SDS 940 OLDS DIAGNOSTIC SYSTEM

UNIT 3 MEMORY 2ND 16K LISTING

SDS 870033-51A February 1969

SDS

SCIENTIFIC DATA SYSTEMS • 701 South Aviation Boulevard • El Segundo, Calif., 90245 • 213/772-4511

```
          00010          OCTAL
                *
0 01 00000  ONE    OPD     01000000,1
0 02 00000  TWO    OPD     02000000,1
0 03 00000  THREE  OPD     03000000,1
0 04 00000  FOUR   OPD     04000000,1
0 05 00000  FIVE   OPD     05000000,1
0 06 00000  SIX    OPD     06000000,1
0 07 00000  SEVEN  OPD     07000000,1
0 10 00000  EIGHT  OPD     01000000,1
                *
  00000242  INT31  EQU     242
  00000243  I31    EQU     243
  00000246  INT33  EQU     246
  00000247  I33    EQU     247
  00000332  FLAGS  EQU     332
  00000400  UAR    EQU     400
  00000401  STATUS EQU     401
  00000402  LOCKS  EQU     402
  00000403  RADSIZ EQU     403
  00000404  DSCSIZ EQU     404
  00000405  SYSIZE EQU     405
  00000406  SEED   EQU     406
  00000407  TIME   EQU     407
  00000410  AREG   EQU     410
  00000411  BREG   EQU     411
  00000412  XREG   EQU     412
  00000413  OVRFLO EQU     413
  00000414  ERRORS EQU     414
  00000415  RL1    EQU     415
  00000416  RL2    EQU     416
  00000417  RL4    EQU     417
  00000420  UNIT   EQU     420
  00000424  FUNCTN EQU     424
  00000430  OBJECT EQU     430
  00000434  END    EQU     434
```



```
  00000440  RETURN EQU     440
  00000450  DIVERT EQU     450
  00000452  DONE   EQU     452
  00000454  REPORT EQU     454
  00000456  FDONE  EQU     456
  00000460  ERROR  EQU     460
```

```
                00010          OCTAL
      1 00 00000  POP     OPD     10000000,1
        00000263  T41     EQU     263
        00000267  T43     EQU     267
        00000275  156     EQU     275
```



```
                        * MEMORY ACCESS DIAGNOSTIC AND MAXIMUM NOISE TEST 2.0
                        *
                        *
                        * FUNCTION 1 =940 TRAP AND MAP DIAGNOSTIC=
00000           04000   ZERO    BSS     04000
04000   0 43 00420              BRM     UNIT
04001   0 20 20000              NOP     OPT
04002   0 76 00401              LDA     STATUS
04003   0 72 26744              SKA     =4              SKIP IF NOT 940
04004   0 01 04006              BRU     **2
04005   0 43 00452              BRM     DONE            NOT 940, EXIT
04006   0 43 00424  FUNC1       BRM     FUNCTN
04007   0 20 20006              NOP     FPT1
```

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                    * THIS OBJECT TEST ATTEMPTS A RELABLED STA AND SHOULD NOT TRAP
                    * IF OUT OF BOUNDS TRAP,CHECK RLOF, TRAP, OBA, OB,SFM AND RRLI
                    * IF READ ONLY TRAP, CHECK ALL ABOVE PLUS PI AND STV
04010  0 43 00430   TRAP1  BRM     OBJECT          START OBJECT TEST
04011  0 77 04010           EAX     **1             X = TEST LOCATION
04012  0 43 00440           BRM     RETURN          SET TRAP RETURN
04013  0 20 04030           NOP     T1
04014  0 75 26745           LDB     =0              B = CORRECT TRAP ID
04015  0 76 26745           LDA     =0
04016  0 35 00415           STA     RL1             RELABELING REGISTER 1 CONTENTS
04017  0 76 26745           LDA     =0
04020  0 35 00416           STA     RL2             RELABELING REGISTER 2 CONTENTS
04021  0 02 20400           EOM     020400
04022  0 13 00415           POT     RL1             SET RELABELING REGISTER 1
04023  0 02 21000           EOM     021000
04024  0 13 00416           POT     RL2             SET RELABELING REGISTER 2
04025  4 35 03777           STA     003777,4        SHOULD NOT TRAP
04026  0 46 00001           CLA
04027  0 01 04031           BRU     **2
04030  0 76 00450   T1      LDA     DIVERT
04031  0 14 26746           ETR     =037777
04032  0 50 26747           SKE     =T43            READ ONLY TRAP ID
04033  0 01 04035           BRU     **2             NO, SKIP
04034  0 43 00460           BRM     ERROR           YES, ERROR
04035  0 20 21600           NOP     TM1A
04036  0 50 26750           SKE     =T41            OUT OF BOUNDS TRAP ID
04037  0 01 04041           BRU     **2             NO, SKIP
04040  0 43 00460           BRM     ERROR           YES, ERROR
04041  0 20 21623           NOP     TM1B
04042  0 43 00434           BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM ANY R
                    * IF NO TRAP, CHECK SFM, STV, RLOF, OB, TRAP, REL, RLCI, RLS1,
                    * AND RB
                    * IF OUT OF BOUNDS TRAP, CHECK PI, OBA, AND STV
04043  0 43 00430   TRAP2  BRM     OBJECT          START OBJECT TEST
04044  0 77 04043           EAX     **1             X = TEST LOCATION
04045  0 43 00440           BRM     RETURN          SET TRAP RETURN
04046  0 20 04063           NOP     T2
04047  0 75 26747           LDB     =T43            B = CORRECT TRAP ID
04050  0 76 26751           LDA     =077777777
04051  0 35 00415           STA     RL1             RELABELING REGISTER 1 CONTENTS
04052  0 76 26751           LDA     =077777777
04053  0 35 00416           STA     RL2             RELABELING REGISTER 2 CONTENTS
04054  0 02 20400           EOM     020400
04055  0 13 00415           POT     RL1             SET RELABELING REGISTER 1
04056  0 02 21000           EOM     021000
04057  0 13 00416           POT     RL2             SET RELABELING REGISTER 2
04060  4 35 03777           STA     003777,4        SHOULD READ ONLY TRAP
04061  0 46 00001           CLA
04062  0 01 04064           BRU     **2
04063  0 76 00450   T2      LDA     DIVERT
04064  0 14 26746           ETR     =037777
04065  0 50 26745           SKE     =0              NO TRAP ID
04066  0 01 04070           BRU     **2             NO, SKIP
04067  0 43 00460           BRM     ERROR           YES, ERROR
04070  0 20 21451           NOP     TM2A
04071  0 50 26750           SKE     =T41            OUT OF BOUNDS TRAP ID
04072  0 01 04074           BRU     **2             NO, SKIP
04073  0 43 00460           BRM     ERROR           YES, ERROR
04074  0 20 21664           NOP     TM2B
04075  0 43 00434           BRM     END             LOOP IF BP1 SET
```

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                        * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM ANY R
                        * IF NO TRAP, CHECK OBA, AND OB
                        * IF READ ONLY TRAP, CHECK OBA, RLOH, RL00, RL01, RL02, RL03, AND
                        * RRL1
04076  0 43 00430  TRAP3  BRM     OBJECT              START OBJECT TEST
04077  0 77 04076         EAX     *#1                 X # TEST LOCATION
04100  0 43 00440         BRM     RETURN              SET TRAP RETURN
04101  0 20 04116         NOP     T3
04102  0 75 26750         LDB     #T41                B # CORRECT TRAP ID
04103  0 76 26752         LDA     #040404040
04104  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
04105  0 76 26752         LDA     #040404040
04106  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
04107  0 02 20400         EOM     020400
04110  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
04111  0 02 21000         EOM     021000
04112  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
04113  4 35 03777         STA     003777,4            SHOULD OUT OF BOUND TRAP
04114  0 46 00001         CLA
04115  0 01 04117         BRU     *+2
04116  0 76 00450  T3     LDA     DIVERT
04117  0 14 26746         ETR     #037777
04120  0 50 26745         SKE     *0                  NO TRAP ID
04121  0 01 04123         BRU     *+2                 NO, SKIP
04122  0 43 00460         BRM     ERROR               YES, ERROR
04123  0 20 21706         NOP     TM3A
04124  0 50 26747         SKE     #T43                READ ONLY TRAP ID
04125  0 01 04127         BRU     *+2                 NO, SKIP
04126  0 43 00460         BRM     ERROR YES, ERROR
04127  0 20 21710         NOP     TM3B
04130  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



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                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R0
                        * IF NO TRAP, CHECK SEL0, RL0F, AND SFM
                        * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04131  0 43 00430  TRAP4  BRM     OBJECT              START OBJECT TEST
04132  0 77 04131         EAX     *#1                 X # TEST LOCATION
04133  0 43 00440         BRM     RETURN              SET TRAP RETURN
04134  0 20 04151         NOP     T4
04135  0 75 26747         LDB     #T43                B # CORRECT TRAP ID
04136  0 76 26753         LDA     #077000000
04137  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
04140  0 76 26745         LDA     #000000000
04141  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTNETS
04142  0 02 20400         EOM     020400
04143  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
04144  0 02 21000         EOM     021000
04145  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
04146  4 35 03777         STA     003777,4            SHOULD READ ONLY TRAP
04147  0 46 00001         CLA
04150  0 01 04152         BRU     *+2
04151  0 76 00450  T4     LDA     DIVERT
04152  0 14 26746         ETR     #037777
04153  0 50 26747         SKE     #T43                EXPECTED READ ONLY TRAP ID
04154  0 43 00460         BRM     ERROR
04155  0 20 21741         NOP     TM4
04156  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R1
                    * IF NO TRAP, CHECK SEL1, RL1F, AND SFM
                    * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04157  0 43 00430   TRAP5  BRM     OBJECT              START OBJECT TEST
04160  0 77 04157          EAX     **1                 X = TEST LOCATION
04161  0 43 00440          BRM     RETURN              SET TRAP RETURN
04162  0 20 04177          NOP     T5
04163  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
04164  0 76 26754          LDA     =000770000
04165  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
04166  0 76 26745          LDA     =000000000
04167  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
04170  0 02 20400          EOM     020400
04171  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
04172  0 02 21000          EOM     021000
04173  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
04174  4 35 07777          STA     007777,4            SHOULD READ ONLY TRAP
04175  0 46 00001          CLA
04176  0 01 04200          BRU     **2
04177  0 76 00450   T5     LDA     DIVERT
04200  0 14 26746          ETR     =037777
04201  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
04202  0 43 00460          BRM     ERROR
04203  0 20 21751          NOP     TM5
04204  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R2
                    * IF NO TRAP, CHECK SEL2, RL2F, AND SFM
                    * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04205  0 43 00430   TRAP6  BRM     OBJECT              START OBJECT TEST
04206  0 77 04205          EAX     **1                 X = TEST LOCATION
04207  0 43 00440          BRM     RETURN              SET TRAP RETURN
04210  0 20 04225          NOP     T6
04211  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
04212  0 76 26755          LDA     =000007700
04213  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
04214  0 76 26745          LDA     =000000000
04215  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
04216  0 02 20400          EOM     020400
04217  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
04220  0 02 21000          EOM     021000
04221  0 13 00416          POT     RL2                 SET RELABEING REGISTER 2
04222  4 35 13777          STA     013777,4            SHOULD READ ONLY TRAP
04223  0 46 00001          CLA
04224  0 01 04226          BRU     **2
04225  0 76 00450   T6     LDA     DIVERT
04226  0 14 26746          ETR     =037777
04227  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
04230  0 43 00460          BRM     ERROR
04231  0 20 21761          NOP     TM6
04232  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R3
                    * IF NO TRAP, CHECK SEL3, RL3F, AND SFM
                    * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04233  0 43 00430   TRAP7  BRM     OBJECT          START OBJECT TEST
04234  0 77 04233          EAX     *+1             X = TEST LOCATION
04235  0 43 00440          BRM     RETURN          SET TRAP RETRUN
04236  0 20 04253          NOP     T7
04237  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
04240  0 76 26756          LDA     =000000077
04241  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
04242  0 76 26745          LDA     =000000000
04243  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
04244  0 02 20400          EOM     020400
04245  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
04246  0 02 21000          EOM     021000
04247  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
04250  4 35 17777          STA     017777,4        SHOULD READ ONLY TRAP
04251  0 46 00001          CLA
04252  0 01 04254          BRU     *+2
04253  0 76 00450   T7     LDA     DIVERT
04254  0 14 26746          ETR     =037777
04255  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
04256  0 43 00460          BRM     ERROR
04257  0 20 21771          NOP     TM7
04260  0 43 00434          BRM     END             LOOP IF BP1 SET
```



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                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R4
                    * IF NO TRAP, CHECK SEL4, RL4F, RLS2, AND SFM
                    * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04261  0 43 00430   TRAP8  BRM     OBJECT          START OBJECT TEST
04262  0 77 04261          EAX     *+1             X = TEST LOCATION
04263  0 43 00440          BRM     RETURN          SET TRAP RETURN
04264  0 20 04301          NOP     T8
04265  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
04266  0 76 26745          LDA     =000000000
04267  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
04270  0 76 26753          LDA     =077000000
04271  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
04272  0 02 20400          EOM     020400
04273  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
04274  0 02 21000          EOM     021000
04275  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
04276  4 35 23777          STA     023777,4        SHOULD READ ONLY TRAP
04277  0 46 00001          CLA
04300  0 01 04302          BRU     *+2
04301  0 76 00450   T8     LDA     DIVERT
04302  0 14 26746          ETR     =037777
04303  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
04304  0 43 00460          BRM     ERROR
04305  0 20 22001          NOP     TM8
04306  0 43 00434          BRM     END             LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R5
                    * IF NO TRAP, CHECK SEL5, RL5F, AND SFM
                    * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04307  0 43 00430 TRAP9  BRM     OBJECT              START OBJECT TEST
04310  0 77 04307        EAX     **1                 X = TEST LOCATION
04311  0 43 00440        BRM     RETURN              SET TRAP RETURN
04312  0 20 04327        NOP     T9
04313  0 75 26747        LDB     =T43                B = CORRECT TRAP ID
04314  0 76 26745        LDA     =000000000
04315  0 35 00415        STA     RL1                 RELABELING REGISTER 1 CONTENTS
04316  0 76 26754        LDA     =000770000
04317  0 35 00416        STA     RL2                 RELABELING REGISTER 2 CONTENTS
04320  0 02 20400        EOM     020400
04321  0 13 00415        POT     RL1                 SET RELABELING REGISTER 1
04322  0 02 21000        EOM     021000
04323  0 13 00416        POT     RL2                 SET RELABELING REGISTER 2
04324  4 35 27777        STA     027777,4            SHOULD READ ONLY TRAP
04325  0 46 00001        CLA
04326  0 01 04330        BRU     **2
04327  0 76 00450 T9     LDA     DIVERT
04330  0 14 26746        ETR     =037777
04331  0 50 26747        SKE     =T43                EXPECTED READ ONLY TRAP ID
04332  0 43 00460        BRM     ERROR
04333  0 20 22015        NOP     TM9
04334  0 43 00434        BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R6
                    * IF NO TRAP, CHECK SEL6, RL6F, AND SFM
                    * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04335  0 43 00430 TRAP10 BRM     OBJECT              START OBJECT TEST
04336  0 77 04335        EAX     **1                 X = TEST LOCATION
04337  0 43 00440        BRM     RETURN              SET TRAP RETURN
04340  0 20 04355        NOP     T10
04341  0 75 26747        LDB     =T43                B = CORRECT TRAP ID
04342  0 76 26745        LDA     =000000000
04343  0 35 00415        STA     RL1                 RELABELING REGISTER 1 CONTENTS
04344  0 76 26755        LDA     =000007700
04345  0 35 00416        STA     RL2                 RELABELING REGISTER 2 CONTENTS
04346  0 02 20400        EOM     020400
04347  0 13 00415        POT     RL1                 SET RELABELING REGISTER 1
04350  0 02 21000        EOM     021000
04351  0 13 00416        POT     RL2                 SET RELABELING REGISTER 2
04352  4 35 33777        STA     033777,4            SHOULD READ ONLY TRAP
04353  0 46 00001        CLA
04354  0 01 04356        BRU     **2
04355  0 76 00450 T10    LDA     DIVERT
04356  0 14 26746        ETR     =037777
04357  0 50 26747        SKE     =T43                EXPECTED READ ONLY TRAP ID
04360  0 43 00460        BRM     ERROR
04361  0 20 22025        NOP     TM10
04362  0 43 00434        BRM     END                 LOOP IF BP1 SET
```

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                        * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R7
                        * IF NO TRAP, CHECK SEL7, RL7F, AND SFM
                        * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04363  0 43 00430  TRAP11 BRM     OBJECT          START OBJECT TEST
04364  0 77 04363         EAX     *-1             X = TEST LOCATION
04365  0 43 00440         BRM     RETURN          SET TRAP RETURN
04366  0 20 04403         NOP     T11
04367  0 75 26750         LDB     =T41            B = CORRECT TRAP ID
04370  0 76 26745         LDA     =000000000
04371  0 35 00415         STA     RL1             RELABELING REGISTER 1 CONTENTS
04372  0 76 26756         LDA     =000000077
04373  0 35 00416         STA     RL2             RELABELING REGISTER 2 CONTENTS
04374  0 02 20400         EOM     020400
04375  0 13 00415         POT     RL1             SET RELABELING REGISTER 1
04376  0 02 21000         EOM     021000
04377  0 13 00416         POT     RL2             SET RELABELING REGISTER 2
04400  4 35 37777         STA     037777,4        SHOULD OUT OF BOUNDS TRAP
04401  0 46 00001         CLA
04402  0 01 04404         BRU     *+2
04403  0 76 00450  T11    LDA     DIVERT
04404  0 14 26746         ETR     =037777
04405  0 50 26747         SKE     =T43            EXPECTED READ ONLY TRAP ID
04406  0 43 00460         BRM     ERROR
04407  0 20 22035         NOP     TM11
04410  0 43 00434         BRM     END             LOOP IF BP1 SET
```



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                        * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R0
                        * IF READ ONLY TRAP, CHECK RL0H, RL00, RL01, RL02, RL03, AND OBA
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04411  0 43 00430  TRAP12 BRM     OBJECT          START OBJECT TEST
04412  0 77 04411         EAX     *-1             X = TEST LOCATION
04413  0 43 00440         BRM     RETURN          SET TRAP RETURN
04414  0 20 04431         NOP     T12
04415  0 75 26750         LDB     =T41            B = CORRECT TRAP ID
04416  0 76 26757         LDA     =040000000
04417  0 35 00415         STA     RL1             RELABELING REGISTER 1 CONTENTS
04420  0 76 26745         LDA     =000000000
04421  0 35 00416         STA     RL2             RELABELING REGISTER 2 CONTENTS
04422  0 02 20400         EOM     020400
04423  0 13 00415         POT     RL1             SET RELABELING REGISTER 1
04424  0 02 21000         EOM     021000
04425  0 13 00416         POT     RL2             SET RELABELING REGISTER 2
04426  4 35 03777         STA     003777,4        SHOULD OUT OF BOUNDS TRAP
04427  0 46 00001         CLA
04430  0 01 04432         BRU     *+2
04431  0 76 00450  T12    LDA     DIVERT
04432  0 14 26746         ETR     =037777
04433  0 50 26750         SKE     =T41            EXPECTED OUT OF BOUNDS TRAP ID
04434  0 43 00460         BRM     ERROR
04435  0 20 22045         NOP     TM12
04436  0 43 00434         BRM     END             LOOP IF BP1 SET
```

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                    * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R1
                    * IF READ ONLY TRAP, CHECK RL1H, RL10, RL11, RL12, RL13, AND OBA
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04437  0 43 00430   TRAP13 BRM   OBJECT          START OBJECT TEST
04440  0 77 04437          EAX   *-1             X = TEST LOCATION
04441  0 43 00440          BRM   RETURN          SET TRAP RETURN
04442  0 20 04457          NOP   T13
04443  0 75 26750          LDB   =T41            B = CORRECT TRAP ID
04444  0 76 26760          LDA   =000400000
04445  0 35 00415          STA   RL1             RELABELING REGISTER 1 CONTENTS
04446  0 76 26745          LDA   =000000000
04447  0 35 00416          STA   RL2             RELABELING REGISTER 2 CONTENTS
04450  0 02 20400          EOM   020400
04451  0 13 00415          POT   RL1             SET RELABELING REGISTER 1
04452  0 02 21000          EOM   021000
04453  0 13 00416          POT   RL2             SET RELABELING REGISTER 2
04454  4 35 07777          STA   007777,4        SHOULD OUT OF BOUNDS TRAP
04455  0 46 00001          CLA
04456  0 01 04460          BRU   *+2
04457  0 76 00450   T13    LDA   DIVERT
04460  0 14 26746          ETR   =037777
04461  0 50 26750          SKE   =T41            EXPECTED OUT OF BOUNDS TRAP ID
04462  0 43 00460          BRM   ERROR
04463  0 20 22061          NOP   TM13
04464  0 43 00434          BRM   END             LOOP IF BP1 SET
```



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                    * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R2
                    * IF READ ONLY TRAP, CHECK RL2H, RL20, RL21, RL22, RL23, AND OBA
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04465  0 43 00430   TRAP14 BRM   OBJECT          START OBJECT TEST
04466  0 77 04465          EAX   *-1             X = TEST LOCATION
04467  0 43 00440          BRM   RETURN          SET TRAP RETURN
04470  0 20 04505          NOP   T14
04471  0 75 26750          LDB   =T41            B = CORRECT TRAP ID
04472  0 76 26761          LDA   =000004000
04473  0 35 00415          STA   RL1             RELABELING REGISTER 1 CONTENTS
04474  0 76 26745          LDA   =000000000
04475  0 35 00416          STA   RL2             RELABELING REGISTER 2 CONTENTS
04476  0 02 20400          EOM   020400
04477  0 13 00415          POT   RL1             SET RELABELING REGISTER 1
04500  0 02 21000          EOM   021000
04501  0 13 00416          POT   RL2             SET RELABELING REGISTER 2
04502  4 35 13777          STA   013777,4        SHOULD OUT OF BOUNDS TRAP
04503  0 46 00001          CLA
04504  0 01 04506          BRU   *+2
04505  0 76 00450   T14    LDA   DIVERT
04506  0 14 26746          ETR   =037777
04507  0 50 26750          SKE   =T41            EXPECTED OUT OF BOUNDS TRAP ID
04510  0 43 00460          BRM   ERROR
04511  0 20 22075          NOP   TM14
04512  0 43 00434          BRM   END             LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R3
                    * IF READ ONLY TRAP, CHECK RL3H, RL30, RL31, RL32, RL33, AND BBA
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04513  0 43 00430   TRAP15 BRM     OBJECT          START OBJECT TEST
04514  0 77 04513          EAX     **1             X = TEST LOCATION
04515  0 43 00440          BRM     RETURN          SET TRAP RETURN
04516  0 20 04533          NOP     T15
04517  0 75 26750          LDB     =T41            B = CORRECT TRAP ID
04520  0 76 26762          LDA     =000000040
04521  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
04522  0 76 26745          LDA     =000000000
04523  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
04524  0 02 20400          EOM     020400
04525  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
04526  0 02 21000          EOM     021000
04527  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
04530  4 35 17777          STA     017777,4        SHOULD OUT OF BOUNDS TRAP
04531  0 46 00001          CLA
04532  0 01 04534          BRU     **2
04533  0 76 00450   T15    LDA     DIVERT
04534  0 14 26746          ETR     =037777
04535  0 50 26750          SKE     =T41            EXPECTED OUT OF BOUNDS TRAP ID
04536  0 43 00460          BRM     ERROR
04537  0 20 22111          NOP     TM15
04540  0 43 00434          BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R4
                    * IF READ ONLY TRAP, CHECK RL4H, RL40, RL41, RL42, RL43, RRL2 AND
                    * BBA
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04541  0 43 00430   TRAP16 BRM     OBJECT          START OBJECT TEST
04542  0 77 04541          EAX     **1             X = TEST LOCATION
04543  0 43 00440          BRM     RETURN          SET TRAP RETURN
04544  0 20 04561          NOP     T16
04545  0 75 26750          LDB     =T41            B = CORRECT TRAP ID
04546  0 76 26745          LDA     =000000000
04547  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
04550  0 76 26757          LDA     =040000000
04551  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
04552  0 02 20400          EOM     020400
04553  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
04554  0 02 21000          EOM     021000
04555  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
04556  4 35 23777          STA     023777,4        SHOULD OUT OF BOUNDS TRAP
04557  0 46 00001          CLA
04560  0 01 04562          BRU     **2
04561  0 76 00450   T16    LDA     DIVERT
04562  0 14 26746          ETR     =037777
04563  0 50 26750          SKE     =T41            EXPECTED OUT OF BOUNDS TRAP ID
04564  0 43 00460          BRM     ERROR
04565  0 20 22125          NOP     TM16
04566  0 43 00434          BRM     END             LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R5
                    * IF READ ONLY TRAP, CHECK RL5H, RL50, RL51, RL52, RL53, AND OBA
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04567  0 43 00430   TRAP17 BRM     OBJECT          START OBJECT TEST
04570  0 77 04567          EAX     **1             X = TEST LOCATION
04571  0 43 00440          BRM     RETURN          SET TRAP RETURN
04572  0 20 04407          NOP     T17
04573  0 75 26750          LDB     =T41            B = CORRECT TRAP ID
04574  0 76 26745          LDA     =000000000
04575  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
04576  0 76 26760          LDA     =000400000
04577  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
04600  0 02 20400          EOM     020400
04601  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
04602  0 02 21000          EOM     021000
04603  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
04604  4 35 27777          STA     027777,4        SHOULD OUT OF BOUNDS TRAP
04605  0 46 00001          CLA
04606  0 01 04610          BRU     **2
04607  0 76 00450   T17    LDA     DIVERT
04610  0 14 26746          ETR     =037777
04611  0 50 26750          SKE     =T41            EXPECTED OUT OF BOUNDS TRAP ID
04612  0 43 00460          BRM     ERROR
04613  0 20 22141          NOP     TM17
04614  0 43 00434          BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R6
                    * IF READ ONLY TRAP, CHECK RL6H, RL60, RL61, RL62, RL63, AND OBA
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04615  0 43 00430   TRAP18 BRM     OBJECT          START OBJECT TEST
04616  0 77 04615          EAX     **1             X = TEST LOCATION
04617  0 43 00440          BRM     RETURN          SET TRAP RETURN
04620  0 20 04435          NOP     T18
04621  0 75 26750          LDB     =T41            B = CORRECT TRAP ID
04622  0 76 26745          LDA     =000000000
04623  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
04624  0 76 26761          LDA     =000004000
04625  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
04626  0 02 20400          EOM     020400
04627  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
04630  0 02 21000          EOM     021000
04631  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
04632  4 35 33777          STA     033777,4        SHOULD OUT OF BOUNDS TRAP
04633  0 46 00001          CLA
04634  0 01 04636          BRU     **2
04635  0 76 00450   T18    LDA     DIVERT
04636  0 14 26746          ETR     =037777
04637  0 50 26750          SKE     =T41            EXPECTED OUT OF BOUNDS TRAP ID
04640  0 43 00460          BRM     ERROR
04641  0 20 22155          NOP     TM18
04642  0 43 00434          BRM     END             LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R7
                    * IF READ ONLY TRAP, CHECK RL7H, RL70, RL71, RL72, RL73, AND OBA
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04643  0 43 00430   TRAP19 BRM     OBJECT              START OBJECT TEST
04644  0 77 04443          EAX     *+1                 X = TEST LOCATION
04645  0 43 00440          BRM     RETURN              SET TRAP RETURN
04646  0 20 04663          NOP     T19
04647  0 75 26750          LDB     =T41                B = CORRECT TRAP ID
04650  0 76 26745          LDA     =000000000
04651  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
04652  0 76 26762          LDA     =000000040
04653  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
04654  0 02 20400          EOM     020400
04655  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
04656  0 02 21000          EOM     021000
04657  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
04660  4 35 37777          STA     037777,4            SHOULD OUT OF BOUNDS TRAP
04661  0 46 00001          CLA
04662  0 01 04664          BRU     *+2
04663  0 76 00450   T19    LDA     DIVERT
04664  0 14 26746          ETR     =037777
04665  0 50 26750          SKE     =T41                EXPECTED OUT OF BOUNDS TRAP ID
04666  0 43 00460          BRM     ERROR
04667  0 20 22171          NOP     TM19
04670  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL03
                    * IF OUT OF BOUNDS TRAP, CHECK RL03 AND S31
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04671  0 43 00430   TRAP20 BRM     OBJECT              START OBJECT TEST
04672  0 77 04671          EAX     *+1                 X = TEST LOCATION
04673  0 43 00440          BRM     RETURN              SET TRAP RETURN
04674  0 20 04711          NOP     T20
04675  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
04676  0 76 26763          LDA     =041000000
04677  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
04700  0 76 26745          LDA     =000000000
04701  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
04702  0 02 20400          EOM     020400
04703  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
04704  0 02 21000          EOM     021000
04705  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
04706  4 35 03777          STA     003777,4            SHOULD READ ONLY TRAP
04707  0 46 00001          CLA
04710  0 01 04712          BRU     *+2
04711  0 76 00450   T20    LDA     DIVERT
04712  0 14 26746          ETR     =037777
04713  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
04714  0 43 00460          BRM     ERROR
04715  0 20 22205          NOP     TM20
04716  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL02
                    * IF OUT OF BOUNDS TRAP, CHECK RL02 AND LS2A' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04717  0 43 00430 TRAP21 BRM     OBJECT              START OBJECT TEST
04720  0 77 04717        EAX     *-1                 X = TEST LOCATION
04721  0 43 00440        BRM     RETURN              SET TRAP RETURN
04722  0 20 04737        NOP     T21
04723  0 75 26747        LDB     =T43                B = CORRECT TRAP ID
04724  0 76 26764        LDA     =042000000
04725  0 35 00415        STA     RL1                 RELABELING REGISTER 1 CONTENTS
04726  0 76 26745        LDA     =000000000
04727  0 35 00416        STA     RL2                 RELABELING REGISTER 2 CONTENTS
04730  0 02 20400        EOM     020400
04731  0 13 00415        POT     RL1                 SET RELABELING REGISTER 1
04732  0 02 21000        EOM     021000
04733  0 13 00416        POT     RL2                 SET RELABELING REGISTER 2
04734  4 35 03777        STA     003777,4            SHOULD READ ONLY TRAP
04735  0 46 00001        CLA
04736  0 01 04740        BRU     *+2
04737  0 76 00450 T21    LDA     DIVERT
04740  0 14 26746        ETR     =037777
04741  0 50 26747        SKE     =T43                EXPECTED READ ONLY TRAP ID
04742  0 43 00460        BRM     ERROR
04743  0 20 22212        NOP     TM21
04744  0 43 00434        BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL01
                    * IF OUT OF BOUNDS TRAP, CHECK RL01 AND LS1A' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04745  0 43 00430 TRAP22 BRM     OBJECT              START OBJECT TEST
04746  0 77 04745        EAX     *-1                 X = TEST LOCATION
04747  0 43 00440        BRM     RETURN              SET TRAP RETURN
04750  0 20 04765        NOP     T22
04751  0 75 26747        LDB     =T43                B = CORRECT TRAP ID
04752  0 76 26765        LDA     =044000000
04753  0 35 00415        STA     RL1                 RELABELING REGISTER 1 CONTENTS
04754  0 76 26745        LDA     =000000000
04755  0 35 00416        STA     RL2                 RELABELING REGISTER 2 CONTENTS
04756  0 02 20400        EOM     020400
04757  0 13 00415        POT     RL1                 SET RELABELING REGISTER 1
04760  0 02 21000        EOM     021000
04761  0 13 00416        POT     RL2                 SET RELABELING REGISTER 2
04762  4 35 03777        STA     003777,4            SHOULD READ ONLY TRAP
04763  0 46 00001        CLA
04764  0 01 04766        BRU     *+2
04765  0 76 00450 T22    LDA     DIVERT
04766  0 14 26746        ETR     =037777
04767  0 50 26747        SKE     =T43                EXPECTED READ ONLY TRAP ID
04770  0 43 00460        BRM     ERROR
04771  0 20 22217        NOP     TM22
04772  0 43 00434        BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL00
                    * IF OUT OF BOUNDS TRAP, CHECK RL00 AND LSOA' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04773  0 43 00430   TRAP23 BRM     OBJECT          START OBJECT TEST
04774  0 77 04773          EAX     *•1             X = TEST LOCATION
04775  0 43 00440          BRM     RETURN          SET TRAP RETURN
04776  0 20 05013          NOP     T23
04777  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
05000  0 76 26766          LDA     =050000000
05001  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
05002  0 76 26745          LDA     =000000000
05003  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
05004  0 02 20400          EOM     020400
05005  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
05006  0 02 21000          EOM     021000
05007  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
05010  4 35 03777          STA     03777,4         SHOULD READ ONLY TRAP
05011  0 46 00001          CLA
05012  0 01 05014          BRU     *+2
05013  0 76 00450   T23    LDA     DIVERT
05014  0 14 26746          ETR     =037777
05015  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
05016  0 43 00460          BRM     ERROR
05017  0 20 22224          NOP     TM23
05020  0 43 00434          BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL0H
                    * IF OUT OF BOUNDS TRAP, CHECK RL0H AND LSOOA' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05021  0 43 00430   TRAP24 BRM     OBJECT          START OBJECT TEST
05022  0 77 05021          EAX     *•1             X = TEST LOCATION
05023  0 43 00440          BRM     RETURN          SET TRAP RETURN
05024  0 20 05041          NOP     T24
05025  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
05026  0 76 26767          LDA     =060000000
05027  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
05030  0 76 26745          LDA     =000000000
05031  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
05032  0 02 20400          EOM     020400
05033  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
05034  0 02 21000          EOM     021000
05035  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
05036  4 35 03777          STA     003777,4        SHOULD READ ONLY TRAP
05037  0 46 00001          CLA
05040  0 01 05042          BRU     *+2
05041  0 76 00450   T24    LDA     DIVERT
05042  0 14 26746          ETR     =037777
05043  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
05044  0 43 00460          BRM     ERROR
05045  0 20 22231          NOP     TM24
05046  0 43 00434          BRM     END             LOOP IF BP1 SET
```

```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL13
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05047  0 43 00430  TRAP25 BRM     OBJECT              START OBJECT TEST
05050  0 77 05047          EAX     *•1                 X • TEST LOCATION
05051  0 43 00440          BRM     RETURN              SET TRAP RETURN
05052  0 20 05067          NOP     T25
05053  0 75 26747          LDB     •T43                B • CORRECT TRAP ID
05054  0 76 26770          LDA     •000410000
05055  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
05056  0 76 26745          LDA     •000000000
05057  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
05060  0 02 20400          EOM     020400
05061  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
05062  0 02 21000          EOM     021000
05063  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
05064  4 35 07777          STA     007777,4            SHOULD READ ONLY TRAP
05065  0 46 00001          CLA
05066  0 01 05070          BRU     *+2
05067  0 76 00450  T25     LDA     DIVERT
05070  0 14 26746          ETR     •037777
05071  0 50 26747          SKE     •T43                EXPECTED READ ONLY TRAP ID
05072  0 43 00460          BRM     ERROR
05073  0 20 26736          NOP     TM25
05074  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL12
                        * IF OUT OF BOUNDS TRAP, CHECK RL12 AND LS2A' BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05075  0 43 00430  TRAP26 BRM     OBJECT
05076  0 77 05075          EAX     *•1                 X • TEST LOCATION
05077  0 43 00440          BRM     RETURN              SET TRAP RETURN
05100  0 20 05115          NOP     T26
05101  0 75 26747          LDB     •T43                B • CORRECT TRAP ID
05102  0 76 26771          LDA     •000420000
05103  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
05104  0 76 26745          LDA     •000000000
05105  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
05106  0 02 20400          EOM     020400
05107  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
05110  0 02 21000          EOM     021000
05111  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
05112  4 35 07777          STA     007777,4            SHOULD READ ONLY TRAP
05113  0 46 00001          CLA
05114  0 01 05116          BRU     *+2
05115  0 76 00450  T26     LDA     DIVERT
05116  0 14 26746          ETR     •037777
05117  0 50 26747          SKE     •T43                EXPECTED READ ONLY TRAP ID
05120  0 43 00460          BRM     ERROR
05121  0 20 26746          NOP     TM26
05122  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL11
                        * IF OUT OF BOUNDS TRAP, CHECK RL11 AND LS1A' BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05123  0 43 00430  TRAP27 BRM     OBJECT              START OBJECT TEST
05124  0 77 05123         EAX     **1                 X = TEST LOCATION
05125  0 43 00440         BRM     RETURN              SET TRAP RETURN
05126  0 20 05143         NOP     T27
05127  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05130  0 76 26772         LDA     =000440000
05131  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05132  0 76 26745         LDA     =000000000
05133  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05134  0 02 20400         EOM     020400
05135  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05136  0 02 21000         EOM     021000
05137  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05140  4 35 07777         STA     007777,4            SHOULD READ ONLY TRAP
05141  0 46 00001         CLA
05142  0 01 05144         BRU     **2
05143  0 76 00450  T27    LDA     DIVERT
05144  0 14 26746         ETR     =037777
05145  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05146  0 43 00460         BRM     ERROR
05147  0 20 22253         NOP     TM27
05150  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL10
                        * IF OUT OF BOUNDS TRAP, CHECK RL10 AND LS0A' BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05151  0 43 00430  TRAP28 BRM     OBJECT              START OBJECT TEST
05152  0 77 05151         EAX     **1                 X = TEST LOCATION
05153  0 43 00440         BRM     RETURN              SET TRAP RETURN
05154  0 20 05171         NOP     T28
05155  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05156  0 76 26773         LDA     =000500000
05157  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05160  0 76 26745         LDA     =000000000
05161  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05162  0 02 20400         EOM     020400
05163  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05164  0 02 21000         EOM     021000
05165  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05166  4 35 07777         STA     007777,4            SHOULD READ ONLY TRAP
05167  0 46 00001         CLA
05170  0 01 05172         BRU     **2
05171  0 76 00450  T28    LDA     DIVERT
05172  0 14 26746         ETR     =037777
05173  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05174  0 43 00460         BRM     ERROR
05175  0 20 22260         NOP     TM28
05176  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT ATTEMPTS A READ TRAP DEPENDENT ON RL1H
                    * IF OUT OF BOUNDS TRAP, CHECK RL1H AND LS00A1 BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05177  0 43 00430   TRAP29 BRM     OBJECT              START OBJECT TEST
05200  0 77 05177          EAX     **1                 X = TEST LOCATION
05201  0 43 00440          BRM     RETURN              SET TRAP RETURN
05202  0 20 05217          NOP     T29
05203  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
05204  0 76 26774          LDA     =000600000
05205  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
05206  0 76 26745          LDA     =000000000
05207  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
05210  0 02 20400          EOM     020400
05211  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
05212  0 02 21000          EOM     021000
05213  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
05214  4 35 07777          STA     007777,4            SHOULD READ ONLY TRAP
05215  0 46 00001          CLA
05216  0 01 05220          BRU     **2
05217  0 76 00450   T29    LDA     DIVERT
05220  0 14 26746          ETR     =037777
05221  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
05222  0 43 00460          BRM     ERR9R
05223  0 20 00065          NOP     TM29
05224  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL23
                    * IF OUT OF BOUNDS TRAP, CHECK RL23 AND S31
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05225  0 43 00430   TRAP30 BRM     OBJECT              START OBJECT TEST
05226  0 77 05225          EAX     **1                 X = TEST LOCATION
05227  0 43 00440          BRM     RETURN              SET TRAP RETURN
05230  0 20 05245          NOP     T30
05231  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
05232  0 76 26775          LDA     =000004100
05233  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
05234  0 76 26745          LDA     =000000000
05235  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
05236  0 02 20400          EOM     020400
05237  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
05240  0 02 21000          EOM     021000
05241  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
05242  4 35 13777          STA     013777,4            SHOULD READ ONLY TRAP
05243  0 46 00001          CLA
05244  0 01 05246          BRU     **2
05245  0 76 00450   T30    LDA     DIVERT
05246  0 14 26746          ETR     =037777
05247  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
05250  0 43 00460          BRM     ERR9R
05251  0 20 00272          NOP     TM30
05252  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL22
                    * IF OUT OF BOUNDS TRAP, CHECK RL22 AND LS2A! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05253  0 43 00430   TRAP31 BRM     OBJECT          START OBJECT TEST
05254  0 77 05253          EAX     *-1             X = TEST LOCATION
05255  0 43 00440          BRM     RETURN          SET TRAP RETURN
05256  0 20 05273          NOP     T31
05257  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
05260  0 76 26776          LDA     =000004200
05261  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTNETS
05262  0 76 26745          LDA     =000000000
05263  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
05264  0 02 20400          EOM     020400
05265  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
05266  0 02 21000          EOM     021000
05267  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
05270  4 35 13777          STA     013777,4        SHOULD READ ONLY TRAP
05271  0 46 00001          CLA
05272  0 01 05274          BRU     *+2
05273  0 76 00450   T31    LDA     DIVERT
05274  0 14 26746          ETR     =037777
05275  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
05276  0 43 00460          BRM     ERROR
05277  0 20 22277          NOP     TM31
05300  0 43 00434          BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL21
                    * IF OUT OF BOUNDS TRAP, CHECK RL21 AND LS1A! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05301  0 43 00430   TRAP32 BRM     OBJECT          START OBJECT TEST
05302  0 77 05301          EAX     *-1             X = TEST LOCATION
05303  0 43 00440          BRM     RETURN          SET TRAP RETURN
05304  0 20 05321          NOP     T32
05305  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
05306  0 76 26777          LDA     =000004400
05307  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
05310  0 76 26745          LDA     =000000000
05311  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
05312  0 02 20400          EOM     020400
05313  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
05314  0 02 21000          EOM     021000
05315  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
05316  4 35 13777          STA     013777,4        SHOULD READ ONLY TRAP
05317  0 46 00001          CLA
05320  0 01 05322          BRU     *+2
05321  0 76 00450   T32    LDA     DIVERT
05322  0 14 26746          ETR     =037777
05323  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
05324  0 43 00460          BRM     ERROR
05325  0 20 22304          NOP     TM32
05326  0 43 00434          BRM     END             LOOP IF BP1 SET
```

