PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 1 OF 29

ENTRY POINTS

LIVIK! I	711113		
FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0070 0070 0070 0070 0070 0070 0070 007		1485254727270887567660	01-200-200

EXIT POINTS

EXIT THIS MAP | TO

PAGE STEP NUMBER NUMBER POINT

27 224 0072 A
28 227 0072 A
28 227 0072 A
28 230 0072 A
28 237 0072 A
28 218 1470 A

OO1
(ENTRY POINT A)

THIS IS A PAPER ONLY MAP.
THERE IS NO ASSOCIATED MAP PROGRAM.
(SEE DIAGNOSTIC SERVICE GUIDE 05.00.00).

SEE NOTE ONE (1) --->

SYSTEM = :

THE PROCESSING UNIT YOU ARE USING TO DIAGNOSE THE PROBLEM, AND ITS ASSOCIATED ATTACHMENT(S) AND DEVICE(S).

- POWER OFF THE SYSTEM. - WAIT FIFTEEN (15) SECONDS.

'UNSEAT' OR 'SEAT' ONLY WHEN INSTRUCTED TO IN THIS MAP. THE WORD 'UNSEAT' IS THE METHOD TO ELECTRICALLY ISOLATE. PULL CARD(S) OUT APPROXIMATELY ONE INCH. DO NOT REMOVE CARD(S) FROM GUIDES.

ELECTRICAL 'RESEAT' PRESS THE CARD TO LICENSE SEATED CONNECT! PRESS THE CARD THE CARD THE BOARD THE CARD THE BOARD THE CARD THE C

OOZ SEE IF THE FAILURE INDICATION IS IN A CUSTOMER PROGRAM.

IS THE 'FAILURE INDICATION' IN A CUSTOMER PROGRAM?

NOTE ONE (1)

IF SYSTEM TEST, FRIEND OR A CUSTOMER
PROGRAM IS THE ONLY WAY THAT THE SYSTEM
WILL FAIL, USE THAT AS THE FAILURE
INDICATION IN THE MAP.

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TABLE ONE (1)

THIS MAP, AS FOLLOWS:

THIS TABLE IS A STEP BY STEP LIST OF THE SEQUENCE OF EVENTS IN MAP 0020, FOR A CORRECTLY OPERATING SYSTEM. NOTE THE STEP IN WHICH YOUR SYSTEM INDICATIONS ARE DIFFERENT. RECORD THE DIFFERENCES. THIS THE FAILURE POINT FOR THIS MAP. NOW GO TO THE NEXT QUESTION AND USING THIS INFORMATION, ANSWER THE QUESTION.

- 1. POWER ON WITH FFFF IN DATA LAMPS.
 AS AN EXAMPLE OF A FAILURE INDICATION
 IF SYSTEM FAILED AFTER POWER ON,
 F0F0 IN LAMPS, NOTE THIS AND USE
 IT TO ANSWER ANY QUESTION IN THIS MAP
 OF A FAILURE POINT -.
- 2. PRESS THE RESET KEY. - 0000 - IN DATA LAMPS.
- 3. PRESS THE IPL KEY.
- 4. XXXX IN THE DATA LAMPS. WAIT FOR THE IPL TO COMPLETE.
- 5. THERE MAY BE A CONFIGURATION MESSAGE.
- 6. AFTER THE CONFIGURATION MESSAGE, A RDY ENTER 13800 IN DATA LAMPS)
 MESSAGE WILL BE INDICATED THE DCP IS LOADED CORRECTLY.
- 7. IF AUTO RUN, ALL DEVICE(S) ARE TESTED

IS THE 'FAILURE INDICATION' IN STEPS ONE (1) Y N

 $^{004}_{
m GO}$ to page 3, step 013, entry point pr.

ODS THE FAILURE INDICATION' IS IN STEPS ONE (1) TO FOUR (4). THE PROBLEM MAY BE RELATIVE TO A DEVICE. MAP 0070 MAY HAVE INDICATED THE PROBLEM WAS AN ATTACHMENT CARD. IF YOU HAVE EXCHANGED A SUSPECTION OF SOME OTHER MAP:

- ANSWER THE QUESTION 'YES'.

IS THERE A 'SUSPECT' ATTACHMENT CARD FROM SOME OTHER MAP?

 $^{006}_{60}$ to page 3, step 013, entry point pr.

- ENSURE THE CUSTOMER INTERFACE IS DISCONNECTED.

SEE IF THE SUSPECT ATTACHMENT CARD IS CONNECTED WITH CABLE(S) TO A DEVICE.

IF THE SUSPECT ATACHMENT CARD IS THE IPL DISKETTE DEVICE ATACHMENT CARD:

- ANSWER THE QUESTION 'NO'.

DOES THE SUSPECT ATTACHMENT CARD HAVE CABLE(S) CONNECTED TO A DEVICE?

 $^{008}_{
m GO}$ to page 3, step 013, entry point pr.

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OPPOWER OFF THE SYSTEM.

REMOVE THE CABLE(S) FROM THE ATTACHMENT CARD TO THE DEVICE, AT THE ATTACHMENT CARD END.

THE DEVICE AND ITS CABLE(S) ARE ISOLATED FROM THE SYSTEM.

POWER ON THE SYSTEM.

RUN THE FAILURE.

DOES THE FAILURE.

DOES THE FAILURE.

THE SAME THE

O10
THE DEVICE MAY BE CAUSING THE FAILURE.

- RECONNECT ATTACHMENT CARD.

- GO TO THE MAP PROLOG OF THIS DEVICE.

IF NO REPAIR, RETURN TO THIS MAP. GO TO STEP 013. ENTRY POINT PR.

611 - POWER OFF THE SYSTEM - RECONNECT THE CABLE(S) TO THE ATTACHMENT CARD STEP 013. EDITY POINT PR.

GO TO STEP 013, ENTRY POINT PR.

013 (ENTRY POINT PR)

- POWER OFF THE SYSTEM.
- ENSURE THE PROCESSING UNIT CARD(S), CABLE(S) AND STORAGE CARD(S), IF INSTALLED, ARE SEATED.
- FOWER ON THE SYSTEM.
- RUN THE FAILURE DIAGNOSTIC, IF NEEDED TO SEE TABLE ONE (1).

DOES THE TEST FAIL WITH THE SAME INDICATIONS?

014 THERE CAN BE DIRTY PINS OR A BAD CONNECTION.

- SEE TABLE ONE (1) AND THE BOARD LIGHTLY.
- RUN THE FAILURE. DIAGNOSTIC, IF NEEDED TO
DOES THE FAILURE.
THE FAILURE THE FAILURE SAME
THE FAILURE THE FAILURE THE SAME
THE FAILURE THE SAME
THE FAILURE THE SAME
T

015
THE SYSTEM IS NOT FAILING, INSTALL ALL
THE ORIGINAL ATTACHMENT CARD(\$), HAVE THE
CUSTOMER RECONNECT HIS INTERFACE AND
VERIFY CORRECT OPERATION.

016 GO TO MAP 0072, ENTRY POINT A.

O17
THE PROBLEM IS IN THE PROCESSING UNIT, STORAGE CARD(S), IF INSTALLED, BOARD(S) OR CABLE(S).

IS THE PROCESSING UNIT BOARD THE ONLY BOARD ON THE SYSTEM?

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O18
- SEE THE NOTE TO THE RIGHT.
- POWER OFF THE SYSTEM.
- DISCONNECT CABLE(S). A2, A3, A4, AND A5 IN THE PROCESSING UNIT BOARD.
- UNSEAT ALL CHANNEL REPOWER CARD(S), IF INSTALLED ON THE SYSTEM.

IF NECESSARY,
- INSTALL A POLL JUMPER FROM PIN M11 TO PIN M12 A CARD IS UNSEATED.
- INSTALL A POLL JUMPER FROM PIN M11 TO PIN M12 IN ALL THE CARD POSITIONS THAT ARE EMPTY.
- SEE THE CORRECT BOARD LOGIC(S), AXXXX, FOR THE POLL NETWORK.

INSTALL THE DISKETTE ATTACHMENT CARD IN THE PROCESSING UNIT BOARD IF IT IS NOW INSTALLED IN AN EXPANSION BOARD AND IF IT IS NEEDED SHOW THE FAILURE THE DISKETTE UNIT ATTACHMENT CARD CANNOT BE INSTALLED IN CARD POSITION A IF THE PROCESSING UNIT BOARD IS FILLED WITH CARD(S), A CARD MUST BE REMOVED TO MAKE ROOM FOR THE DISKETTE UNIT ATTACHMENT CARD.

IF AN ALTERNATE CONSOLE IS INSTALLED ON THE SYSTEM, INSTALL THE ALTERNATE CONSOLE ATTACHMENT CARD IN PROCESSING UNIT BOARD IF IT IN NOW INSTALLED IN AN EXPANSION UNIT BOARD AND IS NEEDED TO SHOW THE FAILURE IF THE PROCESSING UNIT BOARD IS FILLED WITH CARD(S), A CARD MUST BE REMOVED TO MAKE ROOM FOR THE ALTERNATE CONSOLE ATTACHMENT CARD.

- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE ONE (1).

DOES THE TEST FAIL WITH THE SAME INDICATIONS?

O19
THERE IS A FAILING CABLE OR BOARD, OUTBOARD
OF THE PROCESSING UNIT BOARD OR THE CHANNEL
REPOWER CARD, IF INSTALLED.
THE PROBLEM MUST NOW BE ISOLATED TO THE
FAILING FIELD REPLACEMENT UNIT. IS ONLY ONE (1) EXPANSION BOARD INSTALLED ON THE SYSTEM?

020
THERE IS MORE THAN ONE EXPANSION BOARD
INSTALLED.
THERE IS ONE CHANNEL REPOWER CARD
INSTALLED.

- POWER OFF THE SYSTEM.

IF A CHANNEL REPOWER CARD IS INSTALLED, ANSWER THE FOLLOWING QUESTION 'YES'. IS THE CHANNEL REPOWER CARD UNSEATED IN THE PROCESSING UNIT BOARD?

OZNIECT THE CABLE(S) IN CARD POSITION A2, A3, A4 AND A5 IN THE PROCESSING UNIT BOARD.

IS A CHANNEL REPOWER CAPD UNSEATED IN THE FIRST EXPANSION BOARD?

022
CHANNEL REPOWER CARD IS NOT INSTALLED IN THE FIRST EXPANSION BOARD.
A CHANNEL REPOWER CARD IS INSTALLED IN THE NEXT EXPANSION BOARD.
GO TO PAGE 5, STEP 026, ENTRY POINT CR.

AN EXPANSION BOARD IS:

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PROCESSING UNIT FAILURE MAP
PAPER ONLY MAP
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- RESEAT THE CHANNEL REPOWER CARD IN THE FIRST EXPANSION BOARD, IF INSTALLED. THERE ARE FOUR TOP CARD CABLE(S) ON THIS CHANNEL REPOWER CARD THAT GO TO THE NEXT EXPANSION BOARD FROM THE NEXT EXPANSION BOARD FROM THE NEXT EXPANSION BOARD: - DISCONNECT THE CABLE(S) ON THE NEXT EXPANSION BOARD END.
- DO NOT UNSEAT THE CABLE(S) ON THE CHANNEL REPOWER CARD END.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
- SEE TABLE ONE (1).

DOES THE TEST FAIL WITH THE SAME UNDICATIONS?

024
PROBLEM IS OUTBOARD OF THE FIRST EXPANSION BOARD. CONNECT THE CABLE(S) IN CARD POSITION AS, AS, A4 AND A5 IN THE FIRST EXPANSION BOARD.

THEN - RESEAT THE CHANNEL REPOWER CARD IN THE NEXT EXPANSION BOARD.

60 TO PAGE 6, STEP 035, ENTRY POINT RC.

026 (ENTRY POINT CR)

4 K

- POWER OFF THE SYSTEM. REPOWER CARD IN THIS

THERE ARE FOUR TOP CARD CABLE(S) ON THIS CHANNEL REPOWER CARD THAT GO TO THE NEXT BOARD.

TO ISOLATE THIS BOARD FROM THE NEXT BOARD:

- DISCONNECT THE CABLE(S) ON THE NEXT EXPANSION BOARD END.
 DO NOT UNSEAT THE CABLE(S) ON THE CHANNEL REPOWER CARD END.
 POWER ON THE SYSTEM.
 RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE TABLE ONE (1).

DOES THE TEST FAIL WITH THE SAME INDICATIONS?

O27
THE BOARD JUST RECONNECTED IS GOOD.
CONNECT THE CABLE(S) IN CARD POSITION A2,
A3, A4 AND A5 IN THIS BOARD.

IS THERE A BOARD INSTALLED ON SYSTEM THAT

028 60 TO PAGE 6 tc. STEP 041, ENTRY POINT tc.

029
IF NO CHANNEL REPOWER CARD IS INSTALLED IN THIS BOARD OR THE PROCESSING UNIT BOARD, ANSWER THE FOLLOWING QUESTION 'NO'.

IS THE CHANNEL REPOWER CARD UNSEATED IN THIS BOARD?

031 GO TO STEP 026, ENTRY POINT CR.

GO TO PAGE 6, STEP 035, ENTRY POINT RC.

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E G H
                   PROCESSING UNIT FAILURE MAP
                    PAPER ONLY MAP
                    PAGE 6 OF 29
      THERE IS ONLY ONE EXPANSION BOARD INSTALLED ON THE SYSTEM. IS INSTALLED ON THE SYSTEM, ANSWER FOLLOWING QUESTION NO'.
      IS A CHANNEL REPOWER CARD UNSEATED NOW?
         034
GO TO STEP 037,
ENTRY POINT CC.
      (ENTRY POINT RC)
         POWER OFF THE SYSTEM.
EXCHANGE THE CHANNEL REPOWER CARD WITH A
GOOD CARD.
      - ENSURE TOP CARD CONNECTOR CABLE(S) ARE RECONNECTED.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE (I).
- POWER ON THE SYSTEM.
      DOES THE TEST FAIL WITH THE SAME
         036
THE CHANNEL REPOWER CARD JUST EXCHANGED IS FAILING. CHANNEL REPOWER CARD IS INSTALLED IN SYSTEM.
VERIFY THE REPAIR:
      (ENTRY POINT CC)
       - POWER OFF THE SYSTEM.
      CHECK THE CHANNEL REPOWER TOP CARD CONNECTOR CABLE(S) FOR AN OPEN, A SHORT OR A GROUND. IF NO REPOWER A CARD THE INSTALLED, CHECK THE CABLE(S) BETWEEN THE PROCESSING UNIT AND THE EXPANSION BOARD.
      DONTHE CABLE(S) CHECK OUT O.K.?
          038
REPAIR OR EXCHANGE THE FAILING CABLE.
- VERIFY THE REPAIR.
      60 TO STEP 041,
ENTRY POINT TC.
   040
GO TO STEP 041, ENTRY POINT TC.
(ENTRY POINT TC)
SEET IF YOU ERER IS OSINGLE TO FROM WO THE ANDRECESSING
IS THERE A CABLE FROM THE PROCESSING UNIT TO A THE TRANSPORT OF THE PROCESSING UNIT TO A THE PROCESSING UNIT TO A
   (ENTRY POINT ST)
   SEE IF THE PROCESSING UNIT INSTALLED IS A:
   IS A 4955 PROCESSING UNIT INSTALLED?
      043
SEE IF THE PROCESSING UNIT INSTALLED IS A:
      IS THE PROCESSING UNIT INSTALLED A 4954?
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ISOLATE THE CABLE(S) ENTRY POINT.

PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 7 OF 29

044 SEE IF THE PROCESSING UNIT INSTALLED IS A: 4953

US THE PROCESSING UNIT INSTALLED A 4953?

045 SEE IF THE PROCESSING UNIT INSTALLED IS A:

IS THE PROCESSING UNIT INSTALLED A 4952?

046 GO TO PAGE 23, STEP 185, ENTRY POINT RP.

\$44,7952 PROCESSING UNIT IS INSTALLED.

SEE MLD VOLUME ONE (1).
SEE PROCESSING UNIT LOGIC(S) A2XXX
SEE PROCESSING UNIT LOGIC A2103 FOR JUMPERING.
SEE THE NOTE TO THE RIGHT, SEE THE NOTE THAN ONE STORAGE MODULE IS INSTALLED ON THE CARD.

IS MORE THAN ONE STORAGE MODULE INSTALLED ON THE CARD?

O48
- POMER OFF THE SYSTEM.
- REMOVE THE PROCESSING UNIT CARD.
- REMOVE THE STORAGE MODULE FROM THE CARD.
- INSTALL A KNOWN GOOD STORAGE MODULE ON THE PROCESSING UNIT CARD.
- INSTALL THE PROCESSING UNIT CARD.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
- SEE TABLE ONE (1). DOES THE TEST FAIL WITH UNDICATIONS? 049 THE REMOVED STORAGE MODULE IS BAD. - VERIFY THE REPAIR.

650 GO TO PAGE 23, STEP 185, ENTRY POINT RP.

ŤHĒRE IS MORE THAN ONE STORAGE MODULE INSTALLED ON THE PROCESSING UNIT CARD.

FIRST 32K MODULE FROM THE FROGESSION

- ENSURE THE STOPAGE JUMPERS ARE CORRECT.

- SEE MLD VOLUME ONE (1), LOGIC AXXXX.

- INSTALL THE FROCESSING UNIT CARD.

- POWER ON THE SYSTEM.

- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE

- SEE TABLE ONE (1).

