

1.0.0 BSCA REQUESTER/RESPONDER
1.1.0 PURPOSE

THIS PROGRAM WILL TEST THE BINARY SYNCHRONOUS COMMUNICATION ATTACHMENT. THE PROGRAM WILL USE EXTENDED BINARY CODED DECIMAL INTERCHANGE CODE (EBCDIC), EBCDIC TRANSPARENT, AND AMERICAN STANDARD CODE FOR INFORMATION INTERCHANGE (ASCII). THE PROGRAM MAY BE A REQUESTER OR A RESPONDER. IT WILL RUN ON SWITCHED LINES OR LEASED LINES. THIS PROGRAM ALSO HAS TRANSMIT AND RECEIVE LOOPS WHICH MAY BE SELECTED BY OPTION BITS.

NOTE: THIS PROGRAM MAY BE USED TO TEST THE SYNCHRONOUS COMMUNICATIONS SINGLE LINE CONTROL ADAPTER, (X 21) FEATURE CODE 2080. TESTING MUST BE DONE WITH LEASED LINE CONFIGURATION WITH MODEM SUPPLIED CLOCKS, OR WITH THE LOCAL 2 OPTION WITH CUSTOMER SUPPLIED CABLE.

NOTE: THIS PROGRAM MAY BE USED TO TEST THE MULTI-FUNCTION ATTACHMENT, FEATURE CODE 1310. FIRST, LOAD AND INITIALIZE THE MULTI-FUNCTION ATTACHMENT WITH YOUR NEEDS USING THE INITIALIZATION DISKETTE PART NUMBER 6031185. THEN RUN FOE5. SEE THE MULTI-FUNCTION ATTACHMENT PROLOG AND MAPE695.

1.2.0 OPERATING INSTRUCTIONS

THE PROGRAM IS ON DISKETTE PART NUMBER 1635001.

1.2.1 PROGRAM

THIS PROGRAM WILL RUN WITH THE DIAGNOSTIC CONTROL PROGRAM (DCP) AND WILL OPERATE IN THE MANUAL MODE ONLY.

1.2.2 EQUIPMENT

TRANSMISSION SPEED IS DETERMINED BY THE EXTERNAL MODEM CLOCK. IF THE INTERNAL CLOCK JUMPER IS INSTALLED, THE TRANSMISSION SPEED WILL BE 1200 BPS, OR 600 BPS IF HALF RATE IS SELECTED BY OPTION WORD 2 BIT 5.

1.2.3 SAMPLE RUN

INDICATES THAT THIS IS ENTERED BY THE OPERATOR.

```
BFOE5          ###
*** TF0E5 LOADED
ENTER
CVADD          ###
ENTER
09
WLN--
ASCII?
ENTER
OPTNS 00000000  ###
ENTER
00000004       ###
ENTER
OPTNS 00000040  ###
RESPNDR ?
ENTER
BBBBMM IN HEX  ###
ENTER
7524953
CCC IN EBCDIC  ###
ENTER
D5D2F5
752/NK5/4953
OK?
ENTER
RRYY IN HEX    ###
ENTER
0201
S-NRDY
IN-02
XX14, YY01
OK
X61F7F5F261D5D2F561F4F9F5F32D X61F7F5F261D5D2F561F4F9F5F32D
X61F7F5F261D5D2F561F4F9F5F32D R1070 X016CF1F4F0F1F032530261
7F5F261D5D2F561F4F9F5F32D R1061 X37 R2D X1070 R02C1C2C3C4
5C2C7C8C9D1D2D3D4D5D6D7D8D9E2E3E4E5E6E7E8E9F0F1F2F3F4F5F6F7
8F903 X1061 R37<-
RRYY IN HEX
ENTER
```

1.2.4 OPERATING PROCEDURES

AFTER LOADING THE PROGRAM (F0E5), ENTER THE DESIRED OPTION BITS. IF THE CONSOLE FUNCTION IS ASSIGNED TO THE PROGRAMMER CONSOLE, SEE DIAGNOSTIC SERVICE GUIDE 07.01.00 FOR COMMAND/RESPONSE PROCEDURES.

USE DCP COMMAND 'B' FOR LOAD AND GO. USE DCP COMMANDS 'C', 'D', 'A' TO EXECUTE WITH OPTIONS PER OPTION WORDS 1 AND 2.

EXAMPLE:
ALTERNATE CONSOLE | PROGRAMMER CONSOLE

BFOE5 | (B),B,(I),F,0,E,5,(I),(I)
WILL CAUSE PROGRAM TO LOAD AND START WITHOUT OPTIONS. HALT F086 WILL BE DISPLAYED (SEE 1.3.8 BELOW.)

CF0E5 | NOT USED
WILL CAUSE THE PROGRAM TO LOAD AND WAIT FOR OPTION SELECTIONS. WHEN HALT 3814 (ENTER) IS DISPLAYED:

DXXXXXXXX | (B),2,D,(I),(B),X,X,X,X,(I),(B),X,X,X,
X,(I),(I)
WILL SELECT OPTIONS PER MASK XXXXXXXX. AT THE NEXT HALT 3814 (ENTER)

A | (B),A,(I),(I)
WILL CAUSE PROGRAM TO START. HALT F086 (DEVADD) WILL BE DISPLAYED. (SEE 1.3.8 BELOW.)

OPTNS XXXXXXXX (HALT F080)

THIS MESSAGE WILL PRINT WITH XXXXXXXX=OPTIONS SET. AT THIS TIME DESIRED OPTIONS SHOULD BE SET USING COMMAND 'D' TO SET ON AND COMMAND 'E' TO RESET. AFTER OPTIONS ARE ENTERED OR IF NO CHANGE IS DESIRED, ENTER COMMAND 'G' TO RESUME PROGRAM. AFTER OPTIONS ARE ENTERED, THIS MESSAGE WILL PRINT AGAIN WITH XXXXXXXX=OPTIONS NOW SET.

