

```

V      V 000 L   U   U M   M EEEEE
V      V Q  O L   U   U MM  MM E
V      V O  O L   U   U M M M M E
V      V O  O L   U   U M   M EEE
V      V O  O L   U   U M   M E
V V    O  O L   U   U M   M E
V      O  O L   U   U M   M EEEEE
V      000 LLLLL UUU M   M EEEEE

```

```

000      4
0 0      44
0 0      4 4
0 0      44444
0 0      4
0 0      4
000      4

```

```

IIIII N   N DDDD EEEEE X   X
I  NN   N D  D E   X   X
I  NN   N D  D E   X X
I  N N   N D  D EEE  X
I  N   N N D  D E   X X
I  N   NN D  D E   X   X
IIIII N   N DDDD EEEEE X   X

```

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000C	VOLUME 04 INDEX
0001	CUSTOMER VERIFY PROGRAM USERS GUIDE
0016	SYSTEM TEST PROGRAM USERS GUIDE
0018	ERAP USERS GUIDE
0019	ERROR LOG PROCESSING USERS GUIDE
37E0	NATIVE TIMER
3DE0	FLOATING POINT
3EE0	TWO CHANNEL SWITCH
3FE0	PROGRAMMABLE TWO CHANNEL SWITCH
40E0	TTY
41E0	LOCAL COMMUNICATIONS CONTROLLER
44E0	4979 DISPLAY
45E0	4978 DISPLAY
48E0	4964 DISKETTE UNIT
4AE0	4966 DISKETTE MAGAZINE
4BE0	4952, 4954, 4956 MOD C OR 4965 DISKETTE UNIT
4DE0	4952, 4954, 4956 OR 4965 MOD D DISKETTE UNIT
50E0	TIMER
58E0	4969 TAPE UNIT
59E0	4968 TAPE UNIT
64E0	4974 PRINTER
68E0	4973 PRINTER
6AE0	5200 SERIES PRINTER ATTACHMENT
70E0	4956 MODELS G/H DISKETTE UNIT
71E0	4956 MODELS G/H DISK UNIT
78E0	4962 DISK UNIT
7AE0	4963 DISK UNIT
7BE0	4967 DISK UNIT
7CE0	4952, 4954, 4956 OR 4965 MOD D DISK UNIT

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MAP 000C-3

MAP ID	SUBJECT
A0E0	IDIDO
A3E0	CUSTOMER DIRECT PROGRAM CONTROL ADAPTER
A4E0	4982 SENSOR I/O UNIT
B8E0	RPQ D02535 POINT OF SALE (S-LOOP) ATTACHMENT
C0E0	RPQ D02761/D02762/D02763 - CONTROLLER/STORAGE/MODEM
C4E0	MULTILINE COMMUNICATION CONTROLLER
C5E0	SERIES/1-CHANNEL ATTACHMENT
D9E0	SERIES/1-PERSONAL COMPUTER ATTACHMENT
E0E0	4987 ATTACHMENT
E3E0	MULTI COMMUNICATION CONTROLLER
E4E0	5250 INFORMATION DISPLAY SYSTEM ATTACHMENT
E6E0	MULTIFUNCTION ATTACHMENT
E8E0	ACCA SINGLE LINE ATTACHMENT
E9E0	ACCA MULTILINE ATTACHMENT
EAE0	PROGRAMMABLE MULTILINE CONTROLLER
EBE0	TELEPHONE COMMUNICATIONS CONTROLLER
EDE0	RPQ T08000 ATTACHED PROCESSOR ATTACHMENT
FOE0	BSCA SINGLE LINE ATTACHMENT
F1E0	BSCA MULTILINE ATTACHMENT
F8E0	SDLC ATTACHMENT
F9E0	MULTIDROP WORK STATION ATTACHMENT
FCE0	SYNCHRONOUS COMMUNICATIONS SINGLE LINE CONTROLLER
FDE0	X.25 MULTILINE CONTROLLER

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MAP 000C-4

CUSTOMER VERIFY PROGRAM (CVP) OPERATION GUIDE
AND
OPERATOR SELF TEST (OST) OPERATION GUIDE

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1.0 CUSTOMER VERIFY PROGRAM (CVP)

1.1.0 CVP PROGRAM DESCRIPTION

THE CVP IS A TEST OF ALL ATTACHMENTS AND DEVICES CONNECTED DIRECTLY TO THE S/I CHANNEL EXCEPT RPQS WITH DEVICE TYPE 80 - 97. THE TEST RUNS IN OVERLAP MODE, SIMILAR TO STANDARD CUSTOMER USAGE, BUT IT DOES NOT TEST REMOTE DEVICES ON COMMUNICATIONS ATTACHMENTS.

IF THERE IS A SYSTEM PROBLEM, THIS PROGRAM SHOULD BE RUN TO REPRODUCE THE ERROR. THE RESULTS, WHICH ARE REPORTED ON THE SYSTEM CONSOLE, SHOULD BE RELAYED TO THE CUSTOMER SERVICE REPRESENTATIVE (CSR). THESE RESULTS ARE USEFUL IN THE DIAGNOSIS AND REPAIR OF THE PROBLEM. THIS DISKETTE MUST BE KEPT WITH THE SYSTEM FOR USE DURING THE SERVICE CALL.

AN OPERATOR SELF TEST (OST) FOR A COMMUNICATION CABLE INTERFACE WRAP IS PROVIDED AT THE COMPLETION OF THE VERIFY TEST. THE TEST IS LOADED WHEN AN ACCA, BSCA, FPMLC OR SDLC COMMUNICATION FEATURE IS INSTALLED AND IS AN AID IN PROBLEM DETERMINATION. IT IS USED BY THE OPERATOR BEFORE CALLING A SERVICE ORGANIZATION WHEN A PROBLEM IS SUSPECTED IN A COMMUNICATIONS FEATURE. SEE "OPERATOR SELF-TEST" LATER IN THIS DOCUMENT FOR OPERATING INSTRUCTIONS.

1.1.1 CVP CAUTION

THE PROGRAM WRITES ON THE CSR CYLINDER OF ALL TESTED DISKS. IF THIS IS NOT DESIRED, POWER OFF ANY DISK YOU DO NOT WANT TO TEST, OR HAVE THE CSR REMOVE THE DISK ADDRESS FROM THE TEST TABLE. IF THIS IS NO PROBLEM IN YOUR APPLICATION, IGNORE THIS CAUTION.

1.1.2 CVP PURPOSE

THE CVP TESTS ALL ADDRESSES THAT ARE INSTALLED ON THE SYSTEM AND IN THE TEST TABLE FOR CORRECT OPERATION. IT DOES NOT TEST AI, AO, DI, DO OR RPQS. SEE "CVP CAUTION" FOR DISK CAUTION.

1.2 CVP REQUIREMENTS

THE DISKETTE LABELED "CUSTOMER VERIFY/SYSTEM TEST" (PART NUMBER 1635003 FOR 8 INCH DISKETTE AND 58X7446 FOR 5 1/4 INCH DISKETTE) MUST BE CORRECTLY CONFIGURED BY THE CSR FOR USE BY THE CUSTOMER.

BASIC SYSTEM REQUIREMENTS

- 495X PROCESSING UNIT WITH 16K STORAGE (IF THE SYSTEM CONSOLE IS A 7485, A MINIMUM OF 32K IS REQUIRED).
- IPL DISKETTE UNIT
- XXXX PRINTER OR DISPLAY**

**THIS IS A LIST OF SUPPORTED SYSTEM CONSOLES

31XX	- DISPLAY - ACCA SL - ACCAML - FPMLC - TTY
31XX/TTY	- DISPLAY OR EQUIVALENT ON TTY ATTACHMENT
31XX/7485	- DISPLAY RPQ D02350
31XX/7485	- MULTIFUNCTION ATTACHMENT (FEATURE CODE 1310)
31XX	- MULTI-COMMUNICATION CONTROLLER
4973/4974	- PRINTERS (WITH PROGRAMMER CONSOLE INPUT)
4975	- PRINTER OUTPUT ON MFA ATTACHMENT (FC 1310)
4978/4979	- DISPLAY
4980	- DISPLAY WORKSTATION ATTACHMENT (FC 1250)
5200	- PRINTERS ATTACHMENT (FC 5640)
5251/5291	- DISPLAY

1.3 CVP PREPARATION

ENSURE THAT SYSTEM/DEVICES ARE READY AS FOLLOWS:

-
- | | |
|--------------------|--|
| DISK(S) | - THE CSR TRACK IS WRITTEN DURING THE CVP TEST. IF THIS IS NOT DESIRED, POWER OFF THE DISK(S). |
| DISKETTE(S) | - A FORMATED DISKETTE IS INSTALLED. |
| DISKETTE(S) (4968) | - 1, 3, 13 OR 23 FORMATED DISKETTES ARE INSTALLED. |
| PRINTER(S) | - SCRAP PAPER IS INSTALLED (NOT MULTIPART). |
| TWO CHANNEL SWITCH | - TCS IS IN MANUAL MODE AND SWITCHED TO THE PROCESSOR FOR TESTING. |

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MAP 0001-3

1.4 CVP OPERATION

- POWER ON THE SYSTEM/DEVICES AND ENSURE THAT THEY ARE READY.
- SET THE IPL SOURCE SWITCH TO THE IPL DISKETTE.
- INSERT CUSTOMER VERIFY/SYSTEM TEST DISKETTE IN THE IPL DISKETTE UNIT.
- ENSURE THAT THE IPL DISKETTE UNIT IS READY.
- ENSURE THAT DISK(S) ARE POWERED ON AND IF CSR TRACKS CAN BE WRITTEN ON.
- PRESS THE LOAD KEY. WAIT ONE (1) MINUTE.

AT MESSAGE:

CONSOLE ON LINE

CUSTOMER VERIFY PROGRAM STARTED. AVERAGE RUN TIME = 10 - 15 MIN.

THE CVP IS LOADED AND TRIES TO TEST ALL FEATURES/DEVICES IN THE TABLE. RUN TIME IS SET BY THE AMOUNT OF STORAGE, FEATURES AND DEVICES INSTALLED.

WHEN THE CVP IS RUN THE FIRST TIME, NOTE THE AMOUNT OF TIME IT RUNS AND RECORD IT ON THE DISKETTE LABEL. IF IT RUNS MORE THAN TWO (2) MINUTES LONGER THAN THE RECORDED TIME, THERE MAY BE A PROBLEM WITH YOUR SYSTEM. SEE SCROLLING INSTRUCTIONS AND CVP MESSAGES/RESULTS LATER IN THIS DOCUMENT. WAIT FOR THE PROGRAM TO TERMINATE

PAGE CONTROL - AS THE SCREEN FILLS UP, THE MESSAGES DO NOT SCROLL OFF THE SCREEN. INSTEAD, THE WORD PAGE PRINTS IN THE LOWER RIGHT-HAND CORNER OF THE SCREEN AND SCROLLING STOPS. READ ALL THE MESSAGES.

TO CONTINUE THE MESSAGE SCROLL, PRESS THE ATTN KEY AS DEFINED BY THE CSR AT INSTALLATION TIME. MESSAGE SCROLLING CONTINUES UNTIL THE PAGE IS FILLED OR THE MESSAGES END. IF PAGE CONTROL IS NOT SUPPORTED, USE THE STOP KEY, IF ONE IS INSTALLED. IF NO STOP KEY IS INSTALLED, MESSAGES SCROLL OFF THE TOP OF THE SCREEN.

THESE DISPLAY DEVICES SUPPORT PAGE CONTROL:

4978, 4979, 525X ASK THE CSR FOR THE LOCATION OF ATTN KEY.

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MAP 0001-4

1.5 CVP MESSAGES/RESULTS

1.5.0 PRINTER OR DISPLAY MESSAGES/RESULTS

THE OUTPUT DEVICE SHOWS THE RESULTS OF THE CVP. ANALYZE THE ADDRESS, RESULT AND CODE COLUMNS TO DETERMINE IF SERVICE IS NEEDED. IF NO MESSAGE AFTER TIME SHOWN ON DISKETTE LABEL, CALL FOR SERVICE.

CUSTOMER VERIFY PROGRAM STARTED. AVERAGE RUN TIME = 10 - 15 MIN.

SERIES/1	HARDWARE TEST	RESULT	CODE
	495X PROCESSING UNIT	OK	
	XXXX STORAGE	OK	
	ADDRESS TRANSLATOR/EXPANDER	OK	
	FLOATING POINT	OK	
	NATIVE TIMER	OK	

DEVICE	FEAT/DEVICE	DESCRIPTION	RESULT	CODE
ADD ID				
00	0010 7845	TTY	OK	
01	0206 4974	MATRIX PRINTER	OK	
02	0106 4964	DISKETTE	OK	
09	1006 2074	BSCA ONE LINE	OK	
24	040E 4978	DISPLAY STATION	OK	
50	3106 4963	DISK 1 OR 2 FILES	OK	
09	2080	SYNCHRONOUS COMMUNICATION	NO TEST	
60	7880	TELEPHONE COMMUNICATION	BAD	0100
23	7900	TWO CHANNEL SWITCH	OK	
70		IDID UNKNOWN	NO TEST	

CUSTOMER VERIFY PROGRAM ENDED
DO YOU WANT TO RUN THE OPERATOR SELF TEST Y/N?

READ THE MESSAGES. IF OPERATOR SELF TEST MESSAGE, GO TO 2.0.

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MAP 0001-5

RESULT = TEST RESULT.

CODE = ROUTINE AND CHECK POINT (USED BY CSR).

OK = TEST RAN CORRECTLY.

BAD = 1. TEST DID NOT RUN CORRECTLY.
2. THE DEVICE IS LISTED IN THE CONFIGURATION TABLE AND CANNOT BE LOCATED BY THE PROGRAM. SEE NOTES 2 AND 3.
3. THE ATTACHMENT OR DEVICE IS NOT READY.

NO TEST = 1. THE DEVICE IS A NON-SUPPORTED RPQ.
2. THE DEVICE CANNOT BE IDENTIFIED BY THE PROGRAM.
3. THE DEVICE IS NOT LISTED IN CONFIGURATION TABLE AND WAS LOCATED BY THE PROGRAM. HAVE THE CSR CORRECT THE CONFIGURATION TABLE ON THE NEXT SERVICE CALL.

ADD = ADDRESSES IDENTIFIED BY THE PROGRAM AS INSTALLED ON SYSTEM AND ALL THE ADDRESSES IN THE TEST TABLE.

ID = DEVICE ID AS READ BY THE PROGRAM.

FEAT/DEVICE = FEATURE CODE OR DEVICE TYPE _ IF BOTH ARE BLANK THIS IS AN RPQ OR AN UNKNOWN FEATURE/DEVICE.

DESCRIPTION = DESCRIPTION OF THE FEATURE OR DEVICE INSTALLED AND NUMBER OF DEVICES ASSOCIATED WITH A BASE ADDRESS, IF APPLICABLE.
ID UNKNOWN IS AN UNKNOWN DEVICE.
RPQ IS AN RPQ DEVICE.

PRINTERS AND DISPLAYS DIRECTLY CONNECTED TO THE SERIES 1 MUST BE OBSERVED TO DETERMINE PROPER OUTPUT. REMOTE DEVICES CONNECTED TO THE SERIES 1 THROUGH COMMUNICATION FEATURES WILL NOT BE TESTED.

NOTE:

1. CVP IS NOT SUPPORTED WITH A PROGRAMMER CONSOLE AS THE OUTPUT.

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MAP 0001-6

2.0 OPERATOR SELF-TEST (OST)

2.1.0 PROGRAM DESCRIPTION

THE OPERATOR SELF-TEST IS A TELEPROCESSING MODEM CABLE INTERFACE TEST. WHEN RUN AS DIRECTED, ITS SUCCESSFUL COMPLETION INDICATES THAT THE COMMUNICATIONS INTERFACE CABLES ARE GOOD.

THE OST EXECUTES A DEVICE RESET, A PREPARE COMMAND AND A DIAGNOSTIC 1 AND DIAGNOSTIC 2 COMMAND. IT PERFORMS A WRAP TEST ON THE SUSPECT COMMUNICATIONS FEATURE AND ITS INTERFACE CABLES. THE RESULTS OF THIS TEST ENABLES THE OPERATOR TO CALL THE PROPER SERVICE ORGANIZATION.

2.1.1 OST CAUTION

IF THERE IS NO INPUT DEVICE, THIS PROGRAM WILL NOT RUN.

2.1.2 OST PURPOSE

THE OST TESTS COMMUNICATIONS ADDRESSES IDENTIFIED BY THE CVP PROGRAM AS INSTALLED ON THE SYSTEM AND ENTERED IN THE TEST TABLE, FOR CORRECT CABLE OPERATION. IF THE COMMUNICATIONS ATTACHMENT FAILED IN THE CVP, A GOOD RESULT OF THE OST MEANS ONLY THAT THE CABLE IS GOOD; THE COMMUNICATIONS ATTACHMENT CARD/MODEM MAY STILL BE BAD.

2.2 OST REQUIREMENTS

THE DISKETTE MUST BE CORRECTLY CONFIGURED BY THE SERVICE REP BEFORE BEING USED BY THE CUSTOMER.

BASIC SYSTEM REQUIREMENTS

- 495X PROCESSING UNIT WITH 16K STORAGE (IF THE SYSTEM CONSOLE IS A 7485, A MINIMUM OF 32K IS REQUIRED).
- 496X DISKETTE UNIT
- XXXX PRINTER OR DISPLAY
- WRAP CONNECTOR (P/N 2704136) OR CABLE EXTENSION (P/N 1632919).
- ACCA, BSCA, FPMLC, OR SDLC FEATURE TO TEST.

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2.3 OST PREPARATION

WHEN DIRECTED, DO ONE OF THE FOLLOWING:

- PUT THE WRAP CONNECTOR (P/N 2704136) ON THE MODEM END OF THE EIA CABLE (P/N 1632208) OF THE ADAPTER TO BE TESTED, OR
- PLACE THE SWITCH ON CABLE EXTENSION (P/N 1632919), IF INSTALLED, IN THE TEST POSITION.

2.4 OST OPERATION

THE OST RUNS A CHECK ON THE TELEPROCESSING (TP) CABLE, IF THE ACCA, BSCA, FPMLC OR SDLC FEATURE IS INSTALLED. THE OPERATOR HAS THE OPTION TO RUN THE OST AT COMPLETION OF THE CVP, AS FOLLOWS:

AT MESSAGE - DO YOU WANT TO RUN OPERATOR SELF TEST Y/N?
 ----- IF NO - REMOVE THE DISKETTE.
 IF YES - CONTINUE ON.

KEYBOARD ENTRY	PROGRAMMER CONSOLE ENTRY
-----	-----
Y ENTER OR RETURN	(B) 1 (I) (I)
	(B) = DATA BUFFER (I) = INTERRUPT

- PUT THE WRAP CONNECTOR (P/N 2704136) ON THE MODEM END OF THE EIA CABLE (P/N 1632208) OF THE ADAPTER TO BE TESTED, OR
- PLACE THE SWITCH ON CABLE EXTENSION (P/N 1632919), IF INSTALLED, IN THE TEST POSITION.

AT MESSAGE - ENTER DEVICE ADDRESS AND LOOP COUNT:
 (LOOP COUNT - HEX NUMBER OF TIMES TO RUN THE TEST)

EXAMPLE ENTRY

IF THE DEVICE ADDRESS = 60 AND THE LOOP COUNT = HEX 10
 - ENTER F6010, AS FOLLOWS:

KEYBOARD ENTRY	PROGRAMMER CONSOLE ENTRY
-----	-----
F6010 ENTER OR RETURN	(B) 1F (I)
	(B) 6010 (I) (I)

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2.5 OST MESSAGES/RESULTS

MESSAGE

REENTER DEVICE ADDRESS AND LOOP COUNT
ADDRESS ERROR
TEST 0X FAILED. CALL SERVICE ORGANIZATION
ANY OTHER MESSAGE MEANS THE TEST WAS GOOD.

ACTION

SEE EXAMPLE.
ENTER DA AGAIN.
CALL SERVICE.
REMOVE DISKETTE.

2.5.1 OST PROGRAMMER CONSOLE MESSAGES/RESULTS

IF UNABLE TO RUN THE PROGRAM OR CONTINUE
'CALL SERVICE.'

3401 - SYSTEM CONSOLE ERROR - CHECK THAT THE CONSOLE IS
READY. IF THE CONSOLE IS READY, CALL SERVICE.

NOTE.HOST IS NOT SUPPORTED USING A PROGRAMMER CONSOLE AS OUTPUT.

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MAP 0001-9

VERIFY DISKETTE SERVICE GUIDE
SYSTEM TEST AND VERIFY TEST

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 (MAP 0019)

```

*****
*****
**
** CCCCC AAAAA CC CC TTTTTTTT II 00000 NN NN **
** CCCCCC AAAAAAAA CC CC TTTTTTTT II 0000000 NNN NN **
** CC CC AA AA CC CC TT II 00 00 NNNN NN **
** CC AA AA CC CC TT II 00 00 NN NN NN **
** CC AAAAAAAA CC CC TT II 00 00 NN NN NN **
** CC CC AA AA CC CC TT II 00 00 NN NNNN **
** CCCCCC AA AA CCCCCCCC TT II 00 00 NN NNN **
** CCCCC AA AA CCCCCC TT II 00000 NN NN **
**
** DO NOT ATTEMPT TO IPL OR RUN THIS DISKETTE UNTIL A CORRECT
**
** CONFIGURATION HAS BEEN COPIED FROM THE BASIC DISKETTE. AN AUTO
**
** CONFIGURATION DOES NOT ALWAYS INCLUDE DEVICE DEPENDENT DATA
**
** FOR ALL ENTRIES. REFER TO SYSTEM FEATURE PROLOG OR MAP 3880
**
** FOR CONFIGURATION INFORMATION.
**
** * * * * *
** ONCE THE SYSTEM TEST DISKETTE HAS BEEN IPL'ED, "DO NOT"
**
** RE-IPL OR RESET THE SYSTEM UNTIL THE 'CONSOLE ON LINE'
**
** (34CE) MESSAGE HAS BEEN DISPLAYED.
**
**
*****
*****

```


01.00.00 INTRODUCTION.

THE SYSTEM VERIFY DISKETTE CAN BE LOADED AND RUN BY A SYSTEM OPERATOR TO INSURE CORRECT OPERATION OF FEATURES AND DEVICES DIRECTLY CONNECTED TO THE SERIES/1. UPON ENDING IT PERMITS THE OPERATOR TO SET UP AND RUN 3CEF (T.P. CABLE WRAP TEST).

THE SERVICE PERSON WILL USE THE DISKETTE FOR SYSTEM TEST, AND HARDWARE ERROR LOG PRINT.

THE PURPOSE IS TO INSURE PROPER OPERATION OF THE SYSTEM. IT CAN BE HELPFUL ON INTERMITTENT TROUBLES AND WHEN ONE DEVICE AFFECTS ANOTHER THROUGH THE CHANNEL.

THE TESTS ON THIS DISKETTE DO NOT CALL FIELD REPLACEMENT UNITS. THEY ARE ERROR INDICATION TESTS. THE PROBLEM DETERMINATION MUST BE DONE BY THE SERVICE PERSON USING:

- 1) ALL AVAILABLE ERROR MESSAGES
- 2) SYSTEM TEST ISOLATING METHOD (SWAPPING PROGRAMS IN AND OUT OF STORAGE)
- 3) PROBLEM DETERMINING PROCEDURE (REFERENCE MAP 0070) (DO NOT USE THIS REFERENCE UNLESS SYSTEM TEST INDICATES AN ERROR)

WHEN THE SERVICE PERSON FINDS AN ERROR, THE SUSPECT UNIT SHOULD BE EXCHANGED AND THE REPAIR VERIFIED USING THE BASIC DEVICE TEST FIRST THEN USING THE TEST, IN SYSTEM TEST, WHERE THE ERROR WAS FIRST INDICATED.

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02.00.00 CONFIGURATION

COPY A CORRECT CONFIGURATION TABLE FROM THE BASIC DIAGNOSTIC DISKETTE TO THE SYSTEM VERIFY DISKETTE. DURING THE FIRST IPL, AFTER A CONFIGURATION RECORD HAS BEEN WRITTEN, THE CONTROL PROGRAM WILL MODIFY THE CONFIGURATION RECORD TO BUILD A TEST TABLE.

* SINCE THE CONFIGURATION RECORD HAS BEEN MODIFIED IT SHOULD *
* NEVER BE COPIED FROM THIS DISKETTE TO ANY OTHER DISKETTE. *

IF DEVICE TYPE 'E4' IS INSTALLED, SEE PROLOG E400 FOR SPECIAL CONFIGURATION ENTRIES.

IF DEVICE TYPE 'E6' IS INSTALLED, SEE PROLOG E600 FOR SPECIAL CONFIGURATION ENTRIES.

IF DEVICE TYPE '6A' IS INSTALLED, SEE PROLOG 6A00 FOR SPECIAL CONFIGURATION ENTRIES.

03.00.00 EQUIPMENT REQUIREMENTS

BASIC SYSTEM

- 495X PROCESSING UNIT
- DISKETTE LOAD DEVICE
- PRINTER/DISPLAY
- KEYBOARD/PROGRAMMERS CONSOLE
- 32K OF STORAGE IS REQUIRED WHEN THE SYSTEM CONSOLE IS A 7485.
- 32K OF STORAGE REQUIRED FOR ERROR LOGGING AND PRINTING.
- IF ALTERNATE CONSOLE IS A 3101/316X, SEE MAP 0000 FOR SETUP

WRAP CONNECTOR OR CABLE EXTENSION P/N 1632919 FOR COMMUNICATION OPERATOR SELF TEST. (3CEF)

MODEM CABLE PART NUMBER 1632206 | 1632208 | 1632210 | 1632211

WRAP CONNECTOR 1633812 | 2704136 | 1633810 | 1633811

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04.00.00 DESCRIPTION

VERIFY/SYSTEM TEST DISKETTE

THE PROGRAMS ON THE DISKETTE TEST FEATURES/DEVICES IN OVERLAP TO SIMULATE CUSTOMER OPERATION. THE INSTALLED STORAGE IS USED TO DETERMINE THE NUMBER OF TESTS THAT CAN BE RUN AT ONE TIME.

COMMUNICATION OPERATOR SELF TEST (3CEF TP LINE WRAP)

THIS TEST IS INCLUDED FOR SYSTEMS THAT HAVE COMMUNICATIONS INSTALLED. THE PURPOSE IS TO ALLOW THE OPERATOR TO DISCONNECT ANY TP CABLE AND DO A WRAP TEST AT THE INTERFACE BEFORE PLACING A SERVICE CALL.

HARDWARE ERROR LOG PRINT

PURPOSE IS TO PRESENT DATA ASSOCIATED WITH EACH ERROR FROM HARDWARE ERROR LOG IN A READABLE OUTPUT FOR USE BY THE SERVICE PERSON.

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05.00.00 OPERATION

05.01.00 VERIFY

NOTE - IF PARITY ERRORS ARE LEFT ON THE SYSTEM, IPL THE VERIFY DISKETTE TO LOCATE THIS FAILURE. ALL OF STORAGE IS SCANNED AND IF ERROR IS IN FIRST 16KB OF STORAGE NO MESSAGE WILL BE DISPLAYED ON THE ALTERNATE CONSOLE, DATA LEDS EQUAL 342E (SEE MESSAGE CODES). IF ERRORS ARE BEYOND THE FIRST 16KB OF STORAGE THE FAILING ADDRESS WILL BE DISPLAYED AT THE END OF VERIFY OR START OF SERVICE MODE. IF MORE THAN (5) ERRORS ARE FOUND DURING THE STORAGE SCAN ALL OF STORAGE WILL BE INITIALIZED AND TESTED AGAIN.

POWER ON ALL DEVICES AND ENSURE THEY ARE READY
- PAPER IN PRINTER AND ON LINE, NOT MULTI-PART
- SCRATCH/DIAGNOSTIC DISKETTE INSERTED IN ALL ATTACHED DISKETTE UNITS. 4966 MUST HAVE 1, 3, 13 OR 23 DISKETTES INSTALLED.
IPL SWITCH SET TO IPL DEVICE
MODE SWITCH SET DIAGNOSTIC

*****CAUTION*****
* THIS PROGRAM WRITES ON THE DISK CE TRACK. IF THIS IS NOT *
* DESIRED THE SERVICE PERSON CAN DELETE DISK ENTRY FROM *
* CONFIGURATION RECORD BEFORE COPYING TO VERIFY DISKETTE. *

IPL THE VERIFY DISKETTE. PROGRAMS LOAD AND EXECUTE WITH NO OTHER OPERATOR INTERVENTION. THE PROGRAM TERMINATES AT A WAIT, DATA LEDS = 3400 AND DISPLAYS RESULTS OF THE TEST, SEE FIGURE 1. THE DATA LEDS WILL BE 3CE5 IF COMMUNICATION FEATURES ARE INSTALLED

THE ALTERNATE CONSOLE LISTS ALL EQUIPMENT INSTALLED ON THE SYSTEM WITH A COLUMN INDICATING THE RESULTS OF TEST OR IN THE CASE OF AN RPQ OR UNKNOWN DEVICE NO TEST. ADDRESS, FEATURE CODES AND DEVICES ARE IDENTIFIED. THE DESCRIPTION FIELD GIVES THE NAME AND HOW MANY ADDRESSES ARE ASSOCIATED WITH THE BASE ADDRESS. THE LAST COLUMN OF THE DISPLAY IS THE ROUTINE AND CHECK POINT OF A FAILURE OR A STORAGE ADDRESS FOR STORAGE ERRORS. XXYY, WHERE XX IS THE ROUTINE NUMBER AND YY IS THE CHECK POINT.

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FIGURE 1 - EXAMPLE OF THE DISPLAY AFTER CUSTOMER VERIFY RUN

SERIES/1 HARDWARE TEST		RESULT	CODE
-----		-----	-----
495X PROCESSING UNIT		OK/BAD	
XXXK STORAGE		OK/BAD	
TRANSLATOR (IF INSTALLED)		OK/BAD	
FLOATING POINT (IF INSTALLED)		OK/BAD	

DEVICE ADDRESS	FEAT/DEVICE	DESCRIPTION	RESULT	CODE
03	IDID	UNKNOWN	NO TEST	
09	2080	SYNCHRONOUS COMMUNICATION	OK	
0A	7880	TELEPHONE COMMUNICATION	BAD	0100
13	4963	DISK 3/4 DRIVES	BAD	0001
21	4973	LINE PRINTER	OK	
43	7900	TWO CHANNEL SWITCH	OK	
48	4969	MAGNETIC TAPE 1/2 ADDRESSES	OK	
50	1400	SERIES/1 LINK	BAD	0010
58	1310	MULTIFUNCTION 3/4 ADDRESSES	OK	
60	2095	FPMLC 8 ADDRESSES	OK	
70	2093	BSCA MULTILINE 4 ADDRESSES	OK	
80	0706	RPQ	NO TEST	

CUSTOMER VERIFY PROGRAM ENDED

- WHEN COMMUNICATION INSTALLED THIS MESSAGE IS:

DO YOU WANT TO RUN OPERATOR SELF TEST (Y/N)?

NOTE - BAD = DEVICE TEST FAILED.
 DEVICE IN CONFIGURATION TABLE BUT NOT IN HARDWARE .
 DEVICE FAILED ON A READ ID COMMAND
 NO TEST = IN THE HARDWARE BUT NOT IN THE TABLE.
 RPQ DEVICES ARE NOT TESTED.

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MAP 0016-7

05.02.00 OPERATOR SELF TEST (TP CABLE WRAP WAIT 3CE5)

AT THE COMPLETION OF VERIFY PROGRAM THE OPERATOR WILL HAVE THE OPTION TO RUN OPERATOR SELF TEST. THIS TEST SHOULD BE RUN WHEN TROUBLE IS SUSPECTED WITH A COMMUNICATION DEVICE. IF THE TEST IS DESIRED DO THE FOLLOWING:

ENTER

KEYBOARD
 Y ENTER/RETURN KEY

PROGRAMMERS CONSOLE
 (B) 1 (I)(I)
 (B) = DATA BUFFER (I) = INTERRUPT

PUT THE APPROPRIATE WRAP CONNECTOR ON THE MODEM END OF THE EIA CABLE TO BE TESTED OR PLACE THE SWITCH ON THE CABLE EXTENSION IN THE TEST POSITION (IF ONE IS INSTALLED).

MODEM CABLE PART NUMBER 1632206 | 1632208 | 1632210 | 1632211
 WRAP CONNECTOR 1633812 | 2704136 | 1633810 | 1633811

THE DISPLAY WILL BE, 'ENTER DEVICE ADDRESS AND LOOP COUNT' (WAIT 3CE1). LOOP COUNT IS THE NUMBER OF TIMES TO REPEAT THE TEST. WHEN USING THE KEYBOARD PRECEDE THE ENTRY WITH AN F.

KEYBOARD
 F6010
 || |
 || |--LOOP COUNT 10
 ||
 ||----DEVICE ADDRESS 60
 |
 |----COMMAND F

PROGRAMMERS CONSOLE
 (B) 1F (I) 6010 (I)(I)
 || | |
 || | |--LOOP COUNT 10
 || |
 || |----DEVICE ADDRESS 60
 || |
 || |-----COMMAND F
 |
 |--NUMBER OF WORDS TO FOLLOW

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MAP 0016-8

05.02.01 HALTS/WAIT MESSAGE CODES

- 3CE1 - DEVICE ADDRESS AND LOOP COUNT
INSTALL WRAP CONNECTOR ENTER DEVICE ADDRESS LOOP COUNT
- 3CE2 - ERROR IN ENTRY AT 3CE1
REPEAT ENTRY DEVICE ADDRESS LOOP COUNT
- 3CE3 - OPERATOR SELF TEST COMPLETED GOOD
RESTORE COMMUNICATION CABLE
- 3CE4 - OPERATOR SELF TEST COMPLETED BAD
RESTORE COMMUNICATION CABLE AND CALL SERVICE
- 3CE5 - DO YOU WISH TO RUN OPERATOR SELF TEST Y/N
IF NO, THIS IS THE END OF TEST.

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 MAP 0016-9

05.03.00 SYSTEM TEST (SERVICE MODE)

*****NOTE*****
 * IF PARITY ERRORS ARE LEFT ON THE SYSTEM, IPL THE VERIFY *
 * DISKETTE TO LOCATE THIS FAILURE. ALL OF STORAGE IS *
 * SCANNED AND IF ERROR IS IN FIRST 16KB OF STORAGE NO *
 * MESSAGE WILL BE DISPLAYED ON THE ALTERNATE CONSOLE, *
 * DATA LEDS EQUAL 342E (SEE MESSAGE CODES). IF ERRORS ARE *
 * BEYOND THE FIRST 16KB OF STORAGE THE FAILING ADDRESS *
 * WILL BE DISPLAYED AT THE END OF VERIFY OR START OF *
 * SERVICE MODE. IF MORE THAN (5) ERRORS ARE FOUND DURING *
 * THE STORAGE SCAN ALL OF STORAGE WILL BE INITIALIZED AND *
 * TESTED AGAIN. *

POWER ON ALL DEVICES AND ENSURE THEY ARE READY
 - PAPER IN PRINTER AND ON LINE, NOT MULTIPART
 - SCRATCH/DIAGNOSTIC DISKETTE INSERTED IN ALL ATTACHED DISKETTE
 UNITS.

IPL SWITCH SET TO IPL DEVICE
 MODE SWITCH SET DIAGNOSTIC
 SEE 02.00.00 FOR CONFIGURATION INFORMATION

IPL SYSTEM VERIFY DISKETTE AND CAUSE AN INTERRUPT FROM THE
 ALTERNATE CONSOLE WITHIN 10 SECONDS AFTER CONSOLE MESSAGE 'CONSOLE
 ON LINE' (WAIT 34CE) THIS IS DONE ON A KEYBOARD USING THE ENTER
 KEY, ON THE PRINTER WITH THE ON/OFF SWITCH, ON THE 4973 USE THE
 ENABLE/DISABLE SWITCH ON THE PROGRAMMER CONSOLE, PRESS RESET THEN
 START. THE PROGRAM WILL LOAD IN SERVICE MODE AND DISPLAY A LIST
 OF HARDWARE AND INDICATE IF ANY HARDWARE ERROR LOGS WERE SAVED
 FOLLOWED BY A PROGRAM MENU. (SEE FIGURE 3 AND 4)
 SEE SECTION 05.03.03 FOR ANY HALT/WAIT OR MESSAGE CODES.

IF THE 4978 IS THE ASSIGNED ALTERNATE CONSOLE FOUR ASTERISKS (* *
 * *) WILL APPEAR AFTER IPL. PRESS ANY KEY WITHIN 15 SECONDS TO
 REDEFINE THE KEYBOARD.

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 MAP 0016-10

FIGURE 3 - SYSTEM EQUIPMENT LIST

SERIES 1 HARDWARE			H	T
DEVICE ADD/ID	FEAT/DEVICE	DESCRIPTION		
		495X PROCESSING UNIT	*	*
		XXXX STORAGE	*	*
		FLOATING POINT TRANSLATOR		(IF INSTALLED) (IF INSTALLED)
03	00XA	UNKNOWN	*	
09	2080	SYNCHRONOUS COMMUNICATION	*	*
0A	7880	TELEPHONE COMMUNICATION	*	*
13	3X06	4963 DISK 3/4 DRIVES	*	*
21		4973 LINE PRINTER	*	*
43	7900	TWO CHANNEL SWITCH	*	*
48		4969 MAGNETIC TAPE 1/2 ADDRESSES	*	*
50	1400	SERIES/1 LINK	*	*
58	1310	MULTIFUNCTION 3/4 ADDRESSES	*	*
60	2095	FPLC 8 ADDRESSES	*	*
70	2093	BSCA MULTILINE 4 ADDRESSES	*	*
80	0011	RPQ	*	*

NO ERRORS LOGGED

FIGURE 4 - PROGRAM MENU

- 01 SYSTEM TEST
- 02 PRINT ERROR LOG
- 03 ENABLE/DISABLE ERROR LOG
- 04 TERMINATE

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MAP 0016-11

A TEST TABLE HAS BEEN BUILT WITH UP TO 18 DEVICE ENTRIES. A SYSTEM WITH MORE THAN 18 DEVICES WILL USE OPTION MENU, OPTION 3 TO BUILD A NEW TEST TABLE (SEE FIGURE 5). A TEST TABLE CANNOT BE GREATER THAN 18 DEVICE ADDRESS. USE BASE ADDRESSES ONLY.

THE ALTERNATE CONSOLE IS NOT INCLUDED IN THE TEST TABLE. WHEN THE ALTERNATE CONSOLE IS ATTACHED TO ANY MULTI-PORT FEATURE THE ADDRESSES ASSOCIATED WITH THAT FEATURE WILL NOT BE INCLUDED IN THE TEST TABLE. TO TEST ANY FEATURES/DEVICES NOT IN THE TEST TABLE USE OPTION MENU OPTION 3 (BUILD NEW TEST TABLE). WHEN THE ALTERNATE CONSOLE IS BEING TESTED THE CE CONSOLE WILL BE REASSIGNED AS THE ALTERNATE CONSOLE.

OPTION MENU OPTION 2 OR 3 ENTER ONLY BASE ADDRESSES FOR MULTIPORT ATTACHMENTS. (SEE FIGURE 5)

FIGURE 5 - OPTION MENU

TEST TABLE
DEVICE ADDRESSES 00 01 02 03 24

- 01 RUN ALL DEVICES IN TEST TABLE.
- 02 DELETE ADDRESS FROM TEST TABLE
- 03 BUILD NEW TEST TABLE
- 04 INITIALIZE TEST TABLE

TO ENTER

USING PROGRAMMER CONSOLE

(B) 1F (I) (B) 0X00 (I) (I)
X = OPTION

B = DATA BUFFER
I = INTERRUPT KEY

USING A KEYBOARD

FOX ENTER
X = OPTION

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MAP 0016-12

```

***** CAUTION *****
** SYSTEM TEST MODULE TEST SPECIFICATIONS: **
** 1) TWO CHANNEL SWITCH -- THE TCS CONSOLE MUST BE **
**      IN MANUAL MODE. **
** 2) DISK -- VERIFY/SYSTEM TEST WILL WRITE ON THE CE TRACK **
**      IF THIS IS NOT DESIRED, DELETE DISK FROM **
**      BASIC CONFIGURATION, COPY TO SYSTEM VERIFY **
**      DISKETTE THEN ADD IT BACK TO BASIC. **
** 3) 4966 -- MUST HAVE EITHER 1, 3, 13 OR 23 DISKETTES **
**      INSTALLED. **
** 4) 4974 -- SHOULD NEVER BE RUN ON A PRINTER USING **
**      MULTIPART PAPER. **
** 5) 4982 -- MUST HAVE A FEATURE CARD PLUGGED INTO ITS **
**      BASE ADDRESS. **
*****

```

THE ALTERNATE CONSOLE WILL LIST THE SYSTEM EQUIPMENT AS IN HARDWARE, IN CONFIGURATION TABLE OR BOTH IN COLUMN LABELED (H) (T). ALL TABLE ENTRIES MUST COMPARE TO THE HARDWARE INSTALLED. IF AN ADDRESS IS LISTED TWICE IT INDICATES THAT THE ID READ DOES NOT EQUAL THE ID IN THE TABLE

SELECT SYSTEM TEST AS IN FIGURE 4 AND SECTION 05.03.07. THIS WILL BRING UP OPTION MENU (WAIT 34CB FIGURE 5).

SELECT AN OPTION:

- 01 PROGRAMS WILL LOAD FOR DEVICE ADDRESSES IN TEST TABLE.
- 02 THIS WILL CREATE A NEW TEMPORARY TEST TABLE BY DELETING DEVICES FROM THE TEST TABLE. USE F COMMAND WITH NO SPACES
- 03 THIS WILL BUILD A NEW TEMPORARY TEST TABLE BY ENTERING ONLY THOSE ADDRESSES YOU WANT TO TEST. (UP TO 18 BASE ADDRESSES). USE F COMMAND WITH NO SPACES
- 04 CREATE A TEST TABLE OF UP TO 18 ADDRESSES.
PROGRAMMERS CONSOLE

```

(B) 2F (I)(B) 0102 (I)(B) 03XX (I)(I)
||      ||||      ||||
||      ||||      ||||--ENTER AN ADDRESS TWICE TO
||      ||||      ||||  FILL THE LAST WORD WHEN
||      ||||      ||||  NEEDED
||      ||||-----||-----DEVICE ADDRESS
||-----F COMMAND
|-----NUMBER OF WORDS TO FOLLOW

```

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05.03.01 COMMANDS

AFTER SYSTEM TEST HAS STARTED THE ONLY VALID COMMANDS THAT WILL BE PERMITTED ARE ECP COMMANDS

ANSWER A QUESTION NO

0 --- THIS COMMAND WILL ANSWER ANY QUESTION WITH A 'NO':
<(B),0,(I),(I)>

ANSWER A QUESTION YES

1 --- THIS COMMAND WILL ANSWER ANY QUESTION WITH A 'YES':
<(B),1,(I),(I)>

STOP ERROR COUNTING

2 --- THIS COMMAND WILL STOP ALL ERROR COUNTING FOR DEVICE ADDRESSES IN THE TEST TABLE.
ERROR COUNT IS KEPT ONLY FOR BASE ADDRESS.
(NO ERROR LIMIT OF 5, ERROR PRINTING WILL CONTINUE)
<(B),2,(I),(I)>

CONTINUE ERROR COUNTING

3 --- THIS COMMAND WILL START AGAIN THE ERROR LIMIT OF 5
ERROR COUNT IS KEPT ONLY FOR BASE ADDRESS.
<(B),3,(I),(I)>

CONTINUE PROGRAM

6 --- THIS COMMAND, USED WITH THE PROGRAMMER CONSOLE, WILL CONTINUE THE PROGRAM AFTER COLLECTING DATA FOR A WAIT MESSAGE
<(B),6,(I),(I)>

TERMINATE (STOP) SYSTEM TEST

7 --- THIS COMMAND WILL TERMINATE ALL ACTIVE DEVICE ADDRESSES AND SYSTEM TEST.
<(B),7,(I),(I)>

DISPLAY EXECUTION AND ERROR NUMBER(S)

8 --- THIS WILL DISPLAY THE EXECUTION AND ERROR NUMBER(S) OF THE SYSTEM
(COMMAND NOT VALID WITHOUT AN ALTERNATE CONSOLE)

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TERMINATE DEVICE ADDRESS

9 DA -- WHERE DA IS ANY DEVICE NOW ACTIVE
<(B),9,(I),(B),D,A,X,X,(I),(I)>

START DEVICE ADDRESS

B DA -- WHERE DA IS ANY DEVICE ADDRESS VALID TO THE SYSTEM
AND ATTACHED TO A VALID SYSTEM TEST DEVICE TYPE.
<(B),B,(I),(B),D,A,X,X,(I),(I)>

DUMP STORAGE TO THE ALTERNATE CONSOLE

D XXXX YYYY - WHERE XXXX = FROM ADDRESS AND YYYY = TO ADDRESS
(COMMAND NOT VALID WITHOUT AN ALTERNATE CONSOLE
OR WHEN THE ALTERNATE CONSOLE IS UNDER TEST)

F RESPOND TO PROGRAM WITH SUITABLE INFORMATION

COMMAND(S) 7, 9 AND B WILL NOT WORK UNTIL A PRECEDING COMMAND
HAS BEEN FULLY EXECUTED. ALSO THE B (START) COMMAND WILL NOT
START A PROGRAM UNTIL THE IPL DEVICE IS TERMINATED BY THE 9
(TERMINATE) COMMAND. SECTION 05.03.07
SYSTEM TEST IS STOPPED WHILE ONE OF THE FOLLOWING IS BEING
EXECUTED:

- (1) A YES OR NO QUESTION IS DISPLAYED TO THE OPERATOR AND WAS NOT ANSWERED
- (2) A PROGRAM IS BEING LOADED TO START EXECUTION
- (3) ERROR INFORMATION IS BEING DISPLAYED TO THE OPERATOR BY A CONSOLE
- (4) A DEVICE ADDRESS IS BEING TERMINATED.

*****NOTE*****
 *
 * WHILE THE SYSTEM TEST IS RUNNING THE PROGRAMMER CONSOLE *
 * LEDS WILL BE USED AS AN INDICATOR TO THE OPERATOR THAT *
 * THE SYSTEM IS OPERATING. IF THE LEDS ARE NOT INDICATING *
 * ACTION AND HALT IS NOT ACTIVE (SEE HALT CODES). THE SYSTEM *
 * COULD BE IN AN ERROR CONDITION (I.E. HUNG IN A FLOATING *
 * POINT LOOP). TO DETERMINE IF THIS IS THE CONDITION, *
 * WAIT FOR THE LEDS TO SHOW 'TEST IS RUNNING'. THE LEDS *
 * WILL CONTAIN X'FOFO' OR X'OFOF' AND WILL CHANGE IN *
 * 15 SECONDS. *
 *
 * WHEN A DEVICE ADDRESS IS REQUESTED, (EITHER THROUGH A *
 * 'B' OR '9' COMMAND), IF THE DEVICE ADDRESS IS CHAINED *
 * TO ANOTHER ADDRESS (SEE MAP 0010 SECTION 8.00.00) THEN *
 * THE ONLY ACCEPTABLE ADDRESS IS THE BASE ADDRESS OF THAT *
 * GROUP. WHEN THE BASE ADDRESS IS INDICATED, ALL ADDRESSES *
 * OF THE CHAINED GROUP ARE SELECTED. *
 *
 * IF YOU ARE USING THE MAINTENANCE CONSOLE AND SYSTEM *
 * TEST IS RUNNING IT MAY BE DIFFICULT TO CAUSE AN INTERRUPT. *
 * CONTINUE PRESSING INTERRUPT KEY UNTIL ACCEPTED. *
 *

05.03.02 PROGRAMMER CONSOLE OPERATION:

THE SEQUENCE FOR COMMAND/REPLY/OPTION ENTRY THROUGH THE PROGRAMMER CONSOLE WILL CHANGE WITH THE COMMAND.

THESE COMMANDS ARE GROUPED INTO FOUR SECTIONS AS FOLLOWS:

(1) SINGLE CHARACTER COMMAND(S) (NO ASSOCIATED DATA).
COMMAND(S) '2', '3', '7', AND '8' ARE ENTERED BY PRESSING FOUR KEY'S AS FOLLOWS:

(B)=DATA BUFFER KEY, (I)=CONSOLE INTERRUPT KEY.

COMMAND	KEY SEQUENCE	DESCRIPTION
2	(B),2,(I),(I)	IGNORE ERROR LIMIT.

		SECOND CONSECUTIVE INTERRUPT CAUSES ECP TO EXECUTE THE COMMAND
		ECP WILL 'ON CONDITION' TAKE THE '2' COMMAND. IF YOU WANT TO CHANGE:
		SELECT THE DATA BUFFER (B), CHANGE THE VALUE OF THE RIGHTMOST HEXADECIMAL CHARACTER (BIT(S) 12 THROUGH 15) AND PRESS INTERRUPT (I). THIS WILL TRANSMIT A 'DELETE', START THE COMMAND SEQUENCE AGAIN.
		INSERT THE COMMAND CHARACTER (2), INTO BIT(S) 12-15 OF THE DATA BUFFER.
		WILL SELECT THE DATA BUFFER FOR COMMAND/OPTION ENTRY.
3	(B),3,(I),(I)	RESET ERROR LIMIT OPTION.
6	(B),6,(I),(I)	CONTINUE.
7	(B),7,(I),(I)	STOP SYSTEM TEST.
8	(B),8,(I),(I)	DUMP SYSTEM TEST INFORMATION.

NOTE: COMMAND 8 IS NOT RECOGNIZED WITHOUT AN ALTERNATE CONSOLE .

(2) COMMAND(S) NEEDING A PROGRAM NAME OR DEVICE ADDRESS.
COMMAND(S) '9' AND 'B' CAUSE ECP TO LOAD OR TERMINATE A PROGRAM, THEREFORE, THE FOUR DIGIT PROGRAM ID OR TWO DIGIT DEVICE ADDRESS MUST BE SUPPLIED WITH THE COMMAND CHARACTER.

(B)=DATA BUFFER KEY, (I)=CONSOLE INTERRUPT KEY.

COMMAND	KEY SEQUENCE	DESCRIPTION
B	(B),B,(I),(B),Y,Z,X,X,(I),(I)	LOAD & GO PROGRAM YZXX OR DEVICE ADDRESS YZ
		SECOND CONSECUTIVE INTERRUPT, ECP WILL EXECUTE THE COMMAND.
		ECP HAS 'ON CONDITION' TAKEN THE COMMAND. FOR 'DELETE' SEE COMMAND '2' ABOVE.
		PROGRAM/DEVICE ADDRESS YZ=DEVICE ADDRESS XX=00
		SELECT DATA BUFFER FOR ENTRY.
		CAUSES ECP TO READ THE COMMAND. BECAUSE COMMAND='9-B-F' ECP NEEDS DATA.
		INSERT COMMAND 'B' INTO DATA BUFFER.
		WILL SELECT THE DATA BUFFER FOR COMMAND ENTRY.
9	(B),9,(I),(B),Y,Z,X,X,(I),(I)	TERMINATE DEVICE ADDRESS YZ FROM SYSTEM TEST.

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MAP 0016-17

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MAP 0016-18

(3) COMMAND(S) NEEDING A VARIABLE AMOUNT OF DATA.

COMMAND 'D' DUMP STORAGE NEEDS TWO WORDS OF DATA --> A FROM ADDRESS FOLLOWED BY THE TO ADDRESS.

THE 'D' COMMAND CAN BE ENTERED AS FOLLOWS:

- (1) ALTERNATE CONSOLE -> 'D FFFTTTT' OR 'D FFFF TTTT
- (2) PROGRAMMERS CONSOLE -> (B),D,(I),(B),F,F,F,F,(I),(B),T,T,T,T,(I),(I)

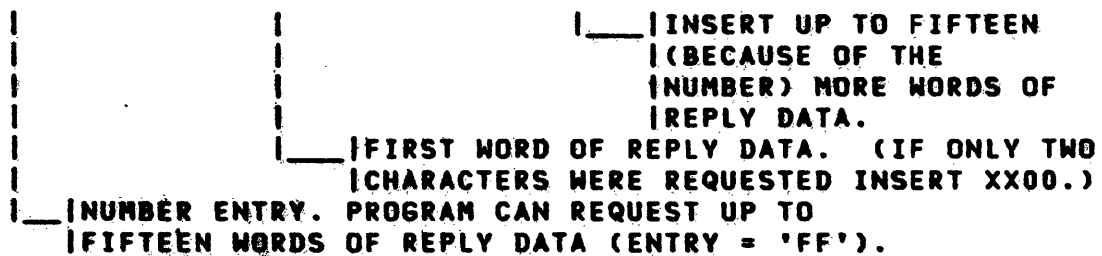
COMMAND 'F' CAN NEED FROM ONE TO FIFTEEN 'WORDS' OF REPLY DATA THIS COMMAND IS ENTERED AS FOLLOWS:

(B)=DATA BUFFER KEY,(I)=CONSOLE INTERRUPT KEY,< >=OPTIONAL ENTRY.

COMMAND 'F', REPLY TO PROGRAM.

ALL UTILITY AND CONTROL PROGRAMS MAY REQUEST 'REPLY DATA' (DEVICE ADDRESS, TEST DATA, AND SO ON.) THIS IS DONE BY THE 'F' COMMAND.

(B),X,F,(I),(B),X,X,X,X,(I),<(B),X,X,X,X,(I),>(I)



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MAP 0016-19

(4) COMMAND(S) USED TO ANSWER A QUESTION.

COMMAND '1' WILL ANSWER A QUESTION 'YES'.
COMMAND '0' WILL ANSWER A QUESTION 'NO'.

- 1 (B),1,(I),(I) ANSWER QUESTION YES.
- 0 (B),0,(I),(I) ANSWER QUESTION NO.

THE CONSOLE/PROCESSING UNIT HARDWARE INTERFACE IS SUCH THAT YOU MAY FIND IT DIFFICULT TO CAUSE AN INTERRUPT FROM THE PROGRAMMER CONSOLE WHEN PROGRAMS ARE EXECUTING. PRESS THE INTERRUPT KEY SLOWLY --- WHEN THE INTERRUPT IS TAKEN THE AUDIBLE DEVICE WILL SOUND.

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MAP 0016-20

05.03.03 HALT/WAIT MESSAGE CODES:

HALT CODES HAVE BEEN ASSOCIATED WITH A DEVICE WHERE POSSIBLE.
(SEE MAP 0012)

A REFERENCE FOR PROGRAM HALTS FOLLOWS:

3400-341F ECP
3420-342F PARITY CHECK
3430-343F SYSTEM TEST
34C0-34CF SYSTEM TEST SELECTIONS
REPLY WITH '1', '0', '6', OR DATA AS NEEDED.

SYMBOLS USED WITH HALT CODES

- 1) -> EQUALS 'POINTS TO STORAGE ADDRESS'
EXAMPLE:
LEVEL3 R3 -> HEXADECIMAL DEVICE ADDRESS
LEVEL 3 R3 WILL CONTAIN A STORAGE ADDRESS, IF THAT
ADDRESS IS DISPLAYED IT WILL GIVE THE DEVICE ADDRESS.
- 2) * AFTER THE HALT CODE INDICATES THAT WHEN THE MESSAGE
IS DECODED THE PROGRAM IS STARTED WITH A
RESUME (6) COMMAND.

3400 END OF SYSTEM VERIFY TEST
NO ACTION REQUIRED.

3401 (NO MESSAGE)
BAD CONDITION CODE RECEIVED FROM ALTERNATE CONSOLE. USE THE
PROGRAMMER CONSOLE TO GIVE A CONTINUE (B),6,(I),(I), SEE MAP 0010.
ECP WILL ASSIGN AS THE ALTERNATE CONSOLE THE PROGRAMMER CONSOLE AND
CONTINUE THE PROGRAM.

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MAP 0016-21

3402 PCK ROUTINE=XXXX CHECKPOINT=XXXX PSW=XXXX IAR=XXXX LSB=XXXX
LSB=XXXX IS THE STORAGE ADDRESS OF THE LEVEL STATUS BLOCK.
LSB = IAR AKR LSR REG0 REG1 REG2 REG3 REG4
REG5 REG6 REG7 PSW SAR 0000 0000 0000
PROGRAM CHECK HAS OCCURRED --> GO TO MAP 3871 ENTRY POINT A
NOTE: IF THE PROGRAMMER CONSOLE IS THE ACTIVE CONSOLE, PRESS
'STOP', SELECT LEVEL 3, THEN: R0 WILL CONTAIN THE PROGRAM ID, R1
WILL CONTAIN THE CHECKPOINT, R2 WILL CONTAIN THE PROGRAM STATUS
WORD AT THE TIME OF THE PCK INTERRUPT, AND R3 WILL CONTAIN THE
ADDRESS OF THE INSTRUCTION FOLLOWING THE FAILURE. R4 WILL
CONTAIN THE HEXADECIMAL STORAGE ADDRESS OF THE LEVEL STATUS
BLOCK.
IF THE ROUTINE = 3400, THE PCK OCCURRED WHILE LOADING A PROGRAM.

3403 MCK ROUTINE=XXXX CHECKPOINT=XXXX PSW=XXXX IAR=XXXX LSB=XXXX
LSB=XXXX IS THE STORAGE ADDRESS OF THE LEVEL STATUS BLOCK.
LSB = IAR AKR LSR REG0 REG1 REG2 REG3 REG4
REG5 REG6 REG7 PSW SAR 0000 0000 0000
MACHINE CHECK HAS OCCURRED --> GO TO MAP 3871 ENTRY POINT A
NOTE: (IF THE PROGRAMMER CONSOLE IS THE ACTIVE CONSOLE, PRESS
'STOP', SELECT LEVEL 3, THEN: R0 WILL CONTAIN THE PROGRAM ID, R1
WILL CONTAIN THE CHECKPOINT, R2 WILL CONTAIN THE PROGRAM STATUS
WORD AT THE TIME OF THE MCK INTERRUPT, R3 WILL CONTAIN THE IAR AT
THE TIME OF THE INTERRUPT. R4 WILL CONTAIN THE HEXADECIMAL
STORAGE ADDRESS OF THE LEVEL STATUS BLOCK.

3404 POWER THERMAL WARNING
LSB = IAR AKR LSR REG0 REG1 REG2 REG3 REG4
REG5 REG6 REG7 PSW SAR 0000 0000 0000
POWER/THERMAL CHECK (IF NO BATTERY BACKUP THE SYSTEM WILL POWER
DOWN BEFORE THE MESSAGE CAN BE DISPLAYED ON AN ALTERNATE CONSOLE.)
GO TO MAP 1470, ENTRY POINT A.
NOTE: (IF THE PROGRAMMER CONSOLE IS THE ACTIVE CONSOLE, PRESS
'STOP'. THE INFORMATION IN THE LEVEL STATUS BLOCK (LSB) CAN BE
FOUND USING THE STORAGE ADDRESS CONTAINED IN R4.

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MAP 0016-22

PAPER ONLY

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- 3405 PT
THE PROGRAM HAS BEEN TERMINATED. ECP WILL TAKE ANY VALID COMMAND/OPTION.
WHEN THE PROGRAMMER CONSOLE IS THE ACTIVE CONSOLE THIS HALT WILL BE DISPLAYED TO INDICATE CORRECT TERMINATION OF A PROGRAM.
- 3406 INV REQ
ECP RECEIVED AN INVALID COMMAND.
- 3407 ALTERNATE CONSOLE OFF
THE ALTERNATE CONSOLE (A CONSOLE ASSIGNED BY THE CONFIGURATION PROGRAM) IS BEING TESTED. ANY MESSAGES WILL BE DISPLAYED ON THE PROGRAMMER CONSOLE.
- 3408 ALTERNATE CONSOLE ON
TESTING OF THE ALTERNATE CONSOLE IS COMPLETE. MESSAGES ARE BEING DISPLAYED ON THE ALTERNATE CONSOLE.
- 3409 NOT EXPECTED INTERRUPT ISB=XXXX
ECP HAS BEEN INTERRUPTED BY A DEVICE THAT SHOULD NOT BE ACTIVE. THE RIGHT MOST BYTE OF THE ISB IS THE ADDRESS OF THE INTERRUPTING DEVICE. IF THE PROGRAMMER CONSOLE IS THE ACTIVE CONSOLE R0 (LEVEL = 3) WILL CONTAIN THE ISB.
- 340A ST
THE PROGRAM HAS STARTED.
- 340B DISKETTE ERROR
AN OIO ERROR OCCURRED WHILE ADDRESSING THE MAINTENANCE LOAD DEVICE. ATTEMPT THE COMMAND AGAIN. IF THE PROBLEM REMAINS, IPL THE BASIC DIAGNOSTIC DISKETTE THEN, GO TO THE 4964 ENTRY MAP. AFTER THIS IF NO FAILURE VERIFY THE DISKETTE.

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MAP 0016-23

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- 340C PNF
NO VTOC ENTRY FOR THE REQUESTED PROGRAM.
IF THE PROGRAMMER CONSOLE IS THE ACTIVE CONSOLE R3 WILL CONTAIN A POINTER TO THE REQUESTED PROGRAM NAME IN STORAGE.
- 340D XXXX LOADED AT YYYY
REQUESTED PROGRAM HAS BEEN LOADED. (XXXX LOADED AT = YYYY). THIS MESSAGE WILL BE DISPLAYED IF THE PROGRAM JUST LOADED CAN BE LOADED AT ANY LOCATION IN STORAGE. THE 'AT' ADDRESS (YYYY) IS THE START ADDRESS OF THE LOADED PROGRAM.
- 3410 NO REPLY EXPECTED
THE CONSOLE DATA WAS RECEIVED AND ECP WAS NOT EXPECTING 'REPLY' DATA.
- 3411 (NO MESSAGE)
STORAGE TEST RUNNING
- 3412 ENTER 1 TO CONTINUE
PROGRAM HAS HALTED TO PERMIT TIME TO READ OUTPUT.
- 3413 (NO MESSAGE)
A COMMAND SEQUENCE HAS BEEN ENTERED FROM THE PROGRAMMER CONSOLE. IF CORRECT, PRESS CONSOLE INTERRUPT. ECP WILL EXECUTE THE COMMAND. TO CHANGE (CONSOLE DELETE), CHANGE THE BUFFER CONTENTS AND PRESS CONSOLE INTERRUPT. ECP WILL DISPLAY 3414. START THE COMMAND SEQUENCE AGAIN.
- 3414 ENTER
A COMMAND OR REPLY SEQUENCE HAS BEEN STARTED AND MORE DATA IS NEEDED. INSERT THE DATA.
NOTE: THIS HALT IS ALSO DISPLAYED AFTER A PROGRAMMER CONSOLE DELETE.
- 3415 (NO MESSAGE)
ECP HAS RECEIVED A WRONG SEQUENCE OF 'SVC' REQUESTS FROM THE I/O PROGRAM.
YOU CANNOT CONTINUE FROM THIS HALT. GO TO MAP 0070, ENTRY POINT A.

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MAP 0016-24

PAPER ONLY

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341D (NO MESSAGE)
ECP HAS RECEIVED A COMMAND TO DUMP STORAGE AND IS NOW DUMPING TO THE ALTERNATE CONSOLE.

342A XXXXXX
A PARITY ERROR WAS FOUND (PROGRAMMERS CONSOLE USE '6' TO CONTINUE EXECUTION). REGISTER 1 AND 2 WILL CONTAIN ADDRESS XXXXXX. IF R1 = 0007 AND R2 = FFFF THE ADDRESS IS 0007FFFF (SECTION 05.03.04/05.03.05)

342E (NO MESSAGE)
AN ERROR WAS FOUND IN THE FIRST 16K OF STORAGE WHILE EXECUTING PID 34A1. PRESS INTERRUPT TO OBTAIN THE ADDRESS IN THE LEDS, THEN PRESS THE INTERRUPT KEY TO CONTINUE RUNNING.
(SECTION 05.03.04/05.03.05)

3430 WAIT
THE OPERATOR IS REQUESTED TO WAIT UNTIL THE PRECEDING OPERATION IS COMPLETE

3432* XX NOT FOUND
DEVICE ADDRESS XX IS NOT UNDER TEST AT PRESENT.
LEVEL 3 R3 -> HEXADECIMAL DEVICE ADDRESS

3433* XX TERM
DEVICE ADDRESS XX HAS TERMINATED.
LEVEL 3 R3 -> HEXADECIMAL DEVICE ADDRESS

3434* DO YOU WISH TO KEEP THE NEW TABLE
SAVE THE TABLE JUST BUILT ON DISKETTE

3435 NO PROGRAM ACTION
THE LAST DEVICE OPERATING UNDER SYSTEM TEST HAS TERMINATED,
BUT SYSTEM TEST IS STILL ACTIVE

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MAP 0016-25

PAPER ONLY

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3437 NO STORAGE
THERE IS NOT ENOUGH STORAGE TO START ANOTHER PROGRAM.
THIS INDICATES EITHER STORAGE IS FILLED OR THE DEVICE TABLE NEEDED TO CONTAIN ALL THE DEVICE CONFIGURATION DATA IS TOO SMALL.

3438* XX ACTIVE - NOT VALID REQUEST
DEVICE ADDRESS XX IS ALREADY ACTIVE.
LEVEL 3 R3 -> HEXADECIMAL DEVICE ADDRESS

3439* XX ST
DEVICE ADDRESS XX HAS STARTED.
LEVEL 3 R3 -> HEXADECIMAL DEVICE ADDRESS

343A* XX MUST TERM
DEVICE ADDRESS XX (IPL DEVICE) MUST TERM BEFORE STARTING ANOTHER DEVICE (LEVEL 3 R3 -> HEXADECIMAL DEVICE ADDRESS)

343C* ****ERROR****
AN ERROR OCCURRED WHILE TESTING. LEVEL 3 R3 -> THE ERROR FIELD(S) AS ARE DESCRIBED IN SECTION 05.03.06 THIS MAP. THE FIELD(S) ARE DISPLAYED IN SEQUENCE FROM THE FLAG FIELD STARTING AT HEXADECIMAL LOCATION XX12.
THE DEVICE TYPE AND DEVICE ADDRESS CAN BE FOUND IN EBCDIC AT THE ADDRESS THAT IS OBTAINED WHEN ZEROING OUT THE LOW ORDER BYTE OF R3. THAT IS IF R3 IS EQUAL TO 3262 THEN THE DEVICE TYPE AND ADDRESS CAN BE OBTAINED STARTING AT LOCATION 3200, HEXADECIMAL ROUTINE AT 320A, AND HEXADECIMAL CHECKPOINT AT 320C.)

343D* XX ERROR LIMIT
DEVICE ADDRESS XX HAS REACHED ITS ERROR LIMIT.
LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS

3499 OPTION NOT SUPPORTED
PRINT HARDWARE ERROR LOG NOT SUPPORTED
NO ERROR LOG DEVICES INSTALLED

34A1 (NO MESSAGE)
PID 34A1 IS IN STORAGE AND RUNNING (THIS SHOULD ONLY APPEAR IN THE LEDS FOR A SHORT PERIOD OF TIME)

34A2 (NO MESSAGE)
PID 34A2 IS IN STORAGE AND RUNNING (THIS SHOULD ONLY APPEAR IN THE LEDS FOR A SHORT PERIOD OF TIME)

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34A3 (NO MESSAGE)
 PID 34A3 IS IN STORAGE AND RUNNING. THIS IS THE PROGRAM THAT DOES
 A RUNNING COUNT FOR 60 SECONDS.

34CA PROGRAM OPTION MENU (SEE FIGURE 4)

34CB OPTION MENU 1 (SEE FIGURE 5)

34CC ENTER ADDRESS OF DEVICES TO BE TESTED (SEE FIGURE 4)

34CD ANY MORE DEVICE ADDRESSES, Y/N
 COMMAND 1 = YES 0 = NO

34CE CONSOLE ON LINE
 AN INTERRUPT WITHIN 10 SECONDS AFTER CONSOLE ON LINE MESSAGE WILL
 START SERVICE MODE

34CF* DEV ADD NOT FOUND
 DEVICE ADDRESS SELECTED AT 34CC NOT IN CONFIGURATION RECORD OR
 NOT ON SYSTEM

=====> TWO CHANNEL SWITCH HALT CODES

3EE1 CAN A RESERVE BE ISSUED FROM DA. = XX
 IS DEVICE ADDRESS XX ON ONE PROCESSING UNIT PERMITTED TO ISSUE
 RESERVES TO THE OTHER PROCESSING UNIT THROUGH THE TWO CHANNEL
 SWITCH.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

=====> TTY HALT CODES

40E1 IS THERE A TTY ATTACHED TO DA = XX
 DEVICE ADDRESS XX IS ATTACHED TO A TTY (Y OR N).
 LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS

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=====> 4966 HALT CODES

4AE1 23 DISKETTES LOADED ON DA = XX
 IS DEVICE ADDRESS XX LOADED WITH DISKETTES (I.E. 3 IN THE OPENINGS
 PLUS TWO LOADED CONTAINERS) -- (1 = YES, 0 = NO)
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

4AE2 13 DISKETTES LOADED ON DA = XX
 IS DEVICE ADDRESS XX LOADED WITH 13 DISKETTES (I.E. 3 IN THE
 OPENINGS PLUS ONE LOADED CONTAINER) -- (1 = YES 0 = NO)
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

4AE3 3 DISKETTES LOADED ON DA = XX
 IS DEVICE ADDRESS XX LOADED WITH 3 DISKETTES (I.E. 3 IN THE
 OPENINGS) -- (1 = YES 0 = NO)
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

4AE4 SHOULD THERE BE HARDWARE RETRIES - DA = XX
 DEVICE ADDRESS XX HAS AUTOMATIC HARDWARE RETRY -- SHOULD IT BE USED
 (1 = YES 0 = NO)
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

4AE5 SHOULD HARDWARE RETRIES BE AN ERROR -- DA = XX
 IF HARDWARE RETRIES ARE SELECTED AS AN OPTION FOR DEVICE ADDRESS XX
 SHOULD RETRIES, IF THEY OCCUR, BE AN ERROR.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

=====> 4952/65 HALT CODES

4BE4 SHOULD THERE BE HARDWARE RETRIES - DA = XX
 DEVICE ADDRESS XX HAS AUTOMATIC HARDWARE RETRY -- SHOULD IT BE USED
 (1 = YES 0 = NO)
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

4BE5 SHOULD HARDWARE RETRIES BE AN ERROR -- DA = XX
 IF HARDWARE RETRIES ARE SELECTED AS AN OPTION FOR DEVICE ADDRESS XX
 SHOULD RETRIES, IF THEY OCCUR, BE AN ERROR.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

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=====> 4974 PRINTER <MATRIX> HALT CODES

64E1 FORMS WIDTH FOR THE 4974 PRINTER D.A. = XX
 (ENTER PRINT POSITIONS I.E. F0132 - AND SO ON).
 THE PRINT POSITIONS SHOULD BE A DECIMAL NUMBER.
 THE QUESTION SHOULD BE ANSWERED AS DESCRIBED REMEMBERING THAT
 MULTIPART PAPER SHOULD NEVER BE USED DURING TEST.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

=====> 5200 SERIES PRINTER HALT CODES

6AE1 FORMS WIDTH FOR THE PRINTER D.A. = XX
 (ENTER PRINT POSITIONS I.E. F0132 - AND SO ON).
 THE PRINT POSITIONS SHOULD BE A DECIMAL NUMBER.
 THE QUESTION SHOULD BE ANSWERED AS DESCRIBED REMEMBERING THAT
 MULTIPART PAPER SHOULD NEVER BE USED DURING TEST.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

=====> 5 1/4 INCH DISKETTE (MCA) HALT CODES

70E4 SHOULD THERE BE HARDWARE RETRIES (Y OR N)? - DA = XX
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

70E5 SHOULD HARDWARE RETRIES BE AN ERROR (Y OR N)? - DA = XX
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

=====> 5 1/4 INCH DISK (MCA) HALT CODES

71E1 CAN DDA DIAGNOSTIC TRACK BE WRITTEN ON DA = XX
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

71E2 DO YOU WANT DDA HARDWARE RETRIES ON DA = XX
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

71E3 IS A DDA HARDWARE RETRY AN ERROR ON DA = XX
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

=====> 4962 DISK HALT CODES

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78E1 CAN THE 4962 C.E. TRACK BE WRITTEN ON DA = XX
 CAN A 256 BYTE SECTOR BE WRITTEN AT DEVICE ADDRESS XX CYLINDER
 (DECIMAL) 302.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

=====> 4963 DISK HALT CODES

7AE1 CAN THE 4963 C.E. TRACK BE WRITTEN ON DA = XX
 CAN A 256 BYTE SECTOR BE WRITTEN AT DEVICE ADDRESS XX ON THE C.E.
 CYLINDER.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

7AE2 DO YOU WANT 4963 HARDWARE RETRIES ON DA = XX
 DEVICE ADDRESS XX HAS AUTOMATIC HARDWARE RETRY -- SHOULD IT BE USED
 (1 = YES 0 = NO)
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

7AE3 IS A 4963 HARDWARE RETRY AN ERROR ON DA = XX
 IF HARDWARE RETRIES ARE SELECTED AS AN OPTION FOR DEVICE ADDRESS XX
 SHOULD RETRIES, IF THEY OCCUR, BE AN ERROR.
 (LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS.)

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=====> 4967 DISK HALT CODES

7BE1 CAN THE 4967 C.E. TRACK BE WRITTEN ON DA = XX
CAN A 256 BYTE RECORD BE WRITTEN AT DEVICE ADDRESS XX ON THE C.E.
CYLINDER.
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

7BE2 DO YOU WANT 4967 HARDWARE RETRIES ON DA = XX
DEVICE ADDRESS XX HAS AUTOMATIC HARDWARE RETRY -- SHOULD IT BE USED
(1 = YES 0 = NO)
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

7BE3 IS A 4967 HARDWARE RETRY AN ERROR ON DA = XX
IF HARDWARE RETRIES ARE SELECTED AS AN OPTION FOR DEVICE ADDRESS XX
SHOULD RETRIES, IF THEY OCCUR, BE AN ERROR.
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS.)

=====> 4965D 4952/4/6/MODEL D DISK HALT CODES

7CE1 CAN THE DDA C.E. TRACK BE WRITTEN ON DA = XX
CAN A 256 BYTE RECORD BE WRITTEN AT DEVICE ADDRESS XX ON THE C.E.
CYLINDER.
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

7CE2 DO YOU WANT DDA HARDWARE RETRIES ON DA = XX
DEVICE ADDRESS XX HAS AUTOMATIC HARDWARE RETRY -- SHOULD IT BE USED
(1 = YES 0 = NO)
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS).

7CE3 IS A DDA HARDWARE RETRY AN ERROR ON DA = XX
IF HARDWARE RETRIES ARE SELECTED AS AN OPTION FOR DEVICE ADDRESS XX
SHOULD RETRIES, IF THEY OCCUR, BE AN ERROR.
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS.)

=====> IDIDO HALT CODE

AOE1 IS THERE A WRAP CABLE CONNECTED TO DA = XX
DOES THE DEVICE ADDRESS XX HAVE A WRAP CABLE CONNECTED (1 = YES 0
= NO)
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

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=====> 525X TERMINAL ATTACHMENT HALT CODES

E4E1 PRINTER FORMS WIDTH = ? (OXXX DECIMAL)
BASE ADD = XX
PORT ADD = YY
STATION ADD = ZZ
ENTER PRINT POSITIONS, (I.E. F0132)

WHEN USING THE PROGRAMMERS CONSOLE, R0 = DEVICE ADDRESS/DEVICE
TYPE, R1 = PORT ADDRESS/STATION ADDRESS. ENTER PRINT POSITIONS:
(B) IF (I) (B) OXXX (I)(I)

=====> TELEPHONE ADAPTER HALT CODE

EBE1 IS THERE A WRAP CABLE CONNECTED TO DA = XX
DOES THE DEVICE ADDRESS XX HAVE A WRAP CABLE CONNECTED (1 = YES 0 =
NO)
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

=====> SDLC HALT CODE

F8E1 IS THERE A WRAP CONNECTED TO DA = XX
DOES THE DEVICE ADDRESS XX HAVE A WRAP CABLE CONNECTED (1 = YES 0 =
NO)
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

=====> SYNC COM SL C/HS HALT CODE

FCE1 IS THERE A WRAP CABLE CONNECTED TO DA = XX
DOES THE DEVICE ADDRESS XX HAVE A WRAP CABLE CONNECTED (1 = YES 0 =
NO(1 = YES 0 = NO)
(LEVEL 3 R3 -> EBCDIC DEVICE ADDRESS)

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MAP 0016-32

05.03.04 STORAGE PARITY TEST

AFTER IPL STORAGE IS SCANNED FOR PARITY ERRORS. IF ERRORS ARE FOUND IN THE FIRST 16KB THE PROGRAM WILL:

- HANG IN A WAIT
- 342E IN PROGRAMMER CONSOLE DATA LEDS (SEE SECTION 05.03.03)

WHEN LESS THAN 5 ERRORS ABOVE 16KB ARE FOUND THE PROGRAM WILL:

IN VERIFY MODE

- WRITE STORAGE WITH TEST PATTERN
- SCAN STORAGE AGAIN
- TEST STORAGE
- RUN ALL DEVICE TEST
- REPORT THE FIRST FAILING ADDRESS AT THE COMPLETION OF TEST

IN SERVICE MODE (SYSTEM TEST)

- REPORT FIRST (5) ERRORS
- LIST INSTALLED EQUIPMENT
- CONTINUE IN SERVICE MODE

WHEN MORE THAN 5 ERRORS ABOVE 16KB ARE FOUND THE PROGRAM WILL:

- ASSUME SYSTEM WAS JUST POWERED ON
- WRITE STORAGE WITH A TEST PATTERN
- SCAN STORAGE AGAIN
- IF NO ERRORS FOUND CONTINUE WITH TEST
- IF ERRORS ARE FOUND AGAIN REPORT FIRST ERROR IN VERIFY MODE AND FIRST (5) ERRORS IN SERVICE MODE

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05.03.05 STORAGE (FRU) LOCATION CHART

THIS IS A CHART OF STORAGE ADDRESSES FOR SYSTEM TEST ONLY;

1. READ THE STORAGE ADDRESS IN THE LEFT COLUMN FOR THE PROCESSING UNIT TYPE INSTALLED.
2. SEE THE STORAGE CARD/MODULE SIZE INSTALLED IN STORAGE IN THE RIGHT COLUMNS.
3. THIS IS THE STORAGE CARD/MODULE THE ADDRESS IS INSTALLED ON. SEE THE AXXX LOGICS.