DOES THE TEST FAIL WITH THE SAME INDICATIONS?

A STORAGE MODULE IS THE MODULE ON THE 4952 PROCESSING UNIT CARD. THERE MUST BE ONE (1) TO FOUR (4) STORAGE MODULE(S) INSTALLED ON THE PROCESSING UNIT CARD. THE PROCESSING UNIT CARD MUST BE JUMPFRED CORRECTLY FOR THE NUMBER OF STORAGE MODULE(S) INSTALLED.

THE STORAGE SIZE IS CHANGED.
THERE MAY BE A CONFIGURATION ERROR OR A
DIAGNOSTIC FAILURE. NOTE THIS WHEN USING THE 'FAILURE INDICATION':
DO NOT CONFUSE THE 'CONFIGURATION ERROR':
CAUSED BY STORAGE SIZE WITH THE 'ERROR'
INDICATION' USED BY YOU. THE STORAGE JUMPEPS, IF INSTALLED, AND THE CONFIGURATION TABLE MAY HAVE TO BE CHANGED.

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PROCESSING UNIT FAILURE MAP
                       PAPER ONLY MAP
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052
(ENTRY POINT LC)
A REMOVED STORAGE MODULE IS SUSFECT.
   POWER OFF THE SYSTEM.
REMOVE THE PROCESSING UNIT CARD.
INSTALL A REMOVED STORAGE MODULE AS FOLLOWS:
   IF THE LAST
MODULE
INSTALLED IS:
                                  INSTALL
MODULE:
   ENSURE THE STORAGE JUMPERS ARE CORRECT.
SEE MLD VOLUME ONE (1), LOGIC AXXXX.
INSTALL THE PROCESSING UNIT CAPD IN THE BOARD.
POWER ON THE SYSTEM.
RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
DOES THE TEST FAIL WITH THE SAME INDICATIONS?
   - SEE IF ALL REMOVED STORAGE MODULE(S) ARE INSTALLED.
    ARE ALL STORAGE MODULE(S) INSTALLED?
       054
GO TO STEP 052,
ENTRY POINT LC.
    555 - SEE IF THE SYSTEM IS REPAIRED.
    IS THE SYSTEM REPAIRED?
    057
- VERIFY THE REPAIR.
 058
(ENTRY POINT MS)
THE STORAGE MODULE JUST INSTALLED MAY BE BAD.
   POWER OFF THE SYSTEM,
SEE HLD VOLUME ONE (1);
SEE PROCESSING UNIT LOGIC A2103 FOR
JUMPERING.
REMOVE THE PROCESSING UNIT CARD.
EXCHANGE THE POSITION OF THE LAST STORAGE
MODULE INSTALLED WITH THE POSITION OF THE
32K STORAGE MODULE.
INSTALL THE PROCESSING UNIT CARD IN THE
BOARD.
- INSTALL THE TROUBLEST OF THE BOARD.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILUPE ONE (1).
DOES THE TEST FAIL WITH THE SAME INDICATIONS?
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059 - EXCHANGE THE FAILING STORAGE MODULE. - VERIFY THE REPAIR.

060 GO TO PAGE 23, STEP 185, ENTRY POINT RP.

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9 R
                              PAPER ONLY MAP
                              PAGE 9 OF 29
     061
THE 32K STORAGE MODULE INSTALLED MAY BE BAD.
     - POWER OFF THE SYSTEM.
- REHOVE THE PROCESSING UNIT CARD.
- EXCHANGE A REHOVED STORAGE MODULE WITH THE 32K STORAGE MODULE NOW INSTALLED.
- INSTALL THE PROCESSING UNIT CARD IN THE BOARD.
- POWER ON THE SYSTEM.
- RUN THE FAILURG DIAGNOSTIC, IF NEEDED TO SEE TABLE ONE (1).
     DOES THE TEST FAIL WITH THE JUDICATIONS?
          062
THE ORIGINAL 32K STORAGE MODULE THAT WAS
REMOVED IS BAD.
          - EXCHANGE THE 32K STORAGE MODULE THAT WAS REMOVED WITH A GOOD ONE. - VERIFY THE REPAIR.
     60 TO PAGE 23, STEP 185, ENTRY POINT RP.
 064
A 4953 PROCESSING UNIT IS INSTALLED.
- SEE MLD VOLUME ONE (1).
- SEE PROCESSING UNIT LOGIC(S) A3XXX.
- SEE PROCESSING UNIT LOGIC(S) A3XXX.
- SEE MLD VOLUME ONE (1).
- SEE MLD VOLUME ONE (1).
IS MORE THAN ONE STORAGE CARD INSTALLED?
     ^{065}_{
m THERE} is only one storage card installed.
     - POWER OFF THE SYSTEM
- REMOVE THE STORAGE CARD
- REMOVE THE STORAGE CARD
- REMOVE THE STORAGE CARD.
- POWER ON THE SYSTEM
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO
- SEE TABLE ONE (1).
     DOES THE TEST FAIL WITH INDICATIONS?
          066
THE STORAGE CARD REMOVED IS FAILING.
- VERIFY THE REPAIR.
     067
GO TO PAGE 23, STEP 185, ENTRY POINT RP.
 068
THERE IS MORE THAN ONE STORAGE CARD INSTALLED
ON THE SYSTEM.
POWER OFF THE SYSTEM.

SEE PROCESSING UNIT LOGIC(S) A3XXX

REMOVE ALL THE STORAGE CARDS BUT THE FIRST CARD FROM PIN MIL TO PIN MISSING A POLL JUMPER FROM PIN MIL TO PIN MISSING ALL THE CARD POSITION MILT TO PIN MILT IN ALL THE CARD POSITIONS THAT ARE METER THE CORRECT BOARD LOGIC(S), AXXXX, FOR THE POLL NETWORK DAGNOSTIC, IF NEEDED TO SEE THE FAILURE ONE (1).
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DOES THE TEST FAIL WITH THE SAME INDICATIONS?

PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 10 OF 29

(ENTRY POINT LB)

IV

A REMOVED STORAGE CARD IS SUSPECT.

- POWER OFF THE SYSTEM.
- INSTALL A REMOVED STORAGE CARD AS FOLLOWS:

IF THE LAST	INSTALL
CARD INSTALLED	STORAGE
IS:	CARD:
16K	32K
32K	48K
48K	64K

INSTALL THE STORAGE CARD IN THE BOARD AS NOTED.
ENSURE THE STORAGE JUMFERS ARE CORRECT.
SEE HID VOLUME ONE (1), LOGIC AXXXX.
REMOVE THE POLL JUMPER FROM PIN M11 TO PIN M12 IN THE CARD POSITION WHERE THE CARD WAS JUST SEATTED. BOARD LOGIC(S) FOR THE POLL NETWORK.
SEE THE CORRECT BOARD LOGIC(S) FOR THE POWER ON THE SYSTEM.
RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.

DOES THE TEST FAIL WITH INDICATIONS?

070 - SEE IF ALL REMOVED STORAGE CARDS ARE INSTALLED. ARE ALL STORAGE CARD(S) INSTALLED?

071 GO TO STEP 069, ENTRY POINT LB.

672 - SEE IF THE SYSTEM IS REPAIRED.

IS THE SYSTEM REPAIRED?

074 - VERIFY THE REPAIR.

075 THE STORAGE CARD INSTALLED IS FAILING. VERIFY THE REPAIR.

076 THERE IS ONE STORAGE CAPD INSTALLED AND THERE IS A FAILUPE.

- POWER OFF THE SYSTEM.
- REMOVE THE INSTALLED STORAGE CARD.
- MARK IT AND SET IT TO ONE SIDE.
- INSTALL A REMOVED STORAGE CARD THAT IS NOT MARKED.
- POWER ON THE SYSTEM.
- PUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
- SEE TABLE ONE (1).

DOES THE TEST FAIL WITH THE SAME INDICATIONS? $\stackrel{\bullet}{\text{N}}$

077 THE MARKED STORAGE CARD IS FAILING. - VERIFY THE REPAIR.

078 GO TO PAGE 23, STEP 185, ENTRY POINT RP.

PAPER ONLY MAP PAGE 11 OF 29

079
- SEE IF YOU HAVE TESTED THE STORAGE MODULES USING A 2XXX MAP. HAVE YOU TESTED THE STORAGE MODULES USING MAP

080 - POWER OFF THE SYSTEM.

SEE THE NUMBER OF MODULES INSTALLED. SEE IF THE NUMBER OF MODULES INSTALLED IS FOUR (4) OR LESS.

IS THE NUMBER OF MODULES INSTALLED FOUR (4) OR LESS?

081 THE NUMBER OF MODULES INSTALLED IS FIVE (5) OR MORE.

- REMOVE ALL STORAGE MODULES EXCEPT 0 - 3. - LEAVE MODULES 0 - 3 INSTALLED ON THE STORAGE CARD.

