

A01

BELL TELEPHONE LABORATORIES, INCORPORATED

5-117

MAY 1 1981

COMMON SYSTEMS  
FOR USE WITH NO. 3 ESS  
ARRANGED WITH 2-WIRE FEATURES  
MICRO INTERPRET, MULTIPLE CROSSPOINT, AND PARITY CHECK TESTS  
(CDGMI)

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ISSUE  
02/05/81

AT&TCO  
SPCS

PR-1C930-50  
117 PAGES

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## SECTION DICTIONARY

NUMBER	NAME	MAXIMUM	ORIGIN	TYP	ADDRESS-MODIFICATION
01	CHINTERP	0000133		C	
02	CMTMSCXP	0000722		C	
03	CBUSPAR	0000407		C	
04	CPOXYPAR	0000430		C	
05	CPATCH	0000000		C	
06	CPATCH1	0000626		C	
07	CPATCH2	0000000		C	
08	CPATCH3	0000000		C	
09	CPATCH7	0000000		C	
0A	TFAPCH2	0000000		C	
0B	TPATCH	0000000		C	

MICRO INTERPRET, MULTIPLE CROSSPOINT, AND PARITY CHECK TESTS

PR-1C930-50

22:59:51 02/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE A1

VERSION W77D OF SWAP; VERSION OF EPL

22:59:51 2/05/81 \*\*\*\*

CDGMI

W77D

0013611  
0013611  
0013611

```

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
07      FIRSTOPTSS
08      VERSION 3ACC, FIELD, ESS2E
09      PATCHINIT
10     NO33E3I3.OFF.OPMS(0) 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     ### cdgmi 1/24/81 16:38:03 7.1.1.1
23     ###
24     #####
25     VERSIONS (FACTORY, FIELD), (3ACC, INTERDATA)
26     # THIS DATA SET EDITED FOR UNIX ON 05/24/78
27     GETLIB MEMBER=DGNMAC
28     NAME      CDGMI

```

32 ## The following is a list of the valid csects for program CDGMI

0013611  
0012667  
0014411  
0013761

```

34     CMINTERP CSECT
35     CMTMSCXP CSECT
36     CBUSPAR CSECT
37     CPOXPARG CSECT

```

40 ## The following csects are necessary for patching

0111432  
0112562  
0114107  
0115073  
0121236

```

42     CPATCH CSECT
43     CPATCH1 CSECT
44     CPATCH2 CSECT
45     CPATCH3 CSECT
46     CPATCH7 CSECT

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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0116774

01 TFAPCH2 CSECT

0600000

03 TPATCH CSECT

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 2

E01

22:59:51 2/05/81 \*\*\*\*

CDGMI W77D

0600000

```
01 BEGIN_DIAG DGMI,3ACC
-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 NN03CD
-001- 35 CDGNM EXTERN NMTTEST
-001- 36 CDGNM EXTERN NZERPT
-001- 37 CDGNM EXTERN NFLBITS
-001- 38 CDGNM DIRECT INTRPN03
-001- 39 CDGNM EXTERN NBGN
-001- 40 CDGNOF EXTERN PASSOFF
-001- 41 CDGNOF EXTERN FAILOFF
-001- 42 CDGNM EXTERN SLDMCHBF
-001- 43 CDGNM EXTERN SLDMIRLF
-001- 44 CDGNM EXTERN SMCHF
-001- 45 CDGNM EXTERN NRTNBLM
-001- 46 CDGNM EXTERN NWDTST
```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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CDGMI W77D

-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 CDGMI (PR-1C910-01)  
-001- 05 # ENTITLED "DIAGNOSTIC TABLE INTERPRETER". FOR A GENERAL DESCRIPTION  
-001- 06 # OF THE DIAGNOSTIC PHILOSOPHY AND THE DETAILED REPAIR PROCEDURE,  
-001- 07 # SEE THE TROUBLE LOCATION MANUAL (TLM-1C900) SECTION B.

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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CDGMI W77D

01 CTSD EXTERN PAGSCR

07 # LINKAGES TO OFF-LINE CODE  
08 CDGNOF EXTERN MITST1  
09 CDGNOF EXTERN MITST1A  
10 CDGNOF EXTERN MITST2  
11 CDGNOF EXTERN DOTIO  
12 CDGNOF EXTERN TSTNOP

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 5

TEST 65

22:59:51 2/05/81 \*\*\*\*

MICROINTERPRET DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # ** CU DIAGNOSTIC TEST NO. 65, MICROINTERPRET
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0013611

-001- 10 CMINTERP CSECT

-001- 13 # THIS TEST USES OFF-LINE CODE AT CSECT OMINTERP

```

0013611 01 000000 004345 000320 CDGMI
0013612 01 000001 000320 013744 EXTERN

```

```

-001- 17 VFD 1,0 2,0 2,1 2,0 3,3 6,NBGN
-001- 18 ADDR OMINTERP,XMINTERP

```

```

22 # SEGMENT 1
23 # A MICROINTERPRET SEQUENCE CONSISTING OF ONE MICROINSTRUCTION
24 # IS TRIED IN THE OFF-LINE PROCESSOR. THIS INSTRUCTION GATES
25 # R6==>AK. THE RESULT IS CHECKED. A FAILURE COULD INDICATE
26 # A PROBLEM IN THE CONTROL CIRCUITRY OR A PROBLEM WITH THE
27 # DEDICATED GATING PATH SIR==>MIR. IF A SINGLE BIT GATING ERROR
28 # OCCURRED, THERE SHOULD BE AN ERROR INDICATION IN THE ER FOR
29 # EITHER THE "TO" OR "FROM" FIELD BUT NOT BOTH. IF THE
30 # CONTROL CIRCUITRY FAILED, BOTH THE "TO" AND "FROM"
31 # ERROR BITS WILL BE SET OR NEITHER WILL BE SET. THE TEST
32 # IS THEN REPEATED WITH A MICROINSTRUCTION TO GATE AK==>R6.
33 # THIS MICROINSTRUCTION IS THE COMPLEMENT OF THE ONE USED
34 # ABOVE SO THAT THE SIR==>MIR PATH IS COMPLETELY CHECKED.

36 # SEGMENT 2
37 # A MICROINTERPRET SEQUENCE OF SEVERAL INSTRUCTIONS IS TRIED
38 # TO CHECK THAT THE IB IS NOT CLEARED WHILE IN THE
39 # MICROINTERPRET MODE. THE MI INSTRUCTION SHOULD REMAIN
40 # IN THIS REGISTER THROUGHOUT THE SEQUENCE.

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

TEST 65 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

MICROINTERPRET DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 65 SEGMENT 1
-001- 04 # *
-001- 05 # *****
    
```

0013614 01 000003 000100 ----- CDGMI -001- 08 VFD 1,0 2,0 2,0 5,D(1) 6,NTESTSEG

```

11 # A MICROINTERPRET SEQUENCE CONSISTING OF ONE MICROINSTRUCTION
12 # IS TRIED IN THE OFF-LINE PROCESSOR. THIS INSTRUCTION GATES
13 # R6==>AK. THE RESULT IS CHECKED. A FAILURE COULD INDICATE
14 # A PROBLEM IN THE CONTROL CIRCUITRY OR A PROBLEM WITH THE
15 # DEDICATED GATING PATH SIR==>MIR. IF A SINGLE BIT GATING ERROR
16 # OCCURRED, THERE SHOULD BE AN ERROR INDICATION IN THE ER FOR
17 # EITHER THE "TO" OR "FROM" FIELD BUT NOT BOTH. IF THE
18 # CONTROL CIRCUITRY FAILED, BOTH THE "TO" AND "FROM"
19 # ERROR BITS WILL BE SET OR NEITHER WILL BE SET. THE TEST
20 # IS THEN REPEATED WITH A MICROINSTRUCTION TO GATE AK==>R6.
21 # THIS MICROINSTRUCTION IS THE COMPLEMENT OF THE ONE USED
22 # ABOVE SO THAT THE SIR==>MIR PATH IS COMPLETELY CHECKED.
    
```

```

-001- 24 # SEND
-001- 25 # SEND 0(125252) TO OFF-LINE GENERAL REGISTER 6.
-001- 26 # PARITY IS NORMAL.
0013615 01 000004 057606 ----- CDGMI -001- 27 VFD 1,0 2,2 7,B(1111110) 6,NSEND
0013616 01 000005 061400 ----- -001- 28 VFD 8,R6XT 2,0 2,0(0)
0013617 01 000006 125252 ----- -001- 29 VFD 16,0(125252)
    
```

0013620 01 000007 000012 ----- CDGMI -001- 31 # ZERO ER  
-001- 32 # ZERO THE OFF-LINE ER.  
-001- 33 VFD 1,0 2,0 7,0 6,NZERO\_ER

0013621 01 000010 040022 000000 CDGMI -001- 35 # ADD OFF  
-001- 36 # START OFF-LINE PROCESSOR AT ADDRESS MITST1.  
0013622 01 000011 000000 013744 CDGNOF -001- 37 VFD 1,0 2,2 7,0 6,NADD\_OFF  
-001- 38 ADDR MITST1

0013624 01 000013 017627 ----- CDGMI -001- 40 # STOP\_OFF  
-001- 41 # SET STOP BIT IN OFF-LINE CU.  
-001- 42 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

0013625 01 000014 020005 ----- CDGMI -001- 44 # MICRO  
-001- 45 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.  
0013626 01 000015 114634 ----- -001- 46 # TO FIELD = MCHBXT FROM FIELD = AKXF  
-001- 47 VFD 1,0 2,1 7,0 6,NMICRO  
-001- 48 VFD 8,MCHBXT 8,AKXF

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

TEST 65 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

## MICROINTERPRET DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # RETRN
-001- 02 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0013627 01 000016 007710 ----- CDGNM -001- 03 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 05 # COMPARE
-001- 06 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0125252).
-001- 07 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013630 01 000017 050014 ----- CDGNM -001- 08 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0013631 01 000020 000000 125252 -001- 09 ADDR 0(0125252)

0013633 11 # RESOLVE THE TYPE OF ERROR
-001- 12 # NO3 CODE
-001- 13 # PROCESS 3ACC CODED ROUTINE AT ADDRESS RESMI.
0013633 01 000022 040043 000000 CDGNM -001- 14 VFD 1,0 2,2 7,0 6,NN03CD
0013634 01 000023 000000 013705 0013705 -001- 15 ADDR RESMI

-001- 17 # MICRO
-001- 18 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 19 # MISCELLANEOUS CROSSPOINT ZBRX
0013636 01 000025 020005 ----- CDGNM -001- 20 VFD 1,0 2,1 7,0 6,NMICRO
0013637 01 000026 025712 ----- -001- 21 VFD 16,ZBRX

-001- 23 # MICRO
-001- 24 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 25 # TO FIELD = R6XT FROM FIELD = BRXF
0013640 01 000027 020005 ----- CDGNM -001- 26 VFD 1,0 2,1 7,0 6,NMICRO
0013641 01 000030 061742 ----- -001- 27 VFD 8,R6XT 8,BRXF

-001- 29 # ZERO_ER
-001- 30 # ZERO THE OFF-LINE ER.
0013642 01 000031 000012 ----- CDGNM -001- 31 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 33 # ADD_OFF
-001- 34 # START OFF-LINE PROCESSOR AT ADDRESS MITST1A.
0013643 01 000032 040022 000000 CDGNM -001- 35 VFD 1,0 2,2 7,0 6,NADD_OFF
0013644 01 000033 000000 013747 CDGNOF -001- 36 ADDR MITST1A

-001- 38 # STOP_OFF
-001- 39 # SET STOP BIT IN OFF-LINE CU.
0013646 01 000035 017627 ----- CDGNM -001- 40 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 42 # RETRN
-001- 43 # RETURN OFF-LINE GENERAL REGISTER R6 TO ON-LINE MCHB.
0013647 01 000036 037611 ----- CDGNM -001- 44 VFD 1,0 2,1 7,B(1111110) 6,NZRETRN
0013650 01 000037 114543 ----- -001- 45 VFD 8,MCHBXT 8,R6XF

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 65 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

MICROINTERPRET DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # COMPARE
-001- 02 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0125252).
-001- 03 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013651 01 000040 050014 ----- CDGNM -001- 04 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0013652 01 000041 000000 125252 -001- 05 ADDR 0(0125252)

-001- 07 # NO3 CODE
-001- 08 # PROCESS 3ACC CODED ROUTINE AT ADDRESS RESMI.
0013654 01 000043 040043 000000 CDGNM -001- 09 VFD 1,0 2,2 7,0 6,NN03CD
0013655 01 000044 000000 013705 0013705 -001- 10 ADDR RESMI

-001- 12 # NO3 CODE
-001- 13 # PROCESS 3ACC CODED ROUTINE AT ADDRESS GOSEG2.
0013657 01 000046 040043 000000 CDGNM -001- 14 VFD 1,0 2,2 7,0 6,NN03CD
0013660 01 000047 000000 013737 0013737 -001- 15 ADDR GOSEG2

-001- 17 # FAILTST
-001- 18 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMICNTL.
-001- 19 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013662 01 000051 020017 ----- CDGNM -001- 20 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013663 01 000052 000001 ----- -001- 21 VFD 16,FLMICNTL

-001- 23 # FAILTST
-001- 24 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMIGTTO.
-001- 25 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013664 01 000053 020017 ----- CDGNM -001- 26 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013665 01 000054 000002 ----- -001- 27 VFD 16,FLMIGTTO

-001- 29 # FAILTST
-001- 30 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMIGTFM.
-001- 31 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013666 01 000055 020017 ----- CDGNM -001- 32 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013667 01 000056 000003 ----- -001- 33 VFD 16,FLMIGTFM

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 65 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

MICROINTERPRET DIAGNOSTIC TEST

CDGMI W77D

0013670

01 SEG2

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 10

TEST 65 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

MICROINTERPRET DIAGNOSTIC TEST

CDGMI

W770

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 65 SEGMENT 2
-001- 04 # *
-001- 05 # *****

0013670 01 000057 000200 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(2) 6,NTESTSEG

11 # A MICROINTERPRET SEQUENCE OF SEVERAL INSTRUCTIONS IS TRIED
12 # TO CHECK THAT THE IB IS NOT CLEARED WHILE IN THE
13 # MICROINTERPRET MODE. THE MI INSTRUCTION SHOULD REMAIN
14 # IN THIS REGISTER THROUGHOUT THE SEQUENCE.

-001- 16 # ADD OFF
-001- 17 # START OFF-LINE PROCESSOR AT ADDRESS MITST2.
0013671 01 000060 040022 000000 CDGNM -001- 18 VFD 1,0 2,2 7,0 6,NADD_OFF
0013672 01 000061 000000 013752 CDGNMF -001- 19 ADDR MITST2

-001- 21 # STOP OFF
-001- 22 # SET STOP BIT IN OFF-LINE CU.
0013674 01 000063 017627 ----- CDGNM -001- 23 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 25 # RETRN
-001- 26 # RETURN OFF-LINE GENERAL REGISTER R0 TO ON-LINE MCHB.
0013675 01 000064 037611 ----- CDGNM -001- 27 VFD 1,0 2,1 7,B(1111110) 6,N2RETRN
0013676 01 000065 114523 ----- -001- 28 VFD 8,MCHBXT 8,ROXF

-001- 30 # COMPARE
-001- 31 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0013400).
-001- 32 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013677 01 000066 050014 ----- CDGNM -001- 33 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0013700 01 000067 000000 013400 -001- 34 ADDR 0(0013400)

-001- 36 # FAILTST
-001- 37 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLCNTIB.
-001- 38 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013702 01 000071 020017 ----- CDGNM -001- 39 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013703 01 000072 000004 ----- -001- 40 VFD 16,FLCNTIB

-001- 42 # PASSTST
-001- 43 # GO TO DIAGNOSTIC MONITOR PASS BRANCH.
0013704 01 000073 000021 ----- CDGNM -001- 44 VFD 1,0 2,0 7,0 6,NPASSTST

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 11

TEST 65 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

## MICROINTERPRET DIAGNOSTIC TEST

CDGMI

W77D

0013705

