MAY 1 1981

BELL TELEPHONE LABORATORIES, INCORPORATED

5-89

COMMON SYSTEMS

FOR USE WITH NO. 3 ESS

ARRANGED WITH 2-WIRE FEATURES

INTERPROCESSOR STORE BUS TEST

(CDGSON)

PRINTED IN U.S.A.

```
                    SECTION DICTIONARY


NUMBER    NAME      MAXIMUM   ORIGIN   TYP   ADDRESS-MODIFICATION


01        CSTON1    0000515            C
02        CSONSUB   0000023            C
03        CPATCH    0000000            C
04        CPATCH1   0000000            C
05        CPATCH2   0000000            C
06        CPATCH3   0000000            C
07        CPATCH7   0000000            C
08        TFAPCH2   0000000            C
09        TPATCH    0000000            C
```

```
                          01       DBNAM   NO33E3I3.OFF.DATABASE
                          02       RELNAM  NO3ESS
                          03       GETLIB  LIBRARY,MEMBER=MOPTBL
                          04       GETLIB  LIBRARY,MEMBER=SYSMAC
                          05       GETLIB  LIBRARY,MEMBER=SYSSYM
                          06       GETLIB  LIBRARY,MEMBER=PATCH2
0027122                   07       FIRSTOPTSS
0027122                   08       VERSION 3ACC,FIELD,ESS2E
0027122                   09       PATCHINIT
                          10 NO33E3I3.OFF.OPMS(O) DECK
                          11       DSQUAL  NO33E3I3
                          12       LISTING N,CRUNCH=Y,SYSOUT=N
                          13 ################
                          14 ##
                          15 ## UNIX ID = NO3PAG
                          16 ##
                          17 ################
                          18 ###########################################
                          19 ###
                          20 #### pid date     time    rel
                          21 ###
                          22 #### cdgson 1/24/81 17:38:05 7.1.1.1
                          23 ###
                          24 ###########################################




                          31 #  THE LATEST REGEN OF THIS DATA SET OCCURRED ON PO1/06/77
                          32       NAME    CDGSON



                          36 ## The following is a list of the valid csects for program CDGSON

0027122                   38 CSTON1 CSECT
0027637                   39 CSONSUB CSECT


                          42 ## The following csects are necessary for patching

0111432                   44 CPATCH CSECT
0112562                   45 CPATCH1 CSECT
0114107                   46 CPATCH2 CSECT
0115073                   47 CPATCH3 CSECT
0121236                   48 CPATCH7 CSECT
```

23:41:18   2/05/81   ****

CDGSON   W77D

0116774   01 TFAPCH2 CSECT

0600000   03 TP*TCH CSECT

```
07          GETLIB   MEMBER=DGNMAC
08          GETLIB   MEMBER=MEMDGM
09          GETLIB   MEMBER=BSAIMAC
10          GETLIB   MEMBER=CTVTAB


17 TDATA    EXTERN   STRLIM
18 TDATA    EXTERN   WDSTR
19 CBLM     EXTERN   WAIT
20 CDGNM    EXTERN   LOOPIND
21 CSYSUB   EXTERN   INSYNC
22 CTSD     EXTERN   PAGSCR
```

0600000

```
            01        BEGIN_DIAG DGSON
     -001- 02 CDGNM  EXTERN  NMICRO
     -001- 03 CDGNM  EXTERN  NRETRN
     -001- 04 CDGNM  EXTERN  N2RETRN
     -001- 05 CDGNM  EXTERN  NSTRT
     -001- 06 CDGNM  EXTERN  NSTOP
     -001- 07 CDGNM  EXTERN  NDISABA
     -001- 08 CDGNM  EXTERN  NDISABB
     -001- 09 CDGNM  EXTERN  NSTRTCLK
     -001- 10 CDGNM  EXTERN  NSTPCLK
     -001- 11 CDGNM  EXTERN  NTGCLK
     -001- 12 CDGNM  EXTERN  NRESCLK
     -001- 13 CDGNM  EXTERN  NZERO_ER
     -001- 14 CDGNM  EXTERN  NPROS
     -001- 15 CDGNM  EXTERN  NTESTSEG
     -001- 16 CDGNM  EXTERN  NFAILTST
     -001- 17 CDGNM  EXTERN  NTTY
     -001- 18 CDGNM  EXTERN  NMASK
     -001- 19 CDGNM  EXTERN  NPASSTST
     -001- 20 CDGNM  EXTERN  NSEND
     -001- 21 CDGNM  EXTERN  N2SEND
     -001- 22 CDGNM  EXTERN  NADD_OFF
     -001- 23 CDGNM  EXTERN  NADMIC
     -001- 24 CDGNM  EXTERN  NLDMIR
     -001- 25 CDGNM  EXTERN  NEXECUTE
     -001- 26 CDGNM  EXTERN  NCOMPARE
     -001- 27 CDGNM  EXTERN  NFRZ
     -001- 28 CDGNM  EXTERN  NBEGIN
     -001- 29 CDGNM  EXTERN  NLP_END
     -001- 30 CDGNM  EXTERN  NSKIP
     -001- 31 CDGNM  EXTERN  NABT
     -001- 32 CDGNM  EXTERN  NRDMICRO
     -001- 33 CDGNM  EXTERN  NCLRMS
     -001- 34 CDGNM  EXTERN  NNO3CD
     -001- 35 CDGNM  EXTERN  NTMTEST
     -001- 36 CDGNM  EXTERN  NZERPT
     -001- 37 CDGNM  EXTERN  NFLBITS
     -001- 38 CDGNM  DIRECT  INTRPNO3
     -001- 39 CDGNM  EXTERN  NBGN
     -001- 40 CDGNOF EXTERN  PASSOFF
     -001- 41 CDGNOF EXTERN  FAILOFF
     -001- 42 CDGNM  EXTERN  SLDNCHBF
     -001- 43 CDGNM  EXTERN  SLDMIRLF
     -001- 44 CDGNM  EXTERN  SMCHF
     -001- 45 CDGNM  EXTERN  NRTNBLM
     -001- 46 CDGNM  EXTERN  NWDTST
```

```
-001- 01 #   THIS DIAGNOSTIC PROGRAM IS ALL OR PARTIALLY WRITTEN IN A MACRO
-001- 02 #   LANGUAGE WHICH PRODUCES TABLES WHICH ARE INTERPRETED BY THE
-001- 03 #.  DIAGNOSTIC MONITOR PROGRAM.  FOR INFORMATION REGARDING THE
-001- 04 #   STRUCTURE OF THE TABLES,  SEE THE SECTION OF PROGRAM CDGNM (PR-1C910-01)
-001- 05 #   ENTITLED "DIAGNOSTIC TABLE INTERPRETER".  FOR A GENERAL DESCRIPTION
-001- 06 #   OF THE DIAGNOSTIC PHILOSOPHY AND THE DATAILED REPAIR PROCEEDURE,
-001- 07 #   SEE THE TROUBLE LOCATION MANUAL (TLM-1C900) SECTION B.
```

23:41:18   2/05/81 ****

CDGSON   W77D

0600000   01   SYMLIB

```
-002- 01 # EXTERNS REQUIRED BY STORE DIAGNOSTIC TESTS:


-002- 04 MASACS EXTERN  MASCIOSC

-002- 06 CBLM    EXTERN  PRTMASER
-002- 07 CBLM    EXTERN  WAIT

-002- 09 CDGNM   EXTERN  LOOPIND
-002- 10 CDGNM   EXTERN  NOSTPMES
-002- 11 CDGNM   EXTERN  PASSTST
-002- 12 CTSD    EXTERN  DGNLIM

-002- 14 CDGSBS  EXTERN  MEMOP
-002- 15 CDGSBS  EXTERN  MEMOPI

-002- 17 CDGSFA  EXTERN  FOBNDX

-002- 19 CDGSIO  DIRECT  MASIOM
-002- 20 CDGSIO  EXTERN  MDSELMSK
-002- 21 CDGSIO  EXTERN  MODSIZE
-002- 22 CDGSIO  EXTERN  STRSIZE
-002- 23 CDGSIO  EXTERN  STSELMSK
-002- 24 CDGSIO  EXTERN  FINAL
-002- 25 CDGSIO  EXTERN  CONTPREP


-002- 28 CSYSUB  EXTERN  EXCOFLPG
-002- 29 CSYSUB  EXTERN  INIT_OCC
-002- 30 CSYSUB  EXTERN  INITOST
-002- 31 CSYSUB  EXTERN  INSYNC
-002- 32 CSYSUB  EXTERN  RGCHKADR
-002- 33 CSYSUB  EXTERN  UPD_OTS

-002- 35 CTSD    EXTERN  MASERCNT
-002- 36 CTSD    EXTERN  PAGSCR
-002- 37 CTSD    EXTERN  DGREQ

-002- 39 MASACS  EXTERN  MASONOFF

-002- 41 TDATA   EXTERN  STRLIM
-002- 42 TDATA   EXTERN  WDSTR
-002- 43 TDATA   EXTERN  WPTBL
```

```
                    -002- 01 # STORE DIAGNOSTIC REGISTER DEFINITIONS


0000010     -002- 04 CHKNDX EQUR    8                    # INDEX REGISTER FOR REFRESH SELECT CHECK
0000010     -002- 05 FOBCNT EQUR    8                    # SCRATCH REG FOR CURRENT FANOUT BOARD
                                                         #  COUNT
0000011     -002- 07 RANGE  EQUR    9                    # NUMBER OF OFF-LINE WORDS TO BE TESTED



            -002- 11 # REGISTER SYMBOLS USED IN THE MEMORY MODULE TEST:
0000000     -002- 12 PATBAK EQUR    R0                   # DATA READ/WRITTEN VIA OTHER-STORE
0000001     -002- 13 HIPATBAK EQUR  R1                   # HIGH DATA READ/WRITTEN VIA OTHER-STORE
            -002- 14 HIPATBAK%T SYN R1%T                 # DEFINE FOR IGNORANT MIMODE MACRO
0000002     -002- 15 BLKMSK EQUR    R2                   # MASK TO BLOCK INTERRUPTS & CHECKS
0000003     -002- 16 STRSTAT EQUR   R3                   # SAVE (WIDE) STORE STATUS
0000004     -002- 17 LSTPAT EQUR    R4                   # PATTERN PREVIOUSLY WRITTEN
0000005     -002- 18 NXTPAT EQUR    R5                   # PATTERN CURRENTLY BEING WRITTEN
0000006     -002- 19 PATNDX EQUR    R6                   # NUMBER OF TEST PATTERN BEING MATCHED
0000007     -002- 20 MNRNDX EQUR    R7                   # MINOR LOOP INDEX
0000010     -002- 21 ERSAVE EQUR    R8                   # ERROR REGISTER AFTER OTHER-STORE READ
0000010     -002- 22 PARSLT EQUR    R8                   # PARITY TEST RESULTS - FIELD ONLY
0000014     -002- 23 MEMADDR0 EQUR  R12                  # UPPER ADDRESS BITS OF MEMORY TEST AREA
0000015     -002- 24 MEMADDR1 EQUR  R13                  # LOWER ADDRESS BITS OF MEMORY TEST AREA
0000014     -002- 25 MEMADDR EQURA  RA0                  # BASE ADDRESS OF MEMORY TEST AREA
0000016     -002- 26 PATADDR EQURA  RA1                  # ADDRESS OF TEST PATTERN TABLE
```

```
-002- 01 # FUNCTION OF BITS WITHIN I/O MESSAGE SENT TO STORE:
-002- 02 CIOBUF LAYOUT


-002- 05 CINIT   ITEM    1              # MAIN STORE CONTROLLER INITIALIZATION
-002- 06 CKSTP   ITEM    1              # CONTROLLER CLOCK STEP
-002- 07 CKHLT   ITEM    1              # CONTROLLER CLOCK HALT
-002- 08 REFST   ITEM    1              # STORE REFRESH STOP
-002- 09 STORDER ITEM    8              # 4/8 MAINTENANCE STATE CODE
-002- 10 010TM   ITEM    1              # 0-10 BIT TIMING SHIFTER FAKE
-002- 11 LDFG    ITEM    1              # ORDER CHECKER EXCLUSIVE-OR LOAD
-002- 12 FSEL    ITEM    1              # STORE SELECT FORCE ON TIMING BOARD A
-002- 13 FBTO9   ITEM    1              # FORCE BIT 15 ACTIVE IN MAIN SHIFTER
-002- 14         LOEND
-005- 15 #
```

```
CIOBUF
001 FBTO9 | FSEL | LDFG | 010TM |                    STORDER               | REFST | CKHLT | CKSTP | CINIT |
    |     |      |      |       |              4/8 MAINTENANCE STATE CODE   |       |       |       |       |
    |  15 |  14  |  13  |  12   | 11 |  10  | 9 | 8 | 7 |  6 |  5 |  4  |  3  |   2   |   1   |   0   |
```

```
-002- 01 # LAYOUT OF DIAGNOSTIC REQUEST WORD (DGREQ) WITH TEST NUMBER REQUESTED
-002- 02 #      NOTES: 1. REST OF BITS (CONTROLBITS) ARE DEFINED BY DGREQIP LAYOUT
-002- 03 #                 FOUND IN PROLOGUE OF DIAGNOSTIC MONITOR (CDGNM)
-002- 04 #              2. IF TEST NUMBER (TSTNUM) IS ZERO, THE ENTIRE DIAGNOSTIC
-002- 05 #                 TEST SEQUENCE HAS BEEN REQUESTED
-002- 06 #              3. STORAGE SPACE FOR DGREQ IS ALLOCATED IN CTSD

-002- 09 TSTNUM ITEM    7                      # DIAGNOSTIC TEST NUMBER REQUESTED
-002- 10 SPARE   ITEM   2
-002- 11 CONTROLBITS ITEM 7
-002- 12         LOEND
-005- 13 #
```
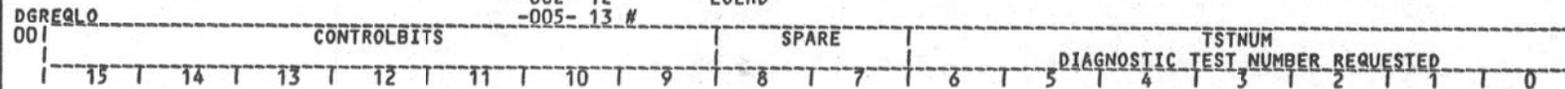
```
DGREQLO
001 |                CONTROLBITS              |        SPARE        |           TSTNUM
    |                                         |                     |  DIAGNOSTIC TEST NUMBER REQUESTED
    | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
```

```
                                              23:41:18   2/05/81  ****

                                                 CDGSON        W77D

  -002- 01 # STORAGE FORMAT FOR MAIN STORE (MY & OTHER) SUBCHANNEL ADDRESS:


      -002- 04 MSSC0   ITEM   16              #  ADDRESS OF MY STORE SUBCHANNEL 0
      -002- 05 OSSC0   ITEM   16              # ADDRESS OF OTHER STORE SUBCHANNEL 0
      -002- 06 MSSC1   ITEM   16              # ADDRESS OF MY STORE SUBCHANNEL 1
      -002- 07 OSSC1   ITEM   16              # ADDRESS OF OTHER STORE SUBCHANNEL 1
      -002- 08 MSSC2   ITEM   16              # ADDRESS OF MY STORE SUBCHANNEL 2
      -002- 09 OSSC2   ITEM   16              # ADDRESS OF OTHER STORE SUBCHANNEL 2
      -002- 10 MSSC3   ITEM   16              # ADDRESS OF MY STORE SUBCHANNEL 3
      -002- 11 OSSC3   ITEM   16              # ADDRESS OF OTHER STORE SUBCHANNEL 3
      -002- 12         LOEND
MASCIOSC              -005- 13 #
00|                            MSSC0                                               |
  |              ADDRESS OF MY STORE SUBCHANNEL 0                                   |
01|                            OSSC0                                               |
  |              ADDRESS OF OTHER STORE SUBCHANNEL 0                                |
02|                            MSSC1                                               |
  |              ADDRESS OF MY STORE SUBCHANNEL 1                                   |
03|                            OSSC1                                               |
  |              ADDRESS OF OTHER STORE SUBCHANNEL 1                                |
04|                            MSSC2                                               |
  |              ADDRESS OF MY STORE SUBCHANNEL 2                                   |
05|                            OSSC2                                               |
  |              ADDRESS OF OTHER STORE SUBCHANNEL 2                                |
06|                            MSSC3                                               |
  |              ADDRESS OF MY STORE SUBCHANNEL 3                                   |
07|                            OSSC3                                               |
  |              ADDRESS OF OTHER STORE SUBCHANNEL 3                                |
  | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
```

```
-002- 01 # WORDS IN PAGING BUFFER USED BY STORE DIAGNOSTIC TESTS:
-002- 02 LOOPSUB ITEM    16                    # ADDRESS OF SUBSTITUTE FOR 'LOOP' IN TTY
                                                 TROUBLE MESSAGE
-002- 04 IOADDR  ITEM    16                    # I/O SUBCHANNEL ADDRESS FOR CURRENT
                                                 STORE CONTROLLER
-002- 06 FOBNUM  ITEM    16                    # NUMBER OF MEMORY MODULES (OR FANOUT
                                                 BOARDS) IN STORE CURRENTLY UNDER TEST
-002- 08 TIMSAV  ITEM    16                    # SAVE TIMING CONSTANT FOR TIMOUT
                                                 SUBROUTINE
-002- 10 UPADDR  ITEM    ADDR                  # ADDRESS OF NEXT BLOCK OF MEMORY TO BE
                                                 UPDATED AFTER MEMORY PATTERN TEST
-002- 12 BASADDR ITEM    ADDR                  # BASE ADDRESS OF STORE/MOD UNDER TEST


-002- 15       LOEND
-005- 16 #
```

```
PAGSCR
24 |                                      LOOPSUB
   |_____ADDRESS_OF_SUBSTITUTE_FOR_'LOOP'_IN_TTY_TROUBLE_MESSAGE_____
25 |                                      IOADDR
   |_____I/O_SUBCHANNEL_ADDRESS_FOR_CURRENT_STORE_CONTROLLER_____
26 |                                      FOBNUM
   |___NUMBER_OF_MEMORY_MODULES_(OR_FANOUT_BOARDS)_IN_STORE_CURRENTLY_UNDER_TEST_____
27 |                                      TIMSAV
   |_____SAVE_TIMING_CONSTANT_FOR_TIMOUT_SUBROUTINE_____
28 |                                                                         UPADDR
   |*******************************************************************|
29 |
   |
30 |                                                                         BASADDR
   |************************************************** ********************|
31 |
   |_____
   | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
```

```
-002- 01 # STORE ERROR REGISTER (SER) BIT ASSIGNMENT:
-002- 02 #     NOTE: THESE INPUTS ARE ENABLED BY BIT09 OF THE MAIN SHIFTER


-002- 05 SER     LAYOUT
-002- 06 FOBTERB ITEM     1                    # STORE TIMING ERROR FROM UNSELECTED FOB
-002- 07 MPXER   ITEM     1                    # MULTIPLEXOR ERROR DETECTED BY CHECK
                                                 BOARD
-002- 09 CHDIF   ITEM     1                    # ERROR INDICATED BY STORE COMMAND
                                                 CHECKER
-002- 11 SCMER   ITEM     1                    # PREMATURE STORE COMPLETE(SCM)
-002- 12 SHER    ITEM     1                    # ERROR IN MAIN SHIFTER OPERATION
-002- 13 MODER   ITEM     1                    # ALL-SEEMS-WELL SIGNAL NOT RECEIVED FROM
                                                 MODULE(FOB) ACCESSED DURING NORMAL CYCL
-002- 15 RSELER  ITEM     1                    # ALL MEMORY MODULES(FOBS) NOT SELECTED
                                                 DURING REFRESH
-002- 17 FOBTERA ITEM     1                    # STORE TIMING ERROR FROM SELECTED FOB
-002- 18 FOBPARER ITEM    1                    # PARITY ERROR DETECTED IN ADDRESS
                                                 REACHING FANOUT BOARD(S)
-004- 20 #*#*#*#*#*#*# FOBPARER WILL APPEAR AS FOBPARE IN PICTURES
-002- 21 DHPER   ITEM     1                    # ERROR IN PARITY OVER HIGH DATA BITS
-002- 22 PWER    ITEM     1                    # ERROR IN PARITY FOR WIDE STORE
-002- 23 TBER    ITEM     1                    # ERROR DETECTED ON TIMING BOARD
-002- 24         ITEM     1                    # SPARE
-002- 25 DLPER   ITEM     1                    # ERROR IN PARITY OVER LOW DATA BITS
-002- 26         ITEM     1                    # SPARE
-002- 27         ITEM     1                    # RESERVED
-002- 28         LOEND
-005- 29 #
```

SER 00		DLPER		TBER	PWER	DHPER	FOBPARE	FOBTERA	RSELER	MODER	SHER	SCMER	CHDIF	MPXER	FOBTERB
	SPARE		SPARE												
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

```
              -002- 01 # STORE BUS CHECK BIT ASSIGNMENTS IN RESPONSE MESSAGE:
              -002- 02 #     NOTE: THESE INPUTS ARE ENABLED BY ISOLATE CHECK(ISOCHK) I/O ORDER
              -002- 03 #               W/ LOAD F & G(LDFG) OPTION SET

              -002- 06 ISOBTS ITEM    7              # SD0-6,SD8-14 ISOLATE TEST RESULTS
              -002- 07 RSVD0  ITEM    1              # SD7,SD15 ISOLATE TEST RESULT - ONLY
                                                       GATED INTO BY LOAD I/O DECODER CHECK
                                                       (LOADCHK) OPTION
              -002- 10 WDISOL ITEM    4              # RESULTS OF WIDE DATA(SD16-23) ISOLATE
              -002- 11 SDPCK  ITEM    1              # RESULT OF STORE DATA PARITY ISOLATION
              -002- 12 2EPCK  ITEM    1              # RESULT OF EXTENDED(3 BIT) PARITY
                                                       ISOLATE
              -002- 14 CTRLCK ITEM    1              # RESULT OF STORE CONTROL LEADS ISOLATION
              -002- 15 FXORG  ITEM    1              # I/O ORDER CHECKER EXCLUSIVE-OR RESULT
              -002- 16        LOEND
CHKWRD        -005- 17 #
```

