

Customer Support Functions

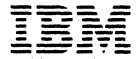
Volume I

The IBM logo, consisting of the letters 'IBM' in a bold, sans-serif font, with each letter formed by eight horizontal stripes.

System/23

Customer Support Functions

Volume I



System/23

Third Edition (May 1982)

This is a major revision of, and obsoletes, SA34-0175-1.

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About this book

This manual contains information about Customer Support Functions that are used to do routine jobs during the daily operation of the System/23. Volume I contains information about the most frequently used Customer Support Functions which include:

PREPARE	Used to make <i>diskettes</i> ready to be used on the computer.
COPY	Used to make copies or duplicates of diskette or disk files.
LABEL	Used to display and print information about diskette files and diskettes.
RECOVER	Used to reconstruct information contained in <i>diskette</i> files that have been accidentally dropped or freed. RECOVER is also used to reconstruct information contained on damaged diskettes. See <i>Customer Support Functions</i> , Volume II, for more information about RECOVER.
REPLACE	Used to change the old versions of the Customer Support Functions with the new versions that are contained on new IBM-supplied diskettes.
SELECT	Used to make machine updates ready to be loaded into the computer.
UPDATE	Used to load machine updates into the computer.
PREPARE.DISK	Used to reload a special program on the disk if the need occurs.
ADD.DELETE	Used to add or delete volumes on the <i>disk</i> only.

About this book

BACKUP.RESTORE The Backup option is used to put a backup copy of *disk* files on diskettes for safekeeping.

The Restore option is used to return the backup copy of the files to the disk if you need to.

DISK.RECOVER Used to reconstruct information contained in *disk* files that have been accidentally dropped or freed. **DISK.RECOVER** is also used to reconstruct information in a disk file that has been damaged. See *Customer Support Functions, Volume II*, for more information about **DISK.RECOVER**.

It is assumed that you have completed *Learning to Use System/23* and that you are familiar with operating the System/23.

If you have a disk unit, it is also assumed that you have completed the training in chapters 1 and 2 of *Using Your 5247 Disk*.

This manual relies heavily on examples and sample screens to illustrate how each function is used. Step-by-step procedures are included in each chapter and can be used if so desired.

Related publications

Customer Support Functions, Volume II, SA34-0176, contains the remaining functions that are used to perform special tasks on the computer. Note that RECOVER and DISK.RECOVER are contained in both manuals.

Refer to *System Messages, SA34-0141*, whenever you receive an error code on the status line of the computer. Look up the code and read the explanation of the error condition. This will help you to make corrections.

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Chapter 1. General information

Introduction

Customer Support Functions are programs that perform specific jobs to help you use your System/23 more efficiently.

The Customer Support Functions are stored on diskettes that are shipped with every System/23. (If you have the 5247 Disk Unit, the Customer Support Functions are also stored on your disk.) The diskettes can be found in the box labeled "Customer Support Functions." Each diskette has Customer Support Functions printed on the large label in the upper right corner of the diskette.

This book describes the Customer Support Functions you will use during your day-to-day operations:

- PREPARE
- COPY
- LABEL
- RECOVER (dropped or freed diskette files)
- REPLACE
- SELECT
- UPDATE
- PREPARE.DISK
- ADD.DELETE
- BACKUP.RESTORE
- DISK.RECOVER (dropped or freed disk files)

General information

Introduction (continued)

The other Customer Support Functions are used mostly by programmers. The *Customer Support Functions, Volume II*, describes:

RECOVER	Used to reconstruct information contained in <i>diskette</i> files that have been damaged, accidentally dropped, or freed
PRESORT	Used to prepare information to be used by the SORT function
SORT	Used to produce a sorted output file
INDEX	Used to create index files
COLSEQ	Used to change collating sequences
LISTFILE	Used to list the records in a file
LISTSTOR	Used to list storage information
LISTDISK	Used to list information about a diskette or the disk or about files on a diskette or the disk
DISK.RECOVER	Used to reconstruct information contained in <i>disk</i> files that have have been damaged, accidentally dropped, or freed

How to use this book

The rest of this chapter tells you what you need to know about the Customer Support Functions. In this chapter, you will find:

- A description of each Customer Support Function.
- A discussion about screens.
- A description of the keys used to operate each function.

You will learn how to:

- Start a Customer Support Function.
- Correct mistakes.
- Copy Customer Support Functions diskettes.

Each of the remaining chapters tells you about one of the Customer Support Functions. You can read these chapters in any order to learn:

- What a function does.
- Why and when to run a function.
- What you need to have ready before you begin.

You may want to refer to a chapter to see a step-by-step example of using the function or to look at the screens a function displays. The screens are in order by their screen numbers. You will learn about screen numbers after we tell you a little about each function.

General information

Customer Support Function names

Each Customer Support Function has a filename. A filename is the name the computer looks for when you ask it to start a Customer Support Function.

The Customer Support Functions, their filenames, and a brief description of each function follows.

In the rest of the book, we will use the filename instead of the long name. For example, PREPARE will be used instead of Prepare Diskette.

The function	Filename	Description
Prepare Diskette	PREPARE	Makes a new or used diskette ready for use by your computer.
Copy	COPY	Copies information from a diskette or the disk to a diskette or the disk.
Display Diskette Labels	LABEL	Provides the information required to use the Recover Diskette function.
Recover Diskette	RECOVER	Recovers as much of the information as possible from a damaged diskette or a diskette file that has been accidentally dropped or freed.
Replace Customer Support Functions	REPLACE	Replaces the old Customer Support Functions on your diskettes or disk with new Customer Support Functions.
Select Machine Update	SELECT	Selects the machine updates required for your System/23 computing system.
Load Machine Update	UPDATE	Loads machine updates into your computer.
Prepare Disk	PREPARE.DISK	Re-loads a special program onto the disk, if the need occurs.
Add or Delete a Volume	ADD.DELETE	Adds or deletes disk volumes.
Backup and Restore	BACKUP.RESTORE	Puts a backup copy of disk files on diskettes, and recopies the files to the disk.
Disk Recover	DISK.RECOVER	Recovers as much of the information as possible from a damaged disk file or from a disk file that has been accidentally dropped or freed.

General information

Customer Support Functions diskettes

You received one or two Customer Support Functions diskettes with your System/23. They contain the Customer Support Functions you will use to do specific jobs on your System/23.

If you received two Customer Support Functions diskettes, they are type 1 diskettes named VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2).

VOL001 (Diskette 1 of 2)
contains:

- PREPARE
- COPY
- LABEL
- PRESORT
- SORT
- INDEX
- RECOVER
- ADD.DELETE
- BACKUP.RESTORE
- DISK.RECOVER

VOL002 (Diskette 2 of 2)
contains:

- REPLACE
- SELECT
- UPDATE
- COLSEQ
- LISTDISK
- LISTFILE
- LISTSTOR

If you received only one Customer Support Functions diskette, it is a type 2D diskette named VOL002; it contains all the Customer Support Functions.

If you have a disk unit, diskette VOL005 contains PREPARE.DISK.

Customer Support Functions on the disk

If you have the 5247 Disk Unit, your Customer Support Functions, except SORT and PRESORT, are also on your disk. SORT and PRESORT can be copied to your disk using the COPY Customer Support Function.

General information

Starting a Customer Support Function

To start a Customer Support Function, you have to tell the computer which function to transfer from the diskette or disk into the computer.

If your Customer Support Functions are on a diskette, do this:

1. Insert the Customer Support Functions diskette containing the function you want to use into any available diskette drive.
2. Type LINK and the filename of the function you want.
3. Press the Enter key.

For example, to start COPY, you would type:

```
LINK COPY  
  or  
link copy
```

and press Enter.

Notice that you must include a space between LINK and COPY, and that the information you type may be in either uppercase or lowercase.

You can help the computer find the function faster if you type two slashes and the diskette drive number (for the drive into which you have inserted the Customer Support Functions diskette) right after the function name.

For example, if your Customer Support Function diskette is in drive 2, type:

```
LINK COPY//2
```

This tells the computer to look for the Customer Support Functions diskette in diskette drive 2. Of course, instead of the

2, you would type 1, 3, or 4 depending on which diskette drive you are using.

If you have a 5247 Disk Unit, your Customer Support Functions are on your disk. Type:

LINK COPY//5

The disk is always on drive 5.

You know that the function is ready to go when you see the function menu. The next section discusses screens and menus.

General information

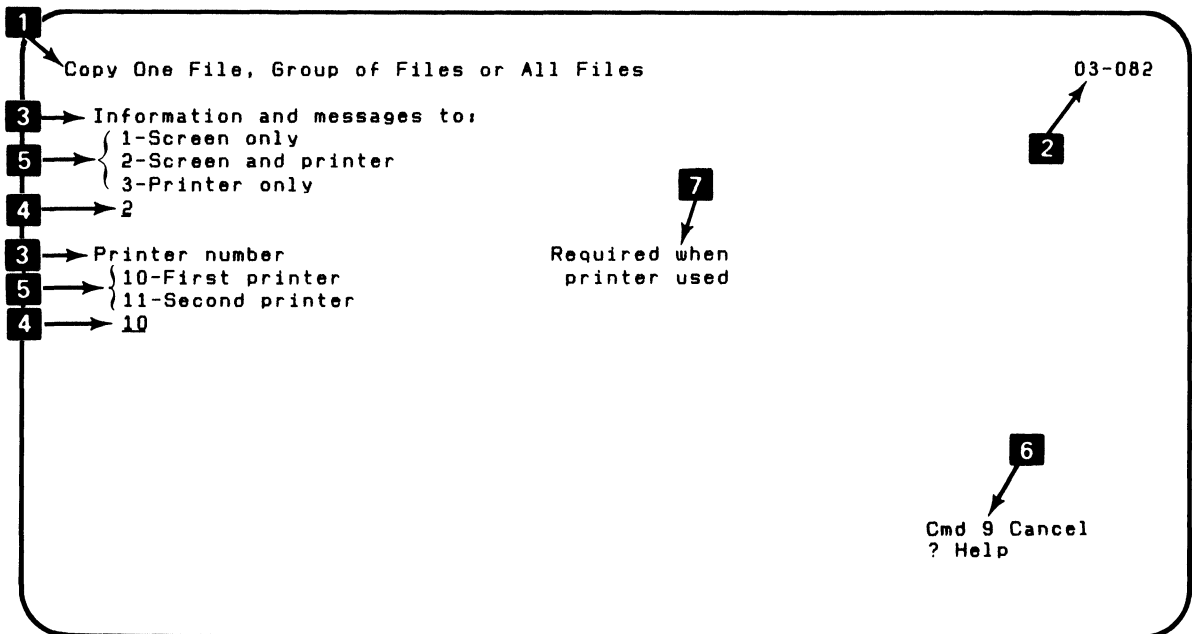
Screens

The information presented in this section is common to all Customer Support Functions; however, we have used screens from COPY for illustration.

Parts of a screen

After you start a Customer Support Function, the function displays screens that either give you information or ask you questions.

We will use the following screen (this one is asking you for information) to show the different parts of Customer Support Functions screens.



-
- 1 Screen name.** The name of the screen is in the upper left corner. The name will either be the name of the function and the word Menu, such as Prepare Diskette Menu, or it will be the name of an option from the menu. For example, the name of the screen shown here is Copy One, a Group of Files, or all Files—this is the same as option 2 on the Copy Menu, which you will see in the next section.
 - 2 Screen number.** Each screen has a number in the upper right corner. The first two numbers are the same for all the screens that a particular function shows you. For example, COPY always uses 03 as the first two numbers on all of the COPY screens. The last number tells you which option you chose on the menu—if you selected option 3, all the screens would have a 3 as the last number. The remaining two numbers indicate which screen of the specific function screens (in this case COPY) it is. For this example, we can tell that we selected option 2, because 2 is the last number in the screen number 03-082.

You will use the screen number to look up a screen in this book. Screens are arranged within a chapter in numerical order. You will also use the screen number if you have to contact IBM for technical assistance with a problem—you and the IBM representative will be able to talk about the same screen.

General information

Screens (continued)

Sometimes, several screens will be the same except for the screen title and screen number. This means that two (or more) options of the function are giving you the same information or want you to answer the same questions. In these cases, only one screen is shown in this book. The numbers of the other, similar screens are listed in the heading above the one shown.

- 3 Prompts.** Prompts are the questions that you must answer. They are displayed on the left side of a screen. This screen contains two prompts —“Information and messages to” and “Printer number.”
- 4 Fields.** Fields are the places where you answer a prompt. They are shown having underlines beneath the prompt to which they relate. The length of the underline tells you how long your answer can be. We usually refer to a field by the words contained in the related prompt; for example, the first field on this screen is called the information and messages field.
- 5 Choices.** Sometimes your answer must contain certain letters or numbers. In this case, the choices are shown between the prompt and the field. In this example, you can see that you must choose 1 or 2 or 3 for your answer to the information and messages prompt.

-
- 6** **Cmd 9 Cancel and ? Help.** Some screens contain the words Cmd 9 Cancel and ? Help in the lower right corner of the screen.

Cmd 9 Cancel is used to end or cancel a Customer Support Function. To cancel, you press the Cmd key and the number 9 key on the *numeric keypad*. Do not press Enter. You will also see the ? Help in the lower right corner. This is used whenever you are not sure about what to type in a field or how to use an option. To get some help, type a ? in the first position of the field about which you are confused and press Enter. The System/23 will display a few sentences to the immediate right of the field. How you use these keys is explained later. You can do only what is shown in the lower right corner of the screen—for example, if you use Cmd 8 when this screen is displayed, Cmd 8 would be ignored.

- 7** More information about a prompt is given in the center of the screen. On this sample screen, the notes tell you that you must fill in the printer number when a printer is used.

General information

Screens (continued)

Menu screens

The menu is the first screen a Customer Support Function displays after the function has been started by typing LINK and the function name. The menu tells you about what you can use the function to do. These choices are also called *options*.

Option 1 is always a description of the function. Option 9 always ends the function.

You select the option you want by typing its number in the Choice field.

Copy Menu

03-010

Choose one of the following:

1. Description of Copy
2. Copy one file, group of files or all files
3. Image copy of entire diskette
4. Copy all files using diskettes only
5. Copy printer (display) file to printer

9. End Copy

Choice

-

Description screens

You can get a description of the Customer Support Function you have started by choosing option 1 on the menu. Screens describing the function are then displayed on your computer.

When you have finished reading one description screen, press the Enter key to see the next description screen. If the description screen is the function's last screen, you will return to the menu screen when you press Enter.

Description of Copy

03-021

The following keys are used in all Customer Support Functions:

Enter - Press Enter to advance to the next screen when all requested information has been typed in.

? - If '? Help' appears on the screen, you can get more information by typing a ? in the first position of that field, and then pressing Enter.

Cmd 9 - If 'Cmd 9 Cancel' appears on the screen, and you wish to return to the menu, press and hold the Cmd key while pressing the 9 key on the numeric key pad. It is not necessary to press the Enter key.

Press Enter to continue

Cmd 9 Cancel

General information

Screens (continued)

In-progress screens

Many of the Customer Support Functions display an in-progress screen to tell you that the function is running. When you see this screen *do not remove any diskettes*. To do so may cause an error, and the function you are running will stop.

The in-progress screens are self-explanatory and are not printed in the screen section of each chapter.

Copy One File, Group of Files or All Files

03-212

Copy in progress.

Completion screens

The Customer Support Functions display screens that tell you when the function has completed running. When a completion screen is displayed, follow the instructions on the screen to continue. If a successful completion screen is displayed, you can return to the menu and continue using the function. If an unsuccessful completion screen is displayed, copy down the error number (find it at the bottom of the screen), press Error Reset, and then press Enter to return to the menu.

Copy One File, Group of Files or All Files

03-142

Copy completed.

1 files copied.

Press Enter to return to menu

General information

Information already filled in on the screens

Many fields that need information have already been filled in for you. This information helps you determine what you should type into each field. If you do not know what to type, you should use the information already filled in.

```
Copy All Files Using Diskettes Only                                03-114

Reserve output space based on:
1-Larger of file space or data
2-Data in input file
1

Copy deleted records
Y-Keep records in place
N-Remove deleted records
Y

Cmd 9 Cancel
? Help
```

If you want to use the information already filled in, do not type anything into the field. Press the New Line key to advance the cursor to the next field.

If you want to use all the information already filled in on the screen, and if no other fields need answers, press the Enter key.

If you do not want to use the information already filled in, type your information over it. Make sure all information already filled in to the right of the cursor is erased. To do this, either space over any remaining information and press the New Line key, or press the Field Exit key.

You will use the New Line key, the Field Exit key and several other keys when you use the Customer Support Functions. These keys are discussed later in this chapter.

General information

Procedure file screens

Some Customer Support Functions can also be run from *procedure files*. Procedure files contain commands and information that a function requires to execute. The procedure file is contained on a diskette or your disk. When you use procedure files you do not have to enter the information from the keyboard each time you want to run that function. Instead, the function gets this information from the diskette or your disk. How to set up and use procedure files is explained in the *Customer Support Functions, Volume II*. What is explained here is what you should do if you see a procedure file screen like the one shown below.

```
Copy Diskette Procedure File                                03-199

CHOICE              INDRVNO                                REPLDISKINFO
                    -                                     N
MESSAGES            INVOLID                                DISPFILEPRTNO
  2                 TWELVE                                10
PRINTER             INFILENAME
  10                *
RESERVE             OUTDRVNO
  1                 2
DELREC              OUTVOLID
Y                   _____
SINGLEAREA           OUTFILENAME
N                   _____
REPLFILEINFO

Cmd 9 Cancel
```

The screen number of a procedure file screen ends with 9. In this case the last number *does not* show an option number. A procedure file screen is displayed so that you can check the information in the file and fix incorrect answers. If a field is displayed in *reverse image* (dark characters on bright background), you may have to correct the answer contained in that field.

To do this, look up the procedure file screen in this book and follow the procedure explained there.

Often the answer in the procedure file is not wrong—but it is just not right for the particular task you want to do. This is why a procedure file is often set up so that you can check it.

Check first to see that the VOLIDs are the same as the names you want to use and that the drive numbers match the drive numbers on the screen. You may need to check other fields depending upon the particular task you are doing.

When you are done checking or correcting answers, press the Enter key to start the function.

General information

Getting more information with ? Help

↙
Cmd 9 Cancel
? Help

If ? Help is displayed in the lower right corner of your screen, you can ask for more information about any field on the screen.

To do this, move the cursor to the first position of the field in question, type a ?, and press Enter. More information is displayed on the screen across from the field that contains the question mark. In this example we found out more by typing a ? in the Information and Messages field. When you are ready to continue, type your correct response over the question mark and press Enter.

Copy One File, Group of Files or All Files

03-082

Information and messages to:

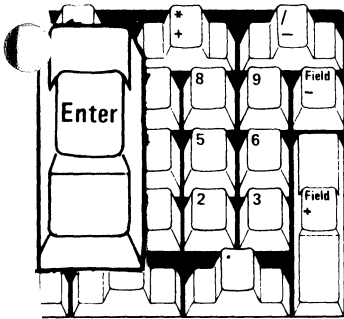
1-Screen only
2-Screen and printer
3-Printer only
2

Printer number
10-First printer
11-Second printer
10

Required when
printer used

Cmd 9 Cancel
? Help

Keys you will use



You use the Enter key and the Cmd key and 9 (on the numeric keypad) key to go from screen to screen.

Enter key

Press the Enter key after all the fields on the screen are the way you want them. Then the function will show you the next screen.

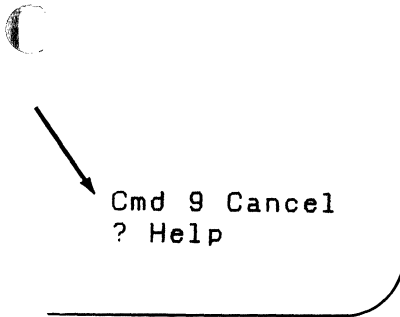
Cmd and 9 keys

You can go back to the menu whenever Cmd 9 Cancel is displayed in the lower right corner of your screen. Press and hold the Cmd key down and then press the 9 key *on the numeric keypad*.

Do *not* press the Enter key.

If you use Cmd and 9, everything you have typed since you last saw the menu is ignored, and you can start the option again or select a new option.

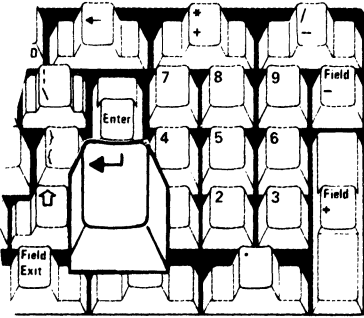
You use the New Line key, the Field Advance key, the Field Backspace key, and the Field Exit key to move the cursor from one field to another on a screen.



General information

Keys you will use (continued)

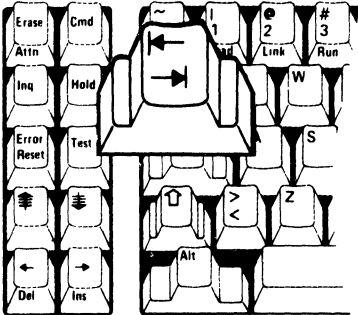
New Line key



The New Line key moves the cursor to the first position of the next field on the screen. Press the New Line key when you have finished typing new information in a field or when you want to leave the information already in the field unchanged.

If the cursor is in the last field when you press the New Line key, it moves to the first position of the first field on the screen.

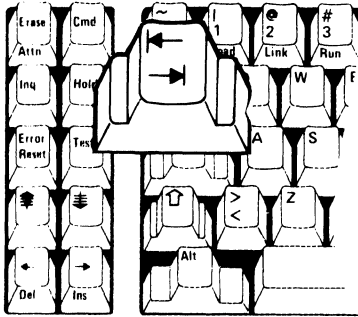
Field Advance key



The Field Advance key works the same as the New Line key. It moves the cursor to the next field without erasing any information.

When you use this key, you have to be sure that the keyboard is in lower shift. If it is not, the cursor will backspace to the previous field instead of advancing to the next field.

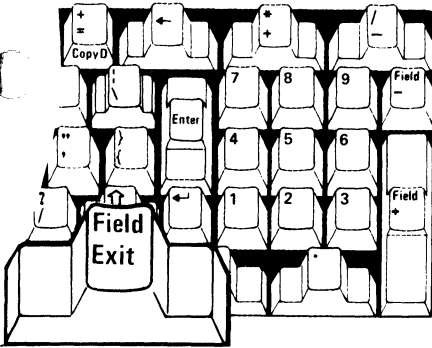
Field Backspace key



Pressing this key moves the cursor to the first position of the previous field of the screen.

You may have noticed that this is the same key as the Field Advance key—but to use the Field Backspace key, the keyboard must be in upper shift. If it isn't, the cursor will advance to the next field instead of backspacing.

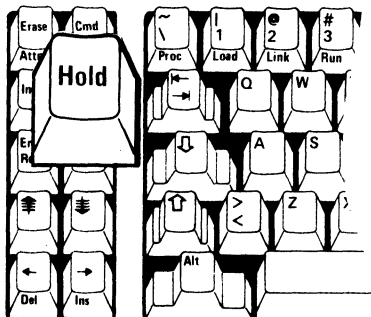
Field Exit key



Be careful when you use the Field Exit key. It erases everything to the right of the cursor as it advances to the first position of the next field.

General information

Keys you will use (continued)



Hold key

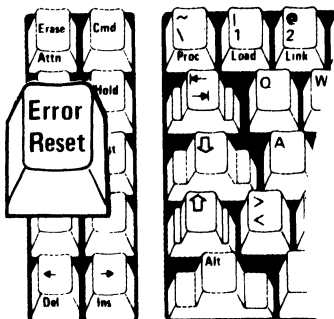
Press the Hold key when you want to stop information that is being displayed from moving off the top of the screen, or when you want to stop the printer. It may take a moment for the printer to stop printing.

Press the Hold key a second time to continue displaying or printing.

The Hold key is also useful if you get an error and need to print a copy of the screen to show to a programmer. See "Correcting mistakes" on page 1-27 to find out how to do this.

Note: If you are sharing a diskette unit with another computer, do not leave your computer in hold if you see a +1 displayed on the status line. Otherwise, the other computer cannot process until you press Hold again.

Error Reset key



You use the Error Reset key when a function finds an incorrect answer or when it asks you to insert a diskette. "Correcting mistakes" in this chapter tells you about fixing an incorrect answer.

If the function asks for a diskette (a message with OPTION and the name of the diskette appears on the status line), insert the correct diskette and press the Error Reset key.

Correcting mistakes

If you enter an incorrect answer, the computer “beeps” and displays a two-digit action code and a four-digit error code on the status line. (See your *System Messages* book for detailed information on each code.)

The field that is incorrect is displayed in *reverse image* (dark on bright).

When you know what needs to be changed, do this:

1. Press the Error Reset key. The cursor is repositioned at the first position of the incorrect field.
2. Type your correction.
3. Press the Enter key.

If you cannot fix the error yourself, make a copy of the screen *and* the status line using the CopyD key to take to a programmer or to have handy when discussing the error with IBM technical support. If you are using preprinted forms in your printer, make a handwritten copy of the status line and use this when discussing your error with a programmer or an IBM representative. Follow these steps to copy the screen on the printer:

1. Press the Hold key
2. Press and hold the Cmd key down and then press the CopyD key
3. Press Hold again

Now you can try to correct the mistake again with the help of this book (follow the first set of steps above), or you can cancel the option by pressing Cmd 9. Remember, you can now start again from the menu.

General information

VOLIDs and drive numbers

Each of the Customer Support Functions asks you to tell the computer what diskette or volume on the disk you want to use. You do this by either entering a *VOLID* (the name of the disk volume or diskette), or a *drive number*.

You can find out what the VOLID of your diskette is *before* you start the function (that is, *before* you type the LINK command). To do this, insert your diskette into drive 2 (for example), then type DIR 2 and press Enter. The VOLID is the first item in the first line that is displayed. Of course, if you used drive 1 or 3 or 4, you would have to type the proper drive number after DIR.

Some functions such as COPY and REPLACE ask you to specify the input and output VOLIDs and/or drive numbers. *Input* is where the information is coming from, and *output* is where the information is going to.

For example, assume you are going to copy your PAYROLL file to a diskette for backup. The diskette that contains the PAYROLL file is called the input diskette; it is supplying information to the diskette that will be used as the backup diskette. The backup diskette is receiving information and is called the output diskette.

If you put the PAYROLL diskette into drive 1 and the backup diskette into drive 2, you would specify 1 as the input drive number and 2 as the output drive number.

The drive number for the disk unit is always 5.

VOLIDs, keywords, and filenames

VOLIDs, keywords, and filenames consist of both uppercase and lowercase characters. When you type alphabetic letters, you can use either uppercase or lowercase. The system will convert your letters to uppercase on the screens.

Note: If you enter a VOLID that is not permitted because you inserted a blank space in it (for example, VOL__01), you will get error code 4135. The status line will show the VOLID with the blank character removed (VOL01). However, the prompt field for the VOLID is displayed in reverse image (dark on light) and shows the invalid VOLID as you entered it (VOL__01).

General information

Copying your Customer Support Functions diskettes

You should make an extra copy of your Customer Support Functions diskettes as soon as you can. Then put your IBM-supplied diskettes in a safe place and use the copies whenever you need to run the Customer Support Functions. This way you will be able to use the IBM-supplied diskettes as a backup set to create other copies of the Customer Support Functions.

Note: If you have the 5247 Disk Unit, your Customer Support Functions (except SORT and PRESORT) are also on your disk. This means that you would not need to make a copy of your Customer Support Functions diskette. Instead, you can just put your IBM-supplied diskette in a safe place and use your Customer Support Functions that are on on your disk whenever you need to run them.

If you received *two* Customer Support Functions diskettes—VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2)—follow these steps to copy them to other diskettes:

1. Prepare two diskettes by running the Prepare Diskette Customer Support Function.

Follow the example in the PREPARE chapter of this book:

- a. Use VOL001 for the new VOLID for the first diskette.
- b. Use VOL002 for the new VOLID for the second diskette.
- c. Use your company's name or your name for the new OWNERID for both diskettes.

After PREPARE finishes processing a diskette, remove it and write "Customer Support Functions—Backup" and the diskette VOLID on the label.

2. Copy each Customer Support Functions diskette by running the Copy Customer Support Function. Before

you copy the diskette, use the DATE command to enter the date or type PRINT DATE\$ to make sure the date has already been set.

Follow the examples in the COPY chapter.

The *input* diskette is one of the Customer Support Functions diskettes you got with your System/23. The output diskette is one of the diskettes you prepared in step 1.

When COPY is done, remove both the input and output diskettes and write the names of the functions that were copied on the label of the backup diskette.

3. Use the backup copies whenever you run the Customer Support Functions and put your IBM-supplied Customer Support Functions diskettes away in a safe place. Use the IBM-supplied diskettes only to make backup copies.

If you received *one* Customer Support Functions diskette—VOL002—follow these steps:

1. Prepare one type 2D diskette by running the Prepare Diskette Customer Support Function.
 - a. Use VOL002 for the VOLID of the diskette you will copy to.
 - b. Use your company's name or your name for the new OWNERID.

After PREPARE finishes processing your diskette, remove it and write "Customer Support Functions—Backup" and the diskette VOLID on the label.

2. Copy your Customer Support Functions diskette by running the Copy Customer Support Function. Before you copy the diskette, use the DATE command to enter

General information

Copying your Customer Support Functions diskettes (continued)

the date or type PRINT DATE\$ to make sure the date has already been set.

Follow the examples in the COPY chapter.

The *input* diskette is the Customer Support Functions diskette you got with your System/23. The output diskette is the diskette you prepared in step 1.

When COPY is done, remove both the input and output diskettes.

3. Use the copy you made whenever you run the Customer Support Functions and put your IBM-supplied Customer Support Functions diskette away in a safe place. Use the IBM-supplied diskette only to make backup copies.

Chapter 2. PREPARE (Diskette)

What PREPARE does

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), PREPARE is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

PREPARE makes a *diskette* ready for storing programs and other information. A diskette must be prepared before it can be used the first time. The diskette may be a new diskette or a used diskette—a diskette that has information on it that is no longer needed.

The PREPARE function:

- Sets aside space for a *volume label* where PREPARE stores the diskette name (VOLID) and the owner identification (OWNERID) that you supply.
- Sets aside space for *file labels*. The labels will be used to hold information about files that will later be written on the diskette.
- Organizes the space on the diskette.
- Looks for defective areas on the diskette and writes down their locations in the diskette's error map label.

CAUTION

PREPARE will *erase* all data on the diskette that you are preparing. Make sure that the information contained on the diskette is no longer needed, or be sure to copy contents of the diskette to another diskette before you start PREPARE.

PREPARE (Diskette)

Types of diskettes

The system uses three types of diskettes:

- Diskette 1—a one-sided diskette, with data stored on just one side
- Diskette 2—a two-sided diskette, with data stored on both sides
- Diskette 2D—a two-sided diskette with data stored on both sides at double density; that is, a diskette 2D can store almost twice as much information as a diskette 2.

The small label on an IBM diskette tells you the type of diskette you have. You will need to know the diskette type and the density for the diskette you are preparing.

<i>Diskette type</i>	<i>Density</i>
Diskette 1	single
Diskette 2	single
Diskette 2D	double

Diskette formats

Your computer uses three different kinds of diskette formats—System/23 format, Basic Exchange, and H Exchange. The diskette format specifies how large PREPARE will make each area when it divides the space on the diskette.

These formats are:

<i>Format</i>	<i>Sector use (in bytes)</i>	<i>Use on diskette types</i>
System/23 format	512	1, 2, or 2D
Basic Exchange	128	1 or 2
H-Exchange	256	2D

PREPARE makes all areas on the diskette the same size. The size depends on which format you choose. You cannot have different size areas on the same diskette.

You can see from the chart that you need certain types of diskettes if you are using Basic Exchange or H Exchange. For example, you need a diskette 2D for H Exchange files.

PREPARE (Diskette)

Picking a diskette format

The kinds of data files you are going to put on a diskette determine which diskette format you should choose when preparing that diskette.

If you are using the diskette to hold information going to a different kind of computing system (for example, an IBM 5120 Computing System), you should choose one of the exchange formats—Basic Exchange or H Exchange. For Basic Exchange files (file type 01), choose the Basic Exchange format. Basic Exchange files use records that are up to 128 bytes long. For H Exchange files (file type 02), choose the H Exchange format. H Exchange file records are up to 256 bytes long.

Look in the publications of the other system to see which one of these formats to choose.

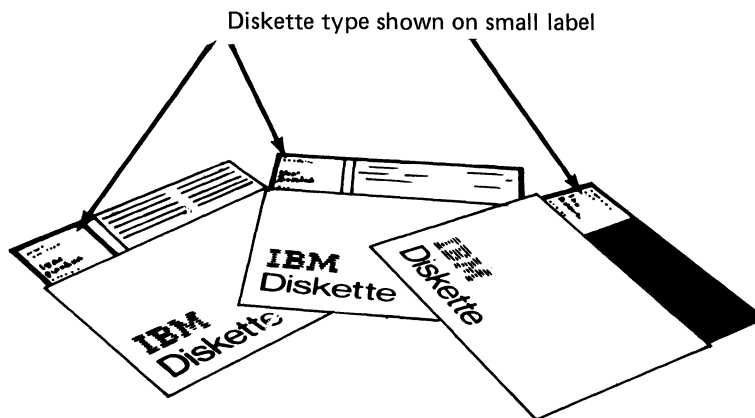
Usually you will want to select System/23 format for your diskette. A System/23 format diskette can hold System/23 data files, index files, and program files. These are file types 04–09.

Remember to pick the right diskette format for the file types you will write on your diskette. You can mix file types 04–09 on a System/23 format diskette, but on a Basic Exchange diskette, PREPARE creates only type 01 files. On H Exchange diskettes, PREPARE creates only type 02 files.

Diskette density

If you are preparing a System/23 format diskette, you will be asked on screen 05-102 whether you are preparing a *single*- or *double-density* diskette.

You can use two methods to find the diskette density. The first and easiest method is to look at the diskette and see if the diskette type (DISKETTE 1, 2, 2D, or 2/2D) is printed on the small label on the diskette cover.



If you see Diskette 1 or Diskette 2 on the label, the diskette is *single density*. If you see Diskette 2D, the diskette is *double density*. If you see Diskette 2/2D, you can prepare the diskette either as a single-density diskette (Diskette 2) or as a double-density diskette (Diskette 2D).


The second method uses the DIR command to display the diskette type.

PREPARE (Diskette)

Diskette density (continued)

Enter DIR, a space, and the number of the drive that contains the diskette about which you want information. For example, you would enter DIR 3 if the diskette is in drive 3.

The illustration shows the location of the information that tells the diskette type.