```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL20
                        * IF OUT OF BOUNDS TRAP, CHECK RL20 AND LSOA! BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05327  0 43 00430  TRAP33 BRM     OBJECT              START OBJECT TEST
05330  0 77 05327         EAX     *-1                 X = TEST LOCATION
05331  0 43 00440         BRM     RETURN              SET TRAP RETURN
05332  0 20 05347         NOP     T33
05333  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05334  0 76 27000         LDA     =000005000
05335  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05336  0 76 26745         LDA     =000000000
05337  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05340  0 02 20400         EOM     020400
05341  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05342  0 02 21000         EOM     021000
05343  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05344  4 35 13777         STA     013777,4            SHOULD READ ONLY TRAP
05345  0 46 00001         CLA
05346  0 01 05350         BRU     *+2
05347  0 76 00450  T33    LDA     DIVERT
05350  0 14 26746         ETR     =037777
05351  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05352  0 43 00460         BRM     ERROR
05353  0 20 22311         NOP     TM33
05354  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL2M
                        * IF OUT OF BOUNDS TRAP, CHECK RL2M AND LSOOA! BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05355  0 43 00430  TRAP34 BRM     OBJECT              START OBJECT TEST
05356  0 77 05355         EAX     *-1                 X = TEST LOCATION
05357  0 43 00440         BRM     RETURN              SET TRAP RETURN
05360  0 20 05375         NOP     T34
05361  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05362  0 76 27001         LDA     =000006000
05363  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05364  0 76 26745         LDA     =000000000
05365  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05366  0 02 20400         EOM     020400
05367  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05370  0 02 21000         EOM     021000
05371  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05372  4 35 13777         STA     013777,4            SHOULD READ ONLY TRAP
05373  0 46 00001         CLA
05374  0 01 05376         BRU     *+2
05375  0 76 00450  T34    LDA     DIVERT
05376  0 14 26746         ETR     =037777
05377  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05400  0 43 00460         BRM     ERROR
05401  0 20 22316         NOP     TM34
05402  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL33
05403  0 43 00430  TRAP35 BRM     OBJECT              START OBJECT TEST
                        * IF OUT OF BOUNDS TRAP, CHECK RL33 AND S3!
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05404  0 77 05403         EAX     *+1                 X = TEST LOCATION
05405  0 43 00440         BRM     RETURN              SET TRAP RETURN
05406  0 20 05423         NOP     T35
05407  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05410  0 76 27002         LDA     =000000041
05411  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05412  0 76 26745         LDA     =000000000
05413  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05414  0 02 20400         EOM     020400
05415  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05416  0 02 21000         EOM     021000
05417  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05420  4 35 17777         STA     017777,4            SHOULD READ ONLY TRAP
05421  0 46 00001         CLA
05422  0 01 05424         BRU     *+2
05423  0 76 00450  T35    LDA     DIVERT
05424  0 14 26746         ETR     =037777
05425  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05426  0 43 00460         BRM     ERROR
05427  0 20 22323         NOP     TM35
05430  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL32
                        * IF OUT OF BOUNDS TRAP, CHECK RL32 AND LS2A! BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05431  0 43 00430  TRAP36 BRM     OBJECT              START OBJECT TEST
05432  0 77 05431         EAX     *+1                 X = TEST LOCATION
05433  0 43 00440         BRM     RETURN              SET TRAP RETURN
05434  0 20 05451         NOP     T36
05435  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05436  0 76 27003         LDA     =000000042
05437  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05440  0 76 26745         LDA     =00000000
05441  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05442  0 02 20400         EOM     020400
05443  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05444  0 02 21000         EOM     021000
05445  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05446  4 35 17777         STA     017777,4            SHOULD READ ONLY TRAP
05447  0 46 00001         CLA
05450  0 01 05452         BRU     *+2
05451  0 76 00450  T36    LDA     DIVERT
05452  0 14 26746         ETR     =037777
05453  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05454  0 43 00460         BRM     ERROR
05455  0 20 22330         NOP     TM36
05456  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL31
                    * IF OUT OF BOUNDS TRAP, CHECK RL31 AND LS1A' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05457  0 43 00430   TRAP37 BRM     OBJECT              START OBJECT TEST
05460  0 77 05457           EAX     **1                 X = TEST LOCATION
05461  0 43 00440           BRM     RETURN              SET TRAP RETURN
05462  0 20 05477           NOP     T37
05463  0 75 26747           LDB     =T43                B = CORRECT TRAP ID
05464  0 76 27004           LDA     =000000044
05465  0 35 00415           STA     RL1                 RELABELING REGISTER 1 CONTENTS
05466  0 76 26745           LDA     =000000000
05467  0 35 00416           STA     RL2                 RELABELING REGISTER 2 CONTENTS
05470  0 02 20400           EOM     020400
05471  0 13 00415           POT     RL1                 SET RELABELING REGISTER 1
05472  0 02 21000           EOM     021000
05473  0 13 00416           POT     RL2                 SET RELABELING REGISTER 2
05474  4 35 17777           STA     017777,4            SHOULD READ ONLY TRAP
05475  0 46 00001           CLA
05476  0 01 05500           BRU     **2
05477  0 76 00450   T37     LDA     DIVERT
05500  0 14 26746           ETR     =037777
05501  0 50 26747           SKE     =T43                EXPECTED READ ONLY TRAP ID
05502  0 43 00460           BRM     ERROR
05503  0 20 22335           NOP     TM37
05504  0 43 00434           BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL30
                    * IF OUT OF BOUNDS TRAP, CHECK RL30 AND LS0A' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05505  0 43 00430   TRAP38 BRM     OBJECT              START OBJECT TEST
05506  0 77 05505           EAX     **1                 X = TEST LOCATION
05507  0 43 00440           BRM     RETURN              SET TRAP RETURN
05510  0 20 05525           NOP     T38
05511  0 75 26747           LDB     =T43                B = CORRECT TRAP ID
05512  0 76 27005           LDA     =000000050
05513  0 35 00415           STA     RL1                 RELABELING REGISTER 1 CONTENTS
05514  0 76 26745           LDA     =000000000
05515  0 35 00416           STA     RL2                 RELABELING REGISTER 2 CONTENTS
05516  0 02 20400           EOM     020400
05517  0 13 00415           POT     RL1                 SET RELABELING REGISTER 1
05520  0 02 21000           EOM     021000
05521  0 13 00416           POT     RL2                 SET RELABELING REGISTER 2
05522  4 35 17777           STA     017777,4            SHOULD READ ONLY TRAP
05523  0 46 00001           CLA
05524  0 01 05526           BRU     **2
05525  0 76 00450   T38     LDA     DIVERT
05526  0 14 26746           ETR     =037777
05527  0 50 26747           SKE     =T43                EXPECTED READ ONLY TRAP ID
05530  0 43 00460           BRM     ERROR
05531  0 20 22342           NOP     TM38
05532  0 43 00434           BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL3H
                    * IF OUT OF BOUNDS TRAP, CHECK RL3H AND LS00A! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05533  0 43 00430   TRAP39 BRM     OBJECT              START OBJECT TEST
05534  0 77 05533          EAX     **1                 X = TEST LOCATION
05535  0 43 00440          BRM     RETURN              SET TRAP RETURN
05536  0 20 05553          NOP     T39
05537  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
05540  0 76 27006          LDA     =000000060
05541  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
05542  0 76 26745          LDA     =000000000
05543  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
05544  0 02 20400          EOM     020400
05545  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
05546  0 02 21000          EOM     021000
05547  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
05550  4 35 17777          STA     017777,4            SHOULD READ ONLY TRAP
05551  0 46 00001          CLA
05552  0 01 05554          BRU     **2
05553  0 76 00450   T39    LDA     DIVERT
05554  0 14 26746          ETR     =037777
05555  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
05556  0 43 00460          BRM     ERROR
05557  0 20 22347          NOP     TM39
05560  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL43
                    * IF OUT OF BOUNDS TRAP, CHECK RL43 AND S3!
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05561  0 43 00430   TRAP40 BRM     OBJECT              START OBJECT TEST
05562  0 77 05561          EAX     **1                 X = TEST LOCATION
05563  0 43 00440          BRM     RETURN              SET TRAP RETURN
05564  0 20 05601          NOP     T40A
05565  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
05566  0 76 26745          LDA     =000000000
05567  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
05570  0 76 26763          LDA     =041000000
05571  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
05572  0 02 20400          EOM     020400
05573  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
05574  0 02 21000          EOM     021000
05575  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
05576  4 35 23777          STA     023777,4            SHOULD READ ONLY TRAP
05577  0 46 00001          CLA
05600  0 01 05602          BRU     **2
05601  0 76 00450   T40A   LDA     DIVERT
05602  0 14 26746          ETR     =037777
05603  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
05604  0 43 00460          BRM     ERROR
05605  0 20 22354          NOP     TM40
05606  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                        * THIS OBJECT TEST ATTEMPS A READ ONLY TRAP DEPENDENT ON RL42
                        * IF OUT OF BOUNDS TRAP, CHECK RL42 AND LS2A1 BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05607  0 43 00430  TRAP41 BRM     OBJECT              START OBJECT TEST
05610  0 77 05607         EAX     **1                 X = TEST LOCATION
05611  0 43 00440         BRM     RETURN              SET TRAP RETURN
05612  0 20 05627         NOP     T41A
05613  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05614  0 76 26745         LDA     =000000000
05615  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05616  0 76 26764         LDA     =042000000
05617  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05620  0 02 20400         EOM     020400
05621  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05622  0 02 21000         EOM     021000
05623  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05624  4 35 23777         STA     023777,4            SHOULD READ ONLY TRAP
05625  0 46 00001         CLA
05626  0 01 05630         BRU     **2
05627  0 76 00450  T41A    LDA     DIVERT
05630  0 14 26746         ETR     =037777
05631  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05632  0 43 00460         BRM     ERROR
05633  0 20 22361         NOP     TM41
05634  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL41
                        * IF OUT OF BOUNDS TRAP, CHECK RL41 AND LS1A1 BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05635  0 43 00430  TRAP42 BRM     OBJECT              START OBJECT TEST
05636  0 77 05635         EAX     **1                 X = TEST LOCATION
05637  0 43 00440         BRM     RETURN              SET TRAP RETURN
05640  0 20 05655         NOP     T42A
05641  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
05642  0 76 26745         LDA     =000000000
05643  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
05644  0 76 26765         LDA     =044000000
05645  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
05646  0 02 20400         EOM     020400
05647  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
05650  0 02 21000         EOM     021000
05651  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
05652  4 35 23777         STA     023777,4            SHOULD READ ONLY TRAP
05653  0 46 00001         CLA
05654  0 01 05656         BRU     **2
05655  0 76 00450  T42A    LDA     DIVERT
05656  0 14 26746         ETR     =037777
05657  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
05660  0 43 00460         BRM     ERROR
05661  0 20 22366         NOP     TM42
05662  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL40
                    * IF OUT OF BOUNDS TRAP, CHECK RL40 AND LSOA! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05663  0 43 00430   TRAP43 BRM     OBJECT          START OBJECT TEST
05664  0 77 05663          EAX     *-1             X = TEST LOCATION
05665  0 43 00440          BRM     RETURN          SET TRAP RETURN
05666  0 20 05703          NOP     T43A
05667  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
05670  0 76 26745          LDA     =0
05671  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
05672  0 76 26766          LDA     =050000000
05673  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
05674  0 02 20400          EOM     020400
05675  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
05676  0 02 21000          EOM     021000
05677  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
05700  4 35 23777          STA     023777,4        SHOULD READ ONLY TRAP
05701  0 46 00001          CLA
05702  0 01 05704          BRU     *+2
05703  0 76 00450   T43A    LDA     DIVERT
05704  0 14 26746          ETR     =037777
05705  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
05706  0 43 00460          BRM     ERROR
05707  0 20 22373          NOP     TM43
05710  0 43 00434          BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL4H
                    * IF OUT OF BOUNDS TRAP, CHECK RL4H AND LSOOA! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05711  0 43 00430   TRAP44 BRM     OBJECT          START OBJECT TEST
05712  0 77 05711          EAX     *-1             X = TEST LOCATION
05713  0 43 00440          BRM     RETURN          SET TRAP RETURN
05714  0 20 05731          NOP     T44A
05715  0 75 26747          LDB     =T43            B = CORRECT TRAP ID
05716  0 76 26745          LDA     =000000000
05717  0 35 00415          STA     RL1             RELABELING REGISTER 1 CONTENTS
05720  0 76 26767          LDA     =060000000
05721  0 35 00416          STA     RL2             RELABELING REGISTER 2 CONTENTS
05722  0 02 20400          EOM     020400
05723  0 13 00415          POT     RL1             SET RELABELING REGISTER 1
05724  0 02 21000          EOM     021000
05725  0 13 00416          POT     RL2             SET RELABELING REGISTER 2
05726  4 35 23777          STA     023777,4        SHOULD READ ONLY TRAP
05727  0 46 00001          CLA
05730  0 01 05732          BRU     *+2
05731  0 76 00450   T44A    LDA     DIVERT
05732  0 14 26746          ETR     =037777
05733  0 50 26747          SKE     =T43            EXPECTED READ ONLY TRAP ID
05734  0 43 00460          BRM     ERROR
05735  0 20 22400          NOP     TM44
05736  0 43 00434          BRM     END             LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL53
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05737  0 43 00430   TRAP45 BRM   OBJECT          START OBJECT TEST
05740  0 77 05737          EAX   **1             X = TEST LOCATION
05741  0 43 00440          BRM   RETURN          SET TRAP RETURN
05742  0 20 05757          NOP   T45
05743  0 75 26747          LDB   =T43            B = CORRECT TRAP ID
05744  0 76 26745          LDA   =000000000
05745  0 35 00415          STA   RL1             RELABELING REGISTER 1 CONTENTS
05746  0 76 26770          LDA   =000410000
05747  0 35 00416          STA   RL2             RELABELING REGISTER 2 CONTENTS
05750  0 02 20400          EOM   020400
05751  0 13 00415          POT   RL1             SET RELABELING REGISTER 1
05752  0 02 21000          EOM   021000
05753  0 13 00416          POT   RL2             SET RELABELING REGISTER 2
05754  4 35 27777          STA   027777,4        SHOULD READ ONLY TRAP
05755  0 46 00001          CLA
05756  0 01 05760          BRU   **2
05757  0 76 00450   T45    LDA   DIVERT
05760  0 14 26746          ETR   =037777
05761  0 50 26747          SKE   =T43            EXPECTED READ ONLY TRAP ID
05762  0 43 00460          BRM   ERROR
05763  0 20 22405          NOP   TM45
05764  0 43 00434          BRM   END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL52
                    * IF OUT OF BOUNDS TRAP, CHECK RL52 AND L62A1 BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05765  0 43 00430   TRAP46 BRM   OBJECT          START OBJECT TEST
05766  0 77 05765          EAX   **1             X = TEST LOCATION
05767  0 43 00440          BRM   RETURN          SET TRAP RETURN
05770  0 20 06005          NOP   T46
05771  0 75 26747          LDB   =T43            B = CORRECT TRAP ID
05772  0 76 26745          LDA   =000000000
05773  0 35 00415          STA   RL1             RELABELING REGISTER 1 CONTENTS
05774  0 76 26771          LDA   =000420000
05775  0 35 00416          STA   RL2             RELABELING REGISTER 2 CONTENTS
05776  0 02 20400          EOM   020400
05777  0 13 00415          POT   RL1             SET RELABELING REGISTER 1
06000  0 02 21000          EOM   021000
06001  0 13 00416          POT   RL2             SET RELABELING REGISTER 2
06002  4 35 27777          STA   027777,4        SHOULD READ ONLY TRAP
06003  0 46 00001          CLA
06004  0 01 06006          BRU   **2
06005  0 76 00450   T46    LDA   DIVERT
06006  0 14 26746          ETR   =037777
06007  0 50 26747          SKE   =T43            EXPECTED READ ONLY TRAP ID
06010  0 43 00460          BRM   ERROR
06011  0 20 22415          NOP   TM46
06012  0 43 00434          BRM   END             LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL51
                    * IF OUT OF BOUNDS TRAP, CHECK RL51 AND LSIA' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06013  0 43 00430   TRAP47 BRM     OBJECT              START OBJECT TEST
06014  0 77 06013           EAX     **1                 X = TEST LOCATION
06015  0 43 00440           BRM     RETURN              SET TRAP RETURN
06016  0 20 06033           NOP     T47
06017  0 75 26747           LDB     =T43                B = CORRECT TRAP ID
06020  0 76 26745           LDA     =000000000
06021  0 35 00415           STA     RL1                 RELABELING REGISTER 1 CONTENTS
06022  0 76 26772           LDA     =000440000
06023  0 35 00416           STA     RL2                 RELABELING REGISTER 2 CONTENTS
06024  0 02 20400           EOM     020400
06025  0 13 00415           POT     RL1                 SET RELABELING REGISTER 1
06026  0 02 21000           EOM     021000
06027  0 13 00416           POT     RL2                 SET RELABELING REGISTER 2
06030  4 35 27777           STA     027777,4            SHOULD READ ONLY TRAP
06031  0 46 00001           CLA
06032  0 01 06034           BRU     **2
06033  0 76 00450   T47     LDA     DIVERT
06034  0 14 26746           ETR     =037777
06035  0 50 26747           SKE     =T43                EXPECTED READ ONLY TRAP ID
06036  0 43 00460           BRM     ERROR
06037  0 20 22422           NOP     TM47
06040  0 43 00434           BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL50
                    * IF OUT OF BOUNDS TRAP, CHECK RL50 AND LSOA' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06041  0 43 00430   TRAP48 BRM     OBJECT              START OBJECT TEST
06042  0 77 06041           EAX     **1                 X = TEST LOCATION
06043  0 43 00440           BRM     RETURN              SET TRAP RETURN
06044  0 20 06061           NOP     T48
06045  0 75 26747           LDB     =T43                B = CORRECT TRAP ID
06046  0 76 26745           LDA     =000000000
06047  0 35 00415           STA     RL1                 RELABELING REGISTER 1 CONTENTS
06050  0 76 26773           LDA     =000500000
06051  0 35 00416           STA     RL2                 RELABELING REGISTER 2 CONTENTS
06052  0 02 20400           EOM     020400
06053  0 13 00415           POT     RL1                 SET RELABELING REGISTER 1
06054  0 02 21000           EOM     021000
06055  0 13 00416           POT     RL2                 SET RELABELING REGISTER 2
06056  4 35 27777           STA     027777,4            SHOULD READ ONLY TRAP
06057  0 46 00001           CLA
06060  0 01 06062           BRU     **2
06061  0 76 00450   T48     LDA     DIVERT
06062  0 14 26746           ETR     =037777
06063  0 50 26747           SKE     =T43                EXPECTED READ ONLY TRAP ID
06064  0 43 00460           BRM     ERROR
06065  0 20 22427           NOP     TM48
06066  0 43 00434           BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLBH
                    * IF OUT OF BOUNDS TRAP, CHECK RLBH AND LS00A! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06067  0 43 00430   TRAP49 BRM     OBJECT              START OBJECT TEST
06070  0 77 06067          EAX     *-1                 X = TEST LOCATION
06071  0 43 00440          BRM     RETURN              SET TRAP RETURN
06072  0 20 06107          NOP     T49
06073  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
06074  0 76 26745          LDA     =000000000
06075  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
06076  0 76 26774          LDA     =000600000
06077  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
06100  0 02 20400          EOM     020400
06101  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
06102  0 02 21000          EOM     021000
06103  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
06104  4 35 27777          STA     027777,4            SHOULD READ ONLY TRAP
06105  0 46 00001          CLA
06106  0 01 06110          BRU     *+2
06107  0 76 00450   T49    LDA     DIVERT
06110  0 14 26746          ETR     =037777
06111  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
06112  0 43 00460          BRM     ERROR
06113  0 20 22434          NOP     TM49
06114  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL63
                    * IF OUT OF BOUNDS TRAP, CHECK RL63 AND S3!
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06115  0 43 00430   TRAP50 BRM     OBJECT              START OBJECT TEST
06116  0 77 06115          EAX     *-1                 X = TEST LOCATION
06117  0 43 00440          BRM     RETURN              SET TRAP RETURN
06120  0 20 06135          NOP     T50
06121  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
06122  0 76 26745          LDA     =000000000
06123  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
06124  0 76 26775          LDA     =000004100
06125  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
06126  0 02 20400          EOM     020400
06127  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
06130  0 02 21000          EOM     021000
06131  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
06132  4 35 33777          STA     033777,4            SHOULD READ ONLY TRAP
06133  0 46 00001          CLA
06134  0 01 06136          BRU     *+2
06135  0 76 00450   T50    LDA     DIVERT
06136  0 14 26746          ETR     =037777
06137  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
06140  0 43 00460          BRM     ERROR
06141  0 20 22441          NOP     TM50
06142  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL62
                        * IF OUT OF BOUNDS TRAP, CHECK RL62 AND LS2A1 BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06143  0 43 00430  TRAP51 BRM     OBJECT              START OBJECT TEST
06144  0 77 06143         EAX     **1                 X = TEST LOCATION
06145  0 43 00440         BRM     RETURN              SET TRAP RETURN
06146  0 20 06163         NOP     T51
06147  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
06150  0 76 26745         LDA     =000000000
06151  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
06152  0 76 26776         LDA     =00004200
06153  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
06154  0 02 20400         EOM     020400
06155  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
06156  0 02 21000         EOM     021000
06157  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
06160  4 35 33777         STA     033777,4            SHOULD READ ONLY TRAP
06161  0 46 00001         CLA
06162  0 01 06164         BRU     **2
06163  0 76 00450  T51    LDA     DIVERT
06164  0 14 26746         ETR     =037777
06165  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
06166  0 43 00460         BRM     ERROR
06167  0 20 22446         NOP     TM51
06170  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL61
                        * IF OUT OF BOUNDS TRAP, CHECK RL61 AND LS1A1 BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06171  0 43 00430  TRAP52 BRM     OBJECT              START OBJECT TEST
06172  0 77 06171         EAX     **1                 X = TEST LOCATION
06173  0 43 00440         BRM     RETURN              SET TRAP RETURN
06174  0 20 06211         NOP     T52
06175  0 75 26747         LDB     =T43                B = CORRECT TRAP ID
06176  0 76 26745         LDA     =000000000
06177  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
06200  0 76 26777         LDA     =00004400
06201  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
06202  0 02 20400         EOM     020400
06203  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
06204  0 02 21000         EOM     021000
06205  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
06206  4 35 33777         STA     033777,4            SHOULD READ ONLY TRAP
06207  0 46 00001         CLA
06210  0 01 06212         BRU     **2
06211  0 76 00450  T52    LDA     DIVERT
06212  0 14 26746         ETR     =037777
06213  0 50 26747         SKE     =T43                EXPECTED READ ONLY TRAP ID
06214  0 43 00460         BRM     ERROR
06215  0 20 22453         NOP     TM52
06216  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL60
                    * IF OUT OF BOUNDS TRAP, CHECK RL60 AND LSOA' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06217  0 43 00430   TRAP53 BRM     OBJECT              START OBJECT TEST
06220  0 77 06217          EAX     **1                 X = TEST LOCATION
06221  0 43 00440          BRM     RETURN              SET TRAP RETURN
06222  0 20 06237          NOP     T53
06223  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
06224  0 76 26745          LDA     =000000000
06225  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
06226  0 76 27000          LDA     =000005000
06227  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
06230  0 02 20400          EOM     020400
06231  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
06232  0 02 21000          EOM     021000
06233  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
06234  4 35 33777          STA     033777,4            SHOULD READ ONLY TRAP
06235  0 46 00001          CLA
06236  0 01 06240          BRU     **2
06237  0 76 00450   T53    LDA     DIVERT
06240  0 14 26746          ETR     =037777
06241  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
06242  0 43 00460          BRM     ERROR
06243  0 20 22460          NOP     TM53
06244  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL6H
                    * IF OUT OF BOUNDS TRAP, CHECK RL6H AND LSOOA' BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06245  0 43 00430   TRAP54 BRM     OBJECT              START OBJECT TEST
06246  0 77 06245          EAX     **1                 X = TEST LOCATION
06247  0 43 00440          BRM     RETURN              SET TRAP RETURN
06250  0 20 06265          NOP     T54
06251  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
06252  0 76 26745          LDA     =000000000
06253  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
06254  0 76 27001          LDA     =000006000
06255  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
06256  0 02 20400          EOM     020400
06257  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
06260  0 02 21000          EOM     021000
06261  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
06262  4 35 33777          STA     033777,4            SHOULD READ ONLY TRAP
06263  0 46 00001          CLA
06264  0 01 06266          BRU     **2
06265  0 76 00450   T54    LDA     DIVERT
06266  0 14 26746          ETR     =037777
06267  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
06270  0 43 00460          BRM     ERROR
06271  0 20 22465          NOP     TM54
06272  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL73
                    * IF OUT OF BOUNDS TRAP, CHECK RL73 AND S31
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06273  0 43 00430   TRAP55 BRM     OBJECT              START OBJECT TEST
06274  0 77 06273          EAX     *-1                 X = TEST LOCATION
06275  0 43 00440          BRM     RETURN              SET TRAP RETURN
06276  0 20 06313          NOP     T55
06277  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
06300  0 76 26745          LDA     =000000000
06301  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
06302  0 76 27002          LDA     =000000041
06303  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
06304  0 02 20400          EOM     020400
06305  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
06306  0 02 21000          EOM     021000
06307  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
06310  4 35 37777          STA     037777,4            SHOULD READ ONLY TRAP
06311  0 46 00001          CLA
06312  0 01 06314          BRU     *+2
06313  0 76 00450   T55    LDA     DIVERT
06314  0 14 26746          ETR     =037777
06315  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
06316  0 43 00460          BRM     ERROR
06317  0 20 22472          NOP     TM55
06320  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL72
                    * IF OUT OF BOUNDS TRAP, CHECK RL72 AND LS2A1 BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06321  0 43 00430   TRAP56 BRM     OBJECT              START OBJECT TEST
06322  0 77 06321          EAX     *-1                 X = TEST LOCATION
06323  0 43 00440          BRM     RETURN              SET TRAP RETURN
06324  0 20 06341          NOP     T56
06325  0 75 26747          LDB     =T43                B = CORRECT TRAP ID
06326  0 76 26745          LDA     =000000000
06327  0 35 00415          STA     RL1                 RELABELING REGISTER 1 CONTENTS
06330  0 76 27003          LDA     =000000042
06331  0 35 00416          STA     RL2                 RELABELING REGISTER 2 CONTENTS
06332  0 02 20400          EOM     020400
06333  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
06334  0 02 21000          EOM     021000
06335  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
06336  4 35 37777          STA     037777,4            SHOULD READ ONLY TRAP
06337  0 46 00001          CLA
06340  0 01 06342          BRU     *+2
06341  0 76 00450   T56    LDA     DIVERT
06342  0 14 26746          ETR     =037777
06343  0 50 26747          SKE     =T43                EXPECTED READ ONLY TRAP ID
06344  0 43 00460          BRM     ERROR
06345  0 20 22477          NOP     TM56
06346  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL71
                    * IF OUT OF BOUNDS TRAP, CHECK RL71 AND LS1A! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06347  0 43 00430   TRAP57 BRM     OBJECT          START OBJECT TEST
06350  0 77 06347           EAX     *•1             X • TEST LOCATION
06351  0 43 00440           BRM     RETURN          SET TRAP RETURN
06352  0 20 06367           NOP     T57
06353  0 75 26747           LDB     =T43            B • CORRECT TRAP ID
06354  0 76 26745           LDA     =000000000
06355  0 35 00415           STA     RL1             RELABELING REGISTER 1 CONTENTS
06356  0 76 27004           LDA     =0000000044
06357  0 35 00416           STA     RL2             RELABELING REGISTER 2 CONTENTS
06360  0 02 20400           EOM     020400
06361  0 13 00415           POT     RL1             SET RELABELING REGISTER 1
06362  0 02 21000           EOM     021000
06363  0 13 00416           POT     RL2             SET RELABELING REGISTER 2
06364  4 35 37777           STA     037777,4        SHOULD READ ONLY TRAP
06365  0 46 00001           CLA
06366  0 01 06370           BRU     *+2
06367  0 76 00450   T57     LDA     DIVERT
06370  0 14 26746           ETR     =037777
06371  0 50 26747           SKE     =T43            EXPECTED READ ONLY TRAP ID
06372  0 43 00460           BRM     ERROR
06373  0 20 22504           NOP     TM57
06374  0 43 00434           BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL70
                    * IF OUT OF BOUNDS TRAP, CHECK RL70 AND LS0A! BAR
                    * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06375  0 43 00430   TRAP58 BRM     OBJECT          START OBJECT TEST
06376  0 77 06375           EAX     *•1             X • TEST LOCATION
06377  0 43 00440           BRM     RETURN          SET TRAP RETURN
06400  0 20 06415           NOP     T58
06401  0 75 26747           LDB     =T43            B • CORRECT TRAP ID
06402  0 76 26745           LDA     =000000000
06403  0 35 00415           STA     RL1             RELABELING REGISTER 1 CONTENTS
06404  0 76 27005           LDA     =0000000050
06405  0 35 00416           STA     RL2             RELABELING REGISTER 2 CONTENTS
06406  0 02 20400           EOM     020400
06407  0 13 00415           POT     RL1             SET RELABELING REGISTER 1
06410  0 02 21000           EOM     021000
06411  0 13 00416           POT     RL2             SET RELABELING REGISTER 2
06412  4 35 37777           STA     037777,4        SHOULD READ ONLY TRAP
06413  0 46 00001           CLA
06414  0 01 06416           BRU     *+2
06415  0 76 00450   T58     LDA     DIVERT
06416  0 14 26746           ETR     =037777
06417  0 50 26747           SKE     =T43            EXPECTED READ ONLY TRAP ID
06420  0 43 00460           BRM     ERROR
06421  0 20 22511           NOP     TM58
06422  0 43 00434           BRM     END             LOOP IF BP1 SET
```

```
MEM1   TAP=3.0                    PAGE 63

                        * THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL7H
                        * IF OUT OF BOUNDS TRAP, CHECK RL7H AND LSOOA' BAR
                        * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06423  0 43 00430  TRAP59 BRM     OBJECT              START OBJECT TEST
06424  0 77 06423         EAX     *-1                 X = TEST LOCATION
06425  0 43 00440         BRM     RETURN              SET TRAP RETURN
06426  0 20 06443         NOP     T59
06427  0 75 26747         LDB     #T43                B = CORRECT TRAP ID
06430  0 76 26745         LDA     #000000000
06431  0 35 00415         STA     RL1                 RELABELING REGISTER 1 CONTENTS
06432  0 76 27006         LDA     #000000060
06433  0 35 00416         STA     RL2                 RELABELING REGISTER 2 CONTENTS
06434  0 02 20400         EOM     020400
06435  0 13 00415         POT     RL1                 SET RELABELING REGISTER 1
06436  0 02 21000         EOM     021000
06437  0 13 00416         POT     RL2                 SET RELABELING REGISTER 2
06440  4 35 37777         STA     037777,4            SHOULD READ ONLY TRAP
06441  0 46 00001         CLA
06442  0 01 06444         BRU     *+2
06443  0 76 00450  T59    LDA     DIVERT
06444  0 14 26746         ETR     #037777
06445  0 50 26747         SKE     #T43                EXPECTED READ ONLY TRAP ID
06446  0 43 00460         BRM     ERROR
06447  0 20 22516         NOP     TM59
06450  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
MEM1   TAP=3.0                    PAGE 64

                        * THIS OBJECT TEST ATTEMPTS A STA THROUGH RL4
06451  0 43 00430  TRAP60 BRM     OBJECT              START OBJECT TEST
06452  0 77 06451         EAX     *-1                 X = TEST LOCATION
06453  0 43 00440         BRM     RETURN              SET TRAP RETURN
06454  0 20 06465         NOP     T60
06455  0 75 26745         LDB     #0                  B = CORRECT TRAP ID
06456  0 76 27007         LDA     #0607
06457  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06460  0 02 21400         EOM     021400
06461  0 13 00417         POT     RL4                 SET RELABELING REGISTER 4
06462  0 35 33777         STA     033777              SHOULD NOT TRAP
06463  0 46 00001         CLA
06464  0 01 06466         BRU     *+2
06465  0 76 00450  T60    LDA     DIVERT
06466  0 14 26746         ETR     #037777
06467  0 50 26745         SKE     #0                  EXPECTED ID
06470  0 43 00460         BRM     ERROR
06471  0 20 22523         NOP     TM60                NO
06472  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD OUT OF BOUNDS TRAP FROM RL4
06473  0 43 00430  TRAP61 BRM     OBJECT          START OBJECT TEST
06474  0 77 06473         EAX     **1             X = TEST LOCATION
06475  0 43 00440         BRM     RETURN          SET TRAP RETURN
06476  0 20 06507         NOP     T61
06477  0 75 26750         LDB     #T41            B = CORRECT TRAP ID
06500  0 76 26745         LDA     #0000
06501  0 35 00417         STA     RL4             RELABELING REGISTER 4 CONTENTS
06502  0 02 21400         EOM     021400
06503  0 13 00417         POT     RL4             SET RELABELING REGISTER 4
06504  0 35 33777         STA     033777          SHOULD OOBT
06505  0 46 00001         CLA
06506  0 01 06510         BRU     **2
06507  0 76 00450  T61    LDA     DIVERT
06510  0 14 26746         ETR     #037777
06511  0 50 26750         SKE     #T41            EXPECTED ID
06512  0 43 00460         BRM     ERROR
06513  0 20 22527         NOP     TM61            NO
06514  0 43 00434         BRM     END             LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD OOBT FROM M6
06515  0 43 00430  TRAP62 BRM     OBJECT          START OBJECT TEST
06516  0 77 06515         EAX     **1             X = TEST LOCATION
06517  0 43 00440         BRM     RETURN          SET TRAP RETURN
06520  0 20 06531         NOP     T62
06521  0 75 26750         LDB     #T41            B = CORRECT TRAP ID
06522  0 76 27010         LDA     #00037
06523  0 35 00417         STA     RL4             RELABELING REGISTER 4 CONTENTS
06524  0 02 21400         EOM     021400
06525  0 13 00417         POT     RL4             SET RELABELING REGISTER 4
06526  0 35 33777         STA     033777          SHOULD NOT TRAP
06527  0 46 00001         CLA
06530  0 01 06532         BRU     **2
06531  0 76 00450  T62    LDA     DIVERT
06532  0 14 26746         ETR     #037777
06533  0 50 26750         SKE     #T41            EXPECTED ID
06534  0 43 00460         BRM     ERROR
06535  0 20 22551         NOP     TM62            NO
06536  0 43 00434         BRM     END             LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD OBBT THROUGH M7
06537  0 43 00430  TRAP63 BRM     OBJECT              START OBJECT TEST
06540  0 77 06537          EAX     *-1                 X = TEST LOCATION
06541  0 43 00440          BRM     RETURN              SET TRAP RETURN
06542  0 20 06553          NOP     T63
06543  0 75 26750          LDB     =T41                B = CORRECT TRAP ID
06544  0 76 27011          LDA     =03700
06545  0 35 00417          STA     RL4                 RELABELING REGISTER 4 CONTENTS
06546  0 02 21400          EOM     021400
06547  0 13 00417          POT     RL4                 SET RELABELING REGISTER 4
06550  0 35 37777          STA     037777              SHOULD NOT TRAP
06551  0 46 00001          CLA
06552  0 01 06554          BRU     *+2
06553  0 76 00450  T63     LDA     DIVERT
06554  0 14 26746          ETR     =037777
06555  0 50 26750          SKE     =T41                EXPECTED ID
06556  0 43 00460          BRM     ERROR
06557  0 20 22554          NOP     TM63                NO
06560  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M63
06561  0 43 00430  TRAP64 BRM     OBJECT              START OBJECT TEST
06562  0 77 06561          EAX     *-1                 X = TEST LOCATION
06563  0 43 00440          BRM     RETURN              SET TRAP RETURN
06564  0 20 06575          NOP     T64
06565  0 75 26745          LDB     =0                  B = CORRECT TRAP ID
06566  0 76 27012          LDA     =00100
06567  0 35 00417          STA     RL4                 RELABELING REGISTER 4 CONTENTS
06570  0 02 21400          EOM     021400
06571  0 13 00417          POT     RL4                 SET RELABELING REGISTER 4
06572  0 35 33777          STA     033777              SHOULD NOT TRAP
06573  0 46 00001          CLA
06574  0 01 06576          BRU     *+2
06575  0 76 00450  T64     LDA     DIVERT
06576  0 14 26746          ETR     =037777
06577  0 50 26745          SKE     =0                  EXPECTED ID
06600  0 43 00460          BRM     ERROR
06601  0 20 22571          NOP     TM64
06602  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M62
06603  0 43 00430  TRAP65 BRM     OBJECT              START OBJECT TEST
06604  0 77 06603         EAX     **1                 X = TEST LOCATION
06605  0 43 00440         BRM     RETURN              SET TRAP RETURN
06606  0 20 06617         NOP     T65
06607  0 75 26745         LDB     =0                  B = CORRECT TRAP ID
06610  0 76 27013         LDA     =00200
06611  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06612  0 02 21400         EOM     021400
06613  0 13 00417         POT     RL4                 SET RELABELING REGISTER 4
06614  0 35 33777         STA     033777              SHOULD NOT TRAP
06615  0 46 00001         CLA
06616  0 01 06620         BRU     **2
06617  0 76 00450  T65    LDA     DIVERT
06620  0 14 26746         ETR     =037777
06621  0 50 26745         SKE     =0                  EXPECTED ID
06622  0 43 00460         BRM     ERROR
06623  0 20 22576         NOP     TM65
06624  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M61
06625  0 43 00430  TRAP66 BRM     OBJECT              START OBJECT TEST
06626  0 77 06625         EAX     **1                 X = TEST LOCATION
06627  0 43 00440         BRM     RETURN              SET TRAP RETURN
06630  0 20 06641         NOP     T66
06631  0 75 26745         LDB     =0                  B = CORRECT TRAP ID
06632  0 76 27014         LDA     =00400
06633  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06634  0 02 21400         EOM     021400
06635  0 13 00417         POT     RL4                 SET RELABELING REGISTER 4
06636  0 35 33777         STA     033777              SHOULD NOT TRAP
06637  0 46 00001         CLA
06640  0 01 06642         BRU     **2
06641  0 76 00450  T66    LDA     DIVERT
06642  0 14 26746         ETR     =037777
06643  0 50 26745         SKE     =0                  EXPECTED ID
06644  0 43 00460         BRM     ERROR
06645  0 20 22603         NOP     TM66
06646  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M60
06647  0 43 00430  TRAP67 BRM     OBJECT              START OBJECT TEST
06650  0 77 06647         EAX     *-1                 X = TEST LOCATION
06651  0 43 00440         BRM     RETURN              SET TRAP RETURN
06652  0 20 06663         NOP     T67
06653  0 75 26745         LDB     #0                  B = CORRECT TRAP ID
06654  0 76 27015         LDA     #01000
06655  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06656  0 02 21400         EOM     021400
06657  0 13 00417         PBT     RL4                 SET RELABELING REGISTER 4
06660  0 35 33777         STA     033777              SHOULD NOT TRAP
06661  0 46 00001         CLA
06662  0 01 06664         BRU     *+2
06663  0 76 00450  T67    LDA     DIVERT
06664  0 14 26746         ETR     #037777
06665  0 50 26745         SKE     #0                  EXPECTED ID
06666  0 43 00460         BRM     ERROR
06667  0 20 22610         NOP     TM67
06670  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M6H
06671  0 43 00430  TRAP68 BRM     OBJECT              START OBJECT TEST
06672  0 77 06671         EAX     *-1                 X = TEST LOCATION
06673  0 43 00440         BRM     RETURN              SET TRAP RETURN
06674  0 20 06705         NOP     T68
06675  0 75 26745         LDB     #0                  B = CORRECT TRAP ID
06676  0 76 27016         LDA     #02000
06677  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06700  0 02 21400         EOM     021400
06701  0 13 00417         PBT     RL4                 SET RELABELING REGISTER 4
06702  0 35 33777         STA     033777              SHOULD NOT TRAP
06703  0 46 00001         CLA
06704  0 01 06706         BRU     *+2
06705  0 76 00450  T68    LDA     DIVERT
06706  0 14 26746         ETR     #037777
06707  0 50 26745         SKE     #0                  EXPECTED ID
06710  0 43 00460         BRM     ERROR
06711  0 20 22615         NOP     TM68
06712  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M73
06713  0 43 00430  TRAP69 BRM     OBJECT              START OBJECT TEST
06714  0 77 06713         EAX     **1                 X = TEST LOCATION
06715  0 43 00440         BRM     RETURN              SET TRAP RETURN
06716  0 20 06727         NOP     T69
06717  0 75 26745         LDB     =0                  B = CORRECT TRAP ID
06720  0 76 27017         LDA     =00001
06721  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06722  0 02 21400         EOM     021400
06723  0 13 00417         POT     RL4                 SET RELABELING REGISTER 4
06724  0 35 37777         STA     037777              SHOULD NOT TRAP
06725  0 46 00001         CLA
06726  0 01 06730         BRU     **2
06727  0 76 00450  T69    LDA     DIVERT
06730  0 14 26746         ETR     =037777
06731  0 50 26745         SKE     =0                  EXPECTED ID
06732  0 43 00460         BRM     ERROR
06733  0 20 22622         NOP     TM69
06734  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M72
06735  0 43 00430  TRAP70 BRM     OBJECT              START OBJECT TEST
06736  0 77 06735         EAX     **1                 X = TEST LOCATION
06737  0 43 00440         BRM     RETURN              SET TRAP RETURN
06740  0 20 06751         NOP     T70
06741  0 75 26745         LDB     =0                  B = CORRECT TRAP ID
06742  0 76 27020         LDA     =00002
06743  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06744  0 02 21400         EOM     021400
06745  0 13 00417         POT     RL4                 SET RELABELING REGISTER 4
06746  0 35 37777         STA     037777              SHOULD NOT TRAP
06747  0 46 00001         CLA
06750  0 01 06752         BRU     **2
06751  0 76 00450  T70    LDA     DIVERT
06752  0 14 26746         ETR     =037777
06753  0 50 26745         SKE     =0                  EXPECTED ID
06754  0 43 00460         BRM     ERROR
06755  0 20 22627         NOP     TM70
06756  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M71
06757  0 43 00430  TRAP71 BRM     OBJECT              START OBJECT TEST
06760  0 77 06757         EAX     **1                 X = TEST LOCATION
06761  0 43 00440         BRM     RETURN              SET TRAP RETURN
06762  0 20 06773         NOP     T71
06763  0 75 26745         LDB     =0                  B = CORRECT TRAP ID
06764  0 76 26744         LDA     =00004
06765  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
06766  0 02 21400         EOM     021400
06767  0 13 00417         PBT     RL4                 SET RELABELING REGISTER 4
06770  0 35 37777         STA     037777              SHOULD NOT TRAP
06771  0 46 00001         CLA
06772  0 01 06774         BRU     *+2
06773  0 76 00450  T71    LDA     DIVERT
06774  0 14 26746         ETR     =037777
06775  0 50 26745         SKE     =0                  EXPECTED ID
06776  0 43 00460         BRM     ERROR
06777  0 20 22634         NOP     TM71
07000  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M70
07001  0 43 00430  TRAP72 BRM     OBJECT              START OBJECT TEST
07002  0 77 07001         EAX     **1                 X = TEST LOCATION
07003  0 43 00440         BRM     RETURN              SET TRAP RETURN
07004  0 20 07015         NOP     T72
07005  0 75 26745         LDB     =0                  B = CORRECT TRAP ID
07006  0 76 27021         LDA     =00010
07007  0 35 00417         STA     RL4                 RELABELING REGISTER 4 CONTENTS
07010  0 02 21400         EOM     021400
07011  0 13 00417         PBT     RL4                 SET RELABELING REGISTER 4
07012  0 35 37777         STA     037777              SHOULD NOT TRAP
07013  0 46 00001         CLA
07014  0 01 07016         BRU     *+2
07015  0 76 00450  T72    LDA     DIVERT
07016  0 14 26746         ETR     =037777
07017  0 50 26745         SKE     =0                  EXPECTED ID
07020  0 43 00460         BRM     ERROR
07021  0 20 22641         NOP     TM72
07022  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M7H
07023  0 43 00430  TRAP73 BRM     OBJECT              START OBJECT TEST
07024  0 77 07023          EAX     **1                 X = TEST LOCATION
07025  0 43 00440          BRM     RETURN              SET TRAP RETURN
07026  0 20 07037          NOP     T73
07027  0 75 26745          LDB     #0                  B = CORRECT TRAP ID
07030  0 76 27022          LDA     #00020
07031  0 35 00417          STA     RL4                 RELABELING REGISTER 4 CONTENTS
07032  0 02 21400          EOM     021400
07033  0 13 00417          POT     RL4                 SET RELABELING REGISTER 4
07034  0 35 37777          STA     037777              SHOULD NOT TRAP
07035  0 46 00001          CLA
07036  0 01 07040          BRU     **2
07037  0 76 00450  T73     LDA     DIVERT
07040  0 14 26746          ETR     #037777
07041  0 50 26745          SKE     #0                  EXPECTED ID
07042  0 43 00460          BRM     ERROR
07043  0 20 22646          NOP     TM73
07044  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD TRAP FROM USER MODE
07045  0 43 00430  TRAP74 BRM     OBJECT
07046  0 43 00440          BRM     RETURN              SET TRAP RETURN
07047  0 20 07066          NOP     T74A
07050  0 77 07045          EAX     TRAP74              X = TEST LOCATION
07051  0 75 26747          LDB     #T43                B = CORRECT TRAP ID
07052  0 76 27023          LDA     #00010203
07053  0 35 00415          STA     RL1
07054  0 76 27024          LDA     #04770000
07055  0 35 00416          STA     RL2
07056  0 02 20400          EOM     020400
07057  0 13 00415          POT     RL1                 SET RL1
07060  0 02 21000          EOM     021000
07061  0 13 00416          POT     RL2                 SET RL2
07062  4 01 07063          BRU     **1,4               TO USER MODE
07063  0 35 27777          STA     027777              SHOULD ROT THROUGH R5
07064  0 46 00001          CLA
07065  0 01 07067          BRU     **2
07066  0 76 00450  T74A    LDA     DIVERT
07067  0 14 26746          ETR     #037777
07070  0 50 26747          SKE     #T43                IS ID = ROT
07071  0 43 00460          BRM     ERROR               NO
07072  0 20 22453          NOP     TM74A               YES
07073  0 43 00440          BRM     RETURN              SET TRAP RETURN
07074  0 20 07100          NOP     T74B
07075  0 02 22000          EOM     22000               IF STILL IN USER MODE SHOULD PIT
07076  0 46 00001          CLA
07077  0 01 07101          BRU     **2
07100  0 76 00450  T74B    LDA     DIVERT
07101  0 50 26745          SKE     #0                  IS ID = 0
07102  0 43 00460          BRM     ERROR               NO
07103  0 20 22656          NOP     TM74B               YES
07104  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD TRAP FROM USER MODE
07105  0 43 00430 TRAP75 BRM     OBJECT
07106  0 43 00440        BRM     RETURN              SET TRAP RETURN
07107  0 20 07126        NOP     T75A
07110  0 77 07105        EAX     TRAP75              X = TEST LOCATION
07111  0 75 26747        LDB     =T43                B = CORRECT TRAP ID
07112  0 76 27023        LDA     =00010203
07113  0 35 00415        STA     RL1
07114  0 76 27025        LDA     =04050664
07115  0 35 00416        STA     RL2
07116  0 02 20400        EOM     020400
07117  0 13 00415        POT     RL1                 SET RL1
07120  0 02 21000        EOM     021000
07121  0 13 00416        POT     RL2                 SET RL2
07122  4 01 07123        BRU     *+1,4               TO USER MODE
07123  0 35 37777        STA     037777              SHOULD ROT THROUGH R7
07124  0 46 00001        CLA
07125  0 01 07127        BRU     *+2
07126  0 76 00450 T75A   LDA     DIVERT
07127  0 14 26746        ETR     =037777
07130  0 50 26747        SKE     =T43                IS ID = ROT
07131  0 43 00460        BRM     ERROR               NO
07132  0 20 22660        NOP     TM75A               YES
07133  0 43 00440        BRM     RETURN              SET TRAP RETURN
07134  0 20 07140        NOP     T75B
07135  0 02 22000        EOM     22000               IF STILL IN USER MODE SHOULD PIT
07136  0 46 00001        CLA
07137  0 01 07141        BRU     *+2
07140  0 76 00450 T75B   LDA     DIVERT
07141  0 14 26746        ETR     =037777
07142  0 50 26745        SKE     =0                  IS ID = 0
07143  0 43 00460        BRM     ERROR               NO
07144  0 20 22663        NOP     TM75B               YES
07145  0 43 00434        BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD TRAP FROM USER MODE
07146  0 43 00430 TRAP76 BRM     OBJECT
07147  0 43 00440        BRM     RETURN              SET TRAP RETURN
07150  0 20 07167        NOP     T76A
07151  0 77 07146        EAX     TRAP76              X = TEST LOCATION
07152  0 75 26747        LDB     =T43                B = CORRECT TRAP ID
07153  0 76 27023        LDA     =00010203
07154  0 35 00415        STA     RL1
07155  0 76 27026        LDA     =04050653
07156  0 35 00416        STA     RL2
07157  0 02 20400        EOM     020400
07160  0 13 00415        POT     RL1                 SET RL1
07161  0 02 21000        EOM     021000
07162  0 13 00416        POT     RL2                 SET RL2
07163  4 01 07164        BRU     *+1,4               TO USER MODE
07164  0 35 37777        STA     037777
07165  0 46 00001        CLA
07166  0 01 07170        BRU     *+2
07167  0 76 00450 T76A   LDA     DIVERT
07170  0 14 26746        ETR     =037777
07171  0 50 26747        SKE     =T43                IS ID = ROT
07172  0 43 00460        BRM     ERROR               NO
07173  0 20 22665        NOP     TM76A               YES
07174  0 43 00440        BRM     RETURN              SET TRAP RETURN
07175  0 20 07201        NOP     T76B
07176  0 02 22000        EOM     22000               IF STILL IN USER MODE SHOULD PIT
07177  0 46 00001        CLA
07200  0 01 07202        BRU     *+2
07201  0 76 00450 T76B   LDA     DIVERT
07202  0 50 26745        SKE     =0                  IS ID = 0
07203  0 43 00460        BRM     ERROR               NO
07204  0 20 22670        NOP     TM76B               YES
07205  0 43 00434        BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD NOT TRAP ON A RELABELED SHIFT
07206  0 43 00430  TRAP77 BRM     OBJECT
07207  0 43 00440         BRM     RETURN              SET TRAP RETURN
07210  0 20 07226         NOP     T77
07211  0 77 07206         EAX     TRAP77              X = TEST LOCATION
07212  0 46 00002         CLB                         B = CORRECT TRAP ID
07213  0 46 00001         CLA
07214  0 35 00415         STA     RL1
07215  0 35 00416         STA     RL2
07216  0 02 20400         EOM     020400
07217  0 13 00415         POT     RL1                 SET RL1
07220  0 02 21000         EOM     021000
07221  0 13 00416         POT     RL2                 SET RL2
07222  4 66 00010         RSH     010,4               SHOULD NOT TRAP
07223  4 67 00010         LSH     010,4               SHOULD NOT TRAP
07224  0 46 00001         CLA
07225  0 01 07227         BRU     *+2
07226  0 76 00450  T77     LDA     DIVERT
07227  0 14 26746         ETR     =037777
07230  0 50 26745         SKE     =0                  IS ID = 0
07231  0 43 00460         BRM     ERROR               NO, ERROR
07232  0 20 22472         NOP     TM77                YES
07233  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST SHOULD BOBT FROM A RELABELED IA CHAIN
07234  0 43 00430  TRAP78 BRM     OBJECT
07235  0 43 00440         BRM     RETURN              SEY TRAP RETURN
07236  0 20 07263         NOP     T78
07237  0 77 07234         EAX     TRAP78              X = TEST LOCATION
07240  0 75 26750         LDB     =T41                B = CORRECT TRAP ID
07241  0 76 27023         LDA     =00010203
07242  0 35 00415         STA     RL1
07243  0 76 27027         LDA     =04054040
07244  0 35 00416         STA     RL2
07245  0 76 27007         LDA     =0607
07246  0 35 00417         STA     RL4
07247  0 02 20400         EOM     020400
07250  0 13 00415         POT     RL1                 SET RL1
07251  0 02 21000         EOM     021000
07252  0 13 00416         POT     RL2                 SET RL2
07253  0 02 21400         EOM     021400
07254  0 13 00417         POT     RL4                 SET RL4
07255  0 76*07256         LDA*     *+1
07256  0 20*07257         NOP*     *+1
07257  4 20*07260         NOP*     *+1,4
07260  0 20 34000         NOP     034000
07261  0 46 00001         CLA
07262  0 01 07264         BRU     *+2
07263  0 76 00450  T78     LDA     DIVERT
07264  0 14 26746         ETR     =037777
07265  0 50 26750         SKE     =T41                IS ID = BOBT
07266  0 43 00460         BRM     ERROR               NO
07267  0 20 22675         NOP     TM78                YES
07270  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST SHOULD NOT TRAP ON A OUT OF BOUNDS EAX
07271  0 43 00430  TRAP79 BRM     OBJECT
07272  0 43 00440         BRM     RETURN              SET TRAP RETURN
07273  0 20 07310         NOP     T79
07274  0 77 07271         EAX     TRAP79              X = TEST LOCATION
07275  0 46 00002         CLB                         B = CORRECT TRAP ID
07276  0 46 00001         CLA
07277  0 35 00415         STA     RL1
07300  0 35 00416         STA     RL2
07301  0 02 20400         EOM     020400
07302  0 13 00415         POT     RL1                 SET RL1
07303  0 02 21000         EOM     021000
07304  0 13 00416         POT     RL2                 SET RL2
07305  6 77 00000         EAX     0,6                 SHOULD NOT TRAP
07306  0 46 00001         CLA
07307  0 01 07311         BRU     *+2
07310  0 76 00450  T79    LDA     DIVERT
07311  0 14 26746         ETR     =037777
07312  0 50 26745         SKE     =0                  IS ID = 0
07313  0 43 00460         BRM     ERROR               NO, ERROR
07314  0 20 22677         NOP     TM79                YES
07315  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST CHECKES A XMA TO A READ ONLY LOC
07316  0 43 00430  TRAP80 BRM     OBJECT              START OF OBJECT TEST
07317  0 43 00440         BRM     RETURN              SET TRAP RETURN
07320  0 20 07335         NOP     T80
07321  0 77 07316         EAX     TRAP80              X = TEST LOCATION
07322  0 76 27030         LDA     =040414243
07323  0 35 00415         STA     RL1
07324  0 76 27031         LDA     =044455647
07325  0 35 00416         STA     RL2
07326  0 02 20400         EOM     020400
07327  0 13 00415         POT     RL1                 SET RL1
07330  0 02 21000         EOM     021000
07331  0 13 00416         POT     RL2                 SET RL2
07332  0 76 27032         LDB     =052252552          B = TEST PATTERN
07333  0 76 27032         LDA     =052252552          A = TEST PATTERN
07334  4 62 23777         XMA     023777,4            SHOULD RO TRAP
07335  0 50 27032  T80    SKE     =052252552          IS PATTERN CHANGED
07336  0 43 00460         BRM     ERROR               YES, ERROR
07337  0 20 22702         NOP     TM80
07340  0 43 00434         BRM     END
```

```
                    * THIS OBJECT TEST CHECKS A BRM WITH AN OUT OF BOUNDS MARK LOC
07341  0 43 00430  TRAP81 BRM     OBJECT
07342  0 43 00440         BRM     RETURN              SET TRAP RETURN
07343  0 20 07364         NOP     T81B
07344  0 77 07341         EAX     TRAP81              X = OBJECT TEST LOCATION
07345  0 75 26750         LDB     #T41                B = CORRECT TRAP ID
07346  0 76 27023         LDA     #00010203
07347  0 35 00415         STA     RL1
07350  0 76 27033         LDA     #04050640
07351  0 35 00416         STA     RL2
07352  0 02 20400         EOM     020400
07353  0 13 00415         POT     RL1                 SET RL1
07354  0 02 21000         EOM     021000
07355  0 13 00416         POT     RL2                 SET RL2
07356  0 76 07556         LDA     BRU81               NON-TRAP RETURN
07357  0 35 00000         STA     0
07360  4 43 37777  T81A   BRM     037777,4            SHOULD OBBT
07361  0 01 07374         BRU     T81C
07362  0 46 00001         CLA
07363  0 01 07365         BRU     **2
07364  0 76 00450  T81B   LDA     DIVERT
07365  0 75 27034         LDB     #T81A               B = CORRECT MARK
07366  0 76 00062         LDA     T41+1               GET MARK
07367  0 14 26746         ETR     #037777
07370  0 50 27034         SKE     #T81A               IS TRAP MARK OK
07371  0 43 00460         BRM     ERROR               NO
07372  0 20 22722         NOP     TM81B
07373  0 01 07375         BRU     **2
07374  0 43 00460  T81C   BRM     ERROR
07375  0 20 22717         NOP     TM81A
07376  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS TEST CHECKS THAT A POP TO A R0 PAGE DOES NOT CLEAR OVERFLOW
07377  0 43 00430  TRAP82 BRM     OBJECT              START TEST
07400  0 71 27035         LDX     #TRAP82             TEST LOCATION
07401  0 43 00440         BRM     RETURN              SET TRAP RETURN
07402  0 20 07416         NOP     T82
07403  0 76 27036         LDA     #77010203
07404  0 35 00415         STA     RL1
07405  0 02 20400         EOM     20400
07406  0 13 00415         POT     RL1                 SET RL1
07407  0 76 27037         LDA     #04050607
07410  0 35 00416         STA     RL2
07411  0 02 21000         EOM     21000
07412  0 13 00416         POT     RL2                 SET RL2
07413  0 67 00030         LSH     24D                 SET OVERFLOW
07414  4 01 07415         BRU     **1,4
07415  1 00 00000         POP
07416  0 02 22000  T82    EOM     22000               SHOULD PIT IF RST FAILED
07417  0 22 00101         OVT                         IS OVERFLOW STILL SET
07420  0 01 07422         BRU     **2
07421  0 43 00460         BRM     ERROR
07422  0 20 22732         NOP     TM82
07423  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS OBJECT TEST CHECKS A BRU TO AN OUT OF BOUNDS LOCATION
07424  0 43 00430  TRAP83 BRM     OBJECT
07425  0 43 00440         BRM     RETURN              SET TRAP RETURN
07426  0 20 07446         NOP     T838
07427  0 77 07424         EAX     TRAP83              X = OBJECT TEST LOCATION
07430  0 75 26750         LDB     =T41                B = CORRECT TRAP ID
07431  0 76 27040         LDA     =040010203
07432  0 35 00415         STA     RL1
07433  0 76 27037         LDA     =004050607
07434  0 35 00416         STA     RL2
07435  0 02 20400         EOM     020400
07436  0 13 00415         POT     RL1                 SET TL1
07437  0 02 21000         EOM     021000
07440  0 13 00416         POT     RL2                 SET RL2
07441  0 76 07457         LDA     BRU83               NON-TRAP RETURN
07442  0 35 00000         STA     0                   NON-TRAP RETURN
07443  4 01 00000         BRU     0,4                 SHOULD OBT
07444  0 43 00460  T83A    BRM     ERROR               DIDNT TRAP
07445  0 20 22742         NOP     TM83A
07446  0 46 00001  T838    CLA
07447  0 35 00450         STA     DIVERT              CLEAR DIVERT
07450  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS OBJECT TEST CHECKS A NON-BRANCHING BRX TO OUT OF BOUNDS
07451  0 43 00430  TRAP84 BRM     OBJECT
07452  0 43 00440         BRM     RETURN              SET TRAP RETURN
07453  0 20 07466         NOP     T84
07454  0 35 00416         STA     RL2
07455  0 02 20400         EOM     020400
07456  0 13 00415         POT     RL1                 SET RL1
07457  0 02 21000         EOM     021000
07460  0 13 00416         POT     RL2                 SET RL2
07461  0 76 07460         LDA     BRU84               NON-TRAP RETURN
07462  0 35 00000         STA     0                   NON-TRAP RETURN
07463  4 41 00000         BRX     0,4
07464  0 46 00001         CLA
07465  0 01 07467         BRU     *+2
07466  0 76 00450  T84     LDA     DIVERT
07467  0 14 26746         ETR     =037777
07470  0 50 26745         SKE     =0                  IS ID OK
07471  0 43 00460         BRM     ERROR               ID WRONG
07472  0 20 22745         NOP     TM84
07473  2 46 00000         CLX
07474  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
MEM1   TAP=3,                          PAGE 89

                    * THIS OBJECT TEST CHECKS A BRx BRANCHING OUT OF BOUNDS
07475  0 43 00430   TRAP85 BRM     OBJECT
07476  0 43 00440          BRM     RETURN                  SET TRAP RETURN
07477  0 20 07520          NOP     T85B
07500  0 75 26750          LDB     =T41                    B = CORRECT TRAP ID
07501  0 71 27741          LDX     =TRAP85+040000          X = TEST LOCATION
07502  0 76 27040          LDA     =040010203
07503  0 35 00415          STA     RL1
07504  0 76 27037          LDA     =004050607
07505  0 35 00416          STA     RL2
07506  0 02 20400          EOM     020400
07507  0 13 00415          POT     RL1                     SET RL1
07510  0 02 21000          EOM     021000
07511  0 13 00416          POT     RL2                     SET RL2
07512  0 76 07561          LDA     BRUR5                   NON-TRAP RETURN
07513  0 35 00000          STA     0                       NON-TRAP RETURN
07514  4 41 00000          BRX     0,4                     SHOULD OBEY
07515  0 43 00460   T85A    BRM     ERROR                   ID WRONG
07516  0 20 22756          NOP     TM85A
07517  2 46 00000          CLX
07520  0 43 07434   T85B    BRM     END                     LOOP IF BP1 SET
```

```
MEM1   TAP=3,C                         PAGE 90

                    * THIS OBJECT TEST CHECKS A POP TO AN OUT OF BOUNDS PAGE 0
07521  0 43 00430   TRAP86 BRM     OBJECT
07522  0 43 00440          BRM     RETURN
07523  0 20 07540          NOP     T863
07524  0 75 26747          LDB     =T43                    B = CORRECT TRAP ID
07525  0 77 07521          EAX     TRAP86                  X = TEST LOCATION
07526  0 76 27040          LDA     =040010203
07527  0 35 00415          STA     RL1
07530  0 76 27037          LDA     =004050607
07531  0 35 00416          STA     RL2
07532  0 02 20400          EOM     020400
07533  0 13 00415          POT     RL1                     SET RL1
07534  0 02 21000          EOM     021000
07535  0 13 00416          POT     RL2                     SET RL2
07536  4 01 07537          BRU     *+1,4                   TO USER MODE
07537  1 00 00000   T86A    POP     0                       SHOULD OBEY
07540  0 02 22000   T86B    EOM     22000                   IF STILL IN USER MODE SHOULD PIT
07541  0 76 00450          LDA     DIVERT
07542  0 14 26746          ETR     =037777
07543  0 50 26750          SKE     =T41
07544  0 43 00460          BRM     ERROR
07545  0 20 22753          NOP     TM86A
07546  0 76 00862          LDA     T41+1                   GET TRAP MARK
07547  0 75 27042          LDB     =T86A                   B = CORRECT MARK
07550  0 14 26746          ETR     =037777
07551  0 50 27042          SKE     =T86A                   IS MARK OK
07552  0 43 00460          BRM     ERROR                   NO
07553  0 20 22756          NOP     TM86B
07554  0 43 00434          BRM     END
07555  0 43 00456          BRM     FOONE
07556  0 01 07374   BRU81  BRU     T81C
07557  0 01 07444   BRU83  BRU     T83A
07560  0 01 07466   BRU84  BRU     T84
07561  0 01 07515   BRU85  BRU     T85A
07562       00216          BSS     010000***ZERO
```

```
                    * FUNCTION 2
                    * THIS CHECKS DATA BITS IN MEMORY DOOR 1
10000  0 76 00405 FUNC2  LDA     SYSIZE
10001  0 72 27017        SKA     =1              SKIP IF NOT 2ED 16K THERE
10002  0 01 10004        BRU     *+2
10003  0 01 14502        BRU     FUNC3
10004  0 43 00424        BRM     FUNCTN
10005  0 20 20015        NOP     FPT2
10006  0 02 20002        EOM     020002              ENABLE INTERRUPTS
10007  2 46 00000        CLX
```



