

DISKETTE UNIT SEEK ERROR MAP

MAP 0174-1

SEEK ERROR MAP

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ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0171	A	1	001
0172	A	1	001

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
1	006	0070	A
1	002	4880	A
2	016	4880	A
3	019	4880	A

001
 (ENTRY POINT A)
 THIS IS A PAPER ONLY MAP. THERE IS NO ASSOCIATED MAP PROGRAM. (SEE DIAGNOSTIC SERVICE GUIDE 05.00.00).
 GO TO THE ENTRY POINT AND FOLLOW THE MAP.

IN THIS MAP IT IS ASSUMED THAT A FAILURE HAS OCCURRED IN ANOTHER MAP, AND, THEREFORE, WILL ALWAYS IDENTIFY A FAILING FIELD REPLACEABLE UNIT.
 USE ONLY WHEN INSTRUCTED TO DO SO BY ANOTHER MAP.

CHECK '+ 24 VDC'.
 SEE MAINTENANCE LOGIC DIAGRAM VOL.1 SF140 FOR TEST POINT. TOLERANCE IS + OR - 10%.
 IS VOLTAGE CORRECT?

Y N

002
 CHECK CABLES. IF OK,
 GO TO MAP 4880, ENTRY POINT A.

003
 PROBE THE ACCESS LINES ON THE CABLE TERMINATION CARD FOR A VALID LOGIC LEVEL. SEE A2.10 IN THE MAINTENANCE INFORMATION MANUAL.

PIN LINE
 B05 ACCESS 0
 D04 ACCESS 1
 B06 ACCESS 2
 D10 ACCESS 3

ARE ALL LINES AT A VALID LOGIC LEVEL?

Y N

004
 POWER OFF DISKETTE UNIT AND DISCONNECT DISKETTE UNIT ATTACHMENT SLT CABLE FROM ATTACH CARD. PROBE FAILING LINE FOR CONTINUITY BETWEEN END OF CABLE AND THE TEST POINT ON THE DRIVE CONTROL CARD. SEE MAINTENANCE LOGIC DIAGRAM VOL.1 SF140 FOR TEST POINT LOCATION
 IS THERE CONTINUITY OF THE FAILING LINE ?

Y N

005
 OPEN COULD BE IN SLT CABLE, THE DISKETTE UNIT CABLE ASSEMBLY OR ON THE DRIVE CONTROL CARD. ISOLATE THE OPEN AND EXCHANGE THE BAD PART(S).

006
 EXCHANGE IPL DISKETTE UNIT ATTACHMENT CARD. IF NO REPAIR EXCHANGE THE DRIVE CONTROL CARD. SEE MAINTENANCE INFORMATION MANUAL PARA. A3.14. IF NO REPAIR
 GO TO MAP 0070, ENTRY POINT A.

VOLTAGE FOR THE GENERAL LOGIC PROBE CAN BE FOUND ON THE DRIVE CONTROL CARD. THE MINUS (BLACK WIRE) IS CONNECTED TO GROUND. THE PLUS (RED WIRE) IS CONNECTED TO +5V. SEE MAINTENANCE LOGIC DIAGRAM VOL. 1 SF140.

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007
GO TO MAP 0170 ENTRY POINT A AND LOAD HAND ROUTINE 4. EXECUTE HAND ROUTINE 4 IN PUN MODE. RETURN HERE AFTER LOADING HAND ROUTINE. PROBE '+ ACCESS 0', '+ ACCESS 1', '+ ACCESS 2', AND '+ ACCESS 3' WHILE RUNNING ROUTINE 4. SEE A2.10 IN MAINTENANCE INFORMATION MANUAL FOR CABLE TERMINATION CARD LOCATION.

VOLTAGE FOR THE GENERAL LOGIC PROBE CAN BE FOUND ON THE DRIVE CONTROL CARD. THE MINUS (BLACK WIRE) IS CONNECTED TO GROUND. THE PLUS (RED WIRE) IS CONNECTED TO +5V. SEE MAINTENANCE LOGIC DIAGRAM VOL. 1 SF140.