EOD	2	0545792	0045	0000	512			
05	PSSORT				0000512	0000512	0001	
					0000512	0000512	0001	
					0016896	0015872	0001	
						0007680	0001	
							0001	

Diskette labels

PREPARE reserves space for three kinds of labels on the diskette and fills in some of the information these labels hold:

- **Volume label.** This label contains information about the whole diskette, such as VOLID and OWNERID. The volume label is used by the system for such things as distinguishing between diskettes, identifying that the right diskette is being used, and finding out which format was used in preparing the diskette.
- **Error map label.** This label holds the locations of the defective areas on the diskette, if any, that cannot be used. The system skips around the defective areas and uses good, *alternate areas*, to write your files. Not all diskettes have defective areas.
- **File labels.** In contrast to volume and error map labels, of which there is just one each on a diskette, there may be one, several or many file labels on a diskette. Each file label will eventually hold information about one file on the diskette. Of course, at the time a diskette is being prepared, none of the files have been written.

A file label is used for information about a diskette file, such as the file's name, where it is on the diskette, how long it is, how much space is reserved for it, and its file type. The system uses a file label to find a file, and to read the right record, or to write a record in the right place.

PREPARE (Diskette)

Diskette labels (continued)

Duplicate labels

When you create a new System/23 file, you have the choice of writing *duplicate file labels*. A duplicate file label contains just the same information as the regular file label (called the *primary label*) for the file. For example:

```
OPEN #1 : NAME=NEWFILE, SIZE=0, RECOVER=YES...,  
OUTPUT...
```

In this statement, RECOVER=YES specifies that an extra label for NEWFILE will be kept and updated along with the primary file label. A duplicate file label allows you to locate the file, if the primary file label is damaged.

Duplicate labels are a good idea for files that would be very difficult to replace. They are probably not needed if you keep current copies of your files on another diskette.

How many file labels?

The number of file labels on a diskette can vary. How many file labels (and thus how many files) you can put on a diskette depends on the diskette type, the diskette format, and, for System/23 format, the number of files with duplicate labels.

<i>Diskette type</i>	<i>System/23 format</i>	<i>Basic Exchange</i>	<i>H-Exchange</i>
1	1 to 393 labels	19 labels	–
2	1 to 788 labels	45 labels	–
2D	1 to 1478 labels	–	71 labels

When a Basic Exchange or H Exchange diskette is prepared, a fixed number of file labels are created. You cannot change the number of file labels.

However, the number of file labels for a System/23 format diskette can vary. You tell PREPARE how many file labels to create. You must count duplicate labels in choosing how many labels you need. For example, if you choose two labels, your diskette could contain one file with duplicate labels or two files with one primary label for each.

You cannot increase the number of file labels on a System/23 format diskette after the diskette has been prepared (unless you prepare the diskette again). So, you will want to specify enough file labels for all the files you know will be on the diskette plus some extra file labels for files you do not know about now. Since file labels use space that can also be used for your files, you will usually *not* want to specify the maximum number of file labels. Then you will have more space for your files. PREPARE reserves 50 file labels for a System/23 format diskette, if you do not specify a number.

PREPARE (Diskette)

Damaged areas

Damaged cylinders

PREPARE finds out if there are any damaged cylinders on a diskette by writing data to, and reading this data back from all cylinders on the diskette. If PREPARE finds that writing and reading from a certain cylinder causes errors, it writes the number of the damaged cylinder on the error map label. If PREPARE finds more than two damaged cylinders, the diskette cannot be used. PREPARE will tell you if it has found one or two damaged cylinders and what their numbers are. (Only one or two damaged cylinders are allowed.)

If the cylinder on which the labels are written (cylinder 0) is damaged, the diskette cannot be used. PREPARE will tell you this also.

Note: A diskette prepared and marked by the System/23 as having any defective cylinders cannot be used on a System 34. It must be copied to a diskette that does not have any defective cylinders before it can be used.

Damaged sectors

If a damaged sector is found when the system is using a System/23 format diskette, the sector will be noted in the label area. You can use the DIR command to see how many damaged sectors there are on the diskette. An increase in this number warns you that the diskette is beginning to show wear. You will want to make sure you have copied your information to another diskette. Note that damaged sectors are found *after* the diskette has been prepared and may be spread out over the diskette.

Why and when to use PREPARE

You should *only* run PREPARE when:

- You get a new diskette. You must prepare a new diskette before you use it.
- Your diskette has been exposed to a strong magnetic field. Magnetic fields can damage the information contained on a diskette. After you prepare the diskette, you can use it again (but you will not have your old information back).
- You want to reuse a diskette that contains information you no longer need. By using PREPARE, you will free all the files on the diskette at one time.
- You need to change a diskette's format or the number of files a System/23 format diskette can hold. Make sure that you have a copy of any information that you want to keep on another diskette.

PREPARE (Diskette)

Hints and considerations

Remember these things when you are using PREPARE:

- Run PREPARE for all new diskettes, even if the diskette already has the correct format for Basic Exchange or H Exchange files. This way, you can make sure you have your own VOLID and OWNERID on the volume label.
- The VOLID can consist of up to six English letters or numbers.
- Make sure you no longer need the information on the diskette (or that you have a copy of it), before you prepare a diskette.
- If your diskette has been used before, you may get one of the warning screens.
- Try PREPARE again if there are more than two damaged cylinders on your diskette. You might also try to use another diskette drive.
- After your diskette is prepared, run Display Labels for the volume label and error map label and store copies of these labels in a safe place. These labels are needed to run RECOVER, if necessary.
- If you have a 32K system with only one diskette drive, be careful what name you enter for New VOLID. This name cannot be the same as the VOLID of the Customer Support Functions diskette you are using.

Before you begin

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), PREPARE is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

You need these items before you start PREPARE:

- The Prepare Diskette Customer Support Function.
- The diskette that you want to prepare.
- This information:
 - The name for the diskette (VOLID).
 - The owner identification (OWNERID).
 - The diskette type (Diskette 1, Diskette 2, or Diskette 2D).
 - The number of files you want the diskette to hold.
- If you are preparing a used diskette, you may want to keep a copy of some or all of the information on another diskette.

PREPARE checks to see if information exists on the diskette that you are preparing. If it does, PREPARE stops and displays a message telling you that data exists and asks if you want to continue preparing the diskette (screen 05-132). If you answer yes (Y), PREPARE will continue and will erase the data on the diskette. Once data is erased, all the information that existed on that diskette is lost.

PREPARE (Diskette)

Starting PREPARE

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), PREPARE is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to remove or insert a Customer Support Functions diskette. Start with step 2.

To start PREPARE:

1. Insert the Customer Support Functions diskette with PREPARE on it into any diskette drive.
2. Type: LINK PREPARE
3. Press: Enter key

After PREPARE is started, a menu of options will be displayed on the computer. When the menu is displayed, it is usually a good idea to remove the Customer Support Functions diskette from the drive. This way, nothing will happen to the diskette if you should accidentally press a wrong key or specify an incorrect option.

How to use PREPARE to...

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), PREPARE is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Prepare a new diskette

Assume you have a new diskette, one that has never been used. You want to start using this diskette on your System/23. You have decided that you want its name (that is, its VOLID) to be BACKUP and its owner identification (its OWNERID) to be BAILEY. You know that you will want this diskette to contain an average number of files.

If you are using a diskette that has a different VOLID and OWNERID, you should substitute your VOLID for BACKUP and your OWNERID for BAILEY whenever they are used in this example. Check the status line for messages that refer to your diskettes.

Assume that your new diskette is a Diskette 1 (you saw that on its label) and that you have only one diskette drive.

Follow these steps:

1. Insert the Customer Support Functions diskette containing PREPARE into the diskette drive.
2. Type: LINK PREPARE
3. Press: Enter key

Next screen: 05-010

PREPARE (Diskette)

How to use PREPARE to... (continued)

Remove the Customer Support Functions diskette.

4. On screen 05-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 05-082

5. On screen 05-082,
 - a. Press: Enter key

Next screen: 05-092

6. On screen 05-092,
 - a. Press: New Line key once
 - b. Type: BACKUP (or your own VOLID)

See "What if you want a different VOLID?" on page 2-20.

- c. Press: New Line key once

-
- d. Type: BAILEY (or your OWNERID) and space once

See "What if you want a different OWNERID?" on page 2-20.

- e. Press: Enter key

Next screen: 05-102

See "What if your diskette is a diskette 2D?" on page 2-20 or "What if you want your diskette to hold many files?" on page 2-21.

7. On screen 05-102,
 - a. Press: Enter key

Next screen: 05-112

8. Insert the diskette that you want to prepare into the diskette drive.
9. On screen 05-112,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 05-042 or 05-142

Screen 05-042 is a warning screen.

PREPARE (Diskette)

How to use PREPARE to... (continued)

10. If screen 05-042 is displayed,
 - a. Type: Y
 - b. Press: Enter key

If screen 05-042 is not displayed:

Next screen: 05-142

11. Do not remove the diskette being prepared until you see either screen 05-052, 05-152, 05-162, or 05-172. Follow the instructions on the screen.
 - a. Press: Enter key
 - or
 - b. Press: Error Reset key
 - c. Press: Enter key

Next screen: 05-010

-
12. On screen 05-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

13. Remove your diskette. It is now prepared and can be used unless you saw screen 05-052 or 05-162. If you saw either of these screens, look these screens up in the "PREPARE screens" section of this book and then try PREPARE when you know what went wrong.

PREPARE (Diskette)

How to use PREPARE to... (continued)

What if you want a different VOLID?. To give a diskette a name other than BACKUP, in step 5b type the name you want. Remember, the name you pick must be 1 to 6 English letters or numbers.

What if you want a different OWNERID?. Simple. In step 5d, type the name you want. Remember, since the word OWNERID already appears in the field, you may have to space over the last letter(s) if your owner identification is shorter than 7 characters. The name you pick can be up to 14 characters long.

What if your diskette is a diskette 2D?. If you are preparing a diskette 2D, do this for step 6:

6. On screen 05-102,

Press: New Line key once

Type: 2

Press: Enter key

What if you want your diskette to hold many files?.

Unless you tell it otherwise, PREPARE makes room for 50 files. Assume you know that this diskette will have to hold more than 50 files, but never more than 100 files. To do this, change step 6:

6. On screen 05-102,

Type: 100

Press: Enter key

To see the maximum number of files that each diskette type can hold, look up screen 05-102 in this chapter or type a ? in the first position of the first field on screen 05-102, then press Enter.

PREPARE (Diskette)

How to use PREPARE to... (continued)

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2) PREPARE is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Prepare a used diskette

Assume you want to prepare a diskette 2 that has been previously used.

When PREPARE finds out that a diskette already has information on it, it gives you a chance to stop preparing that diskette by showing you some screens you did not see when you prepared a new diskette. PREPARE does this so that you do not destroy information if you did not mean to.

Assume that you have decided that the VOLID for the diskette will be SALE84, that the OWNERID is to be THOMAS, and that there needs to be room for up to 200 files. Assume you will use drives 1 and 2. If you are using diskettes that have different names, substitute the VOLID of your diskette for SALE84 and your OWNERID for THOMAS. Watch the status line for messages.

These are the steps you would follow:

1. Insert the Customer Support Functions diskette containing PREPARE into diskette drive 1.
2. Insert the diskette that you want to prepare into drive 2.
3. Enter: LINK PREPARE

Next screen: 05-010

Remove the Customer Support Functions diskette.

4. On screen 05-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 05-082

5. On screen 05-082,
 - a. Press: Enter key

Next screen: 05-092

6. On screen 05-092,
 - a. Press: New Line key once
 - b. Type: SALE84 (or the name you want to use)
 - c. Press: New Line key once
 - d. Type: THOMAS (or your OWNERID) and space once
 - e. Press: Enter key

Next screen: 05-102

PREPARE (Diskette)

How to use PREPARE to... (continued)

7. On screen 05-102,
 - a. Type: 200
 - b. Press: Enter key

Next screen: 05-112

If you are preparing a new diskette, follow the instructions for completing screen 05-142. Otherwise,

8. On screen 05-112,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 05-042, 05-122, 05-132, or 05-192

9. If the next screen is 05-042, 05-122, 05-132, or 05-192,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 05-142

-
10. Do not remove the diskette that you are preparing until you see screen 05-052, 05-152, 05-162, or 05-172.

Then follow the instructions on the screen.

- a. Press: Enter key

or

- b. Press: Error Reset key
- c. Press: Enter key

Next screen: 05-010

11. On screen 05-010,
- a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

12. Remove your diskette. It is now prepared and ready to be used. If you saw screen 05-052 or 05-162, look them up in the "PREPARE screens" section of this book for some help, and then try PREPARE again when you know what went wrong.

PREPARE (Diskette)

How to use PREPARE to... (continued)

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), PREPARE is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Prepare a Basic Exchange diskette

Assume you need to prepare a diskette 1 in Basic Exchange format. (This format is used when the diskette must also be used by a different kind of IBM computing system.)

If you want to prepare an H Exchange diskette, see "What if you want to prepare an H Exchange diskette?" on page 2-29.

Assume the VOLID is to be PRDATA and the OWNERID is to be LMNCORP. Assume that the diskette has been used before and that you will use drives 1 and 2. If the VOLID and OWNERID of your diskette are different from those used in the example, substitute your VOLID and OWNERID for those used in the example. Watch the status line for messages.

Follow these steps.

1. Insert the Customer Support Functions diskette that contains PREPARE into drive 1.
2. Insert the diskette you want to prepare into diskette drive 2.
3. Enter: LINK PREPARE

Next screen: 05-010

Remove the Customer Support Functions diskette.

4. On screen 05-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 05-082

5. On screen 05-082,
 - a. Press: Enter key

Next screen: 05-092

If you want to prepare an H Exchange diskette, see "What if you want to prepare an H Exchange diskette?" on page 2-29.

6. On screen 05-092,
 - a. Type: 2
 - b. Press: New Line key once
 - c. Type: PRDATA (or your VOLID)
 - d. Press: New Line key once
 - e. Type: LMNCORP (or your OWNERID)
 - f. Press: Enter key

Next screen: 05-112

PREPARE (Diskette)

How to use PREPARE to... (continued)

7. On screen 05-112,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 05-042, 05-122, 05-132, or 05-192

8. On screen 05-042, 05-122, 05-132, or 05-192,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 05-142

9. Do not remove the diskette being prepared until you see screen 05-052, 05-152, 05-162, or 05-172.

Then, follow the instructions on the screen:

- a. Press: Enter key

or

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 05-010

-
10. On screen 05-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

11. Remove your diskette. It is now prepared and ready to be used. If you saw screen 05-052 or 05-162, find the screens in this chapter and then try PREPARE again.

What if you want to prepare an H Exchange diskette?

If you need to prepare an H Exchange diskette rather than a Basic Exchange diskette, it is recommended that you use a diskette 2D. Follow the same steps you followed to prepare a Basic Exchange diskette except change step 6a as follows:

6. a. Type: 3

PREPARE (Diskette)

PREPARE screens

Menu screen 05-010

This screen is displayed after you type LINK PREPARE and press the Enter key.

Prepare Diskette Menu 05-010

Choose one of the following:

1. Description of Prepare Diskette
2. Prepare a diskette

9. End Prepare Diskette

Choice
—

Do this

Type: 1, 2, or 9

Press: Enter key

Explanation

Type 1 for a description of PREPARE.

Type 2 to prepare a diskette.

Type 9 to end PREPARE and return the computer to the READY INPUT status.

<i>If you type</i>	<i>Next screen</i>
1	05-021
2	05-082
9	READY INPUT status

PREPARE (Diskette)

PREPARE screens (continued)

Screens 05-042, 05-122, 05-132, and 05-192

These screens are warning screens that describe the contents of your diskette. If a warning screen is displayed and you continue PREPARE, the contents of the diskette will be destroyed. The screens and their description include:

05-042	Diskette may contain write-protected files or files that contain information.
005-122	Diskette contains write-protected files.
005-132	Diskette contains files that contain information.
005-192	Diskette contains open files.

Prepare a Diskette

05-042

WARNING: One or more files may be
write-protected or may contain information.
If you continue, the data will be destroyed.

Erase existing information
Y-DK to destroy existing data
N-Do not destroy existing data
N

Cmd 9 Cancel
? Help

Do this

Type: Y or N

Press: Enter

Explanation

Erase write-protected files

Type Y if you know the information on the diskette is no longer needed and can be destroyed.

Type N if you do not want to destroy the information on the diskette.

These screens may be displayed when you are preparing a diskette that has been used before.

<i>If you type</i>	<i>Next screen</i>
Y	05-142
N	05-052

PREPARE (Diskette)

PREPARE screens (continued)

Screen 05-052

This screen is displayed because you typed N as your answer on screen 05-042, 05-122, 05-132, or 05-192. The information on the diskette has not been changed—you can still use it.

Press Error Reset and then Enter to see the menu. Then you can run PREPARE with a different diskette.

Prepare a Diskette

05-052

Prepare Diskette unsuccessful.

Press Error Reset and then press Enter to return to menu

C The next screen to be displayed is screen 05-082. It is used to tell the computer how to handle the information and messages that will be displayed while it is preparing the diskette. You can have them displayed, displayed and printed, or printed only.

C

C

PREPARE (Diskette)

PREPARE screens (continued)

Screen 05-082

This screen is displayed after you select option 2 on the menu.

```
Prepare a Diskette                                     05-082

Information and messages to:
  1-Screen only
  2-Screen and printer
  3-Printer only
  2

Printer number           Required when
  10-First printer       printer used
  11-Second printer
  10

                                Cmd 9 Cancel
                                ? Help
```

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Next screen: 05-092

Explanation

Information and messages

Type 1 to display all information and messages on the screen.

Type 2 to display and print all information and messages.

Type 3 to print all information and messages on the printer.

Printer number

Type 10 to print information and messages on the first printer attached to the computer.

Type 11 to print information and messages on the second printer attached to the computer.

If you selected 1 for information and messages, entries in this field are ignored.

PREPARE (Diskette)

PREPARE screens (continued)

Screen 05-092

This screen is displayed after you type your selections on screen 05-082.

```
Prepare a Diskette                                05-092

Diskette format
1-IBM System/23
2-BASIC Exchange
3-H Exchange
1

New VOLID          Required
  _____

New OWNERID        Required
  OWNERID_____

                                Cmd 9 Cancel
                                ? Help
```

Do this

Explanation

C Type: 1, 2, or 3

Diskette format

Type 1, System/23 format, if the diskette that you are preparing will only be used on a System/23.

Type 2, Basic Exchange format, if you are preparing a diskette 1 or a diskette 2 that will be used to move data between your System/23 and another IBM computing system, such as the 5110, 5120, or System 34.

Type 3, H Exchange format, if you are preparing a diskette 2D to move data between your System/23 and another IBM computing system.

Type 1 if you do not know what to type.

C Press: New Line key

Type: (Diskette VOLID)

New VOLID

Type the name you want to assign to the diskette.

Press: New Line key

C

PREPARE (Diskette)

PREPARE screens (continued)

Type: (Owner ID)

New OWNERID

Type the owner identification that you want to assign to the diskette. This information can be the your name, a company name, or any identification that does not contain more than 14 English letters and numbers.

Press: Enter key

The next screen that is displayed is either screen 05-102 or 05-112. The screen that is displayed depends on what you typed on the last screen.

<i>If you type</i>	<i>Next screen</i>
1	05-102
2 or 3	05-112

Screen 05-092 is used to tell your computer about the diskette density of the output diskette to be prepared. If you typed 1 on screen 05-092, the next screen to be displayed is screen 05-102. If you typed 2 or 3, screen 05-112 will be displayed.

PREPARE (Diskette)

PREPARE screens (continued)

Screen 05-102

This screen is displayed if you selected 1 for diskette format on screen 05-092.

Prepare a Diskette

05-102

Number of files labels
Request help for other choices
50

Diskette density
1-Diskette 1 or 2
 (single density)
2-Diskette 20
 (double density)
2

Cmd 9 Cancel
? Help

Do this

Type: (See explanation)

Explanation

Number of file labels

Type the number of file labels to be reserved. Each file uses one or two file labels, so this number is the maximum number of files that can be put on your diskette. For example, if you type 100, you can have at most, 100 files on your diskette.

Type 50 if you do not know how many files will be on your diskette.

The number must not be larger than your diskette can accept.

<i>Diskette type</i>	<i>Largest acceptable number</i>
1	393
2	788
2D	1478

Press: New Line key

PREPARE (Diskette)

PREPARE screens (continued)

Type: 1 or 2



Press: Enter key

Diskette density

Type 1 if your diskette is a diskette 1 or diskette 2.

Type 2 if your diskette is a diskette 2D.

Next screen: 05-112

The next screen that is displayed is screen 05-112. Use it to specify the number of the drive that contains the diskette that you are preparing and its VOLID.

PREPARE (Diskette)

PREPARE screens (continued)

Screen 05-112

This screen is displayed after you enter your selections on screen 05-092 and/or screen 05-102.

Prepare a Diskette

05-112

Drive number

—

Optional when
VOLID provided

VOLID before preparation

Optional when
drive provided

INSERT DISKETTE NOW

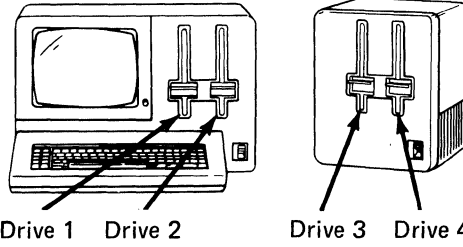
Cmd 9 Cancel
? Help

Do this

Type: 1, 2, 3, or 4

Explanation

Drive number



Type the number of the drive that will contain the diskette that you want to prepare. You do not have to type this if you are going to type VOLID.

Press: New Line key

Type: (Diskette VOLID)

VOLID before preparation

Insert diskette now

Insert diskette now

Type the VOLID that the diskette has *now*. Notice that this is probably *different* from the name that you want the diskette to have *after* it is prepared. You do not have to type this if you typed the drive number.

Press: Enter key

PREPARE (Diskette)

PREPARE screens (continued)

The next screen to be displayed will be screen 05-142 or 05-112. The screen that is displayed depends upon what you typed on screen 05-082.

<i>If you type</i>	<i>Next screen</i>
1	05-142
2	05-142 and printer prints
3	05-112 and printer prints

The next screen that is displayed is a completion screen. It tells you that the diskette has been prepared.

Screen 05-152

This screen is displayed to tell you that PREPARE has completed successfully. Press Enter to return to the menu.

Prepare a Diskette

05-152

Diskette ready for use.

Press Enter to return to menu

PREPARE (Diskette)

PREPARE screens (continued)

Screen 05-162

This screen is displayed to tell you that more than two cylinders of the diskette have been found to be damaged.

Before discarding the diskette, try PREPARE again. You might also use another diskette drive if you have one. Press Error Reset and then Enter to see the menu. Then try PREPARE again.

Prepare a Diskette

05-162

Diskette cannot be used.

Press Error Reset and then press Enter to return to menu

Screen 05-172

This screen is displayed to tell you that one or two cylinders on the diskette are damaged.

The diskette is still usable because you have no more than two defective cylinders.

Prepare a Diskette

05-172

Diskette ready for use.

The following defective cylinders have been relocated:

22

Although faulty portions of the diskette have been identified, it can still be used.

Press Enter to return to menu

PREPARE (Diskette)

PREPARE screens (continued)

Screen 05-189

This screen is displayed to give you a chance to correct an incorrect answer or to check over the entries in a procedure file. If you have an incorrect answer, the field in error is enclosed by a green box. If no errors were found or the field in error cannot be determined, the first field, CHOICE, is in the green box. You should also check your answer for CHOICE.

Prepare Diskette Procedure File		05-189
CHOICE	OWNERID OWNERID _____	PROTCTCONT N
MESSAGES 2	NUMLABEL 50	DATAFILECONT N
PRINTER 10	DENSITY 2	PROTCTDATACONT N
FORMAT 1	DRVNO ..	OPENFILECONT N
NEWVOLID _____	OLDVOLID _____	

Cmd 9 Cancel

Correcting an error on screen 05-189

Step 1. Locate the information on your screen that is enclosed by a green box.

Step 2. Use the following information to find the screen number that provides information about the field in error.

Step 3. Look up that screen in this section of this book and determine how to correct the error.

Step 4. Press the Error Reset key.

Step 5. Type the correction. The cursor is already positioned at the error.

Step 6. Press the Enter key to continue.

PREPARE (Diskette)

PREPARE screens (continued)

Field name	Refer to screen	Screen field name
CHOICE	05-010	Menu choice
MESSAGES	05-082	Information and messages
PRINTER	05-082	Printer number
FORMAT	05-092	Diskette format
NEWVOLID	05-092	New VOLID
OWNERID	05-092	New OWNERID
NUMLABEL	05-102	Number of file labels
DENSITY	05-102	Diskette density
DRVNO	05-112	Drive number
OLDVOLID	05-112	VOLID
PROTCTCONT	05-122	Erase files
DATAFILECONT	05-132	Erase information
PROTCTDACONT	05-042	Erase files
OPENFILECONT	05-192	Erase files

Running PREPARE from a procedure file

The following table shows the keywords that can be used in a PREPARE. Read "Procedure file screens" in Chapter 1 of *Customer Support Functions*, Volume II, if you want more information about how to build or use procedure files.

Keyword	Values	Purpose	Notes	Refer to screen
*CHOICE=	2	Choice to run PREPARE		05-010
MESSAGES=	1, 2 or 3	Where messages go: 1=screen only 2=screen and printer 3=printer only	If this statement is not used, messages are displayed and printed	05-082
PRINTER=	10 or 11	Indicates which printer: 10=system printer 11=alternate printer	Use only if MESSAGES=2 or 3	05-082
FORMAT=	1, 2 or 3	Indicates diskette format: 1=System/23 format 2=Basic Exchange 3=H-Exchange		05-092

*means keyword is required.

PREPARE (Diskette)

PREPARE screens (continued)

Keyword	Values	Purpose	Notes	Refer to screen
*NEWVOLID=	Volume name	Name of diskette after PREPARE has run	Required	05-092
OWNERID=	Name of owner	Name of owner of diskette		05-092
NUMLABEL=	1 to 1478	Indicates number of file labels to create on System/23 format diskette	For FORMAT=1, 50 is used if keyword is not included	05-102
DENSITY	1 or 2	Indicates diskette density.	1 = Diskette 1 and 2 2 = Diskette 2D For FORMAT=1, 1 is used if keyword is not included	05-102
DRVNO=	1, 2, 3, or 4	Indicates which drive diskette being prepared is in	Optional if OLDVOLID= is included	05-112
OLDVOLID=	Volume name	Indicates current name of diskette to be prepared	Optional if DRVNO= is included	05-112

*means keyword is required.

Keyword	Values	Purpose	Notes	Refer to screen
PROTCTCONT=	Y or N	Prepare diskette with write-protected files: Y = Yes, run PREPARE N = No, stop PREPARE	N if keyword not included	05-122
DATAFILECONT=	Y or N	Prepare diskette with information in files: Y = Yes, run PREPARE N = No, stop PREPARE	N if keyword not included	05-132
PROTCTDATACON=	Y or N	Prepare diskette with I/O errors: Y = Yes, run PREPARE N = No, stop PREPARE	N if keyword not included	05-042
OPENFILECONT=	Y or N	Indicates whether to prepare diskette with open files Y = Yes, run PREPARE N = No, stop PREPARE	N if keyword not included	05-192

*means keyword is required.

PREPARE (Diskette)

PREPARE screens (continued)

Procedure file example

This example shows statements that might be put in a procedure file to run PREPARE:

```
LINK PREPARE  
CHOICE=2  
FORMAT=1  
NEWVOLID=INVNTR  
OWNERID=JACOBS  
NUMLABEL=30  
DENSITY=1  
DRVNO=2  
PROTCTCONT=Y  
ENDLINK
```

These procedure file statements prepare a single-density diskette in the System/23 format. The diskette is in drive 2. When PREPARE is done, the name of the diskette will be INVNTR and the owner identification JACOBS. There will be room for 30 file labels. PREPARE will continue to prepare the diskette even if the diskette has files that are write-protected.

Chapter 3. COPY

What COPY does

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

During the day-to-day operation of your System/23, you will use COPY to back up your diskettes and to copy individual files or groups of files to other diskettes or the disk. And, as your files increase in size, you may use COPY to provide additional storage space on a disk volume or a diskette. (Use BACKUP.RESTORE to make a backup copy of disk files that will not fit on one diskette. The BACKUP.RESTORE Customer Support Function is described in Chapter 11 of this book.)

This chapter:

- Describes the COPY function.
- Tells you why, when, and how to use COPY.
- Provides step-by-step instructions for performing several tasks using COPY.
- Provides reference information about the COPY screens.

The COPY function makes a copy of information from an input disk volume or diskette and writes it to an output disk volume or diskette.

You can copy the following to an output diskette:

- One file
- A group of files
- All the files on a diskette
- The entire diskette—an image copy
- A disk file or group of files that will fit on one diskette

COPY

What COPY does (continued)

You can copy to the printer:

- A display type file
- A group of display type files

You can copy to a volume on the disk:

- One file
- A group of files
- All the files on a diskette or another disk volume

COPY choices

These are the choices you have on the menu:

Note: To copy to or from the disk, you can use only option 2 or 5.

1. *Description of Copy*, which describes the Copy Customer Support Function.
2. *Copy one file, group of files, or all files*, which lets you copy one file, a group of files that has a common filename prefix, or all of the files of a disk volume or diskette.
3. *Image copy of entire diskette*, which lets you make a copy of the contents of one diskette on another diskette. You should make an image copy when you want to copy an entire diskette to another diskette of the same type. When you select this option, all existing information on the diskette you copy to will be erased.

Note: The diskette type (type 1, 2, or 2D) and format (System/23 format, Basic Exchange, or H Exchange) must be the same for both the input and output diskette when "Image copy of entire diskette" is used. More about this later.

4. *Copy all files using diskettes only* is very much like "Image copy of entire diskette." You can use this option to copy or to remove deleted records. This allows you to control the sizes of your files on the output diskette. These choices are useful when you need more space on your diskette.

Warning: If you remove deleted records when you are copying a master file, the index file will no longer match the new master file and will not be usable.

COPY

What COPY does (continued)

Read Chapter 4, "INDEX," in *Customer Support Functions, Volume II*, which tells you about index files.

When you select this option, all existing information on the diskette you copy to will be erased.

5. *Copy printer (display) file to printer* lets you print files on the printer. The files must be file type 05 in order to be printed. You can use the DIR command to display all filenames and their file types. This will tell you which files are contained on the disk volume or the diskette, as well as tell you the file type.

Using COPY when sharing a 5246 Diskette Unit

If your computer shares a separate diskette unit and if you use drive 3 or 4 to do an image copy, the other computer cannot use the 5246 Diskette Unit until the image copy has been completed. For this reason, you should use drives 1 and 2 to do an image copy rather than drives 3 and 4. Then the 5246 Diskette Unit can be used by the other operator.

If your computer shares a separate diskette unit and if you must use drive 3 or 4, the 5246 Diskette Unit will not be available to the other operator while you are doing the image copy. This may affect the work of the operator who may share the 5246 Diskette Unit with you. Tell the other operator that the 5246 Diskette Unit will be unavailable for a few minutes and to consider doing something that doesn't require the 5246 Diskette Unit while you are doing your image copy.

The 5246 Diskette Unit will be unavailable to the other 5322 Computer for only brief periods of time when doing copies that are not image copies. The operator of the second 5322 Computer may notice brief delays but should not cancel the request to use the 5246 Diskette Unit.

COPY

Why and when to use COPY

Use COPY:

- To make a copy of a diskette to keep on hand in case your original diskette is damaged, lost, or begins to wear out.

You must decide how often you need to back up your diskette based on:

- The kind of information it holds.
 - How often the information changes.
 - How hard it is to replace the information.
 - How often you use it.
- To provide a copy of data to send to another location of your company.
 - To copy System/23 format files from a diskette to the disk.
 - To print another copy of a display file.
 - To replace a file that holds information you want to keep for only a limited time.

For example, at the end of each month, you might copy a file of current month sales to a file of last month's sales. This would replace the last month's sales figures with ones from the current month.

- To make a copy of your disk files that will fit on one diskette.

Note: Use `BACKUP.RESTORE` to make a backup copy of your disk files that are too large to fit on one diskette.

Copying from one format to another

COPY can copy files of one format to files of another format as shown in this table:

To From	Basic Exchange	H-Exchange	System/23 format
Basic Exchange	Yes	Yes, but one-half of space is wasted (128-byte sector to 256-byte sector).	Yes. Space taken for each record goes from 128 to 129 bytes.
H-Exchange	Yes, but input record length must be 128 bytes or less.	Yes	Yes. Space taken for each record goes from 256 to 257 bytes.
System/23 format	Yes. Input record length must be 128 bytes or less. Output filename must be a simple name.	Yes. Input record length must be 256 bytes or less. Output filename must be a simple name.	Yes.

Files that are copied from Basic Exchange or H-Exchange format to System/23 format are assigned file type 04.

COPY

Output space

When copying files, you must consider the amount of space the copied files need. COPY always makes the output file large enough to hold all the information in the input file. But COPY lets you make some choices about the amount of space the copied file takes.

When a file is created, a certain amount of space is reserved for it. (You say how much with the SIZE keyword of the OPEN statement.) For System/23 format files, when this reserved space is filled, small amounts of extra space, called *extents*, are added to the file as they are needed. Extents might not be next to the original space and may be scattered throughout the disk volume or diskette. For files on Basic Exchange and H-Exchange diskettes, extra space cannot be added to the files.

Often, a file does not use all of its reserved space. You can tell COPY whether to make the file as large as the reserved space (even if some of the space is unused), or just big enough to hold all the information.

If you plan to add records to the file, you will probably want to keep the unused space in the copied file ready for more information. If the file is not growing (or growing very little) and if you need more room on the disk or the output diskette, you would probably want to use the smaller file space. You make this choice on screen 03-092 or 03-114, or with the RESERVE= procedure keyword. (Screens and procedure files are discussed later in this chapter.)

To copy one, a group of files, or all files, COPY always tries to write the output file into a single, continuous space; but COPY can fit the file into more than one space, if you tell it to do so. If a System/23 format file uses many extents (you can tell with the DIR command), you may improve processing time for the file by copying it into a single space. In this case, answer "Y" to "Copy file into single area only" (See screen 03-092) or use SINGLEAREA=Y in a procedure file. Then, if COPY cannot find enough continuous space, the file is not copied and COPY ends.

COPY

Deleting records from a file

When you delete a record from a file with the DELETE statement, the record is not actually removed from the file. The record stays in the file, but it cannot be used. Since the record is still in the file, the relative positions of the rest of the records stay the same. This is important if records in the file are found through an index file or by relative record number.

However, sometimes it is necessary to make a file as small as possible. If there are deleted records in a file, you can make it smaller by copying the file without copying the deleted records. Then the space these records took up is available for new records. If you still need to reduce the space the file takes, you must run COPY one more time, answering "2" to "Reserve output space based on" (see screen 03-092 or 03-114).

Remember, if you copy a file and remove deleted records, you must run INDEX to recreate the index files that use that file, and you must run SORT to recreate any address-out files that use that file.

