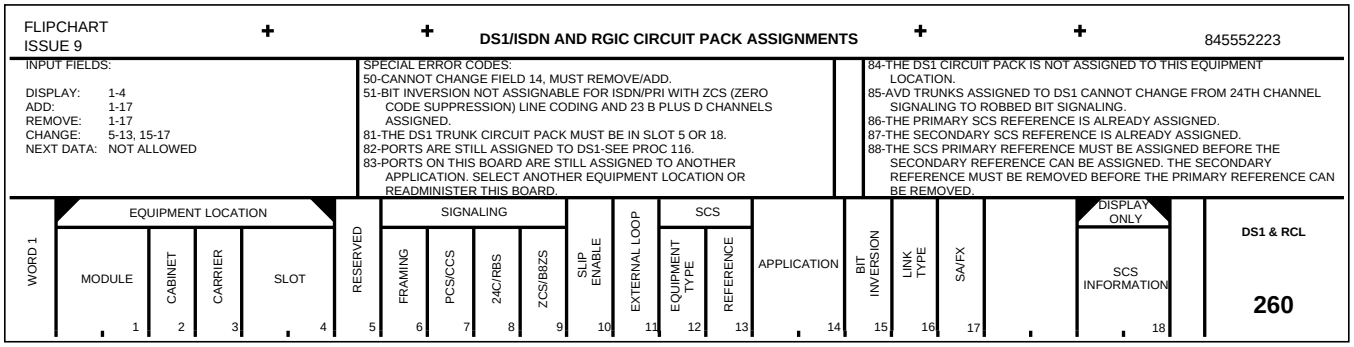
Prerequisite Procedures

Use Procedure 250 Word 1 to assign the SCS before enabling field 13 (SCS Reference) in this procedure.

Related Procedures

When moving the SCS circuit pack from one location to another, remove the SCS reference in Procedure 260 Word 1 using a change routine. Go to Procedure 250 Word 1 remove the SCS circuit pack using a change routine. Add the SCS circuit pack to the new location using a change routine. Go back to Procedure 260 Word 1 and do a change routine to add the new SCS reference.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-4.
Add:	Fields 1-19.
Change:	Fields 5-13 and fields 15-19.
Remove:	Fields 1-19.
Next Data:	Not allowed.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-4)

1. Module 0-30

2. Cabinet 0-7

3. Carrier 0-3

4. Slot 0, 5, 13, 18

   This procedure is used to administer the ANN11 and the ANN35 circuit packs. Use slots 5 and 18 for DS1 trunks or ISDN/PRI (application types 0, 1, 3, and 5) and slots 0, 5, 13, and 18 for DS1 lines (application type 2).

SIGNALING (Fields 6-9)

6. Framing
   - 0 D4 (SF)
   - 1 FE (ESF)

   The FE format, also known as extended superframe (ESF) is more reliable than D4 (superframe) for error detection.

7. PCS/CCS
   - 0 PCS
   - 1 CCS

   This field is reserved for future use; enter 0.

8. 24C/RBS
   - 0 24th channel
   - 1 Robbed bit

   24th channel signaling is used with ISDN/PRI, clear channel DS1, and RCG.

   Robbed bit signaling is only used with DS1 robbed bit.

9. ZCS/B8ZS
   - 0 Zero code suppression (restricted)
   - 1 Bipolar-8 zero substitution (unrestricted)

10. Slip Enable
    - 0 Slip count off
    - 1 Slip count on

    A slip is the repetition or deletion of one frame of data at the receiver. The default number of slips allowed per day before an alarm is raised is 88. Use slip enable to identify each DS1 interface board that is to have slip counts taken.

11. External Loop
    - 0 Disabled
    - 1 Enabled

    Use external loop around to indicate if an external loop back capability is provided. Administer this field when testing in Procedure 620 Test 4 and 5.

SCS (Fields 12-13)

12. Equipment Type
    0 None
    1 DS1/T1 SCS

Enter a 1 in this field if the SCS reference (primary or secondary) to this circuit pack is generated by an incoming source (i.e., the CO, or an SCS on another switch).

Enter a 0 if this circuit pack is to provide an SCS reference to a distant switch or this switch has a synchronization clock (stratum 3).

The SCS reference on this switch is generated by a high accuracy clock on the TN463. The TN463 is located on the module processor (for single module systems) or the TMS carrier (for multi-module systems).

The TN463 provides the timing for all the digital facilities on this switch. See field 13 to determine when the incoming SCS reference is activated.

13. SCS Reference
    0 None
    1 Primary source
    2 Secondary source

This field identifies the incoming SCS reference (if any) as the primary or the secondary source. When primary or secondary source is specified in this field, the SCS reference is being supplied by the switch at the other end of the link.

Enter a 0 if this circuit pack is to provide an SCS reference to a distant switch or if this switch has a synchronization clock (stratum 3).

Enter a 1 if the SCS board on this switch is to be slaved by an SCS board on the other end of this DS1 link.

Enter a 2 if the SCS board on this switch is to be slaved by an SCS board on the other end of this DS1 link when the ‘‘primary source’’ is not functioning correctly.

The primary and the secondary SCS must never be connected to a link that is translated at the other end

as a primary or a secondary.

14. Application

0 DS1 trunks/lines
1 DMI-BOS trunks
2 DS1 24-OPS
3 DS1 RCG
5 ISDN/PRI, DMI-MOS

The ''DS1 trunks plus lines'' option allows the mixing of both lines and trunks on the same DS1 facility. This arrangement uses the ANN11 (C, D, E) circuit pack.

The ''DMI-BOS trunks'' option provides 64-kbps data to a host computer. This option can also provide voice and 64-kbps data to private or public networks that support DMI-BOS signaling. This arrangement uses the ANN11D or ANN11E circuit pack.

The ''24-OPS'' option allows the DS1/DMI-BOS channels to be administered as off-premises stations (OPS). This option requires robbed bit signaling. This arrangement uses the ANN11 (C, D, E) circuit pack.

The ''Remote Carrier Group'' (RCG) option provides on-premises capability to an off-premises carrier without the use of a module processor. This arrangement uses the ANN15B circuit pack.

The ISDN/PRI, DMI-MOS option provides twenty-four 64-kbps channels. These channels are arranged as a 23 B plus D (24th-channel is used for signaling) or 24 B-channel configuration. These arrangements use the ANN35 circuit pack.

15. Bit Inversion

- Not applicable
0 Yes
1 No

This field only applies to the D-channel. This field must match the bit inversion administered on the other end of the link.

If field 8 is set to a 0, this field is not applicable and a dash (-) means that it is not administrable and the bit is inverted.

If field 8 is set to a 1, either inversion or no inversion must be specified.

16. Link Type
- - Not applicable
- 0 Copper (T1)
- 1 Fiber

17. SA/FX
- - Not applicable
- 0 FX except Canada
- 1 SA except Canada

Use special access (SA) only when foreign exchange (FX) signaling and hardware to support it are not available. Special access only applies to ground start trunk groups, loop start trunk groups, and off-premises station lines. Special signaling should not be confused with special access to a 4 ESS(TM).

DISPLAY ONLY (Field 18)

18. SCS Information
- 0 Secondary source in cable 0, secondary source in cable 1, or DS1 board is reinitializing
- 1 Secondary source in cable 1
- 2 Primary source in cable 0, secondary source in cable 1
- 3 Secondary source in cable 1
- 4 Secondary source in cable 0
- 5 No cables in place
- 6 Primary source in cable 0
- 7 No cables in place
- 8 Secondary source in cable 0, primary source in cable 1
- 9 Primary source in cable 1
- 10 Primary source in cable 0, primary source in cable 1
- 11 Primary source in cable 1
- 12 Secondary source in cable 0
- 13 No cables in place
- 14 Primary source in cable 0
- 15 No cables in place
- 99 Could not read information from DS1 board

Notes

1. The following chart shows the legal values for fields 6-17 based on the application type (field 14).

FIELD	VALUES				
14 (App.)	0=Trunk/Lines mixed	1=DMI-BOS	2=24-OPS	3=RCG	5=ISDN/PRI
6 (Framing)	0,1	0,1	0,1	0,1	0,1
7 (PCS/CCS)	0	0	0	0	1
8 (24C/RBS)	0,1	0	1	0	0
9 (ZCS/B8ZS)	0,1	0,1	0,1	0,1	0,1
10 (Slip)	0,1	0,1	0,1	0	0,1
11 (Ext. Loop Around)	0,1	0,1	0,1	0,1	0,1
12 (Equip.)	0,1	0	0	0	0,1
13 (SCS Ref.)	0,1,2	0	0	0	0,1,2
15 (Bit Inv.)	-	-	-	-	0,1
16 (Trans. Type)	0,1	0,1	0,1	0,1	0,1
17 (FX/SA)	0,1	-	0,1	-	-

Special Error Codes

50 - You cannot change field 14. You must use the remove or add routine.

51 - Bit inversion is not assignable for ISDN/PRI with zero-code-suppression (ZCS) line coding and 23B+D channels assigned.

81 - The DS1 trunk circuit pack must be in slot 5 or 18.

82 - Some ports are still assigned (see Procedure 116 Word 1 for DS1 or ISDN and Procedures 000 Word 1 and 150 Word 1 for RCG).

83 - Ports on this board are already assigned to another application. Since some applications cannot be mixed on one board, you must select another equipment location or readminister this board.

84 - A DS1 or an ISDN circuit pack is not assigned to this equipment location.

85 - AVD trunks assigned to DS1 cannot change from 24th channel signaling to robbed bit signaling.

86 - The primary SCS reference is already assigned.

87 - The secondary SCS reference is already assigned.

88 - The SCS primary reference must be assigned before the secondary reference can be assigned. The secondary reference must be removed before the primary reference can be removed.

89 - The SCS circuit pack is not assigned in Procedure 250 Word 1.

90 - This equipment location is assigned as primary SCS reference.

91 - This equipment location is assigned as secondary SCS reference.

92 - The trunk is assigned to the 24th channel port. You cannot change from robbed bit to 24th channel signaling.

93 - The SCS reference cannot be assigned to a DS1 interface in a remoted module.

94 - Wrong data; refer to table.

95 - The DS1 line board and RCG board must be in slot 0, 5, 13, or 18.

96 - Ports are assigned to slots 0-2 for the circuit pack in slot 0, 5-7 for the circuit pack in slot 5, 13-15 for the circuit pack in slot 13, or 18-20 for the circuit pack in slot 18.

97 - A DS1 line board must have robbed bit signaling.

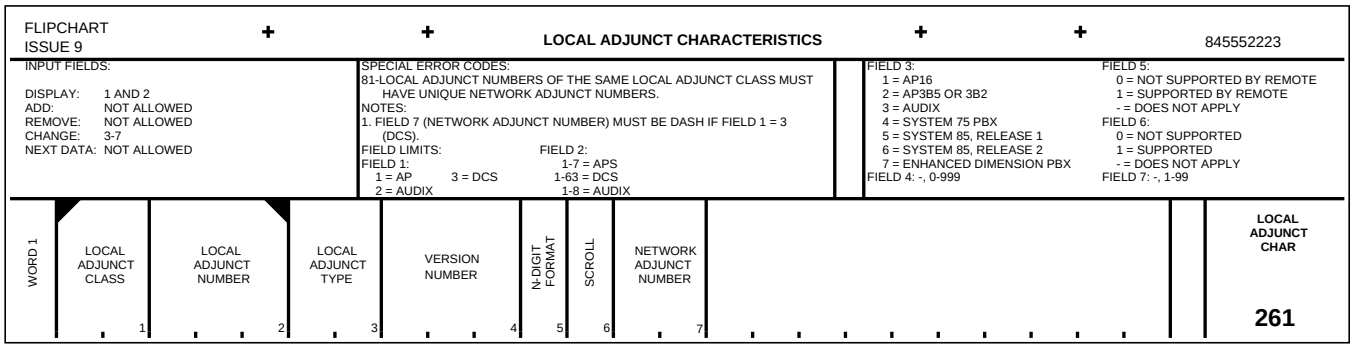
Procedure 261 Word 1 — Local Adjunct Characteristics

130

Purpose

Use Procedure 261 Word 1 to administer external adjunct message format, scrolling characteristics, and network adjunct number for the local external adjuncts.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Not allowed.
Change:	Fields 3-7.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Local Adjunct Class
   - 1 AP
   - 2 AUDIX
   - 3 DCS

2. Local Adjunct Number
   - 1-7 for APs, 1-8 for AUDIX, 1-63 for DCS

3. Local Adjunct Type
   - 1 AP 16
   - 2 3B5 AP or 3B2 Messaging Server
   - 3 AUDIX
   - 4 System 75 or DEFINITY Generic 1
   - 5 System 85 Release 1
   - 6 System 85 Release 2 or DEFINITY Generic 2
   - 7 Enhanced DIMENSION PBX

4. Version Number
   - -, 0-999

   This version number is not currently used by software.

5. N-digit Format
   - - Does not apply
   - 0 Not supported by remote
   - 1 Supported by remote

   The N-digit format is determined by the adjunct, so this field is not currently used by software.

6. Message Scrolling
   - - Does not apply
   - 0 Not supported
   - 1 Supported

   Message scrolling is supported on the AP 16 1f.X software, the 3B5 AP Release 2, and the 3B2 Messaging Server.

7. Network Adjunct Number
   - -, 1-99

   The network adjunct number must be dashed if field 1 is 3 (DCS).

Special Error Codes

81 - Local adjunct numbers of the same local adjunct class must have unique network adjunct numbers.

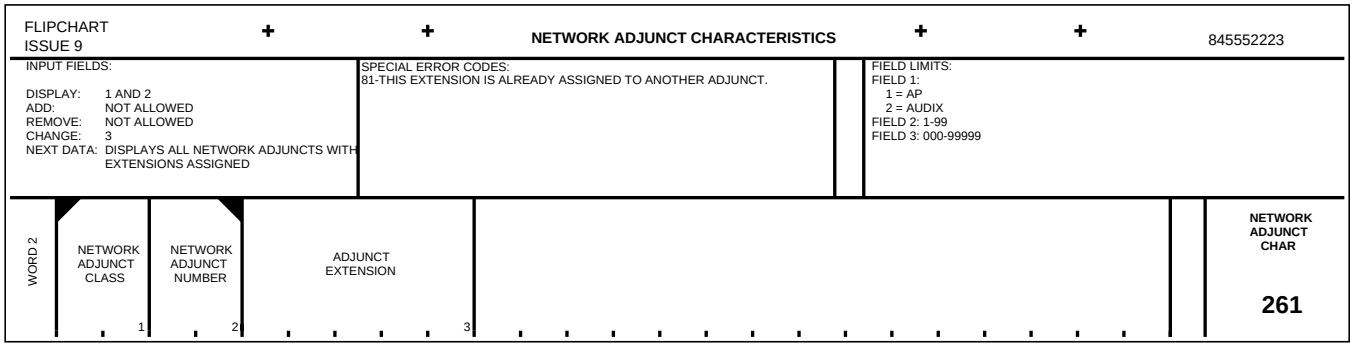
Procedure 261 Word 2 — Network Adjunct Characteristics

131

Purpose

Use Procedure 261 Word 2 to administer the external network adjunct extension.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Not allowed.
Change:	Field 3.
Remove:	Not allowed.
Next Data:	Displays all network adjuncts with extensions assigned.

Field Ranges and Encodes

1.	Network Adjunct Class	1 2	AP AUDIX
2.	Network Adjunct Number	1-99	
3.	Adjunct Extension	000-99999 An extension cannot be assigned to more than one adjunct.	

Special Error Codes

81 - This extension is already assigned to another adjunct.

Procedure 262 Word 1 — ISDN Board Parameters

132

Purpose

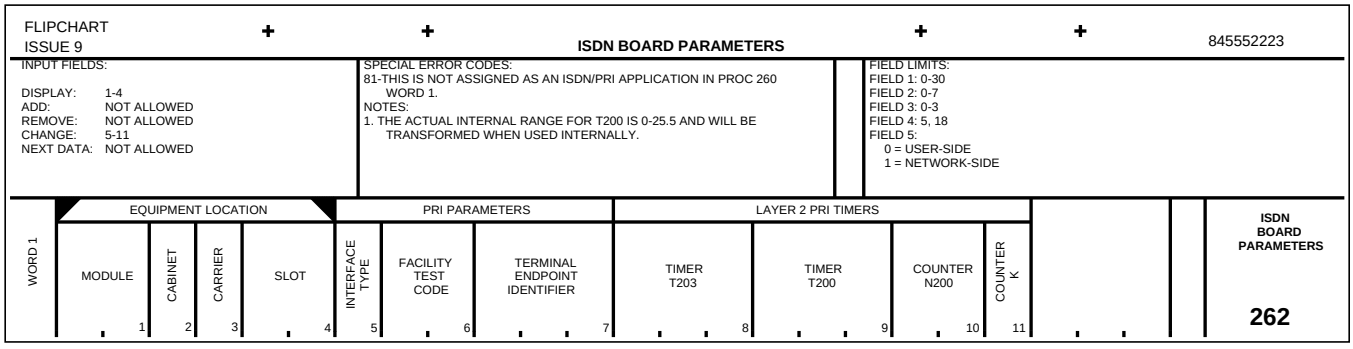
Use Procedure 262 Word 1 to administer ISDN board parameters.

Prerequisite Procedures

Use Procedure 260 Word 1 to assign an ISDN/PRI circuit pack before using this procedure.

Use Procedure 116 Word 1 to remove all B-channels on the PRI interface before removing or adding an interface identifier in this procedure.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-4 or fields 1-5.
Add:	Not allowed.
Change:	Fields 5-13.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-4)

For standard PRI links, use the ANN35.

1.	Module	0-30	
2.	Cabinet	0-7	
3.	Carrier	0-3	
4.	Slot	5, 18	

PRI PARAMETERS (Fields 5-7)

5.	Interface Type	0	User-side
		1	Network-side
6.	Facility Test Code	0	None
		1	Layer 2
		2	Layer 3
		3	Both layer 2 and 3
		This field is used by maintenance to enable testing on layer 2 and 3 protocols. Procedure 648 Test 2 tests layer 2 and Procedure 648 Test 3 tests layer 3.	
7.	Terminal Endpoint Identifier	0-63, 128 This information is not used at this time. Enter a 0.	

PRI LAYER 2 PARAMETERS (Fields 8-11)

8.	Timer T203	0-255 (in increments of 1 second, default is 30)
9.	Timer T200	0-255 (in increments of 0.1 second, default is 10)
10.	Counter N200	1-10 (default is 3) This is the maximum number of retransmissions allowed.
11.	Counter K	1-7 (default is 7) This is the maximum number of outstanding data packets to be transmitted.

Special Error Codes

81 - This is not assigned as an ISDN/PRI application in Procedure 260 Word 1.

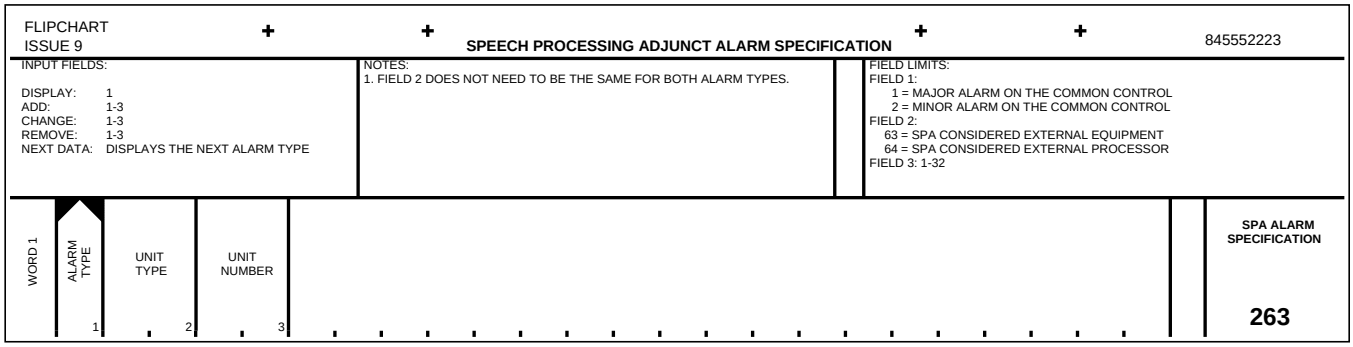
Procedure 263 Word 1 — Speech Processing Adjunct Alarm Specification

133

Purpose

Use Procedure 263 Word 1 to specify alarm checks (addresses) for the Speech Processing Adjunct.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-3.
Change:	Fields 1-3.
Remove:	Fields 1-3.
Next Data:	Displays the next alarm type.

Field Ranges and Encodes

1.	Alarm Type	1	Major alarm on the common control
		2	Minor alarm on the common control
2.	Unit Type	63	SPA considered external equipment
		64	SPA considered external processor
			The unit type does not need to be the same for both alarm types.
3.	Unit Number	1-32	

Special Error Codes

None.

Procedure 270 Word 1 — Tenant Services - Extension Partitions

134

Purpose

Use Procedure 270 Word 1 to administer an attendant partition association to one or more extension partitions and to associate one or more extension partitions to a partition group. One attendant partition may serve up to 999 extension partitions, and up to 500 partition groups can be built from the available extension partitions.

Prerequisite Procedures

Use Procedure 210 Word 2 to assign attendant consoles to attendant partitions.

Related Procedures

Use Procedure 276 Word 1 to enable the Tenant Services feature (field 6).

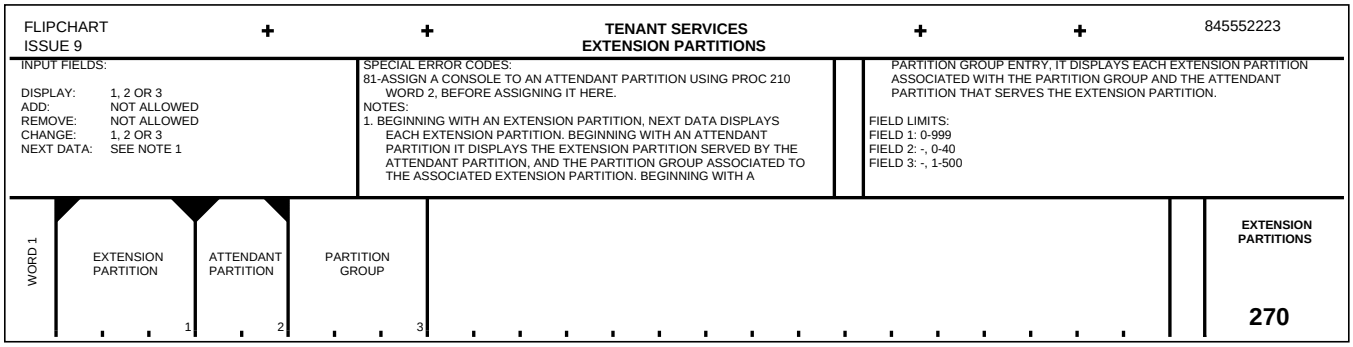
Use Procedure 000 Word 4 to administer extensions to extension partitions.

Use Procedure 270 Words 2-5 to administer other Tenant Services parameters.

Use Procedure 282 Word 1 to administer authorization codes for an extension partition.

Use Procedure 320 Words 2 and 3 to administer ARS call categories to partitions.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, field 2, or field 3.
Add:	Not allowed.
Change:	Fields 1 and 2, fields 1 and 3, or fields 1-3.
Remove:	Not allowed.
Next Data:	Beginning with an extension partition, it displays the attendant partition and partition group assigned to each extension partition. Beginning with an attendant partition, it displays the extension partition served by the attendant partition and the partition group associated to the extension partition. Beginning with a partition group entry, it displays each extension partition associated with the partition group, and the attendant partition that serves the extension partition.

Field Ranges and Encodes

1. Extension Partition

   -, 0-999

   Extension partitions are defined in Procedure 000 Word 4 when extensions are assigned to particular extension partitions. When this occurs, extensions from different partitions can only call each other through external access, not just by dialing an extension number.

2. Attendant Partition

   -, 0-40

   Attendant partitions are defined in Procedure 210 Word 2 when attendant consoles are assigned to particular attendant partitions. By assigning an attendant partition to an extension partition in field 1, you associate an attendant console to a group of extensions (an extension partition).

3.	Partition Group	-, 1-500 In a partition group, two or more extension partitions can be associated so that calls between those extension partitions appear to be internal calls. The attendant partitioning remains unchanged.

Special Error Codes

81 - Assign a console to an attendant partition using Procedure 210 Word 2 before assigning it here.

Procedure 270 Word 2 — Tenant Services - Partition Overflow/Restrictions

135

Purpose

Use Procedure 270 Word 2 to administer attendant partition overflow parameters and attendant control of voice terminals restriction groups.

Prerequisite Procedures

Use Procedure 210 Word 2 to assign an attendant partition to a console before assigning an overflow condition.

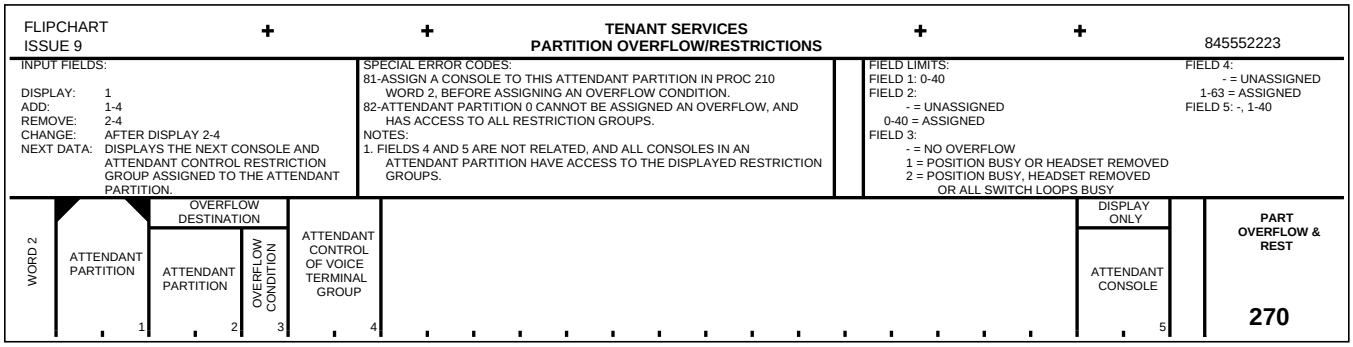
Related Procedures

Use Procedure 276 Word 1 to enable the Tenant Services feature (field 6).

Use Procedure 270 Words 1 and 3-5 to administer other Tenant Services parameters.

Use Procedure 320 Words 2 and 3 to administer ARS call categories to partitions.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-4.
Change:	Fields 2-4 (after display only).
Remove:	Fields 2-4.
Next Data:	Displays the next console and attendant control of voice terminals restriction group assigned to the attendant partition.

Field Ranges and Encodes

1. Attendant Partition — 0-40

   The nonpartitioned attendant consoles are represented by 0.

   Attendant partition 0 cannot be assigned an overflow destination and has access to all restriction groups.

OVERFLOW DESTINATION (Fields 2-3)

2. Attendant Partition
   - \- Unassigned
   - 0-40 Assigned

3. Conditions for Overflow
   - \- No overflow
   - 1 Position busy or headset removed
   - 2 Position busy, headset removed, or all switch loops busy

4.	Attendant Control of Voice Terminal Group	- 1-63	Unassigned Assigned

DISPLAY ONLY (Field 5)

5.	Attendant Console	-, 1-40

Notes

1. Fields 4 and 5 are not related. All consoles in an attendant partition have access to restriction groups.

Special Error Codes

81 - Assign a console to this attendant partition in Procedure 210 Word 2 before assigning an overflow condition.

Procedure 270 Word 3 — Tenant Services - Unattended Console Service

136

Purpose

Use Procedure 270 Word 3 to administer an attendant partition's default night extension. Also shown is the attendant partition's common night extension. During certain times of the day, the attendant console will probably be unattended, and calls will be routed to the common extension. If a common extension is not assigned, calls will go to the default extension assigned in this procedure.

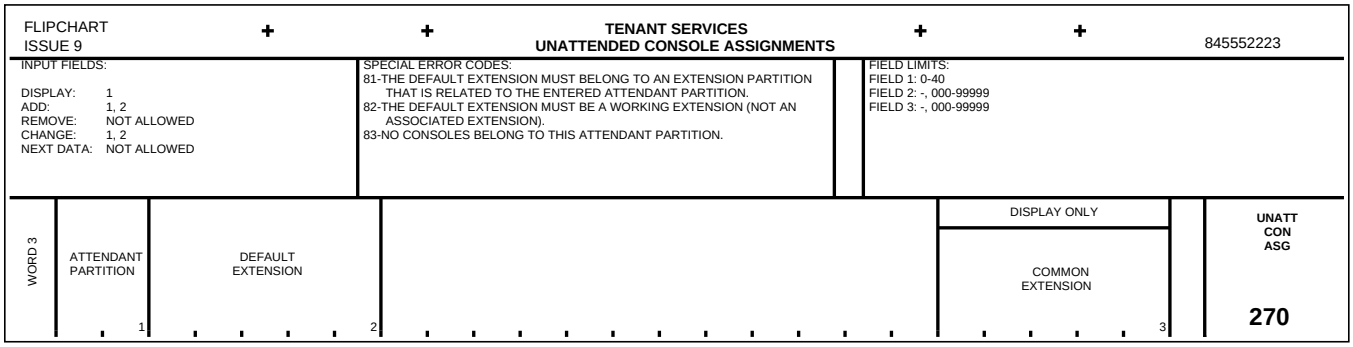
Related Procedures

Use Procedure 276 Word 1 to enable the Tenant Services feature (field 6).

Use Procedure 270 Words 1, 2, 4, and 5 to administer other Tenant Services parameters.

Use Procedure 320 Words 2 and 3 to administer ARS call categories to partitions.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1 and 2.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Attendant Partition — 0-40

2. Default Extension — -, 000-99999

   The default extension must be a working primary extension and must also belong to an extension partition in Procedure 000 Word 4 that is assigned to the entered attendant partition.

DISPLAY ONLY (Field 3)

3. Common Extension — -, 000-99999

Special Error Codes

81 - The default extension must belong to an extension partition that is related to the entered attendant partition.

82 - The default extension must be a working primary extension (not an associated extension).

83 - No consoles belong to this attendant partition.

Procedure 270 Word 4 — Tenant Services - Listed Directory Numbers

137

Purpose

Use Procedure 270 Word 4 to administer an attendant partition to a listed directory number (LDN). This LDN is used by callers outside the switch to access the attendant consoles assigned to an attendant partition. One attendant partition may have several LDNs, but an LDN cannot be used for two attendant partitions.

Prerequisite Procedures

Use Procedure 204 Word 1 to administer an LDN before assigning the LDN to an attendant partition in this procedure.

Use Procedure 210 Word 2 to assign an attendant partition to a console before assigning the attendant partition in this procedure.

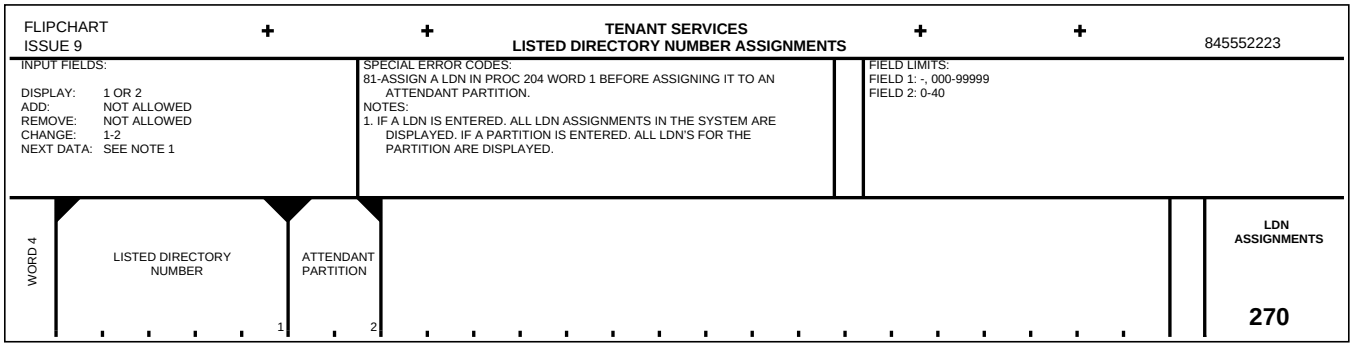
Related Procedures

Use Procedure 276 Word 1 to enable the Tenant Services feature (field 6).

Use Procedure 270 Words 1-3 and 5 to administer other Tenant Services parameters.

Use Procedure 320 Words 2 and 3 to administer ARS call categories to partitions.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or field 2.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	If an LDN is entered, it displays all LDN assignments in the system. If a partition is entered, it displays all LDNs for the partition.

Field Ranges and Encodes

1. Listed Directory Number -, 000-99999

2. Attendant Partition -, 0-40

Special Error Codes

81 - Assign an LDN in Procedure 204 Word 1 before assigning it to an attendant partition.

Procedure 270 Word 5 — Tenant Services - Trunk Groups

138

Purpose

Use Procedure 270 Word 5 to administer the association of a trunk group with one or more extension partitions or attendant partitions. Only trunk types 12-50, 70-78, 103-109, and 120 are partitionable. These trunks are assigned in Procedure 100 Word 1. They are used by members of an extension partition for access to and from the public network and private networks.

Related Procedures

Use Procedure 276 Word 1 to enable the Tenant Services feature (field 6).

Use Procedure 000 Word 4 to administer extensions to extension partitions.

Use Procedure 270 Words 1-4 to administer other Tenant Services parameters.

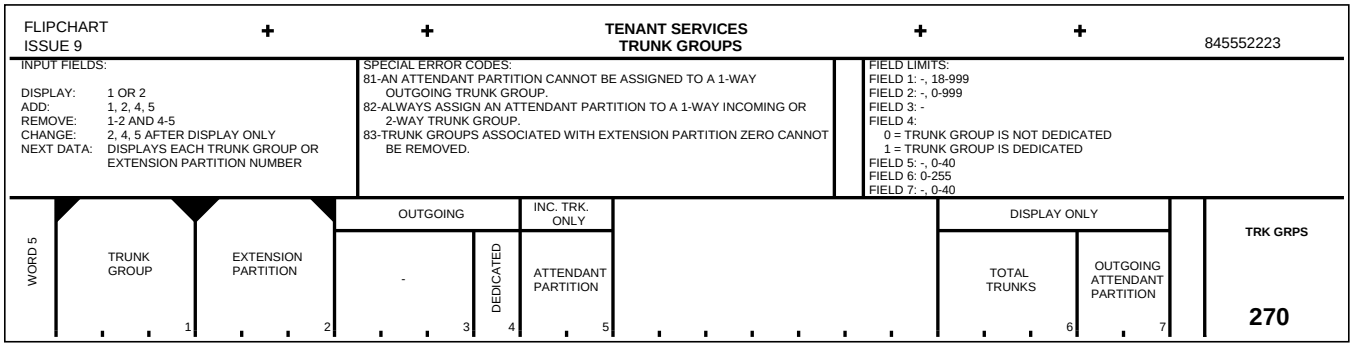
Use Procedure 282 Word 1 to administer authorization codes for an extension partition.

Use Procedure 320 Words 2 and 3 to administer ARS call categories to partitions.

Cautions

If the trunk type of a trunk group is changed in Procedure 100 Word 1, a change may be required for that trunk group in this procedure. This ensures correct partitioning translations.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1 or field 2.
Add: Fields 1, 2, and 4 for outgoing and two-way trunks. Fields 1, 2, 4, and 5 for incoming-only trunks.
Change: Fields 2, 4, and 5 (after display only).
Remove: Fields 1, 2, 4, and 5.
Next Data: Displays each trunk group or extension partition number.

Field Ranges and Encodes

1. Trunk Group -, 18-999

2. Extension Partition -, 0-999

OUTGOING OR 2-WAY TRUNK (Fields 3-4)

4. Dedicated or Shared
   - \- Incoming only (must have data in field 5)
   - 0 Outgoing or 2-way shared
   - 1 Outgoing or 2-way dedicated

INCOMING-ONLY TRUNK (Field 5)

5. Attendant Partition -, 0-40

   This attendant partition will use the trunk group in field 1 for incoming calls. Don't put anything in this field if the trunk group is a 1-way outgoing trunk type.

DISPLAY ONLY (Fields 6-7)

6.	Total Trunks	0-255
7.	Outgoing Attendant Partition	-, 0-40 This field displays the outgoing attendant partition associated with a trunk group in field 1 and an extension partition in field 2.

Special Error Codes

81 - An attendant partition cannot be assigned to a 1-way outgoing trunk group.

82 - Always assign an attendant partition to a 1-way incoming or 2-way trunk group.

83 - Trunk groups associated with extension partition zero cannot be removed.

Procedure 275 Word 1 — System COS - AIOD and Other Features 139

Purpose

Use Procedure 275 Word 1 to administer the system Class Of Service (COS) for:

- Automatic Identification of Outward Dialing (AIOD)
- Call Waiting
- Multiappearance voice terminals and data modules
- Paging/Code Calling Access
- Direct Inward Dialing (DID)/Common Control Switching Arrangement (CCSA)
- Duplicated or unduplicated common control
- Music on hold
- Call Detail Recording (CDR)
- Tandem tie trunk
- Trunk-to-trunk call for the Trunk-to-Trunk connection feature
- DCIU
- Cache Memory.

Prerequisite Procedures

Use Procedure 650 Test 2 to busy-out the DCIU before disabling or enabling the DCIU (field 17).

Related Procedures

Use Procedures 051 Word 1 through 070 Word 4 to find multiappearance terminal information.

Use Procedures 110 Word 1 and 111 Word 1 to find tandem tie trunk and trunk-to-trunk restrictions, as well as dial access codes.

The ANI number given in field 4 is used with extensions that do not have the auxiliary ANI number field activated in Procedure 000 Word 2.

When Call Waiting is enabled (field 5 equals 1), attendant call waiting is automatically enabled by software. This places a 1 in field 11 of Procedure 200 Word 1. Call Waiting and Priority Calling (formerly Call Waiting - Originating) are assigned to extensions by class of service.

Cautions

Disabling system call waiting in field 5 disables both attendant and extension Call Waiting. If only attendant call waiting is desired, disable extension Call Waiting using Procedure 010 Word 1.

Flipchart

FLIPCHART
ISSUE 9

SYSTEM COS - AIOD AND OTHER FEATURES

845552223

INPUT FIELDS:

DISPLAY: NONE
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-18
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODE:
87-USE PROC 650 TEST 2 TO BUSY-OUT THE DCIU.
NOTES:
1. ENTER LEADING ZEROS IN FIELD 2 IF SIGNIFICANT. FOR EXAMPLE, IF 04 WAS ENTERED, IT WOULD BE APPENDED TO A TWO-DIGIT NUMBER TO MAKE A VALID FOUR-DIGIT NUMBER (04XX).
2. DISABLING SYSTEM CALL WAITING IN FIELD 5 DISABLES BOTH ATTENDANT AND EXTENSION CALL WAITING. IF ONLY ATTENDANT CALL WAITING IS DESIRED, DISABLE EXTENSION CALL WAITING USING PROC 010 WORD 1.

FIELD LIMITS:
FIELD 1:
- = NOT USED
0 = DISABLED
1 = ENABLED
FIELD 2: -, 0-99
FIELD 3: -, 0-99 (IN 0.1 SECOND INCREMENTS)
FIELD 4: -, 0-9999

WORD 1	AIOD										SMDR/CDR								SYS COS-AIOD & FEATURES
	STATUS 1	PREFIX DIGITS 2	ANI DELAY TIMING 3	AUXILIARY ANI BILLING NUMBER 4	CALL WAITING 5	MULTI APPEARANCE/ DATA MODULE 6	PAGING/CODE CALLING 7	- 8	DID/CCSA/ DIGITS 9	DUPLICATED 10	MUSIC ON HOLD 11	STATUS 12	ACCOUNT CODE LENGTH 13	INCOMING/ OUTGOING CALLS 14	TANDEM TIE TRUNK 15	TRK TO TRK CALLING 16	DCIU 17	CACHE MEMORY 18	275

Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-7 and 9-18.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

AIOD (Fields 1-4)

1. Status
   - 0 Disabled
   - 1 Enabled

2. Prefix Digits

   -, 0-99

   Enter leading zeros in this field if significant. For example, if 04 was entered, it would be appended to a two-digit number to make a valid four-digit number (04XX).

   If no additional digits are required in field 2, use the clear entry command to dash the field.

3. ANI Delay Timing

   -, 0-99 (in 0.1 second increments)

   The data entered in this field is used to provide a time delay for ANI processing in the central office.

4. Aux ANI Trunk Billing Number

   -, 0-9999

   This is the CO billing number applied to any extension that has a 1 administered in Procedure 000 Word 2 field 3. The auxiliary ANI number is used for billing a group of extensions under the same number.

5. Call Waiting
   - 0 Disabled
   - 1 Enabled

6. Multiappearance/Data Module
   - 0 Disabled
   - 1 Enabled

7. Paging/Code Calling
   - 0 Disabled
   - 1 Enabled with audible ringback
   - 2 Enabled with music

9. DID/CCSA Digits
   - 0, 3-5

10. Duplicated
    - 0 Unduplicated common control
    - 1 Duplicated common control

11. Music On Hold
    - 0 Disabled
    - 1 Enabled

    The Music On Hold feature is not administered the same as the Hold feature. Use Procedures 054 Word 3, 100 Word 1, and 150 Word 1 to administer Music On Hold.

CALL DETAIL RECORDING (CDR) (Fields 12-14)

12. Status
    - 0 Disabled
    - 1 Enabled
    - 2 Enabled and account code required for ARS calls

13. Account Code Length
    - -, 1-15

    This field specifies the account code length for both optional and forced entry of account codes. This field cannot be administered with a dash or 0 once an account code has been assigned.

14. Incoming/Outgoing Calls
    - 0 Outgoing calls recorded
    - 1 Incoming and outgoing calls recorded

    This field specifies whether or not incoming and outgoing call data is recorded by CDR.

15. Tandem Tie Trunk
    - 0 Disabled
    - 1 Enabled

    To test a remote trunk (local to this switch, remote to the distant switch), set this field to a 1.

16.	Trunk-Trunk Calling	0 1	Disabled Enabled
			This feature allows a user to connect an incoming or outgoing trunk call to an outgoing trunk.
17.	DCIU	0 1	Disabled Enabled
18.	Cache Memory	0 1	Disabled Enabled

Special Error Codes

87 - Use Procedure 650 Test 2 to busy-out the DCIU.

Procedure 275 Word 2 — System COS - Unattended Console/Remote Access

140

Purpose

Use Procedure 275 Word 2 to administer the system class of service (COS) for the Unattended Console Service and Remote Access features.

Prerequisite Procedures

The extension in field 8 and the attendant-entered common extension must be in the dialing plan. Define the first digit in Procedure 350 Word 1 and the extension in Procedure 354 Word 1 and Procedure 000 Word 1. Field 8 cannot be a vector directory number (VDN).

Use Procedure 270 Word 3 to deactivate the Tenant Services feature before administering field 8 in this procedure.

Related Procedures

When disabling Preselected Call Routing, use encodes 22-25 in Procedure 350 Word 2 to totally disable Unattended Console Service.

Flipchart

FLIPCHART ISSUE 9 — SYSTEM COS - UNATTENDED CONSOLE & REMOTE ACCESS — 845552223

INPUT FIELDS:

DISPLAY: NONE
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-8, 10
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
82-THE CAAVT GONG EQUIPMENT LOCATION (FIELDS 3-7) MUST BE DASHED IF CAAVT IS NOT ACTIVE. FIELDS 3-7 CANNOT BE DASHED IF CAAVT IS ACTIVE.
83-THE DEFAULT EXTENSION (FIELD 8) MUST BE A WORKING PRIMARY EXTENSION (NOT AN ASSOCIATED EXTENSION OR VDN).
84-YOU CANNOT ADMINISTER FIELD 8 WHEN TENANT SERVICES ARE ACTIVE. SEE PROC 270 WORD 3.

FIELD LIMITS:
FIELDS 1, 2, 10:
- = NOT AVAILABLE
0 = DISABLED
1 = ENABLED
FIELD 3: -, 0-30
FIELD 4: -, 0-7
FIELD 5: -, 0-3
FIELD 6: -, 0-3, 5-8, 13-16, 18-21
FIELD 7: -, 0-7
FIELD 8: -, 000-99999
FIELD 9: 000-99999
FIELD 11: 0000-9999

WORD 2	PRESELECTED CALL ROUTING 1	CAAVT STATUS 2	CAAVT GONG EQUIPMENT LOCATION: MODULE 3	CABINET 4	CARRIER 5	SLOT 6	CKT 7	DEFAULT EXTENSION 8	DISPLAY ONLY: COMMON EXTENSION 9	REMOTE ACCESS: SHARED 10	DISPLAY ONLY: BARRIER CODE 11	SYS COS UNATND CNSL SRV
												275

Fields Used or Required for Command Routines

Display: None.
Add: Not allowed.
Change: Fields 1-8 and 10.
Remove: Not allowed. To deactivate service, change the applicable field to zero and fill the gong equipment location fields with dashes.
Next Data: Not allowed.

Field Ranges and Encodes

1. Preselected Call Routing
   0 Disabled
   1 Enabled

2. CAAVT Status
   0 Disabled
   1 Enabled

When 1 is displayed in field 2, the assigned Call Answer Any Voice Terminal (CAAVT) gong equipment location, fields 3 through 7, must be filled before doing a change routine.

When a 0 is displayed in field 2, the assigned CAAVT gong equipment location must be dashed.

CAAVT GONG EQUIPMENT LOCATION (Fields 3-7)

CAAVT gong equipment must be assigned to an available line circuit (SN229). The line circuit selected cannot be used for an extension in Procedure 000 Word 1.

3.	Module	-, 0-30
4.	Cabinet	-, 0-7
5.	Carrier	-, 0-3
6.	Slot	-, 0-3, 5-8, 13-16, 18-21
7.	Circuit	-, 0-7
8.	Default Extension	-, 000-99999 If preselected call routing is activated and the attendant-entered common extension is not assigned, the extension entered in this field is the one that receives all calls during unattended console operation. This field cannot contain a VDN.

DISPLAY ONLY (Field 9)

9.	Common Extension	000-99999 All attendant seeking calls are directed to the extension number displayed in this field during unattended console operation.

REMOTE ACCESS (Fields 10-11)

10.	Sharing	0 Disabled 1 Enabled If a Remote Access trunk group is not shared (this field equals 0), it is dedicated and available at all times. If the Remote Access feature shares trunk circuits with LDN service (this field equals 1), Remote Access is provided only when the system is in Unattended Console Service.

DISPLAY ONLY (Field 11)

11. Barrier Code 0000-9999

The barrier code is the code dialed to permit remote access to system services. This code is created by the attendant.

Special Error Codes

82 - The CAAVT gong equipment location (fields 3-7) must be dashed if CAAVT is not active. Fields 3-7 cannot be dashed if CAAVT is active.

83 - The default extension (field 8) must be a working primary extension (not an associated extension or VDN).

84 - You cannot administer field 8 when Tenant Services is active. See Procedure 270 Word 3.

Procedure 275 Word 3 — System COS - Miscellaneous

141

Purpose

Use Procedure 275 Word 3 to administer the system Class of Service (COS) for:

- Toll call data
- Call Coverage
- Abbreviated Dialing
- Multimachine nodes
- Call Control FRL
- Demand Print password
- Call Detail Recording (CDR) default variable timer
- Terminal dial information
- CDR.

Prerequisite Procedures

Use Procedure 276 Word 1 to enable multipremise (field 2) before specifying number portability in field 7 of this procedure. Also, use Procedure 350 Word 1 to specify five-digit dialing.

Use Procedure 354 Word 2 to remove the node number specification before assigning number portability and Distributed Communications System (DCS).

Related Procedures

Use Procedure 300 Word 1 to administer 0/1 toll nonrestricted codes.

Cautions

Failure to provide a local switch number (field 8) may result in lost messages when using DCS centralized messaging.

The default value for the CDR Calls Blocked field (field 14) is 0. This means that calls trying to access CDR reporting trunk groups are blocked when the switch cannot send CDR records out the PCC port. This is usually caused by a CDR peripheral failure. This field does not affect the SMDR port. If SMDR is used, the switch will not block any calls. See field 14.

Flipchart

FLIPCHART ISSUE 9 — SYSTEM COS - MISCELLANEOUS — 845552223

INPUT FIELDS:

DISPLAY: NONE
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-14
NEXT DATA: NOT ALLOWED

CAUTIONS:
FAILURE TO PROVIDE A LOCAL SWITCH NUMBER (FIELD 8) MAY RESULT IN LOST MESSAGES WHEN USING DCS CENTRALIZED MESSAGING.
SPECIAL ERROR CODES:
81-REMOVE EXTENSION TRANSLATION IN PROC 350 WORD 1.
82-WHEN A LOCAL SWITCH NUMBER IS PROVIDED, THE TYPE MUST BE SPECIFIED IN FIELD 7.
83-THE TYPE (FIELD 7) CANNOT BE SPECIFIED WITHOUT A LOCAL SWITCH NUMBER IN FIELD 8.

84-NUMBER PORTABILITY CAN BE SPECIFIED ONLY IF MULTI-PREMISE AND STANDARD NETWORK ARE SPECIFIED IN PROC 276 WORD 1 AND A 4 OR 5-DIGIT DIAL PLAN IS SPECIFIED IN PROC 350 WORD 1.
85-THE LOCAL SWITCH NUMBER IN FIELD 8 IS ALREADY ASSIGNED AS A NODE NUMBER; IT MUST FIRST BE REMOVED IN PROC 354.

WORD 3	TOLL CALL DATA		CALL COVERAGE		ABBRV DIAL		MULTI MACHINE NODES											SYSTEM COS-MISCELLANEOUS
	DIAL 1 FOR TOLL 1	HOME NPA 2	CALLER RESPONSE INTERVAL 3	COVERAGE POINT DON'T ANS INTERVAL 4	SYSTEM LIST SIZE 5	SYSTEM LIST ACCESS 6	TYPE 7	SWITCH TYPE 8	CAS MAIN SWITCH NUMBER 9	CALL CONTROL FRL 10	DEMAND PRINT PASSWORD 11	SMDR DEFAULT VARIABLE TIMER 12	TERMINAL DIAL INFORMATION 13	SMDR CALLS BLOCKAGE 14			275

Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-14.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

TOLL CALL DATA (Fields 1-2)

1. Dial 1 For Toll Calls

0	Not required
1	All 10-digit calls using ARS DAC
2	All toll calls using ARS DAC
3	All 10-digit calls using AAR or ARS DAC

2. Home NPA 0-999

CALL COVERAGE (Fields 3-4)

3. Caller Response Interval

0	No interval assigned
1-5	Number of two-second intervals

This period of time begins with a coverage tone that lets the caller make a choice of responses to a call that is being directed to coverage. If this field contains 0, the call goes to coverage immediately after sending the coverage tone.

4. Coverage Point DA Interval

2-6 Ringing cycles

This is the number of ringing cycles that will elapse before a call redirected by Call Coverage goes to the next coverage point.

ABBREVIATED DIALING LISTS (Fields 5-6)

5. System List Size

1	1-9
2	01-99
3	001-999
4	0001-9999

6. System List Access

0	Access is on a per terminal basis
1	Accessible to all users

MULTIMACHINE NODES (Fields 7-9)

7. Switch Type

-	No DCS, no number portability
1	DCS switch number
2	Number portability switch
3	Both DCS and number portability

8. Local Switch Number

-, 1-999

DCS switch numbers are limited to 1-63. Non-DCS switches can be numbered from 1-999.

For AUTOVON, make sure all far end switches have this switch number (field 8) translated in Procedure 305 Word 1 field 1.

9. CAS Main Switch Number
   - No DCS
   0 DCS (no CAS)
   1-40 CAS main switch number

10. Call Control FRL
    0-7 (0 = least restrictive, 7 = most restrictive)

11. Demand Print Password
    0 Not required
    1 Required

    Activation of this field (field 11 = 1) requires terminal users to dial a password before printing out their Leave Word Calling and Message Center messages.