001	FXORG	CTRLCK	2EPCK	SDPCK		WDISOL			RSVD0		ISOBTS SD0-6,SD8-14 ISOLATE TEST RESULTS							
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		

```
            -002- 01 #    REFRESH SELECT CHECK BIT ASSIGNMENTS IN STORE ERROR REGISTER
            -002- 02 #          NOTE: THESE INPUTS ARE ENABLED BY EXTERNAL-ERROR-LOAD(EXERLD) ORDER

            -002- 05 RSEL06 ITEM    7               # REFRESH SELECTS FROM FANOUT BOARDS 0-6
            -002- 06 RSVD1  ITEM    1               # RESERVED - FOBTERA IS SET AFTER INIT
            -002- 07 SAPHLP ITEM    1               # STORE ADDRESS PARITY HIGH LOOP RESULT
            -002- 08 SA17LP ITEM    1               # STORE ADDRESS BIT 17 LOOP RESULT
            -002- 09 STRSLP ITEM    1               # STORE SELECT ADDRESS BITS LOOP RESULT
            -002- 10        ITEM    1               # SPARE
            -002- 11 RSEL7  ITEM    1               # REFRESH SELECT FROM FANOUT BOARD 7
            -002- 12        ITEM    3               # SPARE BITS
            -002- 13        LOEND
            -005- 14 #
```

```
RSLCHK _____
00 |               |  RSEL7 |        |STRSLP |SA17LP |SAPHLP | RSVD1 |                  RSEL06                |
   |   SPARE BITS  |        | SPARE  |       |       |       |       |      REFRESH SELECTS FROM FANOUT BOARDS 0-6   |
   | 15 |  14 |  13 |  12  |  11   |  10   |  9    |  8    |  7    |  6  |  5   |  4   |  3   |  2   |  1   |  0  |
```

```
            0010177  -002- 22 RSELBTS  EQU   M(RSEL06)|M(RSEL7)    # MASK FOR REFRESH SELECT BITS
            0167600  -002- 23 RSELBTSN EQU   (¬RSELBTS)&B(1111111111111111)
```

```
-002- 01 # STORE STATUS REGISTER LAYOUT -- INCL BITS USED IN FIELD VERSION(S) OF TESTS
-002- 02 PLBAK   ITEM    1                            # PARITY LOW VALUE READ BACK
-002- 03 PHBAK   ITEM    1                            # PARITY HIGH VALUE READ BACK
-002- 04         ITEM    2                            # UNUSED
-002- 05 OWDSTRO ITEM    1                            # WIDE STORE INDICATOR BIT
-002- 06 SNGBTER ITEM    1                            # SINGLE BIT ERROR FLAG
-002- 07 PASBT   ITEM    1                            # REPEAT PASS THRU TEST INDICATOR
-002- 08         ITEM    9                            # UNUSED
-002- 09         LOEND
-005- 10 #
```
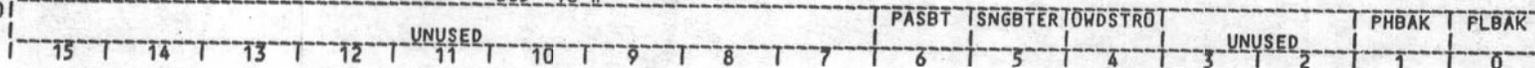
```
STRSTAT
001 |_____
    |                                            | PASBT | SNGBTER|OWDSTRO|          | PHBAK | PLBAK |
    |                    UNUSED                   |       |        |       |  UNUSED  |       |       |
    | 15  |  14  |  13  |  12  |  11  |  10 |  9  |  8  |  7  |  6  |  5  |  4  |  3  |  2  |  1  |  0  |
```

```
            -002- 01 #    STORE DIAGNOSTIC SYMBOL LIBRARY:

0000000     -002- 05 BIT0     EQU     0
0000001     -002- 06 BIT1     EQU     1
0000002     -002- 07 BIT2     EQU     2
0000003     -002- 08 BIT3     EQU     3
0000004     -002- 09 BIT4     EQU     4
0000005     -002- 10 BIT5     EQU     5
0000006     -002- 11 BIT6     EQU     6
0000007     -002- 12 BIT7     EQU     7
0000010     -002- 13 BIT8     EQU     8
0000011     -002- 14 BIT9     EQU     9
0000012     -002- 15 BIT10    EQU     10
0000013     -002- 16 BIT11    EQU     11
0000014     -002- 17 BIT12    EQU     12
0000015     -002- 18 BIT13    EQU     13
0000016     -002- 19 BIT14    EQU     14
0000017     -002- 20 BIT15    EQU     15
0000020     -002- 21 BIT16    EQU     16
0000021     -002- 22 BIT17    EQU     17
0000022     -002- 23 BIT18    EQU     18
0000023     -002- 24 BIT19    EQU     19
0000004     -002- 25 FOUR     EQU     4
            -002- 26 IOBRK    TEXT    '!&'                # DELIMITERS FOR I/O ORDER STRINGS
0000000     -002- 27 MOD0     EQU     0
0000001     -002- 28 MOD1     EQU     1
0000002     -002- 29 MOD2     EQU     2
0000003     -002- 30 MOD3     EQU     3
0000004     -002- 31 MOD4     EQU     4
0000005     -002- 32 MOD5     EQU     5
0000006     -002- 33 MOD6     EQU     6
0000007     -002- 34 MOD7     EQU     7
0000001     -002- 35 ONE      EQU     1
0177777     -002- 36 ONES     EQU     0(177777)          # ALL ONE'S REGISTER
0000200     -002- 37 OFLNCHNK EQU     B(10000000)        # ON-LINE TESTS 128 WORDS/MINOR LOOP
0007760     -002- 38 OFLNDONE EQU     B(111111110000)    # SIGNAL THAT OFF-LINE MEMORY TEST IS
                                                           DONE

            -002- 41 # NOTE: THE FOLLOWING CONSTANTS ALLOW GENERATION OF ARBITRARY PARITY. APPLICABLE
            -002- 42 #       BITS ARE 0 & 1 SUCH THAT BIT 0 = VALUE FOR PARITY LOW
            -002- 43 #                                BIT 1 = VALUE FOR PARITY HIGH
            -002- 44 #       DATA BITS (23-16)(15-8) (7-0)
0000020     -002- 45 PRHOL0 EQU      B(10000)           # SET PARITY (WIDE=)HIGH=0 LOW=0
0000005     -002- 46 PRHOL1 EQU      B(00101)           # SET PARITY (WIDE=)HIGH=0 LOW=1
0000012     -002- 47 PRH1L0 EQU      B(01010)           # SET PARITY (WIDE=)HIGH=1 LOW=0
0000017     -002- 48 PRH1L1 EQU      B(01111)           # SET PARITY (WIDE=)HIGH=1 LOW=1
0000002     -002- 49 PRWOH1L0 EQU    B(00010)           # SET PARITY WIDE=0 HIGH=1 LOW=0
```

0600000

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
0000007     -002- 01 PRWOH1L1 EQU   B(00111)          # SET PARITY WIDE=0 HIGH=1 LOW=1
0000010     -002- 02 PRW1HOLO EQU   B(01000)          # SET PARITY WIDE=1 HIGH=0 LOW=0
0000015     -002- 03 PRW1HOL1 EQU   B(01101)          # SET PARITY WIDE=1 HIGH=0 LOW=1

0000003     -002- 05 THREE    EQU   3
0000002     -002- 06 TWO      EQU   2
0010000     -002- 07 WPBLKSZE EQU   O(10000)          # WRITE PROTECT BLOCK SIZE = 4K (4096)
0000000     -002- 08 ZERO     EQU   0
0000000     -002- 09 ZEROS    EQU   0                 # ZERO CONSTANT
0000000     -002- 10 OTEST    EQU   0                 # VALUES FOR
0000001     -002- 11 1TEST    EQU   1                 #         TEST MACRO




            -002- 18 # MAIN MEMORY STATUS CONSTANTS ASSUMING FOLLOWING CONDITIONS:
            -002- 19 #    1. MY STORE BUS PORT IS ISOLATED FROM INPUT FROM OTHER PROCESSOR
            -002- 20 #    2. MAIN MEMORY CONTROLLER IS NOT UPDATING OTHER STORE
            -002- 21 #    3. MY STORE BUS PORT IS ACCESSING MY STORE, E. NOT REVERSED


0106263     -002- 24 MTCRD    EQU   O(106263)         # MAIN MEMORY STATUS FOR MAINTENANCE READ
                                                        OPERATION
0106203     -002- 26 MTCWR    EQU   O(106203)         # MAIN MEMORY STATUS FOR MAINTENANCE
                                                        WRITE OPERATION
0106260     -002- 28 NMLRD    EQU   O(106260)         # MAIN MEMORY STATUS FOR NORMAL READ
                                                        OPERATION
0106200     -002- 30 NMLWR    EQU   O(106200)         # MAIN MEMORY STATUS FOR NORMAL WRITE
                                                        OPERATION
0106274     -002- 32 SPRRD    EQU   O(106274)         # MAIN MEMORY STATUS FOR SPARE READ
                                                        OPERATION
0106214     -002- 34 SPRWR    EQU   O(106214)         # MAIN MEMORY STATUS FOR SPARE WRITE
                                                        OPERATION
```

```
                  -002- 01 # MAIN STORE I/O ORDERS:

0020016           -002- 04 ALLZERO EQU    0(20016)
                  -002- 05 ALLZEROT TEXT  'APPLY ERRONEOUS ORDER(0/8) TO CHECKER'
0063476           -002- 06 BADCODE EQU    0(63476)
                  -002- 07 BADCODET TEXT  'APPLY ERRONEOUS ORDER(5/8) TO CHECKER'
0047214           -002- 08 BUSCHK EQU     0(47214)
                  -002- 09 BUSCHKT TEXT   'CHECK BUS ISOLATION USING SER'
0040374           -002- 10 CKTINIT EQU    0(40374)              # STORE CONTROLLER INITIALIZATION (W/O
                                                                  WRITE PROTECT CLEAR)
                  -002- 12 CKTINITT TEXT  'INITIALIZE ALL STORE CONTROLLER CIRCUITS'
0043310           -002- 13 CLRSER EQU     0(43310)
                  -002- 14 CLRSERT TEXT   'CLEAR STORE ERROR REGISTER'
0046074           -002- 15 CLKSTOP EQU    0(46074)
                  -002- 16 CLKSTOPT TEXT  'DISABLE STORE CONTROLLER CLOCK OUTPUT'
0046070           -002- 17 CLKSTRT EQU    0(46070)
                  -002- 18 CLKSTRTT TEXT  'ENABLE STORE CONTROLLER CLOCK OUTPUT'
0146074           -002- 19 ERCOLL EQU     0(146074)
                  -002- 20 ERCOLLT TEXT   'COLLECT ERRORS IN STORE ERROR REG'
0145454           -002- 21 EXERLD EQU     0(145454)             # FAST REFRESH WITH REFRESH & CLOCK
                                                                  STOPPED
                  -002- 23 EXERLDT TEXT   'ENABLE EXTERNAL LOAD OF STORE ERROR REG'
0145454           -002- 24 EXLDB15 EQU    0(145454)
                  -002- 25 EXLDB15T TEXT  'ENABLE EXTERNAL LOAD OF STORE ERROR REG W/ ERROR COLLECT OPTION'
0005440           -002- 26 FASTREF EQU    0(5440)
                  -002- 27 FASTREFT TEXT  'PERFORM FAST REFRESH ON STORE'
0045454           -002- 28 FASTRNC EQU    0(45454)
                  -002- 29 FASTRNCT TEXT  'FORCE FAST REFRESH W/O CLOCK'
0145454           -002- 30 FFRMB15 EQU    0(145454)
                  -002- 31 FFRMB15T TEXT  'FORCE FAST REFRESH & BIT 15'
0146074           -002- 32 FBIT09 EQU     0(146074)             # FORCE BIT 09 (COMMON ERROR STROBE)
                                                                  ACTIVE
                  -002- 34 FBIT09T TEXT   'COLLECT ERRORS IN STORE ERROR REGISTER'
0146064           -002- 35 FBIT09R EQU    0(146064)
                  -002- 36 FBIT09RT TEXT  'COLLECT ERRORS IN SER W/ REFRESH ON'
0146076           -002- 37 FBRMB15 EQU    0(146076)
                  -002- 38 FBRMB15T TEXT  'FANOUT BOARD REFRESH W/ ERROR COLLECT'
0046314           -002- 39 FCHKBT EQU     0(46314)              # FORCE MAIN SHIFTER CHECK BIT ACTIVE
                  -002- 40 FCHKBTT TEXT   'ACTIVATE MAIN SHIFTER CHECK BIT'
0046304           -002- 41 FCHKBTR EQU    0(46304)
                  -002- 42 FCHKBTRT TEXT  'ACTIVATE SHIFTER CHECK BIT W/ REFRESH ENABLED'
0040574           -002- 43 FCHKOS EQU     0(40574)
                  -002- 44 FCHKOST TEXT   'FORCE ZEROS TO MODULE SELECT XOR CHECK & WRITE PROTECT SELECT
                                           XOR CHECK CIRCUITS'
0041274           -002- 46 FCHK1S EQU     0(41274)
                  -002- 47 FCHK1ST TEXT   'FORCE ONES  TO MODULE SELECT XOR CHECK & WRITE PROTECT SELECT
                                           XOR CHECK CIRCUITS'
0140574           -002- 49 FCKOS15 EQU    0(140574)
```

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                   -002- 01 FCK0S15T TEXT  'FORCE ZEROS TO CHECK CKTS W/ ERROR COLLECT'
0141274            -002- 02 FCK1S15 EQU    0(141274)
                   -002- 03 FCK1S15T TEXT  'FORCE ONES  TO CHECK CKTS W/ ERROR COLLECT'
0043074            -002- 04 FDISIDLE EQU   0(43074)
                   -002- 05 FDISIDLET TEXT 'FORCE DISABLE OF IDLE FLOP'
0046156            -002- 06 FLSH0  EQU     0(46156)            # FORCE LOAD THE SHIFTER WITH ZERO
                                                                   (W/CLOCK)
                   -002- 08 FLSH0T TEXT    'START ZERO INTO MAIN SHIFTER'
0046154            -002- 09 FLSH0NC EQU    0(46154)            # PUT ZERO ON INPUT OF SHIFTER (W/O
                                                                   CLOCK)
                   -002- 11 FLSH0NCT TEXT  'PRESENT ZERO TO INPUT OF MAIN SHIFTER'
0045434            -002- 12 FNOWRT EQU     0(45434)
                   -002- 13 FNOWRTT TEXT   'FORCE WRITING OF ALL-ONES DATA'
0045430            -002- 14 FNOWRTC EQU    0(45430)
                   -002- 15 FNOWRTCT TEXT  'FORCE WRITING OF ONES W/ CLOCK RUNNING'
0044474            -002- 16 FNOTIM EQU     0(44474)            # DISABLE TRANSMISSION OF TIMING SIGNALS
                                                                   TO FANOUT BOARDS
                   -002- 18 FNOTIMT TEXT   'INHIBIT TIMING SIGNALS TO FANOUT BOARDS'
0044470            -002- 19 FNOTIMC EQU    0(44470)
                   -002- 20 FNOTIMCT TEXT  'BLOCK TIMING TO FANOUT BOARDS(W/CLOCK)'
0041550            -002- 21 FOBM  EQU      0(41550)
                   -002- 22 FOBMT TEXT     'FANOUT BOARD MAINTENANCE TEST'
0041474            -002- 23 FRFSEL0 EQU    0(41474)            # FORCE REFRESH SELECT SIGNAL FROM FOB0
                   -002- 24 FRFSEL0T TEXT  'CANCEL SELECT FROM FOB0 DURING REFRESH'
0042334            -002- 25 FRFSEL1 EQU    0(42334)            # FORCE REFRESH SELECT SIGNAL FROM FOB1
                   -002- 26 FRFSEL1T TEXT  'CANCEL SELECT FROM FOB1 DURING REFRESH'
0042534            -002- 27 FRFSEL2 EQU    0(42534)            # FORCE REFRESH SELECT SIGNAL FROM FOB2
                   -002- 28 FRFSEL2T TEXT  'CANCEL SELECT FROM FOB2 DURING REFRESH'
0043234            -002- 29 FRFSEL3 EQU    0(43234)            # FORCE REFRESH SELECT SIGNAL FROM FOB3
                   -002- 30 FRFSEL3T TEXT  'CANCEL SELECT FROM FOB3 DURING REFRESH'
0043434            -002- 31 FRFSEL4 EQU    0(43434)            # FORCE REFRESH SELECT SIGNAL FROM FOB4
                   -002- 32 FRFSEL4T TEXT  'CANCEL SELECT FROM FOB4 DURING REFRESH'
0044354            -002- 33 FRFSEL5 EQU    0(44354)            # FORCE REFRESH SELECT SIGNAL FROM FOB5
                   -002- 34 FRFSEL5T TEXT  'CANCEL SELECT FROM FOB5 DURING REFRESH'
0044554            -002- 35 FRFSEL6 EQU    0(44554)            # FORCE REFRESH SELECT SIGNAL FROM FOB6
                   -002- 36 FRFSEL6T TEXT  'CANCEL SELECT FROM FOB6 DURING REFRESH'
0045254            -002- 37 FRFSEL7 EQU    0(45254)            # FORCE REFRESH SELECT SIGNAL FROM FOB7
                   -002- 38 FRFSEL7T TEXT  'CANCEL SELECT FROM FOB7 DURING REFRESH'
0044334            -002- 39 FRREQA EQU     0(44334)            # SET REFRESH REQUEST FLOP (DFFRREQ) ON
                                                                   TIMING BOARD (FA1071)
                   -002- 41 FRREQAT TEXT   'SET REFRESH REQUEST ON TIMING BOARD (FA1071)'
0040674            -002- 42 FRREQB EQU     0(40674)            # SET REFRESH REQUEST FLOP (RREQB) ON
                                                                   CHECK BOARD A (FA1062)
                   -002- 44 FRREQBT TEXT   'SET REFRESH REQ COPY ON CHECK BOARD A (FA1062)''
0040664            -002- 45 FRREQBR EQU    0(40664)
                   -002- 46 FRREQBRT TEXT  'SET REFRESH REQUEST ON FA1062 W/ REFRESH ENABLED'
0046074            -002- 47 FSELA  EQU     0(46074)
                   -002- 48 FSELAT TEXT    'FORCE STORE SELECT(ISOLATE) SIGNAL ON FA1071'
0006074            -002- 49 NSELA  EQU     0(6074)
```

```
                        -002- 01 NSELAT  TEXT    'RESET STORE SELECT(ISOLATE) SIGNAL ON FA1071'
          0004714       -002- 02 FSELB   EQU     0(4714)                         # FORCE STORE SELECT (TBBSEL) FROM CHECK
                                                                                   BOARD A (FA1062)
                        -002- 04 FSELBT  TEXT    'FORCE DUPLICATED STORE SELECT(SELB) ACTIVE'
          0004710       -002- 05 FSELBC  EQU     0(4710)
                        -002- 06 FSELBCT TEXT    'FORCE DUPLICATED STORE SELECT(SELB) W/ CLOCK'
          0046516       -002- 07 FSTFBRM EQU     0(46516)
                        -002- 08 FSTFBRMT TEXT   'FORCE CONTROLLER & FANOUT BOARDS TO REFRESH'
          0042354       -002- 09 FSTNM   EQU     0(42354)                        # FORCE MODE FLOP TO NORMAL STATE
                        -002- 10 FSTNMT  TEXT    'FORCE MODE FLOP TO NORMAL STATE'
          0052354       -002- 11 FSTNMFR EQU     0(52354)
                        -002- 12 FSTNMFRT TEXT   'FORCE NORMAL MODE IN CONTROLLER & REFRESH TO FANOUT BOARDS'
          0042344       -002- 13 FSTNMR  EQU     0(42344)
                        -002- 14 FSTNMRT TEXT    'FORCE MODE TO NORMAL W/ REFRESH ENABLED'
          0046514       -002- 15 FSTRM   EQU     0(46514)                        # FORCE MODE FLOP TO REFRESH STATE
                        -002- 16 FSTRMT  TEXT    'FORCE MODE FLOP TO REFRESH STATE'
          0046234       -002- 17 FTINWP  EQU     0(46234)
                        -002- 18 FTINWPT TEXT    'FORCE IN-WRITE-PROTECT INHIBIT'
          0006220       -002- 19 IOGO    EQU     0(6220)
                        -002- 20 IOGOT   TEXT    'ENABLE ON-LINE I/O ACCESS TO OFF-LINE STORE'
          0125252       -002- 21 IOTSTA  EQU     0(125252)
                        -002- 22 IOTSTAT TEXT    'I/O TEST PATTERN #1'
          0052525       -002- 23 IOTST5  EQU     0(52525)
                        -002- 24 IOTST5T TEXT    'I/O TEST PATTERN #2'
          0067214       -002- 25 ISOCHK  EQU     0(67214)                        # CHECK ISOLATION FROM HIGHER STORES -
                                                                                   PUT RESULTS OF TEST INTO STORE ERROR
                                                                                   REGISTER (SER)
                        -002- 28 ISOCHKT TEXT    'ISOLATE FROM FAR STORES & VERIFY VIA SER'
          0027214       -002- 29 ISOCHKU EQU     0(27214)
                        -002- 30 ISOCHKUT TEXT   'APPLY ONES TO STORE DATA BUS(W/O ISOLATE)'
          0043454       -002- 31 KILL12  EQU     0(43454)                        # WIPE OUT SHIFTER BIT AT POSITION 12
                        -002- 32 KILL12T TEXT    'CLEAR SHIFTER BIT IN POSITION 12'
          0046071       -002- 33 MASCINT EQU     0(46071)
                        -002- 34 MASCINTT TEXT   'INITIALIZE STORE CONTROLLER'
          0006071       -002- 35 MSCITNS EQU     0(6071)
                        -002- 36 MSCITNST TEXT   'INITIALIZE STORE CONTROLLER W/O FORCE SELECT'
          0046076       -002- 37 MASCLK  EQU     0(46076)                        # ACTIVATE STORE CONTROLLER CLOCK (CK)
                                                                                   SIGNAL
                        -002- 39 MASCLKT TEXT    'FAKE FIRST HALF OF STORE CLOCK CYCLE'
          0046074       -002- 40 MASCLKN EQU     0(46074)
                        -002- 41 MASCLKNT TEXT   'FAKE SECOND HALF OF STORE CLOCK CYCLE'
          0047410       -002- 42 RDAD    EQU     0(47410)
                        -002- 43 RDADT   TEXT    'GATE STORE ADDRESS BUS(SA0-16,PL) TO STORE DATA BUS(SD0-15,PL,PH
                                                 ) W/ CLOCK'
          0047414       -002- 45 RDADNC  EQU     0(47414)
                        -002- 46 RDADNCT TEXT    'GATE STORE ADDRESS BITS TO STORE DATA BUS'
          0006070       -002- 47 REFSTOP EQU     0(6070)
                        -002- 48 REFSTOPT TEXT   'INHIBIT REFRESHING OF STORE'
          0006060       -002- 49 REFSTRT EQU     0(6060)
```

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              -002- 01 REFSTRTT TEXT  'RESUME REGULAR REFRESHING OF STORE'
0046060       -002- 02 RFWISOL  EQU   0(46060)
              -002- 03 RFWISOLT TEXT  'RESUME REGULAR REFRESH W/ STORE ISOLATED'
0047214       -002- 04 RTNADHI  EQU   0(47214)              # RETURN UPPER ADDRESS (SA16-19) BITS &
                                                              SELECTED CONTROL SIGNALS VIA I/O CHANNE
              -002- 06 RTNADHIT TEXT  'LOAD SA17 & SAPH INTO SER'
0044714       -002- 07 SPAREA   EQU   0(44714)
              -002- 08 SPAREAT  TEXT  'SPARE I/O ORDER'
0047114       -002- 09 SERREAD  EQU   0(47114)              # STORE ERROR REGISTER (SER) READ
              -002- 10 SERREADT TEXT  'READ BACK STORE ERROR REGISTER(SER)'
0041634       -002- 11 STSBY    EQU   0(41634)
              -002- 12 STSBYT   TEXT  'SET STORE BUSY(SBY) SIGNAL'
0041630       -002- 13 STSBYCL  EQU   0(41630)
              -002- 14 STSBYCLT TEXT  'SET STORE BUSY(SBY) W/ CLOCK'
0007114       -002- 15 USERRED  EQU   0(7114)
              -002- 16 USERREDT TEXT  'READ STORE ERROR REG (W/O ISOLATE)'
0046061       -002- 17 WPCLR    EQU   0(46061)
              -002- 18 WPCLRT   TEXT  'STORE INITIALIZE, INCL. WRITE PROTECT'
0052354       -002- 19 O10NOR   EQU   0(52354)              # FORCE 0-10 (O10TIM) SIGNAL & RESET
                                                              REFRESH REQUEST FLOP
              -002- 21 O10NORT  TEXT  '0-10 TIMING(O10TIM)THEN REFRESH REQUEST CLEAR'
0054334       -002- 22 O10REF   EQU   0(54334)              # FORCE 0-10 (O10TIM) SIGNAL & SET
                                                              REFRESH REQUEST FLOP
              -002- 24 O10REFT  TEXT  '0-10 TIMING(O10TIM)THEN REFRESH REQUEST SET'
0056074       -002- 25 O10TIM   EQU   0(56074)
              -002- 26 O10TIMT  TEXT  'FORCE 0-10 TIMING SIGNAL ACTIVE'