Hints and considerations

Remember these things about COPY:

- If you are copying to the disk, you must enter an output VOLID.
- If you are copying from the disk, you must enter an input VOLID.
- All existing information on the output diskette is erased if you choose "COPY all files using diskettes only" or "Image copy of entire diskette" (choices 3 and 4).
- If deleted records are not copied for a file that uses index files, all index files have to be replaced (see "Create Index File" in Volume II).
- If you copy a file and remove deleted records, any address-out files that use that file will have to be recreated (see SORT and PRESORT in Volume II).
- When you copy a file, the creation and update dates are not copied. The dates placed in the output file are taken from the DATE\$ variable. Use the DATE command to enter the date or type PRINT DATE\$ to see if the date has already been set.
- Forms or special paper must be in the printer used to print display files (choice 5) before Enter is pressed on screen 03-135 or before running from a procedure file.
- If a file to be copied is write-protected, the output file is also write-protected. An existing output file (one that is to be replaced) cannot be write-protected.
- If an input diskette file has duplicate labels, the output diskette file will also. If the input diskette file does not have duplicate labels, neither will the output file.

COPY

Hints and considerations (continued)

- About space on the output diskette:
 - The contents of a whole diskette may not fit on one output diskette if the input diskette files were created on a different computing system.
 - To take out all unused space from a file containing deleted records, you must run COPY twice—the first time with "N" for "Copy deleted records" on screen 03-092 or 03-114 or DELREC=N and the second time with "2" for "Reserve output space based on" (or RESERVE=2).
 - Copying from one diskette format to another may make records longer and waste space within sectors.
- For an image copy, the input and output diskettes must be the same type and format. For example, both must be Diskette 2 in System/23 format.
- Use output filenames that are correct for the diskette format; that is, simple filenames for Basic Exchange and H-Exchange format diskettes and simple or complex filenames for System/23 format diskettes.
- For "Copy all files using diskettes only" or "Image copy of entire diskette," the output diskette cannot have any open files.
- For an image copy, the input diskette cannot have any open files.
- If a diskette is rather full, "Image copy of entire diskette" runs much faster than "Copy all files using diskettes only."
- To copy all the files from a diskette to the disk, use option 2, "Copy a file, a group of files, or all files." Also use option 2 to copy all the files from one volume on the disk to another volume on the disk.

-
- If you are running COPY and select option 2 immediately after completing option 2, the screens redisplay the values you just used. This is also true if you select option 5 immediately after completing option 5.
 - When copying an index file to a diskette that is almost full, you may get a 4138 error code "not enough contiguous space on diskette" even though there appears to be enough continuous space. This occurs because index files must begin at certain places (called track boundaries) on the diskette. Rearranging the files on the diskette may help this problem; however, the *maximum* number of index files that can be put on a diskette is:

Diskette Type	Total number of labels	Maximum number of index files
Type 1	65-70	65
Type 2	131-134	131
Type 2D	130-133	130

The *actual* number of index files that can be placed on a diskette may be smaller. The actual size depends on the total number of labels you specified when you prepared the diskette, the size of the index files, the presence and size of any other files on the diskette, and whether there are any bad sectors on the diskette.

COPY

Before you begin

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

You need these items before you start COPY:

- The COPY Customer Support Function
- The input diskette or the VOLID of the disk volume that contains the information you want to copy.
- The output diskette or the VOLID of the disk volume that will receive the information.

Remember, if you are using diskettes:

- The output diskette must be ready to receive information; that is, if it is a new diskette, it must have been prepared (see "PREPARE" in this book).

Warning: All existing information on the diskette you will copy to is erased if you select "Image copy of entire diskette" or "Copy all files using diskettes only"

- The diskette must be the same type and format as the input diskette if you are doing an "Image copy of entire diskette."
- The name of the file you want to copy, if you are copying a single file.
- The common prefix of a group of files, if you are doing a group file copy.
- The VOLIDs of any input and output diskettes if you are using a single diskette drive to provide the input data and receive the output data.
- The VOLIDs for the input and output diskettes if you are using a 32K System/23 to do the copy.

Starting COPY

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

To start COPY do the following:

1. Insert the Customer Support Functions diskette which contains COPY.
2. Type: LINK COPY
3. Press: Enter key

After COPY is started, you see a menu on the computer screen for you to select what you want to do.

COPY

How to use COPY to . . .

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2) COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Back up a diskette by using two drives

Suppose you have a diskette named IBMPTS that has important programs and information stored on it and you want to make a backup copy. You will use the "Image copy of entire diskette" option on the menu. Assume that the diskette you want to use for the backup is named BACKUP and that the diskette has been prepared but not yet used. It is the same type (1, 2, or 2D) and format (System/23, Basic Exchange, or H-Exchange) as your other diskette. Assume your computer has two diskette drives, 1 and 2, and that you have a system printer assigned the printer number 10.

If you were using a 5246 Diskette Unit, you would be using drives 3 and 4. Substitute 3 for 1 in steps 1, 2, 6, 7 and 9a. Substitute 4 for 2 in steps 8 and 9c.

1. Insert the Customer Support Functions diskette into drive 1.
2. Enter: LINK COPY

Next screen: 03-010

If you are using diskettes that are not the same type and format, see "What if your diskettes are different types or have different formats?" on page 3-20.

3. On screen 03-010,
 - a. Type: 3
 - b. Press: Enter key

Next screen: 03-083

4. On screen 03-083,
 - a. Press: Enter key

Next screen: 03-123

If the diskette you are copying to already has information on it, see "What if you are using a used diskette?" on page 3-20.

5. On screen 03-123,
 - a. Press: Enter key

Next screen: 03-183

COPY

How to use COPY to . . . (continued)

6. Remove the Customer Support Functions diskette from drive 1.
7. Insert the input diskette (diskette to be copied) into drive 1.
8. Insert the output diskette (backup diskette) into drive 2.
9. On screen 03-183,
 - a. Type: 1
 - b. Press: New Line key *twice*
 - c. Type: 2

If you are using a 32K System/23 you must also type in the input and output VOLIDs on this screen.

- d. Press: Enter key

Next screen: 03-213

10. Follow the instructions on the status line in case you have to insert the Customer Support Functions diskette again.

Otherwise, do not remove your input or output diskette until you see screen 03-163 or 03-173.

Next screen: 03-163 or 03-173

11. Follow the instructions on the screen—

a. Press: Enter key

or

If screen 03-173 is displayed, determine the cause of the error. Then,

a. Press: Error Reset key

b. Press: Enter key

Next screen: 03-010

12. On screen 03-010,

a. Type: 9

b. Press: Enter key

Next screen: READY INPUT status

13. Remove your diskettes. Write down what you copied on the label on your backup diskette.

Your diskettes are now ready to be used in other tasks.

COPY

How to use COPY to . . . (continued)

What if you are using a used diskette?. If your backup diskette is a diskette that already has information on it:

- Make sure you no longer need the information
- Change step 5 as follows:

5. On screen 03-123,

a. Type: Y

b. Press: Enter key

What if your diskettes are different types or have different formats?. Your diskettes must be the same type and the same format (both must be diskette 2Ds, in System/23 format, for example) to follow this example. If you want to back up a diskette using a second diskette that is a different diskette type from the original, you must use menu option 4, "Copy all files using diskettes only." Read "Copy all files using two drives" on page 3-26 for more information about how to copy using different types of diskettes.

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Back up a diskette by using one drive

Here is an example of how you could use image copy to back up a diskette using one diskette drive. If your system has two drives, follow the steps for backing up a diskette using two diskette drives.

Assume that you have a diskette that has important programs and information stored on it and you want to make a backup copy. The VOLID for this diskette is JOB1. The VOLID for the backup diskette is BACKUP. This diskette contains information that you no longer need. You have checked to make sure JOB1 and BACKUP are both the same types of diskettes and formats. Assume that you have *only one diskette drive available* and you only want to display messages on your computer and not on your printer.

The VOLID of the diskette that you are copying may be named something other than JOB1 and you may be calling your backup diskette something other than BACKUP. If this is true, substitute the VOLID of the diskette that you are copying for JOB1 in this example. Substitute the VOLID of your backup diskette for BACKUP. Then, look for these names in the status line messages.

1. Insert the Customer Support Functions diskette that contains COPY into the drive.
2. Enter: LINK COPY

Next screen: 03-010

COPY

How to use COPY to . . . (continued)

3. On screen 03-010,
 - a. Type: 3
 - b. Press: Enter key

Next screen: 03-083

4. On screen 03-083,
 - a. Press: Enter key

Next screen: 03-123

5. On screen 03-123,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 03-183

Remove the Customer Support Functions diskette from the diskette drive.

Insert JOB1 into the diskette drive.

See "What if your diskettes have different VOLIDs?" on page 3-25.

-
6. On screen 03-183,
 - a. Type: 1
 - b. Press: New Line Key *once*
 - c. Type: JOB1 (or the VOLID of the diskette you are copying from)
 - d. Press: New Line key *once*
 - e. Type: 1
 - f. Press: New Line key *once*
 - g. Type: BACKUP (or the VOLID of the diskette you are copying to)
 - h. Press: Enter key

Next screen: 03-213

7. Follow the instructions on the status line for instructions about when to remove and insert your diskettes. Do not remove a diskette at any other time.

Remember, after inserting the required diskette, press the Error Reset key.

Continue removing and inserting diskettes as you are instructed by the status line until COPY displays a completion screen—screen 03-163 or 03-173.

Next screen: 03-163 or 03-173

COPY

How to use COPY to . . . (continued)

8. Follow the instructions on the screen—
 - a. Press: Enter key

or

If screen 03-173 is displayed, determine the cause of the error. Then,

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 03-010

9. On screen 03-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

10. Remove your diskette. Write down the names of the files that you have copied on the label of your backup diskette. Your diskettes are now ready to be used in other jobs.

What if your diskettes have different VOLIDs?. Of course, you will usually have diskettes with names (VOLIDs) that are not JOB1 and BACKUP. To make a backup with diskettes that have other VOLIDs:

- In step 6c, type the VOLID of your *input* diskette, the diskette you are copying from.
- In step 6g, type the VOLID of your *output* diskette, the diskette you are copying to.
- Look for status line messages with these VOLIDs to know when to remove and insert the correct diskette.

COPY

How to use COPY to . . . (continued)

Copy all files using two drives

Here is an example of how you would use "Copy all files using diskettes only" to copy information from one type of diskette to a different type of diskette.

Suppose you must copy a diskette named IBMPTS to another diskette, named BACKUP—but BACKUP is a different type diskette (1, 2, or 2D) than IBMPTS. In cases like this—when copying diskettes of different types or when copying from one format to another—you must use "Copy all files using diskettes only" (and *not* "Image copy of entire diskette," illustrated in the preceding examples.)

The diskettes that you will use to do COPY will probably have different names from those used in the following example. If this is true, substitute the name of your input diskette for IBMPTS in Step 7c. Substitute the name of your output diskette that will be receiving data for BACKUP in Step 7g. Then, look for these names in the status line messages.

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

For this example, assume that you are using two diskette drives and that diskette drive 1 contains the input diskette and diskette drive 2 contains the output diskette. Assume that BACKUP has information on it that you no longer need, and that you also want information and messages to be displayed and printed. Follow these steps:

1. Insert the Customer Support Functions diskette with COPY on it into diskette drive 1.
2. Enter: LINK COPY

Next screen: 03-010

3. On screen 03-010,
 - a. Type: 4
 - b. Press: Enter key

Next screen: 03-084

COPY

How to use COPY to . . . (continued)

4. On screen 03-084,
 - a. Press: Enter key

Next screen: 03-114

5. On screen 03-114,
 - a. Press: Enter key

Next screen: 03-124

6. On screen 03-124,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 03-184

See "What if your VOLIDs are different?" on page 3-31.

-
7. If you are using a 32K System/23, you must specify both the diskette drive number and the VOLID for both the input and output diskettes. Complete screen 03-184 like this:
 - a. Type: 1
 - b. Press: New Line key
 - c. Type: IBMPTS (or the diskette you want to copy from)
 - d. Press: New Line key once
 - e. Type: 2
 - f. Press: New Line key once
 - g. Type: BACKUP (or the diskette you want to copy to)
 8. Remove the Customer Support Functions diskette.
 9. Insert IBMPTS (or the diskette you are copying from) into drive 1 and BACKUP (or the diskette you are copying to) into drive 2.
 10. On screen 03-184,
 - a. Press: Enter key

Next screen: 03-204

11. Look at the status line to see when to remove and insert your diskette. Do *not* remove a diskette at any other time.

Remember, after inserting the diskette that the status line calls for, press the Error Reset key.

COPY

How to use COPY to . . . (continued)

Continue changing diskettes until COPY displays a completion screen.

Next screen: 03-144 or 03-154

12. Follow the instructions on the screen—
 - a. Press: Enter key

or

If screen 03-154 is displayed, determine the cause of the error. Then,

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 03-010

13. On screen 03-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

14. Remove your diskette. Write down what you copied on an adhesive label and affix it to BACKUP. Your diskettes are now ready to be used in other tasks.

What if your VOLIDs are different? If your VOLIDs are not IBMPTS and BACKUP:

Substitute the name of the diskette you are *copying* for **IBMPTS** in step 7c.

Substitute the name of the diskette *receiving* the information for BACKUP in step 7g.

Then, look for these names in the status line messages.

COPY

How to use COPY to . . . (continued)

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Copy all files using one drive

Suppose you must copy a diskette named IBMPTS to another diskette, named BACKUP—but BACKUP is a different type diskette (1, 2, or 2D) than IBMPTS. In cases like this—when copying diskettes of different types or when copying from one format to another—you must use “Copy all files using diskettes only” (and *not* “Image copy of entire diskette”).

For this example, assume you can use only one drive. Assume that BACKUP has information on it that you no longer need. Also assume that you want information and messages displayed and printed. Follow these steps:

1. Insert the Customer Support Functions diskette with COPY on it into the diskette drive.
2. Enter: LINK COPY

Next screen: 03-010

-
3. On screen 03-010,
 - a. Type: 4
 - b. Press: Enter key

Next screen: 03-084

4. On screen 03-084,
 - a. Press: Enter key

Next screen: 03-114

5. On screen 03-114,
 - a. Press: Enter key

Next screen: 03-124

COPY

How to use COPY to . . . (continued)

6. On screen 03-124,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 03-184

See "What if your VOLIDs are different?" on page 3-36.

7. On screen 03-184,
 - a. Press: New Line key *once*
 - b. Type: IBMPTS (or the diskette you want to copy from)
 - c. Press: New Line key *twice*
 - d. Type: BACKUP (or the diskette you want to copy to)
8. Remove the Customer Support Functions diskette.
9. Insert IBMPTS (or the diskette you are copying from) into drive 1.
10. On screen 03-184,
 - a. Press: Enter key

Next screen: 03-204

-
11. Look at the status line to see when to remove and insert your diskette. Do *not* remove a diskette at any other time.

Remember, after inserting the diskette identified on the status line, press the Error Reset key.

Continue changing diskettes until COPY displays a completion screen.

Next screen: 03-144 or 03-154

12. Follow the instructions on the screen—
- a. Press: Enter key

or

If screen 03-154 is displayed, determine the cause of the error. Then,

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 03-010

COPY

How to use COPY to . . . (continued)

13. On screen 03-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

14. Remove your diskette. Write down the names of what you copied on an adhesive label and affix it to the BACKUP diskette (or the diskette you copied to). Your diskettes are now ready to be used in other tasks.

What if your VOLIDs are different? If your VOLIDs are different from those used in this example, substitute the name of the diskette you are *copying* for IBMPTS in step 7b.

Substitute the name of the diskette *receiving* the information for BACKUP in step 7d.

Then, look for these names in the status line messages.

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Copy one file to another diskette

Here is an example of how you would use the COPY function to copy one file to another diskette. (See "Copy a group of files to another diskette" on page 3-42 to copy a group of files.)

Assume you have many files on a diskette and want to copy only one file, named REDSOX, to another diskette. The second diskette does not have a file named REDSOX on it. Also assume you will use diskette drives 1 and 2 to do the copy.

The name of the file that you want to copy may not be REDSOX. You should substitute the name of the file that you want to copy for REDSOX throughout the example. The name of your file will also be used to identify the copied file on the second diskette. Look for the name of your file in the status line messages.

1. Insert the Customer Support Functions diskette with COPY on it into diskette drive 1.
2. Enter: LINK COPY

Next screen: 03-010

COPY

How to use COPY to . . . (continued)

3. On screen 03-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 03-082

4. On screen 03-082,
 - a. Press: Enter key

Next screen: 03-092

See "What if your output diskette already has a file named REDSOX?" on page 3-41.

5. On screen 03-092,
 - a. Press: Enter key

Next screen: 03-102

6. Remove the Customer Support Functions diskette.

-
7. Insert the input diskette (the one with REDSOX on it) into diskette drive 1.
 8. Insert the output diskette into diskette drive 2.
 9. On screen 03-102,
 - a. Type: 1
 - b. Press: New Line key *twice*
 - c. Type: REDSOX (or the name of the file you want to copy)
 - d. Press: New Line key *once*
 - e. Type: 2

If you are using a 32K System/23, you must also type in the input and output VOLIDs. Be sure that you type these before you press the Enter key.

- f. Press: Enter key
10. Follow the instructions on the status line in case you have to insert the Customer Support Functions diskette again. Otherwise, do not remove either diskette. Look at the status line. Insert the diskette that is identified on the status line. Then,
 - a. Press: Error Reset key

Next screen: 03-212

COPY

How to use COPY to . . . (continued)

11. Continue to follow any instructions that may appear on the status line.

Next screen: 03-142 or 03-152

12. Follow the instructions on the screen—
 - a. Press: Enter key

or

If screen 03-152 is displayed, determine the cause of the error. Then,

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 03-010

Now you have a copy of REDSOX on both diskettes. You can remove the diskettes and go on to other jobs.

13. On screen 03-010:
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

What if your output diskette already has a file named REDSOX? If the diskette you are going to copy the file to already has a file named REDSOX, you must decide whether to replace the file named REDSOX or to keep the old file and give the copied file another name.

If you decide to replace the file, do this for step 5:

5. On screen 03-092,
 - a. Type: Y
 - b. Press: Enter key

You may want to give the output file a name that is different from the name of the input file. For this example, assume BLUESOX is not used on the output diskette. Do this for step 9:

9. On screen 03-102,
 - a. Type: 1
 - b. Press: New Line key *twice*
 - c. Type: REDSOX (or the name of the file you want to copy)
 - d. Press: New Line key *once*
 - e. Type: 2
 - f. Press: New Line key *twice*
 - g. Type: BLUESOX (or your new name for the output file)

If you are using a 32K System/23, you must also type in the input and output VOLIDs. Go back and type the input and output VOLID and then:

- h. Press: Enter Key

COPY

How to use COPY to . . . (continued)

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), COPY is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Copy a group of files to another diskette

Here is an example of how you would use the COPY function to copy a group of files to another diskette.

Assume you have many files on a diskette and you want to copy the files whose names start with BROWN: BROWN1, BROWN2, and BROWN3. Also assume you will use diskette drives 1 and 2 to do the copy.

The group of files you want to copy may not start with BROWN. Use the common prefix of the group of files you want to copy instead of BROWN throughout the example.

As each file is copied, screen 03-202 appears and scrolls a message that the file has been copied.

1. Insert the Customer Support Functions diskette with COPY on it into diskette drive 1.
2. Enter: LINK COPY

Next screen: 03-010

-
3. On screen 03-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 03-082

4. On screen 03-082,
 - a. Press: Enter key

Next screen: 03-092

5. On screen 03-092,
 - a. Press: Enter key

Next screen: 03-102

6. Remove the Customer Support Functions diskette.
7. Insert the input diskette (the one with BROWN1, BROWN2, and BROWN3 on it into diskette drive 1.
8. Insert the output diskette into diskette drive 2.

COPY

How to use COPY to . . . (continued)

9. On screen 03-102,
 - a. Type: 1
 - b. Press: New Line key *twice*
 - c. Type: BROWN* (or the common prefix followed by an * for the group of files you want to copy)
 - d. Press: New Line key *once*
 - e. Type: 2

If you are using a 32K System/23, you must also type in the input and output VOLIDs. Be sure that you type these before you press the Enter key.

- f. Press: Enter key

As each file is copied, screen 03-202 appears and scrolls a message indicating that the file has been copied.

10. Follow the instructions on the status line in case you have to insert the Customer Support Functions diskette again. Otherwise, do not remove either diskette. Look at the status line. Insert the diskette that is identified on the status line. Then,
 - a. Press: Error Reset key

Next screen: 03-212

-
11. Continue to follow any instructions that may appear on the status line.

Next screen: 03-142 or 03-152

12. Follow the instructions on the screen—

a. Press: Enter key

or

If screen 03-152 is displayed, determine the cause of the error. Then,

a. Press: Error Reset key

b. Press: Enter key

Next screen: 03-010

Now you have a copy of BROWN1, BROWN2, and BROWN3 on both diskettes. You can remove the diskettes and go on to other jobs.

13. On screen 03-010:

a. Type: 9

b. Press: Enter key

Next screen: READY INPUT status

COPY

How to use COPY to . . . (continued)

Copy all files from diskette to disk

Here is an example of how you would use "Copy one file, group of files, or all files" to copy information from your diskette to your disk.

Suppose that:

- You have a diskette named JOB2.
- You want to copy all the files from JOB2 to a disk volume named WPFILF.
- You will insert your JOB2 diskette into drive 1.
- You want to display and print your information and messages.

Note: The COPY Customer Support Function is on your disk.

Follow these steps:

1. Type: LINK COPY
2. Press: Enter key

Next screen: 03-010

3. On screen 03-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 03-082

-
4. On screen 03-082,
 - a. Press: Enter key

Next screen 03-092

5. On screen 03-092,
 - a. Press: Enter key

Next screen 03-102

6. On screen 03-102,
 - a. Type: 1
 - b. Press: New Line key twice
 - c. Type: * (* means you want to copy all files)
 - d. Press: New Line key once
 - e. Type: 5
 - f. Press: New Line key once
 - g. Type: WPFIL
7. Insert the JOB2 diskette (or the diskette you want to copy) into drive 1.
8. On screen 03-102,
 - a. Press: Enter key

Next screen: 03-202

COPY

How to use COPY to . . . (continued)

9. Look at the status line to see when to remove your diskette. Do not remove your diskette at any other time. Remember, after inserting the diskette that the status line calls for, press the Error Reset key. When COPY is completed, it displays a completion screen.

Next screen: 03-142 or 03-152

10. Follow the instructions on the screen—
 - a. Press: Enter key

or

If screen 03-152 is displayed, determine the cause of the error. Then,

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 03-010

11. On screen 03-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

Copy one file from disk to diskette

Here is an example of how you would use the COPY function to copy one disk file to a diskette.

Assume that:

- You have many files on the disk volume named TEAMS and you want to copy only one file, REDSOX, to a diskette.
- You will insert your diskette into drive 1.
- You want to display and print your information and messages.

Follow these steps:

1. Enter: LINK COPY
2. Press: Enter key

Next screen 03-010

3. On screen 03-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 03-082

Note: The COPY Customer Support Function is on your disk.

COPY

How to use COPY to . . . (continued)

4. On screen 03-082,
 - a. Press: Enter key

Next screen: 03-092

5. On screen 03-092,
 - a. Press: Enter key

Next screen: 03-102

6. Insert the output diskette into diskette drive 1.
7. On screen 03-102,
 - a. Type: 5
 - b. Press: New Line key *once*
 - c. Type: TEAMS (or the disk volume containing the file you want to copy)
 - d. Press: New Line key *once*
 - e. Type: REDSOX (or the disk file you want to copy)
 - f. Press: New Line key *once*
 - g. Type: 1
 - h. Press: Enter key

-
8. Follow the instructions on the status line.

Next screen: 03-212

9. Continue to follow any instructions that may appear on the status line.

Next screen: 03-142 or 03-152

10. Follow the instructions on the screen—

a. Press: Enter key

or

If screen 03-152 is displayed, determine the cause of the error. Then,

a. Press: Error Reset key

b. Press: Enter key

Note: If you see a message that you ran out of space on the diskette, you can use the backup option of BACKUP.RESTORE to make a backup copy of a disk file that is too large to fit on one diskette. (BACKUP.RESTORE is discussed in Chapter 11 of this book.)

Next screen: 03-010

COPY

How to use COPY to . . . (continued)

Now you have a copy of REDSOX on your diskette.
Remove the diskette.

11. On screen 03-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

Copy a file from a disk volume to another disk volume

Here is an example of how you would use the COPY function to copy a file from one volume on your disk to another volume on your disk.

Assume that:

- You want to copy a disk file, FILE1, from disk volume EXAMP1 to disk volume EXAMP2.
- You want to display and print your information and messages.

Follow these steps:

1. Enter: LINK COPY
2. Press: Enter key

Next screen: 03-010

3. On screen 03-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 03-082

Note: The COPY Customer Support Function is on your disk.

COPY

How to use COPY to . . . (continued)

4. On screen 03-082,
 - a. Press: Enter key

Next screen: 03-092

5. On screen 03-092,
 - a. Press: Enter

Next screen: 03-102

6. On screen 03-102,
 - a. Press: New Line key *once*
 - b. Type: EXAMP1 (or the volume containing the file you want to copy from)
 - c. Press: New Line key *once*
 - d. Type: FILE1 (or the file you want to copy)
 - e. Press: New Line key *twice*
 - f. Type: EXAMP2 (or the volume you want to copy to)
 - g. Press: New Line key *once*
 - h. Type: FILE4 (or the name you want to give the copied file)
 - i. Press: Enter key

-
7. Follow the instructions on the status line. Then, press the Error Reset key

Next screen: 03-212

8. Continue to follow any instructions that may appear on the status line

Next screen: 03-142 or 03-152

9. Follow the instructions on the screen—

- a. Press: Enter key

or

If screen 03-152 is displayed, determine the cause of the error. Then,

- a. Press: Error Reset key

- b. Press: Enter key

Next screen: 03-010

Now you have a copy of the file on two disk volumes.

COPY

How to use COPY to . . . (continued)

10. On screen 03-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

Copy all files from one disk volume to another disk volume

Here is an example of how you would use the COPY function to copy all files from one volume on your disk to another volume on your disk.

Assume that:

- You want to copy all the files in disk volume EXAMP3 to disk volume EXAMP4.
- You want to display and print your information and messages.

Note: The COPY Customer Support Function is on your disk.

Follow these steps:

1. Enter: LINK COPY
2. Press: Enter key

Next screen: 03-010

3. On screen 03-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 03-082

COPY

How to use COPY to . . . (continued)

4. On screen 03-082,
 - a. Press: Enter key

Next screen: 03-092

5. On screen 03-092,
 - a. Press: Enter

Next screen: 03-102

6. On screen 03-102,
 - a. Press: New Line key *once*
 - b. Type: EXAMP3 (or the volume containing the files you want to copy from)
 - c. Press: New Line key *once*
 - d. Type: * (to copy all files)
 - e. Press: New Line key *twice*
 - f. Type: EXAMP4 (or the volume you want to copy to)
 - g. Press: Enter key

-
7. Follow the instructions on the status line. Then,
 - a. Press: Error Reset key

Next screen: 03-212

8. Continue to follow any instructions that may appear on the status line

Next screen: 03-142 or 03-152

9. Follow the instructions on the screen—

- a. Press: Enter key

or

If screen 03-152 is displayed, determine the cause of the error. Then,

- a. Press: Error Reset key

- b. Press: Enter key

Next screen: 03-010

Now you have a copy of your files on two disk volumes.

COPY

How to use COPY to . . . (continued)

10. On screen 03-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

COPY screens

The following section describes the COPY screens and what you must type in the input fields of each screen. COPY can be run from a procedure file. A chart describing each of COPY's procedure file keywords can be found at the end of this section. An example showing COPY being run from a procedure file is also included in this section.

COPY

COPY screens (continued)

Menu screen 03-010

This screen is displayed after you type LINK COPY and press the Enter key.

Copy Menu

03-010

Choose one of the following:

1. Description of Copy
2. Copy one file, group of files or all files
3. Image copy of entire diskette
4. Copy all files using diskettes only
5. Copy printer (display) file to printer

9. End Copy

Choice

-

Do this

Type: 1,2,3,4,5, or 9

Explanation

Type 1 for a description of COPY.

Type 2 (diskette or disk) if you want to copy only one file, a group of files, or all files.

Type 3 (diskette only) if you want to make an exact copy of a diskette. Use this option to make backup copies of your diskettes when your diskettes are the same type and format.

Type 4 (diskette only) if you want to copy all files on a diskette to another diskette. Your diskettes do *not* have to be the same type or format. You can also choose to:

- Leave the output space the same.
- Decrease the space to be reserved on the output diskette.
- Remove deleted records on the output diskette.
- Copy deleted records.

Note: If you remove deleted records, you must rebuild all index files for the copied files and rerun SORT to recreate any address-out files that use the files.

Type 5 (diskette or disk) if you want to print one or a group of 05 type files. You can use the DIR command *before* you start COPY to make sure the files that you want to print are file type 05.

COPY

COPY screens (continued)

Type 9 to end COPY and return the computer to the READY INPUT status.

Press: Enter key

<i>If you type</i>	<i>Next screen</i>
1	03-021
2	03-082
3	03-083
4	03-084
5	03-085
9	READY INPUT status

The next screen to be displayed will be screen 03-082, 03-083, 03-084 or 03-085. Use these screens to specify how the information and messages will be displayed and printed. You will also use these screens to specify the number of the printer.

COPY

COPY screens (continued)

Screens 03-082, 03-083, 03-084, and 03-085

<i>Choice on menu</i>	<i>You see screen</i>	<i>Screen name</i>
2	03-082	Copy one file, a group of files, or all files
3	03-083	Image copy of entire diskette
4	03-084	Copy all files using diskettes only
5	03-085	Copy printer (display) file to printer

Image Copy of Entire Diskette

03-083

Information and messages to:

- 1-Screen only
- 2-Screen and printer
- 3-Printer only
- 2

Printer number

- 10-First printer
- 11-Second printer
- 10

Required when printer used

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Explanation

Information and messages

Type 1 to display all information and messages on the screen.

Type 2 to both display and print all information and messages.

Type 3 to print all information and messages on the printer.

Printer number

Type 10 to print all information and messages on the first printer attached to the computer.

Type 11 to print all information and messages on the second printer attached to the computer.

The printer number is ignored if you enter 1 for information and messages.

<i>From screen</i>	<i>Next screen</i>
03-082	03-092
03-083	03-123
03-084	03-114
03-085	03-135

COPY

COPY screens (continued)

Screen 03-092

This screen is displayed after you enter your selections on screen 03-082.

Copy One File, Group of Files or All Files

03-092

Replace information in output file

Y-OK to destroy existing data

N-Do not destroy data

N

Copy deleted records

Y-Keep records in place

N-Remove deleted records

Y

Copy file into single area only

Y-Continuous area is required

N-Fit into available spaces

N

Reserve output space based on:

1-Larger of file space or data

2-Data in input file

1

Cmd 9 Cancel

? Help

Do this

Type: Y or N

Press: Enter key

Type: Y or N

Press: New Line key

Explanation

Replace information in output file

Type Y if you know that it is all right to replace information in the output file with the information you are copying from the input disk volume or diskette. The information in the output file is destroyed.

Type N if you want to stop the copy operation if there already is information in the output file.

You should type Y when *updating* a file, a group of files, or all files that already exist on the output disk volume or diskette.

Copy deleted records

Type Y to copy deleted records.

Type N if you do not want deleted records in the output file(s).

Note: If you type N, and your file contains space from which records have been deleted, the locations of the records in the file will be changed, and some programs may not be able to find the correct records.

You should type Y for this field unless you have been instructed to do otherwise.

The remaining fields are described on the next page.

COPY

COPY screens (continued)

Do this

Type: Y or N

Press: New Line key

Type: 1 or 2

Next screen: 03-102

Explanation

Copy file into single area only

Type Y if you need to have a file copied into one continuous area.

Type N if the file can be copied into any available space on the diskette or disk

You should type N unless you have been instructed to type Y.

Reserve output space based on:

Type 1 if you want to reserve at least as much space for your output files as was reserved for your input files.

Type 2 if you want to reserve only enough space required for the file.

Type 1 if you don't know what to type.

If you are copying from one diskette to another diskette, insert your input and output diskettes into the diskette drives.

If you are copying from a diskette to the disk, insert your input diskette.

If you are copying from the disk to a diskette, insert your output diskette.

If you are copying from one disk volume to another disk volume, you do not need a diskette.

Use screen 03-102 to name the input and output VOLIDs and filenames.

COPY

COPY screens (continued)

Screen 03-102

This screen is displayed after you enter your selections on screen 03-092. Insert any input and output diskettes into the diskette drives.

Copy One File, Group of Files or All Files

03-102

Input drive number _	Optional when input VOLID provided
Input VOLID _____	Required when Drive Number is 5
Input filename or group name or * _____	Required * Means all files
Output drive number _	Optional when output VOLID provided
Output VOLID _____	Required when Drive Number is 5
Output filename _____	More information provided in help

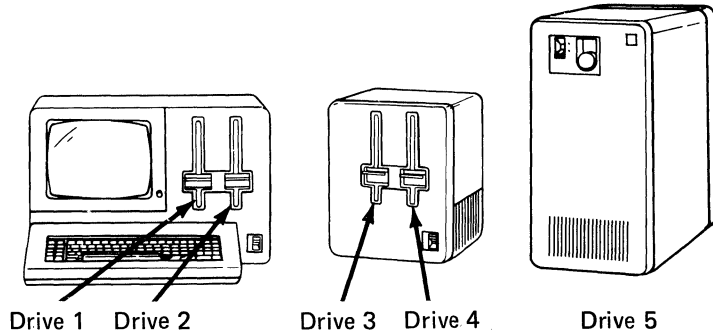
Cmd 9 Cancel
? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Input drive number



Type the number of the drive that contains the file or group of files to be copied. You do not have to enter this if you are going to enter the input VOLID.

Press: New Line key

COPY

COPY screens (continued)

Type: (Input VOLID)

Input VOLID

The VOLID is the name assigned to the disk volume or diskette you are copying from.

You do not have to type the input VOLID if you entered the input drive number, except in the following cases. You must type the input VOLID if you are using one diskette drive for your input and output, if you are using a 32K system, or if you enter a 5 for the input drive number.

Press: New Line key

Type: (Name of file,
group prefix and *,
or just *)

Press: New Line key

Input filename, group name, or *

To copy a single file, type the name of the file you want to copy.

To copy a group of files, type the prefix common to all filenames, followed by an asterisk (*). For example, if you have files named PAYPGM, PAYDAT, and PAYCHK on your disk volume or diskette, enter PAY* to copy all three.

To copy all the files in a disk volume or the entire diskette, type an * for the filename.

You must enter a filename, a group prefix and *, or just an *.

COPY

COPY screens (continued)

Type: 1, 2, 3, 4, or 5

Output drive number

Type the number of the drive the file or files will be copied to. You do not have to enter this if you are going to enter the output VOLID.