OPTION WORD 1

- BIT 0 TERMINATE
DCP PROGRAM IS TERMINATED WHEN BIT ON
- BIT 1 NOT USED
- BIT 2 NOT USED
- BIT 3 NOT USED
- BIT 4 BYPASS DISPLAY MESSAGES
- BIT 5 BYPASS DISPLAY MESSAGES
- BIT 6 NOT USED
- BIT 7 RESERVED
- BIT 8 NOT USED
- BIT 9 NOT USED
- BIT 10 NOT USED
- BIT 11 NOT USED
- BIT 12 NOT USED
- BIT 13 NOT USED
- BIT 14 ENTER ALTERNATE MULTIPOINT ADDRESS FOR RESPONDER
THIS CHANGES THE POLL LIST. THE RESPONDER WILL USE THIS ADDRESS INSTEAD OF THE ADDRESSES IN THE POLLING LIST (A - Z). SEE 1.3.10.
- BIT 15 NOT USED

OPTION WORD 2

- BIT 0 DISPLAY COMMAND TRACE. SEE 1.3.41.

BIT 1 DO NOT CLEAR LOG AFTER PRINT. SEE 1.3.52.

BIT 2 NOT USED

BIT 3 PERMIT ONLY XX = 00 'REQUEST FOR TEST' ROUTINES.
 SELECT THIS FOR A TERMINAL THAT CANNOT RESPOND WITH A TEXT. SEE 1.4.0 FOR ROUTINE
 DESCRIPTIONS.

BIT 4 DISPLAY LINE ACTION MESSAGES. SEE 1.5.0.

BIT 5 HALF RATE
 TRANSMISSION SPEED WILL BE 600 BPS INTERNAL CLOCK. SEE 1.2.2.

BIT 6 NOT USED

BIT 7 RESPONDER MODE
 RESPOND TO ANOTHER MACHINE THAT IS THE REQUESTER.

BIT 8 NOT USED

BIT 9 DISPLAY THE LOG BETWEEN ROUTINES. SEE 1.3.52.

BIT 10 LOOP PROGRAM
 IF AUTOMATIC SEQUENCE, THE PROGRAM WILL START AGAIN.

BIT 11 PERMIT CHAIN TO RECEIVE IN THE TRANSMIT LOOP.
 WHEN THIS BIT IS OFF, THE ROUTINE WILL ONLY TRANSMIT. SET ON OPTION WORD 2 BIT 15 TO SELECT
 THE TRANSMIT ROUTINE.

BIT 12 PREVENT SENDING IDENTIFICATION MESSAGE.
 OMIT THE BRANCH OFFICE NUMBER, SECURITY CODE, AND MACHINE TYPE IN FRONT OF THE FIRST INQUIRY
 CHARACTER.

BIT 13 SEND THE DISCONNECT SEQUENCE AND DISABLE DATA TERMINAL READY (DTR)
 AT THE END OF AUTOMATIC SEQUENCE.
 IF DTR IS NOT JUMPERED ON, PERMIT THE PROGRAM TO DISCONNECT THE LINE FOR A SWITCHED NETWORK.
 ALSO, IF THIS BIT IS ON, DISABLE DATA TERMINAL READY (DTR) WHEN THE PROGRAM TERMINATES.

BIT 14 SELECT RECEIVE LOOP. SEE 1.4.27.

BIT 15 SELECT TRANSMIT LOOP. SEE 1.4.26.

1.3.0 MESSAGES

1.3.1 F082

THIS HALT IS USED FOR TWO OTHER MESSAGES. SEE SECTION 1.3.52.

A COMBINATION OF THE FOLLOWING WILL PRINT TO SHOW THE JUMPER OPTIONS AND STATUS OF THE INTERFACE LINES.

SWLN	SWITCHED LINE (MULTIPOINT ADDRESS BIT 7 ON)
LELN	LEASED LINE (MULTIPOINT ADDRESS BIT 7 OFF)
MPLN	MULTIPOINT LINE (MULTIPOINT MODE JUMPER ON)
DTR	DATA TERMINAL READY (DTR JUMPER ON OR MODEM DTR ON)
DSR	DATA SET READY (MODEM LINE ACTIVE)
RTS	REQUEST TO SEND (RTS JUMPER ON OR MODEM RTS ON)
CTS	CLEAR TO SEND (MODEM LINE ACTIVE)
BMC	INTERNAL CLOCK JUMPER ON
XX	MULTIPOINT ADDRESS JUMPERED
YY	NUMBER OF LINES IF MULTI-LINE

1.3.2 F080
OPTNS XXXXXXXX

ENTER DESIRED OPTION BITS. SEE SECTION 1.2.4.

1.3.3 F081
ASCII?

ENTER COMMAND '1' (YES) IF YOU WANT TO SELECT ASCII CODE. ENTER COMMAND '0' (NO) IF YOU WANT TO SELECT EBCDIC CODE.

1.3.4 F082
RSPNDR ?

ENTER COMMAND '1' (YES) IF YOU WANT TO SELECT RESPONDER MODE, ENTER COMMAND '0' (NO) IF YOU WANT TO SELECT REQUESTER MODE. IF YES, THE SERIES/1 WILL WAIT 90 SECONDS TO RECEIVE A MESSAGE. IF NOTHING IS RECEIVED, THEN THE SERIES/1 WILL SEND THE POLLING LIST. IF THERE IS NO ANSWER, THE SERIES/1 WILL LOOP AND WAIT 90 SECONDS AGAIN, THEN POLL AGAIN. IF THIS ANSWER IS YES (COMMAND '1'), OPTION WORD 2 BIT 7 WILL BE SET ON.