IF THE ERROR INDICATION IS:
-POWER ON NOT CORRECT1. ENSURE THE CARD IS JUMPERED FOR 64K.

IF THE ERROR INDICATION IS:
-DIAGNOSTIC 2XXX NOT CORRECT1. ENSURE THE CARD IS JUMPERED FOR 64K.
2. THE CONFIGURATION ENTRY MUST BE 64K.
THE CONFIGURATION TABLE CHANGE. THE

- POWER ON THE SYSTEM.

MHEN YOU POWER THE PROCESSING UNIT ON,
THE FOLLOWING DIAGNOSTIC(S) RUN:
ROS TEST - DATA LEDS TEST - STORAGE TEST 495X FFFF ON ON ON OFF 4954 FFFF ON OFF ON OFF 4955 FFFF ON OFF ON OFF THE CONSOLE IS SILENT (NO SOUND).

DID THE SYSTEM 'POWER ON' CORRECT?

- SEE MLD VOLUME ONE (1). - SEE PROCESSING UNIT LOGIC(S) A4XXX.

PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 12 OF 29

THE INSTALLED STORAGE MODULES ARE SUSPECT.

- REMOVE THE MODULE FROM POSITION ZERO (0).

- MARK THIS MODULE AND SET IT TO ONE SIDE. IT IS SUSPECT.

- INSTALL ONE OF THE REMOVED MODULES IN POSITION ZERO (0).

- POWER ON THE SYSTEM.

WHEN YOU POWER THE PROCESSING UNIT ON,
THE FOLLOWING DIAGNOSTIC(S) RUN:
ROS TEST - DATA LEDS TEST - STORAGE TEST

IF THE 495X AFTER FIFTEEN (15) SECONDS,
PROCESSING POWER ON INDICATIONS ARE:
UNIT TYPE DATA STOP LEVEL POWER OTHER
IS: LEDS LED 0 LED LED LEDS
495X FFFF ON ON ON OFF
4954 FFFF ON OFF ON OFF
THE CONSOLE IS SILENT (NO SOUND).

DID THE SYSTEM 'POWER ON' CORRECT?

083
- REMOVE THE MODULE FROM POSITION ONE (1)
- MARK THIS MODULE AND SET IT TO ONE SIDE.
IT IS SUSPECT
- INSTALL ONE OF THE REMOVED MODULES IN POSITION ONE (1)
- POWER ON THE SYSTEM.

+						
ITHE	YOU POI FOLLOWI TEST -	NG DIAGN	NOSTICIS:	[NG UNIT) RUN: - STORAGI		
PROC		POWER		(15) SEC	ONDS,	
IS:	LEDS	LED	PEAET		OTHER LEDS	
495X	FFFF	ON	ON	ON	OFF	
4954	FFFF	ON	OFF	ON	OFF	
4955	FFFF	ON	OFF	ON	OFF	
	THE CONSOLE IS SILENT (NO SOUND).					

DID THE SYSTEM 'POWER ON' CORRECT?

- SEE MLD VOLUME ONE (1).
- SEE PROCESSING UNIT LOGIC(S) A4XXX.

PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 13 OF 29

- REMOVE THE MODULE FROM POSITION TWO (2).
- HARK THIS MODULE AND SET IT TO ONE SIDE.
- INSTALL ONE OF THE REMOVED MODULES IN POSITION TWO (2).
- POWER ON THE SYSTEM.

WHEN THE ROS	YOU POI	ER THE	PROCESS:	ING UNIT) RUN: - STORAGE		
	LE 495X SSING DATA LEDS	AFTER POWER STOP	EJFIEEN ON INDIC	(15) SE(ATIONS	ONDS, RE: OTHER	
495X	FFFF	ON	ON	ON	OFF	
4954	FFFF	0N	OFF OFF	ON	OFF OFF	
! 1	THE CONSOLE IS SILENT (NO SOUND).					

DID THE SYSTEM 'POWER ON' CORRECT?

085
- REMOVE THE MODULE FROM POSITION THREE
- MARK THIS MODULE AND SET IT TO ONE
SIDE IT IS SUSPECTED MODULES IN POSITION THREE (3)
- POWER ON THE SYSTEM.

WHEN YOU POUTHE FOLLOWING ROS TEST - C	IG DTAGI	105TTC15	ING UNIT) RUN: - STORAGI		
IF THE 495X PROCESSING UNIT+	AFTER FOWER	FIFTEEN ON INDIC	(15) SEC		
15: LEDS	LED	PE TEP	LED	OFF	
4954 FFFF	ON	OFF	0N	OFF	
49551 FFFF	ON	OFF	ON	OFF	
THE CONSOLE IS SILENT (NO SOUND).					

DID THE SYSTEM 'POWER ON' CORRECT?

086 GO TO PAGE 16, STEP 109, ENTRY POINT SM.

087
THE MODULE REMOVED FROM POSITION THREE
(3) IS BAD.
- VERIFY THE REPAIR.

088 THE MODULE REMOVED FROM POSITION TWO (2) IS BAD. - VERIFY THE REPAIR.

089
THE MODULE REMOVED FROM POSITION ONE (1) IS
BAD.
- VERIFY THE REPAIR.

)90 THE MODULE REMOVED FROM POSITION ZERO (0) IS SAD. - VERIFY THE REPAIR.

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PROCESSING UNIT FAILURE MAP
                   PAPER ONLY MAP
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(ENTRY POINT ML)
  REMOVE THE MODULE FROM POSITION ZERO (0).
MARK THIS MODULE AND SET IT TO ONE SIDE
INSTALL ONE OF THE REMOVED MODULES THAT HAS
NOT BEEN TESTED IN POSITION ZERO (0).
POWER ON THE SYSTEM.
 WHEN YOU POWER THE PROCESSING UNIT ON, THE FOLLOWING DIAGNOSTIC(S) RUN:
ROS TEST - DATA LEDS TEST - STORAGE TEST
 IF THE 495X AFTER FIFTEEN (15) SECONDS, PROCESSING | POWER ON INDICATIONS ARE:
 495X FFFF ON
                                            ON OFF
                                   ON
                   I ON
                                                  ON OFF
  4954 FFFF
                                    OFF
 4955 FFFF | ON | OFF | ON | OFF
    THE CONSOLE IS SILENT (NO SOUND).
```

- SEE MLD VOLUME ONE (1).
- SEE PROCESSING UNIT LOGIC(5) A4XXX.

DID THE SYSTEM 'POWER ON' CORRECT?

THE MODULE IN POSITION ZERO (0) IS BAD.

WHEN A CARD IS SEATED OR UNSEATED, THE POLL
JUMPER MUST BE CHECKED
- SEE THE CORRECT BOARD LOGIC(S), (AXXXX),
FOR THE POLL NETWORK.
- VERIFY THE REPAIR.

- SEE IF ALL MODULES HAVE BEEN TESTED USING POSITION ZERO.

HAVE ALL MODULES HAVE BEEN TESTED USING POSITION ZERO?

094 GO TO STEP 091, ENTRY POINT ML.

095 - POWER OFF THE SYSTEM. - INSTALL ALL REMOVED MODULES. - ENSURE THE STORAGE CARD JUMPER IS CORRECT. - POWER ON THE SYSTEM.

S CORRECT.

THE F	OLLOWIN	IG DIAGN	10STIC(5)	ING UNIT) RUN: - STORAGE	
	E 495X SSING DATA LEDS	AFTER POWER STOP LED		(15) SEC ATIONS A POWER LED	
495X	FFFF	ON	ON	01	OFF
4954	FFFF	ОИ	OFF	ON	OFF
4955	FFFF	0N	OFF	ON	OFF
THE CONSOLE IS SILENT (NO SOUND).					

DID THE SYSTEM 'POWER ON' CORRECT?

 $^{096}_{60}$ to page 16, step 109, entry point Sm.

097 - SEE IF THE SYSTEM IS REPAIRED.

IS THE SYSTEM REPAIRED?

- SEE PROCESSING UNIT LOGIC(S) A4XXX.

```
PROCESSING UNIT FAILURE MAP

PAPER ONLY MAP

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O98
GO TO PAGE 16, STEP 109,
ENTRY POINT SM.

O99
- VERIFY THE REPAIR.

ONE OF THE FOUR (4) MODULES IS SUSPECT.

POWER OFF THE SYSTEM.