```

01 RESMI
02 # 3ACC CODED ROUTINE TO DETERMINE THE TYPE OF ERROR
03 # IN THE OPERATION OF MICROINTERPRET. THERE ARE FOUR CASES
04 # 1. THERE IS AN ERROR IN BOTH THE "TO" AND "FROM" FIELDS
05 # 2. THERE ARE NO ERRORS INDICATED
06 # 3. THERE IS AN ERROR IN THE "TO" FIELD BUT NOT IN THE "FROM" FIELD
07 # 4. THERE IS AN ERROR IN THE "FROM" FIELD BUT NOT IN THE "TO" TO
08 # THE FIRST TWO CASES INDICATE AN ERROR IN THE MICROINTERPRET
09 # CONTROL CIRCUITRY AND THE LAST TWO CASES REPRESENT A PROBABLE
10 # GATING ERROR IN THE BAD FIELD

```

```

0013705 12 LMCH RTNER # RETURN THE ERROR REGISTER
0013705 01 000074 103401 000213 -001- 13 LI RO,RTNER
0013707 -001- 14 CALL SMCH
0013707 01 000076 037020 111077 CSYSUB -002- 15 BSA SMCH
0013711 01 000100 112403 ----- 16 UNPK MCHB
0013712 01 000101 024060 ----- 17 TBN R3,S(TODER)
0013713 01 000102 054010 ----- 0013723 18 BC TOER
0013714 19 # THERE IS NO "TO" FIELD ERROR
0013714 01 000103 024061 ----- 20 TBN R3,S(FRMDER)
0013715 01 000104 054015 ----- 0013732 21 BC BDFRMFLD
0013716 22 20RD # EITHER BOTH FIELDS GAVE AN ERROR OR
NEITHER GAVE AN ERROR
0013716 24 RTN_TBL NGMI
0013716 01 000105 171400 ----- -001- 25 GA
0013717 01 000106 031000 013662 0013662 -001- 26 LAL RO,NGMI,RAO
0013721 01 000110 037000 011162 CDGMI -001- 27 BL INTRPNO3
0013723 29 TOER
0013723 01 000112 124061 ----- 30 TBN R3,S(FRMDER)
0013724 01 000113 054772 ----- 0013716 31 BC 20RD
0013725 32 BDTFLD # THERE IS AN ERROR IN THE "TO" FIELD
ONLY
0013725 34 RTN_TBL TOBDGT
0013725 01 000114 171400 ----- -001- 35 GA
0013726 01 000115 031000 013664 0013664 -001- 36 LAL RO,TOBDGT,RAO
0013730 01 000117 037000 011162 CDGMI -001- 37 BL INTRPNO3
0013732 39 BDFRMFLD
0013732 40 RTN_TBL FMBDGT
0013732 01 000121 171400 ----- -001- 41 GA
0013733 01 000122 031000 013666 0013666 -001- 42 LAL RO,FMBDGT,RAO
0013735 01 000124 037000 011162 CDGMI -001- 43 BL INTRPNO3

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 65 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

MICROINTERPRET DIAGNOSTIC TEST

CDGMI W77D

0013737

01 GOSEG2

02 # 3ACC CODED ROUTINE TO TRANSFER CONTROL TO SEGMENT 2

0013737

04

RTN\_TBL SEG2

0013737 01 000126 171400 -----

-001- 05

GA

0013740 01 000127 031000 013670 0013670

-001- 06

LAL RO,SEG2,RAD

0013742 01 000131 037000 011162 CDGNM

-001- 07

BL INTRPN03

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI

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TEST 66

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # ** CU DIAGNOSTIC TEST NO. 66, MULTIPLE_MISCELLANEOUS_XPOINTS
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0012667

-001- 10 CMTMSCXP CSECT

0012667 02 000000 000145 ----- CDGMI -001- 14 VFD 1,0 2,0 2,0 2,0 3,1 6,NBGN

```

18 # SEGMENT 1
19 # MULTIPLE MISCELLANEOUS CROSSPOINTS CAN RESULT FROM OPENED
20 # LEADS SUCH THAT A MISCELLANEOUS CROSSPOINT FIRES WHEN ONLY
21 # THREE OF ITS FOUR DECODER SUB-FIELDS ARE PRESENT.
22 # A SET OF INITIAL CONDITIONS IS SET UP AND THEN
23 # A SERIES OF CROSSPOINTS WITH ONE SUB-FIELD=0 IS
24 # TRIED. THE INITIAL CONDITIONS ARE THEN CHECKED.
25 # THEY SHOULD NOT HAVE CHANGED.

27 # SEGMENT 2
28 # A SECOND SET OF INITIAL CONDITIONS IS USED AS IN
29 # SEGMENT 1 IN ORDER TO HANDLE CONTRADICTIONARY CASES (DS=0
30 # IN SEGMENT 1, DS=1 IN SEGMENT 2)

32 # SEGMENT 3
33 # SOME CROSSPOINTS WHICH WERE NOT PICKED UP IN EARLIER SEGMENTS
34 # ARE TRIED

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

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TEST 66 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 66 SEGMENT 1
-001- 04 # *
-001- 05 # *****

```

```

0012670 02 000001 000100 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(1) 6,NTESTSEG

```

```

11 # MULTIPLE MISCELLANEOUS CROSSPOINTS CAN RESULT FROM OPENED
12 # LEADS SUCH THAT A MISCELLANEOUS CROSSPOINT FIRES WHEN ONLY
13 # THREE OF ITS FOUR DECODER SUB-FIELDS ARE PRESENT.
14 # A SET OF INITIAL CONDITIONS IS SET UP AND THEN
15 # A SERIES OF CROSSPOINTS WITH ONE SUB-FIELD=0 IS
16 # TRIED. THE INITIAL CONDITIONS ARE THEN CHECKED.
17 # THEY SHOULD NOT HAVE CHANGED.

```

```

-001- 23 # SEND
-001- 24 # SEND 0(0000200) TO OFF-LINE DUPLICATE B REGISTERS.
-001- 25 # PARITY IS NORMAL.
0012671 02 000002 056706 ----- CDGNM -001- 26 VFD 1,0 2,2 7,B(1110111) 6,NSEND
0012672 02 000003 000000 000200 -001- 27 ADDR 0(0000200)

```

```

-001- 29 # MICRO
-001- 30 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 31 # MISCELLANEOUS CROSSPOINT BRXMSX
0012674 02 000005 020005 ----- CDGNM -001- 32 VFD 1,0 2,1 7,0 6,NMICRO
0012675 02 000006 145312 ----- -001- 33 VFD 16,BRXMSX

```

```

-001- 35 # SEND
-001- 36 # SEND 0(0125252) TO OFF-LINE DUPLICATE A REGISTERS.
-001- 37 # PARITY IS NORMAL.
0012676 02 000007 055706 ----- CDGNM -001- 38 VFD 1,0 2,2 7,B(1101111) 6,NSEND
0012677 02 000010 000000 125252 -001- 39 ADDR 0(0125252)

