DIMENSION® 600/2000 PBX
MICRODIAGNOSTIC TEST 8 (MD8)
(PROC 572)

1. GENERAL

1.1 This section is issued in order to make available the information contained in the Administration and Maintenance Manual, 500-497, PROC 572 .

1.2 The attachment provides a procedure for testing memory blocks.

ATTACHMENT

PROC 572 (4 pages)

Reason for Issue:
New Section

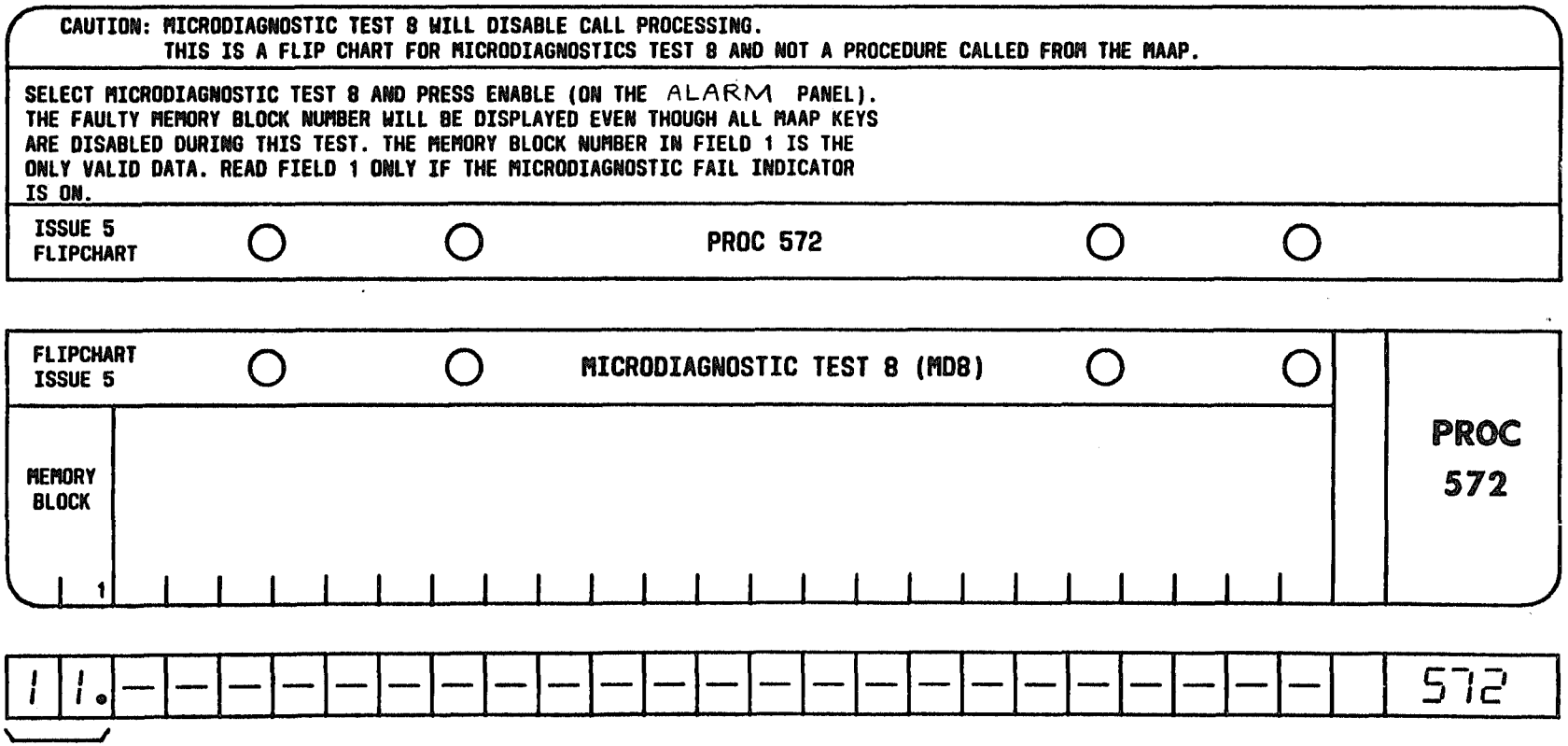
Manager, Denver PBX PECC

PROCEDURE 572 - MICRODIAGNOSTIC TEST 8 (MD8)

A. DESCRIPTION

Procedure 572 is used only to display the number of the failing memory block (numbered in octal) detected during the running of microdiagnostic test 8.

The Procedure 572 flipchart is provided only as an aid to locate field 1. Field 1 indicates the memory block number (not the slot number) of the faulty board. For example, when an LC28 is slot 01, memory block 00 is located there. When an LC128 is in slot 01, memory blocks 00 and 01 are located there. When an LC346 is in slot 01, memory blocks 00-07 are located there.



