

MEMORY PATTERN TESTS

JA BP 6A

May 5, 1961

- 1. Programs becoming obsolete - JA CP6 Memory Pattern Tests.
- 2. Used to provide pattern generating tool for memory scoping.

1. PURPOSE

The MPT 06 I and II programs were written to provide a means of generating patterns within memory, facilitating scoping of memory circuits. Part I checks four 16K B memory boxes starting in location 100000<sub>8</sub>. Part II checks two 16K A memory boxes, starting in location 40<sub>8</sub>.

2. PROGRAM INTRODUCTION

This program operates continuously with no error indications. It relies on scoping to detect errors.

3. OPERATING PROCEDURES

1. Loading Procedures

1.1 PUNFUL Binary deck consists of 7 cards.

1.2 Procedure

1.2.1 Push Master Reset

1.2.2 Place Interrupt disable in the active position.

1.2.3 Place maintenance switch in active (Maintenance Mode) position.

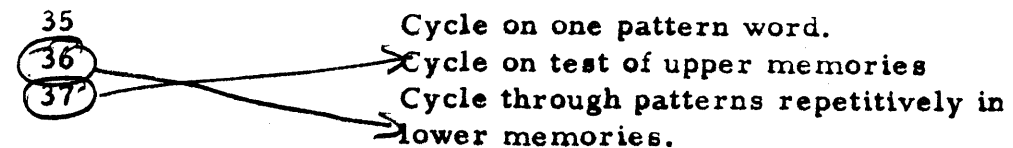
1.2.4 Place sense switches in desired positions.

1.2.5 Depress Initial Program Load on maintenance console.

1.2.6 Place deck in card reader and push START.

2. Options

Sense Switch	Effect of setting to a 1
(Maintenance Bits)	



38

LOOP-T-LOOP

7030 DPS

4. PROGRAM PHILOSOPHY

Six pattern words are used.

- 1) All zeros word
- 2) All ones word
- 3) Alternating one and zero ( 101010 ... )
- 4) Alternating zero and one ( 010101 ... )
- 5) Zeros ECC word
- 6) Ones ECC word

Each word is stored throughout memory, either upper or lower. The operator may cycle on any pattern word or sequence through them. He may cycle on either the A or the B memories, or may alternate between them.

PROGRAM WRITEUP ADDENDUM

Program	<u>Mem Pattern</u>
File No.	<u>JA BP6A</u>

MAINTENANCE TAPE CONTROL CARD

Location/s of Exit Branch/es

1.	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>
2.	_____	_____	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____	_____	_____

Pre-Loading Manual Intervention Required ? Yes  No

Pre-Loading Procedure (If Any)

PRNID, MEMORY PATTERN %6 BOX# A. BROWN  
PRNID, MAY 5, 1961, JA RP6A

19

18

16

15

12

9

8

7

6

5

4

3

2

1

0

9

8

	SEM,6,G								
	PUNFUL,								
	SLC,509.							000775.00	
	CW%CDSC□,510.,2,510				776.00	60	000040.01	FE	000775.00
	CW%CDSC□,512.,FINM1-MPATA,\$61.0				1000.00	60	001520.01	FF	000776.00
	CW%CD□,32768.,FINM2-MPATB,\$				100000.00	20	022320.01	FF	000777.00
	SLC,512.								001000.00
MPATA	LCI,\$X2,50				62.05	02			001000.00
	NOP,0.0	@SET UP TO PROTECT LOW MEM TEST			0.30	00			001000.40
	T,\$X2,MPATB,MPST1	@PUT LOW MEM TEST IN STORAGE			100000.00	80	001034.04	20	001001.00
MPATA1	LX,\$X1,MPAXW1				1013.02	10			001002.00
	LCI,\$X2,6	@SET UP TMT CNT & PATTERN CNT			6.05	02			001002.40
MPAT1	TI,1,MPTDA1%\$X1□,32768.	@PLACE PATTERN IN TEST AREA			1014.00	81	100000.02	A0	001003.00
	T,\$X1,32768.,32769.	@TMT PATTERN THROUGH MEM			100000.00	80	100001.02	20	001004.00
	BB,4.35,MPAT1	@TURN SW 35 ON TO LOOP PATTERN			4.43	80	001003.34	02	001005.00
	V&I,\$X1,1.0				1.03	05			001006.00
	CB,\$X2,MPAT1	@CHANGE PTRN. & BR TO USE			1003.04	48			001006.40
	BB,4.36,MPATA1	@TURN SW 36 ON TO LOOP			4.44	80	001002.34	02	001007.00
	LCI,\$X2,50.				62.05	02			001010.00
	NOP,0.	@SET UP TO TMT LOW MEM TEST			0.30	00			001010.40
	T,\$X2,MPST1,MPATB	@RESTORE LOW MEM TEST			1034.00	80	100000.04	20	001011.00
	R,MPATB				100000.10	00			001012.00
	NOP,0	@BRANCH TO LOW MEM TEST			0.30	00			001012.40
MPAXW1	XW,0,65535,\$				0.00	03	777760.02	0B	001013.00
MPTDA1	%8□DD%BU,64,8□,0	@05			000000000000000000000000				001014.00
MPTDB1	%8□DD%BU,64,8□,1	777 777 777 777 777 777 777 @15			177777777777777777777777				001015.00
MPTDC1	%8□DD%BU,64,8□,1	252 525 252 525 252 525 252 @1010 PATTERN			125252525252525252525252				001016.00
MPTDD1	%8□DD%BU,64,8□,0	525 252 525 252 525 252 525 @0101 PATTERN			052525252525252525252525				001017.00
MPTDE1	%8□DD%BU,64,8□,0	000 000 006 060 000 000 001 @05 ECC			0000000000600000000001				001020.00
MPTDF1	%8□DD%BU,64,8□,1	777 777 777 757 777 777 777 @15 ECC			177777777775777777777777				001021.00
	%8□DD%BU,64,8□,0,0,0,0,0,0,0,0,0,0,0,0,0	@BUFFER			000000000000000000000000				001022.00