+4952/53/55 STORAGE CARD AND ADDRESS

STORAGE ADDRESS		K SIZE		BLOCK				
FROM	TO	FROM	TO	SIZE				
4955 MOD F								
4955 MOD E								
4952 ALL MOD		4953 MOD C,D		4955 MOD C,D				
4953 MOD A - B, 4955 MOD A - B								
INNER STORAGE								
0000 -	3FFF	000K -	016K	1	1	1	1	1
4000 -	7FFF	017K -	032K	2	2	1	1	1
8000 -	BFFF	033K -	048K	3	3	2	1	1
C000 -	FFFF	049K -	064K	4	4	2	1	1
OUTER STORAGE								
10000 -	13FFF	065K -	080K	1	5	3	2	1
14000 -	17FFF	081K -	096K	2	6	3	2	1
18000 -	1BFFF	097K -	112K	3	7	4	2	1
1C000 -	1FFFF	113K -	128K	4	8	4	2	1
20000 -	27FFF	129K -	160K	6	*	*	3	2
28000 -	2FFFF	161K -	192K	8	*	*	3	2
30000 -	37FFF	193K -	224K	A	*	*	4	2
38000 -	3FFFF	193K -	256K	C	*	*	4	2
40000 -	5FFFF	257K -	384K	14	*	*	*	3
60000 -	7FFFF	385K -	512K	1C	*	*	*	4

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4954	STORAGE ADDRESS	16K	MODULE	IF SAR BIT
	FROM TO	BLOCK	14 OFF	14 ON
INNER	0000 TO FFFF	1 - 4	1 OR 2	0 OR 3
OUTER	10000 TO 1FFFF	1 - 4	5 OR 6	4 OR 7
OUTER	20000 TO 2FFFF	5 - 8	9 OR A	8 OR B
OUTER	30000 TO 3FFFF	9 - C	D OR E	C OR F

4956 PROCESSOR STORAGE CARD AND ADDRESSING WITHOUT A 1024K CARD
THE 512K CARD(S) ARE PLUGGED CLOSEST TO PROCESSOR

ALL STORAGE CARDS ARE 512K									
THREE 512K STORAGE CARDS INSTALLED									
TWO 512K STORAGE CARDS INSTALLED									
ONE 512K STORAGE CARD INSTALLED									
ALL STORAGE CARDS ARE 256K									
STORAGE ADDRESS	K SIZE	OUTER	512	512	512	512	512	512	512
FROM	TO	16K	AND	AND	AND	AND	AND	AND	AND
		BLOCK	256	256	256	256	256	256	256
00000 - 3FFFF	256K	C	1	1	1	1	1	1	1
40000 - 7FFFF	512K	1C	2	1	1	1	1	1	1
80000 - BFFFF	768K	2C	3	2	2	2	2	2	2
C0000 - FFFFF	1024K	3C	4	3	2	2	2	2	2
4956 MODEL E ONLY									
100000 - 13FFFF	1280K	4C	*	*	3	3	3	3	3
140000 - 17FFFF	1536K	5C	*	*	4	3	3	3	3
180000 - 1BFFFF	1792K	6C	*	*	*	4	4	4	4
1C0000 - 1FFFFF	2048K	7C	*	*	*	*	*	*	4

INNER STORAGE SIZE = 64 K = BYTE

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4956 PROCESSOR STORAGE CARD AND ADDRESSING WITH A 1024K CARD
THE LARGEST STORAGE CARD(S) ARE PLUGGED CLOSEST TO THE PROCESSOR

ONE 1024 K CARDS PLUS 1 512K CARD PLUS 256K CARDS							
ONE 1024K CARDS INSTALLED WITH 256K CARDS							
ONE 1024K STORAGE CARD PLUS 2 512K CARDS							
ALL STORAGE CARDS ARE 1024K							
STORAGE ADDRESS	K SIZE	OUTER	1024	1024	1024	1024	1024
FROM	TO	16K		512		512	512
		BLOCK				256	256
00000 - 3FFFF	256K	0C	1	1	1	1	1
40000 - 7FFFF	512K	1C	1	1	1	1	1
80000 - BFFFF	768K	2C	1	1	1	1	1
C0000 - FFFFF	1024K	3C	1	1	1	1	1
4956 MODEL E/H ONLY							
100000 - 13FFFF	1280K	4C	2	2	2	2	2
140000 - 17FFFF	1536K	5C	2	2	3	2	2
180000 - 1BFFFF	1792K	6C	2	3	4	3	3
1C0000 - 1FFFFF	2048K	7C	2	3	*	4	4

INNER STORAGE SIZE = 64 K = BYTE

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MAP 0016-36

4956 PROCESSOR, 2 MEG STORAGE AND ADDED STORAGE CARDS AND ADDRESSING THE FIRST 2 MEG OF STORAGE IS ON THE PROCESSOR CARD

```

+-----+
| ALL ADDITIONAL STORAGE CARDS ARE 4 MEG
+-----+
| STORAGE CARDS ARE 4 MEG AND 2 MEG CARDS
+-----+
| ALL STORAGE CARDS ARE 2 MEG
+-----+
| STORAGE ADDRESS | SIZE | OUTER | 2MEG | 2MEG | 4MEG | 2MEG | 4MEG | 4MEG | 4MEG |
| FROM           | TO   | BLOCK | 2MEG | 4MEG | 2MEG | 4MEG | 4MEG | 2MEG | 4MEG |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 00000 - 1FFFFF | 2MEG | 7C   | PROCESSOR CARD
| THE FOLLOWING ADDRESSES ARE ON ADDITIONAL STORAGE CARDS AS NOTED
| 200000 - 3FFFFF | 4MEG | FC   | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 400000 - 5FFFFF | 6MEG | 17C  | 2 | 2 | 1 | 2 | 1 | 1 | 1 |
| 600000 - 7FFFFF | 8MEG | 1FC  | 3 | 3 | 2 | 2 | 2 | 2 | 2 |
| 800000 - 9FFFFF | 10MEG | 27C  |   | 3 | 3 | 3 | 3 | 2 | 2 |
| A00000 - BFFFFF | 12MEG | 2FC  |   |   |   | 3 | 3 | 3 | 3 |
| C00000 - DFFFFF | 14MEG | 37C  |   |   |   |   |   |   | 3 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

INNER STORAGE SIZE = 64K BYTE

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05.03.06 SYSTEM TEST ERROR REPORTING METHOD

WHEN THE SYSTEM TEST HAS DECODED AN ERROR IN ONE OF THE DEVICES, SYSTEM TEST IS STOPPED WHILE THE ERROR IS REPORTED TO THE OPERATOR BY THE ALTERNATE CONSOLE. WHEN THE ERROR REPORTING IS COMPLETED, THE TEST WILL CONTINUE WHERE IT LEFT OFF ON ALL OTHER DEVICES BUT THE ONE THE ERROR WAS FOUND ON, THIS DEVICE WILL CONTINUE FROM THE START OF ITS TEST AND GO FROM THERE. AUTOMATIC TERMINATING OF ANY DEVICE UNDER TEST WILL TAKE PLACE WHEN FIVE (5) ERRORS HAVE BEEN FOUND FOR THAT DEVICE. (UNLESS ERROR COUNTING IS INHIBITED) IF, AFTER TERMINATING, THE DEVICE IS STARTED BY THE OPERATOR ERROR COUNTING WILL START AGAIN FOR A MAXIMUM OF FIVE (5) BEFORE TERMINATING. IF UNDER ANY CONDITION THE OPERATOR WILL WANT TO TERMINATE THE DEVICE (OR ANY DEVICE) THE COMMAND '9 DA' MUST BE GIVEN TO TERMINATE DEVICE.

IF AN ERROR IS FOUND, THE NEEDED DATA WILL BE SENT TO THE OPERATOR. THIS INFORMATION IS USED WITH THE DEVICE MAPS XXEO IN THIS VOLUME. THIS INFORMATION WILL BE IN THE FOLLOWING FORMAT:

```

ADDRESS = DA          PROLOG LLLL
ETTDA  ROUTINE = XXXX CKPT=YYYY
FLAG  IOIN  ISB  INST  DEV1  DEV2  DEV3  DEV4
AAAA  BBCC  DDEE FFFF  GGGG  GGGG  GGGG  GGGG

CNTL  DCB1  DCB2 DCB3  DCB4  CHAD  BYCT  ADDR
HHHH  HHHH  HHHH HHHH  HHHH  HHHH  HHHH  HHHH

RSAD  CS-1  CS-2 CS-3  CS-4  CS-5  CS-6  CS-7
IIII  IIII  IIII IIII  IIII  IIII  IIII  IIII

EXECUTE/ERROR COUNT = PPPPPPP  SSSSS

```

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WHERE:

TT = FAILING DEVICE TYPE
 37 = NATIVE TIMER
 3D = FLOATING POINT
 3E = TWO CHANNEL SWITCH
 3F = PROGRAMMABLE TWO CHANNEL SWITCH
 40 = TTY
 41 = SERIES/1 RING (LCC)
 44 = DISPLAY UNIT (4979)
 45 = DISPLAY UNIT (4978)
 48 = DISKETTE (4964)
 4A = DISKETTE (4966)
 4B = DISKETTE (4965)
 4D = DISKETTE (4952/4/6/4965 MODEL D 4956-60E)
 50 = TIMER
 58 = TAPE (4969)
 59 = TAPE (4968)
 64 = PRINTER (4974)
 6B = PRINTER (4973)
 6A = PRINTER (52XX)
 70 = MULTI-CONTROLLER ADAPTOR 5 1/4 DISKETTE
 71 = MULTI-CONTROLLER ADAPTOR 5 1/4 DISK
 78 = DISK (4962)
 7A = DISK (4963)
 7B = DISK (4967)
 7C = DISK (4952/4/6/4965 MODEL D 4956-60E)

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MAP 0016-39

WHERE:

TT = FAILING DEVICE TYPE
 A0 = IDIDO
 A3 = OEMIA
 A4 = SENSOR I/O (4982)
 C0 = CONTROLLER-STORAGE-MODEM
 C4 = MULTILINE CONTROLLER
 C5 = CHANNEL ATTACHMENT
 D9 = SERIES 1 TO PERSONAL COMPUTER
 E0 = PROGRAMMABLE COMMUNICATIONS SUBSYSTEM (4987)
 E3 = MULTI-COMMUNICATION CONTROLLER (RPQ XXXXX)
 E4 = 5250 ATTACHMENT
 E6 = MULTIFUNCTION ATTACHMENT
 E8 = ACCA SL
 E9 = ACCA ML
 EA = FPMLC
 EB = TELEPHONE COMMUNICATION ADAPTER
 ED = ATTACHED PROCESSOR
 F0 = BSCA SL
 F1 = BSCA ML
 F8 = SDLC
 FC = SYNC COM SL C/HS (SCSLC)
 FD = X 25 MULTILINE CONTROLLER

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LLLL = PROLOG FOR FAILING DEVICE
 DA = FAILING DEVICE ADDRESS/BASE ADDRESS FOR MULTIPOINT ATTACHMENTS
 XXXX = ROUTINE NUMBER (SEE SPECIFIC DEVICE INFORMATION THIS MAP)
 YYYY = CHECKPOINT NUMBER (SEE SYSTEM TEST DEVICE MAP)
 AAAA = FLAG WORD (BIT CODED)

BIT HEXADECIMAL MEANING

0	8000	NOT EXPECTED I/O INTERRUPT
1	4000	ERROR CONDITION WAS DECODED
2	2000	I/O GIVEN - INTERRUPT EXPECTED
3	1000	I/O INTERRUPT WAS RECEIVED
4	0800	I/O GIVEN - ERROR INTERRUPT EXPECTED
5	0400	I/O INTERRUPT RECEIVED ON WRONG LEVEL
6	0200	I/O INTERRUPT EXPECTED NOT RECEIVED (LOST)
7	0100	CYCLE STEAL STATUS WAS GIVEN
8	0080	CYCLE STEAL STATUS ERROR INTERRUPT RECEIVED
9	0040	I/O INTERRUPT GOOD - ERROR EXPECTED
10	0020	POSSIBLE ERROR EXPECTED
11	0010	NO INTERRUPT EXPECTED
12	0008	FLOATING POINT DATA TRANSMIT ERROR
13	0004	SOFT EXCEPTION TRAP ERROR
14-15		NOT USED

BB = CONDITION CODE OF THE LAST I/O INSTRUCTION (7 = GOOD)

CC = CONDITION CODE OF THE LAST I/O INTERRUPT

*DD = INTERRUPT STATUS BYTE BIT 0 = ON INDICATES CYCLE
 STEAL INFORMATION IS AVAILABLE

*EE = FAILING DEVICE ADDRESS

FFFF = PRINTOUT ADDRESS OF LAST I/O INSTRUCTION

GGGG = FOUR WORDS OF DEVICE DATA (SEE SPECIFIC DEVICE MAP OR
 ROUTINE WRITE-UP)

HHHH = LAST DCB OR IDCB. IF CHAD IS NOT EQUAL TO 0000 THEN
 THE CHAINED DCB WILL BE DISPLAYED AS ADDITIONAL INFORMATION

IIII = CYCLE STEAL INFORMATION IF AVAILABLE (FF INDICATES NO DATA)

PPPPPPP = HEXADECIMAL NUMBER OF TIMES THAT EXECUTION WAS PASSED TO
 ROUTINE ONE. (THAT IS THE NUMBER OF PROGRAM STARTS)

SSSSSS = NUMBER OF ERRORS FOUND WHILE TESTING

* NOTE: ON A CYCLE STEAL OPERATION ERROR THESE VALUES ARE PLACED
 IN CS-7

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IN DECODING THE PRECEDING ERROR DATA THE FIRST AREA TO BE
 INSPECTED SHOULD BE THE OIO CONDITION CODE (IOIN). IF THIS IS NOT
 EQUAL TO SEVEN (07XX) THEN ALL INFORMATION CONNECTED WITH THIS
 MATERIAL MAY OR MAY NOT BE VALID. IF THIS VALUE IS EQUAL TO SEVEN
 (07XX) THEN THE INFORMATION RECEIVED IN THE FLAG, IOIN AND ISB
 FIELD(S) SHOULD INDICATE THE TYPE OF ERROR FOUND. (FOR MORE
 DETAIL SEE THE SPECIFIC DEVICE ROUTINE SECTION IN THIS MAP.)

WHEN DECODING, THE FIELD 'INST' WILL GIVE THE PRINTOUT ADDRESS OF
 THE LAST I/O INSTRUCTION. ALL OTHER ADDRESSES THAT IS, CHAD
 (CHAIN ADDRESS), ADDR (BUFFER ADDRESS) AND RSAD (CYCLE STEAL
 RESIDUAL ADDRESS) ARE EXACT STORAGE ADDRESSES IN THE PROCESSING
 UNIT.

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MAP 0016-41

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MAP 0016-42

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05.03.07 SYSTEM TEST SAMPLE SESSION

THE VERIFY DISKETTE IS IPL'ED AS PER SECTION 05.03.00 WITH A CORRECT CONFIGURATION TABLE PRESENT ON THE DISKETTE. THIS TABLE WAS COPIED TO THIS DISKETTE BY THE CONFIGURATION PROGRAM'S OPTION 'OD'. A SAMPLE SYSTEM TEST SESSION DELETE DEVICE ADDRESSES FROM TEST TABLE. OTHER COMMANDS ARE USED IN THIS EXAMPLE.

---> NOT PART OF THE SESSION (COMMENT)
 \$\$\$ ---> COMMENT IGNORED IF PROGRAMMER CONSOLE ONLY
 <-> ---> PROGRAMMER CONSOLE INPUT.
 @@@ ---> THE NEXT LINE IS OPERATOR INPUT

NOTE: ALL OUTPUT MESSAGES IN THE FOLLOWING EXAMPLE (NOT EXPECTING AN ANSWER) MUST BE STARTED WITH <(B),6,(I),(I)> IF AN ALTERNATE CONSOLE IS NOT ATTACHED OR IS UNDER TEST.

PROGRAM MENU

01 SYSTEM TEST ### PROGRAM MENU DISPLAYED
 02 PRINT ERROR LOG
 03 ENABLE/DISABLE ERROR LOG
 04 TERMINATE

@@@ ### WE ARE NOW READY TO START SYSTEM TEST
 F01 <(B) 1F (I) (B) 0100 (I) (I)>
 DEVICE ADDRESS 00 24 02 50 09

OPTION MENU

01 RUN ALL DEVICES IN TEST TABLE
 02 DELETE ADDRESS FROM TEST TABLE
 03 BUILD NEW TEST TABLE
 03 INITIALIZE TEST TABLE

@@@ ### DELETE ADDRESS FROM TEST TABLE
 F02 <(B) 1F (I)(B) 0200 (I)(I)>
 DEVICE ADDRESS ### DELETE ADDRESS 00 24 50 52
 ENTER

@@@
 F00245052 <(B) 1F (I)(B) 0024 (I)(B) 5052 (I)(I)>
 DEVICE ADDRESS 52 NOT FOUND
 ANY MORE DEVICES?
 ENTER

@@@ ### NO
 0 <(B),0,(I),(I)>
 E4802 LOADED AT 2800 ### DEVICE ADDRESS 02 TYPE 48 LOADED

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MAP 0016-43

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EF009 LOADED AT 3200
 @@@
 8
 4802 00000006 000000
 F009 00000D68 000000
 @@@
 909
 09 TERM
 @@@
 B09
 02 MUST BE TERMINATED

@@@
 902
 02 TERM
 NO PROG ACT
 @@@
 B09
 EF009LOADED AT 3C00
 @@@
 7
 09 TERM

PROGRAM MENU

01 SYSTEM TEST
 02 ERAR
 03 PROCESSOR LOG
 04 TERMINATE

DEVICE ADDRESS 09 TYPE F0 LOADED
 ### DISPLAY EXECUTION/ERROR COUNT
 <(B) 8 (I)(I)>
 ### ASSUME NO

TERMINATE DA 09
 <(B) 9 (I)(B) 0900 (I)(I)>
 ### ATTEMPT TO START DA 09
 <(B) B (I)(B) 0900 (I)(I)>
 ### DISKETTE BEING TESTED CAN'T START NEW
 TEST UNTIL LOAD DEVICE IS TERMINATED
 ### TERMINATE DEVICE ADDRESS 02
 <(B) 9 (I)(B) 0200 (I)(I)>

SYSTEM TEST WAITING FOR COMMAND
 ### NOW START DA 09
 <(B) B (I)(B) 0900 (I)(I)>
 ### DA 09 STARTED
 ### TERMINATE SYSTEM TEST
 <(B) 7 (I)(I)>

NOTE: SYSTEM TEST WILL START TO EXECUTE THE DEVICE ADDRESSES THAT WERE NOT DELETED FROM THE TABLE. TESTING WILL CONTINUE UNTIL STOPPED BY THE OPERATOR OR WHEN THE ERROR COUNT FOR A DEVICE REACHES 5, THAT DEVICE TEST WILL TERMINATE. THE LEDS DISPLAY EITHER HEXADECIMAL FOFO OR OFOF DURING THE TIME THE TEST IS OPERATING.

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MAP 0016-44

```

*** ASSUME AN ERROR OCCURRED
ADDRESS = 02          PROLOG = 4800
E4802 ROUTINE = 0003 CHECKPOINT=0001
FLAG IOIN ISB  INST DEV1 DEV2 DEV3 DEV4
4100 0702 8002 0330 104B 0003 0000 0000
CNTL DCB1 DCB2 DCB3 DCB4 CHAD BYCT ADDR
8005 0849 0000 0000 0000 3634 0000 0000
RSAD CS-1 CS-2 CS-3 CS-4 CS-5 CS-6 CS-7
3643 0800 FFFF FFFF FFFF FFFF FFFF FFFF
CNTL DCB1 DCB2 DCB3 DCB4 CHAD BYCT ADDR
200A 0000 0000 0000 0000 0000 0004 321A
EXECUTE/ERROR COUNT = 000000005 000001

```

TO DESCRIBE THE SESSION WE WILL ANALYZE THE ERROR INDICATED ABOVE:

FROM THE FIRST ERROR ENTRY WE CAN DETERMINE THAT THE DEVICE TYPE IN ERROR IS '48' AND THAT IT IS AT DEVICE ADDRESS '02', ALSO THE FAILURE OCCURRED IN THIS PROGRAM AT ROUTINE 3 - CHECKPOINT 1. FROM THIS WE ARE SENT TO MAP 48E0 WHERE WE FOLLOW THE STEPS IN THE FOLLOWING SEQUENCE:

```

001->002->003->069->070->072->073 ---->
THIS INDICATES A CHAINED SEEK AND READ SECTOR ID ERROR

```

THE ABOVE ERROR REPORTING METHOD IS USED THROUGH EACH SYSTEM TEST MODULE. WHEN AN ERROR OCCURS SEE SECTION 04.00.00 REMEMBERING THAT ONLY FIVE (5) ERRORS WILL BE RECORDED BEFORE THE DEVICE IN ERROR IS AUTOMATICALLY TERMINATED BY SYSTEM TEST. (UNLESS ECP COMMAND 2 WAS GIVEN. REFERENCE MAP 0016 SECTION 05.03.01)

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MAP 0016-45

05.03.08 SYSTEM TEST ROUTINE DESCRIPTION

NATIVE TIMER ROUTINE DESCRIPTION ---- TYPE 37

BEFORE EXECUTION OF THIS SYSTEM TEST PROGRAM, THE SYSTEM TEST DISKETTE SHOULD BE CONFIGURED TO INCLUDE A NATIVE TIMER ENTRY WITH A DEVICE ADDRESS DIFFERENT FROM ANY OTHER ON THE SYSTEM. THERE IS ONLY ONE ROUTINE FOR THE NATIVE TIMER.

ROUTINE 1:

THIS ROUTINE WILL SET THE CLOCK AND SET THE COMPARATOR FOR A GIVEN LENGTH OF TIME. THE CLOCK CLASS INTERRUPT IS SERVICED ON THE LEVEL THAT IS ACTIVE WHEN THE INTERRUPT OCCURS.

TERMINATING SEQUENCE:

- (1) RESTORE THE CLOCK CLASS INTERRUPT VECTORS.
- (2) PROGRAM TERMINATE

```

*****NOTE*****
*
* THE NATIVE TIMER (DEVICE TYPE 37) IS NOT ASSOCIATED WITH *
* ANY DEVICE ADDRESS; THEREFORE A DEVICE ADDRESS IS *
* ASSIGNED WHEN TEST TABLE IS BUILT AT IPL. THE SYSTEM TEST *
* SUPERVISOR (ID 3410) NEEDS A DEVICE ADDRESS TO IDENTIFY *
* THE NATIVE TIMER DURING TESTING. THIS ADDRESS MUST BE AN *
* ADDRESS NOT ALREADY USED BY THE SYSTEM. *
*
*****

```

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MAP 0016-46

FLOATING POINT ROUTINE DESCRIPTION ---- TYPE 3D

BEFORE EXECUTION OF THIS SYSTEM TEST PROGRAM, THE SYSTEM TEST DISKETTE SHOULD BE CONFIGURED TO INCLUDE A FLOATING POINT ENTRY WITH A DEVICE ADDRESS DIFFERENT FROM ANY OTHER ON THE SYSTEM. WHEN THE TEST HAS BEEN STARTED THREE ROUTINES ARE EXECUTED TO TEST THE MOVING OF DATA FROM AND TO THE FLOATING POINT CARD. THESE ROUTINES ARE DESCRIBED AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE FIRST TEST THE FLOATING POINT SET LEVEL BLOCK COMMANDS. THIS IS FIRST DONE ON LEVEL 0 THEN 1, 2, AND 3. ON EACH LEVEL GIVEN DATA PATTERNS ARE WRITTEN AND READ BACK TO VERIFY THAT THE DATA CAN BE MOVED CORRECTLY. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE IS THE SAME AS ROUTINE ONE BUT TESTS THE WORD COMMANDS SUCH AS FMV FOR MOVEMENT OF DATA TO THE CARD, WITH THE DATA BEING READ AS A BLOCK COMING FROM THE FLOATING POINT CARD. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE IS THE SAME AS ROUTINE ONE BUT TESTS THE DOUBLE WORD COMMANDS SUCH AS FMVD FOR MOVEMENT OF DATA TO THE CARD, WITH THE DATA BEING READ AS A BLOCK COMING FROM THE FLOATING POINT CARD. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) RESET ALL LOW STORAGE POINTERS
- (2) ENSURE THE PROGRAM IS ON LEVEL THREE
- (3) PROGRAM TERMINATE

 * THE FLOATING POINT FEATURE (DEVICE TYPE 3D) IS NOT *
 * ASSOCIATED WITH ANY DEVICE ADDRESS; THEREFORE A DEVICE *
 * ADDRESS IS ASSIGNED WHEN TEST TABLE IS BUILT AT IPL. *
 * SYSTEM TEST SUPERVISOR (ID 5410) NEEDS A DEVICE ADDRESS *
 * TO IDENTIFY FLOATING POINT DURING TESTING. *
 * *****

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TWO CHANNEL SWITCH ROUTINE DESCRIPTION ---- TYPE 3E

BEFORE EXECUTION OF THIS SYSTEM TEST PROGRAM, THE TWO CHANNEL SWITCH CONSOLE SHOULD BE PLACED INTO MANUAL MODE FOR MORE COMPLETE TESTING OF THE DEVICE. ON THE SYSTEM WHICH DOES NOT HAVE CONTROL OF THE COMMON I/O, A QUESTION WILL BE PRESENTED TO THE OPERATOR ABOUT RESERVES BEING PRESENTED TO THE OTHER PROCESSING UNIT (THE ONE WHICH HAS THE COMMON I/O). IF THE ANSWER IS YES, ROUTINE FIVE (5) WILL PRESENT THESE RESERVES. A DESCRIPTION OF THESE ROUTINES FOLLOWS:

ROUTINE 1:

THIS ROUTINE FIRST DOES A READ DEVICE ID FOLLOWED BY A DEVICE RESET THEN ISSUES A DEVICE READ STATUS. THIS STATUS IS THEN STORED INTO THE AREA 'DEV1' A COMPARE IS THEN MADE TO THE DATA STORED IN THE CONFIGURATION TABLE. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE WILL ENSURE THAT ALL ILLEGAL DCB'S WILL GIVE A COMMAND REJECT. AFTER THIS A RESET IS GIVEN TO THE ATTACHMENT CARD. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST TESTS TO DETERMINE IF THIS SIDE OF THE TWO CHANNEL SWITCH HAS THE COMMON I/O (IF NO ROUTINE 4 IS STARTED). AFTER THIS THE ACK LED IS TURNED ON THEN A TIMEOUT UNDER TEST IS ISSUED ON (3) INTERRUPT LEVELS (0,1,2) TO ENSURE THE ATTACHMENT CARD WILL INTERRUPT ON THESE LEVELS. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE FIRST TESTS TO DETERMINE IF THIS SIDE OF THE TWO CHANNEL SWITCH HAS THE COMMON I/O (IF NO ROUTINE 5 IS STARTED), THEN TEST TO DETERMINE IF THE CONSOLE SWITCH IS IN MANUAL MODE (IF NOT ROUTINE 5 IS STARTED). AFTER THE CHECK IS MADE THE TIMER IS STARTED, THEN RESET TO ENSURE THAT THE TIMER CAN BE RESET WHILE RUNNING. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

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ROUTINE 5:

THIS ROUTINE FIRST TESTS TO DETERMINE IF THIS SIDE OF THE TWO CHANNEL SWITCH HAS THE COMMON I/O (IF NO ROUTINE 1 IS STARTED), THEN TEST TO DETERMINE IF RESERVES CAN BE ISSUED FROM THIS SIDE (IF NOT ROUTINE 1 IS STARTED). AFTER THE CHECK IS MADE DECIMAL 32 RESERVES WILL BE ISSUED TO THE OTHER PROCESSING UNIT. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-49

PROGRAMMABLE TWO CHANNEL SWITCH ROUTINE DESCRIPTION ---- TYPE 3F

ROUTINE 1:

THIS ROUTINE ISSUES A DEVICE RESET TO CLEAR INTERRUPTS AND A READ DEVICE ID TO VERIFY CORRECT CONFIGURATION DATA. IT THEN ISSUES A FULL SET OF INVALID INSTRUCTIONS AND EXPECTS A COMMAND REJECT.

ROUTINE 2:

THIS ROUTINE ISSUES A READ STATUS AND DEPENDING ON WHICH POSITION THE SWITCH IS IN, WILL ISSUE INVALID SWITCHING TYPE COMMAND EXPECTING TO RECEIVE COMMAND REJECT.

ROUTINE 3:

THIS ROUTINE ISSUES A WRITE DIAGNOSTIC WRAP COMMAND FOLLOWED BY A READ SYNC AND WILL CHECK THAT THE DATA IS GOOD. IF CORRECT THEN SHIFT DATA BY ONE AND ISSUE THE COMMANDS AGAIN UNTIL ALL PATTERNS ARE TESTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-50

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TTY ROUTINE DESCRIPTION ---- TYPE 40

BEFORE EXECUTION IN SYSTEM TEST MODE, THE QUESTION(S) - IS THE ATTACHMENT CARD CONNECTED TO A TTY - IS PRESENTED. IF THE ANSWER IS YES THERE IS A TTY THEN ROUTINE 4 WILL BE EXECUTED (IN VERIFY MODE THE QUESTION IS NOT PRESENTED AND THE PROGRAM DEFAULTS TO A NO ANSWER). ROUTINE ONE THROUGH THREE AND ROUTINE 5 WILL RUN AUTOMATICALLY WITH THE ATTACHMENT IN DIAGNOSTIC WRAP MODE. ROUTINE 6 WILL ONLY BE EXECUTED AFTER THE X - ON KEY IS PRESSED ON THE TTY KEYBOARD AND WILL BE TERMINATED BY PRESSING THE SAME KEY.

ROUTINE 1:

THIS ROUTINE FIRST GIVES A DIAGNOSTIC RESET AND READ ID TO THE DEVICE, THEN WILL PREPARE THE DEVICE FOR LEVEL 0 THROUGH 2. ON EACH LEVEL A DUMMY WRITE AND A READ TO BLANK THE BUFFER IS GIVEN TO ENSURE THAT ALL LEVELS WILL INTERRUPT CORRECTLY. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE FIRST WILL PREPARE (WITH THE 'I' BIT OFF) THE DEVICE THEN GIVE A WRITE TO ENSURE THAT THE DEVICE DOES NOT INTERRUPT. AFTER WHICH THE DEVICE IS PREPARED AND THE DELAYED INTERRUPT IS CHECKED FOR VALIDITY. WHEN THIS IS COMPLETED HEXADECIMAL '0000' AND '00FF' ARE WRITTEN AND READ TO ENSURE DATA INTEGRITY. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE WILL ENSURE THAT ALL ILLEGAL DCB'S WILL GIVE A COMMAND REJECT. AFTER THIS A RESET IS GIVEN TO THE ATTACHMENT CARD. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL CHECK TO DETERMINE IF A TTY IS ATTACHED. IF NOT ROUTINE 5 IS STARTED. IF THE TTY IS ATTACHED THREE LINES OF DATA ARE WRITTEN TO THE DEVICE. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL ELECTRONICALLY WRAP DATA. ALL DATA BITS ARE WRITTEN (HEXADECIMAL 00 - FF). THE DATA IS THEN READ AND COMPARED. IF NO ERRORS ARE FOUND ROUTINE 6 IS STARTED.

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ROUTINE 6:

THIS ROUTINE, STARTED BY PRESSING THE X - ON KEY WHILE ROUTINE FIVE IS PRINTING, WILL ECHO ANY CHARACTER RECEIVED FROM THE TTY UNTIL THE OPERATOR AGAIN PRESSED THE X - ON KEY. THIS WILL THEN CAUSE ROUTINE 1 TO START AGAIN. USED ONLY IN SYSTEM TEST.

TERMINATING SEQUENCE:

- (1) PREPARE WITH THE 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-52

SERIES/1 RING ROUTINE DESCRIPTION (LCC) ----TYPE 41

WHEN EXECUTING THE SERIES/1 RING SYSTEM TEST PROGRAM, THREE (3) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1: THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ZERO (0) THEN A RESET AND READ ID COMMAND IS ISSUED TO THE DEVICE. IF NO ERRORS ARE FOUND, ROUTINE TWO (2) IS STARTED. THE NEXT PASS THE LEVEL IS CHANGED AND TESTING CONTINUES. ALL LEVELS ARE TESTED EXCEPT LEVEL THREE (3).

ROUTINE 2: THIS ROUTINE WILL ENSURE THE SERIES/1 RING ATTACHMENT WILL RESPOND WITH 'COMMAND REJECT' TO EACH INVALID IO INSTRUCTION. IF NO ERRORS ARE FOUND, ROUTINE THREE (3) IS STARTED.

ROUTINE 3: THIS ROUTINE WILL EXERCISE THE SERIES/1 RING INTERFACE FRONT END BUFFER. THE SERIES/1 RING ATTACHMENT IS IN BY-PASS MODE AND A BROADCAST MESSAGE IS CIRCULATED FOR A PERIOD OF TIME. THEN THE ATTACHMENT IS PREPARED WITH THE 'I' BIT ON TO ALLOW THE FRAME TO BE RECEIVED. THE DATA RECEIVED IS COMPARED WITH THE DATA WRITTEN. IF NO ERRORS ARE FOUND, ROUTINE ONE (1) IS STARTED. EACH PASS THE TEST PATTERN IS CHANGED. THE FIRST PASS WILL BE A TEST PATTERN OF ALL 'FF'. THE NEXT PASS THE PATTERN WILL BE ALL '55'. THEN A PATTERN OF ALL 'AA'.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
(2) RESET
(3) PROGRAM TERMINATE

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DISPLAY ROUTINE DESCRIPTION (4979) ----TYPE 44

WHEN EXECUTING THE DISPLAY SYSTEM TEST PROGRAM, FIVE (5) ROUTINES ARE STARTED AUTOMATICALLY. A SIXTH ROUTINE MAY BE STARTED BY THE OPERATOR PRESSING THE ATTENTION KEY WHILE EITHER ROUTINE 3 OR 4 (SHIFT UP OR DOWN TEST) IS ACTIVE. THE AUTO TEST CAN BE CONTINUED BY A SECOND DEPRESSION OF THE ATTENTION KEY, EACH DEPRESSION OF THE ATTENTION KEY AFTER THIS WILL EITHER GO IN OR OUT OF THE ECHO TEST.

*****NOTE*****
* AN ERROR IS INDICATED WHILE TESTING, BY AUTOMATICALLY *
* ENTERING AND TERMINATING THE ECHO TEST (NOT EXPECTED I/O *
* INTERRUPT(S) EQUAL TO THAT OF THE ATTENTION KEY) *

THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1: THIS ROUTINE FIRST WILL PREPARE THE DEVICE TO LEVEL ZERO (0) THEN DOES A RESET AND READ ID TO THE DEVICE AFTER WHICH A DUMMY WRITE IS GIVEN TO ENSURE THE DEVICE WILL INTERRUPT ON THE PREPARED LEVEL. THIS SAME PROCEDURE IS FOLLOWED FOR LEVELS 1 AND 2. AFTER THE ABOVE IS COMPLETED A DIAGNOSTIC READ IS GIVEN FROM LEVEL ONE AND THE CHECKSUM VALUE IS INSPECTED FOR VALIDITY, IF NO ERRORS ARE FOUND, ROUTINE TWO (2) IS STARTED.

ROUTINE 2: THIS ROUTINE WILL FIRST BLANK THE SCREEN THEN WRITE EACH CHARACTER TO EACH SCREEN LOCATION. THIS IS PERFORMED BY SENDING A WRITE COMMAND CHAINED TO A READ COMMAND. THE WRITTEN DATA IS THEN COMPARED TO THE DATA RECEIVED BY THE READ. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3: THIS ROUTINE WILL FIRST BLANK THE SCREEN. THEN DATA IS WRITTEN ON THE BOTTOM LINE WITH A SHIFT UP, UNTIL IT IS AT THE TOP. THIS IS DONE BY EXECUTING A WRITE TO THE BOTTOM LINE WITH A SHIFT UP. IF NO ERRORS ARE FOUND, ROUTINE FOUR (4) IS STARTED.

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ROUTINE 4:

THE TEST IS EQUAL TO THAT OF ROUTINE THREE (3) WITH THE EXCEPTION OF WRITING TO THE TOP LINE WITH A DOWNWARD SHIFT. IF NO ERRORS ARE FOUND, ROUTINE FIVE (5) IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH TYPE OF ERROR THE RESPONSE IS CHECKED FOR VALIDITY IN ADDITION TO THE CYCLE STEAL RESIDUAL ADDRESS. IF NO ERRORS ARE FOUND, ROUTINE ONE (1) WILL BE STARTED.

ROUTINE 6:

THIS ROUTINE, ENTERED BY PRESSING THE ATTENTION KEY WHILE EITHER ROUTINE 3 OR 4 IS ACTIVE, WILL ECHO TEST THE DISPLAY. THAT IS TO SAY, ANY CHARACTERS ENTERED FROM THE KEYBOARD TO THE FIRST SCREEN POSITION WILL BE DISPLAYED ON ALL OTHER LINES FOLLOWING THE DEPRESSION OF THE ENTER KEY. IF ANY PROGRAM FUNCTION (PF) KEY IS PRESSED THE SCREEN WILL SHOW THE ISB RECEIVED FROM THAT INTERRUPT, ANY INTERRUPT IS EXPECTED AND THEREFORE ANY ERROR WILL BE INDICATED ON THE SCREEN.

TERMINATING SEQUENCE:

- (1) RESET
- (2) START I/O - BLANK SCREEN
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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MAP 0016-55

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DISPLAY ROUTINE DESCRIPTION (4978) ---- TYPE 45

WHEN EXECUTING THE DISPLAY SYSTEM TEST PROGRAM, FIVE (5) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ZERO (0) THEN DOES A RESET AND READ ID TO THE DEVICE, THEN A DUMMY WRITE IS GIVEN TO ENSURE THE DEVICE WILL INTERRUPT ON THE PREPARED LEVEL. THIS SAME PROCEDURE IS FOLLOWED FOR LEVELS 1 AND 2. IF NO ERRORS ARE FOUND, ROUTINE TWO (2) IS STARTED.

ROUTINE 2:

THIS ROUTINE WILL FIRST BLANK THE SCREEN THEN WRITE EACH CHARACTER TO EACH SCREEN LOCATION. THIS IS PERFORMED BY SENDING A WRITE COMMAND CHAINED TO A READ COMMAND. THE WRITTEN DATA IS COMPARED TO THE DATA RECEIVED BY THE READ. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3:

THIS ROUTINE WILL BLANK THE SCREEN. DATA IS WRITTEN ON THE BOTTOM LINE WITH A SHIFT UP, UNTIL IT IS AT THE TOP. AFTER A SHIFT THE DATA IS COMPARED WITH THE WRITTEN DATA TO CHECK VALIDITY. THIS IS DONE BY EXECUTING A WRITE TO THE BOTTOM LINE WITH A SHIFT UP, THEN A SEPARATE READ IS GIVEN FOR THE TOP LINE. THE DATA IS THEN COMPARED CHARACTER FOR CHARACTER. IF NO ERRORS ARE FOUND, ROUTINE FOUR (4) IS STARTED.

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MAP 0016-56

ROUTINE 4:

THE TEST IS EQUAL TO THAT OF ROUTINE THREE (3) WITH THE EXCEPTION OF WRITING TO THE TOP LINE WITH A DOWNWARD SHIFT. IF NO ERRORS ARE FOUND, ROUTINE FIVE (5) IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH TYPE OF ERROR THE RESPONSE IS CHECKED FOR VALIDITY IN ADDITION TO THE CYCLE STEAL RESIDUAL ADDRESS. IF NO ERRORS ARE FOUND, ROUTINE ONE (1) WILL BE STARTED.

TERMINATING SEQUENCE:

- (1) RESET
- (2) START I/O - BLANK SCREEN
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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DISKETTE UNIT ROUTINE DESCRIPTION (4962/4964) ---- TYPE 48

WHEN EXECUTING THE DISKETTE UNIT SYSTEM TEST PROGRAM, FIVE (5) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

```

*****
*
* WHEN AN ERROR OCCURS DEV1 AND DEV2 CONTAIN THE SECTOR.
* ID INFORMATION.
*
*****

```

ROUTINE 1:

THIS ROUTINE FIRST GIVES A RESET AND READ ID TO THE DEVICE, THEN WILL PREPARE THE DEVICE FOR LEVELS 0 THROUGH 2. ON EACH LEVEL A DUMMY SEEK IS GIVEN TO ENSURE THAT THE DEVICE WILL INTERRUPT ON ALL LEVELS. AFTER THIS IS COMPLETED, THE DEVICE IS PREPARED TO LEVEL ONE AND THE DISKETTE UNIT IS RECALIBRATED. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE, STARTED AFTER A RECALIBRATE (ROUTINE 1), FIRST SEEKS CYLINDER 0 THEN SEEKS 76, 1, 75, 2, 74 AND 3. ON EACH CYLINDER THE SECTOR ID WILL BE READ FOR BOTH TRACK ZERO AND ONE TO CHECK HEAD SELECT. WHEN THE ROUTINE IS COMPLETED, A RECALIBRATE IS PERFORMED. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE STARTED AFTER A RECALIBRATE (ROUTINE 2), FIRST SEEKS TO CYLINDER ZERO. THEN IN SEQUENCE WILL SEEK CYLINDER 76, 1, 75, 2, 74, 3, 73, 4, ----- 40, 37, 39, 38. ON EACH CYLINDER THE SECTOR ID FOR TRACK ZERO IS READ AND VERIFIED. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

```

*****
*
* THE SEEK AND READ ID IS A DCB CHAINED OPERATION.
*
*****

```

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ROUTINE 4:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH ERROR A READ CYCLE STEAL STATUS OPERATION IS PERFORMED AND THE RESIDUAL ADDRESS IS COMPARED TO THE EXPECTED VALUE. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL FIRST SEEK TO TRACK ELEVEN TO ENSURE THAT THE DISKETTE IS A DIAGNOSTIC DISKETTE (IF THE DISKETTE IS NOT ROUTINE 1 IS STARTED). AFTER THIS A 128 BYTE RECORD IS FIRST WRITTEN THEN READ BACK FOR COMPARISON. THIS IS DONE FOR BOTH HEAD ZERO AND ONE. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) RESET
- (2) RECALIBRATE DEVICE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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DISKETTE UNIT ROUTINE DESCRIPTION (4966) ---- TYPE 4A

WHEN EXECUTING THE DISKETTE UNIT SYSTEM TEST PROGRAM, SIX (6) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE FIRST GIVES A RESET AND READ ID TO THE DEVICE, THEN WILL PREPARE THE DEVICE FOR LEVELS 0 THROUGH 2. ON EACH LEVEL A DUMMY SEEK IS GIVEN TO ENSURE THAT THE DEVICE WILL INTERRUPT ON ALL LEVELS. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE FIRST SEEKS CYLINDER 0 THEN SEEKS 76, 1, 75, 2, 74 AND 3. ON EACH CYLINDER THE SECTOR ID WILL BE READ FOR BOTH TRACK ZERO AND ONE TO CHECK HEAD SELECT. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST SEEKS TO CYLINDER ZERO. THEN IN SEQUENCE WILL SEEK CYLINDER 76, 1, 75, 2, 74, 3, 73, 4, ----- 40, 37, 39, 38. ON EACH CYLINDER THE SECTOR ID FOR TRACK ZERO IS READ AND VERIFIED. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