```

```

-001- 41 # SEND
-001- 42 # SEND 0(0011064) TO OFF-LINE DUPLICATE B REGISTERS.
-001- 43 # PARITY IS NORMAL.
0012701 02 000012 056706 ----- CDGNM -001- 44 VFD 1,0 2,2 7,B(1110111) 6,NSEND
0012702 02 000013 000000 011064 -001- 45 ADDR 0(0011064)

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 66 SEGMENT 1

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # SEND
-001- 02 # SEND 0(000) TO OFF-LINE DUPLICATE FUNCTION REGISTERS.
-001- 03 # PARITY IS NORMAL.
0012704 02 000015 057506 ----- CDGMI -001- 04 # VFD 1,0 2,2 7,B(1111101) 6,NSEND
0012705 02 000016 000000 000000 -001- 05 # ADDR 0(0000000)

-001- 07 # MICRO
-001- 08 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 09 # TO FIELD = CRXT FROM FIELD = BRXF
0012707 02 000020 020005 ----- CDGMI -001- 04 # VFD 1,0 2,1 7,0 6,NMICRO
0012710 02 000021 031742 ----- -001- 11 # VFD 8,CRXT 8,BRXF

-001- 13 # SEND
-001- 14 # SEND 0(0000004) TO OFF-LINE MCHB.
-001- 15 # PARITY IS NORMAL.
0012711 02 000022 047706 ----- CDGMI -001- 16 # VFD 1,0 2,2 7,B(0111111) 6,NSEND
0012712 02 000023 000000 000004 -001- 17 # ADDR 0(0000004)

-001- 19 # MICRO
-001- 20 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 21 # TO FIELD = SS RXT FROM FIELD = MCHBXF
0012714 02 000025 020005 ----- CDGMI -001- 22 # VFD 1,0 2,1 7,0 6,NMICRO
0012715 02 000026 107231 ----- -001- 23 # VFD 8,SS_RXT 8,MCHBXF

-001- 25 # SEND
-001- 26 # SEND 0(0177777) TO OFF-LINE MCHB.
-001- 27 # PARITY IS NORMAL.
0012716 02 000027 047706 ----- CDGMI -001- 28 # VFD 1,0 2,2 7,B(0111111) 6,NSEND
0012717 02 000030 000000 177777 -001- 29 # ADDR 0(0177777)

-001- 31 # MICRO
-001- 32 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 33 # TO FIELD = IS SXT FROM FIELD = MCHBXF
0012721 02 000032 020005 ----- CDGMI -001- 34 # VFD 1,0 2,1 7,0 6,NMICRO
0012722 02 000033 034631 ----- -001- 35 # VFD 8,IS_SXT 8,MCHBXF

-001- 37 # SEND
-001- 38 # SEND 0(0000000) TO OFF-LINE MCHB.
-001- 39 # PARITY IS NORMAL.
0012723 02 000034 047706 ----- CDGMI -001- 40 # VFD 1,0 2,2 7,B(0111111) 6,NSEND
0012724 02 000035 000000 000000 -001- 41 # ADDR 0(0000000)

-001- 43 # MICRO
-001- 44 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 45 # TO FIELD = IMXT FROM FIELD = MCHBXF
0012726 02 000037 020005 ----- CDGMI -001- 46 # VFD 1,0 2,1 7,0 6,NMICRO
0012727 02 000040 103631 ----- -001- 47 # VFD 8,IMXT 8,MCHBXF

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 66 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

			-001- 01 #	MICRO
			-001- 02 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
			-001- 03 #	MISCELLANEOUS CROSSPOINT SOPFX
0012730	02	000041	020005	----- CDGMI
0012731	02	000042	036330	-----
			-001- 04	VFD 1,0 2,1 7,0 6,NMICRO
			-001- 05	VFD 16,SOPFX
			-001- 07 #	MICRO
			-001- 08 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
			-001- 09 #	MISCELLANEOUS CROSSPOINT SCFX
0012732	02	000043	020005	----- CDGMI
0012733	02	000044	036071	-----
			-001- 10	VFD 1,0 2,1 7,0 6,NMICRO
			-001- 11	VFD 16,SCFX
			-001- 13 #	MICRO
			-001- 14 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
			-001- 15 #	MISCELLANEOUS CROSSPOINT ZDSX
0012734	02	000045	020005	----- CDGMI
0012735	02	000046	146072	-----
			-001- 16	VFD 1,0 2,1 7,0 6,NMICRO
			-001- 17	VFD 16,ZDSX
			-001- 19 #	MICRO
			-001- 20 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
			-001- 21 #	MISCELLANEOUS CROSSPOINT ZIX
0012736	02	000047	020005	----- CDGMI
0012737	02	000050	145330	-----
			-001- 22	VFD 1,0 2,1 7,0 6,NMICRO
			-001- 23	VFD 16,ZIX
			-001- 25 #	MICRO
			-001- 26 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
			-001- 27 #	MISCELLANEOUS CROSSPOINT ZDRX
0012740	02	000051	020005	----- CDGMI
0012741	02	000052	015472	-----
			-001- 28	VFD 1,0 2,1 7,0 6,NMICRO
			-001- 29	VFD 16,ZDRX
			-001- 31 #	MICRO
			-001- 32 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
			-001- 33 #	MISCELLANEOUS CROSSPOINT ZTR1X
0012742	02	000053	020005	----- CDGMI
0012743	02	000054	145072	-----
			-001- 34	VFD 1,0 2,1 7,0 6,NMICRO
			-001- 35	VFD 16,ZTR1X
			-001- 37 #	MICRO
			-001- 38 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
			-001- 39 #	MISCELLANEOUS CROSSPOINT ZTR2X
0012744	02	000055	020005	----- CDGMI
0012745	02	000056	144472	-----
			-001- 40	VFD 1,0 2,1 7,0 6,NMICRO
			-001- 41	VFD 16,ZTR2X
			-001- 43 #	LOAD MIRH
			-001- 44 #	LOAD THE HIGH BITS OF THE OFF-LINE MIR WITH 0(007777).
0012746	02	000057	020024	----- CDGMI
0012747	02	000060	007777	-----
			-001- 45	VFD 1,0 2,1 7,0 6,NLDMIR
			-001- 46	VFD 16,0(007777)

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 66 SEGMENT 1

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # SEND
-001- 02 # SEND 0(016017) TO OFF-LINE GENERAL REGISTER 9.
-001- 03 # PARITY IS NORMAL.
0012750 02 000061 057606 ----- CDGMI -001- 04 # VFD 1,0 2,2 7,B(1111110) 6,NSEND
0012751 02 000062 064400 ----- -001- 05 # VFD 8,R9XT 2,0 2,0(O)
0012752 02 000063 016017 ----- -001- 06 # VFD 16,0(016017)

0012753 08 # CHANNEL 0, NO SUBCHANNEL, WORST CASE
COMMAND FIELD

-001- 10 # MICRO
-001- 11 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 12 # MISCELLANEOUS CROSSPOINT MD4STCHX
0012753 02 000064 020005 ----- CDGMI -001- 13 # VFD 1,0 2,1 7,0 6,NMICRO
0012754 02 000065 074066 ----- -001- 14 # VFD 16,MD4STCHX

-001- 16 # MICRO
-001- 17 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 18 # MISCELLANEOUS CROSSPOINT MD0IDCHX
0012755 02 000066 020005 ----- CDGMI -001- 19 # VFD 1,0 2,1 7,0 6,NMICRO
0012756 02 000067 164066 ----- -001- 20 # VFD 16,MD0IDCHX

-001- 22 # SEND
-001- 23 # SEND 0(000000) TO OFF-LINE GENERAL REGISTER 10.
-001- 24 # PARITY IS NORMAL.
0012757 02 000070 057606 ----- CDGMI -001- 25 # VFD 1,0 2,2 7,B(1111110) 6,NSEND
0012760 02 000071 065000 ----- -001- 26 # VFD 8,R10XT 2,0 2,0(O)
0012761 02 000072 000000 ----- -001- 27 # VFD 16,0(000000)

-001- 29 # MICRO
-001- 30 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 31 # MISCELLANEOUS CROSSPOINT MD6RAIOX
0012762 02 000073 020005 ----- CDGMI -001- 32 # VFD 1,0 2,1 7,0 6,NMICRO
0012763 02 000074 074072 ----- -001- 33 # VFD 16,MD6RAIOX

-001- 35 # SEND
-001- 36 # SEND 0(177777) TO OFF-LINE GENERAL REGISTER 10.
-001- 37 # PARITY IS NORMAL.
0012764 02 000075 057606 ----- CDGMI -001- 38 # VFD 1,0 2,2 7,B(1111110) 6,NSEND
0012765 02 000076 065000 ----- -001- 39 # VFD 8,R10XT 2,0 2,0(O)
0012766 02 000077 177777 ----- -001- 40 # VFD 16,0(177777)

-001- 42 # MICRO
-001- 43 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 44 # TO FIELD = R11XT FROM FIELD = R10XF
0012767 02 000100 020005 ----- CDGMI -001- 45 # VFD 1,0 2,1 7,0 6,NMICRO
0012770 02 000101 066152 ----- -001- 46 # VFD 8,R11XT 8,R10XF

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 66 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # MISCELLANEOUS CROSSPOINT ZERX
0012771 02 000102 020005 ----- CDGMI
0012772 02 000103 025750 -----
-001- 04 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 05 # VFD 16,ZERX

-001- 07 # SEND
-001- 08 # SEND 0(0004000) TO OFF-LINE MCHB.
-001- 09 # PARITY IS NORMAL.
0012773 02 000104 047706 ----- CDGMI
0012774 02 000105 000000 004000
-001- 10 # VFD 1,0 2,2 7,B(0111111) 6,NSEND
-001- 11 # ADDR 0(0004000)

-001- 13 # MICRO
-001- 14 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 15 # TO FIELD = SS_SXT FROM FIELD = MCHBXF
0012776 02 000107 020005 ----- CDGMI
0012777 02 000110 105631 -----
-001- 16 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 17 # VFD 8,SS_SXT 8,MCHBXF

-001- 19 # SEND
-001- 20 # SEND 0(0125715) TO OFF-LINE MCHB.
-001- 21 # PARITY IS NORMAL.
0013000 02 000111 047706 ----- CDGMI
0013001 02 000112 000000 125715
-001- 22 # VFD 1,0 2,2 7,B(0111111) 6,NSEND
-001- 23 # ADDR 0(0125715)

-001- 25 # MICRO
-001- 26 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 27 # TO FIELD = DBXT FROM FIELD = MCHBXF
0013003 02 000114 020005 ----- CDGMI
0013004 02 000115 124631 -----
-001- 28 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 29 # VFD 8,DBXT 8,MCHBXF

0013005 31 # LOAD STOP ADDRESS BUT STOP FLOP
CLEARED

-001- 33 # LOAD_MAR
-001- 34 # LOAD AND FREEZE THE OFF-LINE MAR WITH 0(000377).
0013005 02 000116 020033 ----- CDGMI
0013006 02 000117 000377 -----
-001- 35 # VFD 1,0 2,1 7,0 6,NFRZ
-001- 36 # VFD 16,0(000377)

43 # INITIAL CONDITIONS HAVE BEEN SET UP. NOW FIRE ALL PARTIAL
44 # MISCELLANEOUS CROSSPOINTS

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 66 SEGMENT 1

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

				-001- 01 #	LP_BEGIN		
				-001- 02 #	BEGIN 44 LOOPS.		
0013007	02	000120	005401	-----	CDGMI	-001- 03	MISCLP1 VFD 1,0 2,0 7,D(44) 6,NBEGIN
				-001- 06 #	MICRO		
				-001- 07 #	PERFORM MICRO INSTRUCTIONS IN OFF-LINE CU.		
0013010	02	000121	120005	-----	CDGMI	-001- 08	VFD 1,1 2,1 7,0 6,NMICRO
0013011	02	000122	023760	-----		-001- 09	VFD 8,0(47) 8,0(360) # LOOP 1
0013012	02	000123	025760	-----		-001- 10	VFD 8,0(53) 8,0(360) # LOOP 2
0013013	02	000124	026760	-----		-001- 11	VFD 8,0(55) 8,0(360) # LOOP 3
0013014	02	000125	016760	-----		-001- 12	VFD 8,0(35) 8,0(360) # LOOP 4
0013015	02	000126	154360	-----		-001- 13	VFD 8,0(330) 8,0(360) # LOOP 5
0013016	02	000127	134360	-----		-001- 14	VFD 8,0(270) 8,0(360) # LOOP 6
0013017	02	000130	074360	-----		-001- 15	VFD 8,0(170) 8,0(360) # LOOP 7
0013020	02	000131	164360	-----		-001- 16	VFD 8,0(350) 8,0(360) # LOOP 8
0013021	02	000132	035360	-----		-001- 17	VFD 8,0(72) 8,0(360) # LOOP 9
0013022	02	000133	036360	-----		-001- 18	VFD 8,0(74) 8,0(360) # LOOP 10
0013023	02	000134	146360	-----		-001- 19	VFD 8,0(314) 8,0(360) # LOOP 11
0013024	02	000135	145360	-----		-001- 20	VFD 8,0(312) 8,0(360) # LOOP 12
0013025	02	000136	144760	-----		-001- 21	VFD 8,0(311) 8,0(360) # LOOP 13
0013026	02	000137	015760	-----		-001- 22	VFD 8,0(33) 8,0(360) # LOOP 14
0013027	02	000140	023417	-----		-001- 23	VFD 8,0(47) 8,0(17) # LOOP 15
0013030	02	000141	025417	-----		-001- 24	VFD 8,0(53) 8,0(17) # LOOP 16
0013031	02	000142	026417	-----		-001- 25	VFD 8,0(55) 8,0(17) # LOOP 17
0013032	02	000143	016417	-----		-001- 26	VFD 8,0(35) 8,0(17) # LOOP 18
0013033	02	000144	154017	-----		-001- 27	VFD 8,0(330) 8,0(17) # LOOP 19
0013034	02	000145	134017	-----		-001- 28	VFD 8,0(270) 8,0(17) # LOOP 20
0013035	02	000146	074017	-----		-001- 29	VFD 8,0(170) 8,0(17) # LOOP 21
0013036	02	000147	164017	-----		-001- 30	VFD 8,0(350) 8,0(17) # LOOP 22
0013037	02	000150	035017	-----		-001- 31	VFD 8,0(72) 8,0(17) # LOOP 23
0013040	02	000151	036017	-----		-001- 32	VFD 8,0(74) 8,0(17) # LOOP 24
0013041	02	000152	146017	-----		-001- 33	VFD 8,0(314) 8,0(17) # LOOP 25
0013042	02	000153	145017	-----		-001- 34	VFD 8,0(312) 8,0(17) # LOOP 26
0013043	02	000154	144417	-----		-001- 35	VFD 8,0(311) 8,0(17) # LOOP 27
0013044	02	000155	015417	-----		-001- 36	VFD 8,0(33) 8,0(17) # LOOP 28
0013045	02	000156	170330	-----		-001- 37	VFD 8,0(360) 8,0(330) # LOOP 29
0013046	02	000157	170350	-----		-001- 38	VFD 8,0(360) 8,0(350) # LOOP 30
0013047	02	000160	170066	-----		-001- 39	VFD 8,0(360) 8,0(66) # LOOP 31
0013050	02	000161	170071	-----		-001- 40	VFD 8,0(360) 8,0(71) # LOOP 32
0013051	02	000162	170072	-----		-001- 41	VFD 8,0(360) 8,0(72) # LOOP 33
0013052	02	000163	170074	-----		-001- 42	VFD 8,0(360) 8,0(74) # LOOP 34
0013053	02	000164	170311	-----		-001- 43	VFD 8,0(360) 8,0(311) # LOOP 35
0013054	02	000165	170312	-----		-001- 44	VFD 8,0(360) 8,0(312) # LOOP 36
0013055	02	000166	007730	-----		-001- 45	VFD 8,0(17) 8,0(330) # LOOP 37
0013056	02	000167	007750	-----		-001- 46	VFD 8,0(17) 8,0(350) # LOOP 38
0013057	02	000170	007466	-----		-001- 47	VFD 8,0(17) 8,0(66) # LOOP 39
0013060	02	000171	007471	-----		-001- 48	VFD 8,0(17) 8,0(71) # LOOP 40
0013061	02	000172	007472	-----		-001- 49	VFD 8,0(17) 8,0(72) # LOOP 41

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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TEST 66 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

0013062	02	000173	007474	-----	-001- 01	VFD	8,0(17) 8,0(74)	# LOOP 42
0013063	02	000174	007711	-----	-001- 02	VFD	8,0(17) 8,0(311)	# LOOP 43
0013064	02	000175	007712	-----	-001- 03	VFD	8,0(17) 8,0(312)	# LOOP 44
					-001- 06 #		LP_END	
					-001- 07 #		TERMINATE LOOP.	
0013065	02	000176	040002	000000 CDGNM	-001- 08	VFD	1,0 2,2 7,0 6,NLP_END	
0013066	02	000177	000000	013007 0013007	-001- 09	ADDR	LPSTART	
					12 #		CHECK RESULTS	
					-001- 16 #		RETRN	
					-001- 17 #		RETURN OFF-LINE MCS TO ON-LINE MCHB.	
0013070	02	000201	017311	----- CDGNM	-001- 18	VFD	1,0 2,0 7,B(1111011) 6,NZRETRN	
					-001- 20 #		MASK	
					-001- 21 #		MASK CONTENTS OF ON-LINE MCHB WITH 0(0177777).	
0013071	02	000202	040013	----- CDGNM	-001- 22	VFD	1,0 2,2 7,0 6,NMASK	
0013072	02	000203	000000	177777	-001- 23	ADDR	0(0177777)	
					-001- 25 #		COMPARE	
					-001- 26 #		COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0146003).	
					-001- 27 #		IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0013074	02	000205	050014	----- CDGNM	-001- 28	VFD	1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE	
0013075	02	000206	000000	146003	-001- 29	ADDR	0(0146003)	
0013077					31		# CF=1,DS=0,TR1=0,TR2=0,DR=0,RV=1,I=0,F IL=1	
					-001- 33 #		FAILTST	
					-001- 34 #		FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMCSO.	
					-001- 35 #		DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0013077	02	000210	020017	----- CDGNM	-001- 36	VFD	1,0 2,1 5,0 2,0 6,NFAILTST	
0013100	02	000211	000001	-----	-001- 37	VFD	16,FLMCSO	
					-001- 39 #		RETRN	
					-001- 40 #		RETURN OFF-LINE AR COPY 0 TO ON-LINE MCHB.	
0013101	02	000212	017310	----- CDGNM	-001- 41	VFD	1,0 2,0 7,B(1111011) 6,NRETRN	
					-001- 43 #		COMPARE	
					-001- 44 #		COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0125252).	
					-001- 45 #		IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0013102	02	000213	050014	----- CDGNM	-001- 46	VFD	1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE	
0013103	02	000214	000000	125252	-001- 47	ADDR	0(0125252)	

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

				-001- 01 #	FAILTST
				-001- 02 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS ROTAO.
				-001- 03 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013105	02	000216	020017	-----	CDGNM
0013106	02	000217	000002	-----	
				-001- 04	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
				-001- 05	VFD 16,ROTAO
				-001- 07 #	RETRN
				-001- 08 #	RETURN OFF-LINE BR COPY 0 TO ON-LINE MCHB.
0013107	02	000220	016710	-----	CDGNM
				-001- 09	VFD 1,0 2,0 7,B(1110111) 6,NRETRN
				-001- 11 #	COMPARE
				-001- 12 #	COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0011064).
				-001- 13 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013110	02	000221	050014	-----	CDGNM
0013111	02	000222	000000	011064	
				-001- 14	VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
				-001- 15	ADDR 0(0011064)
				-001- 17 #	FAILTST
				-001- 18 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS ROTBO.
				-001- 19 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013113	02	000224	020017	-----	CDGNM
0013114	02	000225	000003	-----	
				-001- 20	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
				-001- 21	VFD 16,ROTBO
				-001- 23 #	RETRN
				-001- 24 #	RETURN OFF-LINE ER TO ON-LINE MCHB.
0013115	02	000226	013710	-----	CDGNM
				-001- 25	VFD 1,0 2,0 7,B(1011111) 6,NRETRN
				-001- 27 #	COMPARE