```
                    * SET USER MAP TO RELABEL OVER DOOR 1  (LOC 40000 TO 77777)
10010  0 76 27043        LDA     =010111213
10011  0 35 00415        STA     RL1
10012  0 02 20400        EOM     020400
10013  0 13 00415        PST     RL1                 SET RL1
10014  0 76 27044        LDA     =014151617
10015  0 35 00416        STA     RL2
10016  0 02 21000        EOM     021000
10017  0 13 00416        PST     RL2                 SET RL2
                    * CHECK THAT ANY BITS IN MEMORY CAN BE SET
10020  0 43 00430 MEM1   BRM     OBJECT
10021  0 43 00440        BRM     RETURN              SET PARITY RETURN
10022  0 20 10027        NOP     M1
10023  0 77 10020        EAX     MEM1                X = OBJECT TEST LOCATION
10024  0 75 26751        LDB     =077777777          B = ALL ONES
10025  4 36 00000        STB     0,4                 STORE ONES
10026  4 76 00000        LDA     0,4                 READ
10027  0 50 26745 M1     SKE     =0                  ARE ANY ONES SET
10030  0 01 10032        BRU     *+2                 YES
10031  0 43 00460        BRM     ERROR               NO, CHECK DOOR POWER AND CABLES
10032  0 20 24000        NOP     MMOO
10033  0 43 00434        BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 0 IN 1ST 4K CAN BE SET
10034  0 43 00430  MEM2   BRM     OBJECT
10035  0 43 00440         BRM     RETURN              SET PARITY RETURN
10036  0 20 10043         NOP     M2
10037  0 77 10034         EAX     MEM2                X = OBJECT TEST LOCATION
10040  0 75 26757         LDB     =040000000          B = BIT BEING TESTED
10041  4 36 00000         STB     000000,4            STORE BIT
10042  4 76 00000         LDA     000000,4            GET BIT
10043  0 72 26757  M2     SKA     =040000000          IS BIT SET
10044  0 01 10046         BRU     *+2                 YES
10045  0 43 00460         BRM     ERROR               NO,ERROR
10046  0 20 24061         NOP     MM100
10047  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 1 IN 1ST 4K CAN BE SET
10050  0 43 00430  MEM3   BRM     OBJECT
10051  0 43 00440         BRM     RETURN              SET PARITY RETURN
10052  0 20 10057         NOP     M3
10053  0 77 10050         EAX     MEM3                X = OBJECT TEST LOCATION
10054  0 75 27045         LDB     =020000000          B = BIT BEING TESTED
10055  4 36 00000         STB     000000,4            STORE BIT
10056  4 76 00000         LDA     000000,4            GET BIT
10057  0 72 27045  M3     SKA     =020000000          IS BIT SET
10060  0 01 10062         BRU     *+2                 YES
10061  0 43 00460         BRM     ERROR               NO, ERROR
10062  0 20 24103         NOP     MM101               ERROR MESSAGE
10063  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 2 IN 1ST 4K CAN BE SET
10064  0 43 00430  MEM4   BRM     OBJECT
10065  0 43 00440         BRM     RETURN              SET PARITY RETURN
10066  0 20 10073         NOP     M4
10067  0 77 10064         EAX     MEM4                X = OBJECT TEST LOCATION
10070  0 75 27046         LDB     =010000000          B = BIT BEING TESTED
10071  4 36 00000         STB     000000,4            STORE BIT
10072  4 76 00000         LDA     000000,4            GET BIT
10073  0 72 27046  M4     SKA     =010000000          IS BIT SET
10074  0 01 10076         BRU     *+2                 YES
10075  0 43 00460         BRM     ERROR               NO, ERROR
10076  0 20 24125         NOP     MM102               ERROR MESSAGE
10077  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 3 IN 1ST 4K CAN BE SET
10100  0 43 00430  MEM5   BRM     OBJECT
10101  0 43 00440         BRM     RETURN              SET PARITY RETURN
10102  0 20 10107         NOP     M5
10103  0 77 10100         EAX     MEM5                X = OBJECT TEST LOCATION
10104  0 75 27047         LDB     =04000000           B = BIT BEING TESTED
10105  4 36 00000         STB     000000,4            STORE BIT
10106  4 76 00000         LDA     000000,4            GET BIT
10107  0 72 27047  M5     SKA     =04000000           IS BIT SET
10110  0 01 10112         BRU     *+2                 YES
10111  0 43 00460         BRM     ERROR               NO, ERROR
10112  0 20 24147         NOP     MM103               ERROR MESSAGE
10113  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 4 IN 1ST 4K CAN BE SET
10114  0 43 00430  MEM6   BRM    OBJECT
10115  0 43 00440         BRM    RETURN          SET PARITY RETURN
10116  0 20 10123         NOP    M6
10117  0 77 10114         EAX    MEM6            X = OBJECT TEST LOCATION
10120  0 75 27050         LDB    =02000000       B = BIT BEING TESTED
10121  4 36 00000         STB    000000,4        STORE BIT
10122  4 76 00000         LDA    000000,4        GET BIT
10123  0 72 27050  M6     SKA    =02000000       IS BIT SET
10124  0 01 10126         BRU    *+2             YES
10125  0 43 00460         BRM    ERROR           NO,ERROR
10126  0 20 24171         NOP    MM104           ERROR MESSAGE
10127  0 43 00434         BRM    END             LOOP IF BP1 SET
                    * CHECK BIT 5 IN 1ST 4K CAN BE SET
10130  0 43 00430  MEM7   BRM    OBJECT
10131  0 43 00440         BRM    RETURN          SET PARITY RETURN
10132  0 20 10137         NOP    M7
10133  0 77 10130         EAX    MEM7            X = OBJECT TEST LOCATION
10134  0 75 27051         LDB    =01000000       B = BIT BEING TESTED
10135  4 36 00000         STB    000000,4        STORE BIT
10136  4 76 00000         LDA    000000,4        GET BIT
10137  0 72 27051  M7     SKA    =01000000       IS BIT SET
10140  0 01 10142         BRU    *+2             YES
10141  0 43 00460         BRM    ERROR           NO, ERROR
10142  0 20 24213         NOP    MM105           ERROR MESSAGE
10143  0 43 00434         BRM    END             LOOP IF BP1 SET
```



```
                    * CHECK BIT 6 IN 1ST 4K CAN BE SET
10144  0 43 00430  MEM8   BRM    OBJECT
10145  0 43 00440         BRM    RETURN          SET PARITY RETURN
10146  0 20 10153         NOP    M8
10147  0 77 10144         EAX    MEM8            X = OBJECT TEST LOCATION
10150  0 75 26760         LDB    =00400000       B = BIT BEING TESTED
10151  4 36 00000         STB    000000,4        STORE BIT
10152  4 76 00000         LDA    000000,4        GET BIT
10153  0 72 26760  M8     SKA    =00400000       IS BIT SET
10154  0 01 10156         BRU    *+2             YES
10155  0 43 00460         BRM    ERROR           NO, ERROR
10156  0 20 24235         NOP    MM106           ERROR MESSAGE
10157  0 43 00434         BRM    END             LOOP IF BP1 SET
                    * CHECK BIT 7 IN 1ST 4K CAN BE SET
10160  0 43 00430  MEM9   BRM    OBJECT
10161  0 43 00440         BRM    RETURN          SET PARITY RETURN
10162  0 20 10167         NOP    M9
10163  0 77 10160         EAX    MEM9            X = OBJECT TEST LOCATION
10164  0 75 27052         LDB    =00200000       B = BIT BEING TESTED
10165  4 36 00000         STB    000000,4        STORE BIT
10166  4 76 00000         LDA    000000,4        GET BIT
10167  0 72 27052  M9     SKA    =00200000       IS BIT SET
10170  0 01 10172         BRU    *+2             YES
10171  0 43 00460         BRM    ERROR           NO, ERROR
10172  0 20 24257         NOP    MM107           ERROR MESSAGE
10173  0 43 00434         BRM    END             LOOP IF BP1 SET
```

```
                    * CHECK BIT 8 IN 1ST 4K CAN BE SET
10174  0 43 00430  MEM10  BRM     OBJECT
10175  0 43 00440         BRM     RETURN              SET PARITY RETURN
10176  0 20 10203         NOP     M10
10177  0 77 10174         EAX     MEM10               X = OBJECT TEST LOCATION
10200  0 75 27053         LDB     =00100000           B = BIT BEING TESTED
10201  4 36 00000         STB     000000,4            STORE BIT
10202  4 76 00000         LDA     000000,4      GET BIT
10203  0 72 27053  M10    SKA     =00100000           IS BIT SET
10204  0 01 10206         BRU     *+2                 YES
10205  0 43 00460         BRM     ERROR               NO, ERROR
10206  0 20 24301         NOP     MM108               ERROR MESSAGE
10207  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 9 IN 1ST 4K CAN BE SET
10210  0 43 00430  MEM11  BRM     OBJECT
10211  0 43 00440         BRM     RETURN              SET PARITY RETURN
10212  0 20 10217         NOP     M11
10213  0 77 10210         EAX     MEM11               X = OBJECT TEST LOCATION
10214  0 75 27054         LDB     =00040000           B = BIT BEING TESTED
10215  4 36 00000         STB     000000,4            STORE BIT
10216  4 76 00000         LDA     000000,4            GET BIT
10217  0 72 27054  M11    SKA     =00040000           IS BIT SET
10220  0 01 10222         BRU     *+2                 YES
10221  0 43 00460         BRM     ERROR               NO, ERROR
10222  0 20 24323         NOP     MM109               ERROR MESSAGE
10223  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 10 IN 1ST 4K CAN BE SET
10224  0 43 00430  MEM12  BRM     OBJECT
10225  0 43 00440         BRM     RETURN              SET PARITY RETURN
10226  0 20 10233         NOP     M12
10227  0 77 10224         EAX     MEM12               X = OBJECT TEST LOCATION
10230  0 75 27055         LDB     =00020000           B = BIT BEING TESTED
10231  4 36 00000         STB     000000,4            STORE BIT
10232  4 76 00000         LDA     000000,4            GET BIT
10233  0 72 27055  M12    SKA     =00020000           IS BIT SET
10234  0 01 10236         BRU     *+2                 YES
10235  0 43 00460         BRM     ERROR               NO, ERROR
10236  0 20 24345         NOP     MM110               ERROR MESSAGE
10237  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 11 IN 1ST 4K CAN BE SET
10240  0 43 00430  MEM13  BRM     OBJECT
10241  0 43 00440         BRM     RETURN              SET PARITY RETURN
10242  0 20 10247         NOP     M13
10243  0 77 10240         EAX     MEM13               X = OBJECT TEST LOCATION
10244  0 75 27056         LDB     =00010000           B = BIT BEING TESTED
10245  4 36 00000         STB     000000,4            STORE BIT
10246  4 76 00000         LDA     000000,4            GET BIT
10247  0 72 27056  M13    SKA     =00010000           IS BIT SET
10250  0 01 10252         BRU     *+2                 YES
10251  0 43 00460         BRM     ERROR               NO, ERROR
10252  0 20 24367         NOP     MM111               ERROR MESSAGE
10253  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 12 IN 1ST 4K CAN BE SET
10254  0 43 00430   MEM14  BRM     OBJECT
10255  0 43 00440          BRM     RETURN              SET PARITY RETURN
10256  0 20 10263          NOP     M14
10257  0 77 10254          EAX     MEM14               X = OBJECT TEST LOCATION
10260  0 75 26761          LDB     =00004000           B = BIT BEING TESTED
10261  4 36 00000          STB     000000,4            STORE BIT
10262  4 76 00000          LDA     000000,4            GET BIT
10263  0 72 26761   M14    SKA     =00004000           IS BIT SET
10264  0 01 10266          BRU     **2                 YES
10265  0 43 00460          BRM     ERROR               NO, ERROR
10266  0 20 24411          NOP     MM112               ERROR MESSAGE
10267  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 13 IN 1ST 4K CAN BE SET
10270  0 43 00430   MEM15  BRM     OBJECT
10271  0 43 00440          BRM     RETURN              SET PARITY RETURN
10272  0 20 10277          NOP     M15
10273  0 77 10270          EAX     MEM15               X = OBJECT TEST LOCATION
10274  0 75 27016          LDB     =00002000           B = BIT BEING TESTED
10275  4 36 00000          STB     000000,4            STORE BIT
10276  4 76 00000          LDA     000000,4            GET BIT
10277  0 72 27016   M15    SKA     =00002000           IS BIT SET
10300  0 01 10302          BRU     **2                 YES
10301  0 43 00460          BRM     ERROR               NO, ERROR
10302  0 20 24433          NOP     MM113               ERROR MESSAGE
10303  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 14 IN 1ST 4K CAN BE SET
10304  0 43 00430   MEM16  BRM     OBJECT
10305  0 43 00440          BRM     RETURN              SET PARITY RETURN
10306  0 20 10313          NOP     M16
10307  0 77 10304          EAX     MEM16               X = OBJECT TEST LOCATION
10310  0 75 27015          LDB     =00001000           B = BIT BEING TESTED
10311  4 36 00000          STB     00000,4             STORE BIT
10312  4 76 00000          LDA     00000,4             GET BIT
10313  0 72 27015   M16    SKA     =00001000           IS BIT SET
10314  0 01 10316          BRU     **2                 YES
10315  0 43 00460          BRM     ERROR               NO, ERROR
10316  0 20 24455          NOP     MM114               ERROR MESSAGE
10317  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 15 IN 1ST 4K CAN BE SET
10320  0 43 00430   MEM17  BRM     OBJECT
10321  0 43 00440          BRM     RETURN              SET PARITY RETURN
10322  0 20 10327          NOP     M17
10323  0 77 10320          EAX     MEM17               X = OBJECT TEST LOCATION
10324  0 75 27014          LDB     =00000400           B = BIT BEING TESTED
10325  4 36 00000          STB     000000,4            STORE BIT
10326  4 76 00000          LDA     000000,4            GET BIT
10327  0 72 27014   M17    SKA     =00000400           IS BIT SET
10330  0 01 10332          BRU     **2                 YES
10331  0 43 00460          BRM     ERROR               NO, ERROR
10332  0 20 24477          NOP     MM115               ERROR MESSAGE
10333  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 16 IN 1ST 4K CAN BE SET
10334  0 43 00430  MEM18  BRM   OBJECT
10335  0 43 00440         BRM   RETURN          SET PARITY RETURN
10336  0 20 10343         NOP   M18
10337  0 77 10334         EAX   MEM18           X = OBJECT TEST LOCATION
10340  0 75 27013         LDB   =00000200       B = BIT BEING TESTED
10341  4 36 00000         STB   000000,4        STORE BIT
10342  4 76 00000         LDA   000000,4        GET BIT
10343  0 72 27013  M18    SKA   =00000200       IS BIT SET
10344  0 01 10346         BRU   *+2             YES
10345  0 43 00460         BRM   ERROR           NO, ERROR
10346  0 20 24521         NOP   MM116           ERROR MESSAGE
10347  0 43 00434         BRM   END             LOOP IF BP1 SET
                    * CHECK BIT 17 IN 1ST 4K CAN BE SET
10350  0 43 00430  MEM19  BRM   OBJECT
10351  0 43 00440         BRM   RETURN          SET PARITY RETURN
10352  0 20 10357         NOP   M19
10353  0 77 10350         EAX   MEM19           X = OBJECT TEST LOCATION
10354  0 75 27012         LDB   =00000100       B = BIT BEING TESTED
10355  4 36 00000         STB   000000,4        STORE BIT
10356  4 76 00000         LDA   000000,4        GET BIT
10357  0 72 27012  M19    SKA   =00000100       IS BIT SET
10360  0 01 10362         BRU   *+2             YES
10361  0 43 00460         BRM   ERROR           NO, ERROR
10362  0 20 24543         NOP   MM117           ERROR MESSAGE
10363  0 43 00434         BRM   END             LOOP IF BP1 SET
```



```
                    * CHECK BIT 18 IN 1ST 4K CAN BE SET
10364  0 43 00430  MEM20  BRM   OBJECT
10365  0 43 00440         BRM   RETURN          SET PARITY RETURN
10366  0 20 10373         NOP   M20
10367  0 77 10364         EAX   MEM20           X = OBJECT TEST LOCATION
10370  0 75 00040         LDB   000000040       B = BIT BEING TESTED
10371  4 36 00000         STB   000000,4        STORE BIT
10372  4 76 00000         LDA   000000,4        GET BIT
10373  0 72 00040  M20    SKA   000000040       IS BIT SET
10374  0 01 10376         BRU   *+2             YES
10375  0 43 00460         BRM   ERROR           NO, ERROR
10376  0 20 24565         NOP   MM118           ERROR MESSAGE
10377  0 43 00434         BRM   END             LOOP IF BP1 SET
                    * CHECK BIT 19 IN 1ST 4K CAN BE SET
10400  0 43 00430  MEM21  BRM   OBJECT
10401  0 43 00440         BRM   RETURN          SET PARITY
10402  0 20 10407         NOP   M21
10403  0 77 10400         EAX   MEM21           X = OBJECT TEST LOCATION
10404  0 75 27022         LDB   =00000020       B= BIT BEING TESTED
10405  4 36 00000         STB   000000,4        STORE BIT
10406  4 76 00000         LDA   000000,4        GET BIT
10407  0 72 27022  M21    SKA   =00000020       IS BIT SET
10410  0 01 10412         BRU   *+2             YES
10411  0 43 00460         BRM   ERROR           NO, ERROR
10412  0 20 24607         NOP   MM119           ERROR MESSAGE
10413  0 43 00434         BRM   END             LOOP IF BP1 SET
```

```
                    * CHECK BIT 20 IN 1ST 4K CAN BE SET
10414  0 43 00430  MEM22  BRM     OBJECT
10415  0 43 00440         BRM     RETURN              SET PAITY RETURN
10416  0 20 10423         NOP     M22
10417  0 77 10414         EAX     MEM22               X = OBJECT TEST LOCATION
10420  0 75 27021         LDB     =00000010           B = BIT BEING TESTED
10421  4 36 00000         STB     000000,4            GET BIT
10422  4 76 00000         LDA     000000,4            GET BIT
10423  0 72 27021  M22    SKA     =00000010           IS BIT SET
10424  0 01 10426         BRU     *+2                 YES
10425  0 43 00460         BRM     ERROR               NO, ERROR
10426  0 20 24431         NOP     MM120               ERROR MESSAGE
10427  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 21 IN 1ST 4K CAN BE SET
10430  0 43 00430  MEM23  BRM     OBJECT
10431  0 43 00440         BRM     RETURN              SET PARITY RETURN
10432  0 20 10437         NOP     M23
10433  0 77 10430         EAX     MEM23               X = OBJECT TEST LOCATION
10434  0 75 26744         LDB     =00000004           B = BIT BEING TESTED
10435  4 36 00000         STB     000000,4            STORE BIT
10436  4 76 00000         LDA     000000,4            GET BIT
10437  0 72 26744  M23    SKA     =00000004           IS BIT SET
10440  0 01 10442         BRU     *+2                 YES
10441  0 43 00460         BRM     ERROR               NO, ERROR
10442  0 20 24653         NOP     MM121               ERROR MESSAGE
10443  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 22 IN 1ST 4K CAN BE SET
10444  0 43 00430  MEM24  BRM     OBJECT
10445  0 43 00440         BRM     RETURN              SET PARITY RETURN
10446  0 20 10453         NOP     M24
10447  0 77 10444         EAX     MEM24               X = OBJECT TEST LOCATION
10450  0 75 27020         LDB     =00000002           B = BIT BEING TESTED
10451  4 36 00000         STB     000000,4            STORE BIT
10452  4 76 00000         LDA     000000,4            GET BIT
10453  0 72 27020  M24    SKA     =00000002           IS BIT SET
10454  0 01 10456         BRU     *+2                 YES
10455  0 43 00460         BRM     ERROR               NO, ERROR
10456  0 20 24675         NOP     MM122               ERROR MESSAGE
10457  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 23 IN 1ST 4K CAN BE SET
10460  0 43 00430  MEM25  BRM     OBJECT
10461  0 43 00440         BRM     RETURN              SET PARITY RETURN
10462  0 20 10467         NOP     M25
10463  0 77 10460         EAX     MEM25               X = OBJECT TEST LOCATION
10464  0 75 27017         LDB     =00000001           B = BIT BEING TESTED
10465  4 36 00000         STB     000000,4            STORE BIT
10466  4 76 00000         LDA     000000,4            GET BIT
10467  0 72 27017  M25    SKA     =00000001           IS BIT SET <
10470  0 01 10472         BRU     *+2                 YES
10471  0 43 00460         BRM     ERROR               NO, ERROR
10472  0 20 24717         NOP     MM123               ERROR MESSAGE
10473  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 0 IN 2ED 4K CAN BE SET
10474  0 43 00430  MEM26  BRM     OBJECT
10475  0 43 00440         BRM     RETURN              SET PARITY RETURN
10476  0 20 10503         NOP     M26
10477  0 77 10474         EAX     MEM26               X = OBJECT TEST LOCATION
10500  0 75 26757         LDB     =040000000          B = BIT BEING TESTED
10501  4 36 10000         STB     010000,4            STORE BIT
10502  4 76 10000         LDA     010000,4            GET BIT
10503  0 72 26757  M26    SKA     =040000000          IS BIT SET
10504  0 01 10506         BRU     *+2                 YES
10505  0 43 00460         BRM     ERROR               NO, ERROR
10506  0 20 24761         NOP     MM200               ERROR MESSAGE
10507  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 1 IN 2ED 4K CAN BE SET
10510  0 43 00430  MEM27  BRM     OBJECT
10511  0 43 00440         BRM     RETURN              SET PARITY RETURN
10512  0 20 10517         NOP     M27
10513  0 77 10510         EAX     MEM27               X = OBJECT TEST LOCATION
10514  0 75 27045         LDB     =020000000          B = BIT BEING TESTED
10515  4 36 10000         STB     010000,4            STORE BIT
10516  4 76 10000         LDA     010000,4            GET BIT
10517  0 72 27045  M27    SKA     =020000000          IS BIT SET
10520  0 01 10522         BRU     *+2                 YES
10521  0 43 00460         BRM     ERROR               NO, ERROR
10522  0 20 25000         NOP     MM201               ERROR MESSAGE
10523  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 2 IN 2ED 4K CAN BE SET
10524  0 43 00430  MEM28  BRM     OBJECT
10525  0 43 00440         BRM     RETURN              SET PARITY RETURN
10526  0 20 10533         NOP     M28
10527  0 77 10524         EAX     MEM28               X = OBJECT TEST LOCATION
10530  0 75 27046         LDB     =010000000          B = BIT BEING TESTED
10531  4 36 10000         STB     010000,4            STORE BIT
10532  4 76 10000         LDA     010000,4            GET BIT
10533  0 72 27046  M28    SKA     =010000000          IS BIT SET
10534  0 01 10536         BRU     *+2                 YES
10535  0 43 00460         BRM     ERROR               NO, ERROR
10536  0 20 25007         NOP     MM202               ERROR MESSAGE
10537  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 3 IN 2ED 4K CAN BE SET
10540  0 43 00430  MEM29  BRM     OBJECT
10541  0 43 00440         BRM     RETURN              SET PARITY RETURN
10542  0 20 10547         NOP     M29
10543  0 77 10540         EAX     MEM29               X = OBJECT TEST LOCATION
10544  0 75 27047         LDB     =04000000           B = BIT BEING TESTED
10545  4 36 10000         STB     010000,4            STORE BIT
10546  4 76 10000         LDA     010000,4            GET BIT
10547  0 72 27047  M29    SKA     =04000000           IS BIT SET
10550  0 01 10552         BRU     *+2                 YES
10551  0 43 00460         BRM     ERROR               NO, ERROR
10552  0 20 25016         NOP     MM203               ERROR MESSAGE
10553  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 4 IN 2ED 4K CAN BE SET
10554  0 43 00430  MEM30  BRM   0BJECT
10555  0 43 00440         BRM   RETURN              SET PARITY RETURN
10556  0 20 10563         N0P   M30
10557  0 77 10554         EAX   MEM30               X = 0BJECT TEST L0CATI0N
10560  0 75 27050         LDB   =02000000           B = BIT BEING TESTED
10561  4 36 10000         STB   010000,4            STORE BIT
10562  4 76 10000         LDA   010000,4            GET BIT
10563  0 72 27050  M30    SKA   =02000000           IS BIT SET
10564  0 01 10566         BRU   *+2                 YES
10565  0 43 00460         BRM   ERR0R               N0, ERR0R
10566  0 20 25025         N0P   MM204               ERR0R MESSAGE
10567  0 43 00434         BRM   END                 L00P IF BP1 SET
                    * CHECK BIT 5 IN 2ED 4K CAN BE SET
10570  0 43 00430  MEM31  BRM   0BJECT
10571  0 43 00440         BRM   RETURN              SET PARITY RETURN
10572  0 20 10577         N0P   M31
10573  0 77 10570         EAX   MEM31               X = 0BJECT TEST L0CATI0N
10574  0 75 27051         LDB   =01000000           B = BIT BEING TESTED
10575  4 36 10000         STB   010000,4            STORE BIT
10576  4 76 10000         LDA   010000,4            GET BIT
10577  0 72 27051  M31    SKA   =01000000           IS BIT SET
10600  0 01 10602         BRU   *+2                 YES
10601  0 43 00460         BRM   ERR0R               N0, ERR0R
10602  0 20 25034         N0P   MM205               ERR0R MESSAGE
10603  0 43 00434         BRM   END                 L00P IF BP1 SET
```



```
                    * CHECK BIT 6 IN 2ED 4K CAN BE SET
10604  0 43 00430  MEM32  BRM   0BJECT
10605  0 43 00440         BRM   RETURN              SET PARITY RETURN
10606  0 20 10613         N0P   M32
10607  0 77 10604         EAX   MEM32               X = 0BJECT TEST L0CATI0N
10610  0 75 26760         LDB   =00400000           B = BIT BEING TESTED
10611  4 36 10000         STB   010000,4            STORE BIT
10612  4 76 10000         LDA   010000,4            GET BIT
10613  0 72 26760  M32    SKA   =00400000           IS BIT SET
10614  0 01 10616         BRU   *+2                 YES
10615  0 43 00460         BRM   ERR0R               N0, ERR0R
10616  0 20 25044         N0P   MM206               ERR0R MESSAGE
10617  0 43 00434         BRM   END                 L00P IF BP1 SET
                    * CHECK BIT 7 IN 2ED 4K CAN BE SET
10620  0 43 00430  MEM33  BRM   0BJECT
10621  0 43 00440         BRM   RETURN              SET PARITY RETURN
10622  0 20 10627         N0P   M33
10623  0 77 10620         EAX   MEM33               X = 0BJECT TEST L0CATI0N
10624  0 75 27052         LDB   =00200000           B = BIT BEING TESTED
10625  4 36 10000         STB   010000,4            STORE BIT
10626  4 76 10000         LDA   010000,4            GET BIT
10627  0 72 27052  M33    SKA   =00200000           IS BIT SET
10630  0 01 10632         BRU   *+2                 YES
10631  0 43 00460         BRM   ERR0R               N0, ERR0R
10632  0 20 25054         N0P   MM207               ERR0R MESSAGE
10633  0 43 00434         BRM   END                 L00P IF BP1 SET
```

```
                    * CHECK BIT 8 IN 2ED 4K CAN BE SET
10634  0 43 00430  MEM34  BRM     OBJECT
10635  0 43 00440         BRM     RETURN              SET PARITY RETURN
10636  0 20 10643         NOP     M34
10637  0 77 10634         EAX     MEM34               X = OBJECT TEST LOCATION
10640  0 75 27053         LDB     =00100000           B = BIT BEING TESTED
10641  4 36 10000         STB     010000,4            STORE BIT
10642  4 76 10000         LDA     010000,4            GET BIT
10643  0 72 27053  M34    SKA     =00100000           IS BIT SET
10644  0 01 10646         BRU     *+2                 YES
10645  0 43 00460         BRM     ERROR               NO, ERROR
10646  0 20 25064         NOP     MM208               ERROR MESSAGE
10647  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 9 IN 2ED 4K CAN BE SET
10650  0 43 00430  MEM35  BRM     OBJECT
10651  0 43 00440         BRM     RETURN              SET PARITY RETURN
10652  0 20 10657         NOP     M35
10653  0 77 10650         EAX     MEM35               X = OBJECT TEST LOCATION
10654  0 75 27054         LDB     =00040000           B = BIT BEING TESTED
10655  4 36 10000         STB     010000,4            STORE BIT
10656  4 76 10000         LDA     010000,4            GET BIT
10657  0 72 27054  M35    SKA     =00040000           IS BIT SET
10660  0 01 10662         BRU     *+2                 YES
10661  0 43 00460         BRM     ERROR               NO, ERROR
10662  0 20 25074         NOP     MM209               ERROR MESSAGE
10663  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 10 IN 2ED 4K CAN BE SET
10664  0 43 00430  MEM36  BRM     OBJECT
10665  0 43 00440         BRM     RETURN              SET PARITY RETURN
10666  0 20 10673         NOP     M36
10667  0 77 10664         EAX     MEM36               X = OBJECT TEST LOCATION
10670  0 75 27055         LDB     =00020000           B = BIT BEING TESTED
10671  4 36 10000         STB     010000,4            STORE BIT
10672  4 76 10000         LDA     010000,4            GET BIT
10673  0 72 27055  M36    SKA     =00020000           IS BIT SET
10674  0 01 10676         BRU     *+2                 YES
10675  0 43 00460         BRM     ERROR               NO, ERROR
10676  0 20 25104         NOP     MM210               ERROR MESSAGE
10677  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 11 IN 2ED 4K CAN BE SET
10700  0 43 00430  MEM37  BRM     OBJECT
10701  0 43 00440         BRM     RETURN              SET PARITY RETURN
10702  0 20 10707         NOP     M37
10703  0 77 10700         EAX     MEM37               X = OBJECT TEST LOCATION
10704  0 75 27056         LDB     =00010000           B = BIT BEING TESTED
10705  4 36 10000         STB     010000,4            STORE BIT
10706  4 76 10000         LDA     010000,4            GET BIT
10707  0 72 27056  M37    SKA     =00010000           IS BIT SET
10710  0 01 10712         BRU     *+2                 YES
10711  0 43 00460         BRM     ERROR               NO, ERROR
10712  0 20 25116         NOP     MM211               ERROR MESSAGE
10713  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 12 IN 2ED 4K CAN BE SET
10714  0 43 00430  MEM38  BRM     OBJECT
10715  0 43 00440         BRM     RETURN              SET PARITY RETURN
10716  0 20 10723         NOP     M38
10717  0 77 10714         EAX     MEM38               X = OBJECT TEST LOCATION
10720  0 75 26761         LDB     =00004000           B = BIT BEING TESTED
10721  4 36 10000         STB     010000,4            STORE BIT
10722  4 76 10000         LDA     010000,4            GET BIT
10723  0 72 26761  M38    SKA     =00004000           IS BIT SET
10724  0 01 10726         BRU     *+2                 YES
10725  0 43 00460         BRM     ERROR               NO, ERROR
10726  0 20 25130         NOP     MM212               ERROR MESSAGE
10727  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 13 IN 2ED 4K CAN BE SET
10730  0 43 00430  MEM39  BRM     OBJECT
10731  0 43 00440         BRM     RETURN              SET PARITY RETURN
10732  0 20 10737         NOP     M39
10733  0 77 10730         EAX     MEM39               X = OBJECT TEST LOCATION
10734  0 75 27016         LDB     =00002000           B = BIT BEING TESTED
10735  4 36 10000         STB     010000,4            STORE BIT
10736  4 76 10000         LDA     010000,4            GET BIT
10737  0 72 27016  M39    SKA     =00002000           IS BIT SET
10740  0 01 10742         BRU     *+2                 YES
10741  0 43 00460         BRM     ERROR               NO, ERROR
10742  0 20 25142         NOP     MM213               ERROR MESSAGE
10743  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 14 IN 2ED 4K CAN BE SET
10744  0 43 00430  MEM40  BRM     OBJECT
10745  0 43 00440         BRM     RETURN              SET PARITY RETURN
10746  0 20 10753         NOP     M40
10747  0 77 10744         EAX     MEM40               X = OBJECT TEST LOCATION
10750  0 75 27015         LDB     =00001000           B = BIT BEING TESTED
10751  4 36 10000         STB     010000,4            STORE BIT
10752  4 76 10000         LDA     010000,4            GET BIT
10753  0 72 27015  M40    SKA     =00001000           IS BIT SET
10754  0 01 10756         BRU     *+2                 YES
10755  0 43 00460         BRM     ERROR               NO, ERROR
10756  0 20 25154         NOP     MM214               ERROR MESSAGE
10757  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 15 IN 2ED 4K CAN BE SET
10760  0 43 00430  MEM41  BRM     OBJECT
10761  0 43 00440         BRM     RETURN              SET PARITY RETURN
10762  0 20 10767         NOP     M41
10763  0 77 10760         EAX     MEM41               X = OBJECT TEST LOCATION
10764  0 75 27014         LDB     =00000400           B = BIT BEING TESTED
10765  4 36 10000         STB     010000,4            STORE BIT
10766  4 76 10000         LDA     010000,4            GET BIT
10767  0 72 27014  M41    SKA     =00000400           IS BIT SET
10770  0 01 10772         BRU     *+2                 YES
10771  0 43 00460         BRM     ERROR               NO, ERROR
10772  0 20 25166         NOP     MM215               ERROR MESSAGE
10773  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 16 IN 2ED 4K CAN BE SET
10774  0 43 00430   MEM42  BRM     OBJECT
10775  0 43 00440          BRM     RETURN              SET PARITY RETURN
10776  0 20 11003          NOP     M42
10777  0 77 10774          EAX     MEM42               X = OBJECT TEST LOCATION
11000  0 75 27013          LDB     =00000200           B = BIT BEING TESTED
11001  4 36 10000          STB     010000,4            STORE BIT
11002  4 76 10000          LDA     010000,4            GET BIT
11003  0 72 27013   M42    SKA     =00000200           IS BIT SET
11004  0 01 11006          BRU     *+2                 YES
11005  0 43 00460          BRM     ERROR               NO, ERROR
11006  0 20 25176          NOP     MM216               ERROR MESSAGE
11007  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 17 IN 2ED 4K CAN BE SET
11010  0 43 00430   MEM43  BRM     OBJECT
11011  0 43 00440          BRM     RETURN              SET PARITY RETURN
11012  0 20 11017          NOP     M43
11013  0 77 11010          EAX     MEM43               X = OBJECT TEST LOCATION
11014  0 75 27012          LDB     =00000100           B = BIT BEING TESTED
11015  4 36 10000          STB     010000,4            STORE BIT
11016  4 76 10000          LDA     010000,4            GET BIT
11017  0 72 27012   M43    SKA     =00000100           IS BIT SET
11020  0 01 11022          BRU     *+2                 YES
11021  0 43 00460          BRM     ERROR               NO, ERROR
11022  0 20 25206          NOP     MM217               ERROR MESSAGE
11023  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 18 IN 2ED 4K CAN BE SET
11024  0 43 00430   MEM44  BRM     OBJECT
11025  0 43 00440          BRM     RETURN              SET PARITY RETURN
11026  0 20 11033          NOP     M44
11027  0 77 11024          EAX     MEM44               X = OBJECT TEST LOCATION
11030  0 75 00040          LDB     000000040           B = BIT BEING TESTED
11031  4 36 10000          STB     010000,4            STORE BIT
11032  4 76 10000          LDA     010000,4            GET BIT
11033  0 72 00040   M44    SKA     000000040           IS BIT SET
11034  0 01 11036          BRU     *+2                 YES
11035  0 43 00460          BRM     ERROR               NO, ERROR
11036  0 20 25216          NOP     MM218               ERROR MESSAGE
11037  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 19 IN 2ED 4K CAN BE SET
11040  0 43 00430   MEM45  BRM     OBJECT
11041  0 43 00440          BRM     RETURN              SET PARITY RETURN
11042  0 20 11047          NOP     M45
11043  0 77 11040          EAX     MEM45               X = OBJECT TEST LOCATION
11044  0 75 27022          LDB     =00000020           B = BIT BEING TESTED
11045  4 36 10000          STB     010000,4            STORE BIT
11046  4 76 10000          LDA     010000,4            GET BIT
11047  0 72 27022   M45    SKA     =00000020           IS BIT SET
11050  0 01 11052          BRU     *+2                 YES
11051  0 43 00460          BRM     ERROR               NO, ERROR
11052  0 20 25226          NOP     MM219               ERROR MESSAGE
11053  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
MEM1    TAP=3,C                         PAGE 115

                    * CHECK BIT 20 IN 2ED 4K CAN BE SET
11054   0 43 00430  MEM46  BRM     OBJECT
11055   0 43 00440         BRM     RETURN              SET PARITY RETURN
11056   0 20 11063         NOP     M46
11057   0 77 11054         EAX     MEM46               X = OBJECT TEST LOCATION
11060   0 75 27021         LDB     =00000010           B = BIT BEING TESTED
11061   4 36 10000         STB     010000,4            STORE BIT
11062   4 76 10000         LDA     010000,4            GET BIT
11063   0 72 27021  M46    SKA     =00000010           IS BIT SET
11064   0 01 11066         BRU     *+2                 YES
11065   0 43 00460         BRM     ERROR               NO, ERROR
11066   0 20 25236         NOP     MM220               ERROR MESSAGE
11067   0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 21 IN 2ED 4K CAN BE SET
11070   0 43 00430  MEM47  BRM     OBJECT
11071   0 43 00440         BRM     RETURN              SET PARITY RETURN
11072   0 20 11077         NOP     M47
11073   0 77 11070         EAX     MEM47               X = OBJECT TEST LOCATION
11074   0 75 26744         LDB     =00000004           B = BIT BEING TESTED
11075   4 36 10000         STB     010000,4            STORE BIT
11076   4 76 10000         LDA     010000,4            GET BIT
11077   0 72 26744  M47    SKA     =00000004           IS BIT SET
11100   0 01 11102         BRU     *+2                 YES
11101   0 43 00460         BRM     ERROR               NO, ERROR
11102   0 20 25246         NOP     MM221               ERROR MESSAGE
11103   0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
MEM1    TAP=3,C                         PAGE 116

                    * CHECK BIT 22 IN 2ED 4K CAN BE SET
11104   0 43 00430  MEM48  BRM     OBJECT
11105   0 43 00440         BRM     RETURN              SET PARITY RETURN
11106   0 20 11113         NOP     M48
11107   0 77 11104         EAX     MEM48               X = OBJECT TEST LOCATION
11110   0 75 27020         LDB     =00000002           B = BIT BEING TESTED
11111   4 36 10000         STB     010000,4            STORE BIT
11112   4 76 10000         LDA     010000,4            GET BIT
11113   0 72 27020  M48    SKA     =00000002           IS BIT SET
11114   0 01 11116         BRU     *+2                 YES
11115   0 43 00460         BRM     ERROR               NO, ERROR
11116   0 20 25256         NOP     MM222               ERROR MESSAGE
11117   0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 23 IN 2ED 4K CAN BE SET
11120   0 43 00430  MEM49  BRM     OBJECT
11121   0 43 00440         BRM     RETURN              SET PARITY RETURN
11122   0 20 11127         NOP     M49
11123   0 77 11120         EAX     MEM49               X = OBJECT TEST LOCATION
11124   0 75 27017         LDB     =00000001           B = BIT BEING TESTED
11125   4 36 10000         STB     010000,4            STORE BIT
11126   4 76 10000         LDA     010000,4            GET BIT
11127   0 72 27017  M49    SKA     =00000001           IS BIT SET
11130   0 01 11132         BRU     *+2                 YES
11131   0 43 00460         BRM     ERROR               NO, ERROR
11132   0 20 25266         NOP     MM223               ERROR MESSAGE
11133   0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 0 IN 3ED 4K CAN BE SET
11134  0 43 00430  MEM50  BRM     OBJECT
11135  0 43 00440         BRM     RETURN              SET PARITY RETURN
11136  0 20 11143         NOP     M50
11137  0 77 11134         EAX     MEM50               X = OBJECT TEST LOCATION
11140  0 75 26757         LDB     =040000000          B = BIT BEING TESTED
11141  4 36 20000         STB     020000,4            STORE BIT
11142  4 76 20000         LDA     020000,4            GET BIT
11143  0 72 26757  M50    SKA     =040000000          IS BIT SET
11144  0 01 11146         BRU     *+2                 YES
11145  0 43 00460         BRM     ERROR               NO, ERROR
11146  0 20 25305         NOP     MM300
11147  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 1 IN 3ED 4K CAN BE SET
11150  0 43 00430  MEM51  BRM     OBJECT
11151  0 43 00440         BRM     RETURN              SET PARITY RETURN
11152  0 20 11157         NOP     M51
11153  0 77 11150         EAX     MEM51               X = OBJECT TEST LOCATION
11154  0 75 27045         LDB     =020000000          B = BIT BEING TESTED
11155  4 36 20000         STB     020000,4            STORE BIT
11156  4 76 20000         LDA     020000,4            GET BIT
11157  0 72 27045  M51    SKA     =020000000          IS BIT SET
11160  0 01 11162         BRU     *+2                 YES
11161  0 43 00460         BRM     ERROR               NO, ERROR
11162  0 20 25323         NOP     MM301               ERROR MESSAGE
11163  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 2 IN 3ED 4K CAN BE SET
11164  0 43 00430  MEM52  BRM     OBJECT
11165  0 43 00440         BRM     RETURN              SET PARITY RETURN
11166  0 20 11173         NOP     M52
11167  0 77 11164         EAX     MEM52               X = OBJECT TEST LOCATION
11170  0 75 27046         LDB     =010000000          B = BIT BEING TESTED
11171  4 36 20000         STB     020000,4            STORE BIT
11172  4 76 20000         LDA     020000,4            GET BIT
11173  0 72 27046  M52    SKA     =010000000          IS BIT SET
11174  0 01 11176         BRU     *+2                 YES
11175  0 43 00460         BRM     ERROR               NO, ERROR
11176  0 20 25332         NOP     MM302               ERROR MESSAGE
11177  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 3 IN 3ED 4K CAN BE SET
11200  0 43 00430  MEM53  BRM     OBJECT
11201  0 43 00440         BRM     RETURN              SET PARITY RETURN
11202  0 20 11207         NOP     M53
11203  0 77 11200         EAX     MEM53               X = OBJECT TEST LOCATION
11204  0 75 27047         LDB     =04000000           B = BIT BEING TESTED
11205  4 36 20000         STB     020000,4            STORE BIT
11206  4 76 20000         LDA     020000,4            GET BIT
11207  0 72 27047  M53    SKA     =040000000          IS BIT SET
11210  0 01 11212         BRU     *+2                 YES
11211  0 43 00460         BRM     ERROR               NO, ERROR
11212  0 20 25341         NOP     MM303               ERROR MESSAGE
11213  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 4 IN 3ED 4K CAN BE SET
11214  0 43 00430  MEM54  BRM     OBJECT
11215  0 43 00440         BRM     RETURN              SET PARITY RETURN
11216  0 20 11223         NOP     M54
11217  0 77 11214         EAX     MEM54               X = OBJECT TEST LOCATION
11220  0 75 27050         LDB     =02000000           B = BIT BEING TESTED
11221  4 36 20000         STB     020000,4            STORE BIT
11222  4 76 20000         LDA     020000,4            GET BIT
11223  0 72 27050  M54    SKA     =02000000           IS BIT SET
11224  0 01 11226         BRU     *+2                 YES
11225  0 43 00460         BRM     ERROR               NO, ERROR
11226  0 20 25350         NOP     MM304               ERROR MESSAGE
11227  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 5 IN 3ED 4K CAN BE SET
11230  0 43 00430  MEM55  BRM     OBJECT
11231  0 43 00440         BRM     RETURN              SET PARITY RETURN
11232  0 20 11237         NOP     M55
11233  0 77 11230         EAX     MEM55               X = OBJECT TEST LOCATION
11234  0 75 27051         LDB     =01000000           B = BIT BEING TESTED
11235  4 36 20000         STB     020000,4            STORE BIT
11236  4 76 20000         LDA     020000,4            GET BIT
11237  0 72 27051  M55    SKA     =01000000           IS BIT SET
11240  0 01 11242         BRU     *+2                 YES
11241  0 43 00460         BRM     ERROR               NO, ERROR
11242  0 20 25357         NOP     MM305               ERROR MESSAGE
11243  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 6 IN 3ED 4K CAN BE SET
11244  0 43 00430  MEM56  BRM     OBJECT
11245  0 43 00440         BRM     RETURN              SET APRITY RETURN
11246  0 20 11253         NOP     M56
11247  0 77 11244         EAX     MEM56               X = OBJECT TEST LOCATION
11250  0 75 26760         LDB     =00400000           B = BIT BEING TESTED
11251  4 36 20000         STB     020000,4            STORE BIT
11252  4 76 20000         LDA     020000,4            GET BIT
11253  0 72 26760  M56    SKA     =00400000           IS BIT SET
11254  0 01 11256         BRU     *+2                 YES
11255  0 43 00460         BRM     ERROR               NO, ERROR
11256  0 20 25366         NOP     MM306               ERROR MESSAGE
11257  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 7 IN 3ED 4K CAN BE SET
11260  0 43 00430  MEM57  BRM     OBJECT
11261  0 43 00440         BRM     RETURN              SET PARITY RETURN
11262  0 20 11267         NOP     M57
11263  0 77 11260         EAX     MEM57
11264  0 75 27052         LDB     =00200000           B = BIT BEING TESTED
11265  4 36 20000         STB     020000,4            STORE BIT
11266  4 76 20000         LDA     020000,4            GET BIT
11267  0 72 27052  M57    SKA     =00200000           IS BIT SET
11270  0 01 11272         BRU     *+2                 YES
11271  0 43 00460         BRM     ERROR               NO, ERROR
11272  0 20 25376         NOP     MM307               ERROR MESSAGE
11273  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 8 IN 3ED 4K CAN BE SET
11274  0 43 00430   MEM58  BRM     OBJECT
11275  0 43 00440          BRM     RETURN              SET PAIRTY RETURN
11276  0 20 11303          NOP     M58
11277  0 77 11274          EAX     MEM58               X = OBJECT TEST LOCATION
11300  0 75 27053          LDB     =00100000           B = BIT BEING TESTED
11301  4 36 20000          STB     020000,4            STORE BIT
11302  4 76 20000          LDA     020000,4            GET BIT
11303  0 72 27053  M58     SKA     =00100000           IS BIT SET
11304  0 01 11306          BRU     *+2                 YES
11305  0 43 00460          BRM     ERROR               NO, ERROR
11306  0 20 25406          NOP     MM308               ERROR MESSAGE
11307  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 9 IN 3ED 4K CAN BE SET
11310  0 43 00430   MEM59  BRM     OBJECT
11311  0 43 00440          BRM     RETURN              SET PARITY RETURN
11312  0 20 11317          NOP     M59
11313  0 77 11310          EAX     MEM59               X = OBJECT TEST LOCATION
11314  0 75 27054          LDB     =00040000           B = BIT BEING TESTED
11315  4 36 20000          STB     020000,4            STORE BIT
11316  4 76 20000          LDA     020000,4            GET BIT
11317  0 72 27054  M59     SKA     =00040000           IS BIT SET
11320  0 01 11322          BRU     *+2                 YES
11321  0 43 00460          BRM     ERROR               NO, ERROR
11322  0 20 25416          NOP     MM309               ERROR MESSAGE
11323  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 10 IN 3ED 4K CAN BE SET
11324  0 43 00430   MEM60  BRM     OBJECT
11325  0 43 00440          BRM     RETURN              SET PARITY RETURN
11326  0 20 11333          NOP     M60
11327  0 77 11324          EAX     MEM60               X = OBJECT TEST LOCATION
11330  0 75 27055          LDB     =00020000           B = BIT BEING TESTED
11331  4 36 20000          STB     020000,4            STORE BIT
11332  4 76 20000          LDA     020000,4            GET BIT
11333  0 72 27055  M60     SKA     =00020000           IS BIT SET
11334  0 01 11336          BRU     *+2                 YES
11335  0 43 00460          BRM     ERROR               NO, ERROR
11336  0 20 25426          NOP     MM310               ERROR MESSAGE
11337  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 11 IN 3ED 4K CAN BE SET
11340  0 43 00430   MEM61  BRM     OBJECT
11341  0 43 00440          BRM     RETURN              SET PARITY RETURN
11342  0 20 11347          NOP     M61
11343  0 77 11340          EAX     MEM61               X = OBJECT TEST LOCATION
11344  0 75 27056          LDB     =00010000           B = BIT BEING TESTED
11345  4 36 20000          STB     020000,4            STORE BIT
11346  4 76 20000          LDA     020000,4            GET BIT
11347  0 72 27056  M61     SKA     =00010000           IS BIT SET
11350  0 01 11352          BRU     *+2                 YES
11351  0 43 00460          BRM     ERROR               NO, ERROR
11352  0 20 25436          NOP     MM311               ERROR MESSAGE
11353  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 12 IN 3ED 4K CAN BE SET
11354  0 43 00430 MEM62  BRM     OBJECT
11355  0 43 00440        BRM     RETURN              SET PARITY RETURN
11356  0 20 11363        NOP     M62
11357  0 77 11354        EAX     MEM62               X = OBJECT TEST LOCATION
11360  0 75 26761        LDB     =00004000           B = BIT BEING TESTED
11361  4 36 20000        STB     020000,4            STORE BIT
11362  4 76 20000        LDA     020000,4            GET BIT
11363  0 72 26761 M62    SKA     =00004000           IS BIT SET
11364  0 01 11366        BRU     **2                 YES
11365  0 43 00460        BRM     ERROR               NO, ERROR
11366  0 20 25446        NOP     MM312               ERROR MESSAGE
11367  0 43 00434        BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 13 IN 3ED 4K CAN BE SET
11370  0 43 00430 MEM63  BRM     OBJECT
11371  0 43 00440        BRM     RETURN              SET PARITY RETURN
11372  0 20 11377        NOP     M63
11373  0 77 11370        EAX     MEM63               X = OBJECT TEST LOCATION
11374  0 75 27016        LDB     =00002000           B = BIT BEING TESTED
11375  4 36 20000        STB     020000,4            STORE BIT
11376  4 76 20000        LDA     020000,4            GET BIT
11377  0 72 27016 M63    SKA     =00002000           IS BIT SET
11400  0 01 11402        BRU     **2                 YES
11401  0 43 00460        BRM     ERROR               NO, ERROR
11402  0 20 25456        NOP     MM313               ERROR MESSAGE
11403  0 43 00434        BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 14 IN 3ED 4K CAN BE SET
11404  0 43 00430 MEM64  BRM     OBJECT
11405  0 43 00440        BRM     RETURN              SET PARITY RETURN
11406  0 20 11413        NOP     M64
11407  0 77 11404        EAX     MEM64               X = OBJECT TEST LOCATION
11410  0 75 27015        LDB     =00001000           B = BIT BEING TESTED
11411  4 36 20000        STB     020000,4            STORE BIT
11412  4 76 20000        LDA     020000,4            GET BIT
11413  0 72 27015 M64    SKA     =00001000           IS BIT SET
11414  0 01 11416        BRU     **2                 YES
11415  0 43 00460        BRM     ERROR               NO, ERROR
11416  0 20 25466        NOP     MM314               ERROR MESSAGE
11417  0 43 00434        BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 15 IN 3ED 4K CAN BE SET
11420  0 43 00430 MEM65  BRM     OBJECT
11421  0 43 00440        BRM     RETURN              SET PARITY RETURN
11422  0 20 11427        NOP     M65
11423  0 77 11420        EAX     MEM65               X = OBJECT TEST LOCATION
11424  0 75 27014        LDB     =00000400           B = BIT BEING TESTED
11425  4 36 20000        STB     020000,4            STORE BIT
11426  4 76 20000        LDA     020000,4            GET BIT
11427  0 72 27014 M65    SKA     =00000400           IS BIT SET
11430  0 01 11432        BRU     **2                 YES
11431  0 43 00460        BRM     ERROR               NO, ERROR
11432  0 20 25476        NOP     MM315               ERROR MESSAGE
11433  0 43 00434        BRM     END LOOP IF BP1 SET
```

```
                    * CHECK BIT 16 IN 3ED 4K CAN BE SET
11434  0 43 00430 MEM66  BRM   OBJECT
11435  0 43 00440        BRM   RETURN            SET PARITY RETURN
11436  0 20 11443        NOP   M66
11437  0 77 11434        EAX   MEM66             X = OBJECT TEST LOCATION
11440  0 75 27013        LDB   =00000200         B = BIT BEING TESTED
11441  4 36 20000        STB   020000,4          STORE BIT
11442  4 76 20000        LDA   020000,4          GET BIT
11443  0 72 27013 M66    SKA   =00000200         IS BIT SET
11444  0 01 11446        BRU   *+2               YES
11445  0 43 00460        BRM   ERROR             NO, ERROR
11446  0 20 25506        NOP   MM316             ERROR MESSAGE
11447  0 43 00434        BRM   END               LOOP IF BP1 SET
                    * CHECK THAT BIT 17 IN 3ED 4K CAN BE SET
11450  0 43 00430 MEM67  BRM   OBJECT
11451  0 43 00440        BRM   RETURN            SET PARITY RETURN
11452  0 20 11457        NOP   M67
11453  0 77 11450        EAX   MEM67             X = OBJECT TEST LOCATION
11454  0 75 27012        LDB   =00000100         B = BIT BEING TESTED
11455  4 36 20000        STB   020000,4          STORE BIT
11456  4 76 20000        LDA   020000,4          GET BIT
11457  0 72 27012 M67    SKA   =00000100         IS BIT SET
11460  0 01 11462        BRU   *+2               YES
11461  0 43 00460        BRM   ERROR             NO, ERROR
11462  0 20 25516        NOP   MM317             ERROR MESSAGE
11463  0 43 00434        BRM   END               LOOP IF BP1 SET
```



```
                    * CHECK BIT 18 IN 3ED 4K CAN BE SET
11464  0 43 00430 MEM68  BRM   OBJECT
11465  0 43 00440        BRM   RETURN            SET PARITY RETURN
11466  0 20 11473        NOP   M68
11467  0 77 11464        EAX   MEM68             X = OBJECT TEST LOCATION
11470  0 75 00040        LDB   00000040          B = BIT BEING TESTED
11471  4 36 20000        STB   020000,4          STORE BIT
11472  4 76 20000        LDA   020000,4          GET BIT
11473  0 72 00040 M68    SKA   00000040          IS BIT SET
11474  0 01 11476        BRU   *+2               YES
11475  0 43 00460        BRM   ERROR             NO, ERROR
11476  0 20 25526        NOP   MM318             ERROR MESSAGE
11477  0 43 00434        BRM   END               LOOP IF BP1 SET
                    * CHECK BIT 19 IN 3ED 4K CAN BE SET
11500  0 43 00430 MEM69  BRM   OBJECT
11501  0 43 00440        BRM   RETURN            SET PARITY RETURN
11502  0 20 11507        NOP   M69
11503  0 77 11500        EAX   MEM69             X = OBJECT TEST LOCATION
11504  0 75 27022        LDB   =00000020         B = BIT BEING TESTED
11505  4 36 20000        STB   020000,4          STORE BIT
11506  4 76 20000        LDA   020000,4          GET BIT
11507  0 72 27022 M69    SKA   =00000020         IS BIT SET
11510  0 01 11512        BRU   *+2               YES
11511  0 43 00460        BRM   ERROR             NO, ERROR
11512  0 20 25536        NOP   MM319             ERROR MESSAGE
11513  0 43 00434        BRM   END               LOOP IF BP1 SET
```

