IDENTIFICATION

PRODUCT CODE: MAINDEC-8E-D0IB-D

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
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       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
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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
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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
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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
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/RESTORE LOADER INSTRUCTIONS

```
      0700     *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
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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

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

                        /JUMP TEST 5 COUNTER=5
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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              /
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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  5367            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  5201            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  5212  .         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
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                        /JUMP TEST 12 COUNTER=14
4421  5224              JMP .+3
4422  7402              HLT             /JMP FAILED
4423  7402              HLT             /
4424  1136              TAD PNTCNT
4425  1126              TAD M14
4426  7440              SZA             /CHECK COUNTER
4427  7402              HLT             /JMP COUNTER WRONG
4430  1136              TAD PNTCNT
4431  7001              IAC             /ADVANCE COUNTER
4432  3136              DCA PNTCNT

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


                        /JUMP TEST 14 COUNTER=16
4446  5253              JMP .+5
4447  7402              HLT             /JMP FAILED
4450  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

                        /JUMP TEST 15 COUNTER=17
4462  5270              JMP .+6
4463  7402              HLT             /JMP FAILED
4464  7402              HLT             /
4465  7402              HLT             /
4466  7402              HLT             /
4467  7402              HLT             /
4470  1136              TAD PNTCNT
4471  1131              TAD M17
4472  7440              SZA             /CHECK COUNTER
4473  7402              HLT             /JMP COUNTER WRONG
4474  1136              TAD PNTCNT
4475  7001              IAC             /ADVANCE COUNTER
4476  3136              DCA PNTCNT
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                              /JUMP TEST 16   COUNTER =20
      4477  5306             JMP .+7
      4500  7402             HLT               /JMP FAILED
      4501  7402             HLT               /
      4502  7402             HLT               /
      4503  7402             HLT               /
      4504  7402             HLT               /
      4505  7402             HLT               /
      4506  1136             TAD PNTCNT
      4507  1132             TAD M20
      4510  7440             SZA               /CHECK COUNTER
      4511  7402             HLT               /JMP COUNTER WRONG
      4512  1136             TAD PNTCNT
      4513  7001             IAC               /ADVANCE COUNTER
      4514  3136             DCA PNTCNT

                              /JUMP TEST 17 COUNTER=21
      4515  5325             JMP .+10
      4516  7402             HLT      /JMP FAILED
      4517  7402             HLT                    /
      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             SZA       /CHECK COUNTER
      4530  7402             HLT               /JMP COUNTEP WRONG
      4531  1136             TAD PNTCNT
      4532  7001             IAC               /ADVANCE COUNTER
      4533  3136             DCA PNTCNT

                              /JUMP TEST 18 COUNTER=22
      4534  5345             JMP .+11
      4535  7402             HLT               /JMP FAILED
      4536  7402             HLT               /
      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             SZA               /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   5366              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              SZA              /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   3452              DCA I K0
4604   5455              JMP I K7777
4605   5422     PK1,     JMP I K0
4606   5456     PK2,     JMP I K4620


       4620     *4620
4620   1136              TAD PNTCNT
4621   1356              TAD M24
4622   7440              SZA              /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   5454              JMP I K7776
4634   5423     PK3,     JMP I K1
4635   5457     PK4,     JMP I K4640
4636   7754     M24,     -24

       4640     *4640
4640   1136              TAD PNTCNT
4641   1256              TAD M25
4642   7440              SZA              /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              SZA                    /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      PK11,   JMP I K20
4735  5463      PK12,   JMP I K4740
4736  7750      M30,    -30


      4740      *4740
4740  1136              TAD PNTCNT
4741  1356              TAD M31
4742  7440              SZA                    /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      PK13,   JMP I K40
4755  5464      PK14,   JMP I K4760
4756  7747      M31,    -31

      4760      *4760
4760  1136              TAD PNTCNT
4761  1376              TAD M32
4762  7440              SZA                    /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      PK15,   JMP I K100
4775  5465      PK16,   JMP I K5000
4776  7746      M32,    -32
```

```
          5000      *5000
5000  1136           TAD PNTCNT
5001  1216           TAD M33
5002  7440           SZA            /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           SZA            /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           SZA            /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              SZA             /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 K5777
5071  1275              TAD PK24
5072  3435              DCA I K2000
5073  5442              JMP I K5777
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              SZA             /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              SZA             /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  3455              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              SZA             /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  3454              DCA I K7776
5153  5423              JMP I K1
5154  5454      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              SZA             /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  3453              DCA I K7775
5173  5424              JMP I K2
5174  5453      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              SZA             /CHECK COUNTER
5203  7402              HLT             /JMP COUNTER WRONG
5204  1136              TAD PNTCNT
```

```
5205   7001                IAC                    /ADVANCE COUNTER
5206   3136                DCA PNTCNT


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


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


                           /JMP TEST 37 COUNTER=45
5227   1234                TAD PK35
5230   3426                DCA I K1Ø
5231   1235                TAD PK36
5232   3451                DCA I K7767
5233   5426                JMP I K1Ø
5234   5451        PK35,   JMP I K7767
5235   5502        PK36,   JMP I K5240
5236   7734        M44,    -44


       5240        *5240
5240   1136                TAD PNTCNT
5241   1256                TAD M45
5242   7440                SZA                    /CHECK COUNTER
5243   7402                HLT                    /JMP COUNTER WRONG
5244   1136                TAD PNTCNT
5245   7001                IAC                    /ADVANCE COUNTER
5246   3136                DCA PNTCNT


                           /JMP TEST 3   COUNTER=46
5247   1254                TAD PK37
5250   3427                DCA I K2Ø
5251   1255                TAD PK38
5252   3450                DCA I K7757
5253   5427                JMP I K2Ø
5254   5450        PK37,   JMP I K7757
5255   5503        PK38,   JMP I K5260
5256   7733        M45,    -45


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