              -002- 33 # STORE MAINTENANCE ORDER OPTIONS:



0010000       -002- 36 FAKO10   EQU    0(10000)             # FAKE 0-10 TIMING SIGNAL
              -002- 37 # NOTE: NEXT OPTION BIT IS SHARED
0020000       -002- 38 FBUSRDN  EQU    0(20000)             # FORCE BUS READ INACTIVE TO BIT-SLICES
0020000       -002- 39 LOADCHK  EQU    0(20000)             # LOAD I/O ORDER CHECK RESULTS
0040000       -002- 40 ISOLATE  EQU    0(40000)             # ISOLATE THIS STORE FROM HIGHER STORES
0100000       -002- 41 FSBIT09  EQU    0(100000)            # FORCE SHIFTER BIT 09 ACTIVE
0000001       -002- 42 INITBIT  EQU    0(1)                 # INITIALIZE STORE CONTROLLER
              -002- 43 # NOTE: NEXT OPTION BIT IS SHARED
0000002       -002- 44 FFOBRM   EQU    0(2)                 # FORCE FANOUT BOARDS TO REFRESH MODE
0000002       -002- 45 STEPCLK  EQU    0(2)                 # HALF-CYCLE OF STORE CLOCK
0000004       -002- 46 HALTCLK  EQU    0(4)                 # DISABLE STORE CONTROLLER CLOCK
0000010       -002- 47 STOPREF  EQU    0(10)                #DISABLE AUTONOMOUS REFRESH
```

```
0177771      -002- 01 CLOCKON EQU   0(177771)    # MASK OUT CLOCK OFF OPTIONS
0020016      -002- 02 FGLDNCFR EQU  0(20016)     # LOAD I/O ORDER CHECK RESULTS WITH CLOCK
                                                 STOPPED AND FANOUT BOARDS IN REFRESH
                                                 MODE
```

TEST 52   23:41:18   2/05/81 ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST   CDGSON   W77D

```
                              -001- 01 #    ********************************************************************
                              -001- 02 #    ********************************************************************
                              -001- 03 #    **                                                              **
                              -001- 04 #    **    CU DIAGNOSTIC TEST NO. 52, INTERPROCESSOR_STORE_BUS
                              -001- 05 #    **                                                              **
                              -001- 06 #    ********************************************************************
                              -001- 07 #    ********************************************************************
```

0027122   -001- 10 CSTON1 CSECT

0027122 01 000000 000145 ------ CDGNM   -001- 14   VFD   1,0 2,0 2,0 2,0 3,1 6,NBGN

```
                              18 #   THIS TEST DIAGNOSES THE STORE BUS WHICH IS USED
                              19 #   BY THE ON-LINE CC TO COMUNICATE WITH OFF-LINE STORE O.
                              20 #   DOING THE TEST IN THIS DIRECTION RESULTS IN A NUMBER OF ON-LINE
                              21 #   PACKS IN THE TLM.  AN ALTERNATIVE  TEST WHICH WOULD HAVE BEEN MORE
                              22 #   CONSISTENT WITH OTHER DIAGNOSTIC TESTS WOULD HAVE BEEN A TEST OF
                              23 #   THE BUS BY WHICH THE OFF-LINE CC COMUNICATES WITH THE ON-LINE STORE.
                              24 #   THE LATTER APPROACH HAS THE DISADVANTAGE OF POSSIBLE INTERFANCE
                              25 #   WITH CALL PROCESSING IN THE PRESENCE OF SOME FAULTS AND WAS NOT ADOPTED.

                              27 #   SEGMENT 1
                              28 #   THIS SEGMENT TESTS THE STORE COMMAND PORTION OF THE STORE
                              29 #   BUS. ONLY TWO 2/4 COMMANDS ARE REQUIRED WHICH ARE
                              30 #   COMPLEMENTS OF EACH OTHER. LOS AND STOS WILL BE USED.
                              31 #   IF THESE LEADS WORK AND ALL CONTROL LEADS WORK AS WELL,
                              32 #   THE ERROR REGISTER IN THE STORE CONTROL WILL HAVE BIT CHDIF=0 AND
                              33 #   THE ERROR REGISTER IN THE CC WILL HAVE BIT OFSTM = 0.

                              35 #   SEGMENT 2
                              36 #   THIS SEGMENT VERIFIES THE INTEGRITY OF STORE BUS ADDRESS LEADS
                              37 #   0-16 AND PL. THIS IS DONE BY SENDING ALL ZEROS AND ALL ONES
                              38 #   ADDRESSES FROM THE ON-LINE PROCESSOR TO THE OFF-LINE STORE
                              39 #   AND USING THE READ-ADDRESS (RDAD) STORE MAINTENANCE ORDER
                              40 #   TO PERMIT RETRIEVING OF THESE PATTERNS OVER THE STORE DATA BUS.

                              42 #   SEGMENT 3
                              43 #   THIS SEGMENT VERIFIES TWO STORE BUS ADDRESS LEADS (17 AND PH).
                              44 #   AN I/O MAINTENANCE ORDER IS USED (RTNADHI) WHICH DIVERTS
                              45 #   THESE BITS INTO BITS SA17LP AND BIT SAPHLP OF THE
                              46 #   STORE ERROR REGISTER RESPECTIVELY.
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

TEST 52   23:41:18   2/05/81 ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST   CDGSON   W77D

```
01 #    SEGMENT 4
02 #    THIS SEGMENT VERIFIES TWO STORE BUS ADDRESS LEADS (18 AND 19).
03 #    AN I/O MAINTENANCE ORDER IS USED (ISOCHKU) IS USED TO DIVERT
04 #    THE LOGICAL "OR" OF THESE BITS INTO THE STORE ERROR REGISTER BIT
05 #    STRSLP. THREE CONSTANTS ARE USED, THE FIRST WITH BOTH BITS
06 #    ZERO AND THE OTHERS HAVING ONE BIT A ONE AND THE OTHER A ZERO.
```

```
TEST 52                                                            23:41:18   2/05/81  ****

    INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                   CDGSON      W77D

                                          -001- 01 #       RTN_BLM
                                          -001- 02 #   TURN OFF AUTOMATIC RETURNS TO BLM EVERY 20 TABLE ENTRIES.
    0027123 01 000001 000144 ------ CDGNM -001- 03       VFD     1,0 2,0 6,0 1,1 6,NRTNBLM

                                          -001- 05 #       NO3_CODE
                                          -001- 06 #   PROCESS 3ACC CODED ROUTINE AT ADDRESS DOSEG0.
    0027124 01 000002 040043 000000 CDGNM -001- 07       VFD     1,0 2,2 7,0 6,NNO3CD
    0027125 01 000003 000000 027127 0027127 -001- 08     ADDR    DOSEG0




    0027127                                     15 DOSEG0
    0027127 01 000005 131221 016447 MASACS      16       LAL     R9,MASCIOSC+1,RA0    #   SET UP R9 TO I/O ADDRESS FOR OTHER
                                                                                          STORE 0.
    0027131 01 000007 034620 043133 CTSD        18       STL     R9,IOADDR
    0027133                                     19       SIOM    MASCINT              #   INITIALIZE STORE CONTROLLER.
    0027133 01 000011 037020 012667 CDGSIO -002- 20      BSA     MASIOM
    0027135 01 000013 046071 ------      -001- 21        DATA    MASCINT              # INITIALIZE STORE CONTROLLER
    0027136                                     22       RTN_TBL DOSEG1
    0027136 01 000014 171400 ------      -001- 23        GA
    0027137 01 000015 031000 027143 0027143 -001- 24     LAL     R0,DOSEG1,RA0
    0027141 01 000017 037000 011162 CDGNM -001- 25       BL      INTRPNO3


    0027143                                     28 DOSEG1
```

```
TEST 52  SEGMENT 1                                                    23:41:18   2/05/81  ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                        CDGSON      W77D

                                  -001- 01 #     ************************************************
                                  -001- 02 #     *                                             *
                                  -001- 03 #     *   TEST 52    SEGMENT 1                       *
                                  -001- 04 #     *                                             *
                                  -001- 05 #     ************************************************

0027143 01 000021 000100 ------- CDGNM   -001- 08      VFD     1,0 2,0 2,0 5,D(1) 6,NTESTSEG

                                    11 #   THIS SEGMENT TESTS THE STORE COMMAND PORTION OF THE STORE
                                    12 #   BUS. ONLY TWO 2/4 COMMANDS ARE REQUIRED WHICH ARE
                                    13 #   COMPLEMENTS OF EACH OTHER. LOS AND STOS WILL BE USED.
                                    14 #   IF THESE LEADS WORK AND ALL CONTROL LEADS WORK AS WELL,
                                    15 #   THE ERROR REGISTER IN THE STORE CONTROL WILL HAVE BIT CHDIF=0 AND
                                    16 #   THE ERROR REGISTER IN THE CC WILL HAVE BIT OFSTM = 0.

                                  -001- 18 #     CALLPROS
                                  -001- 19 #   RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027144 01 000022 000004 ------- CDGNM   -001- 20      VFD     1,0 2,0 6,0 1,0 6,NPROS

                                  -001- 22 #     NO3_CODE
                                  -001- 23 #   PROCESS 3ACC CODED ROUTINE AT ADDRESS CMDTST.
0027145 01 000023 040043 000000 CDGNM   -001- 24      VFD     1,0 2,2 7,0 6,NNO3CD
0027146 01 000024 000000 027150 0027150 -001- 25      ADDR    CMDTST

0027150                                     27 CMDTST
0027150                                     28                                          #   SAVE IM AND THEN MASK ERROR INTERRUPT
                                                                                            AND BLOCK HARDWARE CHECKS
0027150                                     30      CALL    BKCHKINT
0027150 01 000026 137020 027637 0027637 -001- 31      BSA     BKCHKINT
0027152 01 000030 131400 000000             32      LAL     R0,0,RA1                 #   DO STOS. USE ADDRESS O.
0027154                                     33      STOS    O(RA1)
E0027154 01 000032 000420 -------        -001- 34      MSTF    O(RA1)
0027155 01 000033 136100 -------         -001- 35      DATA    B(1011110001000000)
0027156                                     36      LOS     O(RA1) AC=NO,PC=NO
E0027156 01 000034 000420 -------        -001- 37      MSTF    O(RA1)
0027157 01 000035 106160 037020          -001- 38      DATA    B(1000110001110000)
0027160                                     39                                          #   READ BACK STORE ERROR REGISTER
0027160                                     40      SRIO    SERREAD
0027160 01 000036 037020 012667 CDGSIO   -002- 41      BSA     MASIOM
0027162 01 000040 047114 -------         -001- 42      DATA    SERREAD                 #   READ BACK STORE ERROR REGISTER(SER)
0027163                                     43      TEST    S(CHDIF),OTEST,FLCMND,SUBNAME=CLNONL
0027163 01 000041 124262 -------         -001- 44      TBN     R11,S(CHDIF)
0027164 01 000042 055013 ------- 0027177 -001- 45      BNC     P314
0027165 01 000043 037020 027646 0027646  -002- 46      BSA     CLNONL
0027167 01 000045 107473 -------         -001- 47      LSR     MCHB,R11
0027170 01 000046 071400 -------         -002- 48      GA
0027171 01 000047 031000 027175 0027175  -002- 49      LAL     R0,*+4,RA0

INTERPROCESSOR STORE BUS TEST                                                   PR-1C92B-50

   23:41:18   2/05/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON   ISSUE 05   PAGE   27
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TEST 52   SEGMENT 1                                                    23:41:18   2/05/81   ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                          CDGSON      W77D

0027173 01 000051 037000 011162 CDGNM       -002- 01        BL      INTRPNO3

                                            -002- 03 #      FAILTST
                                            -002- 04 #  FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLCMND.
                                            -002- 05 #  DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027175 01 000053 020017 ------ CDGNM       -002- 06        VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027176 01 000054 000002 ------             -002- 07        VFD     16,FLCMND

                                            -001- 09 # TROUBLE PRINTOUT DATA = CONTENTS OF R11 IN ON-LINE PROCESSOR
0027177                                     -001- 10 P314



0027177                                          16                          # IF THE OFF-LINE STORE RESPONDED TO THE
                                                                              LOS AND STOS, THE ER IN THE CC SHOULD
                                                                              HAVE BIT OFSTM=0.
0027177 01 000055 112412 ------                  19        UNPK    ER
0027200                                          20        TEST    S(OFSTM)-16,OTEST,FLRSP,SUBNAME=CLNONL,REG=R2
0027200 01 000056 024040 ------             -001- 21        TBN     R2,S(OFSTM)-16
0027201 01 000057 055013 ------ 0027214     -001- 22        BNC     P318
0027202 01 000060 037020 027646 0027646     -002- 23        BSA     CLNONL
0027204 01 000062 107462 ------             -001- 24        LSR     MCHB,R2
0027205 01 000063 071400 ------             -002- 25        GA
0027206 01 000064 031000 027212 0027212     -002- 26        LAL     R0,*+4,RAO
0027210 01 000066 037000 011162 CDGNM       -002- 27        BL      INTRPNO3

                                            -002- 29 #      FAILTST
                                            -002- 30 #  FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLRSP.
                                            -002- 31 #  DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027212 01 000070 020017 ------ CDGNM       -002- 32        VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027213 01 000071 000003 137020             -002- 33        VFD     16,FLRSP

                                            -001- 35 # TROUBLE PRINTOUT DATA = CONTENTS OF R2 IN ON-LINE PROCESSOR
0027214                                     -001- 36 P318
0027214                                          37        CALL    CLNONL
0027214 01 000072 137020 027646 0027646     -001- 38        BSA     CLNONL
0027216                                          39        RTN_TBL DOSEG2
0027216 01 000074 171400 ------             -001- 40        GA
0027217 01 000075 031000 027223 0027223     -001- 41        LAL     R0,DOSEG2,RAO
0027221 01 000077 037000 011162 CDGNM       -001- 42        BL      INTRPNO3

0027223                                          44 DOSEG2
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INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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TEST 52  SEGMENT 2                                                    23:41:18   2/05/81  ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                           CDGSON      W77D

                                    -001- 01 #      ****************************************************
                                    -001- 02 #      *                                                  *
                                    -001- 03 #      *  TEST 52   SEGMENT 2                              *
                                    -001- 04 #      *                                                  *
                                    -001- 05 #      ****************************************************


0027223 01 000101 000200 ------ CDGNM   -001- 08      VFD    1,0 2,0 2,0 5,D(2) 6,NTESTSEG


                                       11 #    THIS SEGMENT VERIFIES THE INTEGRITY OF STORE BUS ADDRESS LEADS
                                       12 #    0-16 AND PL. THIS IS DONE BY SENDING ALL ZEROS AND ALL ONES
                                       13 #    ADDRESSES FROM THE ON-LINE PROCESSOR TO THE OFF-LINE STORE
                                       14 #    AND USING THE READ-ADDRESS (RDAD) STORE MAINTENANCE ORDER
                                       15 #    TO PERMIT RETRIEVING OF THESE PATTERNS OVER THE STORE DATA BUS.

                                    -001- 17 #      CALLPROS
                                    -001- 18 #   RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027224 01 000102 000004 ------ CDGNM   -001- 19      VFD    1,0 2,0 6,0 1,0 6,NPROS

                                    -001- 21 #      NO3_CODE
                                    -001- 22 #   PROCESS 3ACC CODED ROUTINE AT ADDRESS CHKADO.
0027225 01 000103 040043 000000 CDGNM   -001- 23      VFD    1,0 2,2 7,0 6,NNO3CD
0027226 01 000104 000000 027230 0027230 -001- 24      ADDR   CHKADO


0027230                                 29 CHKADO
0027230                                 30      CALL   BKCHKINT
0027230 01 000106 137020 027637 0027637 -001- 31      BSA    BKCHKINT
0027232 01 000110 131400 000000         32      LAL    R0,0,RA1
0027234                                 33      SIOM   RDAD
0027234 01 000112 037020 012667 CDGSIO  -002- 34      BSA    MASIOM
0027236 01 000114 047410 ------         -001- 35      DATA   RDAD              # GATE STORE ADDRESS BUS(SA0-16,PL) TO
                                                                                 STORE DATA BUS(SD0-15,PL,PH) W/ CLOCK
0027237                                 37      MLOS   0(RA1) PC=NO
E0027237 01 000115 100420 ------        -001- 38      MSTF   0(RA1)
0027240 01 000116 136163 ------         -001- 39      DATA   B(10111100001110011)
0027241 01 000117 007460 ------         40      LSR    MCHB,R0
0027242                                 41      CALL   CLNONL
0027242 01 000120 037020 027646 0027646 -001- 42      BSA    CLNONL
0027244                                 43      RTN_TBL TSTADO
0027244 01 000122 171400 ------         -001- 44      GA
0027245 01 000123 031000 027251 0027251 -001- 45      LAL    R0,TSTADO,RA0
0027247 01 000125 037000 011162 CDGNM   -001- 46      BL     INTRPNO3



INTERPROCESSOR STORE BUS TEST                                              PR-1C928-50

   23:41:18   2/05/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON   ISSUE  05     PAGE   29
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TEST 52  SEGMENT 2                                                      23:41:18   2/05/81  ****

INTERPROCESSOR_STORE BUS DIAGNOSTIC TEST                                           CDGSON      W77D

0027251                                            01 TSTAD0
                                               -001- 02 #      COMPARE
                                               -001- 03 #      COMPARE ON-LINE MCHB BIT PL TO  1.
                                               -001- 04 #      IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027251 01 000127 022414 ------ CDGNM          -001- 05         VFD     1,LPINDX 2,1 1,0 1,SUCCES 5,PL 6,NCOMPARE
0027252 01 000130 000001 ------                -001- 06         VFD     15,0 1,1

                                               -001- 08 #      FAILTST
                                               -001- 09 #      FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS SAFALP.
                                               -001- 10 #      DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027253 01 000131 020017 ------ CDGNM          -001- 11         VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027254 01 000132 000025 ------                -001- 12         VFD     16,SAFALP

0027255                                            14                                   #    ADDRESS BIT 16 LOOPS AROUND TO DATA
                                                                                            BIT PH
                                               -001- 16 #      COMPARE
                                               -001- 17 #      COMPARE ON-LINE MCHB BIT PH TO  0.
                                               -001- 18 #      IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027255 01 000133 022514 ------ CDGNM          -001- 19         VFD     1,LPINDX 2,1 1,0 1,SUCCES 5,PH 6,NCOMPARE
0027256 01 000134 000000 ------                -001- 20         VFD     15,0 1,0

                                               -001- 22 #      FAILTST
                                               -001- 23 #      FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS SAFAL16.
                                               -001- 24 #      DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027257 01 000135 020017 ------ CDGNM          -001- 25         VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027260 01 000136 000024 ------                -001- 26         VFD     16,SAFAL16

                                               -001- 28 #      MASK
                                               -001- 29 #      MASK CONTENTS OF ON-LINE MCHB WITH O(0377777).
0027261 01 000137 040013 ------ CDGNM          -001- 30         VFD     1,0 2,2 7,0 6,NMASK
0027262 01 000140 000001 177777                -001- 31         ADDR    O(0377777)

                                               -001- 33 #      COMPARE
                                               -001- 34 #      COMPARE ON-LINE MAINTENANCE CHANNEL  BUFFER  TO O(0000000).
                                               -001- 35 #      IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027264 01 000142 050014 ------ CDGNM          -001- 36         VFD     1,LPINDX 2,2 1,1 1,SUCCES     5,0 6,NCOMPARE
0027265 01 000143 000000 000000                -001- 37         ADDR    O(0000000)

                                               -001- 39 #      FAILBIT
                                               -001- 40 #      FAILURE EXIT.  SYMBOLIC TROUBLE NUMBER IS SAFALXX
                                               -001- 41 #      WHERE XX IS THE LOWEST FAILING BIT NUMBER.
0027267 01 000145 020020 ------ CDGNM          -001- 42         VFD     1,0 2,1 5,0 2, 6,NFLBITS
0027270 01 000146 000004 ------                -001- 43         VFD     16,SAFAL
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INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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TEST 52  SEGMENT 2                                                          23:41:18   2/05/81  ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                              CDGSON    W77D

                                       -001- 01 #        CALLPROS
                                       -001- 02 #        RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027271 01 000147 000004 ------- CDGNM -001- 03          VFD     1,0 2,0 6,0 1,0 6,NPROS

                                       -001- 05 #        NO3_CODE
                                       -001- 06 #        PROCESS 3ACC CODED ROUTINE AT ADDRESS CHKAD1.
0027272 01 000150 040043 000000 CDGNM -001- 07          VFD     1,0 2,2 7,0 6,NNO3CD
0027273 01 000151 000000 027275 0027275 -001- 08        ADDR    CHKAD1

0027275                                   10 CHKAD1
0027275                                   11                                        #   TRY ALL ONES ADDRESS
0027275                                   12          CALL    BKCHKINT
0027275 01 000153 137020 027637 0027637 -001- 13       BSA     BKCHKINT
0027277 01 000155 103341 -------         14            LN      R14,1
0027300 01 000156 003761 177777         15             LI      R15,0(177777)
0027302                                   16            SIOM    MASCINT
0027302 01 000160 037020 012667 CDGSIO -002- 17         BSA     MASIOM
0027304 01 000162 046071 137020         -001- 18        DATA    MASCINT             # INITIALIZE STORE CONTROLLER
0027305                                   19            SIOM    RDAD
0027305 01 000163 137020 012667 CDGSIO -002- 20         BSA     MASIOM             # GATE STORE ADDRESS BUS(SA0-16,PL) TO
0027307 01 000165 047410 -------        -001- 21        DATA    RDAD                 STORE DATA BUS(SD0-15,PL,PH) W/ CLOCK

0027310                                   23            MLOS    0(RA1) PC=NO
E0027310 01 000166 100420 -------       -001- 24        MSTF    0(RA1)
0027311 01 000167 136163 -------        -001- 25        DATA    B(1011110001110011)
0027312 01 000170 007460 -------         26            LSR     MCHB,R0
0027313                                   27            CALL    CLNONL
0027313 01 000171 037020 027646 0027646 -001- 28        BSA     CLNONL
0027315                                   29            RTN_TBL TSTAD1
0027315 01 000173 171400 -------        -001- 30       GA
0027316 01 000174 031000 027322 0027322 -001- 31       LAL     R0,TSTAD1,RA0
0027320 01 000176 037000 011162 CDGNM   -001- 32       BL      INTRPNO3




0027322                                   39 TSTAD1
0027322                                   40                                        #   ADDRESS BIT 16 LOOPS AROUND TO DATA
                                                                                        BIT PH
                                       -001- 42 #        COMPARE
                                       -001- 43 #        COMPARE ON-LINE MCHB BIT PH TO  1.
                                       -001- 44 #        IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027322 01 000200 022514 ------- CDGNM -001- 45          VFD     1,LPINDX 2,1 1,0 1,SUCCES 5,PH 6,NCOMPARE
0027323 01 000201 000001 -------        -001- 46        VFD     15,0 1,1
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TEST 52   SEGMENT 2                                                    23:41:18    2/05/81  ****

    INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                               CDGSON       W77D

                                     -001- 01 #        FAILTST
                                     -001- 02 #     FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS SAFAL16.
                                     -001- 03 #     DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027324 01 000202 020017 ------ CDGNM  -001- 04        VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027325 01 000203 000024 ------        -001- 05        VFD     16,SAFAL16

                                     -001- 07 #        MASK
                                     -001- 08 #     MASK CONTENTS OF ON-LINE MCHB WITH 0(0377777).
0027326 01 000204 040013 ------ CDGNM  -001- 09        VFD     1,0 2,2 7,0 6,NMASK
0027327 01 000205 000001 177777       -001- 10        ADDR    0(03777777)

                                     -001- 12 #        COMPARE
                                     -001- 13 #     COMPARE ON-LINE MAINTENANCE CHANNEL  BUFFER  TO 0(0177777).
                                     -001- 14 #     IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027331 01 000207 050014 ------ CDGNM  -001- 15        VFD     1,LPINDX 2,2 1,1 1,SUCCES   5,0 6,NCOMPARE
0027332 01 000210 000000 177777       -001- 16        ADDR    0(0177777)

                                     -001- 18 #        FAILBIT
                                     -001- 19 #     FAILURE EXIT.  SYMBOLIC TROUBLE NUMBER IS SAFALXX
                                     -001- 20 #     WHERE XX IS THE LOWEST FAILING BIT NUMBER.
0027334 01 000212 020020 ------ CDGNM  -001- 21        VFD     1,0 2,1 5,0 2, 6,NFLBITS
0027335 01 000213 000004 ------        -001- 22        VFD     16,SAFAL

                                     -001- 24 #        CALLPROS
                                     -001- 25 #     RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027336 01 000214 000004 ------ CDGNM  -001- 26        VFD     1,0 2,0 6,0 1,0 6,NPROS

                                     -001- 28 #        NO3_CODE
                                     -001- 29 #     PROCESS 3ACC CODED ROUTINE AT ADDRESS CHKADPL.
0027337 01 000215 040043 000000 CDGNM  -001- 30        VFD     1,0 2,2 7,0 6,NNO3CD
0027340 01 000216 000000 027342 0027342 -001- 31       ADDR    CHKADPL




0027342                               38 CHKADPL
0027342                               39                                      #    TRY A CONSTANT WITH PL=0
0027342                               40         CALL    BKCHKINT
0027342 01 000220 137020 027637 0027637 -001- 41       BSA     BKCHKINT
0027344 01 000222 131400 000020       42         LAL     R0,X(0010),RA1
0027346                               43         SIOM    MASCINT
0027346 01 000224 037020 012667 CDGSIO -002- 44       BSA     MASIOM
0027350 01 000226 046071 137020       -001- 45        DATA    MASCINT        # INITIALIZE STORE CONTROLLER
0027351                               46         SIOM    RDAD
0027351 01 000227 137020 012667 CDGSIO -002- 47       BSA     MASIOM
0027353 01 000231 047410 ------       -001- 48        DATA    RDAD           # GATE STORE ADDRESS BUS(SAO-16,PL) TO
                                                                             STORE DATA BUS(SDO-15,PL,PH) W/ CLOCK

    INTERPROCESSOR STORE BUS TEST                                          PR-1C928-50
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TEST 52  SEGMENT 2                                                      23:41:18   2/05/81  ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                          CDGSON      W77D

0027354                                        01        MLOS   0(RA1) PC=NO
E0027354 01 000232 100420 ------       -001- 02        MSTF   0(RA1)
0027355 01 000233 136163 ------        -001- 03        DATA   B(1011110001110011)
0027356 01 000234 007460 ------              04        LSR    MCHB,R0
0027357                                        05        CALL   CLNONL
0027357 01 000235 037020 027646 0027646 -001- 06        BSA    CLNONL
0027361                                        07        RTN_TBL TSTADPL
0027361 01 000237 171400 ------        -001- 08        GA
0027362 01 000240 031000 027366 0027366 -001- 09        LAL    R0,TSTADPL,RA0
0027364 01 000242 037000 011162 CDGNM  -001- 10        BL     INTRPN03



0027366                                     17 TSTADPL
                                       -001- 18 #        COMPARE
                                       -001- 19 #    COMPARE ON-LINE MCHP BIT PL TO 0.
                                       -001- 20 #    IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027366 01 000244 022414 ------ CDGNM  -001- 21        VFD    1,LPINDX 2,1 1,0 1,SUCCES 5,PL 6,NCOMPARE
0027367 01 000245 000000 ------        -001- 22        VFD    15,0 1,0

                                       -001- 24 #        FAILTST
                                       -001- 25 #    FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS SAFALP.
                                       -001- 26 #    DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027370 01 000246 020017 ------ CDGNM  -001- 27        VFD    1,0 2,1 5,0 2,0 6,NFAILTST
0027371 01 000247 000025 ------        -001- 28        VFD    16,SAFALP
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TEST 52 SEGMENT 3   23:41:18   2/05/81 ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST   CDGSON   W77D

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                                             -001- 01 #     ****************************************************
                                             -001- 02 #     *                                                *
                                             -001- 03 #     *    TEST 52    SEGMENT 3                         .
                                             -001- 04 #     *                                                *
                                             -001- 05 #     ****************************************************


0027372 01 000250 000300 ------ CDGNM        -001- 08        VFD     1,0 2,0 2,0 5,D(3) 6,NTESTSEG


                                                   11 #     THIS SEGMENT VERIFIES TWO STORE BUS ADDRESS LEADS (17 AND PH).
                                                   12 #     AN I/O MAINTENANCE ORDER IS USED (RTNADHI) WHICH DIVERTS
                                                   13 #     THESE BITS INTO BITS SA17LP AND BIT SAPHLP OF THE
                                                   14 #     STORE ERROR REGISTER RESPECTIVELY.

                                             -001- 16 #        CALLPROS
                                             -001- 17 #     RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027373 01 000251 000004 ------ CDGNM        -001- 18        VFD     1,0 2,0 6,0 1,0 6,NPROS

                                             -001- 20 #        NO3_CODE
                                             -001- 21 #     PROCESS 3ACC CODED ROUTINE AT ADDRESS BT17PH0.
0027374 01 000252 040043 000000 CDGNM        -001- 22        VFD     1,0 2,2 7,0 6,NNO3CD
0027375 01 000253 000000 027377 0027377      -001- 23        ADDR    BT17PH0




0027377                                            30 BT17PH0                              #    TRY BIT 17=0 AND PH=0
0027377                                            31        CALL    BKCHKINT  .
0027377 01 000255 137020 027637 0027637      -001- 32        BSA     BKCHKINT
0027401                                            33        SIOM    MASCINT
0027401 01 000257 137020 012667 CDGSIO       -002- 34        BSA     MASIOM
0027403 01 000261 046071 ------              -001- 35        DATA    MASCINT          # INITIALIZE STORE CONTROLLER
0027404 01 000262 103341 ------                    36        LN      R14,1
0027405 01 000263 003360 ------                    37        ZR      R15
0027406                                            38        LOS     O(RA1) AC=NO,PC=NO
E0027406 01 000264 000420 ------             -001- 39        MSTF    O(RA1)
0027407 01 000265 106160 037020              -001- 40        DATA    B(1000110001110000)
0027410                                            41        SIOM    EXERLD           #    DIVERT BITS 17 AND PH INTO SER.
0027410 01 000266 037020 012667 CDGSIO       -002- 42        BSA     MASIOM
0027412 01 000270 145454 137020              -001- 43        DATA    EXERLD           # ENABLE EXTERNAL LOAD OF STORE ERROR REG
0027413                                            44        SRIO    SERREAD
0027413 01 000271 137020 012667 CDGSIO       -002- 45        BSA     MASIOM
0027415 01 000273 047114 ------              -001- 46        DATA    SERREAD          # READ BACK STORE ERROR REGISTER(SER)
0027416 01 000274 107473 ------                    47        LSR     MCHB,R11
0027417                                            48        CALL    CLNONL
0027417 01 000275 037020 027646 0027646      -001- 49        BSA     CLNONL
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INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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TEST 52  SEGMENT 3                                                              23:41:18   2/05/81   ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                                    CDGSON       W77D

0027421                                             01          RTN_TBL TST17PH0
0027421 01 000277 171400 ------           -001- 02          GA
0027422 01 000300 031000 027426 0027426   -001- 03          LAL     R0,TST17PH0,RA0
0027424 01 000302 037000 011162 CDGNM     -001- 04          BL      INTRPNO3

0027426                                             06 TST17PH0
                                          -001- 07 #     COMPARE
                                          -001- 08 #     COMPARE ON-LINE MCHB BIT (S(SA17LP)) TO  0.
                                          -001- 09 #     IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027426 01 000304 021114 ------ CDGNM     -001- 10          VFD     1,LPINDX 2,1 1,0 1,SUCCES 5,(S(SA17LP)) 6,NCOMPARE
0027427 01 000305 000000 ------           -001- 11          VFD     15,0 1,0

                                          -001- 13 #     FAILTST
                                          -001- 14 #     FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FL17.
                                          -001- 15 #     DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027430 01 000306 020017 ------ CDGNM     -001- 16          VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027431 01 000307 000026 ------           -001- 17          VFD     16,FL17

                                          -001- 19 #     COMPARE
                                          -001- 20 #     COMPARE ON-LINE MCHB BIT (S(SAPHLP)) TO  0.
                                          -001- 21 #     IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027432 01 000310 021014 ------ CDGNM     -001- 22          VFD     1,LPINDX 2,1 1,0 1,SUCCES 5,(S(SAPHLP)) 6,NCOMPARE
0027433 01 000311 000000 ------           -001- 23          VFD     15,0 1,0

                                          -001- 25 #     FAILTST
                                          -001- 26 #     FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLPH.
                                          -001- 27 #     DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027434 01 000312 020017 ------ CDGNM     -001- 28          VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027435 01 000313 000027 ------           -001- 29          VFD     16,FLPH

                                          -001- 31 #     CALLPROS
                                          -001- 32 #     RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027436 01 000314 000004 ------ CDGNM     -001- 33          VFD     1,0 2,0 6,0 1,0 6,NPROS

                                          -001- 35 #     NO3_CODE
                                          -001- 36 #     PROCESS 3ACC CODED ROUTINE AT ADDRESS BT17PH1.
0027437 01 000315 040043 000000 CDGNM     -001- 37          VFD     1,0 2,2 7,0 6,NNO3CD
0027440 01 000316 000000 027442 0027442   -001- 38          ADDR    BT17PH1




0027442                                             45 BT17PH1                        #   TRY BIT 17=1 AND PH=1
0027442                                             46          CALL    BKCHKINT
0027442 01 000320 137020 027637 0027637   -001- 47          BSA     BKCHKINT
0027444                                             48          SIOM    MASCINT
0027444 01 000322 137020 012667 CDGSIO    -002- 49          BSA     MASIOM


    INTERPROCESSOR STORE BUS TEST                                                          PR-1C928-50

       23:41:18   2/05/81   TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON   ISSUE 05   PAGE   35
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TEST 52  SEGMENT 3                                                        23:41:18   2/05/81  ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                              CDGSON      W77D

0027446 01 000324 046071 ------          -001- 01      DATA    MASCINT            # INITIALIZE STORE CONTROLLER
0027447 01 000325 103343 ------                02      LN      R14,3
0027450 01 000326 003360 ------                03      ZR      R15
0027451                                        04      LOS     0(RA1) AC=NO,PC=NO
E0027451 01 000327 000420 ------          -001- 05      MSTF    0(RA1)
0027452 01 000330 106160 037020          -001- 06      DATA    B(1000110001110000)
0027453                                        07      SIOM    EXERLD             #   DIVERT BITS 17 AND PH INTO SER.
0027453 01 000331 037020 012667 CDGSIO    -002- 08      BSA     MASIOM
0027455 01 000333 145454 137020          -001- 09      DATA    EXERLD             # ENABLE EXTERNAL LOAD OF STORE ERROR REG
0027456                                        10      SRIO    SERREAD
0027456 01 000334 137020 012667 CDGSIO    -002- 11      BSA     MASIOM
0027460 01 000336 047114 ------          -001- 12      DATA    SERREAD            # READ BACK STORE ERROR REGISTER(SER)
0027461 01 000337 107473 ------                13      LSR     MCHB,R11
0027462                                        14      CALL    CLNONL
0027462 01 000340 037020 027646 0027646   -001- 15      BSA     CLNONL
0027464                                        16      RTN_TBL TST17PH1
0027464 01 000342 171400 ------          -001- 17      GA
0027465 01 000343 031000 027471 0027471   -001- 18      LAL     R0,TST17PH1,RA0
0027467 01 000345 037000 011162 CDGNM     -001- 19      BL      INTRPN03




0027471                                     26 TST17PH1
                                          -001- 27 #      COMPARE
                                          -001- 28 #      COMPARE ON-LINE MCHB BIT (S(SA17LP)) TO  1.
                                          -001- 29 #      IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027471 01 000347 021114 ------ CDGNM     -001- 30      VFD     1,LPINDX 2,1 1,0 1,SUCCES 5,(S(SA17LP)) 6,NCOMPARE
0027472 01 000350 000001 ------           -001- 31      VFD     15,0 1,1

                                          -001- 33 #      FAILTST
                                          -001- 34 #      FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FL17.
                                          -001- 35 #      DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027473 01 000351 020017 ------ CDGNM     -001- 36      VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027474 01 000352 000026 ------           -001- 37      VFD     16,FL17

                                          -001- 39 #      COMPARE
                                          -001- 40 #      COMPARE ON-LINE MCHB BIT (S(SAPHLP)) TO  1.
                                          -001- 41 #      IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027475 01 000353 021014 ------ CDGNM     -001- 42      VFD     1,LPINDX 2,1 1,0 1,SUCCES 5,(S(SAPHLP)) 6,NCOMPARE
0027476 01 000354 000001 ------           -001- 43      VFD     15,0 1,1

                                          -001- 45 #      FAILTST
                                          -001- 46 #      FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLPH.
                                          -001- 47 #      DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027477 01 000355 020017 ------ CDGNM     -001- 48      VFD     1,0 2,1 5,0 2,0 6,NFAILTST
0027500 01 000356 000027 ------           -001- 49      VFD     16,FLPH
```

