

IDENTIFICATION

PRODUCT CODE: MAINDEC-8E-D01B-0
PRODUCT NAME: BASIC JMP-JMS TEST
DATE CREATED: JUNE 11, 1971
MAINTAINER: DIAGNOSTICS GROUP
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1. ABSTRACT

THIS IS A DIAGNOSTIC PROGRAM FOR TESTING THE JMP AND JMS INSTRUCTIONS OF THE PDP-8E.
2. REQUIREMENTS
------ 2.1 EQUIPMENT

A PDP-8E EQUIPPED WITH TELETYPE.
- 2.2 STORAGE

THIS PROGRAM USES MOST OF MEMORY. THE BINARY LOADER MUST BE STORED IN THE LAST MEMORY PAGE.
- 2.3 PRELIMINARY PROGRAMS

MAINDEC-8E-D0A(N) AND MAINDEC-8E-D0B(N)
3. LOADING PROCEDURE
------ 3.1 METHOD

THE STANDARD BINARY LOADER IS USED.
4. STARTING PROCEDURE
------ 4.1 CONTROL SWITCH SETTINGS (NONE)

- 4.2 STARTING ADDRESS

200
- 4.3 RESTART ADDRESSES

600
704
- 4.4 OPERATOR ACTION

 - A. SET SR TO 200 AND PRESS LOAD ADDRESS.
 - B. PUSH CLEAR AND THEN CONTINUE. THE PROGRAM WILL STORE PARTS OF THE RIM AND BINARY LOADERS THAT WILL BE DESTROYED, AND THEN JMP TO 4200 TO BEGIN TESTING.

5. OPERATING PROCEDURES

5.1 PROGRAM RESTARTS

SINCE THE LOADERS ARE ALREADY STORED, A PROGRAM RESTART SHOULD BEGIN AT 600 NOT 200.

5.2 PROGRAM END

TO RESTORE THE LOADERS AT THE CONCLUSION OF THE TEST, START AT 704. WHEN THE PROGRAM HALTS, RESTORATION IS COMPLETED (PC=736),

6. ERRORS

6.1 ERROR HALTS AND DESCRIPTION

SEE SECTION 9.

6.2 ERROR RECOVERY

IN MOST CASES IT IS POSSIBLE TO INSERT A JMP INSTRUCTION IN THE ERROR HALT POSITION TO RETURN THE PROGRAM TO THE FAILING TEST. THIS FORMS A PROGRAM LOOP ON THE FAILING TEST AND ALLOWS THE PROBLEM TO BE INVESTIGATED WITH AN OSCILLOSCOPE. IN CASES WHERE A SCOPE MODE LOOP CANNOT BE MAINTAINED DUE TO THE INSTABILITY OF THE JMP OR JMS INSTRUCTION AND ITS FAILING CONDITION, IT WILL PROBABLY BE ADVANTAGEOUS TO SIMULATE THIS SAME PROBLEM USING THE RANDOM JMP TEST, MAINDEC-8E-D0HC, OR RANDOM JMP-JMS TEST, MAINDEC-8E-D0JC.

7. RESTRICTIONS (NONE)

8. MISCELLANEOUS

8.1 EXECUTION TIME

THREE HUNDRED AND FORTY-FIVE PROGRAM LOOPS PER SECOND. A BELL IS SOUNDED EVERY 10 SECONDS, WHICH EQUALS 3456 PROGRAM LOOPS.

PROGRAM DESCRIPTION

THE PROGRAM IS MADE UP OF 82 INDIVIDUAL TESTS FOR JMP AND JMS. AN OCTAL COUNTER LOCATED AT MEMORY LOCATION 0136 ALWAYS HOLDS THE NUMBER OF THE PRESENT TEST. FOR TEST 1 LOCATION, 0136 CONTAINS 0000 AND FOR TEST 82, 0136 CONTAINS 0121. EACH TEST PERFORMS THE FOLLOWING FUNCTIONS:

- A. CHECK LOCATION 0136 FOR PROPER TEST NUMBER.
- B. PERFORMS ADDITIONAL CHECKING SUCH AS VERIFICATION OF THE STORED PC (PROGRAM COUNTER) ON A JMS.
- C. ADVANCES TEST COUNTER.
- D. SETS UP FOR NEXT TEST.
- E. JMP'S OR JMS'S TO THE NEXT TEST. THESE JMP AND JMS INSTRUCTIONS ARE THE ONES BEING TESTED.

IF THE PC DOES NOT ARRIVE AT THE PROPER PLACE AFTER PERFORMING STEPS ABOVE, IT EITHER FALLS INTO THE BACKGROUND FIELD OF HLTS OR INTO ANOTHER AREA OF THE PROGRAM. IF THE FIELD OF HLTS IS ENCOUNTERED, THE PROGRAM HALTS IMMEDIATELY. IF A PROGRAM FIELD IS ENTERED, IT IS MOST LIKELY THAT THE PROGRAM WILL HALT WHEN THE TEST COUNTER CHECK IS MADE (LOCATION 136 EQUALS THE TEST COUNT). IN A FEW REMOTE CASES IT IS POSSIBLE FOR THE TEST COUNTER TO BE ADVANCED BY ONE, FOLLOWING THE ERRONEOUS JMP OR JMS AND BEFORE THE HALT. IT IS ALSO POSSIBLE FOR THE PROGRAM, ON A ERROR CONDITION, TO ENTER THE LOADERS STORED IN THE LAST MEMORY PAGE. ALL OF THESE POSSIBILITIES SHOULD BE KEPT IN MIND WHEN ANALYZING AN ERROR.

TEST 0 THROUGH 19 ARE TESTS FOR SAME PAGE JUMPING USING DIRECT ADDRESSING. TESTS 20 THROUGH 45 TEST THE JMP INSTRUCTION WITH INDIRECT ADDRESSING. IN THESE CASES, THE ADDRESS THAT THE PROGRAM JUMPS TO IS ALWAYS THE COMPLEMENT OF ITS PRESENT ADDRESS. JMS TESTS 1 THROUGH 12 ARE TESTS FOR THE SAME PAGE USING DIRECT ADDRESSING. JMS TESTS 13 THROUGH 35 TEST JMS IN THE SAME MANNER AS JMP IS TESTED IN TEST 20 THROUGH 45.

THE TELETYPE BELL IS SOUNDED EVERY 10 SECONDS (3456 PROGRAM CYCLES).

/BASIC JMP-JMS TEST

	0000	*0	
0000	0000		0
0001	5001		JMP 1
0002	0002		2
0003	0003		3
0004	0000		0
0005	0000		0
0006	7402		HLT
0007	7402		HLT
0010	7402		HLT
0011	7402		HLT
0012	7402		HLT
0013	7402		HLT
0014	7402		HLT
0015	7402		HLT
0016	7402		HLT
0017	7402		HLT
0020	7402		HLT
0021	7402		HLT

	0022	*22	
0022	0000	K0,	0
0023	0001	K1,	1
0024	0002	K2,	2
0025	0004	K4,	4
0026	0010	K10,	10
0027	0020	K20,	20
0030	0040	K40,	40
0031	0100	K100,	100
0032	0200	K200,	200
0033	0400	K400,	400
0034	1000	K1000,	1000
0035	2000	K2000,	2000
0036	4000	K4000,	4000
0037	3777	K3777,	3777
	0042	*42	
0042	5777	K5777,	5777
0043	6777	K6777,	6777
0044	7377	K7377,	7377
0045	7577	K7577,	7577
0046	7677	K7677,	7677
0047	7737	K7737,	7737
0050	7757	K7757,	7757
0051	7767	K7767,	7767
0052	7773	K7773,	7773
0053	7775	K7775,	7775
0054	7776	K7776,	7776
0055	7777	K7777,	7777
0056	4620	K4620,	4620
0057	4640	K4640,	4640
0060	4660	K4660,	4660
0061	4700	K4700,	4700
0062	4720	K4720,	4720

0063	4740	K4740.	4740
0064	4760	K4760.	4760
0065	5000	K5000.	5000
0066	5020	K5020.	5020
0067	5040	K5040.	5040

0070	5060	K5060.	5060
0071	5100	K5100.	5100
0072	5120	K5120.	5120
0073	5140	K5140.	5140
0074	5160	K5160.	5160
0075	5200	K5200.	5200
0076	5220	K5220.	5220

	0102	*102	
0102	5240	K5240.	5240
0103	5260	K5260.	5260
0104	5300	K5300.	5300
0105	5320	K5320.	5320
0106	5340	K5340.	5340
0107	5360	K5360.	5360
0110	5400	K5400.	5400
0111	5420	K5420.	5420
0112	5440	K5440.	5440
0113	7777	M1.	-1
0114	7776	M2.	-2
0115	7775	M3.	-3
0116	7774	M4.	-4
0117	7773	M5.	-5
0120	7772	M6.	-6
0121	7771	M7.	-7
0122	7770	M10.	-10
0123	7767	M11.	-11
0124	7766	M12.	-12
0125	7765	M13.	-13
0126	7764	M14.	-14
0127	7763	M15.	-15
0130	7762	M16.	-16
0131	7761	M17.	-17
0132	7760	M20.	-20
0133	7757	M21.	-21
0134	7756	M22.	-22
0135	7755	M23.	-23

0136	0000	PNTCNT, 0	
0137	2410	K2410.	2410
0140	2440	K2440.	2440
0141	2470	K2470.	2470
0142	2520	K2520.	2520
0143	2600	K2600.	2600
0144	2630	K2630.	2630
0145	2660	K2660.	2660
0146	2710	K2710.	2710
0147	2740	K2740.	2740
0150	3000	K3000.	3000
0151	3030	K3030.	3030

