

IDENTIFICATION

PRODUCT CODE: MAINDEC-8/E-D0AB  
PRODUCT NAME: PDP-8/E INSTRUCTION TEST 1  
DATE CREATED: MAY 10, 1971  
MAINTAINER: DIAGNOSTIC GROUP  
AUTHOR: ED FORTMILLER

COPYRIGHT © 1971  
DIGITAL EQUIPMENT CORPORATION

1. ABSTRACT

-----  
THIS IS A DIAGNOSTIC PROGRAM FOR TESTING THE AND, TAD,  
OPERATE, AND BASIC MQ, INSTRUCTIONS OF THE PDP-8/E ONLY.

2. REQUIREMENTS

2.1 EQUIPMENT

-----  
A PDP-8/E EQUIPPED WITH TELETYPE.

2.2 STORAGE

-----  
THIS PROGRAM USES LOCATIONS 0000-5314. THE BINARY LOADER MUST  
BE STORED IN THE LAST MEMORY PAGE.

2.3 PRELIMINARY PROGRAMS

3. LOADING PROCEDURE

3.1 METHOD

-----  
THE STANDARD BINARY LOADER IS USED.

4. STARTING PROCEDURE

4.1 CONTROL SWITCH SETTINGS

-----  
SR=7777

4.2 STARTING ADDRESS

-----  
0200

4.3 OPERATOR ACTION

- 
1. SET SR TO 200 AND PRESS LOAD ADDRESS.
  2. SET SR TO 7777 AND PUSH CLEAR AND CONTINUE
  3. PROGRAM WILL HALT. MA=147
  4. IF AC IS NOT EQUAL TO 0000 AN ERROR HAS OCCURRED.
  5. PUSH CONTINUE. PROGRAM WILL RUN UNTIL STOPPED OR UNTIL  
AN ERROR IS ENCOUNTERED.

5. OPERATING PROCEDURE  
-----

SAME AS SECTION 4.

6. ERRORS  
-----

6.1 ERROR HALTS AND DESCRIPTION  
-----

SEE LISTING.

6.2 ERROR RECOVERY  
-----

IF IT IS DESIRED TO LOOP ON THE TEST CAUSING THE ERROR, REPLACE THE OPERATE INSTRUCTION(S) PRECEDING THE HLT WITH A JMP TO THE BEGINNING OF THE TEST.

7. RESTRICTIONS  
-----

7.1 STARTING RESTRICTIONS: NONE  
-----

7.2 OPERATING RESTRICTIONS: NONE  
-----

8. MISCELLANEOUS  
-----

8.1 EXECUTION TIME  
-----

THE TELETYPE BELL RINGS AT THE END OF 1440 PROGRAM PASSES WHICH IS APPROXIMATELY EVERY 5 SECONDS.

9. PROGRAM DESCRIPTION

-----  
THE PROGRAM CONSISTS OF MANY INDIVIDUAL TESTS. IN MOST CASES EACH TEST CHECKS ONLY ONE FUNCTION AND USES PREVIOUSLY TESTED FUNCTIONS AS A BASIS FOR THE TEST. THE PROGRAM COUNTER ACTION IS STRICTLY SEQUENTIAL EXCEPT FOR SKIPS. THE ONLY JMP INSTRUCTIONS USED ARE AT THE BEGINNING AND END OF THE PROGRAM. THE SEQUENCE OF TESTING IS AS FOLLOWS:

1. TEST ALL OPERATE FUNCTIONS INDIVIDUALLY EXCEPT FOR ROTATES,
2. TEST "TAD" INSTRUCTION.
3. TEST ROTATE FUNCTIONS.
4. TEST "BSW" INSTRUCTION.
5. GROUP 1 OPERATE INSTRUCTION TEST. ALL POSSIBLE COMBINATIONS.
6. GROUP 2 OPERATE INSTRUCTION TEST. ALL POSSIBLE COMBINATIONS.
7. MQ INSTRUCTION TEST. ALL POSSIBLE COMBINATIONS.
8. TEST "AND" INSTRUCTION.

THE TELETYPE BELL RINGS APPROXIMATELY EVERY 5 SECONDS.

10. LISTING

-----

/PDP-8/E INSTRUCTION TEST 1 MAINDEC-8E-D0AB  
 /COPYRIGHT 1970, 1971, DIGITAL EQUIPMENT CORP., MAYNARD, MASS. 01754  
 /TAPE 1

7002	BSW=7002	/SWAP BYTES IN AC
7401	NOPE=7401	/NOP
7601	CLAE=7601	/CLEAR AC
7421	MQL=7421	/LOAD MQ FROM AC THEN CLEAR AC
7501	MQA=7501	/INCLUSIVE OR, MQ AND AC
7621	CAM=7621	/CLEAR AC AND MQ
7521	SWP=7521	/SWAP AC AND MQ
7701	ACL=7701	/LOAD AC FROM MQ, CLEAR MQ
0000	*0	
0000	0000	0
0001	5001	JMP 1
0002	0002	0002
0003	0003	0003
0004	0000	0
0005	0000	0000
0006	7402	HALT, HLT
0007	7000	NOOP, NOP
0010	0000	0

/CONSTANTS AND VARIABLES

0020	*20	
0020	0000	K0000, 0000
0021	0001	K0001, 0001
0022	0002	K0002, 0002
0023	0003	K3, 3
0024	0004	K0004, 0004
0025	0006	K6, 6
0026	0010	K0010, 0010
0027	0014	K14, 14
0030	0020	K0020, 0020
0031	0030	K30, 30
0032	0040	K0040, 0040
0033	0060	K60, 60
0034	0100	K0100, 0100
0035	0140	K140, 140
0036	0200	K0200, 0200
0037	0300	K300, 300
0040	0400	K0400, 0400
0041	0600	K600, 600
0042	1000	K1000, 1000
0043	1234	K1234, 1234
0044	1400	K1400, 1400
0045	2000	K2000, 2000
0046	3000	K3000, 3000
0047	3312	K3312, 3312
0050	4000	K4000, 4000
0051	7717	K7717, 7717
0052	7776	K7776, 7776
0053	7775	K7775, 7775

0054	7773	K7773,	7773
0055	7767	K7767,	7767
0056	7757	K7757,	7757
0057	7737	K7737,	7737
0060	7177	K7177,	7177
0061	7677	K7677,	7677
0062	7577	K7577,	7577
0063	7377	K7377,	7377
0064	6777	K6777,	6777
0065	5777	K5777,	5777
0066	3777	K3777,	3777
0067	7777	K7777,	7777
0070	5252	K5252,	5252
0071	2525	K2525,	2525
0072	6000	K6000,	6000
0073	7000	K7000,	7000
0074	7400	K7400,	7400
0075	7600	K7600,	7600
0076	7740	K7740,	7740
0077	7760	K7760,	7760
0100	7770	K7770,	7770
0101	7774	K7774,	7774

0102	0007	K0007,	0007
0103	0067	K0067,	0067
0104	0017	K0017,	0017
0105	0037	K0037,	0037
0106	0077	K0077,	0077
0107	0177	K0177,	0177
0110	0377	K0377,	0377
0111	0777	K0777,	0777
0112	1777	K1777,	1777
0113	7700	K7700,	7700
0114	5225	K5225,	5225
0115	2552	K2552,	2552
0116	0770	K0770,	0770
0117	7007	K7007,	7007
0120	0207	BEL,	0207
0121	5140	BLCNT,	-2640
0122	5140	BLCON,	-2640

0144	1067	*144	
0144	1067	/TAD,CLA,HLT,TEST	
0145	7200	START, TAD K7777	
0146	7402	CLA	
		HLT	

0147	7410	/SKIP TEST	
0150	7402	SKP	
		HLT	
0151	7200	/SEA TEST 1	
		CLA	

/AC SHOULD=0  
/SET SR TO 7777, CONTINUE

/SKP FAILED

0152	7440	SZA	
0153	7402	HLT	/SZA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL ZERO
0154	7450	SNA	
0155	7410	SKP	
0156	7402	HLT	/SNA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL ZERO

/SZA TEST 2

0157	7200	CLA	
0160	1050	TAD	K4000
0161	7440	SZA	
0162	7410	SKP	
0163	7402	HLT	/SZA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 4000
0164	7450	SNA	
0165	7402	HLT	/SNA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 4000

/SZA TEST 3

0166	7200	CLA	
0167	1045	TAD	K2000
0170	7440	SZA	
0171	7410	SKP	
0172	7402	HLT	/SZA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 2000
0173	7450	SNA	
0174	7402	HLT	/SNA SHOULD HAVE SKIPPED
0175	7000	NOP	/AC SHOULD EQUAL 2000
0176	7000	NOP	
0177	7410	SKP	/SKIP OVER JMP START.

	0200	*200	
0200	5144	BEGIN, JMP START	/BEGINNING OF INSTRUCTION TEST 1.

/SZA TEST 4

0201	7200	CLA	
0202	1042	TAD	K1000
0203	7440	SZA	
0204	7410	SKP	
0205	7402	HLT	/SZA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 1000
0206	7450	SNA	
0207	7402	HLT	/SNA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 10000

/SZA TEST 5

0210	7200	CLA	
0211	1040	TAD	K0400
0212	7440	SZA	
0213	7410	SKP	
0214	7402	HLT	/SZA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 0400
0215	7450	SNA	
0216	7402	HLT	/SNA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 0400

/SZA TEST 6

0217 7200 CLA  
0220 1036 TAD K0200  
0221 7440 SZA  
0222 7410 SKP  
0223 7402 HLT

/SZA SHOULD NOT HAVE SKIPPED  
/AC SHOULD EQUAL 0200

0224 7450 SNA  
0225 7402 HLT

/SNA SHOULD HAVE SKIPPED  
/AC SHOULD EQUAL 0200

## /SZA TEST 7

0226 7200 CLA  
0227 1034 TAD K0100  
0230 7440 SZA  
0231 7410 SKP  
0232 7402 HLT

/SZA SHOULD NOT HAVE SKIPPED  
/AC SHOULD EQUAL 0100

0233 7450 SNA  
0234 7402 HLT

/SNA SHOULD HAVE SKIPPED  
/AC SHOULD EQUAL 0100

## /SZA TEST 8

0235 7200 CLA  
0236 1032 TAD K0040  
0237 7440 SZA  
0240 7410 SKP  
0241 7402 HLT

/SZA SHOULD NOT HAVE SKIPPED  
/AC SHOULD EQUAL 0040

0242 7450 SNA  
0243 7402 HLT

/SNA SHOULD HAVE SKIPPED  
/AC SHOULD EQUAL 0040

## /SZA TEST 9

0244 7200 CLA  
0245 1030 TAD K0020  
0246 7440 SZA  
0247 7410 SKP  
0250 7402 HLT

/SZA SHOULD NOT HAVE SKIPPED  
/AC SHOULD EQUAL 0020

0251 7450 SNA  
0252 7402 HLT

/SNA SHOULD HAVE SKIPPED  
/AC SHOULD EQUAL 0020

## /SZA TEST 10

0253 7200 CLA  
0254 1026 TAD K0010  
0255 7440 SZA  
0256 7410 SKP  
0257 7402 HLT

/SZA SHOULD NOT HAVE SKIPPED  
/AC SHOULD EQUAL 0010

0260 7450 SNA  
0261 7402 HLT

/SNA SHOULD HAVE SKIPPED  
/AC SHOULD EQUAL 0010

## /SZA TEST 11

0262 7200 CLA  
0263 1024 TAD K0004



0264	7440	SZA	
0265	7410	SKP	
0266	7402	HLT	/SZA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 0004
0267	7450	SNA	
0270	7402	HLT	/SNA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 0004

/SZA TEST 12

0271	7200	CLA	
0272	1022	TAD K0002	
0273	7440	SZA	
0274	7410	SKP	
0275	7402	HLT	/SZA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 0002
0276	7450	SNA	
0277	7402	HLT	/SNA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 0002

/SZA TEST 13

0300	7200	CLA	
0301	1021	TAD K0001	
0302	7440	SZA	
0303	7410	SKP	
0304	7402	HLT	/SZA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 0001
0305	7450	SNA	
0306	7402	HLT	/SNA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 0001

/SPA TEST 1

0307	7200	CLA	
0310	1046	TAD K3777	
0311	7510	SPA	
0312	7402	HLT	/SPA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 3777

/SPA TEST 2

0313	7200	CLA	
0314	1050	TAD K4000	
0315	7510	SPA	
0316	7410	SKP	
0317	7402	HLT	/SPA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 4000

/SMA TEST 1

0320	7200	CLA	
0321	1066	TAD K3777	
0322	7500	SMA	
0323	7410	SKP	
0324	7402	HLT	/SMA SHOULD NOT HAVE SKIPPED
			/AC SHOULD EQUAL 3777

/SMA TEST 2

0325	7200	CLA	
------	------	-----	--

0326 1050 TAD K4000  
0327 7500 SMA  
0330 7402 HLT

/SMA SHOULD HAVE SKIPPED  
/AC SHOULD EQUAL 4000

0331 7200 /CMA TEST 1  
0332 1067 CLA  
0333 7040 TAD K7777  
0334 7440 CMA  
0335 7402 SZA  
HLT

/CMA DID NOT COMPLEMENT AC  
/AC SHOULD EQUAL 0000

0336 7200 /CMA - TAD TEST 1  
0337 1071 CLA  
0340 7040 TAD K2525  
0341 7450 CMA  
0342 7402 SNA  
HLT

/TAD OR CMA ERROR  
/AC SHOULD EQUAL 5252

0343 1071 TAD K2525  
0344 7040 CMA  
0345 7440 SZA  
0346 7402 HLT

/TAD OR CMA ERROR  
/AC SHOULD EQUAL 0000

0347 7200 /CMA - TAD TEST 2  
0350 1070 CLA  
0351 7040 TAD K5252  
0352 7450 CMA  
0353 7402 SNA  
HLT

/TAD OR CMA ERROR  
/AC SHOULD EQUAL 2525

0354 1070 TAD K5252  
0355 7040 CMA  
0356 7440 SZA  
0357 7402 HLT

/TAD OR CMA ERROR  
/AC SHOULD EQUAL 0000

0360 7200 /CMA - TAD TEST 3  
0361 1067 CLA  
0362 7040 TAD K7777  
0363 7440 CMA  
0364 7402 SZA  
HLT

/TAD OR CMA ERROR  
/AC SHOULD EQUAL 0000

0365 7200 /IAC TEST 1  
0366 7001 CLA  
0367 7440 IAC  
0370 7410 SZA  
0371 7402 SKP  
HLT

/IAC DID NOT INCREMENT  
/AC SHOULD EQUAL 0001

0372 7200 /IAC TEST 2  
0373 1067 CLA  
0374 7001 TAD K7777  
IAC

0375	7440	SZA	
0376	7402	HLT	/IAC DID NOT INCREMENT
			/AC SHOULD EQUAL 0000
		/IAC TEST 3	
0377	7200	CLA	
0400	1101	TAD	K7774
0401	7001	IAC	
0402	7001	IAC	
0403	7001	IAC	
0404	7001	IAC	
0405	7440	SZA	
0406	7402	HLT	/IAC NOT INCREMENTING
			/AC SHOULD EQUAL 0000
		/SZL TEST 1	
0407	7200	CLA	
0410	7100	CLL	/CLEAR LINK
0411	7004	RAL	/CLEAR LINK SAFETY
0412	7430	SZL	
0413	7402	HLT	/SZL SHOULD HAVE SKIPPED
			/LINK SHOULD EQUAL ZERO
		/SZL TEST 2	
0414	7200	CLA	
0415	7100	CLL	/CLEAR LINK
0416	7020	CML	/COMPLEMENT LINK
0417	1050	TAD	K4000
0420	7004	RAL	/SET LINK SAFETY
0421	7430	SZL	
0422	7410	SKP	
0423	7402	HLT	/SZL SHOULD NOT HAVE SKIPPED
			/LINK SHOULD EQUAL ONE
		/SNL TEST 1	
0424	7200	CLA	
0425	7100	CLL	/CLEAR LINK
0426	7004	RAL	/CLEAR LINK SAFETY
0427	7420	SNL	
0430	7410	SKP	
0431	7402	HLT	/SNL SHOULD NOT HAVE SKIPPED
			/LINK SHOULD EQUAL ZERO
		/SNL TEST 2	
0432	7200	CLA	
0433	7100	CLL	/CLEAR LINK
0434	7020	CML	/COMPLEMENT LINK
0435	1050	TAD	K4000
0436	7004	RAL	/SET LINK SAFETY
0437	7420	SNL	
0440	7402	HLT	/SNL SHOULD HAVE SKIPPED
			/LINK SHOULD EQUAL ONE
		/CLL TEST 1	
0441	7200	CLA	
0442	1050	TAD	K4000

0443	7024	RAL	/SET LINK
0444	7420	SNL	
0445	5252	JMP CLL11	/CANNOT SET LINK WITH RAL
			/TRY A CML
0446	7100	CLL1, CLL	
0447	7430	SZL	
0450	7402	HLT	/CLL DID NOT CLEAR LINK
			/LINK SHOULD EQUAL ONE
0451	5256	JMP .+5	
0452	7020	CLL11, CML	/SET LINK
0453	7420	SNL	
0454	7402	HLT	/CANNOT SET LINK WITH
			/RAL OR CML, CANNOT
			/PERFORM CLL TEST 1
0455	5246	JMP CLL1	

/CML TEST 1			
0456	7100	CMLT1, CLL	
0457	7430	SZL	
0460	7402	HLT	/CLL DID NOT CLEAR LINK
0461	7020	CML	
0462	7420	SNL	
0463	7402	HLT	/CML DID NOT SET LINK
0464	7020	CML	
0465	7430	SZL	
0466	7402	HLT	/CML DID NOT RESET LINK
/CLA TEST 1 (OPERATE GROUP 2)			
0467	7200	CLA	
0470	1067	TAD K7777	
0471	7600	7600	
0472	7440	SZA	
0473	7402	HLT	/CLA (7600) DID NOT CLEAR AC
			/AC SHOULD EQUAL 0000

/OSR TEST 1			
0474	7200	CLA	
0475	7404	OSR	
0476	7040	CMA	
0477	7440	SZA	
0500	7402	HLT	/OSR DID NOT SET AC TO 7777
			/AC SHOULD=0

/NOP TEST 1 (OPERATE GROUP 1)			
0501	7200	CLA	
0502	7100	CLL	/AC AND LINK EQUAL ZERO
0503	7000	7000	/TEST INSTRUCTION
0504	7430	SNA	
0505	7430	SZL	
0506	7402	HLT	/NOP FAILURE
			/AC AND LINK SHOULD BE ZERO