```
5262  7440              SZA              /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
5300  1136              TAD PNTCNT
5301  1316              TAD M47
5302  7440              SZA              /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
5320  1136              TAD PNTCNT
5321  1336              TAD M50
5322  7440              SZA              /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                 SZA             /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                 SZA             /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                 SZA             /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 TO1
2026  7402   FRM1,  HLT
2027  5227   TO1,   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 TO1
2037  7440          SZA      /CHECK STORED ADDRESS
2040  7402          HLT             /JMS FAILED
2041  3227          DCA TO1         /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 TO2
2052  7402   FRM2,  HLT
2053  7402          HLT
2054  5254   TO2,   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 TO2
2064  7440          SZA             /CHECK STORED ADDRESS
2065  7402          HLT             /JMS FAILED
2066  3254          DCA TO2         /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 TO3
2077  7402   FRM3,  HLT
2100  7402          HLT
2101  7402          HLT
```

```
2102  5302    TO3,    JMP .
2103  1136            TAD PNTCNT
2104  1323            TAD M61
2105  7440            SZA                 /CHECK COUNTER
2106  7402            HLT                 /JMP COUNTER WRONG
2107  1321            TAD AFRM3
2110  7041            CIA
2111  1302            TAD TO3
2112  7440            SZA                 /CHECK STORED ADDRESS
2113  7402            HLT                 /JMS FAILED
2114  3302            DCA TO3             /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 TO4
2125  7402    FRM4,   HLT
2126  7402            HLT
2127  7402            HLT
2130  5330    TO4,    JMP .
2131  1136            TAD PNTCNT
2132  1351            TAD M62
2133  7440            SZA                 /CHECK COUNTER
2134  7402            HLT                 /JMP COUNTER WRONG
2135  1347            TAD AFRM4
2136  7041            CIA
2137  1330            TAD TO4
2140  7440            SZA                 /CHECK STORED ADDRESS
2141  7402            HLT                 /JMS FAILED
2142  3330            DCA TO4             /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 TO5
2153  7402    FRM5,   HLT
2154  7402            HLT
2155  7402            HLT
2156  5356    TO5,    JMP .
2157  1136            TAD PNTCNT
2160  1377            TAD M63
2161  7440            SZA                 /CHECK COUNTER
```