12. CDR Default Variable Timer
    - 6 seconds
    1-99 seconds

    This field should only be used when answer supervision is not used. This field specifies when the call duration clock for CDR is to start. After the called number is dialed, the switch will wait the amount of time specified in this field before the call duration for CDR begins.

13. Terminal Dial Information
    0 Nothing printed
    1 Print info for terminal-dialed calls

14. CDR Calls Blocked
    0 All
    1 If not to atnd
    2 None

    This field is used to block or unblock incoming and outgoing calls that access CDR reporting trunk groups only. Calls are blocked when the switch is unable to send CDR records over the PCC. This is usually because of a failure at the CDR peripheral. This field never blocks calls going out the SMDR port.

Notes

1. It is recommended that the node number be the same number as the RNX number of the switch.

Special Error Codes

81 - Remove extension translation in Procedure 350 Word 1.

82 - When a local switch number is provided, the type must be specified in field 7.

83 - The type (field 7) cannot be specified without a local switch number in field 8.

84 - Number portability can be specified only if multipremise and standard network are specified in Procedure 276 Word 1 (field 1 and 2) and a four/five-digit dialing plan is specified in Procedure 350 Word 1.

85 - The local switch number in field 8 is already assigned as a node number. It must first be removed in Procedure 354 Word 2 .

Procedure 275 Word 4 — System COS - Miscellaneous

142

Purpose

Use Procedure 275 Word 4 to define the following features and arrangements associated with the system:

- The number of digits in Code Calling
- Attendant release loop
- Maximum preemption level
- AUTOVON interface switch
- Automatic Call Distribution (ACD) abandon call search
- Multiple Logical Links (MLL)
- Call Management System (CMS)
- Integrated Services Digital Network (ISDN)
- Administrable alarms.

Prerequisite Procedures

Use Procedure 028 Word 2 to busy out CMS before deactivating it in this procedure.

Related Procedures

Use Procedure 203 Word 1 to assign the AUTOVON buttons to the attendant consoles.

Use Procedure 204 Word 1 to assign AUTOVON precedence identification and ICI.

Use Procedure 305 Words 1 and 2 to assign the AUTOVON destination node.

Use Procedure 350 Words 1 and 2 to assign the AUTOVON dial access code.

Use Procedures 115 Word 1, 150 Word 1, 155 Word 1, 211 Words 1 and 2, 212 Words 1 and 2, 275 Word 3, and 286 Word 1 to administer CAS.

Flipchart

FLIPCHART ISSUE 9 — SYSTEM COS - MISCELLANEOUS — 845552223

INPUT FIELDS:

DISPLAY: NONE
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-17
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
86-TIMED RECALL (FIELD 5) IS MEASURED IN EVEN-NUMBERED SECONDS, 0-98.
87-CMS MUST BE BUSIED OUT USING PROC 028 WORD 2 BEFORE DISABLING CMS HERE.
88-REMOVE ALL REMOTE ACCESS TRUNK GROUPS FROM PROC 100 BEFORE DISABLING THIS FEATURE.
89-REMOTE ACCESS CANNOT BE ENABLED. PLEASE CALL YOUR AT&T SALES REPRESENTATIVE.

NOTES:
1. FIELD 3 MUST BE 1 IF THIS IS A CAS BRANCH LOCATION.
2. FOR PRECEDENCE CALLING FIELD 7 SHOULD ALWAYS CONTAIN A 0 (FLASH OVERRIDE).
3. IF THIS SWITCH IS AN AUTOVON INTERFACE SWITCH, THEN FIELD 10 IS THE SAME AS FIELD 18.

WORD 4	CODE CALL DIGITS 1	DISABLE REMOTE ACCESS 2	TRUNK TRANSFER 3	ATTENDANT RELEASE LOOP: STATUS 4	ATTENDANT RELEASE LOOP: TIMED RECALL TIMER 5	DEFAULT RECENT DISCONNECT INTERVAL 6	MAX PREEMPTION LEVEL: ALL INCOMING 7	MAX PREEMPTION LEVEL: OUTGOING: TERMINAL 8	MAX PREEMPTION LEVEL: OUTGOING: ATTENDANT 9	AUTOVON INTER-FACE SWITCH 10	ACD ABANDON CALL SEARCH 11	VECTOR HOLD 12	CMS STATUS 13	ISDN STATUS 14	ADMINISTRABLE ALARMS: EVEN PORT PERIPHERALS 15	ADMINISTRABLE ALARMS: TRUNK SOFTWARE 16	ADMINISTRABLE ALARMS: AUXILIARY SOFTWARE 17	DISPLAY ONLY: LOCAL SWITCH NUMBER 18	SYSTEM COS-MISCELLANEOUS
																			275

Fields Used or Required for Command Routines

Display: None.
Add: Not allowed.
Change: Fields 1, 3-17.
Remove: Not allowed.
Next Data: Not allowed.

Field Ranges and Encodes

1. Code Calling Access Digits
   - 0 Disabled
   - 2 2-digit called party code
   - 3 3-digit called party code

2. Disable Remote Access
   - 0 Remote access enabled
   - 1 Remote access disabled

   The Remote Access feature applies to incoming trunk calls. Trunk types are administered in Procedure 100 Word 1.

3. Trunk-to-Trunk Transfer
   - 0 Disabled
   - 1 Enabled

   Field 3 must contain a 1 if this is a CAS branch location.

ATTENDANT RELEASE LOOP OPERATION (Fields 4-5)

4. Status
   0 Disabled
   1 Enabled

   The Attendant Release Loop Operation feature applies to incoming trunk calls going to a station on this switch.

5. Timed Recall Timer
   0-98 (even numbered seconds)

   When this time expires, the switch activates an idle loop light telling the attendant that the call is still ringing at the station.

6. Default Recent Disconnect Interval
   1-511 (days)

MAXIMUM PREEMPTION LEVEL (Fields 7-9)

- \- Disabled
- 0 Flash override
- 1 Flash
- 2 Immediate
- 3 Priority
- 4 Routine

7. All Incoming
   -, 0-4

   For Precedence Calling, field 7 should always contain a 0 (flash override).

8. Outgoing Terminal
   -, 0-4

9. Outgoing Attendant
   -, 0-4

10. AUTOVON Interface Switch
    -, 1-40

    If this switch is an AUTOVON interface switch, then field 10 is the same as field 18.

11.	ACD Abandon Call Search	0 1	Not executed on CO disconnect Executed on CO disconnect
12.	Vector Hold	0 1	Not allowed Allowed
13.	CMS Status	0 1	Disabled Enabled
14.	ISDN Status	0 1	Disabled Enabled

ADMINISTRABLE ALARMS (Fields 15-17)

15.	Even Port Peripherals	- 0 1 2	Not available Enabled (default) Disabled Terminal alarming enabled
16.	Trunk Software	- 0 1	Not available Enabled (default) Disabled
17.	Auxiliary Software	- 0 1	Not available Enabled (default) Disabled

DISPLAY ONLY (Field 18)

18.	Local Switch Number	1-999 If this switch is an AUTOVON interface switch, then field 18 is the same as field 10.	

Special Error Codes

86 - Timed recall (field 5) is measured in even-numbered seconds, 0-98.

87 - CMS must be busied out using Procedure 028 Word 2 before disabling CMS here.

88 - Remove all Remote Access trunk groups from Procedure 100 before disabling this feature.

89 - If Remote Access cannot be enabled please call your AT&T sales representative.

Procedure 276 Word 1 — Feature Group Class of Service

143

Purpose

Use Procedure 276 Word 1 to administer feature group permissions for access by the customer. Only certain system management agents can change the permissions in this procedure.

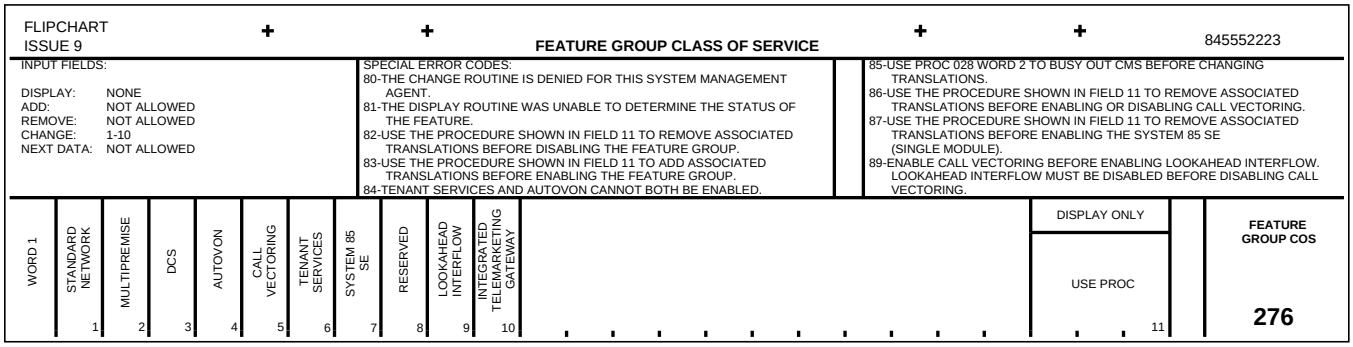
Prerequisite Procedures

Use Procedure 104 Words 1 and 2 to add or remove translation for multipremise before enabling or disabling multipremise in this procedure.

Use Procedure 257 Words 1-4 and Procedure 275 Word 1 to add or remove DCS from DCIU translations before enabling or disabling DCS in this procedure.

Use Procedure 321 Words 1-5 to add or remove standard network translations before enabling or disabling standard network in this procedure.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-10.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Standard Network

0	Disabled
1	Enabled

This field enables and disables AAR/ARS for the system class of service.

2. Multipremise

0	Disabled
1	Enabled

3. DCS

0	Disabled
1	Enabled

4. AUTOVON

0	Disabled
1	Enabled

5. Call Vectoring
   0 Disabled
   1 Enabled

   When disabled, Call Vectoring translations are not removed from the system, but they will no longer be accessed.

6. Tenant Services
   0 Disabled
   1 Enabled

   When disabled, the Tenant Services translations are not removed from the system, but they will no longer be accessed.

7. System 85 SE
   0 Disabled
   1 Enabled

   System 85 SE (single module) is not available at this time.

9. Look-Ahead Interflow
   0 Disabled
   1 Enabled

   Call Vectoring must be enabled before enabling Look-Ahead Interflow.

10. Integrated Telemarketing Gateway
    0 Disabled
    1 Enabled

    ISDN/PRI must be administered in order for this feature to work correctly.

    ISDN/ITG translations are not automatically removed when this field is disabled.

    The ITG requires a special trunk type and signaling type. See the System 85 R2V4 Administration of Features and Hardware (555-103-507) manual.

DISPLAY ONLY (Field 11)

11. Use Procedure	104	to remove translation for multipremises
	257	to remove DCS from DCIU
	275	to add or remove DCS
	305	to remove precedence capable trunks
	321	to remove translation for standard network

Special Error Codes

80 - The change routine is denied for this system management agent.

81 - The display routine was unable to determine the status of the feature.

82 - Use the procedure displayed in field 11 to remove associated translations before disabling the feature group.

83 - Use the procedure displayed in field 11 to add associated translations before enabling the feature group.

84 - Tenant Services and AUTOVON cannot both be enabled.

85 - Use Procedure 028 Word 2 to busy out CMS before changing translations.

86 - Use the procedure displayed in field 11 to remove associated translations before enabling or disabling Call Vectoring.

87 - Use the procedure displayed in field 11 to remove associated translations before enabling System 85 SE (single module).

89 - Call Vectoring must be enabled before enabling Look-Ahead Interflow. Look-Ahead Interflow must be disabled before disabling Call Vectoring.

Procedure 277 Word 1 — Assign Agents to a Set

144

Purpose

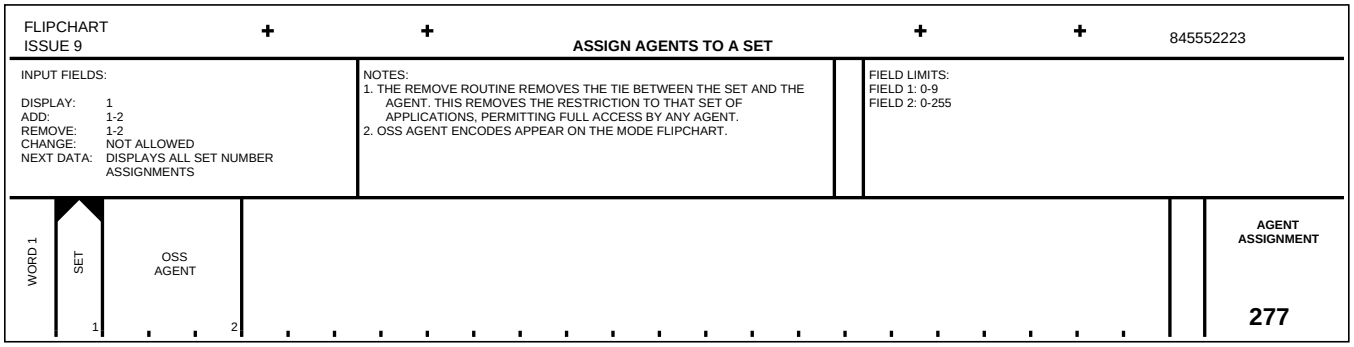
Use Procedure 277 Word 1 to administer operational support system (OSS) agents to a set. When an agent is assigned to a set in this procedure, the agent is only allowed to use the procedures and applications assigned to that set in Procedure 277 Word 2.

Agents that are not assigned to sets are allowed full access to all procedures and applications except for those procedures and applications that are assigned to a set and can only be accessed by certain agents. Any agent trying to access a restricted procedure or application will receive Standard Error Code 77 (Access denied - see Procedure 277).

Related Procedures

Use Procedure 277 Word 2 to assign procedures and applications to a set.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1 and 2.
Change:	Not allowed.
Remove:	Fields 1 and 2.
Next Data:	Displays all set number assignments.

Field Ranges and Encodes

1. Set Number 0-9

2. OSS Agent

1	MAAP
2	RMATS I
3	RMATS II
4	INADS - green
5	INADS - red
6	Remote Carrier Group maintenance
7	TRACS
8	SHARP
9	SHOPS
10	Run tape
11	Delayed termination
12	EMAP
13	VMAAP - Visual MAAP
14	Park tape
15-29	Other
30-59	AP 16
60	CSM-TELCO
61-69	CSM-Customer
70-79	Spare
80	LMAAP

81-99	Spare
100	Translation audit
101-255	Spare

Notes

1. The remove routine removes the tie between the set and the agent. This removes the restriction to that set of applications, permitting full access by any agent.

Special Error Codes

None.

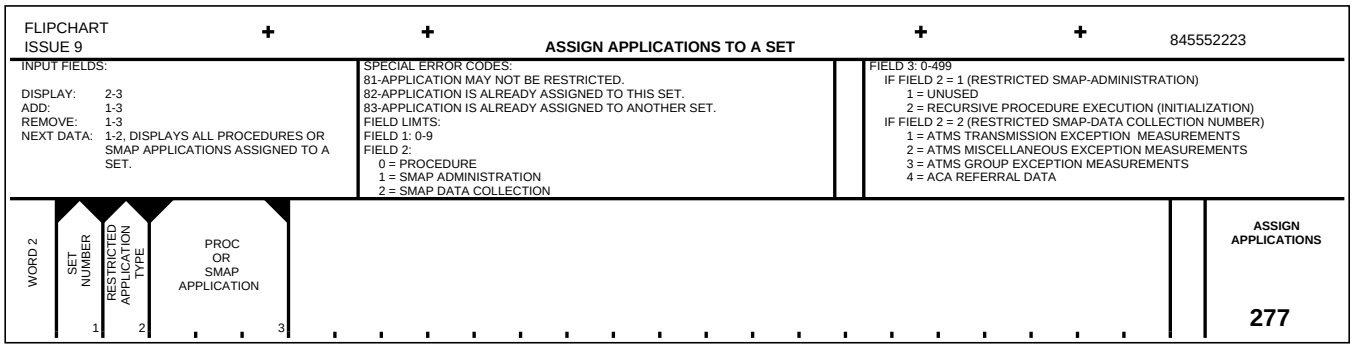
Procedure 277 Word 2 — Assign Applications to a Set

145

Purpose

Use Procedure 277 Word 2 to administer procedures or system management application protocol (SMAP) applications to a set number. The set is associated with agents in Procedure 277 Word 1. Only agents assigned to a set can access the procedures and applications assigned to the set.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 2 and 3.
Add:	Fields 1-3.
Change:	Not allowed.
Remove:	Fields 1-3.
Next Data:	Displays all procedures or SMAP applications assigned to a set.

Field Ranges and Encodes

1. Set Number — 0-9

2. Type of Restricted Application
   - 0 Procedure
   - 1 SMAP administration
   - 2 SMAP data collection

3. Procedure or SMAP Application — 0-499

   Any leading zeros entered in field 3 are removed from the display (e.g., entering 054 only displays 54).

   If the type of restricted application is a procedure (field 2 = 0), the procedure number will be displayed in this field. Other encodes for this field are:

   If field 2 = 1 (Restricted SMAP-Administration)

   Field 3 = 1 (Unused)

   Field 3 = 2 (Recursive procedure execution-initialization)

   If field 2 = 2 (Restricted SMAP-Data collection number)

   Field 3 = 1 (ATMS transmission exception measurements)

   Field 3 = 2 (ATMS miscellaneous exception measurements)

   Field 3 = 3 (ATMS group exception measurements)

   Field 3 = 4 (ACA referral data)

Notes

1. The remove routine removes an application from a set. This removes the restriction from that application allowing any agent full access.
2. Each application can be assigned to only one set number.

Special Error Codes

81 - This application may not be restricted.

82 - This application is already assigned to this set.

83 - This application is already assigned to another set.

Procedure 277 Word 3 — History of Recent Changes

146

Purpose

Use Procedure 277 Word 3 to display the 16 most recent changes made on a given agent, procedure, and set number assignment.

Flipchart

FLIPCHART
ISSUE 9

HISTORY OF RECENT CHANGES

845552223

INPUT FIELDS:

DISPLAY: NONE
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: NOT ALLOWED
NEXT DATA: DISPLAY THE 16 MOST RECENT CHANGES MADE TO PROC 277

NOTES:
1. EITHER FIELDS 3 AND 4 WILL BE SET (INDICATING WORD 2 CHANGED) OR FIELD 5 WILL BE SET (INDICATING WORD 1 CHANGED) BUT NEVER ALL THREE.

FIELD LIMITS:
FIELD 1: 1-16
FIELD 2: 0-9
FIELD 3: TYPE OF RESTRICTED APPLICATION
0 = PROCEDURE
1 = SMAP ADMINISTRATION
2 = SMAP DATA COLLECTION
FIELD 4: 0-499
FIELD 5: 0-255

WORD 3	HISTORY INDEX 1	SET NUMBER 2	RESTRICTED APPLICATION TYPE 3	PROC OR SMAP APPLICATION 4	AGENT AFFECTED BY THE CHANGE 5	ROUTINE 6	DATE THE CHANGE OCCURRED: MONTH 7	DAY 8	HOUR 9	MINUTE 10	AGENT THAT MADE CHANGE 11			HISTORY
														277

Fields Used or Required for Command Routines

Display: None.
Add: Not allowed.
Change: Not allowed.
Remove: Not allowed.
Next Data: Displays the 16 most recent changes made to Procedure 277 Words 1 and 2.

Field Ranges and Encodes

1.	History Index	1-16	
2.	Set Number	0-9	
3.	Type of Restricted Application	0	Procedure
		1	SMAP - administration
		2	SMAP - data collection
4.	Procedure or SMAP Application	0-499	
5.	Agent Affected by the Change	1	MAAP
		2	RMATS I
		3	RMATS II
		4	INADS - green
		5	INADS - red
		6	Remote Carrier Group maintenance
		7	TRACS
		8	SHARP
		9	SHOPS
		10	Run tape
		11	Delayed termination
		12	EMAP
		13	VMAAP - Visual MAAP
		14	Park tape
		15-29	Other
		30-59	AP 16
		60	CSM-Telco
		61-69	CSM-Customer
		70-79	Spare
		80	LMAAP
		81-89	Spare
		100	Translation audit
		101-255	Spare
6.	Routine	1	Remove
		2	Add
		3	Change

DATE CHANGE OCCURRED (Fields 7-10)

7.	Month	1-12	change was made
		99	Clock is invalid
8.	Day	1-31	of the month change was made
		99	Clock is invalid
9.	Hour	0-23	of the day change was made
		99	Clock is invalid
10.	Minute	0-59	of the hour change was made
		99	Clock is invalid
11.	Agent That Made Change	1	MAAP
		2	RMATS I
		3	RMATS II
		4	INADS - green
		5	INADS - red
		6	Remote Carrier Group maintenance
		7	TRACS
		8	SHARP
		9	SHOPS
		10	Run tape
		11	Delayed termination
		12	EMAP
		13	VMAAP - Visual MAAP
		14	Park tape
		15-29	Other
		30-59	AP 16
		60	CSM-Telco
		61-69	CSM-Customer
		70-79	Spare
		80	LMAAP
		81-89	Spare
		100	Translation audit
		101-255	Spare

Notes

1. Fields 3 and 4 will be set (indicating Procedure 277 Word 2 changed) or field 5 will be set (indicating Procedure 277 Word 1 changed).

2. If the type of restricted application is a procedure (field 3 = 0), the procedure number will be displayed in field 4. Field 4 encodes can also be:

   If field 3 = 1 (Restricted SMAP-Administration)

   Field 4 = 1 (Unused)
   Field 4 = 2 (Recursive procedure execution-initialization)

   If field 3 = 2 (Restricted SMAP-Data collection number)

   Field 4 = 1 (ATMS transmission exception measurements)
   Field 4 = 2 (ATMS miscellaneous exception measurements)
   Field 4 = 3 (ATMS group exception measurements)
   Field 4 = 4 (ACA referral data)

Special Error Codes

None.

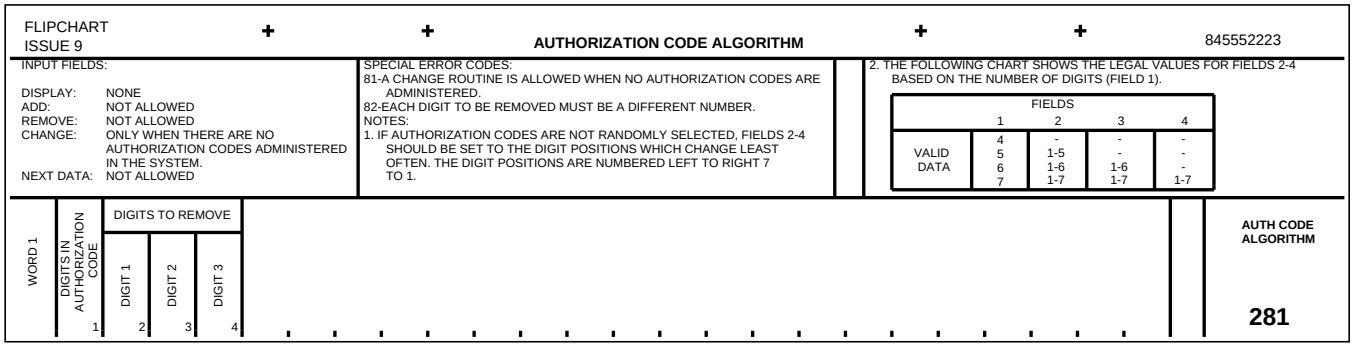
Procedure 281 Word 1 — Authorization Code Algorithm

147

Purpose

Use Procedure 281 Word 1 to administer the parameters used to store Authorization Codes.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-4 (only when there are no authorization codes administered in the system).
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Digits in Authorization Codes — 4-7

DIGITS TO REMOVE (Fields 2-4)

2. Digit 1 — -, 1-7
3. Digit 2 — -, 1-7
4. Digit 3 — -, 1-7

Notes

1. If authorization codes are not randomly selected, set fields 2-4 to the digit positions which change least often (the digit positions are numbered left to right 7 through 1).

   Example: If all authorization codes are of the form XXXX524, where X is a number 0-9, then the data entered in this procedure should be 7, 3, 2, 1. If six digit authorization codes are used, and they are of the form 34XXXX, then the data entered in this procedure should be 6, 6, 5, -. If authorization codes are chosen randomly, fields 2-4 should not be changed.

   By identifying what digits do not change, you can save space on storing the authorization codes.

2. The following chart shows the legal values for fields 2-4 based on the number of digits (field 1).

FIELDS			
1	**2**	**3**	**4**
4	-	-	-
5	1-5	-	-
6	1-6	1-6	-
7	1-7	1-7	1-7

Special Error Codes

81 - A Change routine is allowed only when no authorization codes are administered.

82 - Each digit to be removed (fields 2-4) must be a different number.

Procedure 282 Word 1 — Authorization Code Parameters

148

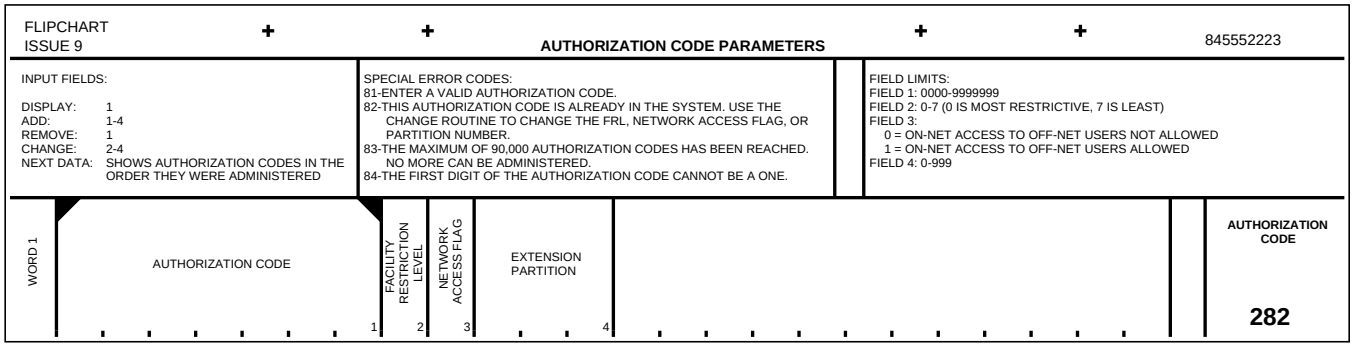
Purpose

Use Procedure 282 Word 1 to administer the facility restriction level (FRL), network access flag, and extension partition associated with a single authorization code.

Cautions

Any errors made in administering the authorization codes may result in unwanted access to or restriction from system features.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-4.
Change:	Fields 2-4.
Remove:	Fields 1-4.
Next Data:	Shows authorization codes in random order.

Field Ranges and Encodes

1.	Authorization Code	0000-9999999 A maximum of 90,000 authorization codes can be administered. A valid authorization code cannot begin with the number 1.	
2.	Facility Restriction Level	0-7 (0 being most restrictive, 7 being least restrictive)	
3.	Network Access Flag	0 1	On-net access to off-net users not allowed On-net access to off-net users allowed Use the network access flag only for calls involving an incoming trunk.
4.	Extension Partition	0-999	

Special Error Codes

81 - Enter a valid authorization code.

82 - This authorization code is already in system. Use the change routine to change the FRL, network access flag, or extension partition.

83 - The maximum of 90,000 authorization codes has been reached. No more can be administered.

84 - The first digit of an authorization code cannot be 1.

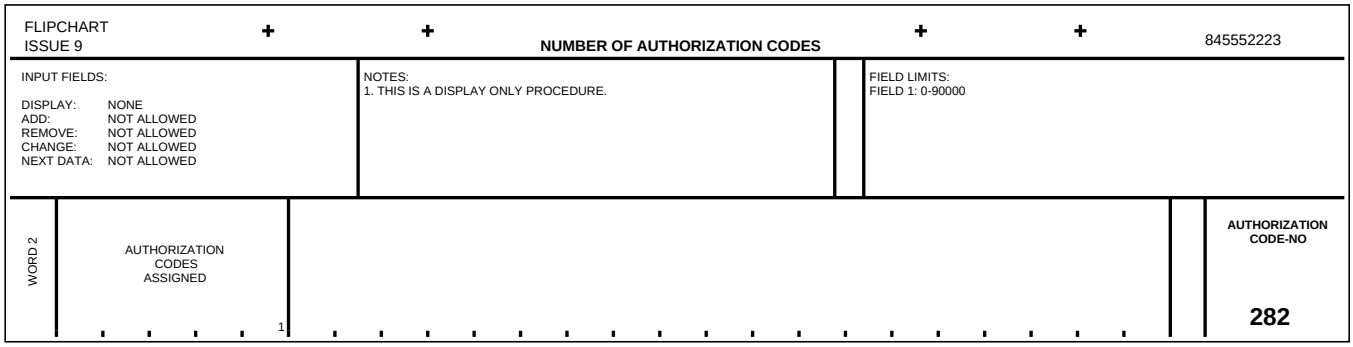
Procedure 282 Word 2 — Number of Authorization Codes

149

Purpose

Use Procedure 282 Word 2 to display the number of Authorization Codes in the system.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	Authorization Codes Assigned	00000-90000

Special Error Codes

None.

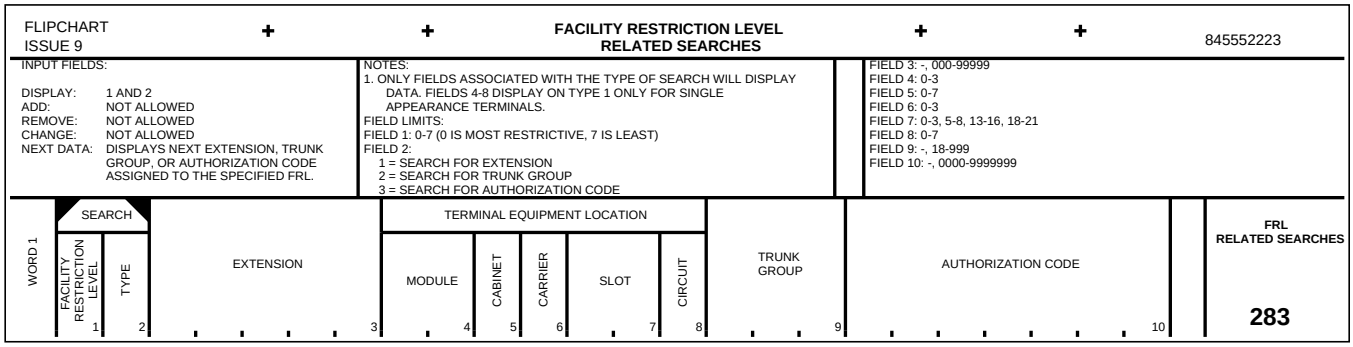
Procedure 283 Word 1 — Facility Restriction Level Related Searches

150

Purpose

Use Procedure 283 Word 1 to display all extensions, trunk groups, or Authorization Codes assigned a specific facility restriction level (FRL).

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays the next extension, trunk group, or authorization code assigned to the specified FRL.

Field Ranges and Encodes

SEARCH CRITERIA (Fields 1-2)

1.	FRL	0-7 (0 being most restrictive, 7 being least restrictive)	
2.	Type	1	Search for extension
		2	Search for trunk group
		3	Search for authorization code
3.	Extension	-, 000-99999	

TERMINAL EQUIPMENT LOCATION (Fields 4-8)

4.	Module	0-30
5.	Cabinet	0-7
6.	Carrier	0-3
7.	Slot	0-3, 5-8, 13-16, 18-21
8.	Circuit	0-7
9.	Trunk Group	-, 18-999
10.	Authorization Code	-, 0000-9999999

Notes

1. Search type encodes 1, 2, and 3 (field 2) correspond to fields 3-10 as follows:
   a. Searching on encode 1 will display extensions in field 3 and equipment locations for those extensions in fields 4-8.
   b. Searching on encode 2 will display trunk groups in field 9.

c. Searching on encode 3 will display authorization codes in field 10.

2. Test lines are displayed last in the extension search. The test line equipment location is displayed but the extension field contains dashes.
3. For multiappearance terminals, the extension is displayed but the equipment location fields contain dashes.
4. The search for extensions start with the lowest numbered extension. The search for trunk groups start with the lowest numbered trunk group. Authorization codes are displayed in random order.

Special Error Codes

None.

Procedure 284 Word 1 — System Clock

151

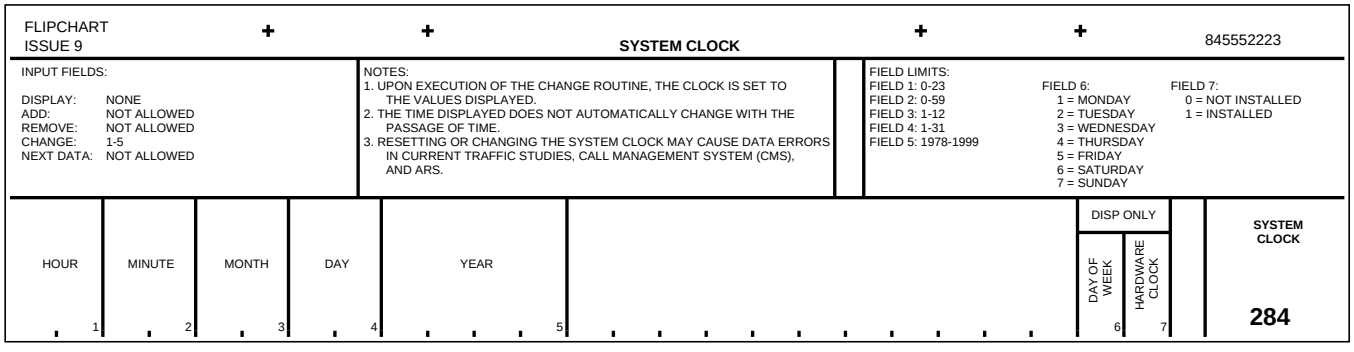
Purpose

Use Procedure 284 Word 1 to administer the hour, minute, month, day, and year of the system clock. The system clock is used for Automatic Route Selection (ARS) plan switching, traffic studies, Call Detail Recording (CDR), and Force Administration Data System (FADS). Procedure 284 Word 1 displays the day of the week and the presence or absence of the translation for the system hardware clock synchronizer circuit (TN463).

Cautions

Resetting or changing the clock may cause data errors in traffic studies, Call Management System (CMS), and ARS.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-5.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1.	Hour	0	Midnight
		12	Noon

The system clock uses military time, thus 0 = midnight and 12 = noon. For example, military time for 10:00 pm is 2200 hours.

2.	Minute	0-59
3.	Month	1-12
4.	Day	1-31
5.	Year	1978-2099

DISPLAY ONLY (Fields 6-7)

6.	Day of Week	1	Monday
		2	Tuesday
		3	Wednesday
		4	Thursday
		5	Friday
		6	Saturday
		7	Sunday
7.	Hardware Clock	0	Not installed
		1	Installed

Notes

1. Upon execution of the change routine, the clock is set to the values displayed.
2. The time displayed does not automatically change with the passage of time.
3. Changing the system clock may cause data errors in current traffic studies and CMS.

Special Error Codes

None.

Procedure 285 Word 1 — System COS - Network

152

Purpose

Use Procedure 285 Word 1 to administer the system class of service (COS) features and capabilities for the network. The following translation items are affected:

- Remote access code required
- Number of digits in the location code (part of the network uniform numbering plan)
- Number of extension digits (part of the network uniform numbering plan)
- Automatic Circuit Assurance (ACA) enable
- Symmetrical routing depth
- Account code prefix digit
- Reserved digit
- Designated extension for trunk verification by terminal (TVT)
- Remote maintenance extension for TVT
- Authorization code enabled for Automatic Alternate Routing (AAR) and Automatic Route Selection (ARS)
- AAR dial tone suppression.

Prerequisite Procedures

Use Procedure 276 Word 1 to activate the standard network feature group before using Extension Number Portability.

Place the TVT access code in the dialing plan using Procedure 350 Words 1 and 2 before using this procedure. Also associate the designated extension number and the remote maintenance terminal number with a terminal extension number using Procedure 000 Word 1.

Use Procedure 115 Word 1 to remove remote access trunk group termination before changing from speaker verification.

Related Procedures

Use Procedure 286 Word 1 to administer other network system COS features. Field 4 of this procedure and field 1 of Procedure 286 Word 1 must display ‘‘1’’ for the ACA feature to be active.

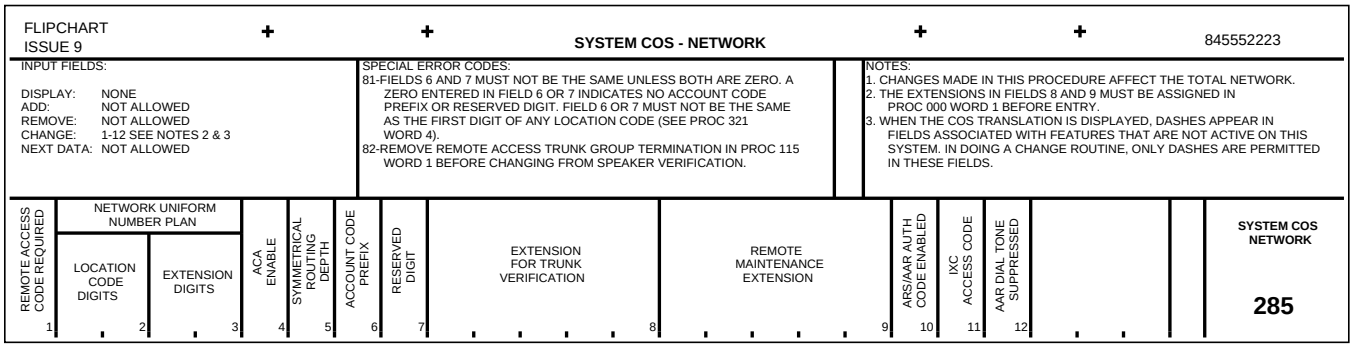
Use Procedure 309 Words 1-5 to administer ARS features.

Use Procedure 321 Words 1-5 to administer AAR features.

Cautions

Changes made in this procedure affect the total network.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-12.
Remove:	Not allowed. To remove extensions in fields 8 and 9, do a "clear entry" and use the change routine.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Remote Access Code Required

0	No barrier code required
1	Barrier code required
2	AAR/ARS authorization code required
3	Speaker verification required

If this field is set to 0, AAR/ARS is not required for remote access. If this field is set to 1, AAR/ARS is required for remote access.

NETWORK UNIFORM NUMBERING PLAN (Fields 2-3)

2. Location Code Digits

-, 0, 2-3

This is the number of digits in the location code of the AAR uniform network numbering plan. Do not change this value unless absolutely necessary. This affects the translations in Procedure 321 Word 4.

3. Extension Digits

-, 0, 2-4

This is the number of extension digits in the network uniform numbering plan (AAR).

4. ACA Enable

0	Disabled for all trunk groups
1	Enabled for all valid trunk groups

5. Symmetrical Routing Depth

0	Hierarchical routing
1-9	Symmetrical routing pattern depth

For incoming calls over intertandem tie trunks where the AAR feature is selecting an outgoing preference, an ETN tandem switch checks the symmetrical routing depth. If this field is set to 0, the switch will always check whether every preference has been checked. If this field is set to 1-9, the switch compares the current preference being used to the value assigned in this field. If the current preference is *less than or equal to* the value in this field, the switch will check the next preference in the pattern. If the current preference is *greater than* the value in this field, the switch will continue processing the call as if all preferences were checked.

6. Account Code Prefix

-, 0, 2-9

This is the account code prefix digit for CDR/SMDR when used with AAR access. This digit cannot be the same as the first digit of any RNXs administered in Procedures 312 Words 1 and 2, 321 Word 4, or 354 Word 2.

7. Reserved Digit

0 No digit
2-9 For AAR access

The reserved digit is not currently used in the System 85 switch. This digit cannot be the same as the first digit of any RNXs administered in Procedures 312 Words 1 and 2, 321 Word 4, or 354 Word 2.

8. Extension For Trunk Verification

-, 000-99999

This extension can access trunks even if they have dial access restriction in Procedure 100 Word 1.

9. Remote Maintenance Extension

-, 000-99999

10. ARS/AAR Authorization Codes

0 Disabled
1 Enabled

When a 2 is entered in field 1 (remote access code required), this field must be enabled (1).

11. IXC Access Code	0	5- and 7-digit IXCs
	1	All IXCs are 7 digits

The first three or four digits of a dialed IXC access code determine its length, as follows:

leading digits	length
1010...	7
1015...	7
1016...	7
101y...	5 or 7
10z...	5 or 7

where y=1, 2, 3, 4, 7, 8 or 9
z=any digit except 1

If field 11 is set to 0, then 10z and 101y IXCs are considered to be 5 digits in length. If set to 1, then 10z and 101y IXCs are considered to be 7 digits in length. 1010, 1015, and 1016 IXCs are always 7 digits in length.

12. AAR Dial Tone	0	Not suppressed
	1	Suppressed

Notes

1. The extensions in fields 8 and 9 must be assigned in Procedure 000 Word 1 before entering them here.
2. When the COS translation is displayed, dashes appear in the fields associated with features that are not active on this system. In doing a change routine, only dashes are permitted in these fields.
3. Valid encodes for the account code prefix and reserved digit (fields 6 and 7), other than zero, cannot be the same. Zeros are permitted in the change sequence in fields 6 and 7 to indicate that there are no charge-code prefix and no reserved digit.

Special Error Codes

81 - Fields 6 and 7 must not be the same unless both are zero. A zero entered in field 6 or 7 indicates no account code prefix or reserved digit. Field 6 or 7 must not be the same as the first digit of any location code (see Procedure 321 Word 4).

82 - Remove remote access trunk group termination in Procedure 115 Word 1 before changing from speaker verification.

Procedure 286 Word 1 — Customer Change System COS - Network

153

Purpose

Use Procedure 286 Word 1 to administer the following system class of service (COS) features for the network:

- Automatic Circuit Assurance (ACA)
- Alternate Facilities Restriction Level (FRL)
- Automatic Route Selection (ARS) routing plan
- Ineffective attempts recorded by Call Detail Recording (CDR)
- Remote access to attendant.

Prerequisite Procedures

Features associated with the fields of this procedure must be included in the customer's system before the fields can be used.

Related Procedures

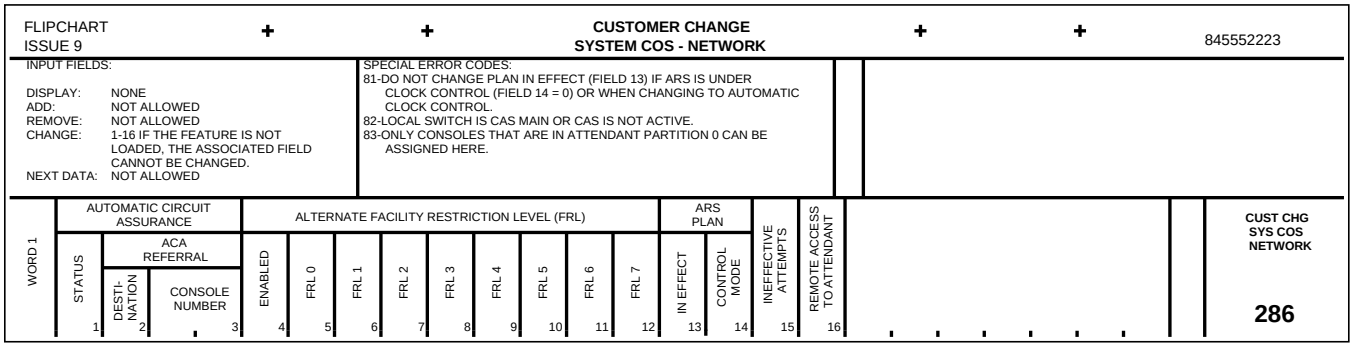
Use Procedure 285 Word 1 for other network system COS items.

Both field 1 of this procedure and field 4 of Procedure 285 Word 1 must have ones for the ACA feature to be active.

Cautions

Translation changes made using this procedure affect the entire network. Errors could seriously hamper network trunking.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-16. If the feature is not loaded, the associated field cannot be changed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

AUTOMATIC CIRCUIT ASSURANCE (ACA) (Fields 1-3)

1. Status
   - 0 Not active on any trunk group
   - 1 Active on all appropriate trunk groups

   Both this field and field 4 of Procedure 285 Word 1 must have ones for the ACA feature to be active.

ACA REFERRAL (Fields 2-3)

The following table shows the type of referral for attendant and consoles numbers based on the data in fields 2 and 3:

Type of referral	Field 2	Field 3
None	0	dash
Local attendant	1	1-40
CAS attendant	1	0
Remote	2	dash

2.	Destination	0	Failures are not referred to attendant
		1	Failures are referred to a local or CAS attendant
		2	Failures are referred to a remote system (e.g., CSM)
3.	Console Number	-	No attendant console, or referred to a remote system
		0	Referrals are directed to CAS main switch
		1-40	Referrals are directed to a local switch attendant

Only consoles assigned to attendant partition 0 can receive ACA referrals. See Procedure 210 Word 2.

ALTERNATE FACILITY RESTRICTION LEVEL (FRL) (Fields 4-12)

4.	Status	0	Disabled
		1	Enabled

Changes to the status are indicated by the state of the alternate FRL key indicators on all consoles.

5.	FRL 0	0-7 (0 being least restrictive, 7 being most restrictive)
6.	FRL 1	0-7 (0 being least restrictive, 7 being most restrictive)
7.	FRL 2	0-7 (0 being least restrictive, 7 being most restrictive)
8.	FRL 3	0-7 (0 being least restrictive, 7 being most restrictive)
9.	FRL 4	0-7 (0 being least restrictive, 7 being most restrictive)
10.	FRL 5	0-7 (0 being least restrictive, 7 being most restrictive)
11.	FRL 6	0-7 (0 being least restrictive, 7 being most restrictive)
12.	FRL 7	0-7 (0 being least restrictive, 7 being most restrictive)

ARS PLAN (Fields 13-14)

Do not change the plan in effect (field 13) if ARS is under automatic clock control (field 14 = 0) or when changing to automatic clock control.

Changes to fields 13 and 14 produce corresponding changes to the CDR/SMDR record. In addition, the code in field 14 effects the state of the route plan key indicators on all consoles. There may be some delay before the indicators change state.

13.	In Effect	1-3	
14.	Control Mode	0	Automatic control of ARS plan in effect
		1	Manual or clocked manual override
15.	Ineffective Attempts	0	Not recorded by CDR/SMDR
		1	Recorded by CDR/SMDR
16.	Remote Access to Attendant	0	Intercept after timeout
		1	Local attendant after timeout
		2	CAS attendant after timeout

Special Error Codes

81 - Do not change the plan in effect (field 13) if ARS is under automatic clock control (field 14 = 0) or when changing to automatic clock control.

82 - Local switch is CAS main or CAS is not active.

83 - Only consoles that are in attendant partition 0 can be assigned here.

Procedure 287 Word 1 — ARS Clocked Manual Override

154

Purpose

Use Procedure 287 Word 1 to administer a clocked manual override or to return to the automatic Control Mode (ARS plan switching schedule). An override schedule can suspend the automatic ARS plan switching schedule. The override only lasts for seven days and is typically used to take advantage of price reduced lines (typically holiday rates) accessible by ARS.

Prerequisite Procedures

Reset the system real-time clock after the last system initialization by using either the hardware real-time clock (automatic) or by using Procedure 284 Word 1.

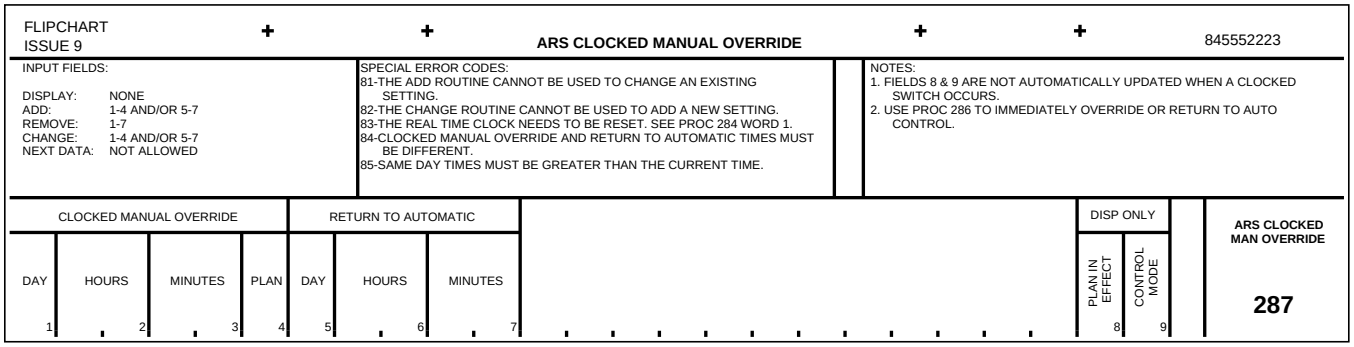
Related Procedures

Use Procedure 286 Word 1 to immediately override or return to automatic control.

Cautions

Upon completing an add, change, or remove routine with this procedure, a run tape should be done to prevent loss of information in the event of a system initialization.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Fields 1-4 and fields 5-7.
Change:	Fields 1-4 and fields 5-7.
Remove:	Fields 1-7.
Next Data:	Not allowed.

Field Ranges and Encodes

CLOCKED MANUAL OVERRIDE (Fields 1-4)

1. Day

1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday

2. Hours

0	Midnight
12	Noon

The system clock uses military time, thus 0 = midnight and 12 = noon. For example, military time for 10:00 pm is 2200 hours.

3. Minutes — 0, 15, 30, 45

4. ARS Plan — 1-3

RETURN TO AUTOMATIC (Fields 5-7)

5.	Day	1	Monday
		2	Tuesday
		3	Wednesday
		4	Thursday
		5	Friday
		6	Saturday
		7	Sunday
6.	Hours	0	Midnight
		12	Noon
		The system clock uses military time, thus 0 = midnight and 12 = noon. For example, military time for 10:00 pm is 2200 hours.	
7.	Minutes	0, 15, 30, 45	

DISPLAY ONLY (Fields 8-9)

8.	ARS Plan In Effect	1-3	
9.	ARS Control Mode	0	Automatic (system clock controlled)
		1	Manual override (attendant controlled)
		2	Clocked manual override (system clock controlled)

Notes

1. Fields 8 and 9 are not updated automatically when a clocked switch occurs.
2. The remove routine removes both entries from translations. Use the change routine to remove a single entry.
3. Clocked manual override times remain set for seven days only. Override time must be reentered after each seven-day period.
4. Same day times entered must be greater than current time.

Special Error Codes

81 - The add routine cannot be used to change existing settings.

82 - The change routine cannot be used to add a new setting.

83 - The real-time clock needs to be reset (see Procedure 284 Word 1).

84 - Clocked manual override and return to automatic times must be different.

85 - Same day times must be greater than the current time.

Procedure 288 Word 1 — Call Detail Recording - Format Options

155

Purpose

Use Procedure 288 Word 1 to administer the Call Detail Recording (CDR) record length, the opcode indicator, format, and the SMDR message length.

Prerequisite Procedures

Disable CDR in Procedure 275 Word 1 field 12 before adding or removing data in this word.

Use Procedure 255 Word 2 (if you are using the PCC) to administer the desired format.

Remove data in Procedure 288 Word 2 before administering a standard format in this procedure.