0152	3060	K3060,	3060
0153	3110	K3110,	3110
0154	3140	K3140,	3140
0155	3200	K3200,	3200

0156	3230	K3230,	3230
0157	3260	K3260,	3260
0160	3310	K3310,	3310
0161	3340	K3340,	3340
0162	3400	K3400,	3400
0163	3430	K3430,	3430
0164	3460	K3460,	3460
0165	3510	K3510,	3510
0166	3540	K3540,	3540

	0170	*170	
0170	0000	DO,	0
0171	1175		TAD K7402
0172	3410		DCA I 10
0173	1010		TAD 10
0174	5570		JMP I DO
0175	7402	K7402,	7402

	0200	*200	
0200	5601		JMP I SAVER
0201	0600	SAVER,	SAVE

/STORE LOADER INSTRUCTIONS
/THAT WILL BE DESTROYED

	0600	*600	
0600	7200	SAVE,	CLA
0601	1453		TAD I K7775
0602	3343		DCA STOR
0603	1452		TAD I K7773
0604	3344		DCA STOR+1
0605	1736		TAD I K74
0606	3345		DCA STOR+2
0607	1451		TAD I K7767
0610	3346		DCA STOR+3
0611	1737		TAD I K70
0612	3347		DCA STOR+4
0613	1450		TAD I K7757
0614	3350		DCA STOR+5
0615	1740		TAD I K60
0616	3351		DCA STOR+6
0617	1447		TAD I K7737
0620	3352		DCA STOR+7
0621	1741		TAD I K740
0622	3353		DCA STOR+10

0623	1446		TAD I K7677
0624	3354		DCA STOR+11
0625	1742		TAD I K00
0626	3355		DCA STOR+12
0627	1455		TAD I K7777
0630	3356		DCA STOR+13
0631	7300	HALT1,	CLA CLL
0632	1264		TAD K175
0633	3010		DCA 10
0634	4170		JMS DO
0635	1265		TAD M577
0636	7640		SZA CLA
0637	5234		JMP .-3
0640	1266	HALT2,	TAD K756
0641	3010		DCA 10
0642	4170		JMS DO
0643	1267		TAD M1777
0644	7640		SZA CLA
0645	5242		JMP .-3
0646	1270	HALT3,	TAD K3572
0647	3010		DCA 10
0650	4170		JMS DO
0651	1271		TAD M4177
0652	7640		SZA CLA
0653	5250		JMP .-3
0654	1272	HALT4,	TAD K5451
0655	3010		DCA 10
0656	4170		JMS DO
0657	1273		TAD M7600
0660	7640		SZA CLA
0661	5256		JMP .-3
0662	5300		JMP RESTAR
0663	4200		BEGIN
0664	0175	K175,	175
0665	7201	M577,	-577
0666	0756	K756,	756
0667	6001	M1777,	-1777
0670	3572	K3572,	3572
0671	3601	M4177,	-4177
0672	5451	K5451,	5451
0673	0200	M7600,	-7600

/RESTORE LOADER INSTRUCTIONS

0700	1303	*700	
0700	1303	RESTAR,	TAD RENEW
0701	3200		DCA SAVE
0702	5303		JMP RENEW
0703	5663	RENEW,	JMP I HALT4+7
0704	7200	REFILL,	CLA
0705	1343		TAD STOR
0706	3453		DCA I K7775
0707	1344		TAD STOR+1
0710	3452		DCA I K7773

0711	1345	TAD STOR+2
0712	3736	DCA I K74
0713	1346	TAD STOR+3
0714	3451	DCA I K7767
0715	1347	TAD STOR+4
0716	3737	DCA I K70
0717	1350	TAD STOR+5
0720	3450	DCA I K7757
0721	1351	TAD STOR+6
0722	3740	DCA I K60
0723	1352	TAD STOR+7
0724	3447	DCA I K7737
0725	1353	TAD STOR+10
0726	3741	DCA I K740
0727	1354	TAD STOR+11
0730	3446	DCA I K7677
0731	1355	TAD STOR+12
0732	3742	DCA I K00
0733	1356	TAD STOR+13
0734	3455	DCA I K7777
0735	7402	HLT

/CONSTANTS

0736	7774	K74,	7774	
0737	7770	K70,	7770	
0740	7760	K60,	7760	
0741	7740	K740,	7740	
0742	7700	K00,	7700	
0743	0000	STOR,	0	/STORE LOC 7775
0744	0000		0	/+1 STORE LOC 7773
0745	0000		0	/+2 STORE LOC 7774
0746	0000		0	/+3 STORE LOC 7767
0747	1742		-6036	/+4 STORE LOC 7770
0750	0000		0	/+5 STORE LOC 7757
0751	0000		0	/+6 STORE LOC 7760
0752	0000		0	/+7 STORE LOC 7737
0753	0000		0	/+10 STORE LOC 7740
0754	0000		0	/+11 STORE LOC 7677
0755	0000		0	/+12 STORE LOC 7700
0756	0000		0	/+13 STORE LOC 7777

	4200	*4200	
4200	7200	BEGIN,	CLA
4201	3136		DCA PNTCNT

4202	5203	/JUMP TEST 0 COUNTER=0
4203	1136	JMP .+1
4204	7440	TAD PNTCNT
4205	7402	SZA
4206	1136	HLT
		/CHECK COUNTER
		/JMP COUNTER WRONG
		TAD PNTCNT

```

4207 7001      IAC      /ADVANCE COUNTER
4210 3136      DCA PNTCNT

      /JUMP TEST 1 COUNTER=1
4211 5213      JMP .+2
4212 7402      HLT      /JMP FAILED
4213 1136      TAD PNTCNT
4214 1113      TAD M1
4215 7440      SZA      /CHECK COUNTER
4216 7402      HLT      /JMP COUNTER WRONG
4217 1136      TAD PNTCNT
4220 7001      IAC      /ADVANCE COUNTER
4221 3136      DCA PNTCNT

      /JUMP TEST 2 COUNTER=2
4222 5225      JMP .+3
4223 7402      HLT      /JMP FAILED
4224 7402      HLT
4225 1136      TAD PNTCNT
4226 1114      TAD M2
4227 7440      SZA      /CHECK COUNTER
4230 7402      HLT      /JMP COUNTER WRONG
4231 1136      TAD PNTCNT
4232 7001      IAC
4233 3136      DCA PNTCNT

      /JUMP TEST 3 COUNTER=3
4234 5240      JMP .+4
4235 7402      HLT      /JMP FAILED
4236 7402      HLT      /
4237 7402      HLT      /
4240 1136      TAD PNTCNT
4241 1115      TAD M3
4242 7440      SZA      /CHECK COUNTER
4243 7402      HLT      /JMP COUNTER WRONG
4244 1136      TAD PNTCNT
4245 7001      IAC      /ADVANCE COUNTER
4246 3136      DCA PNTCNT

      /JUMP TEST 4 COUNTER=4
4247 5254      JMP .+5
4250 7402      HLT      /JMP FAILED
4251 7402      HLT      /
4252 7402      HLT      /
4253 7402      HLT      /
4254 1136      TAD PNTCNT
4255 1116      TAD M4
4256 7440      SZA      /CHECK COUNTER
4257 7402      HLT      /JMP COUNTER WRONG
4260 1136      TAD PNTCNT
4261 7001      IAC      /ADVANCE COUNTER
4262 3136      DCA PNTCNT

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      /JUMP TEST 5 COUNTER=5

```

```
4263 5271      JMP .+6
4264 7402      HLT          /JMP FAILED
4265 7402      HLT          /
4266 7402      HLT          /
4267 7402      HLT          /
4270 7402      HLT          /
4271 1136      TAD PNTCNT
4272 1117      TAD M5
4273 7440      SZA          /CHECK COUNTER
4274 7402      HLT          /JMP COUNTER WRONG
4275 1136      TAD PNTCNT
4276 7001      IAC          /ADVANCE COUNTER
4277 3136      DCA PNTCNT
```

/JUMP TEST 6 COUNTER=6

```
4300 5307      JMP .+7
4301 7402      HLT          /JMP FAILED
4302 7402      HLT          /
4303 7402      HLT          /
4304 7402      HLT          /
4305 7402      HLT          /
4306 7402      HLT          /
4307 1136      TAD PNTCNT
4310 1120      TAD M6
4311 7440      SZA          /CHECK COUNTER
4312 7402      HLT          /JMP COUNTER WRONG
4313 1136      TAD PNTCNT
4314 7001      IAC          /ADVANCE COUNTER
4315 3136      DCA PNTCNT
```

/JUMP TEST 7 COUNTER=7

```
4316 5326      JMP .+10
4317 7402      HLT          /JMP FAILED
4320 7402      HLT          /
4321 7402      HLT          /
4322 7402      HLT          /
4323 7402      HLT          /
4324 7402      HLT          /
4325 7402      HLT          /
4326 1136      TAD PNTCNT
4327 1121      TAD M7
4330 7440      SZA          /CHECK COUNTER
4331 7402      HLT          /JMP COUNTER WRONG
4332 1136      TAD PNTCNT
4333 7001      IAC          /ADVANCE COUNTER
4334 3136      DCA PNTCNT
```

/JUMP TEST 8 COUNTER=10

```
4335 5346      JMP .+11
4336 7402      HLT          /JMP FAILED
4337 7402      HLT          /
4340 7402      HLT          /
4341 7402      HLT          /
4342 7402      HLT          /
```

4343	7402	HLT	/
4344	7402	HLT	/
4345	7402	HLT	/
4346	1136	TAD PNTCNT	
4347	1122	TAD M10	
4350	7440	SZA	/CHECK COUNTER
4351	7402	HLT	/JMP COUNTER WRONG
4352	1136	TAD PNTCNT	
4353	7001	IAC	/ADVANCE COUNTER
4354	3136	DCA PNTCNT	

