

001
 (ENTRY POINT A)

SEE IF YOU HAVE TESTED THE VOLTAGES TO THE PROCESSING UNIT CARD AND BOARD. IF YOU HAVE TESTED FOR CORRECT VOLTAGES, ANSWER THE FOLLOWING QUESTION 'YES'.

HAVE YOU TESTED FOR CORRECT VOLTAGES?

N

002
 (ENTRY POINT PS)

- SEE THE NOTE --->
- USE THE C E METER OR EQUIVALENT.
- SET THE METER TO THE CORRECT VOLTAGE SCALE.
- MEASURE THE VOLTAGE(S) AS NOTED.
- PROBE THE PROCESSING UNIT CARD LOCATION FOR THE CORRECT VOLTAGE.
- TEST FOR THE CORRECT VOLTAGES AT THESE PINS.

PROCESSING UNIT CARD	
TO TEST VOLTAGE	TEST PIN(S)
+5V	D03 J03 P03 U03
-5V	G06
+8.5V	G11

IS A VOLTAGE PRESENT ON EACH PIN?

N

003

- SEE THE VOLTAGE THAT IS NOT CORRECT.
- SEE THE NOTE --->
- POWER OFF THE PROCESSING UNIT.
- SEE THE POWER DISTRIBUTION CABLES WHICH SHOULD BE SUPPLYING THE MISSING VOLTAGE(S).
- REMOVE THE POWER CABLES FROM THE PROCESSING UNIT BOARD.
- POWER ON THE PROCESSING UNIT.
- TEST FOR THE VOLTAGES AT THE END OF THE POWER CABLES REMOVED.

BOARD VOLTAGES	
TO TEST VOLTAGE	TEST CABLE PIN:
+5V	S2D03
-5V	S3B11
+8.5V	S3B06

ARE THE VOLTAGES PRESENT AT THE CABLE END?

N

004

- POWER OFF THE PROCESSING UNIT.
 - PLUG THE CABLES ON THE PROCESSING UNIT BOARD.
 - SEE THE POWER SUPPLY VOLTAGES THAT ARE NOT CORRECT.
- GO TO MAP 1470, ENTRY POINT A.

005

- POWER OFF THE PROCESSING UNIT.
- IF THE PINS AND CONNECTORS ARE CORRECT:
- REPLACE/REPAIR THE BOARD.
 - VERIFY THE REPAIR.

006

ARE THE VOLTAGES CORRECT ON THE PINS?

N

007

- SEE THE POWER SUPPLY VOLTAGES THAT ARE NOT CORRECT.
- GO TO MAP 1470, ENTRY POINT A.

008

GO TO STEP 009, ENTRY POINT PT.

009
 (ENTRY POINT PT)

SEE IF YOU HAVE TESTED 'POWER ON RESET'. IF YOU HAVE TESTED 'POWER ON RESET', ANSWER THE FOLLOWING QUESTION 'YES'.

IF YOU HAVE NOT TESTED 'POWER ON RESET', ANSWER THE FOLLOWING QUESTION 'NO'.

IF YOU SUSPECT THE 'POWER ON RESET' IS NOT CORRECT, ANSWER THE FOLLOWING QUESTION 'NO'.

HAVE YOU TESTED 'POWER ON RESET'?

N

B
2

010
THE 'POWER ON RESET' LINE IS SUSPECT.

- SEE THE NOTE --->
- POWER ON THE PROCESSING UNIT.
- PROBE THE 'POWER ON RESET' PIN - S05 - AT THE PROCESSING UNIT CARD POSITION(S).
- SEE THE CORRECT LOGIC(S), AXXXX.

LINE NAME	PIN
POWER ON RESET	S05

- USE LOGIC PROBE 2 OR SIMILAR.
- SET THE TECHNOLOGY SWITCH TO 'MULTI'.
- SET LATCH SWITCH TO 'NONE'.
- SET GATE REF SWITCH TO 'GND'.
- PLUG RED (+) WIRE OF POWER CABLE ON +5 V.
- PLUG BLACK WIRE OF CABLE ON GROUND PIN.

GROUND AND +5 VOLTS IS ON ANY I/O POSITION OF THE 495X BOARD.

PROBE INDICATOR			LOGIC PROBED	GROUND		+5V	
UP	DOWN	MEANING		D08	J08	P08	U08
0	0	* UP		D03	J03	P03	U03
0	1	DOWN PULSING					

* SIGNAL VOLTAGE IS NOT CORRECT OR NO VOLTAGE.
THE LOGIC PROBE 2 AND ITS USE IS IN MANUAL 'SY27-0127-X' OR MAP 0010, SECTION 11.00.00.

IS THE LINE UP?

Y
N

011
GO TO MAP 1470, ENTRY POINT A.

012

- POWER OFF THE PROCESSING UNIT.

OBSERVE THE LOGIC PROBE WHEN THE PROCESSING UNIT POWER IS TURNED ON. THE LEVEL SHOULD BE DOWN FOR ABOUT A SECOND, THEN GO UP AND STAY UP.

- POWER ON THE PROCESSING UNIT.

DID THE PROBE INDICATOR GO DOWN?

Y
N

013
GO TO MAP 1470, ENTRY POINT A.

014

- SEE THE LOGIC PROBE INDICATOR.
- SEE IF THE LOGIC PROBE IS UP AFTER ONE (1) SECOND.

AFTER THE PROBE INDICATOR WENT DOWN, DID IT GO UP?

Y
N

015
GO TO MAP 1470, ENTRY POINT A.

016

POWER ON RESET IS CORRECT ON THE BOARD. POWER ON RESET MAY NOT BE CORRECT ON THE PROCESSING UNIT CARD.

- SEE IF THE ORIGINAL PROBLEM WAS WHEN THE PROCESSING UNIT WAS POWERED ON, AS NOTED:

SEE THE PROCESSING UNIT INSTALLED. AFTER FIFTEEN (15) SECONDS, THE POWER ON GOOD INDICATORS ARE:

TYPE	DATA LEOS	STOP LED	LEVEL 0 LED	OTHER LEOS
495X	FFFF	ON	ON	OFF
4954	FFFF	ON	OFF	OFF
4955	FFFF	ON	OFF	OFF

THE POWER ON LED IS ON.
THE CONSOLE IS SILENT (NO SOUND).

