

## Toggle in Programs

### Group 1 Microinstructions

200/7200 CLA 0000  
 201/7100 CLL 0000  
 202/7040 CMA 0777  
 203/7020 CML 1777  
 204/7020 CML 0777  
 205/7010 RAR 1377  
 206/7004 RAL 0777  
 207/7012 RTR 1577  
 210/7006 RTL 0777  
 211/7001 IAC 10000  
 212/7001 IAC 10001  
 213/7002 BSW 10100  
 214/7402 HLT 10100

Final HLT the AC = 0100  
 LINK = 1

### Operte Instructions

0200/7240 CLA CMA  
 201/7001 IAC by 0202  
 202/7640 SZA CLA  
 203/7402 ERROR HLT - should not halt  
 204/7120 Set lnk to 1  
 205/7010 RAR AC = 4000  
 206/7510 Skip if AC bit 0 = 0  
 207/7410 SKP  
 210/7402 HLT - should not halt  
 211/7001 IAC + 1  
 212/7002 BSW AC = 0140  
 213/1202 Add 7640 to 0140  
 214/7420 SKP if lnk = 1  
 215/7402 HLT on error  
 216/7402 Good HLT AC = 0000

This program should halt at  
 loc 00216 (addr. should read 0217)  
 AC = 0000

### Group 2 Microinstructions

200/7300 CLA CLL  
 201/7440 SZA  
 202/7402 HLT  
 203/7430 SZL  
 204/7402 HLT  
 205/7020 CML 10000  
 206/7420 SNL  
 207/7402 HLT  
 210/7001 IAC 10001  
 211/7450 SNA  
 212/7402 HLT  
 213/7510 SPA  
 214/7402 HLT  
 215/7410 SKP  
 216/7402 HLT  
 217/7012 RTR 06000  
 220/7500 SMA  
 221/7402 HLT  
 222/7404 CSR 06001  
 223/7402 HLT

LA 200 SR = 0001

### ISZ Instructions - w

200/7500  
 201/3300  
 202/7001  
 203/2300  
 204/5202  
 205/7440  
 206/7402  
 207/7402

This program halts at  
 loc 00307 (addr. read 00310)  
 AC = 0000

### JMS Instruction = w

200/ 7300 Clear AC Clear link  
 201/ 3300 Zero pass counter  
 202/ 3204 Zero entry  
 203/ 4204 JMS  
 204/ 0000 Return addr. written here  
 205/ 1204 Get return addr.  
 206/ 7041 Complement and index AC  
 207/ 1215 Add to known good addr.  
 210/ 7440 SKP on AC=0  
 211/ 7402 Error halt  
 212/ 2300 Inc pass counter  
 213/ 5202 do again  
 214/ 7402 Good HLT  
 215/ 0204 constant

This program halts at 00214 (addr read 00215) AC=0000

### JMP Instruction

200/ 5210 JMP 210  
 201/ 7402 ERROR HLT  
 202/ 5206 JMP 206  
 203/ 7402 ERROR HLT  
 204/ 5212 JMP 212  
 205/ 7402 ERROR HLT  
 206/ 5204 JMP 204  
 207/ 7402 ERROR HLT  
 210/ 5204 JMP 202  
 211/ 7402 ERROR HLT  
 212/ 2300 LOOP TO DO 4096  
 213/ 5200 START PROG. AGR  
 214/ 7402 GOOD HLT AFTER 4096 TIMES

This program tests jump, it halts at 00215  
 \* Run this test twice

### Increment AC

200/ 7300      200/ 7001 = w  
 201/ 7001      201/ 2300  
 202/ 2207      202/ 5201  
 203/ 5202      OR 203/ 5200  
 204/ 2210  
 205/ 5204  
 206/ 5201

Visibly see AC increment

### WRITE ZERO'S - CLEAR MEM

0004/ 1007  
 0005/ 3410  
 0006/ 5004  
 0007/ 0000 value  
 0010/ 0011  
 7300  
 3410  
 5000  
 CLEARS 1 FIELD @ A TIME

\* Change loc 0007 to any desired loc of contents

### Checker board = w

7777/ 0000      0020/ 7300  
 0000/ 7300      0021/ 7020  
 0001/ 1007      0022/ 7420  
 0002/ 7040      0023/ 5025  
 0003/ 3007      0024/ 5027  
 0004/ 1007      0025/ 1032  
 0005/ 3410      OR 0026/ 7410  
 0006/ 5000      0027/ 1033  
 0007/ 0000      0030/ 3410  
 0010/ 0011      0031/ 5021  
                     0032/ 5252  
                     0033/ 2525  
                     0010/ 0035

The MD reg alternates between 0000 and 7777

The MD reg. alternates between 5252 and 2525

Console Print Test = w

0000/7001  
6046  
6041  
5002  
5000

Echo Test for : = w

1 terminal

1-4 terminals

(KL8A-M8319)

0000/6032  
1/6031  
2/5001  
3/6036  
4/6046  
5/6041  
6/5005  
7/5001

200/7300  
201/1205  
202/6412  
203/6401  
204/5203  
205/0210  
206/6406  
207/5203  
210/7000  
211/7000  
212/7000  
213/5206  
214/7000  
215/7000  
216/7000  
217/6405  
220/6404  
221/5203

LP05 Printer

ECHO	PRINT
200/6031	200/7001
201/5200	201/6666
202/6036	202/6661
203/6666	203/5202
204/5200	204/5200

Paper Tape - PC04

200/7001	200/7300
6026	201/6016
202/6031	202/6011
203/5202	203/5202
204/5200	204/5200

Punches alternating  
1's and 0's

Reads the  
tape

DecTape - TC01/TC08 Bootstrap

7613/6774	200/7606
7614/1222	6766
7615/6766	6771
7616/6771	5202
7617/5216	5200
7620/1223	7754/7577
7621/5215	7577
7622/0600	LA 200 SR=0600
3/0220	CONT SR=0220
7754/7577	LA 7600 - REBOOT
7577	

T08E SR Control Routine

0000/7300	CLA CLL
0001/7604	LAS
0002/6774	SDLC (Load TD Comm.)
0003/5201	
SR 0	= unit
SR 1	= fwd/rev.
SR 2	= stop/go
SR 3	= read/write.

Content Character in Switch Reg (bit 04-11)

0000/ 7604  
6046  
6041  
5002  
5000

Deposit SR into Corresponding Address

0000/ 7604  
3005  
1005  
3405  
5000

\* Deposit contents of switch register  
into corresponding address.

4K Core Transfer (8K or more)

7600/ 6201	Change data field to 0 (specifies source field)
1670	TAD I 7670
6211	Change data field to 1 (specifies destination field)
3670	LOCA I 7670
2270	Inc loc 7670
5300	JMP -5
7402	Halt
0000	