```
                    * CHECK BIT 20 IN 3ED 4K CAN BE SET
11514  0 43 00430  MEM70  BRM     OBJECT
11515  0 43 00440         BRM     RETURN              SET PARITY RETURN
11516  0 20 11523         NOP     M70
11517  0 77 11514         EAX     MEM70               X = OBJECT TEST LOCATION
11520  0 75 27021         LDB     =00000010           B = BIT BEING TESTED
11521  4 36 20000         STB     020000,4            STORE BIT
11522  4 76 20000         LDA     020000,4            GET BIT
11523  0 72 27021  M70    SKA     =00000010           IS BIT SET
11524  0 01 11526         BRU     *+2                 YES
11525  0 43 00460         BRM     ERROR               NO, ERROR
11526  0 20 25546         NOP     MM320               ERROR MESSAGE
11527  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 21 IN 3ED 4K CAN BE SET
11530  0 43 00430  MEM71  BRM     OBJECT
11531  0 43 00440         BRM     RETURN              SET PARITY RETURN
11532  0 20 11537         NOP     M71
11533  0 77 11530         EAX     MEM71               X = OBJECT TEST LOCATION
11534  0 75 26744         LDB     =00000004           B = BIT BEING TESTED
11535  4 36 20000         STB     020000,4            STORE BIT
11536  4 76 20000         LDA     020000,4            GET BIT
11537  0 72 26744  M71    SKA     =00000004           IS BIT SET
11540  0 01 11542         BRU     *+2                 YES
11541  0 43 00460         BRM     ERROR               NO, ERROR
11542  0 20 25556         NOP     MM321               ERROR MESSAGE
11543  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 22 IN 3ED 4K CAN BE SET
11544  0 43 00430  MEM72  BRM     OBJECT
11545  0 43 00440         BRM     RETURN              SET PARITY RETURN
11546  0 20 11553         NOP     M72
11547  0 77 11544         EAX     MEM72               X = OBJECT TEST LOCATION
11550  0 75 27020         LDB     =00000002           B = BIT BEING TESTED
11551  4 36 20000         STB     020000,4            STORE BIT
11552  4 76 20000         LDA     020000,4            GET BIT
11553  0 72 27020  M72    SKA     =00000002           IS BIT SET
11554  0 01 11556         BRU     *+2                 YES
11555  0 43 00460         BRM     ERROR               NO, ERROR
11556  0 20 25566         NOP     MM322               ERROR MESSAGE
11557  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 23 IN 3ED 4K CAN BE SET
11560  0 43 00430  MEM73  BRM     OBJECT
11561  0 43 00440         BRM     RETURN              SET PARITY RETURN
11562  0 20 11567         NOP     M73
11563  0 77 11560         EAX     MEM73               X = OBJECT TEST LOCATION
11564  0 75 27017         LDB     =00000001           B = BIT BEING TESTED
11565  4 36 20000         STB     020000,4            STORE BIT
11566  4 76 20000         LDA     020000,4            GET BIT
11567  0 72 27017  M73    SKA     =00000001           IS BIT SET
11570  0 01 11572         BRU     *+2                 YES
11571  0 43 00460         BRM     ERROR               NO, ERROR
11572  0 20 25576         NOP     MM323               ERROR MESSAGE
11573  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 0 IN 4TH 4K CAN BE SET
11574  0 43 00430  MEM74  BRM     OBJECT
11575  0 43 00440         BRM     RETURN              SET PARITY RETURN
11576  0 20 11603         NOP     M74
11577  0 77 11574         EAX     MEM74               X = OBJECT TEST LOCATION
11600  0 75 26757         LDB     =040000000          B = BIT BEING TESTED
11601  4 36 30000         STB     030000,4            STORE BIT
11602  4 76 30000         LDA     030000,4            GET BIT
11603  0 72 26757  M74    SKA     =040000000          IS BIT SET
11604  0 01 11606         BRU     *+2                 YES
11605  0 43 00460         BRM     ERROR               NO, ERROR
11606  0 20 25615         NOP     MM400               ERROR MESSAGE
11607  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 1 IN 4TH 4K CAN BE SET
11610  0 43 00430  MEM75  BRM     OBJECT
11611  0 43 00440         BRM     RETURN              SET PARITY RETURN
11612  0 20 11617         NOP     M75
11613  0 77 11610         EAX     MEM75               X = OBJECT TEST LOCATION
11614  0 75 27245         LDB     =020000000          B = BIT BEING TESTED
11615  4 36 30000         STB     030000,4            STORE BIT
11616  4 76 30000         LDA     030000,4            GET BIT
11617  0 72 27245  M75    SKA     =020000000          IS BIT SET
11620  0 01 11622         BRU     *+2                 YES
11621  0 43 00460         BRM     ERROR               NO, ERROR
11622  0 20 25624         NOP     MM401               ERROR MESSAGE
11623  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 2 IN 4TH 4K CAN BE SET
11624  0 43 00430  MEM76  BRM     OBJECT
11625  0 43 00440         BRM     RETURN              SET PARITY RETURN
11626  0 20 11633         NOP     M76
11627  0 77 11624         EAX     MEM76               X = OBJECT TEST LOCATION
11630  0 75 27246         LDB     =010000000          B = BIT BEING TESTED
11631  4 36 30000         STB     030000,4            STORE BIT
11632  4 76 30000         LDA     030000,4            GET BIT
11633  0 72 27246  M76    SKA     =010000000          IS BIT SET
11634  0 01 11636         BRU     *+2                 YES
11635  0 43 00460         BRM     ERROR               NO, ERROR
11636  0 20 25633         NOP     MM402               ERROR MESSAGE
11637  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 3 IN 4TH 4K CAN BE SET
11640  0 43 00430  MEM77  BRM     OBJECT
11641  0 43 00440         BRM     RETURN              SET PARITY RETURN
11642  0 20 11647         NOP     M77
11643  0 77 11640         EAX     MEM77               X = OBJECT TEST LOCATION
11644  0 75 27247         LDB     =04000000           B = BIT BEING TESTED
11645  4 36 30000         STB     030000,4            STORE BIT
11646  4 76 30000         LDA     030000,4            GET BIT
11647  0 72 27247  M77    SKA     =04000000           IS BIT SET
11650  0 01 11652         BRU     *+2                 YES
11651  0 43 00460         BRM     ERROR               NO, ERROR
11652  0 20 25642         NOP     MM403               ERROR MESSAGE
11653  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 4 IN 4TH CAN BE SET
11654  0 43 00430  MEM78  BRM     OBJECT
11655  0 43 00440         BRM     RETURN              SET PARITY RETURN
11656  0 20 11663         NOP     M78
11657  0 77 11654         EAX     MEM78               X = OBJECT TEST LOCATION
11660  0 75 27050         LDB     =02000000           B = BIT BEING TESTED
11661  4 36 30000         STB     030000,4            STORE BIT
11662  4 76 30000         LDA     030000,4            GET BIT
11663  0 72 27050  M78    SKA     =02000000           IS BIT SET
11664  0 01 11666         BRU     *+2                 YES
11665  0 43 00460         BRM     ERROR               NO, ERROR
11666  0 20 25451         NOP     MM404               ERROR MESSAGE
11667  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 5 IN 4TH 4K CAN BE SET
11670  0 43 00430  MEM79  BRM     OBJECT
11671  0 43 00440         BRM     RETURN              SET PARITY RETURN
11672  0 20 11677         NOP     M79
11673  0 77 11670         EAX     MEM79               X = OBJECT TEST LOCATION
11674  0 75 27051         LDB     =01000000           B = BIT BEING TESTED
11675  4 36 30000         STB     030000,4            STORE BIT
11676  4 76 30000         LDA     030000,4            GET BIT
11677  0 72 27051  M79    SKA     =01000000           IS BIT SET
11700  0 01 11702         BRU     *+2                 YES
11701  0 43 00460         BRM     ERROR               NO, ERROR
11702  0 20 25660         NOP     MM405               ERROR MESSAGE
11703  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 6 IN 4TH 4K CAN BE SET
11704  0 43 00430  MEM80  BRM     OBJECT
11705  0 43 00440         BRM     RETURN              SET PARITY RETURN
11706  0 20 11713         NOP     M80
11707  0 77 11704         EAX     MEM80               X = OBJECT TEST LOCATION
11710  0 75 26760         LDB     =00400000           B = BIT BEING TESTED
11711  4 36 30000         STB     030000,4            STORE BIT
11712  4 76 30000         LDA     030000,4            GET BIT
11713  0 72 26760  M80    SKA     =00400000           IS BIT SET
11714  0 01 11716         BRU     *+2                 YES
11715  0 43 00460         BRM     ERROR               NO, ERROR
11716  0 20 25667         NOP     MM406               ERROR MESSAGE
11717  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 7 IN 4TH CAN BE SET
11720  0 43 00430  MEM81  BRM     OBJECT
11721  0 43 00440         BRM     RETURN              SET PARITY RETURN
11722  0 20 11727         NOP     M81
11723  0 77 11720         EAX     MEM81               X = OBJECT TEST LOCATION
11724  0 75 27052         LDB     =00200000           B = BIT BEING TESTED
11725  4 36 30000         STB     030000,4            STORE BIT
11726  4 76 30000         LDA     030000,4            GET BIT
11727  0 72 27052  M81    SKA     =00200000           IS BIT SET
11730  0 01 11732         BRU     *+2                 YES
11731  0 43 00460         BRM     ERROR               NO, ERROR
11732  0 20 25477         NOP     MM407               ERROR MESSAGE
11733  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 8 IN 4TH 4K CAN BE SET
11734  0 43 00430   MEM82  BRM     OBJECT
11735  0 43 00440          BRM     RETURN              SET PARITY RETURN
11736  0 20 11743          NOP     M82
11737  0 77 11734          EAX     MEM82               X = OBJECT TEST LOCATION
11740  0 75 27053          LDB     #00100000           B = BIT BEING TESTED
11741  4 36 30000          STB     030000,4            STORE BIT
11742  4 76 30000          LDA     030000,4            GET BIT
11743  0 72 27053   M82    SKA     #00100000           IS BIT SET
11744  0 01 11746          BRU     *+2                 YES
11745  0 43 00460          BRM     ERROR               NO, ERROR
11746  0 20 25707          NOP     MM408               ERROR MESSAGE
11747  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 9 IN 4TH 4K CAN BE SET
11750  0 43 00430   MEM83  BRM     OBJECT
11751  0 43 00440          BRM     RETURN              SET PARITY RETURN
11752  0 20 11757          NOP     M83
11753  0 77 11750          EAX     MEM83               X = OBJECT TEST LOCATION
11754  0 75 27054          LDB     #00040000           B = BIT BEING TESTED
11755  4 36 30000          STB     030000,4            STORE BIT
11756  4 76 30000          LDA     030000,4            GET BIT
11757  0 72 27054   M83    SKA     #00040000           IS BIT SET
11760  0 01 11762          BRU     *+2                 YES
11761  0 43 00460          BRM     ERROR               NO, ERROR
11762  0 20 25717          NOP     MM409               ERROR MESSAGE
11763  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 10 IN 4TH 4K CAN BE SET
11764  0 43 00430   MEM84  BRM     OBJECT
11765  0 43 00440          BRM     RETURN              SET PARITY RETURN
11766  0 20 11773          NOP     M84
11767  0 77 11764          EAX     MEM84               X = OBJECT TEST LOCATION
11770  0 75 27055          LDB     #00020000           B = BIT BEING TESTED
11771  4 36 30000          STB     030000,4            STORE BIT
11772  4 76 30000          LDA     030000,4            GET BIT
11773  0 72 27055   M84    SKA     #00020000           IS BIT SET
11774  0 01 11776          BRU     *+2                 YES
11775  0 43 00460          BRM     ERROR               NO, ERROR
11776  0 20 25727          NOP     MM410               ERROR MESSAGE
11777  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 11 IN 4TH 4K CAN BE SET
12000  0 43 00430   MEM85  BRM     OBJECT
12001  0 43 00440          BRM     RETURN              SET PARITY RETURN
12002  0 20 12007          NOP     M85
12003  0 77 12000          EAX     MEM85               X = OBJECT TEST LOCATION
12004  0 75 27056          LDB     #00010000           B = BIT BEING TESTED
12005  4 36 30000          STB     030000,4            STORE BIT
12006  4 76 30000          LDA     030000,4            GET BIT
12007  0 72 27056   M85    SKA     #00010000           IS  BIT SET
12010  0 01 12012          BRU     *+2                 YES
12011  0 43 00460          BRM     ERROR               NO, ERROR
12012  0 20 25737          NOP     MM411               ERROR MESSAGE
12013  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 12 IN 4TH 4K CAN BE SET
12014  0 43 00430 MEM86  BRM     OBJECT
12015  0 43 00440        BRM     RETURN              SET PARITY RETURN
12016  0 20 12023        NOP     M86
12017  0 77 12014        EAX     MEM86               X = OBJECT TEST LOCATION
12020  0 75 26761        LDB     =00004000           B = BIT BEING TESTED
12021  4 36 30000        STB     030000,4            STORE BIT
12022  4 76 30000        LDA     030000,4            GET BIT
12023  0 72 26761 M86    SKA     =00004000           IS BIT SET
12024  0 01 12026        BRU     *+2                 YES
12025  0 43 00460        BRM     ERROR               NO, ERROR
12026  0 20 25747        NOP     MM412               ERROR MESSAGE
12027  0 43 00434        BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 13 IN 4TH 4K CAN BE SET
12030  0 43 00430 MEM87  BRM     OBJECT
12031  0 43 00440        BRM     RETURN              SET PARITY RETURN
12032  0 20 12037        NOP     M87
12033  0 77 12030        EAX     MEM87               X = OBJECT TEST LOCATION
12034  0 75 27716        LDB     =00002000           B = BIT BEING TESTED
12035  4 36 30000        STB     030000,4            STORE BIT
12036  4 76 30000        LDA     030000,4            GET BIT
12037  0 72 27716 M87    SKA     =00002000           IS BIT SET
12040  0 01 12042        BRU     *+2                 YES
12041  0 43 00460        BRM     ERROR               NO, ERROR
12042  0 20 25757        NOP     MM413               ERROR MESSAGE
12043  0 43 00434        BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 14 IN 4TH 4K CAN BE SET
12044  0 43 00430 MEM88  BRM     OBJECT
12045  0 43 00440        BRM     RETURN              SET PRITY RETURN
12046  0 20 12053        NOP     M88
12047  0 77 12044        EAX     MEM88               X = OBJECT TEST LOCATION
12050  0 75 27716        LDB     =00001000           B = BIT BEING TESTED
12051  4 36 30000        STB     030000,4            STORE BIT
12052  4 76 30000        LDA     030000,4            GET BIT
12053  0 72 27015 M88    SKA     =00001000           IS BIT SET
12054  0 01 12056        BRU     *+2                 YES
12055  0 43 00460        BRM     ERROR               NO, ERROR
12056  0 20 25767        NOP     MM414               ERROR MESSAGE
12057  0 43 00434        BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 15 IN 4TH 4K CAN BE SET
12060  0 43 00430 MEM89  BRM     OBJECT
12061  0 43 00440        BRM     RETURN              SET PARITY RETURN
12062  0 20 12067        NOP     M89
12063  0 77 12060        EAX     MEM89               X = OBJECT TEST LOCATION
12064  0 75 27014        LDB     =00000400           B = BIT BEING TESTED
12065  4 36 30000        STB     030000,4            STORE BIT
12066  4 76 30000        LDA     030000,4            GET BIT
12067  0 72 27014 M89    SKA     =00000400           IS BIT SET
12070  0 01 12072        BRU     *+2                 YES
12071  0 43 00460        BRM     ERROR               NO, ERROR
12072  0 20 25777        NOP     MM415               ERROR MESSAGE
12073  0 43 00434        BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 16 IN 4TH 4K CAN BE SET
12074  0 43 00430 MEM90  BRM     OBJECT
12075  0 43 00440        BRM     RETURN              SET PARITY RETURN
12076  0 20 12103        NOP     M90
12077  0 77 12074        EAX     MEM90               X = OBJECT TEST LOCATION
12100  0 75 27013        LDB     =00000200           B = BIT BEING TESTED
12101  4 36 30000        STB     030000,4            STORE BIT
12102  4 76 30000        LDA     030000,4            GET BIT
12103  0 72 27013 M90    SKA     =00000200           IS BIT SET
12104  0 01 12106        BRU     **2                 YES
12105  0 43 00460        BRM     ERROR               NO, ERROR
12106  0 20 26007        NOP     MM416               ERROR MESSAGE
12107  0 43 00434        BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 17 IN 4TH 4K CAN BE SET
12110  0 43 00430 MEM91  BRM     OBJECT
12111  0 43 00440        BRM     RETURN              SET PARITY RETURN
12112  0 20 12117        NOP     M91
12113  0 77 12110        EAX     MEM91               X = OBJECT TEST LOCATION
12114  0 75 27012        LDB     =00000100           B = BIT BEING TESTED
12115  4 36 30000        STB     030000,4            STORE BIT
12116  4 76 30000        LDA     030000,4            GET BIT
12117  0 72 27012 M91    SKA     =00000100           IS BIT SET
12120  0 01 12122        BRU     **2                 YES
12121  0 43 00460        BRM     ERROR               NO, ERROR
12122  0 20 26017        NOP     MM417               ERROR MESSAGE
12123  0 43 00434        BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 18 IN 4TH 4K CAN BE SET
12124  0 43 00430 MEM92  BRM     OBJECT
12125  0 43 00440        BRM     RETURN              SET PARITY RETURN
12126  0 20 12133        NOP     M92
12127  0 77 12124        EAX     MEM92               X= OBJECT TEST LOCATION
12130  0 75 00040        LDB     000000040           B = BIT BEING TESTED
12131  4 36 30000        STB     030000,4            STORE BIT
12132  4 76 30000        LDA     030000,4            GET BIT
12133  0 72 00040 M92    SKA     000000040           IS BIT SET
12134  0 01 12136        BRU     **2                 YES
12135  0 43 00460        BRM     ERROR               NO, ERROR
12136  0 20 26027        NOP     MM418               ERROR MESSAGE
12137  0 43 00434        BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 19 IN 4TH 4K CAN BE SET
12140  0 43 00430 MEM93  BRM     OBJECT
12141  0 43 00440        BRM     RETURN              SET PARITY RETURN
12142  0 20 12147        NOP     M93
12143  0 77 12140        EAX     MEM93               X = OBJECT TEST LOCATION
12144  0 75 27022        LDB     =00000020           B = BIT BEING TESTED
12145  4 36 30000        STB     030000,4            STORE BIT
12146  4 76 30000        LDA     030000,4            GET BIT
12147  0 72 27022 M93    SKA     =00000020           IS BIT SET
12150  0 01 12152        BRU     **2                 YES
12151  0 43 00460        BRM     ERROR               NO, ERROR
12152  0 20 26037        NOP     MM419               ERROR MESSAGE
12153  0 43 00434        BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK BIT 20 IN 4TH 4K CAN BE SET
 2154  0 43 00430  MEM94  BRM     OBJECT
 2155  0 43 00440         BRM     RETURN              SET PARITY RETURN
 2156  0 20 12163         NOP     M94
 2157  0 77 12154         EAX     MEM94               X = OBJECT TEST LOCATION
 2160  0 75 27021         LDB     =00000010           B = BIT BEING TESTED
 2161  4 36 30000         STB     030000,4            STORE BIT
 2162  4 76 30000         LDA     030000,4            GET BIT
 2163  0 72 27021  M94    SKA     =00000010           IS BIT SET
 2164  0 01 12166         BRU     *+2                 YES
 2165  0 43 00460         BRM     ERROR               NO, ERROR
 2166  0 20 26047         NOP     MM420               ERROR MESSAGE
 2167  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 21 IN 4TH 4K CAN BE SET
 2170  0 43 00430  MEM95  BRM     OBJECT
 2171  0 43 00440         BRM     RETURN              SET PARITY RETURN
 2172  0 20 12177         NOP     M95
 2173  0 77 12170         EAX     MEM95               X = OBJECT TEST LOCATION
 2174  0 75 26744         LDB     =00000004           B = BIT BEING TESTED
 2175  4 36 30000         STB     030000,4            STORE BIT
 2176  4 76 30000         LDA     030000,4            GET BIT
 2177  0 72 26744  M95    SKA     =00000004           IS BIT SET
12200  0 01 12202         BRU     *+2                 YES
12201  0 43 00460         BRM     ERROR               NO, ERROR
12202  0 20 26057         NOP     MM421               ERROR MESSAGE
12203  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK BIT 22 IN 4TH 4K CAN BE SET
12204  0 43 00430  MEM96  BRM     OBJECT
12205  0 43 00440         BRM     RETURN              SET PARITY RETURN
12206  0 20 12213         NOP     M96
12207  0 77 12204         EAX     MEM96               X = OBJECT TEST LOCATION
12210  0 75 27020         LDB     =00000002           B = BIT BEING TESTED
12211  4 36 30000         STB     030000,4            STORE BIT
12212  4 76 30000         LDA     030000,4            GET BIT
12213  0 72 27020  M96    SKA     =00000002           IS BIT SET
12214  0 01 12216         BRU     *+2                 YES
12215  0 43 00460         BRM     ERROR               NO, ERROR
12216  0 20 26067         NOP     MM422               ERROR MESSAGE
12217  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK BIT 23 IN 4TH 4K CAN BE SET
12220  0 43 00430  MEM97  BRM     OBJECT
12221  0 43 00440         BRM     RETURN              SET PARITY RETURN
12222  0 20 12226         NOP     M97
12223  0 77 12220         EAX     MEM97               X = OBJECT TEST LOCATION
12224  0 75 27017         LDB     =00000001           B = BIT BEING TESTED
12225  4 36 30000         STB     030000,4            STORE BIT
12226  4 76 30000  M97    LDA     030000,4            GET BIT
12227  0 72 27017         SKA     =00000001           IS BIT SET
12230  0 01 12232         BRU     *+2                 YES
12231  0 43 00460         BRM     ERROR               NO, ERROR
12232  0 20 26077         NOP     MM423               ERROR MESSAGE
12233  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
MEM1   TAP=3,0                    PAGE 141

                    * CHECK THAT BIT 0 IN 1ST 4K CAN BE RESET
12234  0 43 00430  MEM100 BRM     OBJECT
12235  0 43 00440         BRM     RETURN              SET PARITY RETURN
12236  0 20 12242         NOP     M100
12237  0 75 27757         LDB     =037777777          B = TEST BIT CLEARED
12240  4 36 00000         STB     000000,4            STORE BIT
12241  4 76 00000         LDA     000000,4            GET BIT
12242  0 72 26757  M100   SKA     =040000000          IS BIT RESET
12243  0 43 00460         BRM     ERROR               NO
12244  0 20 24261         NOP     MM100               YES
12245  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 1 IN 1ST 4K CAN BE RESET
12246  0 43 00430  MEM101 BRM     OBJECT
12247  0 43 00440         BRM     RETURN              SET PARITY RETURN
12250  0 20 12254         NOP     M101
12251  0 75 27760         LDB     =057777777          B = TEST BIT CLEARED
12252  4 36 00000         STB     000000,4            STORE BIT
12253  4 76 00000         LDA     000000,4            GET BIT
12254  0 72 27745  M101   SKA     =020000000          IS BIT RESET
12255  0 43 00460         BRM     ERROR               NO
12256  0 20 24103         NOP     MM101               YES
12257  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
MEM1   TAP=3,0                    PAGE 142

                    * CHECK THAT BIT 2 IN 1ST 4K CAN BE RESET
12260  0 43 00430  MEM102 BRM     OBJECT
12261  0 43 00440         BRM     RETURN              SET PARITY RETURN
12262  0 20 12266         NOP     M102
12263  0 75 27761         LDB     =067777777          B = TEST BIT CLEARED
12264  4 36 00000         STB     000000,4            STORE BIT
12265  4 76 00000         LDA     000000,4            GET BIT
12266  0 72 27746  M102   SKA     =010000000          IS BIT RESET
12267  0 43 00460         BRM     ERROR               NO
12270  0 20 24125         NOP     MM102               YES
12271  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 3 IN 1ST 4K CAN BE RESET
12272  0 43 00430  MEM103 BRM     OBJECT
12273  0 43 00440         BRM     RETURN              SET PARITY RETURN
12274  0 20 12300         NOP     M103
12275  0 75 27762         LDB     =073777777          B = TEST BIT CLEARED
12276  4 36 00000         STB     000000,4            STORE BIT
12277  4 76 00000         LDA     000000,4            GET BIT
12300  0 72 27747  M103   SKA     =04000000           IS BIT RESET
12301  0 43 00460         BRM     ERROR               NO
12302  0 20 24147         NOP     MM103               YES
12303  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 4 IN 1ST 4K CAN BE RESET
12304  0 43 00430  MEM104 BRM     OBJECT
12305  0 43 00440         BRM     RETURN              SET PARITY RETURN
12306  0 20 12312         NOP     M104
12307  0 75 27063         LDB     =075777777          B = TEST BIT CLEARED
12310  4 36 00000         STB     000000,4            STORE BIT
12311  4 76 00000         LDA     000000,4            GET BIT
12312  0 72 27050  M104   SKA     =02000000           IS BIT RESET
12313  0 43 00460         BRM     ERROR               NO
12314  0 20 24171         NOP     MM104               YES
12315  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 5 IN 1ST 4K CAN BE RESET
12316  0 43 00430  MEM105 BRM     OBJECT
12317  0 43 00440         BRM     RETURN              SET PARITY RETURN
12320  0 20 12324         NOP     M105
12321  0 75 27064         LDB     =076777777          B = TEST BIT CLEARED
12322  4 36 00000         STB     000000,4            STORE BIT
12323  4 76 00000         LDA     000000,4            GET BIT
12324  0 72 27051  M105   SKA     =01000000           IS BIT RESET
12325  0 43 00460         BRM     ERROR               NO
12326  0 20 24213         NOP     MM105               YES
12327  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 6 IN 1ST 4K CAN BE RESET
12330  0 43 00430  MEM106 BRM     OBJECT
12331  0 43 00440         BRM     RETURN              SET PARITY RETURN
12332  0 20 12336         NOP     M106
12333  0 75 27065         LDB     =077377777          B = TEST BIT CLEARED
12334  4 36 00000         STB     000000,4            STORE BIT
12335  4 76 00000         LDA     000000,4            GET BIT
12336  0 72 26760  M106   SKA     =00400000           IS BIT RESET
12337  0 43 00460         BRM     ERROR               NO
12340  0 20 24235         NOP     MM106               YES
12341  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 7 IN 1ST 4K CAN BE RESET
12342  0 43 00430  MEM107 BRM     OBJECT
12343  0 43 00440         BRM     RETURN              SET PARITY RETURN
12344  0 20 12350         NOP     M107
12345  0 75 27066         LDB     =077577777          B = TEST BIT CLEARED
12346  4 36 00000         STB     000000,4            STORE BIT
12347  4 76 00000         LDA     000000,4            GET BIT
12350  0 72 27052  M107   SKA     =00200000           IS BIT RESET
12351  0 43 00460         BRM     ERROR               NO
12352  0 20 24257         NOP     MM107               YES
12353  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 8 IN 1ST 4K CAN BE RESET
12354  0 43 00430  MEM108 BRM     OBJECT
12355  0 43 00440         BRM     RETURN              SET PARITY RETURN
12356  0 20 12362         NOP     M108
12357  0 75 27767         LDB     =077677777          B = TEST BIT CLEARED
12360  4 36 00000         STB     000000,4            STORE BIT
12361  4 76 00000         LDA     000000,4            GET BIT
12362  0 72 27753  M108   SKA     =00100000           IS BIT RESET
12363  0 43 00460         BRM     ERROR               NO
12364  0 20 24301         NOP     MM108               YES
12365  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 9 IN 1ST 4K CAN BE RESET
12366  0 43 00430  MEM109 BRM     OBJECT
12367  0 43 00440         BRM     RETURN              SET PARITY RETURN
12370  0 20 12374         NOP     M109
12371  0 75 27770         LDB     =077737777          B = TEST BIT CLEARED
12372  4 36 00000         STB     000000,4            STORE BIT
12373  4 76 00000         LDA     000000,4            GET BIT
12374  0 72 27754  M109   SKA     =00040000           IS BIT RESET
12375  0 43 00460         BRM     ERROR               NO
12376  0 20 24323         NOP     MM109               YES
12377  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 10 IN 1ST 4K CAN BE RESET
12400  0 43 00430  MEM110 BRM     OBJECT
12401  0 43 00440         BRM     RETURN              SET PARITY RETURN
12402  0 20 12406         NOP     M110
12403  0 75 27771         LDB     =077757777          B = TEST BIT CLEARED
12404  4 36 00000         STB     000000,4            STORE BIT
12405  4 76 00000         LDA     000000,4            GET BIT
12406  0 72 27755  M110   SKA     =00020000           IS BIT RESET
12407  0 43 00460         BRM     ERROR               NO
12410  0 20 24345         NOP     MM110               YES
12411  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK TAHT BIT 11 IN 1ST 4K CAN BE RESET
12412  0 43 00430  MEM111 BRM     OBJECT
12413  0 43 00440         BRM     RETURN              SET PARITY RETURN
12414  0 20 12420         NOP     M111
12415  0 75 27772         LDB     =077767777          B = TEST BIT CLEARED
12416  4 36 00000         STB     000000,4            STORE BIT
12417  4 76 00000         LDA     000000,4            GET BIT
12420  0 72 27756  M111   SKA     =00010000           IS BIT RESET
12421  0 43 00460         BRM     ERROR               NO
12422  0 20 24367         NOP     MM111               YES
12423  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK TAHT BIT 12 IN 1ST 4K CAN BE RESET
12424  0 43 00430   MEM112 BRM     OBJECT
12425  0 43 00440          BRM     RETURN              SET PARITY RETURN
12426  0 20 12432          NOP     M112
12427  0 75 27073          LDB     =077773777          B = TEST BIT CLEARED
12430  4 36 00000          STB     000000,4            STORE BIT
12431  4 76 00000          LDA     000000,4            GET BIT
 2432  0 72 26761  M112    SKA     =00004000           IS BIT RESET
 2433  0 43 00460          BRM     ERROR               NO
 2434  0 20 24411          NOP     MM112               YES
 2435  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 13 IN 1ST 4K CAN BE RESET
 2436  0 43 00430   MEM113 BRM     OBJECT
 2437  0 43 00440          BRM     RETURN              SET PARITY RETURN
 2440  0 20 12444          NOP     M113
 2441  0 75 27074          LDB     =077775777          B = TEST BIT CLEARED
 2442  4 36 00000          STB     000000,4            STORE BIT
 2443  4 76 00000          LDA     000000,4            GET BIT
 2444  0 72 27016  M113    SKA     =00002000           IS BIT RESET
 2445  0 43 00460          BRM     ERROR               NO
 2446  0 20 24433          NOP     MM113               YES
 2447  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECCK THAT BIT 14 IN 1ST 4K CAN BE RESET
 2450  0 43 00430   MEM114 BRM     OBJECT
 2451  0 43 00440          BRM     RETURN              SET PARITY RETURN
 2452  0 20 12456          NOP     M114
 2453  0 75 27075          LDB     =077776777          B = TEST BIT CLEARED
 2454  4 36 00000          STB     000000,4            STORE BIT
 2455  4 76 00000          LDA     000000,4            GET BIT
 2456  0 72 27015  M114    SKA     =00001000           IS BIT RESET
 2457  0 43 00460          BRM     ERROR               NO
 2460  0 20 24455          NOP     MM114               YES
 2461  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 15 IN 1ST 4K CAN BE RESET
 2462  0 43 00430   MEM115 BRM     OBJECT
 2463  0 43 00440          BRM     RETURN              SET PARITY RETURN
 2464  0 20 12470          NOP     M115
 2465  0 75 27076          LDB     =077777377          B = TEST BIT CLEARED
 2466  4 36 00000          STB     000000,4            STORE BIT
 2467  4 76 00000          LDA     000000,4            GET BIT
 2470  0 72 27014  M115    SKA     =00000400           IS BIT RESET
 2471  0 43 00460          BRM     ERROR               NO
 2472  0 20 24477          NOP     MM115               YES
 2473  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 16 IN 1ST 4K CAN BE RESET
 2474  0 43 00430  MEM116 BRM     OBJECT
 2475  0 43 00440         BRM     RETURN              SET PARITY RETURN
 2476  0 20 12502         NOP     M116
 2477  0 75 27077         LDB     #077777577          B = TEST BIT CLEARED
12500  4 36 00000         STB     000000,4            STORE BIT
12501  4 76 00000         LDA     000000,4            GET BIT
12502  0 72 27213  M116   SKA     #00000200           IS BIT RESET
12503  0 43 00460         BRM     ERROR               NO
12504  0 20 24521         NOP     MM116               YES
12505  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 17 IN 1ST 4K CAN BE RESET
12506  0 43 00430  MEM117 BRM     OBJECT
12507  0 43 00440         BRM     RETURN              SET PARITY RETURN
12510  0 20 12514         NOP     M117
12511  0 75 27100         LDB     #077777677          B = TEST BIT CLEARED
12512  4 36 00000         STB     000000,4            STORE BIT
12513  4 76 00000         LDA     000000,4            GET BIT
12514  0 72 27212  M117   SKA     #00000100           IS BIT RESET
12515  0 43 00460         BRM     ERROR               NO
12516  0 20 24543         NOP     MM117               YES
12517  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 18 IN 1ST 4K CAN BE RESET
12520  0 43 00430  MEM118 BRM     OBJECT
12521  0 43 00440         BRM     RETURN              SET PARITY RETURN
12522  0 20 12526         NOP     M118
12523  0 75 27101         LDB     #077777737          B = TEST BIT CLEARED
12524  4 36 00000         STB     000000,4            STORE BIT
12525  4 76 00000         LDA     000000,4            GET BIT
12526  0 72 26762  M118   SKA     #00000040           IS BIT RESET
12527  0 43 00460         BRM     ERROR               NO
12530  0 20 24565         NOP     MM118               YES
12531  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 19 IN 1ST 4K CAN BE RESET
12532  0 43 00430  MEM119 BRM     OBJECT
12533  0 43 00440         BRM     RETURN              SET PARITY RETURN
12534  0 20 12540         NOP     M119
12535  0 75 27102         LDB     #077777757          B = TEST BIT CLEARED
12536  4 36 00000         STB     000000,4            STORE BIT
12537  4 76 00000         LDA     000000,4            GET BIT
12540  0 72 27222  M119   SKA     #00000020           IS BIT RESET
12541  0 43 00460         BRM     ERROR               NO
12542  0 20 24607         NOP     MM119               YES
12543  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
MEM1    TAP=3,0                         PAGE 151

                        * CHECK THAT BIT 20 IN 1ST 4K CAN BE RESET
 2544   0 43 00430  MEM120 BRM     OBJECT
 2545   0 43 00440          BRM     RETURN              SET PARITY RETURN
 2546   0 20 12552          NOP     M120
 2547   0 75 27103          LDB     #077777767          B = TEST BIT CLEARED
 2550   4 36 00000          STB     000000,4            STORE BIT
 2551   4 76 00000          LDA     000000,4            GET BIT
 2552   0 72 27021  M120    SKA     #00000010           IS BIT RESET
 2553   0 43 00460          BRM     ERROR               NO
 2554   0 20 24431          NOP     MM120               YES
 2555   0 43 00434          BRM     END                 LOOP IF BP1 SET
                        * CHECK THAT BIT 21 IN 1ST 4K CAN BE RESET
 2556   0 43 00430  MEM121 BRM     OBJECT
 2557   0 43 00440          BRM     RETURN              SET PARITY RETURN
 2560   0 20 12564          NOP     M121
 2561   0 75 27104          LDB     #077777773          B = TEST BIT CLEARED
 2562   4 36 00000          STB     000000,4            STORE BIT
 2563   4 76 00000          LDA     000000,4            GET BIT
 2564   0 72 26744  M121    SKA     #00000004           IS BIT RESET
 2565   0 43 00460          BRM     ERROR               NO
 2566   0 20 24453          NOP     MM121               YES
 2567   0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
MEM1    TAP=3,0                         PAGE 152

                        * CHECK THAT BIT 22 IN 1ST 4K CAN BE RESET
 2570   0 43 00430  MEM122 BRM     OBJECT
 2571   0 43 00440          BRM     RETURN              SET PARITY RETURN
 2572   0 20 12576          NOP     M122
 2573   0 75 27105          LDB     #077777775          B = TEST BIT CLEARED
 2574   4 36 00000          STB     000000,4            STORE BIT
 2575   4 76 00000          LDA     000000,4            GET BIT
 2576   0 72 27020  M122    SKA     #00000002           IS BIT RESET
 2577   0 43 00460          BRM     ERROR               NO
 2600   0 20 24675          NOP     MM122               YES
 2601   0 43 00434          BRM     END                 LOOP IF BP1 SET
                        * CHECK THAT BIT 23 IN 1ST 4K CAN BE RESET
 2602   0 43 00430  MEM123 BRM     OBJECT
 2603   0 43 00440          BRM     RETURN              SET PARITY RETURN
 2604   0 20 12610          NOP     M123
 2605   0 75 27106          LDB     #077777776          B = TEST BIT CLEARED
 2606   4 36 00000          STB     000000,4            STORE BIT
 2607   4 76 00000          LDA     000000,4            GET BIT
 2610   0 72 27017  M123    SKA     #00000001           IS BIT RESET
 2611   0 43 00460          BRM     ERROR               NO
 2612   0 20 24717          NOP     MM123               YES
 2613   0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 0 IN 2ED 4K CAN BE RESET
 2614  0 43 00430  MEM124 BRM     OBJECT
 2615  0 43 00440         BRM     RETURN              SET PARITY RETURN
 2616  0 20 12622         NOP     M124
 2617  0 75 27057         LDB     #037777777          B = TEST BIT CLEARED
 2620  4 36 10000         STB     010000,4            STORE BIT
 2621  4 76 10000         LDA     010000,4            GET BIT
 2622  0 72 26757  M124   SKA     #040000000          IS BIT RESET
 2623  0 43 00460         BRM     ERROR               NO
 2624  0 20 24761         NOP     MM200               YES
 2625  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 1 IN 2ED 4K CAN BE RESET
 2626  0 43 00430  MEM125 BRM     OBJECT
 2627  0 43 00440         BRM     RETURN              SET PARITY RETURN
 2630  0 20 12634         NOP     M125
 2631  0 75 27060         LDB     #057777777          B = TEST BIT CLEARED
 2632  4 36 10000         STB     010000,4            STORE BIT
 2633  4 76 10000         LDA     010000,4            GET BIT
 2634  0 72 27045  M125   SKA     #020000000          IS BIT RESET
 2635  0 43 00460         BRM     ERROR               NO
 2636  0 20 25000         NOP     MM201               YES
 2637  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 2 IN 2ED 4K CAN BE RESET
12640  0 43 00430  MEM126 BRM     OBJECT
12641  0 43 00440         BRM     RETURN              SET PARITY RETURN
12642  0 20 12646         NOP     M126
12643  0 75 27061         LDB     #067777777          B = TEST  BIT CLEARED
12644  4 36 10000         STB     010000,4            STORE BIT
12645  4 76 10000         LDA     010000,4            GET BIT
12646  0 72 27046  M126   SKA     #010000000          IS BIT RESET
12647  0 43 00460         BRM     ERROR               NO
12650  0 20 25007         NOP     MM202               YES
12651  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 3 IN 2ED 4K CAN BE RESET
12652  0 43 00430  MEM127 BRM     OBJECT
12653  0 43 00440         BRM     RETURN              SET PARITY RETURN
12654  0 20 12660         NOP     M127
12655  0 75 27062         LDB     #073777777          B = TEST BIT CLEARED
12656  4 36 10000         STB     010000,4            STORE BIT
12657  4 76 10000         LDA     010000,4            GET BIT
12660  0 72 27047  M127   SKA     #04000000           IS BIT RESET
12661  0 43 00460         BRM     ERROR               NO
12662  0 20 25016         NOP     MM203               YES
12663  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 4 IN 2ED 4K CAN BE RESET
12664  0 43 00430  MEM128 BRM     OBJECT
12665  0 43 00440         BRM     RETURN              SET PARITY RETURN
12666  0 20 12672         NOP     M128
12667  0 75 27063         LDB     =075777777          B = TEST BIT CLEARED
12670  4 36 10000         STB     010000,4            STORE BIT
12671  4 76 10000         LDA     010000,4            GET  IT
12672  0 72 27050  M128   SKA     =02000000           IS BIT RESET
12673  0 43 00460         BRM     ERROR               NO
12674  0 20 25025         NOP     MM204               YES
12675  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 5 IN 2ED 4K CAN BE RESET
12676  0 43 00430  MEM129 BRM     OBJECT
12677  0 43 00440         BRM     RETURN              SET PARITY RETURN
12700  0 20 12704         NOP     M129
12701  0 75 27064         LDB     =076777777          B = TEST BIT CLEARED
12702  4 36 10000         STB     010000,4            STORE BIT
12703  4 76 10000         LDA     010000,4            GET BIT
12704  0 72 27051  M129   SKA     =01000000           IS BIT RESET
12705  0 43 00460         BRM     ERROR               NO
12706  0 20 25034         NOP     MM205               YES
12707  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 6 IN 2ED 4K CAN BE RESET
12710  0 43 00430  MEM130 BRM     OBJECT
12711  0 43 00440         BRM     RETURN              SET PARITY RETURN
12712  0 20 12716         NOP     M130
12713  0 75 27065         LDB     =077377777          B = TEST BIT CLEARED
12714  4 36 10000         STB     010000,4            STORE BIT
12715  4 76 10000         LDA     010000,4            GET BIT
12716  0 72 26760  M130   SKA     =00400000           IS BIT RESET
12717  0 43 00460         BRM     ERROR               NO
12720  0 20 25044         NOP     MM206               YES
12721  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 7 IN 2ED 4K CAN BE RESET
12722  0 43 00430  MEM131 BRM     OBJECT
12723  0 43 00440         BRM     RETURN              SET PARITY RETURN
12724  0 20 12730         NOP     M131
12725  0 75 27066         LDB     =077577777          B = TEST BIT CLEARED
12726  4 36 10000         STB     010000,4            STORE BIT
12727  4 76 10000         LDA     010000,4            GET BIT
12730  0 72 27052  M131   SKA     =00200000           IS BIT RESET
12731  0 43 00460         BRM     ERROR               NO
12732  0 20 25054         NOP     MM207               YES
12733  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                        * CHECK THAT BIT 8 IN 2ED 4K CAN BE RESET
12734  0 43 00430  MEM132 BRM     OBJECT
12735  0 43 00440         BRM     RETURN              SET PARITY RETURN
12736  0 20 12742         NOP     M132
12737  0 75 27067         LDB     =077677777          B = TEST BIT CLEARED
12740  4 36 10000         STB     010000,4            STORE BIT
12741  4 76 10000         LDA     010000,4            GET BIT
12742  0 72 27053  M132   SKA     =00100000           IS BIT RESET
12743  0 43 00460         BRM     ERROR               NO
12744  0 20 25064         NOP     MM208               YES
12745  0 43 00434         BRM     END                 LOOP IF BP1 SET
                        * CHECK THAT BIT 9 IN 2ED 4K CAN BE RESET
12746  0 43 00430  MEM133 BRM     OBJECT
12747  0 43 00440         BRM     RETURN              SET PARITY RETURN
12750  0 20 12754         NOP     M133
12751  0 75 27070         LDB     =077737777          B = TEST BIT CLEARED
12752  4 36 10000         STB     010000,4            STORE BIT
12753  4 76 10000         LDA     010000,4            GET BIT
12754  0 72 27054  M133   SKA     =00040000           IS BIT RESET
12755  0 43 00460         BRM     ERROR               NO
12756  0 20 25074         NOP     MM209               YES
12757  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                        * CHECK THAT BIT 10 IN 2ED 4K CAN BE RESET
12760  0 43 00430  MEM134 BRM     OBJECT
12761  0 43 00440         BRM     RETURN              SET PARITY RETURN
12762  0 20 12766         NOP     M134
12763  0 75 27071         LDB     =077757777          B = TEST BIT CLEARED
12764  4 36 10000         STB     010000,4            STORE BIT
12765  4 76 10000         LDA     010000,4            GET BIT
12766  0 72 27055  M134   SKA     =00020000           IS BIT RESET
12767  0 43 00460         BRM     ERROR               NO
12770  0 20 25104         NOP     MM210               YES
12771  0 43 00434         BRM     END                 LOOP IF BP1 SET
                        * CHECK THAT BIT 11 IN 2ED 4K CAN BE RESET
12772  0 43 00430  MEM135 BRM     OBJECT
12773  0 43 00440         BRM     RETURN              SET PARITY RETURN
12774  0 20 13000         NOP     M135
12775  0 75 27072         LDB     =077767777          B = TEST BIT CLEARED
12776  4 36 10000         STB     010000,4            STORE BIT
12777  4 76 10000         LDA     010000,4            GET BIT
13000  0 72 27056  M135   SKA     =00010000           IS BIT RESET
13001  0 43 00460         BRM     ERROR               NO
13002  0 20 25116         NOP     MM211               YES
13003  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 12 IN 2ED 4K CAN BE RESET
13004  0 43 00430  MEM136 BRM     OBJECT
13005  0 43 00440         BRM     RETURN              SET PARITY RETURN
13006  0 20 13012         NOP     M136
13007  0 75 27073         LDB     #077773777          B = TEST BIT CLEARED
13010  4 36 10000         STB     010000,4            STORE BIT
13011  4 76 10000         LDA     010000,4            GET BIT
13012  0 72 26761  M136    SKA     #00004000           IS BIT RESET
13013  0 43 00460         BRM     ERROR               NO
13014  0 20 25130         NOP     MM212               YES
13015  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 10 IN 2ED 4K CAN BE RESET
13016  0 43 00430  MEM137 BRM     OBJECT
13017  0 43 00440         BRM     RETURN              SET PARITY RETURN
13020  0 20 13024         NOP     M137
13021  0 75 27074         LDB     #077775777          B = TEST BIT CLEARED
13022  4 36 10000         STB     010000,4            STORE BIT
13023  4 76 10000         LDA     010000,4            GET BIT
13024  0 72 27016  M137    SKA     #00002000           IS BIT RESET
13025  0 43 00460         BRM     ERROR               NO
13026  0 20 25142         NOP     MM213               YES
13027  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 14 IN 2ED 4K CAN BE RESET
13030  0 43 00430  MEM138 BRM     OBJECT
13031  0 43 00440         BRM     RETURN              SET PARITY RETURN
13032  0 20 13036         NOP     M138
13033  0 75 27075         LDB     #077776777          B = TEST BIT CLEARED
13034  4 36 10000         STB     010000,4            STORE BIT
13035  4 76 10000         LDA     010000,4            GET BIT
13036  0 72 27015  M138    SKA     #00001000           IS BIT RESET
13037  0 43 00460         BRM     ERROR               NO
13040  0 20 25154         NOP     MM214               YES
13041  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 15 IN 2ED 4K CAN BE RESET
13042  0 43 00430  MEM139 BRM     OBJECT
13043  0 43 00440         BRM     RETURN              SET PARITY RETURN
13044  0 20 13050         NOP     M139
13045  0 75 27076         LDB     #077777377          B = TEST BIT CLEARED
13046  4 36 10000         STB     010000,4            STORE BIT
13047  4 76 10000         LDA     010000,4            GET BIT
13050  0 72 27014  M139    SKA     #00000400           IS BIT RESET
13051  0 43 00460         BRM     ERROR               NO
13052  0 20 25166         NOP     MM215               YES
13053  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 16 IN 2ED 4K CAN BE RESET
13054  0 43 00430  MEM140 BRM     OBJECT
13055  0 43 00440         BRM     RETURN              SET PARITY RETURN
13056  0 20 13062         NOP     M140
13057  0 75 27077         LDB     #077777577          B = TEST BIT CLEARED
13060  4 36 10000         STB     010000,4            STORE BIT
13061  4 76 10000         LDA     010000,4            GET BIT
13062  0 72 27013  M140   SKA     #00000200           IS BIT RESET
13063  0 43 00460         BRM     ERROR               NO
13064  0 20 25176         NOP     MM216               YES
13065  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 17 IN 2ED 4K CAN BE RESET
13066  0 43 00430  MEM141 BRM     OBJECT
13067  0 43 00440         BRM     RETURN              SET PARITY RETURN
13070  0 20 13074         NOP     M141
13071  0 75 27100         LDB     #077777677          B = TEST BIT CLEARED
13072  4 36 10000         STB     010000,4            STORE BIT
13073  4 76 10000         LDA     010000,4            GET BIT
13074  0 72 27012  M141   SKA     #00000100           IS BIT RESET
13075  0 43 00460         BRM     ERROR               NO
13076  0 20 25206         NOP     MM217               YES
13077  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 18 IN 2ED 4K CAN BE RESET
13100  0 43 00430  MEM142 BRM     OBJECT
13101  0 43 00440         BRM     RETURN              SET PARITY RETURN
13102  0 20 13106         NOP     M142
13103  0 75 27101         LDB     #077777737          B = TEST BIT CLEARED
13104  4 36 10000         STB     010000,4            STORE BIT
13105  4 76 10000         LDA     010000,4            GET BIT
13106  0 72 26762  M142   SKA     #00000040           IS BIT RESET
13107  0 43 00460         BRM     ERROR               NO
13110  0 20 25216         NOP     MM218               YES
13111  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 19 IN 2ED 4K CAN BE RESET
13112  0 43 00430  MEM143 BRM     OBJECT
13113  0 43 00440         BRM     RETURN              SET PARITY RETURN
13114  0 20 13120         NOP     M143
13115  0 75 27102         LDB     #077777757          B = TEST BIT CLEARED
13116  4 36 10000         STB     010000,4            STORE BIT
13117  4 76 10000         LDA     010000,4            GET BIT
13120  0 72 27022  M143   SKA     #00000020           IS BIT RESET
13121  0 43 00460         BRM     ERROR               NO
13122  0 20 25226         NOP     MM219               YES
13123  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 20 IN 2ED 4K CAN BE RESET
13124  0 43 00430  MEM144 BRM     OBJECT
13125  0 43 00440         BRM     RETURN              SET PARITY RETURN
13126  0 20 13132         NOP     M144
13127  0 75 27103         LDB     =077777767          B = TEST BIT CLEARED
13130  4 36 10000         STB     010000,4            STORE BIT
13131  4 76 10000         LDA     010000,4            GET BIT
13132  0 72 27021  M144   SKA     =00000010           IS BIT RESET
13133  0 43 00460         BRM     ERROR               NO
13134  0 20 25236         NOP     MM220               YES
13135  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 21 IN 2ED 4K CAN BE RESET
13136  0 43 00430  MEM145 BRM     OBJECT
13137  0 43 00440         BRM     RETURN              SET PARITY RETURN
13140  0 20 13144         NOP     M145
13141  0 75 27104         LDB     =077777773          B = YEST BIT CLEARED
13142  4 36 10000         STB     010000,4            STORE BIT
13143  4 76 10000         LDA     010000,4            GET BIT
13144  0 72 26744  M145   SKA     =00000004           IS BIT RESET
13145  0 43 00460         BRM     ERROR               NO
13146  0 20 25246         NOP     MM221               YES
13147  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 22 IN 2ED 4K CAN BE RESET
13150  0 43 00430  MEM146 BRM     OBJECT
13151  0 43 00440         BRM     RETURN              SET PARITY RETURN
13152  0 20 13156         NOP     M146
13153  0 75 27105         LDB     =077777775          B = TEST BIT CLEARED
13154  4 36 10000         STB     010000,4            STORE BIT
13155  4 76 10000         LDA     010000,4            GET BIT
13156  0 72 27020  M146   SKA     =00000002           IS BIT RESET
13157  0 43 00460         BRM     ERROR               NO
13160  0 20 25256         NOP     MM222               YES
13161  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 23 IN 2ED 4K CAN BE RESET
13162  0 43 00430  MEM147 BRM     OBJECT
13163  0 43 00440         BRM     RETURN              SET PARITY RETURN
13164  0 20 13170         NOP     M147
13165  0 75 27106         LDB     =077777776          BX= TEST BIT CLEARED
13166  4 36 10000         STB     010000,4            STORE BIT
13167  4 76 10000         LDA     010000,4            GET BIT
13170  0 72 27017  M147   SKA     =00000001           IS BIT RESET
13171  0 43 00460         BRM     ERROR               NO
13172  0 20 25266         NOP     MM223               YES
13173  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 0 IN 3ED 4K CAN BE RESET
13174  0 43 00430 MEM148 BRM     OBJECT
13175  0 43 00440         BRM     RETURN              SET PARITY RETURN
13176  0 20 13202         NOP     M148
13177  0 75 27057         LDB     =037777777          B = TEST BIT CLEARED
13200  4 36 20000         STB     020000,4            STORE BIT
13201  4 76 20000         LDA     020000,4            GET BIT
13202  0 72 26757 M148    SKA     =040000000          IS BIT RESET
13203  0 43 00460         BRM     ERROR               NO
13204  0 20 25305         NOP     MM300               YES
13205  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 1 IN 3ED CAN BE RESET
13206  0 43 00430 MEM149 BRM     OBJECT
13207  0 43 00440         BRM     RETURN              SET PARITY RETURN
13210  0 20 13214         NOP     M149
13211  0 75 27060         LDB     =057777777          B = TEST BIT CLEARED
13212  4 36 20000         STB     020000,4            STORE BIT
13213  4 76 20000         LDA     020000,4            GET BIT
13214  0 72 27045 M149    SKA     =020000000          IS BIT RESET
13215  0 43 00460         BRM     ERROR               NO
13216  0 20 25323         NOP     MM301               YES
13217  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 2 IN 3ED 4K CAN BE RESET
13220  0 43 00430 MEM150 BRM     OBJECT
13221  0 43 00440         BRM     RETURN              SET PARITY RETURN
13222  0 20 13226         NOP     M150
13223  0 75 27061         LDB     =067777777          B = TEST BIT CLEARED
13224  4 36 20000         STB     020000,4            STORE BIT
13225  4 76 20000         LDA     020000,4            GET BIT
13226  0 72 27046 M150    SKA     =010000000          IS BIT RESET
13227  0 43 00460         BRM     ERROR               NO
13230  0 20 25332         NOP     MM302               YES
13231  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 3 IN 3ED 4K CAN BE RESET
13232  0 43 00430 MEM151 BRM     OBJECT
13233  0 43 00440         BRM     RETURN              SET PARITY RETURN
13234  0 20 13240         NOP     M151
13235  0 75 27062         LDB     =073777777          B = TEST BIT CLEARED
13236  4 36 20000         STB     020000,4            STORE BIT
13237  4 76 20000         LDA     020000,4            GET BIT
13240  0 72 27047 M151    SKA     =04000000           IS BIT RESET
13241  0 43 00460         BRM     ERROR               NO
13242  0 20 25341         NOP     MM303               YES
13243  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 4 IN 3ED 4K CAN BE RESET
13244  0 43 00430  MEM152 BRM     OBJECT
13245  0 43 00440         BRM     RETURN              SET PARITY RETURN
13246  0 20 13252         NOP     M152
13247  0 75 27763         LDB     #075777777          B = TEST BIT CLEARED
13250  4 36 20000         STB     020000,4            STORE BIT
13251  4 76 20000         LDA     020000,4            GET BIT
13252  0 72 27750  M152   SKA     #02000000           IS BIT RESET
13253  0 43 00460         BRM     ERROR               NO
13254  0 20 25350         NOP     MM304               YES
13255  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 5 IN 3ED 4K CAN BE RESET
13256  0 43 00430  MEM153 BRM     OBJECT
13257  0 43 00440         BRM     RETURN              SET PARITY RETURN
13260  0 20 13264         NOP     M153
13261  0 75 27764         LDB     #076777777          B = TEST BIT CLEARED
13262  4 36 20000         STB     020000,4            STORE BIT
13263  4 76 20000         LDA     020000,4            GET BIT
13264  0 72 27751  M153   SKA     #01000000           IS BIT RESET
13265  0 43 00460         BRM     ERROR               NO
13266  0 20 25357         NOP     MM305               YES
13267  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 6 IN 3ED 4K CAN BE RESET
13270  0 43 00430  MEM154 BRM     OBJECT
13271  0 43 00440         BRM     RETURN              SET PARITY RETURN
13272  0 20 13276         NOP     M154
13273  0 75 27765         LDB     #077377777          B = TEST BIT CLEARED
13274  4 36 20000         STB     020000,4            STORE BIT
13275  4 76 20000         LDA     020000,4            GET BIT
13276  0 72 26760  M154   SKA     #00400000           IS BIT RESET
13277  0 43 00460         BRM     ERROR               NO
13300  0 20 25366         NOP     MM306               YES
13301  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 7 IN 3ED 4K CAN BE RESET
13302  0 43 00430  MEM155 BRM     OBJECT
13303  0 43 00440         BRM     RETURN              SET PARITY RETURN
13304  0 20 13310         NOP     M155
13305  0 75 27766         LDB     #077577777          B = TEST BIT CLEARED
13306  4 36 20000         STB     020000,4            STORE BIT
13307  4 76 20000         LDA     020000,4            GET BIT
13310  0 72 27752  M155   SKA     #00200000           IS BIT RESET
13311  0 43 00460         BRM     ERROR               NO
13312  0 20 25376         NOP     MM307               YES
13313  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 8 IN 3ED 4K CAN BE RESET
13314  0 43 00430  MEM156 BRM     OBJECT
13315  0 43 00440         BRM     RETURN              SET PARITY RETURN
13316  0 20 13322         NOP     M156
13317  0 75 27767         LDB     =077677777          B = TEST BIT CLEARED
13320  4 36 20000         STB     020000,4            STORE BIT
13321  4 76 20000         LDA     020000,4            GET BIT
13322  0 72 27753  M156   SKA     =00100000           IS BIT RESET
13323  0 43 00460         BRM     ERROR               NO
13324  0 20 25406         NOP     MM308               YES
13325  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 9 IN 3ED 4K CAN BE RESET
13326  0 43 00430  MEM157 BRM     OBJECT
13327  0 43 00440         BRM     RETURN              SET PARITY RETURN
13330  0 20 13334         NOP     M157
13331  0 75 27773         LDB     =077737777          B = TEST BIT CLEARED
13332  4 36 20000         STB     020000,4            STORE BIT
13333  4 76 20000         LDA     020000,4            GET BIT
13334  0 72 27754  M157   SKA     =00040000           IS BIT RESET
13335  0 43 00460         BRM     ERROR               NO
13336  0 20 25416         NOP     MM309               YES
13337  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 10 IN 3ED 4K CAN BE RESET
13340  0 43 00430  MEM158 BRM     OBJECT
13341  0 43 00440         BRM     RETURN              SET PARITY RETURN
13342  0 20 13346         NOP     M158
13343  0 75 27771         LDB     =077757777          B = TEST BIT CLEARED
13344  4 36 20000         STB     020000,4            STORE BIT
13345  4 76 20000         LDA     020000,4            GET BIT
13346  0 72 27755  M158   SKA     =00020000           IS BIT RESET
13347  0 43 00460         BRM     ERROR               NO
13350  0 20 25426         NOP     MM310               YES
13351  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 11 IN 3ED 4K CAN BE RESET
13352  0 43 00430  MEM159 BRM     OBJECT
13353  0 43 00440         BRM     RETURN              SET PARITY RETURN
13354  0 20 13360         NOP     M159
13355  0 75 27772         LDB     =077767777          B = TEST BIT CLEARED
13356  4 36 20000         STB     020000,4            STORE BIT
13357  4 76 20000         LDA     020000,4            GET BIT
13360  0 72 27756  M159   SKA     =00010000           IS BIT RESET
13361  0 43 00460         BRM     ERROR               NO
13362  0 20 25436         NOP     MM311               YES
13363  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 12 IN 3ED 4K CAN BE RESET
13364  0 43 00430  MEM160 BRM     OBJECT
13365  0 43 00440         BRM     RETURN              SET PARITY RETURN
13366  0 20 13372         NOP     M160
13367  0 75 27773         LDB     #077773777          B = TEST BIT CLEARED
13370  4 36 20000         STB     020000,4            STORE BIT
13371  4 76 20000         LDA     020000,4            GET BIT
13372  0 72 26761  M160   SKA     #00004000           IS BIT RESET
13373  0 43 00460         BRM     ERROR               NO
13374  0 20 25446         NOP     MM312               YES
13375  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 13 IN 3ED 4K CAN BE RESET
13376  0 43 00430  MEM161 BRM     OBJECT
13377  0 43 00440         BRM     RETURN              SET PARITY RETURN
13400  0 20 13404         NOP     M161
13401  0 75 27774         LDB     #077775777          B = TEST BIT CLEARED
13402  4 36 20000         STB     020000,4            STORE BIT
13403  4 76 20000         LDA     020000,4            GET BIT
13404  0 72 27016  M161   SKA     #00002000           IS BIT RESET
13405  0 43 00460         BRM     ERROR               NO
13406  0 20 25456         NOP     MM313               YES
13407  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 14 IN 3ED 4K CAN BE RESET
13410  0 43 00430  MEM162 BRM     OBJECT
13411  0 43 00440         BRM     RETURN              SET PARITY RETURN
13412  0 20 13416         NOP     M162
13413  0 75 27075         LDB     #077776777          B = TEST BIT CLEARED
13414  4 36 20000         STB     020000,4            STORE BIT
13415  4 76 20000         LDA     020000,4            GET BIT
13416  0 72 27015  M162   SKA     #00001000           IS BIT RESET
13417  0 43 00460         BRM     ERROR               NO
13420  0 20 25466         NOP     MM314               YES
13421  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 15 IN 3ED 4K CAN BE RESET
13422  0 43 00430  MEM163 BRM     OBJECT
13423  0 43 00440         BRM     RETURN              SET PARITY RETURN
13424  0 20 13430         NOP     M163
13425  0 75 27076         LDB     #077777377          B = TEST BIT CLEARED
13426  4 36 20000         STB     020000,4            STORE BIT
13427  4 76 20000         LDA     020000,4            GET BIT
13430  0 72 27014  M163   SKA     #00000400           IS BIT RESET
13431  0 43 00460         BRM     ERROR               NO
13432  0 20 25476         NOP     MM315               YES
13433  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 16 IN 3ED 4K CAN BE RESET
13434  0 43 00430  MEM164 BRM     OBJECT
13435  0 43 00440         BRM     RETURN              SET PARITY RETURN
13436  0 20 13442         NOP     M164
13437  0 75 27077         LDB     =077777577          B = TEST BIT CLEARED
13440  4 36 20000         STB     020000,4            STORE BIT
13441  4 76 20000         LDA     020000,4            GET BIT
13442  0 72 27013  M164   SKA     =00000200           IS BIT RESET
13443  0 43 00460         BRM     ERROR               NO
13444  0 20 25506         NOP     MM316               YES
13445  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 17 IN 3ED 4K CAN BE RESET
13446  0 43 00430  MEM165 BRM     OBJECT
13447  0 43 00440         BRM     RETURN              SET PARITY RETURN
13450  0 20 13454         NOP     M165
13451  0 75 27100         LDB     =077777677          B = TEST BIT CLEARED
13452  4 36 20000         STB     020000,4            STORE BIT
13453  4 76 20000         LDA     020000,4            GET BIT
13454  0 72 27012  M165   SKA     =00000100           IS BIT RESET
13455  0 43 00460         BRM     ERROR               NO
13456  0 20 25516         NOP     MM317               YES
13457  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 18 IN 3ED 4K CAN BE RESET
13460  0 43 00430  MEM166 BRM     OBJECT
13461  0 43 00440         BRM     RETURN              SET PARITY RETURN
13462  0 20 13466         NOP     M166
13463  0 75 27101         LDB     =077777737          B = TEST BIT CLEARED
13464  4 36 20000         STB     020000,4            STORE BIT
13465  4 76 20000         LDA     020000,4            GET BIT
13466  0 72 26762  M166   SKA     =00000040           IS BIT RESET
13467  0 43 00460         BRM     ERROR               NO
13470  0 20 25526         NOP     MM318               YES
13471  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 19 IN 3ED 4K CAN BE RESET
13472  0 43 00430  MEM167 BRM     OBJECT
13473  0 43 00440         BRM     RETURN              SET PARITY RETURN
13474  0 20 13500         NOP     M167
13475  0 75 27102         LDB     =077777757          B = TEST BIT CLEARED
13476  4 36 20000         STB     020000,4            STORE BIT
13477  4 76 20000         LDA     020000,4            GET BIT
13500  0 72 27022  M167   SKA     =00000020           IS BIT RESET
13501  0 43 00460         BRM     ERROR               NO
13502  0 20 25536         NOP     MM319               YES
13503  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 20 IN 3ED 4K CAN BE RESET
13504  0 43 00430   MEM168 BRM     OBJECT
13505  0 43 00440          BRM     RETURN              SET PARITY RETURN
13506  0 20 13512          NOP     M168
13507  0 75 27103          LDB     =077777767          B = TEST BIT CLEARED
13510  4 36 20000          STB     020000,4            STORE BIT
13511  4 76 20000          LDA     020000,4            GET BIT
13512  0 72 27021   M168   SKA     =00000010           IS BIT RESET
13513  0 43 00460          BRM     ERROR               NO
13514  0 20 25546          NOP     MM320               YES
13515  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 21 IN 3ED 4K CAN BE RESET
13516  0 43 00430   MEM169 BRM     OBJECT
13517  0 43 00440          BRM     RETURN              SET PARITY RETURN
13520  0 20 13524          NOP     M169
13521  0 75 27104          LDB     =077777773          B = TEST BIT CLEARED
13522  4 36 20000          STB     020000,4            STORE BIT
13523  4 76 20000          LDA     020000,4            GET BIT
13524  0 72 26744   M169   SKA     =00000004           IS BIT RESET
13525  0 43 00460          BRM     ERROR               NO
13526  0 20 25556          NOP     MM321               YES
13527  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 22 IN 3ED 4K CAN BE RESET
13530  0 43 00430   MEM170 BRM     OBJECT
13531  0 43 00440          BRM     RETURN              SET PARITY RETURN
13532  0 20 13536          NOP     M170
13533  0 75 27105          LDB     =077777775          B = TEST BIT CLEARED
13534  4 36 20000          STB     020000,4            STORE BIT
13535  4 76 20000          LDA     020000,4            GET BIT
13536  0 72 27020   M170   SKA     =00000002           IS BIT RESET
13537  0 43 00460          BRM     ERROR               NO
13540  0 20 25566          NOP     MM322               YES
13541  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 23 IN 3 ED 4K CAN BE RESET
13542  0 43 00430   MEM171 BRM     OBJECT
13543  0 43 00440          BRM     RETURN              SET PARITY RETURN
13544  0 20 13550          NOP     M171
13545  0 75 27106          LDB     =077777776          B = TEST BIT CLEARED
13546  4 36 20000          STB     020000,4            STORE BIT
13547  4 76 20000          LDA     020000,4            GET BIT
13550  0 72 27017   M171   SKA     =00000001           IS BIT RESET
13551  0 43 00460          BRM     ERROR               NO
13552  0 20 25576          NOP     MM323               YES
13553  0 43 00434          BRM     END                 LOOP IF BP1 SET
13554  0 01 14000          BRU     MEM172
13555       00223          BSS     014000***ZERO
```