Press: New Line key

Type (Output VOLID)

Output VOLID

Type the name of the disk volume or diskette that will contain the copied file or files.

You do not have to type the output VOLID if you entered the output drive number, except in the following cases. You must type the output VOLID if you are using one diskette drive for your input and output, if you are using a 32K system, or if you enter a 5 for the output drive number.

Press: New line key

Type: (Name for copied file) or blank

|

Press: Enter key

Output filename

If you are copying only one file and want the copied file to have a different name, type the new name. If you want the copied file to have the same name as the input file, leave this field blank.

If you are copying a group of files or all the files, leave this field blank.

<i>If you are</i>	<i>Next screen</i>
Copying a single file	03-212
Copying a group of files	03-202
Copying all of the files	03-202

COPY

COPY screens (continued)

Screen 03-114

This screen is displayed after you enter the fields on screen 03-084.

Copy All Files Using Diskettes Only

03-114

Reserve output space based on:
1-Larger of file space or data
2-Data in input file
1

Copy deleted records
Y-Keep records in place
N-Remove deleted records
Y

Cmd 9 Cancel
? Help

Do this

Type: 1 or 2

Press: New Line key

Type: Y or N

Press: Enter key

Next screen: 03-124

Explanation

Reserve output space

Type 1 if you want to reserve at least as much space on the output diskette as was reserved for files on the input diskette.

Type 2 if you want to reserve only enough space required for the file.

Copy deleted records

Type Y to copy deleted records.

Type N if you do not want deleted records in the output files.

Note: If you type N and your input files contain records that have been deleted, the locations of records in the output files will change and some programs may not be able to find the right records.

You should type Y for this field unless you have been instructed to do otherwise.

COPY

COPY screens (continued)

Screens 03-123 and 03-124

<i>From screen</i>	<i>This screen</i>
03-083	03-123
03-114	03-124

Image Copy of Entire Diskette

03-123

Destroy information on output diskette

Y-OK to destroy all existing data

N-Do not destroy data

N

Cmd 9 Cancel
? Help

Do this

Type: Y or N

Press: Enter key

Explanation

Destroy information on output diskette

Type Y if you know that the information on the diskette you are copying to is no longer needed. If you type Y, all information on the output diskette will be erased.

Type N if you do not want to erase and destroy all information on the output diskette.

<i>From screen</i>	<i>Next screen</i>
03-123	03-183
03-124	03-184

COPY

COPY screens (continued)

Screen 03-135

This screen is displayed after you enter your selections on screen 03-085. If you are copying information from a diskette, insert the diskette into the diskette drive.

Copy Printer (Display) File to Printer

03-135

Input drive number
1

Optional when input
VOLID provided

Input VOLID

Required when
Drive Number is 5

Input filename or
group name or *

Required
* Means all files

Print display file on:
10-First printer
11-Second printer
10

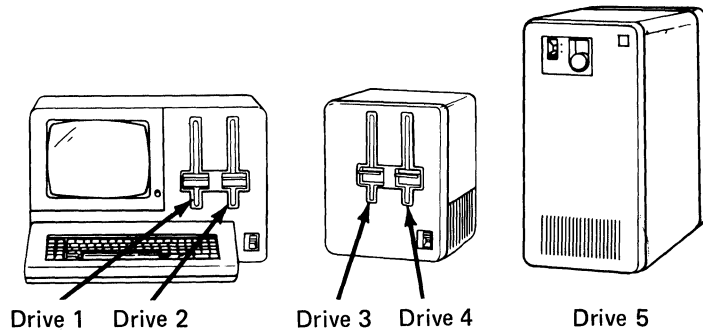
Cmd 9 Cancel
? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Input drive number



Type the number of the drive that contains the the file (or files) you want to print. You do not have to type this if you are going to type an input VOLID.

Press: New Line key

Type: (Input VOLID)

Input VOLID

Type the name (VOLID) of the disk volume or diskette with the file or files you want to print. You do not have to type this if you typed the input drive number, except in the following cases. Type the VOLID if you are using a 32K system, or if you typed a 5 for the input drive number.

COPY

COPY screens (continued)

Do this

Press: New Line key

Type: (Input filename,
group prefix and *,
or just *)

Explanation

Input filename, group name, or *

To print a single type 05 file, type the name of the file you want to print.

To print a group of type 05 files, type the prefix common to all file names, followed by an *. For example, if you have display files named PAYLIST, PAYCHK, and PAYSTMT on your disk volume or diskette, enter PAY* to print all three files.

To print all the files in a disk volume or an entire diskette, type an * for the input filename.

You must enter a filename, a group prefix and *, or just an *.

Press: New Line key

Type: 10 or 11

Print display file on

Type 10 to print the type 05 file or files on the first printer attached to the computer.

Type 11 to print the type 05 file or files on the second printer attached to the computer.

Hint: If you are also printing messages and you can use two printers, send the printed type 05 display files to one printer and the messages to the other printer.

Press: Enter key

<i>Next screen</i>	<i>If ...</i>
03-215	Printing a single file
03-205	Printing a group of files, or all files

COPY

COPY screens (continued)

Screens 03-142, 03-144, and 03-145

This screen is displayed to tell you that COPY has successfully completed. This screen shows you that one file was copied.

The same information is displayed on all three screens. Press the Enter key to see the menu.

Copy One File, Group of Files or All Files

03-142

Copy completed.

1 files copied.

Press Enter to return to menu

Next screen: 03-010

Screens 03-152, 03-154, and 03-155

This screen is displayed to tell you COPY stopped because an error was encountered. The number of files that were copied successfully will be displayed on this screen.

The same information is displayed on all three screens. Press Error Reset and then press Enter to see the menu.

Copy One File, Group of Files or All Files

03-152

Copy failed.

0 files copied.

Press Error Reset and then press Enter to return to menu

Next screen: 03-010

COPY

COPY screens (continued)

Screen 03-163

This screen is displayed after screen 03-213 to tell you that COPY has successfully made an image copy of your diskette.

Image Copy of Entire Diskette

03-163

Copy completed.

Press Enter to return to menu

Next screen: 03-010

Screen 03-173

This screen is displayed to tell you that COPY could not make the image copy you wanted. The screen is displayed after 03-213, the in-process screen.

Image Copy of Entire Diskette

03-173

Copy unsuccessful.

Press Error Reset and then press Enter to return to menu

Next screen: 03-010

COPY

COPY screens (continued)

Screens 03-183 and 03-184

<i>From screen</i>	<i>This screen</i>
03-123	03-183
03-124	03-184

The same information is displayed on both screens. Insert your input and output diskettes into the diskette drives.

Copy All Files Using Diskettes Only

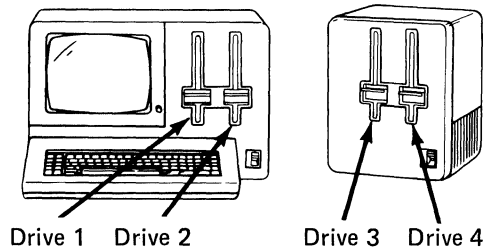
03-184

Input drive number -	Optional when input VOLID provided
Input VOLID _____	Optional when input drive provided
Output drive number -	Optional when output VOLID provided
Output VOLID _____	Optional when output drive provided

INSERT DISKETTES NOW.

Do this

Type: 1, 2, 3, or 4

Explanation**Input drive number**

Type the number of the diskette drive that contains the diskette you want to copy. You do not have to type this if you are going to type input VOLID.

Press: New Line key

Type: (Diskette VOLID)

Input VOLID

Type the name of the diskette (VOLID) you want to copy. You do not have to type this if you typed the input diskette drive number. Type the diskette VOLID if you are using:

- One diskette drive.
- A 32K system.

Press: new Line key

See the next page for the other fields on this screen.

COPY

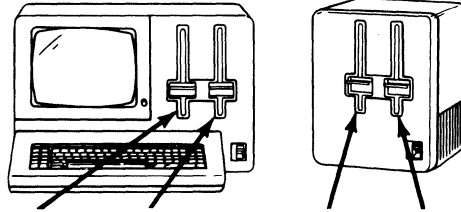
COPY screens (continued)

Do this

Type: 1, 2, 3, or 4

Explanation

Output drive number



Drive 1 Drive 2

Drive 3 Drive 4

Type the number of the diskette drive that contains the diskette you want to copy *to*. You do not have to type this if you are going to type output VOLID.

Press: New Line key

Type: (Diskette VOLID)

Output VOLID

Type the name of the diskette (VOLID) that will receive the information. You do not have to type this if you typed the output diskette drive number, unless you are using only one diskette drive or if you are using a 32K System/23.

Press: Enter key

<i>From screen</i>	<i>Next screen</i>
03-183	03-213
03-184	03-204

COPY

COPY screens (continued)

Screen 03-199

This screen is displayed to give you a chance to change an incorrect answer or to check over the entries in a procedure file. If you have an incorrect answer, the field in error is enclosed by a green box. If no errors were found or the field in error cannot be determined, the first field, CHOICE, is in the box. (You might also check your answer for CHOICE.)

Copy Diskette Procedure File

03-199

CHOICE	INDRVNO	REPLDISKINFO
MESSAGES	INVALID	DISPFILEPRTNO
2	TWELVE	10
PRINTER	INFILENAME	
10	*	
RESERVE	OUTDRVNO	
1	2	
DELREC	OUTVOLID	
Y		
SINGLEAREA	OUTFILENAME	
N		
REPLFILEINFO		
N		

Cmd 9 Cancel

Correcting an error on screen 03-199

- Step 1. Locate the field on your screen that is enclosed in a green box.
- Step 2. Use the information below to find the screen number that provides information about the field in error.
- Step 3. Look up that screen number in this section of this book and determine how to correct the error.
- Step 4. Press the Error Reset key.
- Step 5. Type the correction. The cursor is already positioned at the error.
- Step 6. Press the Enter key to continue.

COPY

COPY screens (continued)

Field name	Refer to screen	Screen field name
CHOICE	03-010	Menu choice
MESSAGES	03-082	Information and messages
PRINTER	03-082	Printer number for information and messages
RESERVE	03-092	Reserve output space
DELREC	03-092	Copy deleted records
SINGLEAREA	03-092	Copy files into single area
REPLFILEINFO	03-092	Replace information
INDRVNO	03-102	Input drive number
INVALID	03-102	Input VOLID
INFILENAME	03-102	Input filename
OUTDRVNO	03-102	Output drive number
OUTVOLID	03-102	Output VOLID
OUTFILENAME	03-102	Output filename
REPLDISKINFO	03-123	Destroy information
DISPFILEPRTNO	03-135	Print display file on the printer designated by the keyword

Running COPY from a procedure file

This chart shows the keywords that can be in a procedure file to run COPY. Read "Using a procedure file" in Chapter 1 of Volume II if you want more information on how to build or use procedure files.

Keyword	Values	Purposes	Notes	Refer to screen
*CHOICE=	2, 3, 4 or 5	Indicates kind of copy: 2=copy one file, group of files, or all files 3=image copy of entire diskette 4=copy all files using diskettes only 5=display file to print	Required	03-010
MESSAGES=	1, 2, or 3	Indicates where messages are to go: 1=screen only 2=screen and printer 3=printer only	If not used, 2 is assumed.	03-082 03-083 03-084 03-085
PRINTER=	10 or 11	Indicates which printer: 10=system printer 11=alternate printer	If not used, 10 is assumed.	03-082 03-083 03-084 03-085

*means keyword is required

COPY

COPY screens (continued)

Keyword	Values	Purposes	Notes	Refer to screen
INDRVNO=	1, 2, 3, 4, or 5	Indicates which drive to copy from	Optional if INVALID= is included. Value 5 can be used when CHOICE=2 or 5 only.	03-102 03-135 03-183 03-084
INVALID=	Volume name	Indicates name of disk volume or diskette to copy from	Optional if INDRVNO= is included. Required if INDRVNO=5	03-102 03-135 03-183 03-184
INFILENAME=	Filename, file group name, or *	Name of file, file group name (prefix and *), or * (all files)	Required if CHOICE=2 or 5	03-102 03-135
OUTDRVNO=	1, 2, 3, 4, or 5	Indicates which drive to copy to	Optional if OUTVOLID= is included	03-102 03-183 03-184
OUTVOLID=	Volume name	Indicates name of disk volume or diskette to copy to	Optional if OUTDRVNO= is included. Required if OUTDRVNO=5	03-102 03-183 03-184

Keyword	Values	Purposes	Notes	Refer to screen
OUTFILENAME=	Blank or filename	Indicates if copied file gets same or different filename as input file: blank=use same filename: filename=name copied file gets	Use only if CHOICE=2 and input filename is a single file	03-102
RESERVE=	1 or 2	Indicates method of reserving space for copies: 1=at least as much space as originally reserved 2=only what is needed to hold information	Use only if CHOICE=2 or 4	03-092 03-114
DELREC=	Y or N	Indicates whether deleted records should be copied: Y=yes, copy N=no, remove	Use only if CHOICE=2 or 4	03-092 03-114

COPY

COPY screens (continued)

Keyword	Values	Purposes	Notes	Refer to screen
SINGLEAREA=	Y or N	Indicates whether continuous space is needed: Y=yes N=no, fit into available space	Use only if CHOICE=2	03-092
REPLFILEINFO=	Y or N	Indicates whether to write over file on output disk volume or diskette: Y=yes, data not needed N=no, save data	Use only if CHOICE=2	03-092
REPLDISKINFO=	Y or N	Indicates if data on output disk volume or diskette can be replaced: Y=yes, replace data N=no, do not replace	Must be used if disk volume or diskette already contains data. Use only if CHOICE=3 or 4	03-123 03-124
DISPFILEPRTNO=	10 or 11	Indicates printer to copy display file to: 10=system printer 11=alternate printer	Use only if CHOICE=5	03-135

COPY procedure file example

This example shows a procedure file that copies a group of files and then copies a display file to the alternate printer.

```
LINK COPY
CHOICE=2
INDRVNO=1
OUTDRVNO=2
INFILENAME=TAX*
REPLFILEINFO=Y           Make sure output files
CONT                     are replaced
CHOICE=5
INDRVNO=1
INFILENAME=TAX8ORTN
DISPFILEPRTNO=11       Copy to alternate printer
ENDLINK
```

For the first cycle, all files that have names that start with TAX on the diskette in drive 1 are copied to the diskette in drive 2. The new copies replace any files with these names on the diskette in drive 2. The display file TAX8ORTN is copied to the alternate printer during the second cycle. Messages will be displayed and printed on printer 10 for both cycles, since we did not include the MESSAGES= or PRINTER= keywords.

COPY

COPY screens (continued)

Screens 03-202, 03-204, 03-205

<i>From screen</i>	<i>This screen</i>
03-102	03-202
03-184	03-204
03-135	03-205

All screens show similar information.

Copy One File, Group of Files or All Files

03-202

These screens are displayed when a group of files or all files on a disk volume or diskette are being copied or printed. One line is displayed after COPY finishes copying each file.

One line, such as:

File copied-ITEM.MASTER

is displayed after the file ITEM.MASTER has been copied.

Screen 03-202 is a scroll-up screen, which means that new lines are displayed at the bottom and move up as new lines appear.

<i>From screen</i>	<i>Next screen if all files copied</i>	<i>Next screen if some files not copied</i>
03-102	03-142	03-152
03-184	03-144	03-154
03-135	03-145	03-155

Chapter 4. LABEL

What LABEL does

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), LABEL is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

LABEL displays and prints diskette label information that is required by the Recover Diskette Customer Support Function. (The LABEL Customer Support Function cannot be used for files on the disk. To recover label information for disk files, see DISK.RECOVER in *Customer Support Functions*, Volume II, binder 6.)

The types of labels that you can display and print using LABEL are:

- **Volume label.** This label gives you information about the diskette, such as the diskette name (VOLID), diskette type (1, 2, or 2D) and the diskette format (System/23 format, Basic Exchange, or H-Exchange).
- **Error map label.** This label tells you information about defective cylinders that a diskette may contain.
- **File label.** This label tells you about the files on the diskette. Each file on the diskette has a label associated with it that gives information about the file such as its name, location, and size.

You can display any or all of the above types of labels by indicating your choices on the menu.

If you do not have a printer, you should write down the information *exactly* as it appears on the screens from LABEL.

Do not worry if you do not understand some of the information displayed and/or printed by LABEL. This information will be used only if you have to run RECOVER to recover labels contained on a defective diskette. If you want to know what this information means, refer to Appendix B in *Customer Support Functions*, Volume II, for an explanation.

LABEL

Why and when to use LABEL

Use LABEL:

- After you prepare a diskette. Select "Display all labels" and keep the volume label and error map label information.
- After you start a new file or make major additions to an existing file. Select "Display file labels" for the new or changed file. Or you can select "Display all labels" to have all information printed together and to make sure that you have a current copy of labels for all the files.
- When you get a diskette from somebody else. Keep a copy of this label information like you would for your own diskette, in case you have to use RECOVER.

Remember to save this information so that you can locate it if you need it. Use the DATE command to include the date in the LABEL information. The *BASIC Language Reference* will tell you how to use the DATE command.

Groups of files

Often it is handy to copy or display the labels of a number of files at one time, without having to name them one by one. You do this by giving filenames that all start with the same letters (or numbers) to files that are related. Then you can refer to a group of files by using the common prefix and *. For example, suppose you have these files on a diskette:

```
SALES
TAXPROG
TAX78DAT
TAX78RTN
TAX79DAT
TAX79RTN
TAX80DAT
TAX80RTN
```

If you ask LABEL to display the labels for the file group whose filenames begin with TAX, the labels of all files except the first file would be displayed.

If you asked for TAX79*, you would see the labels for TAX79DAT and TAX79RTN.

LABEL and COPY both let you use groups of files.

LABEL

Freed files

Sometimes LABEL displays this message for a file:

THIS LABEL IS FOR A FREED FILE.

This means that at some time a FREE command with this filename was issued. After the FREE command, the space reserved for this file is available for other files. The label information shows the status of the file just before it was freed. It does not show if another file is now using this space.

However, you may still be able to save the information in this file by using RECOVER. This may be useful if a file accidentally gets freed and you can run LABEL and then RECOVER before another file is written in this space.

Running LABEL

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), LABEL is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

To start LABEL do the following:

1. Insert the Customer Support Functions diskette that contains LABEL in any diskette drive.
2. Type: LINK LABEL
3. Press: Enter key

You can insert the diskette with labels to be displayed as soon as the menu is displayed.

After you make your choices on the screens, the first label is displayed. The next label is displayed after you press the Enter key, and so on. When all the labels you requested have been displayed, you are shown a completion screen. Then you can either run LABEL again or return to the system.

LABEL

Hints and considerations

Remember these things about LABEL:

- Before running LABEL, use the DATE command to enter the day's date; then the correct date is displayed or printed with the label information. See the *Operator Reference* for details on the DATE command.
- You need the information from LABEL to run RECOVER, so:
 - Run LABEL for volume and error map labels right after you prepare a diskette (using PREPARE).
 - Run LABEL for a file after you make a major change to a file.
 - Keep all your label information together in a place where you can find it if you need to run RECOVER.
- Labels on an access-protected diskette cannot be displayed. (Access-protected means that your computer cannot read from the diskette nor can the computer write to the diskette.) An error occurs if you try to run LABEL for an access-protected diskette.
- You need information from LABEL to recover a freed file.
- If you are displaying, or displaying and printing, you must press Enter after each label is displayed in order to display the next label. However, if you are only printing, printing will be continuous. For this reason, if you are running from a procedure file with MODE=U, MESSAGES= must be 3 (see screen 07-053).

-
- In unattended mode (MODE=U), any error will end LABEL.
 - If a read error occurs when LABEL is reading a volume or error map label, an unsuccessful completion screen is displayed, and further processing of that diskette's labels stops.
 - If a read error occurs on a file label, LABEL presents an error screen for that file label. If you are displaying or displaying and printing, you can press Enter to continue or Cmd 9 to return to the LABEL menu. If file labels are being printed only, LABEL continues; it tries to print all file labels that you have requested and then displays an unsuccessful completion screen.

LABEL

Before you begin

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), LABEL is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

You need these items before you start LABEL:

- The LABEL Customer Support Function
- The diskette with labels to be displayed.
- The name of the file, if you are displaying the label of one file.
- The group prefix, if you are displaying the labels of a group of files that have common or related names such as PAYPGM, PAYDAT, and PAYCHK.

Starting LABEL

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), LABEL is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

To start LABEL:

1. Insert the Customer Support Functions diskette which contains LABEL into any diskette drive.
2. Type LINK LABEL.
3. Press the Enter key.

After LABEL is started, you see a menu on the computer screen for you to select what you want to do.

LABEL

How to use LABEL to . . .

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), LABEL is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Print all diskette labels

If you need to run RECOVER, you should have printed all diskette labels *before* RECOVER is needed. Assume that you want to use LABEL to print all the labels from a diskette that you will insert into diskette drive 1. To do this, follow these steps.

1. Insert the Customer Support Functions diskette that contains LABEL into diskette drive 1.
2. Enter: LINK LABEL

Next screen: 07-010

3. On screen 07-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 07-042

4. Remove the Customer Support Functions diskette.
5. Insert the diskette with the labels you want to print into diskette drive 1.

-
6. On screen 07-042,
 - a. Type: 3
 - b. Press: New Line key **twice**
 - c. Type: 1
 - d. Press: Enter key
 7. The error map label, volume label, and all file labels on your diskette will be printed continuously.
 8. Do not remove your diskette until you see a completion screen, screen 07-132, 07-152 or 07-172.

Follow the instructions on the screen:

- a. Press: Enter key
- or
- a. Press: Error Reset key
 - b. Press: Enter key

Next screen: 07-010

9. On screen 07-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

LABEL

How to use LABEL to . . . (continued)

What if you want to display and print all labels?. If you want to see the labels on your screen while they are being printed, change this step:

6. On screen 07-042
 - a. Type: 2
 - b. Press: New Line Key twice
 - c. Type: 1
 - d. Press: Enter key
7. Screens will be displayed for each label and the label will be printed. After each screen,
 - a. Press: Enter key

The next label will be displayed and printed.

Next screen: 07-062, 07-072, 07-082, 07-202

or

Next screen: 07-062, 07-072, 07-092

If your diskette is in System/23 format, you will see the first set of screens. If your diskette is in Basic Exchange or H-Exchange format, you will see the second set of screens.

LABEL screens

You may not understand some of the information that LABEL displays or prints. Do not worry. This information will be used by RECOVER to recover labels contained on a damaged diskette. If you want to know the meaning of this information, refer to Appendix B of *Customer Support Functions*, Volume II, for an explanation.

LABEL

LABEL screens (continued)

Menu screen 07-010

This screen is displayed after you type LINK LABEL and press the Enter key.

Display Diskette Labels Menu

07-010

Choose one of the following:

1. Description of Display Diskette Labels
2. Display all labels
3. Display file labels
4. Display volume label
5. Display error map label

9. End Diskette Labels

Choice

-

Do this

Type: 1,2,3,4,5, or 9

Explanation

Type 1 for a description of LABEL

Type 2 to display all labels.

Type 3 to display only file labels.

Type 4 to display only the volume label.

Type 5 to display only the error map label.

Type 9 to end LABEL and return the computer to the READY INPUT status.

Press: Enter key

<i>If you type</i>	<i>Next screen</i>
1	07-021
2	07-042
3	07-053
4	07-044
5	07-045
9	READY INPUT status

LABEL

LABEL screens (continued)

Screens 07-042, 07-044, and 07-045

<i>Choice on menu</i>	<i>This screen</i>
2	07-042
4	07-044
5	07-045

Only screen 07-042 is shown here. The same information (except for the title and screen number) is displayed on the other screens.

Display All Labels

07-042

Information and messages to:

- 1-Screen only
- 2-Screen and printer
- 3-Printer only
- 2

Printer number

- 10-First printer
- 11-Second printer
- 10

Required when
printer used

Drive number

-

Optional when
VOLID provided

VOLID

Optional when
drive provided

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: New Line key

Explanation**Information and messages**

Type 1 to display the labels and messages on the screen.

Type 2 to display and print all labels and messages.

Type 3 to print all labels and messages.

Printer number

Type 10 to print labels and messages on the first printer attached to the computer.

Type 11 to print labels and messages on the second printer attached to the computer.

LABEL

LABEL screens (continued)

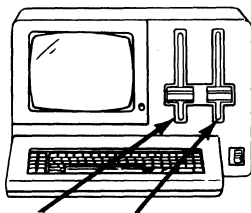
Do this

Type: 1, 2, 3, or 4

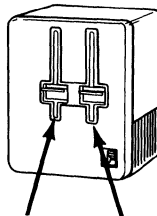
Press: New Line key

Explanation

Drive number



Drive 1 Drive 2



Drive 3 Drive 4

Type the number of the diskette drive that contains the diskette labels that you want displayed. You don't have to type the diskette drive number if you are going to type the VOLID.

Type: (Diskette VOLID)

VOLID

Insert your diskette into a diskette drive. Type the name of the diskette that contains the labels that you want to display. You do not have to type the VOLID if you already typed the diskette drive number.

Press: Enter key

<i>From screen</i>	<i>Next screen</i>
07-042	07-062
07-044	07-074
07-045	07-065

LABEL

LABEL screens (continued)

Screen 07-053

This screen is displayed when you select option 3 on the menu.

Display File Labels

07-053

Information and messages to:

- 1-Screen only
- 2-Screen and printer
- 3-Printer only
- 2

Printer number

- 10-First printer
- 11-Second printer
- 10

Required when
printer used

Drive number

-

Optional when
VOLID provided

VOLID

Optional when
drive provided

Filename

More information
provided in help

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: New Line key

Explanation

Information and messages

Type 1 to display the file labels and messages on the screen.

Type 2 to display and print the file labels and messages.

Type 3 to print the file labels and messages on the printer.

Printer number

Type 10 to print labels and messages on the first printer attached to the computer.

Type 11 to print labels and messages on the second printer attached to the computer.

The remaining fields are discussed on the following pages.

LABEL

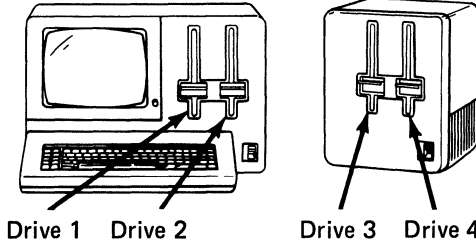
LABEL screens (continued)

Do this

Type: 1, 2, 3, or 4

Explanation

Drive number



Insert your diskette into a diskette drive.

Type the number of the diskette drive that contains the diskette with file labels to be displayed or printed. You do not have to type the diskette drive number if you are going to type the VOLID.

Press: New Line key

Type: (Diskette VOLID)

VOLID

Type the name of the diskette with file labels to be displayed or printed. You do not have to type the VOLID if you already typed the diskette drive number.

Press: New Line key

The remaining field is discussed on the next page.

Do this

Type: (See explanation)

Explanation

Filename

If you only want to display the label of one file, type the name of that file in the Filename field.

If you want to display the labels of all the files on the diskette, leave the field blank.

If you want to display the labels of a group of files, type the common prefix of the files followed by an *.

For example, if you have a diskette and want to display the labels of all files that begin with PAY, you would type PAY*.

Files on diskette

File labels displayed using PAY*

PAYROLL
PERSONNL
PAY1
PAY.MASTER
JOBCLASS

PAYROLL
PAY1
PAY.MASTER

Press: Enter key

Next screen: 07-083

LABEL

LABEL screens (continued)

Screens 07-062 and 07-065

<i>From screen</i>	<i>This screen</i>
07-042	07-062
07-045	07-065

These screens display the diskette error map label information. Only screen 07-062 is shown below. The same information is displayed on screen 07-065.

Display All Labels

07-062

VOLID ZDSK13 Date 80/11/20
Error map label information for Recover Diskette:

DEFCL1

DEFCL2

CRCNUM B2F9

Press Enter to continue

Cmd 9 Cancel

Screens 07-072 and 07-074

<i>From screen</i>	<i>This screen</i>
07-062	07-072
07-044	07-074

These screens display the diskette volume label information. Only screen 07-072 is shown below. The same information is displayed on screen 07-074.

Display All Labels

07-072

VOLID ZDSK13 Date 80/11/20
Volume label information for Recover Diskette:

VOLID ZDSK13

OWNERID TEGART

VOLSRF 2

PHYRLN 2

CRCNUM 02C7

Press Enter to continue

Cmd 9 Cancel

LABEL

LABEL screens (continued)

Screens 07-082 and 07-083

<i>From screen</i>	<i>This screen</i>	<i>Next screen</i>
07-072 or 07-202	07-082	07-202 or Completion screen
07-053 or 07-203	07-083	07-203 or Completion screen

These screens display the diskette file label information for System/23 format files and may display one of the following messages above the Press Enter line:

This label is for a freed file.
or
This file has a duplicate label.

Only screen 07-082 is shown. The same information is displayed on the other screen.

Display All Labels

07-082

VOLID ZDSK13 Date 80/11/20 Filename DSPFILE
File label information for Recover Diskette

RCDTYP	02	PRVCNT	000004	FILTYP	05
RCDLNG	0000	KFBCNT	000000	WRTPRT	00
RDCDNT	000004	KEYLNG	00	KEYPOS	0000
INITBK	0008	DUPFLN	0000	DATECR	000000
DATEUP	000000	NUMXNT	01	CRCNUM	CFA4

Press Enter to continue

Cmd 9 Cancel

LABEL

LABEL screens (continued)

Screens 07-092 and 07-093

<i>From screen</i>	<i>This screen</i>	<i>Next screen</i>
07-072	07-092 07-082 07-053 07-093	07-292 or Completion screen 07-093 or Completion screen

These screens display the file label information for a Basic Exchange or an H-Exchange format file and may display the following message above the Press Enter line:

This label is for a freed file.

Only screen 07-092 is shown. The same information is displayed on the other screens.

Display All Labels

07-092

VOLID ZDSK13 Date 80/11/20 Filename TEST2
File label information for Recover Diskette

BLKLNG 128 EOE 02022

BOE 01025 WRTprt

PHYRLN XCHGTP

EOD 02021 CRCNUM A60A

Press Enter to continue

Cmd 9 Cancel

LABEL

LABEL screens (continued)

Screens 07-182 and 07-183

<i>Choice on menu</i>	<i>This screen</i>
2	07-182
3	07-183

These screens tell you that a file label cannot be read.

Refer to the *Keyboard Aid* or the *System Messages* book to find the meaning of the action and error codes.

Only screen 07-182 is shown. The same information is displayed on the other screen.

Display All Labels

07-182

A file label cannot be read.
Action code/error code

96/6006

Press Enter to continue

Cmd 9 Cancel

LABEL

LABEL screens (continued)

Screens 07-192, 07-193, 07-194, and 07-195

One of these screens is displayed if the diskette is *access-protected*. Access-protected means that your computer cannot read from the diskette nor can the computer write to the diskette. If you want to remove the access-protection from the diskette, refer to *BASIC Language Reference* or *Operator Reference* for instructions about how to do this.

Display All Labels

07-192

VOLID ACCPRT

This diskette is access-protected. Reading
is not allowed.

Press Error Reset and then press Enter to return to menu

Follow the directions on the screen to return to the menu. If you want to display the labels on this diskette, you must end LABEL and use the VOLID command to let the diskette be accessed.

Next screen: 07-010

LABEL

LABEL screens (continued)

Screens 07-202 and 07-203

<i>From screen</i>	<i>This screen</i>	<i>Next screen</i>
07-082	07-202	07-082 or Completion screen
07-083	07-203	07-083 or Completion screen

These screens display the file label extent information for a System/23 file. An *extent* is a space on a diskette that is occupied by a file.

```
Display All Labels                                07-202
VOLID  ZDSK13      Date 80/11/20      Filename  DSPFILE
LABEL EXTENT information for Recover Diskette
F66F 002C0008
```

Press Enter to continue

Cmd 9 Cancel

Screen 07-219

This screen is displayed to give you a chance to correct any incorrect answers or to check the entries in a procedure file that is running LABEL. If you have an incorrect answer, the field in error is enclosed by a green box. If no errors were found, or if the field in error cannot be determined, the first field, CHOICE, is in the green box. (You should also check your answer for CHOICE.)

Display Diskette Labels Procedure File

07-219

CHOICE

MESSAGES

2

PRINTER

10

DRVNO

VOLID

FILENAME

Cmd 9 Cancel

LABEL

LABEL screens (continued)

Correcting an error on screen 07-219

- Step 1. Locate the information on your screen that is enclosed by a green box.
- Step 2. Use the following information to find the screen number that provides information about the field in error.
- Step 3. Look up that screen in this section of this book and determine how to correct the error.
- Step 4. Press the Error Reset key.
- Step 5. Type the correction. The cursor is already positioned at the error.
- Step 6. Press the Enter key to continue.

Field name	Refer to screen	Screen field name
CHOICE	07-010	Menu choice
MESSAGES	07-053	Information and messages
PRINTER	07-053	Printer number
DRVNO	07-053	Drive number
VOLID	07-053	VOLID
FILENAME	07-053	Filename

Running LABEL from a procedure file

The following table shows the keywords that you can use in a LABEL procedure file, what values the keywords can have, what their purpose is, notes about their usage, and a reference to the screen (or screens) you would use to enter this value if you were *not* using a procedure file. The first statement in your procedure file must be LINK LABEL.

Read "Using a procedure file" in Chapter 1 of *Customer Support Functions, Volume II*, if you want more information on how to build or use procedure files.

LABEL

LABEL screens (continued)

Keyword	Values	Purpose	Notes	Refer to screen
*CHOICE=	2, 3, 4, or 5	Indicates which labels: 2=all labels 3=file labels 4=volume label 5=error map label		07-010
MESSAGES=	1, 2, or 3	Indicates where labels are to go: 1=screen only 2=screen and printer 3=printer only	If this keyword is not used, labels are displayed and printed	07-042 07-044 07-045 07-053
PRINTER=	10 or 11	Indicates which printer: 10=system printer 11=alternate printer		07-042 07-044 07-045 07-053

* means keyword is required.

Keyword	Values	Purpose	Notes	Refer to screen
DRVNO=	1, 2, 3, or 4	Indicates which drive diskette with labels is in	Optional if VOLID= is included	07-042 07-044 07-045 07-053
VOLID=	Volume name	Indicates name of diskette with labels to be displayed	Optional if DRVNO= is included	07-042 07-044 07-045 07-053
FILNME=	Blank, filename or file group name	Indicates which file labels should be displayed: blank=all files filename=one file file group name=prefix and * for a group of files	If keyword is not included, all file labels are displayed	07-053

LABEL

LABEL screens (continued)

Procedure file example

The following example shows a procedure file that prints the volume label, error map label, and two groups of file labels:

```
LINK LABEL
CHOICE=4           To display the volume label
MESSAGES=3
DRVNO=3
CONT              Ends first cycle (display volume
                  label)
CHOICE=5           To display the error map label
MESSAGES=3
DRVNO=3
CONT
CHOICE=3           To display first group of file labels
MESSAGES=3
DRVNO=2
FILENAME=TAX7*    Group of all tax files for the 70's
CONT
CHOICE=3           To display second group of file
labels
MESSAGES=3
DRVNO=2
FILENAME=TAX8*    All files whose names start with TAX8
ENDLINK
```

Note the use of the CONT statement to end each cycle except the last. The group names are some of the names in the example in "Groups of files"

If there are not too many files on this diskette, it might be easier to display all labels. In this case, use CHOICE=2 and just run one cycle.