IF THERE WAS NO PROBLEM, ANSWER THE QUESTION 'NO'.

WAS THE ORIGINAL PROBLEM AS NOTED ABOVE?

Y
N

4 4
C D

017
GO TO STEP 019,
ENTRY POINT KB.

018
IF YOU HAVE NOT EXCHANGED THE PROCESSING
UNIT CARD,
GO TO MAP 2070, ENTRY POINT PC.

IF YOU HAVE EXCHANGED THE PROCESSING UNIT
CARD,
GO TO MAP 0070, ENTRY POINT A.

019
(ENTRY POINT KB)

SEE IF YOU HAVE TESTED THE PROGRAMMER CONSOLE.
IF YOU HAVE TESTED THE PROGRAMMER CONSOLE,
ANSWER THE FOLLOWING QUESTION 'YES'.

IF YOU HAVE NOT TESTED THE PROGRAMMER CONSOLE,
ANSWER THE FOLLOWING QUESTION 'NO'.

IF YOU SUSPECT THE PROGRAMMER CONSOLE, ANSWER
THE FOLLOWING QUESTION 'NO'.

HAVE YOU TESTED THE PROGRAMMER CONSOLE?

N

020
- SEE IF THE 495X POWERED ON CORRECTLY.

SEE THE PROCESSING UNIT INSTALLED. AFTER FIFTEEN (15) SECONDS, THE POWER ON GOOD INDICATORS ARE:				
TYPE	DATA LEDS	STOP LED	LEVEL LED	OTHER LEDS
495X	FFFF	ON	ON	OFF
4954	FFFF	ON	OFF	OFF
4955	FFFF	ON	OFF	OFF

THE POWER ON LED IS ON,
THE CONSOLE IS SILENT (NO SOUND).

- IF THE POWER ON WAS CORRECT AS NOTED IN
CHART, ANSWER THE QUESTION 'YES'.

WAS THE POWER ON CORRECT AS NOTED ABOVE?

N

021
- SEE IF THE AUDIBLE DEVICE IS SILENT.

IS THE CONSOLE SILENT?

N

022
(ENTRY POINT AD)

- SEE THE PROCESSING UNIT INSTALLED.

IS THE PROCESSING UNIT INSTALLED A 4954?

N

023
 THE PROCESSING UNIT INSTALLED IS NOT A 4954.
 THE TABLE BELOW IS FOR REFERENCE ONLY.

CABLE	TOP CARD CONNECTOR			
	495X		4955	
* C1	X	DATA	X	
C2	YL	ADDRESS	WL	
C3	W	ROS	W	

* C2 IS A HALF CABLE

THE TABLE BELOW IS FOR REFERENCE ONLY.

MODEL	PROCESSING UNIT CARD LOCATION
4952 A	F2
4952 B	Q2
4952 A	F2
4953 A	F2
4953 B	Q2
4953 C	F2
4953 D	Q2
4954 A	F2
4954 B	Q2

- RECORD THE CONSOLE DATA AND THE STATUS OF THE LOAD LED.
- DISCONNECT CONSOLE CABLE 'C3' FROM THE TOP CARD CONNECTOR 'W'

4955	PROCESSING UNIT CARD LOCATIONS.		
MODEL	DATA	ADDRESS	ROS
A	J2	K	L
B	Q2	M	N
C	H2	J	K
D	H2	J	K

(XX) = CABLE OFF		
* = JUMPER ON		
C1	C2	(C3)

IS THE CONSOLE SILENT?

N

- 024
- DISCONNECT CONSOLE HALF CABLE 'C2' FROM THE TOP CARD CONNECTOR.

(XX) = CABLE OFF		
* = JUMPER ON		
C1	(C2)	(C3)

IS THE CONSOLE SILENT?

N

- 025
- DISCONNECT CONSOLE CABLE 'C1' FROM THE TOP CARD CONNECTOR 'X'

(XX) = CABLE OFF		
* = JUMPER ON		
(C1)	(C2)	(C3)

IS THE CONSOLE SILENT?

N

- 026
- INSPECT THE CONSOLE FOR A GROUND OR A SHORT TO THE AUDIBLE DEVICE C3-B11.

C1	C2	C3	N
(C1)	(C2)	(C3)	N

GO TO MAP 1071, ENTRY POINT A.

027

CABLE C1 TO THE AUDIBLE DEVICE

- INSPECT THE CONSOLE FOR A SHORT FROM THE DATA INDICATOR THAT WAS ACTIVE TO THE AUDIBLE DEVICE.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMN 1 TO THE AUDIBLE DEVICE.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMN 7 TO THE AUDIBLE DEVICE.
- GO TO MAP 1071, ENTRY POINT A.

C1	C2	C3	N
(C1)	(C2)	(C3)	N

028

CONSOLE C2 TO THE AUDIBLE DEVICE

- INSPECT THE CONSOLE FOR A SHORT FROM THE LEVEL INDICATOR THAT WAS ACTIVE TO THE AUDIBLE DEVICE.
- INSPECT THE CONSOLE FOR A SHORT FROM COLUMNS 2 THROUGH 6 TO THE AUDIBLE DEVICE. GO TO MAP 1071, ENTRY POINT A.

C1	C2	(C3)	N
C1	(C2)	(C3)	Y

029

- CONNECT A JUMPER FROM THE AUDIBLE DEVICE ON CABLE CONNECTOR C3-B11 TO THE TOP CARD CONNECTOR 'N' PIN 31.

(XX)	=	CABLE OFF
*	=	JUMPER ON
C1	C2	*(C3)

IS THE CONSOLE SILENT?

N

030

- DISCONNECT CONSOLE CABLE 'C1' FROM THE TOP CARD CONNECTOR 'X'

(XX)	=	CABLE OFF
*	=	JUMPER ON
(C1)	C2	*(C3)

IS THE CONSOLE SILENT?

N

031

- DISCONNECT CONSOLE HALF CABLE 'C2' FROM THE TOP CARD CONNECTOR.