```
                    * CHECK THAT BIT 0 IN 4TH 4K CAN BE RESET
14000  0 43 00430  MEM172 BRM     OBJECT
14001  0 43 00440         BRM     RETURN              SET PARITY RETURN
14002  0 20 14006         NOP     M172
14003  0 75 27757         LDB     =037777777          B = TEST BIT CLEARED
14004  4 36 30000         STB     030000,4            STORE BIT
14005  4 76 30000         LDA     030000,4            GET BIT
14006  0 72 26757  M172   SKA     =040000000          IS BIT RESET
14007  0 43 00460         BRM     ERROR               NO
14010  0 20 25415         NOP     MM400               YES
14011  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 1 IN 4TH 4K CAN BE RESET
14012  0 43 00430  MEM173 BRM     OBJECT
14013  0 43 00440         BRM     RETURN              SET PARITY RETURN
14014  0 20 14020         NOP     M173
14015  0 75 27760         LDB     =057777777          B = TEST BIT CLEARED
14016  4 36 30000         STB     030000,4            STORE BIT
14017  4 76 30000         LDA     030000,4            GET BIT
14020  0 72 27745  M173   SKA     =020000000          IS BIT RESET
14021  0 43 00460         BRM     ERROR               NO
14022  0 20 25424         NOP     MM401               YES
14023  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 2 IN 4TH 4K CAN BE RESET
14024  0 43 00430  MEM174 BRM     OBJECT
14025  0 43 00440         BRM     RETURN              SET PARITY RETURN
14026  0 20 14032         NOP     M174
14027  0 75 27761         LDB     =067777777          B = TEST BIT CLEARED
14030  4 36 30000         STB     030000,4            STORE BIT
14031  4 76 30000         LDA     030000,4            GET BIT
14032  0 72 27746  M174   SKA     =010000000          IS BIT RESET
14033  0 43 00460         BRM     ERROR               NO
14034  0 20 25433         NOP     MM402               YES
14035  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 3 IN 4TH 4K CAN BE RESET
14036  0 43 00430  MEM175 BRM     OBJECT
14037  0 43 00440         BRM     RETURN              SET PARITY RETURN
14040  0 20 14044         NOP     M175
14041  0 75 27762         LDB     =073777777          B = TEST BIT CLEARED
14042  4 36 30000         STB     030000,4            STORE BIT
14043  4 76 30000         LDA     030000,4            GET BIT
14044  0 72 27747  M175   SKA     =04000000           IS BIT RESET
14045  0 43 00460         BRM     ERROR               NO
14046  0 20 25442         NOP     MM403               YES
14047  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 4 IN 4TH 4K CAN BE RESET
14050  0 43 00430  MEM176 BRM     OBJECT
14051  0 43 00440         BRM     RETURN              SET PARITY RETURN
14052  0 20 14056         NOP     M176
14053  0 75 27063         LDB     =075777777          B = TEST BIT CLEARED
14054  4 36 30000         STB     030000,4            STORE BIT
14055  4 76 30000         LDA     030000,4            GET BIT
14056  0 72 27050  M176   SKA     =02000000           IS BIT RESET
14057  0 43 00460         BRM     ERROR               NO
14060  0 20 25651         NOP     MM404               YES
14061  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 5 IN 4TH 4K CAN BE RESET
14062  0 43 00430  MEM177 BRM     OBJECT
14063  0 43 00440         BRM     RETURN              SET PARITY RETURN
14064  0 20 14070         NOP     M177
14065  0 75 27064         LDB     =076777777          B = TEST BIT CLEARED
14066  4 36 30000         STB     030000,4            STORE BIT
14067  4 76 30000         LDA     030000,4            GET BIT
14070  0 72 27051  M177   SKA     =01000000           IS BIT RESET
14071  0 43 00460         BRM     ERROR               NO
14072  0 20 25660         NOP     MM405               YES
14073  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 6 IN 4TH 4K CAN BE RESET
14074  0 43 00430  MEM178 BRM     OBJECT
14075  0 43 00440         BRM     RETURN              SET APRITY RETURN
14076  0 20 14102         NOP     M178
14077  0 75 27065         LDB     =077377777          B = TEST BIT CLEARED
14100  4 36 30000         STB     030000,4            STORE BIT
14101  4 76 30000         LDA     030000,4            GET BIT
14102  0 72 26760  M178   SKA     =00400000           IS BIT RESET
14103  0 43 00460         BRM     ERROR               NO
14104  0 20 25667         NOP     MM406               YES
14105  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 7 IN 4TH 4K CAN BE RESET
14106  0 43 00430  MEM179 BRM     OBJECT
14107  0 43 00440         BRM     RETURN              SET PARITY RETURN
14110  0 20 14114         NOP     M179
14111  0 75 27066         LDB     =077577777          B = TEST BIT CLEARED
14112  4 36 30000         STB     030000,4            STORE BIT
14113  4 76 30000         LDA     030000,4            GET BIT
14114  0 72 27052  M179   SKA     =00200000           IS BIT RESET
14115  0 43 00460         BRM     ERROR               NO
14116  0 20 25677         NOP     MM407               YES
14117  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 8 IN 4TH 4K CAN BE RESET
14120  0 43 00430  MEM180 BRM     OBJECT
14121  0 43 00440         BRM     RETURN              SET PARITY RETURN
14122  0 20 14126         NOP     M180
14123  0 75 27767         LDB     =077677777          B = TEST BIT CLEARED
14124  4 36 30000         STB     030000,4            STORE BIT
14125  4 76 30000         LDA     030000,4            GET BIT
14126  0 72 27753  M180   SKA     =00100000           IS BIT RESET
14127  0 43 00460         BRM     ERROR               NO
14130  0 20 25707         NOP     MM408               YES
14131  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 9 IN 4TH 4K CAN BE RESET
14132  0 43 00430  MEM181 BRM     OBJECT
14133  0 43 00440         BRM     RETURN              SET PARITY RETURN
14134  0 20 14140         NOP     M181
14135  0 75 27770         LDB     =077737777          B = TEST BIT CLEARED
14136  4 36 30000         STB     030000,4            STORE BIT
14137  4 76 30000         LDA     030000,4            GET BIT
14140  0 72 27754  M181   SKA     =00040000           IS BIT RESET
14141  0 43 00460         BRM     ERROR               NO
14142  0 20 25717         NOP     MM409               YES
14143  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 10 IN 4TH 4K CAN BE RESET
14144  0 43 00430  MEM182 BRM     OBJECT
14145  0 43 00440         BRM     RETURN              SET PARITY RETURN
14146  0 20 14152         NOP     M182
14147  0 75 27771         LDB     =077757777          B = TEST BIT CLEARED
14150  4 36 30000         STB     030000,4            STORE BIT
14151  4 76 30000         LDA     030000,4            GET BIT
14152  0 72 27755  M182   SKA     =00020000           IS BIT RESET
14153  0 43 00460         BRM     ERROR               NO
14154  0 20 25727         NOP     MM410               YES
14155  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 11 IN 4TH 4K CAN BE RESET
14156  0 43 00430  MEM183 BRM     OBJECT
14157  0 43 00440         BRM     RETURN              SET PARITY RETURN
14160  0 20 14164         NOP     M183
14161  0 75 27772         LDB     =077767777          B = TEST BIT CLEARED
14162  4 36 30000         STB     030000,4            STORE BIT
14163  4 76 30000         LDA     030000,4            GET BIT
14164  0 72 27756  M183   SKA     =00010000           IS BIT RESET
14165  0 43 00460         BRM     ERROR               NO
14166  0 20 25737         NOP     MM411               YES
14167  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 12 IN 4TH 4K CAN BE RESET
14170  0 43 00430   MEM184 BRM     OBJECT
14171  0 43 00440          BRM     RETURN              SET PARITY RETURN
14172  0 20 14176          NOP     M184
14173  0 75 27073          LDB     =077773777          B = TEST BIT CLEARED
14174  4 36 30000          STB     030000,4            STORE BIT
14175  4 76 30000          LDA     030000,4            GET BIT
14176  0 72 26761   M184   SKA     =00004000           IS BIT RESET
14177  0 43 00460          BRM     ERROR               NO
14200  0 20 25747          NOP     MM412               YES
14201  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 13 IN 4TH 4K CAN BE RESET
14202  0 43 00430   MEM185 BRM     OBJECT
14203  0 43 00440          BRM     RETURN              SET PARITY RETURN
14204  0 20 14210          NOP     M185
14205  0 75 27074          LDB     =077775777          B = TEST BIT CLEARED
14206  4 36 30000          STB     030000,4            STORE BIT
14207  4 76 30000          LDA     030000,4            GET BIT
14210  0 72 27016   M185   SKA     =00002000           IS BIT RESET
14211  0 43 00460          BRM     ERROR               NO
14212  0 20 25757          NOP     MM413               YES
14213  0 43 00434          BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 14 IN 4TH 4K CAN BE RESET
14214  0 43 00430   MEM186 BRM     OBJECT
14215  0 43 00440          BRM     RETURN              SET PARITY RETURN
14216  0 20 14222          NOP     M186
14217  0 75 27075          LDB     =077776777          B = TEST BIT CLEARED
14220  4 36 30000          STB     030000,4            STORE BIT
14221  4 76 30000          LDA     030000,4            GET BIT
14222  0 72 27015   M186   SKA     =00001000           IS BIT RESET
14223  0 43 00460          BRM     ERROR               NO
14224  0 20 25767          NOP     MM414               YES
14225  0 43 00434          BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 15 IN 4TH 4K CAN BE RESET
14226  0 43 00430   MEM187 BRM     OBJECT
14227  0 43 00440          BRM     RETURN              SET PARITY RETURN
14230  0 20 14234          NOP     M187
14231  0 75 27076          LDB     =077777377          B = TEST BIT CLEARED
14232  4 36 30000          STB     030000,4            STORE BIT
14233  4 76 30000          LDA     030000,4            GET BIT
14234  0 72 27014   M187   SKA     =00000400           IS BIT RESET
14235  0 43 00460          BRM     ERROR               NO
14236  0 20 25777          NOP     MM415               YES
14237  0 43 00434          BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 16 IN 4TH 4K CAN BE RESET
14240  0 43 00430  MEM188 BRM     OBJECT
14241  0 43 00440         BRM     RETURN              SET PARITY RETURN
14242  0 20 14246         NOP     M188
14243  0 75 27777         LDB     #077777577          B = TEST BIT CLEARED
14244  4 36 30000         STB     030000,4            STORE BIT
14245  4 76 30000         LDA     030000,4            GET BIT
14246  0 72 27713  M188   SKA     #00000200           IS BIT RESET
14247  0 43 00460         BRM     ERROR               NO
14250  0 20 26007         NOP     MM416               YES
14251  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 17 IN 4TH 4K CAN BE RESET
14252  0 43 00430  MEM189 BRM     OBJECT
14253  0 43 00440         BRM     RETURN              SET PARITY RETURN
14254  0 20 14260         NOP     M189
14255  0 75 27100         LDB     #077777677          B = TEST BIT CLEARED
14256  4 36 30000         STB     030000,4            STORE BIT
14257  4 76 30000         LDA     030000,4            GET BIT
14260  0 72 27712  M189   SKA     #00000100           IS BIT RESET
14261  0 43 00460         BRM     ERROR               NO
14262  0 20 26017         NOP     MM417               YES
14263  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 18 IN 4TH 4K CAN BE RESET
14264  0 43 00430  MEM190 BRM     OBJECT
14265  0 43 00440         BRM     RETURN              SET PARITY RETURN
14266  0 20 14272         NOP     M190
14267  0 75 27101         LDB     #077777737          B = TEST BIT CLEARED
14270  4 36 30000         STB     030000,4            STORE BIT
14271  4 76 30000         LDA     030000,4            GET BIT
14272  0 72 26762  M190   SKA     #00000040           IS BIT RESET
14273  0 43 00460         BRM     ERROR               NO
14274  0 20 26027         NOP     MM418               YES
14275  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 19 IN 4TH 4K CAN BE RESET
14276  0 43 00430  MEM191 BRM     OBJECT
14277  0 43 00440         BRM     RETURN              SET PARITY RETURN
14300  0 20 14304         NOP     M191
14301  0 75 27102         LDB     #077777757          B = TEST BIT CLEARED
14302  4 36 30000         STB     030000,4            STORE BIT
14303  4 76 30000         LDA     030000,4            GET BIT
14304  0 72 27722  M191   SKA     #00000020           IS BIT RESET
14305  0 43 00460         BRM     ERROR               NO
14306  0 20 26037         NOP     MM419               YES
14307  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * CHECK THAT BIT 20 IN 4TH 4K CAN BE RESET
14310  0 43 00430  MEM192 BRM     OBJECT
14311  0 43 00440         BRM     RETURN              SET PARITY RETURN
14312  0 20 14316         NOP     M192
14313  0 75 27103         LDB     =077777767          B = TEST BIT CLEARED
14314  4 36 30000         STB     030000,4            STORE BIT
14315  4 76 30000         LDA     030000,4            GET BIT
14316  0 72 27021  M192   SKA     =00000010           IS BIT RESET
14317  0 43 00460         BRM     ERROR               NO
14320  0 20 26047         NOP     MM420               YES
14321  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 21 IN 4TH 4K CAN BE RESET
14322  0 43 00430  MEM193 BRM     OBJECT
14323  0 43 00440         BRM     RETURN              SET PARITY RETURN
14324  0 20 14330         NOP     M193
14325  0 75 27104         LDB     =077777773          B = TEST BIT CLEARED
14326  4 36 30000         STB     030000,4            STORE BIT
14327  4 76 30000         LDA     030000,4            GET BIT
14330  0 72 26744  M193   SKA     =00000004           IS BIT RESET
14331  0 43 00460         BRM     ERROR               NO
14332  0 20 26057         NOP     MM421               YES
14333  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * CHECK THAT BIT 22 IN 4TH 4K CAN BE RESET
14334  0 43 00430  MEM194 BRM     OBJECT
14335  0 43 00440         BRM     RETURN              SET PARITY RETURN
14336  0 20 14342         NOP     M194
14337  0 75 27105         LDB     =077777775          B = TEST BIT CLEARED
14340  4 36 30000         STB     030000,4            STORE BIT
14341  4 76 30000         LDA     030000,4            GET BIT
14342  0 72 27020  M194   SKA     =00000002           IS BIT RESET
14343  0 43 00460         BRM     ERROR               NO
14344  0 20 26067         NOP     MM422               YES
14345  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * CHECK THAT BIT 23 IN 4TH 4K CAN BE RESET
14346  0 43 00430  MEM195 BRM     OBJECT
14347  0 43 00440         BRM     RETURN              SET PARITY RETURN
14350  0 20 14354         NOP     M195
14351  0 75 27106         LDB     =077777776          B = TEST BIT CLEARED
14352  4 36 30000         STB     030000,4            STORE BIT
14353  4 76 30000         LDA     030000,4            GET BIT
14354  0 72 27017  M195   SKA     =00000001           IS BIT RESET
14355  0 43 00460         BRM     ERROR               NO
14356  0 20 26077         NOP     MM423               YES
14357  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                        * THIS CHECKS THAT PARITY BIT IN 1ST 4K CAN BE SET
14360  0 43 00430  MEM200 BRM     OBJECT
14361  0 43 00440         BRM     RETURN              SET PARITY RETURN
14362  0 20 14367         NOP     M200
14363  0 75 27017         LDB     =01                 B = PARITY BIT SET
14364  4 36 00000         STB     000000,4            STORE BIT
14365  4 76 00000         LDA     000000,4            ACCESS BIT
14366  0 01 14370         BRU     **2                 NO PARITY ERROR
14367  0 43 00460  M200   BRM     ERROR               PARITY ERROR
14370  0 20 24740         NOP     MM124
14371  0 43 00434         BRM     END                 LOOP IF BP1 SET
                        * THIS CHECKS THAT PARITY BIT IN 2ED 4K CAN BE SET
14372  0 43 00430  MEM201 BRM     OBJECT
14373  0 43 00440         BRM     RETURN              SET PARITY RETURN
14374  0 20 14401         NOP     M201
14375  0 75 27017         LDB     =01                 B = PARITY BIT SET
14376  4 36 10000         STB     010000,4            STORE BIT
14377  4 76 10000         LDA     010000,4            ACCESS BIT
14400  0 01 14402         BRU     **2                 NO PARITY ERROR
14401  0 43 00460  M201   BRM     ERROR               PARITY ERROR
14402  0 20 25276         NOP     MM224
14403  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                        * THIS CHECKS THAT PARITY BIT IN 3EO 4K CAN BE SET
14404  0 43 00430  MEM202 BRM     OBJECT
14405  0 43 00440         BRM     RETURN              SET PARITY RETURN
14406  0 20 14413         NOP     M202
14407  0 75 27017         LDB     =01                 B = PARITY BIT SET
14410  4 36 20000         STB     020000,4            STORE BIT
14411  4 76 20000         LDA     020000,4            ACCESS BIT
14412  0 01 14414         BRU     **2                 NO PARITY ERROR
14413  0 43 00460  M202   BRM     ERROR               PARITY ERROR
14414  0 20 25406         NOP     MM324
14415  0 43 00434         BRM     END                 LOOP IF BP1 SET
                        * THIS CHECKS THAT PARITY BIT IN 4TH 4K CAN BE SET
14416  0 43 00430  MEM203 BRM     OBJECT
14417  0 43 00440         BRM     RETURN              SET PARITY RETURN
14420  0 20 14426         NOP     M203
14421  0 75 27017         LDB     =01                 B = PARITY BIT SET
14422  4 36 30000         STB     030000,4            STORE BIT
14423  4 76 30000         LDA     030000,4            ACCESS BIT
14424  0 01 14426         BRU     **2                 NO PARITY ERROR
14425  0 43 00460  M203   BRM     ERROR               PARITY ERROR
14426  0 20 26107         NOP     MM424
14427  0 43 00434         BRM     END                 LOOP IF BP1 SET
```

```
                    * THIS CHECKS THAT PARITY BIT IN 1ST 4K CAN BE RESET
14430  0 43 00430  MEM204 BRM     OBJECT
14431  0 43 00440         BRM     RETURN              SET PARITY RETURN
14432  0 20 14437         NOP     M204
14433  0 46 00002         CLB                         B = PARITY BIT RESET
14434  4 36 00000         STB     000000,4            STORE BIT
14435  4 76 00000         LDA     000000,4            ACCESS BIT
14436  0 01 14440         BRU     **2                 NO PARITY ERROR
14437  0 43 00460  M204   BRM     ERROR               PARITY ERROR
14440  0 20 24740         NOP     MM124
14441  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * THIS CHECKS THAT PARITY BIT IN 2ED 4K CAN BE RESET
14442  0 43 00430  MEM205 BRM     OBJECT
14443  0 43 00440         BRM     RETURN              SET PARITY RETURN
14444  0 20 14451         NOP     M205
14445  0 46 00002         CLB                         B = PARITY BIT RESET
14446  4 36 10000         STB     010000,4            STORE BIT
14447  4 76 10000         LDA     010000,4            ACCESS BIT
14450  0 01 14452         BRU     **2                 NO PARITY ERROR
14451  0 43 00460  M205   BRM     ERROR               PARITY ERROR
14452  0 20 25276         NOP     MM224
14453  0 43 00434         BRM     END                 LOOP IF BP1 SET
```



```
                    * THIS CHECKS THAT PARITY BIT IN 3ED 4K CAN BE RESET
14454  0 43 00430  MEM206 BRM     OBJECT
14455  0 43 00440         BRM     RETURN              SET PARITY RETURN
14456  0 20 14463         NOP     M206
14457  0 46 00002         CLB                         B = PARITY BIT RESET
14460  4 36 20000         STB     020000,4            STORE BIT
14461  4 76 20000         LDA     020000,4            ACCESS BIT
14462  0 01 14464         BRU     **2                 NO PARITY ERROR
14463  0 43 00460  M206   BRM     ERROR               PARITY ERROR
14464  0 20 25606         NOP     MM324
14465  0 43 00434         BRM     END                 LOOP IF BP1 SET
                    * THIS CHECKS THAT PARITY BIT IN 4TH 4K CAN BE RESET
14466  0 43 00430  MEM207 BRM     OBJECT
14467  0 43 00440         BRM     RETURN              SET PARITY RETURN
14470  0 20 14475         NOP     M207
14471  0 46 00002         CLB                         B = PARITY BIT RESET
14472  4 36 30000         STB     030000,4            STORE BIT
14473  4 76 30000         LDA     030000,4            ACCESS BIT
14474  0 01 14476         BRU     **2
14475  0 43 00460  M207   BRM     ERROR               PARITY ERROR
14476  0 20 26107         NOP     MM424
14477  0 43 00434         BRM     END                 LOOP IF BP1 SET
14500  0 02 20004         EOM     020004              DISABLE INTERRUPTS
14501  0 43 00456         BRM     FDONE
            00010         OCTAL
```

```
                    * FUNCTION 3
                    * THIS FUNCTION CHECKS ADDRESS LINES IN MEMORY 2ED 16K
14502  0 76 00405 FUNC3  LDA     SYSIZE
14503  0 72 27017         SKA     #1              SKIP IF NOT 2ED 16K
14504  0 01 14506         BRU     *+2
14505  0 01 15430         BRU     FUNC4
14506  0 43 00424         BRM     FUNCTN
14507  0 20 00024         NOP     FPT3
14510  0 02 2  002        EBM     020002          ENABLE INTERRUPTS
```



```
                    * SPREAD ADDRESSES IN 2ED 16K
14511  0 76 27043         LDA     #010111213
14512  0 35 00415         STA     RL1
14513  0 02 2  400        EBM     020400
14514  0 13 00415         PBT     RL1             SET RL1
14515  0 76 27044         LDA     #014151617
14516  0 35 00416         STA     RL2
14517  0 02 21000         EBM     021000
14520  0 13 00416         PBT     RL2             SET RL2
14521  0 76 27054         LDA     #040000
14522  0 71 27054         LDX     #040000
14523  6 35 00000 SPRED1  STA     0,6
14524  0 55 27017         ADD     #01
14525  0 41 14523         BRX     SPRED1
```

```
                    * SPREAD ADDRESSES IN 3ED 16K
14526  0 76 27107          LDA     #020212223
14527  0 35 00415          STA     RL1
14530  0 02 20400          EOM     020400
14531  0 13 00415          POT     RL1             SET RL1
14532  0 76 27110          LDA     #024252627
14533  0 35 00416          STA     RL2
14534  0 02 21000          EOM     021000
14535  0 13 00416          POT     RL2             SET RL2
14536  0 76 27053          LDA     #01000000
14537  0 71 27054          LDX     #040000
14540  6 35 00000  SPRED2  STA     0,6
14541  0 55 27017          ADD     #01
14542  0 41 14540          BRX     SPRED2
```



```
                    * SPREAD ADDRESSES IN 4TH 16K
14543  0 76 27111          LDA     #030313233
14544  0 35 00415          STA     RL1
14545  0 02 20400          EOM     020400
14546  0 13 00415          POT     RL1             SET RL1
14547  0 76 27112          LDA     #034353637
14550  0 35 00416          STA     RL2
14551  0 02 21000          EOM     021000
14552  0 13 00416          POT     RL2             SET RL2
14553  0 76 27113          LDA     #01040000
14554  0 71 27054          LDX     #040000
14555  6 35 00000  SPRED3  STA     0,6
14556  0 55 27017          ADD     #01
14557  0 41 14555          BRX     SPRED3
```

```
                    * SET RELABELING
14560  0 76 27043           LDA     =01C111213
14561  0 35 00415           STA     RL1
14562  0 02 20400           EBM     020400
14563  0 13 00415           PBT     RL1             SET RL1
14564  0 76 27044           LDA     =014151617
14565  0 35 00416           STA     RL2
14566  0 02 21000           EBM     021000
14567  0 13 00416           PBT     RL2             SET RL2
14570  2 46 00000           CLX
```



```
                    * CHECK LOO + LO BITS
14571  0 43 00430  LCKO    BRM     SBJECT
14572  0 43 00440           BRM     RETURN
14573  0 20 14601           NBP     LO
14574  0 75 27054           LDB     =040000         B = CORRECT BITS
14575  0 77 14571           EAX     LCKO            X = TEST LOCATION
14576  4 76 00000           LDA     00,4            GET ADDRESS
14577  0 14 27113           ETR     =0140000        EXTRACT TEST BITS
14600  0 50 27054           SKE     =040000         CHECK FOR 2ED 16K
14601  0 43 00460  LO        BRM     ERROR
14602  0 20 26116           NBP     LMO
14603  0 43 00434           BRM     END
```

```
MEM1   TAP=3.0                          PAGE 199

                    * CHECK XDRIVE  DX0
14604  0 43 00430   LCK1    BRM      OBJECT
14605  0 43 00440            BRM      RETURN          SET PARITY RETURN
14606  0 20 14614            NOP      L1
14607  0 77 14604            EAX      LCK1            X = TEST LOC
14610  0 75 26745            LDB      =000000         B = CORRECT BITS
14611  4 76 00000            LDA      0,4             GET ADDRESS
14612  0 14 27114            ETR      =010007
14613  0 50 26745            SKE      =000000         CHECK BITS
14614  0 43 00460   L1       BRM      ERROR
14615  0 20 26130            NOP      LM1
14616  0 43 00434            BRM      END
                    * CHECK XDRIVE DX1
14617  0 43 00430   LCK2     BRM      OBJECT
14620  0 43 00440            BRM      RETURN          SET PARITY RETURN
14621  0 20 14627            NOP      L2
14622  0 77 14617            EAX      LCK2            X = TEST LOCATION
14623  0 75 27017            LDB      =000001         B = CORRECT BITS
14624  4 76 00001            LDA      01,4            GET ADDRESS
14625  0 14 27114            ETR      =010007         EXTRACT TEST BITS
14626  0 50 27017            SKE      =000001         CHECK BITS
14627  0 43 00460   L2       BRM      ERROR
14630  0 20 26144            NOP      LM2
14631  0 43 00434            BRM      END
```

```
MEM1   TAP=3.0                          PAGE 200

                    * CHECK XDRIVE DX2
14632  0 43 00430   LCK3     BRM      OBJECT
14633  0 43 00440            BRM      RETURN          SET PARITY RETURN
14634  0 20 14642            NOP      L3
14635  0 77 14632            EAX      LCK3            X = TEST LOCATION
14636  0 75 27020            LDB      =000002         B = CORRECT BITS
14637  4 76 00002            LDA      02,4            GET ADDRESS
14640  0 14 27114            ETR      =010007         EXTRACT TEST BITS
14641  0 50 27020            SKE      =000002         CHECK BITS
14642  0 43 00460   L3       BRM      ERROR
14643  0 20 26154            NOP      LM3
14644  0 43 00434            BRM      END
                    * CHECK XDRIVE DX3
14645  0 43 00430   LCK4     BRM      OBJECT
14646  0 43 00440            BRM      RETURN          SET PARITY RETURN
14647  0 20 14655            NOP      L4
14650  0 77 14645            EAX      LCK4            X = TEST LOCATION
14651  0 75 27115            LDB      =000003         B = CORRECT BITS
14652  4 76 00003            LDA      03,4            GET ADDRESS
14653  0 14 27114            ETR      =010007         EXTRACT TEST BITS
14654  0 50 27115            SKE      =000003         CHECK BITS
14655  0 43 00460   L4       BRM      ERROR
14656  0 20 26164            NOP      LM4
14657  0 43 00434            BRM      END
```

```
MEM1   TAP=3,C                          PAGE 201

                    * CHECK XDRIVE DX4
14660  0 43 00430   LCK5    BRM     OBJECT
14661  0 43 00440           BRM     RETURN          SET PARITY RETURN
14662  0 20 14670           NOP     L5
14663  0 77 14660           EAX     LCK5            X = TEST LOCATION
14664  0 75 26744           LDB     =000004         B = CORRECT BITS
14665  4 76 00004           LDA     04,4            GET ADDRESS
14666  0 14 27114           ETR     =010007         EXTRACT TEST BITS
14667  0 50 26744           SKE     =000004         CHECK BITS
14670  0 43 00460   L5      BRM     ERROR
14671  0 20 26174           NOP     LM5
14672  0 43 00434           BRM     END
                    * CHECK XDRIVE DX5
14673  0 43 00430   LCK6    BRM     OBJECT
14674  0 43 00440           BRM     RETURN          SET PARITY RETURN
14675  0 20 14703           NOP     L6
14676  0 77 14673           EAX     LCK6            X = TEST LOCATION
14677  0 75 27116           LDB     =000005         B = CORRECT BITS
14700  4 76 00005           LDA     05,4            GET ADDRESS
14701  0 14 27114           ETR     =010007         EXTRACT TEST BITS
14702  0 50 27116           SKE     =000005         CHECK BITS
14703  0 43 00460   L6      BRM     ERROR
14704  0 20 26210           NOP     LM6
14705  0 43 00434           BRM     END
```

```
MEM1   TAP=3,C                          PAGE 202

                    * CHECK XDRIVE DX6
14706  0 43 00430   LCK7    BRM     OBJECT
14707  0 43 00440           BRM     RETURN          SET PARITY RETURN
14710  0 20 14716           NOP     L7
14711  0 77 14706           EAX     LCK7            X = TEST LOCATION
14712  4 76 00006           LDA     06,4            GET ADDRESS
14713  0 75 27117           LDB     =000006         B = CORRECT BITS
14714  0 14 27114           ETR     =010007         EXTRACT TEST BITS
14715  0 50 27117           SKE     =000006         CHECK BITS
14716  0 43 00460   L7      BRM     ERROR
14717  0 20 26220           NOP     LM7
14720  0 43 00434           BRM     END
                    * CHECK XDRIVE DX7
14721  0 43 00430   LCK8    BRM     OBJECT
14722  0 43 00440           BRM     RETURN          SET PARITY RETURN
14723  0 20 14731           NOP     L8
14724  0 77 14721           EAX     LCK8            X = TEST LOCATION
14725  0 75 27120           LDB     =000007         B = CORRECT BITS
14726  4 76 00007           LDA     07,4            GET ADDRESS
14727  0 14 27114           ETR     =010007         EXTRACT TEST BITS
14730  0 50 27120           SKE     =000007         CHECK BITS
14731  0 43 00460   L8      BRM     ERROR
14732  0 20 26230           NOP     LM8
14733  0 43 00434           BRM     END
```

```
                    * CHECK XDRIVE DX10
14734  0 43 00430  LCK9    BRM     OBJECT
14735  0 43 00440          BRM     RETURN          SET PARITY RETURN
14736  0 20 14744          NOP     L9
14737  0 77 14734          EAX     LCK9            X = TEST LOCATION
14740  0 75 27056          LDB     =010000         B = CORRECT BITS
14741  4 76 10000          LDA     010000,4        GET ADDRESS
14742  0 14 27114          ETR     =010007         EXTRACT TEST BITS
14743  0 50 27056          SKE     =010000         CHECK BITS
14744  0 43 00460  L9      BRM     ERROR
14745  0 20 26240          NOP     LM9
14746  0 43 00434          BRM     END
                    * CHECK XDRIVE DX11
14747  0 43 00430  LCK10   BRM     OBJECT
14750  0 43 00440          BRM     RETURN          SET PARITY RETURN
14751  0 20 14757          NOP     L10
14752  0 77 14747          EAX     LCK10           X = TEST LOCATION
14753  0 75 27121          LDB     =010001         B = CORRECT BITS
14754  4 76 10001          LDA     010001,4        GET ADDRESS
14755  0 14 27114          ETR     =010007         EXTRACT TEST BITS
14756  0 50 27121          SKE     =010001         CHECK BITS
14757  0 43 00460  L10     BRM     ERROR
14760  0 20 26250          NOP     LM10
14761  0 43 00434          BRM     END
```



```
                    * CHECK XDRIVE DX12
14762  0 43 00430  LCK11   BRM     OBJECT
14763  0 43 00440          BRM     RETURN          SET PARITY RETURN
14764  0 20 14772          NOP     L11
14765  0 77 14762          EAX     LCK11           X = TEST LOCATION
14766  0 75 27122          LDB     =010002         B = CORRECT BITS
14767  4 76 10002          LDA     010002,4        GET ADDRESS
14770  0 14 27114          ETR     =010007         EXTRACT TEST BITS
14771  0 50 27122          SKE     =010002         CHECK BITS
14772  0 43 00460  L11     BRM     ERROR
14773  0 20 26260          NOP     LM11
14774  0 43 00434          BRM     END
                    * CHECK XDRIVE DX13
14775  0 43 00430  LCK12   BRM     OBJECT
14776  0 43 00440          BRM     RETURN          SET PARITY RETURN
14777  0 20 15005          NOP     L12
15000  0 77 14775          EAX     LCK12           X = TEST LOCATION
15001  0 75 27123          LDB     =010003         B = CORRECT BITS
15002  4 76 10003          LDA     010003,4        GET ADDRESS
15003  0 14 27114          ETR     =010007         EXTRACT TEST BITS
15004  0 50 27123          SKE     =010003         CHECK BITS
15005  0 43 00460  L12     BRM     ERROR
15006  0 20 26270          NOP     LM12
15007  0 43 00434          BRM     END
```

```
                    * CHECK XDRIVE DX14
15010  0 43 00430 LCK13  BRM     OBJECT
15011  0 43 00440        BRM     RETURN          SET PARITY RETURN
15012  0 20 15020        NOP     L13
15013  0 77 15010        EAX     LCK13           X = TEST LOCATION
15014  0 75 27124        LDB     =010004         B = CORRECT BITS
15015  4 76 10004        LDA     010004,4        GET ADDRESS
15016  0 14 27114        ETR     =010007         EXTRACT TEST BITS
15017  0 50 27124        SKE     =010004         CHECK BITS
15020  0 43 00460 L13    BRM     ERROR
15021  0 20 26300        NOP     LM13
15022  0 43 00434        BRM     END
                    * CHECK XDRIVE DX15
15023  0 43 00430 LCK14  BRM     OBJECT
15024  0 43 00440        BRM     RETURN          SET PARITY RETURN
15025  0 20 15033        NOP     L14
15026  0 77 15023        EAX     LCK14           X = TEST LOCATION
15027  0 75 27125        LDB     =010005         B = CORRECT BITS
15030  4 76 10005        LDA     010005,4        GET ADDRESS
15031  0 14 27114        ETR     =010007         EXTRACT TEST BITS
15032  0 50 27125        SKE     =010005         CHECK BITS
15033  0 43 00460 L14    BRM     ERROR
15034  0 20 26310        NOP     LM14
15035  0 43 00434        BRM     END             LOOP IF BP1 SET
```



```
                    * CHECK XDRIVE DX16
15036  0 43 00430 LCK15  BRM     OBJECT
15037  0 43 00440        BRM     RETURN          SET PARITY RETURN
15040  0 20 15046        NOP     L15
15041  0 77 15036        EAX     LCK15           X = TEST LOCATION
15042  0 75 27126        LDB     =010006         B = CORRECT BITS
15043  4 76 10006        LDA     010006,4        GET ADDRESS
15044  0 14 27114        ETR     =010007         EXTRACT TEST BITS
15045  0 50 27126        SKE     =010006         CHECK BITS
15046  0 43 00460 L15    BRM     ERROR
15047  0 20 26320        NOP     LM15
15050  0 43 00434        BRM     END
                    * CHECK XDRIVE DX1
15051  0 43 00430 LCK16  BRM     OBJECT
15052  0 43 00440        BRM     RETURN          SET PARITY RETURN
15053  0 20 15061        NOP     L16
15054  0 77 15051        EAX     LCK16           X = TEST LOCATION
15055  0 75 27114        LDB     =010007         B = CORRECT BITS
15056  4 76 10007        LDA     010007,4        GET ADDRESS
15057  0 14 27114        ETR     =010007         EXTRACT TEST BITS
15060  0 50 27114        SKE     =010007         CHECK BITS
15061  0 43 00460 L16    BRM     ERROR
15062  0 20 26330        NOP     LM16
15063  0 43 00434        BRM     END
```

```
                    * CHECK XSINK SX0
15064  0 43 00430 LCK17  BRM     OBJECT
15065  0 43 00440        BRM     RETURN          SET PARITY RETURN
15066  0 20 15074        NOP     L17
15067  0 77 15064        EAX     LCK17           X = TEST LOCATION
15070  0 75 26745        LDB     =00000          B = CORRECT BITS
15071  4 76 00000        LDA     0,4             GET ADDRESS
15072  0 14 27127        ETR     =000070         EXTRACT TEST BITS
15073  0 50 26745        SKE     =00000          CHECK BITS
15074  0 43 00460 L17    BRM     ERROR
15075  0 20 26340        NOP     LM17
15076  0 43 00434        BRM     END
                    * CHECK XSINK SX1
15077  0 43 00430 LCK18  BRM     OBJECT
15100  0 43 00440        BRM     RETURN          SET PARITY RETURN
15101  0 20 15107        NOP     L18
15102  0 77 15077        EAX     LCK18           X = TEST LOCATION
15103  0 75 27021        LDB     =000010         B = CORRECT BITS
15104  4 76 00010        LDA     010,4           GET ADDRESS
15105  0 14 27127        ETR     =000070         EXTRACT TEST BITS
15106  0 50 27021        SKE     =000010         CHECK BITS
15107  0 43 00460 L18    BRM     ERROR
15110  0 20 26346        NOP     LM18
15111  0 43 00434        BRM     END
```



```
                    * CHECK XSINK SX2
15112  0 43 00430 LCK19  BRM     OBJECT
15113  0 43 00440        BRM     RETURN          SET PARITY RETURN
15114  0 20 15122        NOP     L19
15115  0 77 15112        EAX     LCK19           X = TEST LOCATION
15116  0 75 27022        LDB     =000020         B = CORRECT BITS
15117  4 76 00020        LDA     020,4           GET ADDRESS
15120  0 14 27127        ETR     =000070         EXTRACT TEST BITS
15121  0 50 27022        SKE     =000020         CHECK BITS
15122  0 43 00460 L19    BRM     ERROR
15123  0 20 26354        NOP     LM19
15124  0 43 00434        BRM     END
                    * CHECK XSINK SX3
15125  0 43 00430 LCK20  BRM     OBJECT
15126  0 43 00440        BRM     RETURN          SET PARITY RETURN
15127  0 20 15135        NOP     L20
15130  0 77 15125        EAX     LCK20           X = TEST LOCATION
15131  0 75 27130        LDB     =000030         B = CORRECT BITS
15132  4 76 00030        LDA     030,4           GET ADDRESS
15133  0 14 27127        ETR     =000070         EXTRACT TEST BITS
15134  0 50 27130        SKE     =000030         CHECK BITS
15135  0 43 00460 L20    BRM     ERROR
15136  0 20 26362        NOP     LM20
15137  0 43 00434        BRM     END
```

```
                        * CHECK XSINK SX4
15140  0 43 00430  LCK21  BRM     OBJECT
15141  0 43 00440         BRM     RETURN          SET PARITY RETURN
15142  0 20 15150         NOP     L21
15143  0 77 15140         EAX     LCK21           X = TEST LOCATION
15144  0 75 26762         LDB     =000040         B = CORRECT BITS
15145  4 76 00040         LDA     040,4           GET ADDRESS
15146  0 14 27127         ETR     =000070         EXTRACT TEST BITS
15147  0 50 26762         SKE     =000040         CHECK BITS
15150  0 43 00460  L21    BRM     ERROR
15151  0 20 26370         NOP     LM21
15152  0 43 00434         BRM     END
                        * CHECK XSINK SX5
15153  0 43 00430  LCK22  BRM     OBJECT
15154  0 43 00440         BRM     RETURN          SET PARITY RETURN
15155  0 20 15163         NOP     L22
15156  0 77 15153         EAX     LCK22           X = TEST LOCATION
15157  0 75 27005         LDB     =000050         B = CORRECT BITS
15160  4 76 00050         LDA     050,4           GET ADDRESS
15161  0 14 27127         ETR     =000070         EXTRACT TEST BITS
15162  0 50 27005         SKE     =000050         CHECK BITS
15163  0 43 00460  L22    BRM     ERROR
15164  0 20 26376         NOP     LM22
15165  0 43 00434         BRM     END
```



```
                        * CHECK XSINK SX6
15166  0 43 00430  LCK23  BRM     OBJECT
15167  0 43 00440         BRM     RETURN          SET PARITY RETURN
15170  0 20 15176         NOP     L23
15171  0 77 15166         EAX     LCK23           X = TEST LOCATION
15172  0 75 27006         LDB     =000060         B = CORRECT BITS
15173  4 76 00060         LDA     060,4           GET ADDRESS
15174  0 14 27127         ETR     =000070         EXTRACT TEST BITS
15175  0 50 27006         SKE     =000060         CHECK BITS
15176  0 43 00460  L23    BRM     ERROR
15177  0 20 26404         NOP     LM23
15200  0 43 00434         BRM     END
                        * CHECK XSINK SX7
15201  0 43 00430  LCK24  BRM     OBJECT
15202  0 43 00440         BRM     RETURN          SET PARITY RETURN
15203  0 20 15211         NOP     L24
15204  0 77 15201         EAX     LCK24           X = TEST LOCATION
15205  0 75 27127         LDB     =000070         B = CORRECT BITS
15206  4 76 00070         LDA     070,4           GET ADDRESS
15207  0 14 27127         ETR     =000070         EXTRACT TEST BITS
15210  0 50 27127         SKE     =000070         CHECK BITS
15211  0 43 00460  L24    BRM     ERROR
15212  0 20 26412         NOP     LM24
15213  0 43 00434         BRM     END
```

```
                    * CHECK YDRIVE DY0
15214  0 43 00430  LCK25  BRM     OBJECT
15215  0 43 00440         BRM     RETURN          SET PARITY RETURN
15216  0 20 15224         NOP     L25
15217  0 77 15214         EAX     LCK25           X = TEST LOCATION
15220  0 75 26745         LDB     =000000         B = CORRECT BITS
15221  4 76 00000         LDA     0,4             GET ADDRESS
15222  0 14 27131         ETR     =020700         EXTRACT TEST BITS
15223  0 50 26745         SKE     =000000         CHECK BITS
15224  0 43 00460  L25    BRM     ERROR
15225  0 20 26420         NOP     LM25
15226  0 43 00434         BRM     END
                    * CHECK YDRIVE DY1
15227  0 43 00430  LCK26  BRM     OBJECT
15230  0 43 00440         BRM     RETURN          SET PARITY RETURN
15231  0 20 15237         NOP     L26
15232  0 77 15227         EAX     LCK26           X = TEST LOCATION
15233  0 75 27012         LDB     =000100         B = CORRECT BITS
15234  4 76 00100         LDA     0100,4          GET ADDRESS
15235  0 14 27131         ETR     =020700         EXTRACT TEST BITS
15236  0 50 27012         SKE     =000100         CHECK BITS
15237  0 43 00460  L26    BRM     ERROR
15240  0 20 26433         NOP     LM26
15241  0 43 00434         BRM     END
```