/NOP TEST 2 (OPERATE GROUP 2)			
0507	7200	CLA	

0510	7100	CLL	/AC AND LINK EQUAL ZERO
0511	7400	7400	/TEST INSTRUCTION
0512	7450	SNA	
0513	7430	SZL	
0514	7402	HLT	/NOP FAILURE

/AC AND LINK SHOULD BE ZERO

## /TAD TEST 1

0515	7200	CLA	
0516	1066	TAD K3777	/OPERAND 1
0517	1050	TAD K4000	/OPERAND 2
0520	7040	CMA	
0521	7440	SZA	
0522	7402	HLT	

/TAD ERROR  
/AC SHOULD EQUAL 0000

## /TAD TEST 2

0523	7200	CLA	
0524	1065	TAD K5777	/OPERAND 1
0525	1045	TAD K2000	/OPERAND 2
0526	7040	CMA	
0527	7440	SZA	
0530	7402	HLT	

/TAD ERROR  
/AC SHOULD EQUAL 0000

## /TAD TEST 3

0531	7200	CLA	
0532	1064	TAD K6777	/OPERAND 1
0533	1042	TAD K1000	/OPERAND 2
0534	7040	CMA	
0535	7440	SZA	
0536	7402	HLT	

/TAD ERROR  
/AC SHOULD EQUAL 0000

## /TAD TEST 4

0537	7200	CLA	
0540	1063	TAD K7377	/OPERAND 1
0541	1040	TAD K0400	/OPERAND 2
0542	7040	CMA	
0543	7440	SZA	
0544	7402	HLT	

/TAD ERROR  
/AC SHOULD EQUAL 0000

## /TAD TEST 5

0545	7200	CLA	
0546	1062	TAD K7577	/OPERAND 1
0547	1036	TAD K0200	/OPERAND 2
0550	7040	CMA	
0551	7440	SZA	
0552	7402	HLT	

/TAD ERROR  
/AC SHOULD EQUAL 0000

## /TAD TEST 6

0553	7200	CLA	
0554	1061	TAD K7677	/OPERAND 1
0555	1034	TAD K0100	/OPERAND 2
0556	7040	CMA	
0557	7440	SZA	
0560	7402	HLT	

/TAD ERROR

```
                                /AC SHOULD EQUAL 0000
/TAD TEST 7
0561 7200      CLA
0562 1057      TAD K7737      /OPERAND 1
0563 1032      TAD K0040      /OPERAND 2
0564 7040      CMA
0565 7440      SZA
0566 7402      HLT
                                /TAD ERROR
                                /AC SHOULD EQUAL 0000
/TAD TEST 8
0567 7200      CLA
0570 1056      TAD K7757      /OPERAND 1
0571 1030      TAD K0020      /OPERAND 2
0572 7040      CMA
0573 7440      SZA
0574 7402      HLT
                                /TAD ERROR
                                /AC SHOULD EQUAL 0000
/TAD TEST 9
0575 7200      CLA
0576 1055      TAD K7767      /OPERAND 1
0577 1026      TAD K0010      /OPERAND 2
0600 7040      CMA
0601 7440      SZA
0602 7402      HLT
                                /TAD ERROR
                                /AC SHOULD EQUAL 0000
/TAD TEST 10
0603 7200      CLA
0604 1054      TAD K7773      /OPERAND 1
0605 1024      TAD K0004      /OPERAND 2
0606 7040      CMA
0607 7440      SZA
0610 7402      HLT
                                /TAD ERROR
                                /AC SHOULD EQUAL 0000
/TAD TEST 11
0611 7200      CLA
0612 1053      TAD K7775      /OPERAND 1
0613 1022      TAD K0002      /OPERAND 2
0614 7040      CMA
0615 7440      SZA
0616 7402      HLT
                                /TAD ERROR
/TAD TEST 12
0617 7200      CLA
0620 1052      TAD K7776      /OPERAND 1
0621 1021      TAD K0001      /OPERAND 2
0622 7040      CMA
0623 7440      SZA
0624 7402      HLT
                                /TAD ERROR
                                /AC SHOULD EQUAL 0000
/TAD TEST 13
0625 7200      CLA
0626 7100      CLL
0627 1050      TAD K4000      /OPERAND 1
```

0630	1050	TAD K4000	/OPERAND 2
0631	7430	SZL	
0632	7440	SZA	
0633	7402	HLT	

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD BE EQUAL ONE.

/TAD TEST 14

0634	7200	CLA	
0635	7100	CLL	
0636	1072	TAD K6000	/OPERAND 1
0637	1045	TAD K2000	/OPERAND 2
0640	7430	SZL	
0641	7440	SZA	
0642	7402	HLT	

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ONE

/TAD TEST 15

0643	7200	CLA	
0644	7100	CLL	
0645	1073	TAD K7000	/OPERAND 1
0646	1042	TAD K1000	/OPERAND 2
0647	7430	SZL	
0650	7440	SZA	
0651	7402	HLT	

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ONE

/TAD TEST 16

0652	7200	CLA	
0653	7100	CLL	
0654	1074	TAD K7400	/OPERAND 1
0655	1040	TAD K0400	/OPERAND 2
0656	7430	SZL	
0657	7440	SZA	
0660	7402	HLT	

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ONE

/TAD TEST 17

0661	7200	CLA	
0662	7100	CLL	
0663	1075	TAD K7600	/OPERAND 1
0664	1036	TAD K0200	/OPERAND 2
0665	7430	SZL	
0666	7440	SZA	
0667	7402	HLT	

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ONE

/TAD TEST 18

0670	7200	CLA	
0671	7100	CLL	
0672	1113	TAD K7700	/OPERAND 1
0673	1034	TAD K0100	/OPERAND 2
0674	7430	SZL	
0675	7440	SZA	
0676	7402	HLT	

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ONE

/TAD TEST 19

0677	7200	CLA	
0700	7100	CLL	

0701	1076	TAD K7740	/OPERAND 1
0702	1032	TAD K0040	/OPERAND 2
0703	7430	SZL	
0704	7440	SZA	
0705	7402	HLT	/TAD ERROR. AC SHOULD EQUAL 0000
			/LINK SHOULD EQUAL ONE
/TAD TEST 20			
0706	7200	CLA	
0707	7100	CLL	
0710	1077	TAD K7760	/OPERAND 1
0711	1030	TAD K0020	/OPERAND 2
0712	7430	SZL	
0713	7440	SZA	
0714	7402	HLT	/TAD ERROR. AC SHOULD EQUAL 0000
			/LINK SHOULD EQUAL ONE
/TAD TEST 21			
0715	7200	CLA	
0716	7100	CLL	
0717	1100	TAD K7770	/OPERAND 1
0720	1026	TAD K0010	/OPERAND 2
0721	7430	SZL	
0722	7440	SZA	
0723	7402	HLT	/TAD ERROR AC SHOULD EQUAL 0000
			/LINK SHOULD EQUAL ONE
/TAD TEST 22			
0724	7200	CLA	
0725	7100	CLL	
0726	1101	TAD K7774	/OPERAND 1
0727	1024	TAD K0004	/OPERAND 2
0730	7430	SZL	
0731	7440	SZA	
0732	7402	HLT	/TAD ERROR. AC SHOULD EQUAL 0000
			/LINK SHOULD EQUAL ONE
/TAD TEST 23			
0733	7200	CLA	
0734	7100	CLL	
0735	1032	TAD K7776	/OPERAND 1
0736	1022	TAD K0002	/OPERAND 2
0737	7430	SZL	
0740	7440	SZA	
0741	7402	HLT	/TAD ERROR. AC SHOULD EQUAL 0000
			/LINK SHOULD EQUAL ONE
/TAD TEST 24			
0742	7200	CLA	
0743	7100	CLL	
0744	1067	TAD K7777	/OPERAND 1
0745	1021	TAD K0001	/OPERAND 2
0746	7430	SZL	
0747	7440	SZA	
0750	7402	HLT	/TAD ERROR. AC SHOULD EQUAL 0000
			/LINK SHOULD EQUAL ONE



/TAD ERROR, AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

```

/TAD ERROR, AC SHOULD EQUAL 0000
/LINK SHOULD EQUAL ZERO

```

```

/TAD ERROR AC SHOULD EQUAL 0000
/LINK SHOULD EQUAL ZERO

```

/TAD ERROR, AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

```

/TAD ERROR, AC SOULD EQUAL 0000
/LINK SHOULD EQUAL ZERO

```

```

/TAD TEST 30
1025 7200      CLA
1026 7100      CLL
1027 1062      TAD K7577      /OPERAND 1
1030 1034      TAD K0100      /OPERAND 2
1031 1034      TAD K0100      /OPERAND 3
1032 7040      CMA
1033 7420      SNL
1034 7440      SEA
1035 7402      HLT
/TAD ERROR. AC SHOULD EQUAL 0000
/LINK SHOULD EQUAL ZERO

```

```

/TAD TEST 31
1036 7200      CLA
1037 7100      CLL
1040 1061      TAD K7677      /OPERAND 1
1041 1032      TAD K0040      /OPERAND 2
1042 1032      TAD K0040      /OPERAND 3
1043 7040      CMA
1044 7420      SNL
1045 7440      SEA
1046 7402      HLT
/TAD ERROR. AC SHOULD EQUAL 0000
/LINK SHOULD EQUAL ZERO

```

```

/TAD TEST 32
1047 7200      CLA
1050 7100      CLL
1051 1057      TAD K7737      /OPERAND 1
1052 1030      TAD K0020      /OPERAND 2
1053 1030      TAD K0020      /OPERAND 3
1054 7040      CMA
1055 7420      SNL
1056 7440      SEA
1057 7402      HLT
/TAD ERROR. AC SHOULD EQUAL 0000
/LINK SHOULD EQUAL ZERO

```

```

/TAD TEST 33
1060 7200      CLA
1061 7100      CLL
1062 1056      TAD K7757      /OPERAND 1
1063 1026      TAD K0010      /OPERAND 2
1064 1026      TAD K0010      /OPERAND 3
1065 7040      CMA
1066 7420      SNL
1067 7440      SEA
1070 7402      HLT
/TAD ERROR. AC SHOULD EQUAL 0000
/LINK SHOULD EQUAL ZERO

```

```

/TAD TEST 34
1071 7200      CLA
1072 7100      CLL
1073 1055      TAD K7767      /OPERAND 1
1074 1024      TAD K0004      /OPERAND 2
1075 1024      TAD K0004      /OPERAND 3
1076 7040      CMA
1077 7420      SNL
1100 7440      SEA

```

1101 7402 HLT /TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

## /TAD TEST 35

1102 7200 CLA  
1103 7100 CLL  
1104 1054 TAD K7773 /OPERAND 1  
1105 1022 TAD K0002 /OPERAND 2  
1106 1022 TAD K0002 /OPERAND 3  
1107 7040 CMA  
1110 7420 SNL  
1111 7440 SZA  
1112 7402 HLT

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

## /TAD TEST 36

1113 7200 CLA  
1114 7100 CLL  
1115 1053 TAD K7775 /OPERAND 1  
1116 1021 TAD K0001 /OPERAND 2  
1117 1021 TAD K0001 /OPERAND 3  
1120 7040 CMA  
1121 7420 SNL  
1122 7430 S2L  
1123 7402 HLT

/TAD ERROR. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

## /TAD TEST 37

/10;MB, CR.

1124 7200 CLA  
1125 7100 CLL  
1126 1021 TAD K0001 /0+1=1  
1127 1023 TAD K3 /1+3=4  
1130 1054 TAD K7773 /4+7773=7777  
1131 7040 CMA /0  
1132 7420 SNL  
1133 7440 SZA  
1134 7402 HLT

/TAD ERROR. AC AND LINK SHOULD BE ZERO.

## /TAD TEST 38.

/9; MB, CR.

1135 7200 CLA  
1136 7100 CLL  
1137 1022 TAD K0002 /0+2=2  
1140 1025 TAD K6 /2+6=10  
1141 1055 TAD K7767 /10+7767=7777  
1142 7040 CMA /0  
1143 7420 SNL  
1144 7440 SZA  
1145 7402 HLT

/TAD ERROR. AC AND LINK SHOULD BE ZERO.

## /TAD TEST 39.

/8; MB, CR.

1146 7200 CLA  
1147 7100 CLL  
1150 1024 TAD K0004 /0+4=4  
1151 1027 TAD K14 /4+14=20

1152	1056	TAD K7757	/20+7757=7777
1153	7040	CMA	/0
1154	7420	SNL	
1155	7440	SEA	
1156	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

## /TAD TEST 40.

1157	7200	CLA	/7: MB, CR.
1160	7100	CLL	
1161	1026	TAD K0010	/0+10=10
1162	1031	TAD K30	/10+30=40
1163	1057	TAD K7737	/40+7737=7777
1164	7040	CMA	/0
1165	7420	SNL	
1166	7440	SEA	
1167	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

## /TAD TEST 41.

1170	7200	CLA	/6: MB, CR.
1171	7100	CLL	
1172	1030	TAD K0020	/0+20=20
1173	1033	TAD K60	/20+60=100
1174	1061	TAD K7677	/100+7677=7777
1175	7040	CMA	/0
1176	7420	SNL	
1177	7440	SEA	
1200	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

## /TAD TEST 42.

1201	7200	CLA	/5: MB, CR.
1202	7100	CLL	
1203	1032	TAD K0040	/0+40=40
1204	1035	TAD K140	/40+140=200
1205	1062	TAD K7577	/200+7577=7777
1206	7040	CMA	/0
1207	7420	SNL	
1210	7440	SEA	/
1211	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

## /TAD TEST 43.

1212	7200	CLA	/4: MB, CR.
1213	7100	CLL	
1214	1034	TAD K0100	/0+100=100
1215	1037	TAD K300	/100+300=400
1216	1063	TAD K7377	/400+7377=7777
1217	7040	CMA	/0
1220	7420	SNL	
1221	7440	SEA	
1222	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

## /TAD TEST 44.

1223	7200	CLA	/3: MB, CR.
1224	7100	CLL	
1225	1036	TAD K0200	/0+200=200
1226	1041	TAD K600	/200+600=1000

1227	1064	TAD K6777	/1000+6777=7777
1230	7040	CMA	/0
1231	7420	SNL	
1232	7440	SZA	
1233	7402	HLT	/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 45. /2; MB, CR.

1234	7200	CLA	/
1235	7100	CLL	/0+400=400
1236	1040	TAD K0400	/400+1400=2000
1237	1044	TAD K1400	/2000+5777=7777
1240	1065	TAD K5777	/0
1241	7040	CMA	
1242	7420	SNL	
1243	7440	SZA	
1244	7402	HLT	/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 46 /1; MB, CR.

1245	7200	CLA	
1246	7100	CLL	/0+1000=1000
1247	1042	TAD K1000	/1000+3000=4000
1250	1046	TAD K3000	/4000+3777=7777
1251	1066	TAD K3777	/0
1252	7040	CMA	
1253	7420	SNL	
1254	7440	SZA	
1255	7402	HLT	/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 47 /0; MB, CR

1256	7200	CLA	
1257	7100	CLL	/0+2000=2000
1260	1045	TAD K2000	/2000+6000=1 0000
1261	1072	TAD K6000	
1262	7430	SZL	
1263	7440	SZA	
1264	7402	HLT	/TAD ERROR. LINK SHOULD = 1. AC SHOULD = 0000.

/TAD TEST 48.

1265	7200	CLA	
1266	7100	CLL	/0+7777=7777
1267	1067	TAD K7777	/7777+1=1 0000
1270	1021	TAD K0001	
1271	7430	SZL	/
1272	7440	SZA	
1273	7402	HLT	/TAD ERROR. LINK SHOULD = 1. AC SHOULD = 0000.

/TAD TEST 49. /10; AC, MB, CR.

1274	7200	CLA	
1275	7100	CLL	/0+3=3
1276	1023	TAD K3	/3+3=6
1277	1023	TAD K3	/6+7770=7776
1300	1100	TAD K7770	/7776+1=7777
1301	1021	TAD K0001	/0
1302	7040	CMA	

1303 7420  
1304 7440  
1305 7402

SNL  
SEA  
HLT

/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 50.

/9: AC, MB, CR.

1306 7200  
1307 7100  
1310 1025  
1311 1025  
1312 1077  
1313 1023  
1314 7040  
1315 7420  
1316 7440  
1317 7402

CLA  
CLL  
TAD K6  
TAD K6  
TAD K7760  
TAD K3  
CMA  
SNL  
SEA  
HLT

/0+6=6  
/6+6=14  
/14+7760=7774  
/7774+3=7777  
/0

/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 51.

/8: AC, MB, CR.

1320 7200  
1321 7100  
1322 1027  
1323 1027  
1324 1076  
1325 1102  
1326 7040  
1327 7420  
1330 7440  
1331 7402

CLA  
CLL  
TAD K14  
TAD K14  
TAD K7740  
TAD K0007  
CMA  
SNL  
SEA  
HLT

/0+14=14  
/14+14=30  
/30+7740=7770  
/7770+7=7777  
/0

/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 52.

/7: AC, MB, CR.

1332 7200  
1333 7100  
1334 1031  
1335 1031  
1336 1051  
1337 7040  
1340 7420  
1341 7440  
1342 7402

CLA  
CLL  
TAD K30  
TAD K30  
TAD K7717  
CMA  
SNL  
SEA  
HLT

/0+30=30  
/30+30=60  
/60+7717=7777  
/0

/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 53.

/6: AC, MB, CR.

1343 7200  
1344 7100  
1345 1033  
1346 1033  
1347 1075  
1350 1105  
1351 7040  
1352 7420  
1353 7440  
1354 7402

CLA  
CLL  
TAD K60  
TAD K60  
TAD K7600  
TAD K0037  
CMA  
SNL  
SEA  
HLT

/60+60=120  
/120+7600=7720  
/7720+37=7757  
/0

/TAD ERROR. AC AND LINK SHOULD BE ZERO.

/TAD TEST 54.

/5: AC, MB, CR

1355 7200  
1356 7100

CLA  
CLL

1357	1035	TAD K140	
1360	1035	TAD K140	/140+140=300
1361	1074	TAD K7400	/300+7400=7700
1362	1106	TAD K0077	/7700+77=7777
1363	7040	CMA	/0
1364	7420	SNL	
1365	7440	SZA	
1366	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

/TAD TEST 55. /4: AC, MB, CR.