/JUMP TEST 9 COUNTER=11			
4355	9367	JMP ,+12	
4356	7402	HLT	/JMP FAILED
4357	7402	HLT	/
4360	7402	HLT	/
4361	7402	HLT	/
4362	7402	HLT	/
4363	7402	HLT	/
4364	7402	HLT	/
4365	7402	HLT	/
4366	7402	HLT	/
4367	1136	TAD PNTCNT	
4370	1123	TAD M11	
4371	7440	SZA	/CHECK COUNTER
4372	7402	HLT	/JMP COUNTER WRONG
4373	1136	TAD PNTCNT	
4374	7001	IAC	/ADVANCE COUNTER
4375	3136	DCA PNTCNT	
4376	7000	NOP	
4377	7000	NOP	

4400 *4400			
/JUMP TEST 10 COUNTER=12			
4400	9201	JMP ,+1	
4401	1136	TAD PNTCNT	
4402	1124	TAD M12	
4403	7440	SZA	/CHECK COUNTER
4404	7402	HLT	/JMP COUNTER WRONG
4405	1136	TAD PNTCNT	
4406	7001	IAC	/ADVANCE COUNTER
4407	3136	DCA PNTCNT	

/JUMP TEST 11 COUNTER=13			
4410	9212	JMP ,+2	
4411	7402	HLT	/JMP FAILED
4412	1136	TAD PNTCNT	
4413	1125	TAD M13	
4414	7440	SZA	/CHECK COUNTER
4415	7402	HLT	/JMP COUNTER WRONG
4416	1136	TAD PNTCNT	
4417	7001	IAC	/ADVANCE COUNTER
4420	3136	DCA PNTCNT	

```
4421 5224      /JUMP TEST 12 COUNTER=14
4422 7402      JMP ,+3
4423 7402      HLT          /JMP FAILED
4424 1136      HLT          /
4425 1126      TAD PNTCNT
4426 7440      TAD M14
4427 7402      SZA          /CHECK COUNTER
4430 1136      HLT          /JMP COUNTER WRONG
4431 7001      TAD PNTCNT
4432 3136      IAC          /ADVANCE COUNTER
                     DCA PNTCNT
```

```
4433 5237      /JUMP TEST 13 COUNTER=15
4434 7402      JMP ,+4
4435 7402      HLT          /JMP FAILED
4436 7402      HLT          /
4437 1136      HLT          /
4440 1127      TAD PNTCNT
4441 7440      TAD M15
4442 7402      SZA          /CHECK COUNTER
4443 1136      HLT          /JMP COUNTER WRONG
4444 7001      TAD PNTCNT
4445 3136      IAC          /ADVANCE COUNTER
                     DCA PNTCNT
```

```
4446 5253      /JUMP TEST 14 COUNTER=16
4447 7402      JMP ,+5
4448 7402      HLT          /JMP FAILED
4449 7402      HLT          /
4451 7402      HLT          /
4452 7402      HLT          /
4453 1136      TAD PNTCNT
4454 1130      TAD M16
4455 7440      SZA          /CHECK COUNTER
4456 7402      HLT          /JMP COUNTER WRONG
4457 1136      TAD PNTCNT
4460 7001      IAC          /ADVANCE COUNTER
4461 3136      DCA PNTCNT
```

```
4462 5270      /JUMP TEST 15 COUNTER=17
4463 7402      JMP ,+6
4464 7402      HLT          /JMP FAILED
4465 7402      HLT          /
4466 7402      HLT          /
4467 7402      HLT          /
4470 1136      HLT          /
4471 1131      TAD PNTCNT
4472 7440      TAD M17
4473 7402      SZA          /CHECK COUNTER
4474 1136      HLT          /JMP COUNTER WRONG
4475 7001      TAD PNTCNT
4476 3136      IAC          /ADVANCE COUNTER
                     DCA PNTCNT
```

```
4477 5306      /JUMP TEST 16  COUNTER =20
4500 7402      JMP .+7
4501 7402      HLT          /JMP FAILED
4502 7402      HLT          /
4503 7402      HLT          /
4504 7402      HLT          /
4505 7402      HLT          /
4506 1136      TAD PNTCNT
4507 1132      TAD M20
4510 7440      SEA          /CHECK COUNTER
4511 7402      HLT          /JMP COUNTER WRONG
4512 1136      TAD PNTCNT
4513 7001      IAC          /ADVANCE COUNTER
4514 3136      DCA PNTCNT
```

```
4515 5325      /JUMP TEST 17 COUNTER=21
4516 7402      JMP .+10
4517 7402      HLT          /JMP FAILED
4520 7402      HLT          /
4521 7402      HLT
4522 7402      HLT
4523 7402      HLT
4524 7402      HLT
```

```
4525 1136      TAD PNTCNT
4526 1133      TAD M21
4527 7440      SEA          /CHECK COUNTER
4530 7402      HLT          /JMP COUNTER WRONG
4531 1136      TAD PNTCNT
4532 7001      IAC          /ADVANCE COUNTER
4533 3136      DCA PNTCNT
```

```
4534 5345      /JUMP TEST 18 COUNTER=22
4535 7402      JMP .+11
4536 7402      HLT          /JMP FAILED
4537 7402      HLT          /
4540 7402      HLT          /
4541 7402      HLT          /
4542 7402      HLT          /
4543 7402      HLT          /
4544 7402      HLT          /
4545 1136      TAD PNTCNT
4546 1134      TAD M22
4547 7440      SEA          /CHECK COUNTER
4550 7402      HLT          /JMP COUNTER WRONG
4551 1136      TAD PNTCNT
4552 7001      IAC          /ADVANCE COUNTER
4553 3136      DCA PNTCNT
```

```
/JMP TEST 19  COUNTER=23
```

```
4554 9366      JMP .+12
4555 7402      HLT          /JMP FAILED
4556 7402      HLT          /
4557 7402      HLT          /
4560 7402      HLT          /
4561 7402      HLT          /
4562 7402      HLT          /
4563 7402      HLT          /
4564 7402      HLT          /
4565 7402      HLT          /
4566 1136      TAD PNTCNT
4567 1135      TAD M23
4570 7440      SEA          /CHECK COUNTER
4571 7402      HLT          /JMP COUNTER WRONG
4572 1136      TAD PNTCNT
4573 7001      IAC          /ADVANCE COUNTER
4574 3136      DCA PNTCNT
4575 7000      NOP
4576 7000      NOP
4577 7000      NOP

          /JMP TEST 20  COUNTER=24
4600 1205      TAD PK1
4601 3455      DCA I K7777
4602 1206      TAD PK2
4603 3422      DCA I K0
4604 3455      JMP I K7777
4605 3422      PK1,  JMP I K0
4606 3456      PK2,  JMP I K4620

          *4620
4620 1136      TAD PNTCNT
4621 1236      TAD M24
4622 7440      SEA          /CHECK COUNTER
4623 7402      HLT          /JMP COUNTER WRONG
4624 1136      TAD PNTCNT
4625 7001      IAC          /ADVANCE COUNTER
4626 3136      DCA PNTCNT

          /JMP TEST 21  COUNTER=25
4627 1234      TAD PK3
4630 3454      DCA I K7776
4631 1235      TAD PK4
4632 3423      DCA I K1
4633 3454      JMP I K7776
4634 3423      PK3,  JMP I K1
4635 3457      PK4,  JMP I K4640
4636 7754      M24,  -24

          *4640
4640 1136      TAD PNTCNT
4641 1256      TAD M25
4642 7440      SEA          /CHECK COUNTER
4643 7402      HLT          /JMP COUNTER WRONG
```

4644	1136		TAD PNTCNT	
4645	7001		IAC	/ADVANCE COUNTER
4646	3136		DCA PNTCNT	
/JMP TEST 22 COUNTER=26				
4647	1254		TAD PK5	
4650	3453		DCA I K7775	
4651	1255		TAD PK6	
4652	3424		DCA I K2	
4653	5453		JMP I K7775	
4654	5424	PK5,	JMP I K2	
4655	5660	PK6,	JMP I 4660	
4656	7753	M25,	-25	
4660 *4660				
4660	1136		TAD PNTCNT	
4661	1276		TAD M26	
4662	7440		SZA	/CHECK COUNTER
4663	7402		HLT	/JMP COUNTER WRONG
4664	1136		TAD PNTCNT	
4665	7001		IAC	/ADVANCE COUNTER
4666	3136		DCA PNTCNT	
/JMP TEST 23 COUNTER=27				
4667	1274		TAD PK7	
4670	3452		DCA I K7773	
4671	1275		TAD PK8	
4672	3425		DCA I K4	
4673	5452		JMP I K7773	
4674	5425	PK7,	JMP I K4	
4675	5461	PK8,	JMP I K4700	
4676	7752	M26,	-26	
4700 *4700				
4700	1136		TAD PNTCNT	
4701	1316		TAD M27	
4702	7440		SZA	/CHECK COUNTER
4703	7402		HLT	/JMP COUNTER WRONG
4704	1136		TAD PNTCNT	
4705	7001		IAC	/ADVANCE COUNTER
4706	3136		DCA PNTCNT	
/JMP TEST 24 COUNTER=30				
4707	1314		TAD PK9	
4710	3451		DCA I K7767	
4711	1315		TAD PK10	
4712	3426		DCA I K10	
4713	5451		JMP I K7767	
4714	5426	PK9,	JMP I K10	
4715	5462	PK10,	JMP I K4720	
4716	7751	M27,	-27	
4720 *4720				
4720	1136		TAD PNTCNT	

4721	1336	TAD M30	
4722	7440	SEA	/CHECK COUNTER
4723	7402	HLT	/JMP COUNTER WRONG
4724	1136	TAD PNTCNT	
4725	7001	IAC	/ADVANCE COUNTER
4726	3136	DCA PNTCNT	