RHOVE THE HODULE FROM POSITION ZERO (0).
- MARK THIS MODULE AND SET IT O ONE SIDE.
- NISTALL & KNOWN GOOD MODULE IN POSITION ZERO (0).
- POWER ON THE SYSTEM.
```

- SEE MLD VOLUME ONE (1).
- SEE PROCESSING UNIT LOGIC(S) A4XXX.

WHEN YOU POWER THE PROCESSING UNIT ON, THE FOLLOWING DIAGNOSTIC(S) RUN:
ROS TEST - DATA LEDS TEST - STORAGE TEST

IF THE 495% AFTER FIFTEEN (15) SECONDS, PROCESSING POWER ON INDICATIONS ARE:
UNIT TYPE DATA STOP LEVEL POWER OTHER IS: LEDS LED 0 LED LEDS
495X| FFFF ON ON ON ON OFF
4954| FFFF ON OFF ON OFF
THE CONSOLE IS SILENT (NO SOUND).

DOES THE TEST FAIL WITH THE SAME INDICATIONS? $\stackrel{\bullet}{\mathbf{Y}}$ N

101 THE MODULE IN POSITION ZERO (0) IS BAD. - VERIFY THE REPAIR.

102
- POWER OFF THE SYSTEM.
- REMOVE THE MODULE FROM POSITION ONE (1).
- MARK THIS MODULE AND SET IT TO ONE SIDE.
- INSTALL THE REMOVED MODULE INTO POSITION ONE POWER ON THE SYSTEM.

WHEN YOU PO THE FOLLOWI ROS TEST -	NG DÍAGI	PROCESSI NOSTIC(S OS TEST) RUN:	
IF THE 495X PROCESSING UNIT+ TYPE DATA IS: LEDS	AFTER POWER STOP	FIFTEEN ON INDIC	(15) SEC ATIONS	ONDS, ARE:
495X FFFF	ON	ON	ON	OFF
4954 FFFF	0N	OFF	ON	OFF
4955 FFFF	ON	OFF	0N	OFF
THE CONSOLE IS SILENT (NO SOUND).				

DOES THE TEST FAIL WITH THE SAME INDICATIONS?

103 THE MODULE IN POSITION ONE (1) IS BAD. - VERIFY THE REPAIR.

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PROCESSING UNIT FAILURE MAP
PAPER ONLY MAP
PAGE 16 OF 29
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104
- POWER OFF THE SYSTEM.
- REMOVE THE MODULE FROM POSITION TWO (2).
- MARK THIS MODULE AND SET IT TO ONE SIDE.
- INSTALL THE REMOVED MODULE INTO POSITION TWO (2).
- POWER ON THE SYSTEM.

WHEN YOU POI THE FOLLOWI ROS TEST -	NG DIAGN	10STIC(5	ING UNIT) RUN: - STORAGI	
IF THE 495X PROCESSING UNITH	POWER	I LEVEL		OTHER
IS: LEDS 495X FFFF 4954 FFFF	LED ON	Ö LEÖ ON OFF	LED ON	OFF OFF
4955 FFFF THE CON	ON SOLE IS	OFF SILENT	ON NO SOUNI	OFF

DOES THE TEST FAIL WITH THE SAME UNDICATIONS?

105 THE MODULE IN POSITION TWO (2) IS BAD. - VERIFY THE REPAIR.

106
- POWER OFF THE SYSTEM.
- REMOVE THE MODULE FROM POSITION THREE (3).
- REMOVE THE MODULE AND SET IT TO ONE SIDE OF THE STORY OF THE STORY OF THE STORY OF THE STORY OF THE SYSTEM.

WHEN YOU POWER THE PROCESSING UNIT ON,
THE FOLLOWING DIAGNOSTIC(S) RUN:
ROS TEST - DATA LEDS TEST - STORAGE TEST

IF THE 495X AFTER FIFIEEN (15) SECONDS,
PROCESSING POWER ON INDICATIONS ARE:
UNIT TYPE DATA STOP LEVEL POWER OTHER
IS: LEDS LED ON LED LEDS
495X FFFF ON ON ON ON OFF
4954 FFFF ON OFF ON OFF
THE CONSOLE IS SILENT (NO SOUND).

DOES THE TEST FAIL WITH THE SAME UNDICATIONS?

107 THE MODULE IN POSITION THREE (3) IS BAD.

108 GO TO STEP 109, ENTRY POINT SM.

(ENTRY POINT SM)

- SEE IF YOU HAVE REPLACED THE STORAGE CARD

HAVE YOU REPLACED THE STORAGE CARD PREVIOUSLY?

- SEE MLD VOLUME ONE (1).
- SEE PROCESSING UNIT LOGIC(S) A4XXX.

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PROCESSING UNIT FAILURE MAP
                                                 PAPER ONLY MAP
                                                 PAGE 17 OF 29
           110
- POWER OFF THE SYSTEM.
- REMOVE ALL STORAGE HODULES.
- INSTALL ALL REMOVED MODULES ON A KNOWN GOOD STORAGE CARD.
- ENSURE JUMPERS ARE CORRECT.
- FOWER ON THE SYSTEM.
- FATE WITH THE SAME
               DOES THE TEST FAIL WITH THE SAME UNDICATIONS?
                       THE STORAGE CARD IS BAD. - VERIFY THE REPAIR.
               GO TO PAGE 22, STEP 173, ENTRY POINT FP.
       60 TO PAGE 22, STEP 173, ENTRY POINT FP.
Å 4955 PROCESSING UNIT IS INSTALLED.
       SEE IF THE PROCESSING UNIT MODEL INSTALLED
IS THE PROCESSING UNIT MODEL INSTALLED ONE OF THE ABOVE?
       115 PROCESSING UNIT MODEL INSTALLED IS: 4955 MODEL F.
        - SEE IF ONLY ONE (1) STORAGE CARD IS INSTALLED.
       IS ONLY ONE (1) STORAGE CARD INSTALLED?
              116
- SEE THE NOTE TO THE RIGHT;
- UNSEAT ALL STORAGE CARD(S) BUT ONE (1)
- LEAVE THE STORAGE CARD SEATED NEXT TO THE PROCESSING UNIT OF 
               DOES THE TEST FAIL WITH THE SAME
                        (ENTRY POINT LA)
                       A REMOVED STORAGE CARD IS SUSPECT.
                               POWER OFF THE SYSTEM.
REMOVE THE INSTALLED STORAGE CARD.
MARK IT AND SET IT TO ONE SIDE.
HARK IT AND SET IT TO ONE SIDE.
HARK IT AND SET IT TO ONE SIDE.
HART IT AND SET IT TO ONE SIDE.
HOT TESTED THAT IS
POWER ON THE SYSTEM.
POWER ON THE SYSTEM.
TO SEE THE FAILURE.
                        DOES THE TEST FAIL WITH THE INDICATIONS?
                                - SEE IF ALL REMOVED STORAGE CARDS ARE INSTALLED.
                                ARE ALL STORAGE CARDS INSTALLED?
```

THE STORAGE CARD POSITION NEXT TO THE PROCESSING UNIT CARDS IS THE POSITION USED TO TEST ALL REMOVED STORAGE CARD(S).

THE STORAGE SIZE IS CHANGED.

THE STORAGE SIZE WITH THE TERROR OF A STORAGE SIZE WITH THE TERROR OF THE STORAGE SIZE WITH THE TERROR OF THE STORAGE SIZE STORAGE SIZE STORAGE STORAGE SIZE STORAGE STORAGE SIZE STORAGE STORAGE

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PROCESSING UNIT FAILURE MAP
                    PAPER ONLY MAP
                    PAGE 18 OF 29
             GO TO PAGE 17, STEP 117, ENTRY POINT LA.
          120
- SEE IF THE SYSTEM IS REPAIRED.
          IS THE SYSTEM REPAIRED?
             121
60 TO STEP 129,
ENTRY POINT AE.
          122 - VERIFY THE REPAIR.
      123
- EXCHANGE THE
- INSTALLED
- VERIFY THE REPAIR.
                           THE STORAGE CARD
                                                                       JUST
   124
THE SEATED STORAGE CARD IS SUSPECT.
     POWER OFF THE SYSTEM.
REMOVE THE SUSPECT STORAGE CARD.
MARK IT AND SET IT TO ONE SIDE.
INSTALL A STORAGE CARD THAT IS NOT
SUSPECT.
RUN THE FAILING DIAGNOSTIC, IF NEEDED TO
SEE THE FAILURE.
   DOES THE TEST FAIL WITH INDICATIONS?
      125
- EXCHANGE THE STORAGE CARD JUST REMOVED.
- VERIFY THE REPAIR.
   126
GO TO STEP 129, ENTRY POINT AE.
THE STORAGE CARD MAY IS SUSPECT.
  EXCHANGE THE STORAGE CARD WITH A KNOWN GOOD CARD.
- EARD.

- ENSURE THE STORAGE JUMPERS ARE CORRECT.

- SEE HLD VOLUME ONE (1), LOGIC AXXXX.

- POWER ON THE SYSTEM.

- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE

THE FAILURE ONE (1).
DOES THE TEST FAIL WITH THE SAME INDICATIONS?
   128
THE STORAGE CARD IS BAD.
- VERIFY THE REPAIR.
(ENTRY POINT AE)
THE ADDRESS EXPANSION CARD IS SUSPECT.
HAS THE ADDRESS EXPANSION CARD BEEN EXCHANGED BEFORE?
   130
- POWER OFF THE SYSTEM.
- EXCHANGE THE ADDRESS EXPANSION CARD.
- ENSURE THE STORAGE JUMPERS ARE CORRECT.
- SEE MID VOLUME ONE (1), LOGIC AXXXX.
- POWER ON THE SYSTEM.
- RUN THE FAILURE.
- SEE THE FAILURE.
   DOES THE TEST FAIL WITH THE UNDICATIONS?
      131
THE ADDRESS EXPANSION CARD IS BAD.
- VERIFY THE REPAIR.
   132
GO TO PAGE 22, STEP 173, ENTRY POINT FP.
GO TO PAGE 22, STEP 173, ENTRY POINT FP.
```

PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 19 OF 29

PROCESSING UNIT MODEL INSTALLED IS:

SEE IF ONLY ONE (1) STORAGE CARD IS INSTALLED ON THE SYSTEM. IS ONLY ONE STORAGE CARD INSTALLED?

135
- POWER OFF THE SYSTEM.
- UNSEAT ALL STORAGE CARD(S) BUT FIRST STORAGE CARD.
- LEAVE THE STORAGE CARD SEATED NEXT TO THE PROCESSING UNIT OF THE REST OF THE RE

DOES THE TEST FAIL WITH THE INDICATIONS? SAME

(ENTRY POINT LD)

- POWER OFF THE SYSTEM.
 POWER OFF THE SYSTEM.
 INSTALL A STORAGE CARD TO THE RIGHT OF THE LAST INSTALLED STORAGE CARD, IN THE NEXT OPEN CAPD FOSITION.
 SEE THE NOTE TO THE RIGHT.
 POWER ON THE SYSTEM.
 RUN THE FAILURE DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE ONE (I).

DOES THE TEST INDICATIONS? WITH THE SAME FAIL

 $^{137}_{-3}$ SEE IF 64K STORAGE IS INSTALLED NOW. IS 64K STORAGE INSTALLED NOW?

138 - SEE IF ALL REMOVED STORAGE CARDS ARE INSTALLED. ARE ALL STORAGE CARDS INSTALLED?

THE STORAGE SIZE IS CHANGED. THERE MAY BE A CONFIGURATION ERROR OR A DIAGNOSTIC FAILURE. NOTE THIS WHEN USING THE 'FAILURE INDICATION':
DO NOT CONFUSE THE 'CONFIGURATION ERROR':
CAUSED BY STORAGE SIZE WITH THE TERROR
INDICATION' USED BY YOU. THE STORAGE JUMPERS, IF INSTALLED, AND THE CONFIGURATION TABLE MAY HAVE TO BE CHANGED.

THE STORAGE SIZE IS CHANGED.
THERE MAY BE A CONFIGURATION ERROR OR A
DIAGNOSTIC FAILURE. NOTE THIS WHEN USING THE 'FAILURE INDICATION', DO NOT CONFUSE THE 'CONFIGURATION ERROR', CAUSED BY STORAGE SIZE WITH THE 'ERROR INDICATION' USED BY YOU. THE STORAGE JUMPERS, IF INSTALLED, AND THE CONFIGURATION TABLE MAY HAVE TO BE CHANGED.

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PROCESSING UNIT FAILURE MAP
                     PAPER ONLY MAP
                     PAGE 20 OF 29
       GO TO PAGE 19, STEP 136, ENTRY POINT LD.
   140
GO TO STEP 141, ENTRY POINT TR.
141
(ENTRY POINT TR)
IF A TRANSLATOR CARD IS UNSEATED: - ANSWER THE QUESTION 'YES'.
IF A TRANSLATOR CARD IS NOT INSTALLED: - ANSWER THE QUESTION 'NO'.
IS_N^A TRANSLATOR CARD UNSEATED?
   142
- SEE IF THE SYSTEM IS REPAIRED.
   IS THE SYSTEM REPAIRED?
      60 TO PAGE 22, STEP 173, ENTRY POINT FP.
   144
- VERIFY THE REPAIR.
145
- SEE IF THE STORAGE TRANSLATOR CARD WAS
EXCHANGED BEFORE.
WAS THE TRANSLATOR CARD EXCHANGED BEFORE?
  146
- POWER OFF THE SYSTEM.
- ENSURE THE JUMPERS ON THE TRANSLATOR CARD ARE CORRECT, IF USED.
- RESEAT THE TRANSLATOR CARD.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE ONE (1).
   DOES THE TEST FAIL WITH INDICATIONS?
       147
- SEE IF ALL REMOVED STORAGE CARDS ARE
INSTALLED.
       ARE ALL STORAGE CARDS INSTALLED?
          148
(ENTRY POINT LO)
          - POWER OFF THE SYSTEM.
- INSTALL A STORAGE CARD TO THE RIGHT OF THE LAST INSTALLED STORAGE CARD, IN THE LAST INSTALLED STORAGE CARD, IN SEE THE NOTE TO THE RIGHT.
- SEE THE NOTE TO THE RIGHT.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
- SEE TABLE ONE (1).
          DOES THE TEST FAIL WITH INDICATIONS?
              149
- SEE IF ALL REMOVED STORAGE CARDS ARE
INSTALLED.
              ARE ALL STORAGE CARDS INSTALLED?
```

THE STORAGE SIZE IS CHANGED.
THERE MAY BE A CONFIGURATION ERROR OR A DIAGNOSTIC FAILURE.

NOTE THIS WHEN USING THE 'FAILURE INDICATION'.
TON HOT CONFUSE THE 'CONFIGURATION ERROR'.
CAUSED BY STORAGE SIZE WITH THE 'ERROR INDICATION' USED BY YOU.

THE STORAGE JUMPERS, IF INSTALLED, AND THE CONFIGURATION TABLE MAY HAVE TO BE CHANGED.