ALL LINES PULSING?

Y N

008
CHECK DISKETTE UNIT ATTACHMENT CABLE FOR CONTINUITY OF ACCESS LINES.
ARE ANY OPEN?

Y N

009
EXCHANGE DISKETTE UNIT ATTACH CARD
VERIFY THE REPAIR.

010
EXCHANGE DISKETTE UNIT ATTACH CABLE
VERIFY THE REPAIR.

011
PRESS THE STOP KEY. GO TO MAP 0170 ENTRY POINT A AND LOAD HAND ROUTINE 4A. PRESS INSTRUCTION STEP KEY. PRESS RESET, START, AND THEN PROBE FOR TRACK 0 IN THE FOLLOWING WAY. USE A VOLTMETER TO MEASURE VOLTAGE ON DISKETTE DRIVE CONTROL CARD TEST POINT 'MC-0', 'MC-1', 'MC-2' AND 'MC-3'.
SEE MAINTENANCE LOGIC DIAGRAM VOL. 1 SF140
CHECK EACH TEST POINT AND COMPARE RESULT TO TABLE AT RIGHT. DOWN LEVEL IS 0 TO .5 VDC AND UP LEVEL IS 21.6 TO 26.4 VDC.
PRESS START TWICE THEN PROBE FOR TRACK 1. REPEAT MEASUREMENT.
PRESS START TWICE THEN PROBE FOR TRACK 2. REPEAT MEASUREMENT.
PRESS START TWICE THEN PROBE FOR TRACK 3. REPEAT MEASUREMENT.
IS THE RESULT THE SAME AS TABLE AT RIGHT?

	STEPPER MOTOR TP			
	MC 0	MC 1	MC 2	MC 3
TRACK 00	DN	UP	UP	UP
TRACK 01	UP	DN	UP	UP
TRACK 02	UP	UP	DN	UP
TRACK 03	UP	UP	UP	DN

Y N

012
REMOVE DISKETTE DRIVE CONTROL CARD. MEASURE RESISTANCE OF EACH STEPPER MOTOR COIL AT PINS IN FEED THROUGH CONNECTOR. RESISTANCE ACROSS EACH COIL TO COMMON SHOULD BE 115-141 OHMS. SEE MAINTENANCE INFORMATION MANUAL PARA. A2.8. MEASURE PINS D03, B02, D04 AND D02 TO COMMON PIN B05.
IS RESISTANCE OF ALL FOUR CORRECT?

Y N

013
EXCHANGE STEPPER MOTOR.
SEE A3.12 IN MAINTENANCE INFORMATION MANUAL.
ANY MORE FAILURES?

Y N

014
VERIFY THE REPAIR.

015
CHECK '+ 5 VDC' AND '- 5 VDC' INPUT VOLTAGES TO DISKETTE DRIVE CONTROL CARD. SEE MAINTENANCE LOGIC DIAGRAM VOL. 1 SF 140 FOR CORRECT TEST POINT.
ARE VOLTAGES CORRECT?

Y N

016
CHECK CABLES. IF OK,
GO TO MAP 4880, ENTRY POINT A.

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017
EXCHANGE DISKETTE DRIVE CONTROL CARD AND
CHECK FOR CORRECT OPERATION.
SEE A3.14 IN MAINTENANCE INFORMATION
MANUAL.
VERIFY THE REPAIR.

018
CHECK '+ 5 VDC' AND '- 5 VDC' INPUT
VOLTAGES TO DISKETTE DRIVE CONTROL CARD.
SEE MAINTENANCE LOGIC DIAGRAM VOL. 1 SF140
FOR CORRECT TEST POINT.
ARE VOLTAGES CORRECT?
Y N

019
CHECK CABLES. IF OK,
GO TO MAP 4880, ENTRY POINT A.

020
EXCHANGE DISKETTE DRIVE CONTROL CARD AND
CHECK FOR CORRECT OPERATION.
SEE A3.14 IN MAINTENANCE INFORMATION MANUAL.
VERIFY THE REPAIR.