10  
11

12

				000000000000000000000000	001023.00
				000000000000000000000000	001024.00
				000000000000000000000000	001025.00
				000000000000000000000000	001026.00
				000000000000000000000000	001027.00
				000000000000000000000000	001030.00
				000000000000000000000000	001031.00
				000000000000000000000000	001032.00
				000000000000000000000000	001033.00
MPST1	DR%BU,64,8,25	@STORAGE		31.00	001034.00
	CNOP,0,0				
FINM1	NOP,0			0.30 00	001065.00
	NOP,0			0.30 00	001065.40
	SLC,32768,0				100000.00
MPATB	LCI,\$X2,562			1062.05 02	100000.00
	T,\$X2,64,0,MPST2	@SAVE UPPER TEST		100.00 80 100033.04 20	100000.40
MPATB2	LX,\$X1,MPAXW2			100012.02 10	100001.40
	LCI,\$X2,6	@SET UP TMT CNT & PATTERN CNT		6.05 02	100002.00
MPAT2	TI,1,MPTDA2,\$X1,32,0	@PLACE PATTERN IN TEST AREA		100013.00 81 000040.02 A0	100002.40
	T,\$X1,32,,33.	@TMT PATTERN THROUGH MEM		40.00 80 000041.02 20	100003.40
	BR,4,35,MPAT2	@TURN SW 35 ON TO LOOP PATTERN		4.43 80 100002.74 02	100004.40
	V&I,\$X1,1,0			1.03 05	100005.40
	CB,\$X2,MPAT2	@CHANGE PATTERN & BR TO USE		100002.44 48	100006.00
	BR,4,37,MPATB2	@TURN SW 37 ON FOR UPPER MEM TEST		4.45 80 100001.74 02	100006.40
	LCI,\$X2,562			1062.05 02	100007.40
	T,\$X2,MPST2,64,0	@REPLACE UPPER TEST		100033.00 80 000100.04 20	100010.00
	R,MPATA			1000.10 00	100011.00
	NOP	@BRANCH TO HI MEM TEST		0.30 00	100011.40
MPAXW2	XW,0,32735,s			0.00 01 776762.00 0A	100012.00
MPTDA2	%8DD%BU,64,8,0	@05		000000000000000000000000	100013.00
MPTDB2	%8DD%BU,64,8,1 777 777 777 777 777 777	@15		177777777777777777777777	100014.00
MPTDC2	%8DD%BU,64,8,1 252 525 252 525 252 525 252	@1010 PATTERN		1252525252525252525252	100015.00
MPTDD2	%8DD%BU,64,8,0 525 252 525 252 525 252				

	MPTDE2	%8DD%BU,64,8,0 000 000 000 060 000 000 001 05 FCC	0000000000060000000001	100017.00
	MPTDF2	%8DD%BU,64,8,1 777 777 777 757 777 777 777 @IS ECC	1777777777757777777777	100020.00
		%8DD%BU,64,8,0,0,0,0,0,0,0,0 @BUFFER	0000000000000000000000	100021.00
			0000000000000000000000	100022.00
			0000000000000000000000	100023.00
			0000000000000000000000	100024.00
			0000000000000000000000	100025.00
			0000000000000000000000	100026.00
			0000000000000000000000	100027.00
			0000000000000000000000	100030.00
			0000000000000000000000	100031.00
			0000000000000000000000	100032.00
	MPST2	DR%BU,64,8,562	1062.00	100033.00
		CNOP,0.0		
	FINM2	NOP,0.0	0.30 00	101115.00
		NOP,0.0	0.30 00	101115.40
		END,MPATA	1000.00	101116.00
19				
18				
17				
16				
15				
14				
13				
12				
11				
10				
9				
8				
7				
6				
5				