DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE

TITLE   MM8-AA & MM8-AB FIELD INSTALLATION & ACCEPTANCE PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG		APPD		SIZE	CODE	NUMBER	REV
7. Ferguson 11/13/71		Dennis Sullivan 11/13/75		A	SP	MM8-A-1	

DEC 16-(392)-1079-N971
DRA 107

SHEET 1 OF 5

TITLE   MM8-AA & MM8-AB FIELD INSTALLATION & ACCEPTANCE PROCEDURE

I   GENERAL

This procedure defines the performance standards required of the MM8-AA (8K core) and the MM8-AB (16K core) memories.

The MM8-AA and MM8-AB core memories are used with the PDP-8A 400 or 500 series processors. These processors are equipped with the proper power supplies for the above memories.

II   INSPECTION

After removing the MM8AA or AB from the packing material, inspect the memory for the following:

1. Inspect memory system for loose or broken components.

2. Check that all software, documentation, and equipment is included as specified on software and shipping list.

3. Insure that the stack board is firmly secured to the baseboard with all interconnecting screws in place.

III   INSTALLATION PROCEDURE

1. Field selection jumpers must be checked for proper configuration. The six split lugs used for field selection are located on the baseboard between E4 and E5 in the middle right side of the module (Fig. 1 & 2) The selection scheme is indicated as shown.
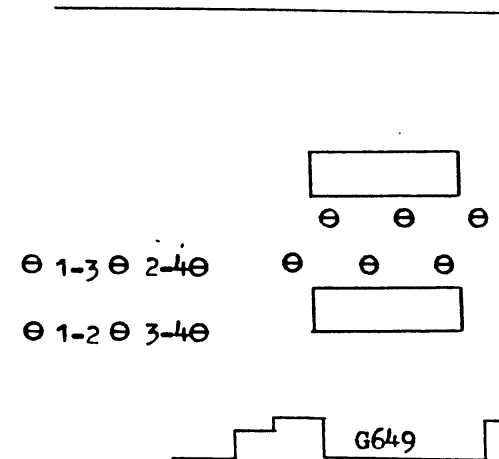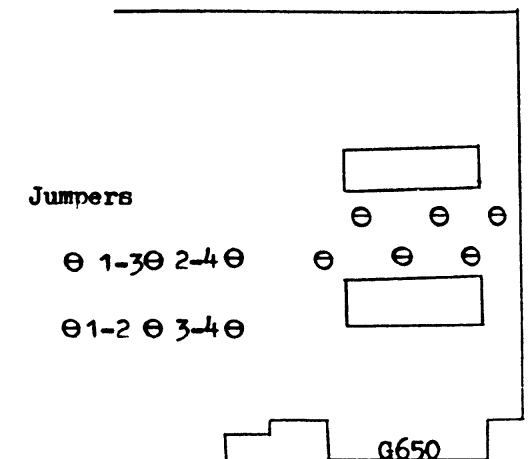

Fig. 1

MM8AA (8K)

Fig. 2

MM8AB (16K)

SIZE	CODE	NUMBER	REV
A	SP	MM8-A-1	

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III continued

MM8-AA	
MEMORY LOCATION	INSTALL JUMPERS
0-8K	(1-3)(1-2)
8K-16K	(2-4)(1-2)
16K-24K	(3-4)(1-3)
24K-32K	(3-4)(2-4)

TABLE 1

MM8-AB	
MEMORY LOCATION	INSTALL JUMPERS
0-16K	(1-3)(1-2)
16K-32K	(2-4)(1-2)
* 32K-48K	(3-4)(1-3)
* 48K-64K	(2-4)(3-4)

TABLE 2

To select the proper fields for the MM8AA or MM8AB, use Table#1 and Table #2, to determine the desired memory configuration then insert jumpers as indicated in appropriate table.

ALLOWABLE MEMORY CONFIGURATIONS
(FIELD STARTING ADDRESS)

	8K	16K
ØK	ST 00000 MM8AA (8K)	ST 00000 MM8AB (16K)
8K		
16K	ST 20000 MM8AA (8K)	
24K	ST 40000 MM8AA (8K)	ST 40000
32K	ST 60000 MM8AA (18K)	MM8AB (16K)

REFER TO MAINTENANCE MANUAL FOR ADDITIONAL INFORMATION

* PRESENTLY NOT AVAILABLE

III   CONTINUED

2. Next insure that all power is removed from the PDP-8A.

3. Insert memory into an available omnibus (slots #4 through #8).

   Care should be taken upon insertion so that protruding components are not damaged.

4. Turn power on.

5. Validate continuous memory configuration by performing a load, deposit, and examine to each memory field available.

IV   ACCEPTANCE PROCEDURE

Equipment required:

1. PDP-8A series 400 or 500 with extended memory control (KM8E or KM8A).

2. Programmers console (KC8A).

3. Papertape input device.

4. Diagnostic & Listing (08-DJMMA-PB).

5. Field Service test fixture. DEC PT. NO. 7011459

NOTE: If the Programmer's Console and paper tape input device are not available as part of the system being used, they must be supplied in good working order by the customer.

A. Power Fail Check

To check the power fail circuits in the MM8AA or AB, a short program should be loaded; a simple increment of the AC is sufficient. With the program running, power should be turned "OFF" then "ON". Upon examination of the program in the memory, no locations should be altered by the power failure.

IV. Continued

    B.   <u>Operational Check</u>

       To insure operation of the MM8AA or AB memory, the 4-32K memory test (08-DJMMA-PB) should be run a minimum of 10 minutes on the MM8AA and 20 minutes on the MM8AB. The time should be increased proportionally for each additional MM8AA or AB.

    C.   <u>Memory Margins</u>

       1.   Load the 4-32K diagnostic (08-DJMM8APB).

       2.   With the processor halted, the field service test fixture should be connected to J147 on the memory baseboard G649 or G650. Connector should be installed with pins 1-7 properly aligned with connector.

       3.   Place only one of the two switches on the test fixture to the HI or LO position at a time, halting the processor before changing switch position.

       4.   The △ strobe switch will vary memory strobe ±10ns., and the △ XY switch will vary X-Y current ± 10 ma.

       5.   The diagnostic should be run for five minutes at each switch position.

       6.   If a failure occurs in any of the four switch positions, the memory is suspected of having a problem and appropriate action should be taken.

    NOTE: DO NOT USE FIELD SERVICE TEST FIXTURE ON G649 "C" ETCH MODULES.

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A	SP	MM8-A-1	