/JMP TEST 25 COUNTER=31

4727	1334	TAD PK11	
4730	3450	DCA I K7757	
4731	1335	TAD PK12	
4732	3427	DCA I K20	
4733	5450	JMP I K7757	
4734	5427	JMP I K20	PK11,
4735	5463	JMP I K4740	PK12,
4736	7750	-30	M30,

*4740

4740	1136	TAD PNTCNT	
4741	1356	TAD M31	
4742	7440	SEA	/CHECK COUNTER
4743	7402	HLT	/JMP COUNTER WRONG
4744	1136	TAD PNTCNT	
4745	7001	IAC	/ADVANCE COUNTER
4746	3136	DCA PNTCNT	

/JMP TEST 26 COUNTER=32

4747	1354	TAD PK13	
4750	3447	DCA I K7737	
4751	1355	TAD PK14	
4752	3430	DCA I K40	
4753	5447	JMP I K7737	
4754	5430	JMP I K40	PK13,
4755	5464	JMP I K4760	PK14,
4756	7747	-31	M31,

*4760

4760	1136	TAD PNTCNT	
4761	1376	TAD M32	
4762	7440	SEA	/CHECK COUNTER
4763	7402	HLT	/JMP COUNTER WRONG
4764	1136	TAD PNTCNT	
4765	7001	IAC	/ADVANCE COUNTER
4766	3136	DCA PNTCNT	

/JMP TEST 27 COUNTER=33

4767	1374	TAD PK15	
4770	3446	DCA I K7677	
4771	1375	TAD PK16	
4772	3431	DCA I K100	
4773	5446	JMP I K7677	
4774	5431	JMP I K100	PK15,
4775	5465	JMP I K5000	PK16,
4776	7746	-32	M32,

```

      5000      *5000
5000  1136      TAD PNTCNT
5001  1216      TAD M33
5002  7440      SEA          /CHECK COUNTER
5003  7402      HLT          /JMP COUNTER WRONG
5004  1136      TAD PNTCNT
5005  7001      IAC          /ADVANCE COUNTER
5006  3136      DCA PNTCNT

```

/JMP TEST 28 COUNTER=34

```

5007  1214      TAD PK17
5010  3445      DCA I K7577
5011  1215      TAD PK18
5012  3432      DCA I K200
5013  5445      JMP I K7577
5014  5432      PK17,      JMP I K200
5015  5466      PK18,      JMP I K5020
5016  7745      M33,       -33

```

```

      5020      *5020
5020  1136      TAD PNTCNT
5021  1236      TAD M34
5022  7440      SEA          /CHECK COUNTER
5023  7402      HLT          /JMP COUNTER WRONG
5024  1136      TAD PNTCNT
5025  7001      IAC          /ADVANCE COUNTER
5026  3136      DCA PNTCNT

```

/JMP TEST 29 COUNTER=35

```

5027  1234      TAD PK19
5030  3444      DCA I K7377
5031  1235      TAD PK20
5032  3433      DCA I K400
5033  5444      JMP I K7377
5034  5433      PK19,      JMP I K400
5035  5467      PK20,      JMP I K5040
5036  7744      M34,       -34

```

```

      5040      *5040
5040  1136      TAD PNTCNT
5041  1256      TAD M35
5042  7440      SEA          /CHECK COUNTER
5043  7402      HLT          /JMP COUNTER WRONG
5044  1136      TAD PNTCNT
5045  7001      IAC          /ADVANCE COUNTER
5046  3136      DCA PNTCNT

```

/JMP TEST 30 COUNTER=36

```

5047  1254      TAD PK21
5050  3443      DCA I K6777
5051  1255      TAD PK22
5052  3434      DCA I K1000

```

```

5053 5443      JMP I K6777
5054 5434      PK21, JMP I K1000
5055 5470      PK22, JMP I K5060
5056 7743      M35,   -35

```

```

          5060      *5060
5060 1136      TAD PNTCNT
5061 1276      TAD M36
5062 7440      SEA           /CHECK COUNTER
5063 7402      HLT           /JMP COUNTER WRONG
5064 1136      TAD PNTCNT
5065 7001      IAC           /ADVANCE COUNTER
5066 3136      DCA PNTCNT

```

```

          /JMP TEST 31  COUNTER=37
5067 1274      TAD PK23
5070 3442      DCA I K3777
5071 1275      TAD PK24
5072 3435      DCA I K2000
5073 5442      JMP I K3777
5074 5435      PK23,  JMP I K2000
5075 5471      PK24,  JMP I K5100
5076 7742      M36,   -36

```

```

          5100      *5100
5100 1136      TAD PNTCNT
5101 1316      TAD M37
5102 7440      SEA           /CHECK COUNTER
5103 7402      HLT           /JMP COUNTER WRONG
5104 1136      TAD PNTCNT
5105 7001      IAC           /ADVANCE COUNTER
5106 3136      DCA PNTCNT

```

```

          /JMP TEST 32  COUNTER=40
5107 1314      TAD PK25
5110 3437      DCA I K3777
5111 1315      TAD PK26
5112 3436      DCA I K4000
5113 5437      JMP I K3777
5114 5436      PK25,  JMP I K4000
5115 5472      PK26,  JMP I K5120
5116 7741      M37,   -37

```

```

          5120      *5120
5120 1136      TAD PNTCNT
5121 1336      TAD M40
5122 7440      SEA           /CHECK COUNTER
5123 7402      HLT           /JMP COUNTER WRONG
5124 1136      TAD PNTCNT
5125 7001      IAC           /ADVANCE COUNTER
5126 3136      DCA PNTCNT

```

```

/JMP TEST 33  COUNTER=41
5127 1334      TAD PK27
5130 3422      DCA I K0
5131 1335      TAD PK28
5132 3495      DCA I K7777
5133 5422      JMP I K0
5134 5455      PK27, JMP I K7777
5135 5473      PK28, JMP I K5140
5136 7740      M40,  -40

      5140      *5140
5140 1136      TAD PNTCNT
5141 1356      TAD M41
5142 7440      SEA          /CHECK COUNTER
5143 7402      HLT          /JMP COUNTER WRONG
5144 1136      TAD PNTCNT
5145 7001      IAC          /ADVANCE COUNTER
5146 3136      DCA PNTCNT

/JMP TEST 34  COUNTER=42
5147 1354      TAD PK29
5150 3423      DCA I K1
5151 1355      TAD PK30
5152 3494      DCA I K7776
5153 5423      JMP I K1
5154 5494      PK29, JMP I K7776
5155 5474      PK30, JMP I K5160
5156 7737      M41,  -41

      5160      *5160
5160 1136      TAD PNTCNT
5161 1376      TAD M42
5162 7440      SEA          /CHECK COUNTER
5163 7402      HLT          /JMP COUNTER WRONG
5164 1136      TAD PNTCNT
5165 7001      IAC          /ADVANCE COUNTER
5166 3136      DCA PNTCNT

/JMP TEST 35  COUNTER=43
5167 1374      TAD PK31
5170 3424      DCA I K2
5171 1375      TAD PK32
5172 3493      DCA I K7775
5173 5424      JMP I K2
5174 5493      PK31, JMP I K7775
5175 5475      PK32, JMP I K5200
5176 7736      M42,  -42

      5200      *5200
5200 1136      TAD PNTCNT
5201 1216      TAD M43
5202 7440      SEA          /CHECK COUNTER
5203 7402      HLT          /JMP COUNTER WRONG
5204 1136      TAD PNTCNT

```

5205 7001 IAC /ADVANCE COUNTER
5206 3136 DCA PNTCNT

5207 1214 /JMP TEST 36 COUNTER=44
5210 3425 TAD PK33
5211 1215 DCA I K4
5212 3452 TAD PK34
5213 5425 DCA I K7773
5214 5452 JMP I K4
5215 5476 PK33, JMP I K7773
5216 7735 PK34, JMP I K5220
M43, -43

5220 5220 *5220
5220 1136 TAD PNTCNT
5221 1236 TAD M44
5222 7440 SEA /CHECK COUNTER
5223 7402 HLT /JMP COUNTER WRONG
5224 1136 TAD PNTCNT
5225 7001 IAC /ADVANCE COUNTER
5226 3136 DCA PNTCNT

5227 1234 /JMP TEST 37 COUNTER=45
5230 3426 TAD PK35
5231 1235 DCA I K10
5232 3451 TAD PK36
5233 5426 DCA I K7767
5234 5451 JMP I K10
5235 5502 PK35, JMP I K7767
5236 7734 PK36, JMP I K5240
M44, -44

5240 5240 *5240
5240 1136 TAD PNTCNT
5241 1236 TAD M45
5242 7440 SEA /CHECK COUNTER
5243 7402 HLT /JMP COUNTER WRONG
5244 1136 TAD PNTCNT
5245 7001 IAC /ADVANCE COUNTER
5246 3136 DCA PNTCNT

5247 1254 /JMP TEST 3 COUNTER=46
5250 3427 TAD PK37
5251 1255 DCA I K20
5252 3450 TAD PK38
5253 5427 DCA I K7757
5254 5450 JMP I K20
5255 5503 PK37, JMP I K7757
5256 7733 PK38, JMP I K5260
M45, -45

5260 5260 *5260
5260 1136 TAD PNTCNT
5261 1276 TAD M46

5262	7440	SEA	/CHECK COUNTER
5263	7402	HLT	/JMP COUNTER WRONG
5264	1136	TAD PNTCNT	
5265	7001	IAC	/ADVANCE COUNTER
5266	3136	DCA PNTCNT	