Related Procedures

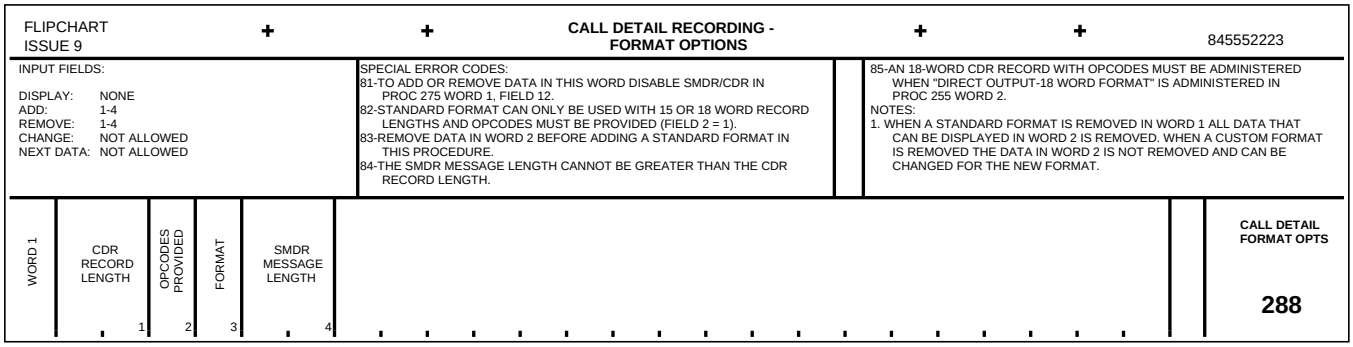
Use Procedure 253 Word 1 to administer data channels for direct output call detail records.

Use Procedure 255 Words 1 and 2 to administer the PCC.

Use Procedure 288 Word 2 to administer the variable format call record.

Use Procedure 101 Word 1 to enable CDR on a trunk-group basis.

Flipchart



Fields Used or Required for Command Routines

Display: None.
Add: Fields 1-4.
Change: Not allowed.
Remove: Fields 1-4. When a standard format is removed in this procedure, all data that can be displayed in Procedure 288 Word 2 is removed. When a custom format is removed, the data in Procedure 288 Word 2 is not removed and can be changed for the new updated format.
Next Data: Not allowed.

Field Ranges and Encodes

1. CDR Record Length — 15-24 words

   This field specifies the maximum length of a CDR record. The number entered in this field must be greater than or equal to the number entered in field 4.

2. Opcodes Provided
   - 0 Not provided (field 3 = 1)
   - 1 Provided

3. Format
   - 0 Default (field 1 = 15 or 18)
   - 1 Custom

4.	SMDR Record Length	15, 18 words This field is only used when setting up SMDR (unit type 5 in Procedure 253 Word 1). For an SMDR printer unit this field must be a 15. If the record length is set to 18 for an SMDR printer unit, the first part of the record is overwritten by the last three words of the record. Consequently the time, condition code and FRL used are destroyed. Enter a 15 or 18 for an SMDR 9-track tape unit.

Special Error Codes

81 - To add or remove data in this word, disable CDR/SMDR in Procedure 275 Word 1 field 12.

82 - Standard format can only be used with 15-or 18-word record lengths and opcodes must be provided (field 2 = 1).

83 - Remove data in Word 2 before adding a standard format in this procedure.

84 - The SMDR record length cannot be greater than the CDR record length.

85 - An 18-word CDR record with opcodes must be administered when ‘‘direct output - 18-word format’’ is administered in Procedure 255 Word 2.

Procedure 288 Word 2 — Call Detail Recording - Variable Format Record

156

Purpose

Use Procedure 288 Word 1 to administer Call Detail Recording (CDR) records by administering the data item's starting position (cell number) and length (in cells).

Prerequisite Procedures

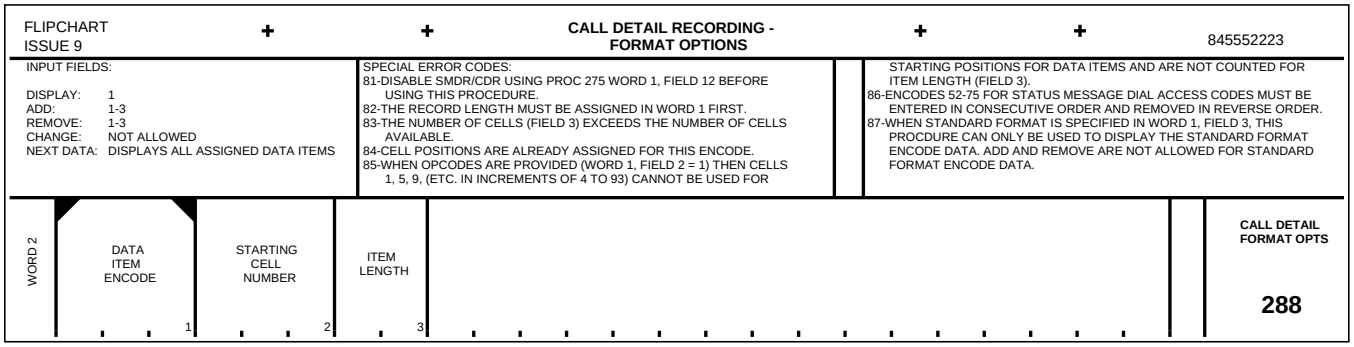
Use Procedure 275 Word 1 field 12 to disable CDR before administering data in this procedure.

Use Procedure 288 Word 1 to set the CDR record length.

Related Procedures

If assigning a recommended format in Procedure 288 Word 1, use this word only to display the recommended standard format encode data. In other words, the format is an AT&T standard format and changes cannot be made to that format.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1. When a standard format is specified in Procedure 288 Word 1 field 3, this procedure can only be used to display the standard format encode data.
Add:	Fields 1-3 (not allowed for standard format encode data).
Change:	Not allowed.
Remove:	Fields 1-3 (not allowed for standard format encode data).
Next Data:	Displays all assigned data items.

Field Ranges and Encodes

1. Data Item Encode

0	Not used
1	Call duration-hours
2	Call duration-minutes
3	Call duration-tenths of a minute
4	Condition code
5	Trunk access code dialed
6	Trunk access code used
7	Dialed number
8	Calling number
9	Account code
10	Authorization code
11	Time in queue
12	Facility restriction level used
13	Calling number, ten-thousands digit
14	Incoming circuit ID
15	Feature flags
16	Outgoing circuit ID
17	Outgoing circuit ID (hundreds digit)
18	Incoming circuit ID (hundreds digit)
19	Interexchange carrier code/ISDN network

	identifier
20	Time of day-hours
21	Time of day-minutes
22	Date-month
23	Date-day
24	Date-year
25	Incoming trunk dial access code
26	Precedence level digit
27	Attendant console number
28	ISDN network service value
29	Extension partition number
30	Node number
31	ISDN bearer capability
32	QDN/VDN
33	Agent login
50	ARS control mode
51	Time of day pattern set
52	1st dial access code
53	2nd dial access code
54	3rd dial access code
55	4th dial access code
56	5th dial access code
57	6th dial access code
58	7th dial access code
59	8th dial access code
60	9th dial access code
61	10th dial access code
62	11th dial access code
63	12th dial access code
64	13th dial access code
65	14th dial access code
66	15th dial access code
67	16th dial access code
68	17th dial access code
69	18th dial access code
70	19th dial access code
71	20th dial access code
72	21st dial access code
73	22nd dial access code
74	23rd dial access code
75	24th dial access code

Data items 1-12, 25, and 50-59 are used for the standard 15 and 18 word formats.

Data items 13-19 are used for the standard 18 word format.

Data items 8, 9, 25, and 50 are left-justified in the record.

2. Starting Cell Number — 1-96

3. Item Length — 1-31 (in cells)

Notes

1. The following table contains the cell numbers used in field 2 to identify the starting cell number for each data item. Use this chart to plan your call detail record format.

	BIT															
WORD	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
1	01				02				03				04			
2	05				06				07				08			
3	09				10				11				12			
4	13				14				15				16			
5	17				18				19				20			
6	21				22				23				24			
7	25				26				27				28			
8	29				30				31				32			
9	33				34				35				36			
10	37				38				39				40			
11	41				42				43				44			
12	45				46				47				48			
13	49				50				51				52			
14	53				54				55				56			
15	57				58				59				60			
16	61				62				63				64			
17	65				66				67				68			
18	69				70				71				72			
19	73				74				75				76			
20	77				78				79				80			
21	81				82				83				84			
22	85				86				87				88			
23	89				90				91				92			
24	93				94				95				96			

Special Error Codes

81 - Disable CDR using Procedure 275 Word 1 field 12 before using this procedure.

82 - The record length must be assigned in Procedure 288 Word 1 first.

83 - The number of cells (field 3) exceeds the number of cells available.

84 - Cell positions are already assigned for this encode.

85 - When opcodes are provided (Procedure 288 Word 1 field 2 = 1), cells 1, 5, 9 (etc. in increments of 4 to 93) cannot be used for starting positions for data items and are not counted for item length (field 3).

86 - Encodes 52-75 for status message dial access codes must be entered in consecutive order and removed in reverse order.

87 - When standard format is specified in Procedure 288 Word 1 field 3, this procedure can only be used to display the standard format encode data. Add and remove are not allowed for standard format encode data.

Procedure 289 Word 1 — Programmable Intercept Treatment

157

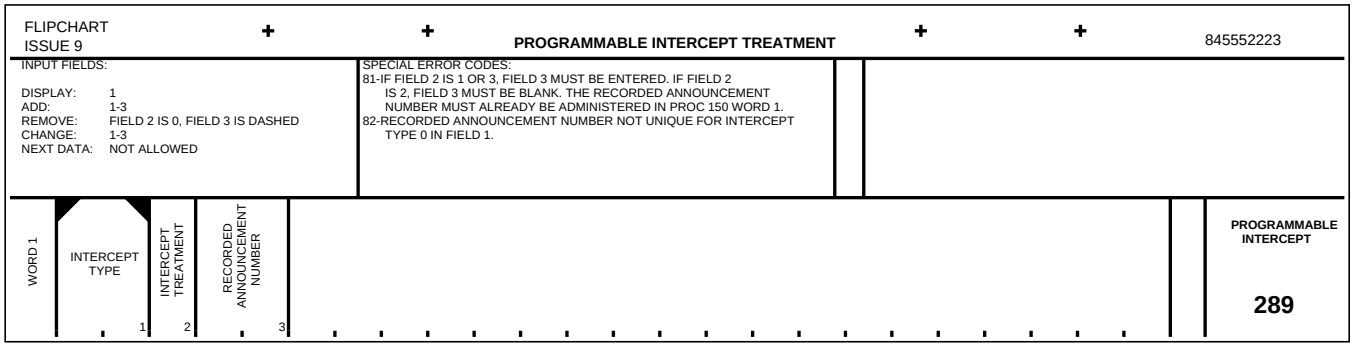
Purpose

Use Procedure 289 Word 1 to administer the programmable intercept treatment. This procedure allows you to give different types of intercept treatment based on where the call came from and where the call was attempting to terminate.

Prerequisite Procedures

Use Procedure 150 Word 1 to administer the recorded announcement number before using this procedure to administer calls diverted to the attendant (field 2 = 2) for recorded announcement capability (as when the attendant is in Unattended Console Service).

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-3.
Change:	Fields 1-3.
Remove:	Field 2 is 0, field 3 is dashed.
Next Data:	Not allowed.

Field Ranges and Encodes

INTERCEPT (Fields 1-2)

1.	Call Type	0	Attendant diversion to recorded announcement
		1	Public network to a vacant DAC
		2	Public network to restricted features or trunks
		3	Public network to recently disconnected extensions
		9	Private network to a vacant DAC
		10	Private network to restricted features or trunks
		11	Private network to recently disconnected extensions
		17	Extension to a vacant DAC
		18	Extension to restricted features or trunks
		19	Extension to recently disconnected extensions
2.	Treatment	0	Appropriate tone (intercept or reorder-based on source)
		1	Recorded announcement
		2	Diversion to attendant
		3	Recorded announcement followed by diversion to attendant
			This field must have a 1 when field 1 is 0.
3.	Recorded Announcement Number	1-15	If field 2 is 1 or 3, this field must be administered (not dashed). If field 2 is 2, the code in field 3 (if any) represents the intercept treatment for attendant calls during Unattended Console Service.

Notes

1. The following table contains the encode (0-3, 9-11, 17-19) in field 1 in order to generate the various intercept cause for the given source.

	SOURCE		
INTERCEPT CAUSE	**Public**	**Private**	**Terminal**
Calls to vacant dial access codes	1	9	17
Calls to restricted features or trunks	2	10	18
Calls to recently disconnected extensions	3	11	19
Attendant diversion to recorded announcement	0	0	0

Special Error Codes

81 - If field 2 is 1 or 3, field 3 must be entered. If field 2 is 2, field 3 must be blank. The recorded announcement number must already be administered in Procedure 150 Word 1.

82 - Recorded announcement number not unique for intercept type 0 in field 1.

Procedure 290 Word 1 — Display Circuit Status of Assigned Port Boards

158

Purpose

Use Procedure 290 Word 1 to search for all assigned port boards and to display the status of each circuit on the board. Also use Procedure 290 Word 1 to search for partially equipped circuit board and unassigned circuits.

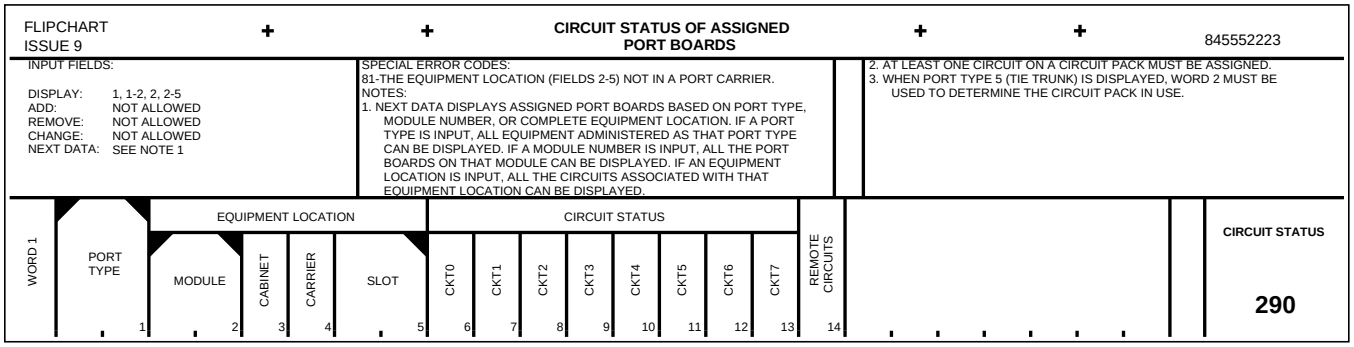
Prerequisite Procedures

When port type 5 is displayed, use Procedure 290 Word 2 to determine the port board in use.

Related Procedures

After displaying a port board that has unassigned circuits, you can go directly to either Procedure 000 Word 1 or 051 Word 1, do a display routine, and the first unassigned circuit on that board will be displayed in the equipment location fields.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1, fields 1 and 2, field 2, or fields 2-5.
Add: Not allowed.
Change: Not allowed.
Remove: Not allowed.
Next Data: Displays assigned port boards based on port type, module number, or complete equipment location. If a port type is input, all equipment administered as that port type can be displayed. If a module number is input, all the port boards on that module can be displayed. If an equipment location is input, all the circuits associated with that equipment location can be displayed.

Field Ranges and Encodes

1. Port Type

1	On-premises
2	Off-premises
3	Analog CO trunk
4	Analog DID trunk
5	Analog tie trunk/attendant interface
6	Analog auxiliary trunk
7	72-series terminal (MFET)
8	GPP used as a line
9	ANI signal distribution
10	Call progress tone
11	TT receiver
12	TT sender
13	Auxiliary tone plant
14	Attendant conference
15	Facility test circuit
16	Data port
17	Contact interface

18	Tone detector
19	73-series terminal (MFAT)
20	ADFTC
21	DS1 real
22	DS1 virtual
23	EIA trunk and line
24	GPP used as a data trunk
25	ISDN real
26	ISDN virtual

EQUIPMENT LOCATION (Fields 2-5)

2.	Module	0-30
3.	Cabinet	0-7
4.	Carrier	0-3
5.	Slot	0-3, 5-8, 13-16, 18-21

CIRCUIT STATUS (Fields 6-13)

-	does not exist
0	not assigned
1	assigned
2	DS1 OPS line
3	DS1 CO/FX/WATS/RA trunk
4	DS1 DID trunk
5	DS1 TIE trunk
6	Modem pool digital
7	Modem pool analog
8	ISDN trunk

6.	Circuit 0	-, 0-8
7.	Circuit 1	-, 0-8
8.	Circuit 2	-, 0-8

9.	Circuit 3	-, 0-8	
10.	Circuit 4	-, 0-8	
11.	Circuit 5	-, 0-8	
12.	Circuit 6	-, 0-8	
13.	Circuit 7	-, 0-8	
14.	Remote Circuits	- No 1 Yes	

Notes

1. This procedure displays all the circuits on a per slot basis.
2. Port boards without port circuits administered are not displayed in the search.
3. This table specifies what the remote carrier slot numbers are that correspond to the given ANN16 depending on the displayed slot number on the screen. For port type 5 (tie trunk), see Procedure 290 Word 2 for port board types.

		Remoted carrier slot numbers	
DS1 Carrier	**Slot Displayed**	**ANN16 in Slot 5**	**ANN16 in Slot 0**
ANN15 Real 0	0 5 13 18	4	1
Virtual 1	1 6 14 19	7	2
Virtual 2	2 7 15 20	8	3

   For remote carrier groups, 24th channel signaling must be specified in Procedure 260 Word 1 field 8.

4. Use the following table to identify board type(s) that correspond to port codes. The far right column shows the number of ports per circuit pack.

Port Type	Code	Number of Ports
On-premises line	SN229	8
Off-premises line	SN228	8
72-series terminal	SN224	4
Analog CO trunk	SN230	4
Analog auxiliary trunk	SN231	4
Analog DID trunk	SN232	4
Analog tie trunk attendant interface	SN233	4
EIA trunk and line	SN238	4
Contact interface	SN241	8
Computer data port	SN243	4
ANI signal distribution	SN244	2
Call-progress tone	SN250	8
TT receiver	SN251	4
TT sender	SN252	4
Auxiliary tone plant	SN253	1
Attendant conference	SN254	1
Tone detector	SN255	4
ADFTC	SN261	4
GPP line and trunk	SN270	4
DS1 interface real and virtual	ANN11 ANN15	24
73-series terminal	ANN17	8
ISDN PRI real/virtual	ANN35	23B +D

Special Error Codes

81 - The equipment location (fields 2-5) is not in a port carrier.

Procedure 290 Word 2 — Installed Circuit Pack Identification

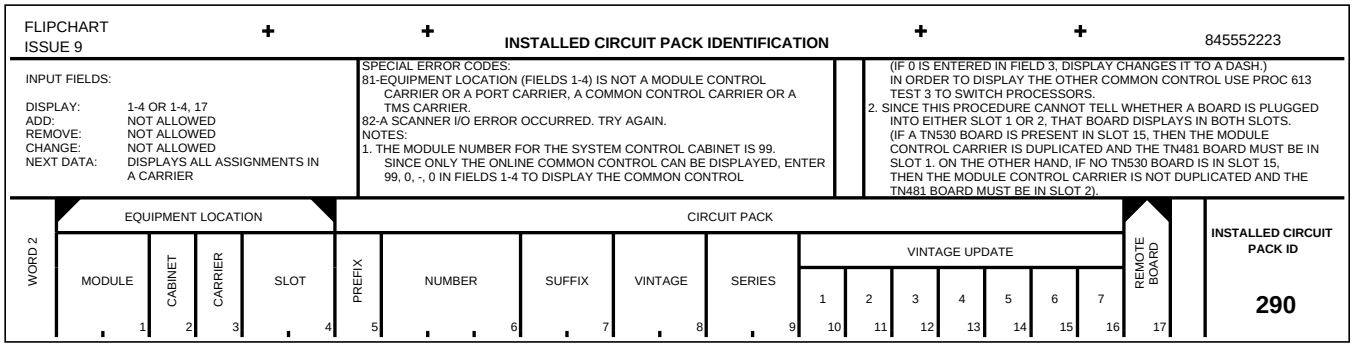
159

Purpose

Use Procedure 290 Word 2 to search for and display all circuit packs installed in module control, port, common control, or TMS carriers. Each circuit pack is identified by reading the ID chip provided on each circuit pack. By reading the ID chip, the type of circuit pack (vintage, vintage update, and series) is identified and displayed on the screen.

Procedure 290 Word 2 cannot be used to change circuit pack identification.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-4 or fields 1-4 and 17.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays all assignments in a carrier.

Field Ranges and Encodes

EQUIPMENT LOCATION (Fields 1-4)

1.	Module	0-30, 99 for common control and TMS
2.	Cabinet	0-7
3.	Carrier	0-3
4.	Slot	0-31 The actual slot depends on the carrier type. For the common control carrier, the range is 0-31. For the TMS carrier, the range is 0-28. For the RMI carrier, it's 0-21. For the module control carrier, it's 0-3, 6-22, and 25. For the port carrier and the DS1 port carrier, it's 0-3, 5-8, 13-16, and 18-21.

CIRCUIT PACK (Fields 5-16)

5.	Prefix	0	TN type
		1	SN type
		2	UN type
		3	ANN type
6.	Number	0-999	

7.	Suffix	0	None
		1	B
		2	C
		3	D
		4	E
		5	F
		6	G
		7	H
		8	I
		9	J
		10	K
		11	L
		12	M
		13	N
		14	O
		15	P
8.	Vintage	0-31	
9.	Series	0-15	

The series is of interest mainly to service technicians.

VINTAGE UPDATES (Fields 10-16)

0	Not installed
1	Installed

10.	1	0, 1
11.	2	0, 1
12.	3	0, 1
13.	4	0, 1
14.	5	0, 1
15.	6	0, 1

16. 7 0, 1

17. Remote Board
- Not a remote board
1 RLC for slots 0, 5, 13, 18
2 RCC for slots 0, 5, 13, 18
3 Port board 1 for slots 1, 6, 14, 19
4 Port board 2 for slots 1, 6, 14, 19
5 Port board 3 for slots 2, 7, 15, 20

Notes

1. The displayed vintage number (field 8) corresponds to the vintage number stamped on the handle of the circuit pack or in the firmware of the circuit pack. This number is the base vintage number plus the highest vintage update.

   EXAMPLE:

   Base vintage = 3
   Vintage updates (fields 10-13 = 1)
   Highest vintage update = 4 (field 13 = 1)
   Vintage (field 8) displays (3+4) = 7

   The base vintage can be reconstructed by subtracting the highest vintage update from the number displayed in field 8.

   EXAMPLE:

   Field 8 display = 8
   Fields 12, 13, 15, and 16 = 0
   Fields 10, 11, and 14 = 1
   Highest vintage update = 5 (field 14 = 1)
   Base vintage is 8–5 = 3

2. The module number for the system control cabinet is 99. Since only the on-line common control can be displayed, enter 99, 0, -, 0 in fields 1 through 4, respectively, to display the common control (if 0 is entered in field 3, display changes it to a dash). In order to display the other common control, use Procedure 613 Test 3 to switch processors.

3. Since this procedure cannot tell whether a board is plugged into either slot 1 or 2, that board displays in both slots. (If a TN530 board is present in slot 15, then the module control carrier is duplicated and the TN481 board must be in slot 1. On the other hand, if no TN530 board is in slot 15, then the module control carrier is not duplicated and the TN481 board must be in slot 2.)

Special Error Codes

81 - Equipment location (fields 1-4) is not a module control carrier or a port carrier. Must be a common control carrier or a TMS carrier.

82 - A scanner I/O error occurred. Try again.

Procedure 300 Word 1 — 0/1 Toll Nonrestricted Codes

160

Purpose

Use Procedure 300 Word 1 to administer the nonrestricted office or area codes that can be accessed by a toll restricted, code restricted, or Automatic Route Selection (ARS) toll restricted terminal.

Up to 10 nonrestricted office or area codes may be included in the list.

Any of the customer-selected three-digit codes on the free-call list can be accessed by restricted lines.

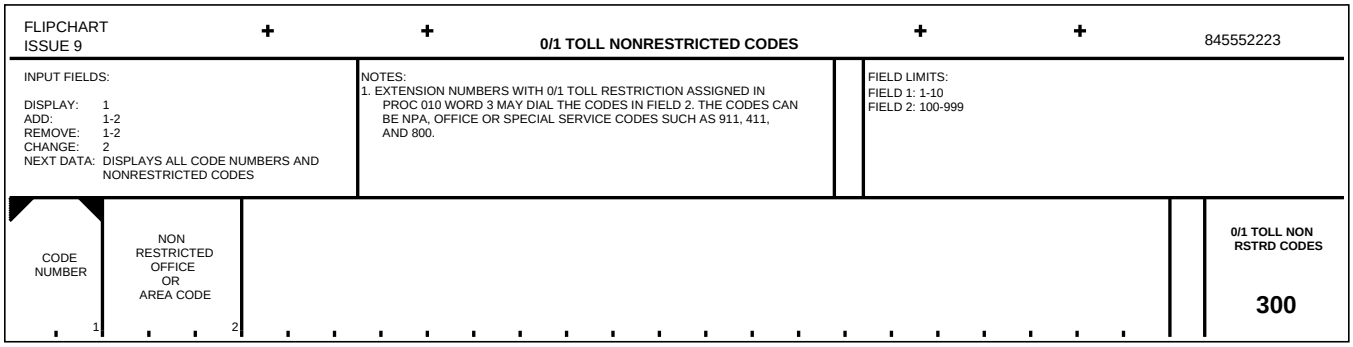
Extensions with 0/1 toll restriction assigned in Procedure 010 Word 3 may dial the nonrestricted codes in field 2. The codes can be NPA, office, or special service codes such as 911, 411, and 800.

Prerequisite Procedures

Use Procedure 010 Word 3 to establish the code restriction level for a voice terminal class of service.

Use Procedure 101 Word 1 field 3, to set the toll restriction type to 0 (0/1 toll restriction).

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1 and 2.
Change:	Field 2.
Remove:	Fields 1 and 2.
Next Data:	Displays all code numbers and nonrestricted codes.

Field Ranges and Encodes

1. Code Number 1-10

2. Nonrestricted Office or Area Code 100-999

Special Error Codes

None.

Procedure 301 Word 1 — Code Restriction - Trunk Group and Type

161

Purpose

Use Procedure 301 Word 1 to:

- Identify the code restriction trunk group type [central office (CO) or foreign exchange (FX)]
- Administer the dial-1 restriction for toll calls
- Assign the office code for a CO trunk, or the home numbering plan area (NPA) code for an FX trunk.

Prerequisite Procedures

Use Procedure 100 Word 1 to administer trunk group translations.

Use Procedure 150 Word 1 to assign a trunks to trunk groups.

Use Procedure 010 Word 3 to administer code restriction levels to a voice terminal class of service.

Use Procedure 302 Word 1 and Procedure 301 Word 2 to remove trunk group data before the group is removed in this procedure.

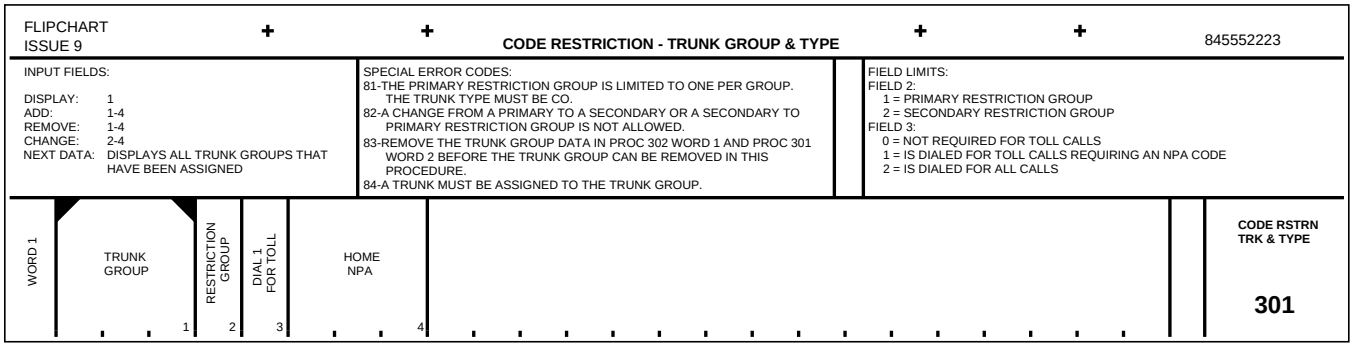
Related Procedures

Use Procedures 301 Words 2 and 3 to assign code restriction digit absorption and code restriction levels, respectively.

Cautions

When adding or changing code restrictions, be careful. Office codes and NPA codes entered here can be dialed by the user.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-4.
Change:	Fields 2-4.
Remove:	Fields 1-4.
Next Data:	Displays all trunk groups that have been assigned.

Field Ranges and Encodes

1.	Trunk Group	18-999	
2.	Restriction Group	1	Primary code restriction group (CO)
		2	Secondary code restriction group (FX)
			Central office (CO) and foreign exchange (FX) refer to code restriction trunk groups, not trunk types.
3.	Dial 1	0	1 is not required for toll calls
		1	1 is dialed for toll calls requiring an NPA code
		2	1 is dialed for all calls
4.	Home Area Code (NPA)	200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919	

Notes

1. Code restriction provides selective calling restrictions for up to three groups of terminals (code restriction levels) and may be applied to a maximum of five trunk groups. For the trunk group designated as the primary code restriction group (CO), a list of three-digit (area code only) and six-digit (area code and office code) allowed codes may be provided. For the four other possible trunk groups designated as the secondary code restriction groups (FX), a list of six-digit allowed codes (one list per trunk group) may be provided (ARS observes FRLs, not code restrictions).

   Each code on these lists is assigned a code restriction level, 1, 2, or 3. A call is allowed if the code restriction level associated with the NPA or office code dialed is equal to or less than the code restriction level assigned to the calling terminal. In areas that do not dial 1 for toll, the code restriction feature eliminates the need for battery reversal toll restriction. In areas that do dial 1 for toll, the code restriction feature may replace or be combined with the toll restriction (battery reversal, 0/1) feature.

2. If a trunk group is not assigned to one of the five code restriction groups, the restriction definition of the primary code restriction group (CO) applies to that trunk group by default.

Special Error Codes

81 - The primary restriction group is limited to one per group. The trunk type must be CO.

82 - A change from a primary to secondary or a secondary to primary restriction group is not allowed.

83 - Remove the trunk group data in Procedure 302 Word 1 and Procedure 301 Word 2 before removing the trunk group in this procedure.

84 - A trunk must be assigned to the trunk group.

Procedure 301 Word 2 — Code Restriction - Digit Absorption

162

Purpose

Use Procedure 301 Word 2 to administer the digit absorption treatment when the code restriction feature is being assigned to a trunk group that terminates in a digit absorbing, step-by-step central office (CO).

Prerequisite Procedures

Use Procedure 100 Word 1 to administer trunk group translations.

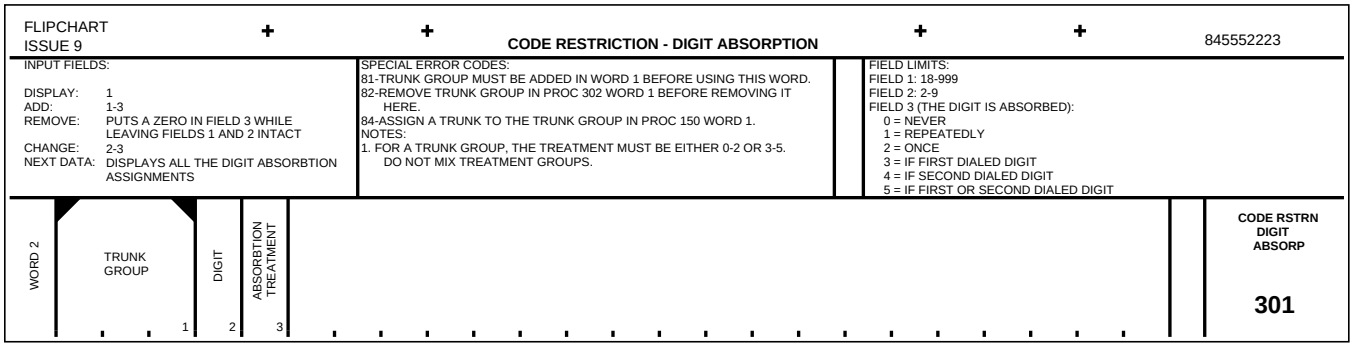
Use Procedure 150 Word 1 to assign trunks to trunk groups.

Use Procedure 301 Word 1 to add the trunk group to code restriction translations.

Use Procedure 010 Word 3 to assign code restriction levels to extensions.

Remove trunk groups in Procedure 302 Word 1 before removing them in this word.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-3.
Change:	Fields 2 and 3.
Remove:	Puts a zero in field 3 while leaving fields 1 and 2 intact.
Next Data:	Displays all the digit absorption assignments.

Field Ranges and Encodes

1. Trunk Group 18-999

2. Digit 2-9

3. Absorption Treatment

0	Digit not absorbed
1	Digit absorbed repeatedly
2	Digit absorbed once
3	Digit absorbed only if first digit dialed
4	Digit absorbed only if second digit dialed
5	Digit absorbed only if first or second digit dialed

For a trunk group, the treatment must be either 0-2 or 3-5. Do not mix treatment groups.

Special Error Codes

81 - Add trunk group in Procedure 301 Word 1 before using this word.

82 - Remove this trunk group in Procedure 302 Word 1 before removing it here.

84 - Assign a trunk to the trunk group in Procedure 150 Word 1.

Procedure 301 Word 3 — Allowed Codes - Primary Restriction Group

163

Purpose

Use Procedure 301 Word 3 to assign a code restriction level to each three-digit allowed office or numbering plan area (NPA) code.

Prerequisite Procedures

To add a new NPA code to the primary 6-digit list, enter the NPA in this word and then define it further in Procedure 302 Word 1.

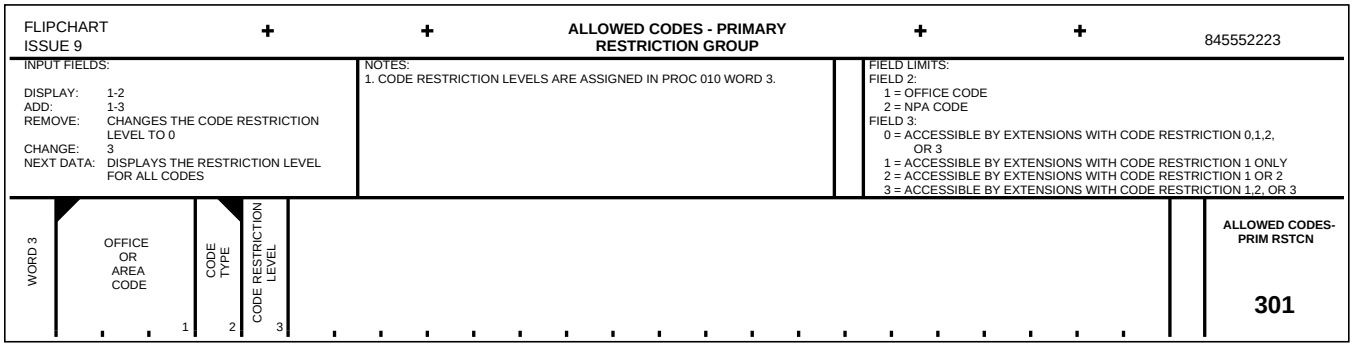
If a code restriction level of 3 is entered in field 3 for an NPA, the NPA must be defined in Procedure 302 Word 1.

Use Procedure 010 Word 3 to assign code restriction levels.

Use Procedure 100 Word 1 to assign trunk group translations.

Use Procedure 150 Word 1 to assign trunks to trunk groups.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-3.
Change:	Field 3.
Remove:	Changes the code restriction level to 0.
Next Data:	Displays the restriction level for all codes.

Field Ranges and Encodes

1. Office or Area Code — 200-999

2. Code Type

1	Office code
2	NPA code

3. Code Restriction Level

0	Accessible by extensions with code restriction 0
1	Accessible by extensions with code restriction 0, 1, 2, or 3
2	Accessible by extensions with code restriction 0, 2, or 3
3	Accessible by extensions with code restriction 0 or 3

Special Error Codes

None.

Procedure 302 Word 1 — Code Restriction - Allowed NPA and Office Codes

164

Purpose

Use Procedure 302 Word 1 to administer numbering plan area (NPA) codes and office codes to trunk groups.

Prerequisite Procedures

Use Procedure 100 Word 1 to assign trunk groups.

Use Procedure 150 Word 1 to assign trunks to trunk groups.

Use Procedure 301 Word 1 to assign an office code [central office (CO) trunk] or area code [foreign exchange (FX) trunk] to the trunk group.

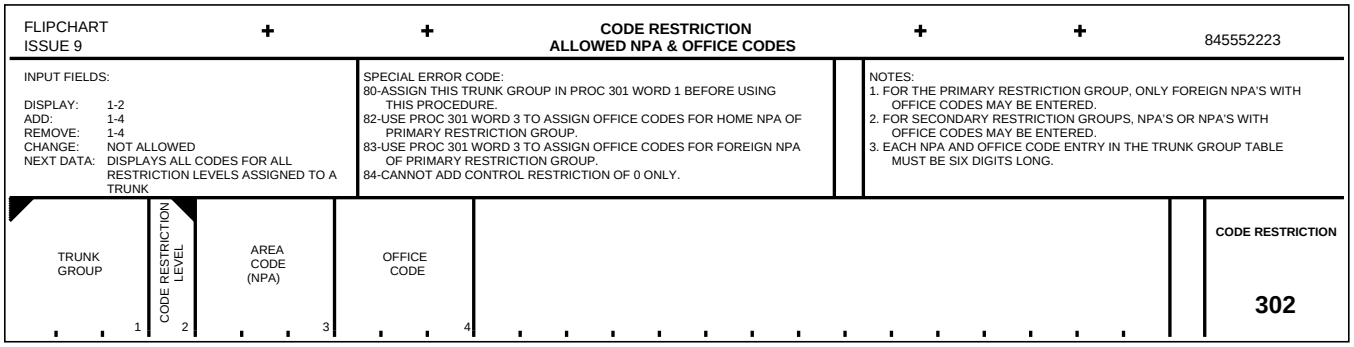
Use Procedure 301 Word 3 to assign a code restriction level to the three-digit allowed office area codes.

Use Procedure 010 Word 3 to assign a code restriction level to a voice terminal class of service.

Cautions

Use care when adding or changing code restriction levels associated with NPAs to avoid user annoyance.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-4.
Change:	Not allowed.
Remove:	Fields 1-4.
Next Data:	Displays all codes for all restriction levels assigned to a trunk group.

Field Ranges and Encodes

1. Trunk Group — 18-999

2. Code Restriction Level

0	Accessible by extensions with code restriction 0
1	Accessible by extensions with code restriction 0, 1, 2, or 3
2	Accessible by extensions with code restriction 0, 2, or 3
3	Accessible by extensions with code restriction 0 or 3

3. Area Code (NPA) — -, 200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919

4. Office Code — 200-999

Notes

1. For the primary restriction group, only foreign NPAs with office codes may be entered.

2. For secondary restriction groups, NPAs or NPAs with office codes may be entered.
3. Each NPA and office code entry in the trunk group table must be six digits long.

Special Error Codes

80 - Assign this trunk group in Procedure 301 Word 1 before using this procedure.

82 - Use Procedure 301 Word 3 to assign office codes for home NPA of primary restriction group.

83 - Use Procedure 301 Word 3 to assign office codes for foreign NPA of primary restriction group.

84 - Cannot add control restriction of 0 only.

Procedure 305 Word 1 — AUTOVON - Trunk Group Routing Patterns

165

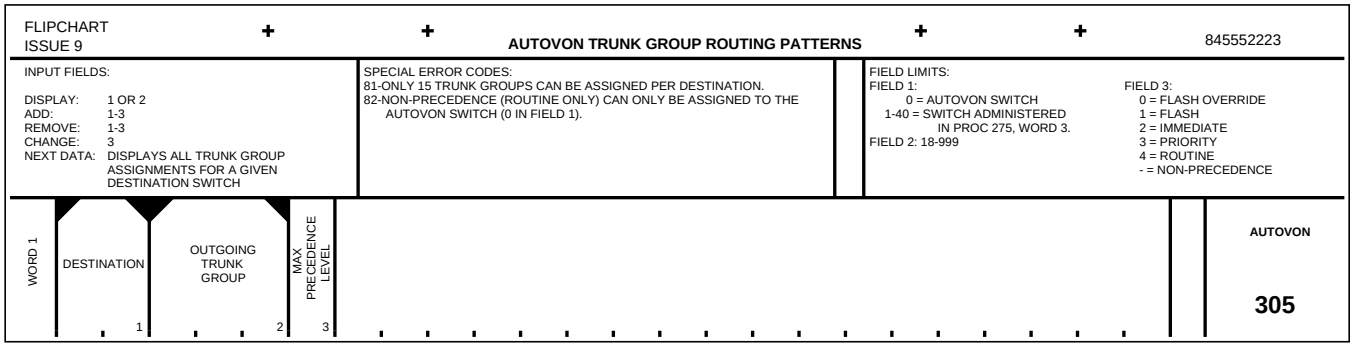
Purpose

Use Procedure 305 Word 1 to administer the AUTOVON outgoing trunk group routing patterns.

Related Procedures

Use Procedure 275 Word 3 on the destination switch (far end) to find the node number that goes in field 1, when this switch is part of the AUTOVON network.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 or 2.
Add:	Fields 1-3.
Change:	Field 3.
Remove:	Fields 1-3.
Next Data:	Displays all trunk group assignments for a given destination switch.

Field Ranges and Encodes

1. Destination

   0 AUTOVON switch
   1-40 Switch administered in Procedure 275 Word 3

   The destination switch is on the far end of the trunk group specified in field 2.

   If this switch is an AUTOVON interface switch, at least 1 trunk group must have this field set to 0 (to access AUTOVON network).

2. Outgoing Trunk Group

   18-999 (only 15 trunk groups can be assigned per destination switch)

3. Maximum Precedence Level

   - Nonprecedence
   0 Flash override
   1 Flash
   2 Immediate
   3 Priority
   4 Routine

   Nonprecedence trunks are selected for routine precedence calls when all routine precedence trunks are busy.

Special Error Codes

81 - Only 15 trunk groups can be assigned per destination.

82 - Nonprecedence (routine only) can only be assigned to the AUTOVON switch (0 in field 1).

Procedure 305 Word 2 — AUTOVON - NNXD Routing Patterns

166

Purpose

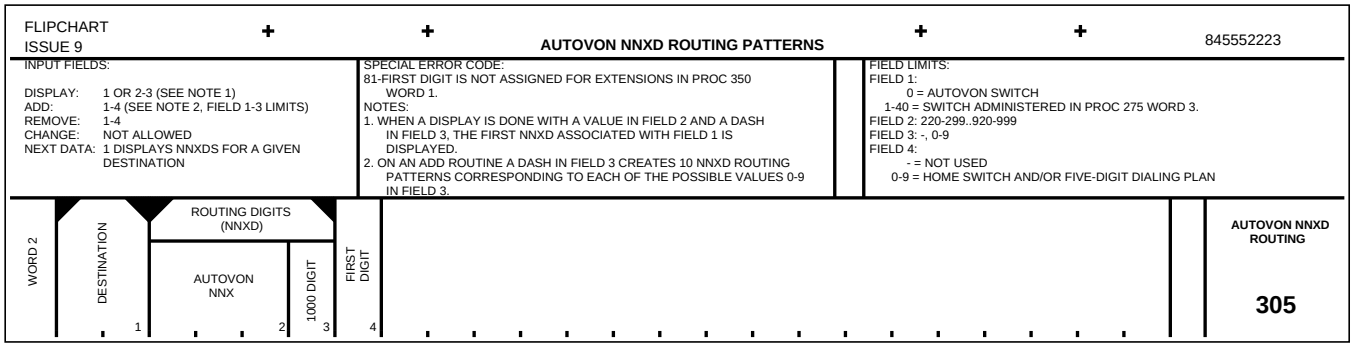
Use Procedure 305 Word 2 to administer the AUTOVON NNXD routing patterns.

Prerequisite Procedures

Use Procedure 275 Word 3 to administer the node number for the local switch.

Use Procedure 276 Word 1 to administer the Precedence Calling (AUTOVON) feature.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2 and 3 (see Notes).
Add:	Fields 1-4 (see Notes).
Change:	Not allowed.
Remove:	Fields 1-4.
Next Data:	Displays NNXDs for a given destination.

Field Ranges and Encodes

1. Destination
   - 0 AUTOVON switch
   - 1-40 Destination switch's node number

   All NXX digits with undefined destinations will be routed to the AUTOVON network (switch 0).

ROUTING DIGITS (NNXD) (Fields 2-3)

2. AUTOVON NNX — 220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999

3. 1000 Digit (D) — -, 0-9

   A dash in this field means that any digit (0-9) is a valid 1000s digit for the displayed destination switch (field 1) and NNX number (field 2).

4. First Digit
   - \- Not used
   - 0-9 Home switch and/or five-digit dialing plan

Notes

1. When a display routine done with a value in field 2 and a dash in field 3, the first NNXD associated with field 1 is displayed. This is the NNXD that homes on the switch number in field 1.
2. On an add routine, a dash in field 3 creates 10 NNXD routing patterns corresponding to each of the possible values 0-9 in field 3. This is the NNXD that homes on the switch number in field 1.
3. Fields 2 and 3 contain the NNXD that homes on the switch number in field 1.

Special Error Codes

81 - The first digit is not assigned for extensions in Procedure 350 Word 1.

Procedure 309 Word 1 — ARS - Route Tables

167

Purpose

Use Procedure 309 Word 1 to administer Automatic Route Selection (ARS) route data. The translation items affected by this procedure are:

- Trunk group
- Facility restriction level (FRL)
- Warning tone
- Home numbering plan area (NPA) at distant end of route
- Dial 1 for toll
- Toll table index
- Digits deleted
- DC signal ignore
- Interexchange Carrier (IXC) ISDN network identifier.

Related Procedures

Use Procedure 309 Words 2-5 and Procedure 311 Words 1-3 to administer other related ARS translations.

Use Procedure 316 Word 1 to set the time-of-day ARS plan change.

Use Procedure 287 Word 1 to administer manual override for ARS plan changes.

Use Procedures 010 Word 2, 101 Word 1, and 275 Word 1 to administer Forced Entry of Account Codes (FEAC) for ARS access.

Route data for a trunk group can be added without the trunk group being

assigned, but ARS will automatically skip any unassigned trunk groups. The procedures required to assign a trunk group or change ARS characteristics are as follows:

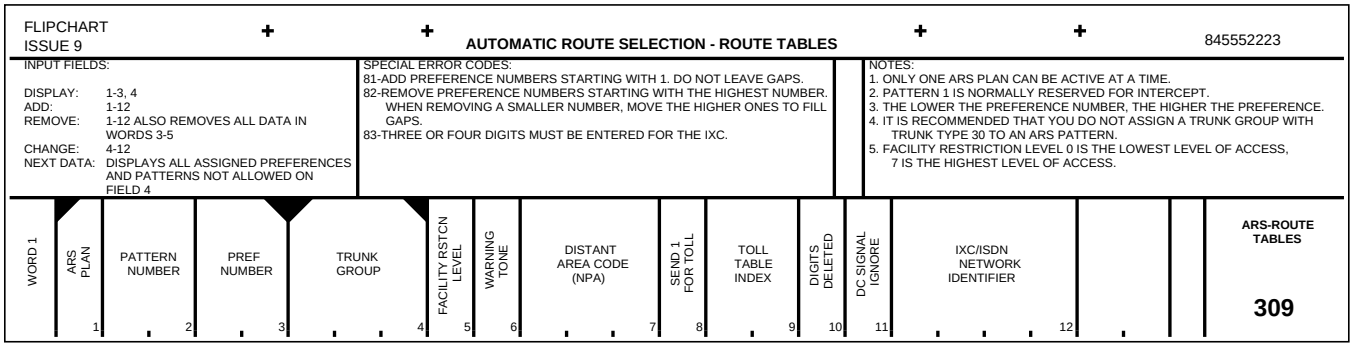
— Use Procedure 100 Word 1 to administer basic trunk group translations.

— Use Procedure 101 Words 1 and 2 to administer trunk group characteristics, including activation of Call Detail Recording (CDR).

— Use Procedure 103 Word 1 to administer network trunk group translation.

— Use Procedure 116 Word 1 or 150 Word 1 to assign trunks to a trunk group.

Flipchart



Fields Used or Required for Command Routines

Display: Fields 1-3 or 4.

Add: Fields 1-12. Add preference numbers starting with 1. Do not leave gaps.

Change: Fields 4-12.

Remove: Fields 1-12. The remove routine also removes all data or resets the defaults in Words 3-5. When removing preference numbers, start with the highest number (lowest priority). When removing a preference number that is within a group of preference numbers, remove the highest preferences first and then add the preferences you want to keep back in. For example, when removing preference 3 from preferences 1-5, remove preferences 5, 4, and 3. Then add old preference 4 back in as new preference 3 and old preference 5 back in as new preference 4. You will have to go back into Words 3-5 and readminister data for preferences 3 and 4 as necessary.

Next Data: Displays all assigned preferences and patterns. Next data is not allowed on field 4.

Field Ranges and Encodes

1.	ARS Plan	1-3 Only one ARS plan can be active at a time.	
2.	Pattern Number	1-64 Pattern 1 is normally reserved for intercept treatment.	
3.	Preference Number	1-16 The lower the preference number the higher the preference. For example, preference number 1 has a higher priority than preference number 2.	
4.	Trunk Group	18-999 It is recommended that you do not assign a trunk group with trunk type 30 to an ARS pattern.	
5.	Facility Restriction Level	0-7 An FRL sets the level of access to a preference. For example, a preference with an FRL of 5 will only allow access to terminals, authorization codes, and other trunk groups with an FRL of 5, 6, or 7.	
6.	Warning Tone	0 1	Not given Given A warning tone is not returned if this route's terminating NPA (field 7) is dialed and the office code dialed is marked local in the toll table for this route.
7.	Distant Area Code (NPA)	0-999	
8.	Send 1 For Toll	0 1 2	Not required Required for foreign NPA Required for toll calls

9.	Toll Table Index	- All calls are local 0 All calls are toll calls 1-63 Use indexes assigned in Word 2 This assigns one of 63 possible toll tables to a particular plan, pattern, and preference. The same toll table may be used for more than one plan, pattern, and preference.
10.	Number of Digits Deleted	0-7 The number of dialed digits are deleted from left to right (e.g., 457-2932 with three digits deleted leaves 2932).
11.	Digit Collect (DC) Signal Ignore	0 Disable 1 Enable When DC signal ignore is disabled (0), the local switch either waits for the pause to expire (if administered in Procedure 309 Word 3) or sends out the digits dialed when the distant switch responds. If enabled (1), the local switch will wait for the pause to expire (as administered in Procedure 309 Word 3) before sending out more digits.
12.	IXC ISDN Network Identifier	- Not assigned 000-9999 Assigned A minimum of three digits and leading zeros must be entered in Field 12 for the IXC.

Notes

1. Seven-digit numbers are toll (for this route) if their office code is marked toll or if this route has no toll table and field 6 contains a 1 (warning tone returned).

Special Error Codes

81 - Add preference numbers starting with 1. Do not leave gaps.

82 - Remove preference numbers starting with highest number.

83 - Three or four digits must be entered for the IXC.

Procedure 309 Word 2 — ARS - Toll Tables

168

Purpose

Use Procedure 309 Word 2 to administer Automatic Route Selection (ARS) toll table data. These toll tables control whether calls to certain office codes will be treated as toll calls or nontoll calls. All office codes are initially defaulted to toll.