				-001- 28 #	COMPARE ON-LINE MCHB BIT (S(DMLER)) TO 0.
				-001- 29 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013116	02	000227	020414	-----	CDGNM
0013117	02	000230	000000	-----	
				-001- 30	VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(DMLER)) 6,NCOMPARE
				-001- 31	VFD 15,0 1,0
				-001- 33 #	FAILTST
				-001- 34 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS ROT1.
				-001- 35 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013120	02	000231	020017	-----	CDGNM
0013121	02	000232	000004	-----	
				-001- 36	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
				-001- 37	VFD 16,ROT1
				-001- 39 #	RETRN
				-001- 40 #	RETURN OFF-LINE SS TO ON-LINE MCHB.
0013122	02	000233	016711	-----	CDGNM
				-001- 41	VFD 1,0 2,0 7,B(1110111) 6,N2RETRN
				-001- 43 #	COMPARE
				-001- 44 #	COMPARE ON-LINE MCHB BIT (S(MINT)) TO 1.
				-001- 45 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013123	02	000234	021314	-----	CDGNM
0013124	02	000235	000001	-----	
				-001- 46	VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(MINT)) 6,NCOMPARE
				-001- 47	VFD 15,0 1,1

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

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-001- 01 #   FAILTST
-001- 02 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMI.
-001- 03 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013125 02 000236 020017 ----- CDGNM -001- 04 #   VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013126 02 000237 000005 ----- -001- 05 #   VFD 16,FLMI

-001- 07 #   COMPARE
-001- 08 #   COMPARE ON-LINE MCHB BIT (M(STP)) TO 0.
-001- 09 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013127 02 000240 020014 ----- CDGNM -001- 10 #   VFD 1,L,PINDX 2,1 1,0 1,SUCCES 5,(M(STP)) 6,NCOMPARE
0013130 02 000241 000000 ----- -001- 11 #   VFD 15,0 1,0

-001- 13 #   FAILTST
-001- 14 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLSTP.
-001- 15 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013131 02 000242 020017 ----- CDGNM -001- 16 #   VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013132 02 000243 000006 ----- -001- 17 #   VFD 16,FLSTP

-001- 19 #   MICRO
-001- 20 #   PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 21 #   TO FIELD = MCHBXT FROM FIELD = MMSXF
0013133 02 000244 020005 ----- CDGNM -001- 22 #   VFD 1,0 2,1 7,0 6,NMICRO
0013134 02 000245 114632 ----- -001- 23 #   VFD 8,MCHBXT 8,MMSXF

-001- 25 #   RETRN
-001- 26 #   RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0013135 02 000246 007710 ----- CDGNM -001- 27 #   VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 29 #   COMPARE
-001- 30 #   COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0000200).
-001- 31 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013136 02 000247 050014 ----- CDGNM -001- 32 #   VFD 1,L,PINDX 2,2 1,1 1,SUCCES 5,0 6,NCOMPARE
0013137 02 000250 000000 000200 -001- 33 #   ADDR 0(0000200)

-001- 35 #   FAILTST
-001- 36 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBRMMS.
-001- 37 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013141 02 000252 020017 ----- CDGNM -001- 38 #   VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013142 02 000253 000007 ----- -001- 39 #   VFD 16,FLBRMMS

-001- 41 #   RETRN
-001- 42 #   RETURN OFF-LINE CR TO ON-LINE MCHB.
0013143 02 000254 015710 ----- CDGNM -001- 43 #   VFD 1,0 2,0 7,B(1101111) 6,NRETRN

-001- 45 #   COMPARE
-001- 46 #   COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0011064).
-001- 47 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013144 02 000255 050014 ----- CDGNM -001- 48 #   VFD 1,L,PINDX 2,2 1,1 1,SUCCES 5,0 6,NCOMPARE
0013145 02 000256 000000 011064 -001- 49 #   ADDR 0(0011064)

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MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 66 SEGMENT 1

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

				-001- 02 #	FAILTST
				-001- 03 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDML1CR.
				-001- 04 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013147	02	000260	020017	-----	CDGNM
0013150	02	000261	000010	-----	
				-001- 05	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
				-001- 06	VFD 16,FLDML1CR
				-001- 08 #	RETRN
				-001- 09 #	RETURN OFF-LINE GENERAL REGISTER R11 TO ON-LINE MCHB.
0013151	02	000262	037611	-----	CDGNM
0013152	02	000263	114554	-----	
				-001- 10	VFD 1,0 2,1 7,B(1111110) 6,N2RETRN
				-001- 11	VFD 8,MCHBXT 8,R11XF
				-001- 13 #	COMPARE
				-001- 14 #	COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0177777).
				-001- 15 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013153	02	000264	050014	-----	CDGNM
0013154	02	000265	000000	177777	
				-001- 16	VFD 1,LPINDX 2,2 1,1 1,SUCCES 5,0 6,NCOMPARE
				-001- 17	ADDR 0(0177777)
				-001- 19 #	FAILTST
				-001- 20 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLIODR11.
				-001- 21 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013156	02	000267	020017	-----	CDGNM
0013157	02	000270	000011	-----	
				-001- 22	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
				-001- 23	VFD 16,FLIODR11
				-001- 25 #	MICRO
				-001- 26 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 27 #	MISCELLANEOUS CROSSPOINT IODXR11X
0013160	02	000271	020005	-----	CDGNM
0013161	02	000272	025466	-----	
				-001- 28	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 29	VFD 16,IODXR11X
				-001- 31 #	RETRN
				-001- 32 #	RETURN OFF-LINE GENERAL REGISTER R11 TO ON-LINE MCHB.
0013162	02	000273	037611	-----	CDGNM
0013163	02	000274	114554	-----	
				-001- 33	VFD 1,0 2,1 7,B(1111110) 6,N2RETRN
				-001- 34	VFD 8,MCHBXT 8,R11XF
				-001- 36 #	COMPARE
				-001- 37 #	COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(000000).
				-001- 38 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013164	02	000275	050014	-----	CDGNM
0013165	02	000276	000000	000000	
				-001- 39	VFD 1,LPINDX 2,2 1,1 1,SUCCES 5,0 6,NCOMPARE
				-001- 40	ADDR 0(000000)
				-001- 42 #	FAILTST
				-001- 43 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLRAIO.
				-001- 44 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013167	02	000300	020017	-----	CDGNM
0013170	02	000301	000012	-----	
				-001- 45	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
				-001- 46	VFD 16,FLRAIO

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

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				-001- 01 #	MICRO	
				-001- 02 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
				-001- 03 #	MISCELLANEOUS CROSSPOINT MD5EIOS%	
0013171	02	000302	020005	-----	CDGMI	
0013172	02	000303	074071	-----		
				-001- 04	VFD 1,0 2,1 7,0 6,NMICRO	
				-001- 05	VFD 16,MD5EIOS%	
				-001- 07 #	MICRO	
				-001- 08 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
				-001- 09 #	MISCELLANEOUS CROSSPOINT IODXR11%	
0013173	02	000304	020005	-----	CDGMI	
0013174	02	000305	025466	-----		
				-001- 10	VFD 1,0 2,1 7,0 6,NMICRO	
				-001- 11	VFD 16,IODXR11%	
				-001- 13 #	RETRN	
				-001- 14 #	RETURN OFF-LINE GENERAL REGISTER R11 TO ON-LINE MCHB.	
0013175	02	000306	037611	-----	CDGMI	
0013176	02	000307	114554	-----		
				-001- 15	VFD 1,0 2,1 7,B(1111110) 6,N2RETRN	
				-001- 16	VFD 8,MCHBXT 8,R11XF	
				-001- 18 #	MASK	
				-001- 19 #	MASK CONTENTS OF ON-LINE MCHB WITH 0(0000017).	
0013177	02	000310	040013	-----	CDGMI	
0013200	02	000311	000000 000017	-----		
				-001- 20	VFD 1,0 2,2 7,0 6,NMASK	
				-001- 21	ADDR 0(0000017)	
				-001- 23 #	COMPARE	
				-001- 24 #	COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0000007).	
				-001- 25 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0013202	02	000313	050014	-----	CDGMI	
0013203	02	000314	000000 000007	-----		
				-001- 26	VFD 1,LPINDX 2,2 1,1 1,SUCCES 5,0 6,NCOMPARE	
				-001- 27	ADDR 0(0000007)	
				-001- 29 #	FAILTST	
				-001- 30 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLCHTNMC.	
				-001- 31 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0013205	02	000316	020017	-----	CDGMI	
0013206	02	000317	000013	-----		
				-001- 32	VFD 1,0 2,1 5,0 2,0 6,NFAILTST	
				-001- 33	VFD 16,FLCHTNMC	
				-001- 35 #	MICRO	
				-001- 36 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
				-001- 37 #	TO FIELD = MCHBXT FROM FIELD = DBXF	
0013207	02	000320	020005	-----	CDGMI	
0013210	02	000321	114651	-----		
				-001- 38	VFD 1,0 2,1 7,0 6,NMICRO	
				-001- 39	VFD 8,MCHBXT 8,DBXF	
				-001- 41 #	RETRN	
				-001- 42 #	RETURN OFF-LINE MCHB TO ON-LINE MCHB.	
0013211	02	000322	007710	-----	CDGMI	
				-001- 43	VFD 1,0 2,0 7,B(0111111) 6,NRETRN	
				-001- 45 #	COMPARE	
				-001- 46 #	COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0125715).	
				-001- 47 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0013212	02	000323	050014	-----	CDGMI	
0013213	02	000324	000000 125715	-----		
				-001- 48	VFD 1,LPINDX 2,2 1,1 1,SUCCES 5,0 6,NCOMPARE	
				-001- 49	ADDR 0(0125715)	

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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TEST 66 SEGMENT 2

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

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-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 66 SEGMENT 2
-001- 04 # *
-001- 05 # *****

0013217 02 000330 000200 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(2) 6,NTESTSEG

11 # A SECOND SET OF INITIAL CONDITIONS IS USED AS IN
12 # SEGMENT 1 IN ORDER TO HANDLE CONTRADICTIONARY CASES (DS=0
13 # IN SEGMENT 1, DS=1 IN SEGMENT 2)

-001- 19 # MICRO
-001- 20 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 21 # MISCELLANEOUS CROSSPOINT ZCFX
0013220 02 000331 020005 ----- CDGNM -001- 22 VFD 1,0 2,1 7,0 6,NMICRO
0013221 02 000332 036072 ----- -001- 23 VFD 16,ZCFX

-001- 25 # MICRO
-001- 26 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 27 # MISCELLANEOUS CROSSPOINT SDSX
0013222 02 000333 020005 ----- CDGNM -001- 28 VFD 1,0 2,1 7,0 6,NMICRO
0013223 02 000334 146071 ----- -001- 29 VFD 16,SDSX

-001- 31 # MICRO
-001- 32 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 33 # MISCELLANEOUS CROSSPOINT SIX
0013224 02 000335 020005 ----- CDGNM -001- 34 VFD 1,0 2,1 7,0 6,NMICRO
0013225 02 000336 015730 ----- -001- 35 VFD 16,SIX

-001- 37 # MICRO
-001- 38 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 39 # MISCELLANEOUS CROSSPOINT SDRX
0013226 02 000337 020005 ----- CDGNM -001- 40 VFD 1,0 2,1 7,0 6,NMICRO
0013227 02 000340 015471 ----- -001- 41 VFD 16,SDRX

-001- 43 # MICRO
-001- 44 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 45 # MISCELLANEOUS CROSSPOINT STR1X
0013230 02 000341 020005 ----- CDGNM -001- 46 VFD 1,0 2,1 7,0 6,NMICRO
0013231 02 000342 145071 ----- -001- 47 VFD 16,STR1X

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MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 66 SEGMENT 2

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## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

				-001- 01 #	MICRO
				-001- 02 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 03 #	MISCELLANEOUS CROSSPOINT STR2X
0013232	02	000343	020005	-----	CDGMI
0013233	02	000344	144471	-----	
				-001- 04	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 05	VFD 16,STR2X
				-001- 07 #	MICRO
				-001- 08 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 09 #	MISCELLANEOUS CROSSPOINT ZOPFX
0013234	02	000345	020005	-----	CDGMI
0013235	02	000346	146330	-----	
				-001- 10	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 11	VFD 16,ZOPFX
				-001- 13 #	MICRO
				-001- 14 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 15 #	MISCELLANEOUS CROSSPOINT ZBRX
0013236	02	000347	020005	-----	CDGMI
0013237	02	000350	025712	-----	
				-001- 16	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 17	VFD 16,ZBRX
				-001- 19 #	MICRO
				-001- 20 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 21 #	TO FIELD = SIBXT FROM FIELD = BRXF
0013240	02	000351	020005	-----	CDGMI
0013241	02	000352	161342	-----	
				-001- 22	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 23	VFD 8,SIBXT 8,BRXF
				-001- 25 #	MICRO
				-001- 26 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 27 #	MISCELLANEOUS CROSSPOINT SIBXSIR1X
0013242	02	000353	020005	-----	CDGMI
0013243	02	000354	144474	-----	
				-001- 28	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 29	VFD 16,SIBXSIR1X
				-001- 31 #	MICRO
				-001- 32 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 33 #	TO FIELD = SIRXT FROM FIELD = BRXF
0013244	02	000355	020005	-----	CDGMI
0013245	02	000356	017342	-----	
				-001- 34	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 35	VFD 8,SIRXT 8,BRXF
				-001- 37 #	MICRO
				-001- 38 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 39 #	TO FIELD = IBXT FROM FIELD = BRXF
0013246	02	000357	020005	-----	CDGMI
0013247	02	000360	143342	-----	
				-001- 40	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 41	VFD 8,IBXT 8,BRXF
				-001- 43 #	SEND
				-001- 44 #	SEND 0(0000100) TO OFF-LINE MCHB.
				-001- 45 #	PARITY IS 0(0).
0013250	02	000361	047707	-----	CDGMI
0013251	02	000362	000000 000100	-----	
				-001- 46	VFD 1,0 2,2 7,8(0111111) 6,N2SEND
				-001- 47	ADDR 0(0000100),0(0)

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

				-001- 01 #	MICRO
				-001- 02 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 03 #	TO FIELD = MSXT FROM FIELD = MCHBXF
0013253	02	000364	020005	-----	CDGNM
0013254	02	000365	106631	-----	
				-001- 04	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 05	VFD 8,MSXT 8,MCHBXF
				-001- 07 #	MICRO
				-001- 08 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 09 #	MISCELLANEOUS CROSSPOINT SBRX
0013255	02	000366	020005	-----	CDGNM
0013256	02	000367	023712	-----	
				-001- 10	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 11	VFD 16,SBRX
				-001- 13 #	MICRO
				-001- 14 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 15 #	TO FIELD = SIBXT FROM FIELD = BRXF
0013257	02	000370	020005	-----	CDGNM
0013260	02	000371	161342	-----	
				-001- 16	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 17	VFD 8,SIBXT 8,BRXF
				-001- 19 #	MICRO
				-001- 20 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 21 #	MISCELLANEOUS CROSSPOINT ENAX
0013261	02	000372	020005	-----	CDGNM
0013262	02	000373	035072	-----	
				-001- 22	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 23	VFD 16,ENAX
				-001- 25 #	MICRO
				-001- 26 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 27 #	MISCELLANEOUS CROSSPOINT ENBX
0013263	02	000374	020005	-----	CDGNM
0013264	02	000375	035071	-----	
				-001- 28	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 29	VFD 16,ENBX
				-001- 31 #	SEND
				-001- 32 #	SEND 0(0004000) TO OFF-LINE MCHB.
				-001- 33 #	PARITY IS NORMAL.
0013265	02	000376	047706	-----	CDGNM
0013266	02	000377	000000 004000	-----	
				-001- 34	VFD 1,0 2,2 7,8(0111111) 6,NSEND
				-001- 35	ADDR 0(0004000)
				-001- 37 #	MICRO
				-001- 38 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
				-001- 39 #	TO FIELD = SS RXT FROM FIELD = MCHBXF
0013270	02	000401	020005	-----	CDGNM
0013271	02	000402	107231	-----	
				-001- 40	VFD 1,0 2,1 7,0 6,NMICRO
				-001- 41	VFD 8,SS_RXT 8,MCHBXF

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 29

TEST 66 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

01 # INITIAL CONDITIONS HAVE BEEN SET UP. NOW FIRE ALL PARTIAL  
 02 # MISCELLANEOUS CROSSPOINTS