Chapter 5. RECOVER (Diskette)

What RECOVER does

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), RECOVER is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

RECOVER is used to reconstruct information:

- From a diskette or a diskette file that cannot be read because the diskette has been damaged.
- From a diskette file that cannot be read because it was accidentally dropped or freed.

Note: Use RECOVER for *diskette* files only. Use DISK.RECOVER to recover disk files.

If the computer cannot read your files or diskette because the diskette has been damaged—scratched, soiled, warped, worn out, or exposed to a magnet—look up RECOVER in *Customer Support Functions*, Volume II, for information about what you should do. Better still, make sure that you back up all of your important files and diskettes often. Then you have your information available without using RECOVER.

This chapter discusses how to use RECOVER if a System/23 format file was accidentally dropped or freed. A file is dropped or freed by an operator; that is, someone used the DROP or FREE command with the *wrong filename* or at the *wrong time*. For detailed information about DROP and FREE see *Operator Reference*.

If a file has been accidentally *dropped*, the file is still on the original diskette, just as it was at the time the DROP command was given; however, the file label for the file indicates that nothing is contained in the file. In this case, RECOVER changes the file's label to show that the information really is still in the file.

RECOVER (Diskette)

What RECOVER does (continued)

When a file is *freed*, the computer makes the diskette space that the file uses available for use by another file. If you want to recover a file that has accidentally been freed, you must do it *before* other information has been written over the information contained in the accidentally freed file. When recovering a freed file, RECOVER makes a copy of the file on the output diskette.

This chapter about RECOVER tells you how to start RECOVER and provides step-by-step instructions to help you recover an accidentally dropped or freed System/23 format file. Only the screens that are displayed while recovering these files are included in this book. See *Customer Support Functions*, Volume II, to see the other RECOVER screens.

Why and when to use RECOVER

You need to run RECOVER as soon as you realize that a file has been accidentally dropped or freed. You would know this if you entered the command yourself.

If you have just dropped or freed a file and nothing has been done to change any of the files on that diskette, reconstruct the file as indicated by the examples in this book. But, if any files on the diskette have been changed since the file was dropped/freed, or you are not sure if they have been changed, refer to the chapter on RECOVER in *Customer Support Functions, Volume II*, for additional information. You can still recover the file, but a part of the file may be destroyed. Volume II will tell you what you need to know to recover the file. You can recover only one dropped or freed file at a time, so you will have to run RECOVER again if you need to recover more than one file.

You will also need to run RECOVER if the System/23 reports errors when it tries to read a diskette or a file (these are called *read errors*). See *Customer Support Functions, Volume II*.

RECOVER (Diskette)

Before you begin

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), RECOVER is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

To run RECOVER you need:

- The Recover Diskette Customer Support Function
- The diskette that has the dropped or freed file on it.
- The filename of the dropped or freed file.

If you are recovering a freed file, you need another diskette that can be used to hold the copy.

You will *not* need output from LABEL for the parts of RECOVER that are shown in this book.

Starting RECOVER

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), RECOVER is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

To start RECOVER:

1. Insert the Customer Support Functions diskette with RECOVER on it into any diskette drive.
2. Type: LINK RECOVER
3. Press: Enter key

After RECOVER is started, you see a menu on the computer screen for you to select what you want to do.

RECOVER (Diskette)

How to use RECOVER to

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), RECOVER is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Recover a dropped System/23 file

Suppose you have discovered that a file named STYLES83 was *dropped* by accident. Assume that you can use drive 1 and your printer for RECOVER. If you are using a diskette that contains different filenames from those used in this example, you should substitute the name of your dropped file for STYLES83 throughout this example. Look for messages that concern your dropped file on the status line. To recover STYLES83 follow these steps:

1. Insert the Customer Support Functions diskette with RECOVER on it into diskette drive 1.
2. Enter: LINK RECOVER

Next screen: 08-010

3. On screen 08-010,
 - a. Type: 4
 - b. Press: Enter key

Next screen: 08-334

-
4. On screen 08-334,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 08-064

5. Remove the Customer Support Functions diskette from drive 1.
6. Insert the diskette with STYLES83 (or your dropped file) on it into drive 1.
7. On screen 08-064,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 08-184

8. On screen 08-184,
 - a. Type: STYLES83 (or the name of your dropped file)
 - b. Press: Enter key

Next screen: 08-194

RECOVER (Diskette)

How to use RECOVER to (continued)

9. On screen 08-194,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 08-214

10. On screen 08-214,
 - a. Type: the number displayed to the right of the word "Previous"
 - b. Press: Enter key

Next screen: 08-264 or 08-274

11. Follow the directions on the completion screen:
 - a. Press: Enter key

or

 - a. Press: Error Reset key
 - b. Press: Enter key

Next screen: 08-010

-
12. On screen 08-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

13. Remove the diskette with STYLES83 (or your dropped file) on it. If you saw the "successful completion" screen, 08-264, you can use STYLES83 (or your previously dropped file) again.

If you saw the "unsuccessful completion screen," you need to use the error and action codes to figure out what went wrong and what you should do. Look in your *System Messages* book.

RECOVER (Diskette)

How to use RECOVER to (continued)

Note: If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), RECOVER is on diskette VOL001.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Recover a freed System/23 file

Assume you have just freed a System/23 file named FILE1. To successfully recover the file, you must follow these steps *immediately* after freeing the file. If you have used the diskette before running RECOVER, the information in the file might have been destroyed. *Customer Support Functions, Volume II*, contains additional information about using RECOVER for situations like this.

Before you start RECOVER, get another diskette to which RECOVER can copy your freed file (FILE1, in this example). Assume that this diskette has a VOLID which is CUSTM1. For this example, assume we can use diskette drives 1 and 2, but do not want to use the printer.

1. Insert the Customer Support Functions diskette which contains RECOVER on it into diskette drive 1.
2. Enter: LINK RECOVER

Next screen: 08-010

-
3. On screen 08-010,
 - a. Type: 4
 - b. Press: Enter key

Next screen: 08-334

4. On screen 08-334,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 08-064

This screen requires that you specify the number of the drive that contains the input diskette—the diskette that contains the dropped or freed file.

5. Insert the diskette with FILE1 (or your freed file), into drive 2.

RECOVER (Diskette)

How to use RECOVER to (continued)

6. On screen 08-064,
 - a. Type: 2
 - b. Press: New Line key
 - c. Type: CUSTM1 (or the name of the diskette that contains your freed file)
 - d. Press: Enter key

Next screen: 08-184

7. On screen 08-184,
 - a. Type: FILE1 (or the name of the freed file you want to recover)
 - b. Press: Enter key

Next screen: 08-194

-
8. On screen 08-194,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 08-244

This screen warns you that the data in the file may not be good even though none of the sectors in the file are currently allocated to another file. Because you are recovering this file immediately after you freed it, you know that the data is still all right.

9. On screen 08-244,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 08-294

This screen requires that you specify the number of the diskette drive that contains the output diskette—the diskette that is to hold the copy of the freed file.

10. Remove the Customer Support Functions diskette from diskette drive 1.
11. Insert the diskette that can hold the copy of the freed file into diskette drive 1.

RECOVER (Diskette)

How to use RECOVER to (continued)

12. On screen 08-294,
 - a. Type: 1
 - b. Press: New Line key *twice*
 - c. Type: FILE1.COPY (or the name you want to assign to the output file)
 - d. Press: Enter key

Next screen: 08-264 or 08-274

13. Follow the directions on the completion screen—
 - a. Press: Enter key
 - or
 - b. Press: Error Reset key
 - c. Press: Enter key

Next screen: 08-010

14. On screen 08-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

-
15. Remove your diskettes. You may want to use the copy of your freed file, FILE1.COPY (or your output file), to see if it contains the same information as FILE1 (or your input file) did before it was freed.

If the copy is all right, you may then want to change its name back to your file's original name. For example:

```
RENAME FILE1.COPY,FILE1
```

RECOVER (Diskette)

RECOVER screens

Menu screen 08-010

This screen is displayed after you type LINK RECOVER.

Recover Diskette Menu

08-010

Choose one of the following:

1. Description of Recover Diskette
2. Recover labels
3. Recover a file
4. Recover a dropped or freed file

9. End Recover Diskette

Choice

-

Do this

Type: 1, 2, 3, 4, or 9

Press: Enter key

Explanation

Type 1 for a description of RECOVER.

Type 2 to recover diskette *label* information.

Type 3 to recover diskette *file* information.

Type 4 to recover a dropped or freed file.

Type 9 to end RECOVER and return the computer to the READY INPUT status.

<i>If you type</i>	<i>Next screen</i>
1	08-021
2	08-332
3	08-283
4	08-334
9	READY INPUT status

RECOVER (Diskette)

RECOVER screens (continued)

Screen 08-064

This screen is displayed after screen 08-334 and is used to describe the diskette that contains the dropped or freed file.

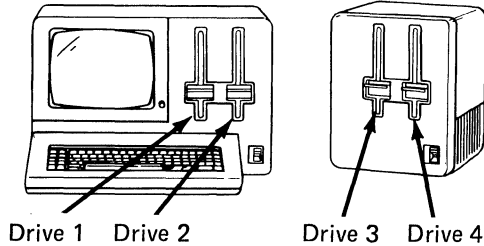
Recover a Dropped or Freed File		08-064
Drive number	Optional when	
-	VOLID provided	
VOLID	Optional when	
_____	drive provided	
		Cmd 9 Cancel
		? Help

Do this

Type: 1, 2, 3, or 4

Explanation

Drive number



Insert the diskette that contains the dropped or freed file. Type the number of the drive that contains the diskette. You do not have to type this if you are going to type VOLID.

Press: New Line key

Type: (Diskette VOLID)

VOLID

Type the name of the diskette with the dropped or freed file. You do not have to type this if you typed drive number.

Press: Enter key

Next screen: 08-184

RECOVER (Diskette)

RECOVER screens (continued)

Screen 08-184

This screen is displayed after screen 08-064. Use it to tell RECOVER the name of the dropped or freed file.

Recover a Dropped or Freed File

08-184

If you want to recover a file that has been
DROPPed or FREEd type in:

Filename

Cmd 9 Cancel
? Help

Do this

Type: (Filename)

Press: Enter key

Next screen: 08-194

Explanation

Filename

Type the name of the dropped or freed file.

RECOVER (Diskette)

RECOVER screens (continued)

Screen 08-194

This screen is displayed after you enter the name of dropped or freed file on screen 08-184.

Recover a Dropped or Freed File

08-194

Choose one of the following:

1. Recover a DROPPed file
2. Recover a FREEd file

9. Return to main menu

Choice

-

Do this

Type: 1, 2, or 9



Press: Enter key

Explanation

Type 1 for a description of RECOVER.

Type 2 to recover a freed file.

Type 9 to return to the main menu screen.

<i>If you type</i>	<i>Next screen</i>
1	08-214
2	08-244 or 08-224
9	Menu screen

RECOVER (Diskette)

RECOVER screens (continued)

Screen 08-214

This screen is displayed if you type 1 on screen 08-194, that is, if you are recovering a dropped file.

Recover a Dropped or Freed File

08-214

Total record count

Current	0
Previous	78
Maximum	80

Type the value desired for the total record count.

New total record count

Cmd 9 Cancel
? Help

Do this

Type: (See explanation)



Press: Enter key

Next screen: 08-264
or 08-274

Explanation**New total record count**

Type the number you see to the right of "Previous" This is the number of records your dropped file should contain after it is recovered.

The recovery of the dropped file begins as soon as Enter is pressed.

RECOVER (Diskette)

RECOVER screens (continued)

Screen 08-244

This screen is displayed if none of the space provided by freeing the file is currently allocated to another file.

Recover a Dropped or Freed File

08-244

None of the sectors in this file are currently allocated to another file. However, this does not guarantee that the data in the file is good. If you wish to continue, this file will be copied to a new file. It will be your responsibility to validate the data in the new file and to correct it if necessary.

Copy file
Y-Continue recovery
N-Return to menu
Y

Cmd 9 Cancel

Do this

Type: Y or N

Press: Enter key

Explanation**Copy file**

Type Y if you want to continue with the recovery of the freed file.

Type N if you want to return to the menu.

<i>If you type</i>	<i>Next screen</i>
Y	08-294
N	08-010

RECOVER (Diskette)

RECOVER screens (continued)

Screen 08-294

This screen is displayed if you type a Y on screen 08-244.
Use this screen to specify the diskette that will contain the
copy of the freed file.

Recover a Dropped or Freed File

08-294

Output drive number

-

Optional when
VOLID provided

Output VOLID

Optional when
drive provided

Output filename

Required

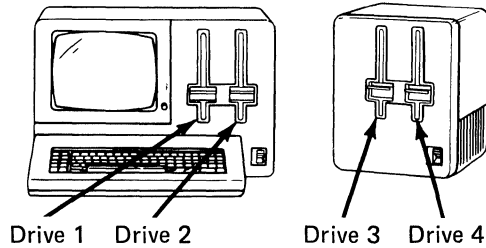
Cmd 9 Cancel
? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Output drive number



If you want the freed file copied to an output diskette, insert the diskette into a diskette drive.

Type the number of the drive that will contain the output file. If you are going to type the output VOLID, you do not have to type the drive number.

The remaining fields are explained on the following pages.

RECOVER (Diskette)

RECOVER screens (continued)

Press: New Line key

Type: (Output VOLID)

Output VOLID

Type the name of the diskette that will hold the copy of the file you are recovering. You do not have to type this if you typed the output drive number unless you are using a single drive system.

Press: New Line key

Type: (Output filename)

Output filename

Type the name you want to assign to the output file. You may use the same name as the file you are recovering or a different name.

The recovery of the freed file begins as soon as you press the Enter key. RECOVER makes a copy of the file on the output diskette.

Press: Enter key

Next screen: 08-264
or 08-274

RECOVER (Diskette)

RECOVER screens (continued)

Screen 08-334

This screen is displayed after you choose 4 on the menu, 08-010.

You can choose to have information and messages displayed on the screen, displayed on the screen and printed at the printer, or only printed. You must specify the printer number or else it is assumed that you will be using the system printer.

Recover a Dropped or Freed File

08-334

Information and messages to:

- 1-Screen only
 - 2-Screen and printer
 - 3-Printer only
- 2

Printer number
10-First printer
11-Second printer
10

Required when
printer used

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Next screen: 08-064

Explanation**Information and messages**

Type 1 to display all information and messages.

Type 2 to display and print all information and messages.

Type 3 to print all information and messages.

Printer number

Type 10 to print all information and messages on the first printer attached to the computer.

Type 11 to print all information and messages on the second printer attached to the computer.

RECOVER (Diskette)

Functions of RECOVER

As we have discussed in this chapter, you can use RECOVER to help you re-create a diskette file that was dropped or freed. You can also use RECOVER to reconstruct data contained in a defective diskette. Specifically, in addition to re-creating dropped or freed files, you can use RECOVER to:

- Allow the System/23 to read a diskette when its volume or ERMAP (error map) label cannot be read.
- Re-create a file label that the System/23 cannot read.
- Find defective sectors of a file that cannot be read and rewrite those sectors that can be read.

For more information about how to use RECOVER to reconstruct data contained on a defective diskette, read the chapter about RECOVER in *Customer Support Functions, Volume II*. You may need some help when using RECOVER to do these other things.

Chapter 6. REPLACE

What REPLACE does

Note: REPLACE is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

REPLACE is used to *replace* the old version of the Customer Support Functions contained on your diskettes or disk with the new versions that IBM sends you on new diskettes. These new diskettes have the same names as your old Customer Support Functions diskettes. You use them with REPLACE to replace the old Customer Support Functions contained on your disk volumes and diskettes.

When you have used the new diskettes to replace the old functions, you will end REPLACE. Now your diskette or disk contains all of the new Customer Support Functions and you are able to use it to do your work.

Remember—you must use REPLACE on every disk volume or diskette that contains Customer Support Functions.

These include:

- All of your IBM Customer Support Functions diskettes
- All of your disk volumes or diskettes that contain Customer Support Functions

REPLACE

What REPLACE does (continued)

Your System/23 checks your disk volume or diskette each time you use it. If your disk volume or diskette contains old Customer Support Functions, the computer displays a message telling you that you are not using the most current Customer Support Functions. Either you forgot to use REPLACE to replace the old functions with new Customer Support Functions, or you did not use UPDATE to load new machine updates into your system. Decide what you must do—either run REPLACE or run UPDATE—and then make the necessary changes.

This chapter describes:

- How to start REPLACE
- The steps you should follow to replace functions on another diskette or your disk
- The REPLACE screens that are displayed
- What to type on the screens when you are using REPLACE

Why and when to use REPLACE

You will need to use REPLACE whenever you receive a new version of the Customer Support Functions from IBM.

You must run REPLACE using the new Customer Support Functions diskettes *for each diskette* that contains Customer Support Functions programs. Do not forget about your backup diskettes. You need to update the Customer Support Functions on these diskettes too.

If you have the 5247 Disk Unit, also run REPLACE to replace the Customer Support Functions that are on your disk. You must run REPLACE using the new Customer Support Functions diskettes for each volume on your disk that contains Customer Support Functions.

REPLACE

Before you begin

Before you start REPLACE, you will need:

- The diskettes you have received from IBM that contain the latest Customer Support Functions.
- All of your diskettes that contain the Customer Support Functions. (For example, IBM application diskettes and your backup diskettes.)
- The VOLID of Customer Support Functions that are on the disk.

Be sure to copy the new diskettes to other diskettes or to the disk and put the original diskettes some place that is safe. Also, save your old Customer Support Functions diskettes. You may have to refer to them some day.

Make sure that the DATE command has been entered. After REPLACE has been completed, keep any listings for your records.

Starting REPLACE

Note: REPLACE is on diskette VOL002.

To start REPLACE:

1. Insert the Customer Support Functions diskette that contains REPLACE into any diskette drive.
2. Type: LINK REPLACE

Remember, you can use two slashes and the drive number after the word REPLACE to help the computer find REPLACE fast.

3. Press: Enter key

REPLACE

How to use REPLACE to . . .

Replace functions on your diskette

Assume that you have received new Customer Support Functions diskettes from IBM. They contain the latest versions of the Customer Support Functions. You have decided to replace the Customer Support Functions contained on your IBM application or backup diskettes. For this example, assume that you can use drives 1 and 2 and the printer. Use the DATE command to specify the current date. This is helpful for record keeping. Start REPLACE as follows.

Note: REPLACE is on diskette VOL002.

1. Insert the *newest version* of the Customer Support Functions diskette into diskette drive 1. This is the diskette that you have just received from IBM.
2. Insert your application diskette that contains the old version of the Customer Support Functions into diskette drive 2.
3. Type: LINK REPLACE//1

When the menu screen is displayed, select an option.

Next screen: 11-010

4. On screen 11-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 11-042

-
5. On screen 11-042,
 - a. Press: Enter key

Next screen: 11-052

6. On screen 11-052,
 - a. Type: 1
 - b. Press: New Line key twice
 - c. Type: The VOLID for your old Customer Support Functions diskette
 - d. Press: Enter key

Next screen: 11-062

7. Screen 11-062 is displayed while REPLACE is processing. Each time REPLACE finishes replacing a Customer Support Function, a line is displayed on the screen to tell you that the function has been replaced. Do not remove either the Customer Support Functions diskette or your application diskette until you see completion screen 11-072, 11-082, or 11-102.
8. When REPLACE is done, a completion screen is displayed.

Next screen: 11-072, 11-082, or 11-102

REPLACE

How to use REPLACE to . . . (continued)

Follow the instructions on the screen:

9. On screen 11-072 or 11-102,
 - a. Press: Enter key

or

On screen 11-082,

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 11-010

Now you have returned to the menu screen. Remove VOL002 from diskette drive 1. Insert the new VOL001 into diskette drive 1. Leave your application diskette in diskette drive 2. Repeat steps 4 through 8, this time using VOL001.

Once you have completed step 8, you have finished replacing the old Customer Support Functions with the new functions. When you have done this to all of your application and backup diskettes that contain old Customer Support Functions, proceed to step 9.

-
10. On screen 11-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

11. Remove the diskettes. The Customer Support Functions contained on your diskettes are now the latest versions.

Remember that you need to use REPLACE for *each diskette* that contains one or more Customer Support Functions.

REPLACE

How to use REPLACE to . . . (continued)

Replace functions on your disk

Assume that you have received new Customer Support Functions diskettes from IBM. They contain the latest versions of the Customer Support Functions. You have decided to replace the Customer Support Functions contained on your disk. For this example, assume that you can use drive 1 and the printer. Use the DATE command to specify the current date. This is helpful for record keeping.

Start REPLACE as follows:

Note: REPLACE is on diskette VOL002.

1. Insert the *newest version* of the Customer Support Functions diskette into diskette drive 1. This is the diskette that you have just received from IBM.

2. Type: LINK REPLACE//1

When the menu screen is displayed, select an option.

Next screen: 11-010

3. On screen 11-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 11-042

-
4. On screen 11-042,
 - a. Press: Enter key

Next screen: 11-052

5. On screen 11-052,
 - a. Type: 1
 - b. Press: New Line key twice
 - c. Type: 5
 - d. Press: New Line key once
 - e. Type: The VOLID of your disk volume that contains the old Customer Support Functions
 - f. Press: Enter key

Next screen: 11-062

6. Screen 11-062 is displayed while REPLACE is processing. Each time REPLACE finishes replacing a Customer Support Function, a line is displayed on the screen to tell you that the function has been replaced. Do not remove the Customer Support Functions diskette until you see completion screen 11-072, 11-082, or 11-102
7. When REPLACE is done, a completion screen is displayed.

Next screen: 11-072, 11-082, or 11-102

REPLACE

How to use REPLACE to . . . (continued)

Follow the instructions on the screen:

8. On screen 11-072 or 11-102,
 - a. Press: Enter key

or

On screen 11-082,

- a. Press: Error Reset key
- b. Press: Enter key

Next screen: 11-010

Now you have returned to the menu screen. If you have Customer Support Functions in other disk volumes, repeat steps 3 through 8; change the VOLID in step 5 to the next disk volume that contains old Customer Support Functions.

Once you have replaced the old Customer Support Functions contained in your disk volumes, proceed to step 9.

-
9. On screen 11-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

10. Remove the Customer Support Functions diskette. The Customer Support Functions contained on your disk are now the latest versions.

Remember that you need to use REPLACE for each volume on your disk that contains one or more Customer Support Functions.

REPLACE

REPLACE screens

Screen 11-010

This screen is displayed after you type LINK REPLACE and press the Enter key.

Replace Customer Support Functions

11-010

Choose one of the following:

1. Description of Replace Customer Support Functions
2. Replace Customer Support Functions

9. End Replace Customer Support Functions

Choice

-

Do this

Type: 1, 2, or 9



Press: Enter key

Explanation

Type 1 for a description of REPLACE.

Type 2 to replace the old Customer Support Functions with the new functions you have just received from IBM.

Type 9 to end REPLACE and return the computer to READY INPUT status.

<i>If you type</i>	<i>Next screen</i>
1	11-021
2	11-042
9	READY INPUT status

REPLACE

REPLACE screens (continued)

Screen 11-042

This screen is displayed after you enter a 2 on screen 11-010.

Replace Customer Support Functions		11-042
Information and messages to:		
1-Screen only		
2-Screen and printer		
3-Printer only		
2		
Printer number	Required when	
10-First printer	printer used	
11-Second printer		
10		
		Cmd 9 Cancel
		? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Next screen: 11-052

Explanation**Information and messages**

Type 1 to display all information and messages on the screen.

Type 2 to display and print all information and messages.

Type 3 to print all information and messages on the printer.

Printer number

Type 10 to print information and messages on the first printer attached to the computer.

Type 11 to print information and messages on the second printer attached to the computer.

REPLACE

REPLACE screens (continued)

Screen 11-052

This screen is displayed after you enter your selections on screen 11-042.

Replace Customer Support Functions

11-052

Input drive number -	Optional when input VOLID provided
Input VOLID _____	Optional when input drive provided
Output drive number -	Optional when output VOLID provided
Output VOLID _____	Required when output drive is 5

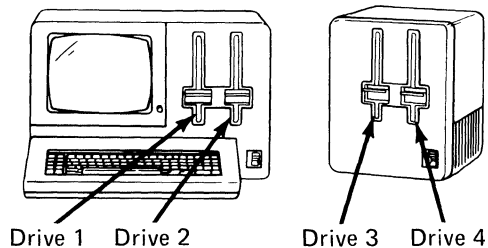
Cmd 9 Cancel
? Help

Do this

Type: 1, 2, 3, or 4

Explanation

Input drive number



Type the number of the diskette drive that contains the new diskette that contains the latest versions of the Customer Support Functions.

Press: New Line key

Type: (Input VOLID)

Input VOLID

Type in the VOLID of the new Customer Support Functions diskette that you received from IBM. This diskette contains the latest Customer Support Functions.

Press: New Line key

See the next page for a discussion of the remaining fields.

REPLACE

REPLACE screens (continued)

Do this

Type: 1, 2, 3, 4, or 5

Press: New Line key

Type: (Output VOLID)

Press: Enter key

Explanation

Output drive number

Type the number of the drive that contains the output disk volume or diskette. The output disk volume or diskette has the old Customer Support Functions which are to be replaced by the latest versions of the Customer Support Functions.

Output VOLID

The output VOLID is the name of the output disk volume or diskette that has the old Customer Support Functions. You do not have to type this if you typed an output drive number, unless your output drive number is 5. If your output drive number is 5 (disk), you must enter the output VOLID.

Insert the new diskette into a diskette drive. This is the input diskette. If you are replacing Customer Support Functions that are on a diskette, insert your diskette that contains the old Customer Support Functions. This is the output diskette.

Next screen: 11-062

Screen 11-062

This screen is displayed while REPLACE is processing.

It shows you which functions have been replaced on the output disk volume or diskette. The sample screen shows that the LABEL function was replaced.

Replace Customer Support Functions 11-062

In progress

Output VOLID ZDSK13

Date 80/11/20

LABEL replaced

REPLACE

REPLACE screens (continued)

Screen 11-072

This screen tells you that REPLACE was successful. This screen tells you how many Customer Support Functions have been replaced on your disk volume or diskette.

Replace Customer Support Functions

11-072

Replace Customer Support Functions successful.

1 Customer Support Functions replaced.

Press Enter to return to menu

Screen 11-082

This screen is displayed after screen 11-062 and tells you that REPLACE was unsuccessful. Write down the error code and look it up in *System Messages*.

The number of Customer Support Functions that were replaced before the error occurred is shown. Follow the instructions on your screen to return to menu screen 11-010.

Replace Customer Support Functions

11-082

Replace Customer Support Functions unsuccessful.

0 Customer Support Functions replaced.

Press Error Reset and the press Enter to return to menu

REPLACE

REPLACE screens (continued)

Screen 11-099

This screen is displayed to give you a chance to change an incorrect answer or to check over the entries in a procedure file. If you have an incorrect answer, the field in error is displayed in reverse image. If you do not have an error, or if the field in error cannot be determined, the first field, CHOICE, is in reverse image. You should also check your answer for CHOICE.

Replace Customer Support Functions Procedure File

11-099

CHOICE

MESSAGES

2

PRINTER

10

OUTVOLID

OUTDRVNO

INVOLID

INDRVNO

-

Cmd 9 Cancel

Screen 11-102

This screen is displayed if the update was not necessary or if the Customer Support Functions were already replaced.

Replace Customer Support Functions

11-102

Replace Customer Support Functions successful.

No update of Customer Support Functions was
necessary.

Press Enter to return to menu

REPLACE

REPLACE screens (continued)

Correcting an error on screen 11-099

Step 1. Locate the information on your screen that is displayed in reverse image.

Step 2. Use the information that follows to find the screen number that provides information about the incorrect field in error.

Step 3. Look up that screen in this section and determine how to correct the error.

Step 4. Press the Error Reset key.

Step 5. Type the correction. The cursor may already be positioned at the error.

Step 6. Press the Enter key to continue.

Field name	Refer to Screen	Screen field name
CHOICE	11-010	Menu choice
MESSAGES	11-042	Information and messages
PRINTER	11-042	Printer number
OUTVOLID	11-052	Output VOLID
OUTDRVNO	11-052	Output drive number
INVALID	11-052	Input VOLID
INDRVNO	11-052	Input drive number

Running REPLACE from a procedure file

This table shows the keywords that REPLACE uses.

Keyword	Values	Purpose	Notes	Refer to screen
*CHOICE=	2	Indicates Replace choice from menu		11-010
MESSAGES=	1, 2, or 3	Indicates where messages go: 1=screen only 2=screen and printer 3=printer only	If this statement is omitted, messages are displayed and printed	11-042
PRINTER=	10 or 11	Indicates which printer: 10=system printer 11=alternate printer	Use only if MESSAGES=2 or 3	11-042
INVALID=	Volume name	Name of new Customer Support Functions diskette		11-052
INDRVNO=	1, 2, 3, or 4	Indicates which diskette drive new Customer Support Functions diskette is in		11-052

*means keyword is required.

REPLACE

REPLACE screens (continued)

Keyword	Values	Purpose	Notes	Refer to screen
**OUTVOLID=	Volume name	Indicates name of disk volume or diskette with old Customer Support Functions	Optional if using two drives and OUTDRVNO= is included	11-052
OUTDRVNO=	1, 2, 3, 4, or 5	Indicates which drive the old Customer Support Functions are on	Optional if OUTVOLID= is included	11-052

**required if more than one diskette is to be used on the same drive or if OUTDRVNO=5.

Procedure file example

This example shows a procedure file to run REPLACE:

```
LINK REPLACE
CHOICE=2
INDRVNO=1
OUTDRVNO=2
ENDLINK
```

These statements will replace any Customer Support Function programs on the diskette in diskette drive 2 with those from the diskette in diskette drive 1.

Because this example file does not include MESSAGES= or PRINTER= keywords, the system uses MESSAGES=2 and PRINTER=10; thus, messages will be displayed on the screen and also printed on printer 10.

The system also uses MODE=A, since a MODE= keyword is not in the procedure file.

Chapter 7. SELECT

What SELECT does

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

The SELECT and UPDATE functions work together to keep your computing system up-to-date. SELECT finds the machine updates that your computing system needs, and gets them ready for UPDATE; then each time you switch on your computer, UPDATE loads these machine updates into your computer. UPDATE is discussed in the next chapter.

Machine updates are programs that IBM sends you to change the internal programs that control the operation of your computer.

The machine updates for *all* models of the System/23 computer come to you stored on the Customer Support Functions diskette that contains UPDATE. (IBM may also send you other diskettes with more machine updates on them from time to time.)

Your computer may not need all the machine updates, so SELECT must be run to choose only the machine updates required by your computer. SELECT finds all the machine updates needed by your computer, gets them ready for UPDATE, and then writes them on the diskette or disk for use every time you switch on your computing system.

From time to time, IBM may tell you to use only certain machine updates for your computer. In this case, you will tell SELECT which machine updates to choose.

SELECT

What SELECT does (continued)

SELECT has two other options—**Build** and **Patch**. These two options are *not* shown on the menu because they are to be used *only* when you receive instructions from IBM to do so.

See the sections “Build” and “Patch” in this chapter if you want to find out what these options do.

SELECT also lets you look at or print a list of machine updates. You can display all machine updates that apply to your system or only the machine updates that have been selected for your computer.

Why and when to use SELECT

You need to run the Select or Display options of SELECT:

- When you set up your computing system. However, when you followed the setup instructions, SELECT was run for you. So, you are all set until one of the other situations in this list occurs.
- When you receive a diskette with a new set of machine updates from IBM.
- When parts of your computing system are changed or when new equipment is added to your system. For example, if you add a second printer, you must run SELECT to make sure that any machine updates that apply to the printer are also loaded when you start your system.
- When you are told to do so by IBM personnel.
- After you run the Build option. You must then run the Select all machine updates option. In some cases you will run PROC SETUP1 after Build. This will be discussed in the "Build" section of this chapter.
- When you want to find out whether you are using all the machine updates that apply to your system. In this case you need to choose "Display all updates" and "Display updates to be loaded"

SELECT

Before you begin

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

Before you start SELECT, you need:

- Your SELECT Customer Support Function
- Special instructions
- The *latest* machine updates—these may be on the Customer Support Functions disk volume or diskette that contains UPDATE, or it may be a diskette IBM just sent you.
- If your updates are on diskette, the diskette that you want to use each time you switch on power. Again, this may be the Customer Support Functions diskette or it might be one that your company wants to use.

Starting SELECT

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

To start SELECT, do this:

1. Insert the Customer Support Functions diskette that contains SELECT into any diskette drive.
2. Type: LINK SELECT
3. Press: Enter key

SELECT

How to use SELECT to . . .

Select all machine updates

If you have received a new machine update diskette or a new Customer Support Functions diskette that contains UPDATE, follow the instructions that accompany the new diskette. Otherwise, these are the steps to follow when you use SELECT to select machine updates for your computer.

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Assume that part of your computing system has changed and you want to make sure that all the machine updates that your computer requires are ready for the UPDATE function.

Assume also that you use your Customer Support Functions diskette that contains UPDATE each morning when you start your computer. The latest machine updates are on this Customer Support Functions diskette.

To have SELECT find and get the correct machine updates to get ready to be used by UPDATE, follow these steps:

1. Insert your Customer Support Functions diskette that contains SELECT into diskette drive 1.
2. Enter: LINK SELECT

Next screen: 10-010

-
3. On screen 10-010,
 - a. Type: 3
 - b. Press: Enter key

Next screen: 10-023

4. On screen 10-023,
 - a. Press: Enter key

Next screen: 10-103

5. On screen 10-103,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 10-113

6. On screen 10-113,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 10-133

SELECT

How to use SELECT to . . . (continued)

7. On screen 10-133,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 10-143

8. Screen 10-143 is displayed while SELECT is finding and getting the machine updates ready for your computer.

When SELECT is done, screen 10-153 or screen 10-173 appears. These screens are completion screens.

Next screen: 10-153 or 10-173

Follow the directions on the screen—

9. On screen 10-153,
 - a. Press: Enter key

or
10. On screen 10-173,
 - a. Press: Error Reset key
 - b. Press: Enter key

Next screen: 10-010

-
11. On screen 10-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

12. If the completion screen that you saw was 10-153,
 - a. Enter: LINK UPDATE//1

This starts UPDATE which loads the machine updates for your computer into the computer.

When UPDATE is completed, the correct machine updates for your computer are loaded, and you are ready to do some work.

Next screen: READY INPUT status

SELECT

How to use SELECT to . . . (continued)

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

What if you do not use your Customer Support Functions diskette when you start your computer?