021
REMOVE DISKETTE DRIVE CONTROL CARD. MEASURE
RESISTANCE OF EACH STEPPER MOTOR COIL AT PINS
IN FEED THROUGH CONNECTOR. RESISTANCE ACROSS
EACH COIL TO COMMON SHOULD BE 115-141 OHMS.
SEE MAINTENANCE INFORMATION MANUAL PARA.
A2.8. MEASURE PINS D03, B02, D04 AND D02 TO
COMMON PIN B05.
IS RESISTANCE OF ALL FOUR CORRECT?
Y N

022
EXCHANGE STEPPER MOTOR.
SEE A3.12 IN MAINTENANCE INFORMATION MANUAL.
VERIFY THE REPAIR.

023
CHECK THAT STEPPER PULLEY CLAMP IS TIGHT AND
PULLEY IS TIGHT ON STEPPER MOTOR SHAFT.
SEE A3.12.4 IN THE MAINTENANCE INFORMATION
MANUAL.
IS IT TIGHT?
Y N

024
ADJUST AND TIGHTEN STEPPER PULLEY OR
REPLACE, AS NECESSARY
VERIFY THE REPAIR.

025
VISUALLY CHECK STEPPER DRIVE BAND TRACKING.
SEE A3.12.6 IN THE MAINTENANCE INFORMATION
MANUAL.
IS STEPPER DRIVE BAND TRACKING NEAR CENTER OF
IDLER PULLEY?
Y N

026
ADJUST, TIGHTEN, EXCHANGE STEPPER PULLEY
AND/OR BAND.
VERIFY THE REPAIR.

027
CHECK STEPPER DRIVE BAND TO SEE THAT IT IS
FREE OF DAMAGE.
SEE A3.12.6 IN MAINTENANCE INFORMATION MANUAL.
IS STEPPER DRIVE BAND FREE OF DAMAGE?
Y N

028
EXCHANGE BAND.
VERIFY THE REPAIR.

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029
REMOVE SCREWS THAT CLAMP DRIVE BAND TO
CARRIAGE.
SEE FIGURE ASSOCIATED WITH A3.12.7 IN
MAINTENANCE INFORMATION MANUAL.
CHECK TO SEE THAT CARRIAGE IS MOVING FREELY ON
EACH GUIDE ROD.
DOES CARRIAGE MOVE FREELY?
Y N

030
CLEAN OR EXCHANGE AS NECESSARY.
VERIFY THE REPAIR.

031
REMOVE DRIVE BAND FROM STEPPER PULLEY AND
IDLER.
SEE A3.12.8 IN MAINTENANCE INFORMATION MANUAL.
IS IDLER FREE OF ANY BINDING?
Y N

032
EXCHANGE IDLER.
VERIFY THE REPAIR.

033
DOES STEPPER MOTOR BIND WITH PULLEY ATTACHED?
Y N

034
INSTALL A NEW DRIVE BAND AND ADJUST.
VERIFY THE REPAIR.

035
IS THERE A GAP BETWEEN STEPPER PULLEY AND
CASTING?
SEE FIGURE ASSOCIATED WITH A3.12.1 IN THE
MAINTENANCE INFORMATION MANUAL TO OBSERVE GAP.
Y N

036
ADJUST PULLEY SO THAT THERE IS A GAP AND THE
DRIVE BAND TRACKS CORRECTLY.
SEE A3.12.7 IN MAINTENANCE INFORMATION
MANUAL.
VERIFY THE REPAIR.

037
EXCHANGE STEPPER MOTOR.
SEE A3.12.1 IN MAINTENANCE INFORMATION MANUAL.
VERIFY THE REPAIR.

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