1367	7200	CLA	
1370	7100	CLL	
1371	1037	TAD K300	/0+300=300
1372	1037	TAD K300	/300+300=600
1373	1060	TAD K7177	/600+7177=7777
1374	7040	CMA	/0
1375	7420	SNL	
1376	7440	SZA	
1377	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

/TAD TEST 56. /3: AC, MB, CR.

1400	7200	CLA	
1401	7100	CLL	
1402	1041	TAD K600	/0+600=600
1403	1041	TAD K600	/600+600=1200
1404	1072	TAD K6000	/1200+6000=7200
1405	1110	TAD K0377	/7200+377=7777
1406	7040	CMA	
1407	7420	SNL	
1410	7440	SZA	
1411	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO.

/TAD TEST 57. /2: AC, MB, CR.

1412	7200	CLA	
1413	7100	CLL	
1414	1044	TAD K1400	/0+1400=1400
1415	1044	TAD K1400	/1400+1400=3000
1416	1050	TAD K4000	/3000+4000=7000
1417	1111	TAD K0777	/7000+777=7777
1420	7040	CMA	/0
1421	7420	SNL	
1422	7440	SZA	
1423	7402	HLT	/TAD ERROR, AC AND LI K SHOULD BE ZERO.

/TAD TEST 58. /1: AC, MB, CR.

1424	7200	CLA	
1425	7100	CLL	
1426	1046	TAD K3000	/0+3000=3000
1427	1046	TAD K3000	/3000+3000=6000
1430	1112	TAD K1777	/6000+1777=7777
1431	7040	CMA	/0
1432	7420	SNL	
1433	7440	SZA	
1434	7402	HLT	/TAD ERROR, AC AND LINK SHOULD BE ZERO

```
1435 7200 /TAD TEST 59. CLA /0: AC, MB, CR.
1436 7100 CLL /
1437 1072 TAD K6000 /0+6000=6000
1440 1072 TAD K6000 /6000+6000=1 4000
1441 1066 TAD K3777 /1 4000+3777=1 7777
1442 7040 CMA /1 0000
1443 7430 SZL
1444 7440 SEA
1445 7402 HLT /TAD ERROR. LINK SHOULD BE 1. AC SHOULD BE ZERO.

1446 7200 /TAD TEST 60. CLA /
1447 7100 CLL /
1450 1067 TAD K7777 /0+7777=7777
1451 1067 TAD K7777 /7777+7777=1 7776
1452 1021 TAD K0001 /1 7776+1=1 7777
1453 7040 CMA /1 0000
1454 7430 SZL
1455 7440 SEA
1456 7402 HLT /TAD ERROR. LINK SHOULD BE 1. AC SHOULD BE ZERO.

1457 7200 /RAR TEST 1 CLA
1460 7100 CLL
1461 1021 TAD K0001 /ROTATE PATTERN
1462 7010 RAR
1463 7420 SNL
1464 7402 HLT /RAR FAILED. LINK DROPPED A BIT
/LINK SHOULD EQUAL A ONE

1465 7200 /RAR TEST 2 CLA
1466 7100 CLL
1467 1020 TAD K0000 /ROTATE PATTERN
1470 7010 RAR
1471 7440 SEA
1472 7402 HLT /RAR FAILED. AC PICKED UP A BIT
/A ONE IN AC EQUALS THE PICKED UP BIT

1473 7200 /RAR TEST 3 CLA
1474 7100 CLL
1475 1020 TAD K0000 /ROTATE PATTERN
1476 7010 RAR
1477 7430 SZL
1500 7402 HLT /RAL FAILED. LINK PICKED UP A BIT
/LINK SHOULD EQUAL ZERO

1501 7200 /RAR TEST 4 CLA
1502 7100 CLL
1503 7020 CML
1504 1020 TAD K0000 /ROTATE PATTERN
```



1505 7010 RAR  
1506 7430 SZL  
1507 7402 HLT

/RAR LINK PICKED UP A BIT  
/LINK SHOULD EQUAL ZERO

## /RAR TEST 5

1510 7200 CLA  
1511 7100 CLL  
1512 7020 CML  
1513 1067 TAD K7777  
1514 7010 RAR  
1515 7040 CMA  
1516 7440 SZA  
1517 7402 HLT

/ROTATE PATTERN

/RAR FAILED AC DROPPED A BIT  
/A ONE IN AC EQUALS THE DROPPED BIT

## /RAR TEST 6

1520 7200 CLA  
1521 7100 CLL  
1522 7020 CML  
1523 1020 TAD K0000  
1524 7010 RAR  
1525 1066 TAD K3777  
1526 7040 CMA  
1527 7450 SNA  
1530 7430 SZL  
1531 7402 HLT

/ROTATE PATTERN

/RAR FAILED AC AND LINK  
/SHOULD EQUAL 0000

## /RAR TEST 7

1532 7200 CLA  
1533 7100 CLL  
1534 1050 TAD K4000  
1535 7010 RAR  
1536 1065 TAD K5777  
1537 7040 CMA  
1540 7450 SNA  
1541 7430 SZL  
1542 7402 HLT

/ROTATE PATTERN

/RAR FAILED AC AND LINK SHOULD  
/EQUAL 0000

## /RAR TEST 8

1543 7200 CLA  
1544 7100 CLL  
1545 1045 TAD K2000  
1546 7010 RAR  
1547 1064 TAD K6777  
1550 7040 CMA  
1551 7450 SNA  
1552 7430 SZL  
1553 7402 HLT

/ROTATE PATTERN

/RAR FAILED AC AND LINK SHOULD  
/EQUAL 0000

## /RAR TEST 9

1554 7200 CLA  
1555 7100 CLL  
1556 1042 TAD K1000

/ROTATE PATTERN

1557	7010	RAR	
1560	1063	TAD K7377	
1561	7040	CMA	
1562	7450	SNA	
1563	7430	SZL	
1564	7402	HLT	/RAR FAILED AC AND LINK SHOULD /EQUAL 0000

/RAR TEST 10			
1565	7200	CLA	
1566	7100	CLL	
1567	1040	TAD K0400	/ROTATE PATTERN
1570	7010	RAR	
1571	1062	TAD K7577	
1572	7040	CMA	
1573	7450	SNA	
1574	7430	SZL	
1575	7402	HLT	/RAR FAILED AC AND LINK /SHOULD EQUAL 0000

/RAR TEST 11			
1576	7200	CLA	
1577	7100	CLL	
1600	1036	TAD K0200	/ROTATE PATTERN
1601	7010	RAR	
1602	1061	TAD K7677	
1603	7040	CMA	
1604	7450	SNA	
1605	7430	SZL	
1606	7402	HLT	/RAR FAILED AC AND LINK /EQUAL 0000

/RAR TEST 12			
1607	7200	CLA	
1610	7100	CLL	
1611	1034	TAD K0100	/ROTATE PATTERN
1612	7010	RAR	
1613	1057	TAD K7737	
1614	7040	CMA	
1615	7450	SNA	
1616	7430	SZL	
1617	7402	HLT	/RAR FAILED AC AND LINK /SHOULD EQUAL 0000

/RAR TEST 13			
1620	7200	CLA	
1621	7100	CLL	
1622	1032	TAD K0040	/ROTATE PATTERN
1623	7010	RAR	
1624	1056	TAD K7757	
1625	7040	CMA	
1626	7450	SNA	
1627	7430	SZL	
1630	7402	HLT	/RAR FAILED AC AND LINK

/SHOULD EQUAL 0000

PAUSE

/INSTRUCTION TEST 1

/TAPE 2

/RAR TEST 14

1631	7200	CLA	
1632	7100	CLL	
1633	1030	TAD K0020	/ROTATE PATTERN
1634	7010	RAR	
1635	1055	TAD K7767	
1636	7040	CMA	
1637	7450	SNA	
1640	7430	SZL	
1641	7402	HLT	/RAR FAILED AC AND LINK

/SHOULD EQUAL 0000

/RAR TEST 15

1642	7200	CLA	
1643	7100	CLL	
1644	1026	TAD K0010	/ROTATE PATTERN
1645	7010	RAR	
1646	1054	TAD K7773	
1647	7040	CMA	
1650	7450	SNA	
1651	7430	SZL	
1652	7402	HLT	/RAR FAILED AC AND LINK

/SHOULD EQUAL 0000

/RAR TEST 16

1653	7200	CLA	
1654	7100	CLL	
1655	1024	TAD K0004	/ROTATE PATTERN
1656	7010	RAR	
1657	1053	TAD K7775	
1660	7040	CMA	
1661	7450	SNA	
1662	7430	SZL	
1663	7402	HLT	/RAR FAILED AC AND LINK

/SHOULD EQUAL 0000

/RAR TEST 17

1664	7200	CLA	
1665	7100	CLL	
1666	1022	TAD K0002	/ROTATE PATTERN
1667	7010	RAR	
1670	1052	TAD K7776	
1671	7040	CMA	
1672	7450	SNA	
1673	7430	SZL	
1674	7402	HLT	/RAR FAILED AC AND LINK

/SHOULD EQUAL 0000

```

      /RAR TEST 18
1675  7200      CLA
1676  7100      CLL
1677  1021      TAD K0001      /ROTATE PATTERN
1700  7010      RAR
1701  1067      TAD K7777
1702  7040      CMA
1703  7450      SNA
1704  7420      SNL
1705  7402      HLT      /RAR FAILED AC AND LINK
                          /SHOULD EQUAL 0000

      /RTR TEST 1
1706  7200      CLA
1707  7100      CLL
1710  1022      TAD K0002      /ROTATE PATTERN
1711  7012      RTR
1712  7420      SNL
1713  7402      HLT      /RTR FAILED LINK DROPPED
                          /A BIT LINK SHOULD EQUAL A ONE

      /RTR TEST 2
1714  7200      CLA
1715  7100      CLL
1716  1020      TAD K0000      /ROTATE PATTERN
1717  7012      RTR
1720  7440      SEA
1721  7402      HLT      /RTR FAILED AC PICKED UP A BIT
                          /A ONE IN AC EQUALS THE PICKED UP BIT

      /RTR TEST 3
1722  7200      CLA
1723  7100      CLL
1724  1020      TAD K0000      /ROTATE PATTERN
1725  7012      RTR
1726  7430      SEL
1727  7402      HLT      /RTR LINK PICKED UP A BIT
                          /LINK SHOULD EQUAL ZERO

      /RTR TEST 4
1730  7200      CLA
1731  7100      CLL
1732  7020      CML
1733  1020      TAD K0000      /ROTATE PATTERN
1734  7012      RTR
1735  7430      SEL
1736  7402      HLT      /RTR LINK PICKED UP A BIT
                          /LINK SHOULD EQUAL ZERO

      /RTR TEST 5
1737  7200      CLA
1740  7100      CLL
1741  7020      CML
1742  1067      TAD K7777      /ROTATE PATTERN
1743  7012      RTR
1744  7040      CMA
1745  7440      SEA
```

1746 7402

HLT

/RTR AC DROPPED A BIT A ONE IN  
/AC EQUALS THE DROPPED BIT

/RTR TEST 6

1747 7200

CLA

1750 7100

CLL

1751 7020

CML

1752 1020

TAD K0000

/ROTATE PATTERN

1753 7012

RTR

1754 1065

TAD K5777

1755 7040

CMA

1756 7450

SNA

1757 7430

SEL

1760 7402

HLT

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 7

1761 7200

CLA

1762 7100

CLL

1763 1050

TAD K4000

/ROTATE PATTERN

1764 7012

RTR

1765 1064

TAD K6777

1766 7040

CMA

1767 7450

SNA

1770 7430

SEL

1771 7402

HLT

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 8

1772 7200

CLA

1773 7100

CLL

1774 1045

TAD K2000

/ROTATE PATTERN

1775 7012

RTR

1776 1063

TAD K7377

1777 7040

CMA

2000 7450

SNA

2001 7430

SEL

2002 7402

HLT

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 9

2003 7200

CLA

2004 7100

CLL

2005 1042

TAD K1000

/ROTATE PATTERN

2006 7012

RTR

2007 1062

TAD K7577

2010 7040

CMA

2011 7450

SNA

2012 7430

SEL

2013 7402

HLT

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 10

2014 7200

CLA

2015 7100

CLL

2016 1040

TAD K0400

/ROTAATE PATTERN

2017 7012

RTR

2020 1061

TAD K7677

2021 7040 CMA  
2022 7450 SNA  
2023 7430 SZL  
2024 7402 HLT

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 11

2025 7200 CLA  
2026 7100 CLL  
2027 1036 TAD K0200  
2030 7012 RTR  
2031 1057 TAD K7737  
2032 7040 CMA  
2033 7450 SNA  
2034 7430 SZL  
2035 7402 HLT

/ROTATE PATTERN

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 12

2036 7200 CLA  
2037 7100 CLL  
2040 1034 TAD K0100  
2041 7012 RTR  
2042 1056 TAD K7757  
2043 7040 CMA  
2044 7450 SNA  
2045 7430 SZL  
2046 7402 HLT

/ROTATE PATTERN

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 13

2047 7200 CLA  
2050 7100 CLL  
2051 1032 TAD K0040  
2052 7012 RTR  
2053 1055 TAD K7767  
2054 7040 CMA  
2055 7450 SNA  
2056 7430 SZL  
2057 7402 HLT

/ROTATE PATTERN

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 14

2060 7200 CLA  
2061 7100 CLL  
2062 1030 TAD K0020  
2063 7012 RTR  
2064 1054 TAD K7773  
2065 7040 CMA  
2066 7450 SNA  
2067 7430 SZL  
2070 7402 HLT

/ROTATE PATTERN

/RTR FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTR TEST 15

2071 7200 CLA  
2072 7100 CLL  
2073 1026 TAD K0010

/ROTATE PATTERN

2074	7012	RTR	
2075	1053	TAD K7775	
2076	7040	CMA	
2077	7450	SNA	
2100	7430	SEL	
2101	7402	HLT	/RTR FAILED AC AND LINK

/SHOULD EQUAL 0000

/RTR TEST 16

2102	7300	CLA CLL	
2103	1024	TAD K0004	/ROTATE PATTERN
2104	7012	RTR	
2105	1052	TAD K7776	
2106	7040	CMA	
2107	7450	SNA	
2110	7430	SEL	
2111	7402	HLT	/RTR FAILED AC AND LINK

/SHOULD EQUAL 0000

/RTR TEST 17

2112	7200	CLA	
2113	7100	CLL	
2114	1022	TAD K0002	/ROTATE PATTERN
2115	7012	RTR	
2116	7450	SNA	
2117	7420	SNL	
2120	7402	HLT	/RTR FAILED. AC SHOULD EQUAL

/0000, LINK SHOULD EQUAL ONE

/RTR TEST 18

2121	7200	CLA	
2122	7100	CLL	
2123	1021	TAD K0001	/ROTATE PATTERN
2124	7012	RTR	
2125	1066	TAD K3777	
2126	7040	CMA	
2127	7450	SNA	
2130	7430	SEL	
2131	7402	HLT	/RTR FAILED. AC AND LINK

/SHOULD BE ZERO

/RAL TEST 1

2132	7200	CLA	
2133	7100	CLL	
2134	1050	TAD K4000	/ROTATE PATTERN
2135	7004	RAL	
2136	7430	SEL	
2137	7440	SZA	
2140	7402	HLT	/RAL FAILED. AC SHOULD EQUAL 0000

/LINK SHOULD EQUAL ONE.

/RAL TEST 2

2141	7200	CLA	
2142	7100	CLL	
2143	1020	TAD K0000	/ROTATE PATTERN
2144	7004	RAL	
2145	7420	SNL	
2146	7440	SZA	

2147 7402

HLT

/RAL FAILED. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

## /RAL TEST 3

2150 7200

CLA

2151 7100

CLL

2152 7020

CML

2153 1020

TAD K0000

/ROTATE PATTERN. LINK=1

2154 7004

RAL

2155 7430

SZL

2156 7402

HLT

/RAL FAILURE. AC SHOULD EQUAL 0001  
/LINK SHOULD EQUAL ZERO

## /RAL TEST 4

2157 7200

CLA

2160 7100

CLL

2161 7020

CML

2162 1067

TAD K7777

/ROTATE PATTERN. LINK=1

2163 7004

RAL

2164 7040

CMA

2165 7440

SEA

2166 7402

HLT

/RAL FAILURE. LINK SHOULD EQUAL ONE  
/AC SHOULD EQUAL 0000

## /RAL TEST 5

2167 7200

CLA

2170 7100

CLL

2171 1045

TAD K2000

/ROTATE PATTERN

2172 7004

RAL

2173 1066

TAD K3777

2174 7040

CMA

2175 7450

SNA

2176 7430

SZL

2177 7402

HLT

/RAL FAILURE. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ONE

## /RAL TEST 6

2200 7200

CLA

2201 7100

CLL

2202 1042

TAD K1000

/ROTATE PATTERN

2203 7004

RAL

2204 1065

TAD K5777

2205 7040

CMA

2206 7440

SEA

2207 7402

HLT

/RAL FAILURE. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

## /RAL TEST 7

2210 7200

CLA

2211 7100

CLL

2212 1040

TAD K0400

/ROTATE PATTERN

2213 7004

RAL

2214 1064

TAD K6777

2215 7040

CMA

2216 7450

SNA

2217 7430

SZL



2220 7402

HLT

/RAL FAILURE. AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

## /RAL TEST 8

2221 7200

CLA

2222 7100

CLL

2223 1036

TAD K0200

/ROTATE PATTERN

2224 7004

RAL

2225 1063

TAD K7377

2226 7040

CMA

2227 7450

SNA

2230 7430

SZL

/RAL FAILURE AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

2231 7402

HLT

## /RAL TEST 9

2232 7200

CLA

2233 7100

CLL

2234 1034

TAD K0100

/ROTATE PATTERN

2235 7004

RAL

2236 1062

TAD K7577

2237 7040

CMA

2240 7450

SNA

2241 7430

SZL

/RAL FAILURE AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL ZERO

2242 7402

HLT

## /RAL TEST 10

2243 7200

CLA

2244 7100

CLL

2245 1032

TAD K0040

/ROTATE PATTERN

2246 7004

RAL

2247 1061

TAD K7677

2250 7040

CMA

2251 7450

SNA

2252 7430

SZL

/RAL FAILURE AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL A ZERO

2253 7402

HLT

## /RAL TEST 11

2254 7200

CLA

2255 7100

CLL

2256 1030

TAD K0020

/ROTATE PATTERN

2257 7004

RAL

2260 1057

TAD K7737

2261 7040

CMA

2262 7450

SNA

2263 7430

SZL

/RAL FAILURE AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL A ZERO

2264 7402

HLT

## /RAL TEST 12

2265 7200

CLA

2266 7100

CLL

2267 1026

TAD K0010

/ROTATE PATTTERN

2270 7004

RAL

2271 1056

TAD K7757

2272 7040

CMA

2273 7450

SNA

2274 7430

SZL

/RAL FAILURE AC SHOULD EQUAL 0000  
/LINK SHOULD EQUAL A ZERO

2275 7402

HLT

2276	7200	/RAL TEST 13	
2277	7100	CLA	
2300	1024	CLL	
2301	7004	TAD K0004	/ROTATE PATTERN
2302	1055	RAL	
2303	7040	TAD K7767	
2304	7450	CMA	
2305	7430	SNA	
2306	7402	SEL	/RAL FAILED AC SHOULD EQUAL 0000
		HLT	/LINK SHOULD EQUAL A ZERO
2307	7200	/RAL TEST 14	
2310	7100	CLA	
2311	1022	CLL	
2312	7004	TAD K0002	/ROTATE PATTERN
2313	1054	RAL	
2314	7040	TAD K7773	
2315	7450	CMA	
2316	7430	SNA	
2317	7402	SEL	/RAL FAILED AC SHOULD EQUAL 0000
		HLT	/LINK SHOULD EQUAL A ZERO
2320	7200	/RAL TEST 15	
2321	7100	CLA	
2322	1021	CLL	
2323	7004	TAD K0001	/ROTATE PATTERN
2324	1093	RAL	
2325	7040	TAD K7775	
2326	7450	CMA	
2327	7430	SNA	
2330	7402	SEL	/RAL FAILED AC SHOULD EQUAL 0000
		HLT	/LINK SHOULD EQUAL ZERO
2331	7200	/RAL TEST 16	
2332	7100	CLA	
2333	7020	CLL	
2334	7004	CML	
2335	1052	RAL	
2336	7040	TAD K7776	
2337	7450	CMA	
2340	7430	SNA	
2341	7402	SEL	/RAL FAILED AC SHOULD EQUAL 0000
		HLT	/LINK SHOULD EQUAL ZERO
2342	7200	/RTL TEST 1	
2343	7100	CLA	
2344	1045	CLL	
2345	7006	TAD K2000	
2346	7420	RTL	
2347	7402	SNL	
		HLT	/RTL LINK DROPPED A BIT
2350	7200	/RTL TEST 2	/LINK SHOULD EQUAL A ONE
		CLA	