```
2162   7402                   HLT              /JMP COUNTER WRONG
2163   1375                   TAD AFRM5
2164   7041                   CIA
2165   1356                   TAD TO5
2166   7440                   SZA              /CHECK STORED ADDRESS
2167   7402                   HLT              /JMS FAILED
2170   3356                   DCA TO5          /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
```

```
                             /JMS TEST 7  COUNTER=64
2200   7000                   NOP
2201   4202                   JMS TO6
2202   5202     TO6,          JMP .
2203   1136                   TAD PNTCNT
2204   1221                   TAD M64
2205   7440                   SZA              /CHECK COUNTER
2206   7402                   HLT              /JMP COUNTER WRONG
2207   1202                   TAD TO6
2210   7041                   CIA
2211   1223                   TAD ATO6
2212   7440                   SZA              /CHECK STORED ADDRESS
2213   7402                   HLT              /JMS FAILED
2214   3202                   DCA TO6          /CLEAR STORED PC
2215   1136                   TAD PNTCNT
2216   7001                   IAC
2217   3136                   DCA PNTCNT
2220   7410                   SKP
2221   7714     M64,          -64
2222   7410                   SKP
2223   2202     ATO6,         TO6
```

```
                             /JMS TEST 8  COUNTER=65
2224   4226                   JMS TO7
2225   7402     FRM7,         HLT
2226   5226     TO7,          JMP .
2227   1136                   TAD PNTCNT
2230   1245                   TAD M65
2231   7440                   SZA              /CHECK COUNTER
2232   7402                   HLT              /JMP COUNTER WRONG
2233   1247                   TAD AFRM7
2234   7041                   CIA
2235   1226                   TAD TO7
```

```
2236  7440              SZA             /CHECK STORED ADDRESS
2237  7402              HLT             /JMS FAILED
2240  3226              DCA TO7         /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 TO8
2251  7402      FRM8,   HLT
2252  7402              HLT
2253  5253      TO8,    JMP .
2254  1136              TAD PNTCNT
2255  1274              TAD M66
2256  7440              SZA             /CHECK COUNTER
2257  7402              HLT             /JMP COUNTER WRONG
2260  1253              TAD TO8
2261  7041              CIA
2262  1272              TAD AFRM8
2263  7440              SZA             /CHECK STORED ADDRESS
2264  7402              HLT             /JMS FAILED
2265  3253              DCA TO8         /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 TO9
2276  7402      FRM9,   HLT
2277  7402              HLT
2300  7402              HLT
2301  5301      TO9,    JMP .
2302  1136              TAD PNTCNT
2303  1322              TAD M67
2304  7440              SZA             /CHECK COUNTER
2305  7402              HLT             /JMP COUNTER WRONG
2306  1301              TAD TO9
2307  7041              CIA
2310  1320              TAD AFRM9
2311  7440              SZA             /CHECK STORED ADDRESS
2312  7402              HLT             /JMS FAILED
2313  3301              DCA TO9         /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

                       /JMS TEST 11 COUNTER =70
2323  4330             JMS TO10
2324  7402    FRM10,   HLT
2325  7402             HLT
2326  7402             HLT
2327  7402             HLT


2330  5330    TO10,    JMP .
2331  1136             TAD PNTCNT
2332  1351             TAD M70
2333  7440             SZA              /CHECK COUNTER
2334  7402             HLT              /JMP COUNTER WRONG
2335  1330             TAD TO10
2336  7041             CIA
2337  1347             TAD AFRM10
2340  7440             SZA              /CHECK STORED ADDRESS
2341  7402             HLT              /JMS FAILED
2342  3330             DCA TO10               /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