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A A A B PROCESSING UNIT FAILURE MAP
W X Y Z A PAPER ONLY MAP
0 0 0 0 0 0 0
                    PAGE 21 OF 29
                60 TO PAGE 20, STEP 148, ENTRY POINT LO.
              151
- SEE IF THE SYSTEM IS REPAIRED.
             IS THE SYSTEM REPAIRED?
                GO TO PAGE 22, STEP 173, ENTRY POINT FP.
             153
VERIFY THE REPAIR.
         POWER OFF THE SYSTEM.
- REMOVE THE STORAGE CARD JUST INSTALLED.
- MARK IT AND SET IT TO ONE SIDE.
- INSTALL A KNOWN GOOD STORAGE CARD.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
          DOES THE TEST FAIL WITH THE UNDICATIONS?
             155
THE REMOVED STORAGE CARD IS BAD.
- VERIFY THE REPAIR.
          156
GO TO PAGE 22, STEP 173,
ENTRY POINT FP.
      157
GO TO PAGE 22, STEP 173,
ENTRY POINT FP.
   THE STORAGE TRANSLATOR CARD IS SUSPECT.
   - POWER OFF THE SYSTEM.
- EXCHANGE THE TRANSLATOR CARD.
- ENSURE THE STORAGE JUMPERS ARE CORRECT.
- SEE HLD VOLUME ONE (1), LOGIC AXXXX.
- POWER ON THE SYSTEM.
- RUN THE FAILURE.
- RUN THE FAILURE.
   DOES THE TEST FAIL WITH THE SAME UNDICATIONS?
      THE TRANSLATOR CARD IS BAD. - VERIFY THE REPAIR.
   160
GO TO PAGE 22, STEP 173, ENTRY POINT FP.
   SEE IF ALL REMOVED STORAGE CARDS ARE
IS ALL STORAGE INSTALLED?
   162
GO TO PAGE 20, STEP 148, ENTRY POINT LO.
60 TO PAGE 22, STEP 173, ENTRY POINT FP.
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PROCESSING UNIT FAILURE MAP
                      PAPER ONLY MAP
                      PAGE 22 OF 29
      164
- POWER OFF THE SYSTEM.
- REMOVE THE LAST STORAGE CARD INSTALLED.
- MARK IT AND SET IT TO ONE SIDE
- INSTALL A KNOWN GOOD STORAGE CARD.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE
- SEE TABLE ONE (1).
       DOES THE TEST FAIL WITH THE SAME INDICATIONS?
           165
THE MARKED STORAGE CARD IS BAD.
- VERIFY THE REPAIR.
       GO TO STEP 173,
ENTRY POINT FP.
  167
- POWER OFF THE SYSTEM.
- REMOVE THE STORAGE CARD INSTALLED.
- MARK IT AND SET IT TO ONE SIDE.
- INSTALL A KNOWN GOOD STORAGE CARD.
- POWER ON THE SYSTEM.
- PURE THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE ONE (1).
   DOES THE TEST FAIL WITH THE INDICATIONS?
   GO TO STEP 173, ENTRY POINT FP.
THERE IS ONLY ONE STORAGE CARD INSTALLED.
- POWER OFF THE SYSTEM.
- REMOVE THE STORAGE CARD.
- HARK IT AND SET IT TO ONE SIDE.
- INSTALL A KNOWN GOOD STORAGE CARD.
- POWER ON THE SYSTEM.
- RUN THE FAILURE DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
- SEE TABLE ONE (1).
DOES THE TEST FAIL WITH THE SAME INDICATIONS?
   171
THE MARKED STORAGE CARD IS BAD.
- VERIFY THE REPAIR.
   SEE IF A RELOCATION TRANSLATOR CARD IS
IS A RELOCATION TRANSLATOR CARD INSTALLED?
    173
(ENTRY POINT FP)
    - SEE THE NOTE TO THE RIGHT - SEE IF FLOATING POINT IS INSTALLED ON THE SYSTEM.
    IS FLOATING POINT INSTALLED?
       GO TO PAGE 23, STEP 185, ENTRY POINT RP.
    75 FE IF FLOATING POINT WAS EXCHANGED PREVIOUSLY.
   WAS FLOATING POINT EXCHANGED PREVIOUSLY?
```

FLOATING POINT MAY BE A CARD. INSTALLED ON THE PROCESSING UNIT CARD.

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BCS
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PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 23 OF 29

176
- POWER OFF THE SYSTEM.
- SEE IF THE PROCESSING UNIT IS A 4955.
IS THE PROCESSING UNIT A 4955?

177 - REMOVE THE FLOATING POINT MODULES. IS THE ACTION COMPLETE?

178 COMPLETE THE ACTION AND: GO TO STEP 179, ENTRY POINT FT.

179 (ENTRY POINT FT)

- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.

- SEE THE NOTE TO THE RIGHT.

DOES THE TEST FAIL WITH THE SAME INDICATIONS?

THE FLOATING POINT IS SUSPECT.

- POWER OFF THE SYSTEM.
- EXCHANGE THE FLOATING POINT.
- ENSURE THE JUMPER'S ARE CORRECT, IF INSTALLED.
- POWER ON THE SYSTEM.
- POWER THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.

DOES THE TEST FAIL WITH THE SAME JUDICATIONS?

181 THE FLOATING POINT IS BAD. - VERIFY THE REPAIR.

GO TO STEP 185, ENTRY POINT RP.

60 TO STEP 185, ENTRY POINT RP.

- UNSEAT THE FLOATING POINT CARD.
- REMOVE THE POLL JUMPER FROM PIN MIL TO PIN MIZ IN THE CARD POSITION WHERE THE CARD WAS JUST SEATED.
- SEE THE CORRECT BOARD LOGIC(S) FOR THE POLL NETWORK.
GO TO STEP 179, ENTRY POINT FT.

185 (ENTRY POINT RP)

- SEE IF PROCESSING UNIT CARD(S) WAS EXCHANGED PREVIOUSLY.

WAS THE PROCESSING UNIT CARD(S) EXCHANGED PREVIOUSLY?

186 - SEE IF A 4955 PROCESSING UNIT IS INSTALLED ON THE SYSTEM. DO YOU HAVE A 4955 PROCESSING UNIT INSTALLED? THE FLOATING POINT IS CHANGED THERE MAY BE A CONFIGURATION EPPOR OR A DIAGNOSTIC FAILURE.

NOTE THIS WHEN USING THE 'FAILURE INDICATION' ERROR: CAUSED BY FLOATING POINT WITH THE 'ERROR INDICATION' USED BY YOU.

THE CONFIGURATION TABLE MAY HAVE TO BE CHANGED.

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PROCESSING UNIT FAILURE MAP
                    PAPER ONLY MAP
                    PAGE 24 OF 29
  187
- SEE LOGICS A2XXX, A3XXX, A5XXX OR A9100.
- POWER OFF THE SYSTEM.
- EXCHANGE THE PROCESSING UNIT CARD AS FOLLOWS:
   IF STORAGE MODULES ARE INSTALLED.
IF FLOATING POINT MODULES ARE INSTALLED.
  - REMOVE THE MODULES FROM THE OLD CARD AND INSTALL THEM ON THE NEW CARD.
- ENSURE JUMPERS ARE CORRECT, IF INSTALLED.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.
- SEE TABLE ONE (1).
   DOES THE TEST FAIL WITH THE SAME UNDICATIONS?
      188
THE PROCESSING UNIT CARD IS BAD.
- VERIFY THE REPAIR.
   60 TO PAGE 25, STEP 203, ENTRY POINT CB.
   SEE IF THE ROS CARD WAS EXCHANGED PREVIOUSLY.
WAS THE ROS CARD EXCHANGED PREVIOUSLY?
  191
- POWER OFF THE SYSTEM.
- EXCHANGE THE SYSTEM.
- EXCHANGE THE SYSTEM.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE
- SEE TABLE ONE (1).
   DOES THE TEST FAIL WITH THE
      THE ROS CARD IS BAD. - VERIFY THE REPAIR.
   GO TO STEP 194, ENTRY POINT AC.
(ENTRY POINT AC)
  SEE IF THE ADDRESS CARD WAS EXCHANGED FREVIOUSLY.
WAS THE ADDRESS CARD EXCHANGED PREVIOUSLY?
  195
- POWER OFF THE SYSTEM.
- EXCHANGE THE ADDRESS CARD.
- POWER ON THE SYSTEM.
- RUN THE FAILURG DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE
- SEE TABLE ONE (1).
   DOES THE TEST FAIL WITH THE UNDICATIONS?
   197
GO TO STEP 198, ENTRY POINT DC.
(ENTRY POINT DC)
  SEE IF THE DATA CARD WAS EXCHANGED PREVIOUSLY.
WAS THE DATA CARD EXCHANGED PREVIOUSLY?
```

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PROCESSING UNIT FAILURE MAP
                    PAPER ONLY MAP
                     PAGE 25 OF 29
     POWER OFF THE SYSTEM.

- POWER OFF THE SYSTEM.

- EXCHANGE THE DATA CARD.

- POWER ON THE SYSTEM.

- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.

- SEE TABLE ONE (1).
      DOES THE TEST FAIL WITH THE SAME INDICATIONS?
          200
THE DATA CARD IS BAD.
- VERIFY THE REPAIR.
      60 TO STEP 203,
ENTRY FOINT CB.
   $02
GO TO STEP 203, ENTRY POINT CB.
(ENTRY POINT CB)
THE CABLE(S) OR THE BOARD ARE SUSPECT.
  POWER OFF THE SYSTEM.
INSPECT THE BOARD FOR MECHANICAL PROBLEMS.
SEE THE PROCESSING UNIT CABLE(S) FOR AN OPEN, A SHORT OR A GROUND.
SEE PAXXX FOR PROCESSING UNIT CABLE(S).
POWER ON THE SYSTEM ON THE SYSTEM OF THE FAILURE.
DOES THE TEST FAIL WITH THE SAME INDICATIONS?
   204
THE PROBLEM MAY BE INTERMITTENT OR A LOOSE
CABLE OR CARD
GO TO FREELANCE MODE.
   SEE IF A VOLTAGE CHECK WAS DONE ON THE
HAS A VOLTAGE CHECK DONE?
  206
- SEE LOGICS A2XXX, A3XXX, A5XXX OR A9100; s)
- SEE IF ALL THE VOLTAGES ON THE BOARD(s)
AND PINS ARE CORRECT.
   ARE ALL THE VOLTAGES CORRECT?
      GO TO MAP 1470, ENTRY POINT A.
   $08
GO TO STEP 209, ENTRY POINT PW.
209
(ENTRY POINT PW)
   SEE IF THE 'POWER ON RESET' LINE WAS CHECKED
WAS THE 'POWER ON RESET' LINE CHECKED PREVIOUSLY?
  210
- REMOVE THE FRONT COVER
- SEE THE POWER SUPPLY ON THE SUSPECT 49XX
- SEE THE PROCESSING UNIT MIM, POWER SUPPLY LOCATION(S)
- SEE THE POWER SUPPLY LOGIC(S) YA32X OR SEE THE POWER ON RESET LINE.
   ARE THERE THREE LEDS INSTALLED ON THE POWER SUPPLY?
```

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PROCESSING UNIT FAILURE MAP
                   PAPER ONLY MAP
                   PAGE 26 OF 29
211
- PROBE THE POR PIN ON THE POSITION WHERE IT ENTERS ON THE BOARD.
- SEE LOGICS A2XXX, A3XXX, A5XXX OR A9100.
- POWER OFF THE SYSTEM.
WHEN PROBING THE POR PULSE, THE PROBE WILL SHOW THE FOLLOWING SEQUENCE WHEN THE SYSTEM IS POWERED ON.
PROBE
                THIS IS:
UP.....+5V AT THE PROBE.
DOWN.....POR PULSE ACTIVE.
UP.....POR PULSE NOT ACTIVE.
- POWER ON THE SYSTEM.
- SEE THE LED(S) ON THE PROBE.
IS THE POR PULSE CORRECT ON THIS POSITION?
    212
THE PROBLEM IS IN THE CABLE FROM THE POWER
SUPPLY TO THE BOARD, THE BOARD ITSELF, OR
SOME CARD INSTALLED ON THE BOARD. SUSPECT
A GROUND IN THIS AREA
USE MAP 1470 TO ISOLATE THE POR LINE TO
THE POWER SUPPLY.
   - ISOLATE AND REPAIR THE PROBLEM. - VERIFY THE REPAIR.
213 - PROBE POR PIN SOS ON ALL THE I/O CARD POSITION(S) ON THE BOARD.
NOTE POR PIN ON THE 'A' CARD POSITION.
- SEE LOGICS A2XXX, A3XXX, A5XXX OR A9100. - POWER OFF THE SYSTEM.
WHEN PROBING THE POR PULSE, THE PROBE WILL SHOW THE FOLLOWING SEQUENCE WHEN THE SYSTEM IS POWERED ON.
              THIS IS:
UP.....+5V AT THE PROBE.
DOWN.....POR PULSE ACTIVE.
UP.....POR PULSE NOT ACTIVE.
- POWER ON THE SYSTEM. - SEE THE LED(S) ON THE PROBE.
IS THE POR PULSE CORRECT ON ALL SO5 I/O PINS?
    214
THE POWER ON RESET LINE IS NOT CORRECT ON THE BOARD. SUSPECT THE POR WIRE NETWORK IS OPEN OR SHORTED. SUSPECT A CARD INSTALLED ON THE BOARD IS OPEN OR SHORTED.
    SEE THE CORRECT LOGICS FOR THE POWER SUPPLY AND THE BOARD WITH THE PROBLEM. USE MAP 1470 TO ISOLATE THE POR LINE TO THE POWER SUPPLY.
    - ISOLATE AND REPAIR THE PROBLEM. - VERIFY THE REPAIR.
215
THE PROBLEM MAY BE THE BOARD.
GO TO PAGE 27, STEP 223, ENTRY POINT DV.
   LOWEST LED IS THE 'POR' LED.
POR LED SHOULD GO ON, THEN OFF WHEN THE
K IS FOWERED ON.
POWER OFF THE SYSTEM. WAIT 15 SECONDS. POWER ON THE SYSTEM.
```