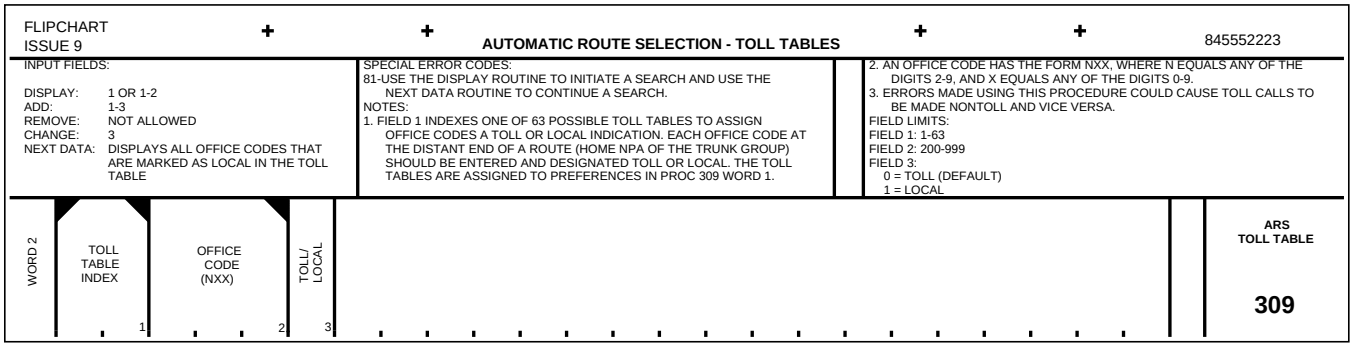
Related Procedures

Use Procedure 309 Words 1, 3, 4, and 5 and Procedure 311 Words 1, 2, and 3 to administer related ARS translations.

Cautions

Errors made using this procedure could cause toll calls to be made nontoll and vice versa.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 2.
Add:	Fields 1-3.
Change:	Field 3.
Remove:	Not allowed.
Next Data:	Displays all office codes that are marked as local in the toll table.

Field Ranges and Encodes

1. Toll Table Index — 1-63

   This indexes one of 63 possible toll tables to assign office codes a toll or local indication. Each office code at the distant end of a route (home NPA of the trunk group) should be entered and designated toll or local. The toll tables are assigned to preferences in Procedure 309 Word 1.

2. Office Code (NXX) — 200-999

   An office code has the form NXX, where N equals any of the digits 2 through 9, and X equals any of the digits 0 through 9.

3. Toll/Local

   0 Toll (default)
   1 Local

   This field specifies the office code as being a toll or local office code.

Notes

1. If warning tone is activated (Procedure 309 Word 1 field 6 = 1), calls to office codes within the route's terminating NPA that are marked local do not receive a warning tone. Calls to office codes marked toll, and all ten-digit calls, (to other NPAs) do receive a warning tone.

Special Error Codes

81 - Use the display routine to begin a search. Use the next data routine to continue a search.

Procedure 309 Word 3 — ARS - Subnet Trunking

169

Purpose

Use Procedure 309 Word 3 to administer Automatic Route Selection (ARS) subnet trunking data. The following translation items are affected:

- Group one, two, and three pause length, number of digits, type of signals to be outpulsed.
- Group four pause length and type of signals to be outpulsed.

This word applies only if Procedure 103 Word 1 fields 3 and 4 display 1 and 0, respectively, for the trunk group displayed in Procedure 309 Word 1 field 4.

Prerequisite Procedures

Use Procedure 309 Word 1 to assign a trunk group to the route (plan, pattern, preference) before using this word.

The DC Signal Ignore (field 11 in Procedure 309 Word 1) must be set to a 1 in order for the group one pause length to be recognized.

Related Procedures

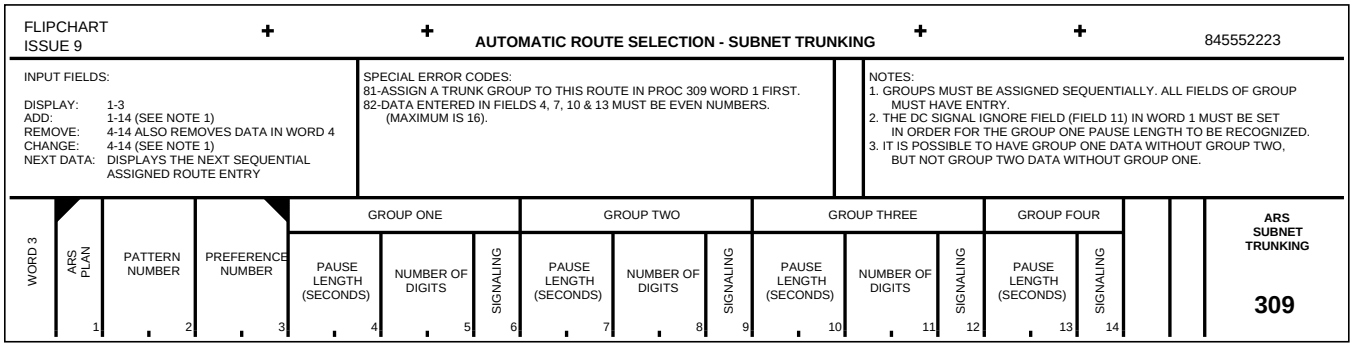
Use Procedure 309 Words 1, 2, 4, and 5 and Procedure 311 Words 1, 2, and 3 to administer related ARS translations.

When a route is removed in Procedure 309 Word 1, all data associated with that route in this procedure is also removed.

Cautions

Errors made using this word results in calls being incorrectly routed through the network.

Flipchart



Fields Used or Required for Command Routines

Display: Fields 1-3.

Add: Fields 1-14 (field 4 cannot contain either a dash or a zero and must be in the valid range).

Change: Fields 4-14 (field 4 cannot contain either a dash or a zero and must be in the valid range).

Remove: Fields 4-14. The remove routine removes data in Procedure 309 Word 4 also.

Next Data: Displays the next sequential assigned route entry.

Field Ranges and Encodes

1. ARS Plan 1-3

2. Pattern Number 1-64

3. Preference Number 1-16

GROUP ONE (Fields 4-6)

4. Pause Length -, 2-16 (in even numbered seconds)

   The DC Signal Ignore (field 11 in Procedure 309 Word 1) must be set for this pause length to be recognized.

5. Number of Digits -, 0-15

6. Signaling
   - Not assigned
   0 Touch-tone
   1 Rotary

GROUP TWO (Fields 7-9)

7. Pause Length -, 0-16 (in even numbered seconds)

8. Number of Digits -, 0-15

9. Signaling
   - Not assigned
   0 Touch-tone
   1 Rotary

GROUP THREE (Fields 10-12)

10. Pause Length -, 0-16 (in even numbered seconds)

11. Number of Digits -, 0-15

12. Signaling
    - Not assigned
    0 Touch-tone
    1 Rotary

GROUP FOUR (Fields 13-14)

13. Pause Length -, 0-16 (in even numbered seconds)

14. Signaling	-	Not assigned
	0	Touch-tone
	1	Rotary

Notes

1. It is possible to have group one data without group two, but not group two data without group one.
2. All fields of a group must have entries.

Special Error Codes

81 - Assign a trunk group to this route in Procedure 309 Word 1 first.

82 - Data entered in fields 4, 7, 10, and 13 must be even numbers (maximum is 16).

Procedure 309 Word 4 — ARS - Digits Inserted

170

Purpose

Use Procedure 309 Word 4 to administer ARS digit insertion for subnet trunking. Digit insertion is useful to terminal users because it tells the switch to insert digits into the dialed number string so the user doesn't have to. Even though routing codes may change, the terminal user still dials the same phone number.

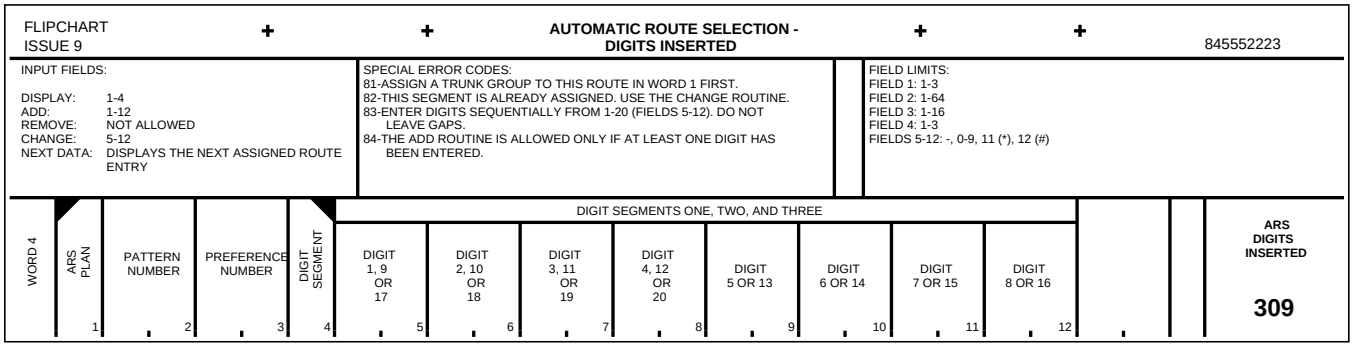
Prerequisite Procedures

Use Procedure 309 Word 1 to assign trunk groups to routes (plan, pattern, preference) before adding translations in this procedure.

Related Procedures

Use Procedure 309 Words 1, 2, 3, and 5 and Procedure 311 Words 1, 2, and 3 to administer related ARS translations.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-4.
Add:	Fields 1-12.
Change:	Fields 5-12.
Remove:	Not allowed.
Next Data:	Displays the next assigned route entry.

Field Ranges and Encodes

1. ARS Plan — 1-3

2. Pattern Number — 1-64

3. Preference Number — 1-16

4. Digit Segment
   - 1 Digits 1-8
   - 2 Digits 9-16
   - 3 Digits 17-20

   The first two digit segments can provide as many as the first 16 digits inserted (eight in each segment). The third digit segment is limited to inserting four digits or less.

DIGIT SEGMENTS ONE, TWO, AND THREE (Fields 5-12)

5.	Digit 1, 9, or 17	-, 0-9, 11 (*), 12 (#)
6.	Digit 2, 10, or 18	-, 0-9, 11 (*), 12 (#)
7.	Digit 3, 11, or 19	-, 0-9, 11 (*), 12 (#)
8.	Digit 4, 12, or 20	-, 0-9, 11 (*), 12 (#)
9.	Digit 5 or 13	-, 0-9, 11 (*), 12 (#)
10.	Digit 6 or 14	-, 0-9, 11 (*), 12 (#)
11.	Digit 7 or 15	-, 0-9, 11 (*), 12 (#)
12.	Digit 8 or 16	-, 0-9, 11 (*), 12 (#)

Special Error Codes

81 - Assign a trunk group to this route in Procedure 309 Word 1 first.

82 - This segment is already assigned. Use the change routine.

83 - Enter digits sequentially from 1-20 (fields 5-12). Do not leave gaps.

84 - The add routine is allowed only if at least one digit has been entered.

Procedure 309 Word 5 — ARS - Isdn and Bearer Capability COS 171

Purpose

Use Procedure 309 Word 5 to administer ISDN parameters to ARS routes using ISDN applications.

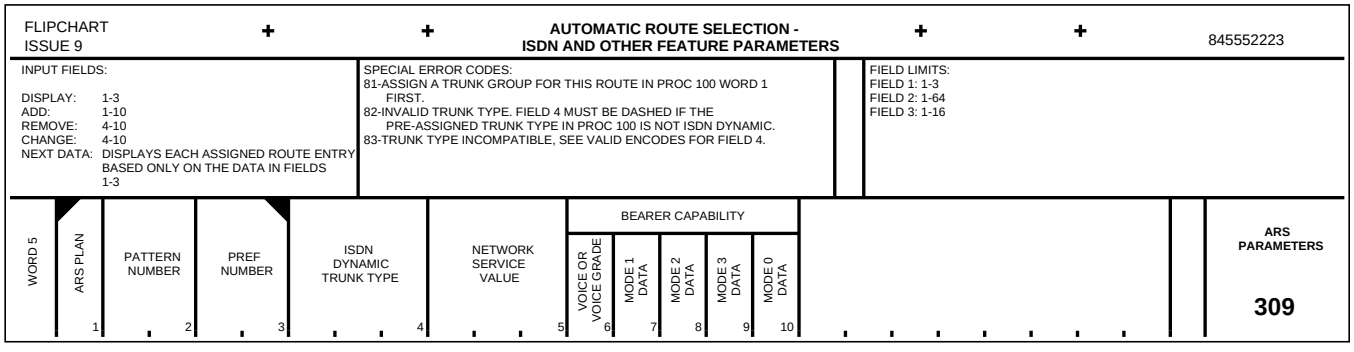
Prerequisite Procedures

Use Procedure 309 Word 1 to assign trunk groups.

Related Procedures

Use Procedure 309 Words 1, 2, 3, and 4 and Procedure 311 Words 1, 2, and 3 to administer related ARS translations.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-3 or 5.
Add:	Fields 1-10.
Change:	Fields 4-10.
Remove:	Fields 4-10.
Next Data:	Displays each assigned route entry based only on the data in fields 1-3.

Field Ranges and Encodes

1. ARS Plan — 1-3

2. Pattern Number — 1-64

3. Preference Number — 1-16

4. ISDN Dynamic Trunk Type

-	Not applicable (trunk type is not ISDN dynamic)
17	CO 1-way out DOD
27	WATS 1-way out DOD or toll terminal access for TSPS
41	TIE ETN 2-way dial repeating
43	TIE ETN 1-way out dial repeating
46	TIE ETN 2-way dial repeating
47	TIE ETN 2-way dial repeating
108	DMI host terminating, dial repeating in/automatic out
109	DMI dial repeating in and out

When these trunk types are used, the trunk group administered to this preference must be assigned as trunk type 120 (dynamic trunk type) in Procedure 100 Word 1.

5. Network Service Value — -, 1-511, 999

The Network Service Value (NSF) is an information element sent with ISDN calls to identify whose long distance services are being used for the calls.

If the System 85 is connected to a 4 ESS(RG) 4E11

switch, use NSF 999 to access ACCUNET service. If the System 85 is connected to a 4 ESS 4E13 switch, use NSF 357 to access ACCUNET service.

The following table shows the possible facility coding values and to what NSF they translate:

Service Type	Facility Coding Value	NSF
Parameterized, feature	0	0
	1	1
	2	2
	etc	etc
	31	31
Parameterized, service	0	32
	1*	33-288
	2	289
	etc	etc
	31	318
Binary, feature	0	319
	1	320
	2	321
	etc	etc
	31	350
Binary, service	0	351
	1	352
	2	353
	etc	etc
	31	382
* For OUTWATS, value ‘‘1’’ has ASCII values 0-255 as parameters. 33 mapping to ASCII 0, 34 mapping to ASCII 1, etc.		

Use the following NSF values for AT&T services:

352-SDN (binary, service value of 1)
353-MEGACOM(RG) 800 (binary, service value of 2)
354-MEGACOM (binary, service value of 3)
355-INWATS (binary, service value of 4)
356-WATS (binary, service value of 5)
357-ACCUNET (binary, service value of 6, when connected to 4ESS 4E13)
359-INTERNATIONAL 800 (binary, service value of 8)
360-700 SERVICE (binary, service value of 9)
361-DIRECT ACCESS 800 (binary, service value of 10)
362-ETN (binary, service value of 11)
363-PRIVATE LINE (binary, service value of 12)
999-ACCUNET (binary, service value of 6, when connected to 4ESS 4E11)

BEARER CAPABILITY (Fields 6-10)

0 Not supported
1 Supported

If this ARS preference is used as a facility for modem pooling, the bearer capability of this preference must match the bearer capability assigned to the modem pool extension class of service in Procedure 010 Word 4.

6. Voice or Voice Grade 0-1

7. Mode 1 Data 0-1

8. Mode 2 Data 0-1

9. Mode 3 Data 0-1

10. Mode 0 Data 0-1

Special Error Codes

81 - Assign a trunk group for this route in Procedure 309 Word 1 first.

82 - Invalid trunk type. Field 4 must be dashed if the pre-assigned trunk type in Procedure 100 Word 1 is not ISDN dynamic.

83 - Trunk type is incompatible. See valid encodes for field 4.

Procedure 311 Word 1 — ARS - Office and Service Codes for Home NPA

172

Purpose

Use Procedure 311 Word 1 to administer routing designators for the home numbering plan area (NPA) and for service codes.

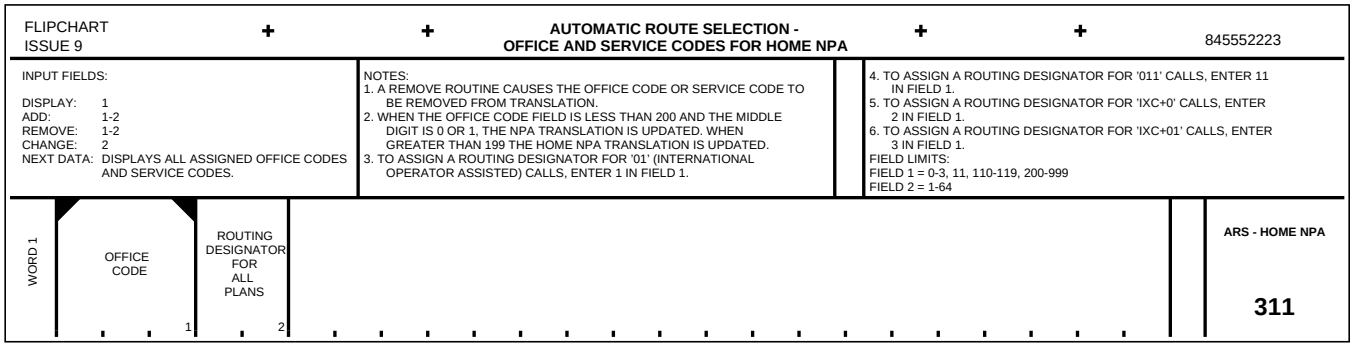
Prerequisite Procedures

Use Procedure 309 Words 1, 2, 3, 4, and 5 to administer ARS plan, pattern, and preference attributes.

Related Procedures

Use Procedure 312 Word 3 to administer international call routing.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1 and 2.
Change:	Field 2.
Remove:	Fields 1 and 2. A remove routine causes the office code or service code to be removed from translation.
Next Data:	Displays all assigned office codes and service codes.

Field Ranges and Encodes

1.	Office and Service Code	0-3, 11, 110-119, 200-999 When this field is less than 200, the three-digit NPA translation is displayed (or changed). When this field is greater than 199, the home NPA translation is updated. Codes not included in the valid field range are always sent to intercept. To assign a routing designator for "01" (international operator assisted) calls, enter a 1 in field 1. To assign a routing designator for "011" calls, enter 11 in Field 1. To assign a routing designator for "IXC+0" calls, enter 2 in Field 1. To assign a routing designator for "IXC+01" calls, enter 3 in Field 1.
2.	Routing Designator For All Plans	1-64 In a nonpartitioned switch, the routing designator and the ARS pattern are always identified by the same number for all three ARS plans. In a partitioned switch (Tenant Services enabled), the routing designator and the ARS pattern are not necessarily the same number.

Special Error Codes

None.

Procedure 311 Word 2 — ARS - Area Code for Foreign NPA

173

Purpose

Use Procedure 311 Word 2 to administer the routing designators for 3- and 6-digit translations associated with a numbering plan area (NPA).

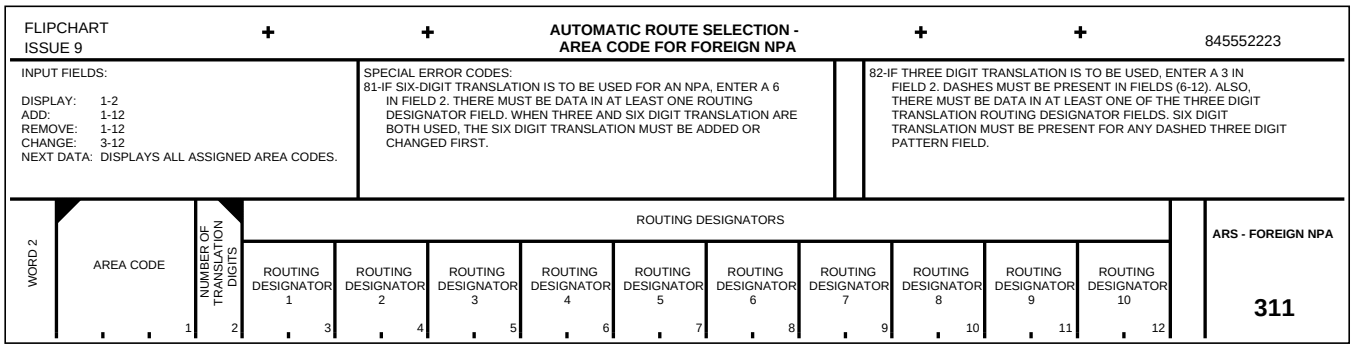
Cautions

Errors made using this procedure result in calls being improperly routed.

Changes in the 6-digit translation affect the data in Procedure 311 Word 3.

A change in the 6-digit translation removes all 3-digit translations and affects the data in Word 3. Three-digit translations for all three plans removes all 6-digit translations.

Flipchart



FLIPCHART
ISSUE 9

AUTOMATIC ROUTE SELECTION - AREA CODE FOR FOREIGN NPA

845552223

INPUT FIELDS:

DISPLAY: 1-2
ADD: 1-12
REMOVE: 1-12
CHANGE: 3-12
NEXT DATA: DISPLAYS ALL ASSIGNED AREA CODES.

SPECIAL ERROR CODES:
81-IF SIX-DIGIT TRANSLATION IS TO BE USED FOR AN NPA, ENTER A 6 IN FIELD 2. THERE MUST BE DATA IN AT LEAST ONE ROUTING DESIGNATOR FIELD. WHEN THREE AND SIX DIGIT TRANSLATION ARE BOTH USED, THE SIX DIGIT TRANSLATION MUST BE ADDED OR CHANGED FIRST.

82-IF THREE DIGIT TRANSLATION IS TO BE USED, ENTER A 3 IN FIELD 2. DASHES MUST BE PRESENT IN FIELDS (6-12). ALSO, THERE MUST BE DATA IN AT LEAST ONE OF THE THREE DIGIT TRANSLATION ROUTING DESIGNATOR FIELDS. SIX DIGIT TRANSLATION MUST BE PRESENT FOR ANY DASHED THREE DIGIT PATTERN FIELD.

WORD 2	AREA CODE 1	NUMBER OF TRANSLATION DIGITS 2	ROUTING DESIGNATORS: ROUTING DESIGNATOR 1 3	ROUTING DESIGNATOR 2 4	ROUTING DESIGNATOR 3 5	ROUTING DESIGNATOR 4 6	ROUTING DESIGNATOR 5 7	ROUTING DESIGNATOR 6 8	ROUTING DESIGNATOR 7 9	ROUTING DESIGNATOR 8 10	ROUTING DESIGNATOR 9 11	ROUTING DESIGNATOR 10 12	ARS - FOREIGN NPA
													311

Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-12.
Change:	Fields 3-12.
Remove:	1-12
Next Data:	Displays all assigned area codes.

Field Ranges and Encodes

1. Area Code (NPA) — 200-999

2. Number of Translation Digits — 3, 6

   If ''6'' is specified in this field, use Procedure 311 Word 3 to assign an office code (NXX) to an NPA. Also, the routing designators must match in both procedures.

   If ''3'' is specified in this field, routing designators are assigned to the NPA only.

ROUTING DESIGNATORS (Fields 3-12)

Routing designators refer to the ARS pattern number in a nonpartitioned switch (Tenant Services not active).

Be careful when assigning an area code to more than one routing designator. If administration mistakes are made, routing may be adversely affected.

When using the 6-digit translation for an NPA, at least one of the allowed routing designator fields for the 6-digit translation (fields 3 through 12) must contain data.

When using this word to initially create a 6-digit translation for one or more office codes, these office codes will default to the first routing designator until Word 3 is used to assign specific routing designators.

When not using the 6-digit translation, fields 6 through 12 must contain dashes. Additionally, none of the 3-digit routing designator fields (3 through 5) can contain dashes.

Routing designators 1 through 10 are arranged in order of preference respectively. They may be administered with gaps in between.

3. Routing Designator 1 — -, 1-64

4. Routing Designator 2 -, 1-64

5. Routing Designator 3 -, 1-64

6. Routing Designator 4 -, 1-64

7. Routing Designator 5 -, 1-64

8. Routing Designator 6 -, 1-64

9. Routing Designator 7 -, 1-64

10. Routing Designator 8 -, 1-64

11. Routing Designator 9 -, 1-64

12. Routing Designator 10 -, 1-64

Special Error Codes

81 - If 6-digit translation is to be used for an NPA, enter a 6 in field 2. There must be data in at least one routing designator field. When three and 6-digit translation are both used, the 6-digit translation must be added or changed first.

82 - If 3-digit translation is to be used, enter a 3 in field 2. Dashes must be present in fields 6-12. Also, there must be data in at least one of the 3-digit translation routing designator fields. Six digit translation must be present for any dashed 3-digit pattern field.

Procedure 311 Word 3 — ARS - Six-Digit Translation

174

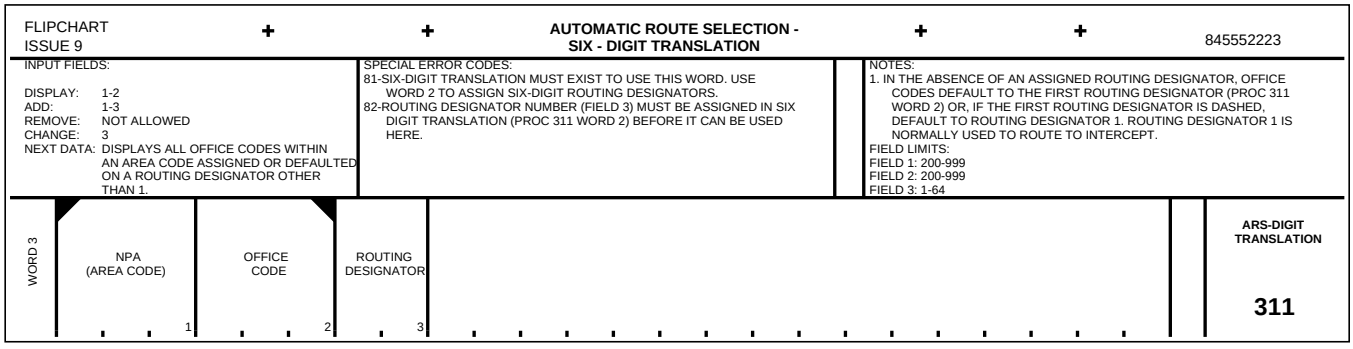
Purpose

Use Procedure 311 Word 3 to administer the routing designator associated with an office code/area code combination in a 6-digit translation.

Prerequisite Procedures

Use Procedure 311 Word 2 to administer the 6-digit translation table before using this procedure.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-3.
Change:	Field 3.
Remove:	Not allowed.
Next Data:	Displays all office codes within an area code assigned or defaulted on a routing designator other than 1.

Field Ranges and Encodes

1.	Area Code (NPA)	200-999
2.	Office Code	200-999
3.	Routing Designator	1-64 In the absence of an assigned routing designator, office codes default to the first routing designator (Procedure 311 Word 2 field 3) or, if the first routing designator is dashed, default to routing designator 1. Routing designator 1 is normally used to route to intercept.

Special Error Codes

81 - Six-digit translation must exist to use this word. Use Word 2 to assign 6-digit routing designators.

82 - Routing designator (field 3) must be assigned in 6-digit translation of Procedure 311 Word 2, before it can be used here.

Procedure 312 Word 1 — Ten-Digit Conversion

175

Purpose

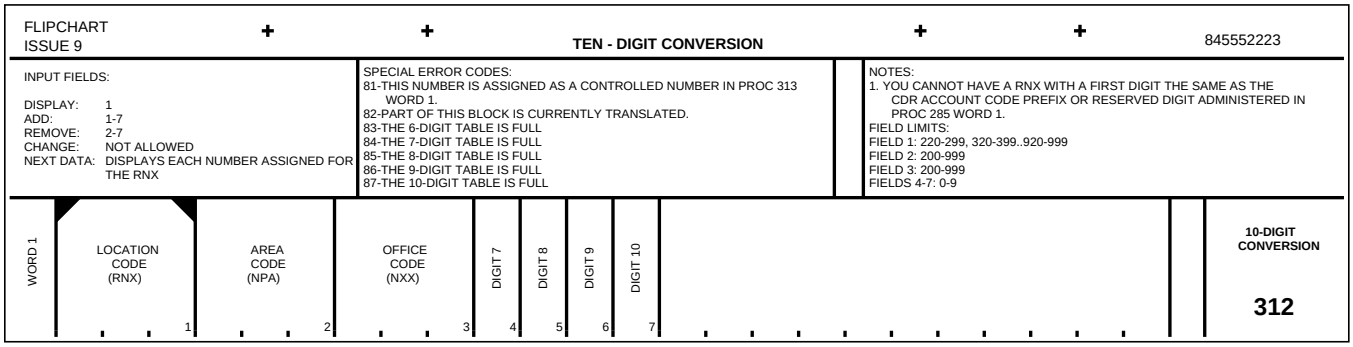
Use Procedure 312 Word 1 to administer an RNX (location code) to a 7-, 8-, 9-, or 10-digit number. This number always includes an area code, an office code, and at least one additional digit to further define the digit string pattern. When a user dials this number and ARS processing would normally route the call over public facilities, the area code and office code is converted to the RNX so that routing can go over a private network.

Related Procedures

Procedure 312 Word 2 can do the same conversion as this procedure, but in a different arrangement.

Procedures 312 Words 1-3 and 313 Word 1 share the same software tables. The number of assignments in Procedure 312 Words 1-3 and Procedure 313 Word 1 are added together in the same table. If an error in one procedure indicates a maximum (2048) has been reached, the table is full. To add more information in one procedure, information must be removed from one of the other three procedures first.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	The minimum data required to do an add routine is fields 1-4. You can also add data with fields 1-5, 1-6, and 1-7.
Change:	Not allowed.
Remove:	Fields 1-7.
Next Data:	Displays each number assigned to an RNX.

Field Ranges and Encodes

1.	Location Code (RNX)	220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999 You cannot have an RNX with a first digit the same as the CDR Account Code Prefix or Reserved Digit administered in Procedure 285 Word 1.
2.	Area Code (NPA)	200-999
3.	Office Code (NXX)	200-999
4.	Digit 7	0-9
5.	Digit 8	-, 0-9

6. Digit 9 -, 0-9

7. Digit 10 -, 0-9

Notes

1. An example of this conversion follows. A company has private network facilities between Alabama (area code 205) and Wyoming (area code 307). The private network code for the Alabama location is 227 and 448 for Wyoming. On the switch in Alabama, you could administer that all calls to area code 307, office code 457, first extension digit 9, be routed over RNX 448. Do this by entering 448 in field 1, 307 in field 2, 457 in field 3, and 9 in field 4. Now all calls dialed 307-457-9XXX that would normally use ARS will be routed over the private network as 448-9XXX.

   At the Wyoming location, you would want to do the same thing going in the other direction depending on the calling patterns of the company.

Special Error Codes

81 - This number is assigned as a controlled number in Procedure 313 Word 1.

82 - All or part of this number is currently translated.

83 - The 6-digit table is full.

84 - The 7-digit table is full.

85 - The 8-digit table is full.

86 - The 9-digit table is full.

87 - The 10-digit table is full.

Procedure 312 Word 2 — Ten-Digit Conversion

176

Purpose

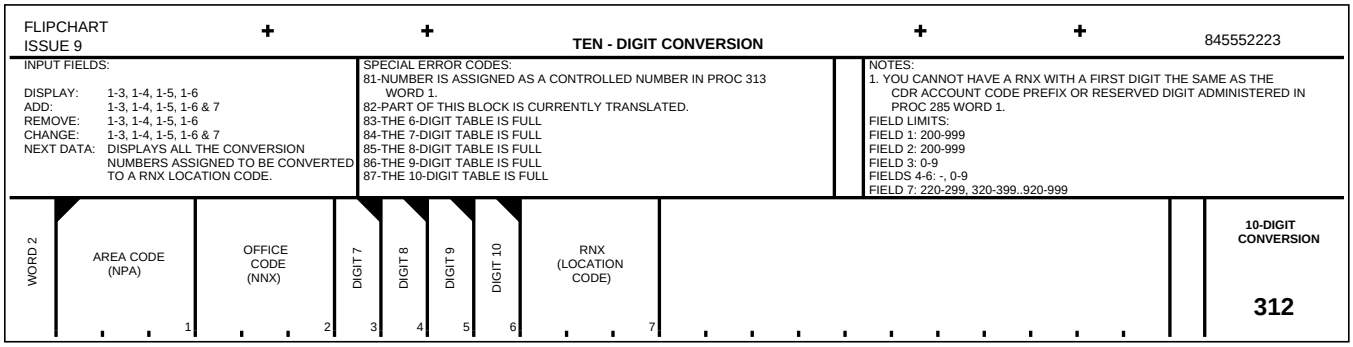
Use Procedure 312 Word 2 to administer a 7-, 8-, 9-, or 10-digit number to an RNX (location code) This number always includes an area code, an office code, and at least one additional digit to further define the digit string pattern. When a user dials this number and ARS processing would normally route the call over public facilities, the area code and office code is converted to the RNX so that routing can go over a private network.

Related Procedures

Procedure 312 Word 1 can do the same conversion as this procedure, but in a different arrangement.

Procedures 312 Words 1-3 and 313 Word 1 share the same software tables. The number of assignments in Procedure 312 Words 1-3 and Procedure 313 Word 1 are added together in the same table. If an error in one procedure indicates a maximum (2048) has been reached, the table is full. To add more information in one procedure, information must be removed from one of the other three procedures first.

Flipchart



Fields Used or Required for Command Routines

Display: Fields 1-6. You can enter data into field 1 and do a display. If there are any conversions assigned to that area code, error 82 is displayed. This means you must continue to enter data into the remaining fields to discover what assignments have been made. You can also use Next Data on the digit string already entered in fields 1-6 to display the assignments.

Add: The minimum data required to do an add routine is fields 1-3 plus field 7. You can also add data with fields 1-4 plus field 7, 1-5 plus field 7, and 1-7.

Change: Field 7.

Remove: Fields 1-7.

Next Data: Displays all the 7- to 10-digit conversions to an RNX location code.

Field Ranges and Encodes

1.	Area Code (NPA)	200-999
2.	Office Code (NXX)	200-999
3.	Digit 7	0-9
4.	Digit 8	-, 0-9

5.	Digit 9	-, 0-9
6.	Digit 10	-, 0-9
7.	Location Code (RNX)	220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999 You cannot have an RNX with a first digit the same as the CDR Account Code Prefix or Reserved Digit administered in Procedure 285 Word 1.

Notes

1. An example of this conversion follows. A company has private network facilities between Alabama (area code 205) and Wyoming (area code 307). The private network code for the Alabama location is 227 and 448 for Wyoming. On the switch in Alabama, you could administer that all calls to area code 307, office code 457, first extension digit 9, be routed over RNX 448. Do this by entering 307 in field 1, 457 in field 2, 9 in field 3, and 448 in field 7. Now all calls dialed 307-457-9XXX that would normally use ARS will be routed over the private network as 448-9XXX.

   At the Wyoming location, you would want to do the same thing going in the other direction depending on the calling patterns of the company.

Special Error Codes

81 - This number is assigned as a controlled number in Procedure 313 Word 1.

82 - All or part of this number is currently translated. Use Next Data to display all assignments.

83 - The 6-digit table is full.

84 - The 7-digit table is full.

85 - The 8-digit table is full.

86 - The 9-digit table is full.

87 - The 10-digit table is full.

Procedure 312 Word 3 — International Routing

177

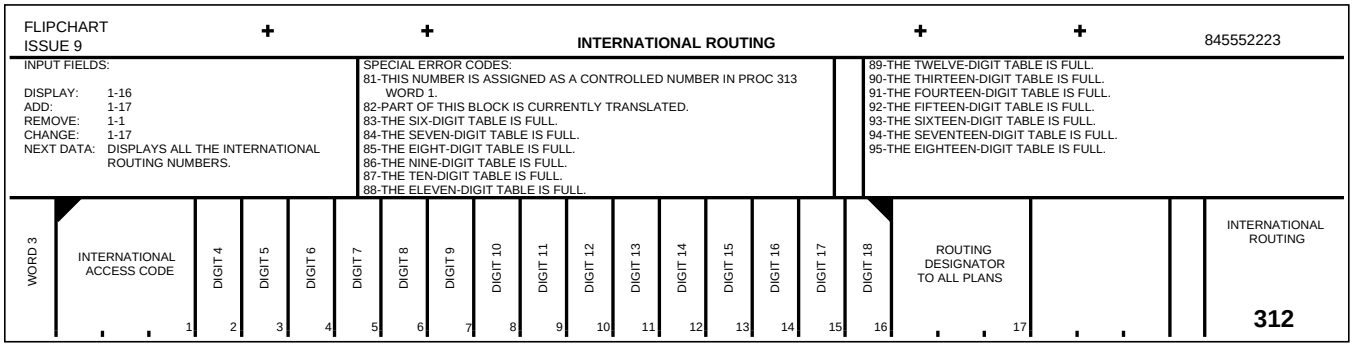
Purpose

Use Procedure 312 Word 3 to administer international call routing. This procedure takes precedence over Procedure 311 Word 1 which is where the routing for ‘‘01’’ calls is normally administered. Any international phone numbers administered here will use the routing designator (pattern) in field 17.

Related Procedures

Procedures 312 Words 1-3 and 313 Word 1 share the same software tables. The number of assignments in Procedure 312 Words 1-3 and Procedure 313 Word 1 are added together in the same table. If an error in one procedure indicates the maximum has been reached (2048), the table is full. To add more information in one procedure, information must be removed from one of the other three procedures first.

Flipchart



Fields Used or Required for Command Routines

Display: Fields 1-16. You can enter data into field 1 and do a display. If a routing designator has been assigned to that access code, error 82 is displayed. This means you must continue to enter data into the remaining fields to discover what assignments have been made. You can also use Next Data on the digit string already entered in fields 1-16 to display the assignments.

Add: The minimum data required to do an add routine is fields 1-5 plus field 17. You can also add data with fields 1-6 plus field 17, 1-7 plus field 17, etc.

Change: Field 17.

Remove: Fields 1-17.

Next Data: Displays all international numbers assigned to a routing designator.

Field Ranges and Encodes

1. International Access Code — 010-019

   For international routing with international operator assistance, only 01 is needed as an international access code (IAC). The first digit of the country code should be used to fill this field to 3 digits, continuing into the next fields with the remaining digits of the country code.

2. Digit 4 — 0-9

3. Digit 5 — 0-9

4.	Digit 6	0-9
5.	Digit 7	0-9
6.	Digit 8	-, 0-9
7.	Digit 9	-, 0-9
8.	Digit 10	-, 0-9
9.	Digit 11	-, 0-9
10.	Digit 12	-, 0-9
11.	Digit 13	-, 0-9
12.	Digit 14	-, 0-9
13.	Digit 15	-, 0-9
14.	Digit 16	-, 0-9
15.	Digit 17	-, 0-9
16.	Digit 18	-, 0-9

17.	Routing Designator To All Plans	1-64 The routing designator specified in this field is the same as the ARS pattern in Procedure 309 Word 1 for a nonpartitioned switch (Tenant Services disabled). Each digit string administered in this procedure requires a routing designator. Each digit string must be at least 7-18 digits long (includes the IAC) in order to assign a routing designator.

Notes

1. A digit string consists of a set of digits entered in fields 1-5 up to field 16 that are administered to a routing designator. For example, if you wanted all calls going to Belfast, Northern Ireland (country code 44, city code 232) to be routed with designator 22, you would put ‘‘014’’ in field 1, 4 in field 2, 2 in field 3, 3 in field 4, 2 in field 5, and 22 in field 17.
2. You must have at least the first seven digits filled (fields 1-5) plus field 17.
3. A maximum of 2048 digit strings 7 to 10 digits in length are allowed. A maximum of 256 digit strings 11 to 18 digits in length are allowed.

Special Error Codes

81 - This number is assigned as a controlled number in Procedure 313 Word 1.

82 - All or part of this number is currently translated. Use Next Data to display all assignments.

83 - The six-digit table is full.

84 - The seven-digit table is full.

85 - The eight-digit table is full.

86 - The nine-digit table is full.

87 - The ten-digit table is full.

88 - The eleven-digit table is full.

89 - The twelve-digit table is full.

90 - The thirteen-digit table is full.

91 - The fourteen-digit table is full.

92 - The fifteen-digit table is full.

93 - The sixteen-digit table is full.

94 - The seventeen-digit table is full.

95 - The eighteen-digit table is full.

Procedure 313 Word 1 — Unauthorized Call Control

178

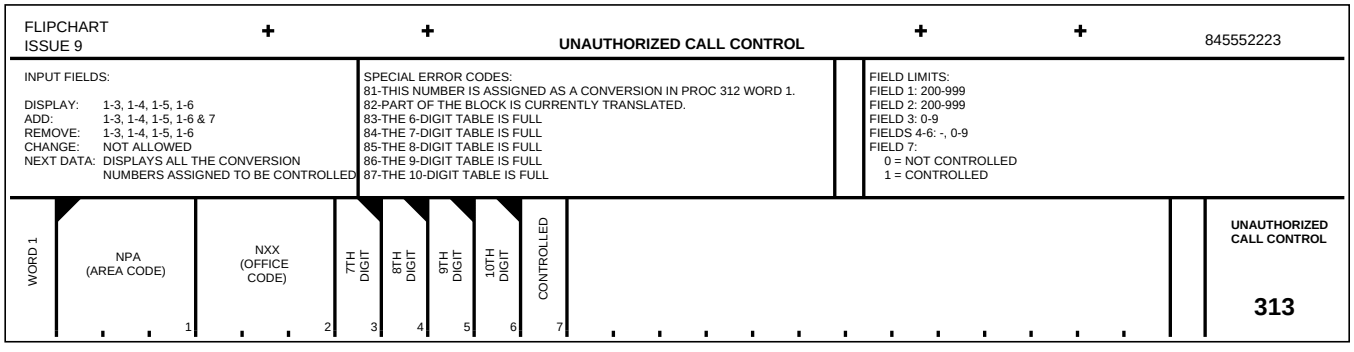
Purpose

Use Procedure 313 Word 1 to administer the unauthorized call control capability.

Related Procedures

Procedures 312 Words 1 and 2 and 313 Word 1 share the same software tables. The number of conversions in Procedure 312 Words 1 and 2 and the number of restrictions in Procedure 313 Word 1 are added together in the same table. If an error in one procedure indicates a maximum (2048) has been reached, the table is full. To add more information in one procedure, information must be removed from one of the other three procedures first.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1-6. You can enter data into field 1 and do a display. If there are any conversions assigned to that area code, error 82 is displayed. This means you must continue to enter data into the remaining fields to discover what assignments have been made. You can also use Next Data on the digit string already entered in fields 1-6 to display the assignments.
Add:	The minimum data required to do an add routine is fields 1-3 plus field 7. You can also add data with fields 1-4 plus field 7, 1-5 plus field 7, and 1-7. You don't have to set field 7 = 1 before doing an add routine. An add routine automatically sets field 7 = 1.
Change:	Not allowed.
Remove:	Fields 1-7.
Next Data:	Displays all the conversion numbers assigned to be controlled.

Field Ranges and Encodes

1.	Area Code (NPA)	200-999	
2.	Office Code (NXX)	200-999	
3.	Digit 7	0-9	
4.	Digit 8	-, 0-9	
5.	Digit 9	-, 0-9	
6.	Digit 10	-, 0-9	
7.	Controlled	0 1	Not controlled Controlled

This field shows whether the number entered in fields 1-3, 1-4, 1-5, or 1-6 is assigned to be controlled (field 7 = 1) or not controlled (field 7 = 0). The add and remove routines must be used to change the code in field 7.

Special Error Codes

81 - This number is assigned as a conversion in Procedure 312 Words 1 and 2.

82 - All or part of this number is currently translated.

83 - The 6-digit table is full.

84 - The 7-digit table is full.

85 - The 8-digit table is full.

86 - The 9-digit table is full.

87 - The 10-digit table is full.

Procedure 314 Word 1 — ARS Routing - Tenant Services

179

Purpose

Use Procedure 314 Word 1 to administer the Automatic Route Selection (ARS) routing assignments used by Tenant Services. By default, call category 0 routing designators use the same number for their ARS patterns (e.g., routing designator 10 accesses ARS pattern 10). Call category 0 also defaults to extension partition 0. For other extension partitions, you can mix-and-match the routing designators and ARS patterns for each call category. See the *DEFINITY(TM) Communications System Generic 2 and System 85 Feature Descriptions* (555-104-401) or the *AT&T System 85 Features Reference Manual* (555-103-301) for more information.

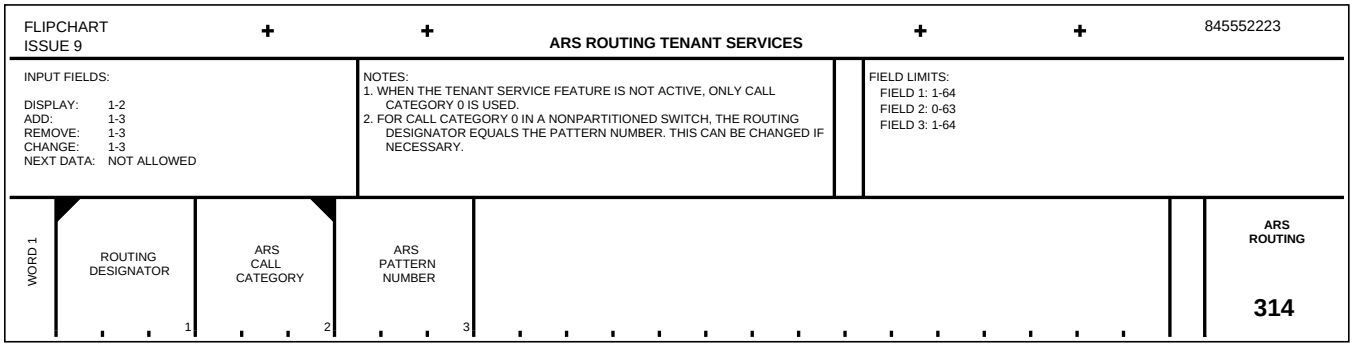
Related Procedures

Use Procedure 276 Word 1 to enable the Tenant Services feature (field 6).

Use Procedure 270 Words 1-5 to administer other Tenant Services parameters.

Use Procedure 320 Words 2 and 3 to administer ARS call categories to partitions.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-3.
Change:	Fields 1-3.
Remove:	Fields 1-3.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Routing Designator — 1-64

   Each unique routing designator and call category pair maps to one of 64 ARS patterns.

2. ARS Call Category — 0-63

   Each call category points to a set of routing designators that correspond to a set of dialed digits.

3. ARS Pattern Number — 1-64

Notes

1. When the Tenant Services feature is not active, only call category 0 is used.
2. For call category 0 in a nonpartitioned switch, the routing designator equals the pattern number. This can be changed if necessary.

Special Error Codes

None.

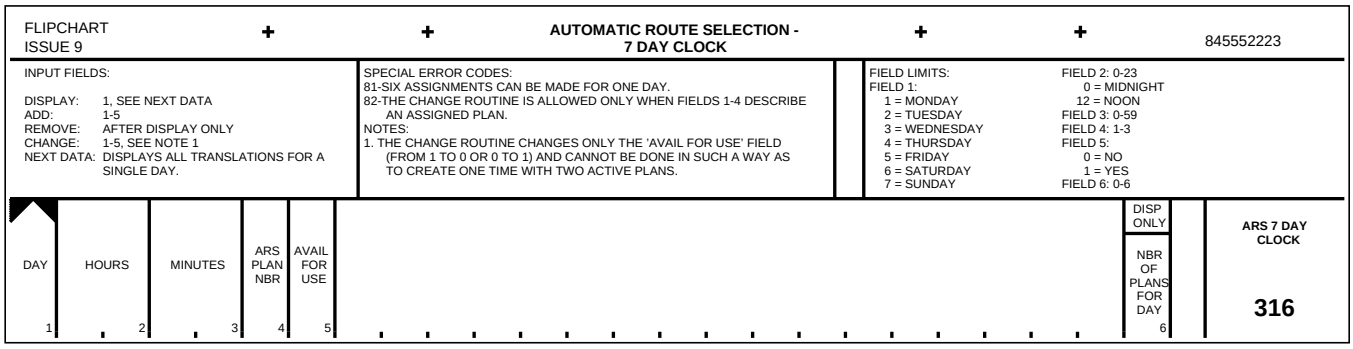
Procedure 316 Word 1 — ARS - 7 Day Clock

180

Purpose

Use Procedure 316 Word 1 to administer ARS plan numbers with their associated plan change times. One of three ARS plans can be administered to become active at six different times in a 24-hour period.

Flipchart



FLIPCHART
ISSUE 9

AUTOMATIC ROUTE SELECTION - 7 DAY CLOCK

845552223

INPUT FIELDS:

DISPLAY: 1, SEE NEXT DATA
ADD: 1-5
REMOVE: AFTER DISPLAY ONLY
CHANGE: 1-5, SEE NOTE 1
NEXT DATA: DISPLAYS ALL TRANSLATIONS FOR A SINGLE DAY.

SPECIAL ERROR CODES:
81-SIX ASSIGNMENTS CAN BE MADE FOR ONE DAY.
82-THE CHANGE ROUTINE IS ALLOWED ONLY WHEN FIELDS 1-4 DESCRIBE AN ASSIGNED PLAN.
NOTES:
1. THE CHANGE ROUTINE CHANGES ONLY THE 'AVAIL FOR USE' FIELD (FROM 1 TO 0 OR 0 TO 1) AND CANNOT BE DONE IN SUCH A WAY AS TO CREATE ONE TIME WITH TWO ACTIVE PLANS.

FIELD LIMITS:
FIELD 1:
1 = MONDAY
2 = TUESDAY
3 = WEDNESDAY
4 = THURSDAY
5 = FRIDAY
6 = SATURDAY
7 = SUNDAY
FIELD 2: 0-23
0 = MIDNIGHT
12 = NOON
FIELD 3: 0-59
FIELD 4: 1-3
FIELD 5:
0 = NO
1 = YES
FIELD 6: 0-6

DAY 1	HOURS 2	MINUTES 3	ARS PLAN NBR 4	AVAIL FOR USE 5	DISP ONLY / NBR OF PLANS FOR DAY 6	ARS 7 DAY CLOCK 316

Fields Used or Required for Command Routines

Display:	Field 1 (see Next Data).
Add:	Fields 1-5.
Change:	Fields 1-5. The change routine changes only the ‘‘available for use’’ field (from 1 to 0 or 0 to 1) and cannot be done in such a way as to create one time with two active plans.
Remove:	Fields 1-5.
Next Data:	Displays all translations for a single day.

Field Ranges and Encodes

1.	Day	1	Monday
		2	Tuesday
		3	Wednesday
		4	Thursday
		5	Friday
		6	Saturday
		7	Sunday
2.	Hours	0-23 (0 = midnight, 12 = noon)	
3.	Minutes	0-59	
4.	ARS Plan Number	1-3	
5.	Available For Use	0	No
		1	Yes

DISPLAY ONLY (Field 6)

6.	Number of Plans For Day	0-6 The ARS plan number can be changed a maximum of six times in one day.	

Special Error Codes

81 - Six assignments can be made for one day.

82 - The change routine is allowed only when fields 1-4 describe an assigned plan.

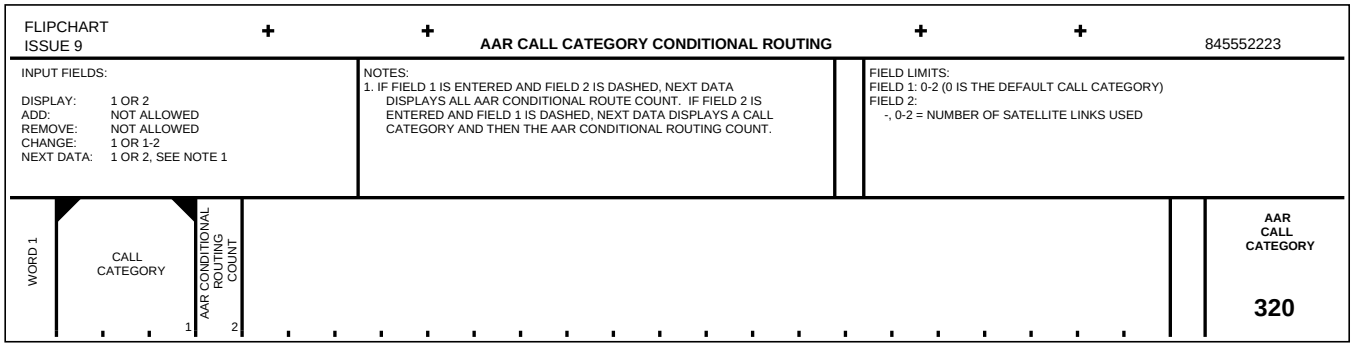
Procedure 320 Word 1 — AAR Call Category Conditional Routing

181

Purpose

Use Procedure 320 Word 1 to administer AAR call categories associated with the conditional routing count.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or 2.
Add:	Not allowed.
Change:	Field 1 or fields 1 and 2.
Remove:	Not allowed.
Next Data:	If field 1 is entered and field 2 is dashed, it displays the AAR conditional routing count. If field 2 is entered, it displays a call category and then the AAR conditional routing count.