2351	7100	CLL	
2352	1020	TAD K0000	/ROTATE PATTERN
2353	7006	RTL	
2354	7440	SZA	
2355	7402	HLT	/RTL AC PICKED UP A BIT /A ONE IN AC EQUALS THE PICKED UP

		/RTL TEST 3	
2356	7200	CLA	
2357	7100	CLL	
2360	1020	TAD K0000	/ROTATE PATTERN
2361	7006	RTL	
2362	7430	SZL	
2363	7402	HLT	/RTL LINK PICKED UP A BIT /LINK SHOULD EQUAL ZERO

		/RTL TEST 4	
2364	7200	CLA	
2365	7100	CLL	
2366	7020	CML	
2367	1020	TAD K0000	/ROTATE PATTERN
2370	7006	RTL	
2371	7430	SZL	
2372	7402	HLT	/RTL FAILURE. LINK PICKED UP A BIT /LINK SHOULD EQUAL A ZERO

		/RTL TEST 5	
2373	7200	CLA	
2374	7100	CLL	
2375	7020	CML	
2376	1067	TAD K7777	/ROTATE PATTERN
2377	7006	RTL	
2400	7040	CMA	
2401	7440	SZA	
2402	7402	HLT	/RTL FAILURE. DROPPED A BIT

		/RTL TEST 6	
2403	7200	CLA	
2404	7100	CLL	
2405	1050	TAD K4000	/ROTATE PATTERN
2406	7006	RTL	
2407	1052	TAD K7776	
2410	7040	CMA	
2411	7450	SNA	
2412	7430	SZL	
2413	7402	HLT	/RTL FAILED AC AND LINK SHOULD EQUAL 0000

		/RTL TEST 7	
2414	7200	CLA	
2415	7100	CLL	
2416	1045	TAD K2000	/ROTATE PATTERN
2417	7006	RTL	
2420	7450	SNA	
2421	7420	SNL	
2422	7402	HLT	/RTL FAILED AC AND LINK SHOULD /EQUAL 0000

		/RTL TEST 8	
2423	7200	CLA	

2424	7100	CLL	
2425	1042	TAD K1000	/ROTATE PATTERN
2426	7006	RTL	
2427	1066	TAD K3777	
2430	7040	CMA	
2431	7450	SNA	
2432	7430	SEL	
2433	7402	HLT	/RTL FAILED AC AND LINK SHOULD /EQUAL 0000

/RTL TEST 9			
2434	7200	CLA	
2435	7100	CLL	
2436	1040	TAD K0400	/ROTATE PATTERN
2437	7006	RTL	
2440	1065	TAD K5777	
2441	7040	CMA	
2442	7450	SNA	
2443	7430	SEL	
2444	7402	HLT	/RTL FAILED AC AND LINK SHOULD /EQUAL ZERO

/RTL TEST 10			
2445	7200	CLA	
2446	7100	CLL	
2447	1036	TAD K0200	/ROTATE PATTERN
2450	7006	RTL	
2451	1064	TAD K6777	
2452	7040	CMA	
2453	7450	SNA	
2454	7430	SEL	
2455	7402	HLT	/RTL FAILED AC AND LINK SHOULD /EQUAL 0000

/RTL TEST 11			
2456	7200	CLA	
2457	7100	CLL	
2460	1034	TAD K0100	/ROTATE PATTERN
2461	7006	RTL	
2462	1063	TAD K7377	
2463	7040	CMA	
2464	7450	SNA	
2465	7430	SEL	
2466	7402	HLT	/RTL FAILED AC AND LINK SHOULD /EQUAL 0000

/RTL TEST 12			
2467	7200	CLA	
2470	7100	CLL	
2471	1032	TAD K0040	/ROTATE PATTERN
2472	7006	RTL	
2473	1062	TAD K7577	
2474	7040	CMA	
2475	7450	SNA	
2476	7430	SEL	
2477	7402	HLT	/RTL FAILED AC AND LINK SHOULD /EQUAL 0000

```

2500 7200      /RTL TEST 13
2501 7100      CLA
2502 1030      CLL
2503 7006      TAD K0020      /ROTATE PATTERN
2504 1061      RTL
2505 7040      TAD K7677
2506 7450      CMA
2507 7430      SNA
2510 7402      SZL
                HLT
                /RTL FAILED AC AND LINK SHOULD
                /EQUAL 0000
```

```

2511 7200      /RTL TEST 14
2512 7100      CLA
2513 1026      CLL
2514 7006      TAD K0010      /ROTATE PATTERN
2515 1057      RTL
2516 7040      TAD K7737
2517 7450      CMA
2520 7430      SNA
2521 7402      SZL
                HLT
                /RTL FAILED AC AND LINK SHOULD
```

```

2522 7200      /RTL TEST 15
2523 7100      CLA
2524 1024      CLL
2525 7006      TAD K0004      /ROTATE PATTERN
2526 1056      RTL
2527 7040      TAD K7757
2530 7450      CMA
2531 7430      SNA
2532 7402      SZL
                HLT
                /RTL FAILED AC AND LINK SHOULD
                /EQUAL 0000
```

```

2533 7200      /RTL TEST 16
2534 7100      CLA
2535 1022      CLL
2536 7006      TAD K0002      /ROTATE PATTERN
2537 1055      RTL
2540 7040      TAD K7767
2541 7450      CMA
2542 7430      SNA
2543 7402      SZL
                HLT
                /RTL FAILED AC AND LINK
                /SHOULD EQUAL 0000
```

```

2544 7200      /RTL TEST 17
2545 7100      CLA
2546 1021      CLL
2547 7006      TAD K0001      /ROTATE PATTERN
2550 1054      RTL
2551 7040      TAD K7773
2552 7450      CMA
                SNA
```

2553 7430 SZL  
2554 7402 HLT

/RTL FAILED AC AND LINK  
/SHOULD EQUAL 0000

/RTL TEST 18

2555 7200 CLA  
2556 7100 CLL  
2557 7020 CML  
2560 7006 RTL  
2561 1053 TAD K7775  
2562 7040 CMA  
2563 7450 SNA  
2564 7430 SZL  
2565 7402 HLT

/RTL FAILED AC AND LINK  
/SHOULD EQUAL 0000

/BSW TEST 1

2566 7200 CLA  
2567 7100 CLL  
2570 7040 CMA  
2571 7002 BSW  
2572 7040 CMA  
2573 7420 SNL  
2574 7440 SZA  
2575 7402 HLT

/AC=7777  
/SWAP BYTES AC SHOULD EQUAL 7777

/DID LINK SET?

/BSW FAILED  
/AC AND LINK SHOULD=0000

/BSW TEST 2

2576 7200 CLA  
2577 7100 CLL  
2600 7020 CML  
2601 7002 BSW  
2602 7450 SNA  
2603 7420 SNL  
2604 7402 HLT

/LINK=1  
/SWAP BYTES AC SHOULD EQUAL 0000

/BSW CAUSED THE LINK  
/TO ROTATE

/BSW TEST 3

2605 7200 CLA  
2606 7100 CLL  
2607 1113 TAD K7700  
2610 7002 BSW  
2611 1113 TAD K7700  
2612 7040 CMA  
2613 7420 SNL  
2614 7440 SZA  
2615 7402 HLT

/AC=7700  
/SWAP BYTES AC SHOULD EQUAL 0077  
/AC=7777  
/AC=0000

/BSW FAILED AC AND LINK  
/SHOULD=0000

/BSW TEST 4

2616 7200 CLA  
2617 7100 CLL  
2620 1106 TAD K0077  
2621 7002 BSW  
2622 1106 TAD K0077  
2623 7040 CMA  
2624 7420 SNL  
2625 7440 SZA

/AC=0077  
/SWAP BYTES AC SHOULD EQUAL 7700  
/AC=7777

2626	7402	HLT	/BSW FAILED AC AND LINK /SHOULD=0000
/BSW TEST 5			
2627	7300	CLA CLL	
2630	1116	TAD K0770	
2631	7002	BSW	/SWAP BYTES AC SHOULD EQUAL 7007
2632	1116	TAD K0770	
2633	7040	CMA	
2634	7420	SNL	
2635	7440	SZA	
2636	7402	HLT	/BSW FAILED AC AND LINK /SHOULD EQUAL 0000
/BSW TEST 6			
2637	7320	CLA CLL CML	
2640	1117	TAD K7007	
2641	7002	BSW	/SWAP BYTES AC SHOULD EQUAL 0770
2642	1117	TAD K7007	
2643	7040	CMA	
2644	7430	SZL	
2645	7440	SZA	
2646	7402	HLT	/BSW FAILED AC /SHOULD EQUAL 0000 AND LINK=1
/BSW TEST 7			
2647	7200	CLA	
2650	7100	CLL	
2651	1114	TAD K5225	/AC=5225
2652	7002	BSW	/SWAP BYTES AC SHOULD EQUAL 2552
2653	1114	TAD K5225	/AC=7777
2654	7040	CMA	
2655	7420	SNL	
2656	7440	SZA	
2657	7402	HLT	/BSW FAILED AC AND LINK /SHOULD=0000
/BSW TEST 8			
2660	7200	CLA	
2661	7100	CLL	
2662	1115	TAD K2552	/AC=2552
2663	7002	BSW	/SWAP BYTES AC SHOULD EQUAL 5225
2664	1115	TAD K2552	/AC=7777
2665	7040	CMA	
2666	7420	SNL	
2667	7440	SZA	
2670	7402	HLT	/BSW FAILED AC AND LINK /SHOULD=0000
/GROUP 1 OPERATE TEST 1			
2671	7200	CLA	/CLEAR AC
2672	7100	CLL	/CLEAR LINK
2673	7040	CMA	/AC EQUALS 7777
2674	7020	CML	/LINK EQUALS ONE
2675	7300	CLA CLL	/TEST COMBINATION
2676	7420	SNL	
2677	7440	SZA	
2700	7402	HLT	/CLA CLL FAILED. LINK SHOULD BE 0

		/GROUP 1 OPERATE TEST 2	/AC SHOULD EQUAL 0000
2701	7200	CLA	/AC EQUALS 0000
2702	1071	TAD K2525	/AC EQUALS 2525
2703	7240	CLA CMA	/TEST COMBINATION
2704	7040	CMA	
2705	7440	SZA	
2706	7402	HLT	/CLA CMA ERROR. AC SHOULD /BE 0000
		/GROUP 1 OPERATE TEST 3	
2707	7200	CLA	
2710	7100	CLL	
2711	7040	CMA	/AC=7777 LINK=1
2712	7140	CLL CMA	/TEST COMBINATION
2713	7420	SNL	
2714	7440	SZA	
2715	7402	HLT	/CLL CMA FAILED. AC AND LINK /SHOULD BE ZERO
		/GROUP 1 OPERATE TEST 4	
2716	7100	CLL	
2717	7020	CML	/LINK=1
2720	7200	CLA	
2721	7040	CMA	/AC=7777
2722	7340	CLA CMA CLL	/TEST COMBINATION
2723	7040	CMA	
2724	7420	SNL	
2725	7440	SZA	
2726	7402	HLT	/CLA CMA CLL FAILED. AC AND /LINK SHOULD BE ZERO
		/GROUP 1 OPERATE TEST 5	
2727	7200	CLA	
2730	7100	CLL	/LINK=0
2731	7040	CMA	/AC=7777
2732	7220	CLA CML	/TEST COMBINATION
2733	7430	SZL	
2734	7440	SZA	
2735	7402	HLT	/CLA CML FAILED. AC SHOULD EQUAL /0000. LINK SHOULD BE A ONE
		/GROUP 1 OPERATE TEST 6	
2736	7100	CLL	
2737	7020	CML	/LINK=1
2740	7120	CLL CML	/TEST COMBINATION
2741	7420	SNL	
2742	7402	HLT	/CLL CML FAILED /LINK SHOULD BE A ONE
		/GROUP 1 OPERATE TEST 7	
2743	7100	CLL	/LINK=0
2744	7120	CLL CML	/TEST COMBINATION
2745	7420	SNL	
2746	7402	HLT	/CLL CML FAILED. /LINK SHOULD BE A ONE
		/GROUP 1 OPERATE TEST 8	
2747	7120	CLL CML	/LINK=1



2750	7240	CLA CMA	/AC=7777
2751	7320	CLA CLL CML	/TEST COMBINATION
2752	7430	SZL	
2753	7440	SZA	
2754	7402	HLT	/CLA CLL CML FAILED. LINK SHOULD /BE 1, AC SHOULD BE ZERO

/GROUP 1 OPERATE TEST 9

2755	7340	CLA CLL CMA	/LINK=0, AC=7777
2756	7320	CLA CLL CML	/TEST COMBINATION
2757	7430	SZL	
2760	7440	SZA	
2761	7402	HLT	/CLA CLL CML FAILED. LINK SHOULD /BE 1, AC SHOULD BE ZERO

/GROUP 1 OPERATE TEST 10

2762	7340	CLA CLL CMA	/AC=7777, LINK=0
2763	7060	CMA CML	/TEST COMBINATION
2764	7430	SZL	
2765	7440	SZA	
2766	7402	HLT	/CMA CML FAILED. AC SHOULD BE /0000 LINK SHOULD EQUAL ONE.

/GROUP 1 OPERATE TEST 11

2767	7300	CLA CLL	/AC AND LINK=0
2770	1071	TAD K2525	/AC=2525
2771	7340	CLA CMA CLL	/TEST COMBINATION
2772	7040	CMA	
2773	7420	SNL	
2774	7440	SEA	
2775	7402	HLT	/CLA CMA CML FAILED. AC SHOULD BE /0000, LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 12

2776	7300	CLL CLA	/AC AND LINK=0
2777	1071	TAD K2525	/AC=2525
3000	7160	CLL CMA CML	/TEST COMBINATION
3001	1071	TAD K2525	
3002	7040	CMA	
3003	7430	SZL	
3004	7440	SZA	
3005	7402	HLT	/CLL CMA CML FAILED. AC SHOULD BE /0000, LINK SHOULD EQUAL ONE

/GROUP 1 OPERATE TEST 13

3006	7300	CLA CLL	
3007	7020	CML	/AC=0000, LINK=1
3010	7160	CLL CMA CML	/TEST COMBINATION
3011	7040	CMA	
3012	7430	SZL	
3013	7440	SZA	
3014	7402	HLT	/CLL CMA CML FAILED. AC SHOULD /BE 0000, LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 14

3015	7300	CLA CLL	
3016	1071	TAD K2525	/AC=2525, LINK=0

3017	7360	CLA CLL CMA CML /TEST COMBINATION
3020	7040	CMA
3021	7430	SZL
3022	7440	SZA
3023	7402	HLT

/CLA CLL CMA CML FAILED. AC SHOULD  
/BE 0000 LINK SHOULD EQUAL ONE.