1.3.5 F083
BBBMMM IN HEX

ENTER THE BRANCH OFFICE NUMBER AND MACHINE TYPE IN HEXADECIMAL.

BBB = THE 3 DIGIT BRANCH OFFICE NUMBER.
MMM = THE 4 DIGIT MACHINE TYPE.

FOR EXAMPLE, IF THE BRANCH OFFICE NUMBER IS 123, AND THE MACHINE TYPE IS 4955, ENTER 'F1234955'. THIS MESSAGE WILL NOT PRINT AGAIN UNLESS THE PROGRAM IS LOADED AGAIN. PROGRAMMER CONSOLE ENTRY -- (B),2,F,(I),(B),E,8,F,7,(I),D,5,0,0,(I),(I). IF NO BRANCH NUMBER IS USED, ENTER 'F0004955'.

1.3.6 F084
CCC IN EBCDIC

ENTER THE BRANCH OFFICE SECURITY CODE IN EBCDIC.

CCC = THE SECURITY CODE.

FOR EXAMPLE, IF THE SECURITY CODE IS Y7N, ENTER 'FE8F7D5'. PROGRAMMER CONSOLE ENTRY -- (B),2,F,(I),(B),E,8,F,7,(I),D,5,0,0,(I),(I). IF NO SECURITY CODE IS USED, ENTER 'FF0F0F0'.

AFTER THIS ENTRY IS MADE '/BBB/CCC/MMM' (HALT F085) WILL PRINT. SEE SECTION 1.3.7. THIS MESSAGE WILL BE FOLLOWED BY 'OK?' (HALT F08B). SEE SECTION 1.3.13.

BBB = BRANCH OFFICE NUMBER ENTERED
CCC = SECURITY CODE ENTERED
MMM = MACHINE TYPE ENTERED

1.3.7 F085
/BBB/CCC/MMMM

THIS MESSAGE WILL PRINT AFTER 'BBBMMM IN HEX' HALT (F083) AND 'CCC IN EBCDIC' (HALT F084) HAVE BEEN ENTERED. SEE SECTION 1.3.13 FOR 'OK?' (HALT F08B).

BBB = BRANCH OFFICE NUMBER ENTERED
CCC = SECURITY CODE ENTERED
MMMM = MACHINE TYPE ENTERED

1.3.8 F086
DEVADD

ENTER THE DEVICE ADDRESS (HEXADECIMAL).
USE DCP COMMAND 'F' TO ENTER ONE (1) HEXADECIMAL WORD.

EXAMPLE

IF DEVICE ADDRESS IS HEXADECIMAL '18', THEN THIS ENTRY WOULD BE 'F18'. PROGRAMMER CONSOLE ENTRY --(B),1,(I),(B),1,8,0,0,(I),(I).

1.3.9 F087
RRYY IN HEX

RR = THE ROUTINE NUMBER, 02-1A HEXADECIMAL
YY = THE MESSAGE COUNT, 0-99 DECIMAL.

FOR EXAMPLE, IF YOU WANT TO RUN ROUTINE 0A FIVE TIMES, ENTER 'FOA05'.

SEE SECTION 1.4.0 FOR ROUTINE DESCRIPTIONS. IF THE ENTRY IS 'FOOYY', WHERE YY = THE DESIRED COUNT, THE PROGRAM WILL USE THE FIRST AVAILABLE ROUTINE AND SEQUENCE AUTOMATIC MODE. THE ROUTINES WHICH WILL RUN ARE 02-0E EBCDIC, AND 16-1A FOR ASCII. OTHER ROUTINES MUST BE SELECTED. IF A ROUTINE IS SELECTED, THE PROGRAM WILL RUN THAT ROUTINE AND RETURN TO THE 'RRYY IN HEX' MESSAGE.

DO NOT ENTER 'FOOYY', WHERE YY = THE DESIRED COUNT, AFTER RUNNING ROUTINE 10, 11, 12, 13, 14, OR 15.

IF ROUTINE 02 - 0E OR 16 - 1A IS SELECTED AND RUN, ENTER 'FOOYY', WHERE YY = THE DESIRED COUNT, AFTER 'RRYY IN HEX' AND THE NEXT ROUTINES WILL RUN IN AUTOMATIC MODE.

1.3.10 F088
XXXX CUADD IN HEX

THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 1 BIT 14 IS ON. THE RESPONDER WILL POLL USING THE ADDRESS ENTERED HERE. FOR EXAMPLE, IF YOU ENTER 'FCICI' (ADDRESS 'A' IN EBCDIC), THE PROGRAM WILL SEND C1C12D AND RECEIVE THE RESPONSE.

1.3.11 F089
END

ALL THE ROUTINES WERE RUN IN AUTOMATIC MODE.

1.3.12 F08A
O.K.

THIS WILL PRINT AFTER EACH ROUTINE IF THE ROUTINE RAN WITHOUT ERRORS.

1.3.13 F08B
OK?

THIS MESSAGE PRINTS AFTER '/BBB/CCC/MMMM' (HALT F085). SEE SECTION 1.3.7.

BBB = BRANCH OFFICE NUMBER ENTERED
CCC = SECURITY CODE ENTERED
MMMM = MACHINE TYPE ENTERED

IF THE ENTRIES ARE CORRECT, ANSWER YES (COMMAND '1') AND THE PROGRAM WILL CONTINUE. IF THE ANSWER IS NO (COMMAND '0'), THEN 'BBBMMM IN HEX' (HALT F083) AND 'CCC IN EBCDIC' (HALT F084) WILL PRINT AGAIN. FOR EXAMPLE, IF THE ANSWER IS YES, ENTER '1'. PROGRAMMER CONSOLE ENTRY -- (B),1,(I),(I).