(XX)	=	CABLE OFF
*	=	JUMPER ON
(C1)	(C2)	*(C3)

IS THE CONSOLE SILENT?

N

032

GO TO MAP 2070, ENTRY POINT PC.

033

C2

- INSPECT THE CONSOLE FOR A SHORT IN THE LEVEL INDICATOR THAT WAS ACTIVE TO COLUMN 2 THROUGH 6.

C1	C2	(C3)	Y
(C1)	C2	*(C3)	N
(C1)	(C2)	*(C3)	Y

GO TO MAP 1071, ENTRY POINT A.

034

- DISCONNECT CONSOLE HALF CABLE 'C2' FROM THE TOP CARD CONNECTOR.
- CONNECT CONSOLE CABLE 'C1' TO THE TOP CARD CONNECTOR 'X'

(XX)	=	CABLE OFF
*	=	JUMPER ON
C1	(C2)	*(C3)

IS THE CONSOLE SILENT?

N

035

C1

- INSPECT THE CONSOLE FOR A SHORT IN THE LEVEL INDICATOR THAT WAS ACTIVE TO COLUMN 1 AND COLUMN 7.

C1	C2	(C3)	Y
(C1)	C2	*(C3)	N
C1	(C2)	*(C3)	N

GO TO MAP 1071, ENTRY POINT A.

036

C1-C2

- INSPECT THE CONSOLE FOR A SHORT IN THE LEVEL INDICATOR THAT WAS ACTIVE TO COLUMN 1 AND COLUMN 7.
 - INSPECT THE CONSOLE FOR A SHORT IN THE DATA INDICATOR THAT WAS ACTIVE TO COLUMN 2 THROUGH COLUMN 6.
- GO TO MAP 1071, ENTRY POINT A.

C1	C2	(C3)	Y
(C1)	C2	*(C3)	N
C1	(C2)	*(C3)	Y

M
6

- 037
- DISCONNECT THE JUMPER FROM W-31 AND C3-B11.
- DISCONNECT CONSOLE CABLE 'C1' FROM THE TOP CARD CONNECTOR 'X'
- CONNECT CONSOLE CABLE 'C3' TO THE TOP CARD CONNECTOR 'W'

(XX)	=	CABLE OFF
*	=	JUMPER ON
(C1)	C2	C3

IS THE CONSOLE SILENT?

N

- 038
- DISCONNECT CONSOLE HALF CABLE 'C2' FROM THE TOP CARD CONNECTOR.

(XX)	=	CABLE OFF
*	=	JUMPER ON
(C1)	(C2)	C3

IS THE CONSOLE SILENT?

N

- 039
- SEE THE CONSOLE DATA.

C1	C2	* (C3)	Y
(C1)	(C2)	(C3)	Y
(C1)	(C2)	C3	Z

WAS CONSOLE DATA 'FFFF'?

N

- 040
- SEE THE CONSOLE DATA.

WAS THE CONSOLE DATA '0000'?

N

- 041
- SEE THE CONSOLE DATA.

WAS THE CONSOLE DATA '00E5' AND THE LOAD LAMP ON ?

N

N
P
Q
R
S
T

I

042
- SEE THE DATA INDICATORS.

DATA
FFF0
FFF4
FFF8
FFFC

DID THE DATA INDICATORS EQUAL ANY NUMBER ABOVE?
N

043
- SEE THE DATA INDICATORS.

DATA
FFF1
FFF5
FFF9
FFFD

DID THE DATA INDICATORS EQUAL ANY NUMBER ABOVE?
N

044
- SEE THE DATA INDICATORS.

DATA
FFF2
FFF6
FFFA
FFFE

DID THE DATA INDICATORS EQUAL ANY NUMBER ABOVE?
N

045
(ENTRY POINT CS)
ROW D IS A SHORT CIRCUIT TO ONE OF THE COLUMN(S).
- SEE THE DATA INDICATORS.

DATA
FFF0
FFF1
FFF2
FFF3

DID THE DATA INDICATORS EQUAL ANY NUMBER ABOVE?
N

046
- SEE THE DATA INDICATORS.

DATA
FFF4
FFF5
FFF6
FFF7

DID THE DATA INDICATORS EQUAL ANY NUMBER ABOVE?
N

9 9 9 9 9
U V W X Y Z

- 055
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMN 0 TO ROW D.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMN 0 TO THE INDICATOR THAT IS ON, CARRIED BY C3.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMN 0 TO THE AUDIBLE DEVICE OR TO GROUND.

GO TO MAP 1071, ENTRY POINT A.
 IF THE CONSOLE IS GOOD,
 GO TO MAP 2070, ENTRY POINT PC.

- 056
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMN 0 TO ROW C.
 GO TO MAP 1071, ENTRY POINT A.

057

- INSPECT THE CONSOLE FOR A SHORT FROM THE AUDIBLE DEVICE TO THE INDICATOR THAT IS ON, CARRIED BY C3.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMN 11 TO ROW D.
 - INSPECT THE CONSOLE FOR A SHORT FROM THE AUDIBLE DEVICE TO ROWS A THROUGH D.

INDICATORS CARRIED BY CABLE C3	
D04	RUN
D05	WAIT
D06	LOAD
D10	STOP
D11	INSTRUCTION STEP (IS)
D12	STOP ON ADDRESS (SOA)
D13	CHECK
B06	STOP ON ERROR (SOE)
B07	CHECK RESTART (CR)

GO TO MAP 1071, ENTRY POINT A.

058

C2 - C3

- INSPECT THE CONSOLE FOR A SHORT FROM THE LEVEL INDICATOR THAT WAS ON TO COLUMN 0 AND 8 THROUGH 11.
 - INSPECT THE CONSOLE FOR A SHORT FROM THE INDICATOR THAT WAS ON TO COLUMNS 2 THROUGH 6.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMNS 2 THROUGH 6 TO ROWS A THROUGH D.
 GO TO MAP 1071, ENTRY POINT A.