B. FIELD DEFINITIONS AND CODES

Field	Code	Definition
1	0-77 (octal)	Memory block number.

C. TEST PROCEDURES

CAUTION

In Feature Package 9, running microdiagnostic test 8 disables call processing and destroys maintenance and hotel/motel billing data. Billing data should be printed out in hard copy before running microdiagnostic test 8.

NOTE

Before starting the test, verify that the program tape is installed in the system.

To start the test, set the Alarm Panel SELECT switch to 8 and depress the ENABLE switch. If the FAIL indicator turns on, refer to field 1 of the flip chart for the number of the memory block at fault. All MAAP keys are disabled during the test. The MAAP procedure number is not displayed.

D. REPAIR GUIDE

When a memory failure occurs, the following steps should be performed, in the order shown, to isolate and repair the faulty unit:

Step **Isolation Procedure**

1. If microdiagnostic test 8 fails, replace the LC28B/C circuit pack (LC128 or LC346 on later machines) that contains the memory block indicated on the MAAP display. See the lower label on the carrier specified.

2. Verify that the circuit breaker associated with the carrier is set to the ON position.

3. Repeat the test.

4. If memory block 00 is displayed, a memory control board may have failed. The suggested replacement sequence is LC143 or LC455, LC142, LC35 or LC135, LC36 or LC136, LC37 or LC137 (LC138 on later machines).

   If these replacements do not correct the failure, run the other microdiagnostic tests. The problem may be in the processor, I/O bus, or wiring.

5. If the procedure number field on the MAAP continually displays a single 0, there is the possibility that memory circuit pack is defective, and microdiagnostic test 8 is unable to locate it. In this case, the X-ray test can be used to help locate the failing memory packs.

D. REPAIR GUIDE (Contd)

Step	Isolation Procedure
5. (Contd)	Each issue of X-ray requires a specified minimum number of memory circuit packs to load tape successfully. If LC28 packs are used, 13 are required. If LC128 packs are used, 7 are required. If LC346 packs are used, 2 are required. Depending on the X-ray issue used, the results obtained from attempting to load tape can be used to locate the defective memory packs. If the defective memory pack is among the circuit packs required to load X-ray, the system will be unable to load tape and will go into emergency transfer. If the defective memory pack is not one of the circuit packs required to load X-ray, the tape will load successfully. Then on running X-ray will check memory, find the defective memory packs and an X-ray fault code indicating the slot location of the defective circuit pack will be displayed on the MAAP. The X-ray fault code counts the memory circuit pack slots as 00_{10} through 47_{10}.
	When an Issue 4 X-ray tape is used:
	(a) If the system goes into emergency transfer, the defective memory packs are in one of the first 8 memory blocks.
	(b) If the system has more than eight memory packs, exchange the circuit pack(s) located in memory blocks 00_8 through 07_8 with those in memory blocks 10_8 through 17_8.
	(c) Reload the X-ray tape. Because the defective memory packs are no longer one of the circuit packs required to load X-ray, the tape should load successfully and the location of the faulty memory packs should be displayed on the MAAP.
	When an Issue 7 X-ray tape is used:
	(a) If the system goes into emergency transfer, the defective memory packs are in one of the first 12 memory blocks.
	(b) If the size of the system allows, exchange the circuit packs located in memory blocks 00_8 through 13_8 with those in memory blocks 14_8 through 30_8.

D. REPAIR GUIDE (Contd)

Step	Isolation Procedure
	(c) Reload the X-ray tape. The tape should load successfully and the location of the faulty memory packs should be displayed on the MAAP.
	(d) If the system memory comprises less than 96K of memory (12 8K packs, 6 16K packs, or 2 64K packs), it will not be possible to exchange all of the first 12 memory blocks (8K of memory per block) at the same time. Instead, exchange the circuit packs located in memory blocks 00_8 through 03_8 with those in memory blocks 14_8 through 17_8.
	(e) Reload the X-ray tape. If the fault code is displayed on the MAAP, the defective memory packs can be replaced.
	(f) If the system goes into emergency transfer, the faulty memory pack is in one of memory blocks 04_8 through 13_8. Successively exchange circuit packs located in memory blocks 04_8 through 07_8 and blocks 10_8 through 13_8 with those in memory blocks 14_8 through 17_8.
	(g) Reload the X-ray tape after each exchange. After one of the two exchanges, the location of the faulty memory packs should be displayed on the MAAP, and the circuit pack can be replaced.
6.	If Steps 1 through 5 fail to isolate the faulty unit, replace the following units, in the order listed, testing after each replacement the tape cartridge, LC29B, LC30B, LC132 or LC134, LC133, and the minirecorder.

END