```

*****
*
* THE SEEK AND READ ID IS A DCB CHAINED OPERATION.
*
*****

```

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ROUTINE 4:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH ERROR A READ CYCLE STEAL STATUS OPERATION IS PERFORMED AND THE RESIDUAL ADDRESS IS COMPARED TO THE EXPECTED VALUE. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL SEEK TO ALL DISKETTES ATTACHED TO THE DEVICE. AS PER THE QUESTIONS (I.E. 3,13,23). THIS FIRST SEEK IS DONE IN SEQUENCE STARTING FROM ONE TO N DISKETTES. THEN HALF WAY SEEKS ARE TRIED FOLLOWED BY FULL SIDE TO SIDE SEEKS. IF NO ERRORS ARE FOUND, ROUTINE 6 IS STARTED.

ROUTINE 6:

THIS ROUTINE WILL FIRST SEEK TO TRACK ELEVEN TO ENSURE THAT THE DISKETTE IS A DIAGNOSTIC DISKETTE (IF THE DISKETTE IS NOT ROUTINE 1 IS STARTED). AFTER THIS A 256 BYTE RECORD IS FIRST WRITTEN THEN READ BACK FOR COMPARISON. THIS IS DONE FOR BOTH HEAD ZERO AND ONE. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) RESET
- (2) RECALIBRATE DEVICE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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4952/65 DISKETTE UNIT ROUTINE DESCRIPTION ---- TYPE 4B

WHEN EXECUTING THE DISKETTE UNIT SYSTEM TEST PROGRAM, FIVE (5) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE FIRST GIVES A RESET AND READ ID TO THE DEVICE, THEN WILL PREPARE THE DEVICE FOR LEVELS 0 THROUGH 2. ON EACH LEVEL A DUMMY SEEK IS GIVEN TO ENSURE THAT THE DEVICE WILL INTERRUPT ON ALL LEVELS. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE FIRST SEEKS CYLINDER 0 THEN SEEKS 76, 1, 75, 2, 74 AND 3. ON EACH CYLINDER THE SECTOR ID WILL BE READ FOR BOTH TRACK ZERO AND ONE TO CHECK HEAD SELECT. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST SEEKS TO CYLINDER ZERO. THEN IN SEQUENCE WILL SEEK CYLINDER 76, 1, 75, 2, 74, 3, 73, 4, ----- 40, 37, 39, 38. ON EACH CYLINDER THE SECTOR ID FOR TRACK ZERO IS READ AND VERIFIED. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

*****NOTE*****
 *
 * THE SEEK AND READ ID IS A DCB CHAINED OPERATION. *
 *

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ROUTINE 4:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH ERROR A READ CYCLE STEAL STATUS OPERATION IS PERFORMED AND THE RESIDUAL ADDRESS IS COMPARED TO THE EXPECTED VALUE. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL FIRST SEEK TO TRACK ELEVEN TO ENSURE THAT THE DISKETTE IS A DIAGNOSTIC DISKETTE (IF THE DISKETTE IS NOT ROUTINE 1 IS STARTED). AFTER THIS A 256 BYTE RECORD IS FIRST WRITTEN THEN READ BACK FOR COMPARISON. THIS IS DONE FOR BOTH HEAD ZERO AND ONE. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) RESET
- (2) RECALIBRATE DEVICE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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MAP 0016-63

4952/4/6D 4965D 4956-60E DISKETTE UNIT ROUTINE DESCRIPTION --- TYPE 4D

WHEN EXECUTING THE DISKETTE UNIT SYSTEM TEST PROGRAM, FIVE (5) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE FIRST GIVES A RESET AND READ ID TO THE DEVICE, THEN WILL PREPARE THE DEVICE FOR LEVELS 0. A SEEK IS GIVEN TO ENSURE THAT THE DEVICE WILL INTERRUPT ON ALL LEVELS. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE FIRST SEEKS CYLINDER 0 THEN SEEKS 76, 1, 75, 2, 74 AND 3. ON EACH CYLINDER THE SECTOR ID WILL BE READ FOR BOTH TRACK ZERO AND ONE TO CHECK HEAD SELECT. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST SEEKS TO CYLINDER ZERO. THEN IN SEQUENCE WILL SEEK CYLINDER 76, 1, 75, 2, 74, 3, 73, 4, ----- 40, 37, 39, 38. ON EACH CYLINDER THE SECTOR ID FOR TRACK ZERO IS READ AND VERIFIED. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

*****NOTE*****
 *
 * THE SEEK AND READ ID IS A DCB CHAINED OPERATION. *
 *

ROUTINE 4:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH ERROR A READ CYCLE STEAL STATUS OPERATION IS PERFORMED AND THE RESIDUAL ADDRESS IS COMPARED TO THE EXPECTED VALUE. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL FIRST SEEK TO TRACK ELEVEN TO ENSURE THAT THE DISKETTE IS A DIAGNOSTIC DISKETTE (IF THE DISKETTE IS NOT ROUTINE 1 IS STARTED). AFTER THIS A 256 BYTE RECORD IS FIRST WRITTEN THEN READ BACK FOR COMPARISON. THIS IS DONE FOR BOTH HEAD ZERO AND ONE. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

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MAP 0016-64

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TIMER ROUTINE DESCRIPTION --- TYPE 50

WHEN EXECUTING THE TIMER SYSTEM TEST PROGRAM, SIX (6) ROUTINES ARE STARTED AUTOMATICALLY. TO START THE TIMER TEST THE DEVICE ADDRESS TO INDICATE FOR TEST IS THE EVEN-NUMBERED ADDRESS OF THE SET. THIS IS SO FOR BOTH THE SYSTEM TEST (B *EVEN*) AND THE UTILITY U34F8 (A *EVEN*), THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1.

THIS ROUTINE FIRST GIVES A PREPARE TO LEVEL=1 THEN WILL PERFORM A DEVICE READ ID TO DEVICE ZERO AFTER WHICH A READ ID IS PERFORMED FOR DEVICE ONE, BOTH ARE COMPARED TO EXPECTED VALUES. AFTER THIS BOTH THE MODE AND VALUES OF DEVICE ZERO AND ONE ARE READ AND KEPT IN THE FOLLOWING LOCATIONS:

DCB3 = VALUE FOR ZERO
 DCB4 = MODE FOR ZERO
 DCB6(BYCT) = VALUE FOR ONE
 DCB7(ADDR) = MODE FOR ONE

IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL 1 THEN RESET DEVICE ZERO AND STOP DEVICE ONE AFTER WHICH THE MODE FOR ZERO IS COMPARED TO ZERO AND THE MODE FOR ONE IS CHECKED FOR NO CHANGE. ALSO THE VALUES FOR ZERO AND ONE ARE READ TO ENSURE THAT THE RESET HAS NOT CHANGED THEIR VALUES. THE ABOVE IS REPEATED BY RESETTING DEVICE ONE AND STOPPING DEVICE ZERO. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ONE AND SEND ILLEGAL DCB'S TO BOTH DEVICE ZERO AND ONE, TESTING COMMAND REJECT. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL CHECK THAT DIFFERENT VALUES CAN BE WRITTEN AND READ FROM BOTH DEVICE ZERO AND ONE. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

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MAP 0016-65

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ROUTINE 5:

THIS ROUTINE WILL CHECK THAT DIFFERENT MODE(S) CAN BE WRITTEN AND READ FROM BOTH DEVICE ZERO AND ONE. IF NO ERRORS ARE FOUND, ROUTINE 6 IS STARTED.

ROUTINE 6:

THIS ROUTINE WILL CHECK THAT ALL MODE(S) WILL INTERRUPT ON ALL LEVELS FOR BOTH DEVICE ZERO AND ONE. THAT IS, A MODE IS SELECTED AND IS CHECKED ON EACH LEVEL THEN THE MODE IS CHANGED AND THE LEVEL TEST IS REPEATED. THIS PROCEDURE IS FOLLOWED THROUGH ALL MODE(S). IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF (DEVICE ZERO AND ONE)
- (2) RESET (DEVICE ZERO AND ONE)
- (3) PROGRAM TERMINATE

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MAP 0016-66

TAPE UNIT ROUTINE DESCRIPTION (4969) ---- TYPE 58

CAUTION: IF TWO OR MORE DEVICES ARE INSTALLED AND BEING TESTED ON THE SAME ATTACHMENT CARD THE BASE ADDRESS MUST BE ONE OF THE DEVICES BEING TESTED.

WHEN EXECUTING THE TAPE UNIT SYSTEM TEST PROGRAM, SEVEN (7) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE GIVES A READ ID TO THE DEVICE, THEN WILL PREPARE THE DEVICE FOR LEVEL 2. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE WILL WRITE 256 RECORDS . THE FIRST RECORD IS ONE (1) BYTE. THE BYTE COUNT IS INCREASED BY ONE AND THE NEXT RECORD IS WRITTEN. THIS CONTINUES FOR THE 256 RECORDS. A SPACE TAPE MARK BACKWARD COMMAND AND A SPACE TAPE MARK FORWARD COMMAND IS ISSUED. THE TAPE SHOULD BE POSITIONED BEFORE THE FIRST RECORD. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE WILL READ THE 256 RECORDS WRITTEN BY ROUTINE 2. EACH RECORD IS DATA COMPARED. A SPACE TAPE MARK BACKWARD COMMAND AND A SPACE TAPE MARK FORWARD COMMAND IS ISSUED. THE TAPE SHOULD BE POSITIONED BEFORE THE FIRST RECORD. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL SKIP MANY RECORDS, READ A RECORD, DATA COMPARE THE RECORD. THE MANY RECORD SKIPS WILL BE BOTH FORWARD AND BACKWARD. THE ROUTINE WILL END WITH THE TAPE POSITIONED BEFORE THE FIRST RECORD. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

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MAP 0016-67

ROUTINE 5:

THIS ROUTINE IS AN ERASE TAPE TEST. THE FOLLOWING IS THE COMMAND SEQUENCE.

- 1) WRITE A RECORD.
- 2) BACK SPACE A RECORD.
- 3) READ A RECORD.
- 4) BACK SPACE A TAPE MARK.
- 5) SPACE TAPE MARK FORWARD.
- 6) SPACE A RECORD FORWARD.
- 7) WRITE A TAPE MARK.
- 8) WRITE A RECORD.
- 9) BACK SPACE A RECORD.
- 10) ERASE.
- 11) WRITE A RECORD.
- 12) BACK SPACE A TAPE MARK.
- 13) SPACE A TAPE MARK FORWARD.
- 14) READ A RECORD.
- 15) BACK SPACE A TAPE MARK.
- 16) SPACE TAPE MARK FORWARD.

THE ABOVE SEQUENCE IS REPEATED 8 TIMES. IF NO ERRORS ARE FOUND, ROUTINE 6 IS STARTED.

ROUTINE 6:

THIS ROUTINE WILL WRITE LONG RECORDS. THE FIRST RECORD IS HEXADECIMAL 1000 BYTES. THE BYTE COUNT IS INCREASED BY HEXADECIMAL 1000 BYTES UNTIL THE BYTE COUNT EQUALS THE STORAGE SIZE. IF NO ERRORS ARE FOUND, ROUTINE 7 IS STARTED.

ROUTINE 7:

THIS ROUTINE WILL CHANGE THE DCB'S FROM 800 BPI TO PE MODE IF THE DRIVE IS DOUBLE DENSITY. THEN ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) REWIND THE TAPE TO LOAD POINT
- (2) PREPARE WITH 'I' BIT OFF
- (3) RESET
- (4) PROGRAM TERMINATE

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MAP 0016-68

TAPE UNIT ROUTINE DESCRIPTION (4968) ---- TYPE 59

WHEN EXECUTING THE TAPE UNIT SYSTEM TEST PROGRAM, FOUR (4) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1 CHANNEL INTERFACE TEST:

ISSUE READ ID AND DEVICE RESET. CHECK FOR READY AND LOAD POINT FROM THE TAPE DRIVE (IF THE DRIVE IS NOT READY AND AT LOAD POINT WHEN THIS ROUTINE IS STARTED THE PROGRAM WILL TERMINATE). SET HIGH SPEED OFF, SET 1600 BIT PER SECOND AND START ROUTINE 2.

ROUTINE 2:

RUN TEST AT 25 INCHES PER SECOND (IPS) AND 1600 BITS PER SECOND. WRITE A RECORD 128 BYTES BACKSPACE RECORD READ THE RECORD COMPARE READ AND WRITE DATA THIS SEQUENCE IS REPEATED UNTIL 28 RECORDS HAVE BEEN WRITTEN, READ AND COMPARED SPACE TAPE MARK REVERSE THREE TIMES. BACKSPACE RECORD TO BEGINNING OF FIRST RECORD READ RECORD COMPARE DATA BACKSPACE RECORD WRITE THREE TAPE MARKS WRITE A RECORD REWIND TO LOAD POINT SPACE TAPE MARK FORWARD THREE TIMES READ RECORD COMPARE DATA BACKSPACE RECORD FORWARD SPACE RECORD AND WRITE AT TAPE MARK REWIND TO LOAD POINT.

ROUTINE 3

REPEAT ROUTINE 2 AT 100 INCHES PER SECOND.

ROUTINE 4

REPEAT ROUTINE 2 AT 50 INCHES PER SECOND AND 3200 BIT PER SECOND

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PRINTER <MATRIX> ROUTINE DESCRIPTION (4974) ---- TYPE 64

WHEN EXECUTING THE PRINTER SYSTEM TEST PROGRAM, EIGHT (8) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

*****NOTE*****
*
* THE FORMS WIDTH USED DURING THIS ROUTINE IS THE WIDTH *
* GIVEN BY THE OPERATOR. *
*

ROUTINE 1:

THIS ROUTINE FIRST GIVES A PREPARE TO LEVEL=0 THEN WILL PERFORM A DEVICE RESET AND READ ID AFTER WHICH A DUMMY WRITE IS GIVEN TO ENSURE THAT AN INTERRUPT IS RECEIVED. THE SAME PROCEDURE IS THEN FOLLOWED FOR BOTH LEVELS 1 AND 2. THEN THE DEVICE IS PREPARED FOR LEVEL 1 AND A DIAGNOSTIC READ IS GIVEN TO OBTAIN AND VERIFY THE CHECKSUM VALUES. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL 1. IT WILL THEN LOAD THE NEEDED PRINT TABLE TO FORCE EIGHT PRINT LINES PER INCH, THEN PRINT SIXTEEN (16) LINES OF 'HH' OVERPRINTED WITH 'II'. FROM THIS THE OPERATOR CAN DETERMINE THE ALIGNMENT INTEGRITY OF THE HEAD. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE WILL PRINT EACH CHARACTER, IN THE STANDARD CHARACTER SET, TO EACH PRINT LOCATION. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL TEST THE VARIABLE SPACE OPTION OF THE DEVICE. THE ROUTINE WILL SKIP 1 LINE TO WRITE A LINE THEN SKIP 2 LINES TO WRITE A LINE, THEN 3, 4---UP THROUGH AND INCLUDING 8 LINES. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

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ROUTINE 5:

THIS ROUTINE WRITES A LINE OF DATA THEN GIVES A READ CYCLE STEAL STATUS TO CHECK THE RESIDUAL ADDRESS. IF CORRECT, A 2ND READ CYCLE STEAL STATUS IS GIVEN TO ENSURE THAT THE FIRST READ DID NOT DESTROY THE RESIDUAL ADDRESS. IF NO ERRORS ARE FOUND, ROUTINE 6 IS STARTED.

ROUTINE 6:

THIS ROUTINE ATTEMPTS TO WRITE A LINE OF DATA WITH AN ILLEGAL BYTE NUMBER. THEREFORE, AN ERROR IS EXPECTED AND THE MESSAGE SHOULD NOT BE PRINTED. IF THE DEVICE DOES NOT REJECT THE MESSAGE, AN ERROR WILL BE PRINTED AND THE MESSAGE 'BYTE NUMBER IN ERROR TEST' WILL APPEAR AT THE DEVICE. IF NO ERRORS ARE FOUND, ROUTINE 7 IS STARTED.

ROUTINE 7:

THIS ROUTINE WRITES THE 'ROM' WITH EXECUTABLE CODE, READS IT, THEN WILL COMPARE THE WRITTEN VALUE WITH THE READ VALUE. IF NO ERRORS ARE FOUND, ROUTINE 8 IS STARTED.

ROUTINE 8:

THIS ROUTINE WILL CHANGE THE PRINT LOCATION OF A FIXED, 8 CHARACTER DATA BUFFER TO TEST THE DEVICE ON CHANGED LENGTH LINES. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) RESET
- (2) ISSUE DIAGNOSTIC TO DELETE 8 LINE PER INCH CODE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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MAP 0016-71

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PRINTER (BELT) ROUTINE DESCRIPTION (4973) ---- TYPE 68

WHEN EXECUTING THE PRINTER SYSTEM TEST PROGRAM, NINE (9) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE FIRST GIVES A PREPARE TO LEVEL=0 THEN WILL PERFORM A DEVICE RESET AND READ ID AFTER WHICH A DUMMY WRITE IS GIVEN TO ENSURE THAT AN INTERRUPT IS RECEIVED. THE SAME PROCEDURE IS THEN FOLLOWED FOR BOTH LEVELS 1 AND 2. AFTER, THE ABOVE THE DEVICE IS PREPARED FOR LEVEL 1 AND A DIAGNOSTIC READ IS GIVEN TO OBTAIN AND VERIFY THE CHECKSUM VALUES. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL 1 THEN WILL PRINT (USING THE OPTION OF EIGHT LINES PER INCH) SIXTEEN (16) LINES OF 'HH' OVERPRINTED WITH 'II'. FROM THIS THE OPERATOR CAN DETERMINE THE ALIGNMENT INTEGRITY OF THE HEAD. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE WRITES A LINE OF DATA THEN GIVES A READ CYCLE STEAL STATUS TO CHECK THE RESIDUAL ADDRESS. IF CORRECT, A 2ND READ CYCLE STEAL STATUS IS GIVEN TO ENSURE THAT THE FIRST READ DID NOT DESTROY THE RESIDUAL ADDRESS. IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL TEST THE VARIABLE SPACE OPTION OF THE DEVICE. THE ROUTINE WILL SKIP 1 LINE TO WRITE A LINE THEN SKIP 2 LINES TO WRITE A LINE, THEN 3, 4---UP THROUGH AND INCLUDING 8 LINES. IF NO ERRORS ARE FOUND, ROUTINE 5 IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL PRINT EACH CHARACTER, IN THE CHARACTER SET (96 MAXIMUM), TO EACH PRINT LOCATION. IF NO ERRORS ARE FOUND, ROUTINE 6 IS STARTED.

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ROUTINE 6:

THIS ROUTINE ATTEMPTS TO WRITE A LINE OF DATA WITH AN ILLEGAL BYTE NUMBER. THEREFORE, AN ERROR IS EXPECTED AND THE MESSAGE SHOULD NOT BE PRINTED. IF THE DEVICE DOES NOT REJECT THE MESSAGE, AN ERROR HAS OCCURRED. IF NO ERRORS ARE FOUND, ROUTINE 7 IS STARTED.

ROUTINE 7:

THIS ROUTINE WRITES THE 'ROM' WITH EXECUTABLE CODE, READS IT AND WILL COMPARE THE WRITTEN VALUE WITH THE READ VALUE. THIS CODE IS WRITTEN TO END ON BOTH ODD-NUMBERED AND EVEN-NUMBERED STORAGE ADDRESSES AND THEREFORE THE CODE WILL AND WILL NOT BE EXECUTED RESPECTIVELY. IF NO ERRORS ARE FOUND, ROUTINE 8 IS STARTED.

ROUTINE 8:

THIS ROUTINE GIVES A MAXIMUM STRESS PRINT PATTERN TO THE PRINT TYPEBELT, TESTING THE TYPEBELT MECHANICALLY FOR EITHER A WEAK OR A WORN AREA. IF NO ERRORS ARE FOUND ROUTINE 9 IS STARTED.

ROUTINE 9:

THIS ROUTINE WRITES A LINE OF 'A' CHARACTERS, ONE PER COMMAND, TO TEST IF EACH PRINT LOCATION WILL FIRE. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) RESET
- (2) I/O START TO CHANGE TO 6 LINE PER INCH CODE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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MAP 0016-73

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5200 SERIES PRINTER ---- TYPE 6A

WHEN EXECUTING THE PRINTER SYSTEM TEST PROGRAM, FOUR (4) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1 CHANNEL INTERFACE TEST

VERIFY THAT THE CHANNEL INTERFACE CAN INTERRUPT ON ALL LEVELS. PREPARE THE DEVICE TO INTERRUPT ON LEVEL ZERO AND CAUSE AN INTERRUPT. WHEN THE INTERRUPT OCCURS, THE LEVEL IS COMPARED TO THE EXPECTED LEVEL. THIS IS DONE ON ALL LEVELS EXCEPT THREE. A DIAGNOSTIC READ IS PERFORMED AND THE RECEIVED CHECKSUM VALUES ARE CHECKED.

ROUTINE 2 CYCLE STEAL

THIS TEST WILL VERIFY THAT THE ATTACHMENT WILL SEND BACK THE LAST CYCLE STEAL ADDRESS.

ROUTINE 3 RIPPLE PRINT IN DATA STREAM MODE

A. CUSTOMER VERIFY TEST

THIS ROUTINE WILL READ AND VERIFY DEVICE DEFINITION DATA, THEN RIPPLE PRINT 10 LINES OF DATA AT 30 CHARACTERS PER LINE.

B. SYSTEM TEST.

THIS ROUTINE WILL FIRST ASK FOR FORMS WIDTH FOR EACH VALID PRINTER ADDRESS. THEN RIPPLE PRINT 58 LINES OF DATA WITH CHARACTERS PER LINE EQUAL TO THE VALUE THAT WAS ENTERED WITH THE FORMS WIDTH. (HALT 6AE1)

ROUTINE 4 RIPPLE PRINT EMULATION MODE

REPEAT ROUTINE 3 IN EMULATION MODE. THIS ROUTINE USES THE FORM WIDTH AND CHARACTERS PER INCH FROM ROUTINE 3.

TERMINATING SEQUENCE:

- (1) RESET
- (2) I/O START TO CHANGE TO 6 LINE PER INCH CODE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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MAP 0016-74

PAPER ONLY

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5 1/4 INCH DISKETTE ROUTINE DESCRIPTION (MCA) ---- TYPE 70

ROUTINE 1:

THIS ROUTINE IS TO VERIFY THE CHANNEL INTERFACE CAN INTERRUPT. A READ MEDIA PARMS IS ISSUED. NEXT THE PROGRAM WILL PREPARE THE I/O DEVICE TO INTERRUPT ON LEVEL ZERO AND CAUSE AN INTERRUPT. WHEN THE INTERRUPT OCCURS, THE INTERRUPT LEVEL IS COMPARED TO THE EXPECTED LEVEL.

ROUTINE 2:

THIS ROUTINE WILL PERFORM A RECALIBRATE TO TRACK 0, AND THEN READ SECTOR 0 OF ALL TRACKS ON THE DISKETTE.

ROUTINE 3:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT WILL REJECT, AND THE PROPER RESPONSE WILL BE CHECKED.

ROUTINE 4:

THIS ROUTINE WILL SEEK AND LOAD THE VTOC ENTRY TO DETERMINE IF THIS DISKETTE IS A DIAGNOSTIC DISKETTE. IF YES, IT WILL THEN TRY TO WRITE ON CYLINDER 2 OF HEAD 0 AND 1. THEN READ IT BACK AND VERIFY THE DATA.

ROUTINE 5:

THIS ROUTINE WILL PERFORM A RECALIBRATE TO TRACK 0, AND THEN ALTERNATELY READ RBA 0 AND MAXIMUM RBA ON THE DISKETTE.

TERMINATING SEQUENCE:

- (1) RESET
- (2) PREPARE WITH 'I' BIT OFF
- (3) RESET
- (4) PROGRAM TERMINATE

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MAP 0016-75

PAPER ONLY

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5 1/4 INCH DISK DESCRIPTION (MCA) ---- TYPE 71

ROUTINE 1:

THIS ROUTINE IS TO VERIFY CHANNEL INTERFACE CAN INTERRUPT. THE PROGRAM WILL PREPARE THE I/O DEVICE TO INTERRUPT ON LEVEL ZERO AND CAUSE AN INTERRUPT. WHEN THE INTERRUPT OCCURS, THE LEVEL IS COMPARED TO THE EXPECTED LEVEL.

ROUTINE 2:

THIS ROUTINE WILL PERFORM A RECALIBRATE TO TRACK 0, AND THEN READ SECTOR 0 OF ALL TRACKS ON THE DISK. (ALL DATA AREA TRACKS)

ROUTINE 3:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT WILL REJECT, AND THE PROPER RESPONSE WILL BE CHECKED.

ROUTINE 4:

THIS ROUTINE WRITES 93 SECTORS ONTO THE DIAGNOSTIC CYLINDER. IT WILL ALSO SET THE SECRET PASSWORD FOR WRITING THE DIAGNOSTIC CYLINDER.

ROUTINE 5:

THIS ROUTINE WILL PERFORM A RECALIBRATE TO TRACK 0, AND THEN READ RBA 0 AND MAXIMUM RBA ALTERNATELY 100 TIMES.

TERMINATING SEQUENCE:

- (1) RESET
- (2) PREPARE WITH 'I' BIT OFF
- (3) RESET
- (4) PROGRAM TERMINATE

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MAP 0016-76

DISK ROUTINE DESCRIPTION (4962) ---- TYPE 78

WHEN EXECUTING THE DISK SYSTEM TEST PROGRAM, THE QUESTION OF WRITING ON THE DISK WILL BE DISPLAYED TO THE OPERATOR. IF THE ANSWER TO THE QUESTION IS YES, ROUTINE 3 WILL BE EXECUTED. IF NO ONLY ROUTINES 1, 2 AND 4 WILL BE EXECUTED.

*****NOTE*****
*
* (1) SYSTEM TEST WILL BE TERMINATED UNTIL THE QUESTION *
* IS ANSWERED (ONE PER DISK DEVICE ADDRESS). *
* (2) WHEN AN ERROR OCCURS DEV1, DEV2 AND DEV3 CONTAIN *
* THE READ SECTOR ID INFORMATION. *
* *

ROUTINE 1:
THIS ROUTINE FIRST GIVES A RESET AND READ ID TO THE DEVICE. THEN WILL PREPARE THE DEVICE FOR LEVEL 0 THROUGH 2. ON EACH LEVEL A DUMMY SEEK IS PERFORMED TO ENSURE THAT ALL LEVELS WILL INTERRUPT CORRECTLY. THE DEVICE ID THAT IS VALID IS TAKEN TO BE THE ID PRESENT IN THE CONFIGURATION TABLE. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:
THIS ROUTINE RECALIBRATES THE DISK THEN SEEKS TO CYLINDER 0, 302, 1, 301, 2, 300, 3, ---, 152, 151. EACH SEEK IS CHAINED TO A READ SECTOR ID AND THE SEEK IS THEN CHECKED FOR VALIDITY. HEAD SELECT FOR EACH SEEK IS:

- 1) FOR TWO HEAD DISK --- 0,1,0,1,0,1,0,1 ----
2) FOR THREE HEAD DISK --- 0,1,0,2,0,1,0,2,0,1,0,2 ----

*****NOTE*****
*
* AN ERROR IS INDICATED FOR THE FOLLOWING THREE CONDITIONS. *
* 1) A FAILING SECTOR FOUND ON THE IPL TRACK. *
* 2) A SECTOR ON CYLINDER ONE HAVING AN ALTERNATE. *
* 3) A TRACK FOUND TO HAVE NO GOOD SECTORS. *
* IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED. *
* *

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ROUTINE 3:
THIS ROUTINE WILL VERIFY THAT THE DISK CAN BE WRITTEN. IF YES CONTINUE, IF NO ROUTINE 4 IS STARTED. IN CONTINUING THE ROUTINE WILL RECALIBRATE THEN SEEK TO TRACK 302 (CE TRACK). AFTER THE SEEK THE SECTOR ID IS READ AND TESTED, IF GOOD A 256 BYTE SECTOR IS WRITTEN, READ BACK AND COMPARED. THIS IS PERFORMED ON ALL BUT FIXED HEAD(S).

*
* AN ERROR IS INDICATED IF THERE IS NOT A GOOD SECTOR ON *
* THE CE TRACK WHEN A WRITE IS INDICATED. *
* IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED. *
* *

ROUTINE 4:
THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH ERROR A READ CYCLE STEAL STATUS OPERATION IS PERFORMED AND THE RESIDUAL ADDRESS IS COMPARED TO AN EXPECTED VALUE. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

- TERMINATING SEQUENCE:
(1) PREPARE WITH THE 'I' BIT OFF
(2) RESET
(3) PROGRAM TERMINATE

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MAP 0016-78

DISK ROUTINE DESCRIPTION (4963) ---- TYPE 7A

CAUTION: IF TWO OR MORE DEVICES ARE INSTALLED AND BEING TESTED ON THE SAME ATTACHMENT CARD THE BASE ADDRESS MUST BE ONE OF THE DEVICES BEING TESTED.

WHEN EXECUTING THE DISK SYSTEM TEST PROGRAM, THE QUESTION OF WRITING ON THE DISK WILL BE DISPLAYED TO THE OPERATOR. IF THE ANSWER TO THE QUESTION IS YES, ROUTINE 4 WILL BE EXECUTED. IF NO ONLY ROUTINES 1, 2, 3 AND 5 WILL BE EXECUTED.

*
* (1) SYSTEM TEST WILL BE TERMINATED UNTIL THE QUESTION IS ANSWERED (ONE PER DISK DEVICE ADDRESS).
* (2) WHEN AN ERROR OCCURS, DEV1 AND DEV2 WILL CONTAIN THE READ SECTOR ID INFORMATION.
*

ROUTINE 1:

THIS ROUTINE FIRST GIVES A RESET AND READ ID TO THE DEVICE. THEN WILL PREPARE THE DEVICE FOR LEVEL 0 THROUGH 2. ON EACH LEVEL A DUMMY SEEK IS PERFORMED TO ENSURE THAT ALL LEVELS WILL INTERRUPT CORRECTLY. THEN A START CYCLE STEAL STATUS IS GIVEN TO OBTAIN THE NUMBER OF HEAD(S) AND SIZE OF THE UNIT. IF NO ERRORS ARE FOUND, ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE RECALIBRATES THE DISK THEN SEEKS TO CYLINDER 0, 302, 1, 301, 2, 300, 3, ---, 152, 151. EACH SEEK IS CHAINED TO A READ SECTOR ID AND THE SEEK IS THEN CHECKED FOR VALIDITY. THIS ROUTINE FIRST GIVES A RESET AND READ ID TO THE DEVICE. A GOOD SECTOR IS VERIFIED FOR EACH TRACK OF EACH CYLINDER. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

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ROUTINE 3:

THIS ROUTINE RECALIBRATES THE DISK THEN SEEKS TO CYLINDER 0, 359, 1, 358, 2, 357, 3, ---, 180, 179. EACH SEEK IS CHAINED TO A READ SECTOR ID AND THE SEEK IS THEN CHECKED. THIS ROUTINE RECALIBRATES THE DISK THEN SEEKS TO IF NO ERRORS ARE FOUND, ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL VERIFY THAT THE DISK CAN BE WRITTEN. IF YES CONTINUE, IF NO ROUTINE 5 IS STARTED. IN CONTINUING THE ROUTINE WILL RECALIBRATE THEN SEEK TO TRACK 359 (CE TRACK). AFTER THE SEEK THE SECTOR ID IS READ AND TESTED, IF GOOD A 256 BYTE SECTOR IS WRITTEN, READ BACK AND COMPARED. THIS IS PERFORMED ON ALL BUT FIXED HEAD(S). ROUTINE 5 IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL FORCE ERRORS THAT THE ATTACHMENT CARD SHOULD REJECT. ON EACH ERROR A READ CYCLE STEAL STATUS OPERATION IS PERFORMED AND THE RESIDUAL ADDRESS IS COMPARED TO AN EXPECTED VALUE. IF NO ERRORS ARE FOUND, ROUTINE 1 IS STARTED.

*****NOTE*****
*
* AN ERROR IS INDICATED IF THERE IS NOT A GOOD SECTOR
* FOUND ON THE CE TRACK WHEN A WRITE IS INDICATED.
*

TERMINATING SEQUENCE:

- (1) PREPARE WITH THE 'I' BIT OFF
(2) RESET
(3) PROGRAM TERMINATE

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MAP 0016-80

DISK ROUTINE DESCRIPTION (4967) ----TYPE 7B

WHEN EXECUTING THE DISK SYSTEM TEST PROGRAM, THREE (3) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1 CHANNEL INTERFACE TEST

VERIFY THAT THE CHANNEL INTERFACE CAN INTERRUPT ON ALL LEVELS. PREPARE THE DEVICE TO INTERRUPT ON LEVEL ZERO AND CAUSE AN INTERRUPT. WHEN THE INTERRUPT OCCURS, THE LEVEL IS COMPARED TO THE EXPECTED LEVEL. THIS IS DONE ON ALL LEVELS EXCEPT THREE.

ROUTINE 2 SEEK AND CHAIN TEST

THE TEST WILL SEEK AND VERIFY SECTOR ID FOR ALL TRACKS BY DOING A SEEK RECALIBRATE AND VERIFY TRACK EQUALS ZERO. THEN SEEK TO ALL CYLINDERS ALTERNATELY, ALTERNATING HEADS FOR EACH SEEK. A READ SECTOR ID IS EXECUTED TO VERIFY THAT THE SEEK WAS CORRECT.

ROUTINE 3 WRITE READ TEST

THIS ROUTINE WILL WRITE A SECTOR OF DATA ON THE CE TRACK, READ THE DATA AND COMPARE IT TO WHAT WAS WRITTEN

TERMINATING SEQUENCE:

- (1) RESET
- (2) RECALIBRATE DEVICE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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MAP 0016-81

4952/4/6/D 4965D 4056-60E DISK ROUTINE DESCRIPTION ----TYPE 7C

WHEN EXECUTING THE DISK SYSTEM TEST PROGRAM, THREE (3) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1 CHANNEL INTERFACE TEST

VERIFY THAT THE CHANNEL INTERFACE CAN INTERRUPT ON ALL LEVELS. PREPARE THE DEVICE TO INTERRUPT ON LEVEL ZERO AND CAUSE AN INTERRUPT. WHEN THE INTERRUPT OCCURS, THE LEVEL IS COMPARED TO THE EXPECTED LEVEL. THIS IS DONE ON ALL LEVELS EXCEPT THREE.

ROUTINE 2 SEEK AND CHAIN TEST

THE TEST WILL SEEK AND VERIFY SECTOR ID FOR ALL TRACKS BY DOING A SEEK RECALIBRATE AND VERIFY TRACK EQUALS ZERO. THEN SEEK TO ALL CYLINDERS ALTERNATELY, ALTERNATING HEADS FOR EACH SEEK. A READ SECTOR ID IS EXECUTED TO VERIFY THAT THE SEEK WAS CORRECT.

ROUTINE 3 WRITE READ TEST

THIS ROUTINE WILL WRITE A SECTOR OF DATA ON THE CE TRACK, READ THE DATA AND COMPARE IT TO WHAT WAS WRITTEN

TERMINATING SEQUENCE:

- (1) RESET
- (2) RECALIBRATE DEVICE
- (3) PREPARE WITH 'I' BIT OFF
- (4) RESET
- (5) PROGRAM TERMINATE

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IDIDO ROUTINE DESCRIPTION --- TYPE A0

WHEN EXECUTING THE IDIDO SYSTEM TEST PROGRAM, THE QUESTION IS THE DEVICE WRAPPED OR NOT WILL BE DISPLAYED TO THE OPERATOR. IF THE ANSWER TO THE QUESTION IS YES THEN BOTH ROUTINES 3 AND 6 WILL BE EXECUTED. IF NOT WRAPPED BOTH OF THESE ROUTINES WILL NOT BE ACTIVE.

*****NOTE*****
*
* SYSTEM TEST WILL BE TERMINATED UNTIL THE QUESTION IS *
* ANSWERED. (ONE PER IDIDO DEVICE). *
*

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE ID OF ALL FOUR DEVICE ADDRESSES ASSOCIATED WITH THIS ATTACHMENT CARD. AFTER WHICH THE DEVICE IS THEN PREPARED ON LEVELS 0 THROUGH 2. ON EACH INTERRUPT LEVEL A ARM PI AND SET TEST 1 IS GIVEN TO ENSURE THAT THE DEVICE WILL INTERRUPT ON ALL LEVELS. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE TWO DI'S WILL GIVE A COMMAND REJECT TO ALL ILLEGAL DCB'S. AFTER THIS THE DI'S ARE RESET AND IF NO ERRORS ARE FOUND ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE WILL FIRST DETERMINE IF THE CARD IS WRAPPED, IF NOT ROUTINE 4 IS STARTED. IF THE CARD IS WRAPPED THEN THIS ROUTINE GIVES THE SAME DCB'S AS DOES ROUTINE 2 BUT ONLY TO THE TWO DO'S ASSOCIATED WITH THE CARD. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED

ROUTINE 4:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ONE, THEN RESET BOTH DI'S. AFTER THIS BOTH DI'S ARE GIVEN A SET TEST 1 THEN THE STATUS AND DI REGISTERS ARE READ AND COMPARED TO EXPECTED DATA. IF NO ERRORS ARE FOUND ROUTINE 5 IS STARTED.

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ROUTINE 5:

THIS ROUTINE FIRST WILL PREPARE (WITH THE 'I' BIT OFF) THE DEVICE AND THEN GIVES A RESET TO BOTH DI'S. THE 'ARM PI' AND 'SET TEST 0' DCB'S ARE GIVEN TO BOTH DI'S. A READ STATUS IS THEN GIVEN AND CHECKED AGAINST EXPECTED VALUES. IF NO ERRORS ARE FOUND ROUTINE 6 IS STARTED

ROUTINE 6:

THIS ROUTINE WILL FIRST DETERMINE IF THE ATTACHMENT CARD IS WRAPPED, IF NOT ROUTINE 1 IS STARTED. IF THE CARD IS WRAPPED A RESET IS GIVEN TO ALL ADDRESSES AND THE CARD IS PREPARED TO LEVEL 1. DATA IS THEN WRITTEN TO BOTH DO'S AND READ THROUGH BOTH DI'S TO BE CHECKED. THE DATA PATTERN WRITTEN IS HEXADECIMAL '1111', '2222', '3333' ---- THROUGH ---- 'FFFF'. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF (ALL FOUR)
- (2) RESET (ALL FOUR)
- (3) PROGRAM TERMINATE

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MAP 0016-84

OEMIA ROUTINE DESCRIPTION ---- TYPE A3

WHEN EXECUTING THIS SYSTEM TEST PROGRAM, FOUR (4) ROUTINES WILL BE EXECUTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE ID ASSOCIATED WITH THIS ATTACHMENT CARD. AFTER WHICH THE DEVICE IS THEN PREPARED ON LEVELS 0 THROUGH 2. ON EACH INTERRUPT LEVEL A ARM PI IS PERFORMED TO ENSURE THAT THE DEVICE WILL INTERRUPT ON ALL LEVELS. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CONFIGURATION TABLE IS CORRECT. THEN WRITES ALL VALUES FROM '0000' TO 'FFFF' THROUGH THE WRITE REGISTER, THEN READ AND COMPARE THESE VALUES. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST DOES A DIAGNOSTIC RESET THEN A SET DIAGNOSTIC MODE 1. ALL VALUES ARE COMPARED TO WHAT IS IN THE CONFIGURATION TABLE. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ONE THEN SET MODE 2 AND SET MODE 3 ARE TESTED TO ENSURE THERE CORRECT OPERATION. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) CHANGE FROM DIAGNOSTIC MODE TO NORMAL MODE
- (2) PREPARE WITH 'I' BIT OFF
- (3) RESET
- (4) PROGRAM TERMINATE

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MAP 0016-85

SENSOR I/O ROUTINE DESCRIPTION (4982) ---- TYPE A4

WHEN EXECUTING THE SENSOR I/O SYSTEM TEST PROGRAM, FOUR (4) ROUTINES WILL BE EXECUTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE ID ASSOCIATED WITH THIS ATTACHMENT CARD. AFTER WHICH THE DEVICE IS THEN PREPARED ON LEVELS 0 THROUGH 2. ON EACH INTERRUPT LEVEL A ARM PI IS PERFORMED TO ENSURE THAT THE DEVICE WILL INTERRUPT ON ALL LEVELS. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CONFIGURATION TABLE IS CORRECT. THEN WRITES ALL VALUES FROM '0000' TO 'FFFF' THROUGH THE WRITE REGISTER. THEN READ AND COMPARE THESE VALUES. IF NO ERRORS ARE FOUND, ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST DOES A DIAGNOSTIC RESET THEN A SET DIAGNOSTIC MODE 1. ALL VALUES ARE COMPARED TO WHAT IS IN THE CONFIGURATION TABLE. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ONE THEN SET MODE 2 AND SET MODE 3 ARE TESTED TO ENSURE THERE CORRECT OPERATION. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) CHANGE FROM DIAGNOSTIC MODE TO NORMAL MODE
- (2) PREPARE WITH 'I' BIT OFF
- (3) RESET
- (4) PROGRAM TERMINATE

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CONTROLLER / MODEM / STORAGE ROUTINE DESCRIPTION ---- TYPE C0

WHEN EXECUTING THE CONTROLLER SYSTEM TEST PROGRAM, ONE (1) OR TWO (2) ROUTINES ARE STARTED AUTOMATICALLY. THE FIRST ROUTINE (RTNE 0) WILL ALWAYS BE STARTED, WHILE ROUTINE 1 OR 2 WILL BE STARTED, BY ROUTINE 0, IF THERE IS A CORRESPONDING MODEM OR STORAGE NON-ZERO ENTRY IN THE CONFIGURATION TABLE.

A DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 0:

CONTROLLER TEST.

THIS ROUTINE WILL ISSUE A PREPARE AND START CYCLE STEAL STATUS COMMAND TO DETERMINE IF THE ATTACHMENT WILL RESPOND TO THE SERIES/1, AND VERIFY THAT IT RETURNS A VALID DEVICE END ON THE GIVEN DEVICE ADDRESS. CHECK THE CONFIGURATION RECORD FOR ATTACHED MODEMS OR STORAGE AND START THE CORRESPONDING ROUTINE.

ROUTINE 1:

MODEM TEST.

EACH MODEM CARD IN THE CONFIGURATION RECORD IS TESTED FOR ACCESS AND ADDRESSABILITY, FOLLOWED BY AN INTERNAL WRAP TEST. IF AN ERROR IS DETECTED THE CHECK POINT WILL EQUAL THE FIRST BAD CARD.

ROUTINE 2:

STORAGE TEST.

VERIFY ACCESS AND ADDRESSABILITY OF ALL STORAGE LOCATIONS. IF AN ERROR IS DETECTED THE CHECK POINT WILL EQUAL THE FIRST BAD CARD.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MULTI-LINE CONTROLLER ----- TYPE C4

WHEN EXECUTING THE MULTI-LINE CONTROLLER SYSTEM TEST PROGRAM, THREE (3) ROUTINES WILL BE EXECUTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

CHECK READ ID AND ISSUE A DEVICE RESET. THE CONTROLLER CARD CHANNEL INTERFACE IS TESTED BY ISSUING DPC COMMANDS AND TESTING THE RESULTS.

ROUTINE 2:

CHECK CONTROLLER CARD RAM BY ISSUING THE FOLLOWING COMMANDS:

- 5C DPC WRITE1 COMMAND - SET KEYS
- 7C(E2) INITIALIZE ATTACHMENT COMMAND
- 7D(02) RAM ADDRESS TEST
- 7D(04) ECC TEST DIAGNOSTIC
- 7D(06) RAM DATA TEST DIAGNOSTIC
- 7D(10) SUPPORT HARDWARE TEST DIAGNOSTIC

ROUTINE 3:

LOADS DATA TO THE ATTACHMENT APPLICATION STORAGE, VERIFIES THE DATA THEN CLEARS APPLICATION STORAGE.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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CHANNEL ATTACHMENT----- TYPE C5

WHEN EXECUTING THE MULTI-LINE CONTROLLER SYSTEM TEST PROGRAM, THREE (3) ROUTINES WILL BE EXECUTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

CHANNEL/INTERFACE TEST WILL ISSUE DEVICE RESET AND READ ID COMMANDS. INVOKE ROS RESIDENT DIAGNOSTICS FOR CONTROLLER CARD BY ISSUING A START DIAGNOSTIC 7D(08) COMMAND.

THE FOLLOWING CONDITIONS CAUSE THE SYSTEM TEST MODULE TO SET THE TERMINATE BIT ON:

- CS ID NOT EQUAL TO 0037
- SWITCH NOT SET TO DISABLE
- M/M SWITCH NOT SET TO NORMAL

ROUTINE 2:

THIS ROUTINE TESTS THE CONTROLLER CARD RAM BY ISSUING THE FOLLOWING 7D COMMANDS.

- 7D (02) RAM ADDRESS TEST
- 7D (04) ECC TEST DIAGNOSTIC
- 7D (06) RAM DATA TEST DIAGNOSTIC

IF THE RESULTS FIELD (DDBUF) IS NOT 0,
DEV3 FIELD CONTAINS EXPECTED DATA
DEV4 FIELD CONTAINS RECEIVED DATA

ROUTINE 3:

THIS ROUTINE TESTS THE 4943 BY TESTING THE CHANNEL CARD. IT WILL ISSUE THE START DIAGNOSTIC 7D (09) AND (0A) COMMANDS.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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SERIES 1 TO PERSONAL COMPUTER ---- TYPE D9

ROUTINE 1:

CHANNEL INTERFACE TEST

TO VERIFY THE CHANNEL CAN EXECUTE DPC COMMANDS ON 3 DEVICE ADDRESSES WHILE PREPARED TO LEVELS 0, 1 AND 2. THE DPC COMMANDS OF PREPARE, READ ID, AND DEVICE RESET WILL BE EXECUTED

ROUTINE 2:

THE CLEAR ATTACHMENT STORAGE COMMAND (7C) IS EXECUTED ON THE THREE INTERRUPT LEVELS 0, 1 AND 2. THE DIAGNOSTIC COMMAND (7D) WITH DCB WORD 0, BIT 15=1 IS EXECUTED ON LEVEL 1. THE EXPECTED CONDITION CODE OF THE 4 I/O'S ARE 0703.

ROUTINE 3:

ODD EVEN BYTE COUNT TEST

AN ATTACHMENT DEFINITION DCB IS EXECUTED WITH A BYTCNT=1 AND STORAGE IS READ TO SEE THAT ONLY 1 BYTE WAS TRANSFERRED. AN ATTACHMENT DEFINITION DCB IS EXECUTED WITH A BYTCNT=2 AND STORAGE IS READ TO SEE THAT 2 BYTES WERE TRANSFERRED.

ROUTINE 4:

S/1 - PC CHAN ATTACH RAM MEMORY TEST

WRITE TO ALL RAM AND READ IT BACK FOR CORRECTNESS. THIS RTNE WILL LOAD ALL RAM FROM X'100' TO 64K WITH 4 PATTERNS AND READ BACK IN REVERSE. (X'FF00' BYTES)

PATTERN1-----WRITE AA55 55AA-----READ BACK 55AA AA55

PATTERN2-----WRITE 55AA AA55-----READ BACK AA55 55AA

PATTERN3-----WRITE WD MEM LOC-----READ BACK REV WD MEM LOC

PATTERN4-----WRITE INV WD MEM LOC---RD BACK REV INV WD MEM LOC

IF THE RAM DOES NOT READ BACK THE EXPECTED DATA IN THE ABOVE FOUR CASES, DEV2 WILL HAVE THE FAILING RAM MEMORY LOCATION, DEV3 WILL HAVE THE WORD READ BACK AND DEV4 WILL HAVE THE SHOULD BE WORD. THIS TEST ENDS ON THE FIRST NON COMPARE. ANY I/O ERRORS, DEV1 WILL HAVE THE SHOULD BE CONDITION CODES.

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PROGRAMMABLE COMMUNICATIONS SUBSYSTEM ---- TYPE ED

WHEN EXECUTING THE PROGRAMMABLE COMMUNICATIONS SUBSYSTEM TEST PROGRAM, FIVE (5) ROUTINES WILL BE EXECUTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE ID ASSOCIATED WITH THIS ATTACHMENT CARD. AFTER WHICH THE DEVICE IS THEN PREPARED ON LEVELS 0, ON THIS INTERRUPT LEVEL A POWER ON RESET TEST IS EXECUTED TO ENSURE THAT THE DEVICE WILL INTERRUPT. THIS TEST IS THEN DUPLICATED ON LEVELS ONE AND TWO. IF NO ERRORS ARE FOUND A READ POWER ON RESET RESULTS IS ISSUED AND THE CHECKSUM IS CHECKED. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED

ROUTINE 2:

THIS ROUTINE ISSUES FOUR TEST ATTACHMENT TEST IN THE FOLLOWING ORDER:

- 1) CHANNEL TEST
- 2) CONTROLLER TEST
- 3) SCANNER TEST
- 4) READ SENSE TEST

THE RESULTS ARE THEN COMPARED TO EXPECTED VALUES. IF NO ERRORS ARE FOUND ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE DOES A DIAGNOSTIC MODE WRITE SCAN TABLE COMMAND. THE VALUES WRITTEN ARE HEXADECIMAL '00' THROUGH '1F'. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ONE THEN WRITE A MICROCODE LOAD TABLE TO THE DEVICE, READ THE TABLE BACK AND COMPARE THE WRITTEN DATA WITH THE RECEIVED DATA. IF NO ERRORS ARE FOUND ROUTINE 5 IS STARTED.

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ROUTINE 5:

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL ONE THEN WRITE A MICROCODE LOAD TABLE TO THE DEVICE. AFTER THIS THE PARAMETER IS PASSED TO THE ATTACHMENT CARD TO SET UP FOR A CHECK TEST. WHEN THIS IS COMPLETE THE 8, 7, 6 AND 5 BIT TESTS ARE DONE. AFTER EACH TEST IS COMPLETE THE RECEIVED DATA IS COMPARED TO EXPECTED VALUES. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MULTI-COMMUNICATIONS CONTROLLER ---- TYPE E3

WHEN EXECUTING THE MULTI-COMMUNICATIONS CONTROLLER SYSTEM TEST PROGRAM, THREE (3) ROUTINES WILL BE EXECUTED AUTOMATICALLY. THE DESCRIPTIONS OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE PREPARES THE ATTACHMENT CARD TO LEVEL ZERO (0). EACH TIME THIS ROUTINE IS SELECTED A DIFFERENT INTERRUPT LEVEL IS SELECTED. THE DEVICE BEING EXERCISED WILL BE CHECKED FOR SPEED AND PARITY. IF NO ERRORS ARE FOUND ROUTINE TWO (2) IS STARTED

ROUTINE 2:

THIS ROUTINE WILL WRITE ONE (1) LINE OF A RIPPLE PRINT PATTERN ON THE DEVICE BEING EXERCISED. IF A PRO-PRINTER IS ATTACHED TO THE TERMINAL THE LAST LINE OF DATA SENT TO THE TERMINAL IS WRITTEN ON THE PRINTER. THE RESULTING INTERRUPT IS CHECKED FOR CORRECT INTERRUPT CONDITION CODES AND INTERRUPT LEVEL. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3:

THIS ROUTINE CHECKS TO SEE IF THE DEVICE IS A DISPLAY, IF THE DEVICE IS A DISPLAY A CHECK IS MADE TO SEE IF 24 LINES HAVE BEEN WRITTEN: IF 24 LINES HAVE NOT BEEN WRITTEN THEN ROUTINE FOUR (4) IS STARTED. IF 24 LINES HAVE BEEN WRITTEN THEN THE SCREEN IS CLEARED AND ROUTINE FOUR (4) IS STARTED.

ROUTINE 4:

THIS ROUTINE WILL TEST THE STATUS OF THE 4224 PRINTER IF ATTACHED. IF NO ERRORS ARE FOUND ROUTINE ONE (1) IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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525X ATTACHMENT ----- TYPE E4

ROUTINE 1:

THIS ROUTINE FIRST WILL PREPARE THE DEVICE TO LEVEL ZERO (0) THEN DOES A RESET AND READ ID TO THE DEVICE AFTER WHICH A START CYCLE STEAL STATUS IS GIVEN TO ENSURE THE DEVICE WILL INTERRUPT ON THE PREPARED LEVEL. THIS SAME PROCEDURE IS FOLLOWED FOR LEVELS 1 AND 2. IF NO ERRORS ARE FOUND, ROUTINE TWO (2) IS STARTED.

ROUTINE 2: (DISPLAY ROUTINE)

THIS ROUTINE EXECUTES ONLY IN SYSTEM TEST THIS ROUTINE WILL FIRST BLANK THE SCREEN THEN WRITE EACH CHARACTER TO EACH SCREEN LOCATION. THIS IS PERFORMED BY FILLING THE SCREEN WITH EACH CHARACTER. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3: (PRINT ROUTINE)

THIS ROUTINE WILL PREPARE THE DEVICE TO LEVEL 1, PRINT SIXTEEN (16) LINES OF 'HH' OVERPRINTED WITH 'II'. THE OPERATOR CAN DETERMINE THE ALIGNMENT INTEGRITY OF THE HEAD. IF NO ERRORS ARE FOUND ROUTINE FOUR (4) IS STARTED.

ROUTINE 4: (DISPLAY ROUTINE)

THIS ROUTINE WILL FIRST BLANK THE SCREEN. THEN DATA IS WRITTEN ON THE BOTTOM LINE WITH A SHIFT UP, UNTIL IT IS AT THE TOP. THIS IS DONE BY EXECUTING A WRITE TO THE BOTTOM LINE WITH A SHIFT UP. IF NO ERRORS ARE FOUND, ROUTINE FIVE (5) IS STARTED.

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ROUTINE 5: (PRINT ROUTINE)

THIS ROUTINE WILL PRINT EACH CHARACTER, IN A DEFAULT CHARACTER SET. IN CVP MODE THE FIRST 30 PRINT POSITIONS ARE TESTED. IN SYSTEM TEST THE THE NUMBER OF PRINT POSITIONS SPECIFIED BY THE CE ARE TESTED. IF NO ERRORS ARE FOUND, ROUTINE SIX (6) IS STARTED.

ROUTINE 6:

THIS ROUTINE WILL CHANGE THE PRINT LOCATION OF A FIXED, 8 CHARACTER DATA BUFFER TO TEST THE DEVICE ON CHANGED LENGTH LINES. IF NO ERRORS ARE FOUND ROUTINE 7 IS STARTED.

ROUTINE 7:

THIS ROUTINE WILL ENSURE THAT ALL ILLEGAL DCB'S WILL GIVE A COMMAND REJECT. AFTER THIS A RESET IS GIVEN TO THE ATTACHMENT CARD. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MULTIFUNCTION ROUTINE DESCRIPTION ---- TYPE E6

WHEN EXECUTING THE MULTIFUNCTION SYSTEM TEST PROGRAM, THREE (3) ROUTINES ARE STARTED AUTOMATICALLY. A DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

CHANNEL INTERFACE TEST
THIS ROUTINE FIRST CONNECT THE DEVICE THEN ISSUES A READ ID COMMAND. IF THE ID IS CORRECT A RESET IS ISSUED AND THE DEVICE IS PREPARED ON LEVEL 0.

ROUTINE 2:

4975 PRINTER TEST
THE CONFIGURATION ENTRY IS EXAMINED TO ENSURE THAT THE DEVICE IS A LOCALLY ATTACHED PRINTER. THE DEVICE IS THEN PREPARED ON LEVEL 0. TWENTY FOUR LINES OF DATA ARE PRINTED AND AN OVERFLOW PERFORMED. IF THE ROUTINE IS BEING EXECUTED IN VERIFY MODE THE DEVICE IS THEN TAKEN OFF LINE.

ROUTINE 3:

3101 DISPLAY TEST
THE CONFIGURATION ENTRY IS EXAMINED TO ENSURE THAT THE DEVICE IS AN ASYNCHRONOUS DEVICE. THE DEVICE IS PREPARED ON LEVEL 0. DURING THE FIRST PASS THROUGH THE ROUTINE FOR EACH DEVICE THE CONFIGURATION ENTRY IS EXAMINED TO DETERMINE THE SPEED AND PARITY. A READ SWITCH COMMAND IS ISSUED TO DETERMINE THE LINE FEED CHARACTERISTICS. A SERIES OF WRITE COMMANDS ARE ISSUED TO WRITE A FULL SCREEN OF RIPPLE DATA. AFTER THE SCREEN IS FILLED A CLEAR SCREEN COMMAND IS ISSUED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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ACCA SL ROUTINE DESCRIPTION ---- TYPE E8

WHEN EXECUTING THE ACCA SL SYSTEM TEST PROGRAM, FOUR (4) ROUTINES ARE STARTED AUTOMATICALLY. A DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE DEVICE ID ON LEVELS 0 THROUGH 2, ON EACH LEVEL A DTR COMMAND IS GIVEN TO OBTAIN AN INTERRUPT. WHEN THIS HAS BEEN DONE CORRECTLY, A DIAGNOSTIC TWO COMMAND IS GIVEN AND A CHECKSUM CHECK IS PERFORMED. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CYCLE STEAL STATUS RESIDUAL ADDRESS IS CORRECT. IF NO ERRORS ARE FOUND ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST GIVES A DIAGNOSTIC TWO COMMAND. WILL THEN TEST THE RECEIVED DATA FOR VALIDITY WITH THE LAST DCB AND THE INFORMATION PASSED THROUGH THE CONFIGURATION TABLE. THIS CHECK ONLY INCLUDES DIAGNOSTIC READ DATA WORD 4 THROUGH WORD 17. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE GIVES THE DCB'S NECESSARY TO OBTAIN A COMMAND REJECT AND A DCB SPECIFICATION CHECK. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-97

ACCA ML ROUTINE DESCRIPTION ---- TYPE E9

WHEN EXECUTING THE ACCA ML SYSTEM TEST PROGRAM THE SAME FOUR (4) ROUTINES ARE EXECUTED AS WITH THE ACCA SL. THE DIFFERENCE IS THAT ROUTINE ONE WILL BE EXECUTED FOR DA ONE THEN TWO, THREE, FOUR --> EIGHT THEN ROUTINE TWO IS STARTED FOR DEVICE ADDRESS ONE, TWO --- AND SO ON. EXCEPT FOR THIS ALL TESTING IS THE SAME AS THE ACCA SL ATTACHMENT CARD.

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE DEVICE ID ON LEVELS 0, 1 AND 2. ON EACH LEVEL A DTR COMMAND IS GIVEN TO OBTAIN AN INTERRUPT. WHEN THIS HAS BEEN DONE CORRECTLY, A DIAGNOSTIC TWO COMMAND IS GIVEN AND A CHECKSUM CHECK IS PERFORMED. IF NO ERRORS ARE FOUND ROUTINE TWO (2) IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CYCLE STEAL STATUS RESIDUAL ADDRESS IS CORRECT. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST GIVES A DIAGNOSTIC TWO COMMAND, THEN TEST THE RECEIVED DATA FOR VALIDITY WITH THE LAST DCB AND THE INFORMATION PASSED THROUGH THE CONFIGURATION TABLE. THIS CHECK ONLY INCLUDES DIAGNOSTIC READ DATA WORD 12. IF NO ERRORS ARE FOUND ROUTINE FOUR (4) IS STARTED.

ROUTINE 4:

THIS ROUTINE GIVES THE DCB'S NECESSARY TO OBTAIN A COMMAND REJECT AND A DCB SPECIFICATION CHECK. IF NO ERRORS ARE FOUND ROUTINE ONE (1) IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-98

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FPMLC ROUTINE DESCRIPTION ---- TYPE EA

WHEN EXECUTING THE FEATURE PROGRAMMABLE MULTILINE COMMUNICATIONS ATTACHMENT SYSTEM TEST PROGRAM THE SAME FOUR (4) ROUTINES ARE EXECUTED AS WITH THE ACCA SL THE DIFFERENCE IS THAT ROUTINE ONE WILL BE EXECUTED FOR DA ONE (1), TWO (2), THREE (3) AND FOUR (4) --> EIGHT (8). THEN ROUTINE TWO IS STARTED FOR DA ONE (1), TWO (2), THREE (3) AND FOUR (4) --> EIGHT (8). EXCEPT FOR THIS ALL TESTING IS THE SAME AS THE ACCA SL ATTACHMENT CARD. (WITH THE ADDITION OF A FIFTH (5TH) ROUTINE.)

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE DEVICE ID ON LEVELS 0, 1 AND 2. ON EACH LEVEL A RESET COMMAND IS GIVEN TO OBTAIN AN INTERRUPT. WHEN THIS HAS BEEN DONE CORRECTLY, A DIAGNOSTIC ONE COMMAND IS GIVEN AND A CHECKSUM CHECK IS PERFORMED. IF NO ERRORS ARE FOUND ROUTINE TWO (2) IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CYCLE STEAL STATUS RESIDUAL ADDRESS IS CORRECT. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST GIVES A DIAGNOSTIC TWO COMMAND, THEN TEST THE RECEIVED DATA FOR VALIDITY WITH THE LAST DCB AND THE INFORMATION PASSED THROUGH THE CONFIGURATION TABLE. THIS CHECK INCLUDES ALL DIAGNOSTIC DATA. IF NO ERRORS FOUND, START ROUTINE FOUR

ROUTINE 4:

THIS ROUTINE GIVES THE DCB'S NECESSARY TO OBTAIN A COMMAND REJECT AND A DCB SPECIFICATION CHECK. IF NO ERRORS ARE FOUND ROUTINE FIVE (5) IS STARTED.

ROUTINE 5:

THIS ROUTINE WILL ENSURE THAT ALL ILLEGAL DCB'S WILL GIVE A COMMAND REJECT. AFTER THIS A RESET IS GIVEN TO THE ATTACHMENT CARD. IF NO ERRORS ARE FOUND ROUTINE ONE (1) IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-99

PAPER ONLY

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TELEPHONE ADAPTER ROUTINE DESCRIPTION ---- TYPE EB

WHEN EXECUTING THE TELEPHONE ADAPTER SYSTEM TEST PROGRAM, THE QUESTION IS THE DEVICE WRAPPED WILL BE DISPLAYED FOR EACH ADDRESS OR UNTIL A YES ANSWER. IF A DEVICE ADDRESS IS WRAPPED BOTH ROUTINES 3 AND 4 WILL BE EXECUTED FOR THAT ADDRESS. IF THERE IS NO ADDRESS WRAPPED ROUTINES 3 AND FOUR WILL NOT BE ACTIVE.

A DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1:

THIS ROUTINE LOADS THE CONTROL STORAGE FOR THE SPEED TEST. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE ISSUES A DEVICE RESET. THE DEVICE RESET BEGINS THE SPEED TEST. AN ATTENTION INTERRUPT IS EXPECTED AND THE INTERRUPT LEVEL IS CHECKED. IF NO ERRORS ARE FOUND ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE LOADS THE CONTROL STORAGE FOR THE EIA DRIVER AND RECEIVER TEST. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE ISSUES A DEVICE RESET. THE DEVICE RESET BEGINS THE EIA DRIVER AND RECEIVER TEST. AN ATTENTION INTERRUPT IS EXPECTED AND THE INTERRUPT LEVEL IS CHECKED. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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BSCA SL ROUTINE DESCRIPTION ---- TYPE F0

WHEN EXECUTING THE BSCA SL SYSTEM TEST PROGRAM, FOUR (4) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS.

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE DEVICE ID ON LEVELS 0, 1 AND 2. ON EACH LEVEL A DTR COMMAND IS GIVEN TO OBTAIN AN INTERRUPT. WHEN THIS HAS BEEN DONE CORRECTLY, A DIAGNOSTIC COMMAND IS GIVEN AND A CHECKSUM CHECK IS PERFORMED. IF NO ERRORS ARE FOUND ROUTINE TWO (2) IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CYCLE STEAL STATUS RESIDUAL ADDRESS IS CORRECT. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST GIVES A CYCLE STEAL STATUS COMMAND, THEN TEST THE RECEIVED DATA FOR VALIDITY WITH THE INFORMATION PASSED THROUGH THE CONFIGURATION TABLE. IF NO ERRORS ARE FOUND ROUTINE FOUR (4) IS STARTED.

ROUTINE 4:

THIS ROUTINE GIVES THE DCB'S NECESSARY TO OBTAIN A COMMAND REJECT AND A DCB SPECIFICATION CHECK. IF NO ERRORS ARE FOUND ROUTINE ONE (1) IS STARTED.

TERMINATING SEQUENCE:

- (1) RESET
- (2) PREPARE WITH 'I' BIT OFF
- (3) PROGRAM TERMINATE

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BSCA ML ROUTINE DESCRIPTION ---- TYPE F1

WHEN EXECUTING THE BSCA ML SYSTEM TEST PROGRAM THE SAME FOUR (4) ROUTINES ARE EXECUTED AS WITH THE BSCA SL. THE DIFFERENCE IS THAT ROUTINE ONE WILL BE EXECUTED FOR DA ONE THEN TWO, THREE, FOUR --> EIGHT THEN ROUTINE TWO IS STARTED FOR DEVICE ADDRESS ONE, TWO --- AND SO ON. EXCEPT FOR THIS ALL TESTING IS THE SAME AS WITH THE BSCA SL ATTACHMENT CARD.

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE DEVICE ID ON LEVELS 0, 1 AND 2. ON EACH LEVEL A DTR COMMAND IS GIVEN TO OBTAIN AN INTERRUPT. WHEN THIS HAS BEEN DONE CORRECTLY, A DIAGNOSTIC COMMAND IS GIVEN AND A CHECKSUM CHECK IS PERFORMED. IF NO ERRORS ARE FOUND ROUTINE TWO (2) IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CYCLE STEAL STATUS RESIDUAL ADDRESS IS CORRECT. IF NO ERRORS ARE FOUND ROUTINE THREE (3) IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST GIVES A CYCLE STEAL STATUS COMMAND. THEN TESTS THE RECEIVED DATA FOR VALIDITY WITH THE INFORMATION PASSED THROUGH THE CONFIGURATION TABLE. IF NO ERRORS ARE FOUND ROUTINE FOUR (4) IS STARTED.

ROUTINE 4:

THIS ROUTINE GIVES THE DCB'S NECESSARY TO OBTAIN A COMMAND REJECT AND A DCB SPECIFICATION CHECK. IF NO ERRORS ARE FOUND ROUTINE ONE (1) IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-102

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SDLC ROUTINE DESCRIPTION ---- TYPE F8

WHEN EXECUTING THE SDLC SYSTEM TEST PROGRAM, THE QUESTION IS THE DEVICE WRAPPED WILL BE DISPLAYED TO THE OPERATOR. SYSTEM TEST WILL BE TERMINATED UNTIL THE QUESTION IS ANSWERED. (ONE PER SDLC DEVICE). IF THE ANSWER TO THE QUESTION IS YES THEN BOTH ROUTINES 3 AND 4 WILL EXPECT DIFFERENT STATUS DATA. IN THIS PROGRAM FOUR (4) ROUTINES ARE STARTED AUTOMATICALLY.

ROUTINE 1:

THIS ROUTINE GIVES A RESET THEN READS THE DEVICE ID ON LEVELS 0 THROUGH 2, ON EACH LEVEL A DTR COMMAND IS GIVEN TO OBTAIN AN INTERRUPT. WHEN THIS HAS BEEN DONE CORRECTLY, A DIAGNOSTIC COMMAND IS GIVEN AND A CHECKSUM CHECK IS PERFORMED. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:

THIS ROUTINE ENSURES THAT THE CYCLE STEAL STATUS RESIDUAL ADDRESS IS CORRECT. THEN GIVES ANOTHER CYCLE STEAL STATUS READ TO ENSURE THAT FIRST CYCLE STEAL READ DID NOT CHANGE THE RESIDUAL ADDRESS. IF NO ERRORS ARE FOUND ROUTINE 3 IS STARTED.

ROUTINE 3:

THIS ROUTINE FIRST GIVES A DIAGNOSTIC TWO COMMAND THEN CHECKS THE STATUS WORDS TO ENSURE THAT THEY ARE CORRECT WITH THE CONFIGURATION TABLE AND THE ATTACHMENT CARD IF WRAPPED. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED.

ROUTINE 4:

THIS ROUTINE GIVES THE DCB'S NECESSARY TO OBTAIN A COMMAND REJECT AND A DCB SPECIFICATION CHECK, THEN A DISABLE FOLLOWED BY AN ENABLE. IF NO ERRORS ARE FOUND ROUTINE 1 IS STARTED.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-103

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MULTIDROP WORK STATION ---- TYPE F9

WHEN EXECUTING THIS SYSTEM TEST PROGRAM, THREE (3) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1 CHANNEL INTERFACE TEST

VERIFY THAT THE CHANNEL INTERFACE CAN INTERRUPT ON ALL LEVELS. PREPARE THE DEVICE TO INTERRUPT ON LEVEL ZERO AND CAUSE AN INTERRUPT. WHEN THE INTERRUPT OCCURS, THE LEVEL IS COMPARED TO THE EXPECTED LEVEL. THIS IS DONE ON ALL LEVELS EXCEPT THREE. A DIAGNOSTIC READ IS PERFORMED AND THE RECEIVED CHECKSUM VALUES ARE CHECKED.

ROUTINE 2 CYCLE STEAL

THIS TEST WILL VERIFY THAT THE ATTACHMENT WILL SEND BACK THE LAST CYCLE STEAL ADDRESS.

ROUTINE 3 WRITE TO THE TERMINAL

ERASE SCREEN, WRITE A HEADER MESSAGE, FILL THE REST OF THE SCREEN WITH A RIPPLE DATA PATTERN. THEN SHIFT THE DATA UP ONE LINE AND WRITE A NEW LINE AT THE BOTTOM OF THE SCREEN. THIS ROUTINE EXERCISES THE TERMINALS ONE AT A TIME.

TERMINATING SEQUENCE:

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

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MAP 0016-104

SYNC COM SL C/HS ROUTINE DESCRIPTION ---- TYPE FC

WHEN EXECUTING THE SYNC COM SL C/HS SYSTEM TEST PROGRAM, THE QUESTION IS THE DEVICE WRAPPED WILL BE DISPLAYED TO THE OPERATOR. IF THE ANSWER TO THE QUESTION IS YES THEN ROUTINE 4 WILL EXECUTE IF THE ANSWER IS NO ROUTINE 4 WILL NOT EXECUTE. IN THIS PROGRAM SIX (6) ROUTINES ARE STARTED AUTOMATICALLY.

*****NOTE*****
*
* SYSTEM TEST WILL BE TERMINATED UNTIL THE QUESTION IS *
* ANSWERED. (ONE PER SYNC COM SL C/HS ATTACHMENT). *
*

ROUTINE 1:
THIS ROUTINE GIVES A RESET THEN PREPARES THE DEVICE FOR LEVEL 0 AND THEN THE NEXT ROUTINE (2) STARTS. WHEN ROUTINE 1 STARTS AGAIN THE DEVICE IS PREPARED FOR LEVEL 1. LEVELS 0,1,2 ARE USED IN THIS PROGRAM. IF NO ERRORS ARE FOUND ROUTINE 2 IS STARTED.

ROUTINE 2:
THIS ROUTINE ENSURES THAT THE CYCLE STEAL STATUS RESIDUAL ADDRESS IS CORRECT. THEN GIVES ANOTHER CYCLE STEAL STATUS READ TO ENSURE THAT THE FIRST CYCLE STEAL READ DID NOT CHANGE THE RESIDUAL ADDRESS. IF NO ERRORS ARE FOUND ROUTINE 3 IS STARTED.

ROUTINE 3:
THIS ROUTINE FIRST GIVES A DIAGNOSTIC ONE COMMAND THEN CHECKS THE CHECKSUM WORDS TO ENSURE THAT THEY ARE CORRECT. IF NO ERRORS ARE FOUND ROUTINE 4 IS STARTED.

ROUTINE 4:
THIS ROUTINE FIRST GIVES A DIAGNOSTIC TWO COMMAND THEN CHECKS THE STATUS WORDS TO ENSURE THAT THEY ARE CORRECT WITH THE CONFIGURATION TABLE. IF NO ERRORS ARE FOUND ROUTINE 5 IS STARTED.

ROUTINE 5:
THIS ROUTINE GIVES THE DCB'S NECESSARY TO OBTAIN A COMMAND REJECT AND A DCB SPECIFICATION CHECK, THEN A DISABLE FOLLOWED BY AN ENABLE. IF NO ERRORS ARE FOUND ROUTINE 6 IS STARTED.

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MAP 0016-105

ROUTINE 6:
THIS ROUTINE WILL ENSURE THAT ALL NOT LEGAL DCB'S WILL GIVE A COMMAND REJECT. AFTER THIS A RESET IS GIVEN TO THE ATTACHMENT CARD. IF NO ERRORS ARE FOUND ROUTINE ONE (1) IS STARTED.

TERMINATING SEQUENCE:
(1) PREPARE WITH 'I' BIT OFF
(2) RESET
(3) PROGRAM TERMINATE

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X 25 MULTILINE CONTROLLER ---- TYPE FD

WHEN EXECUTING THE X 25 MULTILINE CONTROLLER SYSTEM TEST PROGRAM, TWO (2) ROUTINES ARE STARTED AUTOMATICALLY. THE DESCRIPTION OF EACH TEST (ROUTINE) IS AS FOLLOWS:

ROUTINE 1

CHANNEL INTERFACE TEST
ISSUE READ ID AND DEVICE RESET COMMANDS. INVOKE ROS RESIDENT DIAGNOSTIC FOR CONTROLLER CARD BY ISSUING START DIAGNOSTIC 1 (6D) COMMAND.

ROUTINE 2

THIS ROUTINE CONTROLS TESTING OF MULTIPLE LINE CARDS. IT UPDATES VARIABLES IN OTHER ROUTINES. THIS ROUTINE THEN ISSUES A START DIAGNOSTIC 2 (SUPERVISORY) COMMAND. THE RESULTS OF RAM LOCATIONS 8005 AND 8017 ARE THEN CHECKED FOR 0'S. IF THE TEST IS GOOD THEN THE NEXT LINE CARD IS TESTED UNTIL ALL LINE CARDS DEFINED IN THE CONFIGURATION TABLE ENTRY ARE TESTED.

- (1) PREPARE WITH 'I' BIT OFF
- (2) RESET
- (3) PROGRAM TERMINATE

05.04.00 HARDWARE ERROR LOG, SEE MAP 0019

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MAP 0016-107

PRINT ERROR LOG PROGRAM USER'S GUIDE

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05.00.00 PRINT ERROR LOG PROGRAM SAMPLE OUTPUT

 05.01.00 4954/4956 PROCESSING UNIT

 05.02.00 I/O ATTACHMENT & DEVICE ERROR LOGS

 05.02.01 FORMAT OF ATTACHMENT & DEVICE ERROR LOGS

 05.02.02 LOCAL COMMUNICATIONS CONTROLLER

 05.02.03 4952/4/6D, 4965D & 4956-EXX DISKETTE

 05.02.04 4968 TAPE DRIVE

 05.02.05 4973 PRINTER

 05.02.06 5200 PRINTER ATTACHMENT

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 05.02.09 MULTI-CONTROLLER ADAPTOR (5 1/4 INCH DEVICE)

 05.02.10 MULTI-DROP W/S ATTACHMENT

 05.02.11 CHANNEL ATTACHMENT

01.00.00 INTRODUCTION.

THE PURPOSE OF THIS MAP IS TO DESCRIBE TO THE USER HOW TO SETUP AND USE THE PRINT ERROR LOG PROGRAM. EACH ERROR LOG FORMAT ASSEMBLED BY THE PROCESSING UNIT AND EACH OUTPUT FROM THE PRINT ERROR LOG PROGRAM WILL BE DESCRIBED.

THE PURPOSE OF THIS PROGRAM IS TO PRESENT THE DATA ASSOCIATED WITH AN ERROR USING A READABLE OUTPUT FOR USE BY THE CUSTOMER OR CSR.

THE FOLLOWING PROCESSING UNITS AND DEVICES HAVE ERROR LOGS AND ARE SUPPORTED BY THIS PROGRAM.

- 4954/4956 PROCESSING UNIT
- LOCAL COMMUNICATIONS CONTROLLER
- 4968 TAPE DRIVE ATTACHMENT
- 4973 PRINTER
- 5200 PRINTER ATTACHMENT
- 4967 DISK ATTACHMENT
- 4952/4/6D AND 4965D & 4956-EXX DISK/DISKETTE ATTACHMENT
- MULTI-CONTROLLER ADAPTOR (5 1/4 INCH DEVICE)
- MULTIDROP WORK STATION ATTACHMENT

PRESENTATION OF ERROR LOG DATA FOR 4954/4956 PROCESSING UNITS IS DYNAMIC. THAT IS, EACH TIME THE PRINT ERROR LOG PROGRAM IS EXECUTED, THE ERROR LOG DATA IS READ FROM THE PROCESSING UNIT. IN CONTRAST TO PROCESSOR ERROR DATA, DEVICE DATA IS RECORDED ON THE SYSTEM TEST DISKETTE AT IPL TIME.

EACH TIME THE SYSTEM TEST DISKETTE IS IPL'ED ERROR LOG DATA FOR THOSE DEVICES WHICH ARE SUPPORTED BY THIS PROGRAM, WILL BE READ OUT OF THE ATTACHMENT OR DEVICE AND STORED ON THE SYSTEM TEST DISKETTE TO BE EXAMINED BY THE CSR WHEN THE NEED ARISES. DETAILS OF ATTACHMENT & DEVICE ERROR LOGS ARE PRESENTED IN PARAGRAPH 05.02.00.

PAPER ONLY MAP

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02.00.00 PRINT ERROR LOG PROGRAM LOADING AND RUNNING

IPL THE SYSTEM VERIFY DISKETTE AND CAUSE AN INTERRUPT ON THE ALTERNATE CONSOLE WITHIN 10 SECONDS AFTER 'CONSOLE ON LINE' MESSAGE (WAIT 34CE). PROGRAM MENU DISPLAYED (WAIT 34CA). TO CAUSE AN INTERRUPT WITH A KEYBOARD PRESS ENTER KEY, WITH PRINTER USE THE ON/OFF SWITCH OR PRESS RESET THEN START ON THE PROGRAMMER CONSOLE

ENTERING OPTION 03 WILL LOAD THE PRINT ERROR LOG PROGRAM AND START A SERIES OF MESSAGES TO SETUP THE PROGRAM TO PRINT THE ERROR LOG DATA.

THE FOLLOWING ECP COMMANDS ARE ACTIVE WHILE THE PRINT ERROR LOG PROGRAM IS IN STORAGE.

0 A NO RESPONSE TO A QUESTION
 1 A YES RESPONSE TO A QUESTION
 6 CONTINUE RUNNING AT THE NEXT SEQUENTIAL INSTRUCTION
 7 STOP PROGRAM
 B START PROGRAM
 D DUMP STORAGE
 F RESPOND TO PROGRAM

ANY MESSAGE ENDING WITH A QUESTION MARK FOR EXAMPLE 'IS ONE AVAILABLE?' MUST BE ANSWERED WITH A 1 = YES OR 0 = NO.

THE MESSAGE 'IS A 4973 OR 4974 AVAILABLE?' IS NECESSARY TO DETERMINE IF A PRINTER IS AVAILABLE FOR PRINTING THE PRINT ERROR LOG PROGRAM OUTPUT. A PRINTER IS PREFERRED FOR KEEPING THE ERROR DATA.

IF ONE IS AVAILABLE ANSWER YES AND SUPPLY THE DEVICE ADDRESS.

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MAP 0019-3

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02.01.00 PRINT ERROR LOG PROGRAM OPERATIONAL MESSAGES AND CODES

34E0 PRINTER CONSOLE PREFERRED
 IS A 4973 OR 4974 AVAILABLE?
 ANSWER 1 = YES 0 = NO
 IS THERE A PRINTER ON THE SYSTEM.

34E1 ENTER PRINTER CONSOLE ADDRESS
 ENTER THE DEVICE ADDRESS OF THE PRINTER TO BE USED FOR THE PRINTED OUTPUT.

34E9 THIS IS THE MESSAGE CODE USED WITH EACH LINE OF PRINTED OUTPUT THAT REPRESENTS ERROR LOG DATA.

** THREE ECP MESSAGE CODES ARE USED WHEN THE CONSOLE IS CHANGED **

3401 THIS CODE IS USED TO INDICATE THAT THE DISPLAY CONSOLE FAILED TO RESPOND CORRECTLY WHEN BEING RETURNED ONLINE. THE PROGRAMMER CONSOLE HAS BEEN ASSIGNED.

3407 CONSOLE BEING CHANGED FOR FORMATTING
 THE DISPLAY CONSOLE HAS BEEN REMOVED AND WAS EXCHANGED WITH THE PRINTER SPECIFIED.

3408 CONSOLE RETURNED
 THE DISPLAY CONSOLE HAS BEEN RETURNED AND CAN AGAIN BE USED FOR INPUT.

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MAP 0019-4

02.02.00 PRINT ERROR LOG PROGRAM ERROR MESSAGES AND CODES

34EA PRINTER CONSOLE NOT USABLE
THE PRINTER CONSOLE SPECIFIED DOES NOT RESPOND TO NORMAL
OPERATION OR THE CONSOLE ROUTINE COULD NOT BE READ INTO STORAGE.
THE PROGRAM WILL BE TERMINATED.

03.00.00 SAMPLE SESSION

EXAMPLE:

PRINTER CONSOLE PREFERRED
IS A 4973 OR 4974 AVAILABLE?
ENTER

1 YES (1) RESPONSE (B) 1 (I)(I)

ENTER PRINTER CONSOLE ADDRESS
ENTER

F01 DEVICE ADDRESS (B) 1F (I)(B) 0100 (I)(I)

THIS DEVICE ADDRESS MUST BE THE ADDRESS OF A 4973 OR 4974. THE
PRINT ERROR LOG PROGRAM WILL VERIFY THE DEVICE ADDRESS BEFORE
CONTINUING.

IF A PRINTER CONSOLE IS NOT AVAILABLE, ANSWER NO AND THE PRINT
ERROR LOG PROGRAM WILL USE THE ASSIGNED ALTERNATE CONSOLE TO
OUTPUT THE ERROR DATA. USING SCREEN CONTROL WILL PREVENT THE LOSS
OF DATA.

EXAMPLE:

CONSOLE BEING CHANGED FOR FORMATTING

*
* AT THIS POINT THE ERROR LOG DATA WILL BE PRINTED. *
* SEE THIS MAP SECTION 05.00.00 *
*

THIS IS THE END OF THE PRINT UNIT ERROR LOG PROGRAM.

04.00.00 FORMAT OF PROCESSING UNIT ERROR LOG

THIS SECTION WILL DESCRIBE THE FORMAT OF THE VARIOUS PROCESSING
UNIT ERROR LOGS.

04.01.00 4954/4956 PROCESSING UNIT

LOCAL STORE HEX ADDRESS	FUNCTION
0F	LAST ERROR LOG ENTRY ADDRESS
40 THROUGH 7F	PROCESSING UNIT ERROR LOG DATA FIELDS

THE FOLLOWING IS THE DESCRIPTION OF PROCESSING UNIT ERROR LOG DATA FIELD FORMAT:

MACHINE CHECK ENTRY:

PROCESSING UNIT CONTROL CHECK:

BITS 0 - 3 0000
 BITS 4 1
 BITS 5 -15 ALL ZERO

TIMER OVERRUN:

BITS 0 - 3 0001
 BITS 4 -15 ALL ZERO

I/O CHECK:

BITS 0 - 3 0100
 BITS 4 SEQUENCE INDICATOR
 BITS 5 - 7 ALL ZERO
 BITS 8 -15 DEVICE ADDRESS IF AVAILABLE

STORAGE PARITY (2 LOG ENTRIES):

FIRST ENTRY: DATA
 BITS 0 - 3 1110
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -11 LAST ACTIVE ADDRESS KEY
 BITS 12-15 CURRENT ACTIVE ADDRESS KEY
 SECOND ENTRY: ADDRESS
 BITS 0 -15 ADDRESS (CONTENTS OF SAR)

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PROGRAM CHECK ENTRIES:

INVALID STORAGE ADDRESS CHECK (2 LOG ENTRIES):

FIRST ENTRY: DATA
 BITS 0 - 3 1100
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -11 LAST ACTIVE ADDRESS KEY
 BITS 12-15 CURRENT ACTIVE ADDRESS KEY
 SECOND ENTRY: ADDRESS
 BITS 0 -15 ADDRESS (CONTENTS OF CIAR)

SPECIFICATION CHECK (2 LOG ENTRIES):

FIRST ENTRY: DATA
 BITS 0 - 3 1101
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -11 LAST ACTIVE ADDRESS KEY
 BITS 12-15 CURRENT ACTIVE ADDRESS KEY
 SECOND ENTRY: ADDRESS
 BITS 0 -15 ADDRESS (CONTENTS OF CIAR)

STORAGE PROTECT CHECK (2 LOG ENTRIES):

FIRST ENTRY: DATA
 BITS 0 - 3 1111
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -11 LAST ACTIVE ADDRESS KEY
 BITS 12-15 CURRENT ACTIVE ADDRESS KEY
 SECOND ENTRY: ADDRESS
 BITS 0 -15 ADDRESS (CONTENTS OF CIAR)

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PRIORITY INTERRUPT ENTRIES:

EXCEPTION INTERRUPT:

BITS 0 - 3 0110
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -15 DEVICE ADDRESS

ATTENTION AND EXCEPTION INTERRUPT:

BITS 0 - 3 0111
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -15 DEVICE ADDRESS

OPERATE I/O ENTRIES:

BUSY AFTER RESET:

BITS 0 - 3 0010
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -15 DEVICE ADDRESS

COMMAND REJECT:

BITS 0 - 3 0011
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -15 DEVICE ADDRESS

INTERFACE DATA CHECK:

BITS 0 - 3 0101
 BITS 4 0
 BITS 5 SUPERVISOR STATE
 BITS 6 - 7 LEVEL
 BITS 8 -15 DEVICE ADDRESS

05.00.00 PRINT ERROR LOG PROGRAM SAMPLE OUTPUT

THIS SECTION WILL DESCRIBE THE PRINTED OUTPUT OF THE PROCESSING UNIT ERROR LOGS AND THE DEVICE/ATTACHMENT ERROR LOGS.

THE DATA USED IN THIS SAMPLE IS NOT REAL ERROR DATA AND IS USED TO SHOW FORMAT ONLY.

05.01.00 4954/4956 PROCESSING UNIT

** PROCESSING UNIT 495X ERROR LOG **

ENTRY	DATA	ADDRESS	
01	C440	047E	(INVALID STORAGE CHECK)
02	6201		(EXECPTION INTERRUPT)
03	6201		(EXECPTION INTERRUPT)
04	6202		(EXECPTION INTERRUPT)
05	C744	26C6	(INVALID STORAGE CHECK)
06	C300	25B2	(INVALID STORAGE CHECK)
07	C744	26C6	(INVALID STORAGE CHECK)
08	3741		(COMMAND REJECT)
09	3741		(COMMAND REJECT)
10	3741		(COMMAND REJECT)
11	3740		(COMMAND REJECT)
12	3740		(COMMAND REJECT)
13	3740		(COMMAND REJECT)

** PROCESSING UNIT 495X ERROR LOG SUMMARY **

TIMER OVERRUNS	00
PROCESSING UNIT CONTROL CHECKS	00
I/O CHECKS/SEQUENCE INDICATOR	00
STORAGE PARITY CHECKS	00
INVALID STORAGE ADDRESS CHECKS	04
SPECIFICATION CHECKS	00
STORAGE PROTECT CHECKS	00
OPERATE I/O-BUSY AFTER RESET	00
-COMMAND REJECT	06
-INTERFACE DATA CHECK	00
PRIORITY INTERRUPT-EXCEPTION	03
-ATTENTION	00

05.02.00 I/O ATTACHMENT & DEVICE ERROR LOGS

05.02.01 FORMAT OF ATTACHMENT & DEVICE ERROR LOGS

ATTACHMENT & DEVICE ERROR LOGS ARE SAVED AT EACH IPL. ONLY THE THREE MOST RECENT IPL'S ARE SAVED. THE OLDEST ERROR INFORMATION IS PRESENTED FIRST, IT IS LABELED 'ENTRY NO.3'. THE NEXT ENTRY, ENTRY NO.2 IS PRINTED, FINALLY ENTRY NO.1, THE MOST RECENT ENTRY, IS PRINTED.

THERE ARE, IN ADDITION TO THE NORMAL ERROR LOG PRINT OUTS, TWO PRINT OUTS THAT OCCUR UNDER ABNORMAL CONDITIONS. THEY ARE:

(1) 'ATTACHMENT ERROR - ERROR STATISTICS NOT REPORTED'
THIS MESSAGE IS REPORTED WHEN THE OIO CONDITION CODE OR THE INTERRUPT CONDITION CODE IS OTHER THAN THE EXPECTED CONDITION CODE.

(2) 'ATTACHMENT NOT INITIALIZED'
THIS ERROR MESSAGE IS REPORTED BY THE 5200 PRINTER ATTACHMENT AND THE MULTIDROP WORK STATION ATTACHMENT WHEN AN INTERRUPT CONDITION CODE TWO (2) IS REPORTED WITH BIT 0 OF THE ISB SET ON.

30JUL86 PN6069308

ECA40867 PECA33066

MAP 0019-11

30JUL86 PN6069308

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MAP 0019-12

05.02.02 LOCAL COMMUNICATIONS CONTROLLER

LOCAL COMMUNICATIONS CONTROLLER

DEVICE ADDRESS XX
DEVICE TYPE 41

ENTRY NO.X

TRANSMIT RAM PARITY ERRORS	0
CRC 1 ERRORS	1
CRC 2 ERRORS	0
PASS THRU COUNTER	0
ORIGIN ADDRESS PARITY ERRORS	5

05.02.03 4952/4/6D, 4965D & 4956-EXX DISKETTE

** 4952/4/6D, 4965D & 4956-EXX DISKETTE

DEVICE ADDRESS XX
DEVICE TYPE 4D

ENTRY NO.X

CURRENT OIO COUNT	0
SEEK ERRORS	1
PARITY ERRORS	0
EQUIPMENT CHECKS	0
UNDERRUN/OVERRUN	0
READ VERIFY ERRORS	0
CRC CHECKS	0
NO RECORD FOUND	0
NO DATA FIELD FOUND	0
STORAGE DATA CHECKS	0
INVALID STOPAGE ADDRESS	0
STORAGE PROTECT CHECKS	0
INTERFACE DATA CHECKS	0
ATTACHMENT TIMEOUTS	0
WRONG TYPE DISKETTE	0
NOT UP TO SPEED	0
END OF TRACK	0
DCB SPEC CHECK	0

05.02.04 4968 TAPE DRIVE

** 4968 TAPE DRIVE **

DEVICE ADDRESS XX
DEVICE TYPE 59

ENTRY NO.X

STORAGE DATA CHECKS	0
INVALID STORAGE ADDRESS	0
PROTECT CHECKS	0
INTERFACE DATA CHECKS	0
TIMEOUT CHECKS	0
DCB SPEC CHECK	0
EQUIPMENT CHECKS	0
COMMAND REJECT	0
ATTACHMENT PARITY ERRORS	0
INVALID COMMAND ERRORS	0
HARD ERRORS	0
CORRECTED ERRORS	0

05.02.05 4973 PRINTER

** 4973 PRINTER **

DEVICE ADDRESS XX
DEVICE TYPE 68

ENTRY NO.X

PRINTER POWER OFF	0
ATTACHMENT STORAGE CHECK	0
PRINTER DISABLED	0
OVER TEMPERATURE	0
THROAT OPEN	0
COVER OPEN	0
OFF LINE TEST MODE	0
FORMS JAM	0
HAMMER CHECK	0
EXTERNAL INTERFACE CHECK	0
PRINTER INTERFACE CHECK	0
OVERFLOW	0
END OF FORMS	0
BELT SYNC CHECK	0
BELT SPEED CHECK	0

05.02.06 5200 PRINTER ATTACHMENT

** 5200 PRINTER ATTACH. **

DEVICE ADDRESS XX
DEVICE TYPE 6A

ENTRY NO.X

NO RESPONSE TIMEOUT 0
ATTACHMENT LINE PARITY CHECK 0
RECEIVE LENGTH ERRORS 0
ACTIVATE COMMAND FAILURE 0
EVEN/ODD STATUS TIMEOUT 0
HARDWARE BUSY TIMEOUT 0

05.02.07 4967 DISK ATTACHMENT

** 4967 DISK DRIVE **

DEVICE ADDRESS XX
DEVICE TYPE 7B

ENTRY NO.X

DCB0 DCB1 DCB2 DCB3 DCB4 DCB5 DCB6 DCB7
0000 0000 0000 0000 0000 0000 0000 0000
CSS0 CSS1 CSS2 CSS3 CSS4 CSS5 CSS6 CSS7
0000 0000 0000 0000 0000 0000 0000 0000
CSS8 CSS9 CSSA CSSB CSSC CSSD
0000 0000 0000 0000 0000 0000
IDCB CMD BYTE 00 ISB 00 INTCC 00 FILE# 00

05.02.08 4952/4/6D, 4965D & 4956-EXX DISK

** 4952/4/6D, 4965D & 4956-EXX DISK **

DEVICE ADDRESS XX
DEVICE TYPE 7C

ENTRY NO.X

ISB 00
DCB0 DCB1 DCB2 DCB3 DCB4 DCB5 DCB6 DCB7
00 0000 0000 0000 0000 0000 0000 0000
CSS0 CSS1 CSS2 CSS3 CSS4 CSS5 CSS6 CSS7
0000 0000 0000 0000 0000 0000 0000 0000
CSS8 CSS9 CSSA CSSB CSSC CSSD
0000 0000 0000 0000 0000 0000

05.02.09 MULTI-CONTROLLER ATTACHMENT
DEVICE TYPE 70/71

LABEL	ERR CNT	DA/SA
CURRENT OP COUNTER	0	XX
STORAGE DATA CHECK	0	XX
INVALID STORAGE ADDRESS	0	XX
PROTECT CHECK	0	XX
INTERFACE DATA CHECK	0	XX
ADAPTOR PARITY CHECK	0	XX
GLOBAL TIMEOUT	0	XX
CONTROL ADDRESS MARK	0	XX
WRITE FAULT	0	XX
ADAPTOR EQUIPMENT CHECK	0	XX
ID FIELD CRC ERROR	0	XX
BAD TRACK ERROR	0	XX
ADDRESS MARK NOT FOUND	0	XX
ID NOT FOUND	0	XX
DATA FIELD CRC/ECC ERROR	0	XX
WRONG CYLINDER ERROR	0	XX
SEEK NOT ENDED ERROR	0	XX
DRIVE NOT READY	0	XX
FORMAT ERROR	0	XX
DEFECTIVE SECTOR ERROR	0	XX
DMA PARITY ERROR	0	XX
MCA EQUIP CHECK	0	XX

05.02.10 MULTI-DROP WORK STATION ATTACHMENT

** MULTI-DROP W/S ATTACHMENT **

DEVICE ADDRESS	XX
DEVICE TYPE	F9
ENTRY NO.X	
NO RESPONSE TIMEOUT	0
UNCONFIRMED TRANSMISSION ERRORS	0
RECEIVE CRC ERRORS	0
RECEIVE OVERRUN ERRORS	0
RECEIVE ABORT ERRORS	0
NONPRODUCTIVE RECEVIE TIMEOUT ERRORS	0
TRANSMIT UNDERRUN ERRORS	0
CSS0 CSS1 CSS2 CSS3 CSS4 CSS5 CSS6 CSS7	
0000 0000 0000 0000 0000 0000 0000 0000	
CSS8 CSS9 CSSA CSSB CSSC CSSD	
0000 0000 0000 0000 0000 0000	
ADD0 ADD1 ADD2 ADD3 ADD4 ADD5 (NOTE 1)	
0000 0000 0000 0000 0000 0000	

NOTE 1: ADD0 THRU ADD5 = ATTACHMENT DEFINITION DATA WORDS 1 - 5

05.02.11 CHANNEL ATTACHMENT
DEVICE TYPE C5

LABEL	ERR CNT	DA/SA
CNTRL CD ADDR PTY ERRORS	0	XX
CNTRL CD DATA ERRORS	0	XX
CNTRL CD EXTERNAL ERRORS	0	XX
CHANL CD ADDR PTY ERRORS	0	XX
CHANL CD DATA PARITY ERRORS	0	XX
DELAYED COMMAND REJECT	0	XX
DCB SPEC CHECK	0	XX
STORAGE DATA CHECK	0	XX
INVALID STORAGE ADDRESS	0	XX
PROTECT CHECK	0	XX
INTERFACE DATA CHECKS	0	XX
BUS ERRORS	0	XX
UNCORRECTABLE ECC ERRORS	0	XX
BUS OUT COMMAND PTY ERRORS	0	XX
BUS OUT DATA PTY ERRORS	0	XX
BUS IN STATUS PTY ERRORS	0	XX
BUS IN ADDRESS PTY ERRORS	0	XX
BUS IN DATA PTY ERRORS	0	XX
370 DRIVERS ERRORS	0	XX

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NATIVE TIMER

MAP 37E0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 1

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL '37'.
DOES THE FLAG FIELD = 8000 ?
Y N
|
| 002
| DOES THE FLAG FIELD = 4000 ?
| Y N
| |
| | 003
| | AN INTERRUPT WAS NOT RECEIVED
| | (LOST INTERRUPT).
| | GO TO STEP 005,
| | ENTRY POINT B.
| |
| 004
| AN ERROR WAS DETECTED ON THE
| CLASS INTERRUPT.
| GO TO STEP 005,
| ENTRY POINT B.
|
005
(ENTRY POINT B)
A MYSTERY INTERRUPT WAS RECEIVED.

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MAP 37E0-1

FLOATING POINT

MAP 3DE0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 7

001 (ENTRY POINT A) THIS MAP SHOULD NOT BE ENTERED UNLESS AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST, AND THEN ONLY WHEN THE DEVICE TYPE FIELD IS EQUAL TO HEXADECIMAL'3D'.

DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

DOES CKPT = 0000 ?

Y N

004

DOES CKPT = 0001 ?

Y N

005

DOES CKPT = 0002 ?

Y N

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5 3 3 2 2 2 A B C D E F

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MAP 3DE0-1

D E F 1 1 1

FLOATING POINT

MAP 3DE0-2

SYSTEM TEST ERROR MAP

PAGE 2 OF 7

006 DOES FLAG = 0008 ? Y N

007 SOFT EXCEPTION INTERRUPT ERROR LEVEL = 3

008 DATA MOVE COMPARE ERROR SET THEN COPY REGISTERS COMPARE ERROR LEVEL = 3

009 DOES FLAG = 0008 ? Y N

010 SOFT EXCEPTION INTERRUPT ERROR LEVEL = 2

011 DATA MOVE COMPARE ERROR SET THEN COPY REGISTERS COMPARE ERROR LEVEL = 2

012 DOES FLAG = 0008 ? Y N

013 SOFT EXCEPTION INTERRUPT ERROR LEVEL = 1

3 G

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MAP 3DE0-2

```

B C G      FLOATING POINT
1 1 2
      SYSTEM TEST ERROR MAP
| | |
| | | PAGE   3 OF   7
| | |
| | | 014
| | | DATA MOVE COMPARE ERROR
| | | SET THEN COPY REGISTERS
| | | COMPARE ERROR
| | | LEVEL = 1
| | |
| | | 015
| | | DOES FLAG = 0008 ?
| | | Y N
| | |
| | | 016
| | | SOFT EXCEPTION INTERRUPT
| | | ERROR
| | | LEVEL = 0
| | |
| | | 017
| | | DATA MOVE COMPARE ERROR
| | | SET THEN COPY REGISTERS COMPARE
| | | ERROR
| | | LEVEL = 0
| | |
| | | 018
| | | DOES CKPT = 0000 ?
| | | Y N
| | |
| | | 019
| | | DOES CKPT = 0001 ?
| | | Y N
| | |
| | | 020
| | | DOES CKPT = 0002 ?
| | | Y N
| | |
| | | 021
| | | DOES FLAG = 0008 ?
| | | Y N
| | |
| | | 022
| | | SOFT EXCEPTION INTERRUPT
| | | ERROR
| | | LEVEL = 3
| | |
| | |
| | |
| | |
| | |

```

MAP 3DE0-3

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MAP 3DE0-3

4 4 4 4
 H J K L

```

H J K L    FLOATING POINT
3 3 3 3
      SYSTEM TEST ERROR MAP
| | | |
| | | | PAGE   4 OF   7
| | | |
| | | | 023
| | | | DATA MOVE COMPARE ERROR
| | | | FLOATING POINT MOVE THEN
| | | | COPY
| | | | REGISTERS COMPARE ERROR
| | | | LEVEL = 3
| | | |
| | | | 024
| | | | DOES FLAG = 0008 ?
| | | | Y N
| | | |
| | | | 025
| | | | SOFT EXCEPTION INTERRUPT
| | | | ERROR
| | | | LEVEL = 2
| | | |
| | | | 026
| | | | DATA MOVE COMPARE ERROR
| | | | FLOATING POINT MOVE THEN COPY
| | | | REGISTERS COMPARE ERROR
| | | | LEVEL = 2
| | | |
| | | | 027
| | | | DOES FLAG = 0008 ?
| | | | Y N
| | | |
| | | | 028
| | | | SOFT EXCEPTION INTERRUPT
| | | | ERROR
| | | | LEVEL = 1
| | | |
| | | | 029
| | | | DATA MOVE COMPARE ERROR
| | | | FLOATING POINT MOVE THEN COPY
| | | | REGISTERS COMPARE ERROR
| | | | LEVEL = 1
| | | |
| | | | 030
| | | | DOES FLAG = 0008 ?
| | | | Y N
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

```

MAP 3DE0-4

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MAP 3DE0-4

5 5
 M N

A M N FLOATING POINT
1 4 4 SYSTEM TEST ERROR MAP

MAP 3DE0-5

P Q R FLOATING POINT
5 5 5 SYSTEM TEST ERROR MAP

MAP 3DE0-6

|||
||| PAGE 5 OF 7
|||
|| 031
|| SOFT EXCEPTION INTERRUPT
|| ERROR
|| LEVEL = 0
||
|| 032
|| DATA MOVE COMPARE ERROR
|| FLOATING POINT MOVE THEN COPY
|| REGISTERS COMPARE ERROR
|| LEVEL = 0
||
033
DOES CKPT = 0000 ?
Y N
||
|| 034
|| DOES CKPT = 0001 ?
|| Y N
||
|| 035
|| DOES CKPT = 0002 ?
|| Y N
||
|| 036
|| DOES FLAG = 0008 ?
|| Y N
||
|| 037
|| SOFT EXCEPTION INTERRUPT
|| ERROR
|| LEVEL = 3
||
|| 038
|| DATA MOVE COMPARE ERROR
|| FLOATING POINT MOVE DOUBLE
|| THEN COPY
|| REGISTERS COMPARE ERROR
|| LEVEL = 3

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MAP 3DE0-5

6 6 6
P Q R

|||
||| PAGE 6 OF 7
|||
|| 039
|| DOES FLAG = 0008 ?
|| Y N
||
|| 040
|| SOFT EXCEPTION INTERRUPT
|| ERROR
|| LEVEL = 2
||
|| 041
|| DATA MOVE COMPARE ERROR
|| FLOATING POINT MOVE DOUBLE
|| THEN COPY
|| REGISTERS COMPARE ERROR
|| LEVEL = 2
||
|| 042
|| DOES FLAG = 0008 ?
|| Y N
||
|| 043
|| SOFT EXCEPTION INTERRUPT
|| ERROR
|| LEVEL = 1
||
|| 044
|| DATA MOVE COMPARE ERROR
|| FLOATING POINT MOVE DOUBLE THEN
|| COPY
|| REGISTERS COMPARE ERROR
|| LEVEL = 1
||
045
DOES FLAG = 0008 ?
Y N
||
|| 046
|| SOFT EXCEPTION INTERRUPT ERROR
|| LEVEL = 0

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MAP 3DE0-6

7
S

S FLOATING POINT MAP 3DE0-7

6

SYSTEM TEST ERROR MAP

PAGE 7 OF 7

|
|
|
|
047

DATA MOVE COMPARE ERROR
FLOATING POINT MOVE DOUBLE THEN
COPY
REGISTERS COMPARE ERROR
LEVEL = 0

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MAP 3DE0-7

TWO CHANNEL SWITCH
SYSTEM TEST ERROR MAP
PAGE 1 OF 5

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL '3E'.

NOTE: IF THE EXECUTION COUNT IS
HIGHER THAN
ONE THE STATUS OF THE ATTACHMENT
IS KEPT IN
AREA LABELED 'DEV1'. ALSO IF THE
OTHER PROCESSING UNIT
IS SENDING RESERVES TO THE
CONTROLLING
PROCESSING UNIT THEN NOT EXPECTED
INTERRUPTS OTHER
THAN A RESERVE WILL CAUSE AN
ERROR.

DOES RTN = 0001 ?
Y N
|
| 002
| DOES RTN = 0002 ?
| Y N
| |
| | 003
| | DOES RTN = 0003 ?
| | Y N
| | |
| | | 004
| | | DOES RTN = 0004 ?
| | | Y N

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5 4 2 2 2
A B C D E

MAP 3EE0-1

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MAP 3EE0-1

C D E TWO CHANNEL SWITCH
1 1 1 SYSTEM TEST ERROR MAP
PAGE 2 OF 5

| | |
| | | 005
| | | DOES CKPT = 0000 ?
| | | Y N
| | | |
| | | | 006
| | | | RESERVE ERROR
| | | | CHECK DCB, FLAGS AND ISB
| | | |
| | | | 007
| | | | COMMAND REJECT FROM
| | | | ATTACHMENT CARD
| | | | PREPARE - LEVEL = 1
| | | | TURN ON ACK LED
| | | |
| | | | 008
| | | | DOES CKPT = 0000 ?
| | | | Y N
| | | | |
| | | | | 009
| | | | | DOES IO = 07 ?
| | | | | Y N
| | | | | |
| | | | | | 010
| | | | | | COMMAND REJECT FROM
| | | | | | ATTACHMENT CARD
| | | | | | RESET OPERATIONS MONITOR
| | | | | | |
| | | | | | 011
| | | | | | START TIMER ERROR
| | | | | | CHECK DCB, FLAGS AND ISB
| | | | | | |
| | | | | | 012
| | | | | | COMMAND REJECT FROM ATTACHMENT
| | | | | | CARD
| | | | | | PREPARE - LEVEL = 1
| | | | | | START TIMER (TEST MODE)

013
DOES CKPT = 0000 ?
Y N

4 3
F G

MAP 3EE0-2

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MAP 3EE0-2

G
2
TWO CHANNEL SWITCH
SYSTEM TEST ERROR MAP
PAGE 3 OF 5

014
DOES CKPT = 0001 ?
Y N
015
DOES CKPT = 0002 ?
Y N
016
COMMAND REJECT FROM
ATTACHMENT CARD
TURN ON ACK LED
017
DOES IO = 07 ?
Y N
018
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 2
START TIMER (TEST MODE)
019
START TIMER (TEST MODE)
CHECK DCB, FLAGS AND ISB
020
DOES IO = 07 ?
Y N
021
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
START TIMER (TEST MODE)
022
START TIMER (TEST MODE)
CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765
MAP 3EE0-3

B F
1 2
TWO CHANNEL SWITCH
SYSTEM TEST ERROR MAP
PAGE 4 OF 5

023
DOES IO = 07 ?
Y N
024
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 0
START TIMER (TEST MODE)
025
START TIMER (TEST MODE)
CHECK DCB, FLAGS AND ISB
026
DOES CKPT = 0000 ?
Y N
027
DOES CKPT = 0001 ?
Y N
028
DOES IO = 07 ?
Y N
029
COMMAND REJECT FROM
ATTACHMENT CARD
RESET
030
COMMAND REJECT ERROR
CHECK DCB, FLAGS AND ISB
031
COMMAND REJECT FROM THE
ATTACHMENT CARD FAILED
CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765
MAP 3EE0-4

5
H

A H TWO CHANNEL SWITCH
1 4 SYSTEM TEST ERROR MAP

MAP 3EE0-5

PAGE 5 OF 5

032
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1

033
DOES CKPT = 0000 ?
Y N

034
DOES IO = 07 ?
Y N

035
COMMAND REJECT FROM
ATTACHMENT CARD
READ STATUS

036
LAST SIX BITS OF STATUS WORD
DOES NOT
COMPARE WITH CONFIGURATION
TABLE
DEV1 = STATUS OF ATTACHMENT
DEV2 = STATUS EXPECTED

037
DOES DEV3 = 0000 ?
Y N

038
WRONG DEVICE ID RECEIVED
DEV3 = EXPECTED ID
DEV4 = RECEIVED ID
CHECK DCB, FLAGS AND ISB

039
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
RESET
READ DEVICE ID

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EC337313 PEC326765

MAP 3EE0-5

PROGRAMMABLE TWO CHANNEL SWITCH

MAP 3FE0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 3

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '3F'.
 DOES RTN = 0001 ?

Y N

002
 DOES RTN = 0002 ?

Y N

003
 DOES RTN = 0003 ?

Y N

004
 SYSTEM ERROR
 CHECK DCB, FLAGS AND ISB

005
 DOES CKPT = 0000 ?

Y N

006
 DOES CKPT = 0001 ?

Y N

007
 COMMAND REJECT FROM
 ATTACHMENT CARD
 WRITE AND READ DATA WRAP.

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2 2 2 2
A B C D

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EC337376 PEC-----

MAP 3FE0-1

A B C D

1 1 1 1

PROGRAMMABLE TCS

SYSTEM TEST ERROR MAP

PAGE 2 OF 3

008
 COMPARE FAILURE ON A WRITE
 AND READ DATA WRAP.
 PROBABLY PICKED A BIT.
 ATTACHMENT CARD ERROR.

009
 COMPARE FAILURE ON A WRITE
 AND READ DATA WRAP.
 PROBABLY DROPPED A BIT.
 ATTACHMENT CARD ERROR.

010
 DOES CKPT = 0000 ?
 Y N

011
 DOES CKPT = 0001 ?
 Y N

012
 COMMAND REJECT FROM
 ATTACHMENT CARD
 SWITCHING TYPE COMMANDS.

013
 COMMAND REJECT ERROR
 CHECK DCB, FLAGS AND ISB

014
 COMMAND REJECT FROM THE
 ATTACHMENT CARD FAILED
 CHECK DCB, FLAGS AND ISB

015
 DOES CKPT = 0000 ?
 Y N

016
 DOES CKPT = 0001 ?
 Y N

3 3 3
E F G

MAP 3FE0-2

16DEC83 PN6299836

EC337376 PEC-----

MAP 3FE0-2

E F G PROGRAMMABLE TCS
2 2 2 SYSTEM TEST ERROR MAP

MAP 3FE0-3

PAGE 3 OF 3

	017
	DOES I/O = 07?
	Y N
	019
	COMMAND REJECT FROM THE
	ATTACHMENT CARD FAILED
	CHECK DCB, FLAGS AND ISB
	020
	COMMAND REJECT FROM THE
	ATTACHMENT CARD FAILED
	CHECK DCB, FLAGS AND ISB
021	
DOES DEV3 = 0000 ?	
Y N	
	022
	WRONG DEVICE ID RECEIVED
	DEV3 = EXPECTED ID
	DEV4 = RECEIVED ID
	CHECK DCB, FLAGS AND ISB
023
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
RESET
READ DEVICE ID

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EC337376 PEC-----

MAP 3FE0-3

TTY

MAP 40E0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 10

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'40'.

NOTE: IN THIS MAP
 CR = CARRIAGE RETURN
 LF = LINE FEED

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | DOES RTN = 0003 ?

| | Y N

| | | 004

| | | DOES RTN = 0004 ?

| | | Y N

| | | | 005

| | | | DOES RTN = 0005 ?

| | | | Y N

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9 7 6 4 3 2

A B C D E F

21JAN83 PN1635452

EC337313 PEC326765

MAP 40E0-1

F

TTY

MAP 40E0-2

1

SYSTEM TEST ERROR MAP

PAGE 2 OF 10

| 006

| DOES CKPT = 0000 ?

| Y N

| | 007

| | DOES CKPT = 0001 ?

| | Y N

| | | 008

| | | DOES IO = 07 ?

| | | Y N

| | | | 009

| | | | COMMAND REJECT FROM

| | | | ATTACHMENT CARD

| | | | EITHER A WRITE OR READ

| | | | 010

| | | | WRITE ERROR

| | | | CHECK DCB, FLAGS AND ISB

| | | | 011

| | | | DOES IO = 07 ?

| | | | Y N

| | | | 012

| | | | COMMAND REJECT FROM

| | | | ATTACHMENT CARD

| | | | EITHER A WRITE OF A CR, LF OR

| | | | THE 'ENTER' MESSAGE

| | | | 013

| | | | WRITE ERROR

| | | | CHECK DCB, FLAGS AND ISB

| | | | 014

| | | | DOES IO = 07 ?

| | | | Y N

| | | | 3 3

| | | | G H

21JAN83 PN1635452

EC337313 PEC326765

MAP 40E0-2

```

E G H      TTY
1 2 2
      SYSTEM TEST ERROR MAP
      PAGE 3 OF 10
      015
      COMMAND      REJECT      FROM
      ATTACHMENT CARD
      PREPARE - LEVEL = 1
      READ
      WRITE (CR OR LF)
      016
      WRITE FAILED WHEN WRITING CR OR
      LF
      CHECK DCB, FLAGS AND ISB
      017
      DOES CKPT = 0000 ?
      Y N
      018
      READ DATA ERROR
      DEV3 = RECEIVED DATA
      DEV4 = EXPECTED DATA
      019
      DOES IO = 07 ?
      Y N
      020
      COMMAND REJECT FROM ATTACHMENT
      CARD
      PREPARE - LEVEL = 1
      WRITE OR READ BUFFER
      021
      DOES IO = FF ?
      Y N
      022
      WRITE ERROR
      CHECK DCB, FLAGS AND ISB
      023
      WRITE ERROR (LOST INTERRUPT)
      CHECK DCB, FLAGS AND ISB

```

```

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EC337313  PEC326765
MAP 40E0-3

```

```

D      TTY
1
      SYSTEM TEST ERROR MAP
      PAGE 4 OF 10
      024
      DOES CKPT = 0000 ?
      Y N
      025
      DOES CKPT = 0001 ?
      Y N
      026
      DOES CKPT = 0002 ?
      Y N
      027
      DOES CKPT = 0003 ?
      Y N
      028
      DOES IO = 07 ?
      Y N
      029
      COMMAND REJECT FROM
      ATTACHMENT CARD
      EITHER CR OR ONE OF TWO
      LF'S
      030
      CR OR LF WRITE ERROR
      CHECK DCB, FLAGS AND ISB
      031
      DOES IO = 07 ?
      Y N
      032
      COMMAND REJECT FROM
      ATTACHMENT CARD
      WRITE OF EITHER CR OR LF
      6 5 5 5
      J K L M

```