TEST 52 SEGMENT 3   23:41:18   2/05/81 ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST   CDGSON   W77D

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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TEST 52   SEGMENT 4                                                          23:41:18   2/05/81  ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                               CDGSON      W77D

                                 -001- 01 #     ***********************************************************
                                 -001- 02 #     *                                                         *
                                 -001- 03 #     *    TEST 52    SEGMENT 4                                  *
                                 -001- 04 #     *                                                         *
                                 -001- 05 #     ***********************************************************


0027501 01 000357 000400 ------- CDGNM  -001- 08        VFD     1,0 2,0 2,0 5,D(4) 6,NTESTSEG


                                    11 #    THIS SEGMENT VERIFIES TWO STORE BUS ADDRESS LEADS (18 AND 19).
                                    12 #    AN I/O MAINTENANCE ORDER IS USED (ISOCHKU) IS USED TO DIVERT
                                    13 #    THE LOGICAL "OR" OF THESE BITS INTO THE STORE ERROR REGISTER BIT
                                    14 #    STRSLP. THREE CONSTANTS ARE USED, THE FIRST WITH BOTH BITS
                                    15 #    ZERO AND THE OTHERS HAVING ONE BIT A ONE AND THE OTHER A ZERO.

                                 -001- 17 #    CALLPROS
                                 -001- 18 #    RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027502 01 000360 000004 ------- CDGNM  -001- 19        VFD     1,0 2,0 6,0 1,0 6,NPROS

                                 -001- 21 #    NO3_CODE
                                 -001- 22 #    PROCESS 3ACC CODED ROUTINE AT ADDRESS BT181900.
0027503 01 000361 040043 000000 CDGNM  -001- 23        VFD     1,0 2,2 7,0 6,NNO3CD
0027504 01 000362 000000 027506 0027506 -001- 24       ADDR    BT181900


0027506                                    31 BT181900
0027506                                    32        CALL    BKCHKINT
0027506 01 000364 137020 027637 0027637 -001- 33       BSA     BKCHKINT
0027510                                    34        SIOM    MASCINT
0027510 01 000366 137020 012667 CDGSIO -002- 35        BSA     MASIOM
0027512 01 000370 046071 -------        -001- 36        DATA    MASCINT             # INITIALIZE STORE CONTROLLER
0027513 01 000371 131400 000000            37        LAL     R0,0,RA1            #   ADDRESS WITH BIT 18=0 AND BIT 19=0.
0027515                                    38        LOS     0(RA1) AC=NO,PC=NO
E0027515 01 000373 000420 -------       -001- 39       MSTF    0(RA1)
0027516 01 000374 106160 037020         -001- 40       DATA    B(1000110001110000)
0027517                                    41        SIOM    EXERLD&¬ISOLATE
0027517 01 000375 037020 012667 CDGSIO -002- 42        BSA     MASIOM
0027521 01 000377 105454 137020         -001- 43       DATA    EXERLD&¬ISOLATE     # ENABLE EXTERNAL LOAD OF STORE ERROR REG
0027522                                    44        SRIO    SERREAD
0027522 01 000400 137020 012667 CDGSIO -002- 45        BSA     MASIOM
0027524 01 000402 047114 -------        -001- 46       DATA    SERREAD            # READ BACK STORE ERROR REGISTER(SER)
0027525 01 000403 107473 -------            47        LSR     MCHB,R11
0027526                                    48        CALL    CLNONL
0027526 01 000404 037020 027646 0027646 -001- 49       BSA     CLNONL


   INTERPROCESSOR STORE BUS TEST                                              PR-1C928-50

    23:41:18   2/05/81   TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON   ISSUE  05      PAGE   38
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TEST 52  SEGMENT 4                                                  23:41:18   2/05/81  ****

   INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                    CDGSON      W77D

0027530                                          01        RTN_TBL TS181900
0027530 01 000406 171400 ------          -001- 02        GA
0027531 01 000407 031000 027535 0027535  -001- 03        LAL    R0,TS181900,RA0
0027533 01 000411 037000 011162 CDGNM    -001- 04        BL     INTRPNO3




0027535                                       11 TS181900
                                         -001- 12 #        COMPARE
                                         -001- 13 #     COMPARE ON-LINE MCHB BIT (S(STRSLP)) TO  1.
                                         -001- 14 #     IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027535 01 000413 021214 ------ CDGNM    -001- 15        VFD    1,LPINDX 2,1 1,0 1,SUCCES 5,(S(STRSLP)) 6,NCOMPARE
0027536 01 000414 000001 ------          -001- 16        VFD    15,0 1,1

                                         -001- 18 #        FAILTST
                                         -001- 19 #     FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FL1819.
                                         -001- 20 #     DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027537 01 000415 020017 ------ CDGNM    -001- 21        VFD    1,0 2,1 5,0 2,0 6,NFAILTST
0027540 01 000416 000030 ------          -001- 22        VFD    16,FL1819

                                         -001- 24 #        CALLPROS
                                         -001- 25 #     RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0027541 01 000417 000004 ------ CDGNM    -001- 26        VFD    1,0 2,0 6,0 1,0 6,NPROS

                                         -001- 28 #        NO3_CODE
                                         -001- 29 #     PROCESS 3ACC CODED ROUTINE AT ADDRESS BT181910.
0027542 01 000420 040043 000000 CDGNM .  -001- 30        VFD    1,0 2,2 7,0 6,NNO3CD
0027543 01 000421 000000 027545 0027545  -001- 31        ADDR   BT181910




0027545                                       38 BT181910
0027545                                       39        CALL   BKCHKINT
0027545 01 000423 137020 027637 0027637  -001- 40        BSA    BKCHKINT
0027547                                        41        SIOM   MASCINT
0027547 01 000425 137020 012667 CDGSIO   -002- 42        BSA    MASIOM
0027551 01 000427 046071 ------          -001- 43        DATA   MASCINT              # INITIALIZE STORE CONTROLLER
0027552 01 000430 103344 ------                44        LN     R14,4
0027553 01 000431 003360 ------                45        ZR     R15
0027554                                        46        LOS    0(RA1) PC=NO,AC=NO
E0027554 01 000432 000420 ------         -001- 47        MSTF   0(RA1)
0027555 01 000433 106160 037020          -001- 48        DATA   B(1000110001110000)
0027556                                        49        SIOM   EXERLD&¬ISOLATE


   INTERPROCESSOR STORE BUS TEST                                            PR-1C928-50
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TEST 52  SEGMENT 4                                                    23:41:18   2/05/81  ****

  INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                    CDGSON        W77D

0027556 01 000434 037020 012667 CDGSIO  -002- 01        BSA    MASIOM
0027560 01 000436 105454 137020         -001- 02        DATA   EXERLD&¬ISOLATE      # ENABLE EXTERNAL LOAD OF STORE ERROR REG
0027561                                        03        SRIO   SERREAD
0027561 01 000437 137020 012667 CDGSIO  -002- 04        BSA    MASIOM
0027563 01 000441 047114 ------         -001- 05        DATA   SERREAD              # READ BACK STORE ERROR REGISTER(SER)
0027564 01 000442 107473 ------               06        LSR    MCHB,R11
0027565                                        07        CALL   CLNONL
0027565 01 000443 037020 027646 0027646 -001- 08        BSA    CLNONL
0027567                                        09        RTN_TBL TS181910
0027567 01 000445 171400 ------         -001- 10        GA
0027570 01 000446 031000 027574 0027574 -001- 11        LAL    R0,TS181910,RA0
0027572 01 000450 037000 011162 CDGNM   -001- 12        BL     INTRPNO3




0027574                                        19 TS181910
                                        -001- 20 #       COMPARE
                                        -001- 21 #       COMPARE ON-LINE MCHB BIT (S(STRSLP)) TO  0.
                                        -001- 22 #       IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0027574 01 000452 021214 ------ CDGNM   -001- 23        VFD    1,LFINDX 2,1 1,0 1,SUCCES 5,(S(STRSLP)) 6,NCOMPARE
0027575 01 000453 000000 ------         -001- 24        VFD    15,0 1,0

                                        -001- 26 #       FAILTST
                                        -001- 27 #       FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FL1819.
                                        -001- 28 #       DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0027576 01 000454 020017 ------ CDGNM   -001- 29        VFD    1,0 2,1 5,0 2,0 6,NFAILTST
0027577 01 000455 000030 ------         -001- 30        VFD    16,FL1819

                                        -001- 32 #       NO3 CODE
                                        -001- 33 #       PROCESS 3ACC CODED ROUTINE AT ADDRESS BT181901.
0027600 01 000456 040043 000000 CDGNM   -001- 34        VFD    1,0 2,2 7,0 6,NNO3CD
0027601 01 000457 000000 027603 0027603 -001- 35        ADDR   BT181901