                       /JMS TEST 11 COUNTER=71
2352  4356             JMS TO11
2353  7402    FRM11,   HLT
2354  7402             HLT
2355  7402             HLT
2356  5356    TO11,    JMP .
2357  1136             TAD PNTCNT
2360  1377             TAD M71
2361  7440             SZA              /CHECK COUNTER
2362  7402             HLT              /JMP COUNTER WRONG
2363  1356             TAD TO11
2364  7041             CIA
2365  1375             TAD AFRM11
2366  7440             SZA              /CHECK STORED ADDRESS
2367  7402             HLT              /JMS FAILED
2370  3356             DCA TO11               /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    3495                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
2410    1136                TAD PNTCNT
2411    1293                TAD M72
2412    7440                SZA             /CHECK COUNTER
2413    7402                HLT             /JMP COUNTER WRONG
2414    1454                TAD I K7776
2415    1054                TAD K7776
2416    7440                SZA             /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
2440    1136                TAD PNTCNT
2441    1263                TAD M73
2442    7440                SZA             /CHECK COUNTER
2443    7402                HLT             /JMP COUNTER WRONG
2444    1453                TAD I K7775
2445    1053                TAD K7775
2446    7440                SZA             /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
```

```
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          SZA           /CHECK COUNTER
2473  7402          HLT           /JMP COUNTER WRONG
2474  1452          TAD I K7773
2475  1052          TAD K7773
2476  7440          SZA           /CHECK STORED ADDRESS
2477  7402          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          SZA           /CHECK COUNTER
2523  7402          HLT           /JMP COUNTER WRONG
2524  1451          TAD I K7767
2525  1051          TAD K7767
2526  7440          SZA           /CHECK STORED ADDRESS
2527  7402          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  5543   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
```

```
        2660      *2660
2660    1136              TAD PNTCNT
2661    1303              TAD M100
2662    7440              SZA           /CHECK COUNTER
2663    7402              HLT           /JMS COUNTER WRONG
2664    1446              TAD I K7677
2665    1046              TAD K7677
2666    7440              SZA           /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

                          /JMS TEST 19  COUNTER=101
2674    1301              TAD RK15
2675    3704              DCA I K7600
2676    1302              TAD RK16
2677    3432              DCA I K200
2700    5432              JMP I K200
2701    5546      RK15,   JMP I K2710
2702    4445      RK16,   JMS I K7577
2703    7700      M100,   -100
2704    7600      K7600,  7600

        2710      *2710
2710    1136              TAD PNTCNT
2711    1333              TAD M101
2712    7440              SZA           /CHECK COUNTER
2713    7402              HLT           /JMP COUNTER WRONG
2714    1445              TAD I K7577
2715    1045              TAD K7577
2716    7440              SZA           /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

                          /JMS TEST 20  COUNTER=102
2724    1331              TAD RK17
2725    3734              DCA I K7400
2726    1332              TAD RK18
2727    3433              DCA I K400
2730    5433              JMP I K400
2731    5547      RK17,   JMP I K2740
2732    4444      RK18,   JMS I K7377
2733    7677      M101,   -101
2734    7400      K7400,  7400

        2740      *2740
2740    1136              TAD PNTCNT
```

```
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    RK19,   JMP I K3000
2762  4443    RK20,   JMS I K6777
2763  7676    M102,   -102
2764  7000    K7000,  7000

      3000    *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    RK21,   JMP I K3030
3022  4442    RK22,   JMS I K5777
3023  7675    M103,   -103
3024  6000    K6000,  6000


      3030    *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  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  5442              JMP I K5777
3101  5553      RK25,   JMP I K3110
3102  4435      RK26,   JMS I K2000
3103  7673      M105,   -105
3104  2001      K2001,  2001

      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
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
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
```