```

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MAP 40E0-4

```

K L M TTY
4 4 4
SYSTEM TEST ERROR MAP

MAP 40E0-5

C J N P TTY
1 4 5 5
SYSTEM TEST ERROR MAP

MAP 40E0-6

PAGE 5 OF 10

PAGE 6 OF 10

033
DOES DEV4 = 0000 ?
Y N

042
COMMAND REJECT FROM
ATTACHMENT CARD
WRITE OF EITHER CR OR LF

034
WRITE FAILED
ATTEMPTED TO WRITE DATA IN
DEV4 FIELD
CHECK DCB, FLAGS AND ISB

043
DOES DEV4 = 0000 ?
Y N

035
CR OR LF ERROR
CHECK DCB, FLAGS AND ISB

044
WRITE FAILED
ATTEMPTED TO WRITE DATA IN
DEV4 FIELD
CHECK DCB, FLAGS AND ISB

036
DOES IO = 07 ?
Y N

045
CR OR LF ERROR
CHECK DCB, FLAGS AND ISB

037
COMMAND REJECT FROM
ATTACHMENT CARD
WRITE OF EITHER CR OR LF

046
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1

038
DOES DEV4 = 0000 ?
Y N

047
DOES CKPT = 0000 ?
Y N

039
WRITE FAILED
ATTEMPTED TO WRITE DATA IN
DEV4 FIELD
CHECK DCB, FLAGS AND ISB

048
DOES CKPT = 0001 ?
Y N

040
CR OR LF ERROR
CHECK DCB, FLAGS AND ISB

049
DOES IO = 07 ?
Y N

041
DOES IO = 07 ?
Y N

050
COMMAND REJECT FROM
ATTACHMENT CARD
RESET

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6 6
N P

MAP 40E0-5

7 7 7
Q R S

MAP 40E0-6

B Q R S TTY
 1 6 6 6
 SYSTEM TEST ERROR MAP
 PAGE 7 OF 10
 051
 COMMAND REJECT ERROR
 CHECK DCB, FLAGS AND ISB
 052
 COMMAND REJECT FROM
 ATTACHMENT CARD FAILED
 CHECK DCB, FLAGS AND ISB
 053
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE = LEVEL 1
 054
 DOES CKPT = 0000 ?
 Y N
 055
 DOES CKPT = 0001 ?
 Y N
 056
 DOES CKPT = 0002 ?
 Y N
 057
 DOES IO = 07 ?
 Y N
 058
 COMMAND REJECT FROM
 ATTACHMENT CARD
 WRITE OR READ
 059
 DOES IN = 03 ?
 Y N
 060
 WRITE FAILED
 CHECK DCB, FLAGS AND ISB

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MAP 40E0-7

9 8 8 8
 T U V W

U V W TTY
 7 7 7
 SYSTEM TEST ERROR MAP
 PAGE 8 OF 10
 061
 READ DATA ERROR
 DEV3 = RECEIVED DATA
 DEV4 = EXPECTED DATA
 062
 DOES IO = 07 ?
 Y N
 063
 COMMAND REJECT FROM
 ATTACHMENT CARD
 WRITE OR READ
 064
 DOES IN = 03 ?
 Y N
 065
 WRITE FAILED
 CHECK DCB, FLAGS AND ISB
 066
 READ DATA ERROR
 DEV3 = RECEIVED DATA
 DEV4 = EXPECTED DATA
 067
 DOES IO = 07 ?
 Y N
 068
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 0
 READ
 069
 DELAYED INTERRUPT DID NOT OCCUR
 CHECK DCB, FLAGS AND ISB

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MAP 40E0-8

A T TTY
1 7
SYSTEM TEST ERROR MAP

MAP 40E0-9

X Y TTY
9 9
SYSTEM TEST ERROR MAP

MAP 40E0-10

PAGE 9 OF 10

PAGE 10 OF 10

070
DOES IO = 07 ?
Y N
071
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
PREPARE LEVEL = 1 (I BIT OFF)
WRITE
072
WRITE FAILED (DEVICE
INTERRUPTED - NOT PREPARED)
CHECK DCB, FLAGS AND ISB

078
DOES IO = 07 ?
Y N
079
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
WRITE DATA
READ (TO CLEAR BUFFER)
080
WRITE FAILED
CHECK DCB, FLAGS AND ISB

073
DOES CKPT = 0000 ?
Y N

081
DOES IO = 07 ?
Y N

074
DOES CKPT = 0001 ?
Y N

082
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 0
WRITE DATA
DIAGNOSTIC RESET
READ (TO CLEAR BUFFER)
READ ID

075
DOES IO = 07 ?
Y N

083
DOES IN = 03 ?
Y N

076
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 2
WRITE DATA
READ (TO CLEAR BUFFER)

084
WRITE FAILED
CHECK DCB, FLAGS AND ISB

077
WRITE FAILED
CHECK DCB, FLAGS AND ISB

085
WRONG DEVICE ID RECEIVED ON LEVEL
0
DEV3 = ID RECEIVED
DEV4 = ID EXPECTED

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1 1
0 0
X Y

MAP 40E0-9

MAP 40E0-10

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '41'.
 DOES RTN = 0000 ?
 Y N

002
 DOES RTN = 0001 ?
 Y N

003
 DOES RTN = 0002 ?
 Y N

004
 DOES CKPT = 0000 ?
 Y N

005
 DOES CKPT = 0001 ?
 Y N

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4 4 3 3 3 2
A B C D E F

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MAP 41E0-1

006
 DOES CKPT = 0002 ?
 Y N

007
 DOES CKPT = 0003 ?
 Y N

008
 DOES CKPT = 0004 ?
 Y N

009
 DOES CKPT = 0005 ?
 Y N

010
 DOES CKPT = 0006 ?
 Y N

011
 A DATA COMPARE ERROR.
 INSPECT DEV4
 BITS 0-7 IS THE DATA
 EXPECTED.
 BITS 8-15 IS THE DATA
 RECEIVED.

012
 A PURGE FRAME COMMAND WAS
 EXECUTING.
 GO TO PAGE 5,
 STEP 028,
 ENTRY POINT B.

013
 RESIDUAL ADDRESS FAILED.
 DEV4 = EXPECTED ADDRESS.
 RSAD = ACTUAL ADDRESS.

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EC336711 PEC337313

MAP 41E0-2

3 3 3
G H J

C D E G H J SERIES/1 RING
 1 1 1 2 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 11
 014
 A CYCLE STEAL STATUS
 COMMAND WAS EXECUTING.
 GO TO PAGE 5,
 STEP 028,
 ENTRY POINT B.
 015
 A WRITE REQUEST OPERATION
 COMMAND WAS EXECUTING.
 GO TO PAGE 5,
 STEP 028,
 ENTRY POINT B.
 016
 A RESET RECEIVE ENABLE BIT
 COMMAND WAS EXECUTING.
 GO TO PAGE 5,
 STEP 028,
 ENTRY POINT B.
 017
 AN ARM THE REQUEST SUBCHANNEL
 COMMAND WAS EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 018
 A SET BROADCAST RING ADDRESS
 COMMAND WAS EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 019
 AN INVALID FUNCTION COMMAND WAS
 EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.

MAP 41E0-3

A B SERIES/1 RING
 1 1
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 11
 020
 DOES CKPT = 0000 ?
 Y N
 021
 DOES CKPT = 0001 ?
 Y N
 022
 A PREPARE COMMAND WAS
 EXECUTING.
 GO TO PAGE 5,
 STEP 028,
 ENTRY POINT B.
 023
 A READ ID COMMAND WAS
 EXECUTING.
 DEV3 = EXPECTED ID.
 DEV4 = RECEIVED ID.
 024
 A RESET COMMAND WAS EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 025
 DOES CKPT = 0000 ?
 Y N
 026
 A SET BYPASS COMMAND WAS
 EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 027
 A PREPARE COMMAND WAS EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.

MAP 41E0-4

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MAP 41E0-3

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EC336711 PEC337313

MAP 41E0-4

028
 (ENTRY POINT B)
 DOES IO=07 ?
 Y N

029
 DOES IO=06 ?
 Y N

030
 DOES IO=05 ?
 Y N

031
 DOES IO=03 ?
 Y N

032
 DOES IO=02 ?
 Y N

033
 DOES IO=01 ?
 Y N

034
 DEVICE NOT ATTACHED.

035
 DEVICE BUSY.

036
 BUSY AFTER RESET.

037
 COMMAND REJECT.

038
 INTERFACE DATA CHECK.

039
 CONTROLLER BUSY.

040
 DOES IN=02 ?
 Y N

041
 DOES IN=04 ?
 Y N

042
 DOES IN=03 ?
 Y N

043
 CONTROLLER END.

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EC336711 PEC337313

R S T SERIES/1 RING
6 6 6 SYSTEM TEST ERROR MAP

PAGE 7 OF 11

044
DEVICE END RECEIVED.
IS BIT 1 IN THE FLAGS FIELD
OFF ?
Y N

045
INSPECT DEV4
BITS 0-7 IS THE DATA
EXPECTED.
BITS 8-15 IS THE DATA
RECEIVED.

046
(ENTRY POINT D)

THIS MAP CANNOT DETERMINE THE
PROBLEM.
USE THE ERROR OUTPUT, YOU
HAVE BEEN USING FOR THIS MAP,
AS YOUR ERROR INDICATIONS AND
GO TO MAP 0070 ENTRY POINT A.

047
ATTENTION INTERRUPT.
GO TO PAGE 8, STEP 052,
ENTRY POINT E.

048
IS BIT 0 OF THE ISB OFF ?
Y N

049
IS BIT 2 OF THE ISB OFF ?
Y N

050
NOT CORRECT LENGTH ERROR.

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EC336711 PEC337313

MAP 41E0-7

1
0 8
U V

MAP 41E0-7

V SERIES/1 RING
7 SYSTEM TEST ERROR MAP

PAGE 8 OF 11

051
IS CS-3 EQUAL TO FFFF ?
Y N

052
(ENTRY POINT E)

THE BITS IN CS-3 ARE AS
FOLLOWS.
BIT 00 = DEVICE NOT FOUND.
BIT 01 = TRANSMIT BUFFER PARITY
ERROR.
BIT 02 = FRAME REFUSED.
BIT 03 = RING REMOTE IPL OFF.

BIT 04 = RESERVED.
BIT 05 = ABORT.
BIT 06 = BUSY.
BIT 07 = RECEIVE CRC ERROR.

BIT 08 = RING REMOTE IPL.
BIT 09-11 = RESERVED.

BIT 12-14 = RESERVED.
BIT 15 = RING DEGRADATION.

INSPECT CS-3 FOR ERROR BITS.
ARE ALL ERROR BITS IN CS-3 OFF
?
Y N

053
ANALYZE THE ERROR BITS IN
CS-3.

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EC336711 PEC337313

MAP 41E0-8

MAP 41E0-8

1
0 9
W X

X
8

SERIES/1 RING
SYSTEM TEST ERROR MAP
PAGE 9 OF 11

MAP 41E0-9

054
THE BITS IN CS-4 ARE AS FOLLOWS.
BIT 00 = RECEIVE ABORT.
BIT 01 = TRANSMIT BAR OVERRUN.
BIT 02 = RECEIVE CRC ERROR.
BIT 03 = RECEIVE FRAME BUSY.

BIT 04 = FIRST CRC ERROR DETECT.
BIT 05 = OA PARITY ERROR.
BIT 06 = RECEIVE ENABLE.
BIT 07 = RECEIVE FRAME IN DATA BUFFER.

BIT 08 = ODD POSITIVE ACKNOWLEDGE.
BIT 09 = EVEN POSITIVE ACKNOWLEDGE.
BIT 10 = PASS THRU ERROR.
BIT 11 = CABLE OPEN SHORT CONDITION.

BIT 12 = CLEAR RING MODE ACTIVE.
BIT 13 = BYPASS INVOKED.
BIT 14 = TRANSMIT BUFFER PARITY ERROR.
BIT 15 = TRANSMIT REQUEST TO RIC.

INSPECT CS-4 FOR ERROR BITS.
ARE ALL ERROR BITS IN CS-4 OFF ?
Y N

055
ANALYZE THE ERROR BITS IN CS-4.

056
GO TO PAGE 7, STEP 046,
ENTRY POINT D.

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EC336711 PEC337313
MAP 41E0-9

U W
7 8

SERIES/1 RING
SYSTEM TEST ERROR MAP
PAGE 10 OF 11

MAP 41E0-10

057
GO TO PAGE 7, STEP 046,
ENTRY POINT D.

058
IS BIT 1 OF THE ISB OFF ?
Y N

059
DELAYED COMMAND REJECT.

060
IS BIT 2 OF THE ISB OFF ?
Y N

061
NOT CORRECT LENGTH ERROR.

062
IS BIT 3 OF THE ISB OFF ?
Y N

063
DCB SPECIFICATION CHECK.

064
IS BIT 4 OF THE ISB OFF ?
Y N

065
STORAGE DATA CHECK.

066
IS BIT 5 OF THE ISB OFF ?
Y N

067
NOT VALID STORAGE ADDRESS.

1
1
Y

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EC336711 PEC337313
MAP 41E0-10

Y SERIES/1 RING MAP 41E0-11
1
0 SYSTEM TEST ERROR MAP

| PAGE 11 OF 11

|
|
068
IS BIT 6 OF THE ISB OFF ?
Y N

|
| 069
| PROTECT CHECK.

|
070
IS BIT 7 OF THE ISB OFF ?
Y N

|
| 071
| INTERFACE DATA CHECK.

|
072
(ENTRY POINT C)
IS BIT 0 OF THE FLAGS OFF ?
Y N

|
| 073
| NOT EXPECTED INTERRUPT.

|
074
IS BIT 5 OF THE FLAGS OFF ?
Y N

|
| 075
| WRONG INTERRUPT LEVEL.

|
076
IS BIT 6 OF THE FLAGS OFF ?
Y N

|
| 077
| LOST INTERRUPT.

|
078
GO TO PAGE 7, STEP 046,
ENTRY POINT D.

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EC336711 PEC337313

MAP 41E0-11

SYSTEM TEST ERROR MAP

PAGE 1 OF 25

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'44'.

DOES RTN = 0001 ?
 Y N

002
 DOES RTN = 0002 ?
 Y N

003
 DOES RTN = 0003 ?
 Y N

004
 DOES RTN = 0004 ?
 Y N

005
 DOES RTN = 0005 ?
 Y N

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3 2 1 0 3 2
A B C D E F

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SYSTEM TEST ERROR MAP

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006
 ALL OTHER ERRORS BUT THOSE
 INDICATED BY
 CHECKPOINT 0, 1 OR 2 WILL BE
 VISIBLE
 AND/OR DISPLAYED ON THE CATHODE
 RAY TUBE.

DOES CKPT = 0000 ?
 Y N

007
 DOES CKPT = 0001 ?
 Y N

008
 DOES IO = 07 ?
 Y N

009
 COMMAND REJECT FROM
 ATTACHMENT CARD
 START INPUT/OUTPUT (WRITE)

010
 WRITE ERROR
 CHECK DCB, FLAGS AND ISB

011
 DOES IO = 07 ?
 Y N

012
 COMMAND REJECT FROM
 ATTACHMENT CARD
 START INPUT/OUTPUT (READ)

013
 READ ERROR
 CHECK DCB, FLAGS AND ISB

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E G 4979 DISPLAY
1 2 SYSTEM TEST ERROR MAP

MAP 44E0-3

L 4979 DISPLAY
3 SYSTEM TEST ERROR MAP

MAP 44E0-4

PAGE 3 OF 25

PAGE 4 OF 25

014
DOES IO = 07 ?
Y N
015
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (CLEAR
SCREEN)
016
CLEAR SCREEN ERROR
CHECK DCB, FLAGS AND ISB
017

020
DOES CKPT = 0003 ?
Y N
021
DOES CKPT = 0004 ?
Y N
022
DOES CKPT = 0005 ?
Y N
023
DOES CKPT = 0006 ?
Y N
024
DOES CKPT = 0007 ?
Y N

ROUTINE FIVE DCB CHECK VALUE			
CKPT	VALUE	CKPT	VALUE
1	00B0	8	0040
2	0020	9	0080
3	0020	A	0070
4	0060	B	0090
5	0030	C	0002
6	0060	D	0003
7	0050	E	0003

DOES CKPT = 0000 ?
Y N

018
DOES CKPT = 0001 ?
Y N
019
DOES CKPT = 0002 ?
Y N

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MAP 44E0-3

2 1 1
0 9 8 4
H J K L

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EC337313 PEC326765

MAP 44E0-4

1 1 1 1 1
7 6 5 4 3 5
M N P Q R S

S
4

4979 DISPLAY
SYSTEM TEST ERROR MAP
PAGE 5 OF 25

MAP 44E0-5

025
DOES CKPT = 0008 ?
Y N
026
DOES CKPT = 0009 ?
Y N
027
DOES CKPT = 000A ?
Y N
028
DOES CKPT = 000B ?
Y N
029
DOES CKPT = 000C ?
Y N

1 1 1
2 1 0 9 8 6
T U V W X Y

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EC337313 PEC326765
MAP 44E0-5

Y
5

4979 DISPLAY
SYSTEM TEST ERROR MAP
PAGE 6 OF 25

MAP 44E0-6

030
DOES CKPT = 000D ?
Y N
031
DOES IO = 07 ?
Y N
032
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ
CYCLE STEAL STATUS)
033
DOES IN = 03 ?
Y N
034
DOES DEV3 = 0000 ?
Y N
035
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
036
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
037
DOES DEV4 = 0000 ?
Y N
038
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

7
7 A
Z A

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EC337313 PEC326765
MAP 44E0-6

| 040
| DOES IO = 07 ?
| Y N

| 041
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)

| 042
| DOES IN = 03 ?
| Y N

| 043
| DOES DEV3 = 0000 ?
| Y N

| 044
| DCB CHECK VALUE ERROR
| DEV3 = RECEIVED VALUE
| DEV4 = EXPECTED VALUE

| 045
| CYCLE STEAL STATUS READ ERROR
| CHECK DCB, FLAGS AND ISB

| 046
| DOES DEV4 = 0000 ?
| Y N

| 047
| RESIDUAL ADDRESS ERROR
| DEV4 = EXPECTED ADDRESS
| RSAD = RECEIVED ADDRESS

| 049
| DOES IO = 07 ?
| Y N

| 050
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)

| 051
| DOES IN = 03 ?
| Y N

| 052
| DOES DEV3 = 0000 ?
| Y N

| 053
| DCB CHECK VALUE ERROR
| DEV3 = RECEIVED VALUE
| DEV4 = EXPECTED VALUE

| 054
| CYCLE STEAL STATUS READ ERROR
| CHECK DCB, FLAGS AND ISB

| 055
| DOES DEV4 = 0000 ?
| Y N

| 056
| RESIDUAL ADDRESS ERROR
| DEV4 = EXPECTED ADDRESS
| RSAD = RECEIVED ADDRESS

W A 4979 DISPLAY
5 C SYSTEM TEST ERROR MAP
8

MAP 44E0-9

| | PAGE 9 OF 25
| |
| |

| 057
| WRITE ERROR (ERROR EXPECTED -
| GOOD RECEIVED)
| CHECK DCB, FLAGS AND ISB
|

058
DOES IO = 07 ?
Y N

| 059
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)
|

060
DOES IN = 03 ?
Y N

| 061
| DOES DEV3 = 0000 ?
| Y N
| |

| | 062
| | DCB CHECK VALUE ERROR
| | DEV3 = RECEIVED VALUE
| | DEV4 = EXPECTED VALUE
| |

| 063
| CYCLE STEAL STATUS READ ERROR
| CHECK DCB, FLAGS AND ISB
|

064
DOES DEV4 = 0000 ?
Y N

| 065
| RESIDUAL ADDRESS ERROR
| DEV4 = EXPECTED ADDRESS
| RSAD = RECEIVED ADDRESS
| |
| |

1
0
A
D

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EC337313 PEC326765

MAP 44E0-9

V A 4979 DISPLAY
5 D SYSTEM TEST ERROR MAP
9

MAP 44E0-10

| | PAGE 10 OF 25
| |
| |

| 066
| WRITE ERROR (ERROR EXPECTED -
| GOOD RECEIVED)
| CHECK DCB, FLAGS AND ISB
|

067
DOES IO = 07 ?
Y N

| 068
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)
|

069
DOES IN = 03 ?
Y N

| 070
| DOES DEV3 = 0000 ?
| Y N
| |

| | 071
| | DCB CHECK VALUE ERROR
| | DEV3 = RECEIVED VALUE
| | DEV4 = EXPECTED VALUE
| |

| 072
| CYCLE STEAL STATUS READ ERROR
| CHECK DCB, FLAGS AND ISB
|

073
DOES DEV4 = 0000 ?
Y N

| 074
| RESIDUAL ADDRESS ERROR
| DEV4 = EXPECTED ADDRESS
| RSAD = RECEIVED ADDRESS
| |
| |

1
1
A
E

21JAN83 PN1635457

EC337313 PEC326765

MAP 44E0-10

U A 4979 DISPLAY
5 E
1 SYSTEM TEST ERROR MAP
0
PAGE 11 OF 25
075
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
076
DOES IO = 07 ?
Y N
077
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
078
DOES IN = 03 ?
Y N
079
DOES DEV3 = 0000 ?
Y N
080
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
081
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
082
DOES DEV4 = 0000 ?
Y N
083
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
1
2
A
F

MAP 44E0-11

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EC337313 PEC326765
MAP 44E0-11

T A 4979 DISPLAY
5 F
1 SYSTEM TEST ERROR MAP
1
PAGE 12 OF 25
084
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
085
DOES IO = 07 ?
Y N
086
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
087
DOES IN = 03 ?
Y N
088
DOES DEV3 = 0000 ?
Y N
089
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
090
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
091
DOES DEV4 = 0000 ?
Y N
092
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
1
3
A
G

MAP 44E0-12

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EC337313 PEC326765
MAP 44E0-12

```

R A      4979 DISPLAY
4 G
| 1      SYSTEM TEST ERROR MAP
| 2
|      PAGE 13 OF 25
|
|
| 093
| WRITE ERROR (ERROR EXPECTED -
| GOOD RECEIVED)
| CHECK DCB, FLAGS AND ISB
|
094
DOES IO = 07 ?
Y N
|
| 095
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)
|
096
DOES IN = 03 ?
Y N
|
| 097
| DOES DEV3 = 0000 ?
| Y N
|
| 098
| DCB CHECK VALUE ERROR
| DEV3 = RECEIVED VALUE
| DEV4 = EXPECTED VALUE
|
| 099
| CYCLE STEAL STATUS READ ERROR
| CHECK DCB, FLAGS AND ISB
|
100
DOES DEV4 = 0000 ?
Y N
|
| 101
| RESIDUAL ADDRESS ERROR
| DEV4 = EXPECTED ADDRESS
| RSAD = RECEIVED ADDRESS
|
|

```

MAP 44E0-13

21JAN83 PN1635457
 EC337313 PEC326765
 MAP 44E0-13

1
 4
 A
 H

```

Q A      4979 DISPLAY
4 H
| 1      SYSTEM TEST ERROR MAP
| 3
|      PAGE 14 OF 25
|
|
| 102
| WRITE ERROR (ERROR EXPECTED -
| GOOD RECEIVED)
| CHECK DCB, FLAGS AND ISB
|
103
DOES IO = 07 ?
Y N
|
| 104
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)
|
105
DOES IN = 03 ?
Y N
|
| 106
| DOES DEV3 = 0000 ?
| Y N
|
| 107
| DCB CHECK VALUE ERROR
| DEV3 = RECEIVED VALUE
| DEV4 = EXPECTED VALUE
|
| 108
| CYCLE STEAL STATUS READ ERROR
| CHECK DCB, FLAGS AND ISB
|
109
DOES DEV4 = 0000 ?
Y N
|
| 110
| RESIDUAL ADDRESS ERROR
| DEV4 = EXPECTED ADDRESS
| RSAD = RECEIVED ADDRESS
|
|

```

MAP 44E0-14

21JAN83 PN1635457
 EC337313 PEC326765
 MAP 44E0-14

1
 5
 A
 J

P A 4979 DISPLAY
4 J
1 SYSTEM TEST ERROR MAP
4
PAGE 15 OF 25
111
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
112
DOES IO = 07 ?
Y N
113
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
114
DOES IN = 03 ?
Y N
115
DOES DEV3 = 0000 ?
Y N
116
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
117
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
118
DOES DEV4 = 0000 ?
Y N
119
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

1
6
A
K

MAP 44E0-15
21JAN83 PN1635457
EC337313 PEC326765
MAP 44E0-15

N A 4979 DISPLAY
4 K
1 SYSTEM TEST ERROR MAP
5
PAGE 16 OF 25
120
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
121
DOES IO = 07 ?
Y N
122
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
123
DOES IN = 03 ?
Y N
124
DOES DEV3 = 0000 ?
Y N
125
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
126
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
127
DOES DEV4 = 0000 ?
Y N
128
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

1
7
A
L

MAP 44E0-16
21JAN83 PN1635457
EC337313 PEC326765
MAP 44E0-16

M A 4979 DISPLAY MAP 44E0-17
4 L
1 SYSTEM TEST ERROR MAP
6
PAGE 17 OF 25
|
|
|
| 129
| WRITE ERROR (ERROR EXPECTED -
| GOOD RECEIVED)
| CHECK DCB, FLAGS AND ISB
|
130
DOES IO = 07 ?
Y N
|
| 131
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)
|
132
DOES IN = 03 ?
Y N
|
| 133
| DOES DEV3 = 0000 ?
| Y N
|
| 134
| DCB CHECK VALUE ERROR
| DEV3 = RECEIVED VALUE
| DEV4 = EXPECTED VALUE
|
135
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
|
136
DOES DEV4 = 0000 ?
Y N
|
137
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
|
|

21JAN83 PN1635457
EC337313 PEC326765
MAP 44E0-17

1
8
A
M

K A 4979 DISPLAY MAP 44E0-18
3 M
1 SYSTEM TEST ERROR MAP
7
PAGE 18 OF 25
|
|
|
| 138
| WRITE ERROR (ERROR EXPECTED -
| GOOD RECEIVED)
| CHECK DCB, FLAGS AND ISB
|
139
DOES IO = 07 ?
Y N
|
| 140
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (WRITE)
| START INPUT/OUTPUT (READ CYCLE
| STEAL STATUS)
|
141
DOES IN = 03 ?
Y N
|
| 142
| DOES DEV3 = 0000 ?
| Y N
|
| 143
| DCB CHECK VALUE ERROR
| DEV3 = RECEIVED VALUE
| DEV4 = EXPECTED VALUE
|
144
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
|
145
DOES DEV4 = 0000 ?
Y N
|
146
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
|
|

21JAN83 PN1635457
EC337313 PEC326765
MAP 44E0-18

1
9
A
N

J A 4979 DISPLAY MAP 44E0-19
 3 N
 1 SYSTEM TEST ERROR MAP
 8
 PAGE 19 OF 25
 147
 WRITE ERROR (ERROR EXPECTED -
 GOOD RECEIVED)
 CHECK DCB, FLAGS AND ISB
 148
 DOES IO = 07 ?
 Y N
 149
 COMMAND REJECT FROM ATTACHMENT
 CARD
 START INPUT/OUTPUT (WRITE)
 START INPUT/OUTPUT (READ CYCLE
 STEAL STATUS)
 150
 DOES IN = 03 ?
 Y N
 151
 DOES DEV3 = 0000 ?
 Y N
 152
 DCB CHECK VALUE ERROR
 DEV3 = RECEIVED VALUE
 DEV4 = EXPECTED VALUE
 153
 CYCLE STEAL STATUS READ ERROR
 CHECK DCB, FLAGS AND ISB
 154
 DOES DEV4 = 0000 ?
 Y N
 155
 RESIDUAL ADDRESS ERROR
 DEV4 = EXPECTED ADDRESS
 RSAD = RECEIVED ADDRESS

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 EC337313 PEC326765
 MAP 44E0-19

2
 0
 A
 P

D H A 4979 DISPLAY MAP 44E0-20
 1 3 P
 1 SYSTEM TEST ERROR MAP
 9
 PAGE 20 OF 25
 156
 WRITE ERROR (ERROR EXPECTED -
 GOOD RECEIVED)
 CHECK DCB, FLAGS AND ISB
 157
 DOES IO = 07 ?
 Y N
 158
 COMMAND REJECT FROM
 ATTACHMENT CARD
 PREPARE - LEVEL = 1
 START INPUT/OUTPUT (CLEAR
 SCREEN)
 159
 CLEAR SCREEN ERROR
 CHECK DCB, FLAGS AND ISB
 160
 DOES CKPT = 0000 ?
 Y N
 161
 DOES IO = 07 ?
 Y N
 162
 COMMAND REJECT FROM
 ATTACHMENT CARD
 START INPUT/OUTPUT (WRITE)
 163
 WRITE ERROR WITH SHIFT DOWN
 CHECK DCB, FLAGS AND ISB
 164
 DOES IO = 07 ?
 Y N

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 EC337313 PEC326765
 MAP 44E0-20

2 2
 1 1
 A A
 Q R

```

C A A      4979 DISPLAY
1 Q R
  2 2      SYSTEM TEST ERROR MAP
| 0 0
|          PAGE 21 OF 25
|
| |
| | 165
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 1
| | START INPUT/OUTPUT (CLEAR
| | SCREEN)
|
| 166
| CLEAR SCREEN ERROR
| CHECK DCB, FLAGS AND ISB
|
167
DOES CKPT = 0000 ?
Y N
|
| 168
| DOES IO = 07 ?
| Y N
|
| 169
| COMMAND REJECT FROM
| ATTACHMENT CARD
| START INPUT/OUTPUT (WRITE)
|
| 170
| WRITE ERROR WITH SHIFT UP
| CHECK DCB, FLAGS AND ISB
|
171
DOES IO = 07 ?
Y N
|
| 172
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1
| START INPUT/OUTPUT (CLEAR
| SCREEN)
|
173
CLEAR SCREEN ERROR
CHECK DCB, FLAGS AND ISB

```

MAP 44E0-21

```

B          4979 DISPLAY
1
|          SYSTEM TEST ERROR MAP
|
|          PAGE 22 OF 25
|
|
| 174
| DOES CKPT = 0000 ?
| Y N
|
| 175
| DOES IO = 07 ?
| Y N
|
| 176
| COMMAND REJECT FROM
| ATTACHMENT CARD
| START INPUT/OUTPUT (CHAINED
| WRITE/READ)
|
| 177
| DOES IN = 03 ?
| Y N
|
| 178
| CHAINED WRITE/READ ERROR
| CHECK DCB, FLAGS AND ISB
|
| 179
| COMPARE OF WRITE/READ DATA
| FAILED
| DEV1 = WRITE DATA
| DEV2 = READ DATA
|
180
DOES IO = 07 ?
Y N
|
| 181
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1
| START INPUT/OUTPUT (CLEAR
| SCREEN)
|
182
CLEAR SCREEN ERROR
CHECK DCB, FLAGS AND ISB

```

MAP 44E0-22

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MAP 44E0-21

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EC337313 PEC326765

MAP 44E0-22

A 4979 DISPLAY
 1 SYSTEM TEST ERROR MAP
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183
 DOES CKPT = 0000 ?
 Y N

184
 DOES CKPT = 0001 ?
 Y N

185
 DOES CKPT = 0002 ?
 Y N

186
 DOES IO = 07 ?
 Y N

187
 COMMAND REJECT FROM
 ATTACHMENT CARD
 PREPARE - LEVEL = 1
 START INPUT/OUTPUT
 (DIAGNOSTIC READ)

188
 DOES IN = 03 ?
 Y N

189
 DIAGNOSTIC READ ERROR
 CHECK DCB, FLAGS AND ISB

190
 CHECKSUM VALUE ERROR
 VALUE IN ERROR STORED
 IN DEV3 AND DEV4

191
 DOES IO = 07 ?
 Y N

2 2 2 2
 5 4 4 4
 A A A A
 S T U V

MAP 44E0-23

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 EC337313 PEC326765
 MAP 44E0-23

A A A 4979 DISPLAY
 T U V
 2 2 2 SYSTEM TEST ERROR MAP
 3 3 3 PAGE 24 OF 25

192
 COMMAND REJECT FROM
 ATTACHMENT CARD
 PREPARE - LEVEL = 2
 RESET
 READ DEVICE ID
 START INPUT/OUTPUT (WRITE)

193
 DOES IN = 03 ?
 Y N

194
 WRITE ERROR
 CHECK DCB, FLAGS AND ISB

195
 WRONG ID RECEIVED ON LEVEL - 2
 DEV3 = ID RECEIVED
 DEV4 = ID EXPECTED

196
 DOES IO = 07 ?
 Y N

197
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 RESET
 READ DEVICE ID
 START INPUT/OUTPUT (WRITE)

198
 DOES IN = 03 ?
 Y N

199
 WRITE ERROR
 CHECK DCB, FLAGS AND ISB

2
 5
 A
 W

MAP 44E0-24

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 EC337313 PEC326765
 MAP 44E0-24

A A 4979 DISPLAY
S W
2 2 SYSTEM TEST ERROR MAP
3 4
PAGE 25 OF 25

MAP 44E0-25

| |
| |
| 200
| WRONG ID RECEIVED ON LEVEL - 1
| DEV3 = ID RECEIVED
| DEV4 = ID EXPECTED
|

201
DOES IO = 07 ?
Y N
|

| 202
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 0
| RESET
| READ DEVICE ID
| START INPUT/OUTPUT (WRITE)
|

203
DOES IN = 03 ?
Y N
|

| 204
| WRITE ERROR
| CHECK DCB, FLAGS AND ISB
|

205
WRONG ID RECEIVED ON LEVEL - 0
DEV3 = ID RECEIVED
DEV4 = ID EXPECTED

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MAP 44E0-25

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 24

PAGE 2 OF 24

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'45'.

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | DOES RTN = 0003 ?

| | Y N

| | | 004

| | | DOES RTN = 0004 ?

| | | Y N

| | | 005

ROUTINE FIVE DCB CHECK VALUE			
CKPT	VALUE	CKPT	VALUE
1	0020	8	0040
2	0020	9	0080
3	0020	A	0070
4	0060	B	0090
5	0030	C	0002
6	0060	D	0003
7	0050	E	0003

(Step 005 continues)

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2 2 2 1 REVISD 1979
 2 1 0 9
 A B C D

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MAP 45E0-1

(Step 005 continued)

DOES CKPT = 0000 ?

Y N

| 006

| DOES CKPT = 0001 ?

| Y N

| | 007

| | DOES CKPT = 0002 ?

| | Y N

| | | 008

| | | DOES CKPT = 0003 ?

| | | Y N

| | | 009

| | | DOES CKPT = 0004 ?

| | | Y N

1 1 1 1 1
 8 7 6 5 4 3
 E F G H J K

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MAP 45E0-2

010
DOES CKPT = 0005 ?
Y N
011
DOES CKPT = 0006 ?
Y N
012
DOES CKPT = 0007 ?
Y N
013
DOES CKPT = 0008 ?
Y N
014
DOES CKPT = 0009 ?
Y N

1 1 1 1
3 2 1 0 9 4
L M N P Q R

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MAP 45E0-3

015
DOES CKPT = 000A ?
Y N
016
DOES CKPT = 000B ?
Y N
017
DOES CKPT = 000C ?
Y N
018
DOES CKPT = 000D ?
Y N
019
DOES IO = 07 ?
Y N
020
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT
(WRITE)
START INPUT/OUTPUT
(READ CYCLE STEAL
STATUS)
021
DOES IN = 03 ?
Y N

8 7 6 5 5 5
S T U V W X

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EC337313 PEC326765
MAP 45E0-4

V W X 4978 DISPLAY
 4 4 4
 SYSTEM TEST ERROR MAP
 PAGE 5 OF 24

022
 DOES DEV3 = 0000 ?
 Y N

023
 DCB CHECK VALUE ERROR
 DEV3 = RECEIVED VALUE
 DEV4 = EXPECTED VALUE

024
 CYCLE STEAL STATUS READ ERROR
 CHECK DCB, FLAGS AND ISB

025
 DOES DEV4 = 0000 ?
 Y N

026
 RESIDUAL ADDRESS ERROR
 DEV4 = EXPECTED ADDRESS
 RSAD = RECEIVED ADDRESS

027
 WRITE ERROR (ERROR EXPECTED -
 GOOD RECEIVED)
 CHECK DCB, FLAGS AND ISB

028
 DOES IO = 07 ?
 Y N

029
 COMMAND REJECT FROM ATTACHMENT
 CARD
 START INPUT/OUTPUT (WRITE)
 START INPUT/OUTPUT (READ CYCLE
 STEAL STATUS)

030
 DOES IN = 03 ?
 Y N

6 6
 Y Z

MAP 45E0-5

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 EC337313 PEC326765
 MAP 45E0-5

U Y Z 4978 DISPLAY
 4 5 5
 SYSTEM TEST ERROR MAP
 PAGE 6 OF 24

031
 DOES DEV3 = 0000 ?
 Y N

032
 DCB CHECK VALUE ERROR
 DEV3 = RECEIVED VALUE
 DEV4 = EXPECTED VALUE

033
 CYCLE STEAL STATUS READ ERROR
 CHECK DCB, FLAGS AND ISB

034
 DOES DEV4 = 0000 ?
 Y N

035
 RESIDUAL ADDRESS ERROR
 DEV4 = EXPECTED ADDRESS
 RSAD = RECEIVED ADDRESS

036
 WRITE ERROR (ERROR EXPECTED -
 GOOD RECEIVED)
 CHECK DCB, FLAGS AND ISB

037
 DOES IO = 07 ?
 Y N

038
 COMMAND REJECT FROM ATTACHMENT
 CARD
 START INPUT/OUTPUT (WRITE)
 START INPUT/OUTPUT (READ CYCLE
 STEAL STATUS)

039
 DOES IN = 03 ?
 Y N

7 7
 A A
 A B

MAP 45E0-6

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 EC337313 PEC326765
 MAP 45E0-6

T A A 4978 DISPLAY
 4 A B
 6 6 SYSTEM TEST ERROR MAP
 |
 | | PAGE 7 OF 24
 | |
 | | 040
 | | DOES DEV3 = 0000 ?
 | | Y N
 | |
 | | 041
 | | DCB CHECK VALUE ERROR
 | | DEV3 = RECEIVED VALUE
 | | DEV4 = EXPECTED VALUE
 | |
 | | 042
 | | CYCLE STEAL STATUS READ ERROR
 | | CHECK DCB, FLAGS AND ISB
 | |
 | | 043
 | | DOES DEV4 = 0000 ?
 | | Y N
 | |
 | | 044
 | | RESIDUAL ADDRESS ERROR
 | | DEV4 = EXPECTED ADDRESS
 | | RSAD = RECEIVED ADDRESS
 | |
 | | 045
 | | WRITE ERROR (ERROR EXPECTED -
 | | GOOD RECEIVED)
 | | CHECK DCB, FLAGS AND ISB
 | |
 | | 046
 | | DOES IO = 07 ?
 | | Y N
 | |
 | | 047
 | | COMMAND REJECT FROM ATTACHMENT
 | | CARD
 | | START INPUT/OUTPUT (WRITE)
 | | START INPUT/OUTPUT (READ CYCLE
 | | STEAL STATUS)
 | |
 | | 048
 | | DOES IN = 03 ?
 | | Y N
 | |
 | |
 | |
 | |
 8 8
 A A
 C D

MAP 45E0-7

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EC337313 PEC326765

MAP 45E0-7

S A A 4978 DISPLAY
 4 C D
 7 7 SYSTEM TEST ERROR MAP
 |
 | | PAGE 8 OF 24
 | |
 | | 049
 | | DOES DEV3 = 0000 ?
 | | Y N
 | |
 | | 050
 | | DCB CHECK VALUE ERROR
 | | DEV3 = RECEIVED VALUE
 | | DEV4 = EXPECTED VALUE
 | |
 | | 051
 | | CYCLE STEAL STATUS READ ERROR
 | | CHECK DCB, FLAGS AND ISB
 | |
 | | 052
 | | DOES DEV4 = 0000 ?
 | | Y N
 | |
 | | 053
 | | RESIDUAL ADDRESS ERROR
 | | DEV4 = EXPECTED ADDRESS
 | | RSAD = RECEIVED ADDRESS
 | |
 | | 054
 | | WRITE ERROR (ERROR EXPECTED -
 | | GOOD RECEIVED)
 | | CHECK DCB, FLAGS AND ISB
 | |
 | | 055
 | | DOES IO = 07 ?
 | | Y N
 | |
 | | 056
 | | COMMAND REJECT FROM ATTACHMENT
 | | CARD
 | | START INPUT/OUTPUT (WRITE)
 | | START INPUT/OUTPUT (READ CYCLE
 | | STEAL STATUS)
 | |
 | | 057
 | | DOES IN = 03 ?
 | | Y N
 | |
 | |
 | |
 | |
 9 9
 A A
 E F

MAP 45E0-8

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EC337313 PEC326765

MAP 45E0-8

Q A A 4978 DISPLAY
3 E F
8 8 SYSTEM TEST ERROR MAP

MAP 45E0-9

| | | PAGE 9 OF 24
| | |
| | | 058
| | | DOES DEV3 = 0000 ?
| | | Y N
| | |
| | | 059
| | | DCB CHECK VALUE ERROR
| | | DEV3 = RECEIVED VALUE
| | | DEV4 = EXPECTED VALUE
| | |
| | | 060
| | | CYCLE STEAL STATUS READ ERROR
| | | CHECK DCB, FLAGS AND ISB
| | |
| | | 061
| | | DOES DEV4 = 0000 ?
| | | Y N
| | |
| | | 062
| | | RESIDUAL ADDRESS ERROR
| | | DEV4 = EXPECTED ADDRESS
| | | RSAD = RECEIVED ADDRESS
| | |
| | | 063
| | | WRITE ERROR (ERROR EXPECTED -
| | | GOOD RECEIVED)
| | | CHECK DCB, FLAGS AND ISB
| | |
| | | 064
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 065
| | | COMMAND REJECT FROM ATTACHMENT
| | | CARD
| | | START INPUT/OUTPUT (WRITE)
| | | START INPUT/OUTPUT (READ CYCLE
| | | STEAL STATUS)
| | |
| | | 066
| | | DOES IN = 03 ?
| | | Y N

1 1
0 0
A A
G H

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EC337313 PEC326765
MAP 45E0-9

P A A 4978 DISPLAY
3 G H
9 9 SYSTEM TEST ERROR MAP

MAP 45E0-10

| | | PAGE 10 OF 24
| | |
| | | 067
| | | DOES DEV3 = 0000 ?
| | | Y N
| | |
| | | 068
| | | DCB CHECK VALUE ERROR
| | | DEV3 = RECEIVED VALUE
| | | DEV4 = EXPECTED VALUE
| | |
| | | 069
| | | CYCLE STEAL STATUS READ ERROR
| | | CHECK DCB, FLAGS AND ISB
| | |
| | | 070
| | | DOES DEV4 = 0000 ?
| | | Y N
| | |
| | | 071
| | | RESIDUAL ADDRESS ERROR
| | | DEV4 = EXPECTED ADDRESS
| | | RSAD = RECEIVED ADDRESS
| | |
| | | 072
| | | WRITE ERROR (ERROR EXPECTED -
| | | GOOD RECEIVED)
| | | CHECK DCB, FLAGS AND ISB
| | |
| | | 073
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 074
| | | COMMAND REJECT FROM ATTACHMENT
| | | CARD
| | | START INPUT/OUTPUT (WRITE)
| | | START INPUT/OUTPUT (READ CYCLE
| | | STEAL STATUS)
| | |
| | | 075
| | | DOES IN = 03 ?
| | | Y N

1 1
1 1
A A
J K

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EC337313 PEC326765
MAP 45E0-10

N A A 4978 DISPLAY
3 J K
1 1 SYSTEM TEST ERROR MAP
0 0
PAGE 11 OF 24
076
DOES DEV3 = 0000 ?
Y N
077
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
078
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
079
DOES DEV4 = 0000 ?
Y N
080
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
081
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
082
DOES IO = 07 ?
Y N
083
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
084
DOES IN = 03 ?
Y N
1 1
2 2
A A
L M

MAP 45E0-11

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EC337313 PEC326765
MAP 45E0-11

M A A 4978 DISPLAY
3 L M
1 1 SYSTEM TEST ERROR MAP
1 1
PAGE 12 OF 24
085
DOES DEV3 = 0000 ?
Y N
086
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
087
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
088
DOES DEV4 = 0000 ?
Y N
089
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
090
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
091
DOES IO = 07 ?
Y N
092
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
093
DOES IN = 03 ?
Y N
1 1
3 3
A A
N P

MAP 45E0-12

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EC337313 PEC326765
MAP 45E0-12

L A A 4978 DISPLAY
3 N P
1 1 SYSTEM TEST ERROR MAP
2 2
PAGE 13 OF 24

| |
| |
| | 094
| | DOES DEV3 = 0000 ?
| | Y N
| |
| | 095
| | DCB CHECK VALUE ERROR
| | DEV3 = RECEIVED VALUE
| | DEV4 = EXPECTED VALUE
| |
| | 096
| | CYCLE STEAL STATUS READ ERROR
| | CHECK DCB, FLAGS AND ISB
| |
| | 097
| | DOES DEV4 = 0000 ?
| | Y N
| |
| | 098
| | RESIDUAL ADDRESS ERROR
| | DEV4 = EXPECTED ADDRESS
| | RSAD = RECEIVED ADDRESS
| |
| | 099
| | WRITE ERROR (ERROR EXPECTED -
| | GOOD RECEIVED)
| | CHECK DCB, FLAGS AND ISB
| |
| | 100
| | DOES IO = 07 ?
| | Y N
| |
| | 101
| | COMMAND REJECT FROM ATTACHMENT
| | CARD
| | START INPUT/OUTPUT (WRITE)
| | START INPUT/OUTPUT (READ CYCLE
| | STEAL STATUS)
| |
| | 102
| | DOES IN = 03 ?
| | Y N
| |
| |
| |

1 1
4 4
A A
Q R

MAP 45E0-13

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EC337313 PEC326765
MAP 45E0-13

J A A 4978 DISPLAY
2 Q R
1 1 SYSTEM TEST ERROR MAP
3 3
PAGE 14 OF 24

| |
| |
| | 103
| | DOES DEV3 = 0000 ?
| | Y N
| |
| | 104
| | DCB CHECK VALUE ERROR
| | DEV3 = RECEIVED VALUE
| | DEV4 = EXPECTED VALUE
| |
| | 105
| | CYCLE STEAL STATUS READ ERROR
| | CHECK DCB, FLAGS AND ISB
| |
| | 106
| | DOES DEV4 = 0000 ?
| | Y N
| |
| | 107
| | RESIDUAL ADDRESS ERROR
| | DEV4 = EXPECTED ADDRESS
| | RSAD = RECEIVED ADDRESS
| |
| | 108
| | WRITE ERROR (ERROR EXPECTED -
| | GOOD RECEIVED)
| | CHECK DCB, FLAGS AND ISB
| |
| | 109
| | DOES IO = 07 ?
| | Y N
| |
| | 110
| | COMMAND REJECT FROM ATTACHMENT
| | CARD
| | START INPUT/OUTPUT (WRITE)
| | START INPUT/OUTPUT (READ CYCLE
| | STEAL STATUS)
| |
| | 111
| | DOES IN = 03 ?
| | Y N
| |
| |
| |

1 1
5 5
A A
S T

MAP 45E0-14

21JAN83 PN4414330
EC337313 PEC326765
MAP 45E0-14

H A A 4978 DISPLAY
2 S T
1 1 SYSTEM TEST ERROR MAP
4 4
PAGE 15 OF 24
112
DOES DEV3 = 0000 ?
Y N
113
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
114
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
115
DOES DEV4 = 0000 ?
Y N
116
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
117
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
118
DOES IO = 07 ?
Y N
119
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
120
DOES IN = 03 ?
Y N
1 1
6 6
A A
U V

MAP 45E0-15
21JAN83 PN4414330
EC337313 PEC326765
MAP 45E0-15

G A A 4978 DISPLAY
2 U V
1 1 SYSTEM TEST ERROR MAP
5 5
PAGE 16 OF 24
121
DOES DEV3 = 0000 ?
Y N
122
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
123
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
124
DOES DEV4 = 0000 ?
Y N
125
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
126
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
127
DOES IO = 07 ?
Y N
128
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
129
DOES IN = 03 ?
Y N
1 1
7 7
A A
W X

MAP 45E0-16
21JAN83 PN4414330
EC337313 PEC326765
MAP 45E0-16

F A A 4978 DISPLAY
2 W X
1 1 SYSTEM TEST ERROR MAP
6 6
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130
DOES DEV3 = 0000 ?
Y N
131
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
132
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
133
DOES DEV4 = 0000 ?
Y N
134
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
135
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
136
DOES IO = 07 ?
Y N
137
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (WRITE)
START INPUT/OUTPUT (READ CYCLE
STEAL STATUS)
138
DOES IN = 03 ?
Y N

1 1
8 8
A A
Y Z

MAP 45E0-17

21JAN83 PN4414330
EC337313 PEC326765
MAP 45E0-17

E A A 4978 DISPLAY
2 Y Z
1 1 SYSTEM TEST ERROR MAP
7 7
PAGE 18 OF 24

139
DOES DEV3 = 0000 ?
Y N
140
DCB CHECK VALUE ERROR
DEV3 = RECEIVED VALUE
DEV4 = EXPECTED VALUE
141
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
142
DOES DEV4 = 0000 ?
Y N
143
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
144
WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
145
DOES IO = 07 ?
Y N
146
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (CLEAR
SCREEN)
147
CLEAR SCREEN ERROR
CHECK DCB, FLAGS AND ISB

MAP 45E0-18

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MAP 45E0-18

D 4978 DISPLAY
1 SYSTEM TEST ERROR MAP
PAGE 19 OF 24

148
DOES CKPT = 0000 ?
Y N
149
DOES CKPT = 0001 ?
Y N
150
DOES IO = 07 ?
Y N
151
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (READ)
152
DOES IN = 03 ?
Y N
153
READ ERROR
CHECK DCB, FLAGS AND ISB
154
DATA COMPARE ERROR
DEV1 = WRITE DATA
DEV2 = READ DATA
155
DOES IO = 07 ?
Y N
156
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)
157
WRITE ERROR WITH SHIFT DOWN
CHECK DCB, FLAGS AND ISB

2
0
B
A

MAP 45E0-19

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EC337313 PEC326765
MAP 45E0-19

C B 4978 DISPLAY
1 A SYSTEM TEST ERROR MAP
9 PAGE 20 OF 24

158
DOES IO = 07 ?
Y N
159
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (CLEAR
SCREEN)
160
CLEAR SCREEN ERROR
CHECK DCB, FLAGS AND ISB
161
DOES CKPT = 0000 ?
Y N
162
DOES CKPT = 0001 ?
Y N
163
DOES IO = 07 ?
Y N
164
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (READ)
165
DOES IN = 03 ?
Y N
166
READ ERROR
CHECK DCB, FLAGS AND ISB

2 2 2
1 1 1
B B B
B C D

MAP 45E0-20

21JAN83 PN4414330
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MAP 45E0-20

B B B B 4978 DISPLAY
1 B C D
2 2 2 SYSTEM TEST ERROR MAP
0 0 0
PAGE 21 OF 24

| | |
| | |
| | 167
| | DATA COMPARE ERROR
| | DEV1 = WRITE DATA
| | DEV2 = READ DATA
| |
| 168
| DOES IO = 07 ?
| Y N
| |
| 169
| COMMAND REJECT FROM
| ATTACHMENT CARD
| START INPUT/OUTPUT (WRITE)
| |
| 170
| WRITE ERROR WITH SHIFT UP
| CHECK DCB, FLAGS AND ISB
| |
| 171
| DOES IO = 07 ?
| Y N
| |
| 172
| COMMAND REJECT FROM
| ATTACHMENT CARD
| PREPARE - LEVEL = 1
| START INPUT/OUTPUT (CLEAR
| SCREEN)
| |
| 173
| CLEAR SCREEN ERROR
| CHECK DCB, FLAGS AND ISB
| |
| 174
| DOES CKPT = 0000 ?
| Y N
| |
| 175
| DOES IO = 07 ?
| Y N
| |
| |
| |
| |

2 2 2
2 2 2
B B B
E F G

MAP 45E0-21

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MAP 45E0-21

A B B B 4978 DISPLAY
1 E F G
2 2 2 SYSTEM TEST ERROR MAP
1 1 1
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| | |
| | |
| | 176
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | START INPUT/OUTPUT (CHAINED
| | WRITE/READ)
| |
| 177
| DOES IN = 03 ?
| Y N
| |
| 178
| CHAINED WRITE/READ ERROR
| CHECK DCB, FLAGS AND ISB
| |
| 179
| COMPARE OF WRITE/READ DATA
| FAILED
| DEV1 = WRITE DATA
| DEV2 = READ DATA
| |
| 180
| DOES IO = 07 ?
| Y N
| |
| 181
| COMMAND REJECT FROM
| ATTACHMENT CARD
| PREPARE - LEVEL = 1
| START INPUT/OUTPUT (CLEAR
| SCREEN)
| |
| 182
| CLEAR SCREEN ERROR
| CHECK DCB, FLAGS AND ISB
| |
| 183
| DOES CKPT = 0000 ?
| Y N
| |
| |
| |
| |

2 2
4 3
B B
H J

MAP 45E0-22

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MAP 45E0-22

B 4978 DISPLAY
J
2 SYSTEM TEST ERROR MAP
2
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|
|
184
DOES CKPT = 0001 ?
Y N
|
| 185
| DOES IO = 07 ?
| Y N
|
| 186
| COMMAND REJECT FROM
| ATTACHMENT CARD
| PREPARE - LEVEL = 2
| RESET
| READ DEVICE ID
| START INPUT/OUTPUT (WRITE)
|
| 187
| DOES IN = 03 ?
| Y N
|
| 188
| WRITE ERROR
| CHECK DCB, FLAGS AND ISB
|
| 189
| WRONG ID RECEIVED ON LEVEL - 2
| DEV3 = ID RECEIVED
| DEV4 = ID EXPECTED
|
| 190
DOES IO = 07 ?
Y N
|
| 191
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1
| RESET
| READ DEVICE ID
| START INPUT/OUTPUT (WRITE)
|
|
|

2
4
B
K

MAP 45E0-23

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MAP 45E0-23

B B 4978 DISPLAY
H K
2 2 SYSTEM TEST ERROR MAP
2 3
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|
|
| 192
| DOES IN = 03 ?
| Y N
|
| 193
| WRITE ERROR
| CHECK DCB, FLAGS AND ISB
|
| 194
| WRONG ID RECEIVED ON LEVEL - 1
| DEV3 = ID RECEIVED
| DEV4 = ID EXPECTED
|
| 195
DOES IO = 07 ?
Y N
|
| 196
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 0
| RESET
| READ DEVICE ID
| START INPUT/OUTPUT (WRITE)
|
| 197
DOES IN = 03 ?
Y N
|
| 198
| WRITE ERROR
| CHECK DCB, FLAGS AND ISB
|
| 199
| WRONG ID RECEIVED ON LEVEL - 0
| DEV3 = ID RECEIVED
| DEV4 = ID EXPECTED
|

MAP 45E0-24

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MAP 45E0-24

SYSTEM TEST ERROR MAP

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001 (ENTRY POINT A) THIS MAP SHOULD NOT BE ENTERED UNLESS AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST, AND THEN ONLY WHEN THE DEVICE TYPE FIELD IS EQUAL TO HEXADECIMAL'48'.

DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

DOES RTN = 0003 ?

Y N

004

DOES RTN = 0004 ?

Y N

005

DOES CKPT = 0000 ?

Y N

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4 1 0 4 3 2

A B C D E F

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1

SYSTEM TEST ERROR MAP

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006

DOES CKPT = 0001 ?

Y N

007

DOES IO = 07 ?

Y N

008

COMMAND REJECT FROM ATTACHMENT CARD EITHER - START INPUT/OUTPUT (SEEK TO HEAD ONE) OR - START INPUT/OUTPUT (WRITE DATA) OR - START INPUT/OUTPUT (READ DATA)

009

DOES IN = 03 ?

Y N

010

SEEK TO HEAD 1 ERROR WRITE ERROR OR READ ERROR CHECK DCB, FLAGS AND ISB

011

DATA COMPARE ERROR DEV3 -- RECEIVED DATA DEV4 -- EXPECTED DATA

012

DOES IO = 07 ?

Y N

3 3

G H

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1 2 2 SYSTEM TEST ERROR MAP

1 3 SYSTEM TEST ERROR MAP

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013 COMMAND REJECT FROM ATTACHMENT CARD EITHER - START INPUT/OUTPUT (SEEK TO HEAD ZERO) OR ----- START INPUT/OUTPUT (WRITE DATA) OR ----- START INPUT/OUTPUT (READ DATA)

019 RECALIBRATE ERROR SEEK ERROR OR READ ERROR CHECK DCB, FLAGS AND ISB

014 DOES IN = 03 ? Y N

020 DOES CKPT = 0000 ? Y N

015 SEEK TO HEAD 0 ERROR WRITE ERROR OR READ ERROR CHECK DCB, FLAGS AND ISB

021 DOES CKPT = 0001 ? Y N

016 DATA COMPARE ERROR DEV3 -- RECEIVED DATA DEV4 -- EXPECTED DATA

022 DOES CKPT = 0002 ? Y N

017 DOES IO = 07 ? Y N

023 DOES CKPT = 0003 ? Y N

018 COMMAND REJECT FROM ATTACHMENT CARD EITHER - PREPARE (LEVEL = ONE) OR ----- START INPUT/OUTPUT (RECALIBRATE) OR ----- START INPUT/OUTPUT (SEEK TO TRACK 11 HEAD 0) OR ----- START INPUT/OUTPUT (READ FIRST SECTOR)

024 DOES CKPT = 0004 ? Y N

4 J

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MAP 48E0-3

1 0 9 8 7 6 5 K L M N P Q

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MAP 48E0-4

Q 4964 DISKETTE UNIT
4 SYSTEM TEST ERROR MAP
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MAP 48E0-5

025
DOES CKPT = 0005 ?
Y N
026
DOES IO = 07 ?
Y N
027
COMMAND REJECT FROM
ATTACHMENT CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS
028
DOES IN = 03 ?
Y N
029
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
030
DOES DEV4 = 0000 ?
Y N
031
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
032
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

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MAP 48E0-5

6
R

P R 4964 DISKETTE UNIT
4 5 SYSTEM TEST ERROR MAP
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MAP 48E0-6

033
DOES IO = 07 ?
Y N
034
COMMAND REJECT FROM
ATTACHMENT CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS
035
DOES IN = 03 ?
Y N
036
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB
037
DOES DEV4 = 0000 ?
Y N
038
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
039
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

040
DOES IO = 07 ?
Y N

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MAP 48E0-6

7 7
S T

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041
COMMAND REJECT FROM
ATTACHMENT CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

042
DOES IN = 03 ?
Y N

043
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

044
DOES DEV4 = 0000 ?
Y N

045
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

046
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

047
DOES IO = 07 ?
Y N

048
COMMAND REJECT FROM ATTACHMENT
CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

049
DOES IN = 03 ?
Y N

050
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

051
DOES DEV4 = 0000 ?
Y N

052
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

053
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

054
DOES IO = 07 ?
Y N

055
COMMAND REJECT FROM ATTACHMENT
CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

056
DOES IN = 03 ?
Y N

057
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

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L V 4964 DISKETTE UNIT
4 8 SYSTEM TEST ERROR MAP

MAP 48E0-9

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058
DOES DEV4 = 0000 ?
Y N

059
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

060
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

061
DOES IO = 07 ?
Y N

062
COMMAND REJECT FROM ATTACHMENT
CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

063
DOES IN = 03 ?
Y N

064
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

065
DOES DEV4 = 0000 ?
Y N

1 1
0 0
W X

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MAP 48E0-9

C K W X 4964 DISKETTE UNIT
1 4 9 9 SYSTEM TEST ERROR MAP

MAP 48E0-10

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066
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

067
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

068
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1

069
DOES CKPT = 0000 ?
Y N

070
DOES IO = 07 ?
Y N

071
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (SEEK
CHAINED TO READ SECTOR ID)

072
DOES IN = 03 ?
Y N

073
CHAINED SEEK AND READ SECTOR
ID ERROR
CHECK DCB, FLAGS AND ISB

1 1
1 1
Y Z

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MAP 48E0-10

B Y Z 4964 DISKETTE UNIT
1 1 1
0 0 SYSTEM TEST ERROR MAP

MAP 48E0-11

|| | PAGE 11 OF 15
|| |
|| | 074
|| | WRONG CYLINDER NUMBER
|| | DEV1 = XXCC RECEIVED
|| | DEV4 = XXCC EXPECTED
|| |
|| | 075
|| | DOES IO = 07 ?
|| | Y N
|| |
|| | 076
|| | COMMAND REJECT FROM
|| | ATTACHMENT CARD
|| | PREPARE = LEVEL 1
|| | START INPUT/OUTPUT (SEEK
|| | CYLINDER ZERO)
|| |
|| | 077
|| | DOES IN = 03 ?
|| | Y N
|| |
|| | 078
|| | SEEK ERROR -- CHECK DCB,
|| | FLAGS AND ISB
|| |
|| | 079
|| | SEEK CYLINDER ERROR -- DEV1 IS
|| | NOT EQUAL TO XX00
|| |
|| | 080
|| | DOES CKPT = 0000 ?
|| | Y N
|| |
|| | 081
|| | DOES CKPT = 0001 ?
|| | Y N
|| |
|| | 082
|| | DOES CKPT = 0002 ?
|| | Y N

1 1 1 1
3 3 2 2
A A A A
A B C D

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MAP 48E0-11

A A 4964 DISKETTE UNIT
C D
1 1 SYSTEM TEST ERROR MAP
1 1

MAP 48E0-12

|| | PAGE 12 OF 15
|| |
|| | 083
|| | DOES IO = 07 ?
|| | Y N
|| |
|| | 084
|| | COMMAND REJECT FROM
|| | ATTACHMENT CARD
|| | START INPUT/OUTPUT
|| | (RECALIBRATE)
|| |
|| | 085
|| | RECALIBRATE ERROR
|| | CHECK DCB, FLAGS AND ISB
|| |
|| | 086
|| | DOES IO = 07 ?
|| | Y N
|| |
|| | 087
|| | COMMAND REJECT FROM ATTACHMENT
|| | CARD
|| | START INPUT/OUTPUT (SEEK)
|| | START INPUT/OUTPUT (READ SECTOR
|| | ID)
|| |
|| | 088
|| | DOES IN = 03 ?
|| | Y N
|| |
|| | 089
|| | SEEK OR READ SECTOR ID ERROR
|| | CHECK DCB, FLAGS AND ISB
|| |
|| | 090
|| | DOES DEV3 = 0000 ?
|| | Y N
|| |
|| | 091
|| | HEAD SELECT ERROR
|| | DEV2 = HHXX HEAD RECEIVED
|| | DEV3 = XXHH HEAD EXPECTED

1
3
A
E

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MAP 48E0-12

A A A 4964 DISKETTE UNIT
A B E
1 1 1 SYSTEM TEST ERROR MAP
1 1 2

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| | |
| | |
| | 092
| | SEEK ERROR (WRONG CYLINDER)
| | DEV1 = XXCC CYLINDER RECEIVED
| | DEV4 = XXCC CYLINDER EXPECTED
| |
| 093
| DOES IO = 07 ?
| Y N
| |
| | 094
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | START INPUT/OUTPUT (READ
| | SECTOR ID)
| |
| 095
| DOES IN = 03 ?
| Y N
| |
| | 096
| | READ SECTOR ID FAILED
| | CHECK DCB, FLAGS AND ISB
| |
| 097
| CYLINDER NUMBER NOT EQUAL TO
| ZERO
| DEV1 NOT EQUAL TO XX00
|
098
DOES IO = 07 ?
Y N
|
| 099
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1
| START INPUT/OUTPUT (SEEK)
|
100
SEEK ERROR (CYLINDER NUMBER NOT
EQUAL TO ZERO)
CHECK DCB, FLAGS AND ISB

MAP 48E0-13

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MAP 48E0-13

A 4964 DISKETTE UNIT
1
SYSTEM TEST ERROR MAP
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| | |
| | |
101
DOES CKPT = 0000 ?
Y N
| |
| 102
| DOES CKPT = 0001 ?
| Y N
| |
| | 103
| | DOES CKPT = 0002 ?
| | Y N
| | |
| | 104
| | DOES IO = 07 ?
| | Y N
| | |
| | 105
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 1
| | START INPUT/OUTPUT
| | (RECALIBRATE)
| | |
| | 106
| | RECALIBRATE ERROR
| | CHECK DCB, FLAGS AND ISB
| | |
| | 107
| | DOES IO = 07 ?
| | Y N
| | |
| | 108
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 2
| | START INPUT/OUTPUT (SEEK)
| | |
| | 109
| | LEVEL 2 SEEK ERROR
| | CHECK DCB, FLAGS AND ISB

MAP 48E0-14

1 1
5 5
A A
F G

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MAP 48E0-14

A A 4964 DISKETTE UNIT
F G
1 1 SYSTEM TEST ERROR MAP
4 4
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MAP 48E0-15

| |
| |
| 110
| DOES IO = 07 ?
| Y N
| |
| 111
| COMMAND REJECT FROM
| ATTACHMENT CARD
| PREPARE - LEVEL = 1
| START INPUT/OUTPUT (SEEK)
| |
| 112
| LEVEL 1 SEEK ERROR
| CHECK DCB, FLAGS AND ISB
| |
113
DOES IO = 07 ?
Y N
| |
| 114
| COMMAND REJECT FROM ATTACHMENT
| CARD
| RESET
| READ ID
| PREPARE - LEVEL = 0
| START INPUT/OUTPUT (SEEK)
| |
115
DOES DEV4 = 0000 ?
Y N
| |
| 116
| WRONG DEVICE ID RECEIVED ON
| LEVEL 0
| DEV3 = ID RECEIVED
| DEV4 = ID EXPECTED
| |
117
LEVEL 0 SEEK ERROR
CHECK DCB, FLAGS AND ISB

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MAP 48E0-15

SYSTEM TEST ERROR MAP

PAGE 1 OF 15

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '4A'.

```

*****
*****
**
** ANY TIME THAT THE DEV1 FIELD IS EQUAL TO **
** HEXADECIMAL FFFF --- THE HARDWARE USED ITS **
** RETRY AND THE OPERATOR WANTED ALL OF THESE **
** FLAGGED AS AN ERROR. **
**
*****
*****

```

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | DOES RTN = 0003 ?

| | Y N

| | | 004

| | | DOES RTN = 0004 ?

| | | Y N

| | | |

| | | |

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1

SYSTEM TEST ERROR MAP

PAGE 2 OF 15

005

DOES RTN = 0005 ?

Y N

| 006

| DOES CKPT = 0000 ?

| Y N

| | 007

| | DOES CKPT = 0001 ?

| | Y N

| | | 008

| | | DOES IO = 07 ?

| | | Y N

| | | 009

| | | COMMAND REJECT FROM

| | | ATTACHMENT CARD

| | | EITHER - START

| | | INPUT/OUTPUT (WRITE DATA)

| | | OR - - - - - START

| | | INPUT/OUTPUT (READ DATA)

| | | 010

| | | DOES IN = 03 ?

| | | Y N

| | | 011

| | | WRITE ERROR

| | | OR READ ERROR

| | | CHECK DCB, FLAGS AND ISB

| | | 012

| | | DATA COMPARE ERROR

| | | DEV3 -- RECEIVED DATA

| | | DEV4 -- EXPECTED DATA

| | | 013

| | | DOES IO = 07 ?

| | | Y N

| | | |

| | | |

| | | |

| | | |

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3 3 3 3

F G H J

```

F G H J      4966 DISKETTE UNIT
2 2 2 2
SYSTEM TEST ERROR MAP
PAGE 3 OF 15
014
COMMAND REJECT FROM
ATTACHMENT CARD
EITHER - START INPUT/OUTPUT
(WRITE DATA)
OR ----- START INPUT/OUTPUT
(READ DATA)
015
DOES IN = 03 ?
Y N
016
WRITE ERROR
OR READ ERROR
CHECK DCB, FLAGS AND ISB
017
DATA COMPARE ERROR
DEV3 -- RECEIVED DATA
DEV4 -- EXPECTED DATA
018
DOES IO = 07 ?
Y N
019
COMMAND REJECT FROM
ATTACHMENT CARD
EITHER - PREPARE (LEVEL =
ONE)
OR ----- START INPUT/OUTPUT
(READ FIRST SECTOR)
020
READ ERROR
CHECK DCB, FLAGS AND ISB
021
DOES CKPT = 0000 ?
Y N

```

MAP 4AE0-3

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EC337313 PEC326765

MAP 4AE0-3

```

L      4966 DISKETTE UNIT
3
SYSTEM TEST ERROR MAP
PAGE 4 OF 15
022
DOES CKPT = 0001 ?
Y N
023
DOES IO = 07 ?
Y N
024
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (READ
SECTOR ID)
025
DOES IN = 03 ?
Y N
026
READ SECTOR ID ERROR
CHECK DCB, FLAGS AND ISB
027
SEEK TO DISKETTE ERROR
DEV1 = DDXX EXPECTED DISKETTE
POSITION
DEV4 = DDXX RECEIVED DISKETTE
POSITION
028
DOES IO = 07 ?
Y N
029
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (SEEK TO
DISKETTE)
030
SEEK TO DISKETTE ERROR
CHECK DCB, FLAGS AND ISB

```

MAP 4AE0-4

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EC337313 PEC326765

MAP 4AE0-4

D K 4966 DISKETTE UNIT
1 3 SYSTEM TEST ERROR MAP
PAGE 5 OF 15

MAP 4AE0-5

031
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (PREPARE
LEVEL 1)

032
DOES CKPT = 0000 ?
Y N

033
DOES CKPT = 0001 ?
Y N

034
DOES CKPT = 0002 ?
Y N

035
DOES CKPT = 0003 ?
Y N

036
DOES CKPT = 0004 ?
Y N

1
0 9 8 7 6 6
M N P Q R S

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MAP 4AE0-5

R S 4966 DISKETTE UNIT
5 5 SYSTEM TEST ERROR MAP
PAGE 6 OF 15

MAP 4AE0-6

037
DOES IO = 07 ?
Y N
038
COMMAND REJECT FROM
ATTACHMENT CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

039
DOES IN = 03 ?
Y N

040
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

041
DOES DEV4 = 0000 ?
Y N

042
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

043
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

044
DOES IO = 07 ?
Y N

7 7
T U

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EC337313 PEC326765
MAP 4AE0-6

PAGE 7 OF 15

PAGE 8 OF 15

045
COMMAND REJECT FROM
ATTACHMENT CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

053
DOES IN = 03 ?
Y N
054
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

046
DOES IN = 03 ?
Y N

055
DOES DEV4 = 0000 ?
Y N

047
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

056
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

048
DOES DEV4 = 0000 ?
Y N

057
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

049
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

058
DOES IO = 07 ?
Y N

050
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

059
COMMAND REJECT FROM ATTACHMENT
CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

051
DOES IO = 07 ?
Y N

060
DOES IN = 03 ?
Y N

052
COMMAND REJECT FROM ATTACHMENT
CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

061
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

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N W 4966 DISKETTE UNIT
5 8 SYSTEM TEST ERROR MAP

MAP 4AE0-9

C M X Y 4966 DISKETTE UNIT
1 5 9 9 SYSTEM TEST ERROR MAP

MAP 4AE0-10

PAGE 9 OF 15

PAGE 10 OF 15

062
DOES DEV4 = 0000 ?
Y N
063
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
064
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

070
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS
071
READ ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB
072
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1

065
DOES IO = 07 ?
Y N
066
COMMAND REJECT FROM ATTACHMENT
CARD
EITHER - START INPUT/OUTPUT
(ILLEGAL DCB)
OR ----- START CYCLE STEAL
STATUS

073
DOES CKPT = 0000 ?
Y N
074
DOES IO = 07 ?
Y N
075
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (SEEK
CHAINED TO READ SECTOR ID)

067
DOES IN = 03 ?
Y N
068
CYCLE STEAL STATUS READ ERROR
CHECK DCB, FLAGS AND ISB

076
DOES IN = 03 ?
Y N
077
CHAINED SEEK AND READ SECTOR
ID ERROR
CHECK DCB, FLAGS AND ISB

069
DOES DEV4 = 0000 ?
Y N

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MAP 4AE0-9

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EC337313 PEC326765
MAP 4AE0-10

1 1
0 0
X Y

1
1 1
1 A
Z A

A A A 4966 DISKETTE UNIT
1 B G H
1 1 1 SYSTEM TEST ERROR MAP
1 2 2
PAGE 13 OF 15

MAP 4AE0-13

094
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (READ
SECTOR ID)

095
DOES IN = 03 ?
Y N

096
READ SECTOR ID FAILED
CHECK DCB, FLAGS AND ISB

097
CYLINDER NUMBER NOT EQUAL TO
ZERO
SEEK TO CYLINDER ZERO ERROR

098
DOES IO = 07 ?
Y N

099
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SEEK)

100
SEEK ERROR
CHECK DCB, FLAGS AND ISB

101
DOES CKPT = 0000 ?
Y N

102
DOES CKPT = 0001 ?
Y N

1 1 1
4 4 4
A A A
J K L

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EC337313 PEC326765
MAP 4AE0-13

A A A 4966 DISKETTE UNIT
J K L
1 1 1 SYSTEM TEST ERROR MAP
3 3 3
PAGE 14 OF 15

MAP 4AE0-14

103
DOES IO = 07 ?
Y N

104
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 2
START INPUT/OUTPUT (SEEK)

105
LEVEL 2 SEEK ERROR
CHECK DCB, FLAGS AND ISB

106
DOES IO = 07 ?
Y N

107
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SEEK)

108
LEVEL 1 SEEK ERROR
CHECK DCB, FLAGS AND ISB

109
DOES IO = 07 ?
Y N

110
COMMAND REJECT FROM ATTACHMENT
CARD
RESET
READ ID
PREPARE - LEVEL = 0
START INPUT/OUTPUT (SEEK)

1
5
A
M

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EC337313 PEC326765
MAP 4AE0-14

A 4966 DISKETTE UNIT
M
1 SYSTEM TEST ERROR MAP
4
PAGE 15 OF 15

MAP 4AE0-15

|
|
111
DOES DEV4 = 0000 ?
Y N
|
| 112
| WRONG DEVICE ID RECEIVED ON
| LEVEL 0
| DEV3 = ID RECEIVED
| DEV4 = ID EXPECTED
|
113
LEVEL 0 SEEK ERROR
CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

MAP 4AE0-15

49XX DISKETTE UNIT

MAP 4BE0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 16

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '4B'.

```

*****
*****
** ANY TIME THAT THE DEVI FIELD IS EQUAL TO **
** HEXADECIMAL FFFF --- THE HARDWARE USED ITS **
** RETRY AND THE OPERATOR WANTED ALL OF THESE **
** FLAGGED AS AN ERROR. **
** **
*****
*****

```

DOES RTN = 0001 ?
 Y N
 |
 | 002
 | DOES RTN = 0002 ?
 | Y N
 | |
 | | 003
 | | DOES RTN = 0003 ?
 | | Y N
 | | |
 | | | 004
 | | | DOES RTN = 0004 ?
 | | | Y N

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8 6 5 4 2
 A B C D E

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 MAP 4BE0-1

E
1

49XX DISKETTE UNIT

MAP 4BE0-2

SYSTEM TEST ERROR MAP

PAGE 2 OF 16

005
 DOES CKPT = 0000 ?
 Y N
 |
 | 006
 | DOES CKPT = 0001 ?
 | Y N
 | |
 | | 007
 | | DOES CKPT = 0002 ?
 | | Y N
 | | |
 | | | 008
 | | | DOES CKPT = 0003 ?
 | | | Y N
 | | | |
 | | | | 009
 | | | | DOES CKPT = 0004 ?
 | | | | Y N

4 3 3 3 3 3
 F G H J K L

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 EC337313 PEC326765
 MAP 4BE0-2

2 2 2 2 2

1 2

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 3 OF 16

PAGE 4 OF 16

010

DOES CKPT = 0005 ?

Y N

011

DATA COMPARE ERROR.

DEV1 = EXPECTED DATA.

DEV2 = ACTUAL DATA.

012

READ DATA COMMAND WAS

EXECUTING.

GO TO PAGE 10,

STEP 056,

ENTRY POINT B.

013

WRITE DATA COMMAND WAS

EXECUTING.

GO TO PAGE 10,

STEP 056,

ENTRY POINT B.

014

DATA COMPARE ERROR.

DEV1 = EXPECTED DATA.

DEV2 = ACTUAL DATA.

015

READ DATA COMMAND WAS

EXECUTING.

GO TO PAGE 10, STEP 056,

ENTRY POINT B.

016

WRITE DATA COMMAND WAS EXECUTING.

GO TO PAGE 10, STEP 056,

ENTRY POINT B.

017

READ DATA COMMAND WAS

EXECUTING.

GO TO PAGE 10, STEP 056,

ENTRY POINT B.

018

DOES CKPT = 0001 ?

Y N

019

DOES CKPT = 0002 ?

Y N

020

DOES CKPT = 0003 ?

Y N

021

DOES CKPT = 0004 ?

Y N

022

INVALID COMMAND (DATA

ADDRESS) WAS EXECUTING.

GO TO PAGE 10,

STEP 056,

ENTRY POINT B.

023

INVALID COMMAND (BYTE

COUNT) WAS EXECUTING.

GO TO PAGE 10,

STEP 056,

ENTRY POINT B.

024

INVALID COMMAND (CYLINDER

NUMBER) WAS EXECUTING.

GO TO PAGE 10, STEP 056,

ENTRY POINT B.

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5 5

M N

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EC337313 PEC326765

PAGE 5 OF 16

PAGE 6 OF 16

025
INVALID COMMAND (RECORD
NUMBER) WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

033
SEEK CHAINED TO READ SECTOR ID
COMMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

026
INVALID COMMAND (COMMAND WORD)
WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

034
DOES CKPT = 0000 ?
Y N

027
DOES CKPT = 0000 ?
Y N

035
DOES CKPT = 0001 ?
Y N

028
DOES CKPT = 0001 ?
Y N

036
DOES CKPT = 0002 ?
Y N

029
DOES CKPT = 0002 ?
Y N

037
DOES CKPT = 0003 ?
Y N

030
SEEKED TO WRONG CYLINDER.
DEV1 = EXPECTED DATA.
DEV2 = ACTUAL DATA.

038
DOES CKPT = 0004 ?
Y N

031
SEEK CHAINED TO READ SECTOR
ID COMMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

032
RECALIBRATE FAILURE.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

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EC337313 PEC326765

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EC337313 PEC326765

T U V 49XX DISKETTE UNIT
6 6 6
SYSTEM TEST ERROR MAP
PAGE 7 OF 16
039
DOES CKPT = 0005 ?
Y N
040
DOES CKPT = 0006 ?
Y N
041
READ SECTOR ID COMMAND
WAS EXECUTING.
DEV1 = EXPECTED DATA.
DEV2 = ACTUAL DATA.
042
READ SECTOR ID COMMAND WAS
EXECUTING.
GO TO PAGE 10,
STEP 056,
ENTRY POINT B.
043
SEEK COMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.
044
READ SECTOR ID COMMAND WAS
EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.
045
SEEK COMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

21JAN83 PN8529471
EC337313 PEC326765
MAP 4BE0-7

MAP 4BE0-7

A Q R S 49XX DISKETTE UNIT
1 6 6 6
SYSTEM TEST ERROR MAP
PAGE 8 OF 16
046
RECALIBRATE COMMAND WAS
EXECUTING.
GO TO PAGE 10,
STEP 056,
ENTRY POINT B.
047
READ SECTOR ID COMMAND WAS
EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.
048
SEEK COMMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.
049
DOES CKPT = 0000 ?
Y N
050
DOES CKPT = 0001 ?
Y N
051
DOES CKPT = 0002 ?
Y N
052
SEEK COMMAND WAS EXECUTING.
GO TO PAGE 10,
STEP 056,
ENTRY POINT B.
053
READ ID DID NOT COMPARE.
DEV4 = EXPECTED DATA.
DEV3 = ACTUAL DATA.

9 9
W X

21JAN83 PN8529471
EC337313 PEC326765
MAP 4BE0-8

MAP 4BE0-8

W X
8 8

49XX DISKETTE UNIT
SYSTEM TEST ERROR MAP
PAGE 9 OF 16

MAP 4BE0-9

054
READ ID COMMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.
055
DEVICE RESET COMMAND WAS
EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

21JAN83 PN8529471
EC337313 PEC326765
MAP 4BE0-9

49XX DISKETTE UNIT
SYSTEM TEST ERROR MAP
PAGE 10 OF 16

MAP 4BE0-10

056
(ENTRY POINT B)
DOES IO=07 ?
Y N
057
DOES IO=06 ?
Y N
058
DOES IO=05 ?
Y N
059
DOES IO=03 ?
Y N
060
DOES IO=02 ?
Y N

1 1 1 1
1 1 1 1 1 1
1 1 A A A A
Y Z A B C D

21JAN83 PN8529471
EC337313 PEC326765
MAP 4BE0-10

Y Z A A A A 49XX DISKETTE UNIT
1 1 A B C D
0 0 1 1 1 1 SYSTEM TEST ERROR MAP
0 0 0 0

MAP 4BE0-11

A A A 49XX DISKETTE UNIT
E F G
1 1 1 SYSTEM TEST ERROR MAP
1 1 1

MAP 4BE0-12

PAGE 11 OF 16

PAGE 12 OF 16

061
DOES IO=01 ?
Y N
062
DEVICE NOT ATTACHED.
063
DEVICE BUSY.
064
BUSY AFTER RESET.
065
COMMAND REJECT.
066
INTERFACE DATA CHECK.
067
CONTROLLER BUSY.
068
DOES IN=02 ?
Y N
069
DOES IN=04 ?
Y N
070
DOES IN=03 ?
Y N
071
CONTROLLER END.

072
DEVICE END RECEIVED.
IS BIT 1 IN THE FLAGS FIELD
OFF ?
Y N
073
INSPECT DEV4
BITS 0-7 IS THE DATA
EXPECTED.
BITS 8-15 IS THE DATA
RECEIVED.
074
(ENTRY POINT D)
THIS MAP CANNOT DETERMINE THE
PROBLEM.
USE THE ERROR OUTPUT, YOU
HAVE BEEN USING FOR THIS MAP,
AS YOUR ERROR INDICATIONS AND
GO TO MAP 0070 ENTRY POINT A.
075
ATTENTION INTERRUPT.
GO TO PAGE 13, STEP 080,
ENTRY POINT E.
076
IS BIT 0 OF THE ISB OFF ?
Y N
077
IS BIT 2 OF THE ISB OFF ?
Y N
078
NOT CORRECT LENGTH ERROR.

1 1 1
2 2 2
A A A
E F G

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EC337313 PEC326765
MAP 4BE0-11

1 1
5 3
A A
H J

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EC337313 PEC326765
MAP 4BE0-12

079
IS CS-7 EQUAL TO FFFF ?
Y N
080
(ENTRY POINT E)
THE BITS IN CS-7 ARE AS
FOLLOWS.
BIT 00 = HARD ERROR.
BIT 01 = ATTACHMENT DETECTED
PARITY ERROR.
BIT 02 = ATTACHMENT TIMEOUT.
BIT 03 = RESERVED.
BIT 04 = RESERVED.
BIT 05 = WRONG TYPE OF DISKETTE
SELECTED.
BIT 06 = HEAD SEEK ERRORS.
BIT 07 = RESERVED.
BIT 08 = WRITE GATE.
BIT 09 = ERASE GATE.
BIT 10 = ATTACHMENT EQUIPMENT
CHECK.
BIT 11 = OVERRUN/UNDERRUN.
BIT 12 = READ VERIFY ERROR.
BIT 13 = RELATED ERROR.
BIT 14 = RESERVED.
BIT 15 = SOFT ERROR RETRY.
INSPECT CS-7 FOR ERROR BITS.
ARE ALL ERROR BITS IN CS-7 OFF
?
Y N
081
ANALYZE THE ERROR BITS IN
CS-7.

082
THE BITS IN CS-8 ARE AS
FOLLOWS.
BIT 00 = CRC CHECK.
BIT 01 = RESERVED.
BIT 02 = RESERVED.
BIT 03 = RESERVED.
BIT 04 = NO RECORD FOUND.
BIT 05 = NO DATA FOUND.
BIT 06 = CONTROL AM FOUND.
BIT 07 = ID CHECK.
BIT 08 = RESERVED.
BIT 09 = DISKETTE NOT UP TO
SPEED.
BIT 10 = RESERVED.
BIT 11 = END OF TRACK.
BIT 12 = RESERVED.
BIT 13 = RESERVED.
BIT 14 = RESERVED.
BIT 15 = DISKETTE UNIT NOT
READY.
INSPECT CS-8 FOR ERROR BITS.
ARE ALL ERROR BITS IN CS-8 OFF
?
Y N
083
ANALYZE THE ERROR BITS IN
CS-8.
084
GO TO PAGE 12, STEP 074,
ENTRY POINT D.
085
GO TO PAGE 12, STEP 074,
ENTRY POINT D.

A 49XX DISKETTE UNIT
H
1 SYSTEM TEST ERROR MAP
2
PAGE 15 OF 16

|
|
086
IS BIT 1 OF THE ISB OFF ?
Y N
|
| 087
| DELAYED COMMAND REJECT.
|
088
IS BIT 2 OF THE ISB OFF ?
Y N
|
| 089
| NOT CORRECT LENGTH ERROR.
|
090
IS BIT 3 OF THE ISB OFF ?
Y N
|
| 091
| DCB SPECIFICATION CHECK.
|
092
IS BIT 4 OF THE ISB OFF ?
Y N
|
| 093
| STORAGE DATA CHECK.
|
094
IS BIT 5 OF THE ISB OFF ?
Y N
|
| 095
| NOT VALID STORAGE ADDRESS.
|
096
IS BIT 6 OF THE ISB OFF ?
Y N
|
| 097
| PROTECT CHECK.
|
|
|

1
6
A
M

MAP 4BE0-15

21JAN83 PN8529471

EC337313 PEC326765

MAP 4BE0-15

A 49XX DISKETTE UNIT
M
1 SYSTEM TEST ERROR MAP
5
PAGE 16 OF 16

|
|
098
IS BIT 7 OF THE ISB OFF ?
Y N
|
| 099
| INTERFACE DATA CHECK.
|
100
(ENTRY POINT C)
IS BIT 0 OF THE FLAGS OFF ?
Y N
|
| 101
| NOT EXPECTED INTERRUPT.
|
102
IS BIT 5 OF THE FLAGS OFF ?
Y N
|
| 103
| WRONG INTERRUPT LEVEL.
|
104
IS BIT 6 OF THE FLAGS OFF ?
Y N
|
| 105
| LOST INTERRUPT.
|
106
GO TO PAGE 12, STEP 074,
ENTRY POINT D.

MAP 4BE0-16

21JAN83 PN8529471

EC337313 PEC326765

MAP 4BE0-16

DISKETTE UNIT

MAP 4DE0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 16

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'4D'.

 **
 ** ANY TIME THAT THE DEV1 FIELD IS EQUAL TO **
 ** HEXADECIMAL FFFF --- THE HARDWARE USED ITS **
 ** RETRY AND THE OPERATOR WANTED ALL OF THESE **
 ** FLAGGED AS AN ERROR. **
 **

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | DOES RTN = 0003 ?

| | Y N

| | | 004

| | | DOES RTN = 0004 ?

| | | Y N

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8 6 5 4 2
A B C D E

27MAY83 PN6094220

EC336711 PEC-----

MAP 4DE0-1

E
1

DISKETTE UNIT

MAP 4DE0-2

SYSTEM TEST ERROR MAP

PAGE 2 OF 16

| 005

| DOES CKPT = 0000 ?

| Y N

| | 006

| | DOES CKPT = 0001 ?

| | Y N

| | | 007

| | | DOES CKPT = 0002 ?

| | | Y N

| | | | 003

| | | | DOES CKPT = 0003 ?

| | | | Y N

| | | | | 009

| | | | | DOES CKPT = 0004 ?

| | | | | Y N

4 3 3 3 3 3
F G H J K L

27MAY83 PN6094220

EC336711 PEC-----

MAP 4DE0-2

G H J K L DISKETTE UNIT
 2 2 2 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 16

010
 DOES CKPT = 0005 ?
 Y N

011
 DATA COMPARE ERROR.
 DEV1 = EXPECTED DATA.
 DEV2 = ACTUAL DATA.

012
 READ DATA COMMAND WAS
 EXECUTING.
 GO TO PAGE 10,
 STEP 056,
 ENTRY POINT B.

013
 WRITE DATA COMMAND WAS
 EXECUTING.
 GO TO PAGE 10,
 STEP 056,
 ENTRY POINT B.

014
 DATA COMPARE ERROR.
 DEV1 = EXPECTED DATA.
 DEV2 = ACTUAL DATA.

015
 READ DATA COMMAND WAS
 EXECUTING.
 GO TO PAGE 10, STEP 056,
 ENTRY POINT B.

016
 WRITE DATA COMMAND WAS EXECUTING.
 GO TO PAGE 10, STEP 056,
 ENTRY POINT B.

MAP 4DE0-3

27MAY83 PN6094220

EC336711 PEC-----

MAP 4DE0-3

D F DISKETTE UNIT
 1 2
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 16

017
 READ DATA COMMAND WAS
 EXECUTING.
 GO TO PAGE 10, STEP 056,
 ENTRY POINT B.

018
 DOES CKPT = 0001 ?
 Y N

019
 DOES CKPT = 0002 ?
 Y N

020
 DOES CKPT = 0003 ?
 Y N

021
 DOES CKPT = 0004 ?
 Y N

022
 INVALID COMMAND (DATA
 ADDRESS) WAS EXECUTING.
 GO TO PAGE 10,
 STEP 056,
 ENTRY POINT B.

023
 INVALID COMMAND (BYTE
 COUNT) WAS EXECUTING.
 GO TO PAGE 10,
 STEP 056,
 ENTRY POINT B.

024
 INVALID COMMAND (CYLINDER
 NUMBER) WAS EXECUTING.
 GO TO PAGE 10, STEP 056,
 ENTRY POINT B.

MAP 4DE0-4

27MAY83 PN6094220

EC336711 PEC-----

MAP 4DE0-4

5 5
 M N

C M N
1 4 4
DISKETTE UNIT
SYSTEM TEST ERROR MAP

MAP 4DE0-5

B P
1 5
DISKETTE UNIT
SYSTEM TEST ERROR MAP

MAP 4DE0-6

PAGE 5 OF 16

PAGE 6 OF 16

025
INVALID COMMAND (RECORD
NUMBER) WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

033
SEEK CHAINED TO READ SECTOR ID
COMMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

026
INVALID COMMAND (COMMAND WORD)
WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

034
DOES CKPT = 0000 ?
Y N

027
DOES CKPT = 0000 ?
Y N

035
DOES CKPT = 0001 ?
Y N

028
DOES CKPT = 0001 ?
Y N

036
DOES CKPT = 0002 ?
Y N

029
DOES CKPT = 0002 ?
Y N

037
DOES CKPT = 0003 ?
Y N

030
SEEKED TO WRONG CYLINDER.
DEV1 = EXPECTED DATA.
DEV2 = ACTUAL DATA.

038
DOES CKPT = 0004 ?
Y N

031
SEEK CHAINED TO READ SECTOR
ID COMMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

032
RECALIBRATE FAILURE.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

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27MAY83 PN6094220

EC336711 PEC-----

EC336711 PEC-----

6
P

MAP 4DE0-5

8 8 8 7 7 7
Q R S T U V

MAP 4DE0-6

T U V DISKETTE UNIT
6 6 6 SYSTEM TEST ERROR MAP
 PAGE 7 OF 16

039
DOES CKPT = 0005 ?
Y N

040
DOES CKPT = 0006 ?
Y N

041
READ SECTOR ID COMMAND
WAS EXECUTING.
DEV1 = EXPECTED DATA.
DEV2 = ACTUAL DATA.

042
READ SECTOR ID COMMAND WAS
EXECUTING.
GO TO PAGE 10,
STEP 056,
ENTRY POINT B.

043
SEEK COMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

044
READ SECTOR ID COMMAND WAS
EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

045
SEEK COMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

27MAY83 PN6094220
EC336711 PEC-----
MAP 4DE0-7

A Q R S DISKETTE UNIT
1 6 6 6 SYSTEM TEST ERROR MAP
 PAGE 8 OF 16

046
RECALIBRATE COMMAND WAS
EXECUTING.
GO TO PAGE 10,
STEP 056,
ENTRY POINT B.

047
READ SECTOR ID COMMAND WAS
EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

048
SEEK COMMAND WAS EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

049
DOES CKPT = 0000 ?
Y N

050
DOES CKPT = 0001 ?
Y N

051
DOES CKPT = 0002 ?
Y N

052
SEEK COMMAND WAS EXECUTING.
GO TO PAGE 10,
STEP 056,
ENTRY POINT B.

053
READ ID DID NOT COMPARE.
DEV4 = EXPECTED DATA.
DEV3 = ACTUAL DATA.

9 9
W X

27MAY83 PN6094220
EC336711 PEC-----
MAP 4DE0-8

W X DISKETTE UNIT
8 8 SYSTEM TEST ERROR MAP

MAP 4DE0-9

DISKETTE UNIT
SYSTEM TEST ERROR MAP

MAP 4DE0-10

||
|| PAGE 9 OF 16
||
||
|| 054
|| READ ID COMMAND WAS EXECUTING.
|| GO TO PAGE 10, STEP 056,
|| ENTRY POINT B.

055
DEVICE RESET COMMAND WAS
EXECUTING.
GO TO PAGE 10, STEP 056,
ENTRY POINT B.

056
(ENTRY POINT B)
DOES IO=07 ?
Y N
||
|| 057
|| DOES IO=06 ?
|| Y N
||
|| 058
|| DOES IO=05 ?
|| Y N
||
|| 059
|| DOES IO=03 ?
|| Y N
||
|| 060
|| DOES IO=02 ?
|| Y N

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EC336711 PEC-----
MAP 4DE0-9

1 1 1 1
1 1 1 1 1 1
1 1 A A A A
Y Z A B C D

27MAY83 PN6094220
EC336711 PEC-----
MAP 4DE0-10

Y Z A A A A DISKETTE UNIT
1 1 A B C D
0 0 1 1 1 1 SYSTEM TEST ERROR MAP
0 0 0 0

MAP 4DE0-11

A A A DISKETTE UNIT
E F G
1 1 1 SYSTEM TEST ERROR MAP
1 1 1

MAP 4DE0-12

PAGE 11 OF 16

PAGE 12 OF 16

061
DOES IO=01 ?
Y N
062
DEVICE NOT ATTACHED.
063
DEVICE BUSY.
064
BUSY AFTER RESET.
065
COMMAND REJECT.
066
INTERFACE DATA CHECK.
067
CONTROLLER BUSY.
068
DOES IN=02 ?
Y N
069
DOES IN=04 ?
Y N
070
DOES IN=03 ?
Y N
071
CONTROLLER END.

072
DEVICE END RECEIVED.
IS BIT 1 IN THE FLAGS FIELD
OFF ?
Y N
073
INSPECT DEV4
BITS 0-7 IS THE DATA
EXPECTED.
BITS 8-15 IS THE DATA
RECEIVED.
074
(ENTRY POINT D)
THIS MAP CANNOT DETERMINE THE
PROBLEM.
USE THE ERROR OUTPUT, YOU
HAVE BEEN USING FOR THIS MAP,
AS YOUR ERROR INDICATIONS AND
GO TO MAP 0070 ENTRY POINT A.
075
ATTENTION INTERRUPT.
GO TO PAGE 13, STEP 080,
ENTRY POINT E.
076
IS BIT 0 OF THE ISB OFF ?
Y N
077
IS BIT 2 OF THE ISB OFF ?
Y N
078
NOT CORRECT LENGTH ERROR.

1 1 1
2 2 2
A A A
E F G

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EC336711 PEC-----
MAP 4DE0-11

1 1
5 3
A A
H J

27MAY83 PN6094220
EC336711 PEC-----
MAP 4DE0-12

A DISKETTE UNIT
J
1 SYSTEM TEST ERROR MAP
2
PAGE 13 OF 16

079
IS CS-7 EQUAL TO FFFF ?
Y N
080
(ENTRY POINT E)
THE BITS IN CS-7 ARE AS
FOLLOWS.
BIT 00 = HARD ERROR.
BIT 01 = ATTACHMENT DETECTED
PARITY ERROR.
BIT 02 = ATTACHMENT TIMEOUT.
BIT 03 = RESERVED.
BIT 04 = RESERVED.
BIT 05 = WRONG TYPE OF DISKETTE
SELECTED.
BIT 06 = HEAD SEEK ERRORS.
BIT 07 = RESERVED.
BIT 08 = WRITE/ERASE GATE.
BIT 09 = RESERVED.
BIT 10 = ATTACHMENT EQUIPMENT
CHECK.
BIT 11 = OVERRUN/UNDERRUN.
BIT 12 = READ VERIFY ERROR.
BIT 13 = RELATED ERROR.
BIT 14 = RESERVED.
BIT 15 = SOFT ERROR RETRY.
INSPECT CS-7 FOR ERROR BITS.
ARE ALL ERROR BITS IN CS-7 OFF
?
Y N
081
ANALYZE THE ERROR BITS IN
CS-7.

1 1
4 4
A A
K L

MAP 4DE0-13

27MAY83 PN6094220
EC336711 PEC-----
MAP 4DE0-13

A A DISKETTE UNIT
K L
1 1 SYSTEM TEST ERROR MAP
3 3
PAGE 14 OF 16

082
THE BITS IN CS-8 ARE AS
FOLLOWS.
BIT 00 = CRC CHECK.
BIT 01 = RESERVED.
BIT 02 = EXCEEDED AM CONTROL
COUNT.
BIT 03 = RESERVED.
BIT 04 = NO RECORD FOUND.
BIT 05 = NO DATA FOUND.
BIT 06 = CONTROL AM FOUND.
BIT 07 = ID CHECK.
BIT 08 = RESERVED.
BIT 09 = DISKETTE NOT UP TO
SPEED.
BIT 10 = RESERVED.
BIT 11 = END OF TRACK.
BIT 12 = RESERVED.
BIT 13 = RESERVED.
BIT 14 = RESERVED.
BIT 15 = DISKETTE UNIT NOT
READY.
INSPECT CS-8 FOR ERROR BITS.
ARE ALL ERROR BITS IN CS-8 OFF
?
Y N
083
ANALYZE THE ERROR BITS IN
CS-8.
084
GO TO PAGE 12, STEP 074,
ENTRY POINT D.
085
GO TO PAGE 12, STEP 074,
ENTRY POINT D.

MAP 4DE0-14

27MAY83 PN6094220
EC336711 PEC-----
MAP 4DE0-14

|
|
086
IS BIT 1 OF THE ISB OFF ?
Y N
|
| 087
| DELAYED COMMAND REJECT.
|
088
IS BIT 2 OF THE ISB OFF ?
Y N
|
| 089
| NOT CORRECT LENGTH ERROR.
|
090
IS BIT 3 OF THE ISB OFF ?
Y N
|
| 091
| DCB SPECIFICATION CHECK.
|
092
IS BIT 4 OF THE ISB OFF ?
Y N
|
| 093
| STORAGE DATA CHECK.
|
094
IS BIT 5 OF THE ISB OFF ?
Y N
|
| 095
| NOT VALID STORAGE ADDRESS.
|
096
IS BIT 6 OF THE ISB OFF ?
Y N
|
| 097
| PROTECT CHECK.
|
|
|

|
|
098
IS BIT 7 OF THE ISB OFF ?
Y N
|
| 099
| INTERFACE DATA CHECK.
|
100
(ENTRY POINT C)
IS BIT 0 OF THE FLAGS OFF ?
Y N
|
| 101
| NOT EXPECTED INTERRUPT.
|
102
IS BIT 5 OF THE FLAGS OFF ?
Y N
|
| 103
| WRONG INTERRUPT LEVEL.
|
104
IS BIT 6 OF THE FLAGS OFF ?
Y N
|
| 105
| LOST INTERRUPT.
|
106
GO TO PAGE 12, STEP 074,
ENTRY POINT D.

TIMER

MAP 50E0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 11

001 (ENTRY POINT A) THIS MAP SHOULD NOT BE ENTERED UNLESS AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST, AND THEN ONLY WHEN THE DEVICE TYPE FIELD IS EQUAL TO HEXADECIMAL'50'.

NOTE: IN THIS MAP DEVICE (0) WILL INDICATE THE EVEN-NUMBERED DEVICE ADDRESS WHILE DEVICE (1) WILL INDICATE THE ODD-NUMBERED DEVICE ADDRESS OF THE TIMER ATTACHMENT CARD

DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

DOES RTN = 0003 ?

Y N

004

DOES RTN = 0004 ?

Y N

005

DOES RTN = 0005 ?

Y N

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1 0 7 5 4 3 2 A B C D E F

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EC336711 PEC337313

MAP 50E0-1

F 1

TIMER

MAP 50E0-2

SYSTEM TEST ERROR MAP

PAGE 2 OF 11

006

DOES CKPT = 0000 ?

Y N

007

DOES CKPT = 0001 ?

Y N

008

DOES IO = 07 ?

Y N

009

COMMAND REJECT FROM

ATTACHMENT CARD

PREPARE - LEVEL = 2

WRITE MODE (DEVICE 0 AND 1)

WRITE VALUE (DEVICE 0 AND

1)

START TIMER EXTERNAL GATE

(DEVICE 0 AND 1)

010

START TIMER EXTERNAL GATE

FAILED

CHECK DCB, FLAGS AND ISB

DEV4 - MODE WHEN FAILURE

OCCURRED

011

DOES IO = 07 ?

Y N

012

COMMAND REJECT FROM

ATTACHMENT CARD

PREPARE - LEVEL = 1

WRITE MODE (DEVICE 0 AND 1)

WRITE VALUE (DEVICE 0 AND 1)

START TIMER EXTERNAL GATE

(DEVICE 0 AND 1)

3 3

G H

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EC336711 PEC337313

MAP 50E0-2