Field Ranges and Encodes

1.	Call Category	-, 0-2 (0 is default call category)
2.	AAR Conditional Routing Count	-,0-2 Satellite links used Assigning a Call Category sets up conditional routing (Satellite Hop Control). Conditional routing counts the number of satellite links a call has used to reach the local switch. Conditional routing can prevent the call from accessing an AAR pattern containing satellite links.

Special Error Codes

None.

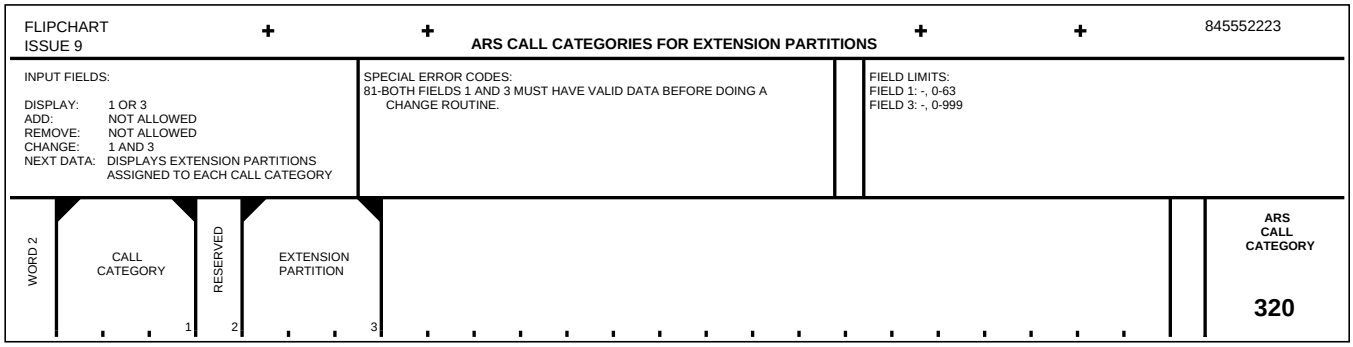
Procedure 320 Word 2 — ARS Call Category for Extension Partitions

182

Purpose

Use Procedure 320 Word 2 to administer Automatic Route Selection (ARS) call categories.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or 3.
Add:	Not allowed.
Change:	Fields 1 and 3.
Remove:	Not allowed.
Next Data:	Displays extension partitions assigned to each call category.

Field Ranges and Encodes

1. Call Category -, 0-63

3. Extension Partition -, 0-999

Special Error Codes

81 - Both fields 1 and 3 must have valid data before doing a change routine.

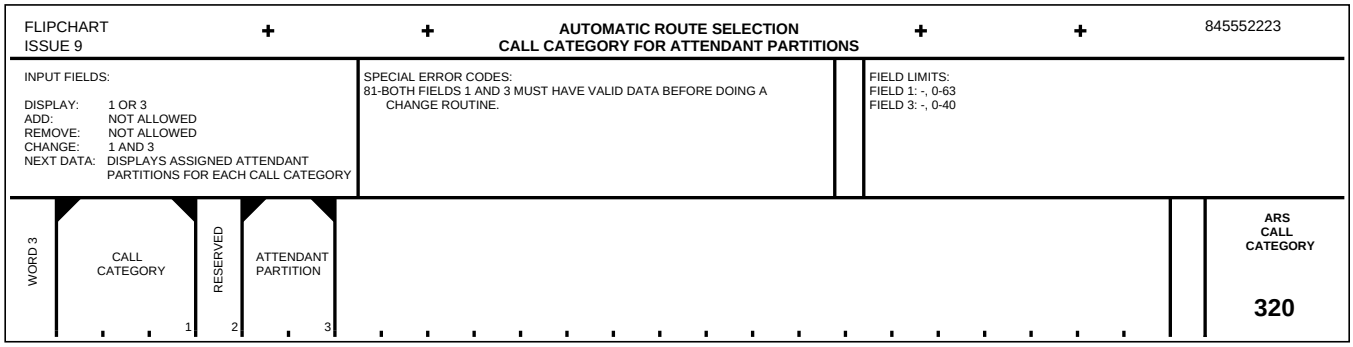
Procedure 320 Word 3 — ARS Call Category for Attendant Partitions

183

Purpose

Use Procedure 320 Word 3 to administer Automatic Route Selection (ARS) call categories for attendant partitions.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or 3.
Add:	Not allowed.
Change:	Fields 1 and 3.
Remove:	Not allowed.
Next Data:	Displays assigned attendant partitions for each call category.

Field Ranges and Encodes

1. Call Category -, 0-63

3. Attendant Partition -, 0-40

Special Error Codes

81 - Both fields 1 and 3 must have valid data before doing a change routine.

Procedure 321 Word 1 — AAR - Route Tables

184

Purpose

Use Procedure 321 Word 1 to administer data for a particular pattern and preference used in Automatic Alternate Routing (AAR).

Prerequisite Procedures

Use Procedure 276 Word 1 to activate the standard network feature group before using this procedure.

Use Procedure 100 Word 1 to assign trunk groups before using this procedure.

Related Procedures

Use Procedure 103 Word 1 field 9 to set the AAR prefix to allow incoming callers to access the outgoing call features of AAR.

Use Procedure 321 Word 2 to administer subnetwork trunking for AAR patterns and preferences.

Use Procedure 321 Word 3 to assign the digits inserted for subnetwork access for AAR patterns and preferences.

Use Procedure 321 Word 4 to assign AAR patterns numbers to location codes.

Use Procedure 321 Word 5 to administer ISDN and bearer capability attributes to AAR patterns and preferences.

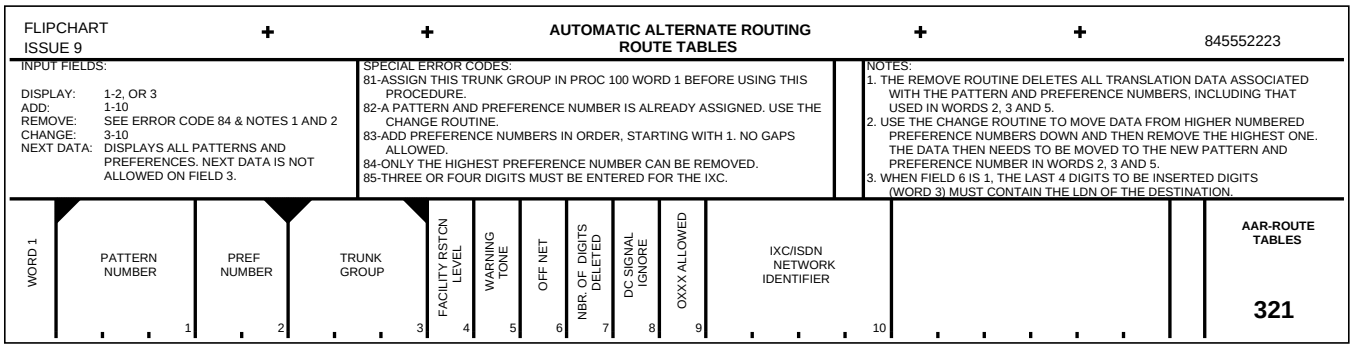
Use Procedure 350 Words 1 and 2 to administer the AAR feature access code.

Cautions

Errors made using this word affect all location codes (assigned in Procedure 321 Word 4) that use the pattern number.

The remove routine deletes all translation data associated with the pattern and preference numbers, including that used in Procedure 321 Words 2 and 3.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2 or field 3.
Add:	Fields 1-10.
Change:	Fields 3-10.
Remove:	Fields 2-10. The remove routine also removes all data or resets the defaults in Words 2-5. When removing preference numbers, start with the highest number (lowest priority). When removing a preference number that is within a group of preference numbers, remove the highest preferences first and then add the preferences you want to keep back in. For example, when removing preference 3 from preferences 1-5, remove preferences 5, 4, and 3. Then add old preference 4 back in as new preference 3 and old preference 5 back in as new preference 4. You will have to go back into Words 2-5 and readminister data for preferences 3 and 4 as necessary.
Next Data:	Displays all assigned preferences and patterns. Next data is not allowed on Field 3.

Field Ranges and Encodes

1. Pattern Number — 1-640

   Pattern 1 is normally reserved for intercept treatment of calls to unassigned location codes.

2. Preference Number — 1-16

   Preference numbers must be assigned in order, starting with 1. Gaps are not allowed. The lower the preference number the higher the preference. For example, preference number 1 has a higher priority than preference number 2.

3. Trunk Group — 18-999

4. Facility Restriction Level — 0-7

   An FRL sets the level of access to a preference. For example, a preference with an FRL of 5 will only allow access to terminals, authorization codes, and other trunk groups with an FRL of 5, 6, or 7.

5. Warning Tone

   0 Not given
   1 Given

   A warning tone is given when the call routing uses this preference.

6. Off Net

   0 On net route
   1 Off net DDD route
   2 Off net IDDD route

   When this field is 1, the last 4 digits of the digits to be inserted (Procedure 321 Word 3) must contain the LDN of the destination.

7. Number of Digits Deleted — 0-7

   The number of dialed digits are deleted from left to right (e.g., 457-2932 with three digits deleted leaves 2932).

8.	Digit Collect (DC) Signal Ignore	0 1	Disabled Enabled

When DC signal ignore is disabled (0), the local switch sends out the digits dialed when the distant switch responds. If enabled (1), the local switch will wait for the pause to expire (as administered in Procedure 321 Word 2) before sending out more digits.

9.	0xxx Allowed	0 1	Extensions can't start with ''0'' Extensions can start with ''0''
10.	IXC ISDN Network Identifier	- 000-9999	Not assigned Assigned

Special Error Codes

81 - Assign this trunk group in Procedure 100 Word 1 before using this procedure.

82 - A pattern and preference number is already assigned. Use the change routine.

83 - Add preference numbers in order, starting with 1. No gaps are allowed.

84 - Only the highest preference number can be removed.

85 - Three or four digits must be entered for the IXC.

Procedure 321 Word 2 — AAR - Subnet Trunking

185

Purpose

Use Procedure 321 Word 2 to administer translation data associated with subnetwork trunking for a particular Automatic Alternate Routing (AAR) pattern and preference number. The following items are affected:

- The number of digit groups
- The number of digits in a group
- The maximum length of pause time before sending digits in each group
- Use of rotary or touch-tone format in sending the digits.

Each group defines the digits outpulsed and the pause length before the digits are outpulsed to compensate for responses from the downstream system if required.

Prerequisite Procedures

Use Procedure 276 Word 1 to activate the standard network feature group before using this procedure.

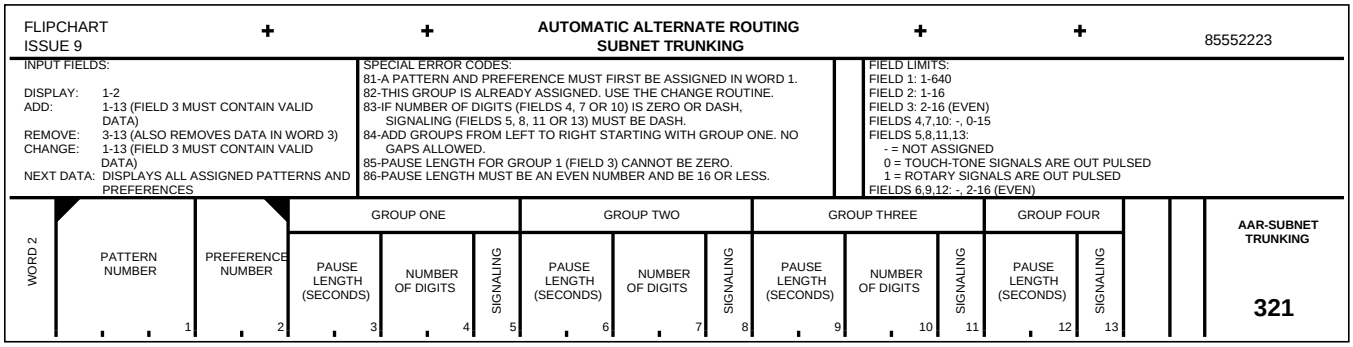
Use Procedure 321 Word 1 to assign the pattern and preference numbers before using an add or change routine in this procedure.

This procedure applies only if Procedure 103 Word 1 fields 3 and 4 do not both equal 1 for the trunk group displayed in Procedure 321 Word 1 field 3.

Cautions

Changes made using this word affect the subnetwork trunking for all location codes (assigned in Procedure 321 Word 4) that use the pattern number.

Flipchart



Fields Used or Required for Command Routines

Display:	Fields 1 and 2.
Add:	Fields 1-13 (the add routine requires that field 3 contain valid data).
Change:	Fields 1-13 (the change routine requires that field 3 contain valid data).
Remove:	Fields 3-13 (a remove routine also removes the data in Procedure 321 Word 3).
Next Data:	Displays all assigned patterns and preferences.

Field Ranges and Encodes

1. Pattern Number — 1-640

2. Preference Number — 1-16

GROUP ONE (Fields 3-5)

3. Pause Length — -, 2-16 (seconds in even numbers)

   The DC Signal Ignore (field 8 in Procedure 321 Word 1) must be set for this pause length to be recognized.

4. Number of Digits -, 0-15

5. Signaling
   - Not assigned
   0 Touch-tone
   1 Rotary

GROUP TWO (Fields 6-8)

6. Pause Length -, 0-16 (seconds in even numbers)

7. Number of Digits -, 0-15

8. Signaling
   - Not assigned
   0 Touch-tone
   1 Rotary

GROUP THREE (Fields 9-11)

9. Pause Length -, 0-16 (seconds in even numbers)

10. Number of Digits -, 0-15

11. Signaling
   - Not assigned
   0 Touch-tone
   1 Rotary

GROUP FOUR (Fields 12-13)

12. Pause Length -, 0-16 (seconds in even numbers)

13. Signaling
   - Not assigned
   0 Touch-tone
   1 Rotary

Notes

1. During an add or change routine when the number of digits field (fields 4, 7, or 10) for a group is zero or dashed, the rotary field (fields 5, 8, 11, or 13) for a group must be dashed. When the number-digits field for a group is not dashed and not zero, the rotary field must be 0 or 1, as required.
2. Groups must be added from left to right starting with group one, and allowing no gaps between group numbers.

Special Error Codes

81 - A pattern and preference must first be assigned in Procedure 321 Word 1.

82 - This group is already assigned. Use the change routine.

83 - If the number of digits fields (fields 4, 7, or 10) are zero or dashed, the rotary fields (fields 5, 8, 11, or 13) must be dashed.

84 - Add groups from left to right starting with group one, allowing no gaps.

85 - Pause length for group 1 (field 3) cannot be zero.

86 - Pause length must be an even number and be 16 or less.

Procedure 321 Word 3 — AAR - Digits Inserted

186

Purpose

Use Procedure 321 Word 3 to administer the digits inserted for subnetwork access for a given Automatic Alternate Routing (AAR) pattern and preference.

Prerequisite Procedures

Use Procedure 276 Word 1 to activate the standard network feature group before using this procedure.

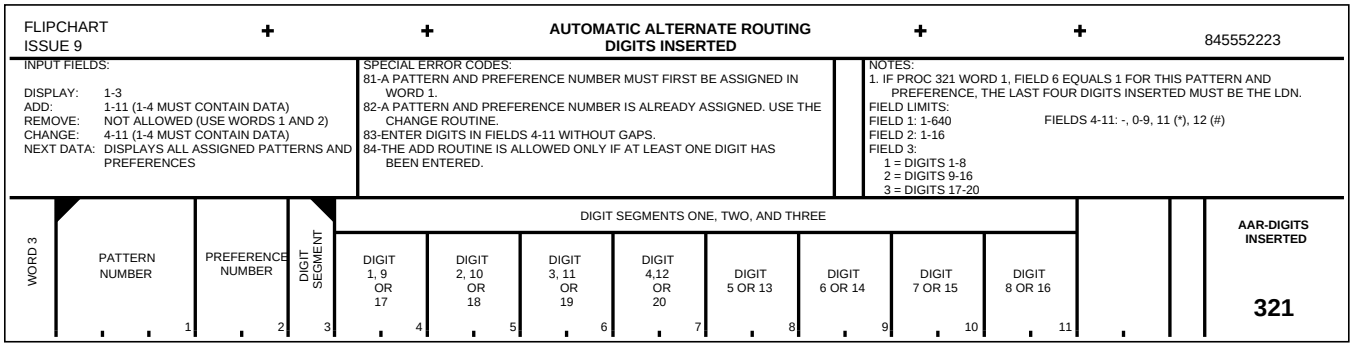
Use Procedure 321 Word 1 to assign the pattern and preference numbers before doing an add or change routine in this word.

This word applies only if Procedure 103 Word 1 fields 3 and 4 do not both equal 1 for the trunk group displayed in Procedure 321 Word 1 field 3.

Cautions

Changes made using this procedure affect the subnetwork trunking for all location codes (assigned in Procedure 321 Word 4) that use the pattern number.

Flipchart



Fields Used or Required for Command Routines

Display: Fields 1-3.

Add: Fields 1-11. Fields 1-4 must contain data before an add routine can be done.

Change: Fields 4-11. Fields 1-4 must contain data before a change routine can be done.

Remove: Not allowed. Use Word 1 or 2 to remove translations for this word.

Next Data: Displays all assigned patterns and preferences.

Field Ranges and Encodes

1. Pattern Number — 1-640

2. Preference Number — 1-16

3. Digit Segment
   - 1 Digits 1-8
   - 2 Digits 9-16
   - 3 Digits 17-20

   The first two digit segments can provide as many as the first 16 digits inserted (eight in each group). The third digit group is limited to inserting four digits or less.

DIGIT SEGMENTS ONE, TWO, AND THREE (Fields 4-11)

The digits in fields 4-11 must be entered without gaps.

4.	Digit 1, 9, or 17	-, 0-9, 11(*), 12(#)
5.	Digit 2, 10, or 18	-, 0-9, 11(*), 12(#)
6.	Digit 3, 11, or 19	-, 0-9, 11(*), 12(#)
7.	Digit 4, 12, or 20	-, 0-9, 11(*), 12(#)
8.	Digit 5 or 13	-, 0-9, 11(*), 12(#)
9.	Digit 6 or 14	-, 0-9, 11(*), 12(#)
10.	Digit 7 or 15	-, 0-9, 11(*), 12(#)
11.	Digit 8 or 16	-, 0-9, 11(*), 12(#)

Notes

1. If Procedure 321 Word 1 field 6 equals 1 for this pattern and preference, the last four digits inserted must be the LDN.

Special Error Codes

81 - A pattern and preference number must first be assigned in Procedure 321 Word 1.

82 - A pattern and preference number is already assigned. Use the change routine.

83 - Enter digits in fields 4-11 without gaps.

84 - The add routine is allowed only if at least one digit has been entered.

Procedure 321 Word 4 — AAR - Routing

187

Purpose

Use Procedure 321 Word 4 to assign Automatic Alternate Routing (AAR) pattern numbers to location codes (RNXs). This administration specifies how to route outgoing AAR calls.

Prerequisite Procedures

Use Procedure 276 Word 1 to activate the standard network feature group before using this procedure.

Related Procedures

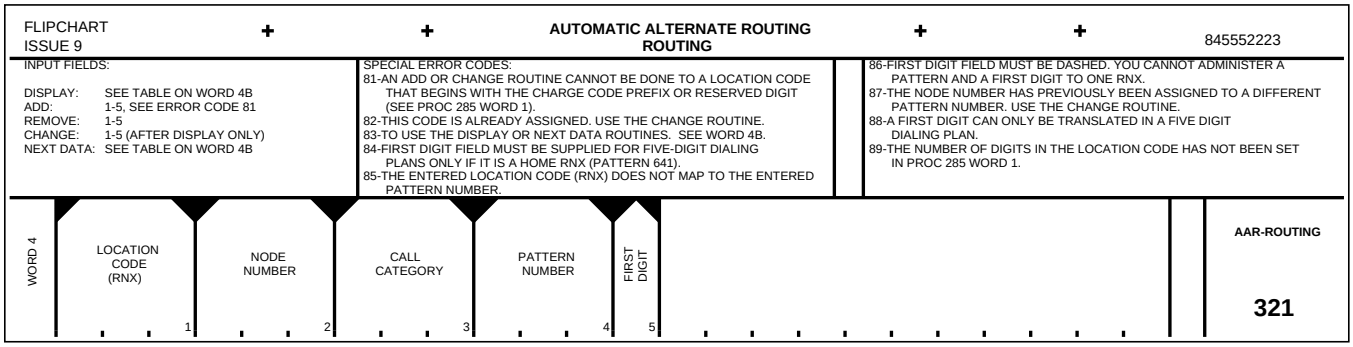
Use Procedure 320 Words 1-3 to administer call categories.

Cautions

Changes made using this word affect all terminals associated with the location code.

The number of digits in the location code is set in field 2 of Procedure 285 Word 1. Do not change this assignment unless absolutely necessary. Making such a change could void the entire translation for Procedure 321 Word 4.

Flipchart



Fields Used or Required for Command Routines

Display: To use the display or next data routine see the table in the Notes section.

Add: Fields 1-5. An add or change routine cannot be done to a location code that begins with the charge code prefix or reserved digit (see Procedure 285 Word 1).

Change: Fields 1-5 (after display only).

Remove: Fields 1-5.

Next Data: Fields 1-5. See the table in the Notes section.

Field Ranges and Encodes

1. Location Code (RNX) -, 22-29, 32-39, 42-49, 52-59, 62-69, 72-79, 82-89, 92-99, 220-299, 320-399, 420-499, . . . 920-999

   You cannot have an RNX with a first digit the same as the CDR Account Code Prefix or Reserved Digit administered in Procedure 285 Word 1.

   RNXs administered to patterns other than 641 are the home RNXs of other switches.

   To display the home RNX(s) for this switch, enter a 641 in field 4 and do a display execute.

2. Node Number -, 1-999

   This node number is assigned in Procedure 354 Word 2.

3. Call Category -, 0-2

   The Call Category will display zero as a default if not entered.

4. Pattern Number — -, 1-640, 641

   A dash in this field is equivalent to encode 641, but a dash requires that you have a digit in field 5.

   By entering 641 in this field (all other fields dashed) and doing a display execute, the home RNX of this switch is displayed. Consecutive next data routines will reveal any additional home RNXs.

5. First Digit — -, 0-9

Notes

1. The node number and first digit fields are mutually exclusive. Either fields 2-4 or field 5 will be dashed when Location Code is displayed.
2. When using pattern number, either default (dash) call category or enter valid data. When using node number, either default (dash) call category or enter valid data.
3. The following table contains the type of data that must be entered in each field in order to use the next data routine (search) on a given field.

Field 1	Field 2	Field 3	Field 4	Field 5
Location Code	**Node Number**	**Call Category**	**Pattern Number**	**First Digit**
Entered: next data increments this field	Dashed: display this field	Default to 0 if not Entered	Dashed: display this field	Dashed: display this field
Entered: find all values for field 2	Dashed: find all values for field 4	Default to 0 if not Entered	Entered: next data finds next node number and all location codes for it	Dashed: display this field
Dashed: find all values for field 2	Dashed: find all values for field 4	Default to 0 if not Entered	Entered: next data finds next node number and all location codes for it	Dashed: display this field
Dashed: find all values for field 2	Entered: next data finds next location code	Default to 0 if not Entered	Dashed: display this field	Dashed: display this field

Special Error Codes

81 - An add or change routine cannot be done to a location code that begins with the charge code prefix or reserved digit (see Procedure 285 Word 1).

82 - This code is already assigned. Use the change routine.

83 - To use the display or next data routine, see the table in the Notes section.

84 - First digit field must be supplied for five-digit dialing plans only if it is a home RNX (pattern 641).

85 - The entered location code (RNX) does not map to the entered pattern number.

86 - The first digit field must be dashed. You cannot administer a pattern and a first digit to one RNX.

87 - The node number has previously been assigned to a different pattern number. Use the change routine.

88 - A first digit can only be translated in a 5-digit dialing plan.

89 - The number of digits in the location code has not been set in Procedure 285 Word 1.

Procedure 321 Word 5 — AAR - ISDN and Bearer Capability

188

Purpose

Use Procedure 321 Word 5 to administer ISDN parameters to Automatic Alternate Routing (AAR) pattern and preference routings.

Prerequisite Procedures

Use Procedure 321 Word 1 to assign trunk groups before using this procedure.

Flipchart

FLIPCHART
ISSUE 9

AUTOMATIC ALTERNATE ROUTING - ISDN AND OTHER FEATURE PARAMETERS

845552223

INPUT FIELDS:

DISPLAY:	1-2 & 4
ADD:	1-9
REMOVE:	3-9
CHANGE:	3-9
NEXT DATA:	DISPLAYS ALL ASSIGNED PATTERNS AND PREFERENCES. CANNOT BE USED ON FIELD 4.

SPECIAL ERROR CODES:
81-ASSIGN A TRUNK GROUP FOR THIS ROUTE IN WORD 1 FIRST.
82-INVALID TRUNK TYPE. FIELD 3 MUST BE DASHED IF THE PRE-ASSIGNED TRUNK TYPE IN PROC 100 IS NOT ISDN DYNAMIC.
83-TRUNK TYPE INCOMPATIBLE, SEE VALID ENCODES FOR FIELD 3.

FIELD LIMITS:
FIELD 1: 1-640
FIELD 2: 1-16

WORD 5	PATTERN NUMBER 1	PREF NUMBER 2	ISDN TRUNK TYPE 3	NETWORK SERVICE VALUE 4	BEARER CAPABILITY: VOICE OR VOICE GRADE 5	MODE 1 DATA 6	MODE 2 DATA 7	MODE 3 DATA 8	MODE 0 DATA 9		ISDN AAR-TRANSLATION 321

Fields Used or Required for Command Routines

Display:	Fields 1 and 2 or fields 1, 2, and 4.
Add:	Fields 1-9.
Change:	Fields 3-9.
Remove:	Fields 3-9.
Next Data:	Displays all assigned patterns and preferences. The next data routine cannot be used on field 4.

Field Ranges and Encodes

1. Pattern Number — 1-640

2. Preference Number — 1-16

3. ISDN Dynamic Trunk Type

-	Not applicable (trunk type is not ISDN dynamic)
17	CO 1-way out DOD
27	WATS 1-way out DOD or toll terminal access for TSPS
41	TIE ETN 2-way dial repeating
43	TIE ETN 1-way out dial repeating
46	TIE ETN 2-way dial repeating
47	TIE ETN 2-way dial repeating
108	DMI host terminating, dial repeating in/automatic out
109	DMI dial repeating in and out

When these trunk types are used, the trunk group administered to this preference must be assigned as trunk type 120 in Procedure 100 Word 1.

4. Network Service Value — -, 1-511, 999

The Network Service Value (NSF) is an information element sent with ISDN calls to identify whose long distance services are being used for the calls.

If the System 85 is connected to a 4 ESS(RG) 4E11 switch, use NSF 999 to access ACCUNET service. If the System 85 is connected to a 4 ESS 4E13 switch, use NSF 357 to access ACCUNET service. The following table shows the possible facility coding values and to what NSF they translate:

Service Type	Facility Coding Value	NSF
Parameterized, feature	0	0
	1	1
	2	2
	etc	etc
	31	31
Parameterized, service	0	32
	1*	33-288
	2	289
	etc	etc
	31	318
Binary, feature	0	319
	1	320
	2	321
	etc	etc
	31	350
Binary, service	0	351
	1	352
	2	353
	etc	etc
	31	382
* For OUTWATS, value ‘‘1’’ has ASCII values 0-255 as parameters. 33 mapping to ASCII 0, 34 mapping to ASCII 1, etc.		

Use the following NSF values for AT&T services:

352-SDN (binary, service value of 1)
353-MEGACOM(RG) 800 (binary, service value of 2)
354-MEGACOM (binary, service value of 3)
355-INWATS (binary, service value of 4)
356-WATS (binary, service value of 5)
357-ACCUNET (binary, service value of 6, when connected to 4ESS 4E13)
359-INTERNATIONAL 800 (binary, service value of 8)
360-700 SERVICE (binary, service value of 9)
361-DIRECT ACCESS 800 (binary, service value of 10)
362-ETN (binary, service value of 11)
363-PRIVATE LINE (binary, service value of 12)
999-ACCUNET (binary, service value of 6, when connected to 4ESS 4E11)

BEARER CAPABILITY (Fields 5-9)

0 Not supported
1 Supported

5. Voice or Voice Grade 0-1

6. Mode 1 Data 0-1

7. Mode 2 Data 0-1

8. Mode 3 Data 0-1

9. Mode 0 Data 0-1

Special Error Codes

81 - Assign a trunk group for this route in Procedure 321 Word 1 before using this procedure.

82 - Invalid trunk type. Field 3 must be dashed if the preassigned trunk type in Procedure 100 Word 1 is not ISDN dynamic.

83 - Trunk type incompatible. See valid encodes for field 3.

Procedure 322 Word 1 — Extension to Home RNX Translation

189

Purpose

Use Procedure 322 Word 1 to administer the relationship between the first and second digit of an extension to a location code (RNX) for node-to-node extension number portability. This procedure is useful when all extensions starting with a particular digit or digits are to be routed to a given RNX.

Prerequisite Procedures

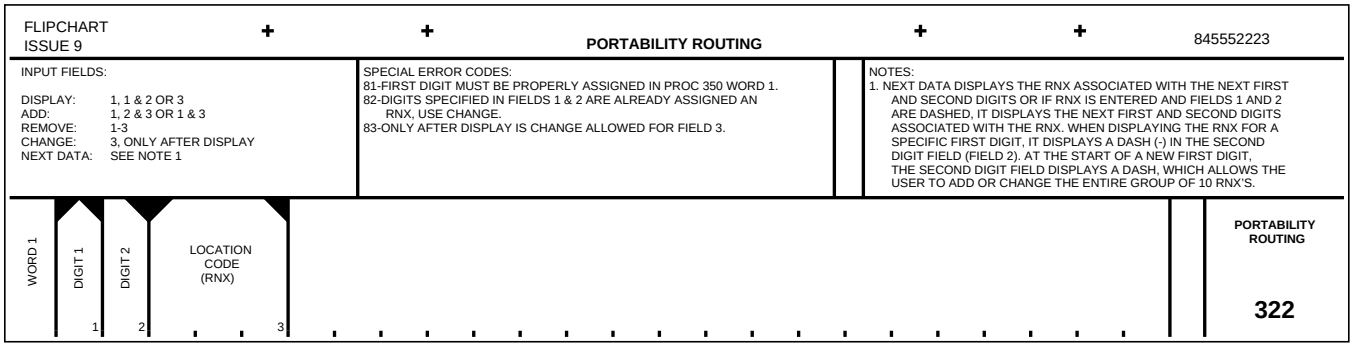
Use Procedure 350 Word 1 to administer a valid first digit for an extension number.

Use Procedure 321 Word 4 to assign the location code (RNX) and node number.

Related Procedures

Use Procedure 354 Words 1 and 2 to administer extensions groups and access code routing.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 1 and 2, or fields 1 and 3.
Add:	Field 1, fields 2 and 3 or fields 1 and 3.
Change:	Field 3 (after display only).
Remove:	Fields 1-3.
Next Data:	Displays the RNX associated with the next first and second digits, or if the RNX is entered and fields 1 and 2 are dashed, it displays the next first and second digit associated with the RNX. When displaying the RNX for a specific first digit, it displays a dash (-) in the second digit field (field 2). At the start of a new first digit the second digit field displays a dash, which allows the user to add or change the entire group of 10 RNXs.

Field Ranges and Encodes

1. Digit 1 — -, 0-9

2. Digit 2 — -, 0-9

   If nothing is entered here, all second digits of the first digit in field 1 are administered.

3. Location Code (RNX) — 220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999

   You cannot have an RNX with a first digit the same as the CDR Account Code Prefix or Reserved Digit administered in Procedure 285 Word 1.

Special Error Codes

81 - The first digit must be properly assigned in Procedure 350 Word 1.

82 - Digits specified in fields 1 and 2 are already assigned in RNX. Use a change routine.

83 - Only after a display is a change routine allowed for field 3.

Procedure 330 Word 1 — Queuing - System Translation

190

Purpose

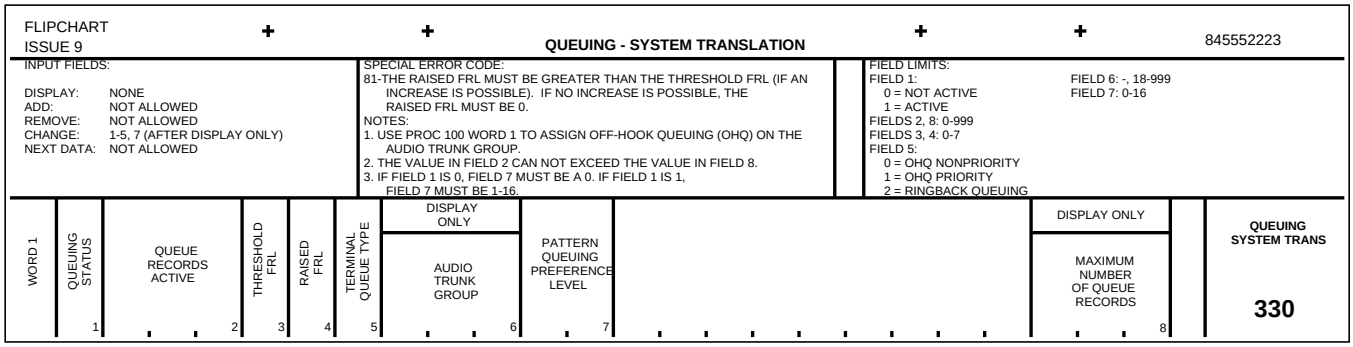
Use Procedure 330 Word 1 to administer the system translation for trunk queuing on outgoing calls.

Prerequisite Procedures

Use Procedure 100 Word 1 to assign off-hook queuing (OHQ) on the audio trunk group (trunk type 67).

Use Procedure 150 Word 1 to assign audio trunks (one trunk per module maximum).

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-5 and 7 (after display only).
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Queuing Status
   - 0 Not active
   - 1 Active

2. Queue Records Active

   0-999

   The value in this field cannot exceed the value in field 8. Field 8 is shown after doing a display and is calculated based on the availability of intercom, trunk, queue, and unused records.

3. Threshold FRL

   0-7

   This FRL is a system-wide FRL that is compared against the caller's default FRL.

4. Raised FRL

   0-7

   A caller's FRL is raised so the switch can make a final attempt to connect the caller to an idle trunk. FRLs can be raised only if all the following conditions are met:

   1. The caller is using AAR or ARS.
   2. The caller is about to be dropped from the queue.
   3. The caller's FRL is greater than or equal to the threshold FRL (field 3).

5. Terminal Queue Type
   - 0 Off-hook queuing, nonpriority
   - 1 Off-hook queuing, priority
   - 2 Ringback queuing

   Nonpriority OHQ is the default for the system. Ringback queuing (RBQ) is always nonpriority.

   RBQ cannot be administered on two-way tie trunks (use Procedure 178 Word 1 to display assigned trunk types).

   If no audio trunk group is assigned, OHQ is disabled.

DISPLAY ONLY (Field 6)

6. Audio Trunk Group
   -, 18-999

   The audio trunk group is assigned by a service technician.

7. Pattern Queuing Preference Level
   0-16

   If field 1 = 0, field 7 must be 0. If field 1 = 1, field 7 must be 1-16.

DISPLAY ONLY (Field 8)

8. Maximum Number of Queue Records
   0-999

Special Error Codes

81 - The Raised FRL must be greater than the Threshold FRL (if an increase is possible). If no increase is possible, the Raised FRL must be 0.

Procedure 330 Word 2 — Queuing - Trunk Group Translation

191

Purpose

Use Procedure 330 Word 2 to administer trunk group translations for trunk queuing on outgoing calls.

Prerequisite Procedures

Use Procedure 100 Word 1 to assign trunk groups used by queuing.

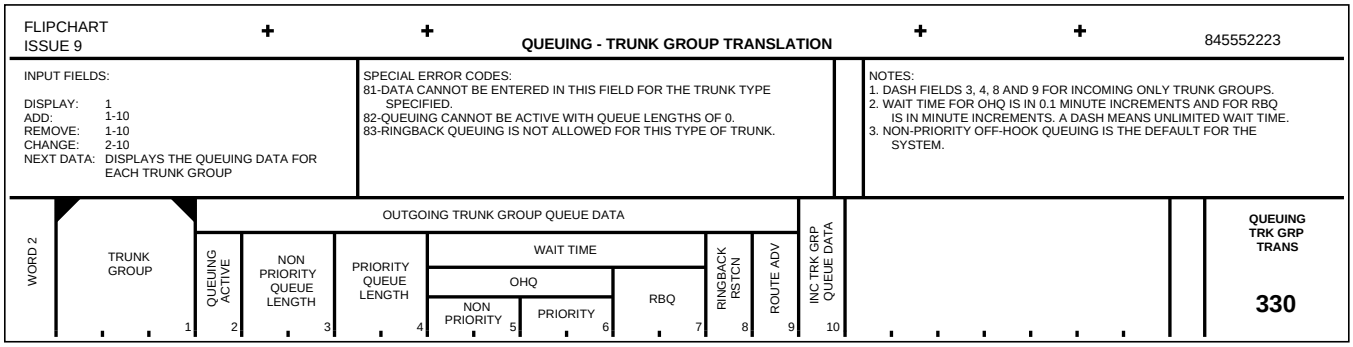
Related Procedures

Queuing cannot be assigned to the audio trunk group (Procedure 100 Word 1, trunk type 67). If the the audio trunk group is already assigned, it can be displayed in Procedure 330 Word 1.

Cautions

Deactivating queuing in field 2 causes calls currently in queue to be dropped from the queue.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-10.
Change:	Fields 2-10.
Remove:	Fields 1-10.
Next Data:	Displays the queuing data for each trunk group.

Field Ranges and Encodes

1. Trunk Group — 18-999

   If the trunk group is incoming only, fields 3, 4, 8 and 9 must be dashed.

OUTGOING TRUNK GROUP QUEUE DATA (Fields 2-9)

2. Queuing Status
   - 0 Not active
   - 1 Active

3. Nonpriority Queue Length — -, 0-63

   Nonpriority OHQ is the default for the system. RBQ is always nonpriority.

4. Priority Queue Length — -, 0-63

WAIT TIME (Fields 5-7)

5. Nonpriority OHQ
   - \- No limit
   - 1-79 Wait time in 0.1-minute increments

6.	Priority OHQ	-	No limit
		1-79	Wait time in 0.1-minute increments
7.	RBQ	-	No Limit
		1-60	Wait time in one-minute increments
8.	Ringback Restriction	0	RBQ not restricted
		1	RBQ restricted
		2	Change RBQ to OHQ
			If RBQ is changed to OHQ in this field, the OHQ wait time now applies.
9.	Route Advance	0	Not allowed
		1	Allowed
10.	Incoming Trunk Queue Data	-	See Special Error Code 81
		0	OHQ nonpriority
		1	OHQ priority
		2	RBQ 2 digits in dial code of terminals
		3	RBQ 3 digits in dial code of terminals
		4	RBQ 4 digits in dial code of terminals
		5	RBQ 5 digits in dial code of terminals
		6	No queue
			Ringback queuing is not allowed on two-way tie trunks (use Procedure 178 Word 1 to display the administered trunk type).

Special Error Codes

81 - Data cannot be entered in this field for the trunk type specified.

82 - Queuing cannot be active with queue lengths of 0.

83 - Ringback queuing is not allowed for this type of trunk.

Procedure 350 Word 1 — Dialing Plan - First Digit

192

Purpose

Use Procedure 350 Word 1 to administer the first dialed digit of a dial access code (DAC) or extension number for the dialing plan. The first dialed digit is defined in terms of the number of digits expected and call type.

Prerequisite Procedures

Check all procedures that include an extension number or dial access code before removing or changing a first dialed digit.

Related Procedures

After defining a given call type (field 3), use the appropriate procedure(s) listed below to complete the administration.

a. For extension numbers (encode 1), use Procedure 354 Word 1.

b. For feature dial access codes (encode 2), use Procedure 350 Word 2.

c. For trunk dial access codes (encode 2), use Procedure 100 Word 1, and 104 Words 1 and 2.

d. For attendant dial access codes (encode 2), use Procedure 350 Word 2.

To change from a multidigit feature dial access code to a single-digit dial access code, do the following steps in the order shown:

a. Remove the multidigit feature dial access code using Procedure 350 Word 2.

b. Change the number of digits and call type using Procedure 350 Word 1 fields 2 and 3.

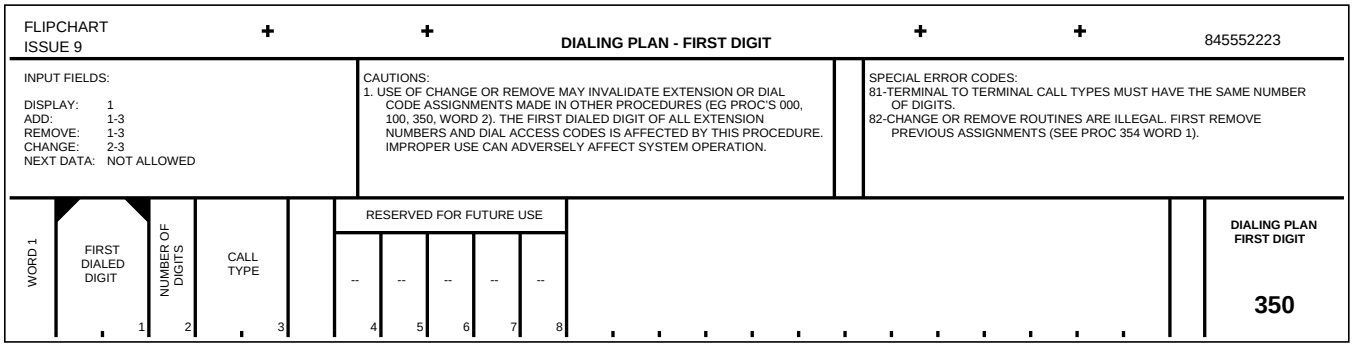
c. Add the single-digit feature dial access code using Procedure 350 Word 2.

Cautions

Field 1 = 12 and field 2 = 1 voids the burned-in code feature of Procedure 350 Word 3.

Using the change or remove routines may invalidate extension or dial code assignments made in other procedures (e.g., Procedures 000 Word 1, 100 Word 1, 350 Word 2). The first dialed digit of all extension numbers and dial access codes is affected by Procedure 350 Word 1. Improper use of this procedure can adversely affect system operation.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-3.
Change:	Fields 2 and 3.
Remove:	Fields 1-3.
Next Data:	Not allowed.

Field Ranges and Encodes

1. First Dialed Digit — 0-9, 11 (*), 12 (#)

   Either an * or # can be used as the first digit of a trunk, feature, or attendant dial access code (DAC), but not an extension.

2.	Number of Digits	1-5 (1-4 for trunks, features, and attendant DACs, 3-5 for extensions)
3.	Call Type	1 Extension number 2 Trunk, feature, or attendant DAC

Notes

1. The number of digits expected (field 2) when the first digit is dialed is determined by the call type (field 3). The same initial digit cannot be used for different call types. For extension call types (encode 1), 3, 4, or 5 digits are expected. Extensions must all contain the same number of digits.

   For trunk, feature, and attendant DACs (encode 2), 1-4 digits are expected. This length can vary within the same system except that all trunk, feature, and attendant DACs using the same first digit must have the same length.

Special Error Codes

81 - Terminal-to-terminal call types must have the same number of digits.

82 - Change or remove routines are illegal. First remove previous assignments (see Procedure 354 Word 1).

Procedure 350 Word 2 — Dialing Plan - Feature Dial Access Codes 193

Purpose

Use Procedure 350 Word 2 to administer the dial access codes (DACs) for terminal, attendant, and system features.

Prerequisite Procedures

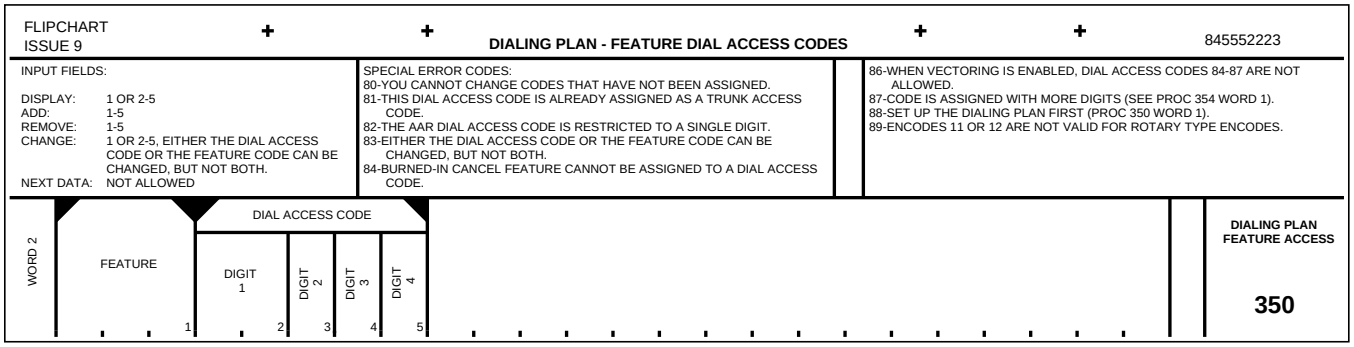
Use Procedure 350 Word 1 to administer the first dialed digit.

Related Procedures

Use Procedure 350 Word 3 to add feature access buttons to fixed-feature terminals.

Coordinate removal or change of feature DAC with assignments (if any) made in Procedure 354 Word 2.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2-5.
Add:	Fields 1-5.
Change:	Field 1 or fields 2-5 (either the dial access code or the feature code can be changed, but not both).
Remove:	Fields 1-5.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Feature

1	Call Forwarding - Follow Me
2	Call Forwarding - Busy and Don't Answer
3	Call Forwarding - cancel
4	Call Hold
5	Call Pickup
6	Call Waiting - answer hold
7	Priority Calling
8	Attendant DAC
9	Cancel Automatic Callback/Queuing
10	Demand printing
11	Override
13	Data Protection (temporary)
14	Demand print access (for LWC)
16	Call Answer Any Voice Terminal (CAAVT) - answer
17	Paging answer-back
18	Code calling - answer back
19	Automatic Callback
20	Attendant Control of Trunk Group Access - activate
21	Attendant Control of Trunk Group Access -

cancel
22 Unattended Console Service - clear all terminals
23 Unattended Console Service - assign common terminal
24 Unattended Console Service - override common terminal
25 Unattended Console Service - assign terminal to trunk
26 Remote Access - change barrier code
27 Attendant control of voice terminals - single extension
28 Attendant control of voice terminals - group of extensions
29 Attendant interposition calling and transfer
30 Extension to selected attendant
31 Attendant Release Loop (ARL) time change (timed reminder)
32 ARS nontoll route
33 ARS toll route
36 SMDR/CDR - account code
37 SMDR/CDR - start
38 SMDR/CDR - stop
40 Terminal test
42 Maintenance busy a trunk
43 Maintenance unbusy a trunk
44 TVT (trunk verification by terminal) trunk test access from terminal
45 CAS control - activate
46 CAS control of backup terminal
47 CAAVT - activate for CAS backup
48 CAS attendant puts remote call in hold state
49 Call to CAS attendant
50 CAS branch lamp test
53 Specific modem pool reservation
55 Send All Calls - activate
56 Send All Calls - cancel
57 Burned-in code - cancel/activate
58 Transfer - calls into AUDIX
60 ARS plan change
61 AAR access
62 Automatic Circuit Assurance - start
63 Automatic Circuit Assurance - stop
64 CAS main lamp test
66 Leave Word Calling - activate
67 Leave Word Calling - cancel
68 Message retrieval - lock
69 Message retrieval - unlock

70 ACD - auto in mode
71 ACD - auxiliary work mode
72 ACD - manual in mode
73 ACD - staffed mode
74 ACD - member add
75 ACD - member delete
76 ACD - announcement verify
77 ACD - agent override
78 ACD - agent override (tone)
79 ACD - reload lamp out
80 Divert attendant calls to recorded announcement - activate
81 Divert attendant calls to recorded announcement - cancel
82 AUTOVON - precedence calling
83 AUTOVON - attendant assistance
84 ACD overload - balance all
85 ACD overload - overflow
86 ACD overload - balance default
87 ACD overload - balance cancel
88 ACD - agent log in
89 ACD - agent log out
90 Dial the system list - touch-tone terminal
91 Dial list A - touch-tone terminal
92 Dial list B - touch-tone terminal
93 Program automatic dialing number or list
94 Dial the system list - rotary terminal
95 Dial list A - rotary terminal
96 Dial list B - rotary terminal
97 Unattended Console Service - activate
98 Unattended Console Service - deactivate
99 Malicious Call Trace - deactivate
100 Malicious Call Trace - activate
101 Speaker verification request
102 Speaker verification fail
103 Unadministered authorization code entered
104 No authorization code entered

DIAL ACCESS CODE (Fields 2-5)

2. Digit 1 0-9, 11 (*), 12 (#)

3. Digit 2 -, 0-9

4. Digit 3 -, 0-9

5. Digit 4 -, 0-9

Notes

1. Changing DACs affect users of Abbreviated Dialing and mnemonic dialing.
2. It is possible to double assign a single digit as a trunk (Procedure 100 Word 1) or feature (Procedure 350 Word 2) access code, and as a terminal number steering code (Procedure 354 Word 2). However, the actual use of the digit is determined by its assignment as a first digit. If defined as a trunk or feature access code, call processing treats the digit as a trunk or feature code. If the digit is defined as the first digit of a terminal code, the dialed digit(s) is treated as a steering code. The one exception to this rule is that if the digit is defined as a trunk access code and the dialing party is the attendant using a DXS key, the dialed digits are processed as a steering code. This provides attendant DXS capability to the terminal number steering feature.
3. The following lists contains the various encodes for the dial accessible features in the system. (*Feature can be assigned to fixed-feature terminals in Procedure 350 Word 3.)