0027603                                        42 BT181901
0027603                                        43        CALL   BKCHKINT
0027603 01 000461 137020 027637 0027637 -001- 44        BSA    BKCHKINT
0027605                                        45        SIOM   MASCINT
0027605 01 000463 137020 012667 CDGSIO  -002- 46        BSA    MASIOM
0027607 01 000465 046071 ------         -001- 47        DATA   MASCINT              # INITIALIZE STORE CONTROLLER
0027610 01 000466 103350 ------               48        LN     R14,8
0027611 01 000467 003360 ------               49        ZR     R15
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  INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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TEST 52  SEGMENT 4                                                    23:41:18   2/05/81  ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                        CDGSON    W77D

0027612                                      01      LOS    O(RA1) PC=NO,AC=NO
E0027612 01 000470 000420 ------      -001- 02      MSTF   O(RA1)
 0027613 01 000471 106160 037020      -001- 03      DATA   B(1000110001110000)
 0027614                                     04      SIOM   EXERLD&¬ISOLATE
 0027614 01 000472 037020 012667 CDGSIO -002- 05    BSA    MASIOM
 0027616 01 000474 105454 137020      -001- 06      DATA   EXERLD&¬ISOLATE         # ENABLE EXTERNAL LOAD OF STORE ERROR REG
 0027617                                     07      SRIO   SERREAD
 0027617 01 000475 137020 012667 CDGSIO -002- 08    BSA    MASIOM
 0027621 01 000477 047114 ------      -001- 09      DATA   SERREAD         --      # READ BACK STORE ERROR REGISTER(SER)
 0027622 01 000500 107473 ------            10      LSR    MCHB,R11
 0027623                                     11      CALL   CLNONL
 0027623 01 000501 037020 027646 0027646 -001- 12   BSA    CLNONL
 0027625                                     13      RTN_TBL TS181901
 0027625 01 000503 171400 ------      -001- 14      GA
 0027626 01 000504 031000 027632 0027632 -001- 15   LAL    R0,TS181901,RA0
 0027630 01 000506 037000 011162 CDGNM -001- 16     BL     INTRPNO3




 0027632                                     23 TS181901
                                      -001- 24  #        COMPARE
                                      -001- 25  #  COMPARE ON-LINE MCHB BIT (S(STRSLP)) TO  0.
                                      -001- 26  #  IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
 0027632 01 000510 021214 ------ CDGNM -001- 27      VFD    1,LPINDX 2,1 1,0 1,SUCCES 5,(S(STRSLP)) 6,NCOMPARE
 0027633 01 000511 000000 ------      -001- 28      VFD    15,0 1,0

                                      -001- 30  #        FAILTST
                                      -001- 31  #  FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FL1819.
                                      -001- 32  #  DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
 0027634 01 000512 020017 ------ CDGNM -001- 33      VFD    1,0 2,1 5,0 2,0 6,NFAILTST
 0027635 01 000513 000030 ------      -001- 34      VFD    16,FL1819

                                      -001- 36  #        PASSTST
                                      -001- 37  #  GO TO DIAGNOSTIC MONITOR PASS BRANCH.
 0027636 01 000514 000021 ------ CDGNM -001- 38      VFD    1,0 2,0 7,0 6,NPASSTST
```

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TEST 52  SEGMENT 4                                                    23:41:18   2/05/81  ****

    INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST                                      CDGSON      W77D

0027637                                            01 CSONSUB CSECT
0027637                                            02 BKCHKINT
                                                   03 #   SYNCHRONIZE WITH TIMED INTERRUPTS AND BLOCK HARDWARE CHECKS.


0027637                                            07     BEGIN  ()
0027637 02 000000 103401 000020                    08     LI     RO,E(4)
0027641                                            09                              #   ALLOW AT LEAST 2.5 MS UNTIL THE NEXT
                                                                                       TIMED INTERRUPT ASSUMING THAT NO
                                                                                       INTERRUPT MORE FREQUENT THAN 5 MS. IS
                                                                                       EQUIPPED.

0027641                                            13     CALL   INSYNC
0027641 02 000002 037020 111163 CSYSUB  -001- 14   BSA    INSYNC
0027643                                            15     MIMODE L SS_S,YT DATA=S(BHC)   #   SET BLOCK HARDWARE CHECKS.
0027643 02 000004 113001 ------      -001- 16      MIS    S(BHC)
0027644 02 000005 105722 ------      -002- 17          VFD     8,SS_S%T 8,YT%F
0027645                                            18     RETURN
0027645 02 000006 056400 ------      -001- 19      BTSA
```

TEST 52 SEGMENT 4   23:41:18   2/05/81 ****

INTERPROCESSOR_STORE_BUS DIAGNOSTIC TEST   CDGSON   W77D

```
0027646                                01 CLNONL
                                       02 #   SUBROUTINE TO CLEAN UP THE ON-LINE CU. R0 AND R11
                                       03 #   ARE CLEARED TO INSURE GOOD PARITY, THE ER IS CLEARED,
                                       04 #   THE ERROR INTERRUPT IS CLEARED, BIN IS CLEARED, AND BHC IS CLEARED.


0027646                                08        BEGIN   ()
0027646 02 000007 103000 ------        09        ZR      R0                      #  PUT GOOD PARITY IN R0
                                       10 CSONSUB OW      0(10)                   # 12581
                               -001-   11        NOTE    ************** THE FIRST ADDRESS OVERWRITTEN IS 000010 **********


0027647 02 000010 014673 ------        14        OR      R11,R11
0027650                                15                                        #  PUT GOOD PARITY IN R11
0027650                                16        EOW                             # 12581
                               -001-   17        NOTE    *************** THE LAST ADDRESS OVERWRITTEN IS 000010 **********


0027650                                20        MIMODE  ZER                     #  CLEAR ER
0027650 02 000011 013000 ------ -001-  21        MIS     0
0027651 02 000012 025750 ------ -002-  22                DATA    ZER%
                                       23 CSONSUB OW      0(13)                   # 12742
                               -001-   24        NOTE    ************** THE FIRST ADDRESS OVERWRITTEN IS 000013 **********


0027652 02 000013 026005 ------        27        SBN     R0,S(ERRI)
0027653                                28        EOW                             # 12742
                               -001-   29        NOTE    *************** THE LAST ADDRESS OVERWRITTEN IS 000013 **********


0027653                                32        MIMODE  L IS_R,R0
0027653 02 000014 013000 ------ -001-  33        MIS     0
0027654 02 000015 033123 ------ -002-  34                VFD     8,IS_R%T 8,R0%F
0027655                                35        ZBIN                            #  CLEAR BIN.
0027655 02 000016 013002 ------ -001-  36        MIS     2
0027656 02 000017 107322 ------ -001-  37        DATA    36562
0027657                                38        MIMODE  L SS_R,YT DATA=S(BHC)   #  CLEAR "BLOCK HARDWARE CHECK" BIT.
0027657 02 000020 013001 ------ -001-  39        MIS     S(BHC)
0027660 02 000021 107322 ------ -002-  40                VFD     8,SS_R%T 8,YT%F
0027661                                41        RETURN
0027661 02 000022 056400 ------ -001-  42        BTSA
```

```
                        -001- 03 #& TBL 5201
                        -001- 04 #& TEST 52
                        -001- 05 #& SEGMENT 0, 1, OR 2
                        -001- 06 #& PR CDGSON
                        -001- 07 #
                              08 #     TWO SUCCESSIVE I/O TRANSMISSIONS TO OFF-LINE STORE
                              09 #     CONTROLLER 0 FROM THE ON-LINE CU HAVE FAILED TO COMPLETE.
                              10 #     THE DATA FIELD IS THE I/O ORDER WHICH WAS SENT.
                              11 #     THE ADDRESS FIELD IS THE FAILURE BRANCH OF THE "MASIOM"
                              12 #     SUBROUTINE.
0027661                       13
                              14 #        MASCM 08-20  FA1064  MAIN STORE CONTROLLER - I/O ORDER DECODER
                              15 #        MASCM 08-22  FA1063  MAIN STORE CONTROLLER - I/O ORDER RECEIVER
                              16 #        MASCM 08-23  FC203   MAIN STORE CONTROLLER CLOCK & I/O INTERFACE
                              17 #        PROC  02-35  FA1016  MICRO CONTROL 1


                        -001- 20 #& TBL 5202
                        -001- 21 #& TEST 52
                        -001- 22 #& SEGMENT 1
                        -001- 23 #& PR CDGSON
                        -001- 24 #
                              25 #     FAILURE OF A CONTROL OR COMMAND LEAD IN INTERPROCESSOR STORE
                              26 #     BUS WITH ON-LINE CU ACCESSING OFF-LINE STORE.
0027661                       27
                              28 #        PROC  02-21  FA1029  MAIN STORE CONTROL 0
                              29 #        PROC  02-22  FA1029  MAIN STORE CONTROL 1
                              30 #        PROC  06-05  FB6     FUSES FOR OTHER STORE ADDRESS 16-PH AND CONTROL
                              31 #        PROC  02-04  FB6     FUSES FOR OTHER STORE DATA 16-23 AND CONTROL
                              32 # NOTE--3 DMA  02-09  FC383   DMA REGISTER BITS 16, 17, 18, 19
                              33 # NOTE--3 DMA  02-03  FB6     FUSE BOARD-STORE ERROR AND PARITY
                              34 # NOTE--3 DMA  02-17  FC392   DMA MY STORE CONTROL
                              35 # NOTE--3 DMA  02-04  FB6     FUSE BOARD-STORE CONTROL
                              36 #        PROC  02-23  FA1046  DOUBLE STORE READ
0027661                       37
                              38 #     ###### ON-LINE PACKS ######
                              39 #        PROC  02-22  FA1029  MAIN STORE CONTROL 1
                              40 #        PROC  02-21  FA1029  MAIN STORE CONTROL 0
0027661                       41
```

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TROUBLE LOCATION MANUAL                                        23:41:18   2/05/81  ****

5203    FLRSP                                                         CDGSON        W77D

                        -001- 01 #& TBL 5203
                        -001- 02 #& TEST 52
                        -001- 03 #& SEGMENT 1
                        -001- 04 #& PR CDGSON
                        -001- 05 #
0027661                       06 #     FAILURE OF ON-LINE CU TO COMMUNICATE WITH OFF-LINE STORE
                              07
                              08 #          PROC  02-21  FA1029  MAIN STORE CONTROL 0
                              09 #          PROC  02-22  FA1029  MAIN STORE CONTROL 1
                              10 #          PROC  02-19  FA1030  MISC. DEC. - REGISTERS BITS 16 AND 18
                              11 #          PROC  02-20  FA1030  MISC. DEC. - REGISTERS BITS 17 AND 19
                              12 #                    BIT SLICED BOARDS HAVE POSSIBLE STUCK
                              13 #                    HIGH ADDRESS BITS.
                              14 #          PROC  06-05  FB6     FUSES FOR OTHER STORE ADDRESS 16-PH AND CONTROL
                              15 #          PROC  02-04  FB6     FUSES FOR OTHER STORE DATA 16-23 AND CONTROL
                              16 # NOTE--3 DMA   02-17  FC392   DMA MY STORE CONTROL
                              17 # NOTE--3 DMA   02-04  FB6     FUSE BOARD-STORE CONTROL
                              18 # NOTE--3 DMA   02-03  FB6     FUSE BOARD-STORE ERROR AND PARITY
                              19 # NOTE--3 DMA   02-21  FC390   DMA STATUS BOARD 1
                              20 # NOTE--3 DMA   02-09  FC383   DMA REGISTER BITS 16, 17, 18, 19
                              21 #          PROC  06-35  FA1021  MICRO CONTROL 6
0027661                       22 # NOTE--1 MASCM 08-10  FA1060  MAIN STORE CONTROLLER - BITS 16&20
                              23
                              24 #     ###### ON-LINE PACKS ######
                              25 #          PROC  02-22  FA1029  MAIN STORE CONTROL 1
                              26 #          PROC  02-21  FA1029  MAIN STORE CONTROL 0
                              27 #          PROC  02-19  FA1030  MISC. DEC. - REGISTERS BITS 16 AND 18
                              28 #          PROC  02-20  FA1030  MISC. DEC. - REGISTERS BITS 17 AND 19
0027661                       29 #          PROC  10-22  FA1028  ERROR REG/DISPLAY BUFFER HIGH BITS
                              30
```

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TROUBLE LOCATION MANUAL                                    23:41:18   2/05/81  ****

5204    SAFALOO                                                    CDGSON      W77D

                          -001- 01 #& TBL 5204
                          -001- 02 #& TEST 52
                          -001- 03 #& SEGMENT 2
                          -001- 04 #& PR CDGSON
                          -001- 05 #
                                06 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                07 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                                08 #    THE FAILURE WAS NOTED IN BIT 0.
0027661                         09
                                10 #         PROC  02-08  FA1024  SPECIAL REGISTERS BITS 0 AND 8
                                11 #         PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
                                12 #         PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
                                13 # NOTE--3 DMA   02-14  FB382   DMA REGISTER BITS 0, 4, 8, 12
                                14 # NOTE--3 DMA   02-01  FB6     FUSE BOARD-STORE ADDRESS
                                15 # NOTE--3 DMA   02-02  FB6     FUSE BOARD-STORE DATA
0027661                         16
                                17 #       ###### ON-LINE PACKS ######
                                18 #         PROC  02-08  FA1024  SPECIAL REGISTERS BITS 0 AND 8
0027661                         19

                          -001- 22 #& TBL 5205
                          -001- 23 #& TEST 52
                          -001- 24 #& SEGMENT 2
                          -001- 25 #& PR CDGSON
                          -001- 26 #
                                27 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                28 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                                29 #    THE FAILURE WAS NOTED IN BIT 1
0027661                         30
                                31 #         PROC  02-09  FA1024  SPECIAL REGISTERS BITS 1 AND 9
                                32 #         PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
                                33 #         PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
                                34 # NOTE--3 DMA   02-13  FB382   DMA REGISTER BITS 1, 5, 9, 13
                                35 # NOTE--3 DMA   02-01  FB6     FUSE BOARD-STORE ADDRESS
                                36 # NOTE--3 DMA   02-02  FB6     FUSE BOARD-STORE DATA
0027661                         37
                                38 #       ###### ON-LINE PACKS ######
                                39 #         PROC  02-09  FA1024  SPECIAL REGISTERS BITS 1 AND 9
0027661                         40
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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-001- 01 #& TBL 5206
-001- 02 #& TEST 52
-001- 03 #& SEGMENT 2
-001- 04 #& PR CDGSON
-001- 05 #
      06 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
      07 #     AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
      08 #     THE FAILURE WAS NOTED IN BIT 2
      09
      10 #        PROC  02-10  FA1024  SPECIAL REGISTERS BITS 2 AND 10
      11 #        PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
      12 #        PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
      13 # NOTE--3 DMA  02-12  FB382   DMA REGISTER BITS 2, 6, 10, 14
      14 # NOTE--3 DMA  02-01  FB6     FUSE BOARD-STORE ADDRESS
      15 # NOTE--3 DMA  02-02  FB6     FUSE BOARD-STORE DATA
      16
      17 #     ###### ON-LINE PACKS ######
      18 #        PROC  02-10  FA1024  SPECIAL REGISTERS BITS 2 AND 10
      19

-001- 22 #& TBL 5207
-001- 23 #& TEST 52
-001- 24 #& SEGMENT 2
-001- 25 #& PR CDGSON
-001- 26 #
      27 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
      28 #     AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
      29 #     THE FAILURE WAS NOTED IN BIT 3
      30
      31 #        PROC  02-11  FA1024  SPECIAL REGISTERS BITS 3 AND 11
      32 #        PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
      33 #        PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
      34 # NOTE--3 DMA  02-10  FC382   DMA REGISTER BITS 3, 7, 11, 15
      35 # NOTE--3 DMA  02-01  FB6     FUSE BOARD-STORE ADDRESS
      36 # NOTE--3 DMA  02-02  FB6     FUSE BOARD-STORE DATA
      37
      38 #     ###### ON-LINE PACKS ######
      39 #        PROC  02-11  FA1024  SPECIAL REGISTERS BITS 3 AND 11
      40
```

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TROUBLE LOCATION MANUAL                                           23:41:18   2/05/81  ****

  5208    SAFAL04                                                      CDGSON        W77D

                        -001- 01 #& TBL 5208
                        -001- 02 #& TEST 52
                        -001- 03 #& SEGMENT 2
                        -001- 04 #& PR CDGSON
                        -001- 05 #
                              06 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                              07 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
0027661                       08 #    THE FAILURE WAS NOTED IN BIT 4
                              09
                              10 #         PROC  02-12  FA1024  SPECIAL REGISTERS BITS 4 AND 12
                              11 #         PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
                              12 #         PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
                              13 # NOTE--3 DMA   02-14  FB382   DMA REGISTER BITS 0, 4, 8, 12
                              14 # NOTE--3 DMA   02-01  FB6     FUSE BOARD-STORE ADDRESS
0027661                       15 # NOTE--3 DMA   02-02  FB6     FUSE BOARD-STORE DATA
                              16
                              17 #       ###### ON-LINE PACKS ######
0027661                       18 #         PROC  02-12  FA1024  SPECIAL REGISTERS BITS 4 AND 12
                              19


                        -001- 22 #& TBL 5209
                        -001- 23 #& TEST 52
                        -001- 24 #& SEGMENT 2
                        -001- 25 #& PR CDGSON
                        -001- 26 #
                              27 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                              28 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                              29 #    THE FAILURE WAS NOTED IN BIT 5
0027661                       30
                              31 #         PROC  06-14  FA1010  GENERAL REGISTERS BITS 5 AND 13
                              32 #         PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
                              33 #         PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
                              34 # NOTE--3 DMA   02-13  FB382   DMA REGISTER BITS 1, 5, 9, 13
                              35 # NOTE--3 DMA   02-01  FB6     FUSE BOARD-STORE ADDRESS
0027661                       36 # NOTE--3 DMA   02-02  FB6     FUSE BOARD-STORE DATA
                              37
                              38 #       ###### ON-LINE PACKS ######
                              39 #         PROC  06-14  FA1010  GENERAL REGISTERS BITS 5 AND 13
0027661                       40
```

```
                          -001- 01 #& TBL 5210
                          -001- 02 #& TEST 52
                          -001- 03 #& SEGMENT 2
                          -001- 04 #& PR CDGSON
                          -001- 05 #
                                06 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                07 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                                08 #    THE FAILURE WAS NOTED IN BIT 6
0027661                         09
                                10 #         PROC   02-16   FA1024   SPECIAL REGISTERS BITS 6 AND 14
                                11 #         PROC   06-08   FB6      FUSES FOR OTHER STORE ADDRESS 0-15
                                12 #         PROC   06-07   FB6      FUSES FOR OTHER STORE DATA 0-15
                                13 # NOTE--3 DMA    02-12   FB382    DMA REGISTER BITS 2, 6, 10, 14
                                14 # NOTE--3 DMA    02-01   FB6      FUSE BOARD-STORE ADDRESS
                                15 # NOTE--3 DMA    02-02   FB6      FUSE BOARD-STORE DATA
0027661                         16
                                17 #      ###### ON-LINE PACKS ######
                                18 #         PROC   02-16   FA1024   SPECIAL REGISTERS BITS 6 AND 14
0027661                         19


                          -001- 22 #& TBL 5211
                          -001- 23 #& TEST 52
                          -001- 24 #& SEGMENT 2
                          -001- 25 #& PR CDGSON
                          -001- 26 #
                                27 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                28 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                                29 #    THE FAILURE WAS NOTED IN BIT 7
0027661                         30
                                31 #         PROC   02-17   FA1024   SPECIAL REGISTERS BITS 7 AND 15
                                32 #         PROC   06-08   FB6      FUSES FOR OTHER STORE ADDRESS 0-15
                                33 #         PROC   06-07   FB6      FUSES FOR OTHER STORE DATA 0-15
                                34 # NOTE--3 DMA    02-10   FC382    DMA REGISTER BITS 3, 7, 11, 15
                                35 # NOTE--3 DMA    02-01   FB6      FUSE BOARD-STORE ADDRESS
                                36 # NOTE--3 DMA    02-02   FB6      FUSE BOARD-STORE DATA
0027661                         37
                                38 #      ###### ON-LINE PACKS ######
                                39 #         PROC   02-17   FA1024   SPECIAL REGISTERS BITS 7 AND 15
0027661                         40
```

```
                        -001- 01 #& TBL 5212
                        -001- 02 #& TEST 52
                        -001- 03 #& SEGMENT 2
                        -001- 04 #& PR CDGSON
                        -001- 05 #
                              06 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                              07 #     AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                              08 #     THE FAILURE WAS NOTED IN BIT 8
0027661                       09
                              10 #          PROC  02-08  FA1024  SPECIAL REGISTERS BITS 0 AND 8
                              11 #          PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
                              12 #          PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
                              13 # NOTE--3 DMA   02-14  FB382   DMA REGISTER BITS 0, 4, 8, 12
                              14 # NOTE--3 DMA   02-01  FB6     FUSE BOARD-STORE ADDRESS
                              15 # NOTE--3 DMA   02-02  FB6     FUSE BOARD-STORE DATA
0027661                       16
                              17 #       ###### ON-LINE PACKS ######
                              18 #          PROC  02-08  FA1024  SPECIAL REGISTERS BITS 0 AND 8
0027661                       19


                        -001- 22 #& TBL 5213
                        -001- 23 #& TEST 52
                        -001- 24 #& SEGMENT 2
                        -001- 25 #& PR CDGSON
                        -001- 26 #
                              27 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                              28 #     AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                              29 #     THE FAILURE WAS NOTED IN BIT 9
0027661                       30
                              31 #          PROC  02-09  FA1024  SPECIAL REGISTERS BITS 1 AND 9
                              32 #          PROC  06-08  FB6     FUSES FOR OTHER STORE ADDRESS 0-15
                              33 #          PROC  06-07  FB6     FUSES FOR OTHER STORE DATA 0-15
                              34 # NOTE--3 DMA   02-13  FB382   DMA REGISTER BITS 1, 5, 9, 13
                              35 # NOTE--3 DMA   02-01  FB6     FUSE BOARD-STORE ADDRESS
                              36 # NOTE--3 DMA   02-02  FB6     FUSE BOARD-STORE DATA
                              37 # NOTE--3 DMA   02-14  FB382   DMA REGISTER BITS 0, 4, 8, 12
0027661                       38
                              39 #       ###### ON-LINE PACKS ######
                              40 #          PROC  02-09  FA1024  SPECIAL REGISTERS BITS 1 AND 9
0027661                       41
```

```
-001- 01 #& TBL 5214
-001- 02 #& TEST 52
-001- 03 #& SEGMENT 2
-001- 04 #& PR CDGSON
-001- 05 #
      06 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
      07 #      AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
      08 #      THE FAILURE WAS NOTED IN BIT 10
      09
      10 #          PROC  02-10   FA1024   SPECIAL REGISTERS BITS 2 AND 10
      11 #          PROC  06-08   FB6      FUSES FOR OTHER STORE ADDRESS 0-15
      12 #          PROC  06-07   FB6      FUSES FOR OTHER STORE DATA 0-15
      13 # NOTE--3 DMA   02-12   FD382    DMA REGISTER BITS 2, 6, 10, 14
      14 # NOTE--3 DMA   02-01   FB6      FUSE BOARD-STORE ADDRESS
      15 # NOTE--3 DMA   02-02   FB6      FUSE BOARD-STORE DATA
      16
      17 #      ###### ON-LINE PACKS ######
      18 #          PROC  02-10   FA1024   SPECIAL REGISTERS BITS 2 AND 10
      19