If you use a diskette other than your Customer Support Functions diskette when you start your computer, contact your programmer or IBM for technical assistance.

Select certain updates

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Assume that IBM has sent you information telling you that your machine only needs two certain updates. The instructions that you receive include the identification of the two machine updates.

Assume that you are using your Customer Support Functions diskette whenever you switch on the power to your computer.

To select the machine updates that IBM told you to use, follow these steps:

1. Insert your Customer Support Functions diskette into diskette drive 1.
2. Type: LINK SELECT

Next screen: 10-010

SELECT

How to use SELECT to . . . (continued)

3. On screen 10-010,
 - a. Type: 3
 - b. Press: Enter key

Next screen: 10-023

4. On screen 10-023,
 - a. Press: Enter key

Next screen: 10-103

5. On screen 10-103,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 10-113

-
6. On screen 10-113,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 10-123

7. Screen 10-123 is displayed for each machine update that applies to your computer.

Compare the numbers under ROS P/N FIX ID (displayed on your screen) with the list of machine updates that are to be included in your system.

If they match,

- a. Press: Enter key

If they do not match,

- a. Type: N
- b. Press: Enter key

Repeat step 7 until screen 10-133 is displayed.

Next screen: 10-133

SELECT

How to use SELECT to . . . (continued)

8. On screen 10-133,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 10-143

The next screen to be displayed is the completion screen.

Next screen: 10-153 or 10-173

9. Follow the instructions on the completion screen—

On screen 10-153,

a. Press: Enter key

or

On screen 10-173,

a. Press: Error Reset key

b. Press: Enter key

Next screen: 10-010

10. On screen 10-010,

a. Type: 9

b. Press: Enter key

Next screen: READY INPUT status

SELECT

How to use SELECT to . . . (continued)

11. If the completion screen that you saw was 10-153,
 - a. Type: LINK UPDATE

This starts UPDATE. UPDATE loads the two machine updates for your computer into the computer.

When the machine updates are loaded into the computer, READY INPUT appears on the screen.

Next screen: READY INPUT status

SELECT screens

This section describes the SELECT screens and tells what you should type in the input fields of each screen. This section also describes BUILD screens and PATCH screens. BUILD and PATCH are options of SELECT and they are not shown on the menu screen. These options are only used when you receive instructions from IBM to do so. See the BUILD and PATCH sections in this chapter for information about these options.

SELECT

SELECT screens (continued)

Menu screen 10-010

This screen is displayed after you type LINK SELECT and press the Enter key.

Select Machine Update Menu

10-010

Choose one of the following:

1. Description of Select Machine Update
2. Display Machine Update
3. Select Machine Update

9. End Select Machine Update

Choice

-

Do this

Type: 1,2,3,B,P, or 9

Explanation

Type 1 for a description of the Select Machine Update function.

Type 2 to display or print:

- Identification number of all machine updates.
- Identification number of only the machine updates selected for your system.

Type 3 to select:

- All machine updates required for your system.
- Only certain machine updates (specified by IBM).

Do this**Explanation**

Note: Type B or P only if you have gotten instructions from IBM to do so.

Type B to:

- Add a new machine update to the machine update file.
- Create a new machine update file on your diskette or disk.

SELECT

SELECT screens (continued)

Type P to:

- Change a Customer Support Functions program.

Type 9 to end SELECT and return the computer to the READY INPUT status.

Press: Enter key

<i>If you type</i>	<i>Next screen</i>
1	10-031
2	10-322
3	10-023
B	10-33B
P	10-34P
9	READY INPUT status

If you specified option 2 on the menu, screen 10-322 is the next screen to be displayed. On screen 10-322, indicate how you want to handle screen information and messages: displayed, displayed and printed, or printed only. If you decide to print, you must also specify which printer you will use.

SELECT

SELECT screens (continued)

Screens 10-322, 10-023, 10-33B, and 10-34P

This screen appears after you select option 2, "Display machine update" on the menu.

Display Machine Update

10-322

Information and messages to:

- 1-Screen only
 - 2-Screen and printer
 - 3-Printer only
- 2

Printer number

- 10-First printer
 - 11-Second printer
- 10

Required when
printer used

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Explanation

Information and messages

Type 1 to display all information and messages on the screen.

Type 2 to display and print all information and messages.

Type 3 to print all information and messages on the printer.

Printer number

Type 10 to print information and messages on the first printer that is attached to the computer.

Type 11 to print information and messages on the second printer that is attached to the computer.

<i>From screen</i>	<i>Next screen</i>
10-322	10-062
10-023	10-103
10-33B	10-18B
10-34P	10-26P

SELECT

SELECT screens (continued)

Screen 10-062

This screen is displayed after you make your selections on screen 10-322.

Display Machine Update

10-062

Choose one of the following:

1. Display all updates
2. Display updates to be loaded

9. Return to main menu

Choice

-

Do this

Type: 1, 2, or 9

Press: Enter key

Explanation

Type 1 to display or print all the machine updates for your System/23.

Type 2 to display or print only the machine updates that are ready to be loaded for your System/23.

Type 9 to cancel all selections and return to the menu, screen 10-010.

<i>If you type</i>	<i>Next screen</i>
1	10-072
2	10-072
9	10-010

SELECT

SELECT screens (continued)

Screen 10-072

This screen is displayed after you enter option 1 or 2 on screen 10-062.

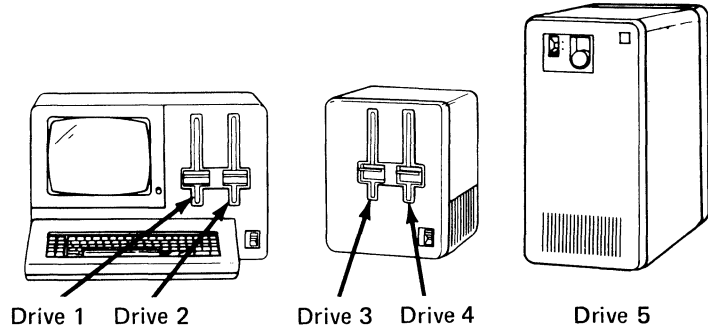
Display Machine Update		10-072
Drive number	Optional when	
-	VOLID provided	
VOLID	Required when	
_____	drive number is 5	
		Cmd 9 Cancel
		? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Drive number



If your machine updates are on diskette, insert the diskette that contains the machine updates that you want to display and print into a diskette drive. Type the number of the drive where you inserted the diskette.

If your updates are on the disk, the drive number is 5.

Press: New Line key

SELECT

SELECT screens (continued)

Type: (VOLID)

VOLID

Type the name of the disk volume or diskette that contains the machine updates you want displayed or printed.

You do not have to type this if you typed the drive number, unless the drive number is 5 (disk). When the drive number is 5, you must enter the VOLID.

Press: Enter key

Next screen: 10-082

Screen 10-082

This screen shows what your screen will look like when displaying machine updates. The number of machine updates displayed depends on your particular computer. When you see this screen, the names of the updates for your system will appear where 08493761 and MTR999 appear on the screen.

Display Machine Update

10-082

ROS P/N FIX ID
08493761 MTR999
Press Enter to continue

SELECT

SELECT screens (continued)

A completion screen is displayed after all the machine updates have been displayed.

Next screen: 10-092

Screen 10-092

This screen is displayed after all the machine updates have been displayed.

Display Machine Update

10-092

Display update completed.

Press Enter to return to menu

SELECT

SELECT screens (continued)

Screen 10-103

This screen is displayed after you select option 3 on the option menu screen 10-010 and type the required information on screen 10-023.

Select Machine Update

10-103

Choose one of the following:

1. Select all updates
2. Select certain updates

9. Return to main menu

Choice

-

Do this

Type: 1, 2, or 9

Press: Enter key

Explanation

Type 1 to have SELECT use all machine updates that are required for your computer.

Type 2 if you have been told by IBM to select certain machine updates for your computer.

You should only type 2 if you have been instructed to do so by an IBM representative. The representative must tell you which updates to select.

Type 9 to return to the main menu screen 10-010.

<i>If you type</i>	<i>Next screen</i>
1	10-113
2	10-113
9	10-010

SELECT

SELECT screens (continued)

Screen 10-113

This screen is displayed after you have selected option 1 or 2 on screen 10-103.

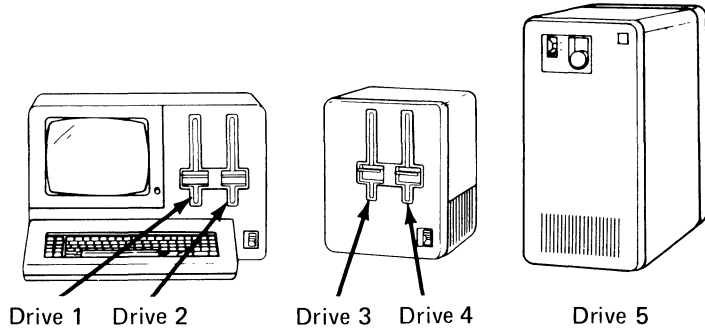
Select Machine Update	10-113
Drive number	Optional when
-	VOLID provided
VOLID	Required when
_____	drive number is 5
	Cmd 9 Cancel
	? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Drive number



Insert the diskette from which the machine updates will be selected.

Press: New Line key

If your machine updates are on diskette, type the number of the drive where you inserted the diskette. If your machine updates are on the disk, the drive number is 5.

SELECT

SELECT screens (continued)

Type: (VOLID)

VOLID

Type the name of the disk volume or diskette from which the machine updates will be selected. You do not have to type this if you typed drive number, unless the drive number is 5 (disk). When the drive number is 5, you must enter the VOLID.

Press: Enter key

<i>Choice on 10-103</i>	<i>Next screen</i>
1	10-133
2	10-123

After you specify the drive number and/or the VOLID for the diskette that contains the updates, screen 10-123 or 10-133 is displayed. Carefully read all messages that are displayed on these screens.

SELECT

SELECT screens (continued)

Screen 10-123

This screen is displayed if you typed 2 on screen 10-103 and have entered the drive number and/or the VOLID on screen 10-113. The update identified on that screen should only be used when you are told to use it by your IBM representative. Did you notice the question on the screen, "Want to use this update?" Are you sure that you want to use this update?

Select Machine Update

10-123

Want to use this update? Y/N

ROS P/N FIX ID

08493761 MTR999

Y

Cmd 9 Cancel

Do this

Type: Y or N

Press: Enter key

Explanation

Use this update?

Type Y if you have been told to select the machine update identified by the numbers below ROS P/N FIX ID line.

Type N if you have not been told to select the machine update identified by the numbers below ROS P/N FIX ID line.

Your System/23 displays the machine updates that apply to your computer one at a time, after each time that you press the Enter key. This continues until you have displayed all the machine updates that apply to your computer. You do this by typing Y or N to indicate whether or not you want to select the update and by pressing the Enter key.

You can cancel all your choices by pressing and holding the Cmd key and the 9 key on the *numeric* keypad. This function will be cancelled and the menu, screen 10-010, will be displayed.

Next screen: 10-133

SELECT

SELECT screens (continued)

Screen 10-133

This screen is displayed after you have entered your choices on screen 10-113 or after you have completed the selection of machine updates on screen 10-123.

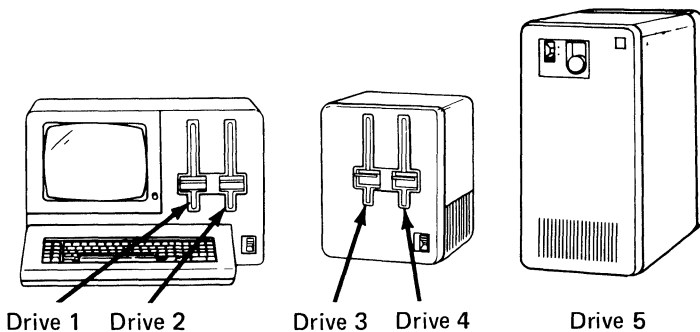
Select Machine Update	10-133
Output drive number -	Optional when VOLID provided
Output VOLID _____	Required when drive number is 5
	Cmd 9 Cancel ? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Output drive number



If your machine updates are on diskette, insert the diskette that you will use each time the computer power is switched on. Type the number of the diskette drive that contains the diskette.

Remember, if you use a diskette other than the Customer Support Functions diskette when you start up your machine, you must copy UPDATE to that diskette also.

If your machine updates are on the disk, the drive number is 5.

Press: New Line key

SELECT

SELECT screens (continued)

Type: (Output VOLID)

Output VOLID

Type the name of the diskette that you will use each time the computer power is switched on.

If your machine updates are on the disk, type the VOLID of the volume that contains the machine updates.

You do not have to type this if you typed the drive number, unless your drive number is 5. When your drive number is 5, you must enter the VOLID of your output disk volume.

Press: Enter key

Next screen: 10-143

The next screen to be displayed is an in-progress screen. It remains displayed while the computer updates the disk volume or diskette.

Do not open the diskette drive handles on the drives that contain diskettes until either screen 10-153 or screen 10-173 is displayed.

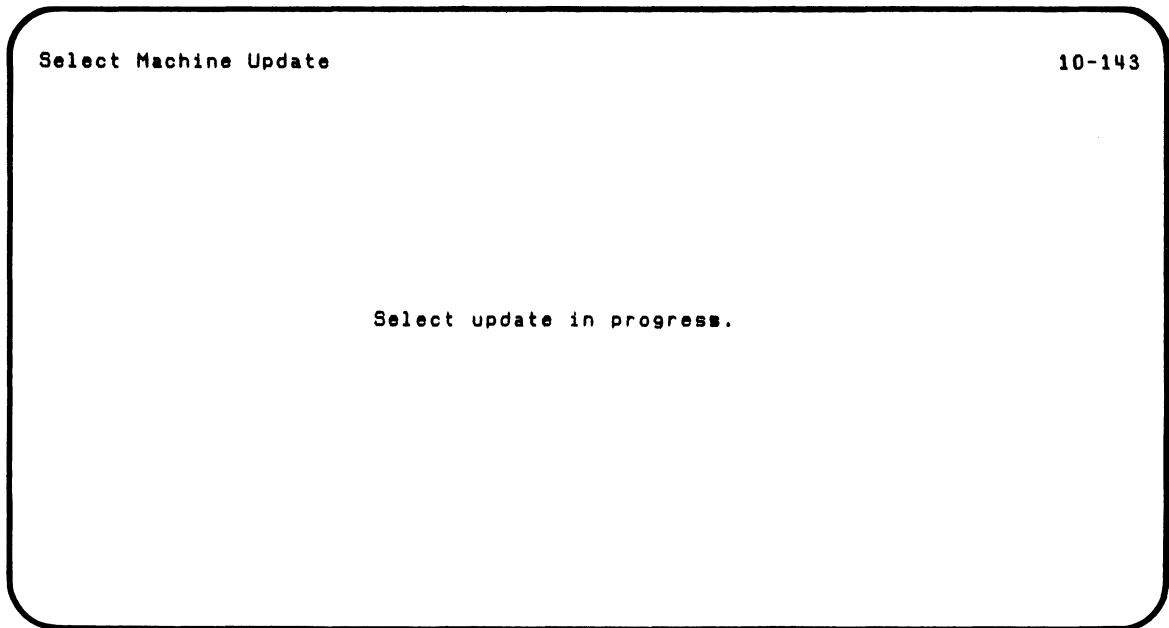
SELECT

SELECT screens (continued)

Screen 10-143

This screen is displayed after you have typed your choices on screen 10-133.

Do not open the diskette drive handles on the drives you are using for SELECT until either completion screen 10-153 or 10-173 is displayed.



Screen 10-153

This screen is displayed after you have typed your choices on screen 10-133, and screen 10-143 has been displayed.

Select Machine Update

10-153

Select update completed.

Press Enter to return to menu

SELECT

SELECT screens (continued)

Screen 10-173

This screen is displayed after you have typed your choices on screen 10-133, and screen 10-143 has been displayed.

Select Machine Update

10-173

Select update unsuccessful.

Press Error Reset and then press Enter to return to menu

Build

Build a Machine Update (Build) is not shown as a choice on the SELECT menu because this function should *only be used* when you receive a machine update diskette or special instructions from IBM or when an IBM representative tells you to run Build.

To run Build, type the letter B, (instead of a number) on the SELECT menu, screen 10-010.

What Build does

Build lets you *add* a new machine update to the file of machine updates already on your disk or on your Customer Support Functions diskette. The other thing you can do with Build is start a *new* file of machine updates. In this case, you must use a different diskette—*not* the Customer Support Functions diskette—for the machine updates file.

You have two ways of updating your computer with the new machine updates. The first way is by using the *emergency update diskette* that IBM sends you.

The second way is to enter an update yourself from the keyboard. IBM will send you a set of instructions that tell you what you must type. Sometimes you may receive the instructions from an IBM representative.

SELECT

Build (continued)

When Build is completed, the file that already contains machine updates will have more updates in it. If the diskette does not contain an update file, the diskette will now contain a new file that has updates in it. Either way, you must run the "Select all updates" using this changed or new file. Then run UPDATE again by typing LINK UPDATE. You need to use these three functions:

- Build option from SELECT
- Select all updates option from SELECT
- UPDATE Customer Support Function

to get the changes that came on the emergency diskette or those changes that you typed from the update instructions *into* your computer. Instead, you can run PROC SETUP1 after Build. PROC SETUP1 will run "Select all updates" and then execute LINK UPDATE for you. Do this *as soon as you can*, so that you can put the changes into your computer.

Remember, the only time you will use Build is when IBM gives you special instructions to use it. Your instructions will come by themselves, with the emergency diskette, or you will receive them from an IBM representative.

Before you begin Build

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

Before you start Build, you need:

- Your SELECT Customer Support Function
- A disk volume or diskette to put a new file of machine updates on, if you have been told to make a new file
- The emergency machine update diskette **or** instructions for what to type

SELECT

Build (continued)

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Starting and running Build

Remember, Build is an option of SELECT. You must type LINK SELECT to run Build. Follow these steps:

1. Insert your Customer Support Functions diskette that contains SELECT into diskette drive 1.
2. Enter: LINK SELECT

Next screen: 10-010

3. On screen 10-010,
 - a. Type: B
 - b. Press: Enter key

Next screen: 10-33B

-
4. On screen 10-33B,
 - a. Press: Enter key

Next screen: 10-18B

Now your computer begins to display the Build screens. These screens are included in this chapter in the section called "Build screens."

SELECT

Build (continued)

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Typing an emergency update

Assume that you are going to *type* a machine update to the file of machine updates already on your Customer Support Functions diskette that contains SELECT. Here's what you do:

1. Insert your Customer Support Functions diskette that contains SELECT into diskette drive 1.
2. Enter: LINK SELECT

Next screen: 10-010

3. On screen 10-010,
 - a. Type: B
 - b. Press: Enter key

Next screen: 10-33B

-
4. On screen 10-33B,
 - a. Press: Enter key

Next screen: 10-18B

5. On screen 10-18B,
 - a. Type: A
 - b. Press: Enter key

Next screen: 10-22B

6. On screen 10-22B,
 - a. Press: New Line key
 - b. Type: the VOLID of your Customer Support Functions diskette.
 - c. Press: Enter key

Next screen: 10-19B

SELECT

Build (continued)

7. On screen 10-19B,
 - a. Type: K
 - b. Press: Enter key

Next screen: 10-21B

8. On screen 10-21B,
 - a. Type: Whatever your IBM instructions say to type for Header. All letters must be *capital letters*.
 - b. Check your typing.
 - c. Press: Enter key

Next screen: 10-24B

9. On screen 10-24B,
 - a. Type: Whatever your IBM instructions say to type in this field. These letters may be either capital or lowercase letters.
 - b. Check your typing.
 - c. Press: Enter key

Next screen: 10-24B

-
10. Screen 10-24B will be redisplayed until you tell Build that you do not have anything more to type. Each time that you press the Enter key, the information that you just typed will appear above the blank lines. This helps you to keep track of what you are typing.

Next screen: 10-19B

To tell Build that you are finished:

- a. Type: END in the empty field. If all fields are empty when all of the data has been entered, type END in the *second* empty field. Never type END in the first field.
- b. Check all your typing. Have you made any mistakes?
- c. Press: Enter key

Next screen: 10-19B

11. Type: E
- a. Press: Enter key

Next screen: 10-25B or 10-36B

SELECT

Build (continued)

12. On screen 10-25B,
 - a. Press: Enter key or On screen 10-36B
 - b. Press: Error Reset key
 - c. Press: Enter key

Next screen: 10-010

13. When you are finished adding the machine update, return to the menu and run "Select all updates."

See "How to use SELECT" in this chapter. Follow the steps you need to run "Select all updates" of the SELECT function.

14. When SELECT is finished, return to the menu and run the UPDATE function. To do this:

On the menu,

- a. Type: 9
- b. Press: Enter key

This returns the computer to READY INPUT status.

- c. Type: LINK UPDATE
- d. Press: Enter key

When UPDATE is done, the machine update that *you* typed is loaded into the file of machine updates in your computer!

What if you receive updates on a diskette? If you receive a machine update on a diskette, you do almost the same things except you do not have to type as much. Change step 7 in the preceding example as follows:

7. On screen 10-19B,
 - a. Type: D
 - b. Press: Enter key

Next screen: 10-23B

Now your computer displays screen 10-23B.

- c. Insert the diskette with the update into a drive.

On screen 10-23B,

- d. Type: The name of the file that contains the update. The instructions that you received with the diskette will tell you the filename.
- e. Press: New line key
- f. Type: The drive number where the diskette that contains the update is inserted
- g. Press: Enter key

You will not do steps 8, 9, or 10.

Next screen: 10-19B

Now follow steps 11 through 14.

SELECT

Build screens

Screen 10-18B

This screen is displayed after 10-33B.

Build

10-18B

Add to or create an update file

A-Add an update to the file

C-Create a new update file

-

Cmd 9 Cancel

Do this

Type: A or C

Press: Enter key

Explanation

Type A to add a machine update to the existing machine update file.

Type C to create a new machine update file. This must be on a diskette other than your Customer Support Functions diskette.

<i>If you type</i>	<i>Next screen</i>
A	10-22B
C	10-20B

SELECT

Build screens (continued)

Screen 10-19B

Build

10-19B

Update entry method

D-Update from diskette or disk

K-Update from keyboard

E-End

-

Cmd 9 Cancel

Do this

Type: D, K, or E

Press: Enter key

Explanation

Type D if the machine update that you are adding is on a diskette or the disk.

Type K if you will type the machine update into the computer.

Type E if you want to end Build.

<i>If you type</i>	<i>Next screen</i>
D	10-23B
K	10-21B
E	10-25B

SELECT

Build screens (continued)

Screen 10-20B

This screen is displayed if you typed a C on screen 10-18B.

Build

10-20B

Output drive number

Optional when
VOLID provided

-

Output VOLID

Required when
drive number is 5

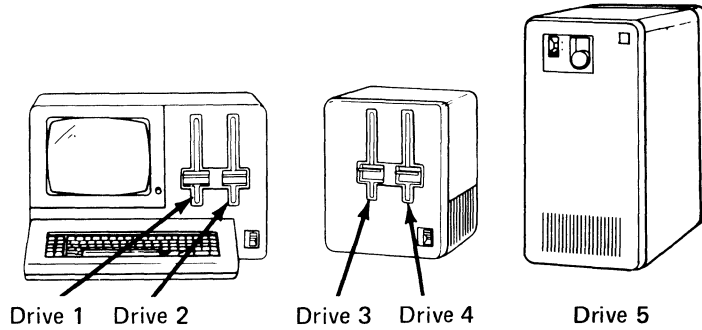
Cmd 9 Cancel
? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Output drive number



If you are going to store the new machine updates on a diskette, insert the diskette into a diskette drive.

You cannot use the Customer Support Functions diskette to contain the new file of machine updates. If you do, you will get an error code.

If you are going to store the new updates on the disk, the drive number is 5.

Type the number of the drive where the updates will be stored.

Press: New Line key

SELECT

Build screens (continued)

Type: (Output VOLID)

Output VOLID

Type the name of the disk volume or diskette that you are using to store the new machine update.

You do not have to type this if you type the output drive number, unless the drive number is 5 (disk). When the drive number is 5, you must enter the output VOLID.

Press: Enter key

Next screen: 10-19B

This page is intentionally left blank.

SELECT

Build screens (continued)

Screen 10-21B

This screen is displayed next if you typed a K on screen 10-19B.

Build **10-21B**

Header information for update to be added

Cmd 9 Cancel

Do this

Type: (See explanation)

Press: Enter key

Explanation

The instructions that you received from IBM will tell you what to type in this field. Type only what you are instructed to type. Check your typing before you press Enter. Use only *capital letters*.

Next screen: 10-24B

SELECT

Build screens (continued)

Screen 10-22B

This screen is displayed if you typed an A on screen 10-18B.

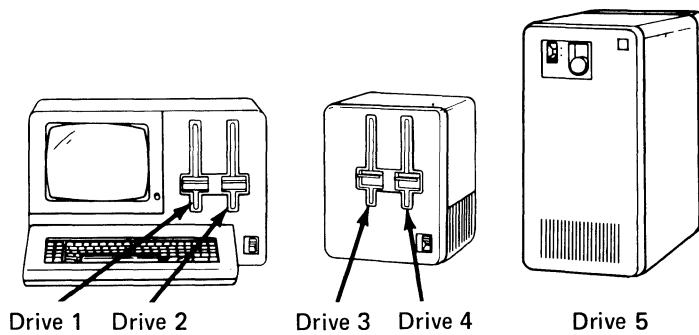
Build	10-22B
Output drive number	Optional when
-	VOLID provided
Output VOLID	Required when
_____	drive number is 5
	Cmd 9 Cancel
	? Help

Do this

Type: 1, 2, 3, 4, or 5

Explanation

Output drive number



If you are going to store the new machine updates on a diskette, insert the diskette into a diskette drive. Type the number of the diskette drive that contains this diskette.

If you are going to store the new machine updates on your disk, the drive number for the disk is 5.

Press: New Line key

SELECT

Build screens (continued)

Type: (Output VOLID)



Press: Enter key

Output VOLID

Type the name of the disk volume or diskette that you will use for storing the machine updates. You do not have to type this if you typed the output drive number, unless the drive number is 5 (disk). When the drive number is 5, you must enter the VOLID.

Next screen 10-19B

This page is intentionally left blank.

SELECT

Build screens (continued)

Screen 10-23B

This screen is displayed if you typed a D on screen 10-19B.

Build	10-23B
Input Filename _____	Required
Input drive number -	Optional when VOLID provided
Input VOLID _____	Required when drive number is 5
	Cmd 9 Cancel ? Help

Do this

Type: (Filename)

Explanation**Input filename**

Type the name of the file that contains the machine update. This name will be supplied by IBM along with the diskette that contains the emergency machine update.

Note: If you have the 5247 Disk Unit, you could also do this. First copy the new machine updates to a volume on your disk. Then, you can add these updates from your disk using the filename supplied by IBM.

SELECT

Build screens (continued)

Press: New Line key

Type: 1, 2, 3, 4, or 5

Input drive number

Insert the diskette that contains the update into a drive. Type the number of the drive that contains the diskette.

If the new machine updates are on a disk volume, the drive number is 5. (See the note under "Input filename.")

You do not have to type this if you are going to type the input VOLID.



Press: New Line key

Type: (Input VOLID)

Input VOLID

Type the name of the disk volume or diskette that contains the emergency machine update. (See the note under Input filename.)

You do not have to type this if you typed the input drive number, unless your input drive number is 5 (disk). When your drive number is 5, you must enter the input VOLID.

Press: Enter key

Next screen: 10-19B

SELECT

Build screens (continued)

Screen 10-24B

This screen is displayed if you typed K on screen 10-19B and typed information on screen 10-21B.

Build **10-24B**

Update data
XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX

Type in 'END' when done Cmd 9 Cancel

Do this

Type: (See explanation)

Explanation

IBM personnel will tell you what information to type.

The information that you type will look similar to this:

1024 206C 8F11 1781 and so on.

The letters may be capital or lowercase. Check all of your typing for mistakes and press Enter. You *cannot* change information after you have pressed Enter.

When you have typed all of the requested information, type END in the beginning of the *next* empty field. If you have finished entering data and all the fields on this screen are empty, *type END in the second field. Never type END in the first field.* Check your typing, and then press the Enter key.

Press: Enter key

<i>Next screen</i>	<i>If you typed</i>
10-24B	did not type END
10-19B	END and no errors
10-36B	END and errors occurred

SELECT

Patch

Patch is an option of the SELECT function and is not shown as a choice on the SELECT menu. *You will run Patch only when you are told by IBM to do so.* You must receive information from IBM that tells you what to enter for Patch.

What Patch does

Patch lets you type changes to a Customer Support Function program. Patch will *not* change any other kind of program. Even though Patch is one of the options of SELECT, it does *not* work with machine updates.

To choose Patch, type the letter *P*, instead of a number, on the SELECT menu. Once Patch is active, you tell Patch to either display or print messages. Then tell Patch which function you want to patch and on which diskette the function is contained.

First type the *offset of patch*. The offset is the location of the change in the Customer Support function. Patch displays the information that is now in the program at that location. Next type the new information according to the directions supplied by IBM. This completes the first patch.

Patch repeats two screens—screen 10-28P and screen 10-29P—Use these screens to type all the patches that you have been told to type. Remember, a patch has two parts: the offset (where the change is to be made) and the change itself.

When you have completed typing all the changes, tell Patch that all the changes have been entered. Patch then displays a completion screen.

When you have finished running Patch, your Customer Support Function program is changed and ready to be run in its changed form. You do not need to run SELECT or UPDATE after you use Patch.

After you use Patch, you should use COPY to copy the changed version of the Customer Support Functions program to *all other* diskettes that contain that function. Be sure to copy the changed function to any application diskettes or backup diskettes that may contain the function.

If you have the 5247 Disk Unit, you should also change the Customer Support Functions that are on your disk.

Why and when to use Patch

IBM will tell you when to run Patch. You must be furnished with special information in order to run Patch. IBM may send you your instructions, or you may receive them from an IBM representative.

SELECT

Patch (continued)

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

Before you begin Patch

Before you start Patch, you need:

- The SELECT Customer Support Function
- The Customer Support Functions diskette that has on it the Customer Support Functions program that you are going to change
- The instructions you receive
- A ruler to lay across the instructions to help you keep your place

Starting Patch

Note: SELECT is on diskette VOL002.

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk. This means that you will not have to insert or remove a Customer Support Functions diskette. Start with step 2.

Remember, Patch is an option of the SELECT function. You must type LINK SELECT to start SELECT and run Patch.

1. Insert your Customer Support Functions diskette that contains SELECT into a diskette drive.
2. Enter: LINK SELECT

Next screen: 10-010

3. On screen 10-010,
 - a. Type: P
 - b. Press: Enter key

Next screen: 10-34P

4. On screen 10-34P,
 - a. Press: Enter key

Next screen: 10-26P

Now you will begin to see the screens that are unique to Patch. These screens are included in the next section, "Patch screens."

SELECT

Patch screens

Screen 10-26P

This screen is displayed if you enter a P on the SELECT menu (screen 10-010) and typed information on screen 10-34P.

Patch	10-26P
Customer Support Function to be patched	
Cmd 9 Cancel	

Do this

Type: (See explanation)

Press: Enter key

Explanation

An IBM representative will tell you what information you must type into this field. This name is the name of the file that contains the Customer Support Functions program to be changed.

Next screen 10-27P

SELECT

Patch screens (continued)

Screen 10-27P

This screen is displayed after you type the filename of the function to be patched on screen 10-26P.

Patch

10-27P

Drive number

-

Optional when
VOLID provided

VOLID

Required when
drive number is 5

Cmd 9 Cancel
? Help

Do this

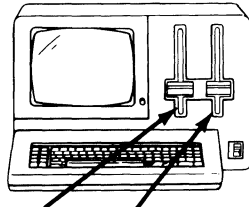
Type: 1, 2, 3, 4, or 5



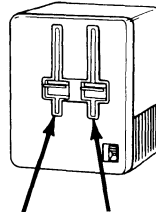
Press: New Line key

Explanation

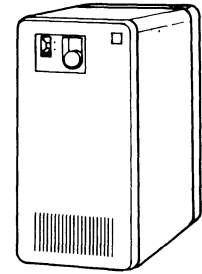
Drive number



Drive 1 Drive 2



Drive 3 Drive 4



Drive 5

Type the number of the drive that contains the Customer Support Functions program to be patched.

SELECT

Patch screens (continued)

Type: (Diskette VOLID)

VOLID

Type the name of the disk volume or diskette that contains the Customer Support Functions program to be changed. You do not have to type this if you typed the drive number, unless the drive number is 5 (disk). When the drive number is 5, you must enter the VOLID.

Press: Enter key

Next screen: 10-28P

This page is intentionally left blank.

SELECT

Patch screens (continued)

Screen 10-28P

This screen is displayed after you type the diskette drive number and/or VOLID on screen 10-27P.

Patch	10-28P
Offset of patch	

Type in 'END' when done	Cmd 9 Cancel

Do this

Type: (See explanation)

Press: Enter key

Explanation**Offset of patch**

Your IBM representative will tell you what to type in this field. The offset of the patch is the location where the change will be made. Write down the number contained in this field because you will use it on the next screen.

The first time you see this screen, the field is blank. After that, Patch displays the next location in the program in this field. If this information matches what your IBM representative told you to type, press Enter. If it does not match, type what you were told to type.

Type exactly what you are instructed to type in this field. Check for mistakes before you press Enter. When you have finished making changes, type END at the *start* of the field.

<i>If you type</i>	<i>Next screen</i>
Offset	10-29P
END without an error	10-30P
END and an error occurred	10-35P

SELECT

Patch screens (continued)

Screen 10-29P

This screen is displayed after you enter an offset (the location to be patched) on screen 10-28P.

Patch	10-29P
Original data at offset	01000 AC5636FF
Replacement data or leave blank	_____
	Cmd 9 Cancel

Do this

Type: (See explanation)

Press: Enter key

Next screen: 10-28P

Explanation**Replacement data or leave blank.**

Your IBM representative will tell you what to type in this field. You will type the patch information that changes the Customer Support Function program.

Before you start typing, check the characters that appear on your screen after the line that says "Original data at offset" These characters should be *exactly the same* as what you were told to type in the "Offset of patch" field on the previous screen. If they are *not* the same, leave all fields blank and press Enter. Then on screen 10-28P, *re-type* the offset of patch information.

If the five characters are the same, type the change. Use uppercase letters if letters are included in what you have been told to type.

Check your typing before you press Enter.

SELECT

Patch screens (continued)

Screen 10-30P

This screen tells you that the patch operation is completed.
Press the Enter key to return to the menu, screen 10-010.

Patch 10-30P

Patch Customer Support Function successful.

Press Enter to return to menu

Chapter 8. UPDATE

What UPDATE does

Note: UPDATE is on diskette VOL002

Note: If you have the 5247 Disk Unit, your Customer Support Functions are on your disk.