Basic Terminal Features:

*1 = Call Forwarding - Follow Me
*2 = Call Forwarding - Busy and Don't Answer
*3 = Call Forwarding - Cancel
*4 = Call Hold
*5 = Call Pickup
*6 = Calling Waiting - answer hold
*7 = Priority Calling
*8 = Attendant DAC
*9 = Cancel Automatic Callback or Queuing
*10 = Demand printing
*11 = Override
*13 = Data Protection (temporary)
14 = Demand print - access (for LWC)
*16 = Call Answer Any Voice Terminal (CAAVT) - answer
*17 = Loudspeaker Paging Access - answer-back
*19 = Automatic Callback

*30 = Extension to selected attendant
*32 = ARS nontoll route
*33 = ARS toll route
*36 = SMDR/CDR - account code
 40 = Terminal test
 59 = Last Number Dialed

Basic Attendant Features:

Attendant Control of Trunk Group Access

 20 = Activate
 21 = Cancel

Unattended Console Service

 22 = Clear all terminals
 23 = Assign common terminal
 24 = Override common terminal
 25 = Assign terminal to trunk
 97 = Activate Unattended Console Service
 98 = Deactivate Unattended Console Service

Attendant Control of Voice Terminals

 27 = Single extension
 28 = Group of extensions

Miscellaneous Features:

 26 = Remote Access - change barrier capability code
 29 = Attendant interposition calling and transfer
 31 = Attendant Release Loop (ARL) time change (timed reminder)
 37 = SMDR/CDR - start
 38 = SMDR/CDR - stop
*55 = Send All Calls - activate
*56 = Send All Calls - cancel
*57 = Burned-in code cancel
 58 = Transfer - calls into AUDIX
*66 = Leave Word Calling - activate
*67 = Leave Word Calling - cancel
 68 = Message Retrieval - lock
 69 = Message Retrieval - unlock
 80 = Divert attendant calls to recorded announcement - activate
 81 = Divert attendant calls to recorded announcement - cancel

Abbreviated Dialing Features:

*90 = Dial the system list - touch-tone terminal
*91 = Dial list A - touch-tone terminal
*92 = Dial list B - touch-tone terminal
*93 = Program number or list
94 = Dial the system list - rotary terminal
95 = Dial list A - rotary terminal
96 = Dial list B - rotary terminal

Network Features:

42 = Maintenance busy a trunk
43 = Maintenance unbusy a trunk
44 = Trunk test from terminal
53 = Modem Pool - specific reservation
60 = ARS plan change
*61 = AAR access
62 = Automatic Circuit Assurance - start
63 = Automatic Circuit Assurance - stop

Retail Features:

18 = Code Calling - answer back
45 = CAS - control activate
46 = CAS - backup terminal control activate
47 = Call Answer Any Voice Terminal (CAAVT) - activate for CAS backup
48 = CAS - attendant remote hold
49 = CAS - call to attendant
50 = CAS - branch lamp test
64 = CAS - main lamp test

Special Features:

82 = AUTOVON - precedence calling
83 = AUTOVON - attendant assistance
99 = Malicious Call Trace - deactivate
100 = Malicious Call Trace - activate

ACD Features:

70 = Automatic in mode
71 = Auxiliary work mode
72 = Manual in mode
73 = Staffed mode
74 = Member add
75 = Member delete
76 = Announcement verify
77 = Agent override

78 = Agent override (warning tone)
79 = Reload lamp out
84 = Overload balancing - all
85 = Overload balancing - overflow
86 = Overload balancing - default
87 = Overload balancing - cancel
88 = Agent log in
89 = Agent log out

Speaker Verification Features:

101 = Speaker verification - accept
102 = Speaker verification - fail
103 = Unadministered authorization code entered
104 = No authorization code entered

Special Error Codes

80 - You cannot change codes that have not been assigned.

81 - This dial access code is already assigned as a trunk access code.

82 - The AAR dial access code is restricted to a single digit.

83 - Either the access code or the feature encode can be changed, but not both.

84 - Burned-in cancel feature cannot be assigned to a dial access code.

86 - When vectoring is enabled, dial access codes 84-87 are not allowed.

87 - Code is assigned with more digits (see Procedure 354 Word 1).

88 - Set up the dialing plan first (Procedure 350 Word 1).

89 - Encodes 11 and 12 (* and #) are not valid for rotary-type encodes.

Procedure 350 Word 3 — Burned-In Code Feature Assignment

194

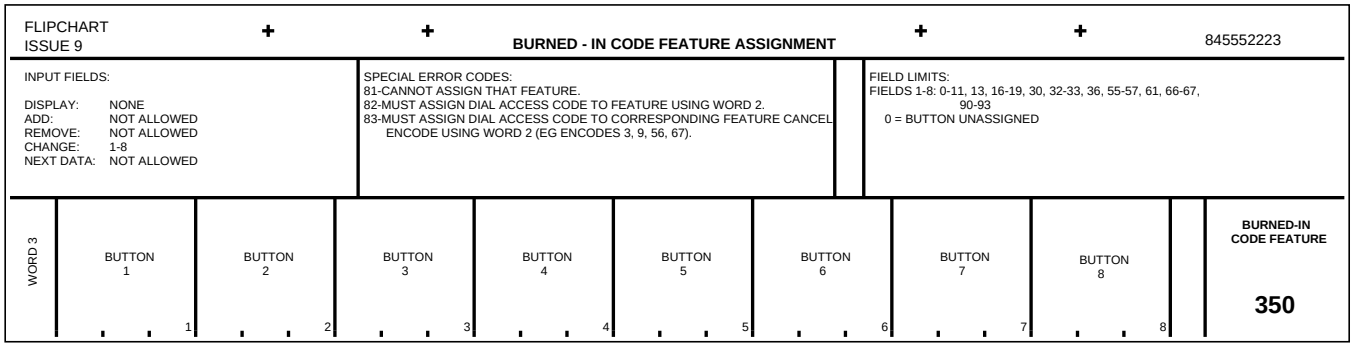
Purpose

Use Procedure 350 Word 3 to administer feature encodes for fixed-feature buttons on the 71-series voice terminals. The features administered in this procedure are active for all 71-series voice terminals in the system.

Prerequisite Procedures

Use Procedure 350 Word 2 to assign DACs for features, except for the Burned-In Cancel feature (code 5).

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-8.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

FEATURE ASSIGNMENTS (Fields 1-8)

0	Not assigned
1	Call Forwarding - Follow Me
2	Call Forwarding - Busy And Don't Answer
3	Call Forwarding - Cancel
4	Hold
5	Call Pickup
6	Call Waiting - answer or hold
7	Priority Calling
8	Attendant DAC
9	Automatic Callback or Queuing - cancel
10	Demand printing
11	Override
13	Data protection - temporary
16	CAAVT code
17	Loudspeaker Paging - answer back
18	Code Calling Access - answer back
19	Automatic Callback - activate
30	Terminal to select attendant
32	ARS nontoll route
33	ARS toll route
36	SMDR/CDR account code
55	Send All Calls - activate
56	Send All Calls - cancel
57	Burned-in code - cancel feature
61	AAR
66	Leave Word Calling - activate
67	Leave Word Calling - cancel
90	Abbreviated Dialing - access system list
91	Abbreviated Dialing - access list A
92	Abbreviated Dialing - access list B
93	Abbreviated Dialing - program

1.	Button 1	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93

2.	Button 2	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93
3.	Button 3	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93
4.	Button 4	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93
5.	Button 5	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93
6.	Button 6	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93
7.	Button 7	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93
8.	Button 8	0, 1-11, 13, 16-19, 30, 32-33, 36, 55-57, 61, 66-67, 90-93

Notes

1. Button features assigned in this procedure can also be assigned to 7103A 01C (programmable) terminals by the person using the terminal.
2. The following list contains the various encodes for the features assigned in this word.

Basic Terminal Features:

1 = Call Forwarding - Follow Me
2 = Call Forwarding - Busy And Don’t Answer
3 = Call Forwarding - Cancel
4 = Hold
5 = Call Pickup
6 = Call Waiting - answer or hold
7 = Priority Calling
8 = Attendant DAC
9 = Automatic Callback or Queuing - cancel
10 = Demand printing
11 = Override
13 = Data protection - temporary
16 = CAAVT code
17 = Loudspeaker Paging - answer back
19 = Automatic Callback - activate

30 = Terminal to select attendant
32 = ARS nontoll route
33 = ARS toll route
36 = SMDR/CDR account code

Basic Attendant features:

55 = Send All Calls - activate
56 = Send All Calls - cancel
57 = Burned-in code - cancel feature
66 = Leave Word Calling - activate
67 = Leave Word Calling - cancel

Abbreviated Dialing features:

90 = Abbreviated Dialing - access system list
91 = Abbreviated Dialing - access list A
92 = Abbreviated Dialing - access list B
93 = Abbreviated Dialing - program

Network feature:

61 = AAR

Retail features:

18 = Code Calling - answer back

Special Error Codes

81 - Cannot assign that feature.

82 - Must assign DAC (Dial Access Code) to feature using Procedure 350 Word 2.

83 - Must assign DAC to corresponding feature cancel encode using Procedure 350 Word 2 (e.g., encodes 3, 9, 56, 67).

Procedure 354 Word 1 — Extension Groups

195

Purpose

Use Procedure 354 Word 1 to administer the extension groups and node numbers that form the dialing plan for the system. Also use Procedure 354 Word 1 to administer block types and blocks of extensions in the dialing plan.

Prerequisite Procedures

Use Procedure 350 Word 1 to assign the first digit of an extension or to assign the prefix digit.

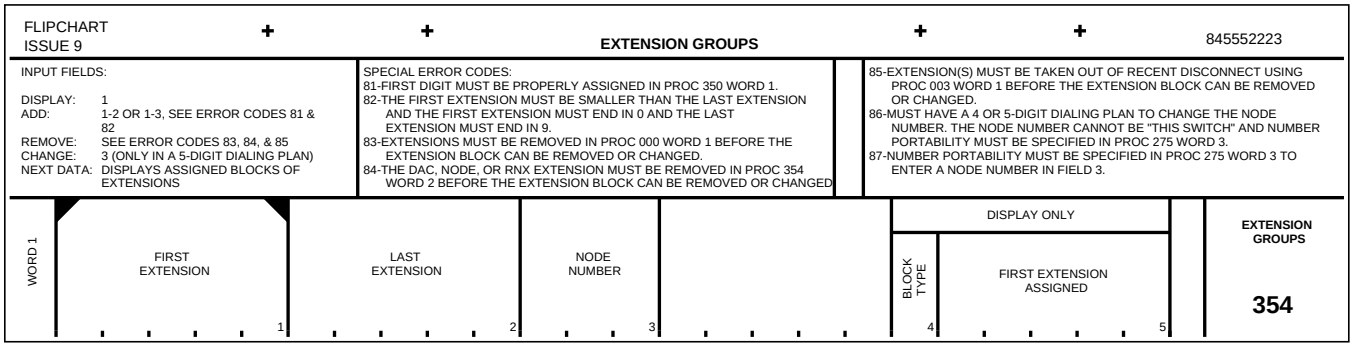
Use Procedure 000 Word 1 to remove all the extensions in a given group from service before the extension group can be removed in this procedure.

Use Procedure 354 Word 2 to remove a given DAC extension before the extension group is removed in this procedure.

Use Procedure 003 Word 1 to take extensions out of recent disconnect before changing or removing the block of extensions.

Use Procedure 275 Word 3 to specify number portability before entering a node number in field 3 of this procedure.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1.

Add: Fields 1 and 2 or 1-3. The first digit must be properly assigned in Procedure 350 Word 1. The first extension must be smaller than last extension.

Change: Field 3 (only in a five-digit dialing plan).

Remove: Fields 1-5 (see Special Error Codes 83, 84, and 85).

Next Data: Displays assigned blocks of extensions.

Field Ranges and Encodes

1. First Extension 000-99990

   This extension must be smaller than the extension in field 2, and must end with a 0.

2. Last Extension 009-99999

   This extension must be larger than the extension in field 1, and must end with a 9.

3. Node Number -, 1-999

   To specify number portability, use Procedure 275 Word 3 before entering a node number in this field.

DISPLAY ONLY (Fields 4-5)

4.	Block Type	0	Extension
		1	DAC in block
		2	RNX in block
		3	Node numbers in block
		4	LDN in block
		5	Extensions in block are in recent disconnect
		6	VDNs in block
		7	Trunk group number in block based on DAC
		8	Feature number in block based on DAC
			For block type = 1, the unique DAC extensions or block of consecutive extensions can be found by stripping off the trailing 0/9 digit pairs from the first and last extension.
5.	First Extension Assigned	000-99999	

Notes

1. If first and last extensions are displayed, a 0 is displayed in field 4, and dashes are displayed in field 5, the range of the extension block is valid, but no extensions have been assigned in that group. If an extension number has been assigned in the block, the first extension is displayed.
2. If first and last extensions are displayed, a 2 is displayed in field 4, and a 1-, 2-, 3-, or 4-digit extension is displayed in field 5, the range of the extension block contains both extension and dial access codes. The first assigned number within the block is the number displayed in field 5.
3. If an extension code of 2 has been assigned, and the directory block 0-9 has been displayed, a 2 is displayed in field 4 and a 2 (the extension code) is displayed in field 5. In this example, since the extension code, 2, is a defined number, if a range of 20-29 is displayed as a block, a 1 is displayed in field 4, and dashes in field 5. This indicates that the extension code, 2, is defined as a single digit and cannot be used for a range of 20-29. To determine the unique extension code if that range is displayed, remove the trailing 0s and 9s from the first and last extension in the block. The same is true if the range is 200-299 or 2000-2999. Also, if the assigned extension codes are 2-5 and 20-59 is displayed, the trailing 0s and 9s can be removed to show a contiguous block of extension codes, 2 through 5.
4. If the first digit is assigned as a one-digit attendant DAC, then the block of extensions can only be assigned as LDNs (Procedure 204 Word 1).

Special Error Codes

81 - The first digit must be properly assigned in Procedure 350 Word 1.

82 - The first extension must be smaller than last extension and the first extension must end in 0 and the last extension must end in 9.

83 - Extensions must be removed in Procedure 000 Word 1 before the extension block can be removed or changed.

84 - The DAC, node, or RNX extension must be removed in Procedure 354 Word 2 before the extension block can be removed or changed.

85 - Extension(s) must be taken out of recent disconnect using Procedure 003 Word 1 before the extension block can be removed or changed.

86 - Must have a four/five-digit dialing plan to change the node number. The node number cannot be "this switch" and number portability must be specified in Procedure 275 Word 3.

87 - Number portability must be specified in Procedure 275 Word 3 to enter a node number in field 3.

88 - LDNs must first be removed in Procedure 204 Word 1.

89 - Trunk group DAC must be removed in Procedure 100 Word 1.

90 - Feature DAC must be removed in Procedure 350 Word 2.

Procedure 354 Word 2 — Extension Destination

196

Purpose

Use Procedure 354 Word 2 to administer dial access codes (DACs) to extensions, steering codes, and RNXs. Also use Procedure 354 Word 2 to assign DCS DACs to extensions on the first digit or first 2-digit positions for terminal routing. This procedure also associates extension numbers with node numbers for extension number portability.

Prerequisite Procedures

A code in field 1 cannot be already assigned as an extension in Procedure 000 Word 1. It can be assigned as a 1-4 digit code for trunks or features in Procedure 350 Word 1 or be undefined.

Use Procedure 100 Word 1 or 350 Word 2 to assign the trunk or feature dial access code, respectively.

The feature dial access code must correspond to the following feature encodes as defined in Procedure 350 Word 2 field 1: feature encode 8 is used for calls to system attendant; feature encode 49 is used for calls to CAS attendant.

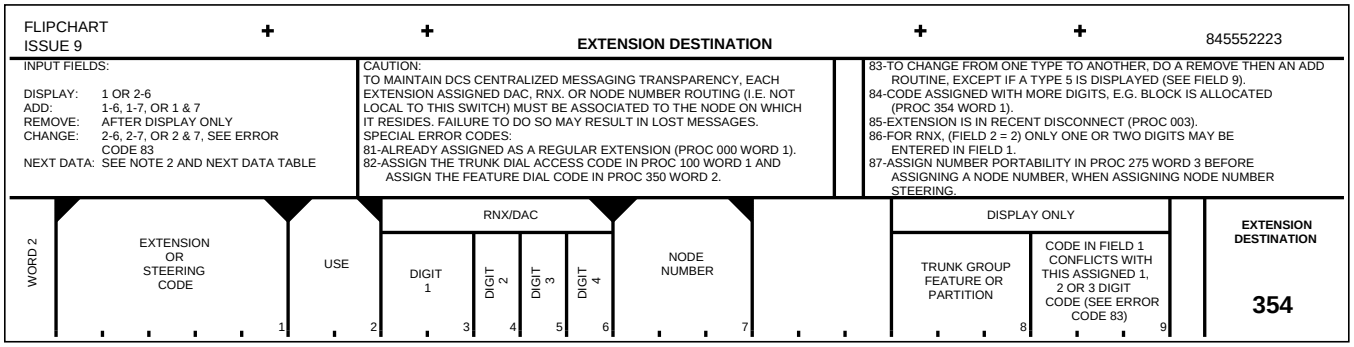
The trunk dial access code must correspond to the following trunk types as defined in Procedure 100 Word 1 field 5: trunk types 33, 37, and 39 are used for OPX and DCA port access; trunk types 34, 36, and 38 are for special use only; trunk types 71, 72, 74, 75, 77, and 78 are used for Main/Satellite access.

Procedure 354 Word 2 does not prohibit the assignment of other trunk types or feature encodes. This allows certain flexibility for very special cases. Extreme care should be used if trunk types or feature encodes other than those above are used.

Cautions

To maintain DCS centralized messaging transparency, each extension assigned DAC, RNX, or node number routing (i.e., not local to this switch) must be associated to the node on which it resides. Failure to do so may result in lost messages.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 2-6.
Add:	Fields 1-6, fields 1-7, or fields 1 and 7.
Change:	Fields 2-6, fields 2-7, or fields 2 and 7. To change from one type to another, do a remove then an add routine, except if a type 5 is displayed (see field 9).
Remove:	Fields 1-9.
Next Data:	See the next data table in Notes.

Field Ranges and Encodes

1. Extension or Steering Code — 000-99999 for extensions or 0-99999 for steering codes

2. Use

0	Not allocated (display only)
1	Single extension on local switch (display only, Procedure 000 Word 1)
2	Extension assigned to an RNX
3	Extension assigned to a node number
4	Extension assigned to a trunk DAC
5	VDN on local switch (display and search only, Procedure 000 Word 1)
6	Allocated, but unassigned (display and search only)

7 Extension is recent disconnect (display only, Procedure 003 Word 1)
8 Extension is an LDN (display only, Procedure 204 Word 1)
9 DAC digits are specified and the entry is a trunk group
10 DAC digits are specified and the entry is a feature

RNX or DAC (Fields 3-6)

An RNX must be 220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, or 920-999. You cannot have an RNX with a first digit the same as the CDR Account Code Prefix or Reserved Digit administered in Procedure 285 Word 1.

3. Digit 1 -, 0-9, 11 (*), 12 (#)

4. Digit 2 -, 0-9

5. Digit 3 -, 0-9

6. Digit 4 -, 0-9

7. Node Number -, 1-999

   This field is the node location for the extension in field 1.

DISPLAY ONLY (Fields 8-9)

8. Trunk Group, Feature, or Partition -, 0-999

9. Code In Field 1 Conflicts -, 0-999

Notes

1. The extension or steering code in field 1 is not restricted by a first digit dial definition requirement. Therefore, if a conflict should arise between the extension or steering code and a previously assigned 1-, 2-, or 3-digit code, Special Error Code 83 is displayed, and the conflicting code

is displayed in field 9. If the displayed code is included in an assigned code with more digits (e.g., 2 is displayed, zero is assigned), Special Error Code 84 is displayed. To continue, remove all conflicting codes and the conflicting blocks in Procedure 354 Word 1.

2. RNX steering is only valid in a five-digit dialing plan.
3. If entering this procedure immediately after Special Error Code 84 is displayed in Procedure 354 Word 1, the extension displayed in field 5 of Procedure 354 Word 1 is used as the entry for field 1 of this procedure for a display (provided field 1 of Procedure 354 Word 2 is dashed).
4. Follow these steps to do the next data search sequence:
    a. Search on field 1: Enter data in field 1 and do a display routine. To continue, use the next data routine.
    b. To search for all ‘‘allocated extensions, but unassigned,’’ enter 5 in field 2 and leave the other fields dashed. This is the only case when an entry in field 2 alone is allowed.
    c. Search on field 6: Enter dashes in fields 1-5 and data in field 6. Use the display routine. To continue use the next data routine.
5. The following table contains the fields that must be entered in order to do next data routines (search) on the given display type:

PROCEDURE 354 WORD 2 DISPLAY/NEXT DATA TABLE					
	FIELDS				
DISPLAY TYPE	1 Extension	2 Use	3-6 RNX or DAC	7 Node	Note on Next Data
Extension	extension	dash	dash	dash	finds type of next extension
VDN	extension	5	dash	dash	finds next VDN
Allocated extension but unassigned	extension	6	dash	dash	finds next allocated but unassigned extension
RNX	dash	2	RNX	dash	finds next extension with this RNX
DAC	dash	4	DAC	dash	finds next extension with this DAC
Node number	dash	3	dash	node	finds next extension with this node number

6. The following table contains the field numbers and data types that must be entered in the specified fields in order to add or change the given routing type:

PROCEDURE 354 WORD 2 ADD/CHANGE TABLE				
	FIELDS			
	1	2	3-5	6
routing type	extension	use	RNX or DAC	node
RNX in DCS networks with centralized messaging	extension	2	RNX	node
RNX in all networks without centralized messaging	extension	2	RNX	[node]
Node number	extension	3	dash	node
DAC in DCS networks with centralized messaging	extension	4	DAC	node
DAC in all networks without centralized messaging	extension	4	DAC	[node]

Brackets in the table indicate an optional item.

Special Error Codes

81 - Already assigned as a regular extension (Procedure 000 Word 1).

82 - Assign the trunk dial access code in Procedure 100 Word 1 and assign the feature dial code in Procedure 350 Word 2.

83 - To change from one type to another, do a remove routine then an add routine, except if a type 5 is displayed (see field 9).

84 - Code assigned with more digits, e.g., block is allocated (Procedure 354 Word 1)

85 - Extension is in recent disconnect (Procedure 003 Word 1).

86 - For RNX (field 2 = 2) only one or two digits may be entered in field 1.

87 - Assign number portability in Procedure 275 Word 3 before assigning a node number, when assigning node number steering.

88 - Only allowed to administer RNX, DAC, or node.

89 - Extension is an LDN and must first be removed in Procedure 204 Word 1.

90 - For RNX and DAC, use code (field 2) must be a 2 (RNX) or 4 (DAC).

91 - Specify four or five digits in field 1 to add, change, or remove a node number when assigning node number steering.

92 - Specify the node number (field 7) when requesting a node type (field 2 = 3).

93 - The first digit must be properly assigned as an extension in Procedure 350 Word 1.

95 - The change routine cannot change The extension (field 1).

96 - Extension is a VDN and must first be removed in Procedure 031 Word 1 and Procedure 000 Word 1.

Procedure 354 Word 3 — NPA-NXX Assignment

197

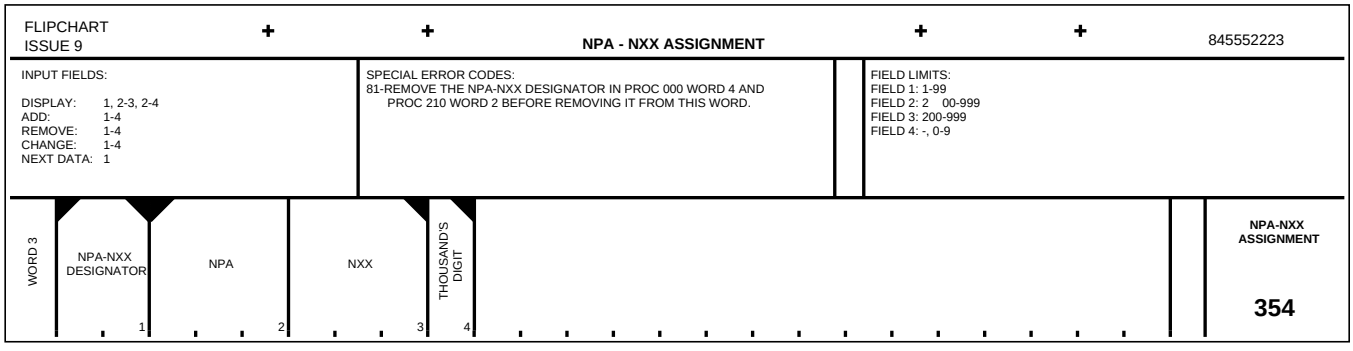
Purpose

Use Procedure 354 Word 3 to administer the calling connected numbers (NPA, NXX, and Thousands digit) for extensions based on their NPA-NXX designators. Use this procedure only if ISDN is supported.

Prerequisite Procedures

Use Procedure 000 Word 4 and Procedure 210 Word 2 to remove the NPA-NXX designator before removing it in this procedure.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 2 and 3, or fields 2-4.
Add:	Fields 1-4.
Change:	Fields 1-4.
Remove:	Fields 1-4.
Next Data:	Field 1.

Field Ranges and Encodes

1.	NPA-NXX Designator	1-99
2.	NPA	200-999
3.	NXX	200-999
4.	Thousand's Digit	-, 0-9 This is used on systems that have a 3-digit extension numbering plan to create a dummy thousands digit. If used in a 4- or 5-digit dialing plan, it is used as the thousands digit in the digit stream regardless of the actual thousands digit.

Special Error Codes

81 - Remove the NPA-NXX designator in Procedure 000 Word 4 and Procedure 210 Word 2 before removing it from this word.

Procedure 356 Word 1 — Precedence Calling - Dialed Digit Assignment

198

Purpose

Use Procedure 356 Word 1 to administer the dialed digit assignment to the preemptive levels for the Precedence Calling feature.

Related Procedures

Use Procedure 010 Word 1 to administer the maximum precedence level to an extension class of service.

Use Procedure 100 Word 1 to assign APLT trunks and Route Advance.

Use Procedure 101 Word 1 to assign APLT feature allowed to trunk precedence capable trunks.

Use Procedure 203 Word 1 to administer the AUTOVON buttons to the attendant consoles.

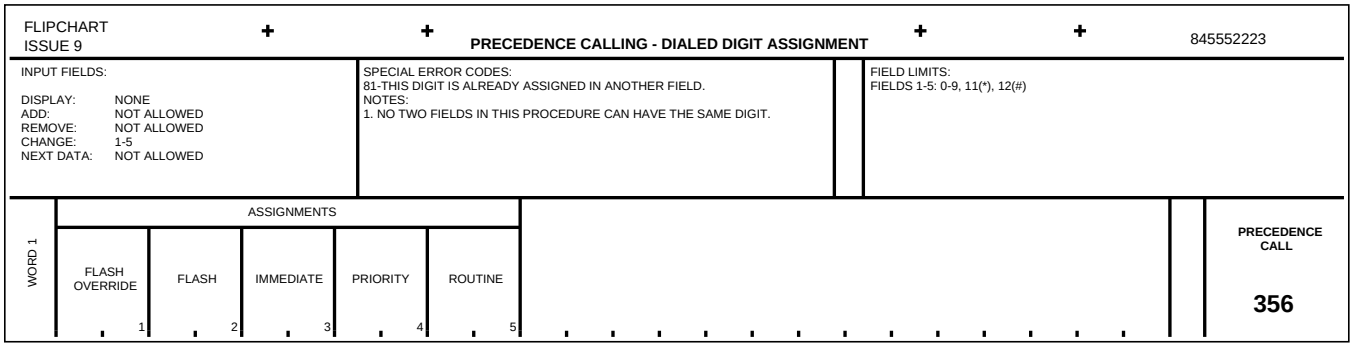
Use Procedure 204 Word 1 to administer AUTOVON precedence identification and ICI.

Use Procedure 275 Word 4 to define the AUTOVON interface switch.

Use Procedure 305 Words 1 and 2 to administer the AUTOVON destination node.

Use Procedure 350 Words 1 and 2 to administer the AUTOVON dial access code.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not Allowed.
Change:	Fields 1-5.
Remove:	Not Allowed.
Next Data:	Not Allowed.

Field Ranges and Encodes

ASSIGNMENTS (Fields 1-5)

No two fields in this procedure can have the same digit.

1. Flash Override -, 0-9, 11 (*), 12(#)

2. Flash -, 0-9, 11(*), 12(#)

3. Immediate -, 0-9, 11(*), 12(#)

4. Priority -, 0-9, 11(*), 12(#)

5. Routine -, 0-9, 11(*), 12(#)

Special Error Codes

81 - This digit is already assigned in another field.

Procedure 360 Word 1 — Dedicated Switch Connection

199

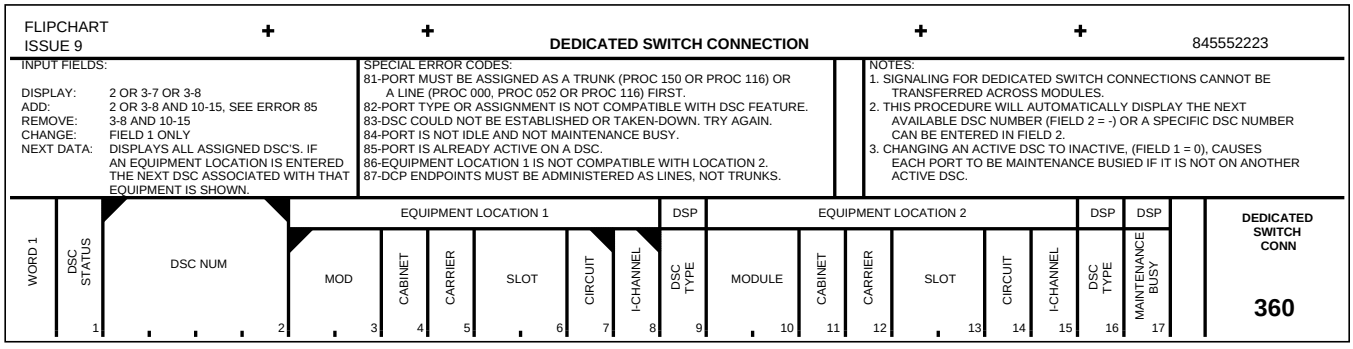
Purpose

Use Procedure 360 Word 1 to administer a Dedicated Switch Connection (DSC) between two line or trunk ports.

Prerequisite Procedures

Use Procedures 150 Word 1, 116 Word 1, 000 Word 1, and 052 Word 1 to assign the ports as trunks or lines (as appropriate) before adding ports in this procedure.

Flipchart



FLIPCHART
ISSUE 9

DEDICATED SWITCH CONNECTION

845552223

INPUT FIELDS:

DISPLAY:	2 OR 3-7 OR 3-8
ADD:	2 OR 3-8 AND 10-15, SEE ERROR 85
REMOVE:	3-8 AND 10-15
CHANGE:	FIELD 1 ONLY
NEXT DATA:	DISPLAYS ALL ASSIGNED DSC'S. IF AN EQUIPMENT LOCATION IS ENTERED THE NEXT DSC ASSOCIATED WITH THAT EQUIPMENT IS SHOWN.

SPECIAL ERROR CODES:
81-PORT MUST BE ASSIGNED AS A TRUNK (PROC 150 OR PROC 116) OR A LINE (PROC 000, PROC 052 OR PROC 116) FIRST.
82-PORT TYPE OR ASSIGNMENT IS NOT COMPATIBLE WITH DSC FEATURE.
83-DSC COULD NOT BE ESTABLISHED OR TAKEN-DOWN. TRY AGAIN.
84-PORT IS NOT IDLE AND NOT MAINTENANCE BUSY.
85-PORT IS ALREADY ACTIVE ON A DSC.
86-EQUIPMENT LOCATION 1 IS NOT COMPATIBLE WITH LOCATION 2.
87-DCP ENDPOINTS MUST BE ADMINISTERED AS LINES, NOT TRUNKS.

NOTES:
1. SIGNALING FOR DEDICATED SWITCH CONNECTIONS CANNOT BE TRANSFERRED ACROSS MODULES.
2. THIS PROCEDURE WILL AUTOMATICALLY DISPLAY THE NEXT AVAILABLE DSC NUMBER (FIELD 2 = -) OR A SPECIFIC DSC NUMBER CAN BE ENTERED IN FIELD 2.
3. CHANGING AN ACTIVE DSC TO INACTIVE, (FIELD 1 = 0), CAUSES EACH PORT TO BE MAINTENANCE BUSIED IF IT IS NOT ON ANOTHER ACTIVE DSC.

WORD 1	DSC STATUS 1	DSC NUM 2	EQUIPMENT LOCATION 1						DSP	EQUIPMENT LOCATION 2						DSP	DSP	DEDICATED SWITCH CONN
			MOD 3	CABINET 4	CARRIER 5	SLOT 6	CIRCUIT 7	I-CHANNEL 8	DSC TYPE 9	MODULE 10	CABINET 11	CARRIER 12	SLOT 13	CIRCUIT 14	I-CHANNEL 15	DSC TYPE 16	MAINTENANCE BUSY 17	360

Fields Used or Required for Command Routines

Display:	Field 2, fields 3-7, or fields 3-8.
Add:	Field 2 or fields 3-8 and 10-15 (see Special Error Code 85).
Change:	Field 1.
Remove:	Fields 3-8 and 10-15.
Next Data:	Displays all assigned DSCs. If an equipment location is entered, then the next DSC associated with that equipment is shown.

Field Ranges and Encodes

1.	DSC Status	0	Disabled
		1	Enabled
2.	DSC Number	-	Switch automatically displays next DSC number
		0-1023	Range of DSC numbers

EQUIPMENT LOCATION 1 (Fields 3-8)

3.	Module	0-30
4.	Cabinet	0-7
5.	Carrier	0-3
6.	Slot	0-3, 5-8, 13-16, 18-21
7.	Circuit	0-7

8.	I-Channel	-	Port is not a GPP
		1	I-Channel 1 (PDM)
		2	I-Channel 2 (DTDM)

DISPLAY ONLY (Equipment Location 1) (Field 9)

9.	DSC Type	0	Unknown
		1	DS1 - 24th channel signaling, RBS disabled
		2	DS1 - RBS enabled
		3	DMI trunk
		4	Analog line, DS1 line on line board, DCP voice line
		5	DS1 line on trunk board
		6	Analog trunk
		7	Data line (DCP)

EQUIPMENT LOCATION 2 (Fields 10-15)

10.	Module	0-30
11.	Cabinet	0-7
12.	Carrier	0-3
13.	Slot	0-3, 5-8, 13-16, 18-21
14.	Circuit	0-7

15.	I-Channel	-	Port is not a GPP
		1	I-Channel 1 (PDM)
		2	I-Channel 2 (DTDM)

DISPLAY ONLY (Equipment Location 2) (Fields 16-17)

16.	DSC Type	0	Unknown
		1	DS1 or ISDN PRI trunk - 24th channel signaling, RBS disabled
		2	DS1 or ISDN PRI trunk - RBS enabled
		3	DMI trunk
		4	Analog line, DS1 line on line board, DCP voice line
		5	DS1 line on trunk board
		6	Analog trunk
		7	Data line (DCP)

17.	Maintenance Busy	-	Not enabled
		0	Not busied out
		1	Busied out (both ports)

Notes

1. Signaling for dedicated switch connections cannot be transferred across modules.
2. This procedure will automatically display the next available DSC number (enter a dash in field 2) or a specific DSC number can be entered in field 2.
3. Each DSC requires two port circuits. Field 1 = 0 implies that the DSC is inactive, but not necessarily that both ports are inactive. To ensure that both ports are inactive, do a change routine on the DSC even though field 1 = 0. This change routine results in both ports being maintenance busied. Both ports will not be maintenance busied if either port on the DSC is on another active DSC.
4. For mode 3 data modules on data lines (DCP), the equipment location specified in fields 3-7 is considered an originator while the equipment location in fields 10-14 is considered a terminator.
5. When displaying DSC information for a general purpose port (GPP) using the equipment location, specify the I-channel or it will default to 1.
6. Neither port can be assigned as a multiappearance terminal or a business communication terminal (BCT) with more than one extension assigned.
7. The combinations and restrictions of permissible equipments are listed below. Note that a data DS1 trunk has robbed bit signaling disabled or 24th channel signaling.
    a. Data line to data line (data only)
    b. Data line to DMI trunk (data only)
    c. Data line to DS1 trunk (data only)
    d. Data DS1 trunk to data DS1 trunk (voice or data)
    e. DMI trunk to data DS1 trunk (data only)
    f. DMI trunk to DMI trunk (data only)
    g. Analog line/trunk to analog line/trunk (voice only)
    h. Analog line/trunk to any DS1 trunk (voice only)
    i. Nondata DS1 trunk to any DS1 trunk (voice only).

Special Error Codes

81 - The port must be assigned as a trunk (Procedure 150 Word 1 or 116 Word 1) or a line (Procedure 000 Word 1 or Procedure 052 Word 1) first.

82 - Port type or assignment is not compatible with the DSC feature.

83 - DSC could not be established or taken down. Try again.

84 - The port is not idle and not maintenance busy.

85 - The port is already active on a DSC.

86 - Equipment location 1 is not compatible with equipment location 2.

87 - DCP endpoints must be administered as lines, not trunks.

Procedure 410 Word 1 — Traffic Studies - System Translation and Clock

200

Purpose

Procedure 410 Word 1 has five functional categories:

- Queue peg times
- Traffic clock (and offset)
- Peak and time-coincident translation copy
- Zero traffic study assignments
- Peak and time-coincident study size.

Prerequisite Procedures

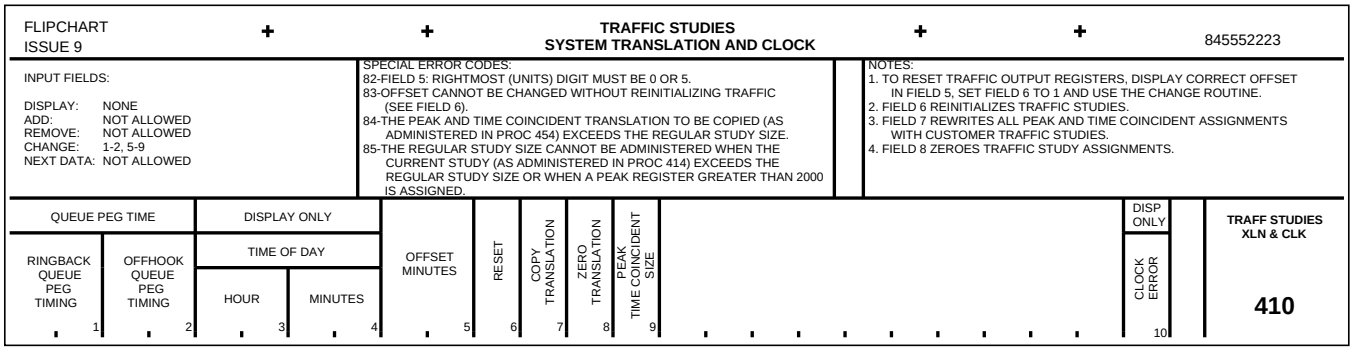
Use Procedure 284 Word 1 to set the system clock which is used for traffic time of day (fields 3 and 4).

Related Procedures

Use Procedure 414 Words 1 and 2 to administer peak and time-coincident traffic studies.

Use Procedure 413 Word 2 to administer traffic studies for ARS, AAR, and Call Coverage.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1 and 2 and 5-9.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

QUEUE PEG TIME (Fields 1-2)

1. Ringback Queue Peg Timing — - Timing disabled; 1-99 In 0.1 minute increments

   Fields 1 and 2 are in units of 0.1 minute. The range of this field is from 1 to 99 corresponding to peg times of 0.1 to 9.9 minutes.

2. Off-Hook Queue Peg Timing — - Timing disabled; 1-99 In 0.1 minute increments

   Fields 1 and 2 are in units of 0.1 minute. The range of this field is from 1 to 99 corresponding to peg times of 0.1 to 9.9 minutes.

DISPLAY ONLY (Fields 3-4)

TIME OF DAY (Fields 3-4)

3. Hour — 0-23

   The system clock uses military time, thus 0 = midnight and 12 = noon. For example, military time for 10:00 pm is 2200 hours.

4. Minutes — 0-59

5. Offset Minutes — 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55

   Offset cannot be changed without reinitializing traffic.

6. Reset
   - - Do not reset offset or collection and output registers
   - 1 Reset offset and all traffic collection and output registers

   Changes in this field reinitialize traffic studies.

   To reset traffic collection and output registers, display correct offset in field 5, set this field to 1, and do a change routine.

7. Copy Translation
   - - No change
   - 1 Use Procedures 454 Words 1 and 2

   Changes in this field affect all peak and time-coincident register assignments for traffic studies.

   Copy peak and time-coincident register assignments (as administered in Procedure 454 Words 1 and 2) into this traffic translation. Verify copy using Procedure 414 Words 1 and 2).

8. Zero Translation
   - - No change
   - 1 Zero peak and time-coincident registers (Procedure 414 Words 1 and 2)
   - 2 Zero ARS studies (Procedure 413 Word 2)
   - 3 Zero AAR studies (Procedure 413 Word 2)
   - 4 Zero Call Coverage studies (Procedure 413 Word 2)

   Changes in this field zero traffic study assignments.

9.	Peak/Time Coincident Size	-	No change
		0	Regular study size (2000 registers)
		1	Large study size (4000 registers)

DISPLAY ONLY (Field 10)

10.	Clock Error	0	No
		1	Yes (use Procedure 284 Word 1 to reset)

Special Error Codes

82 - The field 5 rightmost (units) digit must be 0 or 5.

83 - The offset cannot be changed without reinitializing traffic (see field 6).

84 - The peak and time-coincident translation to be copied (as administered in Procedure 454 Words 1 and 2) exceeds the regular study size.

85 - The regular study size cannot be administered when the current study (as administered in Procedure 414 Words 1 and 2) exceeds the regular study size or when a peak register greater than 2000 is assigned.

Procedure 411 Word 1 — Traffic Studies - Load Balance

201

Purpose

Use Procedure 411 Word 1 to administer load balance studies.

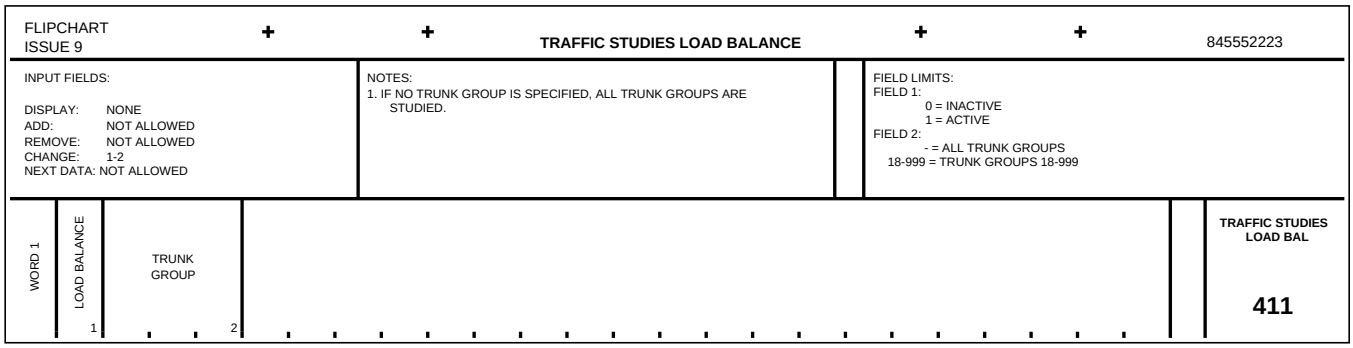
Prerequisite Procedures

Use Procedure 100 Word 1 to administer basic trunk group translations.

Related Procedures

Use Procedure 421 Word 1 to display and reset the load balance measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Load Balance
   - 0 Inactive
   - 1 Active

   If no trunk group is specified, all trunk groups are studied.

2. Trunk Group
   - \- All trunk groups
   - 18-999 Trunk groups 18-999

Special Error Codes

None.

Procedure 411 Word 2 — Traffic Studies - Carrier Usage

202

Purpose

Use Procedure 411 Word 2 to assign line or trunk carriers for traffic usage studies.

Prerequisite Procedures

Use Procedure 250 Word 1 to administer carrier translations.

Related Procedures

Use Procedure 421 Word 1 to display and reset the carrier usage measurements.

Flipchart

FLIPCHART
ISSUE 9

TRAFFIC STUDIES CARRIER USAGE

845552223

INPUT FIELDS:

DISPLAY: NONE
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-15
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-MODULE 1 MUST BE ASSIGNED.
83-DATA IN FIELDS 3-14 MUST BE ENTERED BEGINNING TO END WITH NO GAPS.

FIELD LIMITS:

FIELD 1:
0 = INACTIVE
1 = ACTIVE
FIELDS 2 & 15: -, 0-30
FIELDS 3, 6, 9, 12: -, 0-6
FIELDS 4, 7, 10, 13: -, 0-3

FIELDS 5, 8, 11, 14 (FULL DENSITY):
0 = SLOTS 0-3
1 = SLOTS 5-8
2 = SLOTS 13-16
3 = SLOTS 18-21

WORD 2	CARRIER USAGE	IN FIRST MODULE													MODULE							TRAFFIC STUDIES CARR USAGE
		FIRST MODULE	QUARTER CARRIER 1			QUARTER CARRIER 2			QUARTER CARRIER 3			QUARTER CARRIER 4			2							411
	1	2	CABINET 3	CARRIER 4	BEG SLOT ENCODE 5	CABINET 6	CARRIER 7	BEG SLOT ENCODE 8	CABINET 9	CARRIER 10	BEG SLOT ENCODE 11	CABINET 12	CARRIER 13	BEG SLOT ENCODE 14	15							

Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-15.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Carrier Usage 0 Inactive
   1 Active

IN FIRST MODULE (Fields 2-14)

For the module specified in field 2, the traffic studies are made on a quarter carrier basis (four slots). If the module number is entered in field 2, fields 5, 8, 11, and 14 anticipate a beginning slot encode. Each slot encode (quarter carrier) corresponds to the following four physical slots on a carrier.

Slot encode 0 = Quarter carrier 1 (slots 0-3)
Slot encode 1 = Quarter carrier 2 (slots 5-8)
Slot encode 2 = Quarter carrier 3 (slots 13-16)
Slot encode 3 = Quarter carrier 4 (slots 18-21)

2. First Module -, 0-30

FIRST QUARTER CARRIER (Fields 3-5)

3. Cabinet -, 0-7

4. Carrier -, 0-3

5. Slot Encode -, 0-3

SECOND QUARTER CARRIER (Fields 6-8)

6. Cabinet -, 0-6

7. Carrier -, 0-3

8. Slot Encode -, 0-3

THIRD QUARTER CARRIER (Fields 9-11)

9. Cabinet -, 0-6

10. Carrier -, 0-3

11. Slot Encode -, 0-3

FOURTH QUARTER CARRIER (Fields 12-14)

12. Cabinet -, 0-6

13. Carrier -, 0-3

14. Slot Encode -, 0-3

15. Second Module -, 0-30

Notes

1. No gaps are allowed when entering data in fields 3-14.

Special Error Codes

81 - Module 1 must be assigned.

83 - Data in fields 3-14 must be entered beginning to end with no gaps.

Procedure 413 Word 1 — Traffic Studies - Trunk Group Combinations

203

Purpose

Use Procedure 413 Word 1 to assign trunk group combinations for traffic studies. Only 1-way, 2-way, Direct Inward Dialing (DID), Integrated Services Digital Network (ISDN) dynamic, and remote access trunks are allowed.

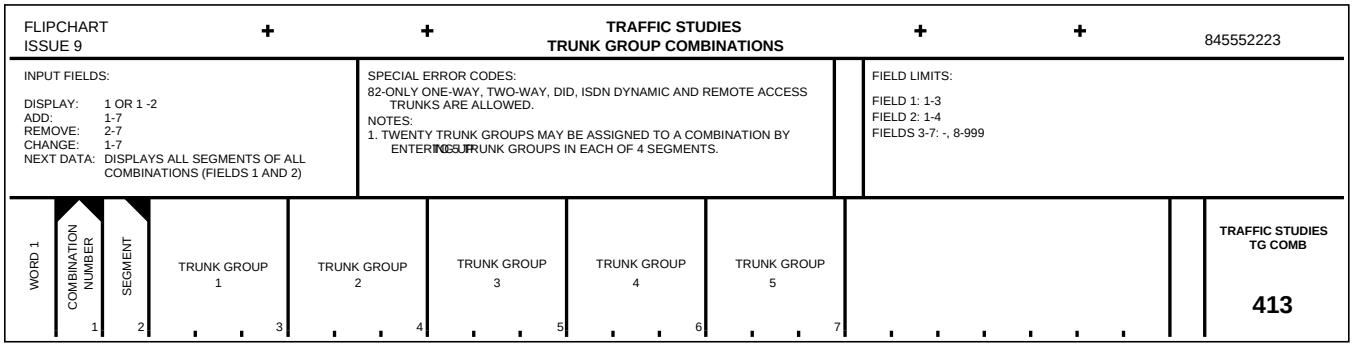
Prerequisite Procedures

Use Procedure 100 Word 1 to assign trunk groups.

Related Procedures

Use Procedure 414 Words 1 and 2 to establish peak and time-coincident measurements for total hundred-call seconds (CCS), incoming CCS, and outgoing CCS for the trunk group combinations assigned in this procedure.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1 or fields 1 and 2.

Add: Fields 1-7. Using the add routine on a combination and segment number replaces any prior assignment for that segment (functions similar to the change routine).

Change: Fields 1-7.

Remove: Fields 2-7. The remove routine eliminates only the specified segment (field 2) of a trunk group combination and does not remove or change the other segments.

Next Data: Displays all segments of all combinations (fields 1 and 2).

Field Ranges and Encodes

1. Combination Number 1-3

2. Segment 1-4

3. Trunk Group 1 -, 8-999

4. Trunk Group 2 -, 8-999

5. Trunk Group 3 -, 8-999

6. Trunk Group 4 -, 8-999

7. Trunk Group 5 -, 8-999

Notes

1. Twenty trunk groups may be assigned to a combination by entering up to five trunk groups in each of four segments.

Special Error Codes

82 - Only 1-way, 2-way, DID, ISDN dynamic, and remote access trunks are allowed.

Procedure 413 Word 2 — Traffic Studies - Special Measurement Groups

204

Purpose

Use Procedure 413 Word 2 to specify Automatic Alternate Routing (AAR) patterns, Automatic Route Selection (ARS) patterns or Call Coverage groups for traffic studies.

Prerequisite Procedures

Use Procedure 309 Words 1-5 to administer ARS patterns.

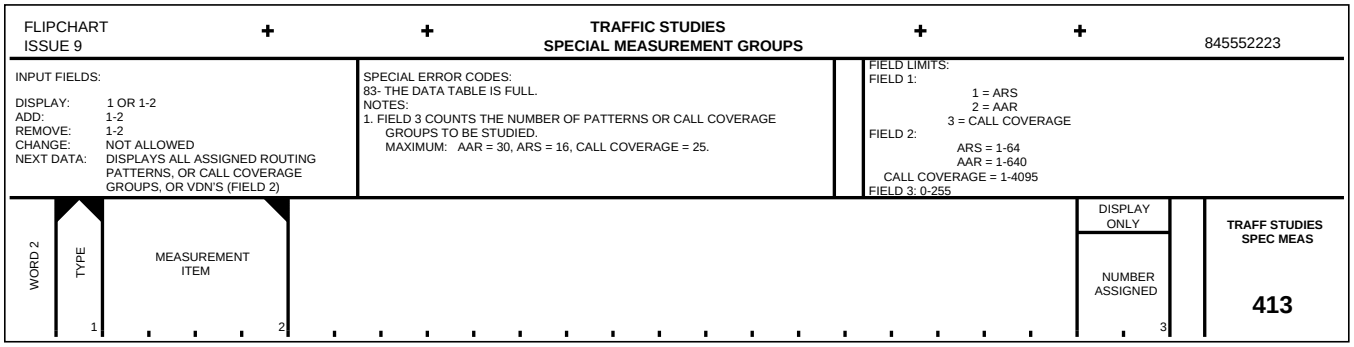
Use Procedure 321 Words 1-5 to administer AAR patterns.

Use Procedure 011 Word 1 to administer Call Coverage groups.

Related Procedures

Use Procedure 421 Word 1 to display and reset the traffic measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 2.
Add:	Fields 1 and 2.
Change:	Not allowed.
Remove:	Fields 1 and 2.
Next Data:	Displays all assigned routing patterns or Call Coverage groups (field 2).

Field Ranges and Encodes

1. Type
   - 1 ARS
   - 2 AAR
   - 3 Call Coverage

2. Measurement Item — 1-4095

   The ranges for the different types are: ARS = 1-64, AAR = 1-640, Call Coverage = 1-4095.

DISPLAY ONLY (Field 3)

3. Number Assigned — 0-30

   Field 3 counts the number of patterns or Call Coverage groups, to be studied. Maximum: ARS = 16, AAR = 30, Call Coverage = 25.

Special Error Codes

83 - The data table is full.

Procedure 414 Word 1 — Traffic Studies - Peak Register Assignments

205

Purpose

Use Procedure 414 Word 1 to assign peak registers for the traffic peak and time-coincident study.