```

-001- 06 # LP_BEGIN
-001- 07 # BEGIN 44 LOOPS.
0013272 02 000403 005401 ----- CDGMM -001- 08 MISCLP2 VFD 1,0 2,0 7,D(44) 6,NBEGIN

-001- 10 # MICRO
-001- 11 # PERFORM MICRO INSTRUCTIONS IN OFF-LINE CU.
0013273 02 000404 120005 ----- CDGMM -001- 12 VFD 1,1 2,1 7,0 6,NMICRO
0013274 02 000405 023760 ----- -001- 13 VFD 8,0(47) 8,0(360) # LOOP 1
0013275 02 000406 025760 ----- -001- 14 VFD 8,0(53) 8,0(360) # LOOP 2
0013276 02 000407 026760 ----- -001- 15 VFD 8,0(55) 8,0(360) # LOOP 3
0013277 02 000410 016760 ----- -001- 16 VFD 8,0(35) 8,0(360) # LOOP 4
0013300 02 000411 154360 ----- -001- 17 VFD 8,0(330) 8,0(360) # LOOP 5
0013301 02 000412 134360 ----- -001- 18 VFD 8,0(270) 8,0(360) # LOOP 6
0013302 02 000413 074360 ----- -001- 19 VFD 8,0(170) 8,0(360) # LOOP 7
0013303 02 000414 164360 ----- -001- 20 VFD 8,0(350) 8,0(360) # LOOP 8
0013304 02 000415 035360 ----- -001- 21 VFD 8,0(72) 8,0(360) # LOOP 9
0013305 02 000416 036360 ----- -001- 22 VFD 8,0(74) 8,0(360) # LOOP 10
0013306 02 000417 146360 ----- -001- 23 VFD 8,0(314) 8,0(360) # LOOP 11
0013307 02 000420 145360 ----- -001- 24 VFD 8,0(312) 8,0(360) # LOOP 12
0013310 02 000421 144760 ----- -001- 25 VFD 8,0(311) 8,0(360) # LOOP 13
0013311 02 000422 015760 ----- -001- 26 VFD 8,0(33) 8,0(360) # LOOP 14
0013312 02 000423 023417 ----- -001- 27 VFD 8,0(47) 8,0(17) # LOOP 15
0013313 02 000424 025417 ----- -001- 28 VFD 8,0(53) 8,0(17) # LOOP 16
0013314 02 000425 026417 ----- -001- 29 VFD 8,0(55) 8,0(17) # LOOP 17
0013315 02 000426 016417 ----- -001- 30 VFD 8,0(35) 8,0(17) # LOOP 18
0013316 02 000427 154017 ----- -001- 31 VFD 8,0(330) 8,0(17) # LOOP 19
0013317 02 000430 134017 ----- -001- 32 VFD 8,0(270) 8,0(17) # LOOP 20
0013320 02 000431 074017 ----- -001- 33 VFD 8,0(170) 8,0(17) # LOOP 21
0013321 02 000432 164017 ----- -001- 34 VFD 8,0(350) 8,0(17) # LOOP 22
0013322 02 000433 035017 ----- -001- 35 VFD 8,0(72) 8,0(17) # LOOP 23
0013323 02 000434 036017 ----- -001- 36 VFD 8,0(74) 8,0(17) # LOOP 24
0013324 02 000435 146017 ----- -001- 37 VFD 8,0(314) 8,0(17) # LOOP 25
0013325 02 000436 145017 ----- -001- 38 VFD 8,0(312) 8,0(17) # LOOP 26
0013326 02 000437 144417 ----- -001- 39 VFD 8,0(311) 8,0(17) # LOOP 27
0013327 02 000440 015417 ----- -001- 40 VFD 8,0(33) 8,0(17) # LOOP 28
0013330 02 000441 170330 ----- -001- 41 VFD 8,0(360) 8,0(330) # LOOP 29
0013331 02 000442 170350 ----- -001- 42 VFD 8,0(360) 8,0(350) # LOOP 30
0013332 02 000443 170066 ----- -001- 43 VFD 8,0(360) 8,0(66) # LOOP 31
0013333 02 000444 170071 ----- -001- 44 VFD 8,0(360) 8,0(71) # LOOP 32
0013334 02 000445 170072 ----- -001- 45 VFD 8,0(360) 8,0(72) # LOOP 33
0013335 02 000446 170074 ----- -001- 46 VFD 8,0(360) 8,0(74) # LOOP 34
0013336 02 000447 170311 ----- -001- 47 VFD 8,0(360) 8,0(311) # LOOP 35
0013337 02 000450 170312 ----- -001- 48 VFD 8,0(360) 8,0(312) # LOOP 36
0013340 02 000451 007730 ----- -001- 49 VFD 8,0(17) 8,0(330) # LOOP 37