UPDATE is used to load the machine updates previously found and combined by SELECT into your computer. When UPDATE is done, the internal programs of your computer are changed and your computer is ready for other work.

UPDATE is different from the other Customer Support Functions:

- It does not display a menu or any other screens.
- It must be run *every time* you switch on your computer.
- It starts loading machine updates as soon as you press the Enter key after PROC START is displayed above the status line on your computer.

UPDATE

Starting UPDATE

Note: UPDATE is on diskette VOL002.

Note: If you have the 5247 Disk Unit, UPDATE is on your disk. Start with step 2.

You need to run UPDATE each time you switch on the power to your computer.

When you see PROC START,

1. If your machine updates are on diskette, insert the diskette that contains the machine updates for *your computer* into drive 1. You will see the words PROC START displayed above the READY INPUT line. Then:
2. Press the Enter key.

Now UPDATE is running and loads the machine updates that you got ready using the SELECT function into the computer. When you see the READY INPUT status again, your computer is ready for you to use to do your other processing.

Remember, the machine updates that SELECT got ready for the computer that you are starting up must either be on a disk volume or a diskette.

Each computer is unique, and the machine updates for one computer may not work on another computer. For this reason, if you have more than one computer in your office and your updates are on diskette, be careful that you do not mix up their diskettes.

You can also run UPDATE yourself by typing LINK UPDATE. First follow steps 1 and 2 above. When you see the READY INPUT status, type:

LINK UPDATE

Press the Enter key. UPDATE starts loading the machine updates as you press the Enter key.

Whenever you run SELECT to get new file updates ready to be loaded, you should also run UPDATE to load the machine updates. After you finished running SELECT, follow steps 1 and 2. When you see the READY INPUT status displayed you:

1. Type: LINK UPDATE
2. Press: Enter key

UPDATE starts loading the new machine updates for the function that you got ready using SELECT.



Chapter 9. PREPARE.DISK

Why and when to use PREPARE.DISK

Use the Prepare Disk (PREPARE.DISK) Customer Support Function *only* if:

- A message on the screen asks you to run PREPARE.DISK with the assistance of an IBM representative.
- IBM sends you information that tells you what to do to run PREPARE.DISK.

PREPARE.DISK

Before you begin

Note: PREPARE.DISK is on diskette VOL005.

You need the following before you use PREPARE.DISK:

- The diskette that has PREPARE.DISK on it
- The disk unit attached to your System/23
- A diskette drive
- The instructions you received from IBM that asks you to run PREPARE.DISK or some assistance from an IBM representative

Chapter 10. ADD.DELETE

What ADD.DELETE does

Note: The ADD.DELETE Customer Support Function is on your disk. It is also on your Customer Support Functions diskette. If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), ADD.DELETE is on diskette VOL001.

You should use this Customer Support Function only if you have a 5247 Disk Unit.

The Add or Delete a Volume (ADD.DELETE) Customer Support Function adds a volume to or deletes a volume from your disk.

Use ADD.DELETE when:

- You want to create a new volume to hold information on your disk. You may have up to 25 volumes on the disk.
- You want to remove a volume from your disk. You may decide to remove a volume if:
 - You no longer need the information in the volume
 - You need more space on your disk

ADD.DELETE has a set of screens that asks you to select what you want to do.

ADD.DELETE

ADD.DELETE choices

These are the choices you have on the menu for ADD.DELETE.
(The screens are shown at the end of this chapter.)

1. *Description of Add or Delete a Volume*, which describes the ADD.DELETE Customer Support Function.
2. *Add a volume*, which lets you create a volume on the disk.
3. *Delete a volume*, which lets you remove a volume from the disk.

Note: Before you can delete a volume, you must first free all the files in the volume using the FREE command. (For information on the FREE command, see "FREE" under "Commands" in the *Operator Reference* in binder 2.)

Hints and considerations

When you want to add a volume, keep these things in mind:

- The volume identification (VOLID):
 - Must be different from your other VOLIDs on the disk.
 - May have up to *six* characters.
 - Can include letters A through Z and numbers 0 through 9.

For example, you could use VOL001, PAY001, PAY002, and so forth.

- The disk may have up to 25 volumes.
- Each time you indicate that you want to add a volume, the computer shows you how many volumes are already on the disk.

When you want to delete a volume, keep these things in mind:

- You must free all the files in a volume before you can delete the volume. (For information on how to free your files, see "FREE" under "Commands" in the *Operator Reference* in binder 2.)
- Each time you indicate that you want to delete a volume, the computer shows you how many volumes are already on the disk.

ADD.DELETE

Before you begin

You need these items before you start ADD.DELETE:

- The ADD.DELETE Customer Support Function
- A 5247 Disk Unit
- This information:
 - The volume identification (VOLID) of the volume you want to create or delete
 - The owner identification (OWNERID) of the volume you want to create

Starting ADD.DELETE

To start ADD.DELETE do the following:

1. Type: LINK ADD.DELETE
2. Press: Enter key

After ADD.DELETE starts, you see a menu on the screen that asks you to select what you want to do.

ADD.DELETE

How to use ADD.DELETE to...

Add a volume to your disk

Here is an example of how you would add a volume to your disk using ADD.DELETE.

Assume that:

- You want to display any messages only on the screen and not on the printer.
- The VOLID of the volume you want to create on your disk is **NEWVOL**.

Follow these steps:

1. Enter: LINK ADD.DELETE
2. Press: Enter key

Next screen: 42-010

3. On screen 42-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 42-052

-
4. On screen 42-052,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 42-102

5. On screen 42-102,
 - a. Type: **NEWVOL** (or the VOLID you want to use for this volume you are creating.) For information on what can be in the VOLID, see "Hints and considerations" on page 10-3.
 - b. Press: New Line key once
 - c. Type: (the owner identification you want to use for this volume. For example, you can use your name.)
 - d. Press: Enter key

Next screen: 42-132

Screen 42-132 is an in-progress screen that tells you that ADD.DELETE is running.

Next screen: 42-142

ADD.DELETE

How to use ADD.DELETE to... (continued)

6. Follow the instructions on screen 42-142 and then press the Enter key. (If screen 42-152 is displayed instead of 42-142, something went wrong. Check the message at the bottom of the screen and follow the instructions on the screen.)

Next screen: 42-010

7. On screen 42-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

The volume you have just added is ready to use.

Delete a volume from your disk

Here is an example of how you would delete a volume from your disk using ADD.DELETE.

Assume that:

- You want to display any messages only on the screen and not on the printer.
- The VOLID of the volume you want to delete is **NEWVOL**.
- All files in the volume have been freed using the FREE command. (For information on how to free your files, see "FREE" under "Commands" in the *Operator Reference* in binder 2.)

Follow these steps:

1. Enter: LINK ADD.DELETE
2. Press: Enter key

Next screen: 42-010

3. On screen 42-010,
 - a. Type: 3
 - b. Press: Enter key

Next screen: 42-053

ADD.DELETE

How to use ADD.DELETE to... (continued)

4. On screen 42-053,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 42-113

5. On screen 42-113,
 - a. Type: NEWVOL (or the VOLID of the volume you want to delete)
 - b. Press: Enter key

Next screen 42-133

Screen 42-133 is an in-progress screen to tell you that ADD.DELETE is running.

Next screen: 42-143

-
6. Follow the instructions on screen 42-143 and then press the Enter key. (If screen 42-153 is displayed instead of 42-143, something went wrong. Check the message at the bottom of the screen and follow the instructions on the screen.)

Next screen: 42-010

7. On screen 42-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

ADD.DELETE

ADD.DELETE screens

This section shows the ADD.DELETE screens and tells what you must type in the fields of each screen. You can run ADD.DELETE from a procedure file. You'll find a chart describing the procedure file keywords for ADD.DELETE at the end of this section. This section also has an example of a procedure file.

Menu screen 42-010

This screen is displayed after you type LINK ADD.DELETE and press the Enter key.

```
Add or Delete a Volume Menu                                42-010
Choose one of the following:
  1. Description of Add or Delete a Volume
  2. Add a volume
  3. Delete a volume
  9. End Add or Delete a Volume
Choice
-
```

Do this

Type: 1, 2, 3, or 9

Press: Enter key

Explanation

Type 1 for a description of ADD.DELETE.

Type 2 if you want to add a volume to the disk.

Type 3 if you want to delete a volume from the disk.

Note: You must free all the files in the volume before you can delete it. For information on how to free your files, see "FREE" under "Commands" in the *Operator Reference* binder 2.

Type 9 to end ADD.DELETE and return the computer to the READY INPUT status.

ADD.DELETE

ADD.DELETE screens (continued)

Screen 42-021

You can get a description of the ADD.DELETE Customer Support Function by choosing option 1 on the menu. Screens describing the function are then displayed on your computer.

When you have finished reading one description screen, press the Enter key to see the next description screen.

Description of Add or Delete a Volume

42-021

The following keys are used in all Customer Support Functions:

Enter - Press Enter to advance to the next screen when all requested information has been typed in.

? - If '? Help' appears on the screen, you can get more information by typing a ? in the first position of that field, and then pressing Enter.

Cmd 9 - If 'Cmd 9' appears on the screen, and you wish to return to the menu, press and hold the Cmd key while pressing the 9 key on the numeric key pad. It is not necessary to press the Enter key.

Press Enter to continue

Cmd 9 Cancel

Next screen: 42-031

Screen 42-031

This is the last screen of "Description of Add or Delete a Volume." You return to the menu when you press the Enter key.

Description of Add or Delete a Volume

42-031

The add a volume option of this Customer Support Function defines a volume on the disk. Files can then be created on this volume. The maximum number of volumes allowed is 25.

The delete a volume option of this Customer Support Function deletes the volume from the disk. The space used for the volume definition will be returned to the free space area on the disk when a volume is deleted. Before using this option you must first free the files using the FREE command. (Reference the Operator Reference Manual).

Press Enter to return to menu

ADD.DELETE

ADD.DELETE screens (continued)

Screens 42-052 and 42-053

<i>Choice on menu</i>	<i>You see screen</i>	<i>Screen name</i>
2	42-052	Add a Volume
3	42-053	Delete a Volume

Add a Volume

42-052

Information and messages to:

- 1-Screen only
 - 2-Screen and printer
 - 3-Printer only
- 2

Printer number

- 10-First printer
 - 11-Second printer
- 10

Required when
printer is used

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Explanation

Information and messages

Type 1 to display all information and messages on the screen.

Type 2 to both display and print all information and messages.

Type 3 to print all information and messages on the printer.

Printer number

Type 10 to print all information and messages on the first printer attached to the computer.

Type 11 to print all information and messages on the second printer attached to the computer.

The printer number is ignored if you enter 1 for "Information and messages."

<i>From screen</i>	<i>Next screen</i>
42-052	42-102
42-053	42-113

ADD.DELETE

ADD.DELETE screens (continued)

Screen 42-102

This screen is displayed after you enter your selections on screen 42-052.

Add a Volume 42-102

12 volumes currently are defined

VOLID _____	Required
OWNERID <u>OWNERID</u> _____	Required

Cmd 9 Cancel
? Help

The current number of volumes on the disk is shown on the screen. No more than 25 volumes are allowed.

Do this

Explanation

Type: (VOLID)

VOLID

Type the volume identification of the volume you want to add. This field is required. It cannot contain more than six English characters and numbers.

Type: New Line key

Type: (Owner ID)

OWNERID

Type the owner identification that you want to assign to the volume. This information can be your name, a company name, or any identification that does not contain more than 14 English characters and numbers.

Press: Enter key

ADD.DELETE

ADD.DELETE screens (continued)

Screen 42-113

This screen is displayed after you enter your selections on screen 42-053.

```
Delete a Volume                                     42-113

          5 volumes currently are defined

VOLID                                     Required
  z01001

                                           Cmd 9 Cancel
                                           ? Help
```

The current number of volumes on the disk is shown on the screen. No more than 25 volumes are allowed.

Do this

Type: (VOLID)

Press: Enter key

Explanation

VOLID

Type the name (VOLID) of the volume you want to delete. This field is required. It cannot contain more than six English characters and numbers.

Remember that all files must be freed before the volume can be deleted.

ADD.DELETE

ADD.DELETE screens (continued)

Screens 42-132 and 42-133

These screens are displayed to tell you that the function is running.

Note: If you indicate on screen 42-052 or 42-053 that you want your information and messages sent to the printer only, you will not see this screen.

Add a Volume

42-132

Add or Delete a Volume in progress.

<i>From screen</i>	<i>Next screen</i>
42-132	42-142 or 42-152
42-133	42-143 or 42-153

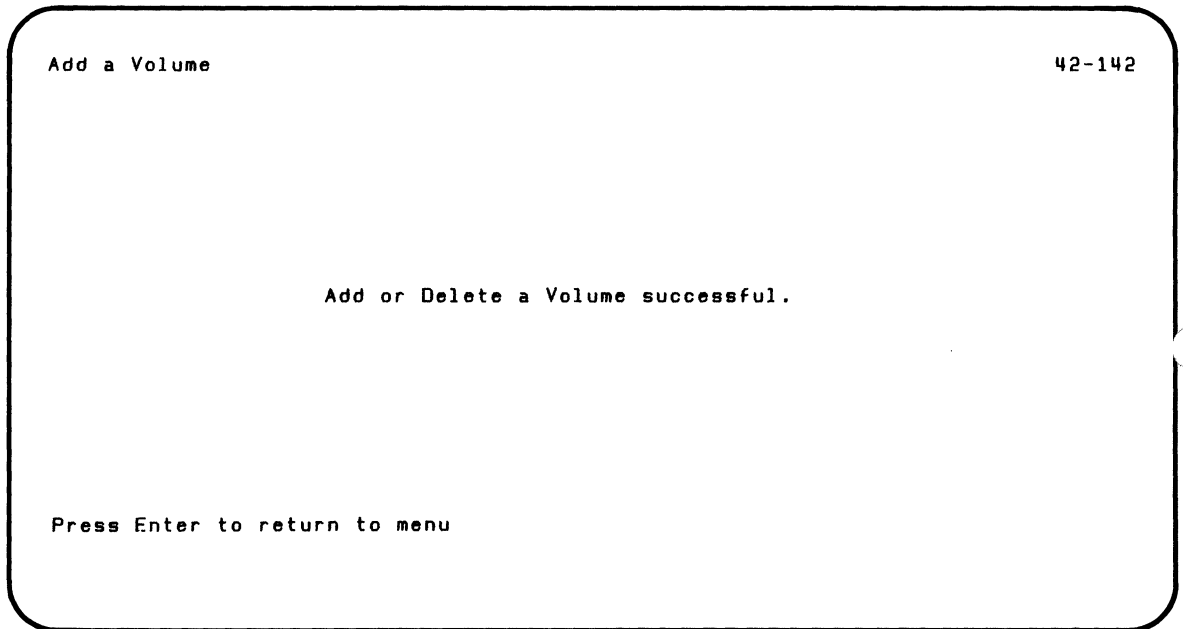
ADD.DELETE

ADD.DELETE screens (continued)

Screens 42-142 and 42-143

These screens are displayed to tell you that ADD.DELETE has successfully completed.

Press the Enter key to see the menu.



The screenshot shows a terminal window with a rounded border. The text is as follows:

Add a Volume 42-142

Add or Delete a Volume successful.

Press Enter to return to menu

Next screen: 42-010

Screen 42-169

This screen is displayed to give you a chance to change an incorrect answer or to check the entries in the procedure file. If you have an incorrect answer, the field in error is enclosed by a green box. If no errors were found or if the field in error cannot be determined, the first field, "CHOICE," is in the box. (You might also check your answer for CHOICE.)

Add or Delete a Volume Procedure File

42-169

CHOICE

VOLID

MESSAGES

2

OWNERID

OWNERID _____

PRINTER

10

Cmd 9 Cancel

ADD.DELETE

ADD.DELETE screens (continued)

Correcting an error on screen 42-169

- Step 1. Locate the field on your screen that is enclosed in a green box.
- Step 2. Use the information below to find the screen number that provides information about the field in error.
- Step 3. Look up that screen number in this section of this book and determine how to correct the error.
- Step 4. Press the Error Reset key.
- Step 5. Type the correction. The cursor is already under the error.
- Step 6. Press the Enter-key to continue.

Field name	Refer to screen	Screen field name
CHOICE	42-010	Menu choice
MESSAGES	42-052, 42-053	Information and messages
PRINTER	42-052, 42-053	Printer number
VOLID	42-102, 42-113	VOLID of volume
OWNERID	42-102	OWNERID of volum

Running ADD.DELETE from a procedure file

This chart shows the keywords that can be in a procedure file to run ADD.DELETE. Read "Using a procedure file," in Chapter 1 of Volume II if you want more information on how to build or use procedure files.

ADD.DELETE

ADD.DELETE screens (continued)

Keyword	Values	Purpose	Notes	Refer to screen
*CHOICE=	2 or 3	Indicates kind of operation: 2=add a volume 3=delete a volume	Required	42-010
MESSAGES=	1, 2, or 3	Indicates where messages are to go: 1=screen only 2=screen and printer 3=printer only	If not used, 2 is assumed.	42-052 42-053
PRINTER=	10 or 11	Indicates which printer: 10=system printer 11=alternate printer	If not used, 10 is assumed.	42-052 42-053
*VOLID=	Volume name	Name of volume to be added or deleted	Required	42-102 42-113
OWNERID=	Name of owner	Name of owner of volume		42-102

* means keyword is required.

Procedure file example

This example shows statements that might be put in a procedure file to run ADD.DELETE.

```
LINK ADD.DELETE
CHOICE=2
VOLID=TEST2
OWNERID=OWN1
CONT
CHOICE=3
VOLID=TEST2
ENDLINK
```

These procedure file statements add one volume with a VOLID of TEST2 and then delete the same volume (TEST2).

Chapter 11. BACKUP.RESTORE

What BACKUP.RESTORE does

Note: The BACKUP.RESTORE Customer Support Function is on your disk. It is also on your Customer Support Functions diskette. If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), BACKUP.RESTORE is on diskette VOL001.

You should use this Customer Support Function only if you have a 5247 Disk Unit.

During your day-to-day operation of your System/23, you will use the Backup and Restore Customer Support Function to put a copy of your *disk* information on diskettes for safekeeping.

The Backup and Restore function can calculate how many diskettes you will need to make a backup copy of your disk information. It can put a backup copy of your disk information on diskettes and return the backup copy to the disk if you ever need to.

BACKUP.RESTORE has a set of screens that asks you to select what you want to do.

BACKUP.RESTORE

BACKUP.RESTORE choices

These are the choices you have on the menu for BACKUP.RESTORE. (The screens are shown at the end of this chapter.)

1. *Description of Backup/Restore*, which describes the Backup and Restore Customer Support Function.
2. *Backup from disk to diskettes*, which lets you put a backup copy of your disk files on diskettes. You can make a backup copy of one file, a group of files that has a common filename prefix, or all the files of a volume.

The diskettes that will hold your backup copy must have special names as described under "How to name your backup diskettes" on page 11-5.

Note: If you select option 2 to back up your files, you must use option 3 to put the files back on the disk if you ever need to use your backup copy.

3. *Restore from diskettes to disk*, which lets you put back on the disk the backup copy of the file or files if you ever need to.
4. *Calculate number of diskettes needed for backup*, which lets you know the number of diskettes you will need for option 2.

Why and when to use **BACKUP.RESTORE**

Use the Backup option of **BACKUP.RESTORE** to put a backup copy of your disk files on diskettes for safekeeping—in case your disk files are lost or damaged. The diskettes that will hold this backup copy must be named a special way as described under “How to name your backup diskettes” on page 11-5.

Note: If you use the Backup option to back up your files, you must use the Restore option to put the files back on the disk if you ever need to use the backup copy.

You must decide how often you need to back up the information on your disk, based on:

- The kind of information you have on the disk
- How often the information changes
- How hard it is to replace the information
- How often you use the information

Use the Calculate option of **BACKUP.RESTORE** to find out how many diskettes you will need to make your backup copy of disk information.

For the results of the Calculate option to be useful, you should use diskettes that are all the same type and that are prepared so that they all have the same number of labels.

BACKUP.RESTORE

Why and when to use BACKUP.RESTORE (continued)

Use the Restore option of BACKUP.RESTORE only if you need to use the backup copy of the information you put on diskettes using the Backup option.

You would probably want to use your backup copy of a file if that file on your disk were lost or damaged.

Note: The Backup option of BACKUP.RESTORE makes a backup copy only. This means that you cannot use your backup copy of the information unless you return the copy to the disk using the Restore option.

Even if you back up a group of files or all the files in a disk volume, you can return to the disk just one of those files or a particular group of files. You can indicate the name of the file or the common prefix for the group of files that you want to return to the disk.

How to name your backup diskettes

The diskette to be used by BACKUP.RESTORE must have a special name; the VOLID must be three letters followed by three numbers.

If you run the Calculate option and find that you need more than one diskette to back up your disk information—which can be one file, a group of files, or all the files in a volume—do the following. When you prepare the diskettes, make sure that:

- The first three letters of the VOLIDs are the same for each diskette.
- The last three characters of these VOLIDs are numbers that increase by *one* for each diskette.

For example, if you needed two diskettes, you could use REC001 and REC002. If you needed five diskettes, you could use ABC010, ABC011, ABC012, ABC013, and ABC014.

BACKUP.RESTORE

Hints and considerations

Remember these things about BACKUP.RESTORE:

- You can use the Calculate option of BACKUP.RESTORE to find out how many diskettes you will need to back up one file, a group of files, or all the files in a disk volume.
- BACKUP.RESTORE makes a backup copy of your disk information. If you ever need to use the backup copy, you must first return the information to the disk using the Restore option.
- Even though you may have made a backup copy of a group of files or all the files in a disk volume, you can return to the disk just one of the files or a particular group of the files.
- The diskettes that you want to hold your backup copy must have special names, as described under "How to name your backup diskettes" on page 11-5.
- When you put a backup copy of disk files on diskettes, the output diskettes should either be empty or contain files that are OK to destroy.
- You should remove your backup diskettes from the diskette drives as soon as the backup process is complete. This will prevent another program or procedure from trying to use the backup copy. Remember that the backup copy on the diskettes cannot be used unless it is returned to the disk using the Restore option of BACKUP.RESTORE.

-
- You can also run BACKUP.RESTORE from a procedure file.
 - You can back up only System/23 format files.
 - If you are not sure about how to respond to a prompt on a screen, don't forget that you can use the ? to get help on those screens that have this: ? HELP. The description screens (option 1 on the menu) also provide information about BACKUP.RESTORE.

BACKUP.RESTORE

Before you begin

You need these items before you start BACKUP.RESTORE:

- The BACKUP.RESTORE Customer Support Function.

To calculate the number of diskettes, you'll need:

- The VOLID of the disk volume that contains the file you want to back up (input VOLID).
- The name of the disk file you want to back up if it is a single file (input filename).
- The common prefix (same first letter or letters) of a group of disk files if it is a group file (input group name).

To calculate the number of diskettes you will need to back up *all* the files in a disk volume, use * as the input filename.

Note: For the results of the Calculate option to be useful, you should use diskettes that are all the same type and that are prepared so that they all have the same number of labels.

To back up your files, you'll need:

- The VOLID of the disk volume that contains the file or files you want to back up (input VOLID).
- The name of the disk file you want to back up if it is a single file (input filename).
- The common prefix (same first letter or letters) of a group of disk files if it is a group file (input group name). See "What if you want to back up a group or all the files on a volume?" on page 11-21.
- The output diskettes. These are the diskettes that will receive the information from the disk.

These diskettes must be prepared as described under "How to name your backup diskettes" on page 11-5.

BACKUP.RESTORE

Before you begin (continued)

To restore your files, you'll need:

- The VOLID or drive number of the *first* diskette that contains the back up copy of your disk information.
- The name of the file you want to return to the disk if it is a single file (input filename).
- The common prefix (same first letter or letters) of a group of files, if it is a group file (input group name). To restore all the files, use * for the filename.
- The VOLID of the disk volume you want to hold the restored copy (output VOLID).



Starting **BACKUP.RESTORE**

To start **BACKUP.RESTORE** do the following:

1. Type: **LINK BACKUP.RESTORE**
2. Press: Enter key

After **BACKUP.RESTORE** starts, you see a menu on the screen that asks you to select what you want to do.

BACKUP.RESTORE

How to use BACKUP.RESTORE to...

Calculate the number of diskettes needed for backup

Here is an example of how you can use BACKUP.RESTORE to find out how many diskettes you will need to back up all the files in a volume.

Assume that:

- You want to back up all the files in a volume.
- You want to display any messages only on the screen, not on the printer.
- You will use type 1 diskettes.
- You have 50 file labels on each diskette.
- Your input VOLID is **VOL2** (or the VOLID of your disk volume that contains the files you want to back up).

Follow these steps:

1. Enter: LINK BACKUP.RESTORE

Next screen: 44-010

2. On screen 44-010,
 - a. Type: 4
 - b. Press: Enter key

Next screen: 44-064

3. On screen 44-064,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 44-124

BACKUP.RESTORE

How to use BACKUP.RESTORE to... (continued)

4. On screen 44-124,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 44-144

5. On screen 44-144,
 - a. Type: VOL2 (or the VOLID of your disk volume that contains the files you want to back up)
 - b. Press: New Line key *once*
 - c. Type: * (* indicates **all** files in the volume)
 - d. Press: Enter key

Next screen: 44-174

6. Screen 44-174 tells you that the calculation is in progress.

Next screen: 44-234

-
7. Follow the instructions on screen 44-234. (If you see screen 44-244 instead of 44-234, something went wrong. Check the message at the bottom of the screen and do what the action code tells you to do.)
 8. Make a note of the number of diskettes you will need to back up the files and make sure that you have enough diskettes.
 9. Press: Enter key

Next screen: 44-010

10. On screen 44-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

Now that you know how many diskettes you need, make sure you name them as described under "How to name your backup diskettes" on page 11-5.

BACKUP.RESTORE

How to use BACKUP.RESTORE to... (continued)

Back up a file on the disk

Here is an example of how you can use BACKUP.RESTORE to back up a single disk file that is too large to fit on one diskette. (See "What if you want to back up a group or all the files on a volume?" on page 11-21, if you want to back up more than one file.)

Assume that:

- You have already prepared a set of diskettes in the way described under "How to name your backup diskettes" on page 11-5.
- You want to display any messages only on the computer screen and not on your printer.
- You want to keep all records in place, including deleted records.

Note: If your file contains space from records that were deleted and you remove this space, the locations of the records in the file will change and some programs may not be able to find the correct records. Keep deleted records unless you have been instructed to do otherwise.

- You want to destroy the files that are already on the output diskettes.
- Your input VOLID is **VOL2** (or the VOLID of your disk volume that contains the file you want to back up).
- Your input filename is **CUSTOMER** (or the filename of your own file).
- Your output VOLID is **BAK001** (or the name of your *first* diskette the file will be copied to).

Follow these steps:

1. Enter: LINK BACKUP.RESTORE
2. Press: Enter key

Next screen: 44-010

3. On screen 44-010,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 44-062

4. On screen 44-062,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 44-082

5. On screen 44-082,
 - a. Press: Enter key

Next screen: 44-112

BACKUP.RESTORE

How to use BACKUP.RESTORE to... (continued)

6. On screen 44-112,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 44-132

7. On screen 44-132,
 - a. Type: VOL2 (or the VOLID of your volume that contains the file you want to back up)
 - b. Press: New Line key *once*

If you want to back up a group or all the files on a volume, see "What if you want to back up a group or all the files on a volume?" on page 11-21.

- c. Type: CUSTOMER (or the name of the file you want to back up)
- d. Press: New Line key *once*
- e. Type: 2 (or the drive where you will put your output diskette)
- f. Press: New Line key *once*
- g. Type: BAK001 (or the VOLID of your diskette that the file will be copied to)

Note: Remember, the VOLID must be three letters followed by three numbers.

Insert the first diskette that will hold the backup file.

If you have more than one diskette drive, you can put the output diskettes in the drives ahead of time. Backup continues until those diskettes are full.

- h. Press: Enter key

Next screen: 44-182

8. Follow the messages on the status line. The messages tell you when to remove one diskette and insert another. Remember, after inserting each diskette, press the Error Reset key.

Continue removing and inserting diskettes as you are instructed by the messages on the status line until BACKUP.RESTORE displays completion screen 44-192. (If you see screen 44-202 instead of 44-192, something went wrong. Check the message at the bottom of the screen and do what the action code tells you to do.)

Next screen: 44-192

9. Follow the instructions on screen 44-192 and then press the Enter key.

Next screen: 44-010

BACKUP.RESTORE

How to use BACKUP.RESTORE to... (continued)

10. On screen 44-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

11. Remove your diskettes. Make sure that they are labeled as backup diskettes created by BACKUP.RESTORE. Write their VOLIDs on the adhesive labels. You should also write on the labels the date and time the backup was done.

What if you want to back up a group or all the files on a volume?

To back up a group of files, your filenames must have a common prefix (the first 1-16 characters). For example, R* would back up all files beginning with the character "R"; ABC* would back up all files beginning with the characters "ABC."

For example, you could enter **imf*** as the group filename in step 7, on screen 44-132, in the preceding example to back up the following files:

IMFLM01

IMFLM11

IMFLM22, etc.

To back up all the files on a volume, you enter an * for the filename. This says to back up all the files in the specified volume.

For example, if you wanted to back up all the files in VOL2 in the preceding example, in step 7, on screen 44-132, you would type * for the filename instead of CUSTOMER.

BACKUP.RESTORE

How to use BACKUP.RESTORE to...

Restore a file to the disk

Here is an example of how you could use BACKUP.RESTORE to copy a file back to the disk if it were backed up using BACKUP.RESTORE.

(You could also use this example to return to the disk a freed file that was recovered by DISK.RECOVER.)

Assume that:

- You used the Backup option to copy CUSTOMER to a set of diskettes with VOLIDs of BAK001, BAK002, and so on.
- You want to display any messages only on the computer screen and not on the printer.
- You will replace the data already in CUSTOMER on the disk.
- You will keep deleted records in place, the same as you did when you backed up your file.
- Your input VOLID is BAK001 (or the VOLID of your *first* diskette that contains the file you want to put back on the disk)
- Your input filename is CUSTOMER (or the name of the file you want to put back on the disk)
- Your output VOLID is VOL2 (or the VOLID of the disk volume you want to copy the file to)

Follow these steps:

1. Enter: LINK BACKUP.RESTORE
2. Press: Enter key

Next screen: 44-010

3. On screen 44-010,
 - a. Type: 3
 - b. Press: Enter key

Next screen: 44-063

4. On screen 44-063,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 44-093

BACKUP.RESTORE

How to use BACKUP.RESTORE to... (continued)

5. On screen 44-093,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 44-103

6. On screen 44-103,
 - a. Press: New Line key *once*
 - b. Type: BAK001 (or the VOLID of your *first* diskette that contains the file you want to return to the disk)
 - c. Press: New Line key *once*
 - d. Type: CUSTOMER (or the name of the file you want to return to the disk)
 - e. Press: New Line key *once*
 - f. Type: VOL2 (or the VOLID of your disk volume)
7. Insert the *first* diskette that contains **CUSTOMER** (or the file you want to return to the disk).

Note: If you specify * as the filename, which means "restore all files," the diskettes must be inserted in the same order used when you made the backup copy.

-
8. Press: Enter key

Next screen: 44-183

9. Follow the messages on the status line. The messages tell you when to remove one diskette and insert another.

Next screen: 44-213

10. Follow the instructions on screen 44-213 and then press the Enter key. (If screen 44-233 is displayed instead of 44-213, something went wrong. Check the messages at the bottom of the screen and follow the instructions there.)

Next screen: 44-010

BACKUP.RESTORE

How to use BACKUP.RESTORE to... (continued)

11. On screen 44-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

12. Remove your diskettes.

Note: If you used this example to return a recovered freed file to your disk, do this. Check the file to see whether any information is missing. If information is missing, see Chapter 6, "LISTFILE," in *Customer support Functions, Volume II*, for information on what to do next.

BACKUP.RESTORE screens

This section shows the BACKUP.RESTORE screens and tells what you must type in the fields of each screen. You can run BACKUP.RESTORE from a procedure file. You'll find a chart describing the procedure file keywords for BACKUP.RESTORE at the end of this section. This section also has an example of a procedure file.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Menu screen 44-010

You will see this screen after you type LINK
BACKUP.RESTORE and press the Enter key.

Backup/Restore Menu

44-010

Choose one of the following:

1. Description of Backup/Restore
2. Backup from disk to diskettes
3. Restore from diskettes to disk
4. Calculate number of diskettes needed for backup

9. End Backup/Restore

Choice

-

Do this

Type: 1, 2, 3, 4, or 9

Explanation

Type 1 for a description of BACKUP.RESTORE.

Type 2 to back up files from a disk to diskettes.

Type 3 to return to the disk the backup copy of the files created by option 2.

Type 4 to calculate the number of diskettes needed when using option 2.

Type 9 to end BACKUP.RESTORE and return the computer to the READY INPUT status.

Press: Enter key

<i>If you type</i>	<i>Next screen</i>
1	44-021
2	44-062
3	44-063
4	44-064
9	READY INPUT status

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-021

You can get a description of the BACKUP.RESTORE Customer Support Function by choosing option 1 on the menu.

When you have finished reading one description screen, press the Enter key to see the next description screen.

Description of Backup/Restore

44-021

The following keys are used in all Customer Support Functions:

Enter - Press Enter to advance to the next screen when all requested information has been typed in.

? - If '? Help' appears on the screen, you can get more information by typing a ? in the first position of that field, and then pressing Enter.

Cmd 9 - If 'Cmd 9 Cancel' appears on the screen, and you wish to return to the menu, press and hold the Cmd key while pressing the 9 key on the numeric key pad. It is not necessary to press the Enter key.

Press Enter to continue

Cmd 9 Cancel

Next screen: 44-031

Screen 44-031

This is the second description screen for the Backup and Restore Customer Support Function.

Description of Backup/Restore

44-031

Backup is used to copy information from disk to diskettes for safe keeping. Restore is used to take information which was backed-up and make it available for use.

Use Backup:

When the amount of information on the disk that you want to copy for safe keeping will not fit on one diskette. (If all of the information you want to copy will fit on one diskette, use the Copy Customer Support Function.)

Use Restore:

When you want to return a copy of backed-up information to the disk. The diskettes must have been created by backup.

Press Enter to continue

Cmd 9 Cancel

Next screen: 44-041

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-041

This is the last screen of "Description of Backup/Restore."
You return to the menu screen when you press the Enter key.

Description of Backup/Restore

44-041

Be careful: The backup option will destroy information that is now on the output diskette.

When you Backup/Restore an index file or an address out file made with the Sort Customer Support Function, keep deleted records in place.

More information can be found in Customer Support Function manuals.

The calculate option is used to help you determine if you have the number of diskettes needed to backup information from the disk to diskette.