/JMP TEST 39 COUNTER=47

5267	1274	TAD PK39	
5270	3430	DCA I K40	
5271	1275	TAD PK40	
5272	3447	DCA I K7737	
5273	5430	JMP I K40	
5274	5447	PK39, JMP I K7737	
5275	5504	PK40, JMP I K5300	
5276	7732	M46, -46	

*5300

5300	1136	TAD PNTCNT	
5301	1316	TAD M47	
5302	7440	SEA	/CHECK COUNTER
5303	7402	HLT	/JMP COUNTER WRONG
5304	1136	TAD PNTCNT	
5305	7001	IAC	/ADVANCE COUNTER
5306	3136	DCA PNTCNT	

/JMP TEST 40 COUNTER=50

5307	1314	TAD PK41	
5310	3431	DCA I K100	
5311	1315	TAD PK42	
5312	3446	DCA I K7677	
5313	5431	JMP I K100	
5314	5446	PK41, JMP I K7677	
5315	5505	PK42, JMP I K5320	
5316	7731	M47, -47	

*5320

5320	1136	TAD PNTCNT	
5321	1336	TAD M50	
5322	7440	SEA	/CHECK COUNTER
5323	7402	HLT	/JMP COUNTER WRONG
5324	1136	TAD PNTCNT	
5325	7001	IAC	/ADVANCE COUNTER
5326	3136	DCA PNTCNT	

/JMP TEST 41 COUNTER=51

5327	1334	TAD PK43	
5330	3432	DCA I K200	
5331	1335	TAD PK44	
5332	3445	DCA I K7577	
5333	5432	JMP I K200	
5334	5445	PK43, JMP I K7577	
5335	5506	PK44, JMP I K5340	
5336	7730	M50, -50	

```

      5340      *5340
5340  1136      TAD PNTCNT
5341  1356      TAD M51
5342  7440      SEA                      /CHECK COUNTER
5343  7402      HLT                      /JMP COUNTER WRONG
5344  1136      TAD PNTCNT
5345  7001      IAC                      /ADVANCE COUNTER
5346  3136      DCA PNTCNT

                        /JMP TEST 42 COUNTER=52
5347  1354      TAD PK45
5350  3433      DCA I K400
5351  1355      TAD PK46
5352  3444      DCA I K7377
5353  5433      JMP I K400
5354  5444      PK45, JMP I K7377
5355  5507      PK46, JMP I K5360
5356  7727      M51,  -51

      5360      *5360
5360  1136      TAD PNTCNT
5361  1376      TAD M52
5362  7440      SEA                      /CHECK COUNTER
5363  7402      HLT                      /JMP COUNTER WRONG
5364  1136      TAD PNTCNT
5365  7001      IAC                      /ADVANCE COUNTER
5366  3136      DCA PNTCNT

                        /JMP TEST 43 COUNTER=53
5367  1374      TAD PK47
5370  3434      DCA I K1000
5371  1375      TAD PK48
5372  3443      DCA I K6777
5373  5434      JMP I K1000
5374  5443      PK47, JMP I K6777
5375  5510      PK48, JMP I K5400
5376  7726      M52,  -52

      5400      *5400
5400  1136      TAD PNTCNT
5401  1216      TAD M53
5402  7440      SEA                      /CHECK COUNTER
5403  7402      HLT                      /JMP COUNTER WRONG
5404  1136      TAD PNTCNT
5405  7001      IAC                      /ADVANCE COUNTER
5406  3136      DCA PNTCNT

                        /JMP TEST 44 COUNTER=54
5407  1214      TAD PK49
5410  3435      DCA I K2000
5411  1215      TAD PK50
5412  3442      DCA I K5777
5413  5435      JMP I K2000
5414  5442      PK49, JMP I K5777
```

5415	5511	PK50,	JMP I K5420	
5416	7725	M53,	-53	
	5420	*5420		
5420	1136		TAD PNTCNT	
5421	1236		TAD M54	
5422	7440		SZA /CHECK COUNTER	
5423	7402		HLT /JMP COUNTER WRONG	
5424	1136		TAD PNTCNT	
5425	7001		IAC /ADVANCE COUNTER	
5426	3136		DCA PNTCNT	
			/JMP TEST 45 COUNTER=55	
5427	1234		TAD PK51	
5430	3436		DCA I K4000	
5431	1235		TAD PK52	
5432	3437		DCA I K3777	
5433	5436		JMP I K4000	
5434	5437	PK51,	JMP I K3777	
5435	5512	PK52,	JMP I K5440	
5436	7724	M54,	-54	
	5440	*5440		
5440	1136		TAD PNTCNT	
5441	1250		TAD M55	
5442	7440		SZA /CHECK COUNTER	
5443	7402		HLT /JMP COUNTER WRONG	
5444	1136		TAD PNTCNT	
5445	7001		IAC /ADVANCE COUNTER	
5446	3136		DCA PNTCNT	
			/JMS TEST 1 COUNTER=56	
5447	5651		JMP I AFRM	
5450	7723	M55,	-55	
5451	2002	AFRM,	FRM	
	2002	*2002		
2002	4203	FRM,	JMS TO	
2003	5203	TO,	JMP .	
2004	1136		TAD PNTCNT	
2005	1222		TAD M56	
2006	7440		SZA /CHECK COUNTER	
2007	7402		HLT /JMP COUNTER WRONG	
2010	1224		TAD AFM	
2011	7041		CIA	
2012	1203		TAD TO	
2013	7440		SZA /CHECK STORED ADDRESS	
2014	7402		HLT /JMS FAILED	
2015	3203		DCA TO /CLEAR STORED PC	
2016	1136		TAD PNTCNT	
2017	7001		IAC	
2020	3136		DCA PNTCNT	
2021	7410		SKP	
2022	7722	M56,	-56	


```

2023 7410      SKP
2024 2003      AFM,   FRM+1

                        /JMS TEST 2 COUNTER=57
2025 4227      JMS T01
2026 7402      FRM1,  HLT
2027 5227      T01,   JMP .
2030 1136      TAD PNTCNT
2031 1246      TAD M57
2032 7440      SZA                      /CHECK COUNTER
2033 7402      HLT                      /JMP COUNTER WRONG
2034 1250      TAD AFRM1
2035 7041      CIA
2036 1227      TAD T01
2037 7440      SEA                      /CHECK STORED ADDRESS
2040 7402      HLT                      /JMS FAILED
2041 3227      DCA T01                  /CLEAR STORED PC
2042 1136      TAD PNTCNT
2043 7001      IAC
2044 3136      DCA PNTCNT
2045 7410      SKP

2046 7721      M57,   -57
2047 7410      SKP
2050 2026      AFRM1,  FRM1

                        /JMS TEST 3 COUNTER=60
2051 4254      JMS T02
2052 7402      FRM2,  HLT
2053 7402      HLT
2054 5254      T02,   JMP .
2055 1136      TAD PNTCNT
2056 1275      TAD M60
2057 7440      SZA                      /CHECK COUNTER
2060 7402      HLT                      /JMP COUNTER WRONG
2061 1273      TAD AFRM2
2062 7041      CIA
2063 1254      TAD T02
2064 7440      SZA                      /CHECK STORED ADDRESS
2065 7402      HLT                      /JMS FAILED
2066 3254      DCA T02                  /CLEAR STORED PC
2067 1136      TAD PNTCNT
2070 7001      IAC
2071 3136      DCA PNTCNT
2072 7410      SKP
2073 2052      AFRM2,  FRM2
2074 7410      SKP
2075 7720      M60,   -60

                        /JMS TEST 4 COUNTER=61
2076 4302      JMS T03
2077 7402      FRM3,  HLT
2100 7402      HLT
2101 7402      HLT

```

2102	5302	T03,	JMP .	
2103	1136		TAD PNTCNT	
2104	1323		TAD M61	
2105	7440		SEA	/CHECK COUNTER
2106	7402		HLT	/JMP COUNTER WRONG
2107	1321		TAD AFRM3	
2110	7041		CIA	
2111	1302		TAD T03	
2112	7440		SEA	/CHECK STORED ADDRESS
2113	7402		HLT	/JMS FAILED
2114	5302		DCA T03	/CLEAR STORED PC
2115	1136		TAD PNTCNT	
2116	7001		IAC	
2117	3136		DCA PNTCNT	
2120	7410		SKP	
2121	2077	AFRM3,	FRM3	
2122	7410		SKP	
2123	7717	M61,	-61	

			/JMS TEST 5 COUNTER=62	
2124	4330		JMS T04	
2125	7402	FRM4,	HLT	
2126	7402		HLT	
2127	7402		HLT	
2130	5330	T04,	JMP .	
2131	1136		TAD PNTCNT	
2132	1351		TAD M62	
2133	7440		SEA	/CHECK COUNTER
2134	7402		HLT	/JMP COUNTER WRONG
2135	1347		TAD AFRM4	
2136	7041		CIA	
2137	1330		TAD T04	
2140	7440		SEA	/CHECK STORED ADDRESS
2141	7402		HLT	/JMS FAILED
2142	3330		DCA T04	/CLEAR STORED PC
2143	1136		TAD PNTCNT	
2144	7001		IAC	
2145	3136		DCA PNTCNT	
2146	7410		SKP	
2147	2125	AFRM4,	FRM4	
2150	7410		SKP	
2151	7716	M62,	-62	

			/JMS TEST 6 COUNTER=63	
2152	4356		JMS T05	
2153	7402	FRM5,	HLT	
2154	7402		HLT	
2155	7402		HLT	
2156	5356	T05,	JMP .	
2157	1136		TAD PNTCNT	
2160	1377		TAD M63	
2161	7440		SEA	/CHECK COUNTER