```
                        /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              SZA             /CHECK COUNTER
3233  7402              HLT             /JMP COUNTER WRONG
3234  1432              TAD I K200
3235  1032              TAD K200
3236  7440              SZA             /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              SZA             /CHECK COUNTER
3263  7402              HLT             /JMP COUNTER WRONG
3264  1431              TAD I K100
3265  1031              TAD K100
3266  7440              SZA             /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   1136              TAD PNTCNT
3311   1333              TAD M113
3312   7440              SZA              /CHECK COUNTER
3313   7402              HLT              /JMP COUNTER WRONG
3314   1430              TAD I K40
3315   1030              TAD K40
3316   7440              SZA              /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


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


       3340      *3340
3340   1136              TAD PNTCNT
3341   1363              TAD M114
3342   7440              SZA              /CHECK COUNTER
3343   7402              HLT              /JMP COUNTER WRONG
3344   1427              TAD I K20
3345   1027              TAD K20
3346   7440              SZA              /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

                        /JMS TEST 31  COUNTER=115
3354   1361              TAD RK39
3355   3764              DCA I K11
3356   1362              TAD RK40
3357   3451              DCA I K7767
3360   5451              JMP I K7767
3361   5562      RK39,   JMP I K3400
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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             SZA                /CHECK COUNTER
3403  7402             HLT                /JMP COUNTER WRONG
3404  1426             TAD I K10
3405  1026             TAD K10
3406  7440             SZA                /CHECK STORED ADDRESS
3407  7402             HLT                /JMS FAILED
3410  3426             DCA I K10                  /CLEAR STORED ADDRESS
3411  1136             TAD PNTCNT
3412  7001             IAC                /ADVANCE COUNTER
3413  3136             DCA PNTCNT

                       /JMS TEST 32   COUNTER=116
3414  1221             TAD RK41
3415  3624             DCA I K5
3416  1222             TAD RK42
3417  3432             DCA I K7773
3420  5432             JMP I K7773
3421  5563    RK41,    JMP I K3430
3422  4425    RK42,    JMS I K4
3423  7663    M115,    -115
3424  0005    K5,      5

      3430             *3430
3430  1136             TAD PNTCNT
3431  1253             TAD M116
3432  7440             SZA                /CHECK COUNTER
3433  7402             HLT                /JMP COUNTER WRONG
3434  1425             TAD I K4
3435  1025             TAD K4
3436  7440             SZA                /CHECK STORED ADDRESS
3437  7402             HLT                /JMS FAILED
3440  3425             DCA I K4                   /CLEAR STORED ADDRESS
3441  1136             TAD PNTCNT
3442  7001             IAC                /ADVANCE COUNTER
3443  3136             DCA PNTCNT

                       /JMS TEST 33   COUNTER=117
3444  1251             TAD RK43
3445  3654             DCA I K3
3446  1252             TAD RK44
3447  3453             DCA I K7775
3450  5453             JMP I K7775
3451  5564    RK43,    JMP I K3460
3452  4424    RK44,    JMS I K2
3453  7662    M116,    -116
3454  0003    K3,      3
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```
            3460      *3460
3460  1136            TAD PNTCNT
3461  1303            TAD M117
3462  7440            SZA              /CHECK COUNTER
3463  7402            HLT              /JMP COUNTER WRONG
3464  1424            TAD I K2
3465  1024            TAD K2
3466  7440            SZA              /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  1136            TAD PNTCNT
3511  1333            TAD M120
3512  7440            SZA              /CHECK COUNTER
3513  7402            HLT              /JMP COUNTER WRONG
3514  1423            TAD I K1
3515  1023            TAD K1
3516  7440            SZA              /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  1136            TAD PNTCNT
3541  1370            TAD M121
3542  7440            SZA              /CHECK COUNTER
3543  7402            HLT              /JMP COUNTER WRONG
```

```
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              TLS
3563  6041              TSF
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

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