```

E G H      TIMER
1 2 2
SYSTEM TEST ERROR MAP
PAGE 3 OF 11
013
START TIMER EXTERNAL GATE
FAILED
CHECK DCB, FLAGS AND ISB
DEV4 - MODE WHEN FAILURE
OCCURRED
014
DOES IO = 07 ?
Y N
015
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 0
WRITE MODE (DEVICE 0 AND 1)
WRITE VALUE (DEVICE 0 AND 1)
START TIMER EXTERNAL GATE
(DEVICE 0 AND 1)
016
START TIMER EXTERNAL GATE
FAILED
CHECK DCB, FLAGS AND ISB
DEV4 - MODE WHEN FAILURE
OCCURRED
017
DOES CKPT = 0000 ?
Y N
018
DOES CKPT = 0001 ?
Y N
019
DOES CKPT = 0002 ?
Y N

```

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 EC336711 PEC337313
 MAP 50E0-3

4 4 4 4
 J K L M

MAP 50E0-3

```

D J K L M  TIMER
1 3 3 3 3
SYSTEM TEST ERROR MAP
PAGE 4 OF 11
020
DOES CKPT = 0003 ?
Y N
021
READ MODE ERROR
DEV1 = EXPECTED DATA
DCB1 = RECEIVED DATA
ERROR ON TIMER ONE
022
READ MODE ERROR
DEV1 = EXPECTED DATA
DCB1 = RECEIVED DATA
ERROR ON TIMER ZERO
023
COMMAND REJECT FROM
ATTACHMENT CARD
READ MODE (DEVICE ZERO AND
ONE)
024
COMMAND REJECT FROM
ATTACHMENT CARD
WRITE MODE (DEVICE ZERO AND
ONE)
025
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
DEVICE ZERO OR ONE
026
DOES CKPT = 0000 ?
Y N
027
DOES CKPT = 0001 ?
Y N

```

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 EC336711 PEC337313
 MAP 50E0-4

MAP 50E0-4

5 5 5
 N P Q

C N P Q
1 4 4 4
TIMER
SYSTEM TEST ERROR MAP

MAP 50E0-5

S
5
TIMER
SYSTEM TEST ERROR MAP

MAP 50E0-6

PAGE 5 OF 11

PAGE 6 OF 11

028
DOES CKPT = 0002 ?
Y N

036
DOES CKPT = 0001 ?
Y N

029
DOES CKPT = 0003 ?
Y N

037
DOES CKPT = 0002 ?
Y N

030
READ VALUE ERROR
DEV1 = EXPECTED DATA
DCB1 = RECEIVED DATA
ERROR ON TIMER ONE

038
COMMAND REJECT FROM
ATTACHMENT CARD
RESET (DEVICE ZERO OR ONE)

031
READ VALUE ERROR
DEV1 = EXPECTED DATA
DCB1 = RECEIVED DATA
ERROR ON TIMER ZERO

039
DOES IN = 03 ?
Y N

032
COMMAND REJECT FROM
ATTACHMENT CARD
READ VALUE (DEVICE ZERO AND
ONE)

040
COMMAND REJECT ERROR
DEVICE ONE

033
COMMAND REJECT FROM
ATTACHMENT CARD
WRITE VALUE (DEVICE ZERO AND
ONE)

041
CHECK DCB, FLAGS AND ISB
ERROR EXPECTED - GOOD RECEIVED

034
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
DEVICE ZERO OR ONE

042
DOES IN = 03 ?
Y N

035
DOES CKPT = 0000 ?
Y N

043
COMMAND REJECT ERROR
DEVICE ZERO

044
CHECK DCB, FLAGS AND ISB
ERROR EXPECTED - GOOD RECEIVED

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27MAY83 PN1635463

EC336711 PEC337313

EC336711 PEC337313

7 6
R S

MAP 50E0-5

MAP 50E0-6

B R
1 5
TIMER
SYSTEM TEST ERROR MAP
PAGE 7 OF 11

045
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE = LEVEL 1
(DEVICE ZERO OR ONE)

046
DOES CKPT = 0000 ?
Y N

047
DOES CKPT = 0001 ?
Y N

048
DOES CKPT = 0002 ?
Y N

049
DOES CKPT = 0003 ?
Y N

050
DOES CKPT = 0004 ?
Y N

9 9 9 8 8 8
T U V W X Y

MAP 50E0-7

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EC336711 PEC337313

MAP 50E0-7

W X Y
7 7 7
TIMER
SYSTEM TEST ERROR MAP
PAGE 8 OF 11

051
DOES IO = 07 ?
Y N

052
COMMAND REJECT FROM
ATTACHMENT CARD
READ VALUE (DEVICE ZERO OR
ONE)

053
DATA ERROR FROM READ VALUE
IF DEVICE ZERO - DCB1 IS NOT
EQUAL TO DCB3
IF DEVICE ONE -- DCB1 IS NOT
EQUAL TO BYCT

054
DOES IO = 07 ?
Y N

055
COMMAND REJECT FROM
ATTACHMENT CARD
READ MODE (DEVICE ZERO OR
ONE)

056
DATA ERROR FROM READ MODE
IF DEVICE ZERO - DCB1 IS NOT
EQUAL TO HEXADECIMAL'0000'
IF DEVICE ONE -- DCB1 IS NOT
EQUAL TO HEXADECIMAL'0000'

057
COMMAND REJECT FROM ATTACHMENT
CARD
RESET (DEVICE ONE)
STOP (DEVICE ZERO)

MAP 50E0-8

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EC336711 PEC337313

MAP 50E0-8

T U V TIMER
7 7 7

 SYSTEM TEST ERROR MAP

 PAGE 9 OF 11

058
DOES IO = 07 ?
Y N

059
COMMAND REJECT FROM
ATTACHMENT CARD
READ VALUE (DEVICE ZERO OR
ONE)

060
DATA ERROR FROM READ VALUE
IF DEVICE ZERO - DCB1 IS NOT
EQUAL TO DCB3
IF DEVICE ONE -- DCB1 IS NOT
EQUAL TO BYCT

061
DOES IO = 07 ?
Y N

062
COMMAND REJECT FROM
ATTACHMENT CARD
READ MODE (DEVICE ZERO OR
ONE)

063
DATA ERROR FROM READ MODE
IF DEVICE ZERO - DCB1 IS NOT
EQUAL TO HEXADECIMAL'0000'
IF DEVICE ONE -- DCB1 IS NOT
EQUAL TO ADDR

064
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
RESET (DEVICE ZERO)
STOP (DEVICE ONE)

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EC336711 PEC337313
MAP 50E0-9

A TIMER
1

 SYSTEM TEST ERROR MAP

 PAGE 10 OF 11

065
DOES CKPT = 0000 ?
Y N

066
DOES CKPT = 0001 ?
Y N

067
DOES CKPT = 0002 ?
Y N

068
COMMAND REJECT FROM
ATTACHMENT CARD
READ MODE DEVICE ONE
READ VALUE DEVICE ONE

069
COMMAND REJECT FROM
ATTACHMENT CARD
READ MODE DEVICE ZERO
READ VALUE DEVICE ZERO

070
DOES IO = 07 ?
Y N

071
COMMAND REJECT FROM
ATTACHMENT CARD
READ ID DEVICE ONE

072
WRONG ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
(DDEVICE ONE)

27MAY83 PN1635463
EC336711 PEC337313
MAP 50E0-10

1
1
Z

Z
1
0

TIMER

SYSTEM TEST ERROR MAP

MAP 50E0-11

| PAGE 11 OF 11

|
|
073
DOES IO = 07 ?
Y N

|
| 074
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1 (DEVICE
| ZERO OR ONE)
| READ ID DEVICE ZERO

|
075
WRONG ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
(DEVICE ZERO)

27MAY83 PN1635463

EC336711 PEC337313

MAP 50E0-11

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL '58'.

CAUTION: IF TWO OR MORE DEVICES
ARE INSTALLED AND BEING TESTED ON
THE SAME ATTACHMENT CARD THE BASE
ADDRESS MUST BE ONE OF THE
DEVICES BEING TESTED.

DOES RTN = FFFF ?
Y N
002
DOES RTN = 0000 ?
Y N
003
DOES RTN = 0001 ?
Y N
004
DOES RTN = 0002 ?
Y N
005
DOES RTN = 0003 ?
Y N

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4 4 4 4 3
A B C D E F

006
DOES RTN = 0004 ?
Y N
007
DOES RTN = 0005 ?
Y N
008
DOES RTN = 0006 ?
Y N
009
A WRITE TAPE MARK WAS
EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.
010
WRITING LONG RECORDS FROM
STORAGE.
GO TO PAGE 5, STEP 068.
ENTRY POINT B.
011
DOES CKPT = 0000 ?
Y N
012
DOES CKPT = 0001 ?
Y N
013
DOES CKPT = 0002 ?
Y N
014
DOES CKPT = 0003 ?
Y N

30JAN87 PN6843284

ECA41061 PEC337313

2 2 2 2 2 2
G H J K L M

MAP 58E0-1

015
DOES CKPT = 0004 ?
Y N
016
DOES CKPT = 0005 ?
Y N
017
DOES CKPT = 0006 ?
Y N
018
DOES CKPT = 0007 ?
Y N
019
A ERASE COMMAND WAS
EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.
020
A WRITE TAPE MARK WAS
EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.
021
A SPACE RECORD FORWARD WAS
EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.
022
A SPACE TAPE MARK FORWARD WAS
EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

N

023
A SPACE TAPE MARK
BACKWARD WAS EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.
024
DATA COMPARE ERROR AFTER
A READ COMMAND.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.
025
A READ WAS EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.
026
A SPACE RECORD BACKWARD WAS
EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.
027
A WRITE WAS EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

028
DOES CKPT = 0000 ?
Y N

029
DOES CKPT = 0001 ?
Y N

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ECA41061 PEC337313

3 3 3
P Q R

MAP 58E0-2

030
DOES CKPT = 0002 ?
Y N

031
DOES CKPT = 0003 ?
Y N

032
DOES CKPT = 0004 ?
Y N

033
A SPACE TAPE MARK FORWARD
WAS EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.

034
A SPACE TAPE MARK BACKWARD
WAS EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.

035
A SPACE RECORD BACKWARD WAS
EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

036
DATA COMPARE ERROR AFTER A READ
COMMAND.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

037
A READ COMMAND WAS EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

038
A SPACE RECORD FORWARD WAS
EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

039
DOES CKPT = 0000 ?
Y N

040
DOES CKPT = 0001 ?
Y N

041
DOES CKPT = 0002 ?
Y N

042
A SPACE TAPE MARK FORWARD
WAS EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.

043
A SPACE TAPE MARK BACKWARD
WAS EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

044
DATA COMPARE ERROR AFTER A READ
COMMAND.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

045
A READ WAS EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

30JAN87 PN6843284
ECA41061 PEC337313
MAP 58E0-3

046
DOES CKPT = 0000 ?
Y N

047
DOES CKPT = 0001 ?
Y N

048
A SPACE TAPE MARK FORWARD
WAS EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.

049
A SPACE TAPE MARK BACKWARD
WAS EXECUTING.
GO TO PAGE 5,
STEP 068,
ENTRY POINT B.

050
A WRITE WAS EXECUTING.
INSPECT THE STATUS IN DEVI
FOR ERROR ANALYSIS.

051
A READ ID WAS EXECUTING.
DEV3=EXPECTED DEVICE ID.
DEV4=RECEIVED DEVICE ID.

052
DOES CKPT = 0000 ?
Y N

053
A REWIND WAS EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

S

054
A WRITE TAPEMARK WAS EXECUTING.
GO TO PAGE 5, STEP 068,
ENTRY POINT B.

055
DOES CKPT = 0000 ?
Y N

056
DOES CKPT = 0001 ?
Y N

057
DOES CKPT = 0002 ?
Y N

058
DOES CKPT = 0003 ?
Y N

059
DOES CKPT = 0004 ?
Y N

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ECA41061 PEC337313
MAP 58E0-4

5 5 5 5 5 5
T U V W X Y

T U V W X Y 4969 TAPE DRIVE
4 4 4 4 4 4
SYSTEM TEST ERROR MAP

MAP 58E0-5

060
DOES CKPT = 0005 ?
Y N

061
THE DEVICE IS NOT
READY OR OFF LINE.

062
A WRITE TAPE MARK WAS
EXECUTING.
GO TO STEP 068,
ENTRY POINT B.

063
FILE PROTECT BIT IS ON.

064
LOAD POINT INDICATOR NOT ON
AFTER A REWIND.

065
A START STATUS WAS EXECUTING.
GO TO STEP 068,
ENTRY POINT B.

066
A REWIND WAS EXECUTING.
GO TO STEP 068,
ENTRY POINT B.

067
A DEVICE RESET WAS EXECUTING.
GO TO STEP 068,
ENTRY POINT B.

068
(ENTRY POINT B)
DOES IO=07 ?
Y N

069
DOES IO=06 ?
Y N

070
DOES IO=05 ?
Y N

071
DOES IO=03 ?
Y N

072
DOES IO=02 ?
Y N

30JAN87 PN6843284
6 6 6 6 6 ECA41061 PEC337313
6 A A A A A
Z A B C D E MAP 58E0-5

Z A A A A 4969 TAPE DRIVE
5 A B C D E
5 5 5 5 SYSTEM TEST ERROR MAP

PAGE 6 OF 9

073
DOES IO=01 ?
Y N

074
DEVICE NOT ATTACHED.

075
DEVICE BUSY.

076
BUSY AFTER RESET.

077
COMMAND REJECT.

078
INTERFACE DATA CHECK.

079
CONTROLLER BUSY.

080
DOES IN=02 ?
Y N

081
DOES IN=07 ?
Y N

082
DOES IN=06 ?
Y N

083
DOES IN=04 ?
Y N

084
DOES IN=03 ?
Y N

A A A A A A
F G H J K L

A A A A A A MAP 58E0-6
F G H J K L

085
CONTROLLER END.

086
DEVICE END RECEIVED.
IS BIT 1 IN THE FLAGS
FIELD OFF ?
Y N

087
INSPECT DEV4
BITS 0-7 IS THE DATA
READ
BITS 8-15 IS THE DATA
WRITTEN

088
GO TO PAGE 8,
STEP 109,
ENTRY POINT D.

089
ATTENTION.

090
ATTENTION AND EXCEPTION.

091
ATTENTION AND DEVICE END.

092
IS BIT 0 OF THE ISB OFF ?
Y N

093
IS BIT 2 OF THE ISB OFF ?
Y N

094
NOT CORRECT LENGTH ERROR.

30JAN87 PN6843284
8 7 ECA41061 PEC337313
A A
M N MAP 58E0-6

095
IS CS-3 BIT 10 OFF ?
Y N

096
IS CS-4 EQUAL TO FFFF ?
Y N

097
THE BITS IN CS-4 ARE AS
FOLLOWS.
BIT 0 = TIMER.
BIT 1 = TAPE CONTROLLER
ERROR.
BIT 2 = CORRECTED ERROR.
BIT 3 = CRC PARITY ERROR.

BIT 4 = TAPE CONTROLLER
COMMAND REJECT.
BIT 5 = ATTACHMENT B PARITY
ERROR.
BIT 6 = BUFFER PARITY ERROR.
BIT 7 = TAPE CONTROLLER
PARITY ERROR.

BIT 8 = EQUIPMENT CHECK.
BIT 9 = ATTACHMENT A PARITY
ERROR.
BIT 10 = ATTACHMENT LOCAL
TIMEOUT.
BIT 11 = C/S STATUS ERROR.

BIT 12-15 = RETRY COUNT.
INSPECT CS-4 FOR ERROR BITS.
ARE ALL OF THE BITS 0-11 IN
CS-4 OFF ?
Y N

098
CAUTION IF BITS 1 AND 7 ARE
THE ONLY BITS ON IN CS-4
SUSPECT A POSSIBLE MEDIA
PROBLEM.
ANALYZE BITS 0-11 FOR ERROR
INFORMATION.

099
GO TO PAGE 8, STEP 109,
ENTRY POINT D.

100
GO TO PAGE 8, STEP 124,
ENTRY POINT C.

101
IS CS-3 BIT 0 ON ?
Y N

102
TAPE DRIVE NOT READY.

103
IS CS-3 BIT 2 OFF ?
Y N

104
FILE PROTECT INDICATOR ON.

105
IS CS-3 BIT 4 OFF ?
Y N

106
END OF TAPE IS PRESENT.

107
IS CS-3 BIT 5 OFF ?
Y N

108
TAPE MARK WAS PRESENT DURING
THE LAST DATA MOVE.

109
(ENTRY POINT D)

THIS MAP CANNOT DETERMINE THE
PROBLEM.
USE THE ERROR OUTPUT, YOU HAVE
BEEN USING FOR THIS MAP, AS
YOUR ERROR INDICATIONS AND GO
TO MAP 0070 ENTRY POINT A.

110
IS BIT 1 OF THE ISB OFF ?
Y N

111
DELAYED COMMAND REJECT.

112
IS BIT 2 OF THE ISB OFF ?
Y N

113
NOT CORRECT LENGTH ERROR.

114
IS BIT 3 OF THE ISB OFF ?
Y N

115
DCB SPECIFICATION CHECK.

116
IS BIT 4 OF THE ISB OFF ?
Y N

117
STORAGE DATA CHECK.

118
IS BIT 5 OF THE ISB OFF ?
Y N

119
NOT VALID STORAGE ADDRESS.

120
IS BIT 6 OF THE ISB OFF ?
Y N

121
PROTECT CHECK.

122
IS BIT 7 OF THE ISB OFF ?
Y N

123
INTERFACE DATA CHECK.

124
(ENTRY POINT C)
IS BIT 0 OF THE FLAGS OFF ?
Y N

125
NOT EXPECTED INTERRUPT.

126
IS BIT 5 OF THE FLAGS OFF ?
Y N

127
WRONG INTERRUPT LEVEL.

128
IS BIT 6 OF THE FLAGS OFF ?
Y N

129
LOST INTERRUPT.

A
W
8

4969 TAPE DRIVE
SYSTEM TEST ERROR MAP

MAP 58E0-9

| PAGE 9 OF 9
|

130
THIS MAP CANNOT DETERMINE THE
PROBLEM.
USE THE ERROR OUTPUT, YOU HAVE
BEEN USING FOR THIS MAP, AS YOUR
ERROR INDICATIONS AND GO TO MAP
0070 ENTRY POINT A.

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MAP 58E0-9

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 23

PAGE 2 OF 23

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL '59'.

NOTE: EACH ATTACHMENT CARD
CONTROLS ONE TAPE UNIT.

DOES RTN = 0001 ?
Y N

002
DOES RTN = 0002 ?
Y N

003
DOES RTN = 0003 ?
Y N

004
DOES RTN = 0004 ?
Y N

005
DOES CKPT = 0000 ?
Y N

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2 1
0 4 8 2 2 2
A B C D E F

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006
DOES IO = 07 ?
Y N

007
CYCLE STEAL STATUS RESIDUAL
ADDRESS ERROR
DEV3 = EXPECTED ADDRESS
DEV4 = RECEIVED ADDRESS
CHECK ISB FOR ERROR
CONDITION.

008
COMMAND ERROR (ERROR EXPECTED
- GOOD RECEIVED)
CHECK ISB FOR ERROR
CONDITION.

009
COMMAND REJECT FROM ATTACHMENT
CARD,
PREPARE - LEVEL = 1

010
DOES CKPT = 0000 ?
Y N

011
DOES CKPT = 0001 ?
Y N

012
DOES CKPT = 0002 ?
Y N

013
DOES CKPT = 0003 ?
Y N

8 7 7 6 3
G H J K L

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014
DOES CKPT = 0004 ?
Y N
015
DOES CKPT = 0005 ?
Y N
016
DOES CKPT = 0006 ?
Y N
017
DOES CKPT = 0007 ?
Y N
018
DOES CKPT = 0008 ?
Y N

5 5 5 4 4 4
M N P Q R S

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EC337369 PEC-----
MAP 59E0-3

019
DOES CKPT = 0009 ?
Y N
020
CHECK ISB FOR ERROR
CONDITION.
021
FAILURE DURING SPACE RECORD
FORWARD/REVERSE TEST
(ERROR OCURRED AT 50 IPS TAPE
SPEED.)
022
FAILURE DURING READ NEW
LAST-RECORD TEST
(ERROR OCURRED AT 50 IPS TAPE
SPEED.)
023
DOES IO = 07 ?
Y N
024
COMMAND REJECT FROM ATTACHMENT
CARD,
SPACE TAPE MARK FORWARD
REJECTED
(ERROR OCURRED AT 50 IPS TAPE
SPEED.)
025
DOES IN = 03 ?
Y N
026
SPACE TAPE MARK FORWARD FAILED
CHECK ISB FOR ERROR CONDITION.
(ERROR OCURRED AT 50 IPS TAPE
SPEED.)

5
T

25MAR83 PN6094213
EC337369 PEC-----
MAP 59E0-4

M N P T 4968 TAPE UNIT
3 3 3 4 SYSTEM TEST ERROR MAP

MAP 59E0-5

K U V 4968 TAPE UNIT
2 5 5 SYSTEM TEST ERROR MAP

MAP 59E0-6

|||
||| PAGE 5 OF 23

||| 027
||| PROCESSOR/CHANNEL INTERFACE
||| ERROR

||| 028
||| FAILURE DURING READ LAST
||| RECORD TEST
||| (ERROR OCURRED AT 50 IPS TAPE
||| SPEED.)

||| 029
||| DOES IO = 07 ?
||| Y N

||| 030
||| COMMAND REJECT FROM
||| ATTACHMENT CARD,
||| SPACE TAPE MARK REVERSE
||| COMMAND REJECTED
||| (ERROR OCURRED AT 50 IPS TAPE
||| SPEED.)

||| 031
||| DOES IN = 03 ?
||| Y N

||| 032
||| SPACE TAPE MARK REVERSE
||| FAILED
||| CHECK ISB FOR ERROR
||| CONDITION.
||| (ERROR OCURRED AT 50 IPS TAPE
||| SPEED.)

||| 033
||| PROCESSOR/CHANNEL INTERFACE
||| ERROR

||| 034
||| DOES IO = 07 ?
||| Y N

6 6
U V

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EC337369 PEC-----
MAP 59E0-5

|||
||| PAGE 6 OF 23

||| 035
||| COMMAND REJECT FROM
||| ATTACHMENT CARD,
||| WRITE TAPE MARK COMMAND
||| REJECTED
||| (ERROR OCURRED AT 50 IPS TAPE
||| SPEED.)

||| 036
||| DOES IN = 03 ?
||| Y N

||| 037
||| WRITE TAPE MARK FAILED
||| CHECK ISB FOR ERROR
||| CONDITION.
||| (ERROR OCURRED AT 50 IPS TAPE
||| SPEED.)

||| 038
||| PROCESSOR/CHANNEL INTERFACE
||| ERROR

||| 039
||| DOES IO = 07 ?
||| Y N

||| 040
||| COMMAND REJECT FROM ATTACHMENT
||| CARD,
||| READ RECORD COMMAND REJECTED
||| (ERROR OCURRED AT 50 IPS TAPE
||| SPEED.)

||| 041
||| DOES IN = 03 ?
||| Y N

7 7
W X

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EC337369 PEC-----
MAP 59E0-6

H J W X 4968 TAPE UNIT
 2 2 6 6
 SYSTEM TEST ERROR MAP
 PAGE 7 OF 23
 042
 READ RECORD FAILED
 CHECK ISB FOR ERROR
 CONDITION.
 (ERROR OCURRED AT 50 IPS
 TAPE SPEED.)
 043
 PROCESSOR/CHANNEL INTERFACE
 ERROR
 044
 DOES IO = 07 ?
 Y N
 045
 COMMAND REJECT FROM
 ATTACHMENT CARD,
 SPACE RECORD REVERSE COMMAND
 REJECTED
 (ERROR OCURRED AT 50 IPS TAPE
 SPEED.)
 046
 DOES IN = 03 ?
 Y N
 047
 SPACE RECORD REVERSE FAILED
 CHECK ISB FOR ERROR
 CONDITION.
 (ERROR OCURRED AT 50 IPS TAPE
 SPEED.)
 048
 PROCESSOR/CHANNEL INTERFACE
 ERROR
 049
 DOES IO = 07 ?
 Y N
 8 8
 Y Z

MAP 59E0-7

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 MAP 59E0-7

C G Y Z 4968 TAPE UNIT
 1 2 7 7
 SYSTEM TEST ERROR MAP
 PAGE 8 OF 23
 050
 COMMAND REJECT FROM
 ATTACHMENT CARD,
 WRITE COMMAND REJECTED
 (ERROR OCURRED AT 50 IPS
 TAPE SPEED.)
 051
 DOES IN = 03 ?
 Y N
 052
 WRITE RECORD FAILED
 CHECK ISB FOR ERROR
 CONDITION.
 (ERROR OCURRED AT 50 IPS
 TAPE SPEED.)
 053
 PROCESSOR/CHANNEL INTERFACE
 ERROR
 054
 PROCESSOR/CHANNEL INTERFACE
 ERROR
 055
 DOES CKPT = 0000 ?
 Y N
 056
 DOES CKPT = 0001 ?
 Y N
 057
 DOES CKPT = 0002 ?
 Y N
 058
 DOES CKPT = 0003 ?
 Y N
 1 1 1 1
 4 3 3 2 9
 A A A A A
 A B C D E

MAP 59E0-8

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 MAP 59E0-8

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059
DOES CKPT = 0004 ?
Y N
060
DOES CKPT = 0005 ?
Y N
061
DOES CKPT = 0006 ?
Y N
062
DOES CKPT = 0007 ?
Y N
063
DOES CKPT = 0008 ?
Y N

064
DOES CKPT = 0009 ?
Y N
065
CHECK ISB FOR ERROR
CONDITION.
066
FAILURE DURING SPACE RECORD
FORWARD/REVERSE TEST
(ERROR OCURRED AT 100 IPS
TAPE SPEED.)
067
FAILURE DURING READ NEW
LAST-RECORD TEST
(ERROR OCURRED AT 100 IPS TAPE
SPEED.)
068
DOES IO = 07 ?
Y N
069
COMMAND REJECT FROM ATTACHMENT
CARD,
SPACE TAPE MARK FORWARD
REJECTED
(ERROR OCURRED AT 100 IPS TAPE
SPEED.)
070
DOES IN = 03 ?
Y N
071
SPACE TAPE MARK FORWARD FAILED
CHECK ISB FOR ERROR CONDITION.
(ERROR OCURRED AT 100 IPS TAPE
SPEED.)

1 1 1 1 1 1
1 1 1 0 0 0
A A A A A A
F G H J K L

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EC337369 PEC-----
MAP 59E0-9

1
1
A
M

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EC337369 PEC-----
MAP 59E0-10

A A A A 4968 TAPE UNIT
F G H M
9 9 9 1 SYSTEM TEST ERROR MAP
0

MAP 59E0-11

|| | PAGE 11 OF 23
|| |
|| | 072
|| | PROCESSOR/CHANNEL INTERFACE
|| | ERROR
|| |
|| | 073
|| | FAILURE DURING READ LAST
|| | RECORD TEST
|| | (ERROR OCURRED AT 100 IPS
|| | TAPE SPEED.)
|| |
|| | 074
|| | DOES IO = 07 ?
|| | Y N
|| |
|| | 075
|| | COMMAND REJECT FROM
|| | ATTACHMENT CARD,
|| | SPACE TAPE MARK REVERSE
|| | COMMAND REJECTED
|| | (ERROR OCURRED AT 100 IPS
|| | TAPE SPEED.)
|| |
|| | 076
|| | DOES IN = 03 ?
|| | Y N
|| |
|| | 077
|| | SPACE TAPE MARK REVERSE
|| | FAILED
|| | CHECK ISB FOR ERROR
|| | CONDITION.
|| | (ERROR OCURRED AT 100 IPS
|| | TAPE SPEED.)
|| |
|| | 078
|| | PROCESSOR/CHANNEL INTERFACE
|| | ERROR
|| |
|| | 079
|| | DOES IO = 07 ?
|| | Y N
|| |
|| |

1 1
2 2
A A
N P

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EC337369 PEC-----

MAP 59E0-11

A A A 4968 TAPE UNIT
D N P
8 1 1 SYSTEM TEST ERROR MAP
1 1

MAP 59E0-12

|| | PAGE 12 OF 23
|| |
|| | 080
|| | COMMAND REJECT FROM
|| | ATTACHMENT CARD,
|| | WRITE TAPE MARK COMMAND
|| | REJECTED
|| | (ERROR OCURRED AT 100 IPS
|| | TAPE SPEED.)
|| |
|| | 081
|| | DOES IN = 03 ?
|| | Y N
|| |
|| | 082
|| | WRITE TAPE MARK FAILED
|| | CHECK ISB FOR ERROR
|| | CONDITION.
|| | (ERROR OCURRED AT 100 IPS
|| | TAPE SPEED.)
|| |
|| | 083
|| | PROCESSOR/CHANNEL INTERFACE
|| | ERROR
|| |
|| | 084
|| | DOES IO = 07 ?
|| | Y N
|| |
|| | 085
|| | COMMAND REJECT FROM ATTACHMENT
|| | CARD,
|| | READ RECORD COMMAND REJECTED
|| | (ERROR OCURRED AT 100 IPS TAPE
|| | SPEED.)
|| |
|| | 086
|| | DOES IN = 03 ?
|| | Y N

1 1
3 3
A A
Q R

25MAR83 PN6094213

EC337369 PEC-----

MAP 59E0-12

A A A A 4968 TAPE UNIT
B C Q R
8 8 1 1 SYSTEM TEST ERROR MAP
2 2

MAP 59E0-13

PAGE 13 OF 23
| | | |
| | | |
| | | 087
| | | READ RECORD FAILED
| | | CHECK ISB FOR ERROR
| | | CONDITION.
| | | (ERROR OCURRED AT 100 IPS
| | | TAPE SPEED.)
| | |
| | | 088
| | | PROCESSOR/CHANNEL INTERFACE
| | | ERROR
| | |
| | | 089
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 090
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD,
| | | SPACE RECORD REVERSE COMMAND
| | | REJECTED
| | | (ERROR OCURRED AT 100 IPS
| | | TAPE SPEED.)
| | |
| | | 091
| | | DOES IN = 03 ?
| | | Y N
| | |
| | | 092
| | | SPACE RECORD REVERSE FAILED
| | | CHECK ISB FOR ERROR
| | | CONDITION.
| | | (ERROR OCURRED AT 100 IPS
| | | TAPE SPEED.)
| | |
| | | 093
| | | PROCESSOR/CHANNEL INTERFACE
| | | ERROR
| | |
| | | 094
| | | DOES IO = 07 ?
| | | Y N

1 1
4 4
A A
S T

25MAR83 PN6094213
EC337369 PEC-----
MAP 59E0-13

B A A A 4968 TAPE UNIT
1 A S T
8 1 1 SYSTEM TEST ERROR MAP
3 3

MAP 59E0-14

PAGE 14 OF 23
| | | |
| | | |
| | | 095
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD,
| | | WRITE COMMAND REJECTED
| | | (ERROR OCURRED AT 100 IPS
| | | TAPE SPEED.)
| | |
| | | 096
| | | DOES IN = 03 ?
| | | Y N
| | |
| | | 097
| | | WRITE RECORD FAILED
| | | CHECK ISB FOR ERROR
| | | CONDITION.
| | | (ERROR OCURRED AT 100 IPS
| | | TAPE SPEED.)
| | |
| | | 098
| | | PROCESSOR/CHANNEL INTERFACE
| | | ERROR
| | |
| | | 099
| | | PROCESSOR/CHANNEL INTERFACE
| | | ERROR
| | |
| | | 100
| | | DOES CKPT = 0000 ?
| | | Y N
| | |
| | | 101
| | | DOES CKPT = 0001 ?
| | | Y N
| | |
| | | 102
| | | DOES CKPT = 0002 ?
| | | Y N
| | |
| | | 103
| | | DOES CKPT = 0003 ?
| | | Y N

1 1 1 1 1
9 9 8 8 5
A A A A A
U V W X Y

25MAR83 PN6094213
EC337369 PEC-----
MAP 59E0-14

A B B 4968 TAPE UNIT
Z A B
1 1 1 SYSTEM TEST ERROR MAP
5 5 5

PAGE 17 OF 23

| | |
| | |
| | 118
| | FAILURE DURING READ LAST
| | RECORD TEST
| |
| | 119
| | DOES IO = 07 ?
| | Y N
| |
| | 120
| | COMMAND REJECT FROM
| | ATTACHMENT CARD,
| | SPACE TAPE MARK REVERSE
| | COMMAND REJECTED
| |
| | 121
| | DOES IN = 03 ?
| | Y N
| |
| | 122
| | SPACE TAPE MARK REVERSE
| | FAILED
| | CHECK ISB FOR ERROR
| | CONDITION.
| |
| | 123
| | PROCESSOR/CHANNEL INTERFACE
| | ERROR
| |
| | 124
| | DOES IO = 07 ?
| | Y N
| |
| | 125
| | COMMAND REJECT FROM ATTACHMENT
| | CARD,
| | WRITE TAPE MARK COMMAND
| | REJECTED
| |
| | 126
| | DOES IN = 03 ?
| | Y N
| |
| |
| |

1 1
8 8
B B
F G

MAP 59E0-17

25MAR83 PN6094213
EC337369 PEC-----
MAP 59E0-17

A A B B 4968 TAPE UNIT
W X F G
1 1 1 1 SYSTEM TEST ERROR MAP
4 4 7 7

PAGE 18 OF 23

| | | |
| | | |
| | | 127
| | | WRITE TAPE MARK FAILED
| | | CHECK ISB FOR ERROR
| | | CONDITION.
| | |
| | | 128
| | | PROCESSOR/CHANNEL INTERFACE
| | | ERROR
| | |
| | | 129
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 130
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD,
| | | READ RECORD COMMAND REJECTED
| | |
| | | 131
| | | DOES IN = 03 ?
| | | Y N
| | |
| | | 132
| | | READ RECORD FAILED
| | | CHECK ISB FOR ERROR
| | | CONDITION.
| | |
| | | 133
| | | PROCESSOR/CHANNEL INTERFACE
| | | ERROR
| | |
| | | 134
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 135
| | | COMMAND REJECT FROM ATTACHMENT
| | | CARD,
| | | SPACE RECORD REVERSE COMMAND
| | | REJECTED

1
9
B
H

MAP 59E0-18

25MAR83 PN6094213
EC337369 PEC-----
MAP 59E0-18

136
DOES IN = 03 ?
Y N
137
SPACE RECORD REVERSE FAILED
CHECK ISB FOR ERROR
CONDITION.
138
PROCESSOR/CHANNEL INTERFACE
ERROR
139
DOES IO = 07 ?
Y N
140
COMMAND REJECT FROM
ATTACHMENT CARD,
WRITE COMMAND REJECTED
141
DOES IN = 03 ?
Y N
142
WRITE RECORD FAILED
CHECK ISB FOR ERROR
CONDITION.
143
PROCESSOR/CHANNEL INTERFACE
ERROR
144
PROCESSOR/CHANNEL INTERFACE ERROR

145
DOES CKPT = 0000 ?
Y N
146
DOES CKPT = 0001 ?
Y N
147
DOES CKPT = 0002 ?
Y N
148
DOES CKPT = 0003 ?
Y N
149
DOES CKPT = 0004 ?
Y N

B 4968 TAPE UNIT
P SYSTEM TEST ERROR MAP
2
0 PAGE 21 OF 23

|
|
150
DOES CKPT = 0005 ?
Y N
|
151
DOES IO = 07 ?
Y N
|
152
COMMAND REJECT FROM
ATTACHMENT CARD,
START CYCLE STEAL STATUS
REJECTED
|
153
DOES IN = 03 ?
Y N
|
154
CHECK ISB FOR ERROR
CONDITION.
|
155
CHECK CYCLE-STEAL STATUS WORD
5, BITS 0 THROUGH 4.
|
156
DOES IO = 07 ?
Y N
|
157
COMMAND REJECT FROM ATTACHMENT
CARD,
SET 1600 BPI MODE COMMAND
REJECTED
|
158
CHECK ISB FOR ERROR CONDITION.

MAP 59E0-21

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EC337369 PEC-----
MAP 59E0-21

B B B B 4968 TAPE UNIT
K L M N
2 2 2 2 SYSTEM TEST ERROR MAP
0 0 0 0 PAGE 22 OF 23

| | | |
| | | |
159
DOES IO = 07 ?
Y N
| | | |
160
COMMAND REJECT FROM
ATTACHMENT CARD,
REWIND COMMAND REJECTED
| | | |
161
CHECK ISB FOR ERROR
CONDITION.
| | | |
162
DOES IO = 07 ?
Y N
| | | |
163
COMMAND REJECT FROM
ATTACHMENT CARD,
READ STATUS COMMAND
REJECTED
| | | |
164
CHECK ISB FOR ERROR
CONDITION.
| | | |
165
COMMAND REJECT FROM ATTACHMENT
CARD,
DEVICE RESET COMMAND REJECTED
| | | |
166
DOES IO = 07 ?
Y N
| | | |
167
COMMAND REJECT FROM ATTACHMENT
CARD,
READ ID COMMAND REJECTED
| | | |

MAP 59E0-22

25MAR83 PN6094213
EC337369 PEC-----
MAP 59E0-22

2
3
B
Q

B B 4968 TAPE UNIT
J Q
2 2 SYSTEM TEST ERROR MAP
0 2
PAGE 23 OF 23

MAP 59E0-23

| |
| |
| 168
| CHECK RECEIVED/EXPECTED ID DATA
| DEV4 = RECEIVED DATA
| DEV3 = EXPECTED DATA
|
169
DOES IO = 07 ?
Y N
|
| 170
| COMMAND REJECT FROM ATTACHMENT
| CARD,
| PREPARE COMMAND REJECTED
|
171
CHECK LED ON ATTACHMENT CARD.
MAKE SURE THAT THE TEST (BURN-IN)
SWITCH IS OFF.

25MAR83 PN6094213

EC337369 PEC-----

MAP 59E0-23

SYSTEM TEST ERROR MAP

PAGE 1 OF 13

001 (ENTRY POINT A) THIS MAP SHOULD NOT BE ENTERED UNLESS AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST, AND THEN ONLY WHEN THE DEVICE TYPE FIELD IS EQUAL TO HEXADECIMAL '64'.

DOES RTN = 0001 ?

Y N

002 DOES RTN = 0002 ?

Y N

003 DOES RTN = 0003 ?

Y N

004 DOES RTN = 0004 ?

Y N

005 DOES RTN = 0005 ?

Y N

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0 9 8 7 5 2 A B C D E F

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EC337313 PEC326765

SYSTEM TEST ERROR MAP

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006 DOES RTN = 0006 ?

Y N

007 DOES RTN = 0007 ?

Y N

008 DOES CKPT = 0000 ?

Y N

009 DOES CKPT = 0001 ?

Y N

010 DOES IO = 07 ?

Y N

011 COMMAND REJECT FROM ATTACHMENT CARD START INPUT/OUTPUT (WRITE)

012 WRITE ERROR (INCREASING LINE LENGTH) CHECK DCB, FLAGS AND ISB

013 DOES IO = 07 ?

Y N

014 COMMAND REJECT FROM ATTACHMENT CARD START INPUT/OUTPUT (WRITE)

5 3 3 3

G H J K

21JAN83 PN1635466

EC337313 PEC326765

2 2 2 SYSTEM TEST ERROR MAP

3 3 3 3 SYSTEM TEST ERROR MAP

| | | PAGE 3 OF 13

| | | | PAGE 4 OF 13

| | |

| | | |

| | 015
| | WRITE ERROR (DECREASING LINE
| | LENGTH)
| | CHECK DCB, FLAGS AND ISB

| | | 024
| | | READ ROM ERROR
| | | CHECK DCB, FLAGS AND ISB

| |
| 016
| DOES IO = 07 ?
| Y N

| | | 025
| | | READ ROM DATA ERROR
| | | RECEIVED DATA IN DEV1 TO DEV4
| | | EXPECTED DATA =
| | | HEXADECIMAL'23456789ABCF001'

| | 017
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 1
| | START INPUT/OUTPUT (SKIP TO
| | ONE)

| |
| 026
| DOES IO = 07 ?
| Y N

| | 018
| | SKIP TO ONE ERROR
| | CHECK DCB, FLAGS AND ISB

| | | 027
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD
| | | START INPUT/OUTPUT (WRITE)

| 019
| DOES CKPT = 0000 ?
| Y N

| |
| 028
| WRITE ERROR
| CHECK DCB, FLAGS AND ISB

| | 020
| | DOES CKPT = 0001 ?
| | Y N

| | | 029
| | | DOES IO = 07 ?
| | | Y N

| | | 021
| | | DOES IO = 07 ?
| | | Y N

| | | 030
| | | COMMAND REJECT FROM ATTACHMENT
| | | CARD
| | | PREPARE - LEVEL = 1
| | | START INPUT/OUTPUT (SKIP TO
| | | ONE)

| | | 022
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD
| | | START INPUT/OUTPUT (READ)

| |
| 031
| SKIP TO ONE ERROR
| CHECK DCB, FLAGS AND ISB

| | 023
| | DOES IN = 03 ?
| | Y N

4 4 4 4
L M N P

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EC337313 PEC326765

1 2 SYSTEM TEST ERROR MAP

5 SYSTEM TEST ERROR MAP

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032 DOES CKPT = 0000 ?
Y N

041 DOES CKPT = 0002 ?
Y N

033 DOES IO = 07 ?
Y N

042 DOES IO = 07 ?
Y N

034 COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)

043 COMMAND REJECT FROM
ATTACHMENT CARD
SECOND READ OF THE CYCLE
STEAL STATUS

035 WRITE ERROR (ERROR EXPECTED -
GOOD RECEIVED)
CHECK DCB, FLAGS AND ISB

044 DOES IN = 03 ?
Y N

036 DOES IO = 07 ?
Y N

045 READ CYCLE STEAL STATUS ERROR
CHECK DCB, FLAGS AND ISB

037 COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)

046 RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

038 SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB

047 DOES IO = 07 ?
Y N

039 DOES CKPT = 0000 ?
Y N

048 COMMAND REJECT FROM ATTACHMENT
CARD
FIRST READ OF THE CYCLE STEAL
STATUS

040 DOES CKPT = 0001 ?
Y N

049 DOES IN = 03 ?
Y N

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EC337313 PEC326765

1 5 5 6 6 SYSTEM TEST ERROR MAP

1 7 7 SYSTEM TEST ERROR MAP

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050
READ CYCLE STEAL STATUS
ERROR
CHECK DCB, FLAGS AND ISB

059
DOES IO = 07 ?
Y N

051
RESIDUAL ADDRESS ERROR
DEV4 = EXPECTED ADDRESS
RSAD = RECEIVED ADDRESS

060
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT WRITE
(LINE SKIP TEST)

052
DOES IO = 07 ?
Y N

061
WRITE FAILED (LINE SKIP TEST)
CHECK DCB, FLAGS AND ISB

053
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)

062
DOES IO = 07 ?
Y N

054
WRITE ERROR
CHECK DCB, FLAGS AND ISB

063
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)

055
DOES IO = 07 ?
Y N

064
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB

056
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)

065
DOES CKPT = 0000 ?
Y N

057
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB

066
DOES IO = 07 ?
Y N

058
DOES CKPT = 0000 ?
Y N

067
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)

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21JAN83 PN1635466

EC337313 PEC326765

EC337313 PEC326765

B X Y 4974 PRINTER (MATRIX)
1 8 8 SYSTEM TEST ERROR MAP

MAP 64E0-9

A Z A 4974 PRINTER (MATRIX)
1 9 A SYSTEM TEST ERROR MAP

MAP 64E0-10

PAGE 9 OF 13

PAGE 10 OF 13

068
WRITE ERROR
CHECK DCB, FLAGS AND ISB

077
DOES IO = 07 ?
Y N

069
DOES IO = 07 ?
Y N

078
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)

070
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)

079
WRITE FAILED
CHECK DCB, FLAGS AND ISB
DEV1 AND DEV2 CONTAIN DATA TO
WRITE

071
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB

080
DOES IO = 07 ?
Y N

072
DOES CKPT = 0000 ?
Y N

081
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)
START INPUT/OUTPUT (LOAD 8
LINE / INCH CODE)

073
DOES CKPT = 0001 ?
Y N

082
SKIP TO ONE ERROR
LOAD 8 LINE CODE ERROR
CHECK DCB, FLAGS AND ISB

074
DOES IO = 07 ?
Y N

083
DOES CKPT = 0000 ?
Y N

075
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)

084
DOES CKPT = 0001 ?
Y N

076
WRITE FAILED
CHECK DCB, FLAGS AND ISB
DEV1 AND DEV2 CONTAIN DATA TO
WRITE

1
1 0
0 A
Z A

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EC337313 PEC326765
MAP 64E0-9

1 1 1
3 2 1
A A A
B C D

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EC337313 PEC326765
MAP 64E0-10

A 4974 PRINTER (MATRIX)
D
1 SYSTEM TEST ERROR MAP
0
PAGE 11 OF 13

MAP 64E0-11

|
|
085
DOES CKPT = 0002 ?
Y N
|
| 086
| DOES ID = 07 ?
| Y N
|
| 087
| COMMAND REJECT FROM
| ATTACHMENT CARD
| PREPARE - LEVEL = 1
| START INPUT/OUTPUT
| (DIAGNOSTIC READ)
|
| 088
| DOES IN = 03 ?
| Y N
|
| 089
| DIAGNOSTIC READ ERROR
| CHECK DCB, FLAGS AND ISB
|
| 090
| CHECKSUM VALUE ERROR
| VALUE IN ERROR STORE
| IN DEV3 AND DEV4
|
091
DOES ID = 07 ?
Y N
|
| 092
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 2
| RESET
| READ ID
| START INPUT/OUTPUT (WRITE)
|
|
|
|

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EC337313 PEC326765

MAP 64E0-11

1
2
A
E

A A 4974 PRINTER (MATRIX)
C E
1 1 SYSTEM TEST ERROR MAP
0 1
PAGE 12 OF 13

MAP 64E0-12

|
|
| 093
| DOES IN = 03 ?
| Y N
|
| 094
| WRITE FAILED
| CHECK DCB, FLAGS AND ISB
| LEVEL = 2
|
| 095
| WRONG ID RECEIVED ON LEVEL - 2
| DEV3 = RECEIVED ID
| DEV4 = EXPECTED ID
|
096
DOES ID = 07 ?
Y N
|
| 097
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1
| RESET
| READ ID
| START INPUT/OUTPUT (WRITE)
|
098
DOES IN = 03 ?
Y N
|
| 099
| WRITE FAILED
| CHECK DCB, FLAGS AND ISB
| LEVEL = 1
|
100
WRONG ID RECEIVED ON LEVEL - 1
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID

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MAP 64E0-12

A 4974 PRINTER (MATRIX)
B
1 SYSTEM TEST ERROR MAP
0
PAGE 13 OF 13

MAP 64E0-13

|
|
101
DOES IO = 07 ?
Y N
|
| 102
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 0
| RESET
| READ ID
| START INPUT/OUTPUT (WRITE)
|
103
DOES IN = 03 ?
Y N
|
| 104
| WRITE FAILED
| CHECK DCB, FLAGS AND ISB
| LEVEL = 0
|
105
WRONG ID RECEIVED ON LEVEL - 0
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID

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EC337313 PEC326765

MAP 64E0-13

SYSTEM TEST ERROR MAP

PAGE 1 OF 15

001 (ENTRY POINT A) THIS MAP SHOULD NOT BE ENTERED UNLESS AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST, AND THEN ONLY WHEN THE DEVICE TYPE FIELD IS EQUAL TO HEXADECIMAL'68'.

DOES RTN = 0001 ? Y N

002 DOES RTN = 0002 ? Y N

003 DOES RTN = 0003 ? Y N

004 DOES RTN = 0004 ? Y N

005 DOES RTN = 0005 ? Y N

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1 1 2 1 9 8 7 2 A B C D E F

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EC337313 PEC326765

SYSTEM TEST ERROR MAP

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006 DOES RTN = 0006 ? Y N

007 DOES RTN = 0007 ? Y N

008 DOES RTN = 0008 ? Y N

009 DOES CKPT = 0000 ? Y N

010 DOES IO = 07 ? Y N

011 COMMAND REJECT FROM ATTACHMENT CARD START INPUT/OUTPUT (WRITE)

012 WRITE ERROR (SINGLE CHARACTER) CHECK DCB, FLAGS AND ISB

013 DOES IO = 07 ? Y N

014 COMMAND REJECT FROM ATTACHMENT CARD PREPARE - LEVEL = 1 START INPUT/OUTPUT (SKIP TO ONE)

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EC337313 PEC326765

6 3 3 3 G H J K

015
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB

016
DOES CKPT = 0000 ?
Y N

017
DOES IO = 07 ?
Y N

018
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)

019
WRITE ERROR (STRESS PATTERN)
CHECK DCB, FLAGS AND ISB

020
DOES IO = 07 ?
Y N

021
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)

022
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB

023
DOES CKPT = 0000 ?
Y N

024
DOES CKPT = 0001 ?
Y N

025
DOES CKPT = 0002 ?
Y N

026
DOES CKPT = 0003 ?
Y N

027
DOES CKPT = 0004 ?
Y N

028
DOES CKPT = 0005 ?
Y N

029
READ ROM DATA ERROR
RECEIVED DATA IN DEV1
AND DEV2
EXPECTED DATA IN DEV3
AND DEV4
COMPLETE EXPECTED DATA
EQUAL
HEXADECIMAL
'FFFE42FFBC00F001DC01'

030
DOES IO = 07 ?
Y N

P Q R S T 4973 PRINTER (CHAIN)
4 4 4 4 4

MAP 68E0-5

G L N U 4973 PRINTER (CHAIN)
2 3 4 5

MAP 68E0-6

SYSTEM TEST ERROR MAP

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031
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (READ
FORM)

032
READ ROM ERROR
CHECK DCB, FLAGS AND ISB

033
DOES IO = 07 ?
Y N

034
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE
FORM)

035
WRITE ROM ERROR
CHECK DCB, FLAGS AND ISB

036
READ ROM DATA ERROR
RECEIVED DATA IN DEV1 AND DEV2
EXPECTED DATA IN DEV3 AND DEV4
COMPLETE EXPECTED DATA EQUAL
HEXADECIMAL
'42FE42FFBC00F001DC01'

037
DOES IO = 07 ?
Y N

038
COMMAND REJECT FROM ATTACHMENT
CARD
START INPUT/OUTPUT (READ FORM)

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EC337313 PEC326765

MAP 68E0-5

6
U

SYSTEM TEST ERROR MAP

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039
READ ROM ERROR
CHECK DCB, FLAGS AND ISB

040
DOES IO = 07 ?
Y N

041
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE
FORM)

042
WRITE ROM ERROR
CHECK DCB, FLAGS AND ISB

043
DOES IO = 07 ?
Y N

044
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)

045
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB

046
DOES CKPT = 0000 ?
Y N

047
DOES IO = 07 ?
Y N

21JAN83 PN4414112

EC337313 PEC326765

MAP 68E0-6

7 7 7
V W X

E V W X 4973 PRINTER (CHAIN)

MAP 68E0-7

D Y 4973 PRINTER (CHAIN)

MAP 68E0-8

1 6 6 6 SYSTEM TEST ERROR MAP

1 7 SYSTEM TEST ERROR MAP

||| PAGE 7 OF 15

||| PAGE 8 OF 15

||| 048
||| COMMAND REJECT FROM
||| ATTACHMENT CARD
||| START INPUT/OUTPUT (WRITE)

||| 057
||| DOES IO = 07 ?
||| Y N

||| 049
||| WRITE ERROR (ERROR EXPECTED -
||| GOOD RECEIVED)
||| CHECK DCB, FLAGS AND ISB

||| 058
||| COMMAND REJECT FROM
||| ATTACHMENT CARD
||| PREPARE - LEVEL = 1
||| START INPUT/OUTPUT (SKIP TO
||| ONE)

||| 050
||| DOES IO = 07 ?
||| Y N

||| 059
||| SKIP TO ONE ERROR
||| CHECK DCB, FLAGS AND ISB

||| 051
||| COMMAND REJECT FROM
||| ATTACHMENT CARD
||| PREPARE - LEVEL = 1
||| START INPUT/OUTPUT (SKIP TO
||| ONE)

||| 060
||| DOES CKPT = 0000 ?
||| Y N

||| 052
||| SKIP TO ONE ERROR
||| CHECK DCB, FLAGS AND ISB

||| 061
||| DOES IO = 07 ?
||| Y N

||| 053
||| DOES CKPT = 0000 ?
||| Y N

||| 062
||| COMMAND REJECT FROM
||| ATTACHMENT CARD
||| START INPUT/OUTPUT WRITE
||| (LINE SKIP TEST)

||| 054
||| DOES IO = 07 ?
||| Y N

||| 063
||| WRITE FAILED (LINE SKIP TEST)
||| CHECK DCB, FLAGS AND ISB

||| 055
||| COMMAND REJECT FROM
||| ATTACHMENT CARD
||| START INPUT/OUTPUT (WRITE)

||| 064
||| DOES IO = 07 ?
||| Y N

||| 056
||| WRITE ERROR
||| CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

EC337313 PEC326765

MAP 68E0-7

MAP 68E0-8

8
Y

9
A
Z A

C Z A 4973 PRINTER (CHAIN)
1 8 A
8 SYSTEM TEST ERROR MAP

MAP 68E0-9

A A A 4973 PRINTER (CHAIN)
C D E
9 9 9 SYSTEM TEST ERROR MAP

MAP 68E0-10

| | | PAGE 9 OF 15
| | |
| | | 065
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD
| | | PREPARE - LEVEL = 1
| | | START INPUT/OUTPUT (SKIP TO
| | | ONE)
| | |
| | | 066
| | | SKIP TO ONE ERROR
| | | CHECK DCB, FLAGS AND ISB
| | |
| | | 067
| | | DOES CKPT = 0000 ?
| | | Y N
| | |
| | | 068
| | | DOES CKPT = 0001 ?
| | | Y N
| | |
| | | 069
| | | DOES CKPT = 0002 ?
| | | Y N
| | |
| | | 070
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 071
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD
| | | SECOND READ OF THE CYCLE
| | | STEAL STATUS
| | |
| | | 072
| | | DOES IN = 03 ?
| | | Y N
| | |
| | | 073
| | | READ CYCLE STEAL STATUS
| | | ERROR
| | | CHECK DCB, FLAGS AND ISB

1 1 1 1
1 0 0 0
A A A A
B C D E

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EC337313 PEC326765

MAP 68E0-9

| | | PAGE 10 OF 15
| | |
| | | 074
| | | RESIDUAL ADDRESS ERROR
| | | DEV4 = EXPECTED ADDRESS
| | | RSAD = RECEIVED ADDRESS
| | |
| | | 075
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 076
| | | COMMAND REJECT FROM
| | | ATTACHMENT CARD
| | | FIRST READ OF THE CYCLE STEAL
| | | STATUS
| | |
| | | 077
| | | DOES IN = 03 ?
| | | Y N
| | |
| | | 078
| | | READ CYCLE STEAL STATUS ERROR
| | | CHECK DCB, FLAGS AND ISB
| | |
| | | 079
| | | RESIDUAL ADDRESS ERROR
| | | DEV4 = EXPECTED ADDRESS
| | | RSAD = RECEIVED ADDRESS
| | |
| | | 080
| | | DOES IO = 07 ?
| | | Y N
| | |
| | | 081
| | | COMMAND REJECT FROM ATTACHMENT
| | | CARD
| | | START INPUT/OUTPUT (WRITE)
| | |
| | | 082
| | | WRITE ERROR
| | | CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

MAP 68E0-10

B A 4973 PRINTER (CHAIN)
1 B
9 SYSTEM TEST ERROR MAP
PAGE 11 OF 15

MAP 68E0-11

083
DOES IO = 07 ?
Y N
084
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)
085
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB
086
DOES CKPT = 0000 ?
Y N
087
DOES CKPT = 0001 ?
Y N
088
DOES IO = 07 ?
Y N
089
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)
090
WRITE FAILED
CHECK DCB, FLAGS AND ISB
DEV1 AND DEV2 CONTAIN DATA TO
WRITE
091
DOES IO = 07 ?
Y N

1 1 1
2 2 2
A A A
F G H

21JAN83 PN4414112
EC337313 PEC326765
MAP 68E0-11

A A A A 4973 PRINTER (CHAIN)
1 F G H
1 1 1 SYSTEM TEST ERROR MAP
1 1 1 PAGE 12 OF 15

MAP 68E0-12

092
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (WRITE)
093
WRITE FAILED
CHECK DCB, FLAGS AND ISB
DEV1 AND DEV2 CONTAIN DATA TO
WRITE
094
DOES IO = 07 ?
Y N
095
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SKIP TO
ONE)
096
SKIP TO ONE ERROR
CHECK DCB, FLAGS AND ISB
097
DOES CKPT = 0000 ?
Y N
098
DOES CKPT = 0001 ?
Y N
099
DOES CKPT = 0002 ?
Y N
100
DOES IO = 07 ?
Y N

1 1 1 1 1
4 4 3 3 3
A A A A A
J K L M N

21JAN83 PN4414112
EC337313 PEC326765
MAP 68E0-12

A A A 4973 PRINTER (CHAIN)
L M N
1 1 1 SYSTEM TEST ERROR MAP
2 2 2
PAGE 13 OF 15

| | |
| | |
| | 101
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 1
| | START INPUT/OUTPUT
| | (DIAGNOSTIC READ)
| |
| | 102
| | DOES IN = 03 ?
| | Y N
| |
| | 103
| | DIAGNOSTIC READ ERROR
| | CHECK DCB, FLAGS AND ISB
| |
| | 104
| | CHECKSUM VALUE ERROR
| | VALUE IN ERROR STORE
| | IN DEV3 AND DEV4
| |
| | 105
| | DOES IO = 07 ?
| | Y N
| |
| | 106
| | COMMAND REJECT FROM ATTACHMENT
| | CARD
| | PREPARE - LEVEL = 2
| | RESET
| | READ ID
| | START INPUT/OUTPUT (WRITE)
| |
| | 107
| | DOES IN = 03 ?
| | Y N
| |
| | 108
| | WRITE FAILED
| | CHECK DCB, FLAGS AND ISB
| | LEVEL = 2
| |
| |
| |

1
4
A
P

MAP 68E0-13

21JAN83 PN4414112
EC337313 PEC326765
MAP 68E0-13

A A A 4973 PRINTER (CHAIN)
J K P
1 1 1 SYSTEM TEST ERROR MAP
2 2 3
PAGE 14 OF 15

| | |
| | |
| | 109
| | WRONG ID RECEIVED ON LEVEL -
| | 2
| | DEV3 = RECEIVED ID
| | DEV4 = EXPECTED ID
| |
| | 110
| | DOES IO = 07 ?
| | Y N
| |
| | 111
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 1
| | RESET
| | READ ID
| | START INPUT/OUTPUT (WRITE)
| |
| | 112
| | DOES IN = 03 ?
| | Y N
| |
| | 113
| | WRITE FAILED
| | CHECK DCB, FLAGS AND ISB
| | LEVEL = 1
| |
| | 114
| | WRONG ID RECEIVED ON LEVEL - 1
| | DEV3 = RECEIVED ID
| | DEV4 = EXPECTED ID
| |
| | 115
| | DOES IO = 07 ?
| | Y N
| |
| |
| |
| |
| |
| |

1 1
5 5
A A
Q R

MAP 68E0-14

21JAN83 PN4414112
EC337313 PEC326765
MAP 68E0-14

A A 4973 PRINTER (CHAIN)
Q R
1 1 SYSTEM TEST ERROR MAP
4 4
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MAP 68E0-15

| |
| |
| 116
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 0
| RESET
| READ ID
| START INPUT/OUTPUT (WRITE)
|
117
DOES IN = 03 ?
Y N
|
| 118
| WRITE FAILED
| CHECK DCB, FLAGS AND ISB
| LEVEL = 0
|
119
WRONG ID RECEIVED ON LEVEL - 0
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID

21JAN83 PN4414112

EC337313 PEC326765

MAP 68E0-15

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN ERROR HAS OCCURRED
 WHILE EXECUTING SYSTEM TEST, AND
 THEN ONLY WHEN THE DEVICE TYPE
 FIELD IS EQUAL TO HEXADECIMAL
 '6A'.

DOES RTN = 0001 ?

Y N

|

| 002

| DOES RTN = 0002 ?

| Y N

|

| 003

| DOES RTN = 0003 ?

| Y N

|

| 004

| RTN = 0004 -- RIPPLE PRINT
| IN EMULATION MODE.

|

| DOES CKPT = 0000 ?

|

| Y N

|

| 005

| DOES CKPT = 0001 ?

|

| Y N

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

|

| 006

DOES CKPT = 0002 ?

Y N

|

| 007

|

| DOES CKPT = 0003 ?

|

| Y N

|

| 008

| RTN = 0004, CKPT = 0004

|

|

| IS FLAG BIT 6 OFF?

|

| Y N

|

| 009

|

| DOES IO = 07 ?

|

| Y N

|

| 010

| PRINT COMMAND WAS NOT
| ACCEPTED BY THE
| ATTACHMENT CARD.
| ATTACHMENT CARD ERROR.

|

| 011

| NO INTERRUPT WAS RECEIVED
| FROM THE ATTACHMENT CARD.
| ATTACHMENT CARD ERROR.

|

|

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|

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|

|

|

|

J FEATURE 5640 ATTACH
2
SYSTEM TEST ERROR MAP
PAGE 3 OF 22

MAP 6AE0-3

012

DOES IN = 04 ?

Y N

013
CHECK DCB, FLAGS AND IIB/ISB.
THE PRINT COMMAND MAY HAVE
FAILED BECAUSE THE PRINTER
NEEDS OPERATOR INTERVENTION
(ADD PAPER, CHANGE FONT (5219
PRINTERS), ETC.). CHECK THE
PRINTER. IF IT IS NOT "READY",
PROVIDE OPERATOR INTERVENTION
AS NEEDED TO MAKE IT "READY".
CONTINUE THE SYSTEM TEST.
IF IN = 02 AND ISB BIT 0 IS ON
THEN CHECK THE CYCLE STEAL
STATUS DATA (SEE THIS MAP, PAGE
21, STEP 109, ENTRY POINT Z.)

014

THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL FOR
A DEFINITION OF THE RETURN CODES.
THE PRINT COMMAND MAY HAVE FAILED
BECAUSE THE PRINTER NEEDS
OPERATOR INTERVENTION (ADD PAPER,
CHANGE FONT (5219 PRINTERS),
ETC.). CHECK THE PRINTER. IF IT
IS NOT "READY", PROVIDE OPERATOR
INTERVENTION AS NEEDED TO MAKE IT
"READY". CONTINUE THE SYSTEM
TEST.

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-3

G H FEATURE 5640 ATTACH
2 2
SYSTEM TEST ERROR MAP
PAGE 4 OF 22

MAP 6AE0-4

015

RTN = 0004, CKPT = 0003
THE PRINTER ID AND LINK ADDRESS
READ IN FROM THE ATTACHMENT
(DEV4) DO NOT MATCH THE
EXPECTED PRINTER ID AND LINK
ADDRESS (DEV3). DEV3 AND DEV4
HAVE THE FORMAT XXY WHERE XX
IS THE PRINTER ID ("FF" IN DEV4
IF THE PRINTER IS NOT ATTACHED
OR NOT POWERED ON) AND YY IS
THE LINK ADDRESS.
VERIFY THAT THE DEVICE
DEPENDENT DATA IN THE
CONFIGURATION TABLE IS CORRECT.

016

RTN = 0004, CKPT = 0002

IS FLAG BIT 6 OFF?

Y N

017

DOES IO = 07 ?

Y N

018

READ DEVICE DEFINITION DATA
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

019

NO INTERRUPT WAS RECEIVED FROM
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

5

K

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-4

E K FEATURE 5640 ATTACH
1 4 SYSTEM TEST ERROR MAP

MAP 6AE0-5

D L M FEATURE 5640 ATTACH
1 5 5 SYSTEM TEST ERROR MAP

MAP 6AE0-6

PAGE 5 OF 22

020

DOES IN = 04 ?

Y N

021

CHECK DCB, FLAGS AND IIB/ISB.
IF IN = 02 AND ISB BIT 0 IS
ON THEN CHECK THE CYCLE STEAL
STATUS DATA (SEE THIS MAP,
PAGE 21, STEP 109, ENTRY
POINT Z.)

022

THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL
FOR A DEFINITION OF THE RETURN
CODES.

023

RTN = 0004, CKPT = 0001

IS FLAG BIT 6 OFF?

Y N

024

DOES IO = 07 ?

Y N

025

WRITE DEVICE DEFINITION DATA
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

6 6

L M

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-5

PAGE 6 OF 22

026

NO INTERRUPT WAS RECEIVED
FROM THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

027

DOES IN = 04 ?

Y N

028

CHECK DCB, FLAGS AND IIB/ISB.
IF IN = 02 AND ISB BIT 0 IS
ON THEN CHECK THE CYCLE STEAL
STATUS DATA (SEE THIS MAP,
PAGE 21, STEP 109, ENTRY
POINT Z.)

VERIFY THAT ALL DEVICE
DEPENDENT DATA IN THE
CONFIGURATION TABLE IS
CORRECT.

029

THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL
FOR A DEFINITION OF THE RETURN
CODES.

030

RTN = 0004, CKPT = 0000
PREPARE COMMAND FAILED
ATTACHMENT CARD ERROR.

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-6

C
1
FEATURE 5640 ATTACH
SYSTEM TEST ERROR MAP
PAGE 7 OF 22

031
RTN = 0003 -- RIPPLE PRINT IN
DATASTREAM MODE
DOES CKPT = 0000 ?
Y N

032
DOES CKPT = 0001 ?
Y N

033
DOES CKPT = 0002 ?
Y N

034
DOES CKPT = 0003 ?
Y N

035
RTN = 0003, CKPT = 0004

IS FLAG BIT 6 OFF ?
Y N

1 1 1 1
4 1 0 0 8 8
N P Q R S T

MAP 6AE0-7

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AE0-7

S T
7 7
FEATURE 5640 ATTACH
SYSTEM TEST ERROR MAP
PAGE 8 OF 22

036
DOES IO = 07 ?
Y N

037
PRINT COMMAND WAS NOT
ACCEPTED BY THE ATTACHMENT
CARD.
ATTACHMENT CARD ERROR.

038
NO INTERRUPT WAS RECEIVED FROM
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

039

THE INTERRUPT CONDITION CODE (IN)
RECEIVED WAS NOT THE EXPECTED
CONDITION CODE.
THE EXPECTED CONDITION CODE WAS
07.

DOES IN = 04 ?
Y N

9 9
U V

MAP 6AE0-8

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AE0-8

U V FEATURE 5640 ATTACH
8 8 SYSTEM TEST ERROR MAP

MAP 6AE0-9

||
|| PAGE 9 OF 22
||

040
| CHECK DCB, FLAGS AND IIB/ISB.
| THE PRINT COMMAND MAY HAVE
| FAILED BECAUSE THE PRINTER
| NEEDS OPERATOR INTERVENTION
| (ADD PAPER, CHANGE FONT (5219
| PRINTERS), ETC.). CHECK THE
| PRINTER. IF IT IS NOT "READY",
| PROVIDE OPERATOR INTERVENTION
| AS NEEDED TO MAKE IT "READY".
| CONTINUE THE SYSTEM TEST.
| IF IN = 02 AND ISB BIT 0 IS ON
| THEN CHECK THE CYCLE STEAL
| STATUS DATA (SEE THIS MAP, PAGE
| 21, STEP 109, ENTRY POINT Z.)
|

041
THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL FOR
A DEFINITION OF THE RETURN CODES.
THE PRINT COMMAND MAY HAVE FAILED
BECAUSE THE PRINTER NEEDS
OPERATOR INTERVENTION (ADD PAPER,
CHANGE FONT (5219 PRINTERS),
ETC.). CHECK THE PRINTER. IF IT
IS NOT "READY", PROVIDE OPERATOR
INTERVENTION AS NEEDED TO MAKE IT
"READY". CONTINUE THE SYSTEM
TEST.

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AE0-9

Q R FEATURE 5640 ATTACH
7 7 SYSTEM TEST ERROR MAP

MAP 6AE0-10

||
|| PAGE 10 OF 22
||

042
| RTN = 0003, CKPT = 0003
| THE PRINTER ID AND LINK ADDRESS
| READ IN FROM THE ATTACHMENT
| (DEV4) DO NOT MATCH THE
| EXPECTED PRINTER ID AND LINK
| ADDRESS (DEV3). DEV3 AND DEV4
| HAVE THE FORMAT XYY WHERE XX
| IS THE PRINTER ID ("FF" IN DEV4
| IF THE PRINTER IS NOT ATTACHED
| OR NOT POWERED ON) AND YY IS
| THE LINK ADDRESS.
| VERIFY THAT THE DEVICE
| DEPENDENT DATA IN THE
| CONFIGURATION TABLE IS CORRECT.
|

043
RTN = 0003, CKPT = 0002

IS FLAG BIT 6 OFF?

Y N
|
| 044
| DOES IO = 07 ?
| Y N
|
| 045
| READ DEVICE DEFINITION DATA
| COMMAND WAS NOT ACCEPTED BY
| THE ATTACHMENT CARD.
| ATTACHMENT CARD ERROR.
|

046
| NO INTERRUPT WAS RECEIVED FROM
| THE ATTACHMENT CARD.
| ATTACHMENT CARD ERROR.
|

1
1
W

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AE0-10

P W FEATURE 5640 ATTACH
7 1
0 SYSTEM TEST ERROR MAP

MAP 6AE0-11

X Y FEATURE 5640 ATTACH
1 1
1 1 SYSTEM TEST ERROR MAP

MAP 6AE0-12

PAGE 11 OF 22

PAGE 12 OF 22

047

DOES IN = 04 ?

Y N

048

CHECK DCB, FLAGS AND IIB/ISB.
IF IN = 02 AND ISB BIT 0 IS
ON THEN CHECK THE CYCLE STEAL
STATUS DATA (SEE THIS MAP,
PAGE 21, STEP 109, ENTRY
POINT Z.)

049

THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL
FOR A DEFINITION OF THE RETURN
CODES.

050

RTN = 0003, CKPT = 0001

IS FLAG BIT 6 OFF?

Y N

051

DOES IO = 07 ?

Y N

052

WRITE DEVICE DEFINITION DATA
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-11

1 1

2 2

X Y

053

NO INTERRUPT WAS RECEIVED FROM
THE ATTACHMENT CARD
ATTACHMENT CARD ERROR.

054

DOES IN = 02 ?

Y N

055

DOES IN = 04 ?

Y N

056

CHECK DCB, FLAGS AND IIB/ISB.

057

THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL
FOR A DEFINITION OF THE RETURN
CODES.

058

DOES ISB = 80?

Y N

059

WRITE DEVICE DEFINITION DATA
COMMAND FAILED.

CHECK DCB, FLAGS AND IIB/ISB.

VERIFY THAT ALL DEVICE
DEPENDENT DATA IN THE
CONFIGURATION TABLE IS CORRECT.

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-12

1

3

Z

Z FEATURE 5640 ATTACH
1
2 SYSTEM TEST ERROR MAP

MAP 6AEO-13

PAGE 13 OF 22

060
DOES CS-3 BIT 3 (1000) = 1?
Y N

061
DOES CS-3 BIT 0 (8000) = 0?
Y N

062
WRITE DEVICE DEFINITION DATA
COMMAND FAILED.
CHECK DCB, FLAGS AND IIB/ISB.
CHECK THE CYCLE STEAL STATUS
DATA (SEE THIS MAP, PAGE 21,
STEP 109, ENTRY POINT Z.)

063
THE ATTACHMENT CARD IS NOT
INITIALIZED.
CHECK THE REST OF THE CYCLE
STEAL STATUS DATA (SEE THIS
MAP, PAGE 21, STEP 109, ENTRY
POINT Z).
VERIFY THAT THE CONFIGURATION
TABLE IS CORRECT.

064
THE ATTACHMENT CARD AND THE
MICROCODE WRITTEN TO IT ARE NOT
COMPATIBLE. THE ATTACHMENT CARD
IS NOT INITIALIZED.
VERIFY THE EC LEVELS OF THE
ATTACHMENT CARD AND THE
DISKETTES.

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AEO-13

B N FEATURE 5640 ATTACH
1 7 SYSTEM TEST ERROR MAP

MAP 6AEO-14

PAGE 14 OF 22

065
RTN = 0003, CKPT = 0000
PREPARE COMMAND FAILED
ATTACHMENT CARD ERROR.

066
RTN = 0002 -- CYCLE STEAL TEST
DOES CKPT = 0000 ?
Y N

067
RTN = 0002, CKPT = 0001.
IS FLAG BIT 6 OFF?

Y N
068
DOES IO = 07 ?

Y N
069
START CYCLE STEAL STATUS
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

070
NO INTERRUPT WAS RECEIVED
FOLLOWING A START CYCLE STEAL
STATUS COMMAND.
ATTACHMENT CARD ERROR.

071
DOES IN = 04 ?

Y N
|
|
|
|
|
|

1 1 1
5 5 5
A A A
A B C

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AEO-14

A A A A FEATURE 5640 ATTACH
1 A B C
1 1 1 SYSTEM TEST ERROR MAP
4 4 4
PAGE 15 OF 22

072
CHECK DCB, FLAGS AND
IIB/ISB.
IF IN = 02 AND ISB BIT 0 IS
ON THEN CHECK THE CYCLE
STEAL STATUS DATA (SEE THIS
MAP, PAGE 21, STEP 109,
ENTRY POINT Z.)

073
THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL
FOR A DEFINITION OF THE
RETURN CODES.

074
PREPARE COMMAND FAILED.
ATTACHMENT CARD ERROR.

075
RTN = 0001 -- INTERRUPT TEST
DOES CKPT = 0000 ?
Y N

076
DOES CKPT = 0001 ?
Y N

077
DOES CKPT = 0002 ?
Y N

078
DOES CKPT = 0003 ?
Y N

079
DOES CKPT = 0004 ?
Y N

2 2 2 1 1 1
1 0 0 9 8 6
A A A A A A
D E F G H J

MAP 6AE0-15

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-15

A FEATURE 5640 ATTACH
J
1 SYSTEM TEST ERROR MAP
5
PAGE 16 OF 22

080
DOES CKPT = 0005 ?
Y N

081
DOES CKPT = 0006 ?
Y N

082
RTN = 0001, CKPT = 0007.
IS FLAG BIT 6 OFF?

Y N
083
DOES IO = 07 ?
Y N

084
READ ATTACHMENT STORAGE
COMMAND WAS NOT ACCEPTED
BY THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.
(INTERRUPT LEVEL = 0)

085
NO INTERRUPT WAS RECEIVED
FOLLOWING A READ ATTACHMENT
STORAGE COMMAND.
ATTACHMENT CARD ERROR.
(INTERRUPT LEVEL = 0)

086
DOES IN = 04 ?

Y N

1 1 1 1
7 7 7 7
A A A A
K L M N

MAP 6AE0-16

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-16

A A A A FEATURE 5640 ATTACH
K L M N
1 1 1 1 SYSTEM TEST ERROR MAP
6 6 6 6
PAGE 17 OF 22

| | | |
| | | |
| | 087
| | CHECK DCB, FLAGS AND
| | IIB/ISB.
| | IF IN = 02 AND ISB BIT 0 IS
| | ON THEN CHECK THE CYCLE
| | STEAL STATUS DATA (SEE THIS
| | MAP, PAGE 21, STEP 109,
| | ENTRY POINT Z.)

| | 088
| | THE IIB CONTAINS A TWO-DIGIT
| | RETURN CODE FROM THE PRINTER.
| | SEE THE 5200 SERIES PRINTER
| | ATTACHMENT DESCRIPTION MANUAL
| | FOR A DEFINITION OF THE
| | RETURN CODES.

| | 089
| | PREPARE COMMAND FAILED.
| | ATTACHMENT CARD ERROR.
| |
| | (INTERRUPT LEVEL = 0)

| | 090
| | RTN = 0001, CKPT = 0005

| | IS FLAG BIT 6 OFF?

| | Y N

| | 091
| | DOES IO = 07 ?
| | Y N

| | 092
| | READ ATTACHMENT STORAGE
| | COMMAND WAS NOT ACCEPTED BY
| | THE ATTACHMENT CARD.
| | ATTACHMENT CARD ERROR.

| | (INTERRUPT LEVEL = 1)

1 1
8 8
A A
P Q

MAP 6AE0-17

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-17

A A A FEATURE 5640 ATTACH
H P Q
1 1 1 SYSTEM TEST ERROR MAP
5 7 7
PAGE 18 OF 22

| | | |
| | | |
| | 093
| | NO INTERRUPT WAS RECEIVED
| | FOLLOWING A READ ATTACHMENT
| | STORAGE COMMAND.
| | ATTACHMENT CARD ERROR.

| | (INTERRUPT LEVEL = 1)

| | 094

| | DOES IN = 04 ?

| | Y N

| | 095
| | CHECK DCB, FLAGS AND IIB/ISB.
| | IF IN = 02 AND ISB BIT 0 IS
| | ON THEN CHECK THE CYCLE STEAL
| | STATUS DATA (SEE THIS MAP,
| | PAGE 21, STEP 109, ENTRY
| | POINT Z.)

| | 096
| | THE IIB CONTAINS A TWO-DIGIT
| | RETURN CODE FROM THE PRINTER.
| | SEE THE 5200 SERIES PRINTER
| | ATTACHMENT DESCRIPTION MANUAL
| | FOR A DEFINITION OF THE RETURN
| | CODES.

| | 097
| | RTN = 0001, CKPT = 0004
| | PREPARE COMMAND FAILED.
| | ATTACHMENT CARD ERROR.

| | (INTERRUPT LEVEL = 1)

MAP 6AE0-18

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-18

A FEATURE 5640 ATTACH
G
1 SYSTEM TEST ERROR MAP
5
PAGE 19 OF 22

MAP 6AE0-19

098
RTN = 0001, CKPT = 0003

IS FLAG BIT 6 OFF?

Y N

099
DOES IO = 07 ?

Y N

100
READ ATTACHMENT STORAGE
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

(INTERRUPT LEVEL = 2)

101
NO INTERRUPT WAS RECEIVED
FOLLOWING A READ ATTACHMENT
STORAGE COMMAND.
ATTACHMENT CARD ERROR.

(INTERRUPT LEVEL = 2)

102

IS IN = 04 ?

Y N

103
CHECK DCB, FLAGS AND IIB/ISB.
IF IN = 02 AND ISB BIT 0 IS ON
THEN CHECK THE CYCLE STEAL
STATUS DATA (SEE THIS MAP, PAGE
21, STEP 109, ENTRY POINT Z.)

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-19

2
0
A
R

A A A FEATURE 5640 ATTACH
E F R
1 1 1 SYSTEM TEST ERROR MAP
5 5 9
PAGE 20 OF 22

MAP 6AE0-20

104
THE IIB CONTAINS A TWO-DIGIT
RETURN CODE FROM THE PRINTER.
SEE THE 5200 SERIES PRINTER
ATTACHMENT DESCRIPTION MANUAL
FOR A DEFINITION OF THE
RETURN CODES.

105
RTN = 0001, CKPT = 0002
PREPARE COMMAND FAILED.
ATTACHMENT CARD ERROR.

(INTERRUPT LEVEL = 2)

106
RTN = 0001, CKPT = 0001
DOES IO = 07 ?

Y N

107
READ ATTACHMENT ID COMMAND
FAILED.
ATTACHMENT CARD ERROR.

108
ATTACHMENT ID WORD READ IN (DEV3)
IS NOT CORRECT.

VALID ID WORDS ARE '2X2E' WHERE X
= 0,1,2 OR 3 (SEE MLD VOLUME 01,
LOGIC SP405).

16DEC83 PN6094221

EC337376 PEC336711

MAP 6AE0-20

A FEATURE 5640 ATTACH
D
1 SYSTEM TEST ERROR MAP
5
PAGE 21 OF 22

MAP 6AE0-21

FEATURE 5640 ATTACH
SYSTEM TEST ERROR MAP
PAGE 22 OF 22

MAP 6AE0-22

|
|
109
RTN = 0001, CKPT = 0000
DEVICE RESET COMMAND FAILED.
ATTACHMENT CARD ERROR.

(ENTRY POINT Z)

--- CYCLE STEAL STATUS DATA ---

WORD 0 -- RESIDUAL ADDRESS

WORD 1 -- DEVICE DEPENDENT DATA
BIT 0 PRINTER NOT READY
BIT 1 DEVICE ERROR
BIT 12 END OF FORMS OR
FORMS JAM

WORD 2 -- DEVICE DEPENDENT DATA
BIT 8-15 PRINTER RETURN CODE
(ONLY IF BIT 1 OF
THIS WORD IS ON.)

WORD 3 -- ATTACHMENT STATUS
BIT 0 ATTACHMENT IS
INITIALIZED
BIT 1 MICROCODE CHECKSUM
ERROR

BIT 2 DEVICE AT THIS S/1
ADDRESS IS BEING
POLLED.

BIT 3 MICROCODE LOADED IS
NOT COMPATIBLE WITH
THIS LEVEL OF THE
ATTACHMENT CARD.

(STEP 109 CONTINUES)

(STEP 109 CONTINUED)
BIT 4 DEVICE AT THIS S/1
ADDRESS IS "READY"
BIT 5-7 RESIDUAL KEY
BIT 8-11 RESERVED
BIT 12 ATTACHMENT HARDWARE
ERROR DETECTED
BIT 13 ROS CHECKSUM ERROR
BIT 14 ATTACHMENT RANDOM
ACCESS STORAGE
ERROR DETECTED
BIT 15 RESERVED

WORD 4 -- DEVICE DEPENDENT DATA
BIT 00-07 X'20'
BIT 08-15 PRINTER ID BYTE
(X'FF' IF NO
PRINTER ATTACHED
OR PRINTER NOT
POWERED UP)

WORD 5 -- DEVICE DEPENDENT DATA

WORD 6 -- DEVICE DEPENDENT DATA

WORD 7 -- RESERVED

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AE0-21

16DEC83 PN6094221
EC337376 PEC336711
MAP 6AE0-22

MCA DISKETTE
SYSTEM TEST ERROR MAP

PAGE 1 OF 2

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED,
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL '70'.

CAUTION: IF TWO OR MORE DEVICES
ARE INSTALLED AND BEING TESTED ON
THE SAME MCA ATTACHMENT CARD THE
BASE ADDRESS MUST BE ONE OF THE
DEVICES BEING TESTED.

DOES RTN = 0001 ?
Y N

002
DOES RTN = 0002 ?
Y N

003
DOES RTN = 0003 ?
Y N

004
DOES RTN = 0004 ?
Y N

005
DOES CKPT = 0001?
Y N

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2 2 2
A B C D E F

D E F

MAP 70E0-1

006
READ TEST FAILED.
CHECK DCB, FLAGS AND ISB.

007
RECALIBRATE COMMAND FAILED.
SUSPECT DRIVE OR CONTROLLER
CARD.
CHECK DCB, FLAGS AND ISB.

008
DOES CKPT = 0000?
Y N

009
DOES CKPT = 0001?
Y N

010
DOES CKPT = 0002?
Y N

011
DOES CKPT = 0003?
Y N

012
IS THE LOW ORDER BYTE OF
DEV2 EQUAL TO THE LOW
ORDER BYTE OF DEV1 ?
Y N

013
DATA MISCOMPARE AFTER
READ/WRITE TEST
SUSPECT INTERMITTENT
PROBLEM

014
READ TEST FAILED.
CHECK DCB, FLAGS AND ISB.

30JAN87 PN58X7496

ECA41061 PECA40867

2 2 2 2
G H J K

MAP 70E0-1

C G H J K
1 1 1 1 1

MCA DISKETTE

SYSTEM TEST ERROR MAP

PAGE 2 OF 2

015
WRITE TEST FAILED.
CHECK DCB, FLAGS AND ISB.
CHECK THAT DISKETTE IS
NOT WRITE PROTECTED

016
IS THE LOW ORDER BYTE OF
DEV2 EQUAL TO THE LOW ORDER
BYTE OF DEV1 ?
Y N

017
DATA MISCOMPARE AFTER
READ/WRITE TEST
SUSPECT INTERMITTENT
PROBLEM

018
READ TEST FAILED.
CHECK DCB, FLAGS AND ISB.

019
WRITE TEST FAILED.
CHECK DCB, FLAGS AND ISB.
CHECK THAT DISKETTE IS NOT
WRITE PROTECTED

020
READ TEST FAILED.
CHECK DCB, FLAGS AND ISB.
SUSPECT BAD DISKETTE OR
INTERMITTENT PROBLEM

021
BAD DCB WAS ACCEPTED. SUSPECT
MCA ATTACHMENT CARD.

A B
1 1

MAP 70E0-2

022
IS CKPT = 0001?
Y N

023
READ TEST FAILED.
CHECK DCB, FLAGS AND ISB.

024
RECALIBRATE COMMAND FAILED.
SUSPECT DRIVE OR CONTROLLER
CARD.
CHECK DCB, FLAGS AND ISB.

025
IS DEV3 EQUAL TO DEV4 ?
Y N

026
WRONG DEVICE ID RECEIVED
DEV3 = EXPECTED ID
DEV4 = RECEIVED ID

027
CONNECT & PREPARE FAILED.
SUSPECT MCA ATTACHMENT CARD.

30JAN87 PN58X7496

ECA41061 PECA40867

MAP 70E0-2

MCA DISK

B C D E F

MAP 71E0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 2

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN ERROR HAS OCCURRED
 WHILE EXECUTING SYSTEM TEST, AND
 THEN ONLY WHEN THE DEVICE TYPE
 FIELD IS EQUAL TO HEXADECIMAL
 '71'.

CAUTION: IF TWO OR MORE DEVICES
 ARE INSTALLED AND BEING TESTED ON
 THE SAME MCA ATTACHMENT CARD THE
 BASE ADDRESS MUST BE ONE OF THE
 DEVICES BEING TESTED.

DOES RTN = 0001 ?
 Y N

002
 DOES RTN = 0002 ?
 Y N

003
 DOES RTN = 0003 ?
 Y N

004
 DOES RTN = 0004 ?
 Y N

005
 RTN = 0005
 DOES CKPT = 0001?
 Y N

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A B C D E F

006
 RTN = 0005, CKPT = 0000
 READ TEST FAILED.
 CHECK DCB, FLAGS AND ISB.

007
 RTN = 0005, CKPT = 0001
 RECALIBRATE COMMAND FAILED.
 SUSPECT DRIVE OR CONTROLLER
 CARD.
 CHECK DCB, FLAGS AND ISB.

008
 RTN = 0004
 IS DCB WORD 0 EQUAL TO 08E8 ?
 Y N

009
 WRITE TEST FAILED.
 CHECK DCB, FLAGS AND ISB.

010
 WRITE MCA ATTACHMENT STORAGE
 COMMAND FAILED.
 CHECK DCB, FLAGS AND ISB.
 SUSPECT THE MCA ATTACHMENT
 CARD.

011
 RTN = 0003
 RE-IPL AND RESTART SYSTEM TEST.
 IF PROBLEM RE-OCCURS RUN
 AUTO-MAPS

012
 RTN = 0002
 IS CKPT = 0001?
 Y N

013
 READ TEST FAILED.
 CHECK DCB, FLAGS AND ISB.

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ECA71494 PECA41061

G

MAP 71E0-1

A G
1 1

MCA DISK

MAP 71E0-2

SYSTEM TEST ERROR MAP

PAGE 2 OF 2

| |
| |
| |
| |
| 014

| RECALIBRATE COMMAND FAILED.
| SUSPECT DRIVE OR CONTROLLER
| CARD.
| CHECK DCB, FLAGS AND ISB.

|
015

RTN = 0001
WRONG DEVICE ID RECEIVED
DEV3 = EXPECTED ID
DEV4 = RECEIVED ID

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MAP 71E0-2

SYSTEM TEST ERROR MAP

PAGE 1 OF 14

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '78'.

DOES RTN = 0001 ?
 Y N

002
 DOES RTN = 0002 ?
 Y N

003
 DOES RTN = 0003 ?
 Y N

004
 DOES CKPT = 0000 ?
 Y N

005
 DOES CKPT = 0001 ?
 Y N

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1 1
 3 0 8 7 7 2
 A B C D E F

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SYSTEM TEST ERROR MAP

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006
 DOES CKPT = 0002 ?
 Y N

007
 DOES CKPT = 0003 ?
 Y N

008
 DOES CKPT = 0004 ?
 Y N

009
 DOES CKPT = 0005 ?
 Y N

010
 DOES IO = 07 ?
 Y N

011
 COMMAND REJECT FROM
 ATTACHMENT CARD
 START INPUT/OUTPUT
 (ILLEGAL DCB)
 START INPUT/OUTPUT
 (START CYCLE STEAL
 STATUS)

012
 DOES IN = 03 ?
 Y N

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EC336711 PEC337313

6 5 4 3 3 3
 G H J K L M

K L M 4962 DISK
 2 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 14
 013
 CYCLE STEAL STATUS READ ERROR
 CHECK DCB, FLAGS AND ISB
 014
 DOES DEV4 = 0000 ?
 Y N
 015
 CYCLE STEAL STATUS RESIDUAL
 ADDRESS ERROR
 DEV4 = EXPECTED ADDRESS
 RSAD = RECEIVED ADDRESS
 016
 COMMAND ERROR (ERROR EXPECTED -
 GOOD RECEIVED)
 CHECK DCB, FLAGS AND ISB
 017
 DOES IO = 07 ?
 Y N
 018
 COMMAND REJECT FROM ATTACHMENT
 CARD
 START INPUT/OUTPUT (ILLEGAL
 DCB)
 START INPUT/OUTPUT (START CYCLE
 STEAL STATUS)
 019
 DOES IN = 03 ?
 Y N
 020
 CYCLE STEAL STATUS READ ERROR
 CHECK DCB, FLAGS AND ISB

27MAY83 PN1635469
 EC336711 PEC337313
 MAP 78E0-3

4
 N

MAP 78E0-3

J N 4962 DISK
 2 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 14
 021
 DOES DEV4 = 0000 ?
 Y N
 022
 CYCLE STEAL STATUS RESIDUAL
 ADDRESS ERROR
 DEV4 = EXPECTED ADDRESS
 RSAD = RECEIVED ADDRESS
 023
 COMMAND ERROR (ERROR EXPECTED -
 GOOD RECEIVED)
 CHECK DCB, FLAGS AND ISB
 024
 DOES IO = 07 ?
 Y N
 025
 COMMAND REJECT FROM ATTACHMENT
 CARD
 START INPUT/OUTPUT (ILLEGAL
 DCB)
 START INPUT/OUTPUT (START CYCLE
 STEAL STATUS)
 026
 DOES IN = 03 ?
 Y N
 027
 CYCLE STEAL STATUS READ ERROR
 CHECK DCB, FLAGS AND ISB
 028
 DOES DEV4 = 0000 ?
 Y N

27MAY83 PN1635469
 EC336711 PEC337313
 MAP 78E0-4

MAP 78E0-4

5 5
 P Q

H P Q 4962 DISK
2 4 4 SYSTEM TEST ERROR MAP

MAP 78E0-5

G R 4962 DISK
2 5 SYSTEM TEST ERROR MAP

MAP 78E0-6

|||
||| PAGE 5 OF 14
|||
||| 029
||| CYCLE STEAL STATUS RESIDUAL
||| ADDRESS ERROR
||| DEV4 = EXPECTED ADDRESS
||| RSAD = RECEIVED ADDRESS
|||
||| 030
||| COMMAND ERROR (ERROR EXPECTED -
||| GOOD RECEIVED)
||| CHECK DCB, FLAGS AND ISB
|||
||| 031
||| DOES IO = 07 ?
||| Y N
|||
||| 032
||| COMMAND REJECT FROM ATTACHMENT
||| CARD
||| START INPUT/OUTPUT (ILLEGAL
||| DCB)
||| START INPUT/OUTPUT (START CYCLE
||| STEAL STATUS)
|||
||| 033
||| DOES IN = 03 ?
||| Y N
|||
||| 034
||| CYCLE STEAL STATUS READ ERROR
||| CHECK DCB, FLAGS AND ISB
|||
||| 035
||| DOES DEV4 = 0000 ?
||| Y N
|||
||| 036
||| CYCLE STEAL STATUS RESIDUAL
||| ADDRESS ERROR
||| DEV4 = EXPECTED ADDRESS
||| RSAD = RECEIVED ADDRESS

|||
||| PAGE 6 OF 14
|||
||| 037
||| COMMAND ERROR (ERROR EXPECTED -
||| GOOD RECEIVED)
||| CHECK DCB, FLAGS AND ISB
|||
||| 038
||| DOES IO = 07 ?
||| Y N
|||
||| 039
||| COMMAND REJECT FROM ATTACHMENT
||| CARD
||| START INPUT/OUTPUT (ILLEGAL
||| DCB)
||| START INPUT/OUTPUT (START CYCLE
||| STEAL STATUS)
|||
||| 040
||| DOES IN = 03 ?
||| Y N
|||
||| 041
||| CYCLE STEAL STATUS READ ERROR
||| CHECK DCB, FLAGS AND ISB
|||
||| 042
||| DOES DEV4 = 0000 ?
||| Y N
|||
||| 043
||| CYCLE STEAL STATUS RESIDUAL
||| ADDRESS ERROR
||| DEV4 = EXPECTED ADDRESS
||| RSAD = RECEIVED ADDRESS
|||
||| 044
||| COMMAND ERROR (ERROR EXPECTED -
||| GOOD RECEIVED)
||| CHECK DCB, FLAGS AND ISB

27MAY83 PN1635469

EC336711 PEC337313

MAP 78E0-5

27MAY83 PN1635469

EC336711 PEC337313

MAP 78E0-6

D E 4962 DISK
 1 1
 SYSTEM TEST ERROR MAP
 PAGE 7 OF 14
 045
 DOES IO = 07 ?
 Y N
 046
 COMMAND REJECT FROM
 ATTACHMENT CARD
 START INPUT/OUTPUT (ILLEGAL
 DCB)
 START INPUT/OUTPUT (START
 CYCLE STEAL STATUS)
 047
 DOES IN = 03 ?
 Y N
 048
 CYCLE STEAL STATUS READ ERROR
 CHECK DCB, FLAGS AND ISB
 049
 DOES DEV4 = 0000 ?
 Y N
 050
 CYCLE STEAL STATUS RESIDUAL
 ADDRESS ERROR
 DEV4 = EXPECTED ADDRESS
 RSAD = RECEIVED ADDRESS
 051
 COMMAND ERROR (ERROR EXPECTED -
 GOOD RECEIVED)
 CHECK DCB, FLAGS AND ISB
 052
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1

MAP 78E0-7

27MAY83 PN1635469
 EC336711 PEC337313
 MAP 78E0-7

C 4962 DISK
 1
 SYSTEM TEST ERROR MAP
 PAGE 8 OF 14
 053
 DOES CKPT = 0000 ?
 Y N
 054
 DOES CKPT = 0001 ?
 Y N
 055
 DOES CKPT = 0002 ?
 Y N
 056
 DOES IO = 07 ?
 Y N
 057
 COMMAND REJECT FROM
 ATTACHMENT CARD
 START INPUT/OUTPUT (WRITE
 SECTOR CHAINED TO READ
 SECTOR)
 058
 DOES IN = 03 ?
 Y N
 059
 WRITE SECTOR CHAINED TO
 READ SECTOR FAILED
 CHECK DCB, FLAGS AND ISB
 060
 READ ERROR
 DEV4 = XXYY WHERE:
 XX = READ DATA
 YY = WRITE DATA
 CHECK DCB, FLAGS AND ISB

MAP 78E0-8

9 9 9
 S T U

27MAY83 PN1635469
 EC336711 PEC337313
 MAP 78E0-8

S T U 4962 DISK
8 8 8 SYSTEM TEST ERROR MAP

MAP 78E0-9

B V W 4962 DISK
1 9 9 SYSTEM TEST ERROR MAP

MAP 78E0-10

PAGE 9 OF 14

PAGE 10 OF 14

061
DOES IO = 07 ?
Y N

062
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (SEEK
C.E. TRACK)

063
DOES IN = 03 ?
Y N

064
SEEK FAILED
CHECK DCB, FLAGS AND ISB

065
RECALIBRATE FAILED OR C.E.
TRACK IS BAD
DEV1 SHOULD BE EQUAL TO XX00
DEV2 SHOULD BE EQUAL TO 012E

066
DOES IO = 07 ?
Y N

067
COMMAND REJECT FROM
ATTACHMENT CARD
START INPUT/OUTPUT (READ
SECTOR ID)

068
READ SECTOR ID ERROR
CHECK DCB, FLAGS AND ISB

069
DOES IO = 07 ?
Y N

070
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT
(RECALIBRATE)

071
RECALIBRATE FAILED
CHECK DCB, FLAGS AND ISB

072
DOES CKPT = 0000 ?
Y N

073
DOES CKPT = 0001 ?
Y N

074
DOES CKPT = 0002 ?
Y N

075
DOES CKPT = 0003 ?
Y N

076
DOES CKPT = 0004 ?
Y N

1 1
0 0
V W

27MAY83 PN1635469
EC336711 PEC337313
MAP 78E0-9

1 1 1
1 1 1 1 1
2 2 2 A A A
X Y Z A B C

27MAY83 PN1635469
EC336711 PEC337313
MAP 78E0-10

A A A 4962 DISK
A B C
1 1 1 SYSTEM TEST ERROR MAP
0 0 0

MAP 78E0-11

X Y Z 4962 DISK
1 1 1
0 0 0 SYSTEM TEST ERROR MAP

MAP 78E0-12

PAGE 11 OF 14

PAGE 12 OF 14

| | |
| | |
| | 077
| | DOES CKPT = 0005 ?
| | Y N
| | |
| | 078
| | GOOD ALTERNATE SECTOR FOUND
| | NOT ON CYLINDER ONE
| | DEV4 = CYLINDER NUMBER
| | (OTHER THEN ONE)
| | |
| | 079
| | ALL SECTORS MARKED BAD ON
| | TRACK ZERO
| | DEV4 = CYLINDER NUMBER
| | |
| 080
| SEEK ERROR (WRONG CYLINDER
| NUMBER)
| DEV4 = EXPECTED NUMBER
| DEV2 = RECEIVED NUMBER
| |
081
DOES IO = 07 ?
Y N
| |
| 082
| COMMAND REJECT FROM ATTACHMENT
| CARD
| START INPUT/OUTPUT (SEEK
| CHAINED TO READ SECTOR ID)
| START INPUT/OUTPUT (READ SECTOR
| ID)
| |
083
SEEK CHAINED TO READ SECTOR ID
FAILED OR
READ SECTOR ID FAILED
CHECK DCB, FLAGS AND ISB

| | |
| | |
| | 084
| | DOES IO = 07 ?
| | Y N
| | |
| | 085
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | START INPUT/OUTPUT (READ
| | SECTOR ID)
| | |
| | 086
| | DOES IN = 03 ?
| | Y N
| | |
| | 087
| | READ SECTOR ID FAILED
| | CHECK DCB, FLAGS AND ISB
| | |
| | 088
| | SECTOR FLAG BYTE OR CYLINDER
| | NOT EQUAL TO ZERO
| | DEV1 NOT EQUAL TO XX00 AND/OR
| | DEV2 NOT EQUAL TO 0000
| | CHECK DCB, FLAGS AND ISB
| | |
| 089
| DOES IO = 07 ?
| Y N
| |
| | 090
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | START INPUT/OUTPUT (SEEK)
| | |
| 091
| SEEK FAILED - (CYLINDER ZERO)
| CHECK DCB, FLAGS AND ISB
| |
092
DOES IO = 07 ?
Y N
| |
| |
| |

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EC336711 PEC337313
MAP 78E0-11

27MAY83 PN1635469
EC336711 PEC337313
MAP 78E0-12

1 1
3 3
A A
D E

A A A 4962 DISK
1 D E
1 1 SYSTEM TEST ERROR MAP
2 2
PAGE 13 OF 14

MAP 78E0-13

093
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT
(RECALIBRATE)
094
RECALIBRATE FAILED
CHECK DCB, FLAGS AND ISB
095
DOES CKPT = 0000 ?
Y N
096
DOES CKPT = 0001 ?
Y N
097
DOES IO = 07 ?
Y N
098
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 2
START INPUT/OUTPUT (SEEK)
099
SEEK FAILED
CHECK DCB, FLAGS AND ISB
100
DOES IO = 07 ?
Y N
101
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
START INPUT/OUTPUT (SEEK)

1 1
4 4
A A
F G

27MAY83 PN1635469
EC336711 PEC337313
MAP 78E0-13

A A 4962 DISK
F G
1 1 SYSTEM TEST ERROR MAP
3 3
PAGE 14 OF 14

MAP 78E0-14

102
SEEK FAILED
CHECK DCB, FLAGS AND ISB
103
DOES IO = 07 ?
Y N
104
COMMAND REJECT FROM ATTACHMENT
CARD
RESET
READ DEVICE ID
PREPARE - LEVEL = 0
START INPUT/OUTPUT (SEEK)
105
DOES IN = FF ?
Y N
106
SEEK FAILED
CHECK DCB, FLAGS AND ISB
107
WRONG ID RECEIVED ON LEVEL - 0
DEV4 = ID EXPECTED
DEV3 = ID RECEIVED

27MAY83 PN1635469
EC336711 PEC337313
MAP 78E0-14

SYSTEM TEST ERROR MAP

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '7A'.

CAUTION: IF TWO OR MORE DEVICES
 ARE INSTALLED AND BEING TESTED ON
 THE SAME ATTACHMENT CARD THE BASE
 ADDRESS MUST BE ONE OF THE
 DEVICES BEING TESTED.