C1	C2	*(C3)	Y
(C1)	C2	*(C3)	N
(C1)	(C2)	C3	Y

059

C1 - C3

- SEE THE CHART BELOW.
 - SEE IF ONE OF THE INDICATORS BELOW IS ON, THAT SHOULD BE OFF:

COLUMN 7 KEYS CARRIED BY CABLE C1	
D11	INSTRUCTION STEP (IS)
	STOP ON ADDRESS (SOA)
	STOP ON ERROR (SOE)
	CHECK RESTART (CR)

IS
 SOA
 SOE
 CR

C1	C2	*(C3)	Y
(C1)	C2	*(C3)	Y

WAS INDICATOR 'IS', 'SOA', 'SOE' OR 'CR' ON THAT SHOULD NOT BE ON?

N

060

C1 - C3

- INSPECT THE CONSOLE FOR A SHORT FROM THE INDICATOR THAT WAS ON TO COLUMN 1 AND COLUMNS 2 THROUGH 6.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMNS 1 TO ROWS A THROUGH D.
 GO TO MAP 1071, ENTRY POINT A.

A

G H A
4 4 0

495X POWER AND CONSOLE MAP
PAPER ONLY MAP
PAGE 11 OF 32

MAP 2071-11

061
C1 - C3

- INSPECT THE CONSOLE FOR A SHORT FROM THE INDICATOR THAT WAS ON TO COLUMN 7.
 - INSPECT THE CONSOLE FOR A SHORT FROM COLUMNS 7 TO ROWS A THROUGH D.
- GO TO MAP 1071, ENTRY POINT A.

062
- UNSEAT CONSOLE CABLE C1 FROM THE PROCESSING UNIT TOP CARD CONNECTOR 'X'.
- SEE THE AUDIBLE DEVICE.
- SEE IF THE AUDIBLE DEVICE IS SILENT.

IS THE CONSOLE SILENT?

N

063
- UNSEAT CONSOLE CABLE C1 FROM THE CONSOLE CARD CONNECTOR 'C1'.
- SEE THE AUDIBLE DEVICE.
- SEE IF THE AUDIBLE DEVICE IS SILENT.

IS THE CONSOLE SILENT?

N

064
THE CONSOLE BOARD IS SUSPECT.
- EXCHANGE THE CONSOLE BOARD.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

065
- TEST CABLE PINS B10, B12 AND D10 FOR AN OPEN OR A SHORT, AS FOLLOWS:
- USE THE C.E. MULTIMETER OR EQUIVALENT.
- SET THE C.E. MULTIMETER TO 'X1 RESISTANCE'.
- TEST FOR A SHORT OF PIN B10 WITH ALL OTHER PINS IN THE CABLE.
- TEST FOR A SHORT OF PIN B12 WITH ALL OTHER PINS IN THE CABLE.
- TEST PINS B10 AND B12 FOR AN OPEN.

- SEE THE MLD BINDER.
- SEE THE CORRECT PROCESSING UNIT MLD AXXXX.
- SEE LOGIC PAXXX.

IS THE CABLE CORRECT?

N

066
- REPAIR OR EXCHANGE THE CABLE.
- VERIFY THE REPAIR.

067
- RESEAT THE CABLE.

THE PROCESSING UNIT IS SUSPECT.
GO TO MAP 2070, ENTRY POINT PC.

068
THE PROCESSING UNIT IS SUSPECT.
GO TO MAP 2070, ENTRY POINT PC.

069
- SEE IF THE PROCESSING UNIT INSTALLED IS A 4954.

IS THE PROCESSING UNIT INSTALLED A 4954?

N

070
- SEE THE DATA LED(S) THAT IS/ARE OFF.
- UNSEAT THE CONSOLE CABLE THAT IS CONNECTED TO THE PROCESSING UNIT TOP CARD CONNECTOR 'X'.
- SEE VOLUME ONE (1) PAXXX.
- GROUND THE DATA LED CABLE PIN(S) POSITION THAT IS OFF.

DID THE LED(S) LIGHT?

N

071
THE LED IS SUSPECT.
GO TO MAP 1071, ENTRY POINT A.

072
- RESEAT THE CONSOLE CABLE TO THE PROCESSING UNIT TOP CARD CONNECTOR 'X'.
GO TO MAP 2070, ENTRY POINT PC.

1
2
A
B

20NOV81 PN6060925
EC466795 PEC466794
MAP 2071-11

A
B
1

073
 - SEE THE DATA LEDS.
 - SEE THE TABLE BELOW.

IF DATA LEDS EQUAL	TEST PIN IN CABLE C1:
7F7F	B03
BFBF	B04
DFDF	D09
EFEF	B06
F7F7	B07
FBFB	B08
FDFD	B11
FEFE	B12

ARE THE LEDS AS NOTED?

N

074
 - SEE THE DATA LEDS.
 - SEE IF ANY OR ALL BITS 0 - 7 ARE FLASHING ON AND OFF.

IS/ ARE ANY OR ALL BIT(S) 0 - 7 FLASHING ON AND OFF?

N

075
 - SEE THE DATA LEDS.
 - SEE IF ANY BITS 8 - 15 ARE FLASHING ON AND OFF.

IS/ ARE ANY BIT(S) 8 - 15 FLASHING ON AND OFF?

N

076
 - SEE THE DATA LEDS.

DATA LEDS
FFFF

ARE THE LEDS AS NOTED?

N

077
 - SEE THE DATA LEDS.

DATA LEDS
00FF

ARE THE LEDS AS NOTED?

N

1 1 1 1 1
 A A A A A
 C D E F G H

078
 THE PROCESSING UNIT IS SUSPECT.
 THE PROGRAMMER CONSOLE IS SUSPECT.
 GO TO MAP 2070, ENTRY POINT PC.

079
 PIN C1B03 IS SUSPECT.
 GO TO STEP 085,
 ENTRY POINT CA.

080
 - SEE THE CONSOLE LEDS.
 - SEE IF THE FOLLOWING CONSOLE LEDS ARE ON.