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 30

TEST 66 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

```

0013341 02 000452 007750 ----- -001- 01 VFD 8,0(17) 8,0(350) # LOOP 38
0013342 02 000453 007466 ----- -001- 02 VFD 8,0(17) 8,0(66) # LOOP 39
0013343 02 000454 007471 ----- -001- 03 VFD 8,0(17) 8,0(71) # LOOP 40
0013344 02 000455 007472 ----- -001- 04 VFD 8,0(17) 8,0(72) # LOOP 41
0013345 02 000456 007474 ----- -001- 05 VFD 8,0(17) 8,0(74) # LOOP 42
0013346 02 000457 007711 ----- -001- 06 VFD 8,0(17) 8,0(311) # LOOP 43
0013347 02 000460 007712 ----- -001- 07 VFD 8,0(17) 8,0(312) # LOOP 44

```

```

-001- 10 # LP_END
-001- 11 # TERMINATE LOOP.
0013350 02 000461 040002 000000 CDGMI -001- 12 VFD 1,0 2,2 7,0 6,NLP_END
0013351 02 000462 000000 013272 0013272 -001- 13 ADDR LPSTART

```

## 20 # CHECK RESULTS

```

-001- 24 # RETRN
-001- 25 # RETURN OFF-LINE MCS TO ON-LINE MCHB.
0013353 02 000464 017311 ----- CDGMI -001- 26 VFD 1,0 2,0 7,B(1111011) 6,N2RETRN

-001- 28 # MASK
-001- 29 # MASK CONTENTS OF ON-LINE MCHB WITH 0(0177777).
0013354 02 000465 040013 ----- CDGMI -001- 30 VFD 1,0 2,2 7,0 6,NMASK
0013355 02 000466 000000 177777 -001- 31 ADDR 0(0177777)

-001- 33 # COMPARE
-001- 34 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0037774).
-001- 35 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013357 02 000470 050014 ----- CDGMI -001- 36 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0013360 02 000471 000000 037774 -001- 37 ADDR 0(0037774)

-001- 39 # FAILTST
-001- 40 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMCS1.
-001- 41 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013362 02 000473 020017 ----- CDGMI -001- 42 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013363 02 000474 000015 ----- -001- 43 VFD 16,FLMCS1

-001- 45 # MICRO
-001- 46 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 47 # TO FIELD = MCHBXT FROM FIELD = IBXF
0013364 02 000475 020005 ----- CDGMI -001- 48 VFD 1,0 2,1 7,0 6,NMICRO
0013365 02 000476 114706 ----- -001- 49 VFD 8,MCHBXT 8,IBXF

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 31

TEST 66 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 02 # RETRN
0013366 02 000477 007710 ----- CDGNM -001- 03 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
-001- 04 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 06 # COMPARE
-001- 07 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0000000).
0013367 02 000500 050014 ----- CDGNM -001- 08 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013370 02 000501 000000 000000 -001- 09 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
-001- 10 ADDR 0(0000000)

-001- 12 # FAILTST
-001- 13 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLEX.
0013372 02 000503 020017 ----- CDGNM -001- 14 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013373 02 000504 000016 ----- -001- 15 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
-001- 16 VFD 16,FLEX

-001- 18 # MICRO
-001- 19 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
0013374 02 000505 020005 ----- CDGNM -001- 20 # TO FIELD = MCHBXT FROM FIELD = SIR1XF
0013375 02 000506 114435 ----- -001- 21 VFD 1,0 2,1 7,0 6,NMICRO
-001- 22 VFD 8,MCHBXT 8,SIR1XF

-001- 24 # RETRN
-001- 25 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0013376 02 000507 007710 ----- CDGNM -001- 26 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 28 # COMPARE
-001- 29 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0000000).
0013377 02 000510 050014 ----- CDGNM -001- 30 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013400 02 000511 000000 000000 -001- 31 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
-001- 32 ADDR 0(0000000)

-001- 34 # FAILTST
-001- 35 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLSIBSIR.
0013402 02 000513 020017 ----- CDGNM -001- 36 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013403 02 000514 000017 ----- -001- 37 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
-001- 38 VFD 16,FLSIBSIR

-001- 40 # RETRN
-001- 41 # RETURN MISCELLANEOUS BITS TO ON-LINE MCHB.
0013404 02 000515 017511 ----- CDGNM -001- 42 VFD 1,0 2,0 7,B(1111101) 6,N2RETRN

-001- 44 # COMPARE
-001- 45 # COMPARE ON-LINE MCHB BIT (S(DISAB)) TO 0.
0013405 02 000516 020714 ----- CDGNM -001- 46 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013406 02 000517 000000 ----- -001- 47 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(DISAB)) 6,NCOMPARE
-001- 48 VFD 15,0 1,0

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 32

TEST 66 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

	-001- 01 #	FAILTST
	-001- 02 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLSDIS.
	-001- 03 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013407 02 000520 020017 ----- CDGMI	-001- 04	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013410 02 000521 000020 -----	-001- 05	VFD 16,FLSDIS

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 33

TEST 66 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 66 SEGMENT 3
-001- 04 # *
-001- 05 # *****

0013411 02 000522 000300 ----- CDGMM -001- 08 VFD 1,0 2,0 2,0 5,D(3) 6,NTESTSEG

11 # SOME CROSSPOINTS WHICH WERE NOT PICKED UP IN EARLIER SEGMENTS
12 # ARE TRIED

0013412 14 # TEST FOR MULTIPLE FIRING OF BRXTI,
ZPT, INCTC
# 13323
-001- 16 CMTMSCXP OW 0(523)
NOTE ***** THE FIRST ADDRESS OVERWRITTEN IS 000523 *****

0013412 02 000523 000141 ----- 20 DATA 0(141)
-001- 21 # SKIP
-001- 22 # SKIP TO TABLE ENTRY AT ADDRESS LD_BR
0013413 02 000524 040025 000000 CDGMM -001- 23 VFD 1,0 2,2 7,0 6,NSKIP
0013414 02 000525 000000 113371 0000607 -001- 24 ADDR LD_BR

0013416 26 EOW # 13323
-001- 27 NOTE ***** THE LAST ADDRESS OVERWRITTEN IS 000526 *****

0013416 02 000527 011064 ----- 30 DDELETE NOTE 1
31 DATA 0(11064)
32 CPATCH1 BGNP 0(607) # 13323
-001- 33 NOTE CPATCH1 'CSECT'
-001- 34 NOTE ***** PATCH AREA BEGINS AT 000607 *****

0113371 37 LD_BR
-001- 38 # SEND
-001- 39 # SEND 0(0011064) TO OFF-LINE DUPLICATE B REGISTERS.
-001- 40 # PARITY IS NORMAL.
0113371 06 000607 056706 ----- CDGMM -001- 41 VFD 1,0 2,2 7,B(1110111) 6,NSEND
0113372 06 000610 000000 011064 -001- 42 ADDR 0(0011064)

-001- 44 # LP_BEGIN
-001- 45 # BEGIN 10 LOOPS.
0113374 06 000612 001201 ----- CDGMM -001- 46 TIMLP1 VFD 1,0 2,0 7,D(10) 6,NBEGIN

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 34

TEST 66 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # ABORT
-001- 02 # TURN ON INTERRUPT ABORT SWITCH.
0113375 06 000613 000141 ----- CDGNM -001- 03 VFD 1,0 2,0 6,0 1,1 6,NABT

-001- 05 # SKIP
-001- 06 # SKIP TO TABLE ENTRY AT ADDRESS BRXTI
0113376 06 000614 040025 000000 CDGNM -001- 07 VFD 1,0 2,2 7,0 6,NSKIP
0113377 06 000615 000000 013417 0000530 -001- 08 ADDR BRXTI

0113401 10 ENDP # 13323
-001- 11 NOTE ***** LAST PATCH ADDRESS USED IS 000616 *****
-001- 12 NOTE ***** NUMBER OF PATCH WORDS USED IS 8 (DECIMAL) *****

15 CMTMSCXP OW 0(530) # 13323
-001- 16 NOTE ***** THE FIRST ADDRESS OVERWRITTEN IS 000530 *****

0013417 19 BRXTI
-001- 20 # MICRO
-001- 21 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 22 # MISCELLANEOUS CROSSPOINT SBTCX
0113417 02 000530 020005 ----- CDGNM -001- 23 VFD 1,0 2,1 7,0 6,NMICRO
0113420 02 000531 025471 ----- -001- 24 VFD 16,SBTCX

-001- 26 # MICRO
-001- 27 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 28 # MISCELLANEOUS CROSSPOINT BRXTIX
0113421 02 000532 020005 ----- CDGNM -001- 29 VFD 1,0 2,1 7,0 6,NMICRO
0113422 02 000533 154066 ----- -001- 30 VFD 16,BRXTIX

0113423 32 EOW # 13323
-001- 33 NOTE ***** THE LAST ADDRESS OVERWRITTEN IS 000533 *****

-001- 37 # MICRO
-001- 38 # PERFORM MICRO INSTRUCTIONS IN OFF-LINE CU.
0113423 02 000534 120005 ----- CDGNM -001- 39 VFD 1,1 2,1 7,0 6,NMICRO
0113424 02 000535 154017 ----- -001- 40 VFD 8,0(330) 8,0(17) # LOOP 1
0113425 02 000536 154360 ----- -001- 41 VFD 8,0(330) 8,0(360) # LOOP 2
0113426 02 000537 134017 ----- -001- 42 VFD 8,0(270) 8,0(17) # LOOP 3
0113427 02 000540 134360 ----- -001- 43 VFD 8,0(270) 8,0(360) # LOOP 4
0113430 02 000541 007471 ----- -001- 44 VFD 8,0(17) 8,0(71) # LOOP 5
0113431 02 000542 170071 ----- -001- 45 VFD 8,0(360) 8,0(71) # LOOP 6
0113432 02 000543 007466 ----- -001- 46 VFD 8,0(17) 8,0(66) # LOOP 7
0113433 02 000544 170066 ----- -001- 47 VFD 8,0(360) 8,0(66) # LOOP 8
0113434 02 000545 007750 ----- -001- 48 VFD 8,0(17) 8,0(350) # LOOP 9
0113435 02 000546 170350 ----- -001- 49 VFD 8,0(360) 8,0(350) # LOOP 10

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 35

TEST 66 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

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03 CMTMSCXP OW 0(547) # 13323
-001- 04 NOTE ***** THE FIRST ADDRESS OVERWRITTEN IS 000547 *****

-001- 07 # MICRO
-001- 08 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 09 # TO FIELD = MCHBXT FROM FIELD = TIXF
0013436 02 000547 020005 ----- CDGNM
0013437 02 000550 114623 -----
-001- 10 VFD 1,0 2,1 7,0 6,NMICRO
-001- 11 VFD 8,MCHBXT 8,TIXF

-001- 13 # RETRN
-001- 14 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0013440 02 000551 007710 ----- CDGNM
-001- 15 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 17 # COMPARE
-001- 18 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0011064).
-001- 19 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013441 02 000552 050014 ----- CDGNM
0013442 02 000553 000000 011064
-001- 20 VFD 1,LPINDX 2,2 1,1 1,SUCCES 5,0 6,NCOMPARE
-001- 21 ADDR 0(0011064)

0013444 02 000555 020017 -----
0013445 02 000556 000021 -----
23 DATA 0(20017)
24 DATA 0(21)
-001- 25 # SKIP
-001- 26 # SKIP TO TABLE ENTRY AT ADDRESS CLR_ABT
0013446 02 000557 040025 000000 CDGNM
0013447 02 000560 000000 113401 0000617
-001- 27 VFD 1,0 2,2 7,0 6,NSKIP
-001- 28 ADDR CLR_ABT

0013451
-001- 30 EOW # 13323
-001- 31 NOTE ***** THE LAST ADDRESS OVERWRITTEN IS 000561 *****

34 CPATCH1 BGNP 0(617) # 13323
-001- 35 NOTE CPATCH1 'CSECT'
-001- 36 NOTE ***** PATCH AREA BEGINS AT 000617 *****

0113401
39 CLR_ABT
-001- 40 # ABORT
-001- 41 # TURN OFF INTERRUPT ABORT SWITCH.
0113401 06 000617 000041 ----- CDGNM
-001- 42 VFD 1,0 2,0 6,0 1,0 6,NABT

-001- 44 # LP_END
-001- 45 # TERMINATE LOOP.
0113402 06 000620 040002 000000 CDGNM
0113403 06 000621 000000 113374 0113374
-001- 46 VFD 1,0 2,2 7,0 6,NLP_END
-001- 47 ADDR LPSTART

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 36

TEST 66 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # SKIP
-001- 02 # SKIP TO TABLE ENTRY AT ADDRESS RT_BRK
0113405 06 000623 040025 000000 CDGNM -001- 03 VFD 1,0 2,2 7,0 6,NSKIP
0113406 06 000624 000000 013451 0000562 -001- 04 ADDR RT_BRK

0113406 06 ENDP # 13323
-001- 07 NOTE ***** LAST PATCH ADDRESS USED IS 000625 *****
-001- 08 NOTE ***** NUMBER OF PATCH WORDS USED IS 7 (DECIMAL) *****

-001- 11 CMTMSCXP OW 0(562) # 13323
-001- 12 NOTE ***** THE FIRST ADDRESS OVERWRITTEN IS 000562 *****

0013451 15 RT_BRK
-001- 16 # ZERO_PT
-001- 17 # ZERO THE OFF-LINE PROGRAM TIMER.
0013451 02 000562 000030 ----- CDGNM -001- 18 VFD 1,0 2,0 7,0 6,NZERPT

0013452 20 EOW # 13323
-001- 21 NOTE ***** THE LAST ADDRESS OVERWRITTEN IS 000562 *****

-001- 24 # CALLPROS
-001- 25 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0013452 02 000563 000004 ----- CDGNM -001- 26 VFD 1,0 2,0 6,0 1,0 6,NPROS

-001- 28 # SEND
-001- 29 # SEND 0(0000010) TO OFF-LINE MCHB.
-001- 30 # PARITY IS NORMAL.
0013453 02 000564 047706 ----- CDGNM -001- 31 VFD 1,0 2,2 7,B(0111111) 6,NSEND
0013454 02 000565 000000 000010 -001- 32 ADDR 0(0000010)

-001- 34 # MICRO
-001- 35 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 36 # TO FIELD = SS_RXT FROM FIELD = MCHBXF
0013456 02 000567 020005 ----- CDGNM -001- 37 VFD 1,0 2,1 7,0 6,NMICRO
0013457 02 000570 107231 ----- -001- 38 VFD 8,SS_RXT 8,MCHBXF

0013460 40 # TEST FOR MULTIPLE FIRING OF SBTC
-001- 41 # LP_BEGIN
-001- 42 # BEGIN 4 LOOPS.
0013460 02 000571 000401 ----- CDGNM -001- 43 TIMLP2 VFD 1,0 2,0 7,D(4) 6,NBEGIN

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 37

TEST 66 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