Press Enter to return to menu

Next screen: 44-010

Screens 44-062, 44-063, and 44-064

<i>Choice on menu</i>	<i>You see screen</i>	<i>Screen name</i>
2	44-062	Backup From Disk to Diskettes
3	44-063	Restore from Diskettes to Disk
4	44-064	Calculate Number of Diskettes Needed for Backup

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Backup From Disk to Diskettes

44-062

Information and messages to:

- 1-Screen only
- 2-Screen and printer
- 3-Printer only
- 2

Printer number

- 10-First printer
- 11-Second printer
- 10

Required when
printer used

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Explanation**Information and messages**

Type 1 to display all information and messages on the screen.

Type 2 to both display and print all information and messages.

Type 3 to print all information and messages on the printer.

Printer Number

Type 10 to print all information and messages on the first printer attached to the computer.

Type 11 to print all information and messages on the second printer attached to the computer.

The printer number is ignored if you enter 1 for "Information and messages."

<i>From screen</i>	<i>Next screen</i>
44-062	44-082
44-063	44-093
44-064	44-124

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-082

This screen is displayed after you fill in the fields on screen 44-062.

Backup From Disk to Diskettes

44-082

Reserve output space based on:
1-Larger of file space or data
2-Data in input file
1

Keep deleted records
Y-Keep records in place
N-Remove deleted records
Y

Types of files to Backup
1-All files
2-Data and Index files only
3-Data files only
1

Cmd 9 Cancel
? Help

Do this

Type: 1 or 2

Press: New Line key

Type: Y or N

Explanation**Reserve output space**

Type 1 if you want to make sure that the file can be returned to the disk with as much space as was originally reserved for it.

Type 2 if you want to reserve only enough space required for the file.

Keep deleted records

Type Y to keep deleted records.

Type N if you do not want deleted records.

Note: If you type N and your input files contain records that have been deleted, the locations of records in the output files will change and some programs may not be able to find the right records.

You should type Y for this field unless you have been instructed to do otherwise.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Do this

Press: New Line key

Type: 1, 2, or 3

Press: Enter key

Explanation

Type of files

Type 1 if you want to back up all file types.

Type 2 if you want to back up data and index files only (types 04, 07, 08, and 20).

Type 3 if you want to back up data files only (types 04 and 20).

Next screen: 44-112

This page is intentionally left blank.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-093

This screen is displayed after you enter your selections on screen 44-063.

Restore From Diskettes to Disk

44-093

Replace information in output file

Y-OK to destroy existing data

N-Do not destroy data

N

Keep deleted records

Y-Keep records in place

N-Remove deleted records

Y

Restore file into single area only

Y-Continuous area is required

N-Fit into available spaces

N

Cmd 9 Cancel

? Help

Do this

Type: Y or N

Press: New Line key

Type: Y or N

Explanation**Replace information in output file**

Type Y if you know that it is all right to replace information in the output file with the information you are copying from the input diskette. The information in the output file is destroyed.

Type N if you want to stop the copy operation if there already is information in the output file.

Keep deleted records

Type Y to keep deleted records.

Type N if you do not want deleted records in the output file.

Note: If you type N, and your file contains space from which records have been deleted, the locations of the records in the file will be changed, and some programs may not be able to find the correct records.

You should type Y for this field unless you have been instructed to do otherwise.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Do this

Press: New Line key

Type: Y or N

Press: Enter key

Explanation

Restore file into single area only

Type Y if you need to have a file copied into one continuous area on the disk.

Type N if the file can be copied into any available space on the disk.

You should type N unless you have been instructed to type Y.

Next screen: 44-103

This page is intentionally left blank.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-103

This screen is displayed after you enter your selections on screen 44-093. Insert your input diskette into the diskette drive.

Restore From Diskettes to Disk

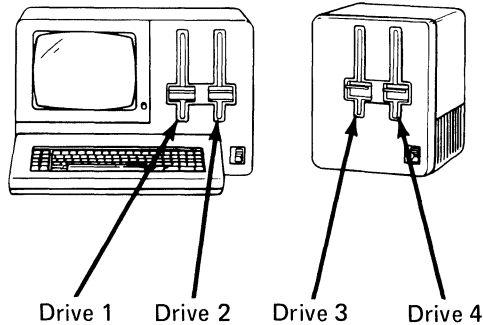
44-103

Input drive number _	Optional when input VOLID provided
Input VOLID _____	Optional when input drive provided
Input filename, group name, or * _____	Required To restore all: type in *.
Output VOLID _____	Required

INSERT DISKETTE NOW.

Do this

Type: 1, 2, 3, or 4

Explanation**Input drive number**

Type the number of the diskette drive that contains the file or group of files to be restored. You do not have to enter this if you are going to enter the input VOLID.

Press: New Line key

Type: (Diskette VOLID)

Input VOLID

The VOLID is the name of the diskette that contains the backup copy of the files you want to return to the disk. You do not have to type this if you entered the input drive number. Type the VOLID if you are only using one diskette drive or if you are using a 32K system.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Press: New Line key

Type: (Name of file,
group prefix and *,
or just *)

Input filename, group name, or *

To restore a single file, type the name of the file you want to restore.

To restore a group of files, type the prefix common to all filenames, followed by an asterisk (*). For example, if you have files named PAYPGM, PAYDAT, and PAYCHK on your diskette, enter PAY* to restore all three.

To restore all the files in a volume, type an asterisk (*).

Press: New Line key

Type: (Diskette VOLID)

Output VOLID

Type the name of the volume that will contain the restored file or files.

Press: Enter key

Next screen: 44-183

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-112

This screen is displayed after you enter the fields on screen 44-082.

Backup From Disk to Diskettes

44-112

Destroy information on output diskette
Y-OK to destroy all existing data
N-Do not destroy data
N

Cmd 9 Cancel
? Help

Do this

Type: Y or N



Press: Enter key

Next screen: 44-132

Explanation

Destroy information on output diskette

Type Y if you know that the information on your output diskette is no longer needed. If you type Y all information on the output diskette will be erased.

Type N if you do not want to erase and destroy all information on the output diskette.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-124

This screen is displayed after you enter your selections on screen 44-064.

Calculate Number of Diskettes Needed for Backup

44-124

Diskette type

1-Diskette 1

2-Diskette 2

3-Diskette 20

3

Number of file labels on each diskette

50

Cmd 9 Cancel

? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: (Number)

Press: Enter key

Next screen: 44-144

Explanation

Diskette type

Type 2 for a diskette 1.

Type 2 for a diskette 2.

Type 3 for a diskette 2D.

Number of file labels

Type the number of file labels on the backup diskettes.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-132

This screen is displayed after you enter your selections on screen 44-112. Insert your output diskette into the diskette drive.

Backup From Disk to Diskettes

44-132

Input VOLID _____	Required
Input filename, group name, or * _____	Required To backup all; type in *.
Output drive number _	Optional when output VOLID provided
Output VOLID _____	Optional when output drive provided

INSERT DISKETTE NOW.

Cmd 9 Cancel
? Help

Do this

Type: (Disk VOLID)

Press: New Line key

Type: (Name of file,
group prefix and *,
or just *)

Press: New Line key

Explanation**Input VOLID**

The VOLID is the name assigned to the volume that contains the files you want to back up.

Input filename, group name, or *

To back up a single file, type the name of the file you want to back up.

To back up a group of files, type the prefix common to all filenames, followed by an asterisk (*). For example, if you have files named PAYPGM, PAYDAT, and PAYCHK on your diskette, enter PAY* to back up all three.

To back up all files in a volume, type an asterisk (*).

BACKUP.RESTORE

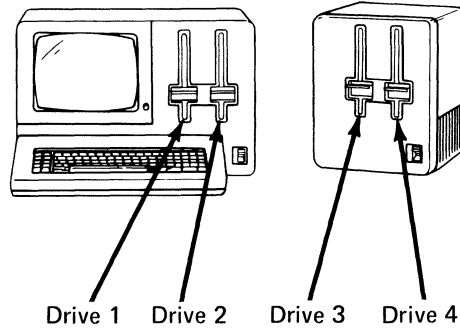
BACKUP.RESTORE screens (continued)

Do this

Type: 1, 2, 3, or 4

Explanation

Output drive number



Type the number of the drive that contains the *first* diskette to be used for the output. You do not have to enter this if you are going to enter the output VOLID.

Press: New Line key

Type: (Diskette VOLID)

Output VOLID

Type the name of the *first* diskette that will receive the file or files.

Remember, the VOLIDs of your output diskettes must all have the same first three letters, followed by three numbers that increase by one for each diskette. For additional information, see "How to name your backup diskettes" on page 11-5.

Press: Enter key

Next screen: 44-182

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screen 44-144

This screen is displayed after you enter your selections on screen 44-124.

Calculate Number of Diskettes Needed for Backup

44-144

Input VOLID Required
tst001

Input filename,
group name, or * Required
dskdump To calculate for
 backup of all:
 Type in *

Types of files to Backup
1-All files
2-Data and Index files only
3-Data files only
1

? Help
Cmd 9 Cancel

Do this

Type: (Diskette VOLID)

Press: New Line key

Type: (Name of file,
group prefix and *,
or just *)

Press: New Line key

Explanation**Input VOLID**

The VOLID is the name assigned to the volume that contains the files you want to back up.

Input filename, group name, or *

To calculate how many diskettes you will need to back up a single file, type the name of the file.

To calculate how many diskettes you will need to back up a group of files, type the prefix common to all filenames, followed by an asterisk (*). For example, if you have files named PAYPGM, PAYDAT, and PAYCHK on your diskette, enter PAY* to get a calculation for all three.

To calculate how many diskettes are needed for all files in a volume, type an asterisk (*).

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Do this

Type: 1, 2, or 3

Press: Enter key

Explanation

Types of files to back up

Type 1 if you want to calculate how many diskettes you'll need to back up all file types.

Type 2 if you want to calculate how many diskettes you'll need to back up only data and index files (types 04, 07, 08, and 20).

Type 3 if you want to calculate how many diskettes you'll need to back up only data files (types 04 and 20).

Next screen: 44-174

Screen 44-174

This screen is displayed to tell you that the computer is figuring out the number of diskettes you'll need.

Note: If you indicate on screen 44-064 that you want your information and messages sent only to the printer, you will not see this screen.

Calculate Number of Diskettes Needed for Backup

44-174

Calculation in progress.

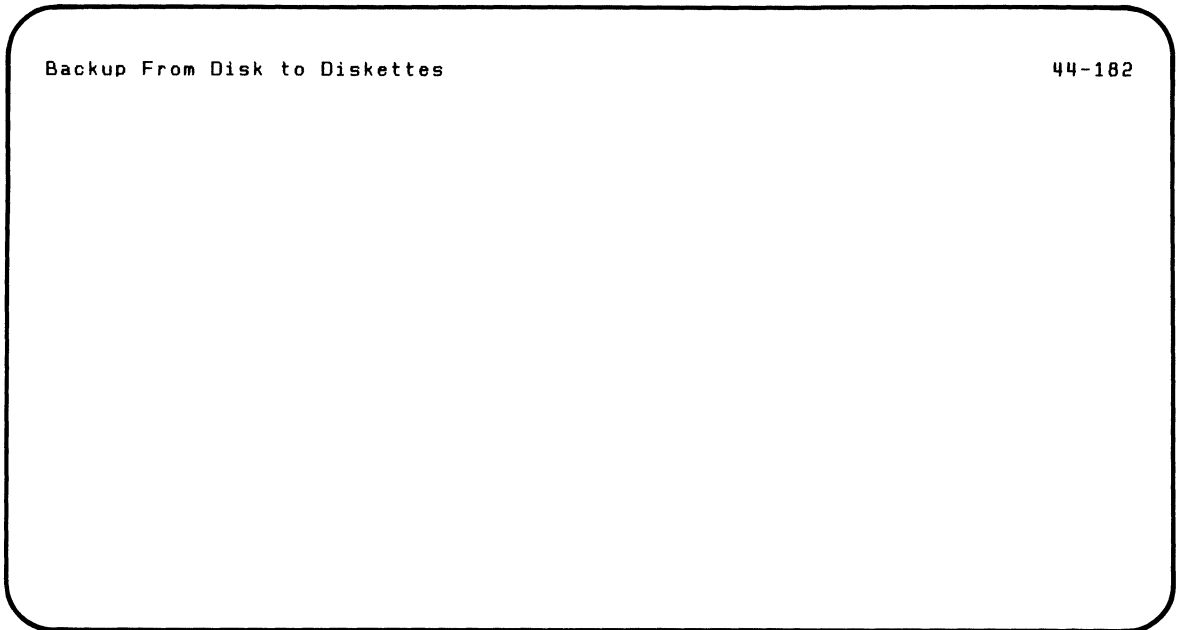
Next screen: 44-234 or 44-244

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Screens 44-182 and 44-183

These screens are displayed as your files are being backed up or restored.



<i>From screen</i>	<i>Next screen</i>
44-182	44-192 or 44-202
44-183	44-213 or 44-223

Screens 44-192, 44-213, and 44-234

These screens are displayed to tell you that BACKUP.RESTORE has successfully completed. The screens tell you:

44-192 Number of files backed up

44-213 Number of files restored

44-234 Number of diskettes needed for backup and how to name the diskettes.

Press the Enter key to see the menu.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Backup From Disk to Diskettes

44-192

Backup/Restore completed.

1 files backed up.

Press Enter to return to menu

Next screen: 44-010

Screen 44-259

This screen is displayed to give you a chance to change an incorrect answer or to check the entries in the procedure file. If you have an incorrect answer, the field in error is in a green box. If no errors were found or the field in error cannot be determined, the first field, "CHOICE," is in the box. (You might also check your answer for "CHOICE.")

Backup/Restore Procedure File

44-259

CHOICE	REPLDISKINFO	INDRVNO
	N	5
MESSAGES	REPLFILEINFO	INVALID
2	N	_____
PRINTER	FILETYPE	INFILENAME
10	1	_____
RESERVE	DISKETTETYPE	OUTDRVNO
1	3	_____
DELREC	NUMLABEL	OUTVOLID
Y	50	_____
SINGLEAREA		
N		

Cmd 9 Cancel

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Correcting an error on screen 44-259

- Step 1. Locate the field on your screen that is enclosed in a green box.
- Step 2. Use the information below to find the screen number that provides information about the field in error.
- Step 3. Look up that screen number in this section of this book and determine how to correct the error.
- Step 4. Press the Error Reset key.
- Step 5. Type the correction. The cursor is under the error.
- Step 6. Press the Enter key to continue.

Field name	Refer to screen	Screen field name
CHOICE	44-010	Menu choice
MESSAGES	44-062, 44-063, 44-064	Information and messages
PRINTER	44-062, 44-063, 44-064	Printer number for information and messages
RESERVE	44-082	Reserve output space
DELREC	44-082	Copy deleted records
SINGLEAREA	44-093	Copy files into single area
REPLDISKINFO	44-112	Destroy information
REPLFILEINFO	44-093	Replace information
FILETYPE	44-082	Types of files to back up
DISKETTETYPE	44-124	Diskette type
NUMLABEL	44-124	Number of file labels
INDRVNO	44-103	Input drive number
INVALID	44-103	Input VOLID
INFILENAME	44-103	Input filename
OUTDRVNO	44-103	Output drive number
OUTVOLID	44-103	Output VOLID

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Running BACKUP.RESTORE from a procedure file

This chart shows the keywords that can be in a procedure file to run BACKUP.RESTORE. Read "Using a procedure file," in Chapter 1 of Volume II if you want more information on how to build or use procedure files.

Keyword	Values	Purpose	Notes	Refer to screen
*CHOICE=	2, 3, or 4	Indicates kind of operation: 2=backup from disk to diskettes 3=restore from diskettes to disk 4=calculate number of diskettes for backup	Required	44-010
MESSAGES=	1, 2, or 3	Indicates where messages are to go: 1=screen only 2=screen and printer 3=printer only	If not used, 2 is assumed.	44-062 44-063 44-064
PRINTER=	10 or 11	Indicates which printer: 10=system printer 11=alternate printer	If not used, 10 is assumed.	44-062 44-063 44-064

*means keyword is required.

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Keyword	Values	Purpose	Notes	Refer to screen
RESERVE=	1 or 2	Indicates method of reserving space for copies: 1=at least as much space as originally reserved 2=only what is needed to hold information		44-082
DELREC=	Y or N	Indicates whether deleted records should be copied: Y=yes, copy N=no, remove		44-082 44-093
SINGLEAREA=	Y or N	Indicates whether continuous space is needed: Y=yes N=no, fit into available space		44-093
REPLFILEINFO=	Y or N	Indicates whether to write over file on output disk volume: Y=yes, data not needed N=no, save data		44-093

Keyword	Values	Purpose	Notes	Refer to screen
REPLDISKINFO=	Y or N	Indicates if data on output diskette can be replaced: Y=yes, replace data N=no, do not replace		44-112
FILETYPE=	1, 2, or 3	Type of files to backup: 1=all 2=data and index only 3=data only		44-144
DISKETTETYPE=	1, 2, or 3	Type of diskette for backup: 1=Type 1 2=Type 2 3=Type 2D		44-124
NUMLABEL=	1 to 1478	Number of file labels on diskette for backup		44-124

BACKUP.RESTORE

BACKUP.RESTORE screens (continued)

Keyword	Values	Purpose	Notes	Refer to screen
INDRVNO=	1, 2, 3 or 4	Indicates which drive will hold the diskette to be copied from	For restore, optional if INVOLID= is included. Not required for backup.	44-103
INVOLID=	Volume name	Indicates name of diskette to be copied from	For restore, optional if INDRVNO= is included. Required for backup.	44-103 44-132 44-144
INFILENAME=	File name, file group name, or *	Name of file or group name (prefix and *), or * (all files)	Required	44-103 44-132 44-144
OUTDRVNO=	1, 2, 3, or 4	Indicates which drive will hold the diskette to be written on	For backup, optional if OUTVOLID= is included. Not required for restore.	44-132
OUTVOLID=	Volume name	Indicates name of diskette to be written on	For backup, optional if OUTDRVNO= is included. Required for restore.	44-103 44-132

Procedure file example

This example shows statements that might be put in a procedure file to run BACKUP.RESTORE.

The first example puts a backup copy of all the files in disk volume VOL2 on output diskette BAK001.

```
LINK BACKUP.RESTORE
CHOICE=2
INVOLID=VOL2
INFILENAME=*
OUTVOLID=BAK001
REPLDISKINFO=Y
ENDLINK
```

The following example returns to the disk a single file named PAY010. This example assumes that file PAY010 was one of the files in VOL2 when the backup copy was made.

```
LINK BACKUP.RESTORE
CHOICE=3
INVOLID=BAK001
INFILENAME=PAY010
OUTVOLID=VOL2
REPLFILEINFO=Y
ENDLINK
```



Chapter 12. DISK.RECOVER

What DISK.RECOVER does

Note: The DISK.RECOVER Customer Support Function is on your disk. It is also on your Customer Support Functions diskette. If you have both VOL001 (Diskette 1 of 2) and VOL002 (Diskette 2 of 2), DISK.RECOVER is on diskette VOL001.

Use DISK.RECOVER to recover only *disk* files. Use RECOVER to recover diskette files.

The Recover Disk (DISK.RECOVER) Customer Support Function helps you retrieve information on the disk when:

- You get a message on the screen indicating that the computer cannot read your file.
- You accidentally drop or free a file.

If you get a read error, look up DISK.RECOVER in *Customer Support Functions, Volume II*, for information about what you should do. Better still, make sure that you back up all important information on your disk often. (To back up your disk information, use the Backup and Restore Customer Support Function, discussed in Chapter 11 of this book.) Then you have your information available without using DISK.RECOVER.

This chapter discusses how to use DISK.RECOVER if a disk file is accidentally dropped or freed. A file is accidentally dropped or freed if someone uses the DROP or FREE command with the *wrong filename* or at the *wrong time*. (For detailed information about DROP and FREE, see Chapter 6, "Commands," in the *Operator Reference* in binder 2.)

DISK.RECOVER

What DISK.RECOVER does (continued)

When a file is *dropped*, the file is still on the disk, just as it was at the time the DROP command was given; however, the file label for the file indicates that nothing is contained in the file. In this case, DISK.RECOVER changes the file label to show that the information really is still in the file.

When a file is *freed*, the computer makes the space that the file uses available for use by another file. So, if you accidentally free a file, run DISK.RECOVER as soon as possible. Anyone who uses the disk before you recover your file could write over the information contained in your freed file. When recovering a freed file, DISK.RECOVER puts a backup copy of the file on an output diskette.

This chapter about DISK.RECOVER tells you how to start DISK.RECOVER and shows how to recover an accidentally dropped or freed file. Only the screens that are displayed while recovering dropped or freed files are included in this book. See *Customer Support Functions*, Volume II, to see the other DISK.RECOVER screens.

Why and when to use DISK.RECOVER

You need to run DISK.RECOVER as soon as you realize that a file has been accidentally dropped or freed. You would know this if you entered the command yourself.

If you accidentally drop or free a disk file, reconstruct the file as shown by the examples in this book. But, if anyone has added information or changed information on the disk since your file was freed, you may need to refer to Chapter 9, "DISK.RECOVER," in *Customer Support Functions*, Volume II, for additional information. You can still recover the file, but a part of the file may be destroyed.

You can recover only one dropped or freed file at a time. You will have to run DISK.RECOVER again if you need to recover more than one file.

You also need to run DISK.RECOVER if the System/23 reports errors when it tries to read information on the disk (these are called *read errors*). See *Customer Support Functions*, Volume II.

DISK.RECOVER

Before you begin

To recover a *dropped* file, you'll need:

- The DISK.RECOVER Customer Support Function.
- The VOLID of the disk volume that contains your dropped file.
- The name of your dropped file.

To recover a *freed* file, you'll need:

- The VOLID of the disk volume that contains your freed file.
- The name of your freed file.
- A special output diskette to hold your freed file when it is recovered. When you prepare your output diskette using the PREPARE Customer Support Function, the VOLID must be three letters followed by three numbers. If you need more than one diskette:
 - The first three letters of these VOLIDs must be the same.
 - The last three characters of these VOLIDs must be numbers that increase by *one* for each diskette.

For example, you could use REC001 and REC002, or ABC010 and ABC011.

Starting DISK.RECOVER

To start DISK.RECOVER:

1. Type: LINK DISK.RECOVER
2. Press: Enter key

After DISK.RECOVER starts, you see a menu on the screen that asks you to select what you want to do.

DISK.RECOVER

How to use DISK.RECOVER to

Recover a dropped file

Suppose you were using the BASIC DROP command to drop some files you no longer needed. You accidentally dropped a file that you still need; the file is named MTR.MEMO and is on your disk volume named VOL2.

When you drop a file, the space reserved for that file is still reserved. The computer cannot find the file because the file doesn't seem to have any records.

Assume that you will print and display your output. To recover MTR.MEMO, follow these steps:

1. Enter: LINK DISK.RECOVER
2. Press: Enter key

Next screen: 43-010

3. On screen 43-010,
 - a. Type: 4
 - b. Press: Enter key

Next screen: 43-064

-
4. On screen 43-064,
 - a. Type: 2
 - b. Press: Enter key

Next screen: 43-094

5. On screen 43-094,
 - a. Type: VOL2 (or the VOLID of the disk volume that contains your dropped file)
 - b. Press: New Line key once
 - c. Type: MTR.MEMO (or the name of your dropped file)
 - d. Press: Enter key

Next screen: 43-114

6. On screen 43-114,
 - a. Type: The number displayed to the right of the word "Previous"
 - b. Press: Enter key

Next screen: 43-154

DISK.RECOVER

How to use DISK.RECOVER to ... (continued)

Screen 43-154 tells you that the record count for filename MTR.MEMO is being changed from 0 to the number you typed in the preceding step.

Next screen: 43-254

7. Follow the directions on the completion screen:
 - a. Press: Enter key

Next screen: 43-010

8. On screen 43-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

If you saw the unsuccessful completion screen, you need to use the error and action codes to figure out what went wrong and what you should do. Look in your *System Messages* book.

Recover a freed file

Suppose you were using the BASIC FREE command to free some files you no longer needed. You accidentally freed a file that you still need; the file is named CUSTOMER and it was on your disk volume named VOL2. Assume that you will display any messages on your screen.

You should follow these steps *immediately* after accidentally freeing a file. If anyone uses the disk before you run DISK.RECOVER, the information in the file might be destroyed. The *Customer Support Functions, Volume II*, has more information about using DISK.RECOVER for cases like that.

Before you start DISK.RECOVER, you need a diskette that has been prepared as described under "Before you begin" on page 12-4. For this example, the diskette VOLID is REC001. To recover your freed file, DISK.RECOVER will put a backup copy of file CUSTOMER on diskette REC001. Use diskette drive 1.

1. Enter: LINK DISK.RECOVER
2. Press: Enter key

Next screen: 43-010

DISK.RECOVER

How to use DISK.RECOVER to (continued)

3. On screen 43-010,
 - a. Type: 5
 - b. Press: Enter key

Next screen: 43-065

4. On screen 43-065,
 - a. Type: 1
 - b. Press: Enter key

Next screen: 43-085

5. On screen 43-085,
 - a. Type: Y
 - b. Press: Enter key

Next screen: 43-105

-
6. On screen 43-105,
 - a. Type: VOL2 (or the VOLID of the disk volume that contains your freed file)
 - b. Press: New Line key once
 - c. Type: CUSTOMER (or the name of the freed file you want to recover)
 - d. Press: New Line key once
 - e. Type: 1
 - f. Press: New Line key once
 - g. Type: REC001 (or the VOLID of your diskette that will hold your freed file)
 - h. Insert REC001 into diskette drive 1
 - i. Press: Enter key

Next screen: 43-145

Screen 43-145 warns you that the information in the recovered file may not be good, even though none of the sectors in the file are being used by another file.

Next screen: 43-155

DISK.RECOVER

How to use DISK.RECOVER to ... (continued)

This in-progress screen tells you that DISK.RECOVER is putting a backup copy of file CUSTOMER on your output diskette REC001.

Next screen: 43-275

This screen reminds you that DISK.RECOVER puts a backup copy of your file on diskette. That means that before you can use the file, you must return it to the disk using the Restore option of BACKUP.RESTORE. This screen also reminds you to check the information in your recovered file to find out whether any information is missing.

7. On screen 43-275,
 - a. Press: Enter key

Next screen: 43-255

Follow the directions on the completion screen.

Next screen: 43-010

-
8. On screen 43-010,
 - a. Type: 9
 - b. Press: Enter key

Next screen: READY INPUT status

9. Remove your diskette REC001.

Remember that you must use the Restore option of BACKUP.RESTORE to return the recovered file to the disk. If part of your file is missing, see DISK.RECOVER in *Customer Support Functions*, Volume II, for information on what you should do.

DISK.RECOVER

RECOVER screens

Menu screen 43-010

This screen is displayed after you type LINK DISK.RECOVER.

Recover Disk Menu

43-010

Choose one of the following:

1. Description of Recover Disk
2. Recover volume directory
3. Recover a file
4. Recover a dropped file
5. Recover a freed file

9. End Recover Disk

Choice

-

Do this

Type: 1, 2, 3, 4, 5, or 9

Explanation

Type 1 for a description of DISK.RECOVER.

Type 2 to recover the volume directory.

Type 3 to recover disk file information.

Type 4 to recover a dropped file.

Type 5 to recover a freed file.

Type 9 to end DISK.RECOVER and return the computer to the READY INPUT status.

Press: Enter key

<i>If you type</i>	<i>Next screen</i>
1	43-021
2	43-062
3	43-063
4	43-064
5	43-065
9	READY INPUT status

DISK.RECOVER

RECOVER screens (continued)

Screen 43-064 and 43-065

Screen 43-064 is displayed after you choose 4 on screen 43-010. Screen 43-065 is displayed after you choose 5 on screen 43-010.

You can choose to have information and messages displayed on the screen, displayed on the screen and printed at the printer, or only printed.

Recover a Dropped File

43-064

Information and messages to:

- 1-Screen only
- 2-Screen and printer
- 3-Printer only
- 1

Printer number

- 10-First printer
- 11-Second printer
- 10

Required when
printer used

Cmd 9 Cancel
? Help

Do this

Type: 1, 2, or 3

Press: New Line key

Type: 10 or 11

Press: Enter key

Next screen: 43-094

Explanation**Information and messages**

Type 1 to display all information and messages.

Type 2 to display and print all information and messages.

Type 3 to print all information and messages.

Printer number

Type 10 to print all information and messages on the first printer attached to the computer.

Type 11 to print all information and messages on the second printer attached to the computer.

DISK.RECOVER

RECOVER screens (continued)

Screen 43-085

This screen is displayed after screen 43-065. Use this screen to indicate whether it's OK to replace any information already on the diskette your freed file will be copied to.

Recover a Freed File

43-085

Destroy information on output diskette
Y-OK to destroy all existing data
N-Do not destroy data
N

Cmd 9 Cancel
? Help

Do this

Type: (Y or N)

Press: Enter key

Next screen: 43-105

Explanation

Destroy information on output diskette

Type Y if you want to destroy the information that is already on the output diskette.

Type N if you do not want to destroy the information that is already on your output diskette.

If you do not type a value, then N is assumed.

DISK.RECOVER

RECOVER screens (continued)

Screen 43-094

This screen asks you for information about the dropped file you want to recover.

Recover a Dropped File	43-094
Input VOLID <u>csf1</u>	Required
Input filename <u>dskdump</u>	Required
	Cmd 9 Cancel ? Help

Do this

Type: (Input VOLID)

Press: New Line key

Type: (Input filename)

Press: Enter key

Explanation**Input VOLID**

Type the VOLID of the disk volume that contains the file you want to recover.

Input filename

Type the name of the dropped file you want to recover.

Next screen: 43-114

DISK.RECOVER

RECOVER screens (continued)

Screen 43-105

This screen is displayed after screen 43-085. It asks for information about the freed file to be recovered.

Recover a Freed File

43-105

Input VOLID <u>csf1</u>	Required
Input filename <u>dskdump</u>	Required
Output drive number -	Optional when VOLID provided
Output VOLID _____	Optional when drive provided

INSERT DISKETTE NOW.

Cmd 9 Cancel
? Help

Do this

Type: (Input VOLID)

Explanation**Input VOLID**

Type the name of disk volume that contains the freed file you want to recover.

Press: New Line key

Type: (Input filename)

Input filename

Type the name of the file you want to recover.

Press: New Line key

Type: (Output drive number)

Output drive number

Type the number of the diskette drive that will contain your output diskette. Insert your *first* diskette into the diskette drive.

DISK.RECOVER

RECOVER screens (continued)

Press: New Line key

Type: (Output VOLID)

Output VOLID

Type the name of the first diskette that will hold the file you are recovering. Remember, the last three characters of the output VOLID must be numbers. If you must use more than one diskette, see "Before you begin" on page 12-4 for additional information on naming your output diskettes.

The output file is a backup copy of the file. The file must be returned to the disk using the Restore option of the Backup and Restore Customer Support Function.

Press: Enter key

Next screen: 43-125
or 43-145

This page is intentionally left blank.

DISK.RECOVER

RECOVER screens (continued)

Screen 43-114

This screen is displayed after screen 43-094 when you are recovering a dropped file.

Recover a Dropped File

43-114

Total record count

Current	1
Previous	0
Maximum	1

Type the value desired for the total record count.

New total record count

Cmd 9 Cancel
? Help

Do this

Type: (See explanation)

Press: Enter key

Next screen: 43-154

Explanation**New total record count**

Type the number you see to the right of "Previous." This is the number of records your dropped file should contain after it is recovered.

The recovery of the dropped file begins as soon as Enter is pressed.

DISK.RECOVER

RECOVER screens (continued)

Screen 43-125

You see this screen 43-105 if some of the space previously used by your freed file is now being used by another file.

Recover a Freed File

43-125

WARNING: The following space is occupied by other files.

Beginning PBN
Press Enter to continue

18E3

Ending PBN

191D
Cmd 9 Cancel

Next screen: 43-135

Screen 43-135

You see this screen after screen 43-125. This screen warns you that some of the sectors in your freed file are now being used by another file. It also reminds you to check the new file to see what information is missing.

Recover a Freed File

43-135

Some of the sectors in this file are currently allocated to another file.
This file will be copied to a new file. It will be your responsibility to
validate the data in the new file and to correct it if necessary.

Press Enter to continue

Cmd 9 Cancel

Next screen: 43-155

DISK.RECOVER

RECOVER screens (continued)

Screen 43-145

You see this screen after screen 43-105. It tells you that none of the sectors in the freed file are being used by another file.

Recover a Freed File

43-145

None of the sectors in this file are currently allocated to another file. However, this does not guarantee that the data in the file is good. This file will be copied to a new file. It will be your responsibility to validate the data in the new file and to correct it if necessary.

Press Enter to continue

Cmd 9 Cancel

Next screen: 43-155

Screens 43-154 and 43-155

These screens are shown while the information is being processed.

Recover a Dropped File

43-154

Recover Disk in progress.

DISK.RECOVER

RECOVER screens (continued)

Screens 43-254 and 43-255

These screens are seen if the file recovery is successful.

Recover a Dropped File

43-254

Recover Disk completed.

Press Enter to return to menu

Screen 43-275

This screen is seen after screen 43-155 when you recover a freed file. The screen reminds you that your recovered file on diskette is a backup copy. That means that you must return the file to the disk using the Restore option of BACKUP.RESTORE before you can check the file.

Recover a Freed File

43-275

Your recovery of a freed file has completed successfully. DISK.RECOVER has stored the recovered file on one or more diskettes, just like the backup option of the BACKUP.RESTORE Customer Support Function does.

It is possible that some or all of the data in your file was destroyed, between the time the file was freed, and the DISK.RECOVER Customer Support Function was run. You must examine the data before you use it again, to make sure it is still good, or, if it has been altered, you will have to recreate the data.

In order to examine the data, you must first restore it to the disk, using the restore option of the BACKUP.RESTORE Customer Support Function.

Once the file has been restored, you must examine the data to see if it is still good. Refer to Customer Support Functions Manuals.

Press Enter to continue

Cmd 9 Cancel

Next screen: 43-255

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How to use this index

This index includes entries from both of the Customer Support Functions books—Volume I and Volume II. You are able to tell in which manual an entry can be found by the I or II that precedes the chapter and page number.

For example, let's say that you want to look up something about cancelling a Customer Support Function. First, find the entries that begin with the letter C. Then look for the word *cancelling* in the list of entries. When you find it, you will see that the entry reads:

cancelling a function I.1-22

What this entry tells you is that information about *cancelling a function* is contained in *Customer Support Functions, Volume I*, Chapter 1, on page 1-22. Refer to *Customer Support Functions, Volume I*, Chapter 1, page 1-22 to find information about cancelling a function.

Some index entries refer to pages in both Volumes I and II. Some index entries refer to appendixes. Simply turn to the book, chapter or appendix, and page indicated and you will be able to learn more about the subject.

Index

How to use this index (continued)

Information about Customer Support Functions is generally indexed by topic. Whenever you need information about a topic in one of the manuals, look up the topic itself. If you need more information or cannot find the topic, look up the Customer Support Function to which the topic refers. In all cases, try to think about the different things a topic can be called and look for each reference in the index.

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