DATA LED(S) ON	SUSPECT PIN IS:
DATA BIT 3 STOP ON ADDRESS	C1B06
LEVEL 2 CHECK RESTART	C1D09
CHECK AND WAIT	C1B07
LOAD AND STOP	C1B08
LOAD AND RUN	C1B11
LOAD	C1D06
RUN	C1D04
WAIT	C1D05

ARE THE LEDS AS NOTED?
 N

081
 SUSPECT PINS:
 PIN C1B03
 PIN C1B10
 PIN C1B13
 PIN C1D10
 GO TO STEP 085,
 ENTRY POINT CA.

082
 THE PIN NOTED IN THE CHART IS SUSPECT.
 GO TO STEP 085,
 ENTRY POINT CA.

083
 PIN C1D08 IS SUSPECT.
 GO TO STEP 085,
 ENTRY POINT CA.

084
 PIN C1B13 IS SUSPECT.
 GO TO STEP 085, ENTRY POINT CA.

085
 (ENTRY POINT CA)

- POWER OFF THE PROCESSING UNIT.
 - ENSURE THE CABLE IS SEATED CORRECTLY.

IS THE CABLE SEATED CORRECTLY?
 N

086
 - SEAT THE CABLE.
 - VERIFY THE REPAIR.

087
TEST THE CABLE PIN(S) NOTED PREVIOUSLY FOR AN OPEN OR A SHORT, AS FOLLOWS:

- UNSEAT CONSOLE CABLE C1 FROM THE PROCESSING UNIT TOP CARD CONNECTOR 'W'
- UNSEAT CONSOLE CABLE C1 FROM THE CONSOLE CARD CONNECTOR 'C1'
- USE THE C.E. MULTIMETER OR EQUIVALENT.
- SET THE C.E. MULTIMETER TO 'X1 RESISTANCE'
- MEASURE THE RESISTANCE BETWEEN THE PINS IN CABLE C1 FOR A SHORT
- MEASURE THE RESISTANCE BETWEEN THE PINS IN CABLE C1 FOR AN OPEN.

- SEE THE MLD BINDER.
- SEE THE CORRECT PROCESSING UNIT MLD AXXXX.
- SEE LOGIC PAXXX.

IS THE CABLE CORRECT?

N

088
REPAIR OR EXCHANGE THE CABLE.
- VERIFY THE REPAIR.

- 089
- SEE THE CONSOLE BOARD.
 - EXCHANGE THE CONSOLE BOARD.
 - POWER ON THE PROCESSING UNIT.

DID THE SYSTEM WORK CORRECT?

N

090
THE PROCESSING UNIT IS SUSPECT.
GO TO MAP 2070, ENTRY POINT PC.

091
THE REMOVED CONSOLE BOARD IS BAD.
- VERIFY THE REPAIR.

092
(ENTRY POINT CB)

- POWER OFF THE PROCESSING UNIT.
- POWER ON THE PROCESSING UNIT.
- SEE THE NOTE --->
- ENTER ON THE CONSOLE:
- PRESS AND RELEASE THE INTERRUPT KEY.

AFTER POWER UP, THE INTERRUPT KEY WILL NOT CAUSE AN AUDIBLE FROM THE CONSOLE AUDIBLE DEVICE UNTIL THE WAIT STATUS HAS BEEN REACHED AND THE LEVEL STATUS REGISTER (LSR) BIT 11 IS ON.

WAS THE CONSOLE SILENT FOR THE ABOVE?

N

093
THE CONSOLE INTERRUPT KEY IS SUSPECT.

- TEST THE CONSOLE INTERRUPT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 094
- ENSURE THE LOAD DEVICE IS NOT READY.
 - ENTER ON THE CONSOLE:
 - PRESS AND RELEASE THE LOAD KEY.

IS THE CONSOLE AUDIBLE ?

N

1
5
A
K
L

R
1
4

095
- POWER OFF THE PROCESSING UNIT.
- TEST THE LOAD KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

096
- SEE THE LOAD LED.

IS THE LOAD LED ON ?

N

097
- POWER OFF THE PROCESSING UNIT.
- TEST THE LOAD KEY.
- TEST THE LOAD LED.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

098
- ENTER ON THE CONSOLE:

- PRESS THE RESET KEY.
- PRESS THE AKR KEY.

THE AKR KEY IS NOT AUDIBLE ON A 4953
PROCESSING UNIT.

IS THE CONSOLE AUDIBLE ?

N

099
- POWER OFF THE PROCESSING UNIT.
- TEST THE AKR KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

100
- SEE THE CHART ---->

PROCESSING UNIT TYPE	DATA	THE LEDS ARE AS NOTED BELOW.				
		WAIT	RUN	STOP	LVLO	OTHER
4953	0000	0	0	1	0	0
495X	0000	0	0	1	0	0

ARE THE LEDS AS NOTED?

N

6
A
N

106
- SEE IF THE PROCESSING UNIT INSTALLED IS A:
495X
4954
4955

IS THE PROCESSING UNIT INSTALLED ONE OF THE ABOVE?
N

107
- ENTER ON THE CONSOLE:

- PRESS THE LOCK KEY.
- PRESS THE ONE (1) KEY.
- PRESS THE TWO (2) KEY.
- PRESS THE ONE (1) KEY.
- PRESS THE TWO (2) KEY.
- PRESS THE STORE KEY.

WHEN THE LOCK KEY IS PRESSED, THE LOCK LED WILL PULSE ON AND OFF. THIS IS A CAUTION TO THE OPERATOR THAT PRESSING NUMBER KEYS FOLLOWED BY 'STORE' WILL LOCK THE CONSOLE. ENSURE THE NUMBERS ARE NOTED FOR FUTURE REFERENCE.

IS THE CONSOLE AUDIBLE FOR EACH?
N

108
- POWER OFF THE PROCESSING UNIT.
- TEST THE STORE KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

109
- SEE THE NOTE ---->

THE CONSOLE 'LOCK' LED WILL COME ON. ALL KEYS ARE LOCKED OUT EXCEPT THE NUMBERS 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E AND F AND THE STORE KEY.
THE LOCK LED WILL PULSE ON AND OFF WHEN A NUMBER KEY IS PRESSED.

WHEN A NUMBER KEY IS PRESSED, THE LOCK LED WILL PULSE ON AND OFF. THIS IS A CAUTION TO THE OPERATOR THAT THE CONSOLE IS IN 'LOCK' MODE. THE CORRECT KEYS MUST BE PRESSED TO 'UNLOCK' THE CONSOLE.