-001- 22 #& TBL 5215
-001- 23 #& TEST 52
-001- 24 #& SEGMENT 2
-001- 25 #& PR CDGSON
-001- 26 #
      27 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
      28 #      AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
      29 #      THE FAILURE WAS NOTED IN BIT 11
      30
      31 #          PROC  02-11   FA1024   SPECIAL REGISTERS BITS 3 AND 11
      32 #          PROC  06-08   FB6      FUSES FOR OTHER STORE ADDRESS 0-15
      33 #          PROC  06-07   FB6      FUSES FOR OTHER STORE DATA 0-15
      34 # NOTE--3 DMA   02-10   FC382    DMA REGISTER BITS 3, 7, 11, 15
      35 # NOTE--3 DMA   02-01   FB6      FUSE BOARD-STORE ADDRESS
      36 # NOTE--3 DMA   02-02   FB6      FUSE BOARD-STORE DATA
      37
      38 #      ###### ON-LINE PACKS ######
      39 #          PROC  02-11   FA1024   SPECIAL REGISTERS BITS 3 AND 11
      40
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                            -001- 01 #& TBL 5216
                            -001- 02 #& TEST 52
                            -001- 03 #& SEGMENT 2
                            -001- 04 #& PR CDGSON
                            -001- 05 #
                                  06 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                  07 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
0027661                           08 #    THE FAILURE WAS NOTED IN BIT 12
                                  09
                                  10 #         PROC  02-12  FA1024   SPECIAL REGISTERS BITS 4 AND 12
                                  11 #         PROC  06-08  FB6      FUSES FOR OTHER STORE ADDRESS 0-15
                                  12 #         PROC  06-07  FB6      FUSES FOR OTHER STORE DATA 0-15
                                  13 # NOTE--3 DMA  02-14  FB382    DMA REGISTER BITS 0, 4, 8, 12
                                  14 # NOTE--3 DMA  02-01  FB6      FUSE BOARD-STORE ADDRESS
0027661                           15 # NOTE--3 DMA  02-02  FB6      FUSE BOARD-STORE DATA
                                  16
                                  17 #       ###### ON-LINE PACKS ######
                                  18 #         PROC  02-12  FA1024   SPECIAL REGISTERS BITS 4 AND 12
0027661                           19


                            -001- 22 #& TBL 5217
                            -001- 23 #& TEST 52
                            -001- 24 #& SEGMENT 2
                            -001- 25 #& PR CDGSON
                            -001- 26 #
                                  27 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                  28 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                                  29 #    THE FAILURE WAS NOTED IN BIT 13
0027661                           30
                                  31 #         PROC  06-14  FA1010   GENERAL REGISTERS BITS 5 AND 13
                                  32 #         PROC  06-08  FB6      FUSES FOR OTHER STORE ADDRESS 0-15
                                  33 #         PROC  06-07  FB6      FUSES FOR OTHER STORE DATA 0-15
                                  34 # NOTE--3 DMA  02-13  FB382    DMA REGISTER BITS 1, 5, 9, 13
                                  35 # NOTE--3 DMA  02-01  FB6      FUSE BOARD-STORE ADDRESS
                                  36 # NOTE--3 DMA  02-02  FB6      FUSE BOARD-STORE DATA
0027661                           37
                                  38 #       ###### ON-LINE PACKS ######
                                  39 #         PROC  06-14  FA1010   GENERAL REGISTERS BITS 5 AND 13
0027661                           40
```

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                              -001- 01 #& TBL 5218
                              -001- 02 #& TEST 52
                              -001- 03 #& SEGMENT 2
                              -001- 04 #& PR CDGSON
                              -001- 05 #
                                    06 #      FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                    07 #      AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                                    08 #      THE FAILURE WAS NOTED IN BIT 14
0027661                               09
                                    10 #        PROC   02-16   FA1024   SPECIAL REGISTERS BITS 6 AND 14
                                    11 #        PROC   06-08   FB6      FUSES FOR OTHER STORE ADDRESS 0-15
                                    12 #        PROC   06-07   FB6      FUSES FOR OTHER STORE DATA 0-15
                                    13 # NOTE--3 DMA   02-12   FB382    DMA REGISTER BITS 2, 6, 10, 14
                                    14 # NOTE--3 DMA   02-01   FB6      FUSE BOARD-STORE ADDRESS
                                    15 # NOTE--3 DMA   02-02   FB6      FUSE BOARD-STORE DATA
0027661                               16
                                    17 #         ###### ON-LINE PACKS ######
                                    18 #        PROC   02-16   FA1024   SPECIAL REGISTERS BITS 6 AND 14
0027661                               19


                              -001- 22 #& TBL 5219
                              -001- 23 #& TEST 52
                              -001- 24 #& SEGMENT 2
                              -001- 25 #& PR CDGSON
                              -001- 26 #
                                    27 #      FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                    28 #      AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                                    29 #      THE FAILURE WAS NOTED IN BIT 15.
0027661                               30
                                    31 #        PROC   02-17   FA1024   SPECIAL REGISTERS BITS 7 AND 15
                                    32 #        PROC   06-08   FB6      FUSES FOR OTHER STORE ADDRESS 0-15
                                    33 #        PROC   06-07   FB6      FUSES FOR OTHER STORE DATA 0-15
                                    34 # NOTE--3 DMA   02-10   FC382    DMA REGISTER BITS 3, 7, 11, 15
                                    35 # NOTE--3 DMA   02-01   FB6      FUSE BOARD-STORE ADDRESS
                                    36 # NOTE--3 DMA   02-02   FB6      FUSE BOARD-STORE DATA
0027661                               37
                                    38 #         ###### ON-LINE PACKS ######
                                    39 #        PROC   02-17   FA1024   SPECIAL REGISTERS BITS 7 AND 15
0027661                               40
```

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TROUBLE LOCATION MANUAL                                          23:41:18   2/05/81  ****

  5220    SAFAL16                                                       CDGSON        W77D

                        -001- 01 #& TBL 5220
                        -001- 02 #& TEST 52
                        -001- 03 #& SEGMENT 2
                        -001- 04 #& PR CDGSON
                        -001- 05 #
                              06 #     FAILURE OF ADDRESS LEAD OF BUS BETWEEN ON-LINE CC
                              07 #     AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                              08 #     THE FAILURE WAS NOTED IN BIT 16.
  0027661                     09
                              10 #        PROC   02-19  FA1030  MISC. DEC. - REGISTERS BITS 16 AND 18
                              11 #        PROC   02-18  FA1024  SPECIAL REGISTERS BITS PL AND PH
                              12 #                     ADDRESS BIT 16 LOOPS AROUND TO DATA BIT PH.
                              13 #        PROC   06-05  FB6     FUSES FOR OTHER STORE ADDRESS 16-PH AND CONTROL
                              14 # NOTE--3 DMA   02-03  FB6     FUSE BOARD-STORE ERROR AND PARITY
                              15 # NOTE--3 DMA   02-09  FC383   DMA REGISTER BITS 16, 17, 18, 19
                              16 # NOTE--3 DMA   02-08  FC384   DMA REGISTER BITS PL, PH
  0027661                     17
                              18 #        ###### ON-LINE PACKS ######
                              19 #        PROC   02-19  FA1030  MISC. DEC. - REGISTERS BITS 16 AND 18
                              20 #        PROC   02-18  FA1024  SPECIAL REGISTERS BITS PL AND PH
  0027661                     21


                        -001- 24 #& TBL 5221
                        -001- 25 #& TEST 52
                        -001- 26 #& SEGMENT 2
                        -001- 27 #& PR CDGSON
                        -001- 28 #
                              29 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                              30 #     AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA DATA BUS.
                              31 #     THE FAILURE WAS NOTED IN BIT PL
  0027661                     32
                              33 #        PROC   02-18  FA1024  SPECIAL REGISTERS BITS PL AND PH
                              34 #        PROC   06-05  FB6     FUSES FOR OTHER STORE ADDRESS 16-PH AND CONTROL
                              35 # NOTE--3 DMA   02-08  FC384   DMA REGISTER BITS PL, PH
                              36 # NOTE--3 DMA   02-03  FB6     FUSE BOARD-STORE ERROR AND PARITY
                              37 # NOTE--3 DMA   02-17  FC392   DMA MY STORE CONTROL
                              38 # NOTE--3 DMA   02-09  FC383   DMA REGISTER BITS 16, 17, 18, 19
  0027661                     39
                              40 #        ###### ON-LINE PACKS ######
                              41 #        PROC   02-18  FA1024  SPECIAL REGISTERS BITS PL AND PH
  0027661                     42
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
TROUBLE LOCATION MANUAL                                              23:41:18   2/05/81   ****

5222    FL17                                                                    CDGSON      W77D

                        -001- 01 #& TBL 5222
                        -001- 02 #& TEST 52
                        -001- 03 #& SEGMENT 3
                        -001- 04 #& PR CDGSON
                        -001- 05 #
                              06 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                              07 #     AND OFF-LINE STORE TO PASS LOOP_AROUND TEST VIA ERROR REGISTER.
0027661                       08 #     THE FAILURE WAS IN BIT 17.
                              09
                              10 #        PROC  02-20  FA1030  MISC. DEC. - REGISTERS BITS 17 AND 19
                              11 #        PROC  06-05  FB6     FUSES FOR OTHER STORE ADDRESS 16-PH AND CONTROL
                              12 # NOTE--3 DMA   02-03  FB6     FUSE BOARD-STORE ERROR AND PARITY
                              13 # NOTE--3 DMA   02-09  FC383   DMA REGISTER BITS 16, 17, 18, 19
0027661                       14
                              15 #        ###### ON-LINE PACKS ######
                              16 #        PROC  02-20  FA1030  MISC. DEC. - REGISTERS BITS 17 AND 19
0027661                       17


                        -001- 20 #& TBL 5223
                        -001- 21 #& TEST 52
                        -001- 22 #& SEGMENT 3
                        -001- 23 #& PR CDGSON
                        -001- 24 #
                              25 #     FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                              26 #     AND OFF-LINE STORE TO PASS LOOP_AROUND TEST VIA ERROR REGISTER.
                              27 #     THE FAILURE WAS IN BIT PH.
0027661                       28
                              29 #        PROC  02-18  FA1024  SPECIAL REGISTERS BITS PL AND PH
                              30 #        PROC  06-05  FB6     FUSES FOR OTHER STORE ADDRESS 16-PH AND CONTROL
                              31 # NOTE--3 DMA   02-03  FB6     FUSE BOARD-STORE ERROR AND PARITY
                              32 # NOTE--3 DMA   02-08  FC384   DMA REGISTER BITS PL, PH
0027661                       33 #        PROC  02-19  FA1030  MISC. DEC. - REGISTERS BITS 16 AND 18
                              34
                              35 #        ###### ON-LINE PACKS ######
                              36 #        PROC  02-18  FA1024  SPECIAL REGISTERS BITS PL AND PH
0027661                       37
```

```
                            -001- 01 #& TBL 5224
                            -001- 02 #& TEST 52
                            -001- 03 #& SEGMENT 4
                            -001- 04 #& PR CDGSON
                            -001- 05 #
                                  06 #    FAILURE OF ADDRESS LEAD OF STORE BUS BETWEEN ON-LINE CC
                                  07 #    AND OFF-LINE STORE TO PASS LOOP-AROUND TEST VIA ERROR REGISTER.
0027661                           08 #    THE FAILURE WAS IN BIT 18 OR 19.
                                  09
                                  10 #       PROC  02-19  FA1030  MISC. DEC. - REGISTERS BITS 16 AND 18
                                  11 #       PROC  02-20  FA1030  MISC. DEC. - REGISTERS BITS 17 AND 19
                                  12 #       PROC  06-05  FB6     FUSES FOR OTHER STORE ADDRESS 16-PH AND CONTROL
                                  13 # NOTE--3 DMA  02-03  FB6     FUSE BOARD-STORE ERROR AND PARITY
                                  14 # NOTE--3 DMA  02-09  FC383   DMA REGISTER BITS 16, 17, 18, 19
0027661                           15
                                  16 #       ###### ON-LINE PACKS ######
                                  17 #       PROC  02-19  FA1030  MISC. DEC. - REGISTERS BITS 16 AND 18
                                  18 #       PROC  02-20  FA1030  MISC. DEC. - REGISTERS BITS 17 AND 19
0027661                           19
```

```
01 CSTON1 MAXSIZE 0,515
02 CSONSUB MAXSIZE 0,23
```

PATCH HISTORY   23:41:18   2/05/81 ****

LISTING OF INDIVIDUAL PATCHES   CDGSON   W77D

```
           */*/*/*/012742/*/*/*/*      -002- 01        PBEGIN  PROG=CDGSON              TRNO=12742  SERNOB=47778
                                             02 # THIS PATCH CORRECTS A CODING ERROR THAT PREVENTED
                                             03 # THE ERROR INTERRUPT BIT (ERRI) IN THE 'IS' REGISTER
                                             04 # FROM BEING RESET AFTER TEST 52
                                             05        TCEND
0027661                                -001- 06        NOTE   *******************************************************************
```

```
           */*/*/*/012581/*/*/*/*      -002- 13        PBEGIN  PROG=CDGSON              TRNO=12581  SERNOB=50420
                                             14 # OR R 11 TO ITSELF TO CORRECT PARITY, DATA IN R 11 IS SAVED
0027661                                      15        TCEND
                                       -001- 16        NOTE   *******************************************************************
```

```
0027661                                      23        END
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
  PATCH HISTORY                                                    23:41:18    2/05/81  ****

      VALUE  T  NAME      DEF/REF    ATTRIBUTES AND REFERENCES        CDGSON        W77D

   10073454 S .STOP
    0000201 A XBITCNT              1-08
          0 U XBOP                 1-08
    0000001 A XCLAS                LIBNUM=13        1-08
    0000001 A XMAXWRD              LIBNUM=13        1-08
'CDGSON'    T XNAMEX
          0 J XOWX        1-10
          0 J XPFTX
'()'        T XSAVREGS
    0000010 A XTA1X        43-11  43-24
          0 J XTCHEADX    1-10
'PRLINE 1,1,
'  ---------
' -----------------
  -----------------
  -----------------
  -----------------
  -----------------
  -----------------
  -----------------
  -----------------
  --------------T'T XUSX
TT-----------   T XUSING12
''            T XUSING14
    0000001 A XWRDCNT              LIBNUM=13        1-08
    00C0107 A AAX                  LIBNUM=13        1-08
    0020016 A ALLZERO     19-04
'APPLY ERRON
EOUS ORDER(0
/8) TO CHECK
ER'         T ALLZEROT
    0063476 A BADCODE     19-06
'APPLY ERRON
EOUS ORDER(5
/8) TO CHECK
ER'         T BADCODET
'PAGSCR+30'  T BASADDR            W=4   S=0  N=36  CL=2
          0 U BBX                 1-08
         17 R BHC                 W=1   S=1  N=0  CL=1  LIBNUM=13     42-16, 43-39
    0000000 A BIT0        17-05
    0000001 A BIT1        17-06
    0000012 A BIT10       17-15
    0000013 A BIT11       17-16
    0000014 A BIT12       17-17
    0000015 A BIT13       17-18
    0000016 A BIT14       17-19
    0000017 A BIT15       17-20
    0000020 A BIT16       17-21


  INTERPROCESSOR STORE BUS TEST                                          PR-1C928-50
```

PATCH HISTORY   23:41:18   2/05/81 ****

        VALUE T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

     0000021 A BIT17   17-22
     0000022 A BIT18   17-23
     0000023 A BIT19   17-24
     0000002 A BIT2   17-07
     0000003 A BIT3   17-08
     0000004 A BIT4   17-09
     0000005 A BIT5   17-10
     0000006 A BIT6   17-11
     0000007 A BIT7   17-12
     0000010 A BIT8   17-13
     0000011 A BIT9   17-14
  06 0027637 L BKCHKINT   42-02   27-31, 29-31, 31-13, 32-41, 34-32, 35-47, 38-33, 39-40, 40-44
          2 R BLKMSK   8-15
 '#   P
ROC 06-14
FA1010 GENE
RAL REGISTER
S BITS 5 AND
 13'   T BS00513   LIBNUM=11
 '#   P
ROC 02-18
FA1024 SPEC
IAL REGISTER
S BITS PL AN
D PH'   T BS1PLPH   LIBNUM=11
 '#   P
ROC 02-08
FA1024 SPEC
IAL REGISTER
S BITS 0 AND
 8'   T BS10008   LIBNUM=11
 '#   P
ROC 02-09
FA1024 SPEC
IAL REGISTER
S BITS 1 AND
 9'   T BS10109   LIBNUM=11
 '#   P
ROC 02-10
FA:024 SPEC
IAL REGISTER
S BITS 2 AND
 10'   T BS10210   LIBNUM=11
 '#   P
ROC 02-11
FA1024 SPEC
IAL REGISTER
S BITS 3 AND
 11'   T BS10311   LIBNUM=11

   INTERPROCESSOR STORE BUS TEST   PR-1C928-50

PATCH HISTORY   23:41:18   2/05/81 ****

         VALUE T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

'#   P
ROC 02-12
FA1024 SPEC
IAL REGISTER
S BITS 4 AND
 12'   T BS10412   LIBNUM=11
'#   P
ROC 02-16
FA1024 SPEC
IAL REGISTER
S BITS 6 AND
 14'   T BS10614   LIBNUM=11
'#   P
ROC 02-17
FA1024 SPEC
IAL REGISTER
S BITS 7 AND
 15'   T BS10715   LIBNUM=11
'#   P
ROC 02-19
FA1030 MISC
. DEC. - REG
ISTERS BITS
16 AND 18' T BS1618   LIBNUM=11
'#   P
ROC 02-20
FA1030 MISC
. DEC. - REG
ISTERS BITS
17 AND 19' T BS1719   LIBNUM=11
  06 0027377 L BT17PH0   34-30   34-23
  06 0027442 L BT17PH1   35-45   35-38
  06 0027506 L BT181900   38-31   38-24
  06 0027603 L BT181901   40-42   40-35
  06 0027545 L BT181910   39-38   39-31
     0047214 A BUSCHK   19-08
'CHECK BUS I
SOLATION USI
NG SER'   T BUSCHKT
'SER+0'   T CHDIF   W=1   S=2   N=0   CL=2   27-44
  06 0027342 L CHKADPL   32-38   32-31
  06 0027230 L CHKAD0   29-29   29-24
  06 0027275 L CHKAD1   31-10   31-08
        10 R CHKNDX   8-04
'CIOBUF+0'   T CINIT   W=1   S=0   N=0   CL=2
'CIOBUF+0'   T CKHLT   W=1   S=2   N=0   CL=2
'CIOBUF+0'   T CKSTP   W=1   S=1   N=0   CL=2
     0040374 A CKTINIT   19-10
'INITIALIZE

   INTERPROCESSOR STORE BUS TEST   PR-1C928-50

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES			CDGSON			W77D

```
ALL STORE CO
NTROLLER CIR
CUITS'          T CKTINITT
    0046074 A CLKSTOP      19-15
'DISABLE STO
RE CONTROLLE
R CLOCK OUTP
UT'             T CLKSTOPT
    0046070 A CLKSTRT      19-17
'ENABLE STOR
E CONTROLLER
CLOCK OUTPU
T'              T CLKSTRTT
 06 0027646 L CLNONL       43-01  27-46, 28-23, 28-38, 29-42, 31-28, 33-06, 34-49, 36-15, 38-49, 40-08, 41-12
    0177771 A CLOCKON      23-01
    0043310 A CLRSER       19-13
'CLEAR STORE
ERROR REGIS
TER'            T CLRSERT
 06 0027150 L CMDTST       27-27  27-25
'SERREAD'       T COMENT
'
```

```
 ¢.<(+|&
     !$*);
—./
,%_>?
  :#@'=" ab
cdefghi ₙ≤(+
† jklmnopqr⌐
 ≖)±═-~stuvw
xyz+ᴸᵣ[≥●012
3456789↑↓¬]≠
-(abcdefghi
    )jklmno
pqr     \ s
tuvwxyz
 0123456789
'               T CONLC           LIBNUM=10
'n
```

```
    z
```

```
PATCH HISTORY                                                    23:41:18   2/05/81  ****

      VALUE  T  NAME       DEF/REF    ATTRIBUTES AND REFERENCES              CDGSON      W77D

  ‹e<hp|x
       v$fgs     ,
 ¬al               !  ·
 i%_>k
   jo#b'd" ab
 cdefghi n≤‹+
 † jklmnopqr¯
  ¤)±¤-~stuvw
 xyz+ᴸ⌐[≥●012
 3456789↑↲⌐]≠
 -(ABCDEFGHI
      )JKLMNO
 PQR       \ S
 TUVWXYZ
  0123456789
       '        T  CONSC                 LIBNUM=10
    CDGSIO      V  CONTPREP     7-25
  'DGREQLO+0'   T  CONTROLBITS            W=7  S=11  N=0  CL=2
    0000000     A  COUNT        24-11  LIBNUM=14       44-01, 44-03, 44-20, 45-01, 46-01, 46-22, 47-01, 47-22, 48-01, 48-22, 49-01,
                                       49-22, 50-01, 50-22, 51-01, 51-22, 52-01, 52-22, 53-01, 53-22, 54-01, 54-24, 55-01, 55-20,
                                       56-01, 56-20

    0111432     L  CPATCH       1-44
    0112562     L  CPATCH1      1-45
    0114107     L  CPATCH2      1-46
    0115073     L  CPATCH3      1-47
    0121236     L  CPATCH7      1-48
 06 0027637     L  CSONSUB      1-39
 06 0027122     L  CSTON1       1-38   24-11
  'CHKWRD+0'    T  CTRLCK              W=1  S=16  N=0  CL=2
    0000000     A  DATAWD       24-11



   ‹.<(+|&
        !$*) ;
 ¬-/              !
 ,%_>?
    :#@'="
             n≤‹+
 †                ˆ
   ¤)±¤-~
     +ᴸ⌐[≥●012
 3456789↑↲⌐]≠
 -(ABCDEFGHI
      )JKLMNO
 PQR       \ S


 INTERPROCESSOR STORE BUS TEST                                           PR-1C928-50

    23:41:18   2/05/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON   ISSUE 05   PAGE  63
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PATCH HISTORY   23:41:18   2/05/81   ****