1.3.14 F08C
RSPNDR-XXXXXX

THIS WILL PRINT IF THE RESPONDER MODE IS SELECTED.

XXXXX = ASCII IF ASCII CODE IS SELECTED.
XXXXX = EBCDIC IF EBCDIC CODE IS SELECTED.

1.3.15 F08D
MON POLL

THE MULTIPOINT JUMPER WAS SENSED, AND THE PROGRAM WAITS UNTIL IT IS POLLED. IT IS RECOMMENDED TO JUMPER ADDRESS 'A' (HEXADECIMAL 'C1' IN EBCDIC).

1.3.16 F08E
*BLC

RECEIVED A BLOCK CANCEL - START OF TEXT (STX), TEXT, INQUIRY (ENQ). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.17 F08F
*XSTX

RECEIVED A TRANSPARENT START OF TEXT - DATA LINK ESCAPE (DLE), START OF TEXT (STX). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.18 F090
*STX

RECEIVED A START OF TEXT (STX) CHARACTER. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.19 F091
ENQ

INQUIRY CHARACTER (HEXADECIMAL '2D' IN EBCDIC) TRANSMITTED. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.20 F092
*ENQ

INQUIRY CHARACTER (HEXADECIMAL '2D' IN EBCDIC) RECEIVED. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.21 F093
IDENQ

TRANSMIT THE IDENTIFICATION MESSAGE AND THE INQUIRY CHARACTER (ENQ). TRANSMIT THE BRANCH OFFICE NUMBER, SECURITY CODE, MACHINE TYPE, AND INQUIRY CHARACTER. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.22 F094
*ACK0

RECEIVED AN EVEN-NUMBERED ACKNOWLEDGMENT (ACK0). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.23 F095
*ACK1

RECEIVED AN ODD-NUMBERED ACKNOWLEDGMENT (ACK1). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.24 F096
NAK

TRANSMIT A NEGATIVE ACKNOWLEDGMENT. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.25 F097
*NAK

RECEIVE A NEGATIVE ACKNOWLEDGMENT. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.26 F098
RFT

TRANSMIT A REQUEST FOR TEST (RFT) MESSAGE. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.27 F099
*RFT A REQUEST FOR TEST (RFT) MESSAGE WAS RECEIVED. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.28 F09A
*WACK 'WAIT BEFORE TRANSMIT, POSITIVE RESPONSE' RECEIVED. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.29 F09B
*RVI RECEIVED A REVERSE INTERRUPT SEQUENCE. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.30 F09C
TXT TEXT WAS TRANSMITTED. START OF TEXT (STX), DATA, END OF TEXT (ETX). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.31 F09D
*TXT TEXT WAS RECEIVED. START OF TEXT (STX), DATA, END OF TEXT (ETX). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.32 F09E
EOT END OF TRANSMISSION (EOT) CHARACTER TRANSMITTED. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.33 F09F
*EOT END OF TRANSMISSION (EOT) CHARACTER RECEIVED. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.34 F0A0
*TTD TEMPORARY TEXT DELAY (TTD) RECEIVED. THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.35 F0A1
DISC TRANSMIT THE DISCONNECT SEQUENCE. DATA LINK ESCAPE (DLE), END OF TRANSMISSION (EOT).

1.3.36 F0A2
ACK0 TRANSMIT AN EVEN-NUMBERED ACKNOWLEDGMENT (ACK0). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.37 FOA3
ACK1

TRANSMIT AN ODD-NUMBERED ACKNOWLEDGMENT (ACK1). THIS MESSAGE WILL PRINT ONLY IF OPTION WORD 2 BIT 4 IS SET ON.

1.3.38 FOA4
XXXXENQ

THIS PRINTS WHEN A POLLING SEQUENCE IS TRANSMITTED. ENQ = INQUIRY CHARACTER. FOR EXAMPLE, IF THE ADDRESS IS 'A' (EBCDIC 'CICI'),
XXXXENQ = CICIENQ.

1.3.39 FOA5
RTN-XX

XX = THE ROUTINE NUMBER WHICH WILL RUN.

1.3.40 FOA6
XX--, YY--

XX-- = THE MESSAGE NUMBER REQUESTED.
YY-- = THE COUNT REQUESTED.

1.3.41 FOA7
XXXX ZZZZ

THIS MESSAGE WILL PRINT BEFORE EACH COMMAND IF OPTION WORD 2 BIT 0 IS SET ON.

XXXX VALUE MEANING

SCSS	START CYCLE STEAL STATUS COMMAND
RSIO	RECEIVE COMMAND
XSIOZZZZ	TRANSMIT COMMAND, ZZZZ = TRANSMIT DATA ADDRESS
PREP	PREPARE DEVICE WITH THE 'I BIT' ON
UPRP	PREPARE DEVICE WITH THE 'I BIT' OFF
RPID	READ IDENTIFICATION COMMAND
RSET	RESET COMMAND
DDTR	DISABLE DATA TERMINAL READY COMMAND
EDTR	ENABLE DATA TERMINAL READY COMMAND

1.3.42 FOA8
IIB=XX,S/B YY OR ZZ

XX = THE INTERRUPT INFORMATION BYTE (IIB), A BYTE OF INFORMATION WHICH SHOWS THE LAST RECEIVED RESPONSE.
YY OR ZZ = THE EXPECTED INTERRUPT INFORMATION BYTE (IIB) VALUE.