DID THE POR LED GO ON, THEN OFF AS INDICATED ABOVE?

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PROCESSING UNIT FAILURE MAP
PAPER ONLY MAP
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217
- POWER OFF THE SYSTEM.
- SEE LOGIC YA34X:
- REMOVE THE POWER CABLE(S) ON THE REAR OF THE BOARD
- POWER ON THE SYSTEM.
- POWER ON THE SYSTEM.

DID THE POR LED GO ON, THEN OFF?

GO TO MAP 1470, ENTRY POINT A.

THE PROBLEM IS IN THE CABLE FROM THE POWER SUPPLY TO THE BOARD, THE BOARD ITSELF OR SOME CARD INSTALLED ON THE BOARD. SUSPECT A GROUND IN THIS AREA.

- ISOLATE AND REPAIR THE PROBLEM. - VERIFY THE REPAIR.

220 THE POR PULSE IS CORRECT FROM THE POWER SUPPLY.

- PROBE FOR PIN SO5 ON ALL I/O CARD POSITION(S) ON THE BOARD. NOTE FOR PIN ON 'A' CARD POSITION.

- SEE LOGICS AZXXX, A3XXX, A5XXX OR A9100. - PONER OFF THE SYSTEM.

WHEN PROBING THE POR PULSE, THE PROBE WILL SHOW THE FOLLOWING SEQUENCE WHEN THE SYSTEM IS POWERED ON.

PROBE THIS IS:

UP.....+5V IS AT THE PROBE.

DOWN.....POR PULSE ACTIVE.

UP.....POR PULSE NOT ACTIVE.

- POWER ON THE SYSTEM. - SEE THE LED(S) ON THE PROBE.

IS THE POR PULSE CORRECT ON ALL SO5 I/O

THE POWER ON RESET IS CORRECT IN THE POWER SUPPLY, BUT NOT CORRECT ON THE BOARD. THE POWER SUPPLY TO THE BOARD, OR THE BOARD NETWORK IS OFEN.

SEE THE CORRECT LOGIC(S) FOR THE POWER SUPPLY AND THE BOARD WITH THE PROBLEM. CORRECT THE PROBLEM. VERIFY THE REPAIR.

THE PROBLEM MAY BE THE BOARD, GO TO STEP 223, ENTRY POINT DV.

(ENTRY POINT DV)

SEE IF THE SYMPTOMS CHANGED AS YOU USED THIS

DID THE SYMPTOMS CHANGE AS YOU USED THIS MAP?

ZZG MAY HAVE A PROBLEM ON A DEVICE THAT IS CAUSING THE CHANNE TO FAIL. THIS MAP CAUNOT ISOLATE THIS FOR TOUL. SYSTEM TEST, THE FROM THE CUSTOMER PROGRAM MAY BE AN AID IN FINDING THE PROBLEM.

- RECONNECT ALL THE CABLE(S) AND THE CARD(S) REMOVED IN THIS MAP.
GO TO MAP 0072, ENTRY POINT A.

PROCESSING UNIT FAILURE MAP PAPER ONLY MAP PAGE 28 OF 29

225
IF THE SYMPTOMS HAVE CHANGED AS YOU USED THIS MAP, IT MAY BE THAT YOUR POLL JUMPERING IS NOT CORRECT.

ARE YOU USING A 4955 PROCESSING UNIT TO

226 - SEE THE DATA LAMPS AFTER POWER ON: 002X CK LED ON.

DO THE DATA LAMPS EQUAL '002X', CK LAMP ON, WHEN POWERED ON?

GO TO MAP 0072, ENTRY POINT A.

\$28 \$05PECT A POLL JUMPER IS NOT CORRECT. WHEN A CARD IS SEATED OR UNSEATED, THE POLL JUMPER MUST BE CHECKED - SEE THE CORRECT BOARD LOGIC(S), (AXXXX), FOR THE POLL NETWORK.

- SEE THE CORRECT LOGIC FOR YOUR BOARD AND THE THEORY DIAGRAMS MANUAL, FOLL' FOR ADDITIONAL INFORMATION OF THE POLLING CIRCUIT.

229 - PRESS THE LOAD PUSHBUTTON. - WAIT 15 SECONDS.

DO THE DATA LAMPS EQUAL '00E5'?

GO TO MAP 0072, ENTRY POINT A.

\$31 \$USPECT A POLL JUMPER IS NOT CORRECT, WHEN A CARD IS SEATED OR UNSEATED, THE POLL JUMPER MUST BE CHECKED - SEE THE CORRECT BOARD LOGIC(S), (AXXXX), FOR THE FOLL NETWORK.

SEE THE CORRECT LOGIC FOR YOUR BOARD AND THE THEORY DIAGRAMS MANUAL, POLL' FOR ADDITIONAL INFORMATION OF THE POLLING CIRCUIT.

60 TO PAGE 20, STEP 141, ENTRY POINT TR.

235 IF THE TWO CHANNEL SWITCH CARD WAS EXCHANGED PREVIOUSLY.
WAS THE TWO CHANNEL SWITCH CARD EXCHANGED?

234
- POWER OFF THE SYSTEM.
- EXCHANGE THE TWO CHANNEL SWITCH CARD WITH A KNOWN GOOD CARD.
- ENSURE THE CARDE(S) TO THIS CARD ARE RECONNECTED BY YOU.
- POWER ON THE SYSTEM.
- RUN THE FAILING DIAGNOSTIC, IF NEEDED TO SEE THE FAILURE.

DOES THE TEST FAIL WITH THE SAME INDICATIONS?

235
THE TWO CHANNEL SWITCH CARD JUST EXCHANGED
IS FAILING.
A KNOWN GOOD TWO CHANNEL SWITCH CARD IS
INSTALLED IN THE SYSTEM.
VERIFY THE REPAIR.

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PROCESSING UNIT FAILURE MAP

PAPER ONLY MAP

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236
- POWER OFF THE SYSTEM.
- CHECK THE EIGHT (8) CABLES FROM THE TWO
CHANNEL SHITCH CARD TO THE BOARDS FOR AN
OPEN, A SHORT OR A GROUND THE TWO CHANNEL
SHITCH CARD TO THE TWO CHANNEL SWITCH
CONSOLE.

ARE THE CABLES CORRECT?

237
- REPAIR OR EXCHANGE THE FAILING CABLE.
- VERIFY THE REPAIR.
238
GO TO PAGE 6, STEP 042, ENTRY POINT ST.
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