2162	7402	HLT	/JMP COUNTER WRONG
2163	1375	TAD AFRM5	
2164	7041	CIA	
2165	1356	TAD T05	
2166	7440	SZA	/CHECK STORED ADDRESS
2167	7402	HLT	/JMS FAILED
2170	3356	DCA T05	/CLEAR STORED PC
2171	1136	TAD PNTCNT	
2172	7001	IAC	
2173	3136	DCA PNTCNT	
2174	7410	SKP	
2175	2153	AFRM5, FRM5	
2176	7410	SKP	
2177	7715	M63, -63	

PAUSE

/TAPE # 2
2200 *2200

2200	7000	/JMS TEST 7 COUNTER=64	
2201	4202	NOP	
2202	3202	JMS T06	
2203	1136	JMP .	
2204	1221	TAD PNTCNT	
2205	7440	TAD M64	
2206	7402	SZA	/CHECK COUNTER
2207	1202	HLT	/JMP COUNTER WRONG
2210	7041	TAD T06	
2211	1223	CIA	
2212	7440	TAD AT06	
2213	7402	SZA	/CHECK STORED ADDRESS
2214	3202	HLT	/JMS FAILED
2215	1136	DCA T06	/CLEAR STORED PC
2216	7001	TAD PNTCNT	
2217	3136	IAC	
2220	7410	DCA PNTCNT	
2221	7714	SKP	
2222	7410	M64, -64	
2223	2202	SKP	
		AT06, T06	

2224	4226	/JMS TEST 8 COUNTER=65	
2225	7402	JMS T07	
2226	3226	HLT	
2227	1136	JMP .	
2230	1245	TAD PNTCNT	
2231	7440	TAD M65	
2232	7402	SZA	/CHECK COUNTER
2233	1247	HLT	/JMP COUNTER WRONG
2234	7041	TAD AFRM7	
2235	1226	CIA	
		TAD T07	

2236	7440		SZA	/CHECK STORED ADDRESS
2237	7402		HLT	/JMS FAILED
2240	3226		DCA T07	/CLEAR STORED PC
2241	1136		TAD PNTCNT	
2242	7001		IAC	
2243	3136		DCA PNTCNT	
2244	7410		SKP	
2245	7713	M65,	-65	
2246	7410		SKP	
2247	2225	AFRM7,	FRM7	

/JMS TEST 9 COUNTER=66				
2250	4253		JMS T08	
2251	7402	FRM8,	HLT	
2252	7402		HLT	
2253	5253	T08,	JMP .	
2254	1136		TAD PNTCNT	
2255	1274		TAD M66	
2256	7440		SZA	/CHECK COUNTER
2257	7402		HLT	/JMP COUNTER WRONG
2260	1253		TAD T08	
2261	7041		CIA	
2262	1272		TAD AFRM8	
2263	7440		SZA	/CHECK STORED ADDRESS
2264	7402		HLT	/JMS FAILED
2265	3253		DCA T08	/CLEAR STORED PC
2266	1136		TAD PNTCNT	
2267	7001		IAC	
2270	3136		DCA PNTCNT	
2271	7410		SKP	
2272	2251	AFRM8,	FRM8	
2273	7410		SKP	
2274	7712	M66,	-66	

/JMS TEST 10 COUNTER=67				
2275	4301		JMS T09	
2276	7402	FRM9,	HLT	
2277	7402		HLT	
2300	7402		HLT	
2301	5301	T09,	JMP .	
2302	1136		TAD PNTCNT	
2303	1322		TAD M67	
2304	7440		SZA	/CHECK COUNTER
2305	7402		HLT	/JMP COUNTER WRONG
2306	1301		TAD T09	
2307	7041		CIA	
2310	1320		TAD AFRM9	
2311	7440		SZA	/CHECK STORED ADDRESS
2312	7402		HLT	/JMS FAILED
2313	3301		DCA T09	/CLEAR STORED PC
2314	1136		TAD PNTCNT	
2315	7001		IAC	
2316	3136		DCA PNTCNT	
2317	7410		SKP	

2320 2276 AFRM9, FRM9
 2321 7410 SKP
 2322 7711 M67, -67

2323 4330 /JMS TEST 11 COUNTER =70
 2324 7402 JMS T010
 2325 7402 FRM10, HLT
 2326 7402 HLT
 2327 7402 HLT

2330 5330 T010, JMP ,
 2331 1136 TAD PNTCNT
 2332 1351 TAD M70
 2333 7440 SEA /CHECK COUNTER
 2334 7402 HLT /JMP COUNTER WRONG
 2335 1330 TAD T010
 2336 7041 CIA
 2337 1347 TAD AFRM10
 2340 7440 SEA /CHECK STORED ADDRESS
 2341 7402 HLT /JMS FAILED
 2342 3330 DCA T010 /CLEAR STORED PC
 2343 1136 TAD PNTCNT
 2344 7001 IAC
 2345 3136 DCA PNTCNT
 2346 7410 SKP
 2347 2324 AFRM10, FRM10
 2350 7410 SKP

2351 7710 M70, -70

2352 4356 /JMS TEST 11 COUNTER=71
 2353 7402 JMS T011
 2354 7402 FRM11, HLT
 2355 7402 HLT
 2356 5356 T011, JMP ,
 2357 1136 TAD PNTCNT
 2360 1377 TAD M71
 2361 7440 SEA /CHECK COUNTER
 2362 7402 HLT /JMP COUNTER WRONG
 2363 1356 TAD T011
 2364 7041 CIA
 2365 1375 TAD AFRM11
 2366 7440 SEA /CHECK STORED ADDRESS
 2367 7402 HLT /JMS FAILED
 2370 3356 DCA T011 /CLEAR STORED PC
 2371 1136 TAD PNTCNT
 2372 7001 IAC
 2373 3136 DCA PNTCNT
 2374 7410 SKP
 2375 2353 AFRM11, FRM11
 2376 7410 SKP
 2377 7707 M71, -71

2400 *2400

/JMS TEST 12 COUNTER=72

2400	1205	TAD RK1
2401	3455	DCA I K7777
2402	1206	TAD RK2
2403	3423	DCA I K1
2404	5423	JMP I K1
2405	5537	RK1, JMP I K2410
2406	4454	RK2, JMS I K7776

*2410

2410	1136	TAD PNTCNT	
2411	1233	TAD M72	
2412	7440	SEA	/CHECK COUNTER
2413	7402	HLT	/JMP COUNTER WRONG
2414	1454	TAD I K7776	
2415	1054	TAD K7776	
2416	7440	SEA	/CHECK STORED ADDRESS
2417	7402	HLT	/JMS FAILED
2420	3454	DCA I K7776	/CLEAR STORED ADDRESS
2421	1136	TAD PNTCNT	
2422	7001	IAC	/ADVANCE COUNTER
2423	3136	DCA PNTCNT	

/JMS TEST 13 COUNTER=73

2424	1231	TAD RK3
2425	3454	DCA I K7776
2426	1232	TAD RK4
2427	3424	DCA I K2
2430	5424	JMP I K2
2431	5540	RK3, JMP I K2440
2432	4453	RK4, JMS I K7775
2433	7706	M72, -72

*2440

2440	1136	TAD PNTCNT	
2441	1263	TAD M73	
2442	7440	SEA	/CHECK COUNTER
2443	7402	HLT	/JMP COUNTER WRONG
2444	1453	TAD I K7775	
2445	1053	TAD K7775	
2446	7440	SEA	/CHECK STORED ADDRESS
2447	7402	HLT	/JMS FAILED
2450	3453	DCA I K7775	/CLEAR STORED ADDRESS
2451	1136	TAD PNTCNT	
2452	7001	IAC	/ADVANCE COUNTER
2453	3136	DCA PNTCNT	

/JMS TEST 14 COUNTER=74

2454	1261	TAD RK5
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2455 3664 DCA I K7774
 2456 1262 TAD RK6
 2457 3425 DCA I K4
 2460 5425 JMP I K4
 2461 5541 RK5, JMP I K2470
 2462 4452 RK6, JMS I K7773
 2463 7705 M73, -73
 2464 7774 K7774, 7774

2470 *2470
 2470 1136 TAD PNTCNT
 2471 1313 TAD M74
 2472 7440 SEA /CHECK COUNTER
 2473 7482 HLT /JMP COUNTER WRONG
 2474 1452 TAD I K7773
 2475 1052 TAD K7773
 2476 7440 SEA /CHECK STORED ADDRESS
 2477 7482 HLT /JMS FAILED
 2500 3452 DCA I K7773 /CLEAR STORED ADDRESS
 2501 1136 TAD PNTCNT
 2502 7001 IAC /ADVANCE COUNTER
 2503 3136 DCA PNTCNT

/JMS TEST 15 COUNTER=75
 2504 1311 TAD RK7
 2505 3714 DCA I K7770
 2506 1312 TAD RK8
 2507 3426 DCA I K10
 2510 5426 JMP I K10
 2511 5542 RK7, JMP I K2520
 2512 4451 RK8, JMS I K7767
 2513 7704 M74, -74
 2514 7770 K7770, 7770

2520 *2520
 2520 1136 TAD PNTCNT
 2521 1343 TAD M75
 2522 7440 SEA /CHECK COUNTER
 2523 7402 HLT /JMP COUNTER WRONG
 2524 1451 TAD I K7767
 2525 1051 TAD K7767
 2526 7440 SEA /CHECK STORED ADDRESS
 2527 7482 HLT /JMS FAILED
 2530 3451 DCA I K7767 /CLEAR STORED ADDRESS
 2531 1136 TAD PNTCNT
 2532 7001 IAC /ADVANCE COUNTER
 2533 3136 DCA PNTCNT

/JMS TEST 16 COUNTER=76
 2534 1341 TAD RK9
 2535 3744 DCA I K7760
 2536 1342 TAD RK10
 2537 3427 DCA I K20
 2540 5427 JMP I K20