XX, YY, ZZ =

00	TEXT (WITH NO ERRORS)
01	(NAK) NEGATIVE ACKNOWLEDGMENT
03	(EOT) END OF TRANSMISSION
04	NOT VALID SEQUENCE
0B	RVI (REVERSE INTERRUPT)
0E	TID (TEMPORARY TEXT DELAY)
0F	DISCONNECT SEQUENCE
10	WACK
18	INQUIRY (ENQ)
1B	ACK1 OR ACK0
33	NO RESPONSE (TIMEOUT)
44	DATA SET NOT READY
71	REQUEST FOR TEST

1.3.43 FOA9
ADDRXXXX

XXXX = ADDRESS OF DECODE WHEN NO COMPARE OCCURS. THIS CAN BE USED WITH THE PROGRAM LIST TO FIND THE ERROR.

1.3.44 F0AA
*DISC

RECEIVED THE DISCONNECT SEQUENCE.
DATA LINK ESCAPE (DLE), END OF TRANSMISSION (EOT). THIS MESSAGE WILL PRINT ONLY IF OPTION
WORD 2 BIT 4 IS SET ON.

1.3.45 F0AB
XXYY

IF THE RESPONDER MODE IS SELECTED, THIS WILL PRINT AFTER A 'REQUEST FOR TEST' (RFT) MESSAGE
IS RECEIVED.
XX = THE MESSAGE NUMBER REQUESTED.
YY = THE COUNT REQUESTED.

1.3.46 F0AC
INV RT#

THE ROUTINE NUMBER ENTERED IS NOT VALID.

1.3.47 F0AD
XX INV

THE 'REQUEST FOR TEST' (RFT) MESSAGE RECEIVED CONTAINED AN XX VALUE (MESSAGE VALUE) THAT IS
NOT VALID. XX = THE MESSAGE VALUE.

1.3.48 F0AE
YY INV

THE COUNT (YY) RECEIVED WAS NOT VALID. IT MUST BE 01-99 DECIMAL.

1.3.49 F0AF
N INV

THE MULTIPOINT ADDRESS COUNT (N) WAS NOT 0 OR 2.

1.3.50 F0B0
T.O.

A TIMEOUT OCCURRED DURING A RECEIVE OPERATION.

1.3.51 F0B1
ID ERR XXXX

THIS WILL PRINT IF THERE IS A DEVICE IDENTIFICATION ERROR.
XXXX = THE IDENTIFICATION RECEIVED.

BINARY SYNCHRONOUS COMMUNICATIONS ATTACHMENT,
FOR SINGLE LINE, THE READ IDENTIFICATION = 1006.
FOR MULTI-LINE, THE READ IDENTIFICATION = 2X06.
WHERE X=0 IF 8 LINES
X=1 IF 2 LINES
X=2 IF 4 LINES
X=3 IF 6 LINES

MULTI-FUNCTION ATTACHMENT
THE READ IDENTIFICATION = 3X36.
WHERE X=1 IF 1 OR 2 DEVICE ADDRESSES
X=2 IF 3 OR 4 DEVICE ADDRESSES

SYNCHRONOUS COMMUNICATIONS SINGLE LINE CONTROL ADAPTER (X.21),
THE READ IDENTIFICATION = 5042.

RPQ D02349
THE READ IDENTIFICATION = 1806.

1.3.52 FOB2
XXXX YYYY ZZZZ

THIS HALT IS USED TO PRINT THE STATUS WORDS; SEE BELOW. THIS HALT IS ALSO USED FOR THE CONFIGURATION MESSAGE. SEE SECTION 1.3.1. THIS HALT IS ALSO USED TO PRINT THE DATA LOG. SEE BELOW FOR EXAMPLE.

STATUS WORDS 0,1,AND 2

XXXX = STATUS WORD ZERO
YYYY = STATUS WORD ONE
ZZZZ = STATUS WORD TWO

WORD ZERO

0 THROUGH 15: MAIN STORAGE ADDRESS OF LAST ATTEMPTED CYCLE
STEAL MOVE

WORD ONE

0 OVERRUN
1 TIME-OUT
2 MODEM INTERFACE ERROR
3 BLOCK CHECK ERROR
4 MULTIPPOINT TRANSMIT ERROR
5 ANSWERTONE JUMPER INSTALLED
6 MULTIPPOINT TRIBUTARY JUMPER INSTALLED
7 INTERNAL CLOCK JUMPER INSTALLED
8 THROUGH 15 MULTIPPOINT ADDRESS

WORD TWO

0 DATA TERMINAL READY
1 DATA SET READY
2 REQUEST TO SEND
3 CLEAR TO SEND
4 RING INDICATOR
5 HALF RATE SELECTED
6 TRANSMIT MODE LATCH
7 NOT USED (WILL BE OFF)
8 THROUGH 15 INDICATOR PANEL SWITCH SETTING

HALT FOB2 IS ALSO USED TO PRINT THE DATA LOG. THE DATA LOG WILL PRINT IF OPTION WORD 2, BIT 9 IS ON. IT CONTAINS ALL TRANSMITTED AND RECEIVED DATA. THE LOG WILL PRINT AT THE START AND THE END OF PROGRAM. IT WILL BE CLEARED AFTER PRINTING, UNLESS DCP OPTION WORD 2, BIT 1 IS ON. IF THE DATA IS TOO LONG, THEN THE OLDEST DATA WILL BE LOST.

LOG EXAMPLE

X61F7F5F261D5D2F561F4F9F5F32D X61F7F5F261D5D2F561F4F9F5F32D
X61F7F5F261D5D2F561F4F9F5F32D R1070 X016CF1F4F0F1F032320261
F7F5F261D5D2F561F4F9F5F3D403 R1061 X37 R2D X1070 R02C1C2C3C4
C5C6C7C8C9D0D1D2D3D4D5D6D7D8D9E2E3E4E5E6E7E8E9F0F1F2F3F4F5F6F7
F8F903 X1061 R37<-

R IS FOLLOWED BY RECEIVE DATA.
X IS FOLLOWED BY TRANSMIT DATA.
THE '<-' INDICATES END OF LOG.