```

*****
*****
**
** ANY TIME THAT THE DEV1 FIELD IS EQUAL TO **
** HEXADECIMAL FFFF --- THE HARDWARE USED ITS **
** RETRY AND THE OPERATOR WANTED ALL OF THESE **
** FLAGGED AS AN ERROR. **
**
*****
*****

```

DOES RTN = 0001 ?
 Y N

| 002
 | DOES RTN = 0002 ?
 | Y N

| | 003
 | | DOES RTN = 0003 ?
 | | Y N

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SYSTEM TEST ERROR MAP

004
 DOES RTN = 0004 ?
 Y N

| 005
 | DOES CKPT = 0000 ?
 | Y N

| | 006
 | | DOES IO = 07 ?
 | | Y N

| | | 007
 | | | CYCLE STEAL STATUS RESIDUAL
 | | | ADDRESS ERROR
 | | | DEV3 = EXPECTED ADDRESS
 | | | DEV4 = RECEIVED ADDRESS
 | | | CHECK DCB, FLAGS AND ISB

| | | 008
 | | | COMMAND ERROR (ERROR EXPECTED
 | | | - GOOD RECEIVED)
 | | | CHECK DCB, FLAGS AND ISB

| | | 009
 | | | COMMAND REJECT FROM ATTACHMENT
 | | | CARD
 | | | PREPARE - LEVEL = 1

| 010
 | DOES CKPT = 0000 ?
 | Y N

| | 011
 | | DOES CKPT = 0001 ?
 | | Y N

| | | 012
 | | | DOES CKPT = 0002 ?
 | | | Y N

| | | | 27MAY83 PN6839519

| | | | EC336711 PEC337313

27MAY83 PN6839519
 EC336711 PEC337313

H 4963 DISK
 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 10
 013
 DOES CKPT = 0003 ?
 Y N
 014
 DOES CKPT = 0004 ?
 Y N
 015
 NO GOOD SECTOR FOUND ON ONE
 OF THE
 TRACKS LOCATED ON THE C.E.
 CYLINDER.
 CHECK DCB, FLAGS AND ISB
 016
 DATA COMPARE ERROR
 DEV4 = XXYY WHERE:
 XX = DATA READ AND
 YY = DATA WRITTEN
 CHECK DCB, FLAGS AND ISB
 017
 DOES IO = 07 ?
 Y N
 018
 COMMAND REJECT FROM ATTACHMENT
 CARD
 WRITE DATA CHAINED TO READ DATA
 CHECK DCB, FLAGS AND ISB
 019
 WRITE DATA CHAINED TO READ DATA
 FAILED
 CHECK DCB, FLAGS AND ISB

27MAY83 PN6839519
 EC336711 PEC337313
 MAP 7AE0-3

MAP 7AE0-3

C E F G 4963 DISK
 1 2 2 2
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 10
 020
 READ SECTOR ID ERROR
 DEV2 = RECEIVED SECTOR ID
 DCB1 = EXPECTED SECTOR ID
 CHECK DCB, FLAGS AND ISB
 021
 DOES IO = 07 ?
 Y N
 022
 COMMAND REJECT FROM
 ATTACHMENT CARD
 READ SECTOR ID
 CHECK DCB, FLAGS AND ISB
 023
 READ SECTOR ID FAILED
 CHECK DCB, FLAGS AND ISB
 024
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 025
 DOES CKPT = 0000 ?
 Y N
 026
 DOES CKPT = 0001 ?
 Y N
 027
 DOES IO = 07 ?
 Y N
 028
 COMMAND REJECT FROM
 ATTACHMENT CARD
 READ SECTOR ID
 CHECK DCB, FLAGS AND ISB
 5 5 5
 J K L

27MAY83 PN6839519
 EC336711 PEC337313
 MAP 7AE0-4

MAP 7AE0-4

J K L 4963 DISK
4 4 4
SYSTEM TEST ERROR MAP

MAP 7AE0-5

PAGE 5 OF 10

029
DOES IN = 03 ?
Y N

030
READ SECTOR ID FAILED
CHECK DCB, FLAGS AND ISB

031
READ SECTOR ID FAILED
DEV4 = EXPECTED VALUE
DCB2 = RECEIVED VALUE
CHECK DCB, FLAGS AND ISB

032
DOES IO = 07 ?
Y N

033
COMMAND REJECT FROM
ATTACHMENT CARD
READ SECTOR ID
CHECK DCB, FLAGS AND ISB

034
DOES IN = 03 ?
Y N

035
READ SECTOR ID FAILED
CHECK DCB, FLAGS AND ISB

036
READ SECTOR ID FAILED
DEV2 = EXPECTED VALUE
DCB2 = RECEIVED VALUE
CHECK DCB, FLAGS AND ISB

037
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1

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EC336711 PEC337313
MAP 7AE0-5

B 4963 DISK
1
SYSTEM TEST ERROR MAP

MAP 7AE0-6

PAGE 6 OF 10

038
DOES CKPT = 0000 ?
Y N

039
DOES CKPT = 0001 ?
Y N

040
DOES IO = 07 ?
Y N

041
COMMAND REJECT FROM
ATTACHMENT CARD
READ VERIFY FAILED

042
READ AND VERIFY FAILED
CHECK DCB, FLAGS AND ISB

043
DOES IO = 07 ?
Y N

044
COMMAND REJECT FROM
ATTACHMENT CARD
READ SECTOR ID
CHECK DCB, FLAGS AND ISB

045
DOES IN = 03 ?
Y N

046
READ SECTOR ID FAILED
CHECK DCB, FLAGS AND ISB

7 7
M N

27MAY83 PN6839519
EC336711 PEC337313
MAP 7AE0-6

```

A M N      4963 DISK
1 6 6
SYSTEM TEST ERROR MAP
PAGE 7 OF 10
047
NO GOOD SECTOR FOUND
DEV1 AND DEV2 = LAST SECTOR
ID READ
CHECK DCB, FLAGS AND ISB
048
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
049
DOES CKPT = 0000 ?
Y N
050
DOES CKPT = 0001 ?
Y N
051
DOES CKPT = 0002 ?
Y N
052
DOES CKPT = 0003 ?
Y N
053
DOES IO = 07 ?
Y N
054
COMMAND REJECT FROM
ATTACHMENT CARD
START CYCLE STEAL
STATUS
CHECK DCB, FLAGS AND
ISB
9 9 8 8 8
P Q R S T

```

MAP 7AE0-7

27MAY83 PN6839519
 EC336711 PEC337313
 MAP 7AE0-7

```

R S T      4963 DISK
7 7 7
SYSTEM TEST ERROR MAP
PAGE 8 OF 10
055
DOES IN = 03 ?
Y N
056
START CYCLE STEAL STATUS
FAILED
CHECK DCB, FLAGS AND ISB
057
CHECK DCB, FLAGS AND ISB
CS-5 BITS 5 THROUGH 7 = ZERO.
058
DOES IO = 07 ?
Y N
059
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE TO LEVEL ONE
READ SECTOR ID
CHECK DCB, FLAGS AND ISB
060
READ SECTOR ID FAILED
CHECK DCB, FLAGS AND ISB
061
DOES IO = 07 ?
Y N
062
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL TWO
RECALIBRATE DISK
063
RECALIBRATE FAILED
CHECK DCB, FLAGS AND ISB

```

MAP 7AE0-8

27MAY83 PN6839519
 EC336711 PEC337313
 MAP 7AE0-8

P Q 4963 DISK
7 7
SYSTEM TEST ERROR MAP
PAGE 9 OF 10

064
DOES IO = 07 ?
Y N
065
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE LEVEL ONE
RECALIBRATE DISK
066
RECALIBRATE FAILED
CHECK DCB, FLAGS AND ISB

067
DOES IO = 07 ?
Y N
068
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE TO LEVEL ONE
READ SECTOR ID
READ DEVICE ID
PREPARE TO LEVEL ZERO
RECALIBRATE
CHECK DCB, FLAGS AND ISB

069
DOES DEV3 = 0000 ?
Y N
070
WRONG DEVICE ID RECEIVED
DEV3 = EXPECTED ID
DEV4 = RECEIVED ID

COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL TWO
RECALIBRATE DISK

MAP 7AEO-9

27MAY83 PN6839519

EC336711 PEC337313

MAP 7AEO-9

U 4963 DISK
9
SYSTEM TEST ERROR MAP
PAGE 10 OF 10

071
DOES IN = 03 ?
Y N
072
RECALIBRATE ERROR
CHECK DCB, FLAGS AND ISB
073
RECALIBRATE FAILED
CHECK DCB, FLAGS AND ISB

27MAY83 PN6839519

EC336711 PEC337313

MAP 7AEO-10

1
0
U

SYSTEM TEST ERROR MAP

PAGE 1 OF 5

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '7B'.

CAUTION: IF TWO OR MORE DEVICES
 ARE INSTALLED AND BEING TESTED ON
 THE SAME ATTACHMENT CARD THE BASE
 ADDRESS MUST BE ONE OF THE
 DEVICES BEING TESTED.

```

*****
*****
**
** ANY TIME THAT THE DEV1 FIELD IS EQUAL TO **
** HEXADECIMAL FFFF --- THE HARDWARE USED ITS **
** RETRY AND THE OPERATOR WANTED ALL OF THESE **
** FLAGGED AS AN ERROR. **
**
*****
*****

```

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | DOES CKPT = 0000 ?

| | Y N

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| | | | REVISED 1979

4 3 3 2

A B C D

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EC336711 PEC337369

SYSTEM TEST ERROR MAP

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004

DOES CKPT = 0001 ?

Y N

| 005

| DOES CKPT = 0002 ?

| Y N

| | 006

| | DOES CKPT = 0003 ?

| | Y N

| | | 007

| | | DOES CKPT = 0004 ?

| | | Y N

| | | | 008

| | | | NO GOOD SECTOR FOUND ON

| | | | ONE OF THE

| | | | TRACKS LOCATED ON THE

| | | | C.E. CYLINDER.

| | | | CHECK DCB, FLAGS AND ISB

| | | | 009

| | | | DATA COMPARE ERROR

| | | | DEV4 = XXYY WHERE:

| | | | XX = DATA READ AND

| | | | YY = DATA WRITTEN

| | | | CHECK DCB, FLAGS AND ISB

| | | | 010

| | | | DOES IO = 07 ?

| | | | Y N

| | | | 011

| | | | COMMAND REJECT FROM

| | | | ATTACHMENT CARD

| | | | WRITE DATA CHAINED TO READ

| | | | DATA

| | | | CHECK DCB, FLAGS AND ISB

3 3 3

E F G

27MAY83 PN6094214

EC336711 PEC337369

B C E F G 4967 DISK
 1 1 2 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 5
 012
 WRITE DATA CHAINED TO
 READ DATA FAILED
 CHECK DCB, FLAGS AND ISB
 013
 READ SECTOR ID ERROR
 DEV2 = RECEIVED SECTOR ID
 DCB1 = EXPECTED SECTOR ID
 CHECK DCB, FLAGS AND ISB
 014
 DOES IO = 07 ?
 Y N
 015
 COMMAND REJECT FROM
 ATTACHMENT CARD
 READ SECTOR ID
 CHECK DCB, FLAGS AND ISB
 016
 DISABLE CACHE FAILED
 CHECK IODCB, FLAGS AND ISB
 017
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 018
 DOES CKPT = 0000 ?
 Y N
 019
 DOES IO = 07 ?
 Y N
 4 4 4
 H J K

MAP 7BE0-3

27MAY83 PN6094214
 EC336711 PEC337369
 MAP 7BE0-3

A H J K 4967 DISK
 1 3 3 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 5
 020
 COMMAND REJECT FROM
 ATTACHMENT CARD
 READ SECTOR ID
 CHECK DCB, FLAGS AND ISB
 021
 DOES IN = 03 ?
 Y N
 022
 READ SECTOR ID FAILED
 CHECK DCB, FLAGS AND ISB
 023
 NO GOOD SECTOR FOUND
 DEV1,DEV2 AND DEV3 = LAST
 SECTOR ID READ
 CHECK DCB, FLAGS AND ISB
 024
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 025
 DOES IO = 07 ?
 Y N
 026
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE TO LEVEL ONE
 READ SECTOR ID
 READ DEVICE ID
 PREPARE TO LEVEL ZERO
 RECALIBRATE
 CHECK DCB, FLAGS AND ISB
 5
 L

MAP 7BE0-4

27MAY83 PN6094214
 EC336711 PEC337369
 MAP 7BE0-4

L
4
4967 DISK
SYSTEM TEST ERROR MAP
PAGE 5 OF 5

MAP 7BE0-5

027
DOES DEV3 = 0000 ?
Y N

028
WRONG DEVICE ID RECEIVED
DEV3 = EXPECTED ID
DEV4 = RECEIVED ID

COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL TWO
RECALIBRATE DISK

029
DOES IN = 03 ?
Y N

030
RECALIBRATE ERROR
CHECK DCB, FLAGS AND ISB

031
RECALIBRATE FAILED
CHECK DCB, FLAGS AND ISB

27MAY83 PN6094214

EC336711 PEC337369

MAP 7BE0-5

SYSTEM TEST ERROR MAP

PAGE 1 OF 5

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL '7C'.

CAUTION: IF TWO OR MORE DEVICES
 ARE INSTALLED AND BEING TESTED ON
 THE SAME ATTACHMENT CARD THE BASE
 ADDRESS MUST BE ONE OF THE
 DEVICES BEING TESTED.

 ** ANY TIME THAT THE DEV1 FIELD IS EQUAL TO **
 ** HEXADECIMAL FFFF --- THE HARDWARE USED ITS **
 ** RETRY AND THE OPERATOR WANTED ALL OF THESE **
 ** FLAGGED AS AN ERROR. **
 **

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | DOES CKPT = 0000 ?

| | Y N

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4 3 3 2

A B C D

27MAY83

PN6094222

EC336711

PEC-----

MAP 7CE0-1

1

SYSTEM TEST ERROR MAP

PAGE 2 OF 5

004

DOES CKPT = 0001 ?

Y N

| 005

| DOES CKPT = 0002 ?

| Y N

| | 006

| | DOES CKPT = 0003 ?

| | Y N

| | | 007

| | | DOES CKPT = 0004 ?

| | | Y N

| | | 008

| | | NO GOOD SECTOR FOUND ON

| | | ONE OF THE

| | | TRACKS LOCATED ON THE

| | | C.E. CYLINDER.

| | | CHECK DCB, FLAGS AND ISB

| | | 009

| | | DATA COMPARE ERROR

| | | DEV4 = XXYY WHERE:

| | | XX = DATA READ AND

| | | YY = DATA WRITTEN

| | | CHECK DCB, FLAGS AND ISB

| | 010

| | DOES IO = 07 ?

| | Y N

| | | 011

| | | COMMAND REJECT FROM

| | | ATTACHMENT CARD

| | | WRITE DATA CHAINED TO READ

| | | DATA

| | | CHECK DCB, FLAGS AND ISB

3 3 3

E F G

27MAY83

PN6094222

EC336711

PEC-----

MAP 7CE0-2

B C E F G DDA DISK
 1 1 2 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 5
 012
 WRITE DATA CHAINED TO
 READ DATA FAILED
 CHECK DCB, FLAGS AND ISB
 013
 READ SECTOR ID ERROR
 DEV2 = RECEIVED SECTOR ID
 DCB1 = EXPECTED SECTOR ID
 CHECK DCB, FLAGS AND ISB
 014
 DOES IO = 07 ?
 Y N
 015
 COMMAND REJECT FROM
 ATTACHMENT CARD
 READ SECTOR ID
 CHECK DCB, FLAGS AND ISB
 016
 DISABLE CACHE FAILED
 CHECK IODCB, FLAGS AND ISB
 017
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 018
 DOES CKPT = 0000 ?
 Y N
 019
 DOES IO = 07 ?
 Y N
 4 4 4
 H J K

MAP 7CE0-3

27MAY83 PN6094222
 EC336711 PEC-----
 MAP 7CE0-3

A H J K DDA DISK
 1 3 3 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 5
 020
 COMMAND REJECT FROM
 ATTACHMENT CARD
 READ SECTOR ID
 CHECK DCB, FLAGS AND ISB
 021
 DOES IN = 03 ?
 Y N
 022
 READ SECTOR ID FAILED
 CHECK DCB, FLAGS AND ISB
 023
 NO GOOD SECTOR FOUND
 DEV1 AND DEV2 = LAST SECTOR
 ID READ
 CHECK DCB, FLAGS AND ISB
 024
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 025
 DOES IO = 07 ?
 Y N
 026
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE TO LEVEL ONE
 READ SECTOR ID
 READ DEVICE ID
 PREPARE TO LEVEL ZERO
 RECALIBRATE
 CHECK DCB, FLAGS AND ISB
 5
 L

MAP 7CE0-4

27MAY83 PN6094222
 EC336711 PEC-----
 MAP 7CE0-4

L DDA DISK
4 SYSTEM TEST ERROR MAP

MAP 7CE0-5

PAGE 5 OF 5

027
DOES DEV3 = 0000 ?
Y N

028
WRONG DEVICE ID RECEIVED
DEV3 = EXPECTED ID
DEV4 = RECEIVED ID

COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL TWO
RECALIBRATE DISK

029
DOES IN = 03 ?
Y N

030
RECALIBRATE ERROR
CHECK DCB, FLAGS AND ISB

031
RECALIBRATE FAILED
CHECK DCB, FLAGS AND ISB

27MAY83 PN6094222

EC336711 PEC-----

MAP 7CE0-5

IDIDO

MAP A0E0-1

F IDIDO

MAP A0E0-2

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 9

PAGE 2 OF 9

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL 'A0'.

006
 DOES CHPT = 0000 ?
 Y N
 |
 | 007
 | DOES CKPT = 0001 ?
 | Y N
 |
 | | 008
 | | DOES IO = 07 ?
 | | Y N
 | |
 | | | 009
 | | | COMMAND REJECT FROM
 | | | ATTACHMENT CARD
 | | | EITHER A WRITE DO (BOTH)
 | | | OR READ DI (BOTH)
 | | | CHECK DCB, FLAGS AND ISB
 | |
 | | 010
 | | DOES IN = 04 ?
 | | Y N
 | |
 | | | 011
 | | | WRITE DO OR READ DI FAILED
 | | | CHECK DCB, FLAGS AND ISB
 | |
 | | 012
 | | DATA WRITTEN DOES NOT
 | | COMPARE WITH DATA READ
 | | DCB1 = RECEIVED DATA
 | | DEV4 = EXPECTED DATA
 | |
 | | 013
 | | DOES IO = 07 ?
 | | Y N
 | |
 | | | 014
 | | | COMMAND REJECT FROM
 | | | ATTACHMENT CARD
 | | | ARM EXTERNAL SYNC. (ALL
 | | | FOUR)

NOTE: IN THIS MAP 'DI 1' INDICATES THE
 THE LOWEST DI REGISTER DEVICE ADDRESS
 WHILE 'DI 2' INDICATES THE HIGHER
 DEVICE ADDRESS. THE SAME IS CORRECT
 FOR THE DATA OUT DEVICE ADDRESS
 (THAT IS 'DO 1' AND/OR 'DO 2')

DOES RTN = 0001 ?
 Y N
 |
 | 002
 | DOES RTN = 0002 ?
 | Y N
 | |
 | | 003
 | | DOES RTN = 0003 ?
 | | Y N
 | | |
 | | | 004
 | | | DOES RTN = 0004 ?
 | | | Y N
 | | | |
 | | | | 005
 | | | | DOES RTN = 0005 ?
 | | | | Y N

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6 6 5 4 3 2
 A B C D E F

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MAP A0E0-1

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MAP A0E0-2

3 3
 G H

E G H IDIDO
1 2 2
SYSTEM TEST ERROR MAP

|| |
|| | PAGE 3 OF 9
|| |
|| | 015
|| | ARM EXTERNAL SYNC FAILED
|| | CHECK DCB, FLAGS AND ISB
|| |
|| | 016
|| | COMMAND REJECT FROM ATTACHMENT
|| | CARD
|| | RESET TO ALL FOUR
|| | PREPARE - LEVEL = 1 (ALL FOUR)

017
DOES CKPT = 0000 ?
Y N

018
DOES IO = 07 ?
Y N

|| | 019
|| | COMMAND REJECT FROM
|| | ATTACHMENT CARD
|| | ARM PI
|| | SET EXTERNAL SYNC.
|| | SET TEST 1
|| | READ STATUS
|| | CHECK DCB, FLAGS AND ISB

020
WRONG STATUS RECEIVED
DCB1 = RECEIVED STATUS
DEV4 = EXPECTED STATUS
CHECK DCB, FLAGS AND ISB

021
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
RESET
CHECK DCB, FLAGS AND ISB

MAP A0E0-3

27MAY83 PN1635475
EC336711 PEC337313
MAP A0E0-3

D IDID0
1
SYSTEM TEST ERROR MAP

|| | PAGE 4 OF 9

022
DOES CKPT = 0000 ?
Y N

023
DOES CKPT = 0001 ?
Y N

024
DOES IO = 07 ?
Y N

|| | 025
|| | COMMAND REJECT FROM
|| | ATTACHMENT CARD
|| | READ DI
|| | CHECK DCB, FLAGS AND ISB

026
READ DI DATA WRONG
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

027
DOES IO = 07 ?
Y N

|| | 028
|| | COMMAND REJECT FROM
|| | ATTACHMENT CARD
|| | SET TEST 1
|| | READ STATUS OF DI
|| | CHECK DCB, FLAGS AND ISB

029
READ DI STATUS WRONG
DCB1 = RECEIVED STATUS
DEV4 = EXPECTED STATUS
CHECK DCB, FLAGS AND ISB

MAP A0E0-4

27MAY83 PN1635475
EC336711 PEC337313
MAP A0E0-4

5
J

C J IDIDO
 1 4
 SYSTEM TEST ERROR MAP
 PAGE 5 OF 9
 030
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1
 RESET OF DI'S
 CHECK DCB, FLAGS AND ISB
 031
 DOES CKPT = 0000 ?
 Y N
 032
 DOES CKPT = 0001 ?
 Y N
 033
 DOES IO = 07 ?
 Y N
 034
 COMMAND REJECT FROM
 ATTACHMENT CARD
 RESET BOTH DO'S
 CHECK DCB, FLAGS AND ISB
 035
 COMMAND REJECT ERROR FROM DO
 CHECK DCB, FLAGS AND ISB
 036
 COMMAND REJECT FROM ATTACHMENT
 CARD FAILED
 CHECK DCB, FLAGS AND ISB
 037
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE WITH THE 'I' BIT OFF BOTH
 DO'S
 CHECK DCB, FLAGS AND ISB

27MAY83 PN1635475
 EC336711 PEC337313
 MAP A0E0-5

MAP A0E0-5

A B IDIDO
 1 1
 SYSTEM TEST ERROR MAP
 PAGE 6 OF 9
 038
 DOES CKPT = 0000 ?
 Y N
 039
 DOES CKPT = 0001 ?
 Y N
 040
 DOES IO = 07 ?
 Y N
 041
 COMMAND REJECT FROM
 ATTACHMENT CARD
 RESET BOTH DI'S
 CHECK DCB, FLAGS AND ISB
 042
 COMMAND REJECT ERROR FROM
 DI
 CHECK DCB, FLAGS AND ISB
 043
 COMMAND REJECT FROM
 ATTACHMENT CARD FAILED
 CHECK DCB, FLAGS AND ISB
 044
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE WITH THE 'I' BIT OFF
 BOTH DO'S
 CHECK DCB, FLAGS AND ISB
 045
 DOES CKPT = 0000 ?
 Y N
 8 7
 K L

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 EC336711 PEC337313
 MAP A0E0-6

MAP A0E0-6

L IDIDO
6
SYSTEM TEST ERROR MAP

MAP A0E0-7

K M N IDIDO
6 7 7
SYSTEM TEST ERROR MAP

MAP A0E0-8

PAGE 7 OF 9

PAGE 8 OF 9

046
DOES CKPT = 0001 ?
Y N

047
DOES IO = 07 ?
Y N

048
COMMAND REJECT FROM
ATTACHMENT CARD
READ DEVICE ID (ALL 4)
RESET ALL FOUR
PREPARE - LEVEL = 2
ARM DI'S
SET TEST 1 ON BOTH DI'S
CHECK DCB, FLAGS AND ISB

049
DOES DEV4 = 0000 ?
Y N

050
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
DEV1 = DAXX (WHERE DA =
DEVICE ADDRESS)

051
SET TEST 1 FAILED
CHECK DCB, FLAGS AND ISB

052
DOES IO = 07 ?
Y N

8 8
M N

27MAY83 PN1635475

EC336711 PEC337313

MAP A0E0-7

053
COMMAND REJECT FROM
ATTACHMENT CARD
READ DEVICE ID (ALL 4)
RESET ALL FOUR
PREPARE - LEVEL = 1
ARM DI'S
SET TEST 1 ON BOTH DI'S
CHECK DCB, FLAGS AND ISB

054
DOES DEV4 = 0000 ?
Y N

055
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
DEV1 = DAXX (WHERE DA =
DEVICE ADDRESS)

056
SET TEST 1 FAILED
CHECK DCB, FLAGS AND ISB

057
DOES IO = 07 ?
Y N

058
COMMAND REJECT FROM ATTACHMENT
CARD
READ DEVICE ID (ALL 4)
RESET ALL FOUR
PREPARE - LEVEL = 0
ARM DI'S
SET TEST 1 ON BOTH DI'S
CHECK DCB, FLAGS AND ISB

9
P

27MAY83 PN1635475

EC336711 PEC337313

MAP A0E0-8

P IDIDO

MAP A0E0-9

8

SYSTEM TEST ERROR MAP

| PAGE 9 OF 9

| 059

DOES DEV4 = 0000 ?

Y N

| 060

| WRONG DEVICE ID RECEIVED

| DEV3 = RECEIVED ID

| DEV4 = EXPECTED ID

| DEV1 = DAXX (WHERE DA = DEVICE

| ADDRESS)

| 061

SET TEST 1 FAILED

CHECK DCB, FLAGS AND ISB

27MAY83 PN1635475

EC336711 PEC337313

MAP A0E0-9

OEMIA

MAP A3E0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 8

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'A3'.

DOES RTN = 0001 ?
 Y N

002
 DOES RTN = 0002 ?
 Y N

003
 DOES RTN = 0003 ?
 Y N

004
 DOES CKPT = 0000 ?
 Y N

005
 DOES CKPT = 0001 ?
 Y N

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7 5 4 4 4 2
A B C D E F

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EC336711 PEC337313

MAP A3E0-1

F
1

OEMIA

MAP A3E0-2

SYSTEM TEST ERROR MAP

PAGE 2 OF 8

006
 DOES CKPT = 0002 ?
 Y N

007
 DOES CKPT = 0003 ?
 Y N

008
 DOES CKPT = 0004 ?
 Y N

009
 DOES CKPT = 0005 ?
 Y N

010
 DOES IO = 07 ?
 Y N

011
 COMMAND REJECT FROM
 ATTACHMENT CARD
 WRITE 0 OR READ

012
 READ DATA NOT CORRECT
 DCB1 = RECEIVED DATA
 DEV4 = EXPECTED DATA
 CHECK DCB, FLAGS AND ISB

013
 DOES IO = 07 ?
 Y N

014
 COMMAND REJECT FROM
 ATTACHMENT CARD
 RESET OR READ

3 3 3 3
G H J K

27MAY83 PN4414113

EC336711 PEC337313

MAP A3E0-2

```

G H J K      OEMIA
2 2 2 2
SYSTEM TEST ERROR MAP
PAGE 3 OF 8
015
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB
016
DOES IO = 07 ?
Y N
017
COMMAND REJECT FROM
ATTACHMENT CARD
SET DIAGNOSTIC MODE THREE
OR READ
018
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB
019
DOES IO = 07 ?
Y N
020
COMMAND REJECT FROM
ATTACHMENT CARD
WRITE 0 OR READ
021
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB
022
DOES IO = 07 ?
Y N

```

```

27MAY83 PN4414113
EC336711 PEC337313
MAP A3E0-3

```

```

4 4
L M

```

MAP A3E0-3

```

C D E L M      OEMIA
1 1 1 3 3
SYSTEM TEST ERROR MAP
PAGE 4 OF 8
023
COMMAND REJECT FROM
ATTACHMENT CARD
RESET OR READ
024
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB
025
DOES IO = 07 ?
Y N
026
COMMAND REJECT FROM
ATTACHMENT CARD
SET DIAGNOSTIC MODE TWO OR
READ
027
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB
028
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1
RESET OF ATTACHMENT CARD
029
DOES CKPT = 0000 ?
Y N
030
DOES CKPT = 0001 ?
Y N

```