WAS THE CONSOLE AS NOTED ABOVE?
N

110
- POWER OFF THE PROCESSING UNIT.
- TEST THE LOCK KEY AND CABLE(S) FOR AN OPEN CIRCUIT.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

111
- ENTER ON THE CONSOLE:

- PRESS THE ONE (1) KEY.
- PRESS THE TWO (2) KEY.
- PRESS THE ONE (1) KEY.
- PRESS THE TWO (2) KEY.
- PRESS THE STORE KEY.

THE LOCK LED WILL GO OFF. THE CONSOLE IS NOT IN 'LOCK'. IT IS NORMAL.

DID THE 'LOCK' LED GO OFF?
N

BACKS

A
G
1
7
A
R
1
7
S
1
7

- 112
 - POWER OFF THE PROCESSING UNIT.
 - TEST THE LOCK LED AND CABLE(S) FOR A SHORT.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
 GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

113
 GO TO STEP 114, ENTRY POINT LC.

114
 (ENTRY POINT LC)

- SEE THE CHART --->

AFTER EACH CONSOLE KEY IS PRESSED, COMPARE THE CONSOLE WITH THE CHART. ONLY THE LEDS SHOWN WILL CHANGE, AND THE LEVEL KEYS WILL BE AUDIBLE. THE ONLY LEDS THAT WILL CHANGE ARE LEVEL LEDS.

ON A 4954 CONSOLE:

- PRESS THE LEVEL SELECT KEY.
- PRESS THE ONE (1) KEY.
- PRESS THE TWO (2) KEY.
- PRESS THE THREE (3) KEY.
- PRESS THE ZERO (0) KEY.

ON A 495X CONSOLE:

- PRESS THE LEVEL ONE (1) KEY.
- PRESS THE LEVEL TWO (2) KEY.
- PRESS THE LEVEL THREE (3) KEY.
- PRESS THE LEVEL ZERO (0) KEY.

HAS THE CONSOLE AUDIBLE FOR ALL THE LEVELS?

N

- 115
 - POWER OFF THE PROCESSING UNIT.
 - TEST THE LEVEL SELECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
 GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

116
 - SEE THE LEVEL LEDS.

0 = OFF, 1 = ON		LEVEL LED ON			
KEY		0	1	2	3
ONE	1	0	1	0	0
TWO	2	0	0	1	0
THREE	3	0	0	0	1
ZERO	0	1	0	0	0

ARE THE LEDS AS NOTED?

Y
N

A
U

17
 THE LEVEL SELECT KEY IS SUSPECT.

- TEST THE SUSPECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
 GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

18
 - SEE THE CHART --->

AFTER EACH CONSOLE KEY IS PRESSED, COMPARE THE CONSOLE WITH THE CHART. ONLY THE DATA LEDS AND LEDS SHOWN WILL CHANGE, AND THE KEYS WILL BE AUDIBLE.

- ENTER ON THE CONSOLE:
- PRESS THE SOA KEY.
- PRESS THE INSTRUCTION STEP KEY.
- PRESS THE CHECK RESTART KEY.
- PRESS THE STOP ON ERROR KEY.

SOA = STOP ON ADDRESS IS = INSTRUCTION STEP CR = CHECK RESTART SOE = STOP ON ERROR					
0 = OFF, 1 = ON					
CONSOLE KEY PRESSED:	DATA	SOA	IS	CR	SOE
SOA	XXXX	1	0	0	0
IS	XXXX	0	1	0	0
CR	XXXX	0	1	1	0
SOE	XXXX	0	1	0	1

19
 WAS THE CONSOLE AUDIBLE FOR EACH KEY?

119
 THERE IS A SUSPECT KEY.

- TEST THE SUSPECT KEY

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
 GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

20
 - SEE IF THE CORRECT LED GOES ON WHEN THE KEY IS PRESSED.

DID CORRECT LED GO ON FOR THE KEY PRESSED?

121
 THERE IS A SUSPECT LED.

- TEST THE SUSPECT LED.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
 GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

- 122
- SEE THE INSTRUCTION STEP LED.
- ENTER ON THE CONSOLE:
- PRESS AND RELEASE THE INSTRUCTION STEP KEY.

DID THE INSTRUCTION STEP LED GO OFF?

N

123
GO TO MAP 2070, ENTRY POINT PC.

- 124
- SEE THE STOP ON ERROR LED.
- ENTER ON THE CONSOLE:
- PRESS AND RELEASE THE STOP ON ERROR KEY.

DID STOP ON ERROR LED GO OFF?

N

125
GO TO MAP 2070, ENTRY POINT PC.

126
AFTER EACH CONSOLE KEY IS PRESSED, COMPARE THE CONSOLE WITH THE CHART. ONLY THE LEDS WILL CHANGE, AND THE KEYS WILL BE AUDIBLE. ENSURE THE LEVEL ZERO (0) LED IS 'ON'.

- ENTER ON THE CONSOLE
- PRESS REGISTER ZERO (0) KEY
- PRESS REGISTER ONE (1) KEY
- PRESS REGISTER TWO (2) KEY
- PRESS REGISTER THREE (3) KEY
- PRESS REGISTER FOUR (4) KEY
- PRESS REGISTER FIVE (5) KEY
- PRESS REGISTER SIX (6) KEY
- PRESS REGISTER SEVEN (7) KEY

WAS THE CONSOLE AUDIBLE FOR EACH REGISTER KEY?

N

127
THE REGISTER KEY IS SUSPECT.

- TEST THE SUSPECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 128
- ENTER ON THE CONSOLE:
- PRESS AND RELEASE THE DATA BUFFER KEY.

WAS THE CONSOLE AUDIBLE?

N

- 129
- POWER OFF THE PROCESSING UNIT.
- TEST THE DATA BUFFER KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

A
20
0

130
- ENTER ON THE CONSOLE:

- PRESS THE 'F' KEY.
- PRESS THE 'F' KEY.
- PRESS THE 'F' KEY.
- PRESS THE '4' KEY.
- PRESS AND RELEASE THE STORE KEY.

DO THE DATA LEDS EQUAL 'FFF4'?

N

131
GO TO MAP 2070, ENTRY POINT PC.

132
- ENTER ON THE CONSOLE:

- PRESS AND RELEASE THE IAR KEY.