2541	5243	RK9,	JMP I K2600
2542	4450	RK10,	JMS I K7757
2543	7703	M75,	-75
2544	7760	K7760,	7760

	2600	*2600	
2600	1136		TAD PNTCNT
2601	1223		TAD M76
2602	7440		SZA /CHECK COUNTER
2603	7402		HLT /JMP COUNTER WRONG
2604	1450		TAD I K7757
2605	1050		TAD K7757
2606	7440		SZA /CHECK STORED ADDRESS
2607	7402		HLT /JMS FAILED
2610	3450		DCA I K7757 /CLEAR STORED ADDRESS
2611	1136		TAD PNTCNT
2612	7001		IAC /ADVANCE COUNTER
2613	3136		DCA PNTCNT

			/JMS TEST 17 COUNTER=77
2614	1221		TAD RK11
2615	3624		DCA I K7740
2616	1222		TAD RK12
2617	3430		DCA I K40
2620	5430		JMP I K40
2621	5544	RK11,	JMP I K2630
2622	4447	RK12,	JMS I K7737
2623	7702	M76,	-76
2624	7740	K7740,	7740

	2630	*2630	
2630	1136		TAD PNTCNT
2631	1253		TAD M77
2632	7440		SZA /CHECK COUNTER
2633	7402		HLT /JMP COUNTER WRONG
2634	1447		TAD I K7737
2635	1047		TAD K7737
2636	7440		SZA /CHECK STORED ADDRESS
2637	7402		HLT /JMS FAILED
2640	3447		DCA I K7737 /CLEAR STORED ADDRESS
2641	1136		TAD PNTCNT
2642	7001		IAC /ADVANCE COUNTER
2643	3136		DCA PNTCNT

			/JMS TEST 18 COUNTER=100
2644	1251		TAD RK13
2645	3654		DCA I K7700
2646	1252		TAD RK14
2647	3431		DCA I K100
2650	5431		JMP I K100
2651	5545	RK13,	JMP I K2660
2652	4446	RK14,	JMS I K7677
2653	7701	M77,	-77
2654	7700	K7700,	7700


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2660      2660      *2660
2660      1136      TAD PNTCNT
2661      1303      TAD M100
2662      7440      SEA          /CHECK COUNTER
2663      7402      HLT          /JMS COUNTER WRONG
2664      1446      TAD I K7677
2665      1046      TAD K7677
2666      7440      SEA          /CHECK STORED ADDRESS
2667      7402      HLT          /JMS FAILED
2670      3446      DCA I K7677  /CLEAR STORED ADDRESS
2671      1136      TAD PNTCNT
2672      7001      IAC          /ADVANCE COUNTER
2673      3136      DCA PNTCNT

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                /JMS TEST 19  COUNTER=101
2674      1301      TAD RK15
2675      3704      DCA I K7600
2676      1302      TAD RK16
2677      3432      DCA I K200
2700      3432      JMP I K200
2701      3546      RK15,      JMP I K2710
2702      4445      RK16,      JMS I K7577
2703      7700      M100,      -100
2704      7600      K7600,      7600

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2710      2710      *2710
2710      1136      TAD PNTCNT
2711      1333      TAD M101
2712      7440      SEA          /CHECK COUNTER
2713      7402      HLT          /JMP COUNTER WRONG
2714      1445      TAD I K7577
2715      1045      TAD K7577
2716      7440      SEA          /CHECK STORED ADDRESS
2717      7402      HLT          /JMS FAILED
2720      3445      DCA I K7577  /CLEAR STORED ADDRESS
2721      1136      TAD PNTCNT
2722      7001      IAC          /ADVANCE COUNTER
2723      3136      DCA PNTCNT

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                /JMS TEST 20  COUNTER=102
2724      1331      TAD RK17
2725      3734      DCA I K7400
2726      1332      TAD RK18
2727      3433      DCA I K400
2730      3433      JMP I K400
2731      3547      RK17,      JMP I K2740
2732      4444      RK18,      JMS I K7377
2733      7677      M101,      -101
2734      7400      K7400,      7400

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2740      2740      *2740
2740      1136      TAD PNTCNT

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2741	1363	TAD M102	
2742	7440	SZA	/CHECK COUNTER
2743	7402	HLT	/JMP COUNTER WRONG
2744	1444	TAD I K7377	
2745	1044	TAD K7377	
2746	7440	SZA	/CHECK STORED ADDRESS
2747	7402	HLT	/JMS FAILED
2750	3444	DCA I K7377	/CLEAR STORED ADDRESS
2751	1136	TAD PNTCNT	
2752	7001	IAC	/ADVANCE COUNTER
2753	3136	DCA PNTCNT	

/JMS TEST 21 COUNTER=103			
2754	1361	TAD RK19	
2755	3764	DCA I K7000	
2756	1362	TAD RK20	
2757	3434	DCA I K1000	
2760	5434	JMP I K1000	
2761	5550	JMP I K3000	
2762	4443	JMS I K6777	
2763	7676	M102,	-102
2764	7000	K7000,	7000

*3000			
3000	1136	TAD PNTCNT	
3001	1223	TAD M103	
3002	7440	SZA	/CHECK COUNTER
3003	7402	HLT	/JMP COUNTER WRONG
3004	1443	TAD I K6777	
3005	1043	TAD K6777	
3006	7440	SZA	/CHECK STORED ADDRESS
3007	7402	HLT	/JMS FAILED
3010	3443	DCA I K6777	/CLEAR STORED ADDRESS
3011	1136	TAD PNTCNT	
3012	7001	IAC	/ADVANCE COUNTER
3013	3136	DCA PNTCNT	

/JMS TEST 22 COUNTER=104			
3014	1221	TAD RK21	
3015	3624	DCA I K6000	
3016	1222	TAD RK22	
3017	3435	DCA I K2000	
3020	5435	JMP I K2000	
3021	5551	JMP I K3030	
3022	4442	JMS I K5777	
3023	7675	M103,	-103
3024	6000	K6000,	6000

*3030			
3030	1136	TAD PNTCNT	
3031	1253	TAD M104	
3032	7440	SZA	/CHECK COUNTER
3033	7402	HLT	/JMP COUNTER WRONG
3034	1442	TAD I K5777	

3035	1042		TAD K5777	
3036	7440		SZA	/CHECK STORED ADDRESS
3037	7402		HLT	/JMS FAILED
3040	3442		DCA I K5777	/CLEAR STORED ADDRESS
3041	1136		TAD PNTCNT	
3042	7001		IAC	/ADVANCE COUNTER
3043	3136		DCA PNTCNT	
/JMS TEST 23 COUNTER=105				
3044	1251		TAD RK23	
3045	3654		DCA I K4001	
3046	1252		TAD RK24	
3047	3437		DCA I K3777	
3050	5437		JMP I K3777	
3051	5552	RK23,	JMP I K3060	
3052	4436	RK24,	JMS I K4000	
3053	7674	M104,	-104	
3054	4001	K4001,	4001	
3060	3060	*3060		
3060	1136		TAD PNTCNT	
3061	1303		TAD M105	
3062	7440		SZA	/CHECK COUNTER
3063	7402		HLT	/JMP COUNTER WRONG
3064	1436		TAD I K4000	
3065	1036		TAD K4000	
3066	7440		SZA	/CHECK STORED ADDRESS
3067	7402		HLT	/JMS FAILED
3070	3436		DCA I K4000	/CLEAR STORED ADDRESS
3071	1136		TAD PNTCNT	
3072	7001		IAC	/ADVANCE COUNTER
3073	3136		DCA PNTCNT	
/JMS TEST 24 COUNTER=106				
3074	1301		TAD RK25	
3075	3704		DCA I K2001	
3076	1302		TAD RK26	
3077	3442		DCA I K5777	
3100	8442		JMP I K5777	
3101	9593	RK25,	JMP I K3110	
3102	4435	RK26,	JMS I K2000	
3103	7673	M105,	-105	
3104	2001	K2001,	2001	
3110	3110	*3110		
3110	1136		TAD PNTCNT	
3111	1333		TAD M106	
3112	7440		SZA	/CHECK COUNTER
3113	7402		HLT	/JMP COUNTER WRONG
3114	1435		TAD I K2000	
3115	1035		TAD K2000	
3116	7440		SZA	/CHECK STORED ADDRESS
3117	7402		HLT	/JMS FAILED
3120	3435		DCA I K2000	/CLEAR STORED ADDRESS

3121	1136	TAD PNTCNT	
3122	7001	IAC	/ADVANCE COUNTER
3123	3136	DCA PNTCNT	
/JMS TEST 25 COUNTER=107			
3124	1331	TAD RK27	
3125	3734	DCA I K1001	
3126	1332	TAD RK28	
3127	3443	DCA I K6777	
3130	5443	JMP I K6777	
3131	5554	RK27, JMP I K3140	
3132	4434	RK28, JMS I K1000	
3133	7672	M106, -106	
3134	1001	K1001, 1001	
*3140			
3140	1136	TAD PNTCNT	
3141	1363	TAD M107	
3142	7440	SZA	/CHECK COUNTER
3143	7402	HLT	/JMP COUNTER WRONG
3144	1434	TAD I K1000	
3145	1034	TAD K1000	
3146	7440	SZA	/CHECK STORED ADDRESS
3147	7402	HLT	/JMS FAILED
3150	3434	DCA I K1000	/CLEAR STORED ADDRESS
3151	1136	TAD PNTCNT	
3152	7001	IAC	/ADVANCE COUNTER
3153	3136	DCA PNTCNT	
/JMS TEST 26 COUNTER=110			
3154	1361	TAD RK29	
3155	3764	DCA I K401	
3156	1362	TAD RK30	
3157	3444	DCA I K7377	
3160	5444	JMP I K7377	
3161	5555	RK29, JMP I K3200	
3162	4433	RK30, JMS I K400	
3163	7671	M107, -107	
3164	0401	K401, 401	
*3200			
3200	1136	TAD PNTCNT	
3201	1223	TAD M110	
3202	7440	SZA	/CHECK COUNTER
3203	7402	HLT	/JMP COUNTER WRONG
3204	1433	TAD I K400	
3205	1033	TAD K400	
3206	7440	SZA	/CHECK STORED ADDRESS
3207	7402	HLT	/JMS FAILED
3210	3433	DCA I K400	/CLEAR STORED ADDRESS
3211	1136	TAD PNTCNT	
3212	7001	IAC	/ADVANCE COUNTER
3213	3136	DCA PNTCNT	