```
                    * CHECK YDRIVE DY2
15242  0 43 00430  LCK27  BRM     OBJECT
15243  0 43 00440         BRM     RETURN          SET PARITY RETURN
15244  0 20 15252         NOP     L27
15245  0 77 15242         EAX     LCK27           X = TEST LOCATION
15246  0 75 27013         LDB     =000200         B = CORRECT BITS
15247  4 76 00200         LDA     0200,4          GET ADDRESS
15250  0 14 27131         ETR     =020700         EXTRACT TEST BITS
15251  0 50 27013         SKE     =000200         CHECK BITS
15252  0 43 00460  L27    BRM     ERROR
15253  0 20 26442         NOP     LM27
15254  0 43 00434         BRM     END
                    * CHECK YDRIVE DY3
15255  0 43 00430  LCK28  BRM     OBJECT
15256  0 43 00440         BRM     RETURN          SET PARITY RETURN
15257  0 20 15265         NOP     L28
15260  0 77 15255         EAX     LCK28           X = TEST LOCATION
15261  0 75 27132         LDB     =000300         B = CORRECT BITS
15262  4 76 00300         LDA     0300,4          GET ADDRESS
15263  0 14 27131         ETR     =020700         EXTRACT TEST BITS
15264  0 50 27132         SKE     =000300         CHECK BITS
15265  0 43 00460  L28    BRM     ERROR
15266  0 20 26451         NOP     LM28
15267  0 43 00434         BRM     END
```

```
MEM1   TAP=3.0                          PAGE 213

                    * CHECK YDRIVE DY4
15270  0 43 00430   LCK29   BRM     OBJECT
15271  0 43 00440           BRM     RETURN          SET PARITY RETURN
15272  0 20 15300           NOP     L29
15273  0 77 15270           EAX     LCK29           X = TEST LOCATION
15274  0 75 27114           LDB     #000400         B = CORRECT BITS
15275  4 76 00400           LDA     0400,4          GET ADDRESS
15276  0 14 27131           ETR     #020700         EXTRACT TEST BITS
15277  0 50 27114           SKE     #000400         CHECK BITS
15300  0 43 00460   L29     BRM     ERROR
15301  0 20 26460           NOP     LM29
15302  0 43 00434           BRM     END
                    * CHECK YDRIVE DY5
15303  0 43 00430   LCK30   BRM     OBJECT
15304  0 43 00440           BRM     RETURN          SET PARITY RETURN
15305  0 20 15313           NOP     L30
15306  0 75 27133           LDB     #000500         B = CORRECT BITS
15307  0 77 15303           EAX     LCK30           X = TEST LOCATION
15310  4 76 00500           LDA     0500,4          GET BITS
15311  0 14 27131           ETR     #020700
15312  0 50 27133           SKE     #000500
15313  0 43 00460   L30     BRM     ERROR
15314  0 20 26473           NOP     LM30
15315  0 43 00434           BRM     END             LOOP IF BP1 SET
```

```
MEM1   TAP=3.0                          PAGE 214

                    * CHECK YDRIVE DY6
15316  0 43 00430   LCK31   BRM     OBJECT
15317  0 43 00440           BRM     RETURN          SET PARITY RETURN
15320  0 20 15326           NOP     L31
15321  0 77 15316           EAX     LCK31           X = TEST LOCATION
15322  0 75 27134           LDB     #000600         B = CORRECT BITS
15323  4 76 00600           LDA     0600,4          GET ADDRESS
15324  0 14 27131           ETR     #020700         EXTRACT TEST BITS
15325  0 50 27134           SKE     #000600         CHECK BITS
15326  0 43 00460   L31     BRM     ERROR
15327  0 20 26502           NOP     LM31
15330  0 43 00434           BRM     END
                    * CHECK YDRIVE DY7
15331  0 43 00430   LCK32   BRM     OBJECT
15332  0 43 00440           BRM     RETURN          SET PARITY RETURN
15333  0 20 15341           NOP     L32
15334  0 77 15331           EAX     LCK32           X = TEST LOCATION
15335  0 75 27135           LDB     #000700         B = CORRECT BITS
15336  4 76 00700           LDA     0700,4          GET ADDRESS
15337  0 14 27131           ETR     #020700         EXTRACT TEST BITS
15340  0 50 27135           SKE     #000700         CHECK BITS
15341  0 43 00460   L32     BRM     ERROR
15342  0 20 26511           NOP     LM32
15343  0 43 00434           BRM     END
```

```
                        * CHECK YDRIVE DY10
15344  0 43 00430  LCK33  BRM     OBJECT
15345  0 43 00440         BRM     RETURN          SET PARITY RETURN
15346  0 20 15354         NOP     L33
15347  0 77 15344         EAX     LCK33           X = TEST LOCATION
15350  0 75 27155         LDB     #020000         B = CORRECT BITS
15351  4 76 20000         LDA     020000,4        GET ADDRESS
15352  0 14 27131         ETR     #020700         EXTRACT TEST BITS
15353  0 50 27155         SKE     #020000         CHECK BITS
15354  0 43 00460  L33    BRM     ERROR
15355  0 20 26520         NOP     LM33
15356  0 43 00434         BRM     END
                        * CHECK YDRIVE DY11
15357  0 43 00430  LCK34  BRM     OBJECT
15360  0 43 00440         BRM     RETURN          SET PARITY RETURN
15361  0 20 15367         NOP     L34
15362  0 77 15357         EAX     LCK34           X = TEST LOCATION
15363  0 75 27136         LDB     #020100         B = CORRECT BITS
15364  4 76 20100         LDA     020100,4        GET ADDRESS
15365  0 14 27131         ETR     #020700         EXTRACT TEST BITS
15366  0 50 27136         SKE     #020100         CHECK BITS
15367  0 43 00460  L34    BRM     ERROR
15370  0 20 26530         NOP     LM34
15371  0 43 00434         BRM     END
```



```
                        * CHECK YDRIVE DY12
15372  0 43 00430  LCK35  BRM     OBJECT
15373  0 43 00440         BRM     RETURN          SET PARITY RETURN
15374  0 20 15402         NOP     L35
15375  0 77 15372         EAX     LCK35           X = TEST LOCATION
15376  0 75 27137         LDB     #020200         B = CORRECT BITS
15377  4 76 20200         LDA     020200,4        GET ADDRESS
15400  0 14 27131         ETR     #020700         EXTRACT TEST BITS
15401  0 50 27137         SKE     #020200         CHECK BITS
15402  0 43 00460  L35    BRM     ERROR
15403  0 20 26540         NOP     LM35
15404  0 43 00434         BRM     END
                        * CHECK YDRIVE DY13
15405  0 43 00430  LCK36  BRM     OBJECT
15406  0 43 00440         BRM     RETURN          SET PARITY RETURN
15407  0 20 15415         NOP     L36
15410  0 77 15405         EAX     LCK36           X = TEST LOCATION
15411  0 75 27140         LDB     #020300         B = CORRECT BITS
15412  4 76 20300         LDA     020300,4        GET ADDRESS
15413  0 14 27131         ETR     #020700         EXTRACT TEST BITS
15414  0 50 27140         SKE     #020300         CHECK BITS
15415  0 43 00460  L36    BRM     ERROR
15416  0 20 26550         NOP     LM36
15417  0 43 00434         BRM     END
```

```
MEM1    TAP=3.0                         PAGE 217

                    * CHECK YDRIVE DY14
15420   0 43 00430  LCK37   BRM     OBJECT
15421   0 43 00440          BRM     RETURN          SET PARITY RETURN
15422   0 20 15430          NOP     L37
15423   0 77 15420          EAX     LCK37           X = TEST LOCATION
15424   0 75 27141          LDB     #020400         B = CORRECT BITS
15425   4 76 20400          LDA     020400,4        GET ADDRESS
15426   0 14 27131          ETR     #020700         EXTRACT TEST BITS
15427   0 50 27141          SKE     #020400         CHECK BITS
15430   0 43 00460  L37     BRM     ERROR
15431   0 20 26560          NOP     LM37
15432   0 43 00434          BRM     END
                    * CHECK YDRIVE DY15
15433   0 43 00430  LCK38   BRM     OBJECT
15434   0 43 00440          BRM     RETURN          SET PARITY RETURN
15435   0 20 15443          NOP     L38
15436   0 77 15433          EAX     LCK38           X = TEST LOCATION
15437   0 75 27142          LDB     #020500         B = CORRECT BITS
15440   4 76 20500          LDA     020500,4        GET ADDRESS
15441   0 14 27131          ETR     #020700         EXTRACT TEST BITS
15442   0 50 27142          SKE     #020500         CHECK BITS
15443   0 43 00460  L38     BRM     ERROR
15444   0 20 26570          NOP     LM38
15445   0 43 00434          BRM     END
```

```
MEM1    TAP=3.0                         PAGE 218

                    * CHECK YDRIVE DY16
15446   0 43 00430  LCK39   BRM     OBJECT
15447   0 43 00440          BRM     RETURN          SET PARITY RETURN
15450   0 20 15456          NOP     L39
15451   0 77 15446          EAX     LCK39           X = TEST LOCATION
15452   0 75 27143          LDB     #020600         B = CORRECT BITS
15453   4 76 20600          LDA     020600,4        GET ADDRESS
15454   0 14 27131          ETR     #020700         EXTRACT TEST BITS
15455   0 50 27143          SKE     #020600         CHECK BITS
15456   0 43 00460  L39     BRM     ERROR
15457   0 20 26600          NOP     LM39
15460   0 43 00434          BRM     END
                    * CHECK YDRIVE DY17
15461   0 43 00430  LCK40   BRM     OBJECT
15462   0 43 00440          BRM     RETURN          SET PARITY RETURN
15463   0 20 15471          NOP     L40
15464   0 77 15461          EAX     LCK40           X = TEST LOCATION
15465   0 75 27131          LDB     #020700         B = CORRECT BITS
15466   4 76 20700          LDA     020700,4        GET ADDRESS
15467   0 14 27131          ETR     #020700         EXTRACT TEST BITS
15470   0 50 27131          SKE     #020700         CHECK BITS
15471   0 43 00460  L40     BRM     ERROR
15472   0 20 26610          NOP     LM40
15473   0 43 00434          BRM     END
```

```
                    * CHECK YSINK SY0
15474  0 43 00430  LCK41   BRM     OBJECT
15475  0 43 00440          BRM     RETURN          SET PARITY RETURN
15476  0 20 15504          NOP     L41
15477  0 77 15474          EAX     LCK41           X = TEST LOCATION
15500  0 75 26745          LDB     #000000         B = CORRECT BITS
15501  4 76 00000          LDA     0,4             GET ADDRESS
15502  0 14 27144          ETR     #007000         EXTRACT TEST BITS
15503  0 50 26745          SKE     #000000         CHECK BITS
15504  0 43 00460  L41     BRM     ERROR
15505  0 20 26620          NOP     LM41
15506  0 43 00434          BRM     END
                    * CHECK YSINK SY1
15507  0 43 00430  LCK42   BRM     OBJECT
15510  0 43 00440          BRM     RETURN          SET PARITY RETURN
15511  0 20 15517          NOP     L42
15512  0 77 15507          EAX     LCK42           X = TEST LOCATION
15513  0 75 27015          LDB     #001000         B = CORRECT BITS
15514  4 76 01000          LDA     01000,4         GET ADDRESS
15515  0 14 27144          ETR     #007000         EXTRACT TEST BITS
15516  0 50 27015          SKE     #001000
15517  0 43 00460  L42     BRM     ERROR
15520  0 20 26626          NOP     LM42
15521  0 43 00434          BRM     END
```



```
                    * CHECK YSINK SY2
15522  0 43 00430  LCK43   BRM     OBJECT
15523  0 43 00440          BRM     RETURN          SET PARITY RETURN
15524  0 20 15532          NOP     L43
15525  0 77 15522          EAX     LCK43           X = TEST LOCATION
15526  0 75 27016          LDB     #002000         B = CORRECT BITS
15527  4 76 02000          LDA     02000,4         GET ADDRESS
15530  0 14 27144          ETR     #007000         EXTRACT TEST BITS
15531  0 50 27016          SKE     #002000         CHECK BITS
15532  0 43 00460  L43     BRM     ERROR
15533  0 20 26634          NOP     LM43
15534  0 43 00434          BRM     END
                    * CHECK YSINK SY3
15535  0 43 00430  LCK44   BRM     OBJECT
15536  0 43 00440          BRM     RETURN          SET PARITY RETURN
15537  0 20 15545          NOP     L44
15540  0 77 15535          EAX     LCK44           X = TEST LOCATION
15541  0 75 27145          LDB     #003000         B = CORRECT BITS
15542  4 76 03000          LDA     03000,4         GET ADDRESS
15543  0 14 27144          ETR     #007000         EXTRACT TEST BITS
15544  0 50 27145          SKE     #003000         CHECK BITS
15545  0 43 00460  L44     BRM     ERROR
15546  0 20 26642          NOP     LM44
15547  0 43 00434          BRM     END
```

```
                        * CHECK YSINK SY4
15550  0 43 00430  LCK45  BRM     OBJECT
15551  0 43 00440         BRM     RETURN          SET PARITY RETURN
15552  0 20 15560         NOP     L45
15553  0 77 15550         EAX     LCK45           X = TEST LOCATION
15554  0 75 26761         LDB     =004000         B = CORRECT BITS
15555  4 76 04000         LDA     04000,4         GET ADDRESS
15556  0 14 27144         ETR     =007000         EXTRACT TEST BITS
15557  0 50 26761         SKE     =004000         CHECK BITS
15560  0 43 00460  L45    BRM     ERROR
15561  0 20 26650         NOP     LM45
15562  0 43 00434         BRM     END
                        * CHECK YSINK SY5
15563  0 43 00430  LCK46  BRM     OBJECT
15564  0 43 00440         BRM     RETURN          SET PARITY RETURN
15565  0 20 15573         NOP     L46
15566  0 77 15563         EAX     LCK46           X = TEST LOCATION
15567  0 75 27000         LDB     =005000         B = CORRECT BITS
15570  4 76 05000         LDA     05000,4         GET ADDRESS
15571  0 14 27144         ETR     =007000         EXTRACT TEST BITS
15572  0 50 27000         SKE     =005000         CHECK BITS
15573  0 43 00460  L46    BRM     ERROR
15574  0 20 26656         NOP     LM46
15575  0 43 00434         BRM     END
```



```
                        * CHECK YSINK SY6
15576  0 43 00430  LCK47  BRM     OBJECT
15577  0 43 00440         BRM     RETURN          SET PARITY RETURN
15600  0 20 15606         NOP     L47
15601  0 77 15576         EAX     LCK47           X = TEST LOCATION
15602  0 75 27001         LDB     =006000         B = CORRECT BITS
15603  4 76 06000         LDA     06000,4         GET ADDRESS
15604  0 14 27144         ETR     =007000         EXTRACT TEST BITS
15605  0 50 27001         SKE     =006000         CHECK BITS
15606  0 43 00460  L47    BRM     ERROR
15607  0 20 26664         NOP     LM47
15610  0 43 00434         BRM     END
                        * CHECK YSINK SY7
15611  0 43 00430  LCK48  BRM     OBJECT
15612  0 43 00440         BRM     RETURN          SET PARITY RETURN
15613  0 20 15621         NOP     L48
15614  0 77 15611         EAX     LCK48           X = TEST LOCATION
15615  0 75 27144         LDB     =007000         B = CORRECT BITS
15616  4 76 07000         LDA     07000,4         GET ADDRESS
15617  0 14 27144         ETR     =007000         EXTRACT TEST BITS
15620  0 50 27144         SKE     =007000         CHECK BITS
15621  0 43 00460  L48    BRM     ERROR
15622  0 20 26672         NOP     LM48
15623  0 43 00434         BRM     END
```

```
                    * FUNCTION 3 END
15624  0 02 20004          EOM     020004              DISABLE INTERRUPTS
15625  0 43 00456          BRM     FDONE
```



```
                    * FUNCTION 4
                    * THIS FUNCTION GENERATES A WORST CASE NOISE AND HISTORY
                    * PATTERN IN MEMORY 2ED 16K
15626  0 00 00000   TEMP    PZE
15627    77777777  PATERN  DATA    077777777
15630  0 76 00405   FUNC4   LDA     SYSIZE
15631  0 72 27017           SKA     =1                  SKIP IF NOT 2ED 16K
15632  0 01 15634           BRU     **2
15633  0 01 17062           BRU     FUNC5
15634  0 43 00424           BRM     FUNCTN
15635  0 20 20033           NOP     FPT4
15636  0 43 00440           BRM     RETURN
15637  0 20 16051           NOP     PARITY
15640  0 02 20002           EOM     020002              ENABLE INTERRUPTS
```

```
                    * SETS UP USER RELABELING FOR WC MEMORY
15641  0 76 27146          LDA     =Q10110000
15642  0 01 15644          BRU     *+2
15643  0 55 27147  WCH00    ADD     =02020000
15644  0 35 00415          STA     RL1
15645  0 66 24014          LRSH    014
15646  0 35 00416          STA     RL2
15647  0 02 20400          EOM     020400
15650  0 13 00415          POT     RL1                 SET RELABELING REGISTER 1
15651  0 02 21000          EOM     021000
15652  0 13 00416          POT     RL2                 SET RELABELING REGISTER 2
```



```
                    * SPREAD MAXIMUM POSITIVE NOISE PATTERN
15653  0 71 27150          LDX     =070000
15654  0 76 15627  WCH0     LDA     PATERN              A = PATTERN
15655  0 43 16216          BRM     SPREAD              STORE DIAGONAL
15656  2 77 00100          EAX     0100,2              SELECT NEXT DIAGONAL
15657  0 46 00001          CLA
15660  0 43 16216          BRM     SPREAD              STORE DIAGONAL
15661  2 77 00077          EAX     077,2               SELECT NEXT DIAGONAL
15662  0 41 15654          BRX     WCH0
                    * GENERATE WRITE DISTURBED POSITIVE ZEROS AND CHECK
15663  0 71 27150          LDX     =070000
15664  0 43 00430          BRM     OBJECT
15665  0 46 00002  WCH1     CLB
15666  0 76 15627          LDA     PATERN
15667  0 43 16423          BRM     CHECK               CHECK FOR PATTERN AND STORE ZEROS
15670  0 37 15626          STX     TEMP                SAVE TEST LOCATION
15671  2 77 00200          EAX     0200,2              NEXT POSITIVE DIAGONAL
15672  0 43 16320          BRM     ACCESS              WRITE DISTURB QUADRANT
15673  0 71 15626          LDX     TEMP                GET TEST LOCATION
15674  0 75 15627          LDB     PATERN
15675  0 46 00001          CLA                         A = ZEROS
15676  0 43 16423          BRM     CHECK               CHECK FOR ZEROS AND STORE PATTERN
15677  0 43 00434          BRM     END
15700  2 77 00177          EAX     0177,2              NEXT POSITIVE DIAGONAL
15701  0 41 15665          BRX     WCH1
```

```
                    * GENERATE READ DISTURBED NEGATIVE ONES AND CHECK
15702  0 71 27150           LDX     =070000
15703  2 77 00100  WCH2     EAX     0100,2          NEGATIVE DIAGONAL
15704  0 43 00430           BRM     OBJECT
15705  0 46 00001           CLA
15706  0 75 15627           LDB     PATERN
15707  0 43 16423           BRM     CHECK           CHECK FOR ZEROS AND STORE PATTERN
15710  0 37 15626           STX     TEMP            SAVE TEST LOCATION
15711  0 71 27150           LDX     =070000
15712  2 77 00100  WCH3     EAX     0100,2          NEGATIVE DIAGONAL
15713  0 46 00300           CXA
15714  0 50 15626           SKE     TEMP            IS THIS TEST DIAGONAL
15715  0 43 16320           BRM     ACCESS          READ DISTURB DIAGONAL
15716  2 77 00277           EAX     0277,2
15717  0 41 15712           BRX     *CH3
15720  0 71 15626           LDX     TEMP            GET TEST LOCATION
15721  0 76 15627           LDA     PATERN
15722  0 46 00002           CLB
15723  0 43 16423           BRM     CHECK           CHECK FOR PATTERN AND STORE ZEROS
15724  0 43 00434           BRM     END
15725  2 77 00077           EAX     077,2
15726  0 41 15703           BRX     WCH2
```



```
                    * SPREAD MAXIMUM NEGATIVE NOISE PATTERN
15727  0 71 27150           LDX     =070000
15730  0 46 00001  WCH4     CLA
15731  0 43 16216           BRM     SPREAD          STORE DIAGONAL
15732  0 76 15627           LDA     PATERN
15733  2 77 00100           EAX     0100,2          SELECT NEXT DIAGONAL
15734  0 43 16216           BRM     SPREAD          STORE DIAGONAL
15735  2 77 00077           EAX     077,2           SELECT NEXT DIAGONAL
15736  0 41 15730           BRX     *CH4
                    * GENERATE WRITE DISTURBED NEGATIVE ZEROS AND CHECK
15737  0 71 27150           LDX     =070000
15740  2 77 00100  WCH5     EAX     0100,2          NEGATIVE DIAGONAL
15741  0 43 00430           BRM     OBJECT
15742  0 46 00002           CLB
15743  0 76 15627           LDA     PATERN
15744  0 43 16423           BRM     CHECK           CHECK FOR PATTERN AND STORE ZEROS
15745  0 37 15626           STX     TEMP            SAVE TEST LOCATION
15746  2 77 00200           EAX     0200,2          NEXT NEGATIVE DIAGONAL
15747  0 43 16320           BRM     ACCESS          WRITE DISTURB QUADRANT
15750  0 71 15626           LDX     TEMP            GET TEST LOCATION
15751  0 46 00001           CLA                     A = ZEROS
15752  0 75 15627           LDB     PATERN
15753  0 43 16423           BRM     CHECK           CHECK FOR ZEROS AND STORE PATTERN
15754  0 43 00434           BRM     END
15755  2 77 00077           EAX     077,2
15756  0 41 15740           BRX     WCH5
```

```
                    * GENERATE READ DISTURBED POSITIVE ONES AND CHECK
15757  0 71 27150          LDX     #070000
15760  0 43 00430          BRM     OBJECT
15761  0 46 00001  WCH6    CLA
15762  0 75 15627          LDB     PATERN
15763  0 43 16423          BRM     CHECK              CHECK FOR ZEROS AND STORE PATTERN
15764  0 37 15626          STX     TEMP               SAVE TEST LOCATION
15765  0 71 27150          LDX     #070000
15766  0 46 00200  WCH7    CXA
15767  0 50 15626          SKE     TEMP               TEST DIAGONAL
15770  0 43 16320          BRM     ACCESS             READ DISTURB DIAGONAL
15771  2 77 00377          EAX     0377,2
15772  0 41 15766          BRX     WCH7
15773  0 71 15626          LDX     TEMP               GET TEST LOCATION
15774  0 76 15627          LDA     PATERN
15775  0 46 00002          CLB
15776  0 43 16423          BRM     CHECK              CHECK FOR PATTERN AND STORE ZEROS
15777  0 43 00434          BRM     END
16000  2 77 00177          EAX     0177,2             SELECT NEXT POSITIVE DIAGONAL
16001  0 41 15761          BRX     WCH6
```



```
                    * HAS  WC HISTORY  BEEN COMPLETED
16002  0 76 00415          LDA     RL1
16003  0 50 27151          SKE     #016170000         IS LAST BLOCK DONE
16004  0 01 15643          BRU     WCH00
```

```
                    * BIAS TEST
16005  0 43 00430          BRM     OBJECT          START OF OBJECT TEST
16006  0 76 27043          LDA     =010111213
16007  0 35 00415          STA     RL1
16010  0 02 20400          EOM     020400
16011  0 13 00415          POT     RL1             SET RL1
16012  0 76 27044          LDA     =014151617
16013  0 35 00416          STA     RL2
16014  0 02 21000          EOM     021000
16015  0 13 00416          POT     RL2             SET RL2
16016  0 43 00440          BRM     RETURN          SET PARITY AND PIT RETURN
16017  0 20 16030          NOP     ENDIT
16020  0 76 27152          LDA     =027700000      EAX,2
16021  4 35 00000          STA     0,4
16022  0 76 27153          LDA     =04100000       BRX     0
16023  4 35 00001          STA     1,4
16024  0 46 00001          CLA
16025  4 35 00002          STA     2,4
16026  0 71 27054          LDX     =040000
16027  4 01 00000          BRU     0,4
16030  0 46 00001  ENDIT   CLA
16031  0 62 00450          XMA     DIVERT          CLEAR DIVERT AND GET TRAP ID
16032  0 14 26746          ETR     =037777
16033  0 50 27154          SKE     =156            IS IT A PARITY ERROR
16034  0 01 16041          BRU     ENDING          NO
16035  0 76 00415          LDA     RL1
16036  0 75 00416          LDB     RL2
16037  0 43 00460          BRM     ERROR
16040  2 20 26700          NOP     *ERROR,2
16041  0 43 00434  ENDING BRM     END             LOOP IF BP1 SET
```



```
                    * ARE BOTH PATTERNS DONE
16042  0 76 15627          LDA     PATERN
16043  0 17 26757          EOR     =040000000      SWITCH BIT 0 IN PATERN
16044  0 35 15627          STA     PATERN
16045  0 53 15627          SKN     PATERN
16046  0 01 15630          BRU     FUNC4
16047  0 02 20004          EOM     020004          DISABLE INTERRUPTS
16050  0 43 00456          BRM     FDONE
```

```
                    * THIS ROUTINE HANDLES PARITY INTERRUPT
16051  0 02 20004   PARITY DIR
16052  0 35 16063         STA     AAA             SAVE A
16053  0 76 00450         LDA     DIVERT
16054  0 14 26746         ETR     =37777
16055  0 50 27154         SKE     =I56            IS IT PARITY INTERRUPT
16056  0 43 16064         BRM     SPURI           NO, SPURIOUS INTERRUPT
16057  0 20 27155         NOP     =56
16060  0 76 16063         LDA     AAA             RESTORE A
16061  0 02 20002         EIR
16062  0 11 00274         BRI     I56=1           CONTINUE ON WITH TEST
16063  0 00 00000   AAA   PZE
                    *
                    *       PROCESS SPURIOUS POP, INTERRUPT, OR TRAP
                    *
16064  0 00 00000   SPURI  PZE     0
16065  0 73 26756         SKG     =77             WAS SPIT LEGAL
16066  0 01 16077         BRU     IEXT            NO
16067  0 73 27156         SKG     =177            WAS IT A POP
16070  0 01 16105         BRU     POP             YES
16071  0 73 27157         SKG     =237            WAS IT LEGAL
16072  0 01 16077         BRU     IEXT            NO
16073  0 73 27160         SKG     =273            WAS IT I30 = T44
16074  0 01 16113         BRU     I30T44          YES
16075  0 73 27161         SKG     =377            WAS IT I56 = I74
16076  0 01 16112         BRU     I56I74          YES
                    *
                    *       PROCESS ILLEGAL OR EXTERNAL INTERRUPT
                    *
16077  0 76 26751   IEXT  LDA     =-1
16100  0 35 16152         STA     ITABLE+1        RECEIVED
16101  0 76 00450         LDA     DIVERT          MARK
16102  0 43 00454         BRM     REPORT
16103  0 20 16155         NOP     ILLEXT
16104  0 01 16123         BRU     COMMON
```



```
                    *
                    *       PROCESS SPURIOUS POPS
                    *
16105  0 35 16152   POP   STA     ITABLE+1        RECEIVED
16106  0 76 00000         LDA     0               MARK
16107  0 43 00454         BRM     REPORT
16110  0 20 16170         NOP     POPED
16111  0 01 16123         BRU     COMMON
                    *
                    *       PROCESS I56 THROUGH I74
                    *
16112  0 55 27022   I56I74 ADD     =20
                    *
                    *       PROCESS I30 THROUGH T44
                    *
16113  0 54 27162   I30T44 SUB     =161
16114  0 66 00001         RSH     1
16115  0 35 16152         STA     ITABLE+1        RECEIVED
16116  0 77*00450         EAX*    DIVERT
16117  2 77 37777         EAX     -1,2
16120  2 76 00000         LDA     0,2
16121  0 43 00454         BRM     REPORT
16122  0 20 16174         NOP     SPRINT
```

```
                    *
                    *       COMMON INTERRUPT ROUTINE
                    *
16123  0 35 16153   COMMON  STA     ITABLE+2        MARK
16124  0 76•16153           LDA•    ITABLE+2
16125  0 35 16154           STA     ITABLE+3        INSTRUCTION
16126  0 61 16064           MIN     SPURI
16127  0 71•16064           LDX•    SPURI
16130  2 76 00000           LDA     0,2
16131  0 35 16151           STA     ITABLE          EXPECTED
16132  0 43 00454           BRM     REPORT          REPORT ERROR
16133  4 20 16203           NOP     IMSG,4          MESSAGE
16134  0 04 16151           FOUR    ITABLE          DATA
16135  0 43 16141           BRM     CLEAR           CLEAR PRESENT INTERRUPT
16136  0 43 00460           BRM     ERROR           GO TO CONTROL
16137  0 20 16215           NOP     CARRET          (NO MESSAGE)
16140  0 01•00424           BRU•    FUNCTN
```



```
                    *
                    *       CLEAR PRESENT INTERRUPT
                    *
16141  0 00 00000   CLEAR   PZE     0
16142  0 76 00401           LDA     STATUS
16143  0 72 26744           SKA     •4              SKIP IF NOT 940
16144  0 11 16146           BRI     ••2             940
16145  0 01•16146           BRU•    ••1             985/930
16146  0 20 16146           NOP     •
16147  0 02 20002           EIR                     ENABLE INTERRUPTS
16150  0 51 16141           BRR     CLEAR           RETURN
                    *
                    *       MESSAGES
                    *
16151  0 00 00000   ITABLE  PZE     0               INTERRUPTS EXPECTED
16152  0 00 00000           PZE     0               INTERRUPT RECEIVED
16153  0 00 00000           PZE     0               LOCATION AT TIME OF INTERRUPT/TRAP
16154  0 00 00000           PZE     0               INSTRUCTION BEING EXECUTED
16155    52526445   ILLEXT  BCD     '  UNDEFINED ILLEGAL OR EXTERNAL INTERRUPT!!
16156    24252631
16157    45252412
16160    31434325
16161    27214312
16162    46511225
16163    67632551
16164    45214312
16165    31456325
16166    51516447
16167    63371212
16170    52624764   POPED   BCD     ' SPURIOUS POP!!
16171    51314664
16172    62124746
16173    47371212
16174    52624764   SPRINT  BCD     ' SPURIOUS INTERRUPT OR TRAP!!
16175    51314664
16176    62123145
```

```
16177    63255151
16200    64476312
16201    46511263
16202    51214737
16203    52256747  IMSG   BCD     ! EXPECTED RECEIVED LOCATION CONTENTS !!
16204    25236325
16205    24125125
16206    23253165
16207    25241243
16210    46232163
16211    31464512
16212    23464563
16213    25456362
16214    52371212
16215    52371212  CARRET BCD     ! !!
```



```
                   * THIS SUBROUTINE STORES A REG ALONG A DIAGONAL SPECIFIED BY X
                   * THE REGISTERS ARE NOT CHANGED
16216  0 00 00000  SPREAD PZE
16217  6 35 00000         STA     0,6
16220  6 35 00101         STA     0101,6
16221  6 35 00202         STA     0202,6
16222  6 35 00303         STA     0303,6
16223  6 35 00404         STA     0404,6
16224  6 35 00505         STA     0505,6
16225  6 35 00606         STA     0606,6
16226  6 35 00707         STA     0707,6
16227  6 35 01010         STA     01010,6
16230  6 35 01111         STA     01111,6
16231  6 35 01212         STA     01212,6
16232  6 35 01313         STA     01313,6
16233  6 35 01414         STA     01414,6
16234  6 35 01515         STA     01515,6
16235  6 35 01616         STA     01616,6
16236  6 35 01717         STA     01717,6
16237  6 35 02020         STA     02020,6
16240  6 35 02121         STA     02121,6
16241  6 35 02222         STA     02222,6
16242  6 35 02323         STA     02323,6
16243  6 35 02424         STA     02424,6
16244  6 35 02525         STA     02525,6
16245  6 35 02626         STA     02626,6
16246  6 35 02727         STA     02727,6
16247  6 35 03030         STA     03030,6
16250  6 35 03131         STA     03131,6
16251  6 35 03232         STA     03232,6
16252  6 35 03333         STA     03333,6
16253  6 35 03434         STA     03434,6
16254  6 35 03535         STA     03535,6
16255  6 35 03636         STA     03636,6
16256  6 35 03737         STA     03737,6
16257  6 35 04040         STA     04040,6
```

```
16260  6 35 04141          STA     04141,6
16261  6 35 04242          STA     04242,6
16262  6 35 04343          STA     04343,6
16263  6 35 04444          STA     04444,6
16264  6 35 04545          STA     04545,6
16265  6 35 04646          STA     04646,6
16266  6 35 04747          STA     04747,6
16267  6 35 05050          STA     05050,6
16270  6 35 05151          STA     05151,6
16271  6 35 05252          STA     05252,6
16272  6 35 05353          STA     05353,6
16273  6 35 05454          STA     05454,6
16274  6 35 05555          STA     05555,6
16275  6 35 05656          STA     05656,6
16276  6 35 05757          STA     05757,6
16277  6 35 06060          STA     06060,6
16300  6 35 06161          STA     06161,6
16301  6 35 06262          STA     06262,6
16302  6 35 06363          STA     06363,6
16303  6 35 06464          STA     06464,6
16304  6 35 06565          STA     06565,6
16305  6 35 06666          STA     06666,6
16306  6 35 06767          STA     06767,6
16307  6 35 07070          STA     07070,6
16310  6 35 07171          STA     07171,6
16311  6 35 07272          STA     07272,6
16312  6 35 07373          STA     07373,6
16313  6 35 07474          STA     07474,6
16314  6 35 07575          STA     07575,6
16315  6 35 07676          STA     07676,6
16316  6 35 07777          STA     07777,6
16317  0 51 16216          BRR     SPREAD
```



```
                    * THIS SUBROUTINE ACCESSES A DIAGONAL SPECIFIED BY X
                    * B REGISTER IS CLOBBERED
16320  0 00 00000   ACCESS PZE
16321  6 75 00000          LDB     0,6
16322  6 75 00101          LDB     0101,6
16323  6 75 00202          LDB     0202,6
16324  6 75 00303          LDB     0303,6
16325  6 75 00404          LDB     0404,6
16326  6 75 00505          LDB     0505,6
16327  6 75 00606          LDB     0606,6
16330  6 75 00707          LDB     0707,6
16331  6 75 01010          LDB     01010,6
16332  6 75 01111          LDB     01111,6
16333  6 75 01212          LDB     01212,6
16334  6 75 01313          LDB     01313,6
16335  6 75 01414          LDB     01414,6
16336  6 75 01515          LDB     01515,6
16337  6 75 01616          LDB     01616,6
16340  6 75 01717          LDB     01717,6
16341  6 75 02020          LDB     02020,6
16342  6 75 02121          LDB     02121,6
16343  6 75 02222          LDB     02222,6
16344  6 75 02323          LDB     02323,6
16345  6 75 02424          LDB     02424,6
16346  6 75 02525          LDB     02525,6
16347  6 75 02626          LDB     02626,6
16350  6 75 02727          LDB     02727,6
16351  6 75 03030          LDB     03030,6
16352  6 75 03131          LDB     03131,6
16353  6 75 03232          LDB     03232,6
16354  6 75 03333          LDB     03333,6
16355  6 75 03434          LDB     03434,6
16356  6 75 03535          LDB     03535,6
16357  6 75 03636          LDB     03636,6
16360  6 75 03737          LDB     03737,6
16361  6 75 04040          LDB     04040,6
```

```
16362  6 75 04141          LDB     04141,6
16363  6 75 04242          LDB     04242,6
16364  6 75 04343          LDB     04343,6
16365  6 75 04444          LDB     04444,6
16366  6 75 04545          LDB     04545,6
16367  6 75 04646          LDB     04646,6
16370  6 75 04747          LDB     04747,6
16371  6 75 05050          LDB     05050,6
16372  6 75 05151          LDB     05151,6
16373  6 75 05252          LDB     05252,6
16374  6 75 05353          LDB     05353,6
16375  6 75 05454          LDB     05454,6
16376  6 75 05555          LDB     05555,6
16377  6 75 05656          LDB     05656,6
16400  6 75 05757          LDB     05757,6
16401  6 75 06060          LDB     06060,6
16402  6 75 06161          LDB     06161,6
16403  6 75 06262          LDB     06262,6
16404  6 75 06363          LDB     06363,6
16405  6 75 06464          LDB     06464,6
16406  6 75 06565          LDB     06565,6
16407  6 75 06666          LDB     06666,6
16410  6 75 06767          LDB     06767,6
16411  6 75 07070          LDB     07070,6
16412  6 75 07171          LDB     07171,6
16413  6 75 07272          LDB     07272,6
16414  6 75 07373          LDB     07373,6
16415  6 75 07474          LDB     07474,6
16416  6 75 07575          LDB     07575,6
16417  6 75 07676          LDB     07676,6
16420  6 75 07777          LDB     07777,6
16421  0 51 16380          BRR     ACCESS
```



```
                    * THIS SUBROUTINE CHECKS A DIAGONAL SPECIFIED BY X TO BE EQUAL TO
                    * A REG AND REPLACES THE DIAGONAL WITH THE B REG.
                    * A REGISTER IS CLOBBERED
16422  0 00 00000   TEST    PZE
16423  0 00 00000   CHECK   PZE
16424  0 35 16422           STA     TEST                    TEST WORD
16425  0 46 00010           CBA
16426  6 62 00000           XMA     0,6
16427  0 50 16422           SKE     TEST
16430  0 43 17026           BRM     MNE
16431  0 46 00010           CBA
16432  6 62 00101           XMA     0101,6
16433  0 50 16422           SKE     TEST
16434  0 43 17026           BRM     MNE
16435  0 46 00010           CBA
16436  6 62 00202           XMA     0202,6
16437  0 50 16422           SKE     TEST
16440  0 43 17026           BRM     MNE
16441  0 46 00010           CBA
16442  6 62 00303           XMA     0303,6
16443  0 50 16422           SKE     TEST
16444  0 43 17026           BRM     MNE
16445  0 46 00010           CBA
16446  6 62 00404           XMA     0404,6
16447  0 50 16422           SKE     TEST
16450  0 43 17026           BRM     MNE
16451  0 46 00010           CBA
16452  6 62 00505           XMA     0505,6
16453  0 50 16422           SKE     TEST
16454  0 43 17026           BRM     MNE
16455  0 46 00010           CBA
16456  6 62 00606           XMA     0606,6
16457  0 50 16422           SKE     TEST
16460  0 43 17026           BRM     MNE
16461  0 46 00010           CBA
16462  6 62 00707           XMA     0707,6
```

```
16463  0 50 16422          SKE     TEST
16464  0 43 17026          BRM     MNE
16465  0 46 00010          CBA
16466  6 62 01010          XMA     01010,6
16467  0 50 16422          SKE     TEST
16470  0 43 17026          BRM     MNE
16471  0 46 00010          CBA
16472  6 62 01111          XMA     01111,6
16473  0 50 16422          SKE     TEST
16474  0 43 17026          BRM     MNE
16475  0 46 00010          CBA
16476  6 62 01212          XMA     01212,6
16477  0 50 16422          SKE     TEST
16500  0 43 17026          BRM     MNE
16501  0 46 00010          CBA
16502  6 62 01313          XMA     01313,6
16503  0 50 16422          SKE     TEST
16504  0 43 17026          BRM     MNE
16505  0 46 00010          CBA
16506  6 62 01414          XMA     01414,6
16507  0 50 16422          SKE     TEST
16510  0 43 17026          BRM     MNE
16511  0 46 00010          CBA
16512  6 62 01515          XMA     01515,6
16513  0 50 16422          SKE     TEST
16514  0 43 17026          BRM     MNE
16515  0 46 00010          CBA
16516  6 62 01616          XMA     01616,6
16517  0 50 16422          SKE     TEST
16520  0 43 17026          BRM     MNE
16521  0 46 00010          CBA
16522  6 62 01717          XMA     01717,6
16523  0 50 16422          SKE     TEST
16524  0 43 17026          BRM     MNE
16525  0 46 00010          CBA
16526  6 62 02020          XMA     02020,6
```



```
16527  0 50 16422          SKE     TEST
16530  0 43 17026          BRM     MNE
16531  0 46 00010          CBA
16532  6 62 02121          XMA     02121,6
16533  0 50 16422          SKE     TEST
16534  0 43 17026          BRM     MNE
16535  0 46 00010          CBA
16536  6 62 02222          XMA     02222,6
16537  0 50 16422          SKE     TEST
16540  0 43 17026          BRM     MNE
16541  0 46 00010          CBA
16542  6 62 02323          XMA     02323,6
16543  0 50 16422          SKE     TEST
16544  0 43 17026          BRM     MNE
16545  0 46 00010          CBA
16546  6 62 02424          XMA     02424,6
16547  0 50 16422          SKE     TEST
16550  0 43 17026          BRM     MNE
16551  0 46 00010          CBA
16552  6 62 02525          XMA     02525,6
16553  0 50 16422          SKE     TEST
16554  0 43 17026          BRM     MNE
16555  0 46 00010          CBA
16556  6 62 02626          XMA     02626,6
16557  0 50 16422          SKE     TEST
16560  0 43 17026          BRM     MNE
16561  0 46 00010          CBA
16562  6 62 02727          XMA     02727,6
16563  0 50 16422          SKE     TEST
16564  0 43 17026          BRM     MNE
16565  0 46 00010          CBA
16566  6 62 03030          XMA     03030,6
16567  0 50 16422          SKE     TEST
16570  0 43 17026          BRM     MNE
16571  0 46 00010          CBA
16572  6 62 03131          XMA     03131,6
```

```
16573  0 50 16422          SKE     TEST
16574  0 43 17026          BRM     MNE
16575  0 46 00010          CBA
16576  6 62 03232          XMA     03232,6
16577  0 50 16422          SKE     TEST
16600  0 43 17026          BRM     MNE
16601  0 46 00010          CBA
16602  6 62 03333          XMA     03333,6
16603  0 50 16422          SKE     TEST
16604  0 43 17026          BRM     MNE
16605  0 46 00010          CBA
16606  6 62 03434          XMA     03434,6
16607  0 50 16422          SKE     TEST
16610  0 43 17026          BRM     MNE
16611  0 46 00010          CBA
16612  6 62 03535          XMA     03535,6
16613  0 50 16422          SKE     TEST
16614  0 43 17026          BRM     MNE
16615  0 46 00010          CBA
16616  6 62 03636          XMA     03636,6
16617  0 50 16422          SKE     TEST
16620  0 43 17026          BRM     MNE
16621  0 46 00010          CBA
16622  6 62 03737          XMA     03737,6
16623  0 50 16422          SKE     TEST
16624  0 43 17026          BRM     MNE
16625  0 46 00010          CBA
16626  6 62 04040          XMA     04040,6
16627  0 50 16422          SKE     TEST
16630  0 43 17026          BRM     MNE
16631  0 46 00010          CBA
16632  6 62 04141          XMA     04141,6
16633  0 50 16422          SKE     TEST
16634  0 43 17026          BRM     MNE
16635  0 46 00010          CBA
16636  6 62 04242          XMA     04242,6
```



```
16637  0 50 16422          SKE     TEST
16640  0 43 17026          BRM     MNE
16641  0 46 00010          CBA
16642  6 62 04343          XMA     04343,6
16643  0 50 16422          SKE     TEST
16644  0 43 17026          BRM     MNE
16645  0 46 00010          CBA
16646  6 62 04444          XMA     04444,6
16647  0 50 16422          SKE     TEST
16650  0 43 17026          BRM     MNE
16651  0 46 00010          CBA
16652  6 62 04545          XMA     04545,6
16653  0 50 16422          SKE     TEST
16654  0 43 17026          BRM     MNE
16655  0 46 00010          CBA
16656  6 62 04646          XMA     04646,6
16657  0 50 16422          SKE     TEST
16660  0 43 17026          BRM     MNE
16661  0 46 00010          CBA
16662  6 62 04747          XMA     04747,6
16663  0 50 16422          SKE     TEST
16664  0 43 17026          BRM     MNE
16665  0 46 00010          CBA
16666  6 62 05050          XMA     05050,6
16667  0 50 16422          SKE     TEST
16670  0 43 17026          BRM     MNE
16671  0 46 00010          CBA
16672  6 62 05151          XMA     05151,6
16673  0 50 16422          SKE     TEST
16674  0 43 17026          BRM     MNE
16675  0 46 00010          CBA
16676  6 62 05252          XMA     05252,6
16677  0 50 16422          SKE     TEST
16700  0 43 17026          BRM     MNE
16701  0 46 00010          CBA
16702  6 62 05353          XMA     05353,6
```

```
16703  0 50 16422          SKE     TEST
16704  0 43 17026          BRM     MNE
16705  0 46 00010          CBA
16706  6 62 05454          XMA     05454,6
16707  0 50 16422          SKE     TEST
16710  0 43 17026          BRM     MNE
16711  0 46 00010          CBA
16712  6 62 05555          XMA     05555,6
16713  0 50 16422          SKE     TEST
16714  0 43 17026          BRM     MNE
16715  0 46 00010          CBA
16716  6 62 05656          XMA     05656,6
16717  0 50 16422          SKE     TEST
16720  0 43 17026          BRM     MNE
16721  0 46 00010          CBA
16722  6 62 05757          XMA     05757,6
16723  0 50 16422          SKE     TEST
16724  0 43 17026          BRM     MNE
16725  0 46 00010          CBA
16726  6 62 06060          XMA     06060,6
16727  0 50 16422          SKE     TEST
16730  0 43 17026          BRM     MNE
16731  0 46 00010          CBA
16732  6 62 06161          XMA     06161,6
16733  0 50 16422          SKE     TEST
16734  0 43 17026          BRM     MNE
16735  0 46 00010          CBA
16736  6 62 06262          XMA     06262,6
16737  0 50 16422          SKE     TEST
16740  0 43 17026          BRM     MNE
16741  0 46 00010          CBA
16742  6 62 06363          XMA     06363,6
16743  0 50 16422          SKE     TEST
16744  0 43 17026          BRM     MNE
16745  0 46 00010          CBA
16746  6 62 06464          XMA     06464,6
```



```
16747  0 50 16422          SKE     TEST
16750  0 43 17026          BRM     MNE
16751  0 46 00010          CBA
16752  6 62 06565          XMA     06565,6
16753  0 50 16422          SKE     TEST
16754  0 43 17026          BRM     MNE
16755  0 46 00010          CBA
16756  6 62 06666          XMA     06666,6
16757  0 50 16422          SKE     TEST
16760  0 43 17026          BRM     MNE
16761  0 46 00010          CBA
16762  6 62 06767          XMA     06767,6
16763  0 50 16422          SKE     TEST
16764  0 43 17026          BRM     MNE
16765  0 46 00010          CBA
16766  6 62 07070          XMA     07070,6
16767  0 50 16422          SKE     TEST
16770  0 43 17026          BRM     MNE
16771  0 46 00010          CBA
16772  6 62 07171          XMA     07171,6
16773  0 50 16422          SKE     TEST
16774  0 43 17026          BRM     MNE
16775  0 46 00010          CBA
16776  6 62 07272          XMA     07272,6
16777  0 50 16422          SKE     TEST
17000  0 43 17026          BRM     MNE
17001  0 46 00010          CBA
17002  6 62 07373          XMA     07373,6
17003  0 50 16422          SKE     TEST
17004  0 43 17026          BRM     MNE
17005  0 46 00010          CBA
17006  6 62 07474          XMA     07474,6
17007  0 50 16422          SKE     TEST
17010  0 43 17026          BRM     MNE
17011  0 46 00010          CBA
17012  6 62 07575          XMA     07575,6
```

```
17013  0 50 16422          SKE     TEST
17014  0 43 17026          BRM     MNE
17015  0 46 00010          CBA
17016  6 62 07676          XMA     07676,6
17017  0 50 16422          SKE     TEST
17020  0 43 17026          BRM     MNE
17021  0 46 00010          CBA
17022  6 62 07777          XMA     07777,6
17023  0 50 16422          SKE     TEST
17024  0 43 17026          BRM     MNE
17025  0 51 16423          BRR     CHECK
```



```
                    * MEMORY NOISE ERROR SUBROUTINE
17026  0 00 00000  MNE     PZE
17027  0 35 17057          STA     AA
17030  0 36 17060          STB     BB
17031  0 37 17061          STX     XX
17032  0 76 27106          LDA     *+2
17033  0 63 17026          ADM     MNE             GET POINTER TO ACCESS WORD
17034  0 76 00415          LDA     RL1
17035  0 14 27163          ETR     =036000000      GET TOP 4 BITS
17036  0 66 24007          LRSH    7               POSITION BITS
17037  0 46 00004          CAB
17040  0 77*17026          EAX*    MNE
17041  0 46 00200          CXA
17042  0 14 27164          ETR     =07777          GET 4K OF VIRTUAL ADDRESS
17043  0 46 00422          RCH     0422
17044  0 76 17060          LDA     BB
17045  0 50 15627          SKE     PATERN
17046  0 75 15627          LDB     PATERN          PUT PATERN IN B IF CLEAR BEFORE
17047  0 76 17057          LDA     AA
17050  0 43 00460          BRM     ERROR
17051  2 20 26723          NOP     WCHM,2
17052  0 75 17060          LDB     BB              RESTORE B
17053  0 71 17061          LDX     XX              RESTORE X
17054  0 61 17026          MIN     MNE
17055  0 61 17026          MIN     MNE             RESTORE MARK
17056  0 51 17026          BRR     MNE
17057  0 00 00000  AA      PZE
17060  0 00 00000  BB      PZE
17061  0 00 00000  XX      PZE
```

```
                    * FUNCTION 5
                    * THIS IS AN AID TO SIGNAL TRACING, IT CAUSES ALL DATA BITS,
                    * ADDRESS BITS, RL BITS AND SEL LINES TO CHANGE
17062  0 43 00424   FUNC5  BRM     FUNCTN
17063  0 20 20042          NOP     FPT5
```



```
                    * BOUNCE RL FLIP/FLOPS
17064  0 43 00430          BRM     OBJECT
17065  0 76 26751          LDA     =077777777          A = RL1
17066  0 75 26751          LDB     =077777777          B = RL2
17067  0 71 27165          LDX     =03737              X = RL4
17070  0 35 00415          STA     RL1
17071  0 36 00416          STB     RL2
17072  0 37 00417          STX     RL4
17073  0 02 20400          EOM     020400              CLEAR RL1
17074  0 13 00415          POT     RL1                 SET RL1
17075  0 02 21000          EOM     021000              CLEAR RL2
17076  0 13 00416          POT     RL2                 SET   RL2
17077  0 02 21400          EOM     021400              CLEAR RL4
17100  0 13 00417          POT     RL4                 SET   RL4
17101  0 43 00434          BRM     END
                    * BOUNCE L LINES
17102  0 43 00430          BRM     OBJECT
17103  0 71 27010          LDX     =037
17104  0 37 00417          STX     RL4
17105  0 02 21400          EOM     021400
17106  0 13 00417          POT     RL4
17107  0 76 00000          LDA     0                   ALL L LINES = 0
17110  0 76 37777          LDA     037777              ALL L LINES = 1
17111  0 43 00434          BRM     END
```

```
                    * BOUNCE M LINES
17112  0 43 00430          BRM     OBJECT
17113  0 76 27166          LDA     =00102030
17114  0 35 00415          STA     RL1
17115  0 02 20400          EOM     020400
17116  0 13 00415          POT     RL1                 SET RL1
17117  0 46 00001          CLA
17120  4 35 00000          STA     0,4                 DOOR 0
17121  4 35 04000          STA     04000,4             2ED 16K
17122  4 35 10000          STA     010000,4            3ED 16K
17123  4 35 14000          STA     014000,4            4TH 16K
17124  0 76 26751          LDA     =077777777
17125  4 35 00000          STA     0,4                 DOOR 0
17126  4 35 04000          STA     04000,4             2ED 16K
17127  4 35 10000          STA     010000,4            3ED 16K
17130  4 35 14000          STA     014000,4            4TH 16K
17131  0 43 00434          BRM     END
```



```
                    * BOUNCE SEL LINES
17132  0 43 00430          BRM     OBJECT
17133  0 76 27023          LDA     =00010203
17134  0 35 00415          STA     RL1
17135  0 76 27037          LDA     =04050607
17136  0 35 00416          STA     RL2
17137  0 02 20400          EOM     020400
17140  0 13 00415          POT     RL1
17141  0 02 21000          EOM     021000
17142  0 13 00416          POT     RL2
17143  0 76 27007          LDA     =0607
17144  0 35 00417          STA     RL4
17145  0 02 21400          EOM     021400
17146  0 13 00417          POT     RL4
17147  4 76 00000          LDA     0,4                 SEL0
17150  4 76 04000          LDA     04000,4             SEL1
17151  4 76 10000          LDA     010000,4            SEL2
17152  4 76 14000          LDA     014000,4            SEL3
17153  4 76 20000          LDA     020000,4            SEL4
17154  4 76 24000          LDA     024000,4            SEL5
17155  4 76 30000          LDA     030000,4            SEL6
17156  4 76 34000          LDA     034000,4            SEL7
17157  0 76 30000          LDA     030000              SEL16
17160  0 76 34000          LDA     034000              SEL17
17161  0 43 00434          BRM     END
17162  0 43 00456          BRM     FDONE
17163  0 43 00452  FINISH  BRM     DONE
17164       00614          BSS     020000***ZERO
```