WAS THE CONSOLE AUDIBLE?

N

- 133
- POWER OFF THE PROCESSING UNIT.
- TEST THE IAR KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

134
- ENTER ON THE CONSOLE:

- PRESS THE ZERO (0) KEY.
- PRESS THE FIVE (5) KEY.
- PRESS THE SIX (6) KEY.
- PRESS THE SIX (6) KEY.
- PRESS THE STORE KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS AND RELEASE THE IAR KEY.

DO THE DATA LEDS EQUAL 0566 ?

N

135
THE IAR KEY IS SUSPECT.
THE STORE KEY IS SUSPECT.

- TEST THE SUSPECT KEYS.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

136
- ENTER ON THE CONSOLE:

- PRESS AND RELEASE THE SAR KEY.

WAS THE CONSOLE AUDIBLE?

N

X
Y

A
X
2
1

- 137
- POWER OFF THE PROCESSING UNIT.
- TEST THE SAR KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 138
- ENTER ON THE CONSOLE:

- PRESS THE ZERO (0) KEY.
- PRESS THE FIVE (5) KEY.
- PRESS THE SIX (6) KEY.
- PRESS THE SEVEN (7) KEY.
- PRESS THE STORE KEY.

THE DATA LEDS ON THE CONSOLE WILL CHANGE TO
0566 AFTER THE STORE KEY IS PRESSED.

- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE SAR KEY.

DO THE DATA LEDS EQUAL 0566?

N

139
THE SAR KEY IS SUSPECT.

- TEST THE SUSPECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 140
- ENTER ON THE CONSOLE:

- PRESS THE MAIN STORAGE KEY.

WAS THE CONSOLE AUDIBLE?

N

141
- POWER OFF THE PROCESSING UNIT.
- TEST THE MAIN STORAGE KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

2
3
A
Z

142

SEE THE CHART ---->

PROCESSING UNIT		THE LEDS ARE AS NOTED BELOW.				
TYPE	DATA	WAIT	RUN	STOP	LVLO	OTHER
4954	FA97	0	0	1	1	0
495X	FA99	0	0	1	1	0

IS FA97 IN DISPLAY AND ALL OTHER LEDS REMAIN THE SAME?

143
THE MAIN STORAGE KEY IS SUSPECT.

- TEST THE SUSPECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

143

B
A
S
E

144

- SEE THE CHART ---->

- ENTER ON THE CONSOLE:

- PRESS THE SIX (6) KEY.
- PRESS THE ONE (1) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE STORE KEY.

THE DATA LEDS ON THE CONSOLE WILL BE '6100'.

- ENTER ON THE CONSOLE:

- PRESS THE SIX (6) KEY.
- PRESS THE FOUR (4) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE STORE KEY.

THE DATA LEDS ON THE CONSOLE WILL BE '6400'.

- ENTER ON THE CONSOLE:

- PRESS THE THREE (3) KEY.
- PRESS THE EIGHT (8) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE STORE KEY.

THE DATA LEDS ON THE CONSOLE WILL BE '3800'.

- PRESS THE SAR KEY.

THE DATA LEDS ON THE CONSOLE WILL CHANGE TO '056C' AFTER THE SAR KEY IS PRESSED.

- ENTER ON THE CONSOLE:

- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ONE (1) KEY.
- PRESS THE C (C) KEY.
- PRESS THE STORE KEY.
- PRESS THE MAIN STORAGE KEY.

THE DATA LEDS ON THE CONSOLE WILL CHANGE TO 'FFEX' AFTER THE STORE KEY IS PRESSED.

- ENTER ON THE CONSOLE:

- PRESS THE ZERO (0) KEY.
- PRESS THE SIX (6) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE STORE KEY.
- PRESS THE ZERO (0) KEY.
- PRESS THE FIVE (5) KEY.
- PRESS THE SIX (6) KEY.
- PRESS THE EIGHT (8) KEY.
- PRESS THE STORE KEY.
- PRESS THE START KEY.

WAS THE CONSOLE AUDIBLE?

N

- POWER OFF THE PROCESSING UNIT.
- TEST THE START KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR:	
GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

146

- SEE THE CHART ---->

ARE THE LEDS AS NOTED?

N

S
B
C

ENTER		
6100	STORE	
6400	STORE	
3800	STORE	
	SAR	
001C	STORE	
MAIN STORAGE		
0600	STORE	
0568	STORE	START

DATA LEDS	WAIT	RUN	STOP	LVLO	CK	OTHER LEDS
FFF4	1	0	0	0	0	0

B
C
Z

147
THE START KEY IS SUSPECT.
THE LED IS SUSPECT.

- TEST THE SUSPECT KEY.
- TEST THE SUSPECT LED.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 148
- ENTER ON THE CONSOLE:
 - PRESS AND RELEASE THE STOP KEY.

WAS THE CONSOLE AUDIBLE?

N

149
- POWER OFF THE PROCESSING UNIT.
- TEST THE STOP KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 150
- SEE THE CHART ---->

PROCESSING UNIT TYPE	DATA	THE LEDS ARE AS NOTED BELOW.				
		WAIT	RUN	STOP	LVL0	CK
4954	0568	0	0	1	0	0
495X	0566	0	0	1	0	0

ARE THE LEDS AS NOTED?

N

151
THE STOP KEY IS SUSPECT.
THE LED IS SUSPECT.

- TEST THE SUSPECT KEY.
- TEST THE SUSPECT LED.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 152
- ENTER ON THE CONSOLE:
 - PRESS AND RELEASE THE CIAR KEY.

WAS THE CONSOLE AUDIBLE?

N

B
C
Z

02060

159
 THE OP REG KEY IS SUSPECT.

- TEST THE SUSPECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

160
 - ENTER ON THE CONSOLE:
 - PRESS AND RELEASE THE LSR KEY.

WAS THE CONSOLE AUDIBLE?

N

161
 - POWER OFF THE PROCESSING UNIT.
 - TEST THE LSR KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

162
 - SEE THE CHART ---->

PROCESSING UNIT TYPE	DATA	WAIT	RUN	STOP	LVL0	CK
495X	0090	0	0	1	0	0
495X	0090	0	0	1	0	0

IS 0090 IN THE LEDS AND NO OTHER CHANGE?