IF USING THE PROGRAMMER CONSOLE AND LOOKING AT THE LOG IN STORAGE

'2222' REPRESENTS RECEIVE
'4444' REPRESENTS TRANSMIT
'9999' REPRESENTS END OF DATA ('<-' WHEN PRINTED)
'8888' REPRESENTS PART OF BUFFER NOT USED (BUFFER WAS LOADED WITH THIS VALUE)

1.3.53 FOB3
CFIG

THE DISKETTE CONFIGURATION DOES NOT MATCH THE HARDWARE.

1.3.54 FOB4
O.RUN

DATA OVERRUN OCCURRED.

1.3.55 FOB5
MODEM ERR

THE MODEM WAS NOT READY WHEN A TRANSMIT OR RECEIVE OPERATION WAS ATTEMPTED.

1.3.56 FOB6
BCC ERR

BLOCK CHECK ERROR RECEIVED.

1.3.57 FOB7
MP XMT ERR

A TRANSMIT WAS ATTEMPTED WHEN NOT SELECTED AND 'MULTIPOINT TRIBUTARY' IS JUMPERED ON.

1.3.58 FOB8
RE-ENTR

A WRONG ENTRY WAS MADE.

1.3.59 FOB9
ERR TERM

THE ROUTINE FAILED AND WAS TERMINATED.

1.3.60 FOBA
FAIL

ERRORS OCCURRED IN THE ROUTINE.

1.3.61 FOBB
NO INT

NO INTERRUPT OCCURRED IN THE EXPECTED TIME.

1.3.62 FOBC
NOT ATTCHD

THE DEVICE IS NOT ATTACHED.

1.3.63 FOBD
D.S.NRDY

THIS WILL PRINT IF THE DATA SET IS NOT READY. THE OPERATOR MUST MAKE THE DATA SET READY BEFORE THE PROGRAM WILL START. THE PROGRAM WILL LOOP UNTIL THE DATA SET IS READY. OPTION WORD 2 BIT 12 IS TURNED OFF WHEN THIS MESSAGE PRINTS.

1.3.64 FOBE
ISBXX

INTERRUPT STATUS BYTE (ISB)

VALUE	MEANING
XX = 0	DEVICE NEEDED STATUS AVAILABLE
1	DELAYED COMMAND REJECT
2	NOT CORRECT LENGTH RECORD
3	DCB SPECIFICATION CHECK
4	STORAGE DATA CHECK
5	STORAGE ADDRESS NOT VALID
6	PROTECT CHECK
7	INTERFACE DATA CHECK

 1.3.65 F0BF
 OIOCC=XX

THIS MESSAGE WILL PRINT IF AN OPERATE INPUT / OUTPUT (OIO) CONDITION CODE OCCURS.

VALUE	MEANING
XX = 00	NOT ATTACHED
01	BUSY
02	BUSY AFTER RESET
03	COMMAND REJECT
04	INTERVENTION NEEDED
05	INTERFACE DATA CHECK
06	CONTROLLER BUSY
07	SATISFACTORY

 1.3.66 F0C0
 INTCC=XX

THIS MESSAGE WILL PRINT IF AN INTERRUPT CONDITION CODE OCCURS.

INTERRUPT CONDITION CODES

VALUE	MEANING
XX = 00	CONTROLLER END
01	NOT USED OR GENERATED BY THE ADAPTER
02	EXCEPTION
03	DEVICE END
04-07	NOT USED OR GENERATED BY THE ADAPTER

 1.4.0 ROUTINES

 1.4.1 ROUTINE 02

XX=14 EBCDIC
 RECEIVE A 36 CHARACTER EBCDIC TEST MESSAGE A-Z, 0-9.

 1.4.2 ROUTINE 03

XX=00, TXT14 EBCDIC
 TRANSMIT A 36 CHARACTER EBCDIC TEST MESSAGE A-Z, 0-9.

 1.4.3 ROUTINE 04

XX=01 EBCDIC
 ECHO TEST MESSAGE NOT TRANSPARENT.
 TRANSMIT A TEXT IN THE REQUEST FOR TEST MESSAGE AND RECEIVE THAT TEXT.

 1.4.4 ROUTINE 05

XX=04 EBCDIC
 RECEIVE A 245 CHARACTER EBCDIC NOT TRANSPARENT MESSAGE.
 EXCLUDING DATA LINK CONTROL CHARACTERS.

 1.4.5 ROUTINE 06

XX=00, TXT04 EBCDIC
 TRANSMIT A 245 CHARACTER EBCDIC NOT TRANSPARENT MESSAGE.
 EXCLUDING DATA LINK CONTROL CHARACTERS.