```

27MAY83 PN4414113
EC336711 PEC337313
MAP A3E0-4

```

MAP A3E0-4

```

5 5 5
N P Q

```

B N P Q OEMIA
1 4 4 4
SYSTEM TEST ERROR MAP

PAGE 5 OF 8

031
DOES IO = 07 ?
Y N

032
COMMAND REJECT FROM
ATTACHMENT CARD
READ DIAGNOSTIC REGISTER

033
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

034
COMMAND REJECT FROM
ATTACHMENT CARD
RESET OF ATTACHMENT CARD
OR RESET OF DIAGNOSTIC MODE

035
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE TO LEVEL = 1

036
DOES CKPT = 0000 ?
Y N

037
DOES CKPT = 0001 ?
Y N

038
DOES CKPT = 0002 ?
Y N

039
DOES IO = 07 ?
Y N

6 6 6 6 6
R S T U V

MAP A3E0-5

27MAY83 PN4414113

EC336711 PEC337313

MAP A3E0-5

R S T U V OEMIA
5 5 5 5 5
SYSTEM TEST ERROR MAP

PAGE 6 OF 8

040
COMMAND REJECT FROM
ATTACHMENT CARD
READ DIAGNOSTIC REGISTER
WRITE DIAGNOSTIC REGISTER
CHECK DCB, FLAGS AND ISB

041
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

042
DOES IO = 07 ?
Y N

043
COMMAND REJECT FROM
ATTACHMENT CARD
READ DIAGNOSTIC REGISTER

044
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

045
COMMAND REJECT FROM ATTACHMENT
CARD
RESET OF ATTACHMENT CARD
OR SET DIAGNOSTIC MODE ONE

046
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE TO LEVEL = 1

MAP A3E0-6

27MAY83 PN4414113

EC336711 PEC337313

MAP A3E0-6

A
1
|
|
|
|
047
|
Y N
|
048
|
Y N
|
049
|
Y N
|
050
|
|
|
|
|
051
|
|
052
|
Y N
|
053
|
|
|
|
054
|
|
8
W

OEMIA
SYSTEM TEST ERROR MAP
PAGE 7 OF 8

047
DOES CKPT = 0000 ?
Y N
|
048
DOES CKPT = 0001 ?
Y N
|
049
DOES IO = 07 ?
Y N
|
050
COMMAND REJECT FROM
ATTACHMENT CARD
RESET ATTACHMENT CARD
PREPARE - LEVEL = 2
ARM PI
CHECK DCB, FLAGS AND ISB
|
051
ARM PI FAILED
CHECK DCB, FLAGS AND ISB
|
052
DOES IO = 07 ?
Y N
|
053
COMMAND REJECT FROM
ATTACHMENT CARD
RESET ATTACHMENT CARD
PREPARE - LEVEL = 1
ARM PI
CHECK DCB, FLAGS AND ISB
|
054
ARM PI FAILED
CHECK DCB, FLAGS AND ISB

27MAY83 PN4414113
EC336711 PEC337313
MAP A3E0-7

W
7
|
|
|
055
|
Y N
|
056
|
|
|
|
|
057
|
|

OEMIA
SYSTEM TEST ERROR MAP
PAGE 8 OF 8

055
DOES IO = 07 ?
Y N
|
056
COMMAND REJECT FROM ATTACHMENT
CARD
RESET ATTACHMENT CARD
PREPARE - LEVEL = 0
ARM PI
CHECK DCB, FLAGS AND ISB
|
057
ARM PI FAILED
CHECK DCB, FLAGS AND ISB

27MAY83 PN4414113
EC336711 PEC337313
MAP A3E0-8

SENSOR I/O

MAP A4E0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 8

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'A4'.

DOES RTN = 0001 ?

Y N

| 002
 | DOES RTN = 0002 ?
 | Y N

| 003
 | DOES RTN = 0003 ?
 | Y N

| 004
 | DOES CKPT = 0000 ?
 | Y N

| 005
 | DOES CKPT = 0001 ?
 | Y N

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7 5 4 4 4 2
A B C D E F

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EC336711 PEC337313

MAP A4E0-1

F

SENSOR I/O

MAP A4E0-2

1

SYSTEM TEST ERROR MAP

PAGE 2 OF 8

006
 DOES CKPT = 0002 ?
 Y N

| 007
 | DOES CKPT = 0003 ?
 | Y N

| 008
 | DOES CKPT = 0004 ?
 | Y N

| 009
 | DOES CKPT = 0005 ?
 | Y N

| 010
 | DOES IO = 07 ?
 | Y N

| 011
 | COMMAND REJECT FROM
 | ATTACHMENT CARD
 | WRITE 0 OR READ

| 012
 | READ DATA NOT CORRECT
 | DCB1 = RECEIVED DATA
 | DEV4 = EXPECTED DATA
 | CHECK DCB, FLAGS AND ISB

| 013
 | DOES IO = 07 ?
 | Y N

| 014
 | COMMAND REJECT FROM
 | ATTACHMENT CARD
 | RESET OR READ

27MAY83 PN4414114

EC336711 PEC337313

MAP A4E0-2

3 3 3 3
G H J K

G H J K SENSOR I/O
2 2 2 2 SYSTEM TEST ERROR MAP

MAP A4E0-3

C D E L M SENSOR I/O
1 1 1 3 3 SYSTEM TEST ERRCP. MAP

MAP A4E0-4

PAGE 3 OF 8

PAGE 4 OF 8

015
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

023
COMMAND REJECT FROM
ATTACHMENT CARD
RESET OR READ

016
DOES IO = 07 ?
Y N

024
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

017
COMMAND REJECT FROM
ATTACHMENT CARD
SET DIAGNOSTIC MODE THREE
OR READ

025
DOES IO = 07 ?
Y N

018
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

026
COMMAND REJECT FROM
ATTACHMENT CARD
SET DIAGNOSTIC MODE TWO OR
READ

019
DOES IO = 07 ?
Y N

027
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

020
COMMAND REJECT FROM
ATTACHMENT CARD
WRITE 0 OR READ

028
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1
RESET OF ATTACHMENT CARD

021
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

029
DOES CKPT = 0000 ?
Y N

022
DOES IO = 07 ?
Y N

030
DOES CKPT = 0001 ?
Y N

27MAY83 PN4414114

27MAY83 PN4414114

EC336711 PEC337313

EC336711 PEC337313

4 4
L M

MAP A4E0-3

5 5 5
N P Q

MAP A4E0-4

B N P Q SENSOR I/O
1 4 4 4
SYSTEM TEST ERROR MAP

MAP A4E0-5

R S T U V SENSOR I/O
5 5 5 5 5
SYSTEM TEST ERROR MAP

MAP A4E0-6

PAGE 5 OF 8

PAGE 6 OF 8

031
DOES IO = 07 ?
Y N
032
COMMAND REJECT FROM
ATTACHMENT CARD
READ DIAGNOSTIC REGISTER

040
COMMAND REJECT FROM
ATTACHMENT CARD
READ DIAGNOSTIC REGISTER
WRITE DIAGNOSTIC REGISTER
CHECK DCB, FLAGS AND ISB

033
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

041
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

034
COMMAND REJECT FROM
ATTACHMENT CARD
RESET OF ATTACHMENT CARD
OR RESET OF DIAGNOSTIC MODE

042
DOES IO = 07 ?
Y N

035
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE TO LEVEL = 1

043
COMMAND REJECT FROM
ATTACHMENT CARD
READ DIAGNOSTIC REGISTER

036
DOES CKPT = 0000 ?
Y N

044
READ DATA NOT CORRECT
DCB1 = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

037
DOES CKPT = 0001 ?
Y N

045
COMMAND REJECT FROM ATTACHMENT
CARD
RESET OF ATTACHMENT CARD
OR SET DIAGNOSTIC MODE ONE

038
DOES CKPT = 0002 ?
Y N

046
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE TO LEVEL = 1

039
DOES IO = 07 ?
Y N

27MAY83 PN4414114

27MAY83 PN4414114

EC336711 PEC337313

EC336711 PEC337313

6 6 6 6 6
R S T U V

MAP A4E0-5

MAP A4E0-6

047
DOES CKPT = 0000 ?
Y N
048
DOES CKPT = 0001 ?
Y N
049
DOES IO = 07 ?
Y N
050
COMMAND REJECT FROM
ATTACHMENT CARD
RESET ATTACHMENT CARD
PREPARE - LEVEL = 2
ARM PI
CHECK DCB, FLAGS AND ISB
051
ARM PI FAILED
CHECK DCB, FLAGS AND ISB
052
DOES IO = 07 ?
Y N
053
COMMAND REJECT FROM
ATTACHMENT CARD
RESET ATTACHMENT CARD
PREPARE - LEVEL = 1
ARM PI
CHECK DCB, FLAGS AND ISB
054
ARM PI FAILED
CHECK DCB, FLAGS AND ISB

27MAY83 PN4414114

EC336711 PEC337313

055
DOES IO = 07 ?
Y N
056
COMMAND REJECT FROM ATTACHMENT
CARD
RESET ATTACHMENT CARD
PREPARE - LEVEL = 0
ARM PI
CHECK DCB, FLAGS AND ISB
057
ARM PI FAILED
CHECK DCB, FLAGS AND ISB

27MAY83 PN4414114

EC336711 PEC337313

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL 'B8'.

- *****
* THE EXPECTED I/O CONDITION CODE=07--SATISFACTORY *
*
* THE RECEIVED (ERROR) I/O CONDITION CODES ARE: *
* 00--DEVICE NOT ATTACHED *
* 01--BUSY *
* 02--BUSY AFTER RESET *
* 03--COMMAND REJECT *
* 04--INTERVENTION REQUIRED *
* 05--INTERFACE DATA CHECK *
* 06--CONTROLLER BUSY *

* THE EXPECTED INTERRUPT CONDITION CODE=03--DEVICE END *
*
* THE RECEIVED (ERROR) INTERRUPT CONDITION CODES ARE: *
* 00--CONTROLLER END *
* 01--PROGRAM CONTROLLED INTERRUPT (PCI) *
* 02--EXCEPTION *
* 04--ATTENTION *
* 05--ATTENTION AND PCI *
* 06--ATTENTION AND EXCEPTION *
* 07--ATTENTION AND DEVICE END *

(STEP 001 CONTINUES)

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(STEP 001 CONTINUED)
DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

DOES RTN = 0003 ?

Y N

004

DOES RTN = 0004 ?

Y N

005

RECHECK RTN NUMBER--ONLY
4 ROUTINES

006

ROUTINE 4

ATTACHMENT STORAGE TEST
4 DIFFERENT PATTERNS ARE WRITTEN TO THE 32K OF ATTACHMENT
STORAGE AND READ BACK AND COMPARED TO INSURE THAT
ATTACHMENT STORAGE IS GOOD

DOES IOIN=0703 ?

Y N

007

LOAD OR READ ATTACHMENT STORAGE COMMAND FAILURE
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007C)

008

IS DEV4=0011 ?

Y N

30SEP85 PN58X7480
ECA33066 PEC-----

C D E RPQ D02535 STORE LOOP MAP B8E0-3
2 2 2

SYSTEM TEST ERROR MAP

PAGE 3 OF 7

009
WORD READ FROM ATTACHMENT STORAGE DOES NOT EQUAL WORD WRITTEN
DEV2=FAILING ATTACHMENT STORAGE ADDRESS
DEV3=RECEIVED WORD FROM ATTACHMENT STORAGE
DEV4=EXPECTED WORD FROM ATTACHMENT STORAGE

010
WRONG INTERRUPT LEVEL RECEIVED
DEV3=RECEIVED INTERRUPT LEVEL
DEV4=EXPECTED INTERRUPT LEVEL=0011
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007C)

011
ROUTINE 3
ODD AND EVEN BYTE COUNT TEST
THE CYCLE STEAL STATUS COMMAND IS EXECUTED WITH
BYTECOUNTS OF 3 AND 4, AND STORAGE IS READ TO INSURE
THAT THE CORRECT NUMBER OF BYTES WERE TRANSFERRED

DOES IOIN=0703 ?

Y N

012
CYCLE STEAL STATUS COMMAND FAILURE
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007F)

013
IS DEV4=0011 ?

Y N

014
DOES CKPT=0001 ?

Y N

4 4 4
F G H

30SEP85 PN58X7480

ECA33066 PEC-----

MAP B8E0-3

B F G H RPQ D02535 STORE LOOP MAP B8E0-4
2 3 3 3

SYSTEM TEST ERROR MAP

PAGE 4 OF 7

015
EXPECTED 3 BYTES, RECEIVED 4 BYTES
DEV3=RECEIVED WORD
DEV4=EXPECTED WORD (0000)

016
EXPECTED 4 BYTES, RECEIVED 3 BYTES
DEV3=RECEIVED WORD
DEV4=EXPECTED WORD (0001)

017
WRONG INTERRUPT LEVEL RECEIVED
DEV3=RECEIVED INTERRUPT LEVEL
DEV4=EXPECTED INTERRUPT LEVEL=0011
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007F)

018
ROUTINE 2
CLEAR STORAGE AND DIAGNOSTIC COMMAND TEST
THE CLEAR STORAGE COMMAND IS EXECUTED ON THREE INTERRUPT
LEVELS OF 0,1,2. THE DIAGNOSTIC COMMAND IS EXECUTED ON LEVEL 1

DOES DEV2=007C ?

Y N

019
DOES DEV2=007D ?

Y N

020
THE PREPARE COMMAND FAILED
IOIN=RECEIVED I/O CONDITION CODES
DEV1=EXPECTED I/O CONDITION CODE=07FF
ISB =DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (0060)

5 5
J K

30SEP85 PN58X7480

ECA33066 PEC-----

MAP B8E0-4

J K RPQ D02535 STORE LOOP MAP B8E0-5
 4 4
 SYSTEM TEST ERROR MAP
 | |
 | | PAGE 5 OF 7
 | |
 | |
 | 021
 | DOES IOIN=0703 ?
 | Y N
 | |
 | | 022
 | | DIAGNOSTIC COMMAND FAILURE
 | | IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
 | | DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
 | | ISB =ISB/DEVICE ADDRESS
 | | DEV2=IDCB COMMAND FIELD (007D)
 | |
 | 023
 | WRONG INTERRUPT LEVEL RECEIVED
 | DEV3=RECEIVED INTERRUPT LEVEL
 | DEV4=EXPECTED INTERRUPT LEVEL=0011
 | IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
 | DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
 | ISB =ISB/DEVICE ADDRESS
 | DEV2=IDCB COMMAND FIELD (007D)
 |
 | 024
 | DOES IOIN=0703 ?
 | Y N
 | |
 | | 025
 | | CLEAR STORAGE COMMAND FAILURE
 | | IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
 | | DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
 | | ISB =ISB/DEVICE ADDRESS
 | | DEV2=IDCB COMMAND FIELD (007C)
 | |
 | 026
 | WRONG INTERRUPT LEVEL RECEIVED
 | DEV3=RECEIVED INTERRUPT LEVEL
 | DEV4=EXPECTED INTERRUPT LEVEL
 | IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
 | DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
 | ISB =ISB/DEVICE ADDRESS
 | DEV2=IDCB COMMAND FIELD (007C)

30SEP85 PN58X7480
 ECA33066 PEC-----
 MAP B8E0-5

A RPQ D02535 STORE LOOP MAP B8E0-6
 2
 SYSTEM TEST ERROR MAP
 | |
 | | PAGE 6 OF 7
 | |
 | |
 | 027
 | ROUTINE 1
 | CHANNEL INTERFACE TEST
 | THE COMMANDS OF PREPARE, DEVICE RESET AND READ ID ARE EXECUTED
 | ON EITHER 2 OR 4 DEVICE ADDRESSES OF THE ATTACHMENT CARD
 | (DEPENDING ON HOW THE CARD IS JUMPERED)
 | WHILE PREPARED TO INTERRUPT LEVELS 0, 1 AND 2. THE
 | RECEIVED ATTACHMENT CARD ID IS CHECKED AGAINST THE EXPECTED ID
 |
 | DOES DEV2=006F ?
 | Y N
 | |
 | | 028
 | | DOES DEV2=0020 ?
 | | Y N
 | | |
 | | | 029
 | | | THE PREPARE COMMAND FAILED
 | | | IOIN=RECEIVED I/O CONDITION CODES
 | | | DEV1=EXPECTED I/O CONDITION CODE=07FF
 | | | ISB =DEVICE ADDRESS
 | | | DEV2=IDCB COMMAND FIELD (0060)
 | | |
 | | | 030
 | | | DOES IOIN=07FF ?
 | | | Y N
 | | | |
 | | | | 031
 | | | | THE READ ID COMMAND FAILED
 | | | | IOIN=RECEIVED I/O CONDITION CODES
 | | | | DEV1=EXPECTED I/O CONDITION CODE=07FF
 | | | | ISB =DEVICE ADDRESS
 | | | | DEV2=IDCB COMMAND FIELD (0020)
 | | | |
 | | | | 032
 | | | | ATTACHMENT CARD ID INCORRECT
 | | | | DEV3=RECEIVED ID
 | | | | DEV4=EXPECTED ID=3102 OR 3202
 | | | | IOIN=RECEIVED I/O CONDITION CODES
 | | | | DEV1=EXPECTED I/O CONDITION CODE=07FF
 | | | | ISB =DEVICE ADDRESS
 | | | | DEV2=IDCB COMMAND FIELD (0020)

30SEP85 PN58X7480
 ECA33066 PEC-----
 MAP B8E0-6

L
6

RPQ D02535 STORE LOOP

MAP B8E0-7

SYSTEM TEST ERROR MAP

PAGE 7 OF 7

033

THE DEVICE RESET COMMAND FAILED
IOIN=RECEIVED I/O CONDITION CODES
DEV1=EXPECTED I/O CONDITION CODE=07FF
ISB =DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (006F)

30SEP85 PN58X7480

ECA33066 PEC-----

MAP B8E0-7

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 3

PAGE 2 OF 3

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN ERROR HAS OCCURRED
 WHILE EXECUTING SYSTEM TEST, AND
 THEN ONLY WHEN THE DEVICE TYPE
 FIELD EQUALS HEXADECIMAL 'C0'.

(STEP 001 CONTINUED)
 STARTING NEXT TO THE SUBSYSTEM
 INTERFACE CARD IN THE RIGHT MOST
 SLOT.

RTNE 0 - CONTROLLER CARD.
 RTNE 1 - MODEM CARDS.
 RTNE 2 - STORAGE CARDS.

STORAGE CARDS ARE NUMBERED BY THE
 SETTING OF THE BINARY ADDRESS
 SWITCHES ON EACH CARD:

FAILURE INDICATIONS:

	ON	OFF	
	+	+	+
	1	0	NOT USED (SET OFF)
	+	+	+
4	1	0	BINARY
	+	+	+
2	1	0	ADDRESS
	+	+	+
1	1	0	SWITCHES
	+	+	+

RTNE 0 CKPT 0 - CONTROLLER CARD.

CARD 1 WILL HAVE 1 SET ON.
 CARD 2 WILL HAVE 2 SET ON.
 CARD 3 WILL HAVE 1 AND 2 SET ON.
 CARD 4 WILL HAVE 4 SET ON.
 CARD 5 WILL HAVE 1 AND 4 SET ON.
 CARD 6 WILL HAVE 2 AND 4 SET ON.
 CARD 7 WILL HAVE 1, 2 AND 4 SET ON.

RTNE 1 CKPT 0 - MODEM CARD 0.
 RTNE 1 CKPT 1 - MODEM CARD 1.
 RTNE 1 CKPT 2 - MODEM CARD 2.
 RTNE 1 CKPT 3 - MODEM CARD 3.
 RTNE 1 CKPT 4 - MODEM CARD 4.
 RTNE 1 CKPT 5 - MODEM CARD 5.
 RTNE 1 CKPT 6 - MODEM CARD 6.
 RTNE 1 CKPT 7 - MODEM CARD 7.
 RTNE 1 CKPT 8 - MODEM CARD 8.
 RTNE 1 CKPT 9 - MODEM CARD 9.
 RTNE 1 CKPT A - MODEM CARD A.
 RTNE 1 CKPT B - MODEM CARD B.
 RTNE 1 CKPT C - MODEM CARD C.
 RTNE 1 CKPT D - MODEM CARD D.
 RTNE 1 CKPT E - MODEM CARD E.
 RTNE 1 CKPT F - MODEM CARD F.

DOES RTNE = 0 ?

RTNE 2 CKPT 1 - STORAGE CARD 1.
 RTNE 2 CKPT 2 - STORAGE CARD 2.
 RTNE 2 CKPT 3 - STORAGE CARD 3.
 RTNE 2 CKPT 4 - STORAGE CARD 4.
 RTNE 2 CKPT 5 - STORAGE CARD 5.
 RTNE 2 CKPT 6 - STORAGE CARD 6.
 RTNE 2 CKPT 7 - STORAGE CARD 7.

Y N
 |
 | 002
 | DOES RTNE = 1 ?
 | Y N
 | |
 | | 003
 | | DOES RTNE = 2 ?
 | | Y N
 | | |
 | | | 004
 | | | INVALID ROUTINE.

COUNT MODEM CARDS RIGHT TO LEFT,
(STEP 001 CONTINUES)

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ECA410G1 PECA40867

MAP COE0-1

3 3 3
A B C

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ECA41061 PECA40867

MAP COE0-2

A B C
2 2 2

RPQ D02761/762/763

MAP COE0-3

SYSTEM TEST ERROR MAP

PAGE 3 OF 3

005

IS CKPT BETWEEN 1 AND 7 ?

Y N

006

INVALID CHECK POINT.

007

THE CHECK POINT INDICATES THE

1ST FAILING STORAGE CARD.

SEE CHART AT STEP 1.

008

IS CKPT BETWEEN 0 AND F ?

Y N

009

INVALID CHECK POINT.

010

THE CHECK POINT INDICATES THE

1ST FAILING MODEM CARD.

SEE CHART AT STEP 1.

011

DOES CKPT = 0 ?

Y N

012

INVALID CHECK POINT.

013

CONTROLLER CARD IS BAD.

30JAN87 PN67X1063

ECA41061 PECA40867

MAP COE0-3

PRINT ON GREEN PAPER

PAGE 1 OF 6

001 (ENTRY POINT A) THIS DEVICE CAN BE TESTED IN CUSTOMER VERIFY MODE.

ENTER THIS MAP ONLY IF AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST IN CSR MODE, AND THEN ONLY WHEN THE DEVICE-TYPE FIELD IS EQUAL TO HEXADECIMAL "C4".

SEE MAP C400 (PROLOG) AND C471 (STRATEGY) TO COMPLETELY CHECKOUT THE CONTROLLER FEATURE.

SEE NOTE TO THE RIGHT.

THE FOLLOWING CONDITIONS MUST BE MET BEFORE RUNNING SYSTEM TEST ON THIS CONTROLLER FEATURE.

- 1. SERIES/1 CARD FILE CONTAINING THE CONTROLLER MUST BE POWERED UP.
2. CUSTOMER VERIFY MODE: NO FURTHER SET-UP IS NECESSARY.
3. CSR TEST MODE: A CABLE WRAP CONNECTOR, A MODEM INTERFACE ADAPTER (MIA) PORT WRAP, OR A COMMUNICATIONS INTERFACE WRAP ADAPTER MUST BE INSTALLED AT THE APPROPRIATE INTERFACE CONNECTION FOR MIA POSITION 1 OR 2. SEE MAP PROLOG C400 FOR WRAP ADAPTER PART NUMBERS.

DOES RTN = 0000 ? Y N

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5 2 A B

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MAP C4E0-1

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PAGE 2 OF 6

002 DOES RTN = 0001 ? Y N

003 DOES RTN = 0002 ? Y N

004 DOES RTN = 0003 ? Y N

005 DOES RTN = 0004 ? Y N

006 COMMAND REJECT FROM CONTROLLER CARD, PREPARE - LEVEL = 1, I BIT OFF

007 DOES CKPT = 0001 ? Y N

008 DOES CKPT = 0002 ? Y N

5 4 3 3 C D E F G H

009 DOES CKPT = 0003 ? Y N

010 DOES CKPT = 0004 ? Y N

011 DOES CKPT = 0005 ? Y N

012 CHECK ISB FOR ERROR CONDITION.

013 DIAGNOSTIC STATUS INDICATES EXTERNAL COMMUNICATION WRAP ERROR. SUSPECT CABLE, MODEM INTERFACE ADAPTER, OR CONTROLLER CARD. USE DIAGNOSTIC MAP C410 TO DETERMINE FRU AT FAULT.

014 DIAGNOSTIC STATUS INDICATES INTERNAL COMMUNICATION WRAP ERROR. SUSPECT CONTROLLER CARD.

015 DIAGNOSTIC STATUS INDICATES CONTROLLER TIMER ERROR. SUSPECT CONTROLLER CARD.

016 DIAGNOSTIC STATUS INDICATES CONTROLLER MICROPROCESSOR ERROR. SUSPECT CONTROLLER CARD.

30SEP87 PN70X9155 ECA71517 PECA41061

MAP C4E0-2

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PAGE 3 OF 6

017 COMMUNICATIONS SUPPORT HARDWARE
COMMAND 7D(10) FAILED.
SUSPECT CONTROLLER CARD.

018 DOES CKPT = 0001 ?
Y N

019 DOES CKPT = 0002 ?
Y N

020 DOES CKPT = 0003 ?
Y N

021 DOES CKPT = 0004 ?
Y N

022 DOES CKPT = 0005 ?
Y N

023 DOES CKPT = 0006 ?
Y N

024 DOES CKPT = 0007 ?
Y N

025 DOES CKPT = 0008 ?
Y N

026 DOES CKPT = 0009 ?
Y N

027 CHECK ISB FOR ERROR
CONDITION.

028 CLEAR APPLICATION STORAGE
COMMAND 7C(F2) FAILED.
SUSPECT CONTROLLER CARD.

029 DATA COMPARE ERROR OF WRITE
AND READ DATA.
SUSPECT CONTROLLER CARD.

030 READ CONTROLLER STORAGE COMMAND
7C(E4) FAILED.
SUSPECT CONTROLLER CARD.

031 LOAD APPLICATION STORAGE COMMAND
7C(E9) FAILED.
SUSPECT CONTROLLER CARD.

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ECA71517 PECA41061

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PAGE 4 OF 6

032 CLEAR APPLICATION
STORAGE COMMAND 7C(F2)
FAILED.
SUSPECT CONTROLLER
CARD.

033 INITIALIZE CONTROLLER
COMMAND 7C(E2) FAILED.
SUSPECT CONTROLLER CARD.

034 CONTROLLER ALREADY
INITIALIZED. BYPASS
INITIALIZE CONTROLLER
COMMAND.
NO FAILURE.

035 READ CONTROLLER DEFINITION
COMMAND 7C(FD) FAILED.
SUSPECT CONTROLLER CARD.

036 SET KEY COMMAND 5C FAILED.
SUSPECT CONTROLLER CARD.

037 DOES CKPT = 0001 ?
Y N

038 DOES CKPT = 0002 ?
Y N

039 DOES CKPT = 0003 ?
Y N

040 DOES CKPT = 0004 ?
Y N

041 DOES CKPT = 0005 ?
Y N

042 DOES CKPT = 0006 ?
Y N

043 DOES CKPT = 0007 ?
Y N

044 DOES CKPT = 0008 ?
Y N

045 CHECK ISB FOR ERROR
CONDITION.

046 COMMUNICATION SUPPORT
HARDWARE TEST DIAGNOSTIC
STATUS INDICATES
CONTROLLER CARD FAILURE.
SUSPECT CONTROLLER CARD.

047 COMMUNICATIONS SUPPORT
HARDWARE TEST COMMAND
7D(10) FAILED.
SUSPECT CONTROLLER CARD.

048 RAM DATA WITH ECC TEST
DIAGNOSTIC STATUS INDICATES
CONTROLLER CARD FAILURE.
SUSPECT CONTROLLER CARD.

30SEP87 PN70X9155

ECA71517 PECA41061

C Q R S U V RPQ D02840
2 4 4 4 4 4

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PAGE 5 OF 6

049

RAM DATA WITH ECC TEST
COMMAND 7D(06) FAILED.
SUSPECT CONTROLLER
CARD.

050

ECC TEST DIAGNOSTIC
STATUS INDICATES
CONTROLLER CARD FAILURE.
SUSPECT CONTROLLER CARD.

051

ECC TEST COMMAND 7D(04)
FAILED.
SUSPECT CONTROLLER CARD.

052

RAM ADDRESSING TEST
DIAGNOSTIC STATUS INDICATES
CONTROLLER CARD FAILURE.
SUSPECT CONTROLLER CARD.

053

RAM ADDRESSING TEST COMMAND
7D(02) FAILED.
SUSPECT CONTROLLER CARD.

054

DOES CKPT = 0001 ?
Y N

055

DOES CKPT = 0002 ?
Y N

056

DOES CKPT = 0003 ?
Y N

W X Y Z

A W X Y Z

1

057

CHECK ISB FOR ERROR
CONDITION.

058

READ DEVICE ID NOT EQUAL TO
6226.
SUSPECT CONTROLLER CARD.

059

PREPARE COMMAND FAILED.
SUSPECT CONTROLLER CARD.

060

DEVICE RESET COMMAND FAILED.
SUSPECT CONTROLLER CARD.

061

DOES CKPT = 0001 ?
Y N

062

DOES CKPT = 0002 ?
Y N

063

DOES CKPT = 0003 ?
Y N

064

DOES CKPT = 0003 ?
Y N

065

CHECK ISB FOR ERROR
CONDITION.

066

READ CYCLE STEAL STATUS
COMMAND 7C(FF) FAILED.
SUSPECT CONTROLLER CARD.

30SEP87 PN70X9155

6 6 6 ECA71517 PECA41061

A A A

A B C

MAP C4E0-5

A A A

A B C

5 5 5

RPQ D02840

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PAGE 6 OF 6

067

READ DEVICE ID NOT EQUAL TO
6226.
SUSPECT CONTROLLER CARD.

068

PREPARE COMMAND FAILED.
SUSPECT CONTROLLER CARD.

069

DEVICE RESET COMMAND FAILED.
SUSPECT CONTROLLER CARD.

MAP C4E0-6

30SEP87 PN70X9155

ECA71517 PECA41061

MAP C4E0-6

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 5

PAGE 2 OF 5

001 (ENTRY POINT A) THIS DEVICE IS NOT TESTED IN CUSTOMER VERIFY MODE BECAUSE MANUAL INTERVENTION IS REQUIRED.

THIS DEVICE REQUIRES THAT THE C.S.R. PROPERLY TERMINATE THE SYSTEM TEST TO STOP THE TEST. IF SYSTEM TEST IS STOPPED BY A SERIES/1 IPL OR SYSTEM RESET, THE ATTACHMENT MAY BE RESET BY SWITCHING POWER OFF THE UNIT THAT CONTAINS THE SERIES/1 ATTACHMENT CARD, THEN SWITCHING POWER ON.

ENTER THIS MAP ONLY IF AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST IN CSR MODE, AND THEN ONLY WHEN THE DEVICE-TYPE FIELD IS EQUAL TO HEXADECIMAL "C5".

SEE MAP C500 (PROLOG) AND C571 (STRATEGY) TO COMPLETELY CHECKOUT THE ATTACHMENT FEATURE.

*** CAUTION: FAILURE TO FOLLOW THE POWER-ON/OFF SEQUENCE MAY CAUSE THE 370 HOST SYSTEM TO FAIL.***

SEE NOTE TO THE RIGHT.

THE FOLLOWING CONDITIONS MUST BE MET BEFORE RUNNING SYSTEM TEST ON THIS ATTACHMENT FEATURE.

- 1. 4943 MUST BE POWERED ON.
2. ENABLE/DISABLE SWITCH MUST BE SET TO DISABLE.
3. MAINTENANCE MODE SWITCH MUST BE SET TO NORMAL.
(STEP 001 CONTINUES)

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POWER-OFF SEQUENCE

- 1. ENABLE/DISABLE SWITCH SET TO DISABLE.
2. WAIT UNTIL DISABLE LED IS ON.
3. SWITCH POWER OFF 4943.
4. SWITCH POWER OFF ALL S/1 I/O EXPANSION CARD FILES.
5. SWITCH POWER OFF S/1 PROCESSOR CARD FILE.

POWER-ON SEQUENCE

- 1. MAINTENANCE MODE SWITCH SET TO NORMAL.
2. ENABLE/DISABLE SWITCH SET TO DISABLE.
(STEP 001 CONTINUES)

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- (STEP 001 CONTINUED)
4. 4943 MUST BE CONNECTED TO THE SERIES/1 ATTACHMENT.
5. SERIES/1 CARD FILE MUST BE POWERED UP.

DOES RTN = 0001 ?
Y N
002
DOES RTN = 0002 ?
Y N
003
DOES RTN = 0003 ?
Y N
004
COMMAND REJECT FROM ATTACHMENT CARD, PREPARE - LEVEL = 1, I BIT OFF
005
DOES CKPT = 0001 ?
Y N
006
DOES CKPT = 0002 ?
Y N
007
CHECK ISB FOR ERROR CONDITION.
008
CHANNEL CARD SELF/CO-OP TEST FAILED. SUSPECT CHANNEL CARD.

4 3 3
A B C

- (STEP 001 CONTINUED)
3. SWITCH POWER ON 4943.
4. SWITCH POWER ON ALL S/1 I/O EXPANSION CARD FILES.
5. SWITCH POWER ON S/1 PROCESSOR CARD FILE.

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009 CHANNEL CARD READ/WRITE RAM
TEST FAILED.
SUSPECT CHANNEL CARD.

010 DOES CKPT = 0001 ?
Y N

011 DOES CKPT = 0002 ?
Y N

012 DOES CKPT = 0003 ?
Y N

013 DOES CKPT = 0004 ?
Y N

014 DOES CKPT = 0005 ?
Y N

015 DOES CKPT = 0006 ?
Y N

016 CHECK ISB FOR ERROR
CONDITION.

017 RAM DATA TEST 7D (06)
FAILED.
SUSPECT ATTACHMENT
CARD.

018 7D (06) COMMAND FAILED.
SUSPECT ATTACHMENT CARD.

019 RAM ECC TEST 7D (04)
FAILED.
SUSPECT ATTACHMENT CARD.

020 7D (04) COMMAND FAILED.
SUSPECT ATTACHMENT CARD.

021 RAM ADDRESS TEST 7D (02)
FAILED.
SUSPECT ATTACHMENT CARD.

022 7D (02) COMMAND FAILED.
SUSPECT ATTACHMENT CARD.

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023 DOES CKPT = 0001 ?
Y N

024 DOES CKPT = 0002 ?
Y N

025 DOES CKPT = 0003 ?
Y N

026 DOES CKPT = 0004 ?
Y N

027 DOES CKPT = 0005 ?
Y N

028 DOES CKPT = 0006 ?
Y N

029 DOES CKPT = 0007 ?
Y N

030 CHECK ISB FOR ERROR
CONDITION.

031 ATTACHMENT CARD SELF-TEST
FAILED.
SUSPECT ATTACHMENT CARD.

032 MAKE SURE THAT THE
MAINTENANCE MODE SWITCH IS
SET TO NORMAL.

MAKE SURE THAT THE
ENABLE/DISABLE SWITCH IS
SET TO DISABLE.

SUSPECT THAT THE 4943 IS
NOT POWERED ON.

033 READ ATTACHMENT STATUS
COMMAND FAILED.
SUSPECT ATTACHMENT CARD.

034 CYCLE STEAL ID NOT EQUAL TO
0037.
SUSPECT ATTACHMENT CARD.

035 READ DEVICE ID NOT EQUAL TO 6012.
SUSPECT ATTACHMENT CARD.

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K L
4 4

4943 CHANNEL ATTACH

MAP C5E0-5

SYSTEM TEST ERROR MAP

PAGE 5 OF 5

036

PREPARE COMMAND FAILED.

SUSPECT ATTACHMENT CARD.

037

DEVICE RESET COMMAND FAILED.

SUSPECT ATTACHMENT CARD.

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MAP C5E0-5

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN ERROR HAS OCCURRED WHILE
 EXECUTING SYSTEM TEST, AND THEN ONLY WHEN
 THE DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL 'D9'.

THE PERSONAL COMPUTER CONNECTED TO THE SERIES/1 MUST BE POWERED
 OFF WHILE RUNNING SYSTEM TEST

(STEP 001 CONTINUES)

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MAP D9E0-1

(STEP 001 CONTINUED)

 * THE EXPECTED I/O CONDITION CODE=07--SATISFACTORY *
 * *
 * THE RECEIVED (ERROR) I/O CONDITION CODES ARE: *
 * 00--DEVICE NOT ATTACHED *
 * 01--BUSY *
 * 02--BUSY AFTER RESET *
 * 03--COMMAND REJECT *
 * 04--INTERVENTION REQUIRED *
 * 05--INTERFACE DATA CHECK *
 * 06--CONTROLLER BUSY *

 * THE EXPECTED INTERRUPT CONDITION CODE=03--DEVICE END *
 * *
 * THE RECEIVED (ERROR) INTERRUPT CONDITION CODES ARE: *
 * 00--CONTROLLER END *
 * 01--PROGRAM CONTROLLED INTERRUPT (PCI) *
 * 02--EXCEPTION *
 * 04--ATTENTION *
 * 05--ATTENTION AND PCI *
 * 06--ATTENTION AND EXCEPTION *
 * 07--ATTENTION AND DEVICE END *

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | DOES RTN = 0003 ?

| | Y N

| | | |

| | | |

| | | |

| | | |

| | | |

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| | | |

7 5 4 3

A B C D

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MAP D9E0-2

D S1-PC CHANNEL ATTACH MAP D9E0-3
 2 SYSTEM TEST ERROR MAP
 PAGE 3 OF 8
 004
 DOES RTN = 0004 ?
 Y N
 005
 RECHECK RTN NUMBER--ONLY 4
 ROUTINES
 006
 ROUTINE 4
 ATTACHMENT STORAGE TEST
 4 DIFFERENT PATTERNS ARE WRITTEN TO THE 64K OF ATTACHMENT
 STORAGE AND READ BACK AND COMPARED TO INSURE THAT
 ATTACHMENT STORAGE IS GOOD
 DOES IOIN=0703 ?
 Y N
 007
 LOAD OR READ ATTACHMENT STORAGE COMMAND FAILURE
 IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
 DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
 ISB =ISB/DEVICE ADDRESS
 DEV2=IDCB COMMAND FIELD (007C)
 008
 IS DEV4=0011 ?
 Y N
 009
 WORD READ FROM ATTACHMENT STORAGE DOES NOT EQUAL WORD WRITTEN
 DEV2=FAILING ATTACHMENT STORAGE ADDRESS
 DEV3=RECEIVED WORD FROM ATTACHMENT STORAGE
 DEV4=EXPECTED WORD FROM ATTACHMENT STORAGE
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 MAP D9E0-3
 4
 E

C E S1-PC CHANNEL ATTACH MAP D9E0-4
 2 3 SYSTEM TEST ERROR MAP
 PAGE 4 OF 8
 010
 WRONG INTERRUPT LEVEL RECEIVED
 DEV3=RECEIVED INTERRUPT LEVEL
 DEV4=EXPECTED INTERRUPT LEVEL=0011
 IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
 DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
 ISB =ISB/DEVICE ADDRESS
 DEV2=IDCB COMMAND FIELD (007C)
 011
 ROUTINE 3
 ODD AND EVEN BYTE COUNT TEST
 THE READ ATTACHMENT DEFINITION COMMAND IS EXECUTED WITH
 BYTECOUNTS OF 1 AND 2, AND STORAGE IS READ TO INSURE
 THAT THE CORRECT NUMBER OF BYTES WERE TRANSFERRED
 DOES IOIN=0703 ?
 Y N
 012
 READ ATTACHMENT DEFINITION COMMAND FAILURE
 IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
 DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
 ISB =ISB/DEVICE ADDRESS
 DEV2=IDCB COMMAND FIELD (007C)
 013
 IS DEV4=0011 ?
 Y N
 014
 DOES CKPT=0001 ?
 Y N
 015
 EXPECTED 1 BYTE, RECEIVED 2 BYTES
 DEV3=RECEIVED WORD
 DEV4=EXPECTED WORD (0000)
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 MAP D9E0-4
 5 5
 F G

SYSTEM TEST ERROR MAP

PAGE 5 OF 8

016 EXPECTED 2 BYTES, RECEIVED 1 BYTE
DEV3=RECEIVED WORD
DEV4=EXPECTED WORD (0002)
017 WRONG INTERRUPT LEVEL RECEIVED
DEV3=RECEIVED INTERRUPT LEVEL
DEV4=EXPECTED INTERRUPT LEVEL=0011
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007C)

018 ROUTINE 2
CLEAR ATTACHMENT STORAGE AND DIAGNOSTIC COMMANDS TEST
THE CLEAR ATTACHMENT STORAGE COMMAND IS EXECUTED ON THREE INTERRUPT
LEVELS OF 0,1,2. THE DIAGNOSTIC COMMANDS ARE EXECUTED ON LEVEL 1

DOES DEV2=007C ?

Y N

019 DOES DEV2=007D ?
Y N
020 THE PREPARE COMMAND FAILED
IOIN=RECEIVED I/O CONDITION CODES
DEV1=EXPECTED I/O CONDITION CODE=07FF
ISB =DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (0060)

021 DOES IOIN=0703 ?
Y N

Vertical separator lines

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SYSTEM TEST ERROR MAP

PAGE 6 OF 8

022 DIAGNOSTIC COMMAND FAILURE
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007D)
023 WRONG INTERRUPT LEVEL RECEIVED
DEV3=RECEIVED INTERRUPT LEVEL
DEV4=EXPECTED INTERRUPT LEVEL=0011
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007D)

024 DOES IOIN=0703 ?
Y N

025 CLEAR ATTACHMENT STORAGE COMMAND FAILURE
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007C)

026 WRONG INTERRUPT LEVEL RECEIVED
DEV3=RECEIVED INTERRUPT LEVEL
DEV4=EXPECTED INTERRUPT LEVEL
IOIN=RECEIVED I/O AND INTERRUPT CONDITION CODES
DEV1=EXPECTED I/O AND INTERRUPT CONDITION CODES=0703
ISB =ISB/DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (007C)

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A S1-PC CHANNEL ATTACH MAP D9E0-7
2 SYSTEM TEST ERROR MAP
PAGE 7 OF 8

027
ROUTINE 1
CHANNEL INTERFACE TEST
THE THREE COMMANDS OF PREPARE, DEVICE RESET AND READ ID ARE
EXECUTED ON EACH OF THE THREE DEVICE ADDRESSES OF THE ATTACHMENT
CARD WHILE PREPARED TO INTERRUPT LEVELS 0, 1 AND 2. THE
RECEIVED ATTACHMENT CARD ID IS CHECKED AGAINST THE EXPECTED ID

DOES DEV2=006F ?

Y N

028
DOES DEV2=0020 ?

Y N

029
THE PREPARE COMMAND FAILED
IOIN=RECEIVED I/O CONDITION CODES
DEV1=EXPECTED I/O CONDITION CODE=07FF
ISB =DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (0060)

030
DOES IOIN=07FF ?

Y N

031
THE READ ID COMMAND FAILED
IOIN=RECEIVED I/O CONDITION CODES
DEV1=EXPECTED I/O CONDITION CODE=07FF
ISB =DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (0020)

032
ATTACHMENT CARD ID INCORRECT
DEV3=RECEIVED ID
DEV4=EXPECTED ID=321E
IOIN=RECEIVED I/O CONDITION CODES
DEV1=EXPECTED I/O CONDITION CODE=07FF
ISB =DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (0020)

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MAP D9E0-7

8
L

L S1-PC CHANNEL ATTACH MAP D9E0-8
7 SYSTEM TEST ERROR MAP
PAGE 8 OF 8

033
THE DEVICE RESET COMMAND FAILED
IOIN=RECEIVED I/O CONDITION CODES
DEV1=EXPECTED I/O CONDITION CODE=07FF
ISB =DEVICE ADDRESS
DEV2=IDCB COMMAND FIELD (006F)

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MAP D9E0-8

SYSTEM TEST ERROR MAP

PAGE 1 OF 14

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'E0'.

DOES RTN = 0001 ?
 Y N

| 002
 | DOES RTN = 0002 ?
 | Y N

| | 003
 | | DOES RTN = 0003 ?
 | | Y N

| | | 004
 | | | DOES RTN = 0004 ?
 | | | Y N

| | | | 005
 | | | | DOES CKPT = 0000 ?
 | | | | Y N

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1 8 8 7 7 2
 A B C D E F

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1

SYSTEM TEST ERROR MAP

PAGE 2 OF 14

006
 DOES CKPT = 0001 ?
 Y N

| 007
 | DOES CKPT = 0002 ?
 | Y N

| | 008
 | | DOES CKPT = 0003 ?
 | | Y N

| | | 009
 | | | DOES CKPT = 0004 ?
 | | | Y N

| | | | 010
 | | | | DOES CKPT = 0005 ?
 | | | | Y N

| | | | |

| | | | |

6 6 5 4 4 3
 G H J K L M

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EC337313 PEC326765

M PCS
2
SYSTEM TEST ERROR MAP
PAGE 3 OF 14
011
DOES CKPT = 0006 ?
Y N
012
DOES IO = 07 ?
Y N
013
COMMAND REJECT FROM
ATTACHMENT CARD
5 BIT TEST
014
DOES IN = 03 ?
Y N
015
5 BIT TEST FAILED
CHECK DCB, FLAGS AND ISB
016
5 BIT TEST RESULTS ERROR
DEV3 = EXPECTED RESULTS
DEV4 = RECEIVED RESULTS
CHECK DCB, FLAGS AND ISB
017
DOES IO = 07 ?
Y N
018
COMMAND REJECT FROM ATTACHMENT
CARD
6 BIT TEST
019
DOES IN = 03 ?
Y N
4 4
N P

MAP E0E0-3
21JAN83 PN4412887
EC337313 PEC326765
MAP E0E0-3

K L N P PCS
2 2 3 3
SYSTEM TEST ERROR MAP
PAGE 4 OF 14
020
6 BIT TEST FAILED
CHECK DCB, FLAGS AND ISB
021
6 BIT TEST RESULTS ERROR
DEV3 = EXPECTED RESULTS
DEV4 = RECEIVED RESULTS
CHECK DCB, FLAGS AND ISB
022
DOES IO = 07 ?
Y N
023
COMMAND REJECT FROM
ATTACHMENT CARD
7 BIT TEST
024
DOES IN = 03 ?
Y N
025
7 BIT TEST FAILED
CHECK DCB, FLAGS AND ISB
026
7 BIT TEST RESULTS ERROR
DEV3 = EXPECTED RESULTS
DEV4 = RECEIVED RESULTS
CHECK DCB, FLAGS AND ISB
027
DOES IO = 07 ?
Y N
028
COMMAND REJECT FROM ATTACHMENT
CARD
8 BIT TEST
5
Q

MAP E0E0-4
21JAN83 PN4412887
EC337313 PEC326765
MAP E0E0-4

J Q PCS
 2 4
 SYSTEM TEST ERROR MAP
 PAGE 5 OF 14
 029
 DOES IN = 03 ?
 Y N
 030
 8 BIT TEST FAILED
 CHECK DCB, FLAGS AND ISB
 031
 8 BIT TEST RESULTS ERROR
 DEV3 = EXPECTED RESULTS
 DEV4 = RECEIVED RESULTS
 CHECK DCB, FLAGS AND ISB
 032
 DOES IO = 07 ?
 Y N
 033
 COMMAND REJECT FROM ATTACHMENT
 CARD
 CYCLIC REDUNDANCY CHECK BIT
 TEST
 034
 DOES IN = 03 ?
 Y N
 035
 CYCLIC REDUNDANCY CHECK BIT
 TEST FAILED
 CHECK DCB, FLAGS AND ISB
 036
 CYCLIC REDUNDANCY CHECK BIT TEST
 RESULTS ERROR
 DEV3 = EXPECTED RESULTS
 DEV4 = RECEIVED RESULTS
 CHECK DCB, FLAGS AND ISB

MAP E0E0-5

G H PCS
 2 2
 SYSTEM TEST ERROR MAP
 PAGE 6 OF 14
 037
 DOES IO = 07 ?
 Y N
 038
 COMMAND REJECT FROM
 ATTACHMENT CARD
 SET CYCLIC REDUNDANCY CHECK
 BIT TEST
 039
 DOES IN = 03 ?
 Y N
 040
 SET CYCLIC REDUNDANCY CHECK
 BIT TEST FAILED
 CHECK DCB, FLAGS AND ISB
 041
 SET CYCLIC REDUNDANCY CHECK BIT
 TEST RESULTS ERROR
 DEV3 = EXPECTED RESULTS
 DEV4 = RECEIVED RESULTS
 CHECK DCB, FLAGS AND ISB
 042
 DOES IO = 07 ?
 Y N
 043
 COMMAND REJECT FROM ATTACHMENT
 CARD
 WRITE CONTROL STORE (MLOAD)
 044
 WRITE CONTROL STORE (MLOAD) ERROR
 CHECK DCB, FLAGS AND ISB

MAP E0E0-6

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MAP E0E0-5

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EC337313 PEC326765

MAP E0E0-6

D E PCS
 1 1 SYSTEM TEST ERROR MAP
 PAGE 7 OF 14
 045
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 046
 DOES CKPT = 0000 ?
 Y N
 047
 DOES CKPT = 0001 ?
 Y N
 048
 DOES CKPT = 0002 ?
 Y N
 049
 DATA COMPARE ERROR
 DEV4 = XXYY WHERE:
 XX = EXPECTED DATA
 YY = RECEIVED DATA
 CHECK DCB, FLAGS AND ISB
 050
 DOES IO = 07 ?
 Y N
 051
 COMMAND REJECT FROM
 ATTACHMENT CARD
 READ CONTROL STORE
 052
 READ CONTROL STORE ERROR
 CHECK DCB, FLAGS AND ISB
 053
 DOES IO = 07 ?
 Y N
 8 8 8
 R S T

MAP E0E0-7
 21JAN83 PN4412887
 EC337313 PEC326765
 MAP E0E0-7

B C R S T PCS
 1 1 7 7 7 SYSTEM TEST ERROR MAP
 PAGE 8 OF 14
 054
 COMMAND REJECT FROM
 ATTACHMENT CARD
 WRITE CONTROL STORE
 (MLOAD)
 055
 WRITE CONTROL STORE (MLOAD)
 ERROR
 CHECK DCB, FLAGS AND ISB
 056
 COMMAND REJECT FROM
 ATTACHMENT CARD
 PREPARE - LEVEL = 1
 057
 DOES CKPT = 0000 ?
 Y N
 058
 DOES IO = 07 ?
 Y N
 059
 COMMAND REJECT FROM
 ATTACHMENT CARD
 LOAD SCAN TABLE.
 060
 LOAD SCAN TABLE ERROR
 CHECK DCB, FLAGS AND ISB
 061
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE - LEVEL = 1
 062
 DOES CKPT = 0000 ?
 Y N
 1
 1 9
 U V

MAP E0E0-8
 21JAN83 PN4412887
 EC337313 PEC326765
 MAP E0E0-8

V
8
PCS
SYSTEM TEST ERROR MAP
PAGE 9 OF 14

063
DOES CKPT = 0001 ?
Y N
064
DOES CKPT = 0002 ?
Y N
065
DOES CKPT = 0003 ?
Y N
066
DOES IO = 07 ?
Y N
067
COMMAND REJECT FROM
ATTACHMENT CARD
READ DIAGNOSTIC SENSE
TEST
068
DOES IN = 03 ?
Y N
069
READ DIAGNOSTIC SENSE
TEST ERROR
CHECK DCB, FLAGS AND ISB
070
READ DIAGNOSTIC SENSE TEST
RESULTS ERROR
DEV1 = EXPECTED RESULTS
DEV2 = RECEIVED RESULTS
DEV3 AND DEV4 SHOULD BE
ZERO
CHECK DCB, FLAGS AND ISB

1 1 1
1 0 0
W X Y

MAP E0E0-9

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EC337313 PEC326765
MAP E0E0-9

X Y
9 9
PCS
SYSTEM TEST ERROR MAP
PAGE 10 OF 14

071
DOES IO = 07 ?
Y N
072
COMMAND REJECT FROM
ATTACHMENT CARD
SCANNER TEST
073
DOES IN = 03 ?
Y N
074
SCANNER TEST
CHECK DCB, FLAGS AND ISB
075
SCANNER TEST RESULTS ERROR
DEV1 = EXPECTED RESULTS
DEV2 = RECEIVED RESULTS
DEV3 AND DEV4 SHOULD BE ZERO
CHECK DCB, FLAGS AND ISB
076
DOES IO = 07 ?
Y N
077
COMMAND REJECT FROM ATTACHMENT
CARD
CONTROLLER TEST
078
DOES IN = 03 ?
Y N
079
CONTROLLER TEST ERROR
CHECK DCB, FLAGS AND ISB

1
1
Z

MAP E0E0-10

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EC337313 PEC326765
MAP E0E0-10

```

A U W Z   PCS
1 8 9 1
0   SYSTEM TEST ERROR MAP
    PAGE 11 OF 14
    080
    CONTROLLER TEST RESULTS
    ERROR
    DEV1 = EXPECTED RESULTS
    DEV2 = RECEIVED RESULTS
    DEV3 AND DEV4 SHOULD BE
    ZERO
    CHECK DCB, FLAGS AND ISB
    081
    DOES IO = 07 ?
    Y N
    082
    COMMAND REJECT FROM
    ATTACHMENT CARD
    CHANNEL TEST
    083
    DOES IN = 03 ?
    Y N
    084
    CHANNEL TEST ERROR
    CHECK DCB, FLAGS AND ISB
    085
    CHANNEL TEST RESULTS ERROR
    DEV1 = EXPECTED RESULTS
    DEV2 = RECEIVED RESULTS
    DEV3 AND DEV4 SHOULD BE ZERO
    CHECK DCB, FLAGS AND ISB
    086
    COMMAND REJECT FROM ATTACHMENT
    CARD
    PREPARE - LEVEL = 1
    087
    DOES CKPT = 0000 ?
    Y N
    1 1
    4 2
    A A
    A B

```

MAP E0E0-11

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 EC337313 PEC326765
 MAP E0E0-11

```

A         PCS
B
1         SYSTEM TEST ERROR MAP
1         PAGE 12 OF 14
    088
    DOES CKPT = 0001 ?
    Y N
    089
    DOES CKPT = 0002 ?
    Y N
    090
    DOES IO = 07 ?
    Y N
    091
    COMMAND REJECT FROM
    ATTACHMENT CARD
    PREPARE - LEVEL = 1
    READ POWER ON RESET TEST
    RESULTS
    092
    DOES IN = 03 ?
    Y N
    093
    READ POWER ON RESET TEST
    RESULTS FAILED
    CHECK DCB, FLAGS AND ISB
    094
    CHECKSUM ERROR
    DEV3 AND DEV4 CONTAIN
    CHECKSUM IN ERROR
    095
    DOES IO = 07 ?
    Y N
    1 1 1
    3 3 3
    A A A
    C D E

```

MAP E0E0-12

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 EC337313 PEC326765
 MAP E0E0-12

A A A PCS
C D E
1 1 1 SYSTEM TEST ERROR MAP
2 2 2
PAGE 13 OF 14

| | |
| | |
| | 096
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 2
| | RESET
| | READ DEVICE ID
| | DIAGNOSTIC POWER ON RESET
| | TEST
| |
| 097
| DOES IN = FF ?
| Y N
| |
| | 098
| | DIAGNOSTIC POWER ON RESET
| | TEST FAILED
| | CHECK DCB, FLAGS AND ISB
| |
| 099
| READ DEVICE ID ERROR
| DEV3 = EXPECTED DEVICE ID
| DEV4 = RECEIVED DEVICE ID
| LEVEL = 2
| |
| 100
| DOES IO = 07 ?
| Y N
| |
| 101
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1
| RESET
| READ DEVICE ID
| DIAGNOSTIC POWER ON RESET TEST
| |
| 102
| DOES IN = FF ?
| Y N
| |
| |
| |
| |
| |

1 1
4 4
A A
F G

MAP E0E0-13

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EC337313 PEC326765

MAP E0E0-13

A A A PCS
A F G
1 1 1 SYSTEM TEST ERROR MAP
1 3 3
PAGE 14 OF 14

| | |
| | |
| | 103
| | DIAGNOSTIC POWER ON RESET
| | TEST FAILED
| | CHECK DCB, FLAGS AND ISB
| |
| 104
| READ DEVICE ID ERROR
| DEV3 = EXPECTED DEVICE ID
| DEV4 = RECEIVED DEVICE ID
| LEVEL = 1
| |
| 105
| DOES IO = 07 ?
| Y N
| |
| 106
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 0
| RESET
| READ DEVICE ID
| DIAGNOSTIC POWER ON RESET TEST
| |
| 107
| DOES IN = FF ?
| Y N
| |
| 108
| DIAGNOSTIC POWER ON RESET TEST
| FAILED
| CHECK DCB, FLAGS AND ISB
| |
| 109
| READ DEVICE ID ERROR
| DEV3 = EXPECTED DEVICE ID
| DEV4 = RECEIVED DEVICE ID
| LEVEL = 0

MAP E0E0-14

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EC337313 PEC326765

MAP E0E0-14

MULTI COMMUNICATION CONTROLLER

MAP E3E0-1

SYSTEM TEST ERROR MAP

PAGE 1 OF 6

ENTRY POINTS

FROM | ENTER THIS MAP

MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
NO ENTRIES IN THIS TABLE			

NO ENTRIES IN THIS TABLE

001 (ENTRY POINT A)

ENTER THIS MAP IF THE DEVICE TYPE IS 'E3' AND AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST.

DOES RTN = 0001?

Y N

002

DOES RTN = 0002?

Y N

003

DOES RTN = 0003?

Y N

004

DOES RTN = 0004?

Y N

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2 2 2 2 2
A B C D E

EXIT POINTS

EXIT THIS MAP | TO

PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
2	005	0070	A
5	057	0070	A

2 005 | 0070 A
5 057 | 0070 A

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MAP E3E0-1

A B C D E MULTI COMMUNICATION SYSTEM TEST ERROR MAP

PAGE 2 OF 6

005

THE ROUTINE NUMBER IS NOT VALID. USE THE ERROR OUTPUT YOU HAVE BEEN USING FOR THIS MAP AS YOUR ERROR INDICATION

AND:
GO TO MAP 0070,
ENTRY POINT A.

006

READ PRINTER STATUS WAS EXECUTING.
GO TO PAGE 3,
STEP 026,
ENTRY POINT B.

007

A CLEAR SCREEN COMMAND WAS EXECUTING.
GO TO PAGE 3, STEP 026,
ENTRY POINT B.

008

WRITING A LINE OF RIPPLE DATA.
GO TO PAGE 3, STEP 026,
ENTRY POINT B.

009

DOES CKPT = 0001?

Y N

010

DOES CKPT = 0002?

Y N

011

DOES CKPT = 0003?

Y N

3 3 3
F G H J

J MAP E3E0-2

012

DOES CKPT = 0004?

Y N

013

DOES CKPT = 0005?

Y N

014

DOES CKPT = 0006?

Y N

015

DOES CKPT = 0007?

Y N

016

DOES CKPT = 0008?

Y N

017

A REQUEST PRO-PRINTER STATUS WAS EXECUTING.
GO TO PAGE 3,
STEP 026,
ENTRY POINT B.

018

A CLEAR SCREEN COMMAND WAS EXECUTING.
GO TO PAGE 3,
STEP 026,
ENTRY POINT B.

019

SET CHARACTER SET TO PRINTER WAS EXECUTING.
GO TO PAGE 3,
STEP 026,
ENTRY POINT B.

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ECA41061 PECA40867

MAP E3E0-2

3 3 3
K L M

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 3 OF 6

PAGE 4 OF 6

020
A SET EXPANDED MODE FOR
PACING WAS EXECUTING.
GO TO STEP 026,
ENTRY POINT B.

021
A ENABLE DTR COMMAND WAS
EXECUTING.
GO TO STEP 026,
ENTRY POINT B.

022
A SET MODE COMMAND WAS
EXECUTING.
GO TO STEP 026,
ENTRY POINT B.

023
A SET INTERFACE (422 OR 232)
WAS EXECUTING.
GO TO STEP 026,
ENTRY POINT B.

024
READ ID COMMAND WAS EXECUTING.
DEV3 = EXPECTED ID.
DEV4 = RECEIVED ID.

025
A PREPARE COMMAND WAS EXECUTING.
GO TO STEP 026,
ENTRY POINT B.

026
(ENTRY POINT B)
DOES IO = 07?
Y N

027
DOES IO = 06?
Y N

028
DOES IO = 05?
Y N

029
DOES IO = 03?
Y N

030
DOES IO = 02?
Y N

031
DOES IO = 01?
Y N

032
DEVICE NOT ATTACHED.

033
DEVICE BUSY.

034
BUSY AFTER RESET.

035
COMMAND REJECT.

036
INTERFACE DATA CHECK.

037
CONTROLLER BUSY.

038
DOES IN = 02?
Y N

039
DOES IN = 04?
Y N

040
DOES IN = 03?
Y N

041
CONTROLLER END.

042
DEVICE END RECEIVED.
IS BIT 0 IN THE FLAGS FIELD
ON ?
Y N

043
ARE BITS 1 AND 7 IN THE
FLAGS FIELD ON ?
Y N

044
IS BIT 5 IN THE FLAGS
FIELD OFF ?
Y N

045
DEVICE INTERRUPTED ON
THE WRONG LEVEL

046
GO TO PAGE 5,
STEP 057,
ENTRY POINT D.

047
ERROR DURING READ CYCLE
STEAL STATUS

048
MYSTERY INTERRUPT

049
ATTENTION INTERRUPT.

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4 4 4 4 4 4
N P Q R S T

MAP E3E0-3

U V W

5 5
X Y

MAP E3E0-4

051
CYCLE STEAL STATUS IS AVAILABLE.
IS RSAD = 0000?
Y N

052
THE CONTENTS OF RSAD REFLECT
THE PROCESSOR STORAGE ADDRESS OF
THE LAST CYCLE-STEAL TRANSFER
ATTEMPTED FOR A START COMMAND.
GO TO STEP 053,
ENTRY POINT DA.

053
(ENTRY POINT DA)

CSS1 CONTAINS DEVICE STATUS.
DOES CSS-1 = 0000?
Y N

054
BIT 0 = RECEIVE OVERRUN
BIT 1 = TIME OUT
BIT 2 = NOT USED
BIT 3 = DCB REJECT
BIT 4 = NOT USED
BIT 5 = RECEIVE PARITY ERROR
BIT 6 = BREAK DETECTED
BIT 7 = STOP BIT ERROR
(FRAMING ERROR)
BIT 8 = NOT USED
BIT 9 = MODEM INTERFACE ERROR
BIT 10 = NOT USED
BIT 11 = NOT USED
BIT 12 = PRE-RECEIVE ERROR/
ADAPTER BUFFER FULL
BIT 13 = NOT USED
BIT 14 = NOT USED
BIT 15 = ADAPTER BUFFER
NOT EMPTY
GO TO STEP 055,
ENTRY POINT DB.

055
(ENTRY POINT DB)

CSS-2 = DEVICE STATUS.
DOES CSS-2 = 0000?
Y N

056
BIT 0 = DATA TERMINAL READY
BIT 1 = DATA SET READY
BIT 2 = REQUEST TO SEND
BIT 3 = CLEAR TO SEND
BIT 4 = EXTERNAL CLOCK
BIT 5 = CARRIER DETECT
BIT 6 = ECHOPLEX
BIT 7 = 0 = RS422 MODE
BIT 7 = 1 = RS232 MODE
BIT 8-15 = RESERVED

057
(ENTRY POINT D)
THIS MAP CANNOT DETERMINE THE
PROBLEM.
USE THE ERROR OUTPUT YOU HAVE
BEEN USING FOR THIS MAP AS YOUR
ERROR INDICATIONS AND:
GO TO MAP 0070, ENTRY POINT A.

058
IS BIT 1 OF THE ISB OFF?
Y N

059
DELAYED COMMAND REJECT.

060
IS BIT 2 OF THE ISB OFF?
Y N

061
NOT CORRECT LENGTH ERROR.

062
IS BIT 3 OF THE ISB OFF ?
Y N

063
DCB SPECIFICATION CHECK.

064
IS BIT 4 OF THE ISB OFF ?
Y N

065
STORAGE DATA CHECK.

066
IS BIT 5 OF THE ISB OFF ?
Y N

067
NOT VALID STORAGE ADDRESS.

068
IS BIT 6 OF THE ISB OFF ?
Y N

069
PROTECT CHECK.

070
IS BIT 7 OF THE ISB OFF ?
Y N

071
INTERFACE DATA CHECK.

072
(ENTRY POINT C)
IS BIT 0 OF THE FLAGS OFF ?
Y N

073
NOT EXPECTED INTERRUPT.

074
IS BIT 5 OF THE FLAGS OFF ?
Y N

075
WRONG INTERRUPT LEVEL.

076
IS BIT 6 OF THE FLAGS OFF ?
Y N

077
LOST INTERRUPT.

078
GO TO PAGE 5, STEP 057,
ENTRY POINT D.

SYSTEM TEST ERROR MAP

PAGE 1 OF 20

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN ERROR HAS OCCURRED
WHILE EXECUTING SYSTEM TEST, AND
THEN ONLY WHEN THE DEVICE TYPE
FIELD IS EQUAL TO
HEXADECIMAL'E4'.

DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

DOES RTN = 0003 ?

Y N

004

DOES RTN = 0004 ?

Y N

005

DOES RTN = 0005 ?

Y N

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1
0 9 7 7 5 2
A B C D E F

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MAP E4E0-1

SYSTEM TEST ERROR MAP

PAGE 2 OF 20

006

DOES RTN = 0006 ?

Y N

007

DOES CKPT = 0000?

Y N

008

DOES IO CC = 07 ?

Y N

009

DOES IO CC = 06?

Y N

010

DOES IO CC = 05?

Y N

4 4 3 3 3 3
G H J K L M

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MAP E4E0-2

J K L M 5250 WORK STATION
2 2 2 2
SYSTEM TEST ERROR MAP
PAGE 3 OF 20
011
DOES IO CC = 04?
Y N
012
DOES IO CC = 02?
Y N
013
DOES IO CC = 01?
Y N
014
DEVICE NOT ATTACHED.
015
DEVICE BUSY.
016
BUSY AFTER RESET.
017
INTERVENTION REQUIRED.
018
INTERFACE DATA CHECK.
019
CONTROLLER BUSY.
020
ATTACHMENT ACCEPTED AN ILLEGAL
COMMAND (IO CC = 07), SHOULD HAVE
RECEIVED IO CC = 03 (COMMAND
REJECT).

MAP E4E0-3

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ECA08003 PEC337313
MAP E4E0-3

G H 5250 WORK STATION
2 2
SYSTEM TEST ERROR MAP

MAP E4E0-4

PAGE 4 OF 20
021
PREPARE COMMAND FAILURE.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.
022
DOES CKPT = 0000?
Y N
023
DOES IO = 07?
Y N
024
WRITE DATA TO PRINTER, OIO CC
ERROR.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.
025
IS FLAG FIELD BIT 6 ON?
Y N
026
DOES IN = 04?
Y N
027
INTERRUPT FROM STATION
INTERRUPT ELEMENT COMMAND
SHOULD BE = 4, BUT IS NOT.
GO TO PAGE 14,
STEP 095,
ENTRY POINT D.
028
ILLEGAL STATUS FROM PRINTER.
DEV3 = XXEX.
CHECK DCB, FLAGS AND ISB.

5 5
N P

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ECA08003 PEC337313
MAP E4E0-4

E N P 5250 WORK STATION
1 4 4 SYSTEM TEST ERROR MAP

MAP E4E0-5

Q R S 5250 WORK STATION
5 5 5 SYSTEM TEST ERROR MAP

MAP E4E0-6

PAGE 5 OF 20

029
LOST ATTENTION INTERRUPT
AFTER A STATION INTERRUPT
ELEMENT.
GO TO PAGE 14, STEP 095,
ENTRY POINT D.

030
DOES IO CC = 07?
Y N

031
WRITE COMMAND TO PRINTER
FAILED.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.

032
WRITE COMMAND TO PRINTER INT CC
ERROR.
GO TO PAGE 14, STEP 095,
ENTRY POINT D.

033
DOES CKPT = 0000 ?
Y N

034
DOES IO = 07 ?
Y N

035
READ STATION INTERRUPT
ELEMENT COMMAND WAS
EXECUTING.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.

036
IS FLAG FIELD BIT 6 ON?
Y N

6 6 6
Q R S

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ECA08003 PEC337313

MAP E4E0-5

PAGE 6 OF 20

037
DOES IN = 04 ?
Y N

038
INTERRUPT FROM STATION
INTERRUPT ELEMENT COMMAND
SHOULD BE = 04 BUT IS NOT.
GO TO PAGE 14,
STEP 095,
ENTRY POINT D.

039
ILLEGAL STATUS FROM PRINTER
DEV3 = XXEX
CHECK DCB, FLAGS AND ISB.

040
LOST ATTENTION INTERRUPT AFTER
A STATION INTERRUPT ELEMENT.
CHECK DCB, FLAGS AND ISB.

041
DOES IO = 07 ?
Y N

042
A WRITE DATA COMMAND OIO CC
ERROR.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.

043
WRITE DATA TO PRINTER, INTERRUPT
CONDITION CODE ERROR.
GO TO PAGE 14, STEP 095,
ENTRY POINT D.

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ECA08003 PEC337313

MAP E4E0-6

C D 5250 WORK STATION
1 1
SYSTEM TEST ERROR MAP
PAGE 7 OF 20
044
DOES CKPT = 0000 ?
Y N
045
DOES IO = 07 ?
Y N
046
START INPUT/OUTPUT (WRITE
WITH ROLL UP) OIO CC ERROR.
GO TO PAGE 12,
STEP 082,
ENTRY POINT C.
047
WRITE WITH SHIFT UP INT CC
ERROR.
GO TO PAGE 14, STEP 095,
ENTRY POINT D.
048
DOES IO = 07 ?
Y N
049
START INPUT/OUTPUT (CLEAR
SCREEN) OIO CC ERROR.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.
050
CLEAR SCREEN COMMAND, INT CC
ERROR.
GO TO PAGE 14, STEP 095,
ENTRY POINT D.
051
DOES CKPT = 0000?
Y N
8 8
T U

MAP E4E0-7
29JUL83 PN6839516
ECA08003 PEC337313
MAP E4E0-7

T U 5250 WORK STATION
7 7
SYSTEM TEST ERROR MAP
PAGE 8 OF 20
052
DOES IO = 07?
Y N
053
READ STATION INTERRUPT
ELEMENT COMMAND, OIO CC
ERROR.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.
054
IS FLAG FIELD BIT 6 ON?
Y N
055
DOES IN = 04?
Y N
056
INTERRUPT FROM STATION
INTERRUPT ELEMENT COMMAND
SHOULD BE = 04 BUT IS NOT.
GO TO PAGE 14,
STEP 095,
ENTRY POINT D.
057
ILLEGAL STATUS FROM PRINTER
DEV3 = XXEX
CHECK DCB, FLAGS AND ISB.
058
LOST ATTENTION INTERRUPT AFTER
A STATION INTERRUPT ELEMENT.
GO TO PAGE 14, STEP 095,
ENTRY POINT D.
059
DOES IO = 07?
Y N
9 9
V W

MAP E4E0-8
29JUL83 PN6839516
ECA08003 PEC337313
MAP E4E0-8

B V W 5250 WORK STATION
1 8 8 SYSTEM TEST ERROR MAP

MAP E4E0-9

|||
||| PAGE 9 OF 20
|||
| 060
| WRITE DATA TO PRINTER OIO CC
| ERROR.
| GO TO PAGE 12, STEP 082,
| ENTRY POINT C.
|
| 061
| WRITE DATA TO PRINTER INT CC
| ERROR.
| GO TO PAGE 14, STEP 095,
| ENTRY POINT D.
|
062
DOES CKPT = 0000 ?
Y N
|
| 063
| DOES IO = 07 ?
| Y N
|
| 064
| START INPUT/OUTPUT (WRITE
| COMPLETE SCREEN)OIO CC ERROR.
| GO TO PAGE 12, STEP 082,
| ENTRY POINT C.
|
| 065
| WRITE SCREEN INT CC ERROR.
| GO TO PAGE 14, STEP 095,
| ENTRY POINT D.
|
066
DOES IO = 07 ?
Y N
|
| 067
| START INPUT/OUTPUT (CLEAR
| SCREEN)OIO CC ERROR.
| GO TO PAGE 12, STEP 082,
| ENTRY POINT C.

1
0
X

29JUL83 PN6839516
ECA08003 PEC337313
MAP E4E0-9

A X 5250 WORK STATION
1 9 SYSTEM TEST ERROR MAP

MAP E4E0-10

|||
||| PAGE 10 OF 20
|||
| 068
| CLEAR SCREEN INT CC ERROR
| GO TO PAGE 14, STEP 095,
| ENTRY POINT D.
|
069
DOES CKPT = 0000?
Y N
|
| 070
| DOES CKPT = 0001?
| Y N
|
| 071
| DOES CKPT = 0002?
| Y N
|
| 072
| DOES IO = 07 ?
| Y N
|
| 073
| START IO CYCLE STEAL
| STATUS OIO CC FAILURE.
| GO TO PAGE 12,
| STEP 082,
| ENTRY POINT C.
|
| 074
| START CYCLE STEAL STATUS
| INTERRUPT CC ERROR
| GO TO PAGE 14,
| STEP 095,
| ENTRY POINT D.
|
| 075
| WRONG ID RECEIVED, DEV3 = ID
| RECEIVED, DEV4 = ID EXPECTED

1 1
1 1
Y Z

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ECA08003 PEC337313
MAP E4E0-10

076
DOES IO = 07 ?
Y N
077
READ ID COMMAND OIO CC
FAILURE.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.
078
INTERRUPT CC ERROR ON READ ID.
GO TO PAGE 14, STEP 095,
ENTRY POINT D.
079
DOES IO = 07 ?
Y N
080
PREPARE COMMAND, OIO CC
FAILURE.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.
081
PREPARE COMMAND INT CC ERROR.
GO TO PAGE 12, STEP 082,
ENTRY POINT C.

082
(ENTRY POINT C)
DOES IO CC = 00?
Y N
083
DOES IO CC = 00?
Y N
084
DOES IO CC = 02?
Y N
085
DOES IO CC = 03?
Y N
086
DOES IO CC = 04?
Y N
1 1 1 1 1 1
3 3 3 3 3 3
A A A A A A
A B C D E F

A A A 5250 WORK STATION
K L M
1 1 1 SYSTEM TEST ERROR MAP
4 4 4
PAGE 15 OF 20

MAP E4E0-15

| | |
| | |
| | | 100
| | | DOES IN CC = 06?
| | | Y N
| | |
| | | 101
| | | DOES IN CC = 07?
| | | Y N
| | |
| | | 102
| | | THIS MAP CANNOT DETERMINE
| | | THE PROBLEM. USE THE
| | | ERROR OUTPUT YOU HAVE
| | | BEEN USING FOR THIS MAP
| | | AS YOUR ERROR INFORMATION
| | | AND GO TO MAP 0070, ENTRY
| | | POINT A.
| | |
| | | 103
| | | DEVICE ATTENTION AND DEVICE
| | | END.
| | |
| | | 104
| | | DEVICE ATTENTION AND
| | | EXCEPTION.
| | | GO TO PAGE 19, STEP 128,
| | | ENTRY POINT F.
| | |
| | | 105
| | | ATTENTION AND P.C.I.
| | | THIS IS AN INVALID INTERRUPT
| | | CONDITION CODE FOR THIS DEVICE.
| | |
| | | 106
| | | DOES THE IIB = 00?
| | | Y N
| | |
| | | 107
| | | A WSA HARDWARE ERROR HAS
| | | OCCURED. CHECK DCB AND FLAGS.

29JUL83 PN6839516
ECA08003 PEC337313
MAP E4E0-15

1
6
A
N

A A A A 5250 WORK STATION
G H J N
1 1 1 1 SYSTEM TEST ERROR MAP
4 4 4 5
PAGE 16 OF 20

MAP E4E0-16

| | | |
| | | |
| | | | 108
| | | | STATION RELATED ATTENTION
| | | | INTERRUPT. CHECK DCB AND
| | | | FLAGS.
| | | |
| | | | 109
| | | | DEVICE EXCEPTION.
| | | | GO TO PAGE 17, STEP 112,
| | | | ENTRY POINT E.
| | | |
| | | | 110
| | | | PROGRAM CONTROLLED INTERRUPT.
| | | | THIS IS AN INVALID INTERRUPT
| | | | CONDITION CODE FOR THIS DEVICE.
| | | |
| | | | 111
| | | | CONTROLLER END.
| | | | THIS IS AN INVALID INTERRUPT
| | | | CONDITION CODE FOR THIS DEVICE.

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ECA08003 PEC337313
MAP E4E0-16

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

112
(ENTRY POINT E)
IS ISB BIT 7 ON?
Y N

113
IS ISB BIT 6 ON?
Y N

114
IS ISB BIT 5 ON?
Y N

115
IS ISB BIT 4 ON?
Y N

116
IS ISB BIT 3 ON?
Y N

117
IS ISB BIT 2 ON?
Y N

118
IS ISB BIT 1 ON?
Y N

119
IS ISB BIT 0 ON?
Y N

120
THIS MAP CANNOT
DETERMINE THE PROBLEM.
USE THE ERROR OUTPUT
YOU HAVE BEEN USING FOR
THIS MAP AS YOUR ERROR
INFORMATION AND GO TO
MAP 0070, ENTRY POINT
A.

121
CYCLE STEAL STATUS
AVAILABLE.
GO TO PAGE 19,
STEP 128,
ENTRY POINT F.

122
DELAYED COMMAND REJECT.

123
INCORRECT RECORD LENGTH.

124
DCB SPECIFICATION CHECK.

125
DEVICE ATTENTION.

1 1 1 1 1 1
9 9 9 8 8 8
A A A A A A
P Q R S T U

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ECA08003 PEC337313

MAP E4E0-17

29JUL83 PN6839516

ECA08003 PEC337313

MAP E4E0-18

| | |
| | |
| | 126
| | ATTENTION AND P.C.I.
| |
| 127
| ATTENTION AND EXCEPTION.
|
128
ATTENTION AND DEVICE END.

(ENTRY POINT F)
THE FOLLOWING TABLE WILL ASSIST
IN THE DECODING OF CYCLE STEAL
STATUS INFORMATION.

WORD 0 = RESIDUAL ADDRESS

WORD 1 = RESIDUAL BYTE COUNT

WORD 2 = RESIDUAL STATUS BLOCK INFORMATION

BIT 0 END OF CHAIN
BIT 1 - 7 NOT USED - ZEROS
BIT 8 - 9 PRESENTED AS ZEROS
BIT 10 SHORT INCORRECT RECORD LENGTH
BIT 11-14 PRESENTED AS ZEROS
BIT 15 NO EXCEPTION (NE)

WORD 3

BYTE 0 = CHECK CONDITION
BIT 0 DATA STREAM REJECT
BIT 1 STATION BYTE COUNT INCONSISTENCY
BIT 2 RESOURCES TEMPORARILY UNAVAILABLE
BIT 3 - 7 NOT USED - ZEROES

BYTE 1 = STATION ADDRESS
BIT 0 - 3 CABLE ADDRESS
BIT 4 NOT USED - MUST BE ZERO
BIT 5 - 7 CABLE STATION ADDRESS

WORDS 4-6 = DEVICE DEPENDENT. THESE WORDS CONTAIN THE ENDING
STATUS OF THE STATION ADDRESSED ON COMPLETION
OF STATION-DIRECTED OPERATIONS.

(STEP 128 CONTINUES)

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ECA08003 PEC337313

MAP E4E0-19

(STEP 128 CONTINUED)

WORD 7

BYTE 0 = OPERATION CHECKS
BIT 0 INCORRECT CONTROLLER STORAGE IMAGE CHECK
SUM (RAM DID NOT LOAD).
BIT 1 CONTROLLER STORAGE IMAGE INCOMPATABILITY
WITH HARDWARE EC LEVEL
BIT 2 - 7 NOT USED - ZEROS

BYTE 1 = DCB SPECIFICATION CHECKS
X'00' NO DCB SPECIFICATION CHECK
X'01' INVALID DCB CONTROL WORD MODIFIER
X'02' INPUT FLAG OF THE DCB IS INCORRECT
X'03' PCI, XD, OR SE BIT ON
X'04' ODD CHAIN OR STATUS ADDRESS
X'05' BYTE COUNT INCORRECT WITH RESPECT TO
DCB SPECIFICATION
X'06' INVALID WSA STORAGE STARTING ADDRESS
X'07' ODD WSA STORAGE STARTING ADDRESS
X'85' BYTE COUNT INCORRECT WITH RESPECT TO
STATION COMMAND MODIFIER SPECIFICATION
X'88' INVALID STATION COMMAND MODIFIER
X'89' INVALID STATION ADDRESS

WORD 8

BYTE 0 = STATUS BYTE
BIT 0 INITIALIZED
BIT 1 ARMED
BIT 2 - 3 NOT USED - ZEROS
BIT 4 - 7 NOT USED - ZEROS OR ONES

BYTE 1 = RESIDUAL ADDRESS KEY
BIT 0 - 4 NOT USED - ZEROS
BIT 5 - 7 RESIDUAL ADDRESS KEY

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ECA08003 PEC337313

MAP E4E0-20

SYSTEM TEST ERROR MAP

PAGE 1 OF 10

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP	ENTRY	PAGE	STEP
NUMBER	POINT	NUMBER	NUMBER

NO ENTRIES IN THIS TABLE			

EXIT POINTS

EXIT THIS MAP		TO	
PAGE	STEP	MAP	ENTRY
NUMBER	NUMBER	NUMBER	POINT

3	023	0020	A
2	006	0070	A
2	009	0070	A
2	014	0070	A
3	032	0070	A
4	037	0070	A
5	058	0070	A

001
(ENTRY POINT A)

ENTER THIS MAP IF THE DEVICE TYPE IS 'E6' AND AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST.

DOES RTN = 0001?

Y N

| 002

| DOES RTN = 0002?

| Y N

| | 003

| | DOES RTN = 0003?

| | Y N

| | | 004

| | | DOES RTN = 0004?

| | | Y N

| | | |

| | | |

| | | |

| | | |

| | | |

| | | |

| | | |

| | | |

| | | |

| | | |

| | | |

4 3 2 2 2
A B C D E

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MAP E6E0-1

```

E          MULTIFUNCTION
1
          PAPER ONLY MAP
          PAGE 2 OF 10
005
DOES RTN = 0005?
Y N
006
THE ROUTINE NUMBER IS NOT
VALID. USE THE ERROR OUTPUT
YOU HAVE BEEN USING FOR THIS
MAP AS YOUR ERROR INDICATION
AND:
GO TO MAP 0070, ENTRY POINT A.
007
DOES CKPT = 0000?
Y N
008
DOES CKPT = 0001?
Y N
009
THE CHECK POINT IS NOT VALID.
USE THE ERROR OUTPUT YOU HAVE
BEEN USING FOR THIS MAP AS
YOUR ERROR INDICATION AND:
GO TO MAP 0070,
ENTRY POINT A.
010
A READ STATUS COMMAND WAS
EXECUTING.
GO TO PAGE 4, STEP 040,
ENTRY POINT B.
011
A SET MODE COMMAND WAS EXECUTING.
GO TO PAGE 4, STEP 040,
ENTRY POINT B.

```

```

C D          MAP E6E0-2
1 1
012
DOES CKPT = 0000?
Y N
013
DOES CKPT = 0001?
Y N
014
THE CHECK POINT IS NOT
VALID. USE THE ERROR
OUTPUT YOU HAVE BEEN USING
FOR THIS MAP AS YOUR ERROR
INDICATION AND:
GO TO MAP 0070,
ENTRY POINT A.
015
A WRITE COMMAND WAS
EXECUTING.
GO TO PAGE 4, STEP 040,
ENTRY POINT B.
016
A SET MODE COMMAND WAS
EXECUTING.
GO TO PAGE 4, STEP 040,
ENTRY POINT B.
017
DOES CKPT = 0000?
Y N
018
DOES CKPT = 0001?
Y N
019
DOES CKPT = 0002?
Y N
30JAN87 PN8529468
ECA41061 PEC337313
3 3 3 3
F G H J          MAP E6E0-2

```

J MULTIFUNCTION
 2 PAPER ONLY MAP
 PAGE 3 OF 10

020
 DOES CKPT = 0003?
 Y N

021
 DOES CKPT = 0004?
 Y N

022
 DOES CKPT = 0005?
 Y N

023
 INVALID CHECKPOINT. USE
 THE ERROR OUTPUT YOU HAVE
 BEEN USING FOR THIS MAP AS
 YOUR ERROR INDICATIONS AND:
 GO TO MAP 0020,
 ENTRY POINT A.

024
 A CLEAR SCREEN COMMAND WAS
 EXECUTING.
 GO TO PAGE 4, STEP 040,
 ENTRY POINT B.

025
 A WRITE COMMAND WAS EXECUTING.
 GO TO PAGE 4, STEP 040,
 ENTRY POINT B.

026
 A CLEAR SCREEN COMMAND WAS
 EXECUTING.
 GO TO PAGE 4, STEP 040,
 ENTRY POINT B.

B F G H MAP E6E0-3
 1 2 2 2

027
 AN ESCAPE 6 COMMAND (READ
 TERMINAL STATUS) WAS
 EXECUTING.
 GO TO PAGE 4,
 STEP 040,
 ENTRY POINT B.

028
 AN ESCAPE 7 COMMAND (READ
 SETUP SWITCHES) WAS
 EXECUTING.
 GO TO PAGE 4, STEP 040,
 ENTRY POINT B.

029
 A SET MODE COMMAND WAS
 EXECUTING.
 GO TO PAGE 4, STEP 040,
 ENTRY POINT B.

030
 DOES CKPT = 0000?
 Y N

031
 DOES CKPT = 0001?
 Y N

032
 THE CHECK POINT IS NOT VALID.
 USE THE ERROR OUTPUT YOU HAVE
 BEEN USING FOR THIS MAP AS
 YOUR ERROR INDICATION AND:
 GO TO MAP 0070,
 ENTRY POINT A.

033
 AN OVERFLOW COMMAND WAS
 EXECUTING.
 GO TO PAGE 4, STEP 040,
 ENTRY POINT B.

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 ECA41061 PEC337313

A K MULTIFUNCTION
1 3 PAPER ONLY MAP
PAGE 4 OF 10

MAP E6E0-4

034
A WRITE COMMAND WAS EXECUTING.
GO TO STEP 040,
ENTRY POINT B.

035
DOES CKPT = 0000?
Y N

036
DOES CKPT = 0001?
Y N

037
THE CHECK POINT IS NOT VALID.
USE THE ERROR CUTPUT YOU HAVE
BEEN USING FOR THIS MAP AS
YOUR ERROR INDICATION AND:
GO TO MAP 0070,
ENTRY POINT A.

038
A PREPARE COMMAND WAS
EXECUTING.
GO TO STEP 040,
ENTRY POINT B.

039
READ ID COMMAND WAS EXECUTING.
DEV3 = EXPECTED ID.
DEV4 = RECEIVED ID.

040
(ENTRY POINT B)
DOES IO = 07?
Y N

041
DOES IO = 06?
Y N

042
DOES IO = 05?
Y N

043
DOES IO = 03?
Y N

044
DOES IO = 02?
Y N

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ECA41061 PEC337313

5 5 5 5 5
L M N P F

MAP E6E0-4

L M N P Q R MULTIFUNCTION
PAPER ONLY MAP
PAGE 5 OF 10
045
DOES IO = 01?
Y N
046
DEVICE NOT ATTACHED.
047
DEVICE BUSY.
048
BUSY AFTER RESET.
049
COMMAND REJECT.
050
INTERFACE DATA CHECK.
051
CONTROLLER BUSY.
052
DOES IN = 02?
Y N
053
DOES IN = 04?
Y N
054
DOES IN = 03?
Y N
055
CONTROLLER END.
S T U

MAP E6E0-5
S T U
056
DEVICE END RECEIVED.
IS BIT 1 IN THE FLAGS FIELD
OFF?
Y N
057
INSPECT DEV4
BITS 0 - 7 = DATA EXPECTED
BITS 8 -15 = DATA RECEIVED
058
(ENTRY POINT D)
THIS MAP CANNOT DETERMINE THE
PROBLEM.
USE THE ERROR OUTPUT YOU HAVE
BEEN USING FOR THIS MAP AS
YOUR ERROR INDICATIONS AND:
GO TO MAP 0070,
ENTRY POINT A.
059
ATTENTION INTERRUPT.
060
IS BIT 0 OF THE ISB OFF?
Y N
061
WAS RTN = 0002?
Y N
062
WAS RTN = 0003?
Y N
063
WAS RTN = 0004?
Y N
30JAN87 PN8529488
ECA41081 PEO337313
0 7 6 6 6
V W X Y Z
MAP E6E0-5

X Y Z MULTIFUNCTION
5 5 5
PAPER ONLY MAP
PAGE 6 OF 10

064
INVALID ROUTINE NUMBER.
GO TO PAGE 5, STEP 058,
ENTRY POINT D.

065
GO TO PAGE 7, STEP 075,
ENTRY POINT DP.

066
CYCLE STEAL STATUS IS AVAILABE
FOR DISPLAY TYPE TERMINALS.
IS RSAD = 0000?
Y N

067
THE CONTENTS OF RSAD REFLECT
THE PROCESSOR STORAGE ADDRESS
OF THE LAST CYCLE-STEAL
TRANSFER ATTEMPTED FOR A START
COMMAND.
GO TO STEP 068,
ENTRY POINT DA.

068
(ENTRY POINT DA)

CSS1 CONTAINS DEVICE STATUS.
DOES CSS-1 = 0000?
Y N

A A
A B

A A MAP E6F0-6
A B

069
BIT 0 = EQUIPMENT ERROR
BIT 1 = TIME OUT
BIT 2 = NOT USED
BIT 3 = DCB REJECT
BIT 4 = NOT USED
BIT 5 = COMMUNICATIONS ERROR
BIT 6 = BREAK
BIT 7 = COMMUNICATIONS ERROR
BIT 8 = NOT USED
BIT 9 = COMMUNICATIONS INTER-
FACE ERROR
BIT 10 = NOT USED
BIT 11 = NOT USED
BIT 12 = ERROR DURING
PRE-RECEIVE
BIT 13 = NOT USED
BIT 14 = NOT USED
BIT 15 = NOT USED
GO TO STEP 070,
ENTRY POINT DB.

070
(ENTRY POINT DB)

CSS-2 = DEVICE STATUS.
DOES CSS-2 = 0000?
Y N

071
BIT 0 = DATA TERMINAL READY
BIT 1 = DATA SET READY
BIT 2 = REQUEST TO SEND
BIT 3 = CLEAR TO SEND
BIT 4 = NOT USED
BIT 5 = NOT USED
BIT 6 = ECHOPLEX
BIT 7 = RECEIVE MODE
BIT 8-15 = *INDICATORS
*SEE MULTIFUNCTION ATTACHMENT
FEATURE AND 4975 PRINTER
DESCRIPTION (GA34-0144).

30JAN87 PN8529468
7 ECA41061 PEC337313
A
C MAP E6E0-6

W A MULTIFUNCTION
5 C
6 PAPER ONLY MAP
PAGE 7 OF 10

072
(ENTRY POINT DC)

IS BIT 2 OF THE ISB OFF?
Y N
073
NOT CORRECT LENGTH ERROR.
074
GO TO PAGE 5, STEP 058,
ENTRY POINT D.

075
(ENTRY POINT DP)

CYCLE STEAL STATUS IS AVAILABLE
FOR THE PRINTER.
DOES RSAD = 0000?
Y N
076
RSAD CONTAINS THE PROCESSOR
STORAGE ADDRESS OF THE LAST
CYCLE-STEAL TRANSFER ATTEMPTED
FOR A START COMMAND.
GO TO STEP 077,
ENTRY POINT PA.

077
(ENTRY POINT PA)

CSS-1 CONTAINS DEVICE STATUS
DOES CSS-1 = 0000?
Y N

A A
D E

A A MAP E6E0-7
D E

078
BIT 0 - NOT READY
BIT 1 - EQUIPMENT ERROR
BIT 2 - EQUIPMENT ERROR
BIT 3 - WAIT
BIT 4 - EQUIPMENT ERROR
BIT 5 - EQUIPMENT ERROR
BIT 6 - EQUIPMENT ERROR
BIT 7 - FORMS JAM
BIT 8 - EQUIPMENT ERROR
BIT 9 - COMMUNICATION ERROR
BIT 10 - COMMUNICATION ERROR
BIT 11 - OVERFLOW
BIT 12 - END OF FORMS
BIT 13 - CARTRIDGE PARAMETER
 ERROR
BIT 14 - EQUIPMENT ERROR
BIT 15 - INVALID LENGTH
GO TO STEP 079,
ENTRY POINT PB.

079
(ENTRY POINT PB)

CSS-2 CONTAINS THE CURRENT LINE
POSITION
DOES CSS-2 = 0000?
Y N
080
BITS 0 - 7 NOT USED.
BITS 8 - 15 CONTAIN THE CURRENT
FORM LINE POSITION.
GO TO PAGE 8, STEP 081,
ENTRY POINT PC.

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ECA41061 PEC337313
8
A
F MAP E6E0-7

A MULTIFUNCTION
F PAPER ONLY MAP
7
|
| PAGE 8 OF 10
|

MAP E6E0-8

081
(ENTRY POINT PC)

CSS-3 CONTAINS FORMS LENGTH/OVER-
FLOW LINE.
DOES CSS-3 = 0000
Y N
|

082
| BITS 0-7 = FORM LENGTH
| BITS 8-15 = OVERFLOW LINE
| GO TO STEP 083,
| ENTRY POINT PD.
|

083
(ENTRY POINT PD)

CSS-4 IS RESERVED.
CSS-5 CONTAINS DEVICE STATUS 2
DOES CSS-5 = 0000?
Y N
|

084
| BIT 0 = NOT USED
| BIT 1 = MODE SWITCH
| BIT 2 = LEFT-MARGIN SWITCH
| (NOT USED ON 4975
| MODELS 02L AND 02R
| BIT 3 = END OF FORMS SWITCH
| BIT 5 = EQUIPMENT ERROR
| BIT 6 = EQUIPMENT ERROR
| BIT 7 = EQUIPMENT ERROR
| BITS 8 - 15 NOT USED (ARE 0'S)
| GO TO PAGE 9, STEP 085,
| ENTRY POINT PE.
|

9
A
G

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ECA41061 PEC337313
MAP E6E0-8

A MULTIFUNCTION
G
8 PAPER ONLY MAP
PAGE 9 OF 10

MAP E6E0-9

085
(ENTRY POINT PE)

CSS-6 = MODEL/CHARACTER SET
DOES CSS-6 = 0000?
Y N

086

BIT 0- 4 = RESERVED.
BIT 5- 7 = 001=4975 01L OR 01R
BIT 5- 7 = 002=4975 02L OR 02R
BIT 8-11 = ARE NOT USED
BIT 12-15 = 0000 = MULTI-
NATIONAL
0001 = U.S./CANADA
0010 = AUSTRIA AND
GERMANY
0011 = BELGIUM
0100 = BRAZIL
0101 = FR. CANADIAN
0110 = DENMARK AND
NORWAY

BIT 12-15 = 0111 = FINLAND/SWEDEN
1000 = FRANCE
1001 = ITALY
1010 = JAPAN AND
ENGLISH
1011 = MULTI-NATIONAL
1011 = MULTI-NATIONAL
1100 = PORTUGAL
1101 = SPAIN
1110 = SPANISH EXCEPT
SPAIN
1111 = UNITED KINGDOM

GO TO STEP 087,
ENTRY POINT PF.

087
(ENTRY POINT PF)

CSS-7 = COMMUNICATIONS
ERROR COUNT

DOES CSS7 = 0000?
Y N

088

BITS = NUMBER OF DCB'S
0 - 7 PROCESSED.
BITS = NUMBER OF BLOCK CHECK
8 - 15 CHARACTERS DETECTED.
GO TO PAGE 5, STEP 058,
ENTRY POINT D.

1
0
A
H

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ECA41061 PEC337313

MAP E6E0-9

V A MULTIFUNCTION
 5 H
 9 PAPER ONLY MAP
 |
 | PAGE 10 OF 10
 |
 |
 | 089
 | GO TO PAGE 5, STEP 058,
 | ENTRY POINT D.
 |
 | 090
 | IS BIT 1 OF THE ISB OFF?
 | Y N
 |
 | 091
 | DELAYED COMMAND REJECT.
 |
 | 092
 | IS BIT 2 OF THE ISB OFF ?
 | Y N
 |
 | 093
 | NOT CORRECT LENGTH ERROR.
 |
 | 094
 | IS BIT 3 OF THE ISB OFF ?
 | Y N
 |
 | 095
 | DCB SPECIFICATION CHECK.
 |
 | 096
 | IS BIT 4 OF THE ISB OFF ?
 | Y N
 |
 | 097
 | STORAGE DATA CHECK.
 |
 | 098
 | IS BIT 5 OF THE ISB OFF ?
 | Y N
 |
 | 099
 | NOT VALID STORAGE ADDRESS.

A MAP E6E0-10
 J
 |
 |
 | 100
 | IS BIT 6 OF THE ISB OFF ?
 | Y N
 |
 | 101
 | PROTECT CHECK.
 |
 | 102
 | IS BIT 7 OF THE ISB OFF ?
 | Y N
 |
 | 103
 | INTERFACE DATA CHECK.
 |
 | 104
 | (ENTRY POINT C)
 | IS BIT 0 OF THE FLAGS OFF ?
 | Y N
 |
 | 105
 | NOT EXPECTED INTERRUPT.
 |
 | 106
 | IS BIT 5 OF THE FLAGS OFF ?
 | Y N
 |
 | 107
 | WRONG INTERRUPT LEVEL.
 |
 | 108
 | IS BIT 6 OF THE FLAGS OFF ?
 | Y N
 |
 | 109
 | LOST INTERRUPT.
 |
 | 110
 | GO TO PAGE 5, STEP 058,
 | ENTRY POINT D.

SYSTEM TEST ERROR MAP

PAGE 1 OF 7

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'E8'.

DOES RTN = 0001 ?
 Y N

002
 DOES RTN = 0002 ?
 Y N

003
 DOES RTN = 0003 ?
 Y N

004
 DOES CKPT = 0000 ?
 Y N

005
 DOES CKPT = 0001 ?
 Y N

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4 4 2 2 2 2
A B C D E F

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EC337313 PEC326765

SYSTEM TEST ERROR MAP

PAGE 2 OF 7

006
 DOES IO = 07 ?
 Y N

007
 COMMAND REJECT FROM
 ATTACHMENT CARD
 ILLEGAL DCB
 CHECK DCB, FLAGS AND ISB

008
 ISB VALUE WRONG
 ISB = RECEIVED DATA
 DEV4 = EXPECTED DATA
 CHECK DCB, FLAGS AND ISB

009
 DOES IO = 07 ?
 Y N

010
 COMMAND REJECT FROM
 ATTACHMENT CARD
 ILLEGAL DCB
 CHECK DCB, FLAGS AND ISB

011
 ISB VALUE WRONG
 ISB = RECEIVED DATA
 DEV4 = EXPECTED DATA
 CHECK DCB, FLAGS AND ISB

012
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1

013
 DOES CKPT = 0000 ?
 Y N

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EC337313 PEC326765

3 3
G H


```

G H      ACCA SL
2 2
SYSTEM TEST ERROR MAP
PAGE 3 OF 7

014
DOES CKPT = 0001 ?
Y N

015
DIAGNOSTIC DATA IS WRONG
DEV1 THROUGH DEV4 = RECEIVED
DATA
DEV1 = DIAGNOSTIC BUFFER PLUS
12 WORDS
DEV2 = DIAGNOSTIC BUFFER PLUS
14 WORDS
DEV3 = DIAGNOSTIC BUFFER PLUS
16 WORDS
DEV4 = DIAGNOSTIC BUFFER PLUS
17 WORDS
CHECK CONFIGURATION ENTRY
CHECK DCB, FLAGS AND ISB

016
DOES IO = 07 ?
Y N

017
COMMAND REJECT FROM
ATTACHMENT CARD
DIAGNOSTIC TWO COMMAND

018
DIAGNOSTIC DATA IS WRONG
DEV1 & DEV2 = RECEIVED DATA
DEV3 & DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

019
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1

```

```

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EC337313 PEC326765
MAP E8E0-3

```

```

A B      ACCA SL
1 1
SYSTEM TEST ERROR MAP
PAGE 4 OF 7

020
DOES CKPT = 0000 ?
Y N

021
DOES IO = 07 ?
Y N

022
COMMAND REJECT FROM
ATTACHMENT CARD
CYCLE STEAL STATUS COMMAND

023
WRONG RESIDUAL ADDRESS
RECEIVED
CHECK DCB, FLAGS AND ISB
DEV4 = EXPECTED
RSAD = RECEIVED

024
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1

025
DOES CKPT = 0000 ?
Y N

026
DOES CKPT = 0001 ?
Y N

027
DOES CKPT = 0002 ?
Y N

028
DOES IO = 07 ?
Y N

6 6 5 5 5
J K L M N

```

```

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EC337313 PEC326765
MAP E8E0-4

```

```

L M N      ACCA SL
4 4 4
SYSTEM TEST ERROR MAP
| | |
| | | PAGE 5 OF 7
| | |
| | |
| | 029
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | DISABLE DTR
| | DIAGNOSTIC TWO COMMAND
| | CHECK DCB, FLAGS AND ISB
| |
| | 030
| | WRONG CHECKSUM RECEIVED
| | DEV3 & DEV4 = RECEIVED CHECKSUM
| | CHECK DCB, FLAGS AND ISB
| |
| | 031
| | DOES IO = 07 ?
| | Y N
| |
| | 032
| | COMMAND REJECT FROM ATTACHMENT
| | CARD
| | PREPARE - LEVEL = 2
| | DEVICE RESET
| | READ DEVICE ID
| | SET DTR
| | CHECK DCB, FLAGS AND ISB
| |
| | 033
| | DOES DEV4 = 0000 ?
| | Y N
| |
| | 034
| | WRONG DEVICE ID RECEIVED
| | DEV3 = RECEIVED ID
| | DEV4 = EXPECTED ID
| | CHECK DCB, FLAGS AND ISB
| |
| | 035
| | SET DTR FAILED
| | CHECK DCB, FLAGS AND ISB

```

```

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EC337313 PEC326765
MAP E8E0-5

```

```

J K      ACCA SL
4 4
SYSTEM TEST ERROR MAP
| | |
| | | PAGE 6 OF 7
| | |
| | |
| | 036
| | DOES IO = 07 ?
| | Y N
| |
| | 037
| | COMMAND REJECT FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 1
| | DEVICE RESET
| | READ DEVICE ID
| | SET DTR
| | CHECK DCB, FLAGS AND ISB
| |
| | 038
| | DOES DEV4 = 0000 ?
| | Y N
| |
| | 039
| | WRONG DEVICE ID RECEIVED
| | DEV3 = RECEIVED ID
| | DEV4 = EXPECTED ID
| | CHECK DCB, FLAGS AND ISB
| |
| | 040
| | SET DTR FAILED
| | CHECK DCB, FLAGS AND ISB
| |
| | 041
| | DOES IO = 07 ?
| | Y N
| |
| | 042
| | COMMAND REJECT FROM ATTACHMENT
| | CARD
| | PREPARE - LEVEL = 0
| | DEVICE RESET
| | READ DEVICE ID
| | SET DTR
| | CHECK DCB, FLAGS AND ISB

```

```

7
P

```

```

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EC337313 PEC326765
MAP E8E0-6

```

P ACCA SL MAP E8E0-7
6

SYSTEM TEST ERROR MAP

PAGE 7 OF 7

043

DOES DEV4 = 0000 ?

Y N

044

WRONG DEVICE ID RECEIVED

DEV3 = RECEIVED ID

DEV4 = EXPECTED ID

CHECK DCB, FLAGS AND ISB

045

SET DTR FAILED

CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

MAP E8E0-7

SYSTEM TEST ERROR MAP

1 1 1 1

SYSTEM TEST ERROR MAP

PAGE 1 OF 6

PAGE 2 OF 6

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'E9'.

| | | |

| | | | 006
 | | | | DOES IO = 07 ?
 | | | | Y N

DOES RTN = 0001 ?
 Y N

| | | | 007
 | | | | COMMAND REJECT FROM
 | | | | ATTACHMENT CARD
 | | | | ILLEGAL DCB
 | | | | CHECK DCB, FLAGS AND ISB

| 002
 | DOES RTN = 0002 ?
 | Y N

| | | | 008
 | | | | ISB VALUE WRONG
 | | | | ISB = RECEIVED DATA
 | | | | DEV4 = EXPECTED DATA
 | | | | CHECK DCB, FLAGS AND ISB

| | 003
 | | DOES RTN = 0003 ?
 | | Y N

| | | | 009
 | | | | DOES IO = 07 ?
 | | | | Y N

| | | 004
 | | | DOES CKPT = 0000 ?
 | | | Y N

| | | | 010
 | | | | COMMAND REJECT FROM
 | | | | ATTACHMENT CARD
 | | | | ILLEGAL DCB
 | | | | CHECK DCB, FLAGS AND ISB

| | | | 005
 | | | | DOES CKPT = 0001 ?
 | | | | Y N

| | | | 011
 | | | | ISB VALUE WRONG
 | | | | ISB = RECEIVED DATA
 | | | | DEV4 = EXPECTED DATA
 | | | | CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

4 3 2 2 2 2
A B C D E F

3 3
G H

B G H ACCA ML
 1 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 6
 014
 DOES IO = 07 ?
 Y N
 015
 COMMAND REJECT FROM
 ATTACHMENT CARD
 DIAGNOSTIC TWO COMMAND
 016
 DIAGNOSTIC DATA IS WRONG
 DEV1 = RECEIVED BITS
 ***** DIAGNOSTIC BUFFER PLUS
 6 WORDS
 DEV4 = CONFIGURATION BITS
 ***** CONFIGURATION ENTRY
 PLUS 4 WORDS
 CHECK DCB, FLAGS AND ISB
 017
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1
 018
 DOES CKPT = 0000 ?
 Y N
 019
 DOES IO = 07 ?
 Y N
 020
 COMMAND REJECT FROM
 ATTACHMENT CARD
 CYCLE STEAL STATUS COMMAND
 021
 WRONG RESIDUAL ADDRESS RECEIVED
 CHECK DCB, FLAGS AND ISB
 DEV4 = EXPECTED
 RSAD = RECEIVED

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 EC337313 PEC326765
 MAP E9E0-3

4
 J

A J ACCA ML
 1 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 6
 022
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1
 023
 DOES CKPT = 0000 ?
 Y N
 024
 DOES CKPT = 0001 ?
 Y N
 025
 DOES CKPT = 0002 ?
 Y N
 026
 DOES IO = 07 ?
 Y N
 027
 COMMAND REJECT FROM
 ATTACHMENT CARD
 DIAGNOSTIC TWO COMMAND
 CHECK DCB, FLAGS AND ISB
 028
 WRONG CHECKSUM RECEIVED
 DEV3 & DEV4 = RECEIVED
 CHECKSUM
 CHECK DCB, FLAGS AND ISB
 029
 DOES IO = 07 ?
 Y N

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 EC337313 PEC326765
 MAP E9E0-4

6 5 5 5
 K L M N