       VALUE T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

TUVWXYZ
 0123456789
         '   T DELLC   LIBNUM=10
    CTSD   V DGNLIM   7-12
    CTSD   V DGREQ   7-37
'SER+0'   T DHPER   W=1   S=11   N=0   CL=2
'SER+0'   T DLPER   W=1   S=15   N=0   CL=2
'# NOTE--3 D
MA   02-17
FC392   DMA
MY STORE CON
TROL'   T DMAC   LIBNUM=11
'# NOTE--3 D
MA   02-01
FB6   FUSE
 BOARD-STORE
 ADDRESS'   T DMAFUS1   LIBNUM=11
'# NOTE--3 D
MA   02-02
FB6   FUSE
 BOARD-STORE
 DATA'   T DMAFUS2   LIBNUM=11
'# NOTE--3 D
MA   02-03
FB6   FUSE
 BOARD-STORE
 ERROR AND P
ARITY'   T DMAFUS3   LIBNUM=11
'# NOTE--3 D
MA   02-04
FB6   FUSE
 BOARD-STORE
CONTROL'   T DMAFUS4   LIBNUM=11
'# NOTE--3 D
MA   02-21
FC390   DMA
STATUS BOARD
 1'   T DMASTS1   LIBNUM=11
'# NOTE--3 D
MA   02-14
FB382   DMA
REGISTER BIT
S 0, 4, 8, 1
2'   T DMA1A   LIBNUM=11
'# NOTE--3 D
MA   02-13
FB382   DMA
REGISTER BIT
S 1, 5, 9, 1

   INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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PATCH HISTORY                                                     23:41:18   2/05/81  ****

       VALUE  T NAME      DEF/REF    ATTRIBUTES AND REFERENCES                  CDGSON        W77D

3'            T DMA1B                LIBNUM=11
'# NOTE--3 D
MA   02-12
FB382   DMA
REGISTER BIT
S 2, 6, 10,
14'           T DMA1C                LIBNUM=11
'# NOTE--3 D
MA   02-10
FC382   DMA
REGISTER BIT
S 3, 7, 11,
15'           T DMA1D                LIBNUM=11
'# NOTE--3 D
MA   02-09
FC383   DMA
REGISTER BIT
S 16, 17, 18
, 19'         T DMA2                 LIBNUM=11
'# NOTE--3 D
MA   02-08
FC384   DMA
REGISTER BIT
S PL, PH'     T DMA3                 LIBNUM=11
   06 0027127 L DOSEG0      26-15   26-08
   06 0027143 L DOSEG1      26-28   26-24
   06 0027223 L DOSEG2      28-44   28-41
'#          P
ROC  02-23
FA1046  DOUB
LE STORE REA
D'            T DSR                  LIBNUM=11
          12 R ER                    LIBNUM=13         28-19
     0146074 A ERCOLL      19-19
'COLLECT ERR
ORS IN STORE
 ERROR REG'   T ERCOLLT
'#          P
ROC  10-22
FA1028  ERRO
R REG/DISPLA
Y BUFFER HIG
H BITS'       T ERHL1910             LIBNUM=11
          15 R ERRI                  W=1  S=5  N=0  CL=1  LIBNUM=13        43-27
          10 R ERSAVE      8-21
           0 J ESS2        1-10
           1 J ESS2E       1-09
      CSYSUB  V EXCOFLPG   7-28
     0145454 A EXERLD      19-21  34-43, 36-09, 38-43, 40-02, 41-06


INTERPROCESSOR STORE BUS TEST                                            PR-1C928-50
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PATCH HISTORY                                              23:41:18   2/05/81  ****

        VALUE  T  NAME      DEF/REF   ATTRIBUTES AND REFERENCES              CDGSON      W77D

'ENABLE EXTE    '
RNAL LOAD OF
 STORE ERROR
 REG'          T EXERLDT
   0145454 A EXLDB15      19-24
'ENABLE EXTE
RNAL LOAD OF
 STORE ERROR
 REG W/ ERRO
R COLLECT OP
TION'          T EXLDB15T
   CDGNOF  V FAILOFF       4-41
   0010000 A FAK010       22-36
   0005440 A FASTREF      19-26
'PERFORM FAS
T REFRESH ON
 STORE'        T FASTREFT
   0045454 A FASTRNC      19-28
'FORCE FAST
REFRESH W/O
CLOCK'         T FASTRNCT
   0146074 A FBIT09       19-32
   0146064 A FBIT09R      19-35
'COLLECT ERR
ORS IN SER W
/ REFRESH ON'T FBIT09RT
'COLLECT ERR
ORS IN STORE
 ERROR REGIS
TER'           T FBIT09T
   0146076 A FBRMB15      19-37
'FANOUT BOAR
D REFRESH W/
 ERROR COLLE
CT'            T FBRMB15T
'CIOBUF+0'     T FBT09              W=1  S=17  N=0  CL=2
   0020000 A FBUSRDN      22-38
   0046314 A FCHKBT       19-39
   0046304 A FCHKBTR      19-41
'ACTIVATE SH
IFTER CHECK
BIT W/ REFRE
SH ENABLED'    T FCHKBTRT
'ACTIVATE MA
IN SHIFTER C
HECK BIT'      T FCHKBTT
   0040574 A FCHK0S       19-43
'FORCE ZEROS
 TO MODULE S


   INTERPROCESSOR STORE BUS TEST                                     PR-1C928-50

     23:41:18   2/05/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON   ISSUE 05   PAGE  66
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PATCH HISTORY                                                    23:41:18   2/05/81  ****

       VALUE  T  NAME       DEF/REF    ATTRIBUTES AND REFERENCES              CDGSON      W77D

ELECT XOR CH
ECK & WRITE
PROTECT SELE
CT XOR CHECK
 CIRCUITS'   T FCHKOST
   0041274   A FCHK1S        19-46
'FORCE ONES
 TO MODULE S
ELECT XOR CH
ECK & WRITE
PROTECT SELE
CT XOR CHECK
 CIRCUITS'   T FCHK1ST
   0140574   A FCKOS15       19-49
'FORCE ZEROS
 TO CHECK CK
TS W/ ERROR
COLLECT'     T FCKOS15T
   0141274   A FCK1S15       20-02
'FORCE ONES
 TO CHECK CK
TS W/ ERROR
COLLECT'     T FCK1S15T
   0043074   A FDISIDLE      20-04
'FORCE DISAB
LE OF IDLE F
LOP'         T FDISIDLET
         0   U FFFF
   0000002   A FFOBRM        22-44
   0145454   A FFRMB15       19-30
'FORCE FAST
REFRESH & BI
T 15'        T FFRMB15T
   0020016   A FGLDNCFR      23-02
         1   J FIELD          1-09
   CDGSIO    V FINAL          7-24
   0000002   A FLCMND        44-20   28-07, 44-20
   0C00027   A FLPH          55-20   35-29, 36-49, 55-20
   0000003   A FLRSP         45-01   28-33, 45-01
   0046156   A FLSHO         20-06
   0046154   A FLSHONC       20-09
'PRESENT ZER
O TO INPUT O
F MAIN SHIFT
ER'          T FLSHONCT
'START ZERO
INTO MAIN SH
IFTER'       T FLSHOT
   0000026   A FL17          55-01   35-17, 36-37, 55-01


INTERPROCESSOR STORE BUS TEST                                              PR-1C928-50

   23:41:18   2/05/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON   ISSUE 05   PAGE  67
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        VALUE  T  NAME      DEF/REF   ATTRIBUTES AND REFERENCES              CDGSON        W77D

       0000030 A FL1819     56-01   39-22, 40-30, 41-34, 56-01
       0044474 A FNOTIM     20-16
       0044470 A FNOTIMC    20-19
'BLOCK TIMIN
G TO FANOUT
BOARDS(W/CLO
CK)'          T FNOTIMCT
'INHIBIT TIM
ING SIGNALS
TO FANOUT BO
ARDS'         T FNOTIMT
       0045434 A FNOWRT     20-12
       0045430 A FNOWRTC    20-14
'FORCE WRITI
NG OF ONES W
/ CLOCK RUNN
ING'          T FNOWRTCT
'FORCE WRITI
NG OF ALL-ON
ES DATA'      T FNOWRTT
            10 R FOBCNT     8-05
       0041550 A FOBMT      20-21
'FANOUT BOAR
D MAINTENANC
E TEST'       T FOBMTT
        CDGSFA V FOBNDX     7-17
'PAGSCR+26'   T FOBNUM              W=20  S=0   N=32  CL=2
'SER+0'       T FOBPARER            W=1   S=10  N=0   CL=2
'SER+0'       T FOBTERA             W=1   S=7   N=0   CL=2
'SER+0'       T FOBTERB             W=1   S=0   N=0   CL=2
       0000004 A FOUR       17-25
       0041474 A FRFSEL0    20-23
'CANCEL SELE
CT FROM FOB0
 DURING REFR
ESH'          T FRFSEL0T
       0042334 A FRFSEL1    20-25
'CANCEL SELE
CT FROM FOB1
 DURING REFR
ESH'          T FRFSEL1T
       0042534 A FRFSEL2    20-27
'CANCEL SELE
CT FROM FOB2
 DURING REFR
ESH'          T FRFSEL2T
       0043234 A FRFSEL3    20-29
'CANCEL SELE
CT FROM FOB3
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

PATCH HISTORY   23:41:18   2/05/81 ****

         VALUE T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

  DURING REFR
ESH'   T FRFSEL3T
      0043434 A FRFSEL4   20-31
'CANCEL SELE
CT FROM FOB4
  DURING REFR
ESH'   T FRFSEL4T
      0044354 A FRFSEL5   20-33
'CANCEL SELE
CT FROM FOB5
  DURING REFR
ESH'   T FRFSEL5T
      0044554 A FRFSEL6   20-35
'CANCEL SELE
CT FROM FOB6
  DURING REFR
ESH'   T FRFSEL6T
      0045254 A FRFSEL7   20-37
'CANCEL SELE
CT FROM FOB7
  DURING REFR
ESH'   T FRFSEL7T
      0044334 A FRREQA   20-39
'SET REFRESH
REQUEST ON
TIMING BOARD
(FA1071)'   T FRREQAT
      0040674 A FRREQB   20-42
      0040664 A FRREQBR   20-45
'SET REFRESH
REQUEST ON
FA1062 W/ RE
FRESH ENABLE
D'   T FRREQBRT
'SET REFRESH
REQ COPY ON
CHECK BOARD
A (FA1062)''T FRREQBT
      0100000 A FSBIT09   22-41
'CIOBUF+0'   T FSEL   W=1   S=16   N=0   CL=2
      0046074 A FSELA   20-47
'FORCE STORE
SELECT(ISOL
ATE) SIGNAL
ON FA1071'   T FSELAT
      0004714 A FSELB   21-02
      0004710 A FSELBC   21-05
'FORCE DUPLI
CATED STORE

  INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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PATCH HISTORY                                                          23:41:18   2/05/81  ****

      VALUE  T  NAME      DEF/REF    ATTRIBUTES AND REFERENCES            CDGSON        W77D

SELECT(SELB)
W/ CLOCK'    T  FSELBCT
'FORCE DUPLI
CATED STORE
SELECT(SELB)
ACTIVE'      T  FSELBT
   0046516  A  FSTFBRM        21-07
'FORCE CONTR
OLLER & FANO
UT BOARDS TO
REFRESH'     T  FSTFBRMT
   0042354  A  FSTNM          21-09
   0052354  A  FSTNMFR        21-11
'FORCE NORMA
L MODE IN CO
NTROLLER & R
EFRESH TO FA
NOUT BOARDS' T  FSTNMFRT
   0042344  A  FSTNMR         21-13
'FORCE MCDE
TO NORMAL W/
REFRESH ENA
BLED'        T  FSTNMRT
'FORCE MODE
FLOP TO NORM
AL STATE'    T  FSTNMT
   0046514  A  FSTRM          21-15
'FORCE MODE
FLOP TO REFR
ESH STATE'   T  FSTRMT
   0046234  A  FTINWP         21-17
'FORCE IN-WR
ITE-PROTECT
INHIBIT'     T  FTINWPT
'#         P
ROC  06-05
FB6      FUSE
S FOR OTHER
STORE ADDRES
S 16-PH AND
CONTROL'     T  FUSADH              LIBNUM=11
'#         P
ROC  06-08
FB6      FUSE
S FOR OTHER
STORE ADDRES
S 0-15'      T  FUSADL              LIBNUM=11
'#         P
ROC  02-04
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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PATCH HISTORY                                              23:41:18   2/05/81  ****

        VALUE  T  NAME     DEF/REF   ATTRIBUTES AND REFERENCES              CDGSON      W77D

FB6     FUSE
S FOR OTHER  '
STORE DATA 1
6-23 AND CON
TROL'      T FUSDTH            LIBNUM=11
'#         P
ROC  06-07
FB6     FUSE
S FOR OTHER
STORE DATA 0
-15'       T FUSDTL            LIBNUM=11
'CHKWRD+0' T FXORG            W=1  S=17  N=0  CL=2
    0000004 A HALTCLK    22-46
          1 R HIPATBAK   8-13
            HIPATBAK%T   8-14 IS A SYNONYM OF R1%T
'ILLEGAL CON
DITIONAL IN
THE IF MACRO'T IFERROR1
'DATA > 0 OR
 DATA < 0 IS
 MEANINGLESS
, USE DATA ¬
= 0'       T IFERROR2
'TWO CONSTAN
TS ARE BEING
 COMPARED IN
 IF MACRO'  T IFERROR3
'AN ITEM WAS
 COMPARED TO
 SOMETHING O
THER THAN A
CONSTANT'   T IFERROR4
'DESTINATION
 OF AN = STA
TEMENT IS A
CONSTANT'   T IFERROR5
'ATTEMPTING
TO SET ITEM
= TO SOMETHI
NG OTHER THA
N A CONSTANT'T IFERROR6
'ITEM MAY ON
LY USE THE =
AND ¬= COND
ITIONALS'   T IFERROR7
    CSYSUB  V INIT_OCC   7-29
    0000001 A INITBIT   22-42
    CSYSUB  V INITOST    7-30
    CSYSUB  V INSYNC     3-21  7-31, 42-14


INTERPROCESSOR STORE BUS TEST                                      PR-1C928-50
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PATCH HISTORY   23:41:18   2/05/81 ****

    VALUE   T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

    CDGNM   X INTRPN03   4-38   26-25, 28-01, 28-27, 28-42, 29-46, 31-32, 33-10, 35-04, 36-19, 39-04, 40-12, 41-16
'PAGSCR+25'   T IOADDR   W=20 S=0 N=31 CL=2   26-18
'18'   T IOBRK
    0006220   A IOGO   21-19
'ENABLE ON-L
INE I/O ACCE
SS TO OFF-LI
NE STORE'   T IOGOT
    0000001   A IOPRTYER   44-03
    0125252   A IOTSTA   21-21
'I/O TEST PA
TTERN #1'   T IOTSTAT
    0052525   A IOTST5   21-23
'I/O TEST PA
TTERN #2'   T IOTST5T
    0000066   A IS_RXT   LIBNUM=13   43-34
'CHKWRD+0'   T ISOBTS   W=7 S=0 N=0 CL=2
    0067214   A ISOCHK   21-25
'ISOLATE FRO
M FAR STORES
& VERIFY VI
A SER'   T ISOCHKT
    0027214   A ISOCHKU   21-29
'APPLY ONES
TO STORE DAT
A BUS(W/O IS
OLATE)'   T ISOCHKUT
    0040000   A ISOLATE   22-40   38-43, 40-02, 41-06
    0043454   A KILL12   21-31
'CLEAR SHIFT
ER BIT IN PO
SITION 12'   T KILL12T
'CIOBUF+0'   T LDFG   W=1 S=15 N=0 CL=2
    0020000   A LOADCHK   22-39
'PAGSCR'   T LONAM_BASADD
                R
'SER'   T LONAM_CHDIF
'CIOBUF'   T LONAM_CINIT
'CIOBUF'   T LONAM_CKHLT
'CIOBUF'   T LONAM_CKSTP
'DGREQLO'   T LONAM_CONTRO
                LBITS
'CHKWRD'   T LONAM_CTRLCK
'SER'   T LONAM_DHPER
'SER'   T LONAM_DLPER
'CIOBUF'   T LONAM_FBT09
'PAGSCR'   T LONAM_FOBNUM
'SER'   T LONAM_FOBPAR
                ER

    INTERPROCESSOR STORE BUS TEST   PR-1C928-50

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     PATCH HISTORY                                                        23:41:18   2/05/81  ****

          VALUE  T NAME      DEF/REF   ATTRIBUTES AND REFERENCES                        CDGSON      W77D

     'SER'        T LONAM_FOBTER
                    A
     'SER'        T LONAM_FOBTER
                    B
     'CIOBUF'     T LONAM_FSEL
     'CHKWRD'     T LONAM_FXORG
     'PAGSCR'     T LONAM_IOADDR
     'CHKWRD'     T LONAM_ISOBTS
     'CIOBUF'     T LONAM_LOFG
     'PAGSCR'     T LONAM_LOOPSU
                    B
     'SER'        T LONAM_MODER
     'SER'        T LONAM_MPXER
     'MASCIOSC'   T LONAM_MSSC0
     'MASCIOSC'   T LONAM_MSSC1
     'MASCIOSC'   T LONAM_MSSC2
     'MASCIOSC'   T LONAM_MSSC3
     'STRSTAT'    T LONAM_PASBT
     'STRSTAT'  . T LONAM_PHBAK
     'STRSTAT'    T LONAM_PLBAK
     'SER'        T LONAM_PWER
     'CIOBUF'     T LONAM_REFST
     'SER'        T LONAM_RSELER
     'RSLCHK'     T LONAM_RSEL06
     'RSLCHK'     T LONAM_RSEL7
     'CHKWRD'     T LONAM_RSVD0
     'RSLCHK'     T LONAM_RSVD1
     'RSLCHK'     T LONAM_SAPHLP
     'RSLCHK'     T LONAM_SA17LP
     'SER'        T LONAM_SCMER
     'CHKWRD'     T LONAM_SDPCK
     'SER'        T LONAM_SHER
     'STRSTAT'    T LONAM_SNGBTE
                    R
     'DGREQLO'    T LONAM_SPARE
     'CIOBUF'     T LONAM_STORDE
                    R
     'RSLCHK'     T LONAM_STRSLP
     'SER'        T LONAM_TBER
     'PAGSCR'     T LONAM_TIMSAV
     'DGREQLO'    T LONAM_TSTNUM
     'PAGSCR'     T LONAM_UPADDR
     'CHKWRD'     T LONAM_WDISOL
     'MASCIOSC'   T LONAM_OSSC0
     'MASCIOSC'   T LONAM_OSSC1
     'MASCIOSC'   T LONAM_OSSC2
     'MASCIOSC'   T LONAM_OSSC3
     'STRSTAT'    T LONAM_OWDSTR
                    0
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
    VALUE  T NAME       DEF/REF   ATTRIBUTES AND REFERENCES                                        CDGSON          W77D

'CIOBUF'       T LONAM_010TM
'CHKWRD'       T LONAM_2EPCK
  CDGNM        V LOOPIND      3-20   7-09
'PAGSCR+24'    T LOOPSUB             W=20  S=0  N=30  CL=2
   0000000     A LPINDX      30-02   30-05, 30-16, 30-19, 30-33, 30-36, 31-42, 31-45, 32-12, 32-15, 33-18, 33-21, 35-07, 35-10,
                                     35-19, 35-22, 36-27, 36-30, 36-39, 36-42, 39-12, 39-15, 40-20, 40-23, 41-24, 41-27
         4     R LSTPAT       8-17
'# NOTE--1 M
ASCM 08-10
FA1060 MAIN
 STORE CONTR
OLLER - BITS
 16&20'        T MASCBS9             LIBNUM=11
'#         M
ASCM 08-23
FC203  MAIN
 STORE CONTR
OLLER CLOCK
& I/O INTERF
ACE'           T MASCCLK             LIBNUM=11
   0046071     A MASCINT     21-33   26-21, 31-18, 32-45, 34-35, 36-01, 38-36, 39-43, 40-47
'INITIALIZE
STORE CONTRO
LLER'          T MASCINTT
   MASACS      V MASCIOSC     7-04   26-16
   0046076     A MASCLK      21-37
   0046074     A MASCLKN     21-40
'FAKE SECOND
 HALF OF STO
RE CLOCK CYC
LE'            T MASCLKNT
'FAKE FIRST
HALF OF STOR
E CLOCK CYCL
E'             T MASCLKT
'#         M
ASCM 08-22
FA1063  MAIN
 STORE CONTR
OLLER - I/O
ORDER RECEIV
ER'            T MASCMTCA            LIBNUM=11
'#         M
ASCM 08-20
FA1064 MAIN
 STORE CONTR
OLLER - I/O
ORDER DECODE
R'             T MASCMTCB            LIBNUM=11
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
PATCH HISTORY                                                    23:41:18   2/05/81  ****

     VALUE   T NAME      DEF/REF   ATTRIBUTES AND REFERENCES                    CDGSON        W77D

     CTSD    V MASERCNT   7-35
     CDGSIO  X MASIOM     7-19    26-20, 27-41, 29-34, 31-17, 31-20, 32-44, 32-47, 34-34, 34-42, 34-45, 35-49, 36-08, 36-11,
                                  38-35, 38-42, 38-45, 39-42, 4G-01, 40-04, 40-46, 41-05, 41-08
     MASACS  V MASONOFF   7-39
          3  R MCHB               LIBNUM=13    27-47, 28-24, 29-40, 31-26, 33-04, 34-47, 36-13, 38-47, 40-06, 41-10
'#      P
ROC  02-35
FA1018  MICR
O CONTROL 1' T MC1                LIBNUM=11
'#      P
ROC  06-35
FA1021  MICR
O CONTROL 6' T MC6                LIBNUM=11
     CDGSIO  V MDSELMSK   7-20
         14  P MEMADDR    8-25
         14  R MEMADDR0   8-23
         15  R MEMADDR1   8-24
     CDGSBS  V MEMOP      7-14
     CDGSBS  V MEMOPI     7-15
```

```
 ¢._ ( |&
     !$*);
¬ /
, x̄_ ?
  :#@'='' ab
cdefghi n≤<+
† jklmnopqr˘
 ¤)±=˜˜stuvw
xyz+ʟ⌐[≥∘012
3456789↑J¬]≠
-(ABCDEFGHI
    )JKLMNO
PQR     \ S
TUVWXYZ
 0123456789
'
```

```
        T MICODETR          LIBNUM=13
     7  R MNRNDX     8-20
'SER+0' T MODER      8-20    W=1  S=5  N=0  CL=2
     CDGSIO  V MODSIZE    7-21
     0000000 A MOD0       17-27
     0000001 A MOD1       17-28
     0000002 A MOD2       17-29
     0000003 A MOD3       17-30
     0000004 A MOD4       17-31
```

```
INTERPROCESSOR STORE BUS TEST                                            PR-1C928-50
```

PATCH HISTORY   23:41:18   2/05/81 ****

    VALUE T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

```
    0000005 A MOD5        17-32
    0000006, A MOD6       17-33
    0000007 A MOD7        17-34
'SER+0'     T MPXER                  W=1   S=1   N=0   CL=2
    0006071 A MSCITNS     21-35
'INITIALIZE
STORE CONTRO
LLER W/O FOR
CE SELECT'  T MSCITNST
'MASCIOSC+0' T MSSC0                 W=20  S=0   N=0   CL=2
'MASCIOSC+2' T MSSC1                 W=20  S=0   N=2   CL=2
'MASCIOSC+4' T MSSC2                 W=20  S=0   N=4   CL=2
'MASCIOSC+6' T MSSC3                 W=20  S=0   N=6   CL=2
'#         P
ROC  02-21
FA1029  MAIN
STORE CONTR
OL 0'       T MSTCONT0               LIBNUM=11
'#         P
ROC  02-22
FA1029  MAIN
STORE CONTR
OL 1'       T MSTCONT1               LIBNUM=11
    0106263 A MTCRD       18-24
    0106203 A MTCWR       18-26
    CDGNM   V NABT        4-31
    CDGNM   V NADD_OFF    4-22
    CDGNM   V NADMIC      4-23
    CDGNM   V NBEGIN      4-28
    CDGNM   V NBGN        4-39  24-14
    CDGNM   V NCLRMS      4-33
    CDGNM   V NCOMPARE    4-26  30-05, 30-19, 30-36, 31-45, 32-15, 33-21, 35-10, 35-22, 36-30, 36-42, 39-15, 40-23, 41-27,