 1.4.6 ROUTINE 07

XX=20 EBCDIC
 RECEIVE AN 80 CHARACTER TRANSPARENT TEST MESSAGE.
 U-Z, 0-9, HEXADECIMAL 00 - HEXADECIMAL 3F

 1.4.7 ROUTINE 08

XX=00, TXT20 EBCDIC
 TRANSMIT AN 80 CHARACTER EBCDIC TRANSPARENT TEST MESSAGE.
 U-Z, 0-9, HEXADECIMAL 00 - HEXADECIMAL 3F

 1.4.8 ROUTINE 09

XX=21 EBCDIC
 RECEIVE A 120 CHARACTER EBCDIC TRANSPARENT MESSAGE.
 A-Z, 0-9, HEXADECIMAL 00 - HEXADECIMAL 53

 1.4.9 ROUTINE 0A

XX=00, TXT21 EBCDIC
 TRANSMIT A 120 CHARACTER EBCDIC TRANSPARENT MESSAGE.
 A-Z, 0-9, HEXADECIMAL 00 - HEXADECIMAL 53

 1.4.10 ROUTINE 0B

XX=22 EBCDIC
 RECEIVE A 144 CHARACTER TRANSPARENT TEST MESSAGE.
 A-Z, 0-9, HEXADECIMAL 00 - HEXADECIMAL 6B

 1.4.11 ROUTINE 0C

XX=00, TXT22 EBCDIC
 TRANSMIT A 144 CHARACTER TRANSPARENT TEST MESSAGE.
 A-Z, 0-9, HEXADECIMAL 00 - HEXADECIMAL 6B

1.4.12 ROUTINE 0D
XX=02 EBCDIC
RECEIVE A 256 CHARACTER FULL TRANSPARENT TEXT.
HEXADECIMAL 00 - HEXADECIMAL FF

1.4.13 ROUTINE 0E
XX=00, TX102 EBCDIC
TRANSMIT A 256 CHARACTER FULL TRANSPARENT TEXT.
HEXADECIMAL 00 - HEXADECIMAL FF

1.4.14 ROUTINE 0F
END OF TEST ROUTINE

1.4.15 ROUTINE 10
XX=16 EBCDIC
(201A MODEM TEST).
RECEIVE 40 BYTES OF HEXADECIMAL AA AND 40 BYTES OF HEXADECIMAL 55.
ALTERNATE ZERO, ONE WEAK PATTERN.
THIS ROUTINE MUST BE SELECTED.

1.4.16 ROUTINE 11
XX=00, TX116 EBCDIC
(201A MODEM TEST).
TRANSMIT 40 BYTES OF HEXADECIMAL AA AND 40 BYTES OF HEXADECIMAL 55.
ALTERNATE ZERO, ONE WEAK PATTERN.
THIS ROUTINE MUST BE SELECTED.

1.4.17 ROUTINE 12
XX=15 EBCDIC
(201B MODEM DATA TEST).
RECEIVE 74 BYTES OF HEXADECIMAL 00 AND 6 BYTES OF SYNC.
ALL ZEROS, WEAK PATTERN RECEIVE.
THIS ROUTINE MUST BE SELECTED.

1.4.18 ROUTINE 13
XX=00, TX115 EBCDIC
(201B MODEM DATA TEST).
TRANSMIT 74 BYTES OF HEXADECIMAL 00 AND 6 BYTES OF SYNC.
ALL ZEROS, WEAK PATTERN TRANSMIT.
THIS ROUTINE MUST BE SELECTED.

1.4.19 ROUTINE 14
XX=19 EBCDIC
(201A MODEM TEST).
RECEIVE 280 BYTES OF HEXADECIMAL 00 AND 10 BYTES OF SYNC.
WEAK PATTERN RECEIVE.
THIS ROUTINE MUST BE SELECTED.

1.4.20 ROUTINE 15
XX=00, TX119 EBCDIC
(201A MODEM TEST).
TRANSMIT 280 BYTES OF HEXADECIMAL 00 AND 10 BYTES OF SYNC.
WEAK PATTERN TRANSMIT.
THIS ROUTINE MUST BE SELECTED.

1.4.21 ROUTINE 16
XX=06 ASCII
RECEIVE A 36 CHARACTER ASCII TEST MESSAGE (A - Z, 0 - 9).

1.4.22 ROUTINE 17
XX=00, TX106 ASCII
TRANSMIT A 36 CHARACTER ASCII TEST MESSAGE (A - Z, 0 - 9).

1.4.23 ROUTINE 18
XX=01 ASCII
ASCII ECHO TEST MESSAGE.
TRANSMIT A TEXT IN THE REQUEST FOR TEST MESSAGE AND RECEIVE THAT TEXT.

1.4.24 ROUTINE 19
XX=05 ASCII
RECEIVE A 117 BYTE ASCII TEST MESSAGE.
RECEIVE ALL CHARACTERS EXCLUDING DATA LINK CONTROL CHARACTERS.

1.4.25 ROUTINE 1A
XX=00, TX105 ASCII
TRANSMIT A 117 BYTE ASCII TEST MESSAGE.
TRANSMIT ALL CHARACTERS EXCLUDING DATA LINK CONTROL CHARACTERS.

1.4.26 TRANSMIT LOOP

THE PURPOSE OF THIS ROUTINE IS TO TRANSMIT AN OPERATOR ENTERED TEST. THIS ROUTINE MUST BE SELECTED BY OPTION WORD 2 BIT 15. THE 'DIAGNOSTIC / NORMAL' SWITCH IN 'DIAGNOSTIC' POSITION WILL CAUSE THE ROUTINE TO STOP AFTER EACH PASS. THIS WILL PERMIT SINGLE PASS OPERATION WITH THE 'START' PUSHBUTTON. IF YOU WANT THE ROUTINE TO RUN WITHOUT STOPPING, CHANGE THE 'DIAGNOSTIC / NORMAL' SWITCH TO 'NORMAL'. IF OPTION WORD 2 BIT 11 IS SET, THE ROUTINE WILL CHAIN TO RECEIVE WITH TIMEOUT AFTER EACH TRANSMIT. THE DATA WILL BE STORED IN THE LOG. AFTER THE ROUTINE IS STARTED, ENTER THE DATA. THE TEXT MAY BE ENTERED IN EBCDIC OR TRANSPARENT EBCDIC. CONTROL CHARACTERS MUST BE ENTERED ALSO. IF ASCII MODE IS SELECTED, THE DATA MUST BE ENTERED IN EBCDIC. THE PROGRAM WILL TRANSLATE THE DATA TO ASCII. SEE 1.3.3 TO SELECT ASCII MODE.

