

IDENTIFICATION

PRODUCT CODE: MAINDEC-8E-DIAB-D
PRODUCT NAME: MM8E 4K MEMORY CHECKERBOARD
DATE CREATED: JUNE 7, 1971
MAINTAINER: DIAGNOSTIC GROUP
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1. ABSTRACT

This program is designed to detect core failures on half-selected lines under worst case noise conditions. Its use is intended for the PDP-8E with a basic 4K memory system.

2. REQUIREMENTS

Equipment

A PDP-8E computer with 4K of memory.

Storage

Initially the program is in core locations 2000-777 and in core locations 7000-7577.

3. LOADING PROCEDURE

Load the program with the binary loader (BIN).

4. OPERATING PROCEDURE

There are two entries to the program. These entries allow the user to start by testing upper core (1000-7777), or start by testing lower core (0000-6777). To start the program:

A. Load Address with desired entry address.

LOAD ADDRESS 0200 Test upper core (1000-7777).

LOAD ADDRESS 7000 Test lower core (0000-6777)

B. Set switch register to desired operation according to the following table.

SWITCH	0 (down)	1 (up)
SR00	Continue testing	Halt after test
SR07	Relocate program	Inhibit relocation

C. Press key start.

NOTE 1: RIM and BIN are saved during this test and will not be lost if the program is halted using SR00.

NOTE 2: This program will alternate testing upper and lower core unless SR07 is set. During program relocation a comparison check is made to insure no program loss.

5. ERRORS

The contents of a given memory test location should always be 0000 or 7777, therefore anything other than 0000 or 7777 will result in a test error halt. A relocation error halt will occur if the relocation comparison check fails.

Test Error Halts

A test error halt is indicated by halt address 07XX or 75XX.

If the link is set, the error occurred on complemented data.

1st halt - The AC displays the contents of the location in error.

Record the C(AC) and press key continue.

2nd halt - The AC displays the address of the location in error.

Record the C(AC) and press key continue to resume testing with the next sequential memory address.

Relocation Error Halts

A relocation error halt is indicated by halt address 03XX or 71XX.

1st halt - The AC displays the contents of the location transferring from. Record the C(AC) and press key continue.

2nd halt - The AC displays the address of the location transferring from. Record the C(AC) and press key continue.

3rd halt - The AC displays the contents of the location transferring to. Record the C(AC) and press key continue.

4th halt - The AC displays the address of the location transferring to. Record the C(AC) and C(MA). Manually correct bad core location if possible. Load Address = C(MA) and press key continue to continue relocation.