```
                        * UNIT PARAMETER TABLE
                        MEM1    IDENT
20000  0 20 21315  UPT  NOP     UIM          UNIT IDENTIFIER MSG ADDR
20001  0 20 21331       NOP     UAM          UNIT ABSTRACT MSG ADDR
20002  0 20 21312       NOP     UVM          UNIT VARIABLE MSG ADDR
20003  0 01 20005       ONE     UVT
20004    04000000       DATA    04000000     UNIT IDENTIFIER BIT
20005    36000000  UVT  DATA    036000000    FUNCTION ACTIVATION WORD
```



```
                        * FUNCTION PARAMETER TABLES
20006  0 20 20055  FPT1 NOP     FIM1         FUNCTION IDENTIFIER MSG ADDR
20007  0 20 20064       NOP     FAM1         FUNCTION ABSTRACT MSG ADDR
20010  0 20 20051       NOP     FVM1         FUNCTION VARIABLE MSG ADDR
20011  0 01 20014       ONE     FVT1
20012  0 00 10000       PZE     FUNC2        ADDRESS OF NEXT FUNCTION
20013    20000000       DATA    020000000    FUNCTION IDENTIFIER BIT
20014    00000000  FVT1 DATA    0            FUNCTION VARIABLE TABLE
20015  0 20 20305  FPT2 NOP     FIM2         FUNCTION IDENTIFIER MSG ADDR
20016  0 20 20322       NOP     FAM2         FUNCTION ABSTRACT MSG ADDR
20017  0 20 20301       NOP     FVM2         FUNCTION VARIABLE MSG ADDR
20020  0 01 20023       ONE     FVT2
20021  0 00 14502       PZE     FUNC3        ADDRESS OF NEXT FUNCTION
20022    10000000       DATA    010000000    FUNCTION IDENTIFIER BIT
20023    00000000  FVT2 DATA    0            FUNCTION VARIABLE TABLE
20024  0 20 20544  FPT3 NOP     FIM3         FUNCTION IDENTIFIER MSG ADDR
20025  0 20 20562       NOP     FAM3         FUNCTION ABSTRACT MSG ADDR
20026  0 20 20540       NOP     FVM3         FUNCTION VARIABLE MSG ADDR
20027  0 01 20032       ONE     FVT3
20030  0 00 15430       PZE     FUNC4        ADDRESS OF NEXT FUNCTION
20031    04000000       DATA    004000000    FUNCTION IDENTIFIER BIT
20032    00000000  FVT3 DATA    0            FUNCTION VARIABLE TABLE
```

```
20033  0 20 20772  FPT4   NOP     FIM4          FUNCTION IDENTIFIER MSG ADDR
20034  0 20 21011         NOP     FAM4          FUNCTION ABSTRACT MSG ADDR
20035  0 20 20766         NOP     FVM4          FUNCTION VARIABLE MSG ADDR
20036  0 01 20041         BNE     FVT4
20037  0 00 17068         PZE     FUNC3         ADDRESS OF NEXT FUNCTION
20040    02000000         DATA    002000000     FUNCTION IDENTIFIER BIT
20041    00000000  FVT4   DATA    0             FUNCTION VARIABLE TABLE
20042  0 20 21211  FPT5   NOP     FIM5          FUNCTION IDENTIFIER MSG ADDR
20043  0 20 21221         NOP     FAM5          FUNCTION ABSTRACT MSG ADDR
20044  0 20 21205         NOP     FVM5          FUNCTION VARIABLE MSG ADDR
20045  0 01 20050         BNE     FVT5
20046  0 00 17163         PZE     FINISH        ADDRESS OF NEXT FUNCTION
20047    01000000         DATA    001000000     FUNCTION IDENTIFIER BIT
20050    00000000  FVT5   DATA    0             FUNCTION VARIABLE TABLE
```



```
                  * MESSAGES
20051    52454612  FVM1   BCD     ' NO VARIABLES !!
20052    65215131
20053    21224325
20054    62523712
20055    52261200  FIM1   BCD     ' F 01 = 940 MAP DIAGNOSTIC!!
20056    01124012
20057    11040012
20060    44214712
20061    24312127
20062    45466263
20063    31233712
20064    52321212  FAM1   BCD     '       THIS FUNCTION DIAGNOSES FAULTS IN THE 940 USER'
20065    12121263
20066    30316212
20067    26644523
20070    63314445
20071    12243121
20072    27454662
20073    25621226
20074    21644363
20075    62123145
20076    12633025
20077    12110400
20100    12646225
20101    51121212
20102    52214524           BCD     ' AND MONITOR MAPS.'
20103    12444645
20104    31634451
20105    12442147
20106    62331212
20107    52121212           BCD     '       THE DIAGNOSES IS DONE USING THE READ ONLY (ROT)'
20110    12126930
20111    25122431
20112    21274546
20113    62256212
```

```
20114    31621224
20115    46452512
20116    64623145
20117    27126330
20120    25125125
20121    21241246
20122    45437212
20123    74514463
20124    34121212
20125    52214524          BCD     ' AND OUT OF BOUNDS (OOBT) MEMORY TRAPS.  IT IS'
20126    12466463
20127    12462412
20130    22466445
20131    24621274
20132    46462263
20133    34124425
20134    44465170
20135    12635121
20136    47623312
20137    12316312
20140    31621212
20141    52314524          BCD     ' INDEPENDENT OF THE OPERATION OF UPPER MEMORY.'
20142    25472545
20143    24254563
20144    12462412
20145    63302512
20146    46472551
20147    21633146
20150    45124426
20151    12644747
20152    25511244
20153    25444451
20154    70331212
20155    52121212          BCD     '      CORRECT OPERATION IS DEPENDENT ON THE MACHINE'
20156    12122346
20157    51512523
```



```
20160    63124447
20161    25512163
20162    31464512
20163    31621224
20164    25472545
20165    24254563
20166    12464512
20167    63302512
20170    44212330
20171    31452512
20172    52222531          BCD     ' BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC'
20173    45271221
20174    22432512
20175    63461247
20176    25512646
20177    51441263
20200    30251211
20201    04001231
20202    45626351
20203    64236331
20204    46451224
20205    31212745
20206    46626331
20207    23121212
20210    52214524          BCD     ' AND MEMORY LOCATIONS 0 - 37777 OPERATING CORRECTLY.'
20211    12442544
20212    46517712
20213    43462321
20214    63314645
20215    62120012
20216    40120307
20217    07070712
20220    46472551
20221    21633145
20222    27122346
20223    51512523
```

```
20224    63437033
20225    52121212          BCD     '       AT ERROR HALTS!'
20226    12122163
20227    12255151
20230    46511230
20231    21436362
20232    15121212
20233    52211213          BCD     ' A = ACTUAL TRAP ID'
20234    12212363
20235    64214312
20236    63512147
20237    12312412
20240    52221213          BCD     ' B = CORRECT TRAP ID'
20241    12234451
20242    51252363
20243    12635121
20244    47123124
20245    52671213          BCD     ' X = TEST LOCATION'
20246    12632562
20247    63124346
20250    23216331
20251    46451212
20252    52121212          BCD     '       ERROR MESSAGES WILL STATE SIGNAL NAMES AND'
20253    12122551
20254    51465112
20255    44256262
20256    21272562
20257    12663143
20260    43126263
20261    21632512
20262    62316745
20263    21431245
20264    21442562
20265    12214524
20266    52444A24          BCD     ' MODULE LOCATIONS OF THE PROBABLE FAULT.'
20267    64432512
```



```
20270    43462721
20271    63314645
20272    62124626
20273    12633025
20274    12475146
20275    22212243
20276    25122621
20277    64436333
20300    52121237          BCD     '   ''
20301    58454612  FVM2    BCD     ' NO VARIABLES ''
20302    65215131
20303    21224325
20304    62523712
20305    52261200  FIM2    BCD     ' F 02 = 940 MEMORY REGISTER DIAGNOSTIC FOR 2ED 16K''
20306    02124012
20307    11040012
20310    44254446
20311    51701251
20312    25273162
20313    63255112
20314    24312127
20315    45466963
20316    31231226
20317    46511202
20320    25241201
20321    06423712
20322    52321212  FAM2    BCD     '       THIS FUNCTION DIAGNOSES FAULTS IN 2ED 16K (LOC'
20323    12121263
20324    30316212
20325    26644523
20326    63314645
20327    12243121
20330    27454462
20331    25621226
20332    21644363
20333    62123145
```

```
20334    12022524
20335    12010642
20336    12744346
20337    23121212
20340    52040000          BCD     ! 40000 TO 77777 OCTAL) OF MEMORY
20341    00001263
20342    46120707
20343    07070712
20344    46236321
20345    43341246
20346    26124425
20347    44465170
20350    12121212
20351    52121212          BCD     !       CORRECT OPERATION IS DEPENDENT ON THE MACHINE !
20352    12122346
20353    51512523
20354    63124447
20355    25512163
20356    31464512
20357    31621224
20360    25472545
20361    24254563
20362    12464512
20363    63302512
20364    44212530
20365    31452512
20366    52222531          BCD     ! BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC!
20367    45271221
20370    22432512
20371    63461247
20372    25512446
20373    51441263
20374    30251211
20375    04001231
20376    45626351
20377    64236331
```



```
20400    46451224
20401    31212745
20402    46626331
20403    23121212
20404    52214524          BCD     ! AND MEMORY LOCATIONS 0 • 37777 OPERATING CORRECTLY!
20405    12442544
20406    46517012
20407    43462321
20410    63314645
20411    62120012
20412    40120307
20413    07070712
20414    46472551
20415    21633145
20416    27122346
20417    51512523
20420    63437012
20421    52214362          BCD     ! ALSO THE MEMORY INTERLEAVING SWITCHES MUST BE SET!
20422    46126330
20423    25124425
20424    44465170
20425    12314563
20426    25514325
20427    21653145
20430    27126266
20431    31632330
20432    25621244
20433    64626312
20434    22251262
20435    25631212
20436    52634412          BCD     ! TO NON•INTERLEAVING• (SET ALL SWITCHES IN LOC 33F,!
20437    45464540
20440    31456325
20441    51432521
20442    65314527
20443    33127462
```

```
20444    25631221
20445    43431262
20446    66316323
20447    30256212
20450    31451243
20451    46231203
20452    03267312
20453    52030426          BCD     ! 34F, 35F AND 36F IN THE CPU TO UP)!
20454    73120305
20455    26122145
20456    24120306
20457    26123145
20460    12633025
20461    12234764
20462    12634412
20463    64473412
20464    52121212          BCD     !       AT ERROR HALTS!!
20465    12122163
20466    12255151
20467    46511230
20470    21436362
20471    15121212
20472    52211213          BCD     ! A = BITS AS READ!
20473    12223163
20474    52122162
20475    12512521
20476    24121212
20477    52221213          BCD     ! B = CORRECT BITS!
20500    12234451
20501    51252363
20502    12223163
20503    62121212
20504    52671213          BCD     ! X = TEST LOCATION!
20505    12632562
20506    63124346
20507    23216331
```



```
20510    46451212
20511    52121212          BCD     !       ERROR MESSAGES WILL STATE SIGNAL NAMES AND!
20512    12122551
20513    51465112
20514    44256262
20515    21272562
20516    12663143
20517    43126263
20520    21632512
20521    62312745
20522    21431245
20523    21442562
20524    12214524
20525    52444624          BCD     ! MODULE LOCATIONS OF THE PROBABLE FAULT.!
20526    64432512
20527    43462321
20530    63314445
20531    62124626
20532    12633025
20533    12475146
20534    22212243
20535    25122621
20536    64436333
20537    52121237          BCD     !   !!
20540    52454412  FVM3    BCD     ! NO VARIABLES !!
20541    65215131
20542    21224325
20543    62523712
20544    52261200  FIM3    BCD     ! F 03 = 940 ADDRESS DRIVER DIAGNOSTIC FOR MEM, 2ED 16K!!
20545    03124012
20546    11040012
20547    21242451
20550    25626212
20551    24513165
20552    25511224
20553    31212745
```

```
20554    46626331
20555    23122646
20556    51124425
20557    44331202
20560    25241201
20561    06423712
20562    52322124  FAM3   BCD     ' ADDRESS DIAGNOSTIC FOR LOC 40000 TO 77777 OCTAL.'
20563    24512562
20564    62122431
20565    21274546
20566    62633123
20567    12264451
20570    12434423
20571    12040300
20572    00001263
20573    46123707
20574    07070712
20575    46236321
20576    43331212
20577    52121212          BCD     '      CORRECT OPERATION IS DEPENDENT ON THE MACHINE'
20600    12122346
20601    51512523
20602    63124447
20603    25512163
20604    31464512
20605    31621224
20606    25472545
20607    24254563
20610    12464512
20611    63302512
20612    44212330
20613    31452512
20614    52222531          BCD     ' BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC'
20615    45271221
20616    22432512
20617    63461247
```



```
20620    25512646
20621    51441263
20622    30251211
20623    04001231
20624    45626351
20625    64236331
20626    46451224
20627    31212745
20630    46626331
20631    23121212
20632    52214524          BCD     ' AND MEMORY LOCATIONS 0 • 37777 OPERATING CORRECTLY.'
20633    12443544
20634    46517212
20635    43462321
20636    63314445
20637    62120212
20640    40120307
20641    07070712
20642    44472551
20643    21633145
20644    27122346
20645    51512523
20646    63437033
20647    52214362          BCD     ' ALSO THE MEMORY INTERLEAVING SWITCHES MUST BE SET'
20650    46126330
20651    25124425
20652    44465170
20653    12314563
20654    25514325
20655    21653145
20656    27126366
20657    31632330
20660    25621344
20661    64626312
20662    22251262
20663    25631212
```

```
20664   52634612        BCD     ' TO NON-INTERLEAVING. (SET ALL SWITCHES IN LOC 33F,'
20665   45464540
20666   31456325
20667   51432521
20670   65314527
20671   33127462
20672   25631221
20673   43431262
20674   66316323
20675   30256212
20676   31451243
20677   46231203
20700   03267312
20701   52030426        BCD     ' 34F,35F, AND 36F IN THE CPU TO UP)'
20702   73030526
20703   73122145
20704   24120306
20705   26123145
20706   12633025
20707   12234764
20710   12634412
20711   64473412
20712   52121212        BCD     '       AT ERROR HALTS!'
20713   12122163
20714   12255151
20715   46511230
20716   21436362
20717   15121212
20720   52211213        BCD     ' A = BITS AS READ'
20721   12223163
20722   62122162
20723   12512521
20724   24121212
20725   52221213        BCD     ' B = CORRECT BITS'
20726   12234651
20727   51252363
```



```
20730   12223163
20731   62121212
20732   52671213        BCD     ' X = TEST LOCATION'
20733   12632562
20734   63124346
20735   23216331
20736   46451212
20737   52121212        BCD     '       ERROR MESSAGES WILL STATE SIGNAL NAMES AND'
20740   12122551
20741   51465112
20742   44256262
20743   21272562
20744   12663143
20745   43126263
20746   21632512
20747   62312745
20750   21431245
20751   21442562
20752   12214524
20753   52444624        BCD     ' MODULE LOCATIONS OF THE PROBABLE FAULT.'
20754   64432512
20755   43462321
20756   63314645
20757   62124626
20760   12633025
20761   12475146
20762   22212243
20763   25122621
20764   64436333
20765   52121237        BCD     '   ''
20766   52454412  FVM4  BCD     ' NO VARIABLES ''
20767   65215131
20770   21224325
20771   62523712
20772   52261200  FIM4  BCD     ' F 04 = 940 WORST CASE NOISE AND HISTORY MEMORY EXERCISER''
20773   04124012
```

```
20774    11040012
20775    66465162
20776    63122321
20777    62251245
21000    46316225
21001    12214524
21002    12303162
21003    63465170
21004    12442544
21005    46517012
21006    25672551
21007    23316225
21010    51371212
21011    52321212  FAM4   BCD      '        THIS FUNCTION GENERATES WORST CASE HISTORY AND'
21012    12121263
21013    30316012
21014    26644523
21015    63314445
21016    12272545
21017    25512163
21020    25621266
21021    46516263
21022    12232162
21023    25123231
21024    62634451
21025    70122145
21026    24121212
21027    52454631          BCD      ' NOISE PATTERNS IN MEMORY 2ED 16K,(LOC 40000 TO 77777'
21030    62251247
21031    21636225
21032    51456212
21033    31451244
21034    25444651
21035    70120225
21036    24120106
21037    42337443
```



```
21040    46231204
21041    00000000
21042    12634412
21043    07070707
21044    07121212
21045    52462363          BCD      ' OCTAL)'
21046    21433412
21047    52121212          BCD      '       CORRECT OPERATION IS DEPENDENT ON THE MACHINE'
21050    12122346
21051    51512523
21052    63124447
21053    25512163
21054    31464512
21055    31621224
21056    25472545
21057    24254563
21060    12464512
21061    63302512
21062    44212330
21063    31452512
21064    52222531          BCD      ' BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC'
21065    45271221
21066    22432512
21067    63461247
21070    25512646
21071    51441263
21072    30251211
21073    04001231
21074    45626351
21075    64236331
21076    46451224
21077    31212745
21100    46626331
21101    23121212
21102    52214524          BCD      ' AND MEMORY LOCATIONS 0 - 37777 OPERATING CORRECTLY.'
21103    12442544
```

```
21104    46517?12
21105    43462321
21106    63314445
21107    6212?312
21110    40120307
21111    07070712
21112    46472551
21113    21633145
21114    27122346
21115    51512523
21116    63437?33
21117    52442544        BCD     ' MEMORY INTERLEAVING SWITCHES MUST BE SET TO NON=!
21120    46517?12
21121    31456325
21122    51432521
21123    65314527
21124    12626631
21125    63233?25
21126    62124464
21127    62631222
21130    25126225
21131    63126346
21132    12454445
21133    40121?12
21134    52314563        BCD     ' INTERLEAVING=  (ALL SWITCHES IN LOC 33F, 34F, 35F!
21135    25514325
21136    21653145
21137    27331212
21140    74214343
21141    1262?631
21142    63233?25
21143    62123145
21144    12434423
21145    12031326
21146    7312?304
21147    26731203
```



```
21150    05261212
21151    52214524        BCD     ' AND 36F IN THE CPU MUST BE UP)!
21152    12030626
21153    12314512
21154    63302512
21155    23476412
21156    44646263
21157    12222512
21160    64473412
21161    52121212        BCD     '       ERROR MESSAGES WILL STATE EITHER =CPU PARITY=!
21162    12122551
21163    51465112
21164    44256262
21165    21272562
21166    12663143
21167    43126263
21170    21632512
21171    25316330
21172    25511240
21173    23476412
21174    47215131
21175    63704?12
21176    52465112        BCD     ' OR =MEMORY NOISE ERROR=!
21177    40442544
21200    46517?12
21201    45463162
21202    25122551
21203    51465140
21204    52121237        BCD     '   !!
21205    52454412  FVMS  BCD     ' NO VARIABLES !!
21206    65215131
21207    21224325
21210    62523712
21211    52261200  FIMS  BCD     ' F 05 = 940 MEMORY SCOPE AID!!
21212    05124212
21213    11040212
```

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21214    44254446
21215    51701262
21216    23464725
21217    12213124
21220    37121212
21221    52321212  FAM5   BCD     !       THIS FUNCTION IS NOT A TEST, IT IS!
21222    12121263
21223    30316212
21224    26644523
21225    63314445
21226    12316212
21227    45466312
21230    21126325
21231    62637312
21232    31631231
21233    62121212
21234    52214512          BCD     ! AN AID TO TROUBLE SHOOTING ONLY.!
21235    21312412
21236    63461263
21237    51466422
21240    43251262
21241    30464463
21242    31452712
21243    46454370
21244    33121212
21245    52121212          BCD     !       IT CAUSES ALL RL FLIP-FLOPS, ALL M!
21246    12123163
21247    12232164
21250    62256212
21251    21434312
21252    51431226
21253    43314740
21254    26434647
21255    62731221
21256    43431244
21257    52264331          BCD     ! FLIP-FLOPS, ALL L LINES, AND ALL SEL LINES!
```



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21260    47402443
21261    46476273
21262    12214343
21263    12431243
21264    31452562
21265    73122145
21266    24122143
21267    43126225
21270    43124331
21271    45256212
21272    52634612          BCD     ! TO BOUNCE.  THESE SIGNALS MAY THEN BE TRACED!
21273    22466445
21274    23253312
21275    12633225
21276    62251262
21277    31274521
21300    43621244
21301    21701263
21302    30254512
21303    22251263
21304    51212325
21305    24121212
21306    52663163          BCD     ! WITH A SCOPE.!!
21307    30122112
21310    62234447
21311    25333712
21312    52121212  UVM     BCD     !    FAW !!
21313    26216652
21314    37121212
21315    52641200  UIM     BCD     ! U 03 - 940 MEMORY DIAGNOSTIC FOR 2ED 16K 2.0!!
21316    03124512
21317    11040012
21320    44254446
21321    51701224
21322    31212745
21323    46626331
```

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21324    23122646
21325    51120225
21326    24120106
21327    4212C233
21330    00371212
21331    52324425  UAM     BCD     ! MEMORY DIAGNOSTIC FOR LOC 40000 TO 77777 OCTAL.!
21332    44465170
21333    12243121
21334    27454662
21335    63312312
21336    26465112
21337    43462312
21340    04000000
21341    00126346
21342    12070707
21343    07071246
21344    23632143
21345    33121212
21346    52121212          BCD     !       FUNCTION 1 IS A TRAP AND MAP DIAGNOSTIC THAT!
21347    12122664
21350    45236331
21351    46451201
21352    12316212
21353    21126351
21354    21471221
21355    45241244
21356    21471224
21357    31212745
21360    46626331
21361    23126330
21362    21631212
21363    52316212          BCD     ! IS INDEPENDENT OF THE OPERATION OF UPPER MEMORY.!
21364    31452425
21365    47254524
21366    25456312
21367    46261263
```



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21370    30251246
21371    47255121
21372    63314645
21373    12462612
21374    64474725
21375    51124425
21376    44465170
21377    33121212
21400    52316312          BCD     ! IT WILL DIAGNOSE FAILURES IN THE TWO MEMORY TRAPS!
21401    66314343
21402    12243121
21403    27454662
21404    25122421
21405    31436451
21406    25621231
21407    45126330
21410    25126366
21411    46124425
21412    44465170
21413    12635121
21414    47621212
21415    52214524          BCD     ! AND BOTH THE USER AND MONITOR MAPS.!
21416    12224663
21417    30126330
21420    25126462
21421    25511221
21422    45241244
21423    46453163
21424    46511244
21425    21476233
21426    52121212          BCD     !       FUNCTION 2 IS A MEMORY BIT TEST FOR!
21427    12122664
21430    45236331
21431    46451202
21432    12316212
21433    21124425
```

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21434    44465170
21435    12223163
21436    12632562
21437    63122646
21440    51121212
21441    52442544          BCD     ' MEMORY BED 16K.  IT WILL TEST THAT ALL BITS'
21442    46517212
21443    12252412
21444    51064233
21445    12123163
21446    12663143
21447    43126325
21450    62631263
21451    30216312
21452    21434312
21453    22316362
21454    52314512          BCD     ' IN EACH QUADRANT CAN BE SET AND RESET.'
21455    25212330
21456    12506421
21457    24512145
21460    63122321
21461    45122225
21462    12622563
21463    12214524
21464    12512562
21465    25633312
21466    52121212          BCD     '       FUNCTION 3 IS A MEMORY ADDRESS DRIVER'
21467    12122664
21470    45236331
21471    46451203
21472    12316212
21473    21124425
21474    44465170
21475    12212424
21476    51256262
21477    12245131
```



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21500    65255112
21501    52243121          BCD     ' DIAGNOSTIC.  IT WILL CHECK EACH ADDRESS DRIVE'
21502    27454462
21503    63312333
21504    12123163
21505    12663143
21506    43122330
21507    25234212
21510    25212330
21511    12212424
21512    51256262
21513    12245131
21514    65251212
21515    52214524          BCD     ' AND SINK IN BED 16K.'
21516    12623145
21517    42123145
21520    12022524
21521    12010442
21522    33121212
21523    52121212          BCD     '       FUNCTION 4 IS A WORST CASE NOISE AND'
21524    12122664
21525    45236331
21526    46451204
21527    12316212
21530    21126446
21531    51626312
21532    23216225
21533    12454631
21534    62251221
21535    45241212
21536    52303162          BCD     ' HISTORY EXERCISER SUITABLE FOR SCHMOING'
21537    63465170
21540    12256725
21541    51233162
21542    25511262
21543    64316321
```

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21544    22432512
21545    26465112
21546    62233244
21547    46314527
21550    52442544          BCD     ' MEMORIES:'
21551    46513125
21552    62331212
21553    52121212          BCD     '      FUNCTION 5 IS A SCOPE AID'
21554    12122664
21555    45236331
21556    46451205
21557    12316212
21560    21126223
21561    46472512
21562    21312412
21563    52242562          BCD     ' DESIGNED TO BOUNCE MEMORY AND MAP'
21564    31274525
21565    24126346
21566    12224464
21567    45232512
21570    44254446
21571    51701221
21572    45241244
21573    21471212
21574    52623127          BCD     ' SIGNALS.'
21575    45214362
21576    33121212
21577    52371212          BCD     ' '
```



```
                       * ERROR MESSAGES
21600    52462240  TM1A   BCD     ' 8B=58F,58C,49F,52C,44C SFM=59F,58F '
21601    05102673
21602    05102373
21603    04112673
21604    05022373
21605    04042312
21606    62264440
21607    05112673
21610    05102612
21611    51514301          BCD     'RRL1=17F,16F,29D,28D TRAP=58B RLOF=49A''
21612    40010726
21613    73010626
21614    73021124
21615    73020524
21616    12635121
21617    47400510
21620    22125143
21621    00264004
21622    11213712
21623    52002240  TM1B   BCD     ' 0B=58F,58C,49F,52C,44C SFM=59F,58F '
21624    05102673
21625    05102373
21626    04112673
21627    05022373
21630    04042312
21631    62264440
21632    05112473
21633    05102612
21634    52515143          BCD     ' RRL1=17F,16F,29D,28D TRAP=58B PI=53F STV=27F,51F''
21635    01400107
21636    26730106
21637    26730211
21640    24730205
21641    24126351
21642    21474005
```

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21643    10221247
21644    31400503
21645    26126263
21646    65400207
21647    26730501
21650    26371212
21651    52462240  TM2A   BCD     ' 0B=58F,58C,49F,52C,44C PI=53F STV=27F,51F''
21652    05102673
21653    05102373
21654    04112673
21655    05022373
21656    04042312
21657    47314205
21660    03261262
21661    63654202
21662    07267305
21663    01263712
21664    52462240  TM2B   BCD     ' 0B=58F,58C,49F,52C,44C SFM=59F,58F '
21665    05102673
21666    05102373
21667    04112673
21670    05022373
21671    04042312
21672    62264440
21673    05112673
21674    05102612
21675    51430026          BCD     'RL0F=49A REL=53F,52F RLS1=53E,55F''
21676    40041121
21677    12512543
21700    40050326
21701    73050226
21702    12514362
21703    01400503
21704    25730505
21705    26371212
21706    52462240  TM3A   BCD     ' 0B=48F''
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21707    04102637
21710    52462221  TM3B   BCD     ' 05A=48F,58F,58C,49F,52C,49F RL0H=46A '
21711    40041026
21712    73051026
21713    73051023
21714    73041126
21715    73050223
21716    73041126
21717    12514300
21720    30400406
21721    21121212
21722    51430000          BCD     'RL00=50A RL01=50A RL02=50A RL03=49A RRL1=17F,'
21723    40050021
21724    12514300
21725    01400500
21726    21125143
21727    00024005
21730    00211251
21731    43000340
21732    04112112
21733    51514301
21734    40010726
21735    73121212
21736    01062673          BCD     '16F,29D,25D''
21737    02112473
21740    02052437
21741    52622543  TM4    BCD     ' SEL0=46F RL0F=49A SFM=59F,48F''
21742    00400406
21743    26125143
21744    00264004
21745    11211262
21746    26444205
21747    11267304
21750    10263712
21751    52622543  TM5    BCD     ' SEL1=46F RL1F=49A SFM=59F,48F''
21752    01400406
```

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21753    26125143
21754    01264004
21755    11211262
21756    26444005
21757    11267304
21760    10263712
21761    52622543  TM6     BCD     ! SEL2=46F RL2F=46A SFM=59F,48F!!
21762    02400406
21763    26125143
21764    02264004
21765    06211262
21766    26444005
21767    11267304
21770    10263712
21771    52622543  TM7     BCD     ! SEL3=46F RL3F=46A SFM=59F,48F!!
21772    03400406
21773    26125143
21774    03264004
21775    06211262
21776    26444005
21777    11267304
22000    10263712
22001    52622543  TM8     BCD     ! SEL4=47F RL4F=48A SFM=59F,48F !
22002    04400407
22003    26125143
22004    04264004
22005    10211262
22006    26444005
22007    11267304
22010    10263712
22011    51430502          BCD     !RL52=55F,48F!!
22012    40050526
22013    73041026
22014    37121212
22015    52622543  TM9     BCD     ! SEL5=47F RL5F=58A SFM=59F,48F!!
22016    05400407
```



```
22017    26125143
22020    05264005
22021    10211262
22022    26444005
22023    11267304
22024    10263712
22025    52622543  TM10    BCD     ! SEL6=47F RL6F=47A SFM=59F,48F!!
22026    06400407
22027    26125143
22030    06264004
22031    07211262
22032    26444005
22033    11267304
22034    10263712
22035    52622543  TM11    BCD     ! SEL7=47F RL7F=47A SFM=59F,48F!!
22036    07400407
22037    26125143
22040    07264004
22041    07211262
22042    26444005
22043    11267304
22044    10263712
22045    52514300  TM12    BCD     ! RL0H=46A RL00=50A RL01=50A !
22046    30400406
22047    21125143
22050    00004005
22051    00211251
22052    43000140
22053    05002112
22054    51430002          BCD     !RL02=50A RL03=49A!!
22055    40050021
22056    12514300
22057    03400411
22060    21371212
22061    52514301  TM13    BCD     ! RL1H=53A RL10=18F RL11=18F !
22062    30400503
```

```
22063    21125143
22064    01004001
22065    10261251
22066    43010140
22067    01102612
22070    51430102          BCD     !RL12=18F RL13=20F!!
22071    40011026
22072    12514301
22073    03400900
22074    26371212
22075    52514302  TM14    BCD     ! RL2H=53A RL20=20F RL21=20F !
22076    30400503
22077    21125143
22100    02004002
22101    00261251
22102    43020140
22103    02002412
22104    51430202          BCD     !RL22=22F RL23=22F!!
22105    40020226
22106    12514302
22107    03400302
22110    26371212
22111    52510302  TM15    BCD     ! R32H=53A RL30=22F RL31=24F !
22112    30400503
22113    21125143
22114    03004002
22115    02261251
22116    43030140
22117    02042612
22120    51430302          BCD     !RL32=24F RL33=24F!!
22121    40020426
22122    12514303
22123    03400204
22124    26371212
22125    52510304  TM16    BCD     ! R34H=47A RL40=51A RL41=51A !
22126    30400407
```



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22127    21125143
22130    04004005
22131    01211251
22132    43040140
22133    05012112
22134    51430402          BCD     !RL42=51A RL43=48A!!
22135    40050121
22136    12514304
22137    03400410
22140    21371212
22141    52510305  TM17    BCD     ! R35H=52A RL50=19F RL51=19F !
22142    30400502
22143    21125143
22144    05004001
22145    11261251
22146    43050140
22147    01112612
22150    51430502          BCD     !RL52=19F RL53=21F!!
22151    40011126
22152    12514305
22153    03400201
22154    26371212
22155    52510306  TM18    BCD     ! R36H=52A RL60=21F RL61=21F !
22156    30400502
22157    21125143
22160    06004002
22161    01261251
22162    43060140
22163    02012612
22164    51430602          BCD     !RL62=23F RL63=23F!!
22165    40020326
22166    12514306
22167    03400203
22170    26371212
22171    52510307  TM19    BCD     ! R37H=52A RL70=23F RL71=26F !
22172    30400502
```

```
22173    21125143
22174    07004002
22175    03261251
22176    43070140
22177    02062612
22200    81430702          BCD     !RL72=86F RL73=86F!!
22201    40020626
22202    12514307
22203    03400206
22204    26371212
22205    52514300  TM20    BCD     ! RL03=49A GATE=55F!!
22206    03400411
22207    21122721
22210    63254005
22211    05263712
22212    52514300  TM21    BCD     ! RL02=50A GATE=55F!!
22213    02400500
22214    21122721
22215    63254005
22216    05263712
22217    52514300  TM22    BCD     ! RL01=50A GATE=55F!!
22220    01400500
22221    21122721
22222    63254005
22223    05263712
22224    52514300  TM23    BCD     ! RL00=50A GATE=55F!!
22225    00400500
22226    21122721
22227    63254005
22230    05263712
22231    52514300  TM24    BCD     ! RL0H=46A GATE=56F!!
22232    30400406
22233    21122721
22234    63254005
22235    06263712
22236    52514301  TM25    BCD     ! RL13=20F GATE=31F RL81=17F!!
```



```
22237    03400200
22240    26122721
22241    63254003
22242    01261251
22243    43620154
22244    40010726
22245    37121212
22246    52514301  TM26    BCD     ! RL12=18F GATE=27F!!
22247    02400110
22250    26122721
22251    63254002
22252    07263712
22253    52514301  TM27    BCD     ! RL11=18F GATE=31F!!
22254    01400110
22255    26122721
22256    63254003
22257    01263712
22260    52514301  TM28    BCD     ! RL10=18F GATE=27F!!
22261    00400110
22262    26122721
22263    63254002
22264    07263712
22265    52514301  TM29    BCD     ! RL1H=53A GATE=56F!!
22266    30400503
22267    21122721
22270    63254005
22271    06263712
22272    52514302  TM30    BCD     ! RL23=22F GATE=31F!!
22273    03400202
22274    26122721
22275    63254003
22276    01263712
22277    52514302  TM31    BCD     ! RL22=22F GATE=27F!!
22300    02400202
22301    26122721
22302    63254002
```

```
22303    07263712
22304    52514302  TM32   BCD     ! RL21=20F GATE=31F!!
22305    01400200
22306    26122721
22307    63254003
22310    01263712
22311    52514302  TM33   BCD     ! RL20=20F GATE=27F!!
22312    00400200
22313    26122721
22314    63254002
22315    07263712
22316    52514302  TM34   BCD     ! RL2H=53A GATE=58F!!
22317    30400503
22320    21122721
22321    63254005
22322    10263712
22323    52514303  TM35   BCD     ! RL33=24F GATE=31F!!
22324    03400204
22325    26122721
22326    63254003
22327    01263712
22330    52514303  TM36   BCD     ! RL32=24F GATE=27F!!
22331    02400204
22332    26122721
22333    63254002
22334    07263712
22335    52514303  TM37   BCD     ! RL31=24F GATE=31F!!
22336    01400204
22337    26122721
22340    63254003
22341    01263712
22342    52514303  TM38   BCD     ! RL30=22F GATE=27F!!
22343    00400202
22344    26122721
22345    63254002
22346    07263712
```



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22347    52514303  TM39   BCD     ! RL3H=53A GATE=58F!!
22350    30400503
22351    21122721
22352    63254005
22353    10263712
22354    52514304  TM40   BCD     ! RL43=48A GATE=55F!!
22355    03400410
22356    21122721
22357    63254005
22360    05263712
22361    52514304  TM41   BCD     ! RL42=51A GATE=55F!!
22362    02400501
22363    21122721
22364    63254005
22365    05263712
22366    52514304  TM42   BCD     ! RL41=51A GATE=55F!!
22367    01400501
22370    21122721
22371    63254005
22372    05263712
22373    52514304  TM43   BCD     ! RL40=51A GATE=55F!!
22374    00400501
22375    21122721
22376    63254005
22377    10263712
22400    52514304  TM44   BCD     ! RL4H=47A GATE=58F!!
22401    30400407
22402    21122721
22403    63254005
22404    10263712
22405    52514301  TM45   BCD     ! RL13=21F GATE=31F RL8i=17F!!
22406    03400201
22407    26122721
22410    63254003
22411    01261251
22412    43620154
```

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22413    40010726
22414    37121212
22415    52514305  TM46   BCD     ! RL52=19F GATE=27F!!
22416    02400111
22417    26122721
22420    63254002
22421    07263712
22422    52514305  TM47   BCD     ! RL51=19F GATE=31F!!
22423    01400111
22424    26122721
22425    63254003
22426    01263712
22427    52514305  TM48   BCD     ! RL50=19F GATE=27F!!
22430    00400111
22431    26122721
22432    63254002
22433    07263712
22434    52514305  TM49   BCD     ! RL5H=52A GATE=56F!!
22435    30400502
22436    21122721
22437    63254005
22440    06263712
22441    52514306  TM50   BCD     ! RL63=23F GATE=31F!!
22442    03400203
22443    26122721
22444    63254003
22445    01263712
22446    52514306  TM51   BCD     ! RL62=23F GATE=27F!!
22447    02400203
22450    26122721
22451    63254002
22452    07263712
22453    52514306  TM52   BCD     ! RL61=21F GATE=31F!!
22454    01400201
22455    26122721
22456    63254003
```



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22457    01263712
22460    52514306  TM53   BCD     ! RL60=21F GATE=27F!!
22461    00400201
22462    26122721
22463    63254002
22464    07263712
22465    52514306  TM54   BCD     ! RL6H=52A GATE=56F!!
22466    30400502
22467    21122721
22470    63254005
22471    06263712
22472    52514307  TM55   BCD     ! RL73=26F GATE=31F!!
22473    03400206
22474    26122721
22475    63254003
22476    01263712
22477    52514307  TM56   BCD     ! RL72=26F GATE=27F!!
22500    02400206
22501    26122721
22502    63254002
22503    07263712
22504    52514307  TM57   BCD     ! RL71=26F GATE=31F!!
22505    01400206
22506    26122721
22507    63254003
22510    01263712
22511    52514307  TM58   BCD     ! RL70=23F GATE=27F!!
22512    00400203
22513    26122721
22514    63254002
22515    07263712
22516    52514307  TM59   BCD     ! RL7H=52A GATE=56F!!
22517    30400502
22520    21122721
22521    63254005
22522    06263712
```

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MEM1   TAP=3.C                          PAGE 295

22523    52514362  TM60   BCD     ! RLS4=57F,58F!!
22524    04400507
22525    26730510
22526    26371212
22527    52515143  TM61   BCD     ! RRL4=16F M6H=54A M60=54A M61=54A !
22530    04400106
22531    26124406
22532    30400504
22533    21124406
22534    00400504
22535    21124406
22536    01400504
22537    21121212
22540    44060240          BCD     !M62=55A M63=55A GATE=56F,57F,58F!!
22541    05052112
22542    44060340
22543    05052112
22544    27216325
22545    40050626
22546    73050726
22547    73051026
22550    37121212
22551    52622543  TM62   BCD     3, SEL!7=57F!
22552    14074005
22553    07263712
22554    52622543  TM63   BCD     9, SEL!6=57E M7H=55A M70=56A M71=56A
22555    14064005
22556    07251244
22557    07304005
22560    05211244
22561    07004005
22562    06211244
22563    07014005
22564    06211212
22565    44070240          BCD     !M72=56A M73=57A!!
22566    05062112
```

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MEM1   TAP=3.C                          PAGE 296

22567    44070340
22570    05072137
22571    52440603  TM64   BCD     ! M63=55A GATE=58F!!
22572    40050521
22573    12272163
22574    25400510
22575    26371212
22576    52440602  TM65   BCD     ! M62=55A GATE=58F!!
22577    40050521
22600    12272163
22601    25400510
22602    26371212
22603    52440601  TM66   BCD     ! M61=54A GATE=56F!!
22604    40050421
22605    12272163
22606    25400506
22607    26371212
22610    52440600  TM67   BCD     ! M60=54A GATE=56F!!
22611    40050421
22612    12272163
22613    25400506
22614    26371212
22615    52440630  TM68   BCD     ! M6H=54A GATE=57F!!
22616    40050421
22617    12272163
22620    25400507
22621    26371212
22622    52440703  TM69   BCD     ! M73=57A GATE=56F!!
22623    40050721
22624    12272163
22625    25400506
22626    26371212
22627    52440702  TM70   BCD     ! M72=56A GATE=56F!!
22630    40050621
22631    12272163
22632    25400506
```

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22633    26371212
22634    52440701  TM71   BCD     ! M71=56A GATE=56F!!
22635    40050621
22636    12272163
22637    25400506
22640    26371212
22641    52440700  TM72   BCD     ! M70=56A GATE=56F!!
22642    40050421
22643    12272163
22644    25400506
22645    26371212
22646    52440730  TM73   BCD     ! M7H=55A GATE=57F!!
22647    40050521
22650    12272163
22651    25400507
22652    26371212
22653    52512543  TM74A  BCD     ! REL=52F!!
22654    40050226
22655    37121212
22656    52442440  TM74B  BCD     ! MD=51F!!
22657    05012637
22660    52512543  TM75A  BCD     ! REL==32E!!
22661    54400302
22662    26371212
22663    52442440  TM75B  BCD     ! MD=51F!!
22664    05012637
22665    52512543  TM76A  BCD     ! REL===53F!!
22666    04544005
22667    03263712
22670    52442440  TM76B  BCD     ! MD=51F!!
22671    05012437
22672    52462221  TM77   BCD     ! 8BA=48F!!
22673    40041026
22674    37121212
22675    52512240  TM78   BCD     ! RB=52F!!
22676    05022437
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22677    52462221  TM79   BCD     ! 8BA=58C!!
22700    40051023
22701    37121212
22702    52626365  TM80   BCD     ! STV BAR=17F EAX READ ONLY TRAP CHANGE,E8 126177J!!
22703    12222151
22704    40010726
22705    12252167
22706    12512521
22707    24124645
22710    43701263
22711    51214712
22712    23302145
22713    27254025
22714    46120102
22715    06010707
22716    41371212
22717    52462221  TM81A  BCD     ! 8BA=49F!!
22720    40041126
22721    37121212
22722    52462251  TM81B  BCD     ! 8BR=49F,41E CR3=54B 86=53B,54B!!
22723    40041126
22724    73040125
22725    12235103
22726    40050422
22727    12460640
22730    05032273
22731    05042237
22732    52635121  TM82   BCD     ! TRAP BAR=63D 8F=44D E8=126177N!!
22733    47122221
22734    51400603
22735    24124626
22736    40040424
22737    12254640
22740    01020601
22741    07074537
22742    52462221  TM83A  BCD     ! 8BA=49F!!
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22743    40041126
22744    37121212
22745    52462221  TM84    BCD     ! 08A=49F!!
22746    40041126
22747    37121212
22750    52462221  TM85A   BCD     ! 08A=49F!!
22751    40041126
22752    37121212
22753    52462221  TM86A   BCD     ! 08A=49F!!
22754    40041126
22755    37121212
22756    52622563  TM86B   BCD     ! SET 06=538,548!!
22757    12460440
22760    05032273
22761    05042237
22762       01216          BSS     024000+**ZERO
24000    52233225  MM00    BCD     ! CHECK 2ED 16K POWER AND CABLES!
24001    23421202
24002    25241201
24003    06421247
24004    46662551
24005    12214524
24006    1223F122
24007    43256212
24010    52712206          BCD     ! Z865=5F DU1=31E,20E DU2=20E DU3=21E DU4=21E!
24011    05400526
24012    12246401
24013    40030125
24014    73020025
24015    12246402
24016    40020025
24017    12246403
24020    40020125
24021    12246404
24022    40020125
24023    52246700          BCD     ! DX0=30B SX0=26B DY0=6B SY0=32B!
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24024    40030022
24025    12626700
24026    40020422
24027    12247000
24030    40062212
24031    62700040
24032    03022212
24033    12316700          BCD     ! IX0=27A IX1=27A!
24034    40020721
24035    12316701
24036    40020721
24037    52512540          BCD     ! RE=3D,4E WE=3D DU8=21E!
24040    03247304
24041    25126625
24042    40032412
24043    24641040
24044    02012512
24045    52672644          BCD     ! XFMR=9A,11A,13A,15A,18A,19A,20A,21A,23A,24A!!
24046    51401121
24047    73010121
24050    73010321
24051    73010521
24052    73011021
24053    73011121
24054    73020021
24055    73020121
24056    73020321
24057    73020421
24060    37121212
24061    52314530  MM100   BCD     ! INHIBIT=32C,31C,30C,29C M0=22E MD0=5D,6D VZ=32A 27E,29E(CPU) IBE,IBF!(
24062    31223163
24063    40030223
24064    73030123
24065    73030023
24066    73021123
24067    12440040
```

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MEM1   TAP=3.0                    PAGE 301

24070    02022512
24071    44240040
24072    05247306
24073    24126571
24074    40030221
24075    12020725
24076    73021125
24077    74234764
24100    34120110
24101    25730105
24102    26371212
24103    52314530  MM101  BCD      ! INHIBIT=32C,29C,31C,30C M1=22E MD1=6D,6D VZ=32A 27E,29E(CPU) 18E,18F!!
24104    31223163
24105    40030223
24106    73021123
24107    73030123
24110    73030023
24111    12440140
24112    02022512
24113    44240140
24114    05247306
24115    24126571
24116    40030221
24117    12020725
24120    73021125
24121    74234764
24122    34120110
24123    25730105
24124    26371212
24125    52314530  MM102  BCD      ! INHIBIT=32C,31C,30C,29C M2=22E MD2=7D,8D VZ=32A 27E,29E(CPU) 18E,18F!!
24126    31223163
24127    40030223
24130    73030123
24131    73030023
24132    73021123
24133    12440240
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MEM1   TAP=3.0                    PAGE 302

24134    02022512
24135    44240240
24136    07247310
24137    24126571
24140    40030221
24141    12020725
24142    73021125
24143    74234764
24144    34120110
24145    25730105
24146    26371212
24147    52314530  MM103  BCD      ! INHIBIT=32C,31C,30C,29C M3=23E MD3=7D,8D VZ=31A 27E,29E(CPU) 18E,18F!!
24150    31223163
24151    40030223
24152    73030123
24153    73030023
24154    73021123
24155    12440340
24156    02032512
24157    44240340
24160    07247310
24161    24126571
24162    40030121
24163    12020725
24164    73021125
24165    74234764
24166    34120110
24167    25730105
24170    26371212
24171    52314530  MM104  BCD      ! INHIBIT=32C,31C,30C,29C M4=23E MD4=9D,10D VZ=31A 27E,29E(CPU) 18E,18F!!
24172    31223163
24173    40030223
24174    73030123
24175    73030023
24176    73021123
24177    12440440
```

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MEM1   TAP=3.0                    PAGE 303

24200    02032512
24201    44240440
24202    11247301
24203    00241265
24204    71400301
24205    21120207
24206    25730211
24207    25742347
24210    64341201
24211    10257301
24212    05263712
24213    52314530  MM105  BCD      ! INHIBIT=28C,25C,26C,27C M5=23E MD5=9D,10D VZ=31A 27E,29E(CPU) 18E,18F!!
24214    31223163
24215    40021023
24216    73020523
24217    73020623
24220    73020723
24221    12440540
24222    02032512
24223    44240540
24224    11247301
24225    00241265
24226    71400301
24227    21120207
24230    25730211
24231    25742347
24232    64341201
24233    10257301
24234    05263712
24235    52314530  MM106  BCD      ! INHIBIT=28C,25C,26C,27C M6=24E MD6=11D,12D VZ=30A 24E,29E(CPU) 18E,16F!!
24236    31223163
24237    40021023
24240    73020523
24241    73020623
24242    73020723
24243    12440440
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MEM1   TAP=3.0                    PAGE 304

24244    02042512
24245    44240640
24246    01012473
24247    01022412
24250    65714003
24251    00211202
24252    04257302
24253    11257423
24254    47643412
24255    01102573
24256    01062637
24257    52314530  MM107  BCD      ! INHIBIT=28C,25C,26C,27C M7=24E MD7=11D,12D VZ=30A 24E,29E(CPU) 18E,16F!!
24260    31223163
24261    40021023
24262    73020523
24263    73020623
24264    73020723
24265    12440740
24266    02042512
24267    44240740
24270    01012473
24271    01022412
24272    65714003
24273    00211202
24274    04257302
24275    11257423
24276    47643412
24277    01102573
24300    01062637
24301    52314530  MM108  BCD      ! INHIBIT=28C,25C,26C,27C M8=24E MD8=13D,14D VZ=30A 24E,29E(CPU) 18E,16F!!
24302    31223163
24303    40021023
24304    73020523
24305    73020623
24306    73020723
24307    12441040
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24310    02042512
24311    44241040
24312    01032473
24313    01042412
24314    65714003
24315    00211202
24316    04257302
24317    11257423
24320    47643412
24321    01102573
24322    01062637
24323    52314530  MM109  BCD     ! INHIBIT=28C,2BC,26C,27C M9=25E MD9=13D,14D VZ=29A 24E,29E(CPU) 18E,16F!!
24324    31223163
24325    40021023
24326    73020323
24327    73020623
24330    73020723
24331    12441140
24332    02052512
24333    44241140
24334    01032473
24335    01042412
24336    65714002
24337    11211202
24340    04257302
24341    11257423
24342    47643412
24343    01102573
24344    01062637
24345    52314530  MM110  BCD     ! INHIBIT=32,1D,2D,31DD M10=25E MD10=15D,16D VZ=29A 24E,29E(CPU) 18E,16F!!
24346    31223163
24347    40030273
24350    01247302
24351    24730301
24352    24241244
24353    01004002
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24354    05251244
24355    24010040
24356    01052473
24357    01062412
24360    65714002
24361    11211202
24362    04257302
24363    11257423
24364    47643412
24365    01102573
24366    01062637
24367    52314530  MM111  BCD     ! INHIBIT=32,1D,2D,31DD M11=25E MD11=15D,16D VZ=29A 24E,29E(CPU) 18E,16F!!
24370    31223163
24371    40030273
24372    01247302
24373    24730301
24374    24241244
24375    01014002
24376    05251244
24377    24010140
24400    01052473
24401    01062412
24402    65714002
24403    11211202
24404    04257302
24405    11257423
24406    47643412
24407    01102573
24410    01062637
24411    52314530  MM112  BCD     ! INHIBIT=32,1D,2D,31DD M12=26E MD12=17D,18D VZ=28A 26E,29E(CPU) 18E,19F!!
24412    31223163
24413    40030273
24414    01247302
24415    24730301
24416    24241244
24417    01024002
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24420   06251244
24421   24010240
24422   01072473
24423   01102412
24424   65714002
24425   10211202
24426   06257302
24427   11257423
24430   47643412
24431   01102573
24432   01112637
24433   52314530  MM113  BCD      ' INHIBIT=32,1D,2D,31DD M13=26E MD13=17D,18D VZ=28A 26E,30E(CPU) 19E,19F''
24434   31223163
24435   40030273
24436   01247302
24437   24730301
24440   24241244
24441   01034002
24442   06251244
24443   24010240
24444   01072473
24445   01102412
24446   65714002
24447   10211202
24450   06257303
24451   00257423
24452   47643412
24453   01112573
24454   01112637
24455   52314530  MM114  BCD      ' INHIBIT=32,1D,2D,31DD M14=26E MD14=19D,20D VZ=28A 25E,30E(CPU) 19E,19F''
24456   31223163
24457   40030273
24460   01247302
24461   24730301
24462   24241244
24463   01044002
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24464   06251244
24465   24010440
24466   01112473
24467   02002412
24470   65714002
24471   10211202
24472   05257303
24473   00257423
24474   47643412
24475   01112573
24476   01112637
24477   52314530  MM115  BCD      ' INHIBIT=8C,5C,6C,7C M15=27E MD15=19D,20D VZ=5A 25E,30E(CPU) 19E,19F''
24500   31223163
24501   40102373
24502   05237306
24503   23730723
24504   12440105
24505   40020725
24506   12442401
24507   05400111
24510   24730200
24511   24126571
24512   40052112
24513   02052573
24514   03002574
24515   23476434
24516   12011125
24517   73011126
24520   37121212
24521   52314530  MM116  BCD      ' INHIBIT=8C,5C,6C,7C M16=27E MD16=21D,22D VZ=5A 25E,30E(CPU) 19E,19F''
24522   31223163
24523   40102373
24524   05237306
24525   23730723
24526   12440106
24527   40020725
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24530    12442401
24531    06400201
24532    24730202
24533    24126571
24534    40052112
24535    02052573
24536    03002574
24537    23476434
24540    12011125
24541    73011126
24542    37121212
24543    52314530  MM117  BCD     ! INHIBIT=8C,8C,6C,7C M17=27E MD17=21D,22D VZ=5A 25E,30E(CPU) 19E,19F!!
24544    31223163
24545    40102373
24546    05237306
24547    23730723
24550    12440107
24551    40020725
24552    12442401
24553    07400201
24554    24730202
24555    24126571
24556    40052112
24557    02052573
24560    03002574
24561    23476434
24562    12011125
24563    73011126
24564    37121212
24565    52314530  MM118  BCD     ! INHIBIT=8C,8C,6C,7C M18=28E MD18=23D,24D VZ=4A 26E,30E(CPU) 19E,20F!!
24566    31223163
24567    40102373
24570    05237306
24571    23730723
24572    12440110
24573    40021025
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24574    12442401
24575    10400203
24576    24730204
24577    24126571
24600    40042112
24601    02062573
24602    03002574
24603    23476434
24604    12011125
24605    73020026
24606    37121212
24607    52314530  MM119  BCD     ! INHIBIT=8C,8C,6C,7C M19=28E MD19=23D,24D VZ=4A 28E,30E(CPU) 19E,20F!!
24610    31223163
24611    40102373
24612    05237306
24613    23730723
24614    12440111
24615    40021025
24616    12442401
24617    11400203
24620    24730204
24621    24126571
24622    40042112
24623    02102573
24624    03002574
24625    23476434
24626    12011125
24627    73020026
24630    37121212
24631    52314530  MM120  BCD     ! INHIBIT=4C,1C,2C,3C M20=28E MD20=25D,26D VZ=4A 28E,30E(CPU) 19E,20F!!
24632    31223163
24633    40042373
24634    01237302
24635    23730323
24636    12440200
24637    40021025
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24640    12442402
24641    00400205
24642    24730206
24643    24126571
24644    40042112
24645    02102573
24646    03002574
24647    23476434
24650    12011125
24651    73020026
24652    37121212
24653    52314530  MM121  BCD     ! INHIBIT=4C,1C,2C,3C M21=29E MD21=25D,26D VZ=3A 28E,30E(CPU) 19E,20F!!
24654    31223163
24655    40042373
24656    01237302
24657    23730323
24660    12440201
24661    40021125
24662    12442402
24663    01400205
24664    24730206
24665    24126571
24666    40032112
24667    02102573
24670    03002574
24671    23476434
24672    12011125
24673    73020026
24674    37121212
24675    52314530  MM122  BCD     ! INHIBIT=4C,1C,2C,3C M22=29E MD22=27D,28D VZ=3A 28E,30E(CPU) 19E,20F!!
24676    31223163
24677    40042373
24700    01237302
24701    23730323
24702    12440202
24703    40021125
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24704    12442402
24705    02400207
24706    24730210
24707    24126571
24710    40032112
24711    02102573
24712    03002574
24713    23476434
24714    12011125
24715    73020026
24716    37121212
24717    52314530  MM123  BCD     ! INHIBIT=4C,1C,2C,3C M23=29E MD23=27D,28D VZ=3A 28E,30E(CPU)19E,20F!!
24720    31223163
24721    40042373
24722    01237302
24723    23730323
24724    12440203
24725    40021125
24726    12442402
24727    03400207
24730    24730210
24731    24126571
24732    40032112
24733    02062573
24734    03002574
24735    23476434
24736    01112573
24737    02002637
24740    52314530  MM124  BCD     ! INHIBIT 30E,1C,2C,3C MD24=29D 24D0=4C VZ=2A 26E,30E(CPU) 19E,21F!!
24741    31223163
24742    12030025
24743    73012373
24744    02237303
24745    23124424
24746    02044002
24747    11241271
```

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MEM1   TAP=3.0                    PAGE 313

!4750    02042400
!4751    40042312
!4752    65714002
!4753    21120206
!4754    25730300
!4755    25742347
!4756    64341201
!4757    11257302
!4760    01263712
!4761    52710024  MM200  BCD     ! Z0D1=29C M0=22E MD0=5D,6D DX10=29B XPMR=14A,16A,17A,19A!!
!4762    01400211
!4763    23124400
!4764    40020225
!4765    12442400
!4766    40052473
!4767    06241224
!4770    67010040
!4771    02112212
!4772    67264451
!4773    40010421
!4774    73010621
!4775    73010721
!4776    73011121
!4777    37121212
!5000    52710124  MM201  BCD     ! Z1D1=29C M1=22E MD1=5D,6D!!
!5001    01400211
!5002    23124401
!5003    40020225
!5004    12442401
!5005    40052473
!5006    06243712
!5007    52710224  MM202  BCD     ! Z2D1=29C M2=22E MD2=7D,8D!!
!5010    01400211
!5011    23124402
!5012    40020225
!5013    12442402
```

