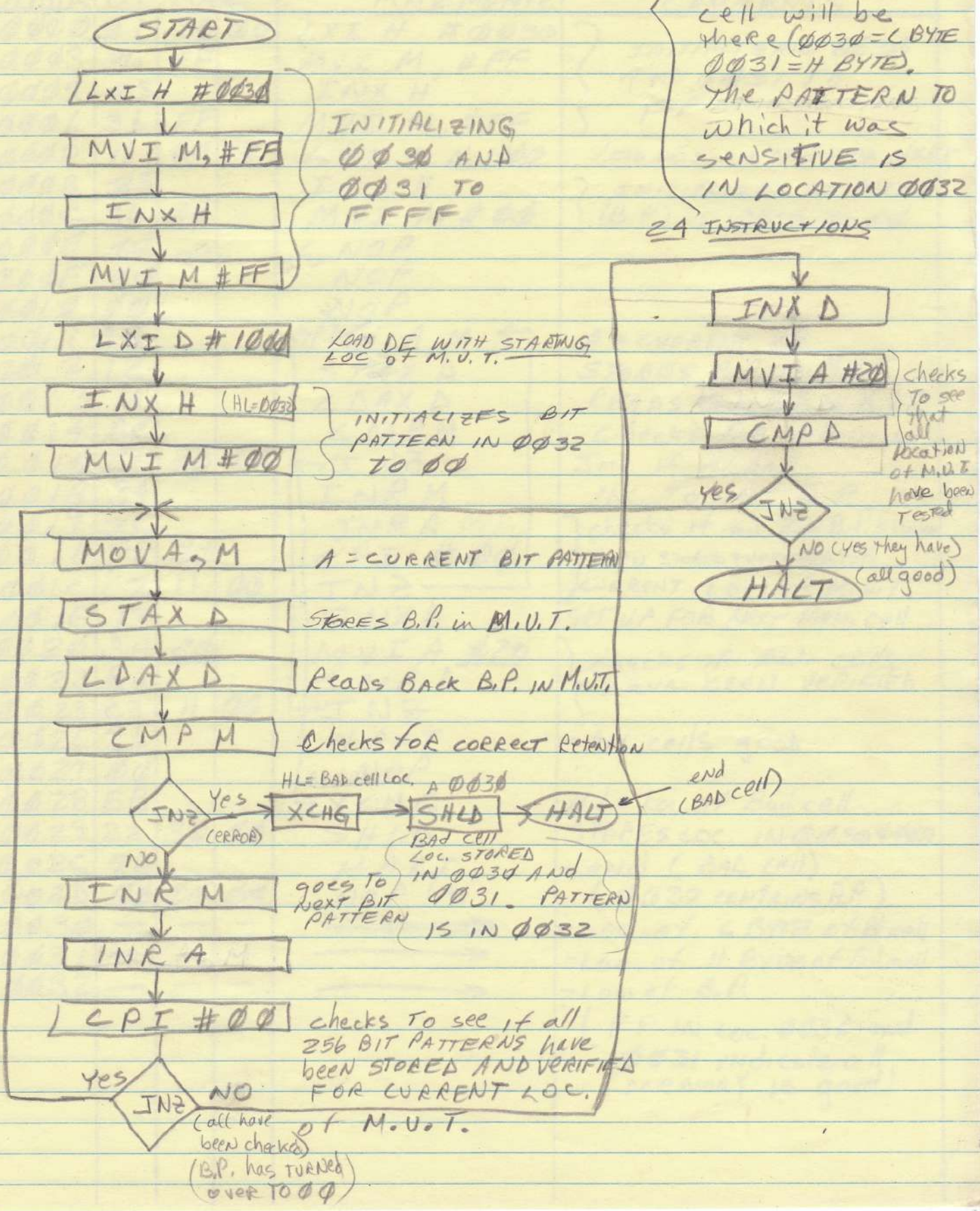


T. Williams
2-28-81

RAM TEST-2 (CHECKS FOR BIT SENSITIVITY AND RETENTION)

FF IN M₀₀₃₀ & M₀₀₃₁
IF ALL MEMORY CHECKS.
OTHERWISE, LOC. OF BAD MEMORY CELL WILL BE THERE (M₀₀₃₀ = L BYTE, M₀₀₃₁ = H BYTE).
THE PATTERN TO WHICH IT WAS SENSITIVE IS IN LOCATION M₀₀₃₂

24 INSTRUCTIONS



Williams
2-28-81

8000
TAKES
38 sec.
TOP 4K BYTES

RAM TEST-2

(CHECKS FOR BIT SENSITIVITY AND RETENTION)

FF IN M 0030 and 0031
IF ALL MEM. CHECKS,
OTHERWISE LOC. of Bad cell
will be there (0030=L BYTE
and 0031=H BYTE). The ADDR
TO WHICH IT WAS SENS. IS IN LOC. 0032

ADDR	OP	CODE	MNEMONIC	COMMENTS
0000	21	30 00	LXI H, #0030	INITIALIZING 0030 AND 0031 TO FF
0003	36	FF	MVI M, #FF	
0005	23		INX H	
0006	36	FF	MVI M, #FF	
0008	11	00 10	LXI D #1000	LOAD DE WITH START LOC. of M.V.T.
000B	23		INX H	INITIALIZES BIT PATTERN (B.P.) IN 0032 TO 00
000C	36	00	MVI M #00	
000E	00		NOP	
000F	00		NOP	
0010	00		NOP	
0011	7E		→ MOV A, M ←	A = CURRENT B.P.
0012	12		STAX D	STORES B.P. IN M.V.T.
0013	1A		LDAX D	READS BACK B.P. IN M.V.T.
0014	BE		CMP M	Checks for retention
0015	C2	28 00	JNZ	JMP IF ERROR
0018	34		INRM	INC. TO NEXT B.P.
0019	3C		INRA	checks if all 256 B.P.'s have been STORED & VERIFIED FOR CURRENT LOC. of M.V.T.
001A	FE	00	CPI #00	
001C	C2	11 00	JNZ	SET UP FOR NEXT MEM. cell
001F	13		INXD	
0020	3E	20	MVIA #20	checks if ALL cells have been VERIFIED
0022	BA		CMP D	
0023	C2	11 00	JNZ	
0026	76		HALT	- ALL cells good
0027	00		NOP	
0028	EB		→ XCHG	HL = Loc. of Bad cell
0029	22	30 00	SHLD	STORES LOC. IN 0030 & 0031
002C	76		HALT	- end (BAD cell)
002D	00	00 00	NOP (3)	(0032 CONTAINS B.P.)
0030	-	-	→	- LOC. of L BYTE of Bd cell
0031	-	-	→	- LOC. of H BYTE of Bd cell
0032	-	-	→	- LOC. of B.P.

(FF IN LOC. 0030 and
0031 indicate all
MEMORY IS GOOD)