Prerequisite Procedures

Use Procedure 410 Word 1 to copy the customer's peak and time-coincident register assignments (as administered in Procedure 454 Words 1 and 2) and to administer the peak and time-coincident study size.

Use Procedure 413 Word 1 to administer traffic trunk group combinations for measurement type 1 if applicable.

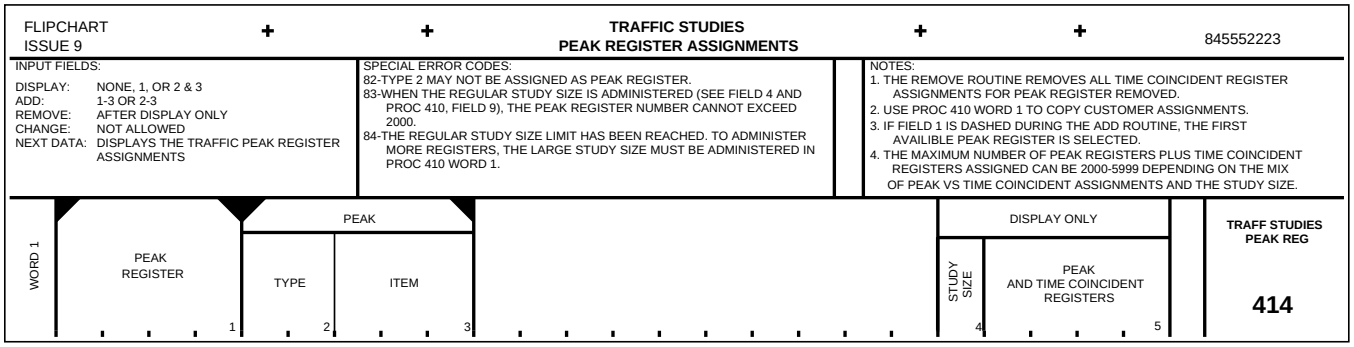
Related Procedures

Use Procedure 421 Word 1 to display and reset the peak and time-coincident measurements.

Cautions

The remove routine removes all time-coincident registers associated with the peak register removed.

Flipchart



Fields Used or Required for Command Routines

Display:	None, field 1, or fields 2 and 3.
Add:	Fields 1-3 or fields 2 and 3.
Change:	Not allowed.
Remove:	After display only.
Next Data:	Displays the traffic peak register assignments.

Field Ranges and Encodes

1. Peak Register -, 1-4000

   If field 1 is dashed during the add routine, the first available peak register is selected.

PEAK (Fields 2-3)

2. Type

1	Traffic trunk group combination usage
3	Network and processor measurements
5-9	Trunk group measurements
10-12	Time slot interchanger measurements
13-14	Time multiplex switch measurements
20	Attendant feature measurements (console totals)
21-23	Attendant feature measurements (per console)
30-34	Queuing measurements (priority queues)
40-44	Queuing measurements (nonpriority queues)
50-52	Main/satellite measurements
60	CAS measurements
61-63	ACD and Message Center measurements

	65-66,68-69	Trunk group data measurements
	70	Trunk group busy out usage
	71-73	Trunk group glare measurements

3. Item — 1-999

DISPLAY ONLY (Fields 4-5)

4. Study Size
   - 0 Regular study (2000 registers)
   - 1 Large study (4000 registers)

5. Peak and Time Coincident Registers Assigned — 0-5998

Notes

1. The maximum number of peak registers plus time-coincident registers assigned can be 2000-5998 depending on the mix of peak versus time-coincident assignments and the study size.
2. The following tables show the peak measurement type and item (fields 2 and 3):

Trunk Group Combination Usage

Measurement	Type	Item
Combination number 1		
Total usage	1	1
Incoming usage	1	2
Outgoing usage	1	3
Combination number 2		
Total usage	1	4
Incoming usage	1	5
Outgoing usage	1	6
Combination number 3		
Total usage	1	7
Incoming usage	1	8
Outgoing usage	1	9

Network and Processor Measurements		
Measurement	**Type**	**Item**
Outgoing usage	3	1
Tandem usage	3	2
Reserved for future use	3	3
501CC occupancy	3	4
501CC overflow	3	5
Call processing stimuli	3	6
DCP stimuli	3	7
Dial tone delays > 3 seconds	3	8
Dial tone measured	3	9
Connection count	3	10
Intermodule usage	3	11
Audit cycles	3	12
Connection usage	3	13
Tone detector timeout	3	14
Call count	3	15
AAR calls	3	16
ARS calls	3	17
CDR records	3	18
CDR usage	3	19

Trunk Group Measurements		
Measurement	**Type**	**Item**
Trunk group total usage	5	8-999
Trunk group total calls	6	15-999
Trunk group total overflow	7	18-999
Trunk group incoming usage	8	18-999
Trunk group incoming calls	9	18-999

TSI Measurements		
Measurement	**Type**	**Item**
TSI memory word blockage for modules 0-30, respectively	10	1-31
TSI memory word count for modules 0-30, respectively	11	1-31
TSI memory word usage for modules 0-30, respectively	12	1-31

TMS Measurements		
Measurement	**Type**	**Item**
Mismatch blockage by module pair	13	1-465
Intermodule call count by module pair	14	1-465

Attendant Feature Measurements		
Measurement	**Type**	**Item**
Console totals		
All consoles worked usage	20	1
All consoles attended usage	20	2
All consoles worked count	20	3
Incoming call queue		
Incoming call queue usage	20	4
Incoming call queue call count	20	5
Incoming call queue calls abandoned	20	6
Attendant calls		
LDN calls answered	20	7
Non-LDN calls answered	20	8
Attendant recall calls	20	9
Attendant originated calls	20	10

Attendant Feature Measurements Per Console		
Measurement	**Type**	**Item**
Console worked usage	21	1-40
Console attended usage	22	1-40
Console worked count	23	1-40

Priority Queue Measurements		
Measurement	**Type**	**Item**
Trunk group queue usage	30	18-999
Trunk group queued call count	31	18-999
Trunk group queue overflow	32	18-999
Trunk group queue calls abandoned	33	18-999
Trunk group queue timeout	34	18-999

Nonpriority Queue Measurements		
Measurement	**Type**	**Item**
Trunk group queue usage	40	18-999
Trunk group queued call count	41	18-999
Trunk group queue overflow	42	18-999
Trunk group queue calls abandoned	43	18-999
Trunk group queue timeout	44	18-999

Main/Satellite Measurements		
Measurement	**Type**	**Item**
DID to main	50	1
DID to satellite 1-4	51	1-4
Attendant recall from satellite 1-4	52	1-4

CAS Measurements		
Measurement	**Type**	**Item**
CAS usage	60	1
CAS call count	60	2
CAS abandoned calls	60	3
RLT calls answered by attendant	60	4

ACD and Message Center Measurements		
Measurement	**Type**	**Item**
ACD queue threshold count	61	1-60
Message center service directed calls	62	1-60
Message center service redirected calls	63	1-60

Trunk Group Data Measurements		
Measurement	**Type**	**Item**
Trunk group data usage	65	8-999
Trunk group data calls	66	15-999
Trunk group incoming data usage	68	18-999
Trunk group incoming data calls	69	18-999

Trunk Group Maintenance Busy Usage		
Measurement	**Type**	**Item**
Trunk group maintenance busy usage	70	4-999

Trunk Group Glare Measurements		
Measurement	**Type**	**Item**
Trunk group glare count	71	18-999
Trunk group glare retry attempts	72	18-999
Trunk group glare retry failures	73	18-999

Special Error Codes

82 - Type 2 may not be assigned as a peak register.

83 - When the regular study size is administered (see field 4 and Procedure 410 Word 1 field 9), the peak register number cannot exceed 2000.

84 - The regular study size limit has been reached. To administer more registers, the large study size must be administered in Procedure 410 Word 1 field 9.

Procedure 414 Word 2 — Traffic Studies - Time-Coincident Register Assignments

206

Purpose

Use Procedure 414 Word 2 to assign a traffic time-coincident register associated with a peak traffic register.

Prerequisite Procedures

Use Procedure 410 Word 1 to administer the peak and time-coincident study size.

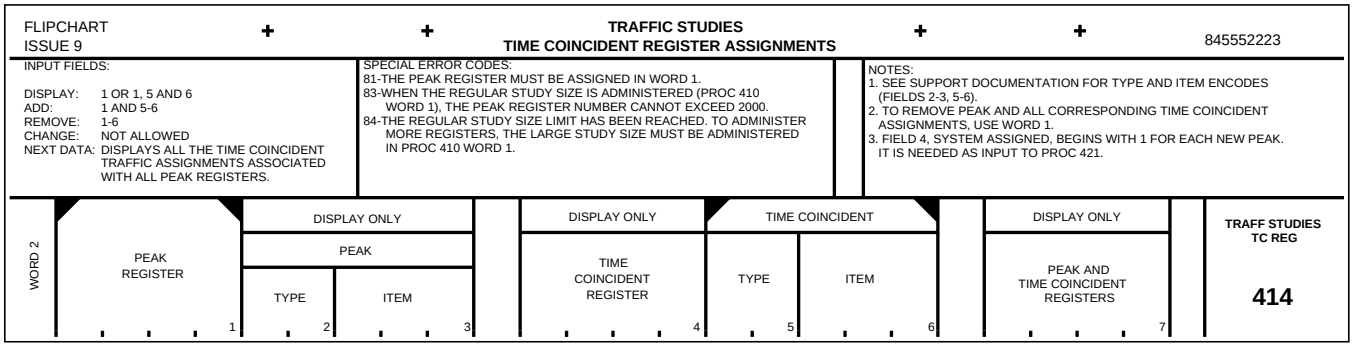
Use Procedure 414 Word 1 to administer the peak register before using this procedure.

Use Procedure 413 Word 1 to administer traffic trunk group combinations for measurement type 1 if applicable.

Related Procedures

Use Procedure 421 Word 1 to display and reset the peak and time-coincident measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	None, field 1 or fields 1, 5, and 6.
Add:	Fields 1, 5, and 6.
Change:	Not allowed.
Remove:	Fields 1-6.
Next Data:	Displays all the time-coincident traffic assignments associated with all assigned peak registers.

Field Ranges and Encodes

1. Peak Register 1-4000

DISPLAY ONLY (Fields 2-3)

PEAK (Fields 2-3)

2. Type

1	Traffic trunk group combination usage
3	Network and processor measurements
5-9	Trunk group measurements
10-12	Time slot interchanger (TSI) measurements
13-14	Time multiplex switch (TMS) measurements
20	Attendant feature measurements (console totals)
21-23	Attendant feature measurements (per console)
30-34	Queuing measurements (priority queues)
40-44	Queuing measurements (nonpriority queues)
50-52	Main/satellite measurements

60	CAS measurements
61-63	ACD and Message Center measurements
65-66,68-69	Trunk group data measurements
70	Trunk group busy out usage
71-73	Trunk group glare measurements

3. Item 1-999

DISPLAY ONLY (Field 4)

4. Time Coincident Register 1-5997

TIME COINCIDENT (Fields 5-6)

5. Type

1	Traffic trunk group combination usage
2	Miscellaneous measurements
3	Network and processor measurements
5-9	Trunk group measurements
10-12	Time slot interchanger measurements
13-14	Time multiplex switch measurements
20	Attendant feature measurements (console totals)
21-23	Attendant feature measurements (per console)
30-34	Queuing measurements (priority queues)
40-44	Queuing measurements (nonpriority queues)
50-52	Main/satellite measurements
60	CAS measurements
61-63	ACD and Message Center measurements
65-66,68-69	Trunk group data measurements
70	Trunk group busy out usage
71-73	Trunk group glare measurements

6. Item 1-999

DISPLAY ONLY (Field 7)

7. Peak And Time Coincident Registers Assigned — 0-5998

Notes

1. Each group of time-coincident register assignments for a given register peak begins with a 1 (field 4). The value displayed in field 4 is used as an index in Procedure 421 Words 1-3.
2. The maximum number of peak registers plus time-coincident registers assigned can be 2000-5998 depending on the mix of peak versus time-coincident assignments and the study size.
3. To remove peak and all corresponding time-coincident assignments, use Word 1.
4. The following tables show the peak measurement type and item (fields 2 and 3) and the time-coincident measurement type and item (fields 5 and 6):

Trunk Group Combination Usage

Measurement	Type	Item
Combination number 1		
Total usage	1	1
Incoming usage	1	2
Outgoing usage	1	3
Combination number 2		
Total usage	1	4
Incoming usage	1	5
Outgoing usage	1	6
Combination number 3		
Total usage	1	7
Incoming usage	1	8
Outgoing usage	1	9

Miscellaneous Measurements (time-coincident only)		
Measurement	**Type**	**Item**
Time of day	2	1
ARS plan in effect	2	2

Network and Processor Measurements		
Measurement	**Type**	**Item**
Outgoing usage	3	1
Tandem usage	3	2
Reserved for future use	3	3
501CC occupancy	3	4
501CC overflow	3	5
Call processing stimuli	3	6
DCP stimuli	3	7
Dial tone delays > 3 seconds	3	8
Dial tone measured	3	9
Connection count	3	10
Intermodule usage	3	11
Audit cycles	3	12
Connection usage	3	13
Tone detector timeout	3	14
Call count	3	15
AAR calls	3	16
ARS calls	3	17
CDR records	3	18
CDR usage	3	19

Trunk Group Measurements		
Measurement	**Type**	**Item**
Trunk group total usage	5	8-999
Trunk group total calls	6	15-999
Trunk group total overflow	7	18-999
Trunk group incoming usage	8	18-999
Trunk group incoming calls	9	18-999

TSI Measurements		
Measurement	**Type**	**Item**
TSI memory word blockage for modules 0-30, respectively	10	1-31
TSI memory word count for modules 0-30, respectively	11	1-31
TSI memory word usage for modules 0-30, respectively	12	1-31

TMS Measurements		
Measurement	**Type**	**Item**
Mismatch blockage by module pair	13	1-465
Intermodule call count by module pair	14	1-465

Attendant Feature Measurements		
Measurement	**Type**	**Item**
Console totals		
All consoles worked usage	20	1
All consoles attended usage	20	2
All consoles worked count	20	3
Incoming call queue		
Incoming call queue usage	20	4
Incoming call queue call count	20	5
Incoming call queue calls abandoned	20	6
Attendant calls		
LDN calls answered	20	7
Non-LDN calls answered	20	8
Attendant recall calls	20	9
Attendant originated calls	20	10

Attendant Feature Measurements Per Console		
Measurement	**Type**	**Item**
Console worked usage	21	1-40
Console attended usage	22	1-40
Console worked count	23	1-40

Priority Queue Measurements		
Measurement	**Type**	**Item**
Trunk group queue usage	30	18-999
Trunk group queued call count	31	18-999
Trunk group queue overflow	32	18-999
Trunk group queue calls abandoned	33	18-999
Trunk group queue timeout	34	18-999

Nonpriority Queue Measurements		
Measurement	**Type**	**Item**
Trunk group queue usage	40	18-999
Trunk group queued call count	41	18-999
Trunk group queue overflow	42	18-999
Trunk group queue calls abandoned	43	18-999
Trunk group queue timeout	44	18-999

Main/Satellite Measurements		
Measurement	**Type**	**Item**
DID to main	50	1
DID to satellite 1-4	51	1-4
Attendant recall from satellite 1-4	52	1-4

CAS Measurements		
Measurement	**Type**	**Item**
CAS usage	60	1
CAS call count	60	2
CAS abandoned calls	60	3
RLT calls answered by attendant	60	4

ACD and Message Center Measurements		
Measurement	**Type**	**Item**
ACD queue threshold count	61	1-60
Message center service directed calls	62	1-60
Message center service redirected calls	63	1-60

Trunk Group Data Measurements		
Measurement	**Type**	**Item**
Trunk group data usage	65	8-999
Trunk group data calls	66	15-999
Trunk group incoming data usage	68	18-999
Trunk group incoming data calls	69	18-999

Trunk Group Maintenance Busy Usage		
Measurement	**Type**	**Item**
Trunk group maintenance busy usage	70	4-999

Trunk Group Glare Measurements		
Measurement	**Type**	**Item**
Trunk group glare count	71	18-999
Trunk group glare retry attempts	72	18-999
Trunk group glare retry failures	73	18-999

Special Error Codes

81 - The peak register must be assigned in Procedure 414 Word 1.

83 - When the regular study size is administered (Procedure 410 Word 1 field 9), the peak register number cannot exceed 2000.

84 - The regular study size limit has been reached. To administer more registers, the large study size must be administered in Procedure 410 Word 1 field 9.

Procedure 415 Word 1 — Traffic Studies - Main/Satellite Translation

207

Purpose

Use Procedure 415 Word 1 to assign a traffic satellite number to a Main/Satellite trunk group.

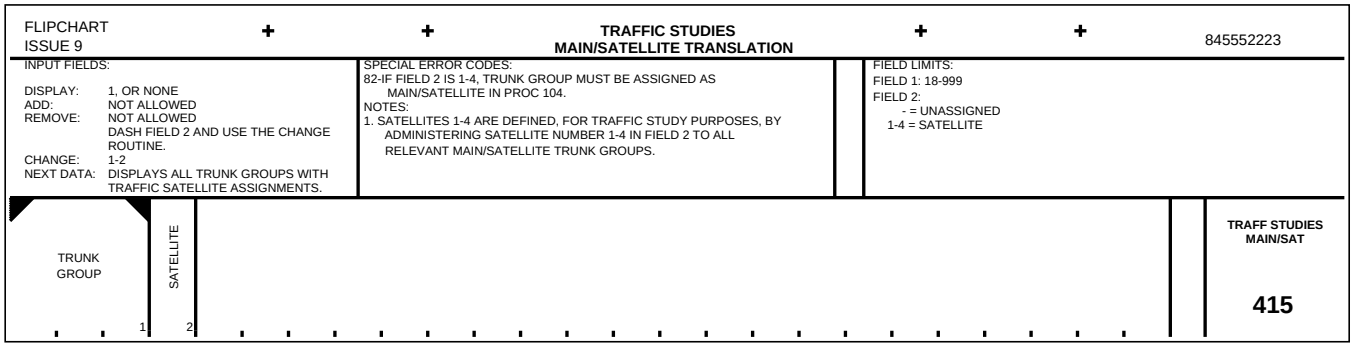
Prerequisite Procedures

Use Procedure 104 Words 1 and 2 to administer Main/Satellite trunk groups.

Related Procedures

Use Procedure 414 Words 1 and 2 to establish traffic Main/Satellite peak and time-coincident measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	None or field 1.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed (dash field 2 and use the change routine).
Next Data:	Displays all trunk groups with traffic satellite assignments.

Field Ranges and Encodes

1. Trunk Group 18-999

2. Satellite
   - \- Unassigned
   - 1-4 Satellite number

   Satellites 1-4 are defined, for traffic study purposes, by administering satellite number 1-4 in this field to all relevant Main/Satellite trunk groups.

Special Error Codes

82 - If field 2 is 1-4, the trunk group must be administered as Main/Satellite in Procedure 104 Word 1.

Procedure 420 Word 1 — Processor Data

208

Purpose

Use Procedure 420 Word 1 to display processor data that has been collected during the previous traffic hour. Four different types of data are displayed:

- Histogram of time, in milliseconds, remaining for base level maintenance tasks after call processing
- Call processing task interrupts
- Current ten-second processor occupancy
- 100-second occupancy values for the past hour.

Prerequisite Procedures

Use Procedure 284 Word 1 to set the system clock that is used to initiate traffic measurements.

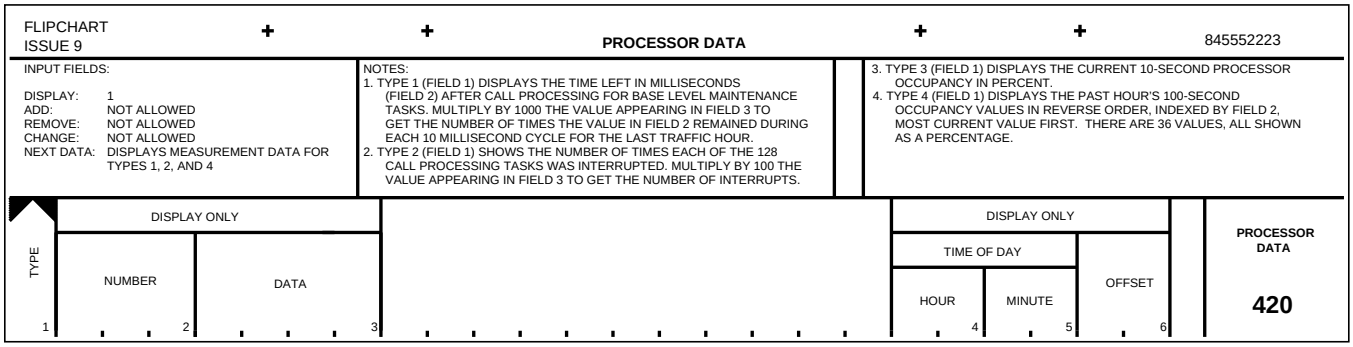
Related Procedures

Use Procedure 410 Word 1 to set the traffic hour offset.

Cautions

Procedure 410 Word 1 field 9 must equal zero; otherwise, the system clock reading will be incorrect, affecting the accuracy of the processor data.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays measurement data for types 1, 2, and 4.

Field Ranges and Encodes

1. Type -, 1-4

   Type 1 is the time left in milliseconds after call processing for base level maintenance tasks.

   Type 2 is the number of times each of the 128 call processing tasks was interrupted.

   Type 3 is the current ten-second processor occupancy.

   Type 4 is the past hour's 100-second occupancy values.

   See the help for fields 2 and 3 for related information.

DISPLAY ONLY (Fields 2-3)

2. Number 1-128

   For type 1 (field 1), the value in this field is the period length in milliseconds that remained (1-10).

   For type 2 (field 1), the value in this field is the task that was interrupted (1-128). The following is a listing of the tasks:

2 = Attendant console scanning
3 = Module statevector refresh
5 = DCIU statevector refresh
6 = Hyperactivity control
8 = Emergency system management task dispenser
11 = DCP message FIFO scanning
12 = Analog line and trunk scanning
13 = Trunk change processing
14 = Line change processing
15 = 25 ms timing map scan
17 = Digit collection FIFO scanning
18 = Read/write MAAP
20 = Low priority trunk change processing
21 = State-stimulus-translation queue server
23 = Originating register scan
24 = Dialing task for Abbreviated Dialing
26 = Attendant changes for processing
27 = Digit sending
28 = 100 ms timing map scan
31 = FADS terminal key scanning
32 = Sends queued GPP messages via jumbo
34 = Outgoing station display messages
35 = Multiappearance terminal lamp and ringer
36 = ISDN queue server
38 = DCIU port scan
39 = Detect PCC peripheral response
41 = Attendant incoming call queue administration
42 = Scan ACD queues for waiting callers
44 = CAS branch-to-main call request
45 = Attendant console lamp flashing
47 = Tone detection processing
48 = ISDN level 3 timing
50 = Call Pickup lamp
51 = Multiappearance terminal timing
53 = Non-idle Send All Calls activation
54 = Send timed chime digits
56 = ISDN jumbo I/O
58 = System management remote port 0 interface
59 = System management remote port 1 interface
61 = CMS outgoing message
62 = ISDN incoming message verification
64 = FADS terminal key processing
65 = Tape subsystem request interface
67 = Module health check
68 = Message retrieval queue server
70 = Line origination buffer
72 = Multiappearance terminal custom feature lamp

73 = Two second timing map scan
75 = System time-of-day clock
76 = Scan and send CDR/SMDR records
78 = Console trunk group busy/warning lamps
79 = Maintain ACD queue warning lamps
81 = CAS RLT-in-use lamp controller
82 = Principal switchhook status check
84 = Update queued Send All Calls-extension lamps
85 = Multiappearance terminal ring-ping
87 = CMS incoming request
89 = Queuing available trunk detection
90 = Queuing timing on records in queue
92 = Analog Hold ringback
93 = Analog Call Waiting/Priority Calling ringback
95 = Attendant timed recall/reminder timing
96 = CAS recall timer
98 = Call Vectoring backup queue scanning
99 = Process ACD group forwarding
101 = Process second ACD recorded announcement
102 = Process first ACD recorded announcement
104 = Programmable intercept recorded announcement
105 = CDR/SMDR active record audit
107 = Detect short calls (ACA)
108 = Detect long calls (ACA)
110 = Message retrieval session timeout
111 = Make/break Dedicated Switch Connection
113 = Update PCC time-of-day
114 = Daily switch of ARS plan
116 = 20 minute Automatic Callback deactivation
117 = Automatic Message Waiting lamp update
118 = Vectoring route-to retry permanent seizure
119 = FADS usage count
120 = FADS data movement and RLT audit
121 = CDR/SMDR to record month and day at midnight
122 = FADS automatic print driver
123 = System monitoring tools interface
125 = Regular system management task dispenser
126 = Time available system management task dispenser
127 = Off-line X-ray entry

For type 3 (field 1), this field always displays a 1.

For type 4 (field 1), this field is the counter for the 36 occupancy values shown in field 3.

3. Data 0-9999

   For type 1 (field 1), multiply by 1000 the value appearing in this field to get the number of times the value in field 2 remained during each 10 millisecond cycle for the last traffic hour.

   For type 2 (field 1), multiply by 100 the value appearing in this field to get the number of interrupts.

   For type 3 (field 1), this field displays the current ten-second processor occupancy in percent as XX.XX%.

   For type 4 (field 1), this field displays the past hour's 100-second occupancy values in reverse order (indexed by field 2), most current value first. There are 36 values, all shown in percent XX.XX%.

DISPLAY ONLY (Fields 4-6)

TIME OF DAY (Fields 4-5)

4. Hour 0-23

   The system clock uses military time, thus 0 = midnight and 12 = noon. For example, military time for 10:00 pm is 2200 hours.

   Fields 4 and 5 display the system clock (set in Procedure 284 Word 1).

5. Minute 0-59

   Fields 4 and 5 display the system clock (set in Procedure 284 Word 1).

6. Offset 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55

   This field displays the traffic hour offset (set in Procedure 410 Word 1).

Special Error Codes

None.

Procedure 421 Word 1 — Traffic - Data Display and Reset

209

Purpose

Use Procedure 421 Word 1 to display and reset to zero traffic data in the output buffers (i.e., available for polling by an Operational Support System). The categories of this data are as follows:

Packet Number	Packet Name	Category Number	Category Name
2	Load Balance	1 2	Intramodule Load Balance Intermodule Load Balance
3	Carrier Usage	3 4	Carrier Usage Port Usage
5	Performance	5 6 7 8 9 10	Flag and Poll Information Total Blockages Ring Group Blockages Module Blockages Peak Hour - Summary Peak Hour - Module Occupancy
6	Peak and Time-Coincident	12 13	Peak Registers Time-Coincident Registers
7	ARS	14	ARS
8	AAR	15	AAR
9	Occupancy Data	16 17	Peak Hour Occupancy Value and Time Hundred Second Occupancy
10	Accumulated Values	18	Feature measurements
11	DCIU	19 20 21 22 23	Level 2 protocol counters Level 3 protocol counters Port blocked counters Miscellaneous Messages blocked/queue usage
12	Call Coverage	24	Call Coverage
13	ACD	25 26 27 28	ACD measurements by member ACD measurements by split ACD call redirection ACD Call Vectoring

Prerequisite Procedures

Use Procedure 410 Word 1 to administer queue peg times and the traffic clock (and offset).

Use Procedure 411 Word 1 to administer load balance studies.

Use Procedure 411 Word 2 to administer carrier usage studies.

Use Procedure 413 Word 2 to administer Automatic Route Selection (ARS), Automatic Alternate Routing (AAR), and Call Coverage studies.

Use Procedure 414 Words 1 and 2 to administer peak register and time-coincident studies.

Related Procedures

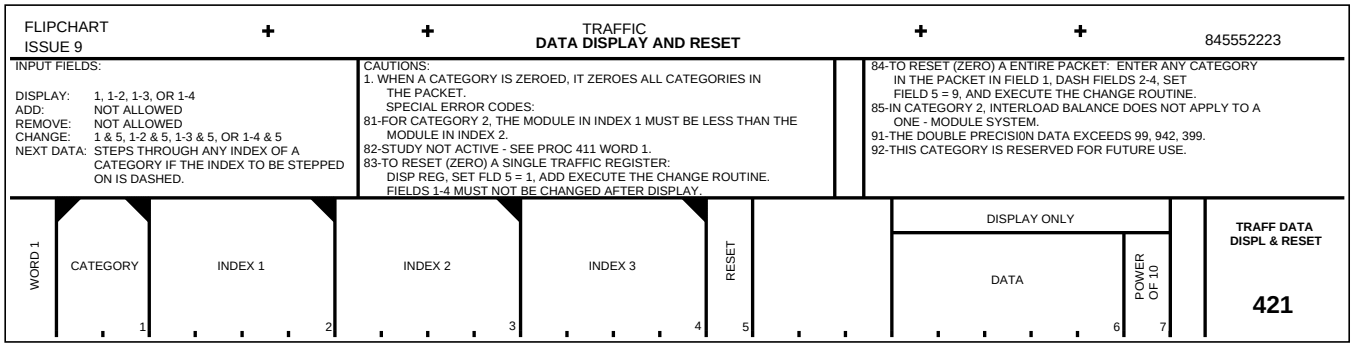
Use Procedure 421 Word 2 to display equipment locations associated with the data displayed in Word 1 for the carrier usage, port usage, and ring group blockage categories.

Use Procedure 421 Word 3 to display the network channel associated with the data displayed in Word 1 for DCIU category 20.

Cautions

When a category is zeroed, it also zeros all the categories in the packet.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 1 and 2, fields 1-3, or fields 1-4.
Add:	Not allowed.
Change:	Fields 1 and 5, fields 1, 2, and 5, fields 1-3 and 5, or fields 1-4 and 5.
Remove:	Not allowed.
Next Data:	Steps through any index of a category if the index to be stepped on is dashed.

Field Ranges and Encodes

1.	Category	1	Intramodule Load Balance (packet 2)
		2	Intermodule Load Balance (packet 2)
		3	Carrier Usage (packet 3)
		4	Carrier Port Usage (packet 3)
		5	Flag and Poll Information (packet 5)
		6	Total Blockages (packet 5)
		7	Ring Group Blockages (packet 5)
		8	Module Blockages (packet 5)
		9	Peak Hour Summary (packet 5)
		10	Peak Hour Module Occupancy (packet 5)
		11	Reserved for future use
		12	Peak Registers (packet 6)
		13	Time-Coincident Registers (packet 6)
		14	Automatic Route Selection (ARS) (packet 7)
		15	Automatic Alternate Routing (AAR) (packet 8)
		16	Peak Hour Occupancy Value and Time (packet 9)
		17	Hundred Second Occupancy (packet 9)
		18	Feature Measurements (packet 10)
		19	DCIU Level 2 Protocol Counter (packet 11)
		20	DCIU Level 3 Protocol Counters (packet 11)
		21	DCIU Port Blocked Counters (packet 11)
		22	DCIU Miscellaneous (packet 11)
		23	DCIU Messages Blocked and Queue Usage (packet 11)
		24	Call Coverage (packet 12)
		25	ACD Measurements by Member (packet 13)
		26	ACD Measurements by Split (packet 13)
		27	ACD Call Redirection (packet 13)
		28	ACD Call Vectoring (packet 13)
2.	Index 1	-, 0-4000	
3.	Index 2	-, 1-5998	
4.	Index 3	-, 1-32	
5.	Reset	-	No reset
		1	Reset single register to zero
		9	Reset entire packet to zero

DISPLAY ONLY (Fields 6-7)

6.	Data	0-99999
7.	Power of 10	-, 0-3

Notes

1. Field 7 is used when double precision data is displayed to specify the number of zeros to append to the data in field 6.

Special Error Codes

81 - For Category 2, the module number in Index 1 must be less than the module number in Index 2.

82 - The study is not active - see Procedure 411 Word 1.

83 - To reset (zero) a single traffic register: display register, set field 5 = 1, and execute the change routine. Fields 1-4 must not be changed after display.

84 - To reset (zero) an entire packet, enter any category in the packet in field 1, dash fields 2-4, set field 5 = 9, and execute the change routine.

85 - In Category 2, interload balance does not apply to a one-module system.

91 - The double precision data exceeds 99942399.

92 - This category is reserved for future use.

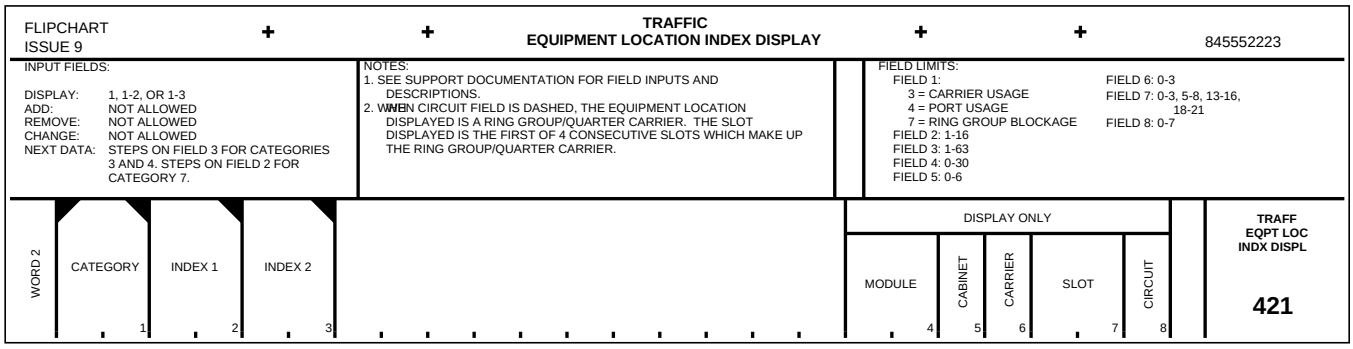
Procedure 421 Word 2 — Traffic - Equipment Location Index Display

210

Purpose

Use Procedure 421 Word 2 to display equipment locations associated with the data displayed in Word 1 for the carrier usage, port usage, and ring group blockage categories.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 1 and 2, or fields 1-3.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Steps on field 3 for categories 3 and 4. Steps on field 2 for category 7.

Field Ranges and Encodes

1.	Category	3	Carrier usage
		4	Port usage
		7	Ring group blockage
2.	Index 1	1-16	
3.	Index 2	1-63	

DISPLAY ONLY (Fields 4-8)

4.	Module	0-30
5.	Cabinet	0-7
6.	Carrier	0-3
7.	Slot	0-3, 5-8, 13-16, 18-21
8.	Circuit	0-7

Notes

1. The circuit field (field 8) is displayed for the port usage category only.
2. For module quarter carriers and ring groups, the slot displayed is the first of four consecutive slots which make up the ring group or the quarter carrier.
3. The following tables contain the index values for the categories displayed in this procedure.

Category/ Index	Value	Description
3		Carrier Usage
Index 1	1 and 2	Indicates module number 1 or 2 assigned in Procedure 411 Word 2
Index 2	1-48	Indicates which one of 48 quarter carriers within module in Index 1.

Category/ Index	Value	Description
4		Port Usage
Index 1	1-4	Quarter carrier or slot assigned in Procedure 411 Word 2
Index 2	1-32	Indicates which one of 32 electrical ports within module quarter carrier specified in Index 1

Category/ Index	Value	Description
7		Ring Group Blockages
Index 1	1-16	Ring group experiencing blockage

Special Error Codes

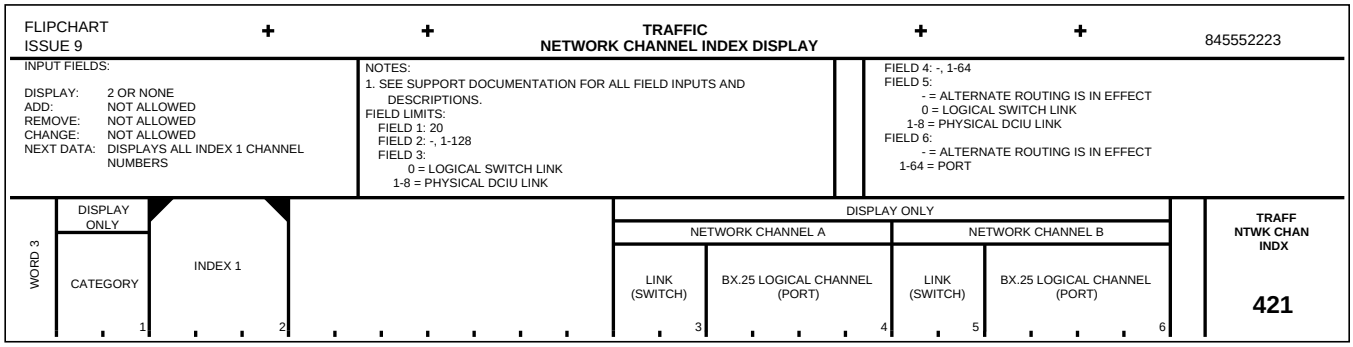
None.

Procedure 421 Word 3 — Traffic - Network Channel Index Display 211

Purpose

Use Procedure 421 Word 3 to display the network channel associated with the data displayed in Procedure 421 Word 1 for DCIU category 20.

Flipchart



Fields Used or Required for Command Routines

Display:	None or field 2.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays all Index 1 channel numbers.

Field Ranges and Encodes

DISPLAY ONLY (Field 1)

1.	Category	20	
2.	Index 1	-, 1-128	

DISPLAY ONLY (Fields 3-6)

NETWORK CHANNEL A (Fields 3-4)

3.	Link (switch)	0	Logical switch link
		1-8	Physical DCIU link
4.	BX.25 Logical Channel (port)	-, 1-64	

NETWORK CHANNEL B (Fields 5-6)

5.	Link (switch)	-	Alternate routing is in effect
		0	Logical switch link
		1-8	Physical DCIU link
6.	BX.25 Logical Channel (port)	-	Alternate routing is in effect
		1-64	Port

Special Error Codes

None.

Procedure 426 Word 1 — Force Administration Data System

212

Purpose

Use Procedure 426 Word 1 to display, add, or change Force Administration Data System (FADS) related translations. These translation items are:

- FADS activity
- FADS automatic print option
- FADS hourly traffic offset.

Prerequisite Procedures

Use Procedure 253 Word 1 to assign the low speed data channel (TN403) to a FADS terminal (type 13).

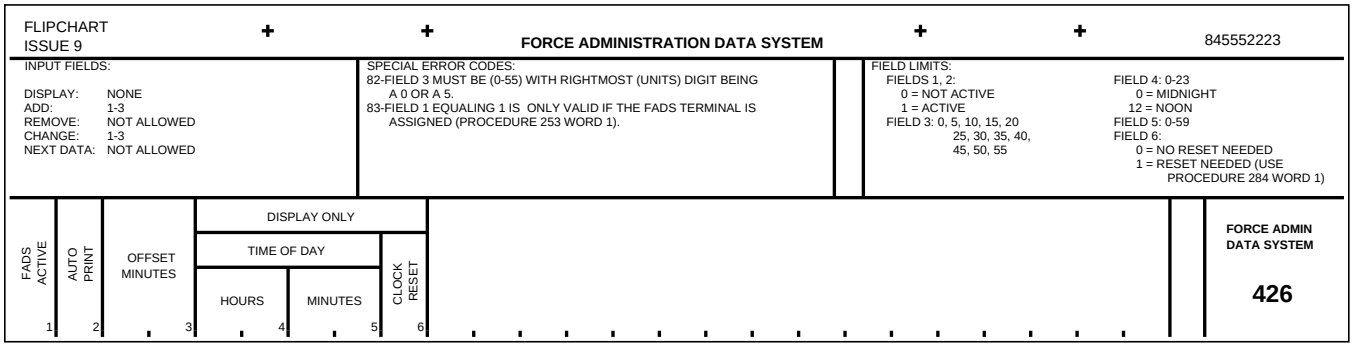
Use Procedure 284 Word 1 to set the system clock after each switch initialization.

Cautions

Changes in the hourly traffic offset cause the next set of traffic counts to be inconsistent with preceding counts. Traffic counts after the changed hourly traffic offset will be consistent with each other. These counts appear as dashes on the FADS terminal and as blanks on the FADS printer.

Changes in FADS activity causes the next set of traffic counts to be inconsistent with preceding counts if the feature is turned off for a portion of the hourly interval. This data is displayed as dashes on the FADS terminal and is printed as blanks on the FADS printer.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Fields 1-3.
Change:	Fields 1-3.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. FADS Active
   - 0 Not active
   - 1 Active

2. Auto Print
   - 0 Not active
   - 1 Active

3. Offset Minutes — 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55

DISPLAY ONLY (Fields 4-6)

TIME OF DAY (Fields 4-5)

4. Hours — 0-23 (0 = midnight, and 12 = noon)

   The system clock uses military time, thus 0 = midnight and 12 = noon. For example, military time for 10:00 pm is 2200 hours.

5. Minutes — 0-59

6.	Clock Reset	0	No reset needed
		1	Reset needed (use Procedure 284 Word 1)

Notes

1. The system clock is set using Procedure 284 Word 1. If field 6 equals 1, the system clock must be reset.

Special Error Codes

82 - Field 3 must be 0-55 with the rightmost (units) digit being a 0 or a 5.

83 - Field 1 equaling 1 is only valid if the FADS terminal is assigned (Procedure 253 Word 1).

Procedure 450 Word 1 — Customer Traffic Studies - System Translation and Clock

213

Purpose

Procedure 450 Word 1 has five functional categories:

- Queue peg times
- Traffic clock (and offset)
- Peak and time-coincident translation copy
- Zero traffic study assignments
- Peak and time-coincident study size.

Prerequisite Procedures

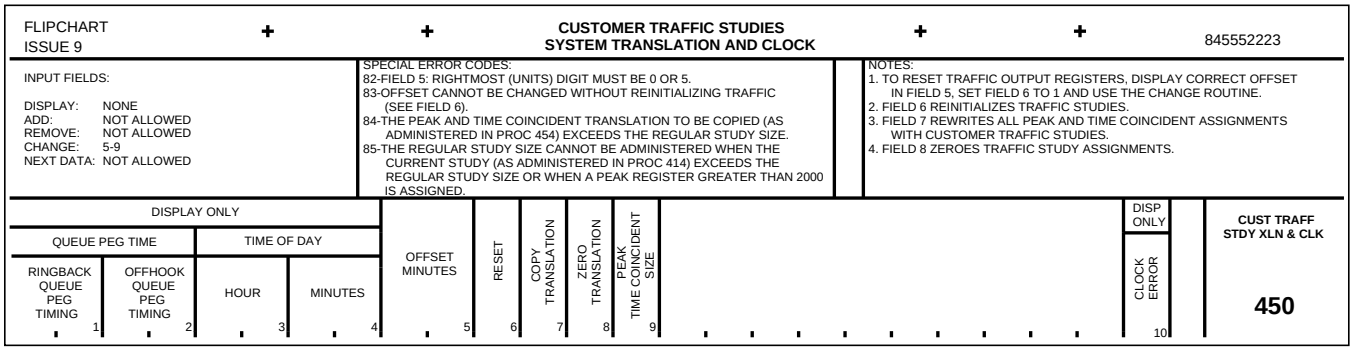
Use Procedure 284 Word 1 to set the system clock which is used for traffic time of day (fields 3 and 4).

Related Procedures

Use Procedure 454 Words 1 and 2 to administer peak and time-coincident traffic studies.

Use Procedure 453 Word 2 to administer traffic studies for ARS, AAR, and Call Coverage.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 5-9.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

DISPLAY ONLY (Fields 1-4)

QUEUE PEG TIME (Fields 1-2)

1. Ringback Queue Peg Timing — - Timing disabled; 1-99 In 0.1 minute increments

   Fields 1 and 2 are in units of 0.1 minute. The range of this field is from 1 to 99 corresponding to peg times of 0.1 to 9.9 minutes.

2. Off-Hook Queue Peg Timing — - Timing disabled; 1-99 In 0.1 minute increments

   Fields 1 and 2 are in units of 0.1 minute. The range of this field is from 1 to 99 corresponding to peg times of 0.1 to 9.9 minutes.

TIME OF DAY (Fields 3-4)

3. Hour — 0-23

   The system clock uses military time, thus 0 = midnight and 12 = noon. For example, military time for 10:00 pm is 2200 hours.

4. Minutes — 0-59

5. Offset Minutes — 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55

   Offset cannot be changed without reinitializing traffic.

6. Reset
   - \- Do not reset offset or collection and output registers
   - 1 Reset offset and all traffic collection and output registers

   Changes in this field reinitialize traffic studies.

   To reset traffic collection and output registers, display correct offset in field 5, set this field to 1, and do a change routine.

7. Copy Translation
   - \- No change
   - 1 Use Procedures 414 Words 1 and 2

   Changes in this field affect all peak and time-coincident register assignments for traffic studies.

   Copy peak and time-coincident register assignments (as administered in Procedure 414 Words 1 and 2) into this traffic translation. Verify copy using Procedure 454 Words 1 and 2).

8. Zero Translation
   - \- No change
   - 1 Zero peak and time-coincident registers (Procedure 454 Words 1 and 2)
   - 2 Zero ARS studies (Procedure 453 Word 2)
   - 3 Zero AAR studies (Procedure 453 Word 2)
   - 4 Zero Call Coverage studies (Procedure 453 Word 2)

   Changes in this field zero traffic study assignments.

9.	Peak/Time Coincident Size	-	No change
		0	Regular study size (2000 registers)
		1	Large study size (4000 registers)

DISPLAY ONLY (Field 10)

10.	Clock Error	0	No
		1	Yes (use Procedure 284 Word 1 to reset)

Special Error Codes

82 - The field 5 rightmost (units) digit must be 0 or 5.

83 - The offset cannot be changed without reinitializing traffic (see field 6).

84 - The peak and time-coincident translation to be copied (as administered in Procedure 414 Words 1 and 2) exceeds the regular study size.

85 - The regular study size cannot be administered when the current study (as administered in Procedure 454 Words 1 and 2) exceeds the regular study size or when a peak register greater than 2000 is assigned.

Procedure 451 Word 1 — Customer Traffic Studies - Load Balance

214

Purpose

Use Procedure 451 Word 1 to administer load balance studies.

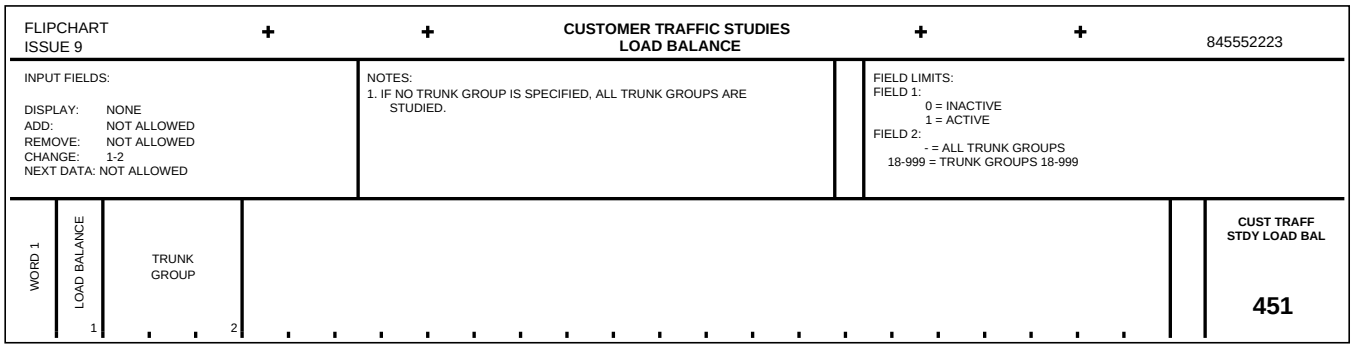
Prerequisite Procedures

Use Procedure 100 Word 1 to administer basic trunk group translations.

Related Procedures

Use Procedure 461 Word 1 to display and reset the load balance measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Load Balance
   - 0 Inactive
   - 1 Active

   If no trunk group is specified, all trunk groups are studied.

2. Trunk Group
   - \- All trunk groups
   - 18-999 Trunk groups 18-999

Special Error Codes

None.

Procedure 451 Word 2 — Customer Traffic Studies - Carrier Usage

215

Purpose

Use Procedure 451 Word 2 to assign line or trunk carriers for traffic usage studies.

Prerequisite Procedures

Use Procedure 250 Word 1 to administer carrier translations.

Related Procedures

Use Procedure 461 Word 1 to display and reset the carrier usage measurements.

Flipchart

FLIPCHART
ISSUE 9

CUSTOMER TRAFFIC STUDIES
CARRIER USAGE

845552223

INPUT FIELDS:

DISPLAY: NONE
ADD: NOT ALLOWED
REMOVE: NOT ALLOWED
CHANGE: 1-15
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
81-MODULE 1 MUST BE ASSIGNED.
83-DATA IN FIELDS 3-14 MUST BE ENTERED BEGINNING TO END WITH NO GAPS.

FIELD LIMITS:

FIELD 1:
0 = INACTIVE
1 = ACTIVE
FIELDS 2 & 15: -, 0-30
FIELDS 3, 6, 9, 12: -, 0-6
FIELDS 4, 7, 10, 13: -, 0-3

FIELDS 5, 8, 11, 1F (FULL DENSITY):
0 = SLOTS 0-3
1 = SLOTS 5-8
2 = SLOTS 13-16
3 = SLOTS 18-21

WORD 2	CARRIER USAGE	IN FIRST MODULE													MODULE		CUST TRAFF STDY CARRIER
		FIRST MODULE	QUARTER CARRIER 1			QUARTER CARRIER 2			QUARTER CARRIER 3			QUARTER CARRIER 4					
			CABINET	CARRIER	BEG SLOT ENCODE	CABINET	CARRIER	BEG SLOT ENCODE	CABINET	CARRIER	BEG SLOT ENCODE	CABINET	CARRIER	BEG SLOT ENCODE			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	2	15	451

Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-15.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Carrier Usage 0 Inactive
   1 Active

IN FIRST MODULE (Fields 2-14)

For the module specified in field 2, the traffic studies are made on a quarter carrier basis (four slots). If the module number is entered in field 2, fields 5, 8, 11, and 14 anticipate a beginning slot encode. Each slot encode (quarter carrier) corresponds to the following four physical slots on a carrier.

Slot encode 0 = Quarter carrier 1 (slots 0-3)
Slot encode 1 = Quarter carrier 2 (slots 5-8)
Slot encode 2 = Quarter carrier 3 (slots 13-16)
Slot encode 3 = Quarter carrier 4 (slots 18-21)

2. First Module -, 0-30

FIRST QUARTER CARRIER (Fields 3-5)

3. Cabinet -, 0-6

4. Carrier -, 0-3

5. Slot Encode -, 0-3

SECOND QUARTER CARRIER (Fields 6-8)

6. Cabinet -, 0-6

7. Carrier -, 0-3

8. Slot Encode -, 0-3

THIRD QUARTER CARRIER (Fields 9-11)

9. Cabinet -, 0-6

10. Carrier -, 0-3

11. Slot Encode -, 0-3

FOURTH QUARTER CARRIER (Fields 12-14)

12. Cabinet -, 0-6

13. Carrier -, 0-3

14. Slot Encode -, 0-3

15. Second Module -, 0-30

Notes

1. No gaps are allowed when entering data in fields 3-14.

Special Error Codes

81 - Module 1 must be assigned.

83 - Data in fields 3-14 must be entered beginning to end with no gaps.

Procedure 453 Word 1 — Customer Traffic Studies - Trunk Group Combinations

216

Purpose

Use Procedure 453 Word 1 to assign trunk group combinations for traffic studies. Only 1-way, 2-way, Direct Inward Dialing (DID), Integrated Services Digital Network (ISDN), and remote access trunks are allowed.