				-001- 01 #	MICRO	
				-001- 02 #	PERFORM MICRO INSTRUCTIONS IN OFF-LINE CU.	
0013461	02	000572	120005	-----	CDGMI	-001- 03
						VFD 1,1 2,1 7,0 6,NMICRO
0013462	02	000573	025417	-----		-001- 04
						VFD 8,0(53) 8,0(17) # LOOP 1
0013463	02	000574	025760	-----		-001- 05
						VFD 8,0(53) 8,0(360) # LOOP 2
0013464	02	000575	007471	-----		-001- 06
						VFD 8,0(17) 8,0(71) # LOOP 3
0013465	02	000576	170071	-----		-001- 07
						VFD 8,0(360) 8,0(71) # LOOP 4
				-001- 10 #	LP_END	
				-001- 11 #	TERMINATE LOOP.	
0013466	02	000577	040002	000000	CDGMI	-001- 12
						VFD 1,0 2,2 7,0 6,NLP_END
0013467	02	000600	000000	013460	0013460	-001- 13
						ADDR LPSTART
				-001- 16 #	RETRN	
				-001- 17 #	RETURN OFF-LINE SS TO ON-LINE MCHB.	
0013471	02	000602	016711	-----	CDGMI	-001- 18
						VFD 1,0 2,0 7,B(1110111) 6,N2RETRN
				-001- 20 #	COMPARE	
				-001- 21 #	COMPARE ON-LINE MCHB BIT (S(BTC)) TO 0.	
				-001- 22 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0013472	02	000603	020314	-----	CDGMI	-001- 23
						VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(BTC)) 6,NCOMPARE
0013473	02	000604	000000	-----		-001- 24
						VFD 15,0 1,0
				-001- 26 #	FAILTST	
				-001- 27 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBTC.	
				-001- 28 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0013474	02	000605	020017	-----	CDGMI	-001- 29
						VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013475	02	000606	000022	-----		-001- 30
						VFD 16,FLBTC
				-001- 33 #	RTN_BLM	
				-001- 34 #	TURN ON AUTOMATIC RETURNS TO BLM EVERY 20 TABLE ENTRIES.	
0013476	02	000607	000044	-----	CDGMI	-001- 35
						VFD 1,0 2,0 6,0 1,0 6,NRTNBLM
0013477						37 # TEST ZER CROSSPOINT
				-001- 38 #	SEND	
				-001- 39 #	SEND 0(0007777) TO OFF-LINE MCHB.	
				-001- 40 #	PARITY IS NORMAL.	
0013477	02	000610	047706	-----	CDGMI	-001- 41
						VFD 1,0 2,2 7,B(0111111) 6,NSEND
0013500	02	000611	000000	007777		-001- 42
						ADDR 0(0007777)
				-001- 44 #	MICRO	
				-001- 45 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
				-001- 46 #	TO FIELD = ERXT FROM FIELD = MCHBXF	
0013502	02	000613	020005	-----	CDGMI	-001- 47
						VFD 1,0 2,1 7,0 6,NMICRO
0013503	02	000614	125231	-----		-001- 48
						VFD 8,ERXT 8,MCHBXF

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

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-001- 01 # LP_BEGIN
-001- 02 # BEGIN_4 LOOPS.
0013504 02 000615 000401 ----- CDGNM -001- 03 ERLP VFD 1,0 2,0 7,D(4) 6,NBEGIN

-001- 05 # MICRO
-001- 06 # PERFORM MICRO INSTRUCTIONS IN OFF-LINE CU.
0013505 02 000616 120005 ----- CDGNM -001- 07 VFD 1,1 2,1 7,0 6,NMICRO
0013506 02 000617 025760 ----- -001- 08 VFD 8,0(53) 8,0(360) # LOOP 1
0013507 02 000620 025417 ----- -001- 09 VFD 8,0(53) 8,0(17) # LOOP 2
0013510 02 000621 170350 ----- -001- 10 VFD 8,0(360) 8,0(350) # LOOP 3
0013511 02 000622 007750 ----- -001- 11 VFD 8,0(17) 8,0(350) # LOOP 4

-001- 14 # LP_END
-001- 15 # TERMINATE LOOP.
0013512 02 000623 040002 000000 CDGNM -001- 16 VFD 1,0 2,2 7,0 6,NLP_END
0013513 02 000624 000000 013504 0013504 -001- 17 ADDR LPSTART

-001- 20 # RETRN
-001- 21 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0013515 02 000626 013710 ----- CDGNM -001- 22 VFD 1,0 2,0 7,B(1011111) 6,NRETRN

-001- 24 # COMPARE NOT
-001- 25 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0177777).
-001- 26 # IF COMPARISON DOES NOT EXIST, SKIP NEXT TABLE ENTRY.
0013516 02 000627 054014 ----- CDGNM -001- 27 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0013517 02 000630 000000 177777 -001- 28 ADDR 0(0177777)

-001- 30 # FAILTST
-001- 31 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLZER.
-001- 32 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013521 02 000632 020017 ----- CDGNM -001- 33 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013522 02 000633 000023 ----- -001- 34 VFD 16,FLZER

0013523 37 # TEST "ENA" CROSSPOINT
-001- 38 # MICRO
-001- 39 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 40 # MISCELLANEOUS CROSSPOINT SDISX
0013523 02 000634 020005 ----- CDGNM -001- 41 VFD 1,0 2,1 7,0 6,NMICRO
0013524 02 000635 016471 ----- -001- 42 VFD 16,SDISX

0013525 44 # THE DISABLE CIRCUIT HAS NOT BEEN
# DIAGNOSED YET. CHECK THAT IT IS
# INITIALIZED TO PROPER STATE.
-001- 47 # RETRN
-001- 48 # RETURN MISCELLANEOUS BITS TO ON-LINE MCHB.
0013525 02 000636 017511 ----- CDGNM -001- 49 VFD 1,0 2,0 7,B(1111101) 6,N2RETRN

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MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

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-001- 02 # COMPARE
-001- 03 # COMPARE ON-LINE MCHB BIT (M(DISAB)) TO 1.
-001- 04 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013526 02 000637 020014 ----- CDGNM -001- 05 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(M(DISAB)) 6,NCOMPARE
0013527 02 000640 000001 ----- -001- 06 VFD 15,0 1,1

-001- 08 # FAILTST
-001- 09 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDISAB.
0013530 02 000641 020017 ----- CDGNM -001- 10 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013531 02 000642 000024 ----- -001- 11 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
-001- 12 VFD 16,FLDISAB

-001- 14 # COMPARE
-001- 15 # COMPARE ON-LINE MCHB BIT (S(SENAB)) TO 0.
-001- 16 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013532 02 000643 020614 ----- CDGNM -001- 17 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(SENAB)) 6,NCOMPARE
0013533 02 000644 000000 ----- -001- 18 VFD 15,0 1,0

-001- 20 # FAILTST
-001- 21 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDISAB.
-001- 22 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013534 02 000645 020017 ----- CDGNM -001- 23 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0013535 02 000646 000024 ----- -001- 24 VFD 16,FLDISAB

-001- 26 # LP_BEGIN
-001- 27 # BEGIN 4 LOOPS.
0013536 02 000647 000401 ----- CDGNM -001- 28 ENALP VFD 1,0 2,0 7,0(4) 6,NBEGIN

-001- 30 # MICRO
-001- 31 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 32 # MISCELLANEOUS CROSSPOINT SDISX
0013537 02 000650 020005 ----- CDGNM -001- 33 VFD 1,0 2,1 7,0 6,NMICRO
0013540 02 000651 016471 ----- -001- 34 VFD 16,SDISX

-001- 36 # MICRO
-001- 37 # PERFORM MICRO INSTRUCTIONS IN OFF-LINE CU.
0013541 02 000652 120005 ----- CDGNM -001- 38 VFD 1,1 2,1 7,0 6,NMICRO
0013542 02 000653 035360 ----- -001- 39 VFD 8,0(72) 8,0(360) # LOOP 1
0013543 02 000654 035017 ----- -001- 40 VFD 8,0(72) 8,0(17) # LOOP 2
0013544 02 000655 170072 ----- -001- 41 VFD 8,0(360) 8,0(72) # LOOP 3
0013545 02 000656 007472 ----- -001- 42 VFD 8,0(17) 8,0(72) # LOOP 4

-001- 45 # LP_END
-001- 46 # TERMINATE LOOP.
0013546 02 000657 040002 000000 CDGNM -001- 47 VFD 1,0 2,2 7,0 6,NLP_END
0013547 02 000660 000000 013536 0013536 -001- 48 ADDR LPSTART

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

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-001- 02 #   RETRN
-001- 03 #   RETURN MISCELLANEOUS BITS TO ON-LINE MCHB.
0013551 02 000662 017511 ----- CDGMI  -001- 04   VFD   1,0 2,0 7,B(1111101) 6,N2RETRN

-001- 06 #   COMPARE
-001- 07 #   COMPARE ON-LINE MCHB BIT (S(SENAB)) TO 0.
-001- 08 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013552 02 000663 020614 ----- CDGMI  -001- 09   VFD   1,LPINDX 2,1 1,0 1,SUCCES 5,(S(SENAB)) 6,NCOMPARE
0013553 02 000664 000000 -----  -001- 10   VFD   15,0 1,0

-001- 12 #   FAILTST
-001- 13 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLENAB.
-001- 14 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013554 02 000665 020017 ----- CDGMI  -001- 15   VFD   1,0 2,1 5,0 2,0 6,NFAILTST
0013555 02 000666 000025 -----  -001- 16   VFD   16,FLENAB

-001- 18 #   MICRO
-001- 19 #   PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 20 #   MISCELLANEOUS CROSSPOINT ENAX
0013556 02 000667 020005 ----- CDGMI  -001- 21   VFD   1,0 2,1 7,0 6,NMICRO
0013557 02 000670 035072 -----  -001- 22   VFD   16,ENAX

-001- 24 #   RETRN
-001- 25 #   RETURN MISCELLANEOUS BITS TO ON-LINE MCHB.
0013560 02 000671 017511 ----- CDGMI  -001- 26   VFD   1,0 2,0 7,B(1111101) 6,N2RETRN

-001- 28 #   COMPARE
-001- 29 #   COMPARE ON-LINE MCHB BIT (S(SENAB)) TO 1.
-001- 30 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013561 02 000672 020614 ----- CDGMI  -001- 31   VFD   1,LPINDX 2,1 1,0 1,SUCCES 5,(S(SENAB)) 6,NCOMPARE
0013562 02 000673 000001 -----  -001- 32   VFD   15,0 1,1

-001- 34 #   FAILTST
-001- 35 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDISAB.
-001- 36 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013563 02 000674 020017 ----- CDGMI  -001- 37   VFD   1,0 2,1 5,0 2,0 6,NFAILTST
0013564 02 000675 000024 -----  -001- 38   VFD   16,FLDISAB

-001- 40 #   COMPARE
-001- 41 #   COMPARE ON-LINE MCHB BIT (S(DISAB)) TO 1.
-001- 42 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013565 02 000676 020714 ----- CDGMI  -001- 43   VFD   1,LPINDX 2,1 1,0 1,SUCCES 5,(S(DISAB)) 6,NCOMPARE
0013566 02 000677 000001 -----  -001- 44   VFD   15,0 1,1

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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## MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI

W77D

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-001- 01 #   FAILTST
-001- 02 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDISAB.
-001- 03 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013567 02 000700 020017 ----- CDGNM -001- 04   VFD    1,0 2,1 5,0 2,0 6,NFAILTST
0013570 02 000701 000024 ----- -001- 05   VFD    16,FLDISAB

-001- 08 #   LP_BEGIN
-001- 09 #   BEGIN 4 LOOPS.
0013571 02 000702 000401 ----- CDGNM -001- 10 ENBLP VFD    1,0 2,0 7,D(4) 6,NBEGIN

-001- 12 #   MICRO
-001- 13 #   PERFORM MICRO INSTRUCTIONS IN OFF-LINE CU.
0013572 02 000703 120005 ----- CDGNM -001- 14   VFD    1,1 2,1 7,0 6,NMICRO
0013573 02 000704 170071 ----- -001- 15   VFD    8,0(360) 8,0(71) # LOOP 1
0013574 02 000705 007471 ----- -001- 16   VFD    8,0(17) 8,0(71) # LOOP 2
0013575 02 000706 035360 ----- -001- 17   VFD    8,0(72) 8,0(360) # LOOP 3
0013576 02 000707 035017 ----- -001- 18   VFD    8,0(72) 8,0(17) # LOOP 4

-001- 21 #   LP_END
-001- 22 #   TERMINATE LOOP.
0013577 02 000710 040002 000000 CDGNM -001- 23   VFD    1,0 2,2 7,0 6,NLP_END
0013600 02 000711 000000 013571 0013571 -001- 24   ADDR   LPSTART

-001- 27 #   RETRN
-001- 28 #   RETURN MISCELLANEOUS BITS TO ON-LINE MCHB.
0013602 02 000713 017511 ----- CDGNM -001- 29   VFD    1,0 2,0 7,B(1111101) 6,N2RETRN

-001- 31 #   COMPARE
-001- 32 #   COMPARE ON-LINE MCHB BIT (S(DISAB)) TO 1.
-001- 33 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0013603 02 000714 020714 ----- CDGNM -001- 34   VFD    1,LPINDX 2,1 1,0 1,SUCCES 5,(S(DISAB)) 6,NCOMPARE
0013604 02 000715 000001 ----- -001- 35   VFD    15,0 1,1

-001- 37 #   FAILTST
-001- 38 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLENAB.
-001- 39 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0013605 02 000716 020017 ----- CDGNM -001- 40   VFD    1,0 2,1 5,0 2,0 6,NFAILTST
0013606 02 000717 000025 ----- -001- 41   VFD    16,FLENAB

-001- 44 #   PASSTST
-001- 45 #   GO TO DIAGNOSTIC MONITOR PASS BRANCH.
0013607 02 000720 000021 ----- CDGNM -001- 46   VFD    1,0 2,0 7,0 6,NPASSTST

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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c07

TEST 66 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

MULTIPLE\_MISCELLANEOUS\_XPOINTS DIAGNOSTIC TEST

CDGMI W77D

0013610 02 000721 000021 ----- CDGMM  
-001- 02 # PASSTST  
-001- 03 # GO TO DIAGNOSTIC MONITOR PASS BRANCH.  
-001- 04 VFD 1,0 2,0 7,0 6,NPASSTST

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # **      CU DIAGNOSTIC TEST NO. 68, GATING_BUS_PARITY_CHECKER
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0014411

-001- 10 CBUSPAR CSECT

-001- 13 # THIS TEST USES OFF-LINE CODE AT CSECT OBUSPAR

0014411 03 000000 004345 000220 CDGMI  
0014412 03 000001 000220 015020 EXTERN

-001- 17 VFD 1,0 2,0 2,1 2,0 3,3 6,NBGM  
-001- 18 ADDR OBUSPAR,XBUSPAR