N

163
 THE LSR KEY IS SUSPECT.

- TEST THE SUSPECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

164
 - SEE THE CHART ---->

- ENTER ON THE CONSOLE:
 - PRESS AND RELEASE THE START KEY.

DATA LEDS	WAIT	RUN	STOP	LVL	CK	OTHER LEDS
FFF4	1	0	0	0	0	0

ARE THE LEDS AS NOTED?

N

02060

B
N
7

165
THE START KEY IS SUSPECT.
THE LED IS SUSPECT.

- TEST THE SUSPECT KEY.
- TEST THE SUSPECT LED.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 166 - ENTER ON THE CONSOLE:
- PRESS AND RELEASE THE CONSOLE INTERRUPT KEY.

WAS THE CONSOLE AUDIBLE?

N
167
THE CONSOLE INTERRUPT KEY IS SUSPECT.

- TEST THE SUSPECT KEY.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

- 168 - SEE THE CHART --->

PROCESSING UNIT TYPE	DATA	THE LEDS ARE AS NOTED BELOW.				
		WAIT	RUN	STOP	LVLO	CK
495X	056A	0	0	1	1	0

ARE THE LEDS AS NOTED?

- 169 - POWER OFF THE PROCESSING UNIT.
- TEST THE MODE SWITCH.
- TEST CONSOLE INTERRUPT KEY.
- TEST THE LED THAT IS NOT CORRECT.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

20NOV81

B
39

176
 - POWER OFF THE PROCESSING UNIT.
 - PUT THE MODE SWITCH IN THE 'AUTO IPL' POSITION.

IS THE DISKETTE UNIT THE PRIMARY IPL SOURCE ?
 N

177
 - ENSURE THE IPL SOURCE SWITCH IS IN THE ALTERNATE POSITION.

IS THE IPL SOURCE SWITCH IN THE ALTERNATE POSITION?
 N

178
 THE IPL SOURCE SWITCH MUST BE IN THE ALTERNATE POSITION.
 GO TO STEP 179,
 ENTRY POINT LD.

179
 (ENTRY POINT LD)

- ENSURE THE LOAD DEVICE IS NOT READY.
 - POWER ON THE PROCESSING UNIT.
 - WAIT 15 SECOND(S).

IS THE LOAD LED ON ?
 N

180
 - POWER OFF THE PROCESSING UNIT.
 - TEST THE MODE SWITCH.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

181
 - SEE IF THE DATA LEDS EQUAL 00E5.

DO THE DATA LEDS EQUAL 00E5?
 N

182
 - POWER OFF THE PROCESSING UNIT.
 - TEST THE MODE SWITCH.
 - TEST THE IPL SOURCE SWITCH.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A
IF NO REPAIR: GO TO MAP 2070, ENTRY POINT PC.	

IF NO REPAIR,
 GO TO MAP 2070, ENTRY POINT PC.

183
 - ENTER ON THE CONSOLE:

- PRESS THE RESET KEY.
 - PRESS THE START KEY.
 - SEE IF THE DATA LEDS EQUAL AS NOTED IN THE CHART, WITH THE RUN AND CHECK LEDS ON.
 - SEE THE CHART --->

PROCESSING UNIT TYPE	DATA	WAIT	RUN	STOP	LVLO	CK
4952	0025	0	1	0	1	1
4953	0025	0	1	0	1	1
4954	0018	0	1	1	1	1
4955	XXXX	0	1	1	1	1

ARE THE LEDS AS NOTED?
 N

184
 - SEE THE THE RUN LED.

IS THE RUN LED ON?
 N

180
181
182
183

000000
000000
000000

185
THE RUN LED IS OFF.

PROCESSING UNIT IS: | GO TO MAP:

495X | 1071, ENTRY POINT A

4954 | 1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.

IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

186
THE RUN LED IS ON.
GO TO MAP 2070, ENTRY POINT PC.

187
THE CONSOLE IS GOOD.

- PRESS THE RESET KEY.

IF YOU CAME HERE TO CHECK OUT THE CONSOLE, IT IS GOOD.

IS THE OTHER POSITION OF THE IPL SOURCE SWITCH SUSPECT?

N

188
SEE IF THERE IS A PROBLEM ON THE SYSTEM.

IS THERE A PROBLEM ON THE SYSTEM?

N

189
- VERIFY THE REPAIR.

190
THERE IS A PROBLEM ON THE SYSTEM.

- SEE IF THE PROCESSING UNIT CARD(S) HAVE BEEN REPLACED PREVIOUSLY.

HAVE THE PROCESSING UNIT CARD(S) BEEN REPLACED?

N

191
GO TO MAP 2070, ENTRY POINT PC.

192
- SEE IF SOME OTHER MAP SENT YOU TO THIS MAP.

IF YOU HAVE COME FROM MAP 2070, ANSWER THE QUESTION 'NO'.

DID SOME OTHER MAP SEND YOU TO THIS MAP?

N

193
- SEE IF YOU HAVE BEEN THROUGH MAP 0020.

HAVE YOU BEEN THROUGH MAP 0020?

N

194
GO TO MAP 0020, ENTRY POINT A.

195
GO TO MAP 0070, ENTRY POINT A.

196
- RETURN TO THE MAP THAT SENT YOU HERE.

000000

197
- TEST THE OTHER POSITION OF THE SOURCE SWITCH.

PROCESSING UNIT IS:	GO TO MAP:
495X	1071, ENTRY POINT A
4954	1072, ENTRY POINT A

IF NO REPAIR:
GO TO MAP 2070, ENTRY POINT PC.
IF NO REPAIR,
GO TO MAP 2070, ENTRY POINT PC.

198
- ENSURE THE IPL SOURCE SWITCH IS IN THE PRIMARY POSITION.
GO TO PAGE 30, STEP 179, ENTRY POINT LD.

199
- SEE IF THE SYSTEM IS WORKING CORRECT.

IS THE SYSTEM WORKING CORRECT?

N

200
USE THE FAILURE INDICATION AND:
GO TO MAP 0070, ENTRY POINT A.

201
GOOD END THIS MAP.