FOR EXAMPLE,

1. EBCDIC NOT TRANSPARENT,
START OF TEXT (STX) DATA END OF TEXT (ETX)

2. EBCDIC TRANSPARENT,
DATA LINK ESCAPE (DLE) START OF TEXT (STX) DATA

THE TERMINATING DATA LINK ESCAPE (DLE), END OF TEXT (ETX) IS GENERATED BY THE PROGRAM WHEN THE FIRST TWO CHARACTERS ARE DATA LINK ESCAPE (DLE) START OF TEXT (STX).

1.4.27 RECEIVE LOOP

THIS ROUTINE MUST BE SELECTED BY OPTION WORD 2 BIT 14. THIS ROUTINE WILL RECEIVE DATA TRANSMITTED BY A REMOTE STATION. THIS ROUTINE WILL PRINT THE DATA IF OPTION WORD 2 BIT 9 IS SET ON. NO RECEIVE DATA IS STORED IF PRINTING IS IN PROCESS.

1.5.0 LINE ACTION EXAMPLES, OPTION WORD 2 BIT 4 MUST BE SET ON

POINT TO POINT REQUESTER, XX = 00, YY = 01

```
ENQ          SEND INQUIRY CHARACTER.  
*ACK0       RECEIVE EVEN-NUMBERED ACKNOWLEDGMENT.  
RFT         SEND 'REQUEST FOR TEST'.  
*ACK1       RECEIVE ODD-NUMBERED ACKNOWLEDGMENT.  
TEXT        SEND TEXT.  
*ACK0       RECEIVE EVEN-NUMBERED ACKNOWLEDGMENT.  
EOT         SEND END OF TRANSMISSION CHARACTER.  
O.K.        ROUTINE RAN WITHOUT ERRORS.
```

POINT TO POINT REQUESTER, XX = 01-22, YY = 01

```
ENQ          SEND INQUIRY CHARACTER.  
*ACK0       RECEIVE EVEN-NUMBERED ACKNOWLEDGMENT.  
RFT         SEND 'REQUEST FOR TEST'.  
*ACK1       RECEIVE ODD-NUMBERED ACKNOWLEDGMENT.  
EOT         SEND END OF TRANSMISSION CHARACTER.  
*ENQ        RECEIVE INQUIRY CHARACTER.  
ACK0        SEND EVEN-NUMBERED ACKNOWLEDGMENT.  
*TEXT       RECEIVE TEXT.  
ACK1        SEND ODD-NUMBERED ACKNOWLEDGMENT.  
*EOT        RECEIVE END OF TRANSMISSION CHARACTER.  
O.K.        ROUTINE RAN WITHOUT ERRORS.
```

MULTIPOINT REQUESTER, XX = 00, YY = 01

```
*ENQ        RECEIVE INQUIRY CHARACTER.  
RFT         SEND 'REQUEST FOR TEST'.  
*ACK1       RECEIVE ODD-NUMBERED ACKNOWLEDGMENT.  
TEXT        SEND TEXT.  
*ACK0       RECEIVE EVEN-NUMBERED ACKNOWLEDGMENT.  
EOT         SEND END OF TRANSMISSION CHARACTER.  
O.K.        ROUTINE RAN WITHOUT ERRORS.
```

MULTIPOINT REQUESTER, XX = 01-22, YY = 01

```
*ENQ        RECEIVE INQUIRY CHARACTER.  
RFT         SEND 'REQUEST FOR TEST'.  
*ACK1       RECEIVE ODD-NUMBERED ACKNOWLEDGMENT.  
EOT         SEND END OF TRANSMISSION CHARACTER.  
*ENQ        RECEIVE INQUIRY CHARACTER.  
ACK0        SEND EVEN-NUMBERED ACKNOWLEDGMENT.  
*TEXT       RECEIVE TEXT.  
ACK1        SEND ODD-NUMBERED ACKNOWLEDGMENT.  
*EOT        RECEIVE END OF TRANSMISSION CHARACTER.  
O.K.        ROUTINE RAN WITHOUT ERRORS.
```

POINT TO POINT RESPONDER, XX = 00, YY = 01

```
*ENQ        RECEIVE INQUIRY CHARACTER.  
ACK0        SEND EVEN-NUMBERED ACKNOWLEDGMENT.  
*RFT        RECEIVE 'REQUEST FOR TEST'.  
ACK1        SEND ODD-NUMBERED ACKNOWLEDGMENT.  
*TEXT       RECEIVE TEXT.  
ACK0        SEND EVEN-NUMBERED ACKNOWLEDGMENT.  
*EOT        RECEIVE END OF TRANSMISSION CHARACTER.  
O.K.        ROUTINE RAN WITHOUT ERRORS.
```

POINT TO POINT RESPONDER, XX = 01-22, YY = 01

```
*ENQ        RECEIVE INQUIRY CHARACTER.  
ACK0        SEND EVEN-NUMBERED ACKNOWLEDGMENT.  
*RFT        RECEIVE 'REQUEST FOR TEST'.  
ACK1        SEND ODD-NUMBERED ACKNOWLEDGMENT.  
*EOT        RECEIVE END OF TRANSMISSION CHARACTER.  
ENQ         SEND INQUIRY CHARACTER.  
*ACK0       RECEIVE EVEN-NUMBERED ACKNOWLEDGMENT.  
TEXT        SEND TEXT.  
*ACK1       RECEIVE ODD-NUMBERED ACKNOWLEDGMENT.  
EOT         SEND END OF TRANSMISSION CHARACTER.  
O.K.        ROUTINE RAN WITHOUT ERRORS.
```