/GROUP 1 OPERATE TEST 15

3024	7320	CLA CLL CML
3025	1070	TAD K5252
3026	7360	CLA CLL CMA CML /TEST COMBINATION
3027	7040	CMA
3030	7430	SZL
3031	7440	SZA
3032	7402	HLT

/CLA CLL CMA CML FAILED. AC SHOULD  
/BE 000, LINK SHOULD EQUAL ONE

/GROUP 1 OPERATE TEST 16

3033	7200	CLA
3034	1071	TAD K2525
3035	7201	CLA IAC
3036	1052	TAD K7776
3037	7040	CMA
3040	7440	SZA
3041	7402	HLT

/AC=2525  
/TEST COMBINATION  
/CLA IAC FAILED  
/AC SHOULD EQUAL 0000

/GROUP 1 OPERATE TEST 17

3042	7320	CLL CML CLA
3043	1052	TAD K7776
3044	7101	CLL IAC
3045	7040	CMA
3046	7420	SNL
3047	7440	SZA
3050	7402	HLT

/AC=7776. LINK=1  
/TEST COMBINATION  
/CLL IAC FAILED. AC AND LINK  
/SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 18

3051	7320	CLA CLL CML
3052	1071	TAD K2525
3053	7301	CLA CLL IAC
3054	1052	TAD K7776
3055	7040	CMA
3056	7420	SNL
3057	7440	SZA
3060	7402	HLT

/AC=2525 LINK=1  
/TEST COMBINATION  
/CLA CLL IAC FAILED. AC AND LINK  
/SHOULD BE ZERO

/GROUP 1 OPERATE TEST 19

3061	7300	CLA CLL
3062	7041	CMA IAC
3063	7430	SZL
3064	7440	SZA
3065	7402	HLT

/AC=0 LINK=0  
/TEST COMBINATION  
/CMA IAC FAILED. AC SHOULD EQUAL  
/0000. LINK SHOULD EQUAL ONE

/GROUP 1 OPERATE TEST 20

3066	7300	CLA CLL
3067	1071	TAD K2525

/AC=2525 LINK=0

3070	7241	CLA CMA IAC	/TEST COMBINATION
3071	7430	SZL	
3072	7440	SZA	
3073	7402	HLT	/CLA CMA IAC FAILED. AC SHOULD /EQUAL 0000. LINK SHOULD BE ONE.
/GROUP 1 OPERATE TEST 21			
3074	7320	CLL CLA CML	/AC=0000 LINK=1
3075	1021	TAD K0001	/AC=0001
3076	7141	CLL CMA IAC	/TEST COMBINATION
3077	7040	CMA	
3100	7420	SNL	
3101	7440	SZA	
3102	7402	HLT	/CLL CMA IAC FAILED. AC SHOULD BE /0000 LINK SHOULD BE 0
/GROUP 1 OPERATE TEST 22			
3103	7320	CLA CLL CML	
3104	1071	TAD K2525	/AC=2525 LINK=1
3105	7341	CLA CLL CMA IAC	/TEST COMBINATION
3106	7430	SZL	
3107	7440	SZA	
3110	7402	HLT	/CLA CLL CMA IAC FAILED. AC SHOULD BE /0000. LINK SHOULD BE ONE
/GROUP 1 OPERATE TEST 23			
3111	7300	CLA CLL	
3112	1070	TAD K5252	/AC=5252 LINK=0
3113	7341	CLA CLL CMA IAC	/TEST COMBINATION
3114	7430	SZL	
3115	7440	SZA	
3116	7402	HLT	/CLA CLL CMA IAC FAILED AC SHOULD /BE 0000. LINK SHOULD BE ONE
/GROUP 1 OPERATE TEST 24			
3117	7300	CLA CLL	
3120	1052	TAD K7776	/AC=7776 LINK=0
3121	7021	CML IAC	/TEST COMBINATION
3122	7040	CMA	
3123	7430	SZL	
3124	7440	SZA	
3125	7402	HLT	/CML IAC FAILED AC SHOULD BE /0000. LINK SHOULD BE ONE
/GROUP 1 OPERATE TEST 25			
3126	7320	CLA CLL CML	
3127	1052	TAD K7776	/AC =7776 LINK=1
3130	7021	CML IAC	/TEST COMBINATION
3131	7040	CMA	
3132	7420	SNL	
3133	7440	SZA	
3134	7402	HLT	/CML IAC FAILED. AC SHOULD BE /0000. LINK SHOULD BE ZERO
/GROUP 1 OPERATE TEST 26			
3135	7300	CLA CLL	
3136	1071	TAD K2525	/AC=2525 LINK=0
3137	7221	CLA CML IAC	/TEST COMBINATION
3140	1052	TAD K7776	

3141	7040	CMA	
3142	7430	SZL	
3143	7440	SZA	
3144	7402	HLT	/CLA CML IAC FAILED. AC SHOULD BE /0000. LINK SHOULD EQUAL ONE

/GROUP 1 OPERATE TEST 27

3145	7320	CLA CLL CML	/AC=0000 LINK=1
3146	1052	TAD K7776	/AC=7776
3147	7121	CLL CML IAC	/TEST COMBINATION
3150	7040	CMA	
3151	7430	SZL	
3152	7440	SZA	
3153	7402	HLT	/CLL CML IAC FAILURE. AC SHOULD BE /0000. LINK SHOULD EQUAL ONE.

/GROUP 1 OPERATE TEST 28

3154	7300	CLA CLL	
3155	1052	TAD K7776	/AC=7776 LINK=0
3156	7121	CLL CML IAC	/TEST COMBINATION
3157	7040	CMA	
3160	7430	SZL	
3161	7440	SZA	
3162	7402	HLT	/CLL CML IAC FAILED. AC SHOULD /BE 0000. LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 29

3163	7300	CLA CLL	
3164	1071	TAD K2525	/AC=2525. LINK=0
3165	7321	CLA CLL CML IAC	/TEST COMBINATION
3166	1052	TAD K7776	
3167	7040	CMA	
3170	7430	SZL	
3171	7440	SZA	
3172	7402	HLT	/CLA CLL CML IAC FAILED. AC SHOULD /BE 0000. LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 30

3173	7320	CLA CLL CML	
3174	1071	TAD K2525	/AC=2525 LINK=1
3175	7321	CLA CLL CML IAC	/TEST COMBINATION
3176	1052	TAD K7776	
3177	7040	CMA	
3200	7430	SZL	
3201	7440	SZA	
3202	7402	HLT	/CLA CLL CML IAC FAILED. AC SHOULD /BE 0000. LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 31

3203	7300	CLA CLL	
3204	1021	TAD K0001	/AC=0001 LINK=0
3205	7061	CMA CML IAC	/TEST COMBINATION
3206	7040	CMA	
3207	7430	SZL	
3210	7440	SZA	
3211	7402	HLT	/CMA CML IAC FAILED. AC SHOULD

```

/BE 0000. LINK SHOULD BE ONE
/GROUP 1 OPERATE TEST 32
3212 7320 CLA CLL CML
3213 1021 TAD K0001 /AC=0001 LINK=1
3214 7061 CMA CML IAC /TEST COMBINATION
3215 7040 CMA
3216 7420 SNL
3217 7440 SZA
3220 7402 HLT
/CMA CML IAC FAILURE. AC SHOULD BE
/0000. LINK SHOULD BE ZERO
/GROUP 1 OPERATE TEST 33
3221 7300 CLA CLL /AC=0000 LINK=0
3222 1071 TAD K2525 /AC=2525
3223 7261 CLA CMA CML IAC /TEST COMBINATION
3224 7420 SNL
3225 7430 SZL
3226 7402 HLT
/CLA CMA CML IAC FAILED. AC SHOULD
/BE 0000. LINK SHOULD BE ZERO
/GROUP 1 OPERATE TEST 34
3227 7320 CLA CLL CML
3230 1071 TAD K2525 /AC=2525 LINK=1
3231 7261 CLA CMA CML IAC /TEST COMBINATION
3232 7430 SZL
3233 7440 SZA
3234 7402 HLT
/CLA CMA CML IAC FAILED. AC SHOULD
/BE 0000. LINK SHOULD BE ONE
/GROUP 1 OPERATE TEST 35
3235 7300 CLA CLL
3236 1021 TAD K0001 /AC=0001 LINK=0
3237 7161 CLL CMA CML IAC /TEST COMBINATION
3240 7040 CMA
3241 7430 SZL
3242 7440 SZA
3243 7402 HLT
/CLL CMA CML IAC FAILED. AC SHOULD BE
/0000. LINK SHOULD BE ONE
/GROUP 1 OPERATE TEST 36
3244 7320 CLA CLL CML
3245 1021 TAD K0001 /AC=0001 LINK=1
3246 7161 CLL CMA CML IAC /TEST COMBINATION
3247 7040 CMA
3250 7430 SZL
3251 7440 SZA
3252 7402 HLT
/CLL CMA CML IAC FAILED. AC SHOULD BE
/0000. LINK SHOULD BE ONE
/GROUP 1 OPERATE TEST 37
3253 7300 CLA CLL
3254 1071 TAD K2525 /AC=2525 LINK=0
3255 7361 CLA CLL CMA CML IAC /TEST COMBINATION
3256 7420 SNL
3257 7440 SZA
3260 7402 HLT
/CLA CLL CMA CML IAC FAILURE AC AND
/LINK SHOULD EQUAL ZERO
/GROUP 1 OPERATE TEST 38

```

3261	7360	CLA CMA CLL CML	/AC=7777 LINK=1
3262	7210	CLA RAR	/TEST COMBINATION
3263	1066	TAD K3777	
3264	7040	CMA	
3265	7420	SNL	
3266	7440	SEA	
3267	7402	HLT	/CLA RAR FAILED. LINK AND /AC SHOULD EQUAL ZERO

## /GROUP 1 OPERATE TEST 39

3270	7360	CLA CMA CLL CML	/AC=7777 LINK=1
3271	7204	CLA RAL	/TEST COMBINATION
3272	1052	TAD K7776	
3273	7040	CMA	
3274	7420	SNL	
3275	7440	SEA	
3276	7402	HLT	/CLA RAL FAILED LINK AND /AC SHOULD EQUAL ZERO

## /GROUP 1 OPERATE TEST 40

3277	7360	CLA CMA CLL CML	/AC=7777 LINK =1
3300	7212	CLA RTR	/TEST COMBINATION
3301	1065	TAD K5777	
3302	7040	CMA	
3303	7420	SNL	
3304	7440	SEA	
3305	7402	HLT	/CLA RTR FAILED. AC AND /LINK SHOULD BE ZERO

## /GROUP 1 OPERATE TEST 41

3306	7360	CLA CMA CLL CML	/AC=7777, LINK=1
3307	7206	CLA RTL	/TEST COMBINATION
3310	1053	TAD K7775	
3311	7040	CMA	
3312	7420	SNL	
3313	7440	SEA	
3314	7402	HLT	/CLA RTL FAILED. AC AND LINK /SHOULDBE ZERO

## /GROUP 1 OPERATE TEST 42

3315	7320	CLA CLL CML	
3316	1032	TAD K0040	/AC=0040 LINK=1
3317	7110	CLL RAR	/TEST COMBINATION
3320	1056	TAD K7757	
3321	7040	CMA	
3322	7420	SNL	
3323	7440	SEA	
3324	7402	HLT	/CLL RAR FAILED. AC AND LINK /SHOULD BE ZERO

## /GROUP 1 OPERATE TEST 43

3325	7320	CLA CLL CML	
3326	1032	TAD K0040	/AC=0040 LINK=1
3327	7104	CLL RAL	/TEST COMBINATION
3330	1061	TAD K7677	
3331	7040	CMA	

3332	7420	SNL	
3333	7440	SZA	
3334	7402	HLT	/CLL RAL FAILED. AC AND LINK /SHOULD BE ZERO

/GROUP 1 OPERATE TEST 44

3335	7320	CLA CLL CML	
3336	1032	TAD K0040	/AC=0040 LINK=1
3337	7112	CLL RTR	/TEST COMBINATION
3340	1055	TAD K7767	
3341	7040	CMA	
3342	7420	SNL	
3343	7440	SZA	
3344	7402	HLT	/CLL RTR FAILED. AC AND LINK /SHOULD BE ZERO

/GROUP 1 OPERATE TEST 45

3345	7320	CLA CLL CML	
3346	1032	TAD K0040	/AC=0040 LINK=1
3347	7106	CLL RTL	/TEST COMBINATION
3350	1062	TAD K7577	
3351	7040	CMA	
3352	7420	SNL	
3353	7440	SZA	
3354	7402	HLT	/CLL RTL FAILED. AC AND LINK /SHOULD BE ZERO

/GROUP 1 OPERATE TEST 46

3355	7360	CLA CLL CML CMA	/AC=7777 LINK=1
3356	7310	CLL CLA RAR	/TEST COMBINATION
3357	7420	SNL	
3360	7440	SZA	
3361	7402	HLT	/CLL CLA RAR FAILED AC AND /LINK SHOULD BE ZERO

/GROUP 1 OPERATE TEST 47

3362	7360	CLA CMA CLL CML	/AC=7777 LINK=1
3363	7304	CLL CLA RAL	/TEST COMBINATION
3364	7420	SNL	
3365	7430	SZL	
3366	7402	HLT	/CLL CLA RAL FAILED. AC AND /LINK SHOULD BE ZERO

/GROUP 1 OPERATE TEST 48

3367	7360	CLA CMA CLL CML	/AC=7777 LINK=1
3370	7312	CLA CLL RTR	/TEST COMBINATION
3371	7420	SNL	
3372	7440	SZA	
3373	7402	HLT	/CLA CLL RTL FAILED. AC AND /LINK SHOULD BE ZERO

/GROUP 1 OPERATE TEST 49

3374	7360	CLA CMA CLL CML	/AC=7777 LINK=1
3375	7306	CLA CLL RTL	/TEST COMBINATION
3376	7420	SNL	
3377	7440	SZA	
3400	7402	HLT	/CLA CLL RTL FAILED. AC AND /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 50

3401	7300	CLA CLL	/AC=0000 LINK=0
3402	7030	CML RAR	/TEST COMBINATION
3403	1066	TAD K3777	
3404	7040	CMA	
3405	7420	SNL	
3406	7440	SZA	
3407	7402	HLT	/CML RAR FAILED. AC AND LINK /SHOULD BE ZERO

## /GROUP 1 OPERATE TEST 51

3410	7300	CLA CLL	/AC=0000 LINK =0
3411	7024	CML RAL	/TEST COMBINATION
3412	1052	TAD K7776	
3413	7040	CMA	
3414	7420	SNL	
3415	7440	SZA	
3416	7402	HLT	/CML RAL FAILED. AC AND LINK /SHOULD BE ZERO.

## /GROUP 1 OPERATE TEST 52

3417	7300	CLA CLL	/AC=0000 LINK=0
3420	7032	CML RTR	/TEST COMBINATION
3421	1065	TAD K5777	
3422	7040	CMA	
3423	7420	SNL	
3424	7440	SZA	
3425	7402	HLT	/CML RTR FAILED. AC AND LINK /SHOULD EQUAL ZERO

## /GROUP 1 OPERATE TEST 53

3426	7300	CLA CLL	/AC=0000 LINK=0
3427	7026	CML RTL	/TEST COMBINATION
3430	1053	TAD K7775	
3431	7040	CMA	
3432	7420	SNL	
3433	7440	SZA	
3434	7402	HLT	/CML RTL FAILED. AC AND LINK /SHOULD EQUAL ZERO

## /GROUP 1 OPERATE TEST 54

3435	7300	CLA CLL	
3436	1070	TAD K5252	/AC=5252 LINK=0
3437	7230	CLA CML RAR	/TEST COMBINATION
3440	1066	TAD K3777	
3441	7040	CMA	
3442	7420	SNL	
3443	7440	SZA	
3444	7402	HLT	/CLA CML RAR FAILED. AC AND

PAUSE

## /INSTRUCTION TEST - 1

## /GROUP 1 OPERATE TEST 55

## /TAPE 3

3445	7300	CLA CLL	
3446	1070	TAD K5252	/AC=5252 LINK=0
3447	7224	CLA CML RAL	/TEST COMBINATION



3450	1052	TAD K7776	
3451	7040	CMA	
3452	7420	SNL	
3453	7440	SZA	
3454	7402	HLT	/CLA CML RAL FAILED. AC AND /LINK SHOULD BE ZERO

/GROUP 1 OPERATE TEST 56

3455	7300	CLA CLL	
3456	1070	TAD K5252	/AC=5252 LINK=0
3457	7232	CLA CML RTR	/TEST COMBINATION
3460	1065	TAD K5777	
3461	7040	CMA	
3462	7420	SNL	
3463	7440	SZA	
3464	7402	HLT	/CLA CML RTR FAILED. AC AND /LINK SHOULD BE ZERO

/GROUP 1 OPERATE TEST 57

3465	7300	CLA CLL	
3466	1070	TAD K5252	/AC=5252 LINK=0
3467	7226	CLA CML RTL	/TEST COMBINATION
3470	1053	TAD K7775	
3471	7040	CMA	
3472	7420	SNL	
3473	7440	SZA	
3474	7402	HLT	/CLA CML RTL FAILED. AC AND /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 58

3475	7300	CLA CLL	/AC=0000 LINK=0
3476	7130	CLL CML RAR	/TEST COMBINATION
3477	7004	RAL	
3500	7430	SZL	
3501	7440	SZA	
3502	7402	HLT	/CLL CML RAR FAILED. AC SHOULD /BE 0000 LINK SHOULD BE 1

/GROUP 1 OPERATE TEST 59

3503	7320	CLA CLL CML	/AC=0000 LINK=1
3504	7130	CLL CML RAR	/TEST COMBINATION
3505	7004	RAL	
3506	7430	SZL	
3507	7440	SZA	
3510	7402	HLT	/CLL CML RAR FAILED. AC SHOULD BE /0000. LINK SHOULD BE A ONE

/GROUP 1 OPERATE TEST 60

3511	7300	CLA CLL	/AC=0000 LINK=0
3512	7124	CLL CML RAL	/TEST COMBINATION
3513	7010	RAR	
3514	7430	SZL	
3515	7440	SZA	
3516	7402	HLT	/CLL CML RAL FAILED. AC SHOULD /EQUAL 0000. LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 61

3517	7320	CLA CLL CML	/AC=0000 LINK=1
3520	7124	CLL CML RAL	/TEST COMBINATION

3521	7010	RAR	
3522	7430	SZL	
3523	7440	SZA	
3524	7402	HLT	/CLL CML RAL FAILED. AC SHOULD /EQUAL 0000, LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 62

3525	7300	CLA CLL	/AC=0000 LINK=0
3526	7132	CLL CML RTR	/TEST COMBINATION
3527	7006	RTL	
3530	7430	SZL	
3531	7440	SZA	
3532	7402	HLT	/CLL CML RTR FAILED. AC SHOULD /BE 0000, LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 63

3533	7320	CLA CLL CML	/AC=0000 LINK=1
3534	7132	CLL CML RTR	/TEST COMBINATION
3535	7006	RTL	
3536	7430	SZL	
3537	7440	SZA	
3540	7402	HLT	/CLL CML RTR FAILED. AC SHOULD /BE 0000 LINK SHOULD BE ONE.

/GROUP 1 OPERATE TEST 64

3541	7300	CLA CLL	/AC=0000 LINK=0
3542	7126	CLL CML RTL	/TEST COMBINATION
3543	7012	RTR	
3544	7430	SZL	
3545	7440	SZA	
3546	7402	HLT	/CLL CML RTL FAILED. AC SHOULD /BE 0000, LINK SHOULD BE A ONE

/GROUP 1 OPERATE TEST 65

3547	7320	CLA CLL CML	/AC=0000 LINK=1
3550	7126	CLL CML RTL	/TEST COMBINATION
3551	7012	RTR	
3552	7430	SZL	
3553	7440	SZA	
3554	7402	HLT	/CLL CML RTL FAILED. AC SHOULD /BE 0000, LINK SHOULD BE A ONE.