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      /JMS TEST 27  COUNTER=111
3214 1221      TAD RK31
3215 3624      DCA I K201
3216 1222      TAD RK32
3217 3445      DCA I K7577
3220 5445      JMP I K7577
3221 5556      RK31,  JMP I K3230
3222 4432      RK32,  JMS I K200
3223 7670      M110,  -110
3224 0201      K201,  201

      3230      *3230
3230 1136      TAD PNTCNT
3231 1253      TAD M111
3232 7440      SEA      /CHECK COUNTER
3233 7402      HLT      /JMP COUNTER WRONG
3234 1432      TAD I K200
3235 1032      TAD K200
3236 7440      SEA      /CHECK STORED ADDRESS
3237 7402      HLT      /JMS FAILED
3240 3432      DCA I K200  /CLEAR STORED ADDRESS
3241 1136      TAD PNTCNT
3242 7001      IAC      /ADVANCE COUNTER
3243 3136      DCA PNTCNT

      /JMS TEST 28  COUNTER =112
3244 1251      TAD RK33
3245 3654      DCA I K101
3246 1252      TAD RK34
3247 3446      DCA I K7677
3250 5446      JMP I K7677
3251 5557      RK33,  JMP I K3260
3252 4431      RK34,  JMS I K100
3253 7667      M111,  -111
3254 0101      K101,  101

      3260      *3260
3260 1136      TAD PNTCNT
3261 1303      TAD M112
3262 7440      SEA      /CHECK COUNTER
3263 7402      HLT      /JMP COUNTER WRONG
3264 1431      TAD I K100
3265 1031      TAD K100
3266 7440      SEA      /CHECK STORED ADDRESS
3267 7402      HLT      /JMS FAILED
3270 3431      DCA I K100  /CLEAR STORED ADDRESS
3271 1136      TAD PNTCNT
3272 7001      IAC      /ADVANCE COUNTER
3273 3136      DCA PNTCNT

      /JMS TEST 29  COUNTER=113
3274 1301      TAD RK35
3275 3704      DCA I K41
3276 1302      TAD RK36
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3277 3447 DCA I K7737
 3300 5447 JMP I K7737
 3301 5560 RK35, JMP I K3310
 3302 4430 RK36, JMS I K40
 3303 7666 M112, -112
 3304 0041 K41, 41

3310 3310 *3310
 3310 1136 TAD PNTCNT
 3311 1333 TAD M113
 3312 7440 SEA /CHECK COUNTER
 3313 7402 HLT /JMP COUNTER WRONG
 3314 1430 TAD I K40
 3315 1030 TAD K40
 3316 7440 SEA /CHECK STORED ADDRESS
 3317 7402 HLT /JMS FAILED
 3320 3430 DCA I K40 /CLEAR STORED ADDRESS
 3321 1136 TAD PNTCNT
 3322 7001 IAC /ADVANCE COUNTER
 3323 3136 DCA PNTCNT

3324 1331 /JMS TEST 30 COUNTER=114
 3325 3734 TAD RK37
 3326 1332 DCA I K21
 3327 3450 TAD RK38
 3330 5450 DCA I K7757
 3331 5561 JMP I K7757
 3332 4427 RK37, JMP I K3340
 3333 7665 RK38, JMS I K20
 3334 0021 M113, -113
 K21, 21

3340 3340 *3340
 3340 1136 TAD PNTCNT
 3341 1363 TAD M114
 3342 7440 SEA /CHECK COUNTER
 3343 7402 HLT /JMP COUNTER WRONG
 3344 1427 TAD I K20
 3345 1027 TAD K20
 3346 7440 SEA /CHECK STORED ADDRESS
 3347 7402 HLT /JMS FAILED
 3350 3427 DCA I K20 /CLEAR STORED ADDRESS
 3351 1136 TAD PNTCNT
 3352 7001 IAC /ADVANCE COUNTER
 3353 3136 DCA PNTCNT

3354 1361 /JMS TEST 31 COUNTER=115
 3355 3764 TAD RK39
 3356 1362 DCA I K11
 3357 3451 TAD RK40
 3360 5451 DCA I K7767
 3361 5562 RK39, JMP I K3400
 JMP I K3400

3362 4426 RK40, JMS I K10
 3363 7664 M114, -114
 3364 0011 K11, 11

3400 *3400

3400 1136 TAD PNTCNT
 3401 1223 TAD M115
 3402 7440 SEA
 3403 7402 HLT
 3404 1426 TAD I K10
 3405 1026 TAD K10
 3406 7440 SEA
 3407 7402 HLT
 3410 3426 DCA I K10
 3411 1136 TAD PNTCNT
 3412 7001 IAC
 3413 3136 DCA PNTCNT

/CHECK COUNTER
 /JMP COUNTER WRONG

/CHECK STORED ADDRESS
 /JMS FAILED
 /CLEAR STORED ADDRESS
 /ADVANCE COUNTER

3414 1221 /JMS TEST 32 COUNTER=116
 3415 3624 TAD RK41
 3416 1222 DCA I K5
 3417 3452 TAD RK42
 3420 5452 DCA I K7773
 3421 5563 JMP I K7773
 3422 4425 RK41, JMP I K3430
 3423 7663 RK42, JMS I K4
 3424 0005 M115, -115
 K5, 5

3430 *3430

3430 1136 TAD PNTCNT
 3431 1253 TAD M116
 3432 7440 SEA
 3433 7402 HLT
 3434 1425 TAD I K4
 3435 1025 TAD K4
 3436 7440 SEA
 3437 7402 HLT
 3440 3425 DCA I K4
 3441 1136 TAD PNTCNT
 3442 7001 IAC
 3443 3136 DCA PNTCNT

/CHECK COUNTER
 /JMP COUNTER WRONG

/CHECK STORED ADDRESS
 /JMS FAILED
 /CLEAR STORED ADDRESS
 /ADVANCE COUNTER

3444 1251 /JMS TEST 33 COUNTER=117
 3445 3654 TAD RK43
 3446 1252 DCA I K3
 3447 3453 TAD RK44
 3450 5453 DCA I K7775
 3451 5564 JMP I K7775
 3452 4424 RK43, JMP I K3460
 3453 7662 RK44, JMS I K2
 3454 0003 M116, -116
 K3, 3

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3460      3460      *3460
3460 1136      TAD PNTCNT
3461 1303      TAD M117
3462 7440      SEA      /CHECK COUNTER
3463 7402      HLT      /JMP COUNTER WRONG
3464 1424      TAD I K2
3465 1024      TAD K2
3466 7440      SEA      /CHECK STORED ADDRESS
3467 7402      HLT      /JMS FAILED
3470 3424      DCA I K2      /CLEAR STORED ADDRESS
3471 1136      TAD PNTCNT
3472 7001      IAC      /ADVANCE COUNTER
3473 3136      DCA PNTCNT

/JMS TEST 34 COUNTER=120
3474 1301      TAD RK45
3475 3424      DCA I K2
3476 1302      TAD RK46
3477 3454      DCA I K7776
3500 5454      JMP I K7776
3501 5565      RK45,      JMP I K3510
3502 4423      RK46,      JMS I K1
3503 7661      M117,      -117

3510      3510      *3510
3510 1136      TAD PNTCNT
3511 1333      TAD M120
3512 7440      SEA      /CHECK COUNTER
3513 7402      HLT      /JMP COUNTER WRONG
3514 1423      TAD I K1
3515 1023      TAD K1
3516 7440      SEA      /CHECK STORED ADDRESS
3517 7402      HLT      /JMS FAILED
3520 3423      DCA I K1      /CLEAR STORED ADDRESS
3521 1136      TAD PNTCNT
3522 7001      IAC      /ADVANCE COUNTER
3523 3136      DCA PNTCNT

/JMS TEST 35 COUNTER=121
3524 1331      TAD RK47
3525 3423      DCA I K1
3526 1332      TAD RK48
3527 3455      DCA I K7777
3530 5455      JMP I K7777
3531 5566      RK47,      JMP I K3540
3532 4422      RK48,      JMS I K0
3533 7660      M120,      -120

3540      3540      *3540
3540 1136      TAD PNTCNT
3541 1370      TAD M121
3542 7440      SEA      /CHECK COUNTER
3543 7402      HLT      /JMP COUNTER WRONG

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3544	1422	TAD I K0	
3545	1022	TAD K0	
3546	7440	SZA	/CHECK STORED ADDRESS
3547	7402	HLT	/JMS FAILED
3550	3422	DCA I K0	/CLEAR STORED ADDRESS
3551	1371	TAD BLCNT	
3552	7001	IAC	
3553	3371	DCA BLCNT	
3554	1371	TAD BLCNT	
3555	1372	TAD LIMIT	
3556	7640	SZA CLA	
3557	5766	JMP I BEL-1	
3560	3371	DCA BLCNT	
3561	1367	TAD BEL	
3562	6046	TLB	
3563	6041	TBF	
3564	5363	JMP .-1	
3565	5766	JMP I .+1	
3566	4200	4200	
3567	0207	BEL,	207
3570	7657	M121,	-121
3571	0000	BLCNT,	0
3572	1200	LIMIT,	-6600