```

L M N      ACCA ML
4 4 4

      SYSTEM TEST ERROR MAP

| | |
| | |      PAGE 5 OF 6
| | |
| | |
| | 030
| | COMMAND      REJECT      FROM
| | ATTACHMENT CARD
| | PREPARE - LEVEL = 2
| | DEVICE RESET
| | READ DEVICE ID
| | SET DTR
| | CHECK DCB, FLAGS AND ISB
| |
| | 031
| | DOES DEV4 = 0000 ?
| | Y N
| |
| | 032
| | WRONG DEVICE ID RECEIVED
| | DEV3 = RECEIVED ID
| | DEV4 = EXPECTED ID
| | CHECK DCB, FLAGS AND ISB
| |
| | 033
| | SET DTR FAILED
| | CHECK DCB, FLAGS AND ISB
| |
034
DOES IO = 07 ?
Y N
|
| 035
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 1
| DEVICE RESET
| READ DEVICE ID
| SET DTR
| CHECK DCB, FLAGS AND ISB
|
036
DOES DEV4 = 0000 ?
Y N
|
|
|
|
|
|
|
|
|
6 6
P Q

```

MAP E9E0-5

21JAN83 PN4414116
 EC337313 PEC326765
 MAP E9E0-5

```

K P Q      ACCA ML
4 5 5

      SYSTEM TEST ERROR MAP

| | |
| | |      PAGE 6 OF 6
| | |
| | |
| | 037
| | WRONG DEVICE ID RECEIVED
| | DEV3 = RECEIVED ID
| | DEV4 = EXPECTED ID
| | CHECK DCB, FLAGS AND ISB
| |
| | 038
| | SET DTR FAILED
| | CHECK DCB, FLAGS AND ISB
| |
039
DOES IO = 07 ?
Y N
|
| 040
| COMMAND REJECT FROM ATTACHMENT
| CARD
| PREPARE - LEVEL = 0
| DEVICE RESET
| READ DEVICE ID
| SET DTR
| CHECK DCB, FLAGS AND ISB
|
041
DOES DEV4 = 0000 ?
Y N
|
| 042
| WRONG DEVICE ID RECEIVED
| DEV3 = RECEIVED ID
| DEV4 = EXPECTED ID
| CHECK DCB, FLAGS AND ISB
|
043
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

```

MAP E9E0-6

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 EC337313 PEC326765
 MAP E9E0-6

SYSTEM TEST ERROR MAP

PAGE 1 OF 8

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL'EA'.

DOES RTN = 0001 ?
 Y N

| 002
 | DOES RTN = 0002 ?
 | Y N

| | 003
 | | DOES RTN = 0003 ?
 | | Y N

| | | 004
 | | | DOES RTN = 0004 ?
 | | | Y N

| | | | 005
 | | | | DOES CKPT = 0000 ?
 | | | | Y N

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5 4 4 3 3 2
 A B C D E F

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EC337313 PEC326765

1

SYSTEM TEST ERROR MAP

PAGE 2 OF 8

006
 DOES CKPT = 0001 ?
 Y N

| 007
 | DOES IO = 07 ?
 | Y N

| | 008
 | | COMMAND REJECT FROM
 | | ATTACHMENT CARD
 | | DEVICE RESET
 | | CHECK DCB, FLAGS AND ISB

| 009
 | GOOD INTERRUPT RECEIVED ON A
 | ILLEGAL IDCB.
 | CHECK DCB, FLAGS AND ISB

010
 DOES IO = 07 ?
 Y N

| 011
 | COMMAND REJECT FROM ATTACHMENT
 | CARD
 | ILLEGAL IDCB
 | CHECK DCB, FLAGS AND ISB

012
 DOES IN = 02 ?
 Y N

| 013
 | ILLEGAL INTERRUPT VALUE
 | CHECK DCB, FLAGS AND ISB

014
 ISB VALUE WRONG
 ISB = RECEIVED DATA
 EXPECTED = X'40'
 CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

```

D E      FPMLC
1 1
      SYSTEM TEST ERROR MAP
      PAGE 3 OF 8
      015
      COMMAND REJECT FROM ATTACHMENT
      CARD
      PREPARE LEVEL=1
      016
      DOES CKPT = 0000 ?
      Y N
      017
      DOES CKPT = 0001 ?
      Y N
      018
      DOES IO = 07 ?
      Y N
      019
      COMMAND REJECT FROM
      ATTACHMENT CARD
      ILLEGAL DCB
      CHECK DCB, FLAGS AND ISB
      020
      ISB VALUE WRONG
      ISB = RECEIVED DATA
      DEV4 = EXPECTED DATA
      CHECK DCB, FLAGS AND ISB
      021
      DOES IO = 07 ?
      Y N
      022
      COMMAND REJECT FROM
      ATTACHMENT CARD
      ILLEGAL DCB
      CHECK DCB, FLAGS AND ISB
      4 4
      G H

```

```

21JAN83 PN6839515
EC337313 PEC326765
MAP EAE0-3

```

```

B C G H      FPMLC
1 1 3 3
      SYSTEM TEST ERROR MAP
      PAGE 4 OF 8
      023
      ISB VALUE WRONG
      ISB = RECEIVED DATA
      DEV4 = EXPECTED DATA
      CHECK DCB, FLAGS AND ISB
      024
      COMMAND REJECT FROM
      ATTACHMENT CARD
      PREPARE LEVEL=1
      025
      DOES CKPT = 0000 ?
      Y N
      026
      DOES IO = 07 ?
      Y N
      027
      COMMAND REJECT FROM
      ATTACHMENT CARD
      DIAGNOSTIC TWO COMMAND
      028
      DIAGNOSTIC DATA IS WRONG
      DEV1 - DEV2 - DEV3 =
      DIAGNOSTIC TWO DATA
      DEV4 = CONFIGURATION BITS
      ***** CONFIGURATION ENTRY
      PLUS 1 WORD
      CHECK DCB, FLAGS AND ISB
      029
      COMMAND REJECT FROM ATTACHMENT
      CARD
      PREPARE LEVEL=1
      030
      DOES CKPT = 0000 ?
      Y N
      5 5
      J K

```

```

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EC337313 PEC326765
MAP EAE0-4

```


A J K FPMLC
 1 4 4
 SYSTEM TEST ERROR MAP
 PAGE 5 OF 8

031
 DOES IO = 07 ?
 Y N

032
 COMMAND REJECT FROM
 ATTACHMENT CARD
 CYCLE STEAL STATUS COMMAND

033
 WRONG RESIDUAL ADDRESS
 RECEIVED
 CHECK DCB, FLAGS AND ISB
 DEV4 = EXPECTED
 RSAD = RECEIVED

034
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1

035
 DOES CKPT = 0000 ?
 Y N

036
 DOES CKPT = 0001 ?
 Y N

037
 DOES CKPT = 0002 ?
 Y N

038
 DOES IO = 07 ?
 Y N

039
 COMMAND REJECT FROM
 ATTACHMENT CARD
 DIAGNOSTIC ONE COMMAND
 CHECK DCB, FLAGS AND ISB

7 6 6 6
 L M N P

MAP EAE0-5

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 EC337313 PEC326765

MAP EAE0-5

M N P FPMLC
 5 5 5
 SYSTEM TEST ERROR MAP
 PAGE 6 OF 8

040
 WRONG CHECKSUM RECEIVED
 DEV3 & DEV4 = RECEIVED
 CHECKSUM
 CHECK DCB, FLAGS AND ISB

041
 DOES IO = 07 ?
 Y N

042
 COMMAND REJECT FROM
 ATTACHMENT CARD
 PREPARE - LEVEL = 2
 DEVICE RESET
 READ DEVICE ID
 DCB RESET
 CHECK DCB, FLAGS AND ISB

043
 DOES DEV4 = 0000 ?
 Y N

044
 WRONG DEVICE ID RECEIVED
 DEV3 = RECEIVED ID
 DEV4 = EXPECTED ID
 CHECK DCB, FLAGS AND ISB

045
 DCB RESET FAILED
 CHECK DCB, FLAGS AND ISB

046
 DOES IO = 07 ?
 Y N

7 7
 Q R

MAP EAE0-6

21JAN83 PN6839515
 EC337313 PEC326765

MAP EAE0-6

```

L Q R      FPMLC
5 6 6
SYSTEM TEST ERROR MAP
PAGE 7 OF 8
047
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
DEVICE RESET
READ DEVICE ID
DCB RESET
CHECK DCB, FLAGS AND ISB
048
DOES DEV4 = 0000 ?
Y N
049
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB
050
DCB RESET FAILED
CHECK DCB, FLAGS AND ISB
051
DOES IO = 07 ?
Y N
052
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 0
DEVICE RESET
READ DEVICE ID
DCB RESET
CHECK DCB, FLAGS AND ISB
053
DOES DEV4 = 0000 ?
Y N

```

```

21JAN83 PN6839515
EC337313 PEC326765
MAP EAE0-7

```

```

S T      FPMLC
7 7
SYSTEM TEST ERROR MAP
PAGE 8 OF 8
054
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB
055
DCB RESET FAILED
CHECK DCB, FLAGS AND ISB

```

```

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EC337313 PEC326765
MAP EAE0-8

```

TELEPHONE ADAPTER

MAP EBEO-1

D E F
1 1 1

TELEPHONE ADAPTER

MAP EBEO-2

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 7

PAGE 2 OF 7

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL 'EB'.

DOES RTN = 0000 ?

Y N

| 002

| DOES RTN = 0001 ?

| Y N

| | 003

| | DOES RTN = 0002 ?

| | Y N

| | | 004

| | | DOES RTN = 0003 ?

| | | Y N

| | | | 005

| | | | DOES CKPT = 0000 ?

| | | | Y N

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MAP EBEO-1

4 3 3 2 2 2
A B C D E F

| | 006

| | DOES CKPT = 0001 ?

| | Y N

| | | 007

| | | A LOST INTERRUPT.

| | | INSPECT ISB.

| | | BITS 8-15 IS THE DEVICE

| | | ADDRESS.

| | | 008

| | | A PREPARE COMMAND WAS

| | | EXECUTING.

| | | GO TO PAGE 5, STEP 028,

| | | ENTRY POINT B.

| | | 009

| | | A DEVICE RESET WAS EXECUTING.

| | | GO TO PAGE 5, STEP 028,

| | | ENTRY POINT B.

| 010

| DOES CKPT = 0000 ?

| Y N

| | 011

| | DOES CKPT = 0001 ?

| | Y N

| | | 012

| | | A LOST INTERRUPT.

| | | INSPECT ISB

| | | BITS 8-15 IS THE DEVICE

| | | ADDRESS.

| | | 013

| | | A WRITE TO CONTROL STORE WAS

| | | EXECUTING.

| | | GO TO PAGE 5, STEP 028,

| | | ENTRY POINT B.

| | |

| | |

| | |

| | |

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MAP EBEO-2

B C G TELEPHONE ADAPTER
 1 1 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 7
 014
 A PREPARE COMMAND WAS
 EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 015
 DOES CKPT = 0000 ?
 Y N
 016
 DOES CKPT = 0001 ?
 Y N
 017
 A LOST INTERRUPT.
 INSPECT ISB.
 BITS 8-15 IS THE DEVICE
 ADDRESS.
 018
 A DEVICE RESET WAS EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 019
 A PREPARE COMMAND WAS
 EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 020
 DOES CKPT = 0000 ?
 Y N
 021
 DOES CKPT = 0001 ?
 Y N

4 4 4
 H J K

MAP EBE0-3

21JAN83 PN6023557
 EC337313 PEC326765

MAP EBE0-3

A H J K TELEPHONE ADAPTER
 1 3 3 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 7
 022
 A LOST INTERRUPT.
 INSPECT ISB
 BITS 8-15 IS THE DEVICE
 ADDRESS.
 023
 A WRITE TO CONTROL STORE WAS
 EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 024
 A PREPARE COMMAND WAS
 EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.
 025
 DOES CKPT = 0000 ?
 Y N
 026
 ERROR ON READ ID.
 INSPECT DEV3
 BITS 0-15 IS THE ID EXPECTED.
 INSPECT DEV4
 BITS 0-15 IS THE ID RECEIVED.
 027
 A READ ID WAS EXECUTING.
 GO TO PAGE 5, STEP 028,
 ENTRY POINT B.

MAP EBE0-4

21JAN83 PN6023557
 EC337313 PEC326765

MAP EBE0-4

028					
(ENTRY POINT B)					
DOES IO=07 ?					
Y N					
029					
DOES IO=06 ?					
Y N					
030					
DOES IO=05 ?					
Y N					
031					
DOES IO=03 ?					
Y N					
032					
DOES IO=02 ?					
Y N					

7 6 6 6 6 6
L M N P Q R

					033
					DOES IO=01 ?
					Y N
					034
					DOES IO=00 ?
					Y N
					035
					THIS MAP CANNOT
					DETERMINE THE
					PROBLEM.
					USE THE ERROR OUTPUT,
					YOU HAVE BEEN USING
					FOR THIS MAP, AS YOUR
					ERROR INDICATIONS AND
					GO TO MAP 0070 ENTRY
					POINT A.
					036
					DEVICE NOT ATTACHED.
					037
					DEVICE BUSY.
					038
					BUSY AFTER RESET.
					039
					COMMAND REJECT.
					040
					INTERFACE DATA CHECK.
					041
					CONTROLLER BUSY.

L
5

TELEPHONE ADAPTER
SYSTEM TEST ERROR MAP
PAGE 7 OF 7

MAP EBEO-7

042
DOES IN=07 ?
Y N
043
DOES IN=06 ?
Y N
044
DOES IN=04 ?
Y N
045
DOES IN=02 ?
Y N
046
CONTROLLER END.
047
EXCEPTION.
048
ATTENTION.
049
ATTENTION AND EXCEPTION.
050
ATTENTION AND DEVICE END.

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EC337313 PEC326765
MAP EBEO-7

ATTACHED PROCESSOR

PRINT ON GREEN PAPER

PAGE 1 OF 7

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL 'ED'.

DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

DOES CKPT = 0000 ?

Y N

004

DOES CKPT = 0001 ?

Y N

005

DOES CKPT = 0002 ?

Y N

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3 2 2 2 2 2

A B C D E F

MAP EDE0-1

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MAP EDE0-1

B C D E F
1 1 1 1 1

ATTACHED PROCESSOR

PRINT ON GREEN PAPER

PAGE 2 OF 7

006

DOES CKPT = 0004 ?

Y N

007

CHECK DCB, FLAGS AND

ISB

READ/WRITE DATA COMPARE

ERROR

DEV 3 = EXPECTED DATA

DEV 4 = ACTUAL DATA

008

READ COMMAND FAILED

GO TO PAGE 5,

STEP 026,

ENTRY POINT C.

009

WRITE COMMAND FAILED

GO TO PAGE 5,

STEP 026,

ENTRY POINT C.

010

RESET COMMAND FAILED

GO TO PAGE 5, STEP 026,

ENTRY POINT C.

011

PREPARE COMMAND FAILED

GO TO PAGE 5, STEP 026,

ENTRY POINT C.

012

DOES CKPT = 0000 ?

Y N

013

DOES CKPT = 0012 ?

Y N

3 3 3

G H J

MAP EDE0-2

26NOV84 PN6160785

ECA23241 PEC-----

MAP EDE0-2

A G H J ATTACHED PROCESSOR
 1 2 2 2
 PRINT ON GREEN PAPER
 PAGE 3 OF 7
 014
 INTERRUPT LEVEL FAILURE
 CHECK DCB, FLAGS AND ISB
 015
 RESIDUAL ADDRESS ERROR
 DEV3 = EXPECTED RESULTS
 DEV4 = RECEIVED RESULTS
 CHECK DCB, FLAGS AND ISB
 016
 PREPARE COMMAND FAILURE
 GO TO PAGE 5, STEP 026,
 ENTRY POINT C.
 017
 DOES CKPT = 0000 ?
 Y N
 018
 DOES CKPT = 0001 ?
 Y N
 019
 DOES CKPT = 0002 ?
 Y N
 020
 DOES CKPT = 0003 ?
 Y N
 021
 READ/WRITE DATA DID NOT
 COMPARE
 GO TO PAGE 5,
 STEP 026,
 ENTRY POINT C.

26NOV84 PN6160785
 ECA23241 PEC-----
 MAP EDE0-3

4 4 4 4
 K L M N

MAP EDE0-3

K L M N ATTACHED PROCESSOR
 3 3 3 3
 PRINT ON GREEN PAPER
 PAGE 4 OF 7
 022
 READ COMMAND FAILURE
 GO TO PAGE 5,
 STEP 026,
 ENTRY POINT C.
 023
 WRITE COMMAND FAILURE
 GO TO PAGE 5, STEP 026,
 ENTRY POINT C.
 024
 READ ID ERROR
 DEV3 = EXPECTED READ ID
 DEV4 = RECEIVED READ ID
 025
 PREPARE COMMAND FAILED
 GO TO PAGE 5, STEP 026,
 ENTRY POINT C.

26NOV84 PN6160785
 ECA23241 PEC-----
 MAP EDE0-4

MAP EDE0-4

ATTACHED PROCESSOR
PRINT ON GREEN PAPER
PAGE 5 OF 7

MAP EDE0-5

026
(ENTRY POINT C)
DOES IO CC = 00?
Y N
|
| 027
| DOES IO CC = 01?
| Y N
|
| 028
| DOES IO CC = 02?
| Y N
|
| 029
| DOES IO CC = 03?
| Y N
|
| 030
| DOES IO CC = 04?
| Y N

6 6 6 6 6 6
P Q R S T U

26NOV84 PN6160785
ECA23241 PEC-----
MAP EDE0-5

P Q R S T U ATTACHED PROCESSOR
5 5 5 5 5 5
PRINT ON GREEN PAPER

MAP EDE0-6

| | | | | |
| | | | | | PAGE 6 OF 7
| | | | | |
| | | | | | 031
| | | | | | DOES IO CC = 05?
| | | | | | Y N
| | | | | |
| | | | | | 032
| | | | | | COMMAND ACCEPTED
| | | | | | GO TO PAGE 7,
| | | | | | STEP 039,
| | | | | | ENTRY POINT D.
| | | | | |
| | | | | | 033
| | | | | | INTERFACE DATA CHECK
| | | | | |
| | | | | | 034
| | | | | | INTERVENTION REQUIRED
| | | | | |
| | | | | | 035
| | | | | | COMMAND REJECT, CHECK DCB
| | | | | |
| | | | | | 036
| | | | | | BUSY AFTER RESET
| | | | | |
| | | | | | 037
| | | | | | DEVICE BUSY.
| | | | | |
| | | | | | 038
| | | | | | DEVICE NOT ATTACHED

26NOV84 PN6160785
ECA23241 PEC-----
MAP EDE0-6

039
(ENTRY POINT D)
DOES IN CC = 02?
Y N
|
| 040
| DOES IN CC = 04?
| Y N
|
| 041
| DOES IN CC = 07?
| Y N
|
| 042
| CHECK DCB, FLAGS AND ISB
|
| 043
| DEVICE ATTENTION AND DEVICE
| END.
|
| 044
| ATTENTION.
|
045
DEVICE EXCEPTION.

26NOV84 PN6160785

ECA23241 PEC-----

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 6

PAGE 2 OF 6

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL'FO'.

DOES RTN = 0001 ?
Y N

002
DOES RTN = 0002 ?
Y N

003
DOES RTN = 0003 ?
Y N

004
DOES CKPT = 0000 ?
Y N

005
DOES CKPT = 0001 ?
Y N

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4 3 2 2 2 2
A B C D E F

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MAP FOE0-1

006
DOES IO = 07 ?
Y N

007
COMMAND REJECT FROM
ATTACHMENT CARD
ILLEGAL DCB
CHECK DCB, FLAGS AND ISB

008
ISB VALUE WRONG
ISB = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

009
DOES IO = 07 ?
Y N

010
COMMAND REJECT FROM
ATTACHMENT CARD
ILLEGAL DCB
CHECK DCB, FLAGS AND ISB

011
ISB VALUE WRONG
ISB = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

012
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1

013
DOES CKPT = 0000 ?
Y N

3 3
G H

21JAN83 PN4414117

EC337313 PEC326765

MAP FOE0-2

B G H BSCA SL
 1 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 6
 014
 DOES IO = 07 ?
 Y N
 015
 COMMAND REJECT FROM
 ATTACHMENT CARD
 CYCLE STEAL STATUS COMMAND
 016
 DIAGNOSTIC DATA IS WRONG
 CS-2 AND CS-3 = RECEIVED DATA
 CS-2 BITS TESTED = 0000 0XXX
 XXXX XXXX
 CS-3 BITS TESTED = X0X0 0000
 0000 0000
 WHERE X = TESTED BIT
 DEV3 AND DEV4 = EXPECTED DATA
 CHECK DCB, FLAGS AND ISB
 017
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1
 018
 DOES CKPT = 0000 ?
 Y N
 019
 DOES IO = 07 ?
 Y N
 020
 COMMAND REJECT FROM
 ATTACHMENT CARD
 CYCLE STEAL STATUS COMMAND

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 MAP FOEO-3

A J K BSCA SL
 1 3 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 6
 021
 WRONG RESIDUAL ADDRESS
 RECEIVED
 CHECK DCB, FLAGS AND ISB
 DEV4 = EXPECTED
 RSAD = RECEIVED
 022
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1
 023
 DOES CKPT = 0000 ?
 Y N
 024
 DOES CKPT = 0001 ?
 Y N
 025
 DOES CKPT = 0002 ?
 Y N
 026
 DOES IO = 07 ?
 Y N
 027
 COMMAND REJECT FROM
 ATTACHMENT CARD
 DIAGNOSTIC TWO COMMAND
 CHECK DCB, FLAGS AND ISB
 028
 WRONG CHECKSUM RECEIVED
 DEV3 AND DEV4 = RECEIVED
 CHECKSUM
 CHECK DCB, FLAGS AND ISB

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 EC337313 PEC326765
 MAP FOEO-4

M N BSCA SL
4 4 SYSTEM TEST ERROR MAP

MAP FOEO-5

PAGE 5 OF 6

029
DOES IO = 07 ?
Y N
030
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 2
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB

031
DOES DEV4 = 0000 ?
Y N

032
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB

033
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

034
DOES IO = 07 ?
Y N

035
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

MAP FOEO-5

6
P

L P BSCA SL
4 5 SYSTEM TEST ERROR MAP

MAP FOEO-6

PAGE 6 OF 6

036
DOES DEV4 = 0000 ?
Y N
037
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB

038
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

039
DOES IO = 07 ?
Y N

040
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 0
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB

041
DOES DEV4 = 0000 ?
Y N

042
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB

043
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

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EC337313 PEC326765

MAP FOEO-6

BSCA ML
SYSTEM TEST ERROR MAP
PAGE 1 OF 6

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL 'F1'.

DOES RTN = 0001 ?
Y N
|
| 002
| DOES RTN = 0002 ?
| Y N
|
| 003
| DOES RTN = 0003 ?
| Y N
|
| 004
| DOES CKPT = 0000 ?
| Y N
|
| 005
| DOES CKPT = 0001 ?
| Y N

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4 3 2 2 2 2
A B C D E F

MAP F1E0-1

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MAP F1E0-1

C D E F BSCA ML
1 1 1 1
SYSTEM TEST ERROR MAP
PAGE 2 OF 6

3 3
G H

MAP F1E0-2

21JAN83 PN4414118

EC337313 PEC326765

MAP F1E0-2

B G H BSCA ML
 1 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 6

014
 DOES IO = 07 ?
 Y N

015
 COMMAND REJECT FROM
 ATTACHMENT CARD
 CYCLE STEAL STATUS COMMAND

016
 DIAGNOSTIC DATA IS WRONG
 CS-2 & CS-3 = RECEIVED DATA
 CS-2 BITS TESTED = 0000 OXXX
 XXXX XXXX
 CS-3 BITS TESTED = X0X0 0000
 0000 0000
 WHERE X = TESTED BIT
 DEV3 & DEV4 = EXPECTED DATA
 CHECK DCB, FLAGS AND ISB

017
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1

018
 DOES CKPT = 0000 ?
 Y N

019
 DOES IO = 07 ?
 Y N

020
 COMMAND REJECT FROM
 ATTACHMENT CARD
 CYCLE STEAL STATUS COMMAND

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 EC337313 PEC326765

MAP F1E0-3

4 4
 J K

A J K BSCA ML
 1 3 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 6

021
 WRONG RESIDUAL ADDRESS
 RECEIVED
 CHECK DCB, FLAGS AND ISB
 DEV4 = EXPECTED
 RSAD = RECEIVED

022
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1

023
 DOES CKPT = 0000 ?
 Y N

024
 DOES CKPT = 0001 ?
 Y N

025
 DOES CKPT = 0002 ?
 Y N

026
 DOES IO = 07 ?
 Y N

027
 COMMAND REJECT FROM
 ATTACHMENT CARD
 DIAGNOSTIC TWO COMMAND
 CHECK DCB, FLAGS AND ISB

028
 WRONG CHECKSUM RECEIVED
 DEV3 & DEV4 = RECEIVED
 CHECKSUM
 CHECK DCB, FLAGS AND ISB

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 EC337313 PEC326765

MAP F1E0-4

6 5 5
 L M N

M N BSCA ML
4 4 SYSTEM TEST ERROR MAP

MAP F1E0-5

PAGE 5 OF 6

029
DOES IO = 07 ?
Y N

030
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 2
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB

031
DOES DEV4 = 0000 ?
Y N

032
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB

033
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

034
DOES IO = 07 ?
Y N

035
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 1
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB

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MAP F1E0-5

6
P

L P BSCA ML
4 5 SYSTEM TEST ERROR MAP

MAP F1E0-6

PAGE 6 OF 6

036
DOES DEV4 = 0000 ?
Y N

037
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB

038
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

039
DOES IO = 07 ?
Y N

040
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 0
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB

041
DOES DEV4 = 0000 ?
Y N

042
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB

043
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

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MAP F1E0-6

SDLC

MAP F8E0-1

C D E F
1 1 1 1

SDLC

MAP F8E0-2

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 8

PAGE 2 OF 8

001
(ENTRY POINT A)
THIS MAP SHOULD NOT BE ENTERED
UNLESS AN
ERROR HAS OCCURRED WHILE
EXECUTING
SYSTEM TEST, AND THEN ONLY WHEN
THE
DEVICE TYPE FIELD IS EQUAL TO
HEXADECIMAL 'F8'.

DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

DOES RTN = 0003 ?

Y N

004

DOES CKPT = 0000 ?

Y N

005

DOES CKPT = 0001 ?

Y N

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5 4 2 2 2 2
A B C D E F

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MAP F8E0-1

006
DOES IO = 07 ?
Y N

007
COMMAND REJECT FROM
ATTACHMENT CARD
ILLEGAL DCB
CHECK DCB, FLAGS AND ISB

008
ISB VALUE WRONG
ISB = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

009
DOES IO = 07 ?
Y N

010
COMMAND REJECT FROM
ATTACHMENT CARD
ILLEGAL DCB
CHECK DCB, FLAGS AND ISB

011
ISB VALUE WRONG
ISB = RECEIVED DATA
DEV4 = EXPECTED DATA
CHECK DCB, FLAGS AND ISB

012
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE LEVEL=1

013
DOES CKPT = 0000 ?
Y N

3 3
G H

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EC337313 PEC326765

MAP F8E0-2

G H SDLC
 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 8

014
 DOES CKPT = 0001 ?
 Y N

015
 DOES CKPT = 0002 ?
 Y N

016
 DIAGNOSTIC DATA ERROR
 DEV3 = RECEIVED DATA
 DEV4 = EXPECTED DATA MASK
 AGAINST DEV3
 CHECK DCB, FLAGS AND ISB

017
 DIAGNOSTIC DATA ERROR
 TEST OF INTERNAL CLOCK BIT
 AGAINST WHAT IS IN THE
 CONFIGURATION TABLE AT ENTRY
 PLUS 1 WORD
 DEV3 = DIAGNOSTIC BUFFER PLUS
 4 WORDS
 CHECK DCB, FLAGS AND ISB

018
 DOES IO = 07 ?
 Y N

019
 COMMAND REJECT FROM
 ATTACHMENT CARD
 DIAGNOSTIC COMMAND

020
 DIAGNOSTIC COMMAND ERROR
 CHECK DCB, FLAGS AND ISB

021
 COMMAND REJECT FROM ATTACHMENT
 CARD
 PREPARE LEVEL=1

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 EC337313 PEC326765
 MAP F8E0-3

B SDLC
 1
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 8

022
 DOES CKPT = 0000 ?
 Y N

023
 DOES CKPT = 0001 ?
 Y N

024
 DOES CKPT = 0002 ?
 Y N

025
 CYCLE STEAL DATA ERROR
 CS-2 = RECEIVED
 DEV4 = EXPECTED
 CHECK DCB, FLAGS AND ISB

026
 DOES IO = 07 ?
 Y N

027
 COMMAND REJECT FROM
 ATTACHMENT CARD
 SECOND CYCLE STEAL STATUS
 COMMAND

028
 WRONG RESIDUAL ADDRESS
 RECEIVED
 CHECK DCB, FLAGS AND ISB
 DEV4 = EXPECTED
 RSAD = RECEIVED

029
 DOES IO = 07 ?
 Y N

5 5 5
 J K L

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 EC337313 PEC326765
 MAP F8E0-4

```

A J K L      SDLC
1 4 4 4
      SYSTEM TEST ERROR MAP
      PAGE 5 OF 8
      030
      COMMAND REJECT FROM
      ATTACHMENT CARD
      FIRST CYCLE STEAL STATUS
      COMMAND
      031
      WRONG RESIDUAL ADDRESS
      RECEIVED
      CHECK DCB, FLAGS AND ISB
      DEV4 = EXPECTED
      RSAD = RECEIVED
      032
      COMMAND REJECT FROM ATTACHMENT
      CARD
      PREPARE LEVEL=1
      033
      DOES CKPT = 0000 ?
      Y N
      034
      DOES CKPT = 0001 ?
      Y N
      035
      DOES CKPT = 0002 ?
      Y N
      036
      DOES IO = 07 ?
      Y N
      037
      COMMAND REJECT FROM
      ATTACHMENT CARD
      DIAGNOSTIC COMMAND
      CHECK DCB, FLAGS AND ISB

```

```

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EC337313 PEC326765
MAP F8E0-5

```

```

7 6 6 6
M N P Q

```

MAP F8E0-5

```

N P Q      SDLC
5 5 5
      SYSTEM TEST ERROR MAP
      PAGE 6 OF 8
      038
      WRONG CHECKSUM RECEIVED
      DEV3 AND DEV4 = RECEIVED
      CHECKSUM
      CHECK DCB, FLAGS AND ISB
      039
      DOES IO = 07 ?
      Y N
      040
      COMMAND REJECT FROM
      ATTACHMENT CARD
      PREPARE - LEVEL = 2
      DEVICE RESET
      READ DEVICE ID
      SET DTR
      CHECK DCB, FLAGS AND ISB
      041
      DOES DEV4 = 0000 ?
      Y N
      042
      WRONG DEVICE ID RECEIVED
      DEV3 = RECEIVED ID
      DEV4 = EXPECTED ID
      CHECK DCB, FLAGS AND ISB
      043
      SET DTR FAILED
      CHECK DCB, FLAGS AND ISB
      044
      DOES IO = 07 ?
      Y N

```

```

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EC337313 PEC326765
MAP F8E0-6

```

```

7 7
R S

```

MAP F8E0-6

M R S SDLC
5 6 6
SYSTEM TEST ERROR MAP
PAGE 7 OF 8
045
COMMAND REJECT FROM
ATTACHMENT CARD
PREPARE - LEVEL = 1
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB
046
DOES DEV4 = 0000 ?
Y N
047
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB
048
SET DTR FAILED
CHECK DCB, FLAGS AND ISB
049
DOES IO = 07 ?
Y N
050
COMMAND REJECT FROM ATTACHMENT
CARD
PREPARE - LEVEL = 0
DEVICE RESET
READ DEVICE ID
SET DTR
CHECK DCB, FLAGS AND ISB
051
DOES DEV4 = 0000 ?
Y N
8 8
T U

MAP F8E0-7

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EC337313 PEC326765
MAP F8E0-7

T U SDLC
7 7
SYSTEM TEST ERROR MAP
PAGE 8 OF 8
052
WRONG DEVICE ID RECEIVED
DEV3 = RECEIVED ID
DEV4 = EXPECTED ID
CHECK DCB, FLAGS AND ISB
053
SET DTR FAILED
CHECK DCB, FLAGS AND ISB

MAP F8E0-8

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EC337313 PEC326765
MAP F8E0-8

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

PAGE 1 OF 13

PAGE 2 OF 13

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN ERROR HAS OCCURRED
 WHILE EXECUTING SYSTEM TEST, AND
 THEN ONLY WHEN THE DEVICE TYPE
 FIELD IS EQUAL TO
 HEXADECIMAL 'F9'.

NOTE: DEV2 WILL ALWAYS CONTAIN
 THE INTERRUPT LEVEL OF THE LAST
 INTERRUPT RECEIVED.

DEV1 WILL CONTAIN WORD 8 OF THE
 CYCLE STEAL STATUS DATA IF AN
 INTERRUPT IS RETURNED WITH AN
 INTERRUPT CONDITION CODE 02 AND
 ISB BIT 0 ON.

DOES RTN = 0001 ?

Y N

| 002

| DOES RTN = 0002 ?

| Y N

| | 003

| | RTN = 0003, RIPPLE PRINT TO
| | TERMINAL

| | DOES CKPT = 0000 ?

| | Y N

| | | 004

| | | DOES CKPT = 0001 ?

| | | Y N

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| | | | REVISED 1979

6 5 5 4 2
A B C D E

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|

|

|

005

DOES CKPT = 0002 ?

Y N

| 006

| RTN = 0003, CKPT = 0003

| IS FLAG BIT 6 OFF ?

| Y N

| | 007

| | DOES IO = 07 ?

| | Y N

| | | 008

| | | "START I/O" COMMAND WAS NOT
| | | ACCEPTED BY THE ATTACHMENT
| | | CARD.

| | | ATTACHMENT CARD ERROR.

| | 009

| | NO INTERRUPT WAS RECEIVED
| | FROM THE ATTACHMENT CARD.

| | ATTACHMENT CARD ERROR.

| | 010

| | CHECK DCB, FLAGS AND ISB
| | IF IN = 02 AND ISB BIT 0 IS ON,
| | CHECK THE CYCLE STEAL STATUS
| | DATA. (SEE THIS MAP, PAGE 11,
| | STEP 059, ENTRY POINT Z.) (DEV1
| | WILL CONTAIN CYCLE STEAL STATUS
| | WORD 8.)

| | VERIFY THAT THE 4980 DISPLAY
| | STATION IS INITIALIZED.

3

F

16DEC83 PN6094224

EC337376 PECA08003

F
2
FEATURE 1250 ATTACH
SYSTEM TEST ERROR MAP
PAGE 3 OF 13

011
RTN = 0003, CKPT = 0002

IS FLAG BIT 6 OFF ?

Y N

012
DOES IO = 07 ?

Y N

013
CYCLE STEAL STATUS COMMAND
WAS NOT ACCEPTED BY THE
ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

014
NO INTERRUPT WAS RECEIVED FROM
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

015
DOES IN = 03 ?

Y N

016
CHECK DCB, FLAGS AND ISB
IF IN = 02 AND ISB BIT 0 IS ON,
CHECK THE CYCLE STEAL STATUS
DATA. (SEE THIS MAP, PAGE 11,
STEP 059, ENTRY POINT Z.) (DEV1
WILL CONTAIN CYCLE STEAL STATUS
WORD 8.)

4
G

MAP F9E0-3

16DEC83 PN6094224

EC337376 PECA08003

MAP F9E0-3

D G
1 3
FEATURE 1250 ATTACH
SYSTEM TEST ERROR MAP
PAGE 4 OF 13

017

DEVICE DEFINITION DATA IS NOT
CORRECT. VERIFY THAT THE
CONFIGURATION TABLE IS CORRECT.
(SEE CYCLE STEAL STATUS DATA
WORD 5 (CS-5) AND DEV1 (DEV1
CONTAINS CYCLE STEAL STATUS
WORD 8) (SEE THIS MAP, PAGE 11
, STEP 059, ENTRY POINT Z.)

018
RTN = 0003, CKPT = 0001

IS FLAG BIT 6 OFF?

Y N

019
DOES IO = 07 ?

Y N

020
WRITE DEVICE DEFINITION DATA
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

021
NO INTERRUPT WAS RECEIVED FROM
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

5
H

MAP F9E0-4

16DEC83 PN6094224

EC337376 PECA08003

MAP F9E0-4

B C H FEATURE 1250 ATTACH
1 1 4 SYSTEM TEST ERROR MAP

MAP F9E0-5

A J K L FEATURE 1250 ATTACH
1 5 5 5 SYSTEM TEST ERROR MAP

MAP F9E0-6

PAGE 5 OF 13

PAGE 6 OF 13

022
CHECK DCB, FLAGS AND ISB
IF IN = 02 AND ISB BIT 0 IS
ON, CHECK THE CYCLE STEAL
STATUS DATA. (SEE THIS MAP,
PAGE 11, STEP 059, ENTRY
POINT Z.) (DEV1 WILL CONTAIN
CYCLE STEAL STATUS WORD 8.)
VERIFY THAT THE CONFIGURATION
TABLE IS CORRECT.

023
RTN = 0003, CKPT = 0000
PREPARE COMMAND FAILED
ATTACHMENT CARD ERROR.

024
RTN = 0002 -- CYCLE STEAL TEST
DOES CKPT = 0000 ?
Y N

025
CKPT = 0001.
IS FLAG BIT 6 OFF?

Y N

026
DOES IO = 07 ?

Y N

027
CYCLE STEAL STATUS COMMAND
WAS NOT ACCEPTED BY THE
ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

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EC337376 PECA08003

MAP F9E0-5

6 6 6

J K L

028
NO INTERRUPT WAS RECEIVED
FOLLOWING A CYCLE STEAL
STATUS COMMAND.
ATTACHMENT CARD ERROR.

029
CHECK DCB, FLAGS AND ISB

030
RTN = 0002, CKPT = 0000
PREPARE COMMAND FAILED.
ATTACHMENT CARD ERROR.

031
RTN = 0001
DOES CKPT = 0000 ?
Y N

032
DOES CKPT = 0001 ?
Y N

033
DOES CKPT = 0002 ?
Y N

034
DOES CKPT = 0003 ?
Y N

035
DOES CKPT = 0004 ?
Y N

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EC337376 PECA08003

MAP F9E0-6

1 1 1

1 0 0 9 9 7

M N P Q R S

S
6
FEATURE 1250 ATTACH
SYSTEM TEST ERROR MAP
PAGE 7 OF 13

MAP F9E0-7

036
DOES CKPT = 0005 ?
Y N
037
DOES CKPT = 0006 ?
Y N
038
RTN = 0001, CKPT = 0007.
IS FLAG BIT 6 OFF?
Y N
039
DOES IO = 07 ?
Y N
040
READ ATTACHMENT STORAGE
COMMAND WAS NOT ACCEPTED
BY THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.
(INTERRUPT LEVEL = 0)
041
NO INTERRUPT WAS RECEIVED
FOLLOWING A READ ATTACHMENT
STORAGE COMMAND.
ATTACHMENT CARD ERROR.
(INTERRUPT LEVEL = 0)

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EC337376 PECA08003
MAP F9E0-7

8 8 8
T U V

T U V
7 7 7
FEATURE 1250 ATTACH
SYSTEM TEST ERROR MAP
PAGE 8 OF 13

MAP F9E0-8

042
CHECK DCB, FLAGS AND ISB
IF IN = 02 AND ISB BIT 0 IS
ON, CHECK THE CYCLE STEAL
STATUS DATA. (SEE THIS MAP,
PAGE 11, STEP 059, ENTRY
POINT Z.) (DEV1 WILL CONTAIN
CYCLE STEAL STATUS WORD 8.)
043
RTN = 0001, CKPT = 0006
PREPARE COMMAND FAILED.
ATTACHMENT CARD ERROR.
(INTERRUPT LEVEL = 0)
044
RTN = 0001, CKPT = 0005
IS FLAG BIT 6 OFF?
Y N
045
DOES IO = 07 ?
Y N
046
READ ATTACHMENT STORAGE
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.
(INTERRUPT LEVEL = 1)
047
NO INTERRUPT WAS RECEIVED
FOLLOWING A READ ATTACHMENT
STORAGE COMMAND.
ATTACHMENT CARD ERROR.
(INTERRUPT LEVEL = 1)

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EC337376 PECA08003
MAP F9E0-8

9
W

Q R W FEATURE 1250 ATTACH
6 6 8 SYSTEM TEST ERROR MAP

MAP F9E0-9

N P X FEATURE 1250 ATTACH
6 6 9 SYSTEM TEST ERROR MAP

MAP F9E0-10

PAGE 9 OF 13

PAGE 10 OF 13

048
CHECK DCB, FLAGS AND ISB
IF IN = 02 AND ISB BIT 0 IS
ON, CHECK THE CYCLE STEAL
STATUS DATA. (SEE THIS MAP,
PAGE 11, STEP 059, ENTRY
POINT Z.) (DEV1 WILL CONTAIN
CYCLE STEAL STATUS WORD 8.)

054
CHECK DCB, FLAGS AND ISB
IF IN = 02 AND ISB BIT 0 IS
ON, CHECK THE CYCLE STEAL
STATUS DATA. (SEE THIS MAP,
PAGE 11, STEP 059, ENTRY
POINT Z.) (DEV1 WILL CONTAIN
CYCLE STEAL STATUS WORD 8.)

049
RTN = 0001, CKPT = 0004
PREPARE COMMAND FAILED.
ATTACHMENT CARD ERROR.

055
RTN = 0001, CKPT = 0002
PREPARE COMMAND FAILED.
ATTACHMENT CARD ERROR.

(INTERRUPT LEVEL = 1)

(INTERRUPT LEVEL = 2)

050
RTN = 0001, CKPT = 0003

056
RTN = 0001, CKPT = 0001
DOES IO = 07 ?

IS FLAG BIT 6 OFF?

Y N

Y N

057

051
DOES IO = 07 ?

READ ATTACHMENT ID COMMAND
FAILED.
ATTACHMENT CARD ERROR.

Y N

052
READ ATTACHMENT STORAGE
COMMAND WAS NOT ACCEPTED BY
THE ATTACHMENT CARD.
ATTACHMENT CARD ERROR.

058
ATTACHMENT ID WORD READ IN (DEV3)
IS NOT CORRECT.

(INTERRUPT LEVEL = 2)

VALID ID WORDS ARE '2X2E' WHERE X
= 0,1,2 OR 3
VERIFY THAT THE JUMPERS ON THE
ATTACHMENT CARD ARE CORRECT.
(SEE MLD VOLUME 01, LOGIC SC332.)

053
NO INTERRUPT WAS RECEIVED
FOLLOWING A READ ATTACHMENT
STORAGE COMMAND.
ATTACHMENT CARD ERROR.

(INTERRUPT LEVEL = 2)

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16DEC83 PN6094224

EC337376 PECA08003

EC337376 PECA08003

MAP F9E0-9

MAP F9E0-10

1
0
X

059
RTN = 0001, CKPT = 0000
DEVICE RESET COMMAND FAILED.
ATTACHMENT CARD ERROR.

(ENTRY POINT Z)

--- CYCLE STEAL STATUS DATA ---

WORD 0 -- RESIDUAL ADDRESS
WORD 1 -- DEVICE DEPENDENT DATA
WORD 2 -- DEVICE DEPENDENT DATA
WORD 3 -- ATTACHMENT STATUS
BIT 0 ATTACHMENT IS INITIALIZED
BIT 1 MICROCODE CHECKSUM ERROR
BIT 2 A DEVICE IS DEFINED FOR THIS SERIES/1 ADDRESS
BIT 3 MICROCODE LOADED IS NOT COMPATIBLE WITH THE ATTACHMENT CARD
BIT 4 THE DEVICE DEFINED FOR THIS SERIES/1 ADDRESS IS "READY"
BIT 5-7 RESIDUAL KEY
BIT 8-11 RESERVED
BIT 12 ATTACHMENT HARDWARE ERROR DETECTED
BIT 13 ROS CHECKSUM ERROR
BIT 14 RANDOM ACCESS STORAGE ERROR

(STEP 059 CONTINUES)

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EC337376 PECA08003
MAP F9E0-11

(STEP 059 CONTINUED)
DETECTED
BIT 15 RESERVED
WORD 4 -- ID WORD OF THE STATION ("FFFF" IF NO STATION IS DEFINED FOR THIS SERIES/1 ADDRESS OR IF THE ATTACHMENT COULD NOT READ THE ID WORD FROM THE STATION.)

WORD 5 -- RESERVED
WORD 6 -- DEVICE DEPENDENT DATA (STATION ID = 0402)
BIT 4 STATION MICROCODE IS NOT COMPATIBLE WITH THE STATION

WORD 7 -- DEVICE DEPENDENT DATA
WORD 8 -- DEVICE DEPENDENT DATA (STATION ID = 0402)
BIT 3 THIS LINK ADDRESS IS ALREADY ASSIGNED TO ANOTHER STATION ON THIS PORT
BIT 4 A DIFFERENT LINE SPEED HAS ALREADY BEEN ASSIGNED TO A DEVICE ON THIS PORT

WORD 9 -- DEVICE DEPENDENT DATA
WORD 10 -- DEVICE DEPENDENT DATA (STATION ID = 0402)
BIT 6 STATION FAILED WHEN POWERED UP
BIT 7 STATION FAILED OR WAS DISCONNECTED

(STEP 059 CONTINUES)

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EC337376 PECA08003
MAP F9E0-12

FEATURE 1250 ATTACH
SYSTEM TEST ERROR MAP
PAGE 13 OF 13

MAP F9E0-13

(STEP 059 CONTINUED)

WORD 11 - DEVICE DEPENDENT DATA

WORD 12 - DEVICE DEPENDENT DATA

WORD 13 - DEVICE DEPENDENT DATA

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EC337376 PECA08003

MAP F9E0-13

SYSTEM TEST ERROR MAP

PAGE 1 OF 13

001
 (ENTRY POINT A)
 THIS MAP SHOULD NOT BE ENTERED
 UNLESS AN
 ERROR HAS OCCURRED WHILE
 EXECUTING
 SYSTEM TEST, AND THEN ONLY WHEN
 THE
 DEVICE TYPE FIELD IS EQUAL TO
 HEXADECIMAL 'FC'.

DOES RTN = 0000 ?
 Y N
 |
 | 002
 | DOES RTN = 0001 ?
 | Y N
 |
 | 003
 | DOES RTN = 0002 ?
 | Y N
 |
 | 004
 | DOES RTN = 0003 ?
 | Y N
 |
 | 005
 | DOES RTN = 0004 ?
 | Y N

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7 6 5 3 2 2
A B C D E F

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SYSTEM TEST ERROR MAP

PAGE 2 OF 13

006
 DOES RTN = 0005 ?
 Y N
 |
 | 007
 | A NOT VALID COMMAND WAS
 | EXECUTING.
 | GO TO PAGE 8, STEP 040,
 | ENTRY POINT B.
 |
 | 008
 | DOES CKPT = 0000 ?
 | Y N
 |
 | 009
 | A COMMAND TO CAUSE A DELAYED
 | COMMAND REJECT WAS EXECUTING.
 | INSPECT ISB
 | BITS 0-7 IS THE EXPECTED
 | DATA.
 | INSPECT DEV4
 | BITS 0-7 IS THE ACTUAL DATA.
 | BITS 8-15 IS THE DEVICE
 | ADDRESS.
 |
 | 010
 | A COMMAND TO CAUSE A DCB
 | SPECIFICATION CHECK WAS
 | EXECUTING.
 | INSPECT ISB
 | BITS 0-7 IS THE EXPECTED DATA.
 | INSPECT DEV4
 | BITS 0-7 IS THE ACTUAL DATA.
 | BITS 8-15 IS THE DEVICE
 | ADDRESS.

011
 DOES CKPT = 0000 ?
 Y N

3 3
G H

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EC337313 PEC326765

D G H SCSLC
 1 2 2
 SYSTEM TEST ERROR MAP
 PAGE 3 OF 13
 012
 A DIAGNOSTIC COMMAND TWO
 EXECUTED.
 INSPECT DEV4
 BITS 0-7 IS THE EXPECTED
 DATA.
 BITS 8-15 IS THE ACTUAL DATA.
 013
 A DIAGNOSTIC COMMAND TWO WAS
 EXECUTING.
 GO TO PAGE 8, STEP 040,
 ENTRY POINT B.
 014
 DOES CKPT = 0000 ?
 Y N
 015
 DOES CKPT = 0001 ?
 Y N
 016
 DOES CKPT = 0002 ?
 Y N
 017
 DOES CKPT = 0003 ?
 Y N
 018
 DOES CKPT = 0004 ?
 Y N
 5 5 4 4 4 4
 J K L M N P

MAP FCE0-3
 21JAN83 PN6023560
 EC337313 PEC326765
 MAP FCE0-3

L M N P SCSLC
 3 3 3 3
 SYSTEM TEST ERROR MAP
 PAGE 4 OF 13
 019
 DOES CKPT = 0005 ?
 Y N
 020
 A DATA COMPARE ERROR.
 INSPECT DEV4
 BITS 0-7 IS THE EXPECTED
 DATA.
 BITS 8-15 IS THE ACTUAL
 DATA.
 021
 BYTE MODE ERROR.
 INSPECT DEV4
 BITS 8-15 IS THE ACTUAL
 DATA.
 022
 A DOMAIN ADDRESS ERROR.
 INSPECT DEV4
 BITS 0-7 IS THE ADDRESS
 EXPECTED.
 BITS 8-15 IS THE ADDRESS
 RECEIVED.
 023
 A CHECKSUM ERROR.
 INSPECT DEV4
 BITS 0-7 IS THE CHECKSUM
 EXPECTED.
 BITS 8-15 IS THE CHECKSUM
 RECEIVED.
 024
 A CHECKSUM ERROR.
 INSPECT DEV3
 BITS 0-15 IS THE CHECKSUM
 EXPECTED.
 INSPECT DEV4
 BITS 0-15 IS THE CHECKSUM
 RECEIVED.

MAP FCE0-4
 21JAN83 PN6023560
 EC337313 PEC326765
 MAP FCE0-4

C J K SCSLC
1 3 3
SYSTEM TEST ERROR MAP

MAP FCE0-5

B Q R S T SCSLC
1 5 5 5 5
SYSTEM TEST ERROR MAP

MAP FCE0-6

PAGE 5 OF 13

PAGE 6 OF 13

025
A CHECKSUM ERROR.
INSPECT DEV3
BITS 0-15 IS THE CHECKSUM
EXPECTED.
INSPECT DEV4
BITS 0-15 IS THE CHECKSUM
RECEIVED.

032
A CYCLE STEAL STATUS
COMMAND WAS EXECUTING.
GO TO PAGE 8,
STEP 040,
ENTRY POINT B.

026
A DIAGNOSTIC ONE COMMAND WAS
EXECUTING.
GO TO PAGE 8, STEP 040,
ENTRY POINT B.

033
THE RESIDUAL ADDRESS IS IN
ERROR.
INSPECT DEV4
BITS 0-15 IS THE RESIDUAL
ADDRESS EXPECTED.
INSPECT RSAD
BITS 0-15 IS THE RESIDUAL
ADDRESS RECEIVED.

027
DOES CKPT = 0000 ?
Y N

034
A CYCLE STEAL STATUS COMMAND
WAS EXECUTING.
GO TO PAGE 8, STEP 040,
ENTRY POINT B.

028
DOES CKPT = 0001 ?
Y N

035
A DIAGNOSTIC ONE COMMAND WAS
EXECUTING.
GO TO PAGE 8, STEP 040,
ENTRY POINT B.

029
DOES CKPT = 0002 ?
Y N

030
DOES CKPT = 0003 ?
Y N

031
THE RESIDUAL ADDRESS IS
IN ERROR.
INSPECT DEV4
BITS 0-15 IS THE RESIDUAL
ADDRESS EXPECTED.
INSPECT RSAD
BITS 0-15 IS THE RESIDUAL
ADDRESS RECEIVED.

036
DOES CKPT = 0000 ?
Y N

037
A PREPARE WAS EXECUTING.
GO TO PAGE 8, STEP 040,
ENTRY POINT B.

6 6 6 6
Q R S T

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MAP FCE0-5

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EC337313 PEC326765

MAP FCE0-6

A
1

SCSLC

MAP FCE0-7

SCSLC

MAP FCE0-8

SYSTEM TEST ERROR MAP

SYSTEM TEST ERROR MAP

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PAGE 8 OF 13

039
ERROR ON READ ID.
INSPECT DEV3
BITS 0-15 IS THE ID EXPECTED.
INSPECT DEV4
BITS 0-15 IS THE ID RECEIVED.

040
(ENTRY POINT B)
DOES IO=07 ?
Y N
|
| 041
| DOES IO=06 ?
| Y N
|
| 042
| DOES IO=05 ?
| Y N
|
| 043
| DOES IO=03 ?
| Y N
|
| 044
| DOES IO=02 ?
| Y N

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EC337313 PEC326765

MAP FCE0-7

9 9 9 9 9 9
U V W X Y Z

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EC337313 PEC326765

MAP FCE0-8

U V W X Y Z SCSLC
8 8 8 8 8 8
SYSTEM TEST ERROR MAP

| | | | | |
| | | | | | PAGE 9 OF 13
| | | | | |
| | | | | | 045
| | | | | | DOES IO=01 ?
| | | | | | Y N
| | | | | |
| | | | | | 046
| | | | | | DEVICE NOT ATTACHED.
| | | | | |
| | | | | | 047
| | | | | | DEVICE BUSY.
| | | | | |
| | | | | | 048
| | | | | | BUSY AFTER RESET.
| | | | | |
| | | | | | 049
| | | | | | COMMAND REJECT.
| | | | | |
| | | | | | 050
| | | | | | INTERFACE DATA CHECK.
| | | | | |
| | | | | | 051
| | | | | | CONTROLLER BUSY.
| | | | | |
| | | | | | 052
| | | | | | DOES IN=02 ?
| | | | | | Y N
| | | | | |
| | | | | | 053
| | | | | | DOES IN=07 ?
| | | | | | Y N
| | | | | |
| | | | | | 054
| | | | | | DOES IN=06 ?
| | | | | | Y N
| | | | | |
| | | | | | 055
| | | | | | DOES IN=04 ?
| | | | | | Y N
| | | | | |
| | | | | | 056
| | | | | | CONTROLLER END.

1 1 1 1
0 0 0 0
A A A A
A B C D

MAP FCE0-9

21JAN83 PN6023560
EC337313 PEC326765
MAP FCE0-9

A A A A SCSLC
A B C D
9 9 9 9 SYSTEM TEST ERROR MAP

| | | | | | PAGE 10 OF 13
| | | | | |
| | | | | | 057
| | | | | | ATTENTION.
| | | | | |
| | | | | | 058
| | | | | | ATTENTION AND EXCEPTION.
| | | | | |
| | | | | | 059
| | | | | | ATTENTION AND DEVICE END.
| | | | | |
| | | | | | 060
| | | | | | IS BIT 0 OF THE ISB OFF ?
| | | | | | Y N
| | | | | |
| | | | | | 061
| | | | | | IS BIT 2 OF THE ISB OFF ?
| | | | | | Y N
| | | | | |
| | | | | | 062
| | | | | | NOT CORRECT LENGTH ERROR.
| | | | | |
| | | | | | 063
| | | | | | IS DEV1 EQUAL TO FFFF ?
| | | | | | Y N
| | | | | |
| | | | | | 064
| | | | | | THE ERROR BITS IN CS-2 ARE AS
| | | | | | FOLLOWS.
| | | | | | BIT 0 = OVERRUN.
| | | | | | BIT 1 = TIMEOUT.
| | | | | | BIT 2 = DCE INTERFACE ERROR.
| | | | | | BIT 3 = BLOCK CHECK ERROR.
| | | | | |
| | | | | | BIT 4 = MULTI-POINT TRANSMIT
| | | | | | ERROR.
| | | | | | ARE ALL OF THE BITS 0-4 IN
| | | | | | CS-2 OFF ?
| | | | | | Y N

1 1 1 1
2 1 1 1
A A A A
E F G H

MAP FCE0-10

21JAN83 PN6023560
EC337313 PEC326765
MAP FCE0-10

A A A SCSLC
F G H
1 1 1 SYSTEM TEST ERROR MAP
0 0 0
PAGE 11 OF 13

| | |
| | |
| | 065
| | INSPECT CS-2 FOR ERROR BITS.
| | ANALYZE BITS 0-4 FOR ERROR
| | INFORMATION.

| |
| 066
| (ENTRY POINT D)

| THIS MAP CANNOT DETERMINE THE
| PROBLEM.
| USE THE ERROR OUTPUT, YOU HAVE
| BEEN USING FOR THIS MAP, AS
| YOUR ERROR INDICATIONS AND GO
| TO MAP 0070 ENTRY POINT A.

|
067
THE ERROR BITS IN CS-2 ARE AS
FOLLOWS.
BIT 0 = OVERRUN.
BIT 1 = ABORT.
BIT 2 = LONG FRAME.
BIT 3 = BLOCK CHECK ERROR.

BIT 4 = TIMEOUT.
BIT 5 = IDLE DETECT.
BIT 6 = NON PRODUCTIVE RECEIVE.
BIT 7 = DCE INTERFACE ERROR.
ARE ALL OF THE BITS 0-7 IN CS-2
OFF ?
Y N

|
| 068
| INSPECT CS-2 FOR ERROR BITS.
| ANALYZE BITS 0-7 FOR ERROR
| INFORMATION.

|
069
GO TO STEP 066,
ENTRY POINT D.

MAP FCE0-11

21JAN83 PN6023560
EC337313 PEC326765
MAP FCE0-11

A SCSLC
E
1 SYSTEM TEST ERROR MAP
0
PAGE 12 OF 13

|
|
070
IS BIT 1 OF THE ISB OFF ?
Y N

|
| 071
| DELAYED COMMAND REJECT.

|
072
IS BIT 2 OF THE ISB OFF ?
Y N

|
| 073
| NOT CORRECT LENGTH ERROR.

|
074
IS BIT 3 OF THE ISB OFF ?
Y N

|
| 075
| DCB SPECIFICATION CHECK.

|
076
IS BIT 4 OF THE ISB OFF ?
Y N

|
| 077
| STORAGE DATA CHECK.

|
078
IS BIT 5 OF THE ISB OFF ?
Y N

|
| 079
| NOT VALID STORAGE ADDRESS.

|
080
IS BIT 6 OF THE ISB OFF ?
Y N

|
| 081
| PROTECT CHECK.
|
|
|

1
3
A
J

MAP FCE0-12

21JAN83 PN6023560
EC337313 PEC326765
MAP FCE0-12

A SCSLC
J
1 SYSTEM TEST ERROR MAP
2
 PAGE 13 OF 13

MAP FCE0-13

|
|
082
IS BIT 7 OF THE ISB OFF ?
Y N
|
| 083
| INTERFACE DATA CHECK.
|
084
(ENTRY POINT C)
IS BIT 0 OF THE FLAGS OFF ?
Y N
|
| 085
| NOT EXPECTED INTERRUPT.
|
086
IS BIT 5 OF THE FLAGS OFF ?
Y N
|
| 087
| WRONG INTERRUPT LEVEL.
|
088
IS BIT 6 OF THE FLAGS OFF ?
Y N
|
| 089
| LOST INTERRUPT.
|
090
PROTECT CHECK.

21JAN83 PN6023560

EC337313 PEC326765

MAP FCE0-13

X.25 MULTILINE COMMUNICATIONS

MAP FDE0-1

X.25 MULTILINE COMM.

MAP FDE0-2

PRINT ON GREEN PAPER

PRINT ON GREEN PAPER

PAGE 1 OF 25

PAGE 2 OF 25

001
(ENTRY POINT A)
ENTER THIS MAP ONLY IF AN ERROR HAS OCCURRED WHILE EXECUTING SYSTEM TEST, AND THEN ONLY WHEN THE DEVICE-TYPE FIELD IS EQUAL TO HEXADECIMAL "FD".

THIS FEATURE DOES NOT PROVIDE CYCLE-STEAL STATUS. IF AN ERROR OCCURS THE CYCLE STEAL STATUS WORDS ARE SET TO "FFFF".

SEE MAP FD00 (PROLOG) AND FD71 (STRATEGY) TO COMPLETELY CHECKOUT THE ATTACHMENT FEATURE.

NOTE: EIGHT DEVICE ADDRESSES MUST BE RESERVED FOR THIS FEATURE. FOR EXAMPLE IF THE CONTROLLER CARD ADDRESS IS 28, NO OTHER DEVICE ON THE SERIES/1 CAN BE ASSIGNED ADDRESSES 28, 29, 2A, 2B, 2C, 2D, 2E AND 2F.

SEE NOTE TO THE RIGHT.

ALL LINE CARDS DEFINED IN THE CONFIGURATION ENTRY (BYTE 05) ARE TESTED AUTOMATICALLY. *** IF AN ERROR OCCURS THE ROUTINE AND CHECKPOINT NUMBER MUST BE USED WITH THIS MAP TO DETERMINE THE FAILING FRU. *** THE CONTROLLER CARD ADDRESS IS THE ONLY ADDRESS DISPLAYED ON THE ALTERNATE CONSOLE WHEN THIS TEST IS RUN IN CUSTOMER VERIFY MODE. THE TEST RESULTS WILL BE "BAD" FOR THE CONTROLLER CARD ADDRESS REGARDLESS OF WHICH LINE CARD FAILS.

(STEP 001 CONTINUES)

(STEP 001 CONTINUES)

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MAP FDE0-1

(STEP 001 CONTINUED)

DOES RTN = 0001 ?

Y N

002

DOES RTN = 0002 ?

Y N

003

COMMAND REJECT FROM CONTROLLER CARD, PREPARE - LEVEL = 1, I BIT OFF

004

DOES CKPT = 0001 ?

Y N

005

DOES CKPT = 0002 ?

Y N

006

DOES CKPT = 0003 ?

Y N

2 2 2 1
1 1 0 9 3
A B C D E

(STEP 001 CONTINUED)
THE RESULT CODE DISPLAYED ON THE ALTERNATE CONSOLE WILL CONTAIN THE FAILING ROUTINE AND CHECKPOINT NUMBER. USE THIS MAP TO DETERMINE THE FAILING COMMAND AND SUSPECT FRU.

ALL EIGHT DEVICE ADDRESSES ARE LISTED AS TERMINATED WHEN THIS TEST IS TERMINATED IN CE MODE. THE ABOVE CONDITIONS APPLY REGARDLESS OF HOW MANY LINE CARDS ARE INSTALLED AND DEFINED IN THE CONFIGURATION ENTRY.

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MAP FDE0-2

E
2
X.25 MULTILINE COMM.
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PAGE 3 OF 25

007
DOES CKPT = 0004 ?
Y N
008
DOES CKPT = 0005 ?
Y N
009
DOES CKPT = 0006 ?
Y N
010
DOES CKPT = 0007 ?
Y N
011
DOES CKPT = 0008 ?
Y N

1 1 1 1 1
8 7 6 5 4 4
F G H J K L

MAP FDE0-3

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MAP FDE0-3

L
3
X.25 MULTILINE COMM.
PRINT ON GREEN PAPER
PAGE 4 OF 25

012
DOES CKPT = 0009 ?
Y N
013
DOES CKPT = 000A ?
Y N
014
DOES CKPT = 000B ?
Y N
015
DOES CKPT = 000C ?
Y N
016
DOES CKPT = 000D ?
Y N

1 1 1 1
3 2 1 0 9 5
M N P Q R S

MAP FDE0-4

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MAP FDE0-4

S
4
X.25 MULTILINE COMM.
PRINT ON GREEN PAPER
PAGE 5 OF 25

017
DOES CKPT = 000E ?
Y N

018
DOES CKPT = 000F ?
Y N

019
DOES CKPT = 0010 ?
Y N

020
DOES CKPT = 0011 ?
Y N

021
CHECK ISB FOR ERROR
CONDITION.

022
LINE CARD 7 TEST FAILED.
DOES IO = 07 ?
Y N

023
SUSPECT CONTROLLER CARD.

024
DOES IN = 03 ?
Y N

025
DOES IN = FF ?
Y N

8 7 6 6 6 6
T U V W X Y

MAP FDE0-5

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ECA23241 PECA23101
MAP FDE0-5

V W X Y
5 5 5 5
X.25 MULTILINE COMM.
PRINT ON GREEN PAPER
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026
READ ATTACHMENT STORAGE
COMMAND FAILED.
SUSPECT LINE CARD 7.

027
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 7 ARE CORRECT.
(SEE MLD PAGE SC704.)

IF BOTH ARE CORRECT SUSPECT
LINE CARD 7.

028
START DIAGNOSTIC 2 TEST RESULTS
BAD.
SUSPECT LINE CARD 7.

029
LINE CARD 6 TEST FAILED.
DOES IO = 07 ?
Y N

030
SUSPECT CONTROLLER CARD.

031
DOES IN = 03 ?
Y N

032
DOES IN = FF ?
Y N

033
READ ATTACHMENT STORAGE
COMMAND FAILED.
SUSPECT LINE CARD 6.

7
7 A
Z A

MAP FDE0-6

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ECA23241 PECA23101
MAP FDE0-6

U Z A X.25 MULTILINE COMM.
5 6 A
6 PRINT ON GREEN PAPER
PAGE 7 OF 25
034
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 6 ARE CORRECT.
(SEE MLD PAGE SC704.)
IF BOTH ARE CORRECT SUSPECT
LINE CARD 6.
035
START DIAGNOSTIC 2 TEST RESULTS
BAD.
SUSPECT LINE CARD 6.
036
LINE CARD 5 TEST FAILED.
DOES IO = 07 ?
Y N
037
SUSPECT CONTROLLER CARD.
038
DOES IN = 03 ?
Y N
039
DOES IN = FF ?
Y N
040
READ ATTACHMENT STORAGE
COMMAND FAILED.
SUSPECT LINE CARD 5.
8 8
A A
B C

MAP FDE0-7

26NOV84 PN6160789
ECA23241 PECA23101
MAP FDE0-7

T A A X.25 MULTILINE COMM.
5 B C
7 7 PRINT ON GREEN PAPER
PAGE 8 OF 25
041
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 5 ARE CORRECT.
(SEE MLD PAGE SC704.)
IF BOTH ARE CORRECT SUSPECT
LINE CARD 5.
042
START DIAGNOSTIC 2 TEST RESULTS
BAD.
SUSPECT LINE CARD 5.
043
LINE CARD 4 TEST FAILED.
DOES IO = 07 ?
Y N
044
SUSPECT CONTROLLER CARD.
045
DOES IN = 03 ?
Y N
046
DOES IN = FF ?
Y N
047
READ ATTACHMENT STORAGE
COMMAND FAILED.
SUSPECT LINE CARD 4.
9 9
A A
D E

MAP FDE0-8

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MAP FDE0-8

R A A X.25 MULTILINE COMM.
4 D E
8 8 PRINT ON GREEN PAPER

MAP FDE0-9

Q A A X.25 MULTILINE COMM.
4 F G
9 9 PRINT ON GREEN PAPER

MAP FDE0-10

| | | PAGE 9 OF 25
| | |
| | | 048
| | NO INTERRUPT RECEIVED.
| | MAKE SURE THAT THE
| | CONFIGURATION ENTRY IS
| | CORRECT.
| | MAKE SURE THAT THE JUMPERS
| | FOR LINE CARD 4 ARE CORRECT.
| | (SEE MLD PAGE SC704.)

| | IF BOTH ARE CORRECT SUSPECT
| | LINE CARD 4.

| | 049
| | START DIAGNOSTIC 2 TEST RESULTS
| | BAD.
| | SUSPECT LINE CARD 4.

†
050
LINE CARD 3 TEST FAILED.
DOES IO = 07 ?

Y N

| | 051
| | SUSPECT CONTROLLER CARD.

052
DOES IN = 03 ?

Y N

| | 053
| | DOES IN = FF ?

Y N

| | 054
| | READ ATTACHMENT STORAGE
| | COMMAND FAILED.
| | SUSPECT LINE CARD 3.

1 1
0 0
A A
F G

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ECA23241 PECA23101

MAP FDE0-9

| | | PAGE 10 OF 25
| | |
| | | 055
| | NO INTERRUPT RECEIVED.
| | MAKE SURE THAT THE
| | CONFIGURATION ENTRY IS
| | CORRECT.
| | MAKE SURE THAT THE JUMPERS
| | FOR LINE CARD 3 ARE CORRECT.
| | (SEE MLD PAGE SC704.)

| | IF BOTH ARE CORRECT SUSPECT
| | LINE CARD 3.

| | 056
| | START DIAGNOSTIC 2 TEST RESULTS
| | BAD.
| | SUSPECT LINE CARD 3.

057
LINE CARD 2 TEST FAILED.
DOES IO = 07 ?

Y N

| | 058
| | SUSPECT CONTROLLER CARD.

059
DOES IN = 03 ?

Y N

| | 060
| | DOES IN = FF ?

Y N

| | 061
| | READ ATTACHMENT STORAGE
| | COMMAND FAILED.
| | SUSPECT LINE CARD 2.

1 1
1 1
A A
H J

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ECA23241 PECA23101

MAP FDE0-10

P A A X.25 MULTILINE COMM.
4 H J
1 1 PRINT ON GREEN PAPER
0 0
PAGE 11 OF 25
|
|
| 062
| NO INTERRUPT RECEIVED.
| MAKE SURE THAT THE
| CONFIGURATION ENTRY IS
| CORRECT.
| MAKE SURE THAT THE JUMPERS
| FOR LINE CARD 2 ARE CORRECT.
| (SEE MLD PAGE SC704.)
|
| IF BOTH ARE CORRECT SUSPECT
| LINE CARD 2.
|
| 063
| START DIAGNOSTIC 2 TEST RESULTS
| BAD.
| SUSPECT LINE CARD 2.
|
| 064
| LINE CARD 1 TEST FAILED.
| DOES IO = 07 ?
| Y N
|
| 065
| SUSPECT CONTROLLER CARD.
|
| 066
| DOES IN = 03 ?
| Y N
|
| 067
| DOES IN = FF ?
| Y N
|
| 068
| READ ATTACHMENT STORAGE
| COMMAND FAILED.
| SUSPECT LINE CARD 1.

1 1
2 2
A A
K L

MAP FDE0-11

26NOV84 PN6160789

ECA23241 PECA23101

MAP FDE0-11

N A A X.25 MULTILINE COMM.
4 K L
1 1 PRINT ON GREEN PAPER
1 1
PAGE 12 OF 25
|
|
| 069
| NO INTERRUPT RECEIVED.
| MAKE SURE THAT THE
| CONFIGURATION ENTRY IS
| CORRECT.
| MAKE SURE THAT THE JUMPERS
| FOR LINE CARD 1 ARE CORRECT.
| (SEE MLD PAGE SC704.)
|
| IF BOTH ARE CORRECT SUSPECT
| LINE CARD 1.
|
| 070
| START DIAGNOSTIC 2 TEST RESULTS
| BAD.
| SUSPECT LINE CARD 1.
|
| 071
| LINE CARD 0 TEST FAILED.
| DOES IO = 07 ?
| Y N
|
| 072
| SUSPECT CONTROLLER CARD.
|
| 073
| DOES IN = 03 ?
| Y N
|
| 074
| DOES IN = FF ?
| Y N
|
| 075
| READ ATTACHMENT STORAGE
| COMMAND FAILED.
| SUSPECT LINE CARD 0.

1 1
3 3
A A
M N

MAP FDE0-12

26NOV84 PN6160789

ECA23241 PECA23101

MAP FDE0-12

M A A X.25 MULTILINE COMM.
4 M N
1 1 PRINT ON GREEN PAPER
2 2
PAGE 13 OF 25

076
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 0 ARE CORRECT.
(SEE MLD PAGE SC704.)

IF BOTH ARE CORRECT SUSPECT
LINE CARD 0.

077
START DIAGNOSTIC 2 TEST RESULTS
BAD.
SUSPECT LINE CARD 0.

078
LINE CARD 7 TEST FAILED.
DOES IO = 07 ?
Y N

079
SUSPECT CONTROLLER CARD.

080
DOES IN = 03 ?
Y N

081
DOES IN = FF ?
Y N

082
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 7.

1 1
4 4
A A
P Q

MAP FDE0-13

26NOV84 PN6160789

ECA23241 PECA23101

MAP FDE0-13

K A A X.25 MULTILINE COMM.
3 P Q
1 1 PRINT ON GREEN PAPER
3 3
PAGE 14 OF 25

083
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 7 ARE CORRECT.
(SEE MLD PAGE SC704.)

IF BOTH ARE CORRECT SUSPECT
LINE CARD 7.

084
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

085
LINE CARD 6 TEST FAILED.
DOES IO = 07 ?
Y N

086
SUSPECT CONTROLLER CARD.

087
DOES IN = 03 ?
Y N

088
DOES IN = FF ?
Y N

089
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 6.

1 1
5 5
A A
R S

MAP FDE0-14

26NOV84 PN6160789

ECA23241 PECA23101

MAP FDE0-14

J A A X.25 MULTILINE COMM.
3 R S
1 1 PRINT ON GREEN PAPER
4 4
PAGE 15 OF 25
090
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 6 ARE CORRECT.
(SEE MLD PAGE SC704.)
IF BOTH ARE CORRECT SUSPECT
LINE CARD 6.
091
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR
092
LINE CARD 5 TEST FAILED.
DOES IO = 07 ?
Y N
093
SUSPECT CONTROLLER CARD.
094
DOES IN = 03 ?
Y N
095
DOES IN = FF ?
Y N
096
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 5.
1 1
6 6
A A
T U

MAP FDE0-15

26NOV84 PN6160789

ECA23241 PECA23101

MAP FDE0-15

H A A X.25 MULTILINE COMM.
3 T U
1 1 PRINT ON GREEN PAPER
5 5
PAGE 16 OF 25
097
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 5 ARE CORRECT.
(SEE MLD PAGE SC704.)
IF BOTH ARE CORRECT SUSPECT
LINE CARD 5.
098
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR
099
LINE CARD 4 TEST FAILED.
DOES IO = 07 ?
Y N
100
SUSPECT CONTROLLER CARD.
101
DOES IN = 03 ?
Y N
102
DOES IN = FF ?
Y N
103
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 4.
1 1
7 7
A A
V W

MAP FDE0-16

26NOV84 PN6160789

ECA23241 PECA23101

MAP FDE0-16

G A A X.25 MULTILINE COMM.
3 V W
1 1 PRINT ON GREEN PAPER
6 6
PAGE 17 OF 25

MAP FDE0-17

104
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 4 ARE CORRECT.
(SEE MLD PAGE SC704.)

IF BOTH ARE CORRECT SUSPECT
LINE CARD 4.

105
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

106
LINE CARD 3 TEST FAILED.
DOES IO = 07 ?
Y N

107
SUSPECT CONTROLLER CARD.

108
DOES IN = 03 ?
Y N

109
DOES IN = FF ?
Y N

110
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 3.

1 1
8 8
A A
X Y

26NOV84 PN6160789

ECA23241 PECA23101

MAP FDE0-17

F A A X.25 MULTILINE COMM.
3 X Y
1 1 PRINT ON GREEN PAPER
7 7
PAGE 18 OF 25

MAP FDE0-18

111
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 3 ARE CORRECT.
(SEE MLD PAGE SC704.)

IF BOTH ARE CORRECT SUSPECT
LINE CARD 3.

112
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

113
LINE CARD 2 TEST FAILED.
DOES IO = 07 ?
Y N

114
SUSPECT CONTROLLER CARD.

115
DOES IN = 03 ?
Y N

116
DOES IN = FF ?
Y N

117
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 2.

1 1
9 9
A B
Z A

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ECA23241 PECA23101

MAP FDE0-18

D A B X.25 MULTILINE COMM.
2 Z A
1 1 PRINT ON GREEN PAPER
8 8
PAGE 19 OF 25

118
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 2 ARE CORRECT.
(SEE MLD PAGE SC704.)

IF BOTH ARE CORRECT SUSPECT
LINE CARD 2.

119
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

120
LINE CARD 1 TEST FAILED.
DOES IO = 07 ?
Y N

121
SUSPECT CONTROLLER CARD.

122
DOES IN = 03 ?
Y N

123
DOES IN = FF ?
Y N

124
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 1.

2 2
0 0
B B
B C

MAP FDE0-19

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ECA23241 PECA23101

MAP FDE0-19

C B B X.25 MULTILINE COMM.
2 B C
1 1 PRINT ON GREEN PAPER
9 9
PAGE 20 OF 25

125
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 1 ARE CORRECT.
(SEE MLD PAGE SC704.)

IF BOTH ARE CORRECT SUSPECT
LINE CARD 1.

126
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

127
LINE CARD 0 TEST FAILED.
DOES IO = 07 ?
Y N

128
SUSPECT CONTROLLER CARD.

129
DOES IN = 03 ?
Y N

130
DOES IN = FF ?
Y N

131
START DIAGNOSTIC 2
(SUPERVISORY ORDER) FAILED.
SUSPECT LINE CARD 0.

2 2
1 1
B B
D E

MAP FDE0-20

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MAP FDE0-20

A B B B X.25 MULTILINE COMM.
2 2 D E
2 2 PRINT ON GREEN PAPER
0 0
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MAP FDE0-21

132
NO INTERRUPT RECEIVED.
MAKE SURE THAT THE
CONFIGURATION ENTRY IS
CORRECT.
MAKE SURE THAT THE JUMPERS
FOR LINE CARD 0 ARE
CORRECT.
(SEE MLD PAGE SC704.)
IF BOTH ARE CORRECT SUSPECT
LINE CARD 0.

133
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

134
CONFIGURATION ERROR.
NO LINE CARDS DEFINED IN BYTE
05.

135
DOES CKPT = 0001 ?
Y N

136
DOES CKPT = 0002 ?
Y N

137
DOES CKPT = 0003 ?
Y N

138
DOES CKPT = 0004 ?
Y N

139
NO IS NOT VALID.

2 2 2 2
4 4 3 2
B B B B
F G H J

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MAP FDE0-21

B X.25 MULTILINE COMM.
J
2 PRINT ON GREEN PAPER
1
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MAP FDE0-22

140
(START DIAGNOSTIC 1 (6D) COMMAND
FAILED.)
DOES IO = 07 ?
Y N

141
DOES IO = 00 ?
Y N

142
DOES IO = 05 ?
Y N

143
COMMAND REJECTED.
SUSPECT CONTROLLER CARD.

144
INTERFACE DATA CHECK.
SUSPECT CONTROLLER CARD.

SUSPECT PROCESSOR/CHANNEL OR
I/O SLOT.

145
DEVICE NOT ATTACHED.
MAKE SURE THAT THE DEVICE
ADDRESS IS CORRECT IN THE
CONFIGURATION TABLE AND
HARDWARE.
(SEE MLD PAGE SC702 FOR
LOCATION OF ADDRESS JUMPERS.)

146
DOES IN = 00 ?
Y N

147
DOES IN = FF ?
Y N

2 2 2
3 3 3
B B B
K L M

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MAP FDE0-22

B B B B X.25 MULTILINE COMM.
H K L M
2 2 2 2 PRINT ON GREEN PAPER
1 2 2 2
PAGE 23 OF 25

148
EXCEPTION OR ATTENTION
INTERRUPT RECEIVED.
SUSPECT CONTROLLER CARD.

149
NO INTERRUPT RECEIVED.
SUSPECT CONTROLLER CARD.

150
GOOD STATUS
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

151
(READ DEVICE ID COMMAND FAILED.)
DOES IO = 07 ?
Y N

152
DOES IO = 00 ?
Y N

153
COMMAND REJECTED.
SUSPECT CONTROLLER CARD.

154
DEVICE NOT ATTACHED.
MAKE SURE THAT THE DEVICE
ADDRESS IS CORRECT IN THE
CONFIGURATION TABLE AND
HARDWARE.
(SEE MLD PAGE SC702 FOR
LOCATION OF ADDRESS JUMPERS.)

155
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

MAP FDE0-23

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MAP FDE0-23

B B X.25 MULTILINE COMM.
F G
2 2 PRINT ON GREEN PAPER
1 1
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156
(PREPARE COMMAND FAILED.)
DOES IO = 07 ?
Y N

157
DOES IO = 00 ?
Y N

158
COMMAND REJECTED.
SUSPECT CONTROLLER CARD.

159
DEVICE NOT ATTACHED.
MAKE SURE THAT THE DEVICE
ADDRESS IS CORRECT IN THE
CONFIGURATION TABLE AND
HARDWARE.
(SEE MLD PAGE SC702 FOR
LOCATION OF ADDRESS JUMPERS.)

160
GOOD STATUS.
SUSPECT DISKETTE OR
PROCESSOR/CHANNEL ERROR

161
(DEVICE RESET COMMAND FAILED.)
DOES IO = 07 ?
Y N

162
DOES IO = 00 ?
Y N

163
COMMAND REJECTED.
SUSPECT CONTROLLER CARD.

2 2

5 5

B B

N P

MAP FDE0-24

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MAP FDE0-24

B B X.25 MULTILINE COMM.
N P
2 2 PRINT ON GREEN PAPER
4 4
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MAP FDE0-25

| |
| |
| 164
| DEVICE NOT ATTACHED.
| MAKE SURE THAT THE DEVICE
| ADDRESS IS CORRECT IN THE
| CONFIGURATION TABLE AND
| HARDWARE.
| (SEE MLD PAGE SC702 FOR
| LOCATION OF ADDRESS JUMPERS.)
|
165
GOOD STATUS.
SUSPECT PROCESSOR/CHANNEL ERROR

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MAP FDE0-25