/GROUP 1 OPERATE TEST 66

3555	7300	CLA CLL	
3556	1070	TAD K5252	/AC=5252 LINK=0
3557	7330	CLA CLL CML RAR	/TEST COMBINATION
3560	7004	RAL	
3561	7430	SZL	
3562	7440	SZA	
3563	7402	HLT	/CLA CLL CML RAR FAILED. AC SHOULD /BE 0000, LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 67

3564	7320	CLA CLL CML	
3565	1071	TAD K2525	/AC=2525 LINK=1
3566	7330	CLA CLL CML RAR	/TEST COMBINATION
3567	7004	RAL	
3570	7430	SZL	
3571	7440	SZA	

3572 7402 HLT /CLA CLL CML RAR FAILED. AC SHOULD  
/BE 0000, LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 68  
3573 7300 CLA CLL  
3574 1071 TAD K2525 /AC=2525 LINK=0  
3575 7324 CLA CLL CML RAL /TEST COMBINATION  
3576 7010 RAR  
3577 7430 SZL  
3600 7440 SZA  
3601 7402 HLT /CLA CLL CML RAL FAILED. AC SHOULD  
/BE 0000, LINK SHOULD BE ONE

/GROUP 1 OPERATE TEST 69  
3602 7320 CLA CLL CML  
3603 1070 TAD K5252 /AC=5252 LINK=1  
3604 7324 CLA CLL CML RAL /TEST COMBINATION  
3605 7010 RAR  
3606 7430 SZL  
3607 7440 SZA  
3610 7402 HLT /CLA CLL CML RAL FAILED. AC SHOULD  
/BE 0000 LINK SHOULD BE A ONE

/GROUP 1 OPERATE TEST 70  
3611 7300 CLA CLL  
3612 1071 TAD K2525 /AC=2525 LINK=0  
3613 7332 CLA CLL CML RTR /TEST COMBINATION  
3614 7006 RTL  
3615 7430 SZL  
3616 7440 SZA  
3617 7402 HLT /CLA CLL CML RTR FAILED. AC SHOULD  
/BE 0000, LINK SHOULD BE A ONE

/GROUP 1 OPERATE TEST 71  
3620 7320 CLA CLL CML  
3621 1070 TAD K5252 /AC=5252 LINK=1  
3622 7332 CLA CLL CML RTR /TEST COMBINATION  
3623 7006 RTL  
3624 7430 SZL  
3625 7440 SZA  
3626 7402 HLT /CLA CLL CML RTR FAILED. AC SHOULD  
/BE 0000, LINK SHOULD BE A ONE

/GROUP 1 OPERATE TEST 72  
3627 7300 CLL CLA  
3630 1071 TAD K2525 /AC=2525 LINK=0  
3631 7326 CLA CLL CML RTL /TEST COMBINATION  
3632 7012 RTR  
3633 7430 SZL  
3634 7440 SZA  
3635 7402 HLT /CLA CLL CML RTL FAILED. AC SHOULD  
/BE 0000, LINK SHOULD BE A ZERO

/GROUP 1 OPERATE TEST 73  
3636 7320 CLL CLA CML  
3637 1070 TAD K5252 /AC=5252 LINK=1  
3640 7326 CLA CLL CML RTL /TEST COMBINATION

3641	7012	RTR	
3642	7430	SZL	
3643	7440	SZA	
3644	7402	HLT	/CLA CLL CML RTL FAILED. AC SHOULD /BE 0000, LINK SHOULD BE A ONE

/GROUP 1 OPERATE TEST 74

3645	7300	CLA CLL	
3646	1067	TAD K7777	/TEST PATTERN
3647	7041	CIA	/AC EQUALS 0001
3650	1052	TAD K7776	
3651	7040	CMA	
3652	7420	SNL	
3653	7440	SZA	/CIA FAILED AC SHOULD EQUAL 0000
3654	7402	HLT	/LINK SHOULD EQUAL A ZERO

/GROUP 1 OPERATE TEST 75

3655	7300	CLA CLL	
3656	1052	TAD K7776	/TEST PATTERN
3657	7041	CIA	/AC EQUALS 0002
3660	1053	TAD K7775	
3661	7040	CMA	
3662	7420	SNL	
3663	7440	SZA	/CIA FAILED AC SHOULD EQUAL 0000
3664	7402	HLT	/LINK SHOULD EQUAL A ZERO

/GROUP 1 OPERATE TEST 76

3665	7300	CLA CLL	
3666	1101	TAD K7774	/TEST PATTERN
3667	7041	CIA	/AC EQUALS 0004
3670	1054	TAD K7773	
3671	7040	CMA	
3672	7420	SNL	
3673	7440	SZA	/CIA FAILED AC SHOULD EQUAL 0000
3674	7402	HLT	/LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 77

3675	7300	CLA CLL	
3676	1100	TAD K7770	/TEST PATTERN
3677	7041	CIA	/AC EQUALS 0010
3700	1055	TAD K7767	
3701	7040	CMA	
3702	7420	SNL	
3703	7440	SZA	
3704	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000

/GROUP 1 OPERATE TEST 78

3705	7300	CLA CLL	
3706	1077	TAD K7760	/TEST PATTERN
3707	7041	CIA	/AC EQUALS 0020
3710	1056	TAD K7757	
3711	7040	CMA	
3712	7420	SNL	
3713	7440	SZA	
3714	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000 /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 79

3715	7300	CLA CLL	
------	------	---------	--

3716	1076	TAD K7740	/TEST PATTERN
3717	7041	CIA	
3720	1057	TAD K7737	/AC EQUALS 0040
3721	7040	CMA	
3722	7420	SNL	
3723	7440	SZA	
3724	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000 /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 80

3725	7300	CLA CLL	
3726	1113	TAD K7700	/TEST PATTERN
3727	7041	CIA	/AC EQUALS 0100
3730	1061	TAD K7677	
3731	7040	CMA	
3732	7420	SNL	
3733	7440	SZA	
3734	7402	HLT	/CIA FAILED A SHOULD EQUAL 0000 /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 81

3735	7300	CLA CLL	
3736	1075	TAD K7600	/TEST PATTERN
3737	7041	CIA	/AC EQUALS 0200
3740	1062	TAD K7577	
3741	7040	CMA	
3742	7420	SNL	
3743	7440	SZA	
3744	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000 /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 82

3745	7300	CLA CLL	
3746	1074	TAD K7400	/TEST PATTERN
3747	7041	CIA	/AC EQUALS 0400
3750	1063	TAD K7377	
3751	7040	CMA	
3752	7420	SNL	
3753	7440	SZA	
3754	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000 /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 83

3755	7300	CLA CLL	
3756	1073	TAD K7000	/TEST PATTERN
3757	7041	CIA	/AC EQUALS 1000
3760	1064	TAD K6777	
3761	7040	CMA	
3762	7420	SNL	
3763	7440	SZA	
3764	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000 /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 84

3765	7300	CLA CLL	
3766	1072	TAD K6000	/TEST PATTERN

3767	7041	CIA	/AC EQUALS 2000
3770	1065	TAD K5777	
3771	7040	CMA	
3772	7420	SNL	
3773	7440	SZA	
3774	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000 /LINK SHOULD EQUAL ZERO

/GROUP 1 OPERATE TEST 85

3775	7300	CLA CLL	
3776	1050	TAD K4000	/TEST PATTERN
3777	7041	CIA	/AC EQUALS 4000
4000	1066	TAD K3777	
4001	7040	CMA	
4002	7420	SNL	
4003	7440	SZA	
4004	7402	HLT	/CIA FALED AC SHOULD EQUUA 000 /LINK SHOULD EQUALL ZERO

/GROUP 1 OPERATE TEST 86

4005	7300	CLA CLL	
4006	1020	TAD K0000	/TEST PATTERN
4007	7041	CIA	/AC EQUALS 0000, LINK EQUALS A ONE
4010	7450	SNA	
4011	7420	SNL	
4012	7402	HLT	/CIA FAILED AC SHOULD EQUAL 0000 /LINK SHOULD EQUAL A ONE

/GROUP OPERATE TEST 87

4013	7340	CLA CMA CLL	/AC=7777,L=0
4014	7311	CLA CLL IAC RAR	/AC=0,L=1
4015	7430	SZL	
4016	7440	SZA	
4017	7402	HLT	/ERROR; LINC NOT SET OR /AC NOT 0

/GROUP 1 OPERATE TEST 88

4020	7360	CLA CMA CLL CML	/AC=7777,L=1
4021	7305	CLA CLL IAC RAL	/AC=2,L=0
4022	7430	SZL	
4023	7402	HLT	/ERROR; LINC NOT 0
4024	7041	CMA IAC	
4025	1022	TAD K0002	
4026	7440	SZA	
4027	7402	HLT	/ERROR AC NOT=2

/GROUP 1 OPERATE TEST 89

4030	7320	CLA CLL CML	/AC=0,L=1
4031	7313	CLA CLL IAC RTR	/AC=4000,L=0
4032	7430	SZL	
4033	7402	HLT	/ERROR; LINC NOT 0
4034	7500	SMA	
4035	7402	HLT	/ERROR; AC NOT 4000

/GROUP 1 OPERATE TEST 90

4036	7360	CLA CMA CLL CML	/AC=7777,L=1
------	------	-----------------	--------------

4037	7307	CLA CLL IAC RTL	/AC=4,LINC=0
4040	7430	SZL	
4041	7402	HLT	/ERROR: LINC NOT 0
4042	7041	CMA IAC	
4043	1024	TAD K0004	
4044	7440	SZA	
4045	7402	HLT	/ERROR: AC NOT 4

## /GROUP 1 OPERATE TEST 91

4046	7300	CLA CLL	/AC=0, L=0
4047	7331	CLA CLL CML IAC RAR	/AC=4000, L=1
4050	7520	SMA SNL	
4051	7402	HLT	/ERROR: AC NOT 4000 OR /LINC NOT 1

## /GROUP 1 OPERATE TEST 92

4052	7300	CLA CLL	/AC=0,L=0
4053	7345	CLA CMA CLL IAC RAL	/AC=0001,L=0
4054	7430	SZL	
4055	7402	HLT	/LINC NOT=0
4056	7041	CMA IAC	
4057	1021	TAD K0001	
4060	7440	SZA	
4061	7402	HLT	/AC NOT 0001

## /GROUP 1 OPERATE TEST 93

4062	7360	CLA CMA CLL CML	/AC=7777,L=1
4063	7373	CLA CMA CLL CML IAC RTR	/AC=0,L=0
4064	7440	SZA	
4065	7402	HLT	/ERROR:
4066	7430	SZL	
4067	7402	HLT	/ERROR:

## /GROUP 1 OPERATE TEST 94

4070	7332	CLA CLL CML RTR	/L=0 AC=2000
4071	7006	RTL	/L=1 AC=0000
4072	7430	SZL	
4073	7440	SZA	
4074	7402	HLT	/CLA CLL CML RTR OR RTL FAILED

## /GROUP 1 OPERATE TEST 95

4075	7360	CLA CMA CLL CML	
4076	7342	CLA CLL CMA BSW	/AC=7777 LINK=0
4077	7040	CMA	
4100	7420	SNL	
4101	7440	SZA	
4102	7402	HLT	/7742 FAILED

## /GROUP 1 OPERATE TEST 96

4103	7360	CLA CMA CLL CML	
4104	7303	CLA CLL IAC BSW	/AC=0100 LINK=0
4105	1061	TAD K7677	/AC=7777
4106	7040	CMA	/AC=0000

4107	7420	SNL	
4110	7440	SZA	
4111	7402	HLT	/7703 FAILED

## /GROUP 1 OPERATE TEST 97

4112	7360	CLA CMA CLL CML	
4113	7343	CLA CLL CMA IAC BSW	/AC=0000 LINK=1
4114	7430	SZL	
4115	7440	SZA	
4116	7402	HLT	/7743 FAILED

## /GROUP 1 OPERATE TEST 98

4117	7360	CLA CMA CLL CML	
4120	7363	CLA CLL CMA CML IAC BSW	/AC=0000 LINK=0
4121	7420	SNL	
4122	7440	SZA	
4123	7402	HLT	/7763 FAILED

## /GROUP 1 OPERATE TEST 99

4124	7300	CLA CLL	
4125	1043	TAD	K1234
4126	7063	CMA CML IAC BSW	/AC=4465 L=1
4127	1047	TAD	K3312
4130	7040	CMA	
4131	7430	SZL	
4132	7440	SZA	
4133	7402	HLT	/7063 FAILED

## /GROUP 1 OPERATE TEST 100

4134	7332	CLA CLL CML RTR	/AC=2000 L=1
4135	7063	CMA CML IAC BSW	/AC=0060 L=1
4136	1051	TAD	K7717
4137	7040	CMA	/AC=7777 L=1
4140	7430	SZL	
4141	7440	SZA	
4142	7402	HLT	/7063 FAILED

## /GROUP 2 OPERATE TEST 1

4143	7240	CLA CMA	/AC=7777
4144	7700	CLA SMA	/TEST COMBINATION
4145	7402	HLT	/CLA SMA DID NOT SKIP
			/AC SHOULD BE 0000
4146	7440	SZA	
4147	7402	HLT	/CLA SMA DID NOT CLEAR AC
			/AC SHOULD BE 0000

## /GROUP 2 OPERATE TEST 2

4150	7240	CLA CMA	/AC=7777
4151	7640	CLA SZA	/TEST COMBINATION
4152	7440	SZA	
4153	7402	HLT	/CLA SZA SKIPPED OR AC NOT
			/CLEARED TO 0000

## /GROUP 2 OPERATE TEST 3

4154	7240	CLA CMA	/AC=7777
------	------	---------	----------



4155	7540	SMA SZA	/TEST COMBINATION
4156	7402	HLT	/SMA SZA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 7777
/GROUP 2 OPERATE TEST 4			
4157	7200	CLA	/AC=0000
4160	7540	SMA SZA	/TEST COMBINATION
4161	7402	HLT	/SMA SZA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 0000
/GROUP 2 OPERATE TEST 5			
4162	7200	CLA	
4163	1066	TAD K3777	/AC=3777
4164	7540	SMA SZA	/TEST COMBINATION
4165	7450	SNA	
4166	7402	HLT	/SMA SZA SHOULD NOT HAVE SKPPED
			/AC SHOULD EQUAL 3777
/GROUP 2 OPERATE TEST 6			
4167	7240	CLA CMA	/AC=7777
4170	7740	CLA SMA SZA	/TEST COMBINATION
4171	7402	HLT	/CLA SMA SZA SHOULD HAVE SKIPPED
			/AC SHOULD BE 0000
4172	7440	SZA	
4173	7402	HLT	/AC WAS NOT CLEARED
			/AC SHOULD BE 0000
/GROUP 2 OPERATE TEST 7			
4174	7200	CLA	/AC=0000
4175	7740	CLA SMA SZA	/TEST COMBINATION
4176	7402	HLT	/CLA SMA SZA SHOULD HAVE SKIPPED
			/AC SHOULD BE 0000
4177	7440	SZA	
4200	7402	HLT	/AC WAS NOT CLEARED
			/AC SHOULD BE 0000
/GROUP 2 OPERATE TEST 8			
4201	7200	CLA	
4202	1066	TAD K3777	/AC=3777
4203	7740	CLA SMA SZA	/TEST COMBINATION
4204	7440	SZA	
4205	7402	HLT	/SMA SZA DID NOT SKIP OR AC
			/NOT CLEARED TO 0000
/GROUP 2 OPERATE TEST 9			
4206	7300	CLL CLA	/LINK=0
4207	1070	TAD K5252	/AC=5252
4210	7620	CLA SNL	/TEST COMBINATION
4211	7440	SZA	
4212	7402	HLT	/SNL SKIPPED OR AC NOT CLEARED
			/AC AND LINK SHOULD EQUAL ZERO
/GROUP 2 OPERATE TEST 10			
4213	7320	CLA CLL CML	
4214	1071	TAD K2525	/AC=2525 LINK=1
4215	7620	CLA SNL	/TEST COMBINATION
4216	7402	HLT	/SNL DID NOT SKIP

4217	7440	SZA	/LINK SHOULD EQUAL ONE
4220	7402	HLT	/CLA SNL DID NOT CLEAR AC
			/AC SHOULD EQUAL 0000
/GROUP 2 OPERATE TEST 11			
4221	7300	CLA CLL	/AC=0000 LINK=0
4222	7520	SMA SNL	/TEST COMBINATION
4223	7440	SZA	
4224	7402	HLT	/SMA SNL SKIPPED. AC AND LINK
			/SHOULD EQUAL ZERO
/GROUP 2 OPERATE TEST 12			
4225	7320	CLA CLL CML	/AC=0000 LINK=1
4226	7520	SMA SNL	/TEST COMBINATION
4227	7402	HLT	/SNL SHOULD HAVE SKIPPED. LINK = 1
/GROUP 2 OPERATE TEST 13			
4230	7300	CLA CLL	
4231	1050	TAD K4000	/AC=4000 LINK=0
4232	7520	SMA SNL	/TEST COMBINATION
4233	7402	HLT	/SMA SHOULD HAVE SKIPPED
			/AC=4000
/GROUP 2 OPERATE TEST 14			
4234	7320	CLA CLL CML	
4235	1050	TAD K4000	/AC=4000 LINK=1
4236	7520	SMA SNL	/TEST COMBINATION
4237	7402	HLT	/SMA SNL SHOULD HAVE SKIPPED
			/AC=4000 LINK=1
/GROUP 2 OPERATE TEST 15			
4240	7300	CLA CLL	/AC=0000 LINK=0
4241	7720	CLA SMA SNL	/TEST COMBINATION
4242	7440	SZA	
4243	7402	HLT	/SMA SNL SKIPPED. AC AND LINK
			/SHOULD BE ZERO
/GROUP 2 OPERATE TEST 16			
4244	7320	CLA CLL CML	/AC=0000 LINK=1
4245	7720	CLA SMA SNL	/TEST COMBINATION
4246	7402	HLT	/SNL SHOULD HAVE SKIPPED
			/LINK=1
4247	7440	SZA	
4250	7402	HLT	/CLA SMA SNL DID NOT CLEAR AC
			/AC SHOULD EQUAL ZERO
/GROUP 2 OPERATE TEST 17			
4251	7300	CLA CLL	
4252	1050	TAD K4000	/AC=4000 LINK=0
4253	7720	CLA SMA SNL	/TEST COMBINATION
4254	7402	HLT	/SMA SHOULD HAVE SKIPPED
			/AC SHOULD EQUAL 0000 LINK=0
4255	7440	SZA	
4256	7402	HLT	/CLA SMA SNL DID NOT CLEAR AC
			/AC SHOULD EQUAL 0000
/GROUP 2 OPERATE TEST 18			
4257	7320	CLA CLL CML	
4260	1050	TAD K4000	/AC=4000 LINK=1