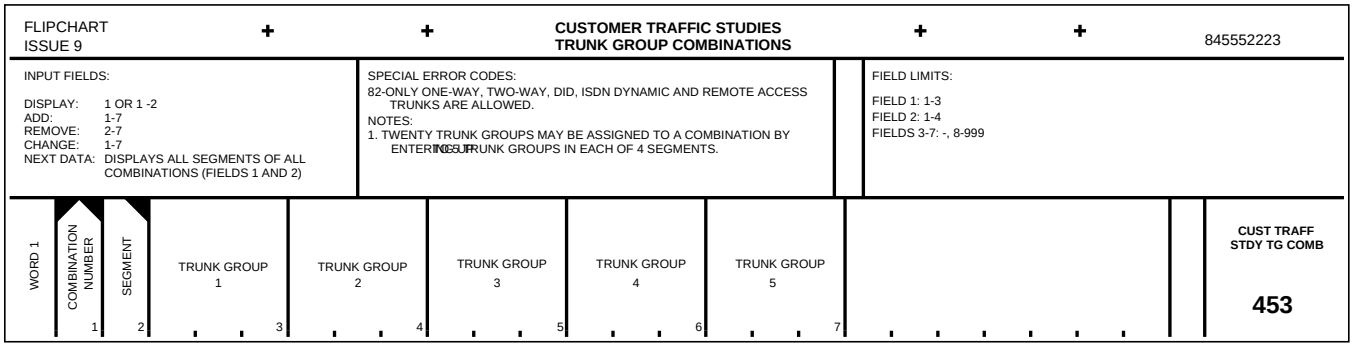
Prerequisite Procedures

Use Procedure 100 Word 1 to assign trunk groups.

Related Procedures

Use Procedure 454 Words 1 and 2 to establish peak and time-coincident measurements for total hundred-call seconds (CCS), incoming CCS, and outgoing CCS for the trunk group combinations assigned in this procedure.

Flipchart



Fields Used or Required for Command Routines

Display: Field 1 or fields 1 and 2.

Add: Fields 1-7. Using the add routine on a combination and segment number replaces any prior assignment for that segment (functions similar to the change routine).

Change: Fields 1-7.

Remove: Fields 2-7. The remove routine eliminates only the specified segment (field 2) of a trunk group combination and does not remove or change the other segments.

Next Data: Displays all segments of all combinations (fields 1 and 2).

Field Ranges and Encodes

1. Combination Number 1-3

2. Segment 1-4

3. Trunk Group 1 -, 8-999

4. Trunk Group 2 -, 8-999

5. Trunk Group 3 -, 8-999

6. Trunk Group 4 -, 8-999

7. Trunk Group 5 -, 8-999

Notes

1. Twenty trunk groups may be assigned to a combination by entering up to five trunk groups in each of four segments.

Special Error Codes

82 - Only 1-way, 2-way, DID, ISDN dynamic, and remote access trunks are allowed.

Procedure 453 Word 2 — Customer Traffic Studies - Special Measurement Groups

217

Purpose

Use Procedure 453 Word 2 to specify Automatic Alternate Routing (AAR) patterns, Automatic Route Selection (ARS) patterns or Call Coverage groups for traffic studies.

Prerequisite Procedures

Use Procedure 309 Words 1-5 to administer ARS patterns.

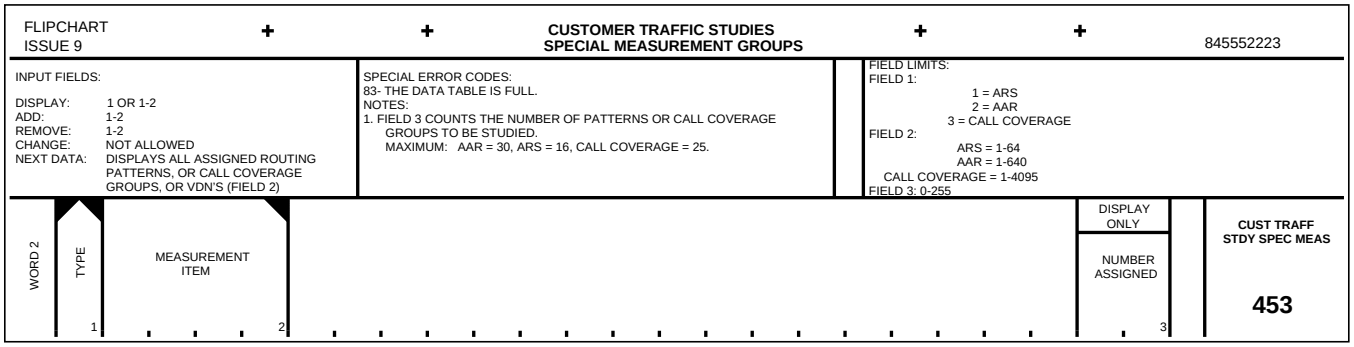
Use Procedure 321 Words 1-5 to administer AAR patterns.

Use Procedure 011 Word 1 to administer Call Coverage groups.

Related Procedures

Use Procedure 461 Word 1 to display and reset the traffic measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1 or fields 1 and 2.
Add:	Fields 1 and 2.
Change:	Not allowed.
Remove:	Fields 1 and 2.
Next Data:	Displays all assigned routing patterns or Call Coverage groups (field 2).

Field Ranges and Encodes

1. Type

1	ARS
2	AAR
3	Call Coverage

2. Measurement Item — 1-4095

The ranges for the different types are: ARS = 1-64, AAR = 1-640, Call Coverage = 1-4095.

DISPLAY ONLY (Field 3)

3. Number Assigned — 0-30

Field 3 counts the number of patterns or Call Coverage groups, to be studied. Maximum: ARS = 16, AAR = 30, Call Coverage = 25.

Special Error Codes

83 - The data table is full.

Procedure 454 Word 1 — Customer Traffic Studies - Peak Register Assignments

218

Purpose

Use Procedure 454 Word 1 to assign peak registers for the traffic peak and time-coincident study.

Prerequisite Procedures

Use Procedure 450 Word 1 to copy the AT&T peak and time-coincident register assignments (as administered in Procedure 414 Words 1 and 2) and to administer the peak and time-coincident study size.

Use Procedure 453 Word 1 to administer traffic trunk group combinations for measurement type 1 if applicable.

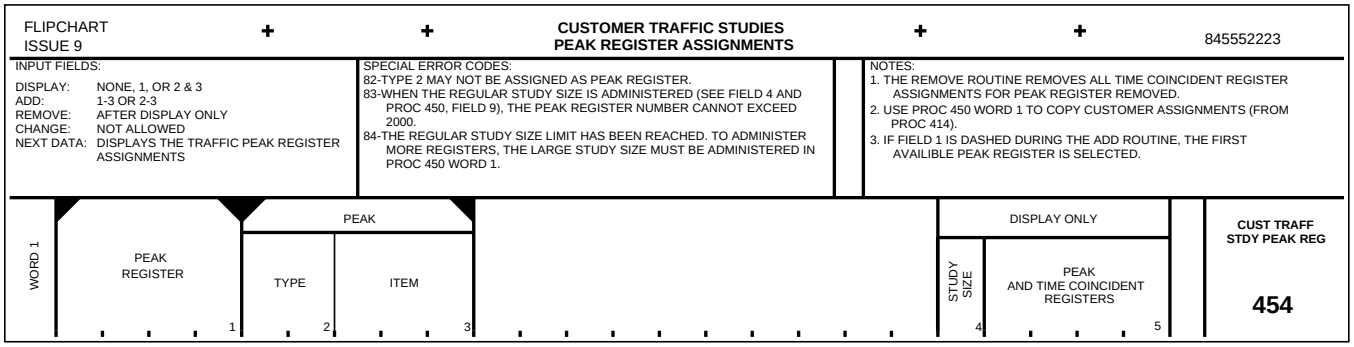
Related Procedures

Use Procedure 461 Word 1 to display and reset the peak and time-coincident measurements.

Cautions

The remove routine removes all time-coincident registers associated with the peak register removed.

Flipchart



Fields Used or Required for Command Routines

Display:	None, field 1, or fields 2 and 3.
Add:	Fields 1-3 or fields 2 and 3.
Change:	Not allowed.
Remove:	After display only.
Next Data:	Displays the traffic peak register assignments.

Field Ranges and Encodes

1. Peak Register -, 1-4000

   If field 1 is dashed during the add routine, the first available peak register is selected.

PEAK (Fields 2-3)

2. Type

1	Traffic trunk group combination usage
3	Network and processor measurements
5-9	Trunk group measurements
10-12	Time slot interchanger measurements
13-14	Time multiplex switch measurements
20	Attendant feature measurements (console totals)
21-23	Attendant feature measurements (per console)
30-34	Queuing measurements (priority queues)
40-44	Queuing measurements (nonpriority queues)
50-52	Main/satellite measurements
60	CAS measurements
61-63	ACD and Message Center measurements

		65-66,68-69	Trunk group data measurements
		70	Trunk group busy out usage
		71-73	Trunk group glare measurements
3.	Item	1-999	

DISPLAY ONLY (Fields 4-5)

4.	Study Size	0	Regular study (2000 registers)
		1	Large study (4000 registers)
5.	Peak and Time Coincident Registers Assigned	0-5998	

Notes

1. The maximum number of peak registers plus time-coincident registers assigned can be 2000-5998 depending on the mix of peak versus time-coincident assignments and the study size.
2. The following tables show the peak measurement type and item (fields 2 and 3):

Trunk Group Combination Usage

Measurement	Type	Item
Combination number 1		
Total usage	1	1
Incoming usage	1	2
Outgoing usage	1	3
Combination number 2		
Total usage	1	4
Incoming usage	1	5
Outgoing usage	1	6
Combination number 3		
Total usage	1	7
Incoming usage	1	8
Outgoing usage	1	9

Network and Processor Measurements

Measurement	Type	Item
Outgoing usage	3	1
Tandem usage	3	2
Reserved for future use	3	3
501CC occupancy	3	4
501CC overflow	3	5
Call processing stimuli	3	6
DCP stimuli	3	7
Dial tone delays > 3 seconds	3	8
Dial tone measured	3	9
Connection count	3	10
Intermodule usage	3	11
Audit cycles	3	12
Connection usage	3	13
Tone detector timeout	3	14
Call count	3	15
AAR calls	3	16
ARS calls	3	17
CDR records	3	18
CDR usage	3	19

Trunk Group Measurements

Measurement	Type	Item
Trunk group total usage	5	8-999
Trunk group total calls	6	15-999
Trunk group total overflow	7	18-999
Trunk group incoming usage	8	18-999
Trunk group incoming calls	9	18-999

TSI Measurements

Measurement	Type	Item
TSI memory word blockage for modules 0-30, respectively	10	1-31
TSI memory word count for modules 0-30, respectively	11	1-31
TSI memory word usage for modules 0-30, respectively	12	1-31

TMS Measurements		
Measurement	**Type**	**Item**
Mismatch blockage by module pair	13	1-465
Intermodule call count by module pair	14	1-465

Attendant Feature Measurements		
Measurement	**Type**	**Item**
Console totals		
All consoles worked usage	20	1
All consoles attended usage	20	2
All consoles worked count	20	3
Incoming call queue		
Incoming call queue usage	20	4
Incoming call queue call count	20	5
Incoming call queue calls abandoned	20	6
Attendant calls		
LDN calls answered	20	7
Non-LDN calls answered	20	8
Attendant recall calls	20	9
Attendant originated calls	20	10

Attendant Feature Measurements Per Console		
Measurement	**Type**	**Item**
Console worked usage	21	1-40
Console attended usage	22	1-40
Console worked count	23	1-40

Priority Queue Measurements		
Measurement	**Type**	**Item**
Trunk group queue usage	30	18-999
Trunk group queued call count	31	18-999
Trunk group queue overflow	32	18-999
Trunk group queue calls abandoned	33	18-999
Trunk group queue timeout	34	18-999

Nonpriority Queue Measurements		
Measurement	**Type**	**Item**
Trunk group queue usage	40	18-999
Trunk group queued call count	41	18-999
Trunk group queue overflow	42	18-999
Trunk group queue calls abandoned	43	18-999
Trunk group queue timeout	44	18-999

Main/Satellite Measurements		
Measurement	**Type**	**Item**
DID to main	50	1
DID to satellite 1-4	51	1-4
Attendant recall from satellite 1-4	52	1-4

CAS Measurements		
Measurement	**Type**	**Item**
CAS usage	60	1
CAS call count	60	2
CAS abandoned calls	60	3
RLT calls answered by attendant	60	4

ACD and Message Center Measurements		
Measurement	**Type**	**Item**
ACD queue threshold count	61	1-60
Message center service directed calls	62	1-60
Message center service redirected calls	63	1-60

Trunk Group Data Measurements		
Measurement	**Type**	**Item**
Trunk group data usage	65	8-999
Trunk group data calls	66	15-999
Trunk group incoming data usage	68	18-999
Trunk group incoming data calls	69	18-999

Trunk Group Maintenance Busy Usage		
Measurement	**Type**	**Item**
Trunk group maintenance busy usage	70	4-999

Trunk Group Glare Measurements		
Measurement	**Type**	**Item**
Trunk group glare count	71	18-999
Trunk group glare retry attempts	72	18-999
Trunk group glare retry failures	73	18-999

Special Error Codes

82 - Type 2 may not be assigned as a peak register.

83 - When the regular study size is administered (see field 4 and Procedure 450 Word 1 field 9), the peak register number cannot exceed 2000.

84 - The regular study size limit has been reached. To administer more registers, the large study size must be administered in Procedure 450 Words 1 field 9.

Procedure 454 Word 2 — Customer Traffic Studies - Time Coincident Register Assignments 219

Purpose

Use Procedure 454 Word 2 to assign a traffic time-coincident register associated with a peak traffic register.

Prerequisite Procedures

Use Procedure 450 Word 1 to administer the peak and time-coincident study size.

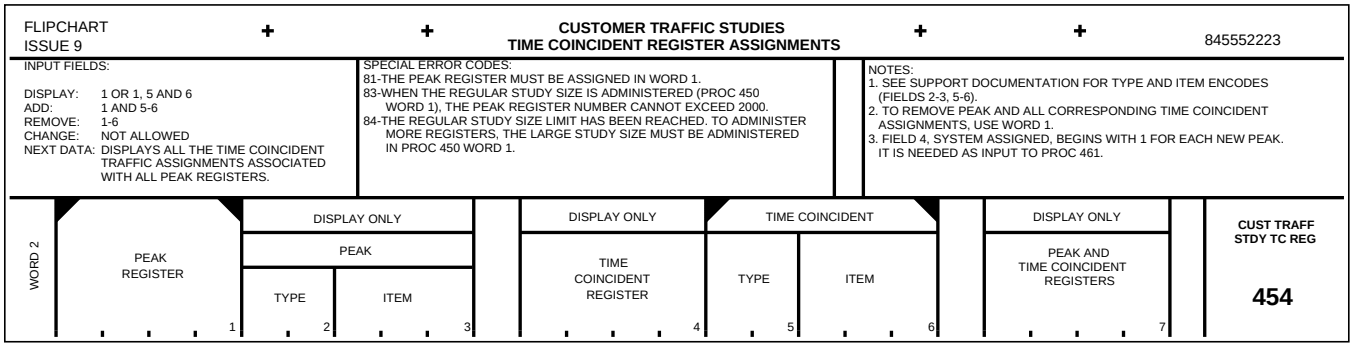
Use Procedure 454 Word 1 to administer the peak register before using this procedure.

Use Procedure 453 Word 1 to administer traffic trunk group combinations for measurement type 1 if applicable.

Related Procedures

Use Procedure 461 Word 1 to display and reset the peak and time-coincident measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	None, field 1 or fields 1, 5, and 6.
Add:	Fields 1, 5, and 6.
Change:	Not allowed.
Remove:	Fields 1-6.
Next Data:	Displays all the time-coincident traffic assignments associated with all assigned peak registers.

Field Ranges and Encodes

1. Peak Register 1-4000

DISPLAY ONLY (Fields 2-3)

PEAK (Fields 2-3)

2. Type

1	Traffic trunk group combination usage
3	Network and processor measurements
5-9	Trunk group measurements
10-12	Time slot interchanger (TSI) measurements
13-14	Time multiplex switch (TMS) measurements
20	Attendant feature measurements (console totals)
21-23	Attendant feature measurements (per console)
30-34	Queuing measurements (priority queues)
40-44	Queuing measurements (nonpriority queues)
50-52	Main/satellite measurements

60	CAS measurements
61-63	ACD and Message Center measurements
65-66,68-69	Trunk group data measurements
70	Trunk group busy out usage
71-73	Trunk group glare measurements

3. Item 1-999

DISPLAY ONLY (Field 4)

4. Time Coincident Register 1-5997

TIME COINCIDENT (Fields 5-6)

5. Type

1	Traffic trunk group combination usage
2	Miscellaneous measurements
3	Network and processor measurements
5-9	Trunk group measurements
10-12	Time slot interchanger measurements
13-14	Time multiplex switch measurements
20	Attendant feature measurements (console totals)
21-23	Attendant feature measurements (per console)
30-34	Queuing measurements (priority queues)
40-44	Queuing measurements (nonpriority queues)
50-52	Main/satellite measurements
60	CAS measurements
61-63	ACD and Message Center measurements
65-66,68-69	Trunk group data measurements
70	Trunk group busy out usage
71-73	Trunk group glare measurements

6. Item 1-999

DISPLAY ONLY (Field 7)

7. Peak And Time Coincident Registers Assigned — 0-5998

Notes

1. Each group of time-coincident register assignments for a given register peak begins with a 1 (field 4). The value displayed in field 4 is used as an index in Procedure 461 Words 1-3.
2. The maximum number of peak registers plus time-coincident registers assigned can be 2000-5998 depending on the mix of peak versus time-coincident assignments and the study size.
3. To remove peak and all corresponding time-coincident assignments, use Word 1.
4. The following tables show the peak measurement type and item (fields 2 and 3) and the time-coincident measurement type and item (fields 5 and 6):

Trunk Group Combination Usage

Measurement	Type	Item
Combination number 1		
Total usage	1	1
Incoming usage	1	2
Outgoing usage	1	3
Combination number 2		
Total usage	1	4
Incoming usage	1	5
Outgoing usage	1	6
Combination number 3		
Total usage	1	7
Incoming usage	1	8
Outgoing usage	1	9

Miscellaneous Measurements (time-coincident only)

Measurement	Type	Item
Time of day	2	1
ARS plan in effect	2	2

Network and Processor Measurements		
Measurement	**Type**	**Item**
Outgoing usage	3	1
Tandem usage	3	2
Reserved for future use	3	3
501CC occupancy	3	4
501CC overflow	3	5
Call processing stimuli	3	6
DCP stimuli	3	7
Dial tone delays > 3 seconds	3	8
Dial tone measured	3	9
Connection count	3	10
Intermodule usage	3	11
Audit cycles	3	12
Connection usage	3	13
Tone detector timeout	3	14
Call count	3	15
AAR calls	3	16
ARS calls	3	17
CDR records	3	18
CDR usage	3	19

Trunk Group Measurements		
Measurement	**Type**	**Item**
Trunk group total usage	5	8-999
Trunk group total calls	6	15-999
Trunk group total overflow	7	18-999
Trunk group incoming usage	8	18-999
Trunk group incoming calls	9	18-999

TSI Measurements		
Measurement	**Type**	**Item**
TSI memory word blockage for modules 0-30, respectively	10	1-31
TSI memory word count for modules 0-30, respectively	11	1-31
TSI memory word usage for modules 0-30, respectively	12	1-31

TMS Measurements

Measurement	Type	Item
Mismatch blockage by module pair	13	1-465
Intermodule call count by module pair	14	1-465

Attendant Feature Measurements

Measurement	Type	Item
Console totals		
All consoles worked usage	20	1
All consoles attended usage	20	2
All consoles worked count	20	3
Incoming call queue		
Incoming call queue usage	20	4
Incoming call queue call count	20	5
Incoming call queue calls abandoned	20	6
Attendant calls		
LDN calls answered	20	7
Non-LDN calls answered	20	8
Attendant recall calls	20	9
Attendant originated calls	20	10

Attendant Feature Measurements Per Console

Measurement	Type	Item
Console worked usage	21	1-40
Console attended usage	22	1-40
Console worked count	23	1-40

Priority Queue Measurements

Measurement	Type	Item
Trunk group queue usage	30	18-999
Trunk group queued call count	31	18-999
Trunk group queue overflow	32	18-999
Trunk group queue calls abandoned	33	18-999
Trunk group queue timeout	34	18-999

Nonpriority Queue Measurements		
Measurement	**Type**	**Item**
Trunk group queue usage	40	18-999
Trunk group queued call count	41	18-999
Trunk group queue overflow	42	18-999
Trunk group queue calls abandoned	43	18-999
Trunk group queue timeout	44	18-999

Main/Satellite Measurements		
Measurement	**Type**	**Item**
DID to main	50	1
DID to satellite 1-4	51	1-4
Attendant recall from satellite 1-4	52	1-4

CAS Measurements		
Measurement	**Type**	**Item**
CAS usage	60	1
CAS call count	60	2
CAS abandoned calls	60	3
RLT calls answered by attendant	60	4

ACD and Message Center Measurements		
Measurement	**Type**	**Item**
ACD queue threshold count	61	1-60
Message center service directed calls	62	1-60
Message center service redirected calls	63	1-60

Trunk Group Data Measurements		
Measurement	**Type**	**Item**
Trunk group data usage	65	8-999
Trunk group data calls	66	15-999
Trunk group incoming data usage	68	18-999
Trunk group incoming data calls	69	18-999

Trunk Group Maintenance Busy Usage		
Measurement	**Type**	**Item**
Trunk group maintenance busy usage	70	4-999

Trunk Group Glare Measurements		
Measurement	**Type**	**Item**
Trunk group glare count	71	18-999
Trunk group glare retry attempts	72	18-999
Trunk group glare retry failures	73	18-999

Special Error Codes

81 - The peak register must be assigned in Procedure 454 Word 1.

83 - When the regular study size is administered (Procedure 450 Word 1 field 9), the peak register number cannot exceed 2000.

84 - The regular study size limit has been reached. To administer more registers, the large study size must be administered in Procedure 450 Word 1 field 9.

Procedure 455 Word 1 — Customer Traffic Studies - Main/Satellite Translation

220

Purpose

Use Procedure 455 Word 1 to assign a traffic satellite number to a Main/Satellite trunk group.

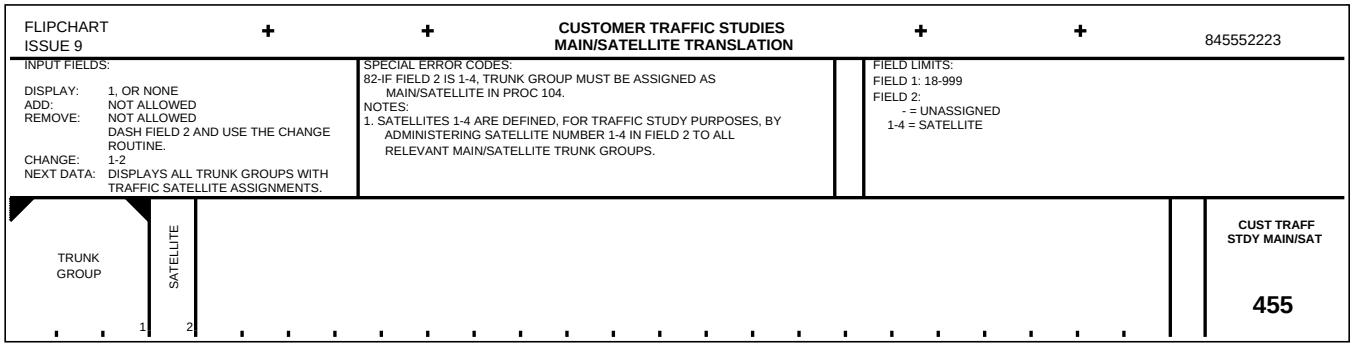
Prerequisite Procedures

Use Procedure 104 Words 1 and 2 to administer Main/Satellite trunk groups.

Related Procedures

Use Procedure 454 Words 1 and 2 to establish traffic Main/Satellite peak and time-coincident measurements.

Flipchart



Fields Used or Required for Command Routines

Display:	None or field 1.
Add:	Not allowed.
Change:	Fields 1 and 2.
Remove:	Not allowed (dash field 2 and use the change routine).
Next Data:	Displays all trunk groups with traffic satellite assignments.

Field Ranges and Encodes

1. Trunk Group 18-999

2. Satellite
   - \- Unassigned
   - 1-4 Satellite number

   Satellites 1-4 are defined, for traffic study purposes, by administering satellite number 1-4 in this field to all relevant Main/Satellite trunk groups.

Special Error Codes

82 - If field 2 is 1-4, the trunk group must be administered as Main/Satellite in Procedure 104 Word 1.

Procedure 461 Word 1 — Customer Traffic - Data Display and Reset

221

Purpose

Use Procedure 461 Word 1 to display and reset to zero traffic data in the output buffers (i.e., available for polling by an Operational Support System). The categories of this data are as follows:

Packet Number	Packet Name	Category Number	Category Name
2	Load Balance	1 2	Intramodule Load Balance Intermodule Load Balance
3	Carrier Usage	3 4	Carrier Usage Port Usage
5	Performance	5 6 7 8 9 10	Flag and Poll Information Total Blockages Ring Group Blockages Module Blockages Peak Hour - Summary Peak Hour - Module Occupancy
6	Peak and Time-Coincident	12 13	Peak Registers Time-Coincident Registers
7	ARS	14	ARS
8	AAR	15	AAR
9	Occupancy Data	16 17	Peak Hour Occupancy Value and Time Hundred Second Occupancy
10	Accumulated Values	18	Feature measurements
11	DCIU	19 20 21 22 23	Level 2 protocol counters Level 3 protocol counters Port blocked counters Miscellaneous Messages blocked/queue usage
12	Call Coverage	24	Call Coverage
13	ACD	25 26 27 28	ACD measurements by member ACD measurements by split ACD call redirection ACD Call Vectoring

Prerequisite Procedures

Use Procedure 450 Word 1 to administer the traffic clock (and offset).

Use Procedure 451 Word 1 to administer load balance studies.

Use Procedure 451 Word 2 to administer carrier usage studies.

Use Procedure 453 Word 2 to administer Automatic Route Selection (ARS), Automatic Alternate Routing (AAR) and Call Coverage studies.

Use Procedure 454 Words 1 and 2 to administer peak register and time-coincident studies.

Related Procedures

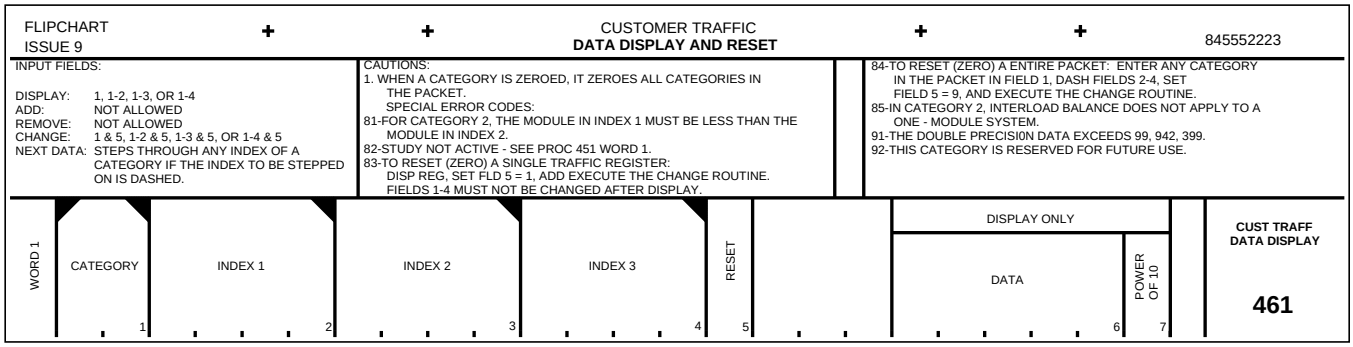
Use Procedure 461 Word 2 to display equipment locations associated with the data displayed in Word 1 for the carrier usage, port usage, and ring group blockage categories.

Use Procedure 461 Word 3 to display the network channel associated with the data displayed in Word 1 for DCIU category 20.

Cautions

When a category is zeroed, it also zeros all the categories in the packet.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 1 and 2, fields 1-3, or fields 1-4.
Add:	Not allowed.
Change:	Field 1 and 5, fields 1, 2 and 5, fields 1-3 and 5, or fields 1-4 and 5.
Remove:	Not allowed.
Next Data:	Steps through any index of a category if the index to be stepped on is dashed.

Field Ranges and Encodes

1.	Category	1	Intramodule Load Balance (packet 2)
		2	Intermodule Load Balance (packet 2)
		3	Carrier Usage (packet 3)
		4	Carrier Port Usage (packet 3)
		5	Flag and Poll Information (packet 5)
		6	Total Blockages (packet 5)
		7	Ring Group Blockages (packet 5)
		8	Module Blockages (packet 5)
		9	Peak Hour Summary (packet 5)
		10	Peak Hour Module Occupancy (packet 5)
		11	Reserved for future use
		12	Peak Registers (packet 6)
		13	Time-Coincident Registers (packet 6)
		14	Automatic Route Selection (ARS) (packet 7)
		15	Automatic Alternate Routing (AAR) (packet 8)
		16	Peak Hour Occupancy Value and Time (packet 9)
		17	Hundred Second Occupancy (packet 9)
		18	Feature Measurements (packet 10)
		19	DCIU Level 2 Protocol Counter (packet 11)
		20	DCIU Level 3 Protocol Counters (packet 11)
		21	DCIU Port Blocked Counters (packet 11)
		22	DCIU Miscellaneous (packet 11)
		23	DCIU Messages Blocked and Queue Usage (packet 11)
		24	Call Coverage (packet 12)
		25	ACD Measurements by Member (packet 13)
		26	ACD Measurements by Split (packet 13)
		27	ACD Call Redirection (packet 13)
		28	ACD Call Vectoring (packet 13)
2.	Index 1	-, 0-4000	
3.	Index 2	-, 1-5998	
4.	Index 3	-, 1-32	
5.	Reset	-	No reset
		1	Reset single register to zero
		9	Reset entire packet to zero

DISPLAY ONLY (Fields 6-7)

6.	Data	0-99999
7.	Power of 10	-, 0-3

Notes

1. Field 7 is used when double precision data is displayed to specify the number of zeros to append to the data in field 6.

Special Error Codes

81 - For Category 2, the module number in Index 1 must be less than the module number in Index 2.

82 - The study is not active - see Procedure 451 Word 1.

83 - To reset (zero) a single traffic register: display register, set field 5 = 1, and execute the change routine. Fields 1-4 must not be changed after display.

84 - To reset (zero) an entire packet, enter any category in the packet in field 1, dash fields 2-4, set field 5 = 9, and execute the change routine.

85 - In Category 2, interload balance does not apply to a one-module system.

91 - The double precision data exceeds 99942399.

92 - This category is reserved for future use.

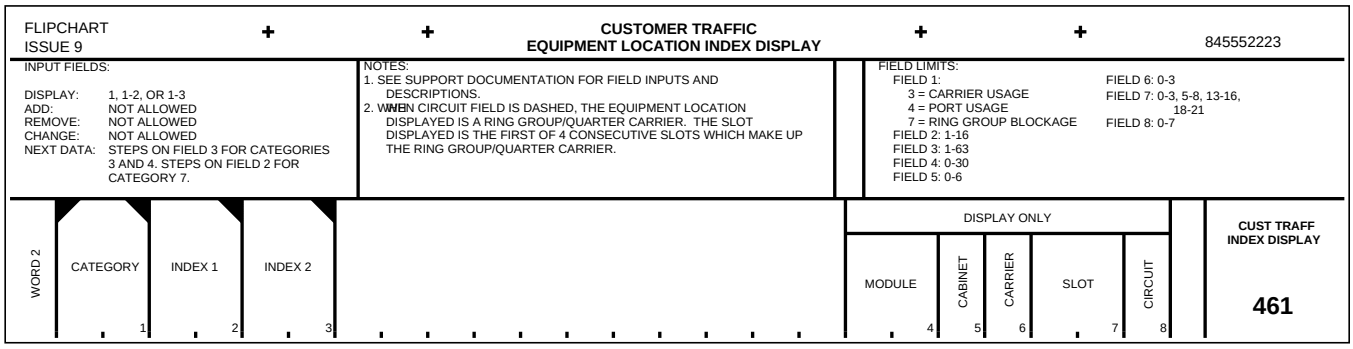
Procedure 461 Word 2 — Customer Traffic - Equipment Location Index Display

222

Purpose

Use Procedure 461 Word 2 to display equipment locations associated with the data displayed in Word 1 for the carrier usage, port usage, and ring group blockage categories.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1, fields 1 and 2, or fields 1-3.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Steps on field 3 for categories 3 and 4. Steps on field 2 for category 7.

Field Ranges and Encodes

1.	Category	3	Carrier usage
		4	Port usage
		7	Ring group blockage
2.	Index 1	1-16	
3.	Index 2	1-63	

DISPLAY ONLY (Fields 4-8)

4.	Module	0-30
5.	Cabinet	0-6
6.	Carrier	0-3
7.	Slot	0-3, 5-8, 13-16, 18-21
8.	Circuit	0-7

Notes

1. The circuit field (field 8) is displayed for the port usage category only.
2. For module quarter carriers and ring groups, the slot displayed is the first of four consecutive slots which make up the ring group or the quarter carrier.
3. The following tables contain the index values for the categories displayed in this procedure.

Category/ Index	Value	Description
3		Carrier Usage
Index 1	1 and 2	Indicates module number 1 or 2 assigned in Procedure 451 Word 2
Index 2	1-48	Indicates which one of 48 quarter carriers within module in Index 1.

Category/ Index	Value	Description
4		Port Usage
Index 1	1-4	Quarter carrier or slot assigned in Procedure 451 Word 2
Index 2	1-32	Indicates which one of 32 electrical ports within module quarter carrier specified in Index 1

Category/ Index	Value	Description
7		Ring Group Blockages
Index 1	1-16	Ring group experiencing blockage

Special Error Codes

None.

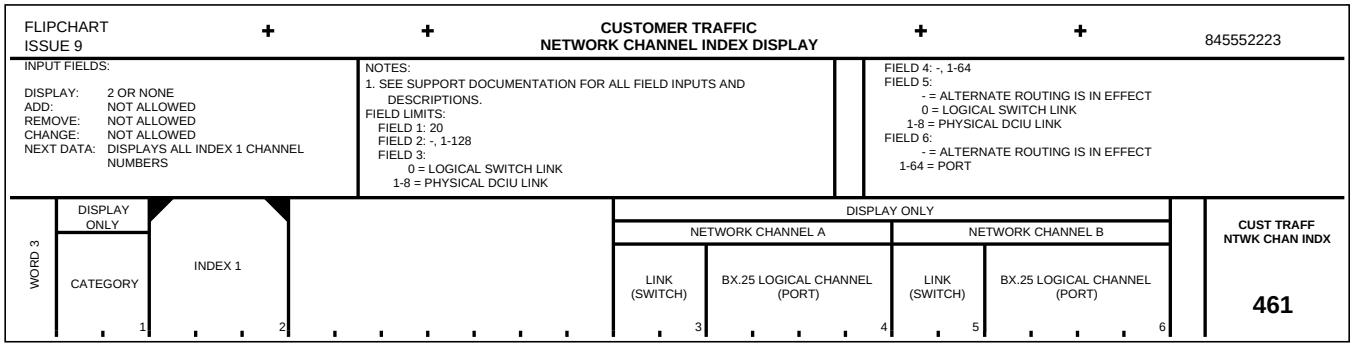
Procedure 461 Word 3 — Customer Traffic - Network Channel Index Display

223

Purpose

Use Procedure 461 Word 3 to display the network channel associated with the data displayed in Procedure 461 Word 1 for DCIU category 20.

Flipchart



Fields Used or Required for Command Routines

Display:	None or field 2.
Add:	Not allowed.
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Displays all Index 1 channel numbers.

Field Ranges and Encodes

DISPLAY ONLY (Field 1)

1.	Category	20	
2.	Index 1	-, 1-128	

DISPLAY ONLY (Fields 3-6)

NETWORK CHANNEL A (Fields 3-4)

3.	Link (switch)	0	Logical switch link
		1-8	Physical DCIU link
4.	BX.25 Logical Channel (port)	-, 1-64	

NETWORK CHANNEL B (Fields 5-6)

5.	Link (switch)	-	Alternate routing is in effect
		0	Logical switch link
		1-8	Physical DCIU link
6.	BX.25 Logical Channel (port)	-	Alternate routing is in effect
		1-64	Port

Special Error Codes

None.

Procedure 490 Word 1 — Patch Block Identification

224

Purpose

Use Procedure 490 Word 1 to:

- Read patch directories (transparent to the user)
- Locate patches on the tape system
- Set up which blocks will be used for new patches.

Related Procedures

Use Procedure 490 Word 2 to write software patches to memory and tape.

Flipchart

FLIPCHART
ISSUE 9

PATCH BLOCK IDENTIFICATION

845552223

INPUT FIELDS:

DISPLAY: 1
ADD: 1-6
REMOVE: NOT ALLOWED
CHANGE: NOT ALLOWED
NEXT DATA: NOT ALLOWED

SPECIAL ERROR CODES:
80-CANNOT ACCESS THE TAPE SYSTEM. REPEAT THE ADD OR DISPLAY ROUTINE AND REPORT TROUBLE.
81-REENTER FIELDS 1-6.
82-THE TAPE OPERATION FAILED. REPEAT THE ADD OR DISPLAY ROUTINE AND REPORT TROUBLE.
83-SYSTEM OPERATING IS ON HOLDOVER POWER. TRY AGAIN LATER.
84-INSERT CARTRIDGE IN THE TAPE DRIVE AND REPEAT THE ADD OR DISPLAY ROUTINE.
85-A DISPLAY ROUTINE MUST BE EXECUTED BEFORE AN ADD ROUTINE.

NOTES:
1. TO CHECK IF PATCH IS ON TAPE, DO NOTE 2 BELOW. TO ADD A NEW PATCH OR TO COPY A PATCH ONTO ANOTHER TAPE, DO NOTES 2-4.
2. ENTER THE PATCH NUMBER, THEN USE THE DISPLAY ROUTINE. AFTER THE WAIT LAMP IS OFF, FIELD 7 = 0 IF THE PATCH IS NOT ON TAPE, AND IS = 1 IF THE PATCH IS ON TAPE. THE NEXT DATA ROUTINE DISPLAYS ALL PATCHES ON TAPE.
3. ENTER DATA FOR FIELDS 2-6, THEN USE THE ADD ROUTINE.
4. AFTER THE WAIT LAMP IS OFF, USE WORD 2 TO ENTER A NEW PATCH OR TO COPY A PATCH TO THE TAPE.

WORD 1	PATCH NUMBER 1	BLOCK NUMBER 2	BLOCK INDEX 3	PATCH TYPE 4	LINES IN PATCH 5	TAPE IDENTIFIER 6	DISP ONLY / PATCH LOADED 7		PATCH BLK IDENT
									490

Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Fields 1-6 (after display only).
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Patch Number 1-999

2. Block Number -, 0-9999

3. Block Index -, 0-9999

4. Patch Type 000-099
   Write to memory and tape
   100-199
   Write to tape

5. Lines in Patch -, 1-999

6. Tape Identifier -, 0-99999

DISPLAY ONLY (Field 7)

7. Patch Loaded 0 No
   1 Yes

Notes

1. To check and see if the patch is on tape, do step ‘‘a’’ below. To add a new patch or to copy a patch onto another tape, do all the following steps:

   a. Enter the patch number, then use the display routine. After the wait lamp is off, field 7 is a 0 if the patch is not on tape, and is a 1 if the patch is on tape. The next data routine displays all patches on tape.

b. Enter data for fields 2-6, and use the add routine.

c. After the wait lamp is off, use Procedure 490 Word 2 to enter a new patch or to copy a patch to the tape.

Special Error Codes

80 - Cannot access the tape system. Repeat the add or display routine and report trouble.

81 - Reenter fields 1-6.

82 - Tape operation failed. Repeat the add or display routine and report trouble.

83 - System operation is on holdover power. Try again later.

84 - Insert cartridge in the tape drive and repeat the add or display routine.

85 - A display routine must be executed before an add routine.

Procedure 490 Word 2 — Patch Data

225

Purpose

Use Procedure 490 Word 2 to enter patches on the system tape.

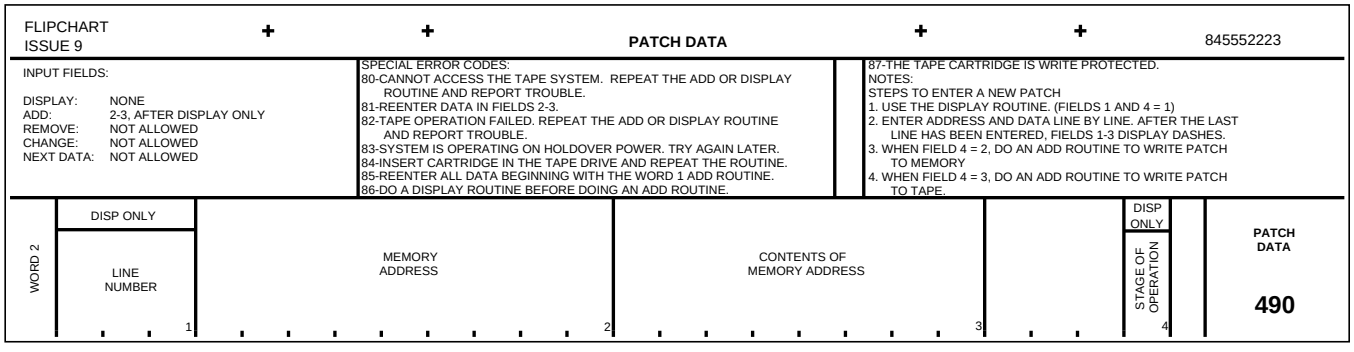
Prerequisite Procedures

Do a display routine on this procedure before doing an add routine.

Cautions

If field 4 is set to 3 (writing patch to tape), do two add routines prior to leaving this procedure to save all current patches on tape. If this procedure is exited without doing this add routine, the patches will not be saved on tape.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Fields 2 and 3 (after display only).
Change:	Not allowed.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

DISPLAY ONLY (Field 1)

1.	Line Number	1-999
2.	Memory Address	0-777777777
3.	Contents of Memory Address	0-777777777

DISPLAY ONLY (Field 4)

4.	Stage of Operation	1	Enter patch data
		2	Do an add routine to write the patch to memory
		3	Do an add routine to write the patch to tape

Notes

1. Steps to enter a new patch:
   a. Use the display routine (fields 1 and 4 = 1).
   b. Enter address and data, line-by-line. After the last line has been entered, fields 1-3 display dashes.
   c. When field 4 = 2, do an add routine to write the patch to memory.
   d. When field 4 = 3, do an add routine to write the patch to tape.
2. Steps to copy a patch to tape:
   a. Use the display routine (field 4 = 3).
   b. Insert tape cartridge so the patch can be copied.

c. Use the add routine. After the wait lamp is off, repeat steps a and b if necessary.

Special Error Codes

80 - Cannot access the tape system. Repeat the add or display routine and follow normal trouble reporting procedures.

81 - Reenter data in fields 2 and 3.

82 - Tape operation failed. Repeat the add or display routine and follow the normal trouble reporting procedures.

83 - System is operating on holdover power. Try again later.

84 - Insert cartridge in tape drive and repeat routine.

85 - Reenter all data beginning with the Word 1 add routine.

86 - Do a display routine before doing an add routine.

87 - The tape cartridge is write protected.

Procedure 497 Word 1 — Customer Serial Number and Software Version

226

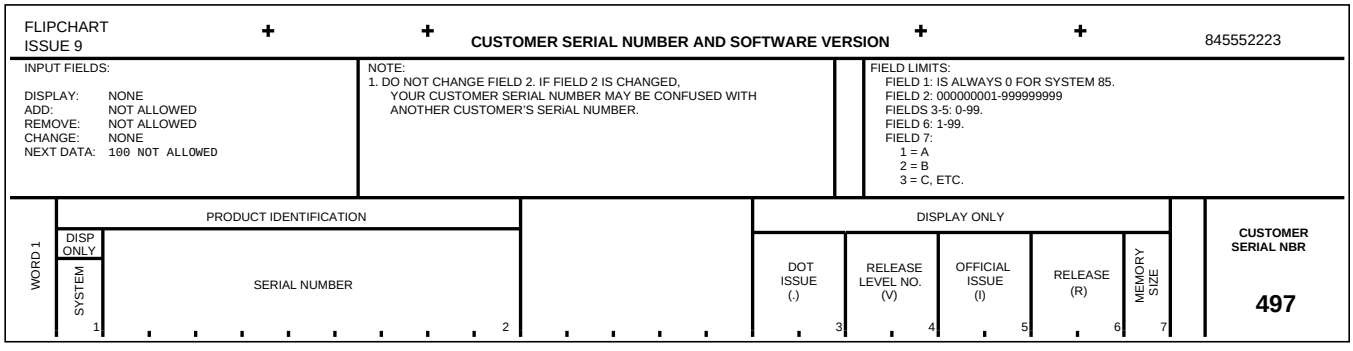
Purpose

Use Procedure 497 Word 1 to display the software load currently installed on the switch. The customer serial number can be changed with this procedure, but this operation is not recommended.

Cautions

Do not change field 2. If field 2 is changed, your customer serial number may be confused with another customer's serial number.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Field 2 (changing the serial number is not recommended).
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

PRODUCT IDENTIFICATION (Fields 1-2)

DISPLAY ONLY (Field 1)

1.	System	0	System 85
2.	Serial Number	000000001-999999999	

DISPLAY ONLY (Fields 3-7)

3.	Dot Issue	00-99
4.	Version (V)	0-99
5.	Official Issue	00-99
6.	Release (R)	1-99
7.	Memory Size	1-3

Special Error Codes

None.

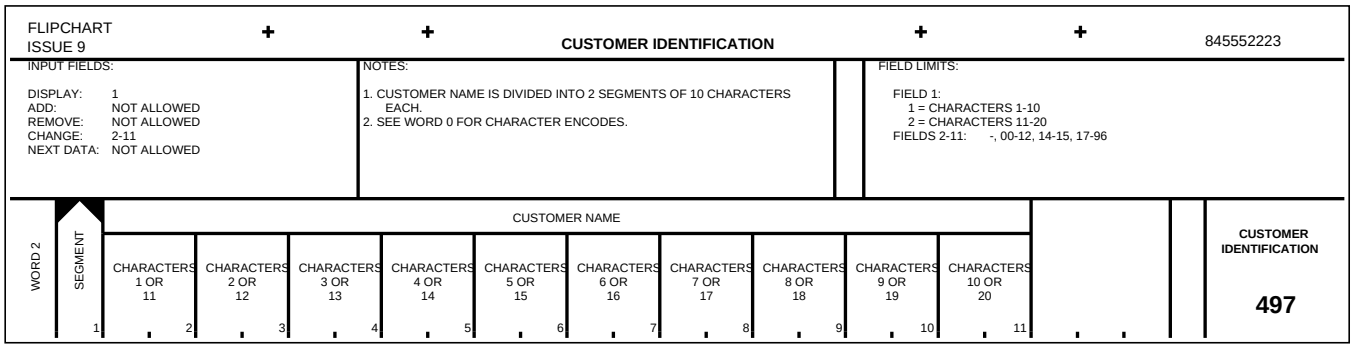
Procedure 497 Word 2 — Customer Identification

227

Purpose

Use Procedure 497 Word 2 to administer the customer name. The customer name can be up to 20 characters long. The 20-character limit is based on using two 10-character segments.

Flipchart



Fields Used or Required for Command Routines

Display:	Field 1.
Add:	Not allowed.
Change:	Fields 2-11.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

1. Segment
   1 Characters 1-10
   2 Characters 11-20

   Use encode ‘‘1’’ to enter characters 1-10 and encode ‘‘2’’ to enter characters 11-20.

CUSTOMER NAME (Fields 2-11)

CHARACTER ENCODES					
21 = A	11 = Q	44 = g	94 = w	18 = ?	58 = -
22 = B	72 = R	45 = h	95 = x	19 = ;	59 = +
23 = C	73 = S	46 = i	96 = y	20 = :	60 = *
31 = D	81 = T	54 = j	15 = z	27 = "	67 = {
32 = E	82 = U	55 = k	00 = 0	28 = ’	68 = }
33 = F	83 = V	56 = l	01 = 1	29 = ‘	69 = |
41 = G	91 = W	64 = m	02 = 2	30 = ,	70 = \
42 = H	92 = X	65 = n	03 = 3	37 = (	77 = <
43 = I	93 = Y	66 = o	04 = 4	38 =)	78 = >
51 = J	12 = Z	74 = p	05 = 5	39 = _	79 = =
52 = K	24 = a	14 = q	06 = 6	40 = ≈	80 = %
53 = L	25 = b	75 = r	07 = 7	47 = [	87 = #
61 = M	26 = c	76 = s	08 = 8	48 =]	88 = &
62 = N	34 = d	84 = t	09 = 9	49 = ^	89 = @
63 = 0	35 = e	85 = u	10 = . (period)	50 = blank	90 = $
71 = P	36 = f	86 = v	17 = !	57 = /	

2. Character 1 or 11 -, 00-12, 14-15, 17-96

3. Character 2 or 12 -, 00-12, 14-15, 17-96

4. Character 3 or 13 -, 00-12, 14-15, 17-96

5. Character 4 or 14 -, 00-12, 14-15, 17-96

6.	Character 5 or 15	-, 00-12, 14-15, 17-96
7.	Character 6 or 16	-, 00-12, 14-15, 17-96
8.	Character 7 or 17	-, 00-12, 14-15, 17-96
9.	Character 8 or 18	-, 00-12, 14-15, 17-96
10.	Character 9 or 19	-, 00-12, 14-15, 17-96
11.	Character 10 or 20	-, 00-12, 14-15, 17-96

Special Error Codes

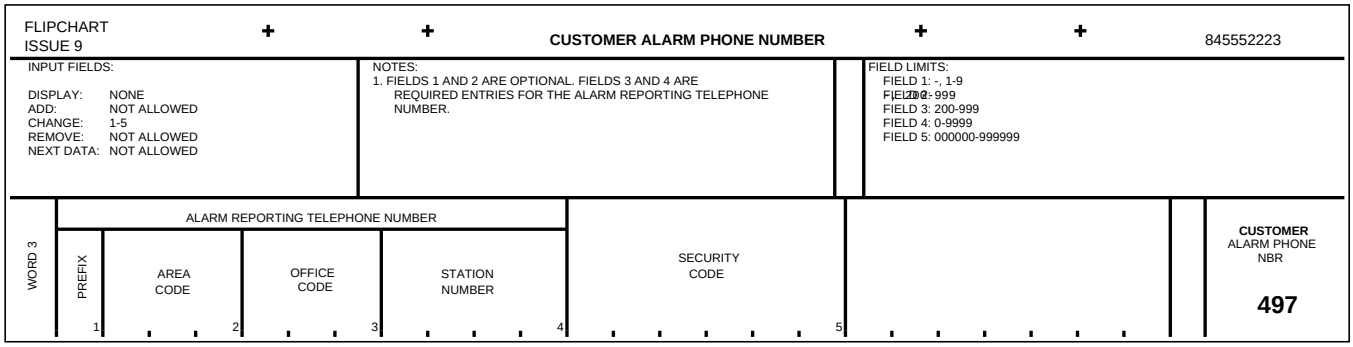
None.

Procedure 497 Word 3 — Customer Alarm Phone Number 228

Purpose

Use Procedure 497 Word 3 to administer the alarm-reporting telephone number.

Flipchart



Fields Used or Required for Command Routines

Display:	None.
Add:	Not allowed.
Change:	Fields 1-5.
Remove:	Not allowed.
Next Data:	Not allowed.

Field Ranges and Encodes

ALARM REPORTING TELEPHONE NUMBER (Fields 1-4)

1.	Prefix	-, 1-9
2.	Area Code	-, 200-999
3.	Office Code	200-999
4.	Station Number	0-9999
5.	Security Code	000000-999999

Notes

1. Fields 3 and 4 are required entries for the alarm-reporting telephone number.
2. Fields 1 and 2 are optional entries for the alarm-reporting telephone number.

Special Error Codes

None.

Index

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T

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W