    CDGNM   V NDISABA     4-07
    CDGNM   V NDISABB     4-08
    CDGNM   V NEXECUTE    4-25
    CDGNM   V NFAILTST    4-16  28-06, 28-32, 30-11, 30-25, 32-04, 33-27, 35-16, 35-28, 36-36, 36-48, 39-21, 40-29, 41-33,

    CDGNM   V NFLBITS     4-37  30-42, 32-21
    CDGNM   V NFRZ        4-27
    CDGNM   V NLDMIR      4-24
    CDGNM   V NLP_END     4-29
    CDGNM   V NMASK       4-18  30-30, 32-09
    CDGNM   V NMICRO      4-02
    0106260 A NMLRD       18-28
    0106200 A NMLWR       18-30
    CDGNM   V NNO3CD      4-34  26-07, 27-24, 29-23, 31-07, 32-30, 34-22, 35-37, 38-23, 39-30, 40-34
    CDGNM   V NOSTPMES    7-10
    CDGNM   V NPASSTST    4-19  41-38
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
PATCH HISTORY                                               23:41:18   2/05/81  ****

     VALUE  T NAME       DEF/REF   ATTRIBUTES AND REFERENCES              CDGSON      W77D

    CDGNM   V NPROS         4-14   27-20, 29-19, 31-03, 32-25, 34-18, 35-33, 38-19, 39-26
    CDGNM   V NRDMICRO      4-32
    CDGNM   V NRESCLK       4-12
    CDGNM   V NRETRN        4-03
    CDGNM   V NRTNBLM       4-45   26-03
    0006074 A NSELA        20-49
'RESET STORE
 SELECT(ISOL
ATE) SIGNAL
ON FA1071'    T NSELAT
    CDGNM   V NSEND         4-20
    CDGNM   V NSKIP         4-30
    CDGNM   V NSTOP         4-06
    CDGNM   V NSTPCLK       4-10
    CDGNM   V NSTRT         4-05
    CDGNM   V NSTRTCLK      4-09
    CDGNM   V NTESTSEG      4-15   27-08, 29-08, 34-08, 38-08
    CDGNM   V NTGCLK        4-11
    CDGNM   V NTMTEST       4-35
    CDGNM   V NTTY          4-17
    0000000 A NUM          23-05
    CDGNM   V NWDTST        4-46
          5 R NXTPAT        8-18
    CDGNM   V NZERO_ER      4-13
    CDGNM   V NZERPT        4-36
    CDGNM   V N2RETRN       4-04
    CDGNM   V N2SEND        4-21
    0000200 A OFLNCHNK     17-37
    0007760 A OFLNDONE     17-38
         12 R OFSTM                W=1  S=20  N=0  CL=1  LIBNUM=13       28-21
    0000001 A ONE          17-35
    0177777 A ONES         17-36
'#      ####
## ON-LINE P
ACKS #####'  T ONLINE              LIBNUM=11
A




    <.<(AON
        X$*);
 ¬S/
 ,%_>?
    :#@'L" ab
cdefghi n<(+
+ jklmnopqr^
x>±#-~stuvw


    INTERPROCESSOR STORE BUS TEST                            PR-1C928-50
```

```
       VALUE  T  NAME        DEF/REF    ATTRIBUTES AND REFERENCES                    CDGSON      W77D

xyz←└┌[≥•012
34567•9↑⌐⌐⌐╪
-⟨IBCLEFGHI
     ⟩JKLMNO
PQR       \ S
LLLWLYZ
 0123456789
       '      T  OPTR
    0000705  A  ORG_000010   43-11
    0000713  A  ORG_000013   43-24
    CTSD     V  PAGSCR       3-22     7-36, 26-18
       10    R  PARSLT       8-22
        3    R  PASBT        16-08  W=1  S=6   N=0   CL=1
    CDGNOF   V  PASSOFF      4-40
    CDGNM    V  PASSTST      7-11
       16    P  PATADDR      8-26
        0    R  PATBAK       8-12
        6    R  PATNDX       8-19
    0000025  A  PH                    LIBNUM=13      30-19, 31-45
        3    R  PHBAK        16-04  W=1  S=1   N=0   CL=1
    0000024  A  PL                    LIBNUM=13      30-05, 33-21
        3    R  PLBAK        16-03  W=1  S=0   N=0   CL=1
   'CDGSON'  T  PNAME
    0000020  A  PRHOLO       17-45
    0000005  A  PRHOL1       17-46
    0000012  A  PRH1LO       17-47
    0000017  A  PRH1L1       17-48
    CBLM     V  PRTMASER     7-06
    0000002  A  PRWOH1LO     17-49
    0000007  A  PRWOH1L1     18-01
    0000010  A  PRW1HOLO     18-02
    0000015  A  PRW1HOL1     18-03
   'SER+0'   T  PWER                  W=1  S=12  N=0   CL=2
   06 0027177 L P314         28-10   27-45
   06 0027214 L P318         28-36   28-22
       11    R  RANGE        8-07
       14    P  RAO                   LIBNUM=3       8-25, 26-16, 26-24, 27-49, 28-26, 28-41, 29-45, 31-31, 33-09, 35-03, 36-18,
                                                    39-03, 40-11, 41-15
       16    P  RA1                   LIBNUM=3       8-26, 27-32, 27-34, 27-37, 29-32, 29-38, 31-24, 32-42, 33-02, 34-39, 36-05,
                                                    38-37, 38-39, 39-47, 41-02
    0047410  A  RDAD         21-42   29-35, 31-21, 32-48
    0047414  A  RDADNC       21-45
'GATE STORE
 ADDRESS BITS
 TO STORE DA
 TA BUS'      T  RDADNCT
'GATE STORE
 ADDRESS BUS(
 SAO-16,PL) T
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

23:41:18   2/05/81   CDGSON   ISSUE 05   PAGE   78

```
         VALUE  T NAME     DEF/REF    ATTRIBUTES AND REFERENCES              CDGSON        W77D

O STORE DATA
  BUS(SD0-15, '
PL,PH) W/ CL
OCK'           T RDADT
'CIOBUF+0'      T REFST                   W=1  S=3  N=0  CL=2
    0006070 A REFSTOP      21-47
'INHIBIT REF
RESHING OF S
TORE'           T REFSTOPT
    0006060 A REFSTRT      21-49
'RESUME REGU
LAR REFRESHI
NG OF STORE'  T REFSTRTT
    0046060 A RFWISOL      22-02
'RESUME REGU
LAR REFRESH
W/ STORE ISO
LATED'          T RFWISOLT
    CSYSUB   V RGCHKADR     7-32
' BASE ADDRE
SS OF STORE/
MOD UNDER TE
ST'            T RMK_BASADDR
' ERROR INDI
CATED BY STO
RE COMMAND C
HECKER'        T RMK_CHDIF
' MAIN STORE
  CONTROLLER
  INITIALIZATI
ON'            T RMK_CINIT
' CONTROLLER
  CLOCK HALT' T RMK_CKHLT
' CONTROLLER
  CLOCK STEP' T RMK_CKSTP
''              T RMK_CONTROLB
                 ITS
' RESULT OF
STORE CONTRO
L LEADS ISOL
ATION'          T RMK_CTRLCK
' ERROR IN P
ARITY OVER H
IGH DATA BIT
S'              T RMK_DHPER
' ERROR IN P
ARITY OVER L
OW DATA BITS'T RMK_DLPER
' FORCE BIT
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

PATCH HISTORY   23:41:18   2/05/81   ****

     VALUE T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

15 ACTIVE IN
MAIN SHIFTE
R'   T RMK_FBT09
' NUMBER OF
MEMORY MODUL
ES (OR FANOU
T BOARDS) IN
STORE CURRE
NTLY UNDER T
EST'   T RMK_FOBNUM
' PARITY ERR
OR DETECTED
IN ADDRESS R
EACHING FANO
UT BOARD(S)' T RMK_FOBPARER
' STORE TIMI
NG ERROR FRO
M SELECTED F
OB'   T RMK_FOBTERA
' STORE TIMI
NG ERROR FRO
M UNSELECTED
FOB'   T RMK_FOBTERB
' STORE SELE
CT FORCE ON
TIMING BOARD
A'   T RMK_FSEL
' I/O ORDER
CHECKER EXCL
USIVE-OR RES
ULT'   T RMK_FXORG
' I/O SUBCHA
NNEL ADDRESS
FOR CURRENT
STORE CONTR
OLLER'   T RMK_IOADDR
' SD0-6,SD8-
14 ISOLATE T
EST RESULTS' T RMK_ISOBTS
' ORDER CHEC
KER EXCLUSIV
E-OR LOAD'   T RMK_LDFG
' ADDRESS OF
SUBSTITUTE
FOR 'LOOP' I
N TTY TROUBL
E MESSAGE'   T RMK_LOOPSUB
' ALL-SEEMS-
WELL SIGNAL

     INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
PATCH HISTORY                                                  23:41:18   2/05/81  ****

     VALUE  T  NAME      DEF/REF   ATTRIBUTES AND REFERENCES              CDGSON      W77D

NOT RECEIVED
 FROM MODULE
(FOB) ACCESS
ED DURING NO
RMAL CYCLE'   T RMK_MODER
' MULTIPLEXO
R ERROR DETE
CTED BY CHEC
K BOARD'      T RMK_MPXER
'  ADDRESS O
F MY STORE S
UBCHANNEL 0'  T RMK_MSSC0
' ADDRESS OF
 MY STORE SU
BCHANNEL 1'   T RMK_MSSC1
' ADDRESS OF
 MY STORE SU
BCHANNEL 2'   T RMK_MSSC2
' ADDRESS OF
 MY STORE SU
BCHANNEL 3'   T RMK_MSSC3
' REPEAT PAS
S THRU TEST
INDICATOR'    T RMK_PASBT
' PARITY HIG
H VALUE READ
 BACK'        T RMK_PHBAK
' PARITY LOW
 VALUE READ
BACK'         T RMK_PLBAK
' ERROR IN P
ARITY FOR WI
DE STORE'     T RMK_PWER
' STORE REFR
ESH STOP'     T RMK_REFST
' ALL MEMORY
 MODULES(FOB
S) NOT SELEC
TED DURING R
EFRESH'       T RMK_RSELER
' REFRESH SE
LECTS FROM F
ANOUT BOARDS
 0-6'         T RMK_RSEL06
' REFRESH SE
LECT FROM FA
NOUT BOARD 7'T RMK_RSEL7
' SD7,SD15 I
SOLATE TEST


  INTERPROCESSOR STORE BUS TEST                                     PR-1C928-50

    23:41:18   2/05/81   TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CDGSON    ISSUE 05      PAGE   81
```

```
RESULT - ONL
Y GATED INTO
BY LOAD I/O
DECODER CHE
CK (LOADCHK)
OPTION'         T RMK_RSVD0
' RESERVED -
FOBTERA IS
SET AFTER IN
IT'             T RMK_RSVD1
' STORE ADDR
ESS PARITY H
IGH LOOP RES
ULT'            T RMK_SAPHLP
' STORE ADDR
ESS BIT 17 L
OOP RESULT'     T RMK_SA17LP
' PREMATURE
STORE COMPLE
TE(SCM)'        T RMK_SCMER
' RESULT OF
STORE DATA P
ARITY ISOLAT
ION'            T RMK_SDPCK
' ERROR IN M
AIN SHIFTER
OPERATION'      T RMK_SHER
' SINGLE BIT
ERROR FLAG'     T RMK_SNGBTER
''              T RMK_SPARE
' 4/8 MAINTE
NANCE STATE
CODE'           T RMK_STORDER
' STORE SELE
CT ADDRESS B
ITS LOOP RES
ULT'            T RMK_STRSLP
' ERROR DETE
CTED ON TIMI
NG BOARD'       T RMK_TBER
' SAVE TIMIN
G CONSTANT F
OR TIMOUT SU
BROUTINE'       T RMK_TIMSAV
' DIAGNOSTIC
TEST NUMBER
REQUESTED'      T RMK_TSTNUM
' ADDRESS OF
NEXT BLOCK
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
        VALUE   T  NAME       DEF/REF    ATTRIBUTES AND REFERENCES                      CDGSON        W77D

OF MEMORY TO
 BE UPDATED
AFTER MEMORY
 PATTERN TES
T'           T RMK_UPADDR
' RESULTS OF
 WIDE DATA(S
D16-23) ISOL
ATE'         T RMK_WDISOL
' ADDRESS OF
 OTHER STORE
 SUBCHANNEL
0'           T RMK_OSSC0
' ADDRESS OF
 OTHER STORE
 SUBCHANNEL
1'           T RMK_OSSC1
' ADDRESS OF
 OTHER STORE
 SUBCHANNEL
2'           T RMK_OSSC2
' ADDRESS OF
 OTHER STORE
 SUBCHANNEL
3'           T RMK_OSSC3
' WIDE STORE
 INDICATOR B
IT'          T RMK_OWDSTRO
' 0-10 BIT T
IMING SHIFTE
R FAKE'      T RMK_O10TM
' RESULT OF
EXTENDED(3 B
IT) PARITY I
SOLATE'      T RMK_2EPCK
    0010177 A RSELBTS      15-22  15-23
    0167600 A RSELBTSN     15-23
'SER+0'       T RSELER                W=1  S=6   N=0  CL=2
'RSLCHK+0'    T RSEL06                W=7  S=0   N=0  CL=2   15-22
'RSLCHK+0'    T RSEL7                 W=1  S=14  N=0  CL=2          15-22
'CHKWRD+0'    T RSVD0                 W=1  S=7   N=0  CL=2
'RSLCHK+0'    T RSVD1                 W=1  S=7   N=0  CL=2
    0047214 A RTNADHI      22-04
'LOAD SA17 &
 SAPH INTO S
ER'           T RTNADHIT
'DGSON'       T RTNAME
          0 R R0                    LIBNUM=3      8-12, 26-24, 27-32, 27-49, 28-26, 28-41, 29-32, 29-40, 29-45, 31-26, 31-31,
                                                  32-42, 33-04, 33-09, 35-03, 36-18, 38-37, 39-03, 40-11, 41-15, 42-08, 43-09, 43-27
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INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
PATCH HISTORY                                                        23:41:18   2/05/81  ****

    VALUE  T  NAME      DEF/REF    ATTRIBUTES AND REFERENCES                     CDGSON       W77D

   0000123 A ROXF                LIBNUM=13       43-34
        1, R R1                  LIBNUM=3        8-13
   0000125 A R1XT                LIBNUM=13       8-14
       13  R R11                 LIBNUM=3        27-44, 27-47, 34-47, 36-13, 38-47, 40-06, 41-10, 43-14
       14  R R12                 LIBNUM=3        8-23
       15  R R13                 LIBNUM=3        8-24
       16  R R14                 LIBNUM=3        31-14, 34-36, 36-02, 39-44, 40-48
       17  R R15                 LIBNUM=3        31-15, 34-37, 36-03, 39-45, 40-49
        2  R R2                  LIBNUM=3        8-15, 28-21, 28-24
        3  R R3                  LIBNUM=3        8-16
        4  R R4                  LIBNUM=3        8-17
        5  R R5                  LIBNUM=3        8-18
        6  R R6                  LIBNUM=3        8-19
        7  R R7                  LIBNUM=3        8-20
       10  R R8                  LIBNUM=3        8-21,  8-22
       11  R R9                  LIBNUM=3        26-16, 26-18
   0000004 A SAFAL     46-01     30-43, 32-22
   0000025 A SAFALP    54-24     30-12, 33-28, 54-24
   0000004 A SAFAL00   46-01
   0000005 A SAFAL01   46-22
   0000006 A SAFAL02   47-01
   0000007 A SAFAL03   47-22
   0000010 A SAFAL04   48-01
   0000011 A SAFAL05   48-22
   0000012 A SAFAL06   49-01
   0000013 A SAFAL07   49-22
   0000014 A SAFAL08   50-01
   0000015 A SAFAL09   50-22
   0000016 A SAFAL10   51-01
   0000017 A SAFAL11   51-22
   0000020 A SAFAL12   52-01
   0000021 A SAFAL13   52-22
   0000022 A SAFAL14   53-01
   0000023 A SAFAL15   53-22
   0000024 A SAFAL16   54-01     30-26, 32-05, 54-01
'RSLCHK+0'   T SAPHLP           W=1   S=10  N=0  CL=2          35-22, 36-42
'RSLCHK+0'   T SA17LP           W=1   S=11  N=0  CL=2          35-10, 36-30
'SER+0'      T SCMER            W=1   S=3   N=0  CL=2
'CHKWRD+0'   T SDPCK            W=1   S=14  N=0  CL=2
   0000761 A SERNO_047778  58-02
   0000765 A SERNO_050420  58-14
   0047114 A SERREAD   22-09     27-42, 34-46, 36-12, 38-46, 40-05, 41-09
'READ BACK S
TORE ERROR R
EGISTER(SER)'T SERREADT
'SER+0'      T SHER             W=1   S=4   N=0  CL=2
   CDGNM     V SLDMCHBF  4-42
   CDGNM     V SLDMIRLF  4-43
   CDGNM     V SMCHF     4-44
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

```
PATCH HISTORY                                                        23:41:18   2/05/81  ****

     VALUE  T NAME      DEF/REF   ATTRIBUTES AND REFERENCES                      CDGSON       W77D

           3 R SNGBTER   16-07 W=1   S=5   N=0   CL=1
'DGREQLO+0'  T SPARE           W=2   S=7   N=0   CL=2
    0044714 A SPAREA    22-07
'SPARE I/0 0
RDER'        T SPAREAT
    0106274 A SPRRD     18-32
    0106214 A SPRWR     18-34
    0000216 A SS_R%T          LIBNUM=13        43-40
    0000213 A SS_S%T          LIBNUM=13        42-17
    0000002 A STEPCLK   22-45
    0000064 A STON1           LIBNUM=14        23-05
    0000010 A STOPREF   22-47
'CIOBUF+0'   T STORDER        W=10  S=4   N=0   CL=2
    TDATA    V STRLIM    3-17  7-41
    CDGSIO   V STRSIZE   7-22
'RSLCHK+0'   T STRSLP         W=1   S=12  N=0   CL=2         39-15, 40-23, 41-27
           3 R STRSTAT    8-16  16-03, 16-04, 16-06, 16-07, 16-08
    0041634 A STSBY     22-11
    0041630 A STSBYCL   22-13
'SET STORE B
USY(SBY) W/
CLOCK'       T STSBYCLT
'SET STORE B
USY(SBY) SIG
NAL'         T STSBYT
    CDGSIO   V STSELMSK  7-23
    0000000 A SUCCES    30-02  30-05, 30-16, 30-19, 30-33, 30-36, 31-42, 31-45, 32-12, 32-15, 33-18, 33-21, 35-07, 35-10,
                               35-19, 35-22, 36-27, 36-30, 36-39, 36-42, 39-12, 39-15, 40-20, 40-23, 41-24, 41-27

    0000000 A SV_REG
'SER+0'      T TBER           W=1   S=13  N=0   CL=2
    0000065 A TESTNO    23-05  44-01, 56-20
    0116774 L TFAPCH2    2-01
    0000003 A THREE     18-05
'PAGSCR+27'  T TIMSAV         W=20  S=0   N=33  CL=2
    0000064 A TLMFRST    6-01  23-05, 44-01
    0600000 L TPATCH     2-03
    0000765 A TR_012581 58-14
    0000761 A TR_012742 58-02
    0000705 A TR_12581  43-11
    0000713 A TR_12742  43-24
 06 0027652 L TRORG     43-11  43-24
 06 0027366 L TSTADPL   33-17  33-09
 06 0027251 L TSTAD0    30-01  29-45
 06 0027322 L TSTAD1    31-39  31-31
'DGREQLO+0'  T TSTNUM         W=7   S=0   N=0   CL=2
 06 0027426 L TST17PH0  35-06  35-03
 06 0027471 L TST17PH1  36-26  36-18
 06 0027535 L TS181900  39-11  39-03
 06 0027632 L TS181901  41-23  41-15


   INTERPROCESSOR STORE BUS TEST                                              PR-1C928-50

     23:41:18   2/05/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET  CDGSON   ISSUE  05     PAGE   85
```

PATCH HISTORY   23:41:18   2/05/81 ****

    VALUE T NAME   DEF/REF   ATTRIBUTES AND REFERENCES   CDGSON   W77D

```
06 0027574 L TS181910     40-19  40-11
   0000002 A TWO          18-06
'4'          T TXTSEG
'PAGSCR+28'  T UPADDR                 W=4   S=0   N=34   CL=2
   CSYSUB    V UPD_OTS     7-33
   0007114 A USERRED      22-15
'READ STORE
 ERROR REG (W
/O ISOLATE)' T USERREDT
   CBLM      V WAIT        3-19   7-07
'CHKWRD+0'   T WDISOL               W=4   S=10  N=0    CL=2
   TDATA     V WDSTR       3-18   7-42
   0010000 A WPBLKSZE     18-07
   0046061 A WPCLR        22-17
'STORE INITI
 ALIZE, INCL.
 WRITE PROTE
CT'          T WPCLRT
   TDATA     V WPTBL       7-43
   0000322 A YTXF                  LIBNUM=13       42-17, 43-40
   0025750 A ZERX                  LIBNUM=13       43-22
   0000000 A ZERO         18-08
   0000000 A ZEROS        18-09
'MASCIOSC+1' T OSSC0                W=20  S=0   N=1    CL=2
'MASCIOSC+3' T OSSC1                W=20  S=0   N=3    CL=2
'MASCIOSC+5' T OSSC2                W=20  S=0   N=5    CL=2
'MASCIOSC+7' T OSSC3                W=20  S=0   N=7    CL=2
   0000000 A OTEST        18-10
         3 R OWDSTR0      16-06 W=1   S=4   N=0    CL=1
   D052354 A O10NOR       22-19
'0-10 TIMING
(O10TIM)THEN
 REFRESH REQ
UEST CLEAR'  T O10NORT
   0054334 A O10REF       22-22
'0-10 TIMING
(O10TIM)THEN
 REFRESH REQ
UEST SET'    T O10REFT
   0056074 A O10TIM       22-25
'FORCE 0-10
 TIMING SIGNA
L ACTIVE'    T O10TIMT
'CIOBUF+0'   T O10TM                W=1   S=14  N=0    CL=2
         0 U 1FFFF
   0000001 A 1TEST        18-11
'CHKWRD+0'   T 2EPCK                W=1   S=15  N=0    CL=2
         1 J 3ACC          1-09
```

INTERPROCESSOR STORE BUS TEST   PR-1C928-50

PATCH HISTORY   23:41:18   2/05/81   ****

   COUNT   FLAG   PAGE-LINE OF FLAG   CDGSON   W77D

     10   E   27-34, 27-37, 29-38, 31-24, 33-02, 34-39, 36-05, 38-39, 39-47, 41-02

10 FLAG(S) FOUND IN THIS ASSEMBLY

INTERPROCESSOR STORE BUS TEST   PR-1C928-50