4261	7720	CLA SMA SNL	/TEST COMBINATION
4262	7402	HLT	/CLA SMA SNL SHOULD HAVE SKIPPED
			/AC SHOULD BE 0000 LINK=1
4263	7440	SZA	
4264	7402	HLT	/CLA SMA SNL DID NOT CLEAR AC
			/AC SHOULD BE 0000 LINK=1
/GROUP 2 OPERATE TEST 19			
4265	7300	CLA CLL	/AC=0000 LINK=0
4266	7460	SZA SNL	/TEST COMBINATION
4267	7402	HLT	/SZA SNL DID NOT SKIP
			/AC=0000
/GROUP 2 OPERATE TEST 20			
4270	7320	CLL CLA CML	/AC=0000 LINK=1
4271	7460	SZA SNL	/TEST COMBINATION
4272	7402	HLT	/SZA SNL DID NOT SKIP
			/AC=0000 LINK=1
/GROUP 2 OPERATE TEST 21			
4273	7300	CLA CLL	
4274	1040	TAD K0400	/AC=0400 LINK=0
4275	7460	SZA SNL	/TEST COMBINATION
4276	7450	SNA	
4277	7402	HLT	/SZA SNL SKIPPED
			/AC=0400 LINK=0
/GROUP 2 OPERATE TEST 22			
4300	7320	CLA CLL CML	
4301	1032	TAD K0040	/AC=0040 LINK=1
4302	7460	SZA SNL	/TEST COMBINATION
4303	7402	HLT	/SZA SNL SHOULD HAVE SKIPPED
			/LINK=1
/GROUP 2 OPERATE TEST 23			
4304	7300	CLA CLL	/AC=0000 LINK=0
4305	7660	CLA SZA SNL	/TEST COMBINATION
4306	7402	HLT	/CLA SZA SNL SHOULD HAVE SKIPPED
			/AC AND LINK SHOULD EQUAL ZERO
4307	7440	SZA	
4310	7402	HLT	/CLA SZA SNL DID NOT CLEAR AC
			/AC SHOULD BE 0000
/GROUP 2 OPERATE TEST 24			
4311	7320	CLA CLL CML	/AC=0000 LINK=1
4312	7660	CLA SZA SNL	/TEST COMBINATION
4313	7402	HLT	/CLA SZA SNL SHOULD HAVE SKIPPED
			/AC=0000 LINK=1
4314	7440	SZA	
4315	7402	HLT	/CLA SZA SNL DID NOT CLEAR AC
			/AC SHOULD EQUAL 0000
/GROUP 2 OPERATE TEST 25			
4316	7320	CLA CLL CML	
4317	1036	TAD K0200	/AC=0200 LINK=1
4320	7660	CLA SZA SNL	/TEST COMBINATION OR
4321	7402	HLT	/CLA SZA SNL SHOULD HAVE SKIPPED
			/LINK=1
4322	7440	SZA	
4323	7402	HLT	/CLA SZA SNL DID NOT CLEAR AC

```

/AC SHOULD EQUAL 0000
/GROUP 2 OPERATE TEST 26
4324 7300 CLA CLL
4325 1045 TAD K2000 /AC=2000 LINK=0
4326 7660 CLA SZA SNL /TEST COMBINATION
4327 7440 SZA
4330 7402 HLT /CLA SZA SNL FAILED. AC AND
/ LINK SHOULD EQUAL ZERO

/GROUP 2 OPERATE TEST 27
4331 7300 CLA CLL /AC=0000 LINK=0
4332 7560 SMA SZA SNL /TEST COMBINATION
4333 7402 HLT /SMA SZA SNL SHOULD HAVE SKIPPED
/AC=0000 LINK=0

/GROUP 2 OPERATE TEST 28
4334 7320 CLA CLL CML
4335 1066 TAD K3777 /AC=3777 LINK=1
4336 7560 SMA SZA SNL /TEST COMBINATION
4337 7402 HLT /SMA SZA SNL SHOULD HAVE SKIPPED
/AC=3777 LINK=1

/GROUP 2 OPERATE TEST 29
4340 7300 CLA CLL
4341 1050 TAD K4000 /AC=4000 LINK=0
4342 7560 SMA SZA SNL /TEST COMBINATION
4343 7402 HLT /SMA SZA SNL SHOULD HAVE SKIPPED
/AC=4000 LINK=0

/GROUP 2 OPERATE TEST 30
4344 7300 CLA CLL
4345 1066 TAD K3777 /AC=3777 LINK=0
4346 7560 SMA SZA SNL /TEST COMBINATION
4347 7450 SNA
4350 7402 HLT /SMA SZA SNL SHOULD NOT HAVE
/ SKIPPED. AC=3777 LINK=0

/GROUP 2 OPERATE TEST 31
4351 7300 CLA CLL /AC=0000 LINK=0
4352 7760 CLA SMA SZA SNL /TEST COMBINATION
4353 7402 HLT /CLA SMA SZA SNL SHOULD HAVE SKIPPED
/AC SHOULD EQUAL 0000

4354 7440 SZA
4355 7402 HLT /AC NOT ZERO AFTER CLA SMA SZA SNL
/AC SHOULD BE 0000 LINK=0

/GROUP 2 OPERATE TEST 32
4356 7320 CLA CLL CML
4357 1066 TAD K3777 /AC=3777 LINK=1
4360 7760 CLA SMA SZA SNL /TEST COMBINATION
4361 7402 HLT /CLA SMA SZA SNL DID NOT SKIP
/AC SHOULD BE 0000 LINK=1

4362 7440 SZA
4363 7402 HLT /CLA SMA SZA SNL DID NOT CLEAR AC
/AC SHOULD EQUAL 0000 LINK=1

/GROUP 2 OPERATE TEST 33
4364 7300 CLA CLL

```

4365	1050	TAD K4000	/AC=4000 LINK=0
4366	7760	CLA SMA SZA SNL	/TEST COMBINATION
4367	7402	HLT	/CLA SMA SZA SNL SHOULD HAVE SKIPPED
			/AC SHOULD BE 0000. LINK=0
4370	7440	SZA	
4371	7402	HLT	/CLA SMA SZA SNL DID NOT CLEAR AC
			/AC SHOULD EQUAL 0000

/GROUP 2 OPERATE TEST 34

4372	7300	CLA CLL	
4373	1066	TAD K3777	/AC=3777 LINK=0
4374	7760	CLA SMA SZA SNL	/TEST COMBINATION
4375	7440	SZA	
4376	7402	HLT	/CLA SMA SZA SNL FAILED. AC
			/SHOULD BE ZERO. LINK=0

/GROUP 2 OPERATE TEST 35

4377	7300	CLA CLL	/AC=0000 LINK=0
4400	7410	SKP	/TEST INSTRUCTION
4401	7402	HLT	/SKIP FAILED
			/AC AND LINK EQUAL ZERO

/GROUP 2 OPERATE TEST 36

4402	7320	CLA CLL CML	/AC=0000 LINK=1
4403	7410	SKP	/TEST INSTRUCTION
4404	7402	HLT	/SKIP FAILED
			/AC=0000 LINK=1

/GROUP 2 OPERATE TEST 37

4405	7320	CLA CLL CML	
4406	1066	TAD K3777	/AC=3777 LINK=1
4407	7410	SKP	/TEST INSTRUCTION
4410	7402	HLT	/SKIP FAILED
			/AC=3777 LINK=1

/GROUP 2 OPERATE TEST 38

4411	7300	CLA CLL	
4412	1066	TAD K3777	/AC=3777 LINK=0
4413	7410	SKP	/TEST INSTRUCTION
4414	7402	HLT	/SKIP FAILED
			/AC=3777 LINK=0

/GROUP 2 OPERATE TEST 39

4415	7200	CLA	
4416	1066	TAD K3777	/AC=3777
4417	7710	CLA SPA	/TEST COMBINATION
4420	7402	HLT	/CLA SPA DID NOT SKIP. AC
			/SHOULD BE ZERO
4421	7440	SZA	
4422	7402	HLT	/CLA SPA DID NOT CLEAR AC
			/AC SHOULD EQUAL ZERO

/GROUP 2 OPERATE TEST 40

4423	7200	CLA	
4424	1050	TAD K4000	/AC=4000
4425	7710	CLA SPA	/TEST COMBINATION
4426	7440	SZA	
4427	7402	HLT	/CLA SPA FAILED. AC SHOULD
			/EQUAL 0000

/GROUP 2 OPERATE TEST 41

4430	7240	CLA CMA	/AC=7777
4431	7650	CLA SNA	/TEST COMBINATION
4432	7402	HLT	/CLA SNA DID NOT SKIP
			/AC SHOULD BE 0000
/GROUP 2 OPERATE TEST 42			
4433	7200	CLA	/AC=0000
4434	7650	CLA SNA	/TEST COMBINATION
4435	7440	SZA	
4436	7402	HLT	/CLA SNA FAILED
			/AC SHOULD EQUAL 0000
/GROUP 2 OPERATE TEST 43			
4437	7200	CLA	/AC=0000
4440	7550	SPA SNA	/TEST COMBINATION (AND)
4441	7440	SZA	
4442	7402	HLT	/SPA SNA SKIPPED
			/AC=0000
/GROUP 2 OPERATE TEST 44			
4443	7200	CLA	
4444	1066	TAD K3777	/AC=3777
4445	7550	SPA SNA	/TEST COMBINATION (AND)
4446	7402	HLT	/SPA SNA FAILED TO SKIP
			/AC=3777
/GROUP 2 OPERATE TEST 45			
4447	7200	CLA	
4450	1050	TAD K4000	/AC=4000
4451	7550	SPA SNA	/TEST COMBINATION (AND)
4452	7450	SNA	
4453	7402	HLT	/SPA SNA SKIPPED.
			/AC=4000
/GROUP 2 OPERATE TEST 46			
4454	7200	CLA	/AC=0000
4455	7750	CLA SPA SNA	/TEST COMBINATION (AND)
4456	7440	SZA	
4457	7402	HLT	/CLA SPA SNA FAILED.
			/AC SHOULD BE 0000
/GROUP 2 OPERATE TEST 47			
4460	7200	CLA	
4461	1066	TAD K3777	/AC=3777
4462	7750	CLA SPA SNA	/TEST COMBINATION (AND)
4463	7402	HLT	/CLA SPA SNA DID NOT SKIP
			/AC SHOULD BE 0000
4464	7440	SZA	
4465	7402	HLT	/CLA SPA SNA DID NOT CLEAR THE AC
			/AC SHOULD EQUAL 0000
/GROUP 2 OPERATE TEST 48			
4466	7200	CLA	
4467	1050	TAD K4000	/AC=4000
4470	7750	CLA SPA SNA	/TEST COMBINATION (AND)
4471	7440	SZA	
4472	7402	HLT	/CLA SPA SNA FAILED
			/AC SHOULD EQUAL ZERO

PAUSE

/INSTRUCTION TEST - TAPE 4

/GROUP 2 OPERATE TEST 49

4473	7300	CLA CLL	
4474	1070	TAD K5252	/AC=5252 LINK=0
4475	7630	CLA SZL	/TEST COMBINATION
4476	7402	HLT	/CLA SZL DID NOT SKIP
			/AC AND LINK SHOULD BE 0
4477	7440	SZA	
4500	7402	HLT	/CLA SZL DID NOT CLEAR AC
			/AC SHOULD BE ZERO. LINK=0

/GROUP 2 OPERATE TEST 50

4501	7360	CLA CLL CML CMA	/AC=7777 LINK=1
4502	7630	CLA SZL	/TEST COMBINATION (AND)
4503	7440	SZA	
4504	7402	HLT	/CLA SZL FAILED. AC SHOULD
			/BE 0000. LINK=1

/GROUP 2 OPERATE TEST 51

4505	7300	CLA CLL	
4506	1066	TAD K3777	/AC=3777 LINK=0
4507	7530	SPA SZL	/TEST COMBINATION (AND)
4510	7402	HLT	/SPA SZL DID NOT SKIP
			/AC=3777 LINK=0

/GROUP 2 OPERATE TEST 52

4511	7320	CLA CLL CML	
4512	1066	TAD K3777	/AC=3777 LINK=1
4513	7530	SPA SZL	/TEST COMBINATION (AND)
4514	7450	SNA	
4515	7402	HLT	/SPA SZL SKIPPED
			/AC=3777 LINK=1

/GROUP 2 OPERATE TEST 53

4516	7300	CLA CLL	
4517	1050	TAD K4000	/AC=4000 LINK=0
4520	7530	SPA SZL	/TEST COMBINATION (AND)
4521	7500	SMA	
4522	7402	HLT	/SPA SZL SKIPPED
			/AC=4000 LINK=0

/GROUP 2 OPERATE TEST 54

4523	7300	CLA CLL	
4524	1066	TAD K3777	/AC=3777 LINK=0
4525	7730	CLA SPA SZL	/TEST COMBINATION (AND)
4526	7402	HLT	/CLA SPA SZL SHOULD HAVE SKIPPED
			/AC SHOULD BE 0000. LINK=0
4527	7440	SZA	
4530	7402	HLT	/CLA SPA SZL DID NOT CLEAR THE AC
			/AC SHOULD BE 0000

/GROUP 2 OPERATE TEST 55

4531	7320	CLA CLL CML	
4532	1066	TAD K3777	/AC=3777 LINK=1
4533	7730	CLA SPA SZL	/TEST COMBINATION (AND)

4534	7440	SZA	
4535	7402	HLT	/CLA SPA SZL FAILED
			/AC SHOULD EQUAL 0000 LINK=1
/GROUP 2 OPERATE TEST 56			
4536	7300	CLA CLL	
4537	1050	TAD K4000	/AC=4000 LINK=0
4540	7730	CLA SPA SZL	/TEST COMBINATION (AND)
4541	7440	SZA	
4542	7402	HLT	/CLA SPA SZL FAILED
			/AC SHOULD EQUAL 0000 LINK=0
/GROUP 2 OPERATE TEST 57			
4543	7300	CLA CLL	
4544	1050	TAD K4000	/AC=4000 LINK=0
4545	7470	SNA SZL	/TEST COMBINATION (AND)
4546	7402	HLT	/SNA SZL DID NOT SKIP
			/AC = 4000 LINK=0
/GROUP 2 OPERATE TEST 58			
4547	7320	CLA CLL CML	
4550	1050	TAD K4000	/AC=4000 LINK=1
4551	7470	SNA SZL	/TEST COMBINATION (AND)
4552	7420	SNL	
4553	7402	HLT	/SNA SZL SKIPPED
			/AC=4000 LINK=1
/GROUP 2 OPERATE TEST 59			
4554	7300	CLA CLL	/AC=0000 LINK=0
4555	7470	SNA SZL	/TEST COMBINATION (AND)
4556	7430	SZL	
4557	7402	HLT	/SNA SZL SKIPPED
			/AC=0000 LINK=0
/GROUP 2 OPERATE TEST 60			
4560	7320	CLA CLL CML	
4561	1050	TAD K4000	/AC=4000 LINK=1
4562	7670	CLA SNA SZL	/TEST COMBINATION (AND)
4563	7440	SZA	
4564	7402	HLT	/CLA SNA SZL FAILED. AC SHOULD
			/BE 0000, LINK=1
/GROUP 2 OPERATE TEST 61			
4565	7300	CLA CLL	
4566	1050	TAD K4000	/AC=4000 LINK=0
4567	7670	CLA SNA SZL	/TEST COMBINATION (AND)
4570	7402	HLT	/CLA SNA SZL DID NOT SKIP
			/AC SHOULD BE 0000. LINK=0
4571	7440	SZA	
4572	7402	HLT	/CLA SNA SZL DID NOT CLEAR AC
			/AC AND LINK SHOULD BE ZERO
/GROUP 2 OPERATE TEST 62			
4573	7300	CLA CLL	/AC=0000 LINK=0
4574	7670	CLA SNA SZL	/TEST COMBINATION (AND)
4575	7440	SZA	
4576	7402	HLT	/CLA SNA SZL FAILED. AC SHOULD
			/BE 0000, LINK=0
/GROUP 2 OPERATE TEST 63			
4577	7300	CLA CLL	



4600	1066	TAD K3777	/AC=3777 LINK=0
4601	7570	SPA SNA SZL	/TEST COMBINATION (AND)
4602	7402	HLT	/SPA SNA SZL DID NOT SKIP
			/AC=3777 LINK=0

/GROUP 2 OPERATE TEST 64

4603	7320	CLA CLL CML	
4604	1066	TAD K3777	/AC=3777 LINK=1
4605	7570	SPA SNA SZL	/TEST COMBINATION (AND)
4606	7420	SNL	
4607	7402	HLT	/SPA SNA SZL SKIPPED
			/AC=3777 LINK=1

/GROUP 2 OPERATE TEST 65

4610	7300	CLA CLL	/AC=0000 LINK=0
4611	7570	SPA SNA SZL	/TEST COMBINATION (AND)
4612	7430	SZL	
4613	7402	HLT	/SPA SNA SZL SKIPPED
			/AC=0000 LINK=0

/GROUP 2 OPERATE TEST 66

4614	7300	CLA CLL	
4615	1050	TAD K4000	/AC=4000 LINK=0
4616	7570	SPA SNA SZL	/TEST COMBINATION (AND)
4617	7430	SZL	
4620	7402	HLT	/SPA SNA SZL SKIPPED
			/AC=4000 LINK=0

/GROUP 2 OPERATE TEST 67

4621	7300	CLA CLL	
4622	1066	TAD K3777	/AC=3777 LINK=0
4623	7770	CLA SPA SNA SZL	/TEST COMBINATION (AND)
4624	7402	HLT	/CLA SPA SNA SZL DID NOT SKIP
			/AC AND LINK SHOULD BE ZERO
4625	7440	SZA	
4626	7402	HLT	/CLA SPA SNA SZL DID NOT CLEAR AC
			/AC AND LINK SHOULD BE ZERO

/GROUP 2 OPERATE TEST 68

4627	7320	CLA CLL CML	
4630	1066	TAD K3777	/AC=3777 LINK=1
4631	7770	CLA SPA SNA SZL	/TEST COMBINATION (AND)
4632	7440	SZA	
4633	7402	HLT	/CLA SPA SNA SZL FAILED. AC SHOULD
			/BE 0000, LINK SHOULD EQUAL ONE

/GROUP 2 OPERATE TEST 69

4634	7300	CLA CLL	
4635	1050	TAD K4000	/AC=4000 LINK=0
4636	7770	CLA SPA SNA SZL	/TEST COMBINATION (AND)
4637	7440	SZA	
4640	7402	HLT	/CLA SPA SNA SZL FAILED. AC SHOULD
			/BE 0000, LINK SHOULD EQUAL ZERO

/GROUP 2 OPERATE TEST 70

4641	7300	CLA CLL	/AC=0000 LINK=0
4642	7770	CLA SPA SNA SZL	/TEST COMBINATION (AND)
4643	7440	SZA	
4644	7402	HLT	/CLA SPA SNA SZL FAILED. AC AND

/LINK SHOULD BE ZERO.