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MEM1   TAP=3.0                    PAGE 314

!5014    40072473
!5015    10243712
!5016    52710324  MM203  BCD     ! Z3D1=29C M3=23E MD3=7D,8D!!
!5017    01400211
!5020    23124403
!5021    40020325
!5022    12442403
!5023    40072473
!5024    10243712
!5025    52710424  MM204  BCD     ! Z4D1=29C M4=23E MD4=9D,10D!!
!5026    01400211
!5027    23124404
!5030    40020325
!5031    12442404
!5032    40112473
!5033    01002437
!5034    52710524  MM205  BCD     ! Z5D1=25C M5=23E MD5=9 D,10D!!
!5035    01400205
!5036    23124405
!5037    40020325
!5040    12442405
!5041    40111224
!5042    73010024
!5043    37121212
!5044    52710624  MM206  BCD     ! Z6D1=25C M6=24E MD6=11D,12D!!
!5045    01400205
!5046    23124406
!5047    40020425
!5050    12442406
!5051    40010124
!5052    73010224
!5053    37121212
!5054    52710724  MM207  BCD     ! Z7D1=25C M7=24E MD7=11D,12D!!
!5055    01400205
!5056    23124407
!5057    40020425
```

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25060    12442407
25061    40010124
25062    73010224
25063    37121212
25064    52711024  MM208  BCD     ' Z8D1=25C M8=24E MD8=13D,14D''
25065    01400205
25066    23124410
25067    40020425
25070    12442410
25071    40010324
25072    73010424
25073    37121212
25074    52711124  MM209  BCD     ' Z9D1=25C M9=25E MD9=13D,14D''
25075    01400205
25076    23124411
25077    40020525
25100    12442411
25101    40010324
25102    73010424
25103    37121212
25104    52710100  MM210  BCD     ' Z10D1=1D M10=25E MD10=15D,16D VZ=2A''
25105    24014001
25106    24124401
25107    00400205
25110    25124424
25111    01004001
25112    05247301
25113    06241265
25114    71400221
25115    37121212
25116    52710101  MM211  BCD     ' Z11D1=1D M11=25E MD11=15D,16D VZ=2A''
25117    24014001
25120    24124401
25121    01400205
25122    25124424
25123    01014001
```



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25124    05247301
25125    06241265
25126    71400221
25127    37121212
25130    52710102  MM212  BCD     ' Z12D1=1D 412=26E MD12=17D,18D VZ=1A''
25131    24014001
25132    24124401
25133    02400206
25134    25124424
25135    01024001
25136    07247301
25137    10241265
25140    71400121
25141    37121212
25142    52710103  MM213  BCD     ' Z13D1=1D M13=26E MD13=17D,18D VZ=1A''
25143    24014001
25144    24124401
25145    03400206
25146    25124424
25147    01034001
25150    07247301
25151    10241265
25152    71400121
25153    37121212
25154    52710104  MM214  BCD     ' Z14D1=1D M14=26E MD14=19D,20D VZ=1A''
25155    24014001
25156    24124401
25157    04400206
25160    25124424
25161    01044001
25162    11247302
25163    00241265
25164    71400121
25165    37121212
25166    52710105  MM215  BCD     ' Z15D1=5C M15=27E MD15=19D,20D''
25167    24014005
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25170    23124401
25171    05400207
25172    25124424
25173    01054001
25174    11247302
25175    00243712
25176    52710106  MM216  BCD     ! Z16D1=5C M16=27E MD16=21D,22D!!
25177    24014005
25200    23124401
25201    06400207
25202    25124424
25203    01064002
25204    01247302
25205    02243712
25206    52710107  MM217  BCD     ! Z17D1=5C M17=27E MD17=21D,22D!!
25207    24014005
25210    23124401
25211    07400207
25212    25124424
25213    01074002
25214    01247302
25215    02243712
25216    52710110  MM218  BCD     ! Z18D1=5C M18=28E MD18=23D,24D!!
25217    24014005
25220    23124401
25221    10400210
25222    25124424
25223    01104002
25224    03247302
25225    04243712
25226    52710111  MM219  BCD     ! Z19D1=5C M19=28E MD19=23D,24D!!
25227    24014005
25230    23124401
25231    11400210
25232    25124424
25233    01114002
```



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25234    03247302
25235    04243712
25236    52710200  MM220  BCD     ! Z20D1=1C M20=28E MD20=25D,26D!!
25237    24014001
25240    23124402
25241    00400210
25242    25124424
25243    02004002
25244    05247302
25245    06243712
25246    52710201  MM221  BCD     ! Z21D1=1C M21=29E MD21=25D,26D!!
25247    24014001
25250    23124402
25251    01400211
25252    25124424
25253    02014002
25254    05247302
25255    06243712
25256    52710202  MM222  BCD     ! Z22D1=1C M22=29E MD22=27D,28D!!
25257    24014001
25260    23124402
25261    02400211
25262    25124424
25263    02024002
25264    07247302
25265    10243712
25266    52710203  MM223  BCD     ! Z23D1=1C M23=29E MD23=27D,28D!!
25267    24014001
25270    23124402
25271    03400211
25272    25124424
25273    02034002
25274    07247302
25275    10243712
25276    52440204  MM224  BCD     ! M24=30E MD24=29D Z24D1=1C!!
25277    40030025
```

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25300    12442402
25301    04400211
25302    24127102
25303    04240140
25304    01233712
25305    52710024  MM300  BCD     ' Z0D2=31C M0=22E MD0=5D,6D DY1C=5B XFMR=10A,12A,22A,24A''
25306    02400301
25307    23124400
25310    40020225
25311    12442400
25312    40052473
25313    06241224
25314    70010040
25315    05221267
25316    26445140
25317    01002173
25320    01022173
25321    02022173
25322    02042137
25323    52710124  MM301  BCD     ' Z1D2=31C M1=22E MD1=5D,6D''
25324    02400301
25325    23124401
25326    40020225
25327    12442401
25330    40052473
25331    06243712
25332    52710224  MM302  BCD     ' Z2D2=31C M2=22E MD2=7D,8D''
25333    02400301
25334    23124402
25335    40020225
25336    12442402
25337    40072473
25340    10243712
25341    52710324  MM303  BCD     ' Z3D2=31C M3=23E MD3=7D,8D''
25342    02400301
25343    23124403
```



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25344    40020325
25345    12442403
25346    40072473
25347    10243712
25350    52710424  MM304  BCD     ' Z4D2=31C M4=23E MD4=9D,10D''
25351    02400301
25352    23124404
25353    40020325
25354    12442404
25355    40112473
25356    01002437
25357    52710524  MM305  BCD     ' Z5D2=27C M5=23E MD5=9D,10D''
25360    02400207
25361    23124405
25362    40020325
25363    12442405
25364    40112473
25365    01002437
25366    52710624  MM306  BCD     ' Z6D2=27C M6=24E MD6=11D,12D''
25367    02400207
25370    23124406
25371    40020425
25372    12442406
25373    40010124
25374    73010224
25375    37121212
25376    52710724  MM307  BCD     ' Z7D2=27C M7=24E MD7=11D,12D''
25377    02400207
25400    23124407
25401    40020425
25402    12442407
25403    40010124
25404    73010224
25405    37121212
25406    52711024  MM308  BCD     ' Z8D2=27C M8=24E MD8=13D,14D''
25407    02400207
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25410    23124410
25411    40020425
25412    12442410
25413    40010324
25414    73010424
25415    37121212
25416    52711124  MM309  BCD     ! Z9D2•27C M9•28E MD9•13D,14D!!
25417    02400207
25420    23124411
25421    40020425
25422    12442411
25423    40010324
25424    73010424
25425    37121212
25426    52710100  MM310  BCD     ! Z10D2•31D M10•28E MD10•15D,16D!!
25427    24024003
25430    01241244
25431    01004002
25432    06251244
25433    24010040
25434    01052473
25435    01062437
25436    52710101  MM311  BCD     ! Z11D2•31D M11•28E MD11•15D,16D!!
25437    24024003
25440    01241244
25441    01014002
25442    06251244
25443    24010140
25444    01052473
25445    01062437
25446    52710102  MM312  BCD     ! Z12D2•31D M12•26E MD12•17D,18D!!
25447    24024003
25450    01241244
25451    01024002
25452    06251244
25453    24010240
```



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25454    01072473
25455    01102437
25456    52710103  MM313  BCD     ! Z13D2•31D M13•26E MD13•17D,18D!!
25457    24024003
25460    01241244
25461    01034002
25462    06251244
25463    24010340
25464    01072473
25465    01102437
25466    52710104  MM314  BCD     ! Z14D2•31D M14•26E MD14•19D,20D!!
25467    24024003
25470    01241244
25471    01044002
25472    06251244
25473    24010440
25474    01112473
25475    02002437
25476    52710105  MM315  BCD     ! Z15D2•7C M15•27E MD15•19D,20D!!
25477    24024007
25500    23124401
25501    05400207
25502    25124424
25503    01054001
25504    11247302
25505    00243712
25506    52710106  MM316  BCD     ! Z16D2•7C M16•27E MD16•21D,22D!!
25507    24024007
25510    23124401
25511    06400207
25512    25124424
25513    01064002
25514    01247302
25515    02243712
25516    52710107  MM317  BCD     ! Z17D2•7C M17•27E MD17•21D,22D!!
25517    24024007
```

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25520    23124401
25521    07400207
25522    25124424
25523    01074002
25524    01247302
25525    02243712
25526    52710110  MM318  BCD     ' Z18D2=7C M18=28E MD18=23D,24D''
25527    24024007
25530    23124401
25531    10400210
25532    25124424
25533    01104002
25534    03247302
25535    04243712
25536    52710111  MM319  BCD     ' Z19D2=7C M19=28E MD19=23D,24D''
25537    24024007
25540    23124401
25541    11400210
25542    25124424
25543    01114002
25544    03247302
25545    04243712
25546    52710200  MM320  BCD     ' Z20D2=3C M20=28E MD20=25D,26D''
25547    24024003
25550    23124402
25551    00400210
25552    25124424
25553    02004002
25554    05247302
25555    06243712
25556    52710201  MM321  BCD     ' Z21D2=3C M21=29E MD21=25D,26D''
25557    24024003
25560    23124402
25561    01400211
25562    25124424
25563    02014002
```



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25564    05247302
25565    06243712
25566    52710202  MM322  BCD     ' Z22D2=3C M22=29E MD22=27D,28D''
25567    24024003
25570    23124402
25571    02400211
25572    25124424
25573    02024002
25574    07247302
25575    10243712
25576    52710203  MM323  BCD     ' Z23D2=3C M23=29E MD23=27D,28D''
25577    24024003
25600    23124402
25601    03400211
25602    25124424
25603    02034002
25604    07247302
25605    10243712
25606    52440204  MM324  BCD     ' M24=30E MD24=29D Z24D2=3C''
25607    40030025
25610    12442402
25611    04400211
25612    24127102
25613    04240240
25614    03233712
25615    52710024  MM400  BCD     ' Z0D3=30C M0=22E MD0=5D,6D''
25616    03400300
25617    23124400
25620    40020225
25621    12442400
25622    40052473
25623    06243712
25624    52710124  MM401  BCD     ' Z1D3=30C M1=22E MD1=5D,6D''
25625    03400300
25626    23124401
25627    40020225
```

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25630    12442401
25631    40052473
25632    06243712
25633    52710224  MM402  BCD     ! Z8D3=30C M8=23E MD8=7D,8D!!
25634    03400300
25635    23124402
25636    40020225
25637    12442402
25640    40072473
25641    10243712
25642    52710324  MM403  BCD     ! Z3D3=30C M3=23E MD3=7D,8D!!
25643    03400300
25644    23124403
25645    40020325
25646    12442403
25647    40072473
25650    10243712
25651    52710424  MM404  BCD     ! Z4D3=30C M4=23E MD4=9D,10D!!
25652    03400300
25653    23124404
25654    40020325
25655    12442404
25656    40112473
25657    01002437
25660    52710524  MM405  BCD     ! Z5D3=26C M5=23E MD5=9D,10D!!
25661    03400206
25662    23124405
25663    40020325
25664    12442405
25665    40112473
25666    01002437
25667    52710624  MM406  BCD     ! Z6D3=26C M6=24E MD6=11D,12D!!
25670    03400206
25671    23124406
25672    40020425
25673    12442406
```



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25674    40010124
25675    73010224
25676    37121212
25677    52710724  MM407  BCD     ! Z7D3=26C M7=24E MD7=11D,12D!!
25700    03400206
25701    23124407
25702    40020425
25703    12442407
25704    40010124
25705    73010224
25706    37121212
25707    52711024  MM408  BCD     ! Z8D3=26C M8=24E MD8=13D,14D!!
25710    03400206
25711    23124410
25712    40020425
25713    12442410
25714    40010324
25715    73010424
25716    37121212
25717    52711124  MM409  BCD     ! Z9D3=26C M9=25E MD9=13D,14D!!
25720    03400206
25721    23124411
25722    40020525
25723    12442411
25724    40010324
25725    73010424
25726    37121212
25727    52710100  MM410  BCD     ! Z10D3=2D M10=25E MD10=15D,16D!!
25730    24034002
25731    24124401
25732    00400205
25733    25124424
25734    01004001
25735    05247301
25736    06243712
25737    52710101  MM411  BCD     ! Z11D3=2D M11=25E MD11=15D,16D!!
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25740    24034002
25741    24124401
25742    01400205
25743    25124424
25744    01014001
25745    05247301
25746    06243712
25747    52710102  MM412  BCD     ' Z12D3=2D M12=26E MD12=17D,18D''
25750    24034002
25751    24124401
25752    02400206
25753    25124424
25754    01024001
25755    07247301
25756    10243712
25757    52710103  MM413  BCD     ' Z13D3=2D M13=26E MD13=17D,18D''
25760    24034002
25761    24124401
25762    03400206
25763    25124424
25764    01034001
25765    07247301
25766    10243712
25767    52710104  MM414  BCD     ' Z14D3=2D M14=26E MD14=19D,20D''
25770    24034002
25771    24124401
25772    04400206
25773    25124424
25774    01044001
25775    11247302
25776    00243712
25777    52710105  MM415  BCD     ' Z15D3=6C M15=27E MD15=19D,20D''
26000    24034006
26001    23124401
26002    05400207
26003    25124424
```



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26004    01054001
26005    11247302
26006    00243712
26007    52710106  MM416  BCD     ' Z16D3=6C M16=27E MD16=21D,22D''
26010    24034006
26011    23124401
26012    06400207
26013    25124424
26014    01064002
26015    01247302
26016    02243712
26017    52710107  MM417  BCD     ' Z17D3=6C M17=27E MD17=21D,22D''
26020    24034006
26021    23124401
26022    07400207
26023    25124424
26024    01074002
26025    01247302
26026    02243712
26027    52710110  MM418  BCD     ' Z18D3=6C M18=28E MD18=23D,24D''
26030    24034006
26031    23124401
26032    10400210
26033    25124424
26034    01104002
26035    03247302
26036    04243712
26037    52710111  MM419  BCD     ' Z19D3=6C M19=28E MD19=23D,24D''
26040    24034006
26041    23124401
26042    11400210
26043    25124424
26044    01114002
26045    03247302
26046    04243712
26047    52710200  MM420  BCD     ' Z20D3=6C M20=28E MD20=25D,26D''
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MEM1   TAP=3.0                          PAGE 329

26050    24034006
26051    23124402
26052    00400210
26053    25124424
26054    02004002
26055    05247302
26056    06243712
26057    52710201  MM421  BCD     ! Z21D3=6C M21=29E MD21=25D,26D!!
26060    24034006
26061    23124402
26062    01400211
26063    25124424
26064    02014002
26065    05247302
26066    06243712
26067    52710202  MM422  BCD     ! Z22D3=6C M22=29E MD22=27D,28D!!
26070    24034006
26071    23124402
26072    02400211
26073    25124424
26074    02024002
26075    07247302
26076    10243712
26077    52710203  MM423  BCD     ! Z23D3=6C M23=29E MD23=27D,28D!!
26100    24034006
26101    23124402
26102    03400211
26103    25124424
26104    02034002
26105    07247302
26106    10243712
26107    52440204  MM424  BCD     ! M24=30E MD24=29D Z24D3=2C!!
26110    40030025
26111    12442402
26112    04400211
26113    24127102
```

```
MEM1   TAP=3.0                          PAGE 330

26114    04240340
26115    02233712
26116    52022524  LM0    BCD     ! 2ED 16K NOT SELECTED=4D,3E,5E,6E,7E,8F!!
26117    12010642
26120    12454663
26121    12622543
26122    25236325
26123    24400424
26124    73032573
26125    05257306
26126    25730725
26127    73102637
26130    52246700  LM1    BCD     ! DX0=30B XFMR=13A,15A,18A,20A IX0=27A IX1=27A!!
26131    40030022
26132    12672644
26133    51400103
26134    21730105
26135    21730110
26136    21730200
26137    21123167
26140    00400207
26141    21123167
26142    01400207
26143    21371212
26144    52246701  LM2    BCD     ! DX1=30B XFMR=13A,15A,18A,20A!!
26145    40030022
26146    12672644
26147    51400103
26150    21730105
26151    21730110
26152    21730200
26153    21371212
26154    52246702  LM3    BCD     ! DX2=30B XFMR=13A,15A,18A,20A!!
26155    40030022
26156    12672644
26157    51400103
```

```
26160    21730105
26161    21730110
26162    21730200
26163    21371212
26164    52246703  LM4     BCD     ' DX3=30B XFMR=13A,15A,18A,20A''
26165    40030022
26166    12672644
26167    51400103
26170    21730105
26171    21730110
26172    21730200
26173    21371212
26174    52246704  LM5     BCD     ' DX4=28B XFMR=13A,15A,18A,20A IX3=27A IX4=27A''
26175    40021022
26176    12672644
26177    51400103
26200    21730105
26201    21730110
26202    21730200
26203    21123167
26204    03400207
26205    21123167
26206    04400207
26207    21371212
26210    52246705  LM6     BCD     ' DX5=28B XFMR=13A,15A,18A,20A''
26211    40021022
26212    12672644
26213    51400103
26214    21730105
26215    21730110
26216    21730200
26217    21371212
26220    52246706  LM7     BCD     ' DX6=28B XFMR=13A,15A,18A,20A''
26221    40021022
26222    12672644
26223    51400103
```



```
26224    21730105
26225    21730110
26226    21730200
26227    21371212
26230    52246707  LM8     BCD     ' DX7=28B XFMR=13A,15A,18A,20A''
26231    40021022
26232    12672644
26233    51400103
26234    21730105
26235    21730110
26236    21730200
26237    21371212
26240    52246701  LM9     BCD     ' DX10=29B XFMR=14A,16A,17A,19A''
26241    00400211
26242    22126726
26243    44514001
26244    04217301
26245    06217301
26246    07217301
26247    11213712
26250    52246701  LM10    BCD     ' DX11=29B XFMR=14A,16A,17A,19A''
26251    01400211
26252    22126726
26253    44514001
26254    04217301
26255    06217301
26256    07217301
26257    11213712
26260    52246701  LM11    BCD     ' DX12=29B XFMR=14A,16A,17A,19A''
26261    02400211
26262    22126726
26263    44514001
26264    04217301
26265    06217301
26266    07217301
26267    11213712
```

```
MEM1   TAP=3.0                          PAGE 333

26270    52246701  LM12   BCD      ! Dx13=29B XFMR=14A,16A,17A,19A!!
26271    03400211
26272    22126726
26273    44514001
26274    04217301
26275    06217301
26276    07217301
26277    11213712
26300    52246701  LM13   BCD      ! Dx14=27B XFMR=14A,16A,17A,19A!!
26301    04400207
26302    22126726
26303    44514001
26304    04217301
26305    06217301
26306    07217301
26307    11213712
26310    52246701  LM14   BCD      ! Dx15=27B XFMR=14A,16A,17A,19A!!
26311    05400207
26312    22126726
26313    44514001
26314    04217301
26315    06217301
26316    07217301
26317    11213712
26320    52246701  LM15   BCD      ! Dx16=27B XFMR=14A,16A,17A,19A!!
26321    06400207
26322    22126726
26323    44514001
26324    04217301
26325    06217301
26326    07217301
26327    11213712
26330    52246701  LM16   BCD      ! Dx17=27B XFMR=14A,16A,17A,19A!!
26331    07400207
26332    22126726
26333    44514001
```

```
MEM1   TAP=3.0                          PAGE 334

26334    04217301
26335    06217301
26336    07217301
26337    11213712
26340    52626700  LM17   BCD      ! SX0=26B XFMR=20A,19A!!
26341    40020622
26342    12672644
26343    51400200
26344    21730111
26345    21371212
26346    52626701  LM18   BCD      ! SX1=7B XFMR=13A,14A!!
26347    40072212
26350    67264451
26351    40010321
26352    73010421
26353    37121212
26354    52626702  LM19   BCD      ! SX2=26B XFMR=20A,19A!!
26355    40020622
26356    12672644
26357    51400200
26360    21730111
26361    21371212
26362    52626703  LM20   BCD      ! SX3=7B XFMR=13A,14A!!
26363    40072212
26364    67264451
26365    40010321
26366    73010421
26367    37121212
26370    52626704  LM21   BCD      ! SX4=25B XFMR=17A,18A!!
26371    40020522
26372    12672644
26373    51400107
26374    21730110
26375    21371212
26376    52626705  LM22   BCD      ! SX5=8B XFMR=15A,16A!!
26377    40102212
```

```
26400    67264451
26401    40010521
26402    73010621
26403    37121212
26404    52626706  LM23   BCD     ! 8x6=25B XFMR=17A,18A!!
26405    40020522
26406    12672644
26407    51400107
26410    21730110
26411    21371212
26412    52626707  LM24   BCD     ! 9x7=8B XFMR=15A,16A!!
26413    40102212
26414    67264451
26415    40010521
26416    73010621
26417    37121212
26420    52247000  LM25   BCD     ! DY0=6B XFMR=9A,11A,21A,23A IY0=6A IY1=6A!!
26421    40062212
26422    67264451
26423    40112173
26424    01012173
26425    02012173
26426    02032112
26427    31700040
26430    06211231
26431    70014006
26432    21371212
26433    52247001  LM26   BCD     ! DY1=6B XFMR=9A,11A,21A,23A!!
26434    40062212
26435    67264451
26436    40112173
26437    01012173
26440    02012173
26441    02032137
26442    52247002  LM27   BCD     ! DY2=6B XFMR=9A,11A,21A,23A!!
26443    40062212
```



```
26444    67264451
26445    40112173
26446    01012173
26447    02012173
26450    02032137
26451    52247003  LM28   BCD     ! DY3=6B XFMR=9A,11A,21A,23A!!
26452    40062212
26453    67264451
26454    40112173
26455    01012173
26456    02012173
26457    02032137
26460    52247004  LM29   BCD     ! DY4=4B XFMR=9A,11A,21A,23A IY3=6A IY4=6A!!
26461    40042212
26462    67264451
26463    40112173
26464    01012173
26465    02012173
26466    02032112
26467    31700340
26470    06211231
26471    70044006
26472    21371212
26473    52247005  LM30   BCD     ! DY5=4B XFMR=9A,11A,21A,23A!!
26474    40042212
26475    67264451
26476    40112173
26477    01012173
26500    02012173
26501    02032137
26502    52247006  LM31   BCD     ! DY6=4B XFMR=9A,11A,21A,23A!!
26503    40042212
26504    67264451
26505    40112173
26506    01012173
26507    02012173
```

```
26510    02032137
26511    52247007  LM32   BCD     ! DY7=4B XFMR=9A,11A,21A,23A!!
26512    40042212
26513    67264451
26514    40112173
26515    01012173
26516    02012173
26517    02032137
26520    52247001  LM33   BCD     ! DY10=5B XFMR=10A,12A,22A,24A!!
26521    00400522
26522    12672644
26523    51400100
26524    21730102
26525    21730202
26526    21730204
26527    21371212
26530    52247001  LM34   BCD     ! DY11=6B XFMR=10A,12A,22A,24A!!
26531    01400522
26532    12672644
26533    51400100
26534    21730102
26535    21730202
26536    21730204
26537    21371212
26540    52247001  LM35   BCD     ! DY12=5B XFMR=10A,12A,22A,24A!!
26541    02400522
26542    12672644
26543    51400100
26544    21730102
26545    21730202
26546    21730204
26547    21371212
26550    52247001  LM36   BCD     ! DY13=5B XFMR=10A,12A,22A,24A!!
26551    03400522
26552    12672644
26553    51400100
```



```
26554    21730102
26555    21730202
26556    21730204
26557    21371212
26560    52247001  LM37   BCD     ! DY14=3B XFMR=10A,12A,22A,24A!!
26561    04400322
26562    12672644
26563    51400100
26564    21730102
26565    21730202
26566    21730204
26567    21371212
26570    52247001  LM38   BCD     ! DY15=3B XFMR=10A,12A,22A,24A!!
26571    05400322
26572    12672644
26573    51400100
26574    21730102
26575    21730202
26576    21730204
26577    21371212
26600    52247001  LM39   BCD     ! DY16=3B XFMR=10A,12A,22A,24A!!
26601    06400322
26602    12672644
26603    51400100
26604    21730102
26605    21730202
26606    21730204
26607    21371212
26610    52247001  LM40   BCD     ! DY17=3B XFMR=10A,12A,22A,24A!!
26611    07400322
26612    12672644
26613    51400100
26614    21730102
26615    21730202
26616    21730204
26617    21371212
```

```
26620    52627000  LM41   BCD     ! SY0=32B XFMR=23A,24A!!
26621    40030222
26622    12672644
26623    51400203
26624    21730204
26625    21371212
26626    52627001  LM42   BCD     ! SY1=31B XFMR=29A,10A!!
26627    40030122
26630    12672644
26631    51400211
26632    21730100
26633    21371212
26634    52627002  LM43   BCD     ! SY2=32B XFMR=23A,24A!!
26635    40030222
26636    12672644
26637    51400203
26640    21730204
26641    21371212
26642    52627003  LM44   BCD     ! SY3=31B XFMR=29A,10A!!
26643    40030122
26644    12672644
26645    51400211
26646    21730100
26647    21371212
26650    52627004  LM45   BCD     ! SY4=31B XFMR=21A,22A!!
26651    40030122
26652    12672644
26653    51400201
26654    21730202
26655    21371212
26656    52627005  LM46   BCD     ! SY5=32B XFMR=11A,12A!!
26657    40030222
26660    12672644
26661    51400101
26662    21730102
26663    21371212
```



```
26664    52627006  LM47   BCD     ! SY6=31B XFMR=21A,22A!!
26665    40030122
26666    12672644
26667    51400201
26670    21730202
26671    21371212
26672    52627007  LM48   BCD     ! SY7=32B XFMR=11A,12A!!
26673    40030222
26674    12672644
26675    51400101
26676    21730102
26677    21371212
26700    52121212  PERROR BCD     !    RL1      RL2   ADDRESS  OVERFLOW  ERRORS !!
26701    51430112
26702    12121212
26703    12514302
26704    12121221
26705    24245125
26706    62621212
26707    46652551
26710    26434666
26711    12122551
26712    51465162
26713    52371212
26714    52624764  SPIT   BCD     ! SPURIOUS INTERRUPT OR TRAP!!
26715    51314664
26716    62123145
26717    63255151
26720    64476312
26721    46511263
26722    51214737
26723    52442544  WCHM   BCD     ! MEMORY NOISE ERROR!
26724    46517012
26725    45463162
26726    25122551
26727    51465112
```

```
26730    52222124          BCD     1 BAD WORD.GOOD WORD.ADDRESS.OVERFLOW.ERRORS 11
26731    12664651
26732    24402746
26733    46241366
26734    46512440
26735    21242451
26736    25626240
26737    46652551
26740    26434466
26741    40255151
26742    46516252
26743    37121212
```



```
                          END     START
LITERALS USED:
26744    00000004
26745    00000000
26746    00037777
26747    00000267
26750    00000263
26751    77777777
26752    40404040
26753    77000000
26754    00770000
26755    00007700
26756    00000077
26757    40000000
26760    00400000
26761    00004000
26762    00000040
26763    41000000
26764    42000000
26765    44000000
26766    50000000
26767    60000000
26770    00410000
26771    00420000
26772    00440000
26773    00500000
26774    00600000
26775    00004100
26776    00004200
26777    00004400
27000    00005000
27001    00006000
27002    00000041
27003    00000042
27004    00000044
27005    00000050
```

```
27006    00000060
27007    00000607
27010    00000037
27011    00003700
27012    00000100
27013    00000200
27014    00000400
27015    00001000
27016    00002000
27017    00000001
27020    00000002
27021    00000010
27022    00000020
27023    00010203
27024    04770000
27025    04050664
27026    04050653
27027    04054040
27030    40414243
27031    44455447
27032    52535552
27033    04050440
27034    00007360
27035    00007377
27036    77010203
27037    04050407
27040    40010203
27041    00047475
27042    00007537
27043    10111213
27044    14151617
27045    20000000
27046    10000000
27047    04000000
27050    02000000
27051    01000000
```



```
27052    00200000
27053    00100000
27054    00040000
27055    00020000
27056    00010000
27057    37777777
27060    57777777
27061    67777777
27062    73777777
27063    75777777
27064    76777777
27065    77377777
27066    77577777
27067    77677777
27070    77737777
27071    77757777
27072    77767777
27073    77773777
27074    77775777
27075    77776777
27076    77777377
27077    77777577
27100    77777677
27101    77777737
27102    77777757
27103    77777767
27104    77777773
27105    77777775
27106    77777776
27107    20212223
27110    24252627
27111    30313233
27112    34353637
27113    00140000
27114    00010007
27115    00000003
```

```
27116    00000005
27117    00000006
27120    00000007
27121    00010001
27122    00010002
27123    00010003
27124    00010004
27125    00010005
27126    00010006
27127    00000070
27130    00000030
27131    00020700
27132    00000300
27133    00000400
27134    00000600
27135    00000700
27136    00020100
27137    00020200
27140    00020300
27141    00020400
27142    00020500
27143    00020600
27144    00007000
27145    00003000
27146    10110000
27147    02020000
27150    00070000
27151    16170000
27152    27700000
27153    04100000
27154    00000278
27155    00000056
27156    00000177
27157    00000237
27160    00000273
27161    00000377
```



```
27162    00000161
27163    36000000
27164    00007777
27165    00003737
27166    00102030
```

27167 CELLS USED BY PROGRAM

LOCAL SYMBOLS USED =

AAA		16063*	AA		17057*	ACCESS		16320*
AREG	N	410	BB		17060*	BREG	N	411
BRU81		7556*	BRU83		7557*	BRU84		7560*
BRU85		7561*	CARRET		16815*	CHECK		16423*
CLEAR		16141*	COMMON		16123*	DIVERT		450
DONE		452	DSCSIZ	N	404	END		434
ENDIT		14030*	ENDING		16041*	ERROR		460
ERRORS	N	414	FAM1		20064*	FAM2		20328*
FAM3		20562*	FAM4		21011*	FAM5		21221*
FDONE		456	FIM1		20056*	FIM2		20305*
FIM3		20544*	FIM4		20772*	FIM5		21211*
FINISH		17163*	FLAGS	N	332	FPT1		20006*
FPT2		20015*	FPT3		20024*	FPT4		20033*
FPT5		20042*	FUNCTN		424	FUNC1	N	4006*
FUNC2		10000*	FUNC3		14502*	FUNC4		15630*
FUNC5		17062*	FVM1		20051*	FVM2		20301*
FVM3		20540*	FVM4		20766*	FVM5		21205*
FVT1		20014*	FVT2		20023*	FVT3		20032*
FVT4		20041*	FVT5		20050*	I30T44		16113*
I31	N	243	I33	N	247	I56		275
I56I74		16112*	IEXT		16077*	ILLEXT		16155*
IMSG		16203*	INT31	N	242	INT33	N	246

ITABLE	16151*	L0	14601*	L10	14757*
L11	14772*	L12	15005*	L13	15020*
L14	15033*	L15	15046*	L16	15061*
L17	15074*	L18	15107*	L19	15122*
L1	14614*	L20	15135*	L21	15150*
L22	15163*	L23	15176*	L24	15211*
L25	15224*	L26	15237*	L27	15252*
L28	15265*	L29	15300*	L2	14627*
L30	15313*	L31	15326*	L32	15341*
L33	15354*	L34	15367*	L35	15402*
L36	15415*	L37	15430*	L38	15443*
L39	15456*	L3	14642*	L40	15471*
L41	15504*	L42	15517*	L43	15532*
L44	15545*	L45	15560*	L46	15573*
L47	15606*	L48	15621*	L4	14655*
L5	14670*	L6	14703*	L7	14716*
L8	14731*	L9	14744*	LCK0	14571*
LCK1	14604*	LCK10	14747*	LCK11	14762*
LCK12	14775*	LCK13	15010*	LCK14	15023*
LCK15	15036*	LCK16	15051*	LCK17	15064*
LCK18	15077*	LCK19	15112*	LCK2	14617*
LCK20	15125*	LCK21	15140*	LCK22	15153*
LCK23	15166*	LCK24	15201*	LCK25	15214*
LCK26	15227*	LCK27	15242*	LCK28	15255*
LCK29	15270*	LCK3	14632*	LCK30	15303*
LCK31	15316*	LCK32	15331*	LCK33	15344*
LCK34	15357*	LCK35	15372*	LCK36	15405*
LCK37	15420*	LCK38	15433*	LCK39	15446*
LCK4	14645*	LCK40	15461*	LCK41	15474*
LCK42	15507*	LCK43	15522*	LCK44	15535*
LCK45	15550*	LCK46	15563*	LCK47	15576*
LCK48	15611*	LCK5	14660*	LCK6	14673*
LCK7	14706*	LCK8	14721*	LCK9	14734*
LM0	26116*	LM1	26130*	LM10	26250*
LM11	26260*	LM12	26270*	LM13	26300*
LM14	26310*	LM15	26320*	LM16	26330*

LM17	26340*	LM18	26346*	LM19	26354*
LM2	26144*	LM20	26362*	LM21	26370*
LM22	26376*	LM23	26404*	LM24	26412*
LM25	26420*	LM26	26433*	LM27	26442*
LM28	26451*	LM29	26460*	LM3	26154*
LM30	26473*	LM31	26502*	LM32	26511*
LM33	26520*	LM34	26530*	LM35	26540*
LM36	26550*	LM37	26560*	LM38	26570*
LM39	26600*	LM4	26164*	LM40	26610*
LM41	26620*	LM42	26626*	LM43	26634*
LM44	26642*	LM45	26650*	LM46	26656*
LM47	26664*	LM48	26672*	LM5	26174*
LM6	26210*	LM7	26220*	LM8	26230*
LM9	26240*	LOCKS	402	M10	10203*
M100	12242*	M101	12254*	M102	12266*
M103	12300*	M104	12312*	M105	12324*
M106	12336*	M107	12350*	M108	12362*
M109	12374*	M11	10217*	M110	12406*
M111	12420*	M112	12432*	M113	12444*
M114	12456*	M115	12470*	M116	12502*
M117	12514*	M118	12526*	M119	12540*
M12	10233*	M120	12552*	M121	12564*
M122	12576*	M123	12610*	M124	12622*
M125	12634*	M126	12646*	M127	12660*
M128	12672*	M129	12704*	M13	10247*
M130	12716*	M131	12730*	M132	12742*
M133	12754*	M134	12766*	M135	13000*
M136	13012*	M137	13024*	M138	13036*
M139	13050*	M14	10263*	M140	13062*
M141	13074*	M142	13106*	M143	13120*
M144	13132*	M145	13144*	M146	13156*
M147	13170*	M148	13202*	M149	13214*
M15	10277*	M150	13226*	M151	13240*
M152	13252*	M153	13264*	M154	13276*
M155	13310*	M156	13322*	M157	13334*
M158	13346*	M159	13360*	M16	10313*

M160		13378*	M161		13404*	M162		13416*
M163		13430*	M164		13448*	M165		13454*
M166		13466*	M167		13500*	M168		13512*
M169		13524*	M17		10327*	M170		13536*
M171		13550*	M172		14006*	M173		14020*
M174		14032*	M175		14044*	M176		14056*
M177		14070*	M178		14102*	M179		14114*
M18		10343*	M180		14126*	M181		14140*
M182		14152*	M183		14164*	M184		14176*
M185		14210*	M186		14222*	M187		14234*
M188		14246*	M189		14260*	M19		10357*
M190		14272*	M191		14304*	M192		14316*
M193		14330*	M194		14342*	M195		14354*
M1		10027*	M20		10373*	M200		14367*
M201		14401*	M202		14413*	M203		14425*
M204		14437*	M205		14451*	M206		14463*
M207		14475*	M21		10407*	M22		10423*
M23		10437*	M24		10453*	M25		10467*
M26		10503*	M27		10517*	M28		10533*
M29		10547*	M2		10043*	M30		10563*
M31		10577*	M32		10613*	M33		10627*
M34		10643*	M35		10657*	M36		10673*
M37		10707*	M38		10723*	M39		10737*
M3		10057*	M40		10753*	M41		10767*
M42		11003*	M43		11017*	M44		11033*
M45		11047*	M46		11063*	M47		11077*
M48		11113*	M49		11127*	M4		10073*
M50		11143*	M51		11157*	M52		11173*
M53		11207*	M54		11223*	M55		11237*
M56		11253*	M57		11267*	M58		11303*
M59		11317*	M5		10107*	M60		11333*
M61		11347*	M62		11363*	M63		11377*
M64		11413*	M65		11427*	M66		11443*
M67		11457*	M68		11473*	M69		11507*
M6		10123*	M70		11523*	M71		11537*
M72		11553*	M73		11567*	M74		11603*

M75		11617*	M76		11633*	M77		11647*
M78		11663*	M79		11677*	M7		10137*
M80		11713*	M81		11727*	M82		11743*
M83		11757*	M84		11773*	M85		12007*
M86		12023*	M87		12037*	M88		12053*
M89		12067*	M8		10153*	M90		12103*
M91		12117*	M92		12133*	M93		12147*
M94		12163*	M95		12177*	M96		12213*
M97		12226*	M9		10167*	MEM1		10020*
MEM10		10174*	MEM100	N	12234*	MEM101	N	12246*
MEM102	N	12260*	MEM103	N N	12272*	MEM104	N	12304*
MEM105	N	12316*	MEM106	N N	12330*	MEM107	N	12342*
MEM108	N	12354*	MEM109	N N	12366*	MEM11		10210*
MEM110	N	12400*	MEM111	N N	12412*	MEM112	N	12424*
MEM113	N	12436*	MEM114	N N	12450*	MEM115	N	12462*
MEM116	N	12474*	MEM117	N	12506*	MEM118	N	12520*
MEM119	N	12532*	MEM12		10224*	MEM120	N	12544*
MEM121	N	12556*	MEM122	N	12570*	MEM123	N	12602*
MEM124	N	12614*	MEM125	N	12626*	MEM126	N	12640*
MEM127	N	12652*	MEM128	N N	12664*	MEM129	N	12676*
MEM13		10240*	MEM130	N N	12710*	MEM131	N	12722*
MEM132	N	12734*	MEM133	N N	12746*	MEM134	N	12760*
MEM135	N	12772*	MEM136	N N	13004*	MEM137	N	13016*
MEM138	N	13030*	MEM139	N N	13042*	MEM14		10254*
MEM140	N	13054*	MEM141	N	13066*	MEM142	N	13100*
MEM143	N	13112*	MEM144	N N	13124*	MEM145	N	13136*
MEM146	N	13150*	MEM147	N N	13162*	MEM148	N	13174*
MEM149	N	13206*	MEM15		10270*	MEM150	N	13220*
MEM151	N	13232*	MEM152	N	13244*	MEM153	N	13256*
MEM154	N	13270*	MEM155	N N	13302*	MEM156	N	13314*
MEM157	N	13326*	MEM158	N N	13340*	MEM159	N	13352*
MEM16		10304*	MEM160	N N	13364*	MEM161	N	13376*
MEM162	N	13410*	MEM163	N N	13422*	MEM164	N	13434*
MEM165	N	13446*	MEM166	N N	13460*	MEM167	N	13472*
MEM168	N	13504*	MEM169	N N	13516*	MEM17		10320*
MEM170	N	13530*	MEM171	N	13542*	MEM172		14000*

MEM173	N	14012•	MEM174	N	14024•	MEM175	N	14036•
MEM176	N	14050•	MEM177	N	14062•	MEM178	N	14074•
MEM179	N	14106•	MEM18		10334•	MEM180	N	14120•
MEM181	N	14132•	MEM182	N	14144•	MEM183	N	14156•
MEM184	N	14170•	MEM185	N	14208•	MEM186	N	14214•
MEM187	N	14226•	MEM188	N	14240•	MEM189	N	14252•
MEM19		10350•	MEM190	N	14264•	MEM191	N	14276•
MEM192	N	14310•	MEM193	N	14322•	MEM194	N	14334•
MEM195	N	14346•	MEM2		10034•	MEM20		10364•
MEM200	N	14360•	MEM201	N	14372•	MEM202	N	14404•
MEM203	N	14416•	MEM204	N	14430•	MEM205	N	14442•
MEM206	N	14454•	MEM207	N	14466•	MEM21		10400•
MEM22		10414•	MEM23		10430•	MEM24		10444•
MEM25		10460•	MEM26		10474•	MEM27		10510•
MEM28		10524•	MEM29		10540•	MEM3		10050•
MEM30		10554•	MEM31		10570•	MEM32		10604•
MEM33		10620•	MEM34		10634•	MEM35		10650•
MEM36		10664•	MEM37		10700•	MEM38		10714•
MEM39		10730•	MEM4		10064•	MEM40		10744•
MEM41		10760•	MEM42		10774•	MEM43		11010•
MEM44		11024•	MEM45		11040•	MEM46		11054•
MEM47		11070•	MEM48		11104•	MEM49		11120•
MEM5		10100•	MEM50		11134•	MEM51		11150•
MEM52		11164•	MEM53		11200•	MEM54		11214•
MEM55		11230•	MEM56		11244•	MEM57		11260•
MEM58		11274•	MEM59		11310•	MEM6		10114•
MEM60		11324•	MEM61		11340•	MEM62		11354•
MEM63		11370•	MEM64		11404•	MEM65		11420•
MEM66		11434•	MEM67		11450•	MEM68		11464•
MEM69		11500•	MEM7		10130•	MEM70		11514•
MEM71		11530•	MEM72		11544•	MEM73		11560•
MEM74		11574•	MEM75		11610•	MEM76		11624•
MEM77		11640•	MEM78		11654•	MEM79		11670•
MEM8		10144•	MEM80		11704•	MEM81		11720•
MEM82		11734•	MEM83		11750•	MEM84		11764•
MEM85		12000•	MEM86		12014•	MEM87		12030•

MEM88	12044•	MEM89	12060•	MEM9	10160•
MEM90	12074•	MEM91	12110•	MEM92	12124•
MEM93	12140•	MEM94	12154•	MEM95	12170•
MEM96	12204•	MEM97	12220•	MM00	24000•
MM100	24061•	MM101	24103•	MM102	24125•
MM103	24147•	MM104	24171•	MM105	24213•
MM106	24235•	MM107	24257•	MM108	24301•
MM109	24323•	MM110	24345•	MM111	24367•
MM112	24411•	MM113	24433•	MM114	24455•
MM115	24477•	MM116	24521•	MM117	24543•
MM118	24565•	MM119	24607•	MM120	24631•
MM121	24653•	MM122	24675•	MM123	24717•
MM124	24740•	MM200	24761•	MM201	25000•
MM202	25007•	MM203	25016•	MM204	25025•
MM205	25034•	MM206	25044•	MM207	25054•
MM208	25064•	MM209	25074•	MM210	25104•
MM211	25116•	MM212	25130•	MM213	25142•
MM214	25154•	MM215	25166•	MM216	25176•
MM217	25206•	MM218	25216•	MM219	25226•
MM220	25236•	MM221	25246•	MM222	25256•
MM223	25266•	MM224	25276•	MM300	25305•
MM301	25323•	MM302	25332•	MM303	25341•
MM304	25350•	MM305	25357•	MM306	25366•
MM307	25376•	MM308	25406•	MM309	25416•
MM310	25426•	MM311	25436•	MM312	25446•
MM313	25456•	MM314	25466•	MM315	25476•
MM316	25506•	MM317	25516•	MM318	25526•
MM319	25536•	MM320	25546•	MM321	25556•
MM322	25566•	MM323	25576•	MM324	25606•
MM400	25615•	MM401	25624•	MM402	25633•
MM403	25642•	MM404	25651•	MM405	25660•
MM406	25667•	MM407	25677•	MM408	25707•
MM409	25717•	MM410	25727•	MM411	25737•
MM412	25747•	MM413	25757•	MM414	25767•
MM415	25777•	MM416	26007•	MM417	26017•
MM418	26027•	MM419	26037•	MM420	26047•

MM421		26057*	MM422		26067*	MM423		26077*
MM424		26107*	MNE		17086*	OBJECT		430
OVRFLO	N	413	PARITY		16081*	PATERN		15827*
PERROR		26700*	PBP		16108*	POPED		16170*
RADBIZ	N	402	REPORT		488	RETURN		440
RL1		415	RL2		416	RL4		417
SEED	N	406	SPIT	N	26714*	SPREAD		16216*
SPRED1		14523*	SPRED2		14540*	SPRED3		14558*
SPRINT		16174*	SPURI		16064*	STATUS		401
SYSIZE		405	T10		4358*	T11		4403*
T12		4431*	T13		4457*	T14		4505*
T15		4533*	T16		4561*	T17		4607*
T18		4638*	T19		4663*	T1		4030*
T20		4711*	T21		4737*	T22		4765*
T23		5013*	T24		5041*	T25		5067*
T26		5115*	T27		5143*	T28		5171*
T29		5217*	T2		4063*	T30		5245*
T31		5273*	T32		5321*	T33		5347*
T34		5375*	T35		5423*	T36		5451*
T37		5477*	T38		5525*	T39		5553*
T3		4116*	T40A		5601*	T41		263
T41A		5627*	T42A		5655*	T43		267
T43A		5703*	T44A		5731*	T45		5757*
T46		6005*	T47		6033*	T48		6061*
T49		6107*	T4		4151*	T50		6135*
T51		6163*	T52		6211*	T53		6237*
T54		6265*	T55		6313*	T56		6341*
T57		6367*	T58		6415*	T59		6443*
T5		4177*	T60		6468*	T61		6507*
T62		6531*	T63		6553*	T64		6575*
T65		6617*	T66		6641*	T67		6663*
T68		6705*	T69		6727*	T6		4228*
T70		6751*	T71		6773*	T72		7015*
T73		7037*	T74A		7066*	T74B		7100*
T75A		7126*	T75B		7140*	T76A		7167*
T76B		7201*	T77		7226*	T78		7263*

T79		7310*	T7		4253*	T80		7335*
T81A		7360*	T81B		7364*	T81C		7374*
T82		7416*	T83A		7444*	T83B		7446*
T84		7466*	T85A		7515*	T85B		7520*
T86A		7537*	T86B		7540*	T8		4301*
T9		4327*	TEMP		15626*	TEST		16428*
TIME	N	407	TM10		22025*	TM11		22035*
TM12		22045*	TM13		22061*	TM14		22075*
TM15		22111*	TM16		22125*	TM17		22141*
TM18		22155*	TM19		22171*	TM1A		21600*
TM1B		21623*	TM20		22205*	TM21		22212*
TM22		22217*	TM23		22224*	TM24		22231*
TM25		22236*	TM26		22246*	TM27		22253*
TM28		22260*	TM29		22265*	TM2A		21651*
TM2B		21664*	TM30		22272*	TM31		22277*
TM32		22304*	TM33		22311*	TM34		22316*
TM35		22323*	TM36		22330*	TM37		22335*
TM38		22342*	TM39		22347*	TM3A		21706*
TM3B		21710*	TM4		21741*	TM40		22354*
TM41		22361*	TM42		22366*	TM43		22373*
TM44		22400*	TM45		22405*	TM46		22415*
TM47		22422*	TM48		22427*	TM49		22434*
TM5		21751*	TM50		22441*	TM51		22446*
TM52		22453*	TM53		22460*	TM54		22465*
TM55		22472*	TM56		22477*	TM57		22504*
TM58		22511*	TM59		22516*	TM6		21761*
TM60		22523*	TM61		22527*	TM62		22531*
TM63		22554*	TM64		22571*	TM65		22576*
TM66		22603*	TM67		22610*	TM68		22615*
TM69		22622*	TM7		21771*	TM70		22627*
TM71		22634*	TM72		22641*	TM73		22646*
TM74A		22653*	TM74B		22656*	TM75A		22660*
TM75B		22663*	TM76A		22665*	TM76B		22670*
TM77		22672*	TM78		22675*	TM79		22677*
TM8		22001*	TM80		22702*	TM81A		22717*
TM81B		22722*	TM82		22738*	TM83A		22742*

TM84		22745*	TM85A		22750*	TM86A		22753*
TM86B		22756*	TM9		22015*	TRAP1	N	4010*
TRAP10	N	4335*	TRAP11	N	4363*	TRAP12	N	4411*
TRAP13	N	4437*	TRAP14	N	4465*	TRAP15	N	4513*
TRAP16	N	4541*	TRAP17	N	4567*	TRAP18	N	4615*
TRAP19	N	4643*	TRAP2	N	4043*	TRAP20	N	4671*
TRAP21	N	4717*	TRAP22	N	4745*	TRAP23	N	4773*
TRAP24	N	4821*	TRAP25	N	5047*	TRAP26	N	5075*
TRAP27	N	5123*	TRAP28	N	5151*	TRAP29	N	5177*
TRAP3	N	4076*	TRAP30	N	5225*	TRAP31	N	5253*
TRAP32	N	5301*	TRAP33	N	5327*	TRAP34	N	5355*
TRAP35	N	5403*	TRAP36	N	5431*	TRAP37	N	5457*
TRAP38	N	5505*	TRAP39	N	5533*	TRAP4	N	4131*
TRAP40	N	5561*	TRAP41	N	5607*	TRAP42	N	5635*
TRAP43	N	5663*	TRAP44	N	5711*	TRAP45	N	5737*
TRAP46	N	5745*	TRAP47	N	6013*	TRAP48	N	6041*
TRAP49	N	6067*	TRAP5	N	4157*	TRAP50	N	6115*
TRAP51	N	6143*	TRAP52	N	6171*	TRAP53	N	6217*
TRAP54	N	6245*	TRAP55	N	6273*	TRAP56	N	6321*
TRAP57	N	6347*	TRAP58	N	6375*	TRAP59	N	6423*
TRAP6	N	4205*	TRAP60	N	6451*	TRAP61	N	6473*
TRAP62	N	6515*	TRAP63	N	6537*	TRAP64	N	6561*
TRAP65	N	6603*	TRAP66	N	6625*	TRAP67	N	6647*
TRAP68	N	6671*	TRAP69	N	6713*	TRAP7	N	4233*
TRAP70	N	6735*	TRAP71	N	6757*	TRAP72	N	7001*
TRAP73	N	7023*	TRAP74		7045*	TRAP75		7105*
TRAP76		7146*	TRAP77		7206*	TRAP78		7234*
TRAP79		7271*	TRAP8	N	4261*	TRAP80		7316*
TRAP81		7341*	TRAP82		7377*	TRAP83		7424*
TRAP84	N	7451*	TRAP85		7475*	TRAP86		7521*
TRAP9	N	4307*	UAM		21331*	UAW	N	400
UIM		21315*	UNIT		420	UPT		20000*
UVM		21312*	UVT		20005*	WCH0		15654*
WCH00		15643*	WCH1		15665*	WCH2		15703*
WCH3		15712*	WCH4		15730*	WCH5		15740*
WCH6		15761*	WCH7		15766*	WCHM		26723*

XREG	N	412	XX		17061*	ZERO		0*