## /GROUP 2 OPERATE TEST 71

4645	7200	CLA	
4646	1070	TAD K5252	/AC=5252
4647	7604	CLA OSR	/TEST COMBINATION
4650	7040	CMA	
4651	7440	SZA	
4652	7402	HLT	/CLA OSR FAILED
			/AC SHOULD BE 0000

## /GROUP 2 OPERATE TEST 72

4653	7200	CLA	
4654	1050	TAD K4000	/AC=4000
4655	7504	SMA OSR	/TEST COMBINATION
4656	7402	HLT	/SMA OSR FAILED TO SKIP
			/AC SHOULD BE 7777
4657	7040	CMA	
4660	7440	SZA	
4661	7402	HLT	/SMA OSR FAILED
			/AC SHOULD BE 0000

## /GROUP 2 OPERATE TEST 73

4662	7200	CLA	/AC=0000
4663	7444	SZA OSR	/TEST COMBINATION
4664	7402	HLT	/SZA OSR FAILED TO SKIP
			/AC SHOULD BE 0000
4665	7040	CMA	
4666	7440	SZA	
4667	7402	HLT	/SZA OSR FAILED.
			/AC SHOULD BE 0000

## /GROUP 2 OPERATE TEST 74

4670	7320	CLL CML CLA	/LINK=1
4671	7424	SNL OSR	/TEST COMBINATION
4672	7402	HLT	/SNL OSR FAILED TO SKIP
			/AC SHOULD BE 7777
4673	7040	CMA	
4674	7440	SZA	
4675	7402	HLT	/SNL OSR FAILED.
			/AC SHOULD BE 0000

## /GROUP 2 OPERATE TEST 75

4676	7300	CLA CLL	
4677	1066	TAD K3777	/AC=3777 LINK=0
4700	7764	CLA SMA SZA SNL OSR	/TEST COMBINATION
4701	7450	SNA	
4702	7402	HLT	/CLA SMA SZA SNL OSR FAILED.
			/AC SHOULD BE 7777. LINK=0
4703	7040	CMA	
4704	7440	SZA	
4705	7402	HLT	/CLA SMA SZA SNL OSR FAILED
			/AC SHOULD EQUAL ZERO

## /GROUP 2 OPERATE TEST 76

4706	7200	CLA	/AC=0000
4707	7414	SKP OSR	/TEST COMBINATION
4710	7402	HLT	/SKP OSR DID NOT SKIP
			/AC SHOULD BE 7777

4711	7040	CMA	
4712	7440	SZA	
4713	7402	HLT	/SKP OSR FAILED
			/AC SHOULD EQUAL ZERO

/GROUP 2 OPERATE TEST 77			
4714	7200	CLA	/AC=0000
4715	7514	SPA OSR	/TEST COMBINATION
4716	7402	HLT	/SPA OSR DID NOT SKIP
			/AC SHOULD EQUAL 7777

4717	7040	CMA	
4720	7440	SZA	
4721	7402	HLT	/SPA OSR FAILED.
			/AC SHOULD BE 0000

/GROUP 2 OPERATE TEST 78			
4722	7200	CLA	
4723	1040	TAD K0400	/AC=0400
4724	7454	SNA OSR	/TEST COMBINATION
4725	7402	HLT	/SNA OSR DID NOT SKIP
			/AC SHOULD BE 7777

4726	7040	CMA	
4727	7440	SZA	
4730	7402	HLT	/SNA OSR FAILED
			/AC SHOULD BE 0000

/GROUP 2 OPERATE TEST 79			
4731	7300	CLA CLL	/LINK=0 AC=0000
4732	7434	SZL OSR	/TEST COMBINATION
4733	7402	HLT	/SZL OSR DID NOT SKIP
			/AC SHOULD BE 7777

4734	7040	CMA	
4735	7440	SZA	
4736	7402	HLT	/SZL OSR FAILED
			/AC SHOULD BE 0000

/GROUP 2 OPERATE TEST 80			
4737	7300	CLA CLL	
4740	1066	TAD K3777	/AC=3777 LINK=0
4741	7774	CLA SPA SNA SZL OSR	/TEST COMBINATION (AND)
4742	7402	HLT	/ABOVE MESS DID NOT SKIP
			/AC SHOULD BE 7777

4743	7040	CMA	
4744	7440	SZA	
4745	7402	HLT	/CLA SPA SNA SZL OSR FAILED
			/AC SHOULD BE 0000

/MQ OPERATE TEST 1			
4746	7360	CLA CMA CLL CML	/AC=7777 LINK=1
4747	7601	CLAE	/AC=0000 LINK=1
4750	7430	SZL	
4751	7440	SZA	
4752	7402	HLT	

/7601 FAILED

/MQ OPERATE TEST 2			
4753	7360	CLA CLL CMA CML	/AC=7777 L=1

4754	7401	NOPE	/AC=7777 L=1 (NOP)
4755	7040	CMA	
4756	7430	SZL	
4757	7440	SZA	
4760	7402	HLT	/7401 FAILED

/MQ OPERATE TEST 3			
4761	7360	CLA CMA CLL CML	/AC=7777 LINK=1
4762	7421	SQL	/AC=0000 LINK=1
4763	7430	SZL	
4764	7440	SZA	
4765	7402	HLT	/SQL DID NOT CLEAR AC

/MQ OPERATE TEST 4			
4766	7300	CLA CLL	
4767	7421	SQL	/MQ=0000, AC=0000
4770	7040	CMA	/AC=7777
4771	7501	MQA	/AC=7777, MQ=0000
4772	7040	CMA	/AC=0000
4773	7420	SNL	
4774	7440	SZA	
4775	7402	HLT	/MQ DID NOT EQUAL 0000 OR MQA FAILED

/MQ OPERATE TEST 5			
4776	7340	CLA CMA CLL	
4777	7421	SQL	/MQ=7777, AC=0000
5000	7501	MQA	/AC=7777, MQ=7777
5001	7040	CMA	
5002	7420	SNL	
5003	7440	SZA	
5004	7402	HLT	/MQ DID NOT EQUAL 7777 OR MQA FAILED

/MQ OPERATE TEST 6			
5005	7601	CLAE	/CLEAR AC
5006	1070	TAD K5252	
5007	7421	SQL	/MQ=5252, AC=0000
5010	1071	TAD K2525	
5011	7501	MQA	/AC=7777, MQ=5252
5012	7040	CMA	
5013	7440	SZA	
5014	7402	HLT	/MQ DID NOT EQUAL 5252 OR MQA FAILED

/MQ OPERATE TEST 7			
5015	7360	CLA CMA CLL CML	
5016	7421	SQL	/MQ=7777, AC=0000
5017	7040	CMA	/AC=7777
5020	7621	CAM	/AC AND MQ.=0000
5021	7440	SZA	
5022	7402	HLT	/AC SHOULD EQUAL 0000
5023	7501	MQA	/AC=0000, MQ=0000
5024	7430	SZL	
5025	7440	SZA	
5026	7402	HLT	/CAM DID NOT CLEAR MQ /OR LINK WAS CLEARED

```

/MQ OPERATE TEST 8
5027 7601      CLAE
5030 7421      MQL
5031 7040      CMA
5032 7701      ACL
5033 7440      SZA
5034 7402      HLT
5035 7501      MQA
5036 7440      SZA
5037 7402      HLT

/CLEAR AC
/MQ=0000 AC=0000
/AC=0000 MQ=0000
/ACL FAILED
/AC=0000 MQ=0000
/MQ SHOULD EQUAL 0000
```

```

/MQ OPERATE TEST 9
5040 7240      CLA CMA
5041 7421      MQL
5042 7701      ACL
5043 7040      CMA
5044 7440      SZA
5045 7402      HLT
5046 7501      MQA
5047 7040      CMA
5050 7440      SZA
5051 7402      HLT

/MQ=7777 AC=0000
/AC=7777 MQ=7777
/ACL FAILED
/AC=7777, MQ=7777
/MQ SHOULD EQUAL 7777
```

```

/MQ OPERATE TEST 10
5052 7601      CLAE
5053 1070      TAD K5252
5054 7421      MQL
5055 1071      TAD K2525
5056 7701      ACL
5057 1071      TAD K2525
5060 7040      CMA
5061 7440      SZA
5062 7402      HLT
5063 7501      MQA
5064 1071      TAD K2525
5065 7040      CMA
5066 7440      SZA
5067 7402      HLT

/CLEAR AC
/MQ=5252 AC=0000
/AC=5252 MQ=5252
/ACL FAILED
/AC=5252 MQ=5252
/MQ SHOULD EQUAL 5252
```

```

/MQ OPERATE TEST 11
5070 7601      CLAE
5071 1071      TAD K2525
5072 7421      MQL
5073 1070      TAD K5252
5074 7701      ACL
5075 1070      TAD K5252
5076 7040      CMA
5077 7440      SZA
5100 7402      HLT
5101 7501      MQA
5102 1070      TAD K5252
5103 7040      CMA
5104 7440      SZA
5105 7402      HLT

/CLEAR AC
/MQ=2525 AC=0000
/AC=2525 MQ=2525
/ACL FAILED
/AC=2525 MQ=2525
/MQ SHOULD EQUAL 2525
```

			/MQ OPERATE TEST 12	
5106	7621	CAM		/MQ=0000 AC=0000
5107	7040	CMA		/AC=7777
5110	7521	SWP		/MQ=7777 AC=0000
5111	7440	SZA		
5112	7402	HLT		/AC SHOULD EQUAL 0000
5113	7701	ACL		/AC=7777 MQ=7777
5114	7040	CMA		
5115	7440	SZA		
5116	7402	HLT		/MQ SHOULD EQUAL 7777

			/MQ OPERATE TEST 13	
5117	7621	CAM		/MQ=0000 AC=0000
5120	7040	CMA		
5121	7421	MQL		/MQ=7777 AC=0000
5122	7521	SWP		/MQ=0000 AC=7777
5123	7040	CMA		
5124	7440	SZA		
5125	7402	HLT		
5126	7701	ACL		/AC=0000 MQ=0000
5127	7440	SZA		
5130	7402	HLT		/MQ SHOULD EQUAL 0000

			/MQ OPERATE TEST 14	
5131	7621	CAM		/MQ=0000 AC=0000
5132	1070	TAD K5252		
5133	7421	MQL		/MQ=5252 AC=0000
5134	1071	TAD K2525		
5135	7521	SWP		/MQ=2525 AC=5252
5136	1071	TAD K2525		
5137	7040	CMA		
5140	7440	SZA		
5141	7402	HLT		/SWP FAILED
5142	7701	ACL		/AC=2525 MQ=2525
5143	1070	TAD K5252		
5144	7040	CMA		
5145	7440	SZA		
5146	7402	HLT		/SWP FAILED MQ SHOULD EQUAL 2525

			/MQ OPERATE TEST 15	
5147	7621	CAM		/MQ=0000 AC=0000
5150	1071	TAD K2525		
5151	7421	MQL		/MQ=2525 AC=0000
5152	1070	TAD K5252		/AC=5252
5153	7521	SWP		/MQ=5252 AC=2525
5154	1070	TAD K5252		
5155	7040	CMA		
5156	7440	SZA		
5157	7402	HLT		/SWP FAILED
5160	7701	ACL		/AC=5252 MQ=5252
5161	1071	TAD K2525		
5162	7040	CMA		
5163	7440	SZA		

5164 7402

HLT

/SWP FAILED MQ SHOULD EQUAL 5252

## /MQ OPERATE TEST 16

5165 7621

CAM

/MQ=0000 AC=0000

5166 7040

CMA

/AC=7777

5167 7721

CLAE SWP

/AC=0000 MQ=0000

5170 7440

SZA

5171 7402

HLT

/CLAE SWP FAILED AC SHOULD EQUAL 0000

5172 7701

ACL

/AC=0000 MQ=0000

5173 7440

SZA

5174 7402

HLT

/CLAE SWP FAILED MQ SHOULD EQUAL 0000

## /MQ OPERATE TEST 17

5175 7621

CAM

/MQ=0000 AC=0000

5176 7040

CMA

5177 7421

MQL

/MQ=7777 AC=0000

5200 7721

CLAE SWP

/AC=7777 MQ=0000

5201 7040

CMA

5202 7440

SZA

5203 7402

HLT

/CLAE SWP FAILED

5204 7701

ACL

/AC=0000 MQ=0000

5205 7440

SZA

5206 7402

HLT

/CLAE SWP FAILED MQ SHOULD EQUAL 0000

## /MQ OPERATE TEST 18

5207 7621

CAM

/MQ=0000 AC=0000

5210 1071

TAD K2525

5211 7421

MQL

/MQ=2525 MQ=0000

5212 1070

TAD K5252

/AC=5252

5213 7721

CLAE SWP

/AC=2525 MQ=0000

5214 1070

TAD K5252

5215 7040

CMA

5216 7440

SZA

5217 7402

HLT

/CLAE FAILED

5220 7701

ACL

/AC=0000 MQ=0000

5221 7440

SZA

5222 7402

HLT

/CLAE FAILED MQ SHOULD EQUAL 0000

## /AND TEST 1

5223 7200

CLA

5224 0067

AND K7777

5225 7440

SZA

5226 7402

HLT

/AND FAILED AC SHOULD  
/BE 0000

## /AND TEST 2

5227 7240

CLA CMA

5230 0020

AND K0000

5231 7440

SZA

5232 7402

HLT

/AND FAILED  
/AC SHOULD EQUAL 0000

## /AND TEST 3

5233 7320

CIA CLL CML

5234	1067	TAD K7777	/AC=7777 LINK=1
5235	0067	AND K7777	
5236	7040	CMA	
5237	7430	SZL	
5240	7440	SZA	
5241	7402	HLT	/AND FAILED. AC SHOULD BE /0000. LINK SHOULD EQUAL ONE

## /AND TEST 4

5242	7300	CLA CLL	
5243	1071	TAD K2525	/AC=2525 LINK=0
5244	0070	AND K5252	
5245	7420	SNL	
5246	7440	SZA	
5247	7402	HLT	/AND FAILED. AC SHOULD BE /0000. LINK SHOULD BE 0

## /AND TEST 5

5250	7300	CLA CLL	
5251	1070	TAD K5252	/AC=5252 LINK=0
5252	0071	AND K2525	
5253	7420	SNL	
5254	7440	SZA	
5255	7402	HLT	/AND FAILED. AC SHOULD BE /0000. LINK SHOULD BE 0

## /AND TEST 6

5256	7300	CLA CLL	
5257	1052	TAD K7776	/AC=7776 LINK=0
5260	0070	AND K5252	/TEST INSTRUCTION
5261	7041	CIA	/AC=2526
5262	1070	TAD K5252	/AC=0000 LINK=1
5263	7430	SZL	
5264	7440	SZA	
5265	7402	HLT	/AND FAILURE. AC SHOULD BE /0000. LINK SHOULD BE ONE

## /AND TEST 7

5266	7300	CLA CLL	
5267	1071	TAD K2525	/AC=2525 LINK=0
5270	0071	AND K2525	/TEST INSTRUCTION
5271	7041	CIA	/AC=5253
5272	1071	TAD K2525	/AC=0000 LINK = 1
5273	7430	SZL	
5274	7440	SZA	
5275	7402	HLT	/AND FAILED. AC SHOULD BE /0000. LINK SHOULD BE ONE.

## /CHECK FOR BELL

5276	7200	CLA	
5277	1121	TAD BLCNT	
5300	7001	IAC	
5301	3121	OCA BLCNT	
5302	1121	TAD BLCNT	
5303	7640	SZA CLA	
5304	5147	JMP START+3	
5305	1122	TAD BLCON	



5306 3121

DCA BLCNT

/RING BELL

5307 1120

TAD BEL

5310 6046

TLS

5311 6041

TSF

5312 5311

JMP .-1

5313 6042

TCF

5314 5147

JMP START+3

S

[illegible]

4200	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
4100	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
4200	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
4300	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
4400	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
4500	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
4600	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
4700	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111

5000	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
5100	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
5200	11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
5300	11111111	11111000	00000000	00000000	00000000	00000000	00000000	00000000

5400  
5500

5600  
5700

6000  
6100

6200  
6300

6400  
6500

6600  
6700

7000  
7100

7200  
7300

7400  
7500

7600  
7700

ACL	7701	K600	0041
BEGIN	0200	K6000	0072
BEL	0120	K6777	0064
BLCNT	0121	K7000	0073
BLCON	0122	K7007	0117
BSW	7002	K7177	0060
CAM	7621	K7377	0063
CLAE	7601	K7400	0074
CLL1	0446	K7577	0062
CLL11	0452	K7600	0075
CMLT1	0456	K7677	0061
HALT	0006	K7700	0113
K0000	0020	K7717	0051
K0001	0021	K7737	0057
K0002	0022	K7740	0076
K0004	0024	K7757	0056
K0007	0102	K7760	0077
K0010	0026	K7767	0055
K0017	0104	K7770	0100
K0020	0030	K7773	0054
K0037	0105	K7774	0101
K0040	0032	K7775	0053
K0067	0103	K7776	0052
K0077	0106	K7777	0067
K0100	0034	MQA	7501
K0177	0107	MQL	7421
K0200	0036	NOOP	0007
K0377	0110	NOPE	7401
K0400	0040	START	0144
K0770	0116	SWP	7521
K0777	0111		
K1000	0042		
K1234	0043		
K14	0027		
K140	0035		
K1400	0044		
K1777	0112		
K2000	0045		
K2525	0071		
K2552	0115		
K3	0023		
K30	0031		
K300	0037		
K3000	0046		
K3312	0047		
K3777	0066		
K4000	0050		
K5225	0114		
K5252	0070		
K5777	0065		
K6	0025		
K60	0033		

ERRORS DETECTED: 0

LINKS GENERATED: 0

RUN-TIME: 30 SECONDS

2K CORE USED