```

22 # SEGMENT 1
23 # THE BUS PARITY CHECK CIRCUIT IS TESTED USING A SERIES
24 # OF OPERANDS SOME CONTAINING GOOD PARITY AND SOME CONTAINING BAD
25 # PARITY. SINCE THE PARITY CHECKER IS INHIBITED WHEN THE
26 # PROCESSOR IS IN THE STOP MODE, THE OFF-LINE MACHINE MUST RUN ITS
27 # OWN CODE TO EXERCISE THIS CIRCUIT. THE TEST CONSTANTS WILL BE
28 # SUPPLIED FROM THE ON-LINE MACHINE AND THE OFF-LINE WILL BE MADE
29 # TO EXECUTE AN LR INSTRUCTION WHICH GATES THE TEST CONSTANT
30 # OVER THE BUS. THE ON-LINE PROCESSOR WILL CHECK THE ERROR BIT
31 # THE PARITY CHECKER ON THE LOW 8 BITS OF THE BUS IS TESTED FIRST.
32 # EIGHT CONSTANTS ARE REQUIRED. THE HIGH 12 BITS CONTAIN
33 # ALL ZEROS AND PH=1 IN EACH CONSTANT

35 # SEGMENT 2
36 # THE PARITY CHECKER ON THE HIGH 12 BITS OF THE BUS IS TESTED
37 # IN THE SAME WAY AS WAS DONE FOR THE LOW BITS IN SEGMENT 1
38 # EIGHT CONSTANTS ARE REQUIRED. THE LOW 8 BITS CONTAIN ZEROS
39 # AND PL=1 IN EACH CONSTANT

41 # SEGMENT 3
42 # THE BUS PARITY CHECKER IS INHIBITED UNDER THE FOLLOWING CONDITIONS
43 # 1. A NOP IN THE "FROM" FIELD
44 # 2. THE PROCESSOR IS STOPPED
45 # 3. THE BLOCK PARITY CHECK BIT IN THE SS IS SET.
46 # 4. A MISCELLANEOUS CROSSPOINT IS FIRED
47 # 5. THE SDRC OR SIRC "FROM" FIELD CROSSPOINTS WHEN THE DR=0
48 # 6. THE PROCESSOR IS IN THE FREEZE STATE.

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MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

01 # SEGMENT 4  
02 # THE 2/4 CODE B(1001), WHICH IS USED IN CONJUNCTION WITH THE  
03 # CONTROL BITS IN A MICRO INSTRUCTION CA CB=11, CAUSES A BUS  
04 # PARITY ERROR TO BE DIVERTED TO ANOTHER ERROR BIT IN THE ER  
05 # WHICH DOES NOT RESULT IN SWITCHING OF PROCESSORS. THIS FEATURE  
06 # IS USED IN CONJUNCTION WITH I/O INSTRUCTIONS SUCH THAT IF A  
07 # RECEIVED MESSAGE CONTAINS BAD PARITY DUE TO FAULTY PERIPHERY, SWITCHING  
08 # WILL NOT OCCUR.

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

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TEST 68 SEGMENT 1

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W77D

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-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 68 SEGMENT 1
-001- 04 # *
-001- 05 # *****

0014414 03 000003 000100 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(1) 6,NTESTSEG

11 # THE BUS PARITY CHECK CIRCUIT IS TESTED USING A SERIES
12 # OF OPERANDS SOME CONTAINING GOOD PARITY AND SOME CONTAINING BAD
13 # PARITY. SINCE THE PARITY CHECKER IS INHIBITED WHEN THE
14 # PROCESSOR IS IN THE STOP MODE, THE OFF-LINE MACHINE MUST RUN ITS
15 # OWN CODE TO EXERCISE THIS CIRCUIT. THE TEST CONSTANTS WILL BE
16 # SUPPLIED FROM THE ON-LINE MACHINE AND THE OFF-LINE WILL BE MADE
17 # TO EXECUTE AN LR INSTRUCTION WHICH GATES THE TEST CONSTANT
18 # OVER THE BUS. THE ON-LINE PROCESSOR WILL CHECK THE ERROR BIT.
19 # THE PARITY CHECKER ON THE LOW 8 BITS OF THE BUS IS TESTED FIRST.
20 # EIGHT CONSTANTS ARE REQUIRED. THE HIGH 12 BITS CONTAIN
21 # ALL ZEROS AND PH=1 IN EACH CONSTANT

-001- 23 # SEND
-001- 24 # SEND 0(1000000) TO OFF-LINE MCHB.
-001- 25 # PARITY IS NORMAL.
0014415 03 000004 047706 ----- CDGNM -001- 26 VFD 1,0 2,2 7,B(0111111) 6,NSEND
0014416 03 000005 000004 000000 -001- 27 ADDR 0(1000000)

-001- 29 # MICRO
-001- 30 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 31 # TO FIELD = SS_RXT FROM FIELD = MCHBXF
0014420 03 000007 020005 ----- CDGNM -001- 32 VFD 1,0 2,1 7,0 6,NMICRO
0014421 03 000010 107231 ----- -001- 33 VFD 8,SS_RXT 8,MCHBXF

-001- 35 # LP_BEGIN
-001- 36 # BEGIN 4 LOOPS.
0014422 03 000011 000401 ----- CDGNM -001- 37 BPARLP1 VFD 1,0 2,0 7,D(4) 6,NBEGIN

0014423 39 # FIRST 4 CONSTANTS HAVE PL=1
-001- 40 # SEND
-001- 41 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 42 # PARITY IS 0(3).
0014423 03 000012 147707 ----- CDGNM -001- 43 VFD 1,1 2,2 7,B(0111111) 6,N2SEND
0014424 03 000013 000060 000021 -001- 44 ADDR 0(0000021),0(3) # LOOP 1
0014426 03 000015 000060 000235 -001- 45 ADDR 0(0000235),0(3) # LOOP 2
0014430 03 000017 000060 000170 -001- 46 ADDR 0(0000170),0(3) # LOOP 3
0014432 03 000021 000060 000304 -001- 47 ADDR 0(0000304),0(3) # LOOP 4

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MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

## GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W77D

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-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # TO FIELD = ROXT FROM FIELD = MCHBXF
0014434 03 000023 020005 ----- CDGNM -001- 04 VFD 1,0 2,1 7,0 6,NMICRO
0014435 03 000024 051631 ----- -001- 05 VFD 8,ROXT 8,MCHBXF

-001- 07 # ZERO_ER
-001- 08 # ZERO THE OFF-LINE ER.
0014436 03 000025 000012 ----- CDGNM -001- 09 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 11 # EXECUTE
-001- 12 # EXECUTE THE INSTRUCTION LR IN THE OFF-LINE CU.
0014437 03 000026 040015 ----- CDGNM -001- 13 VFD 1,C 2,2 7,0 6,NEXECUTE
0014440 03 000027 106020 ----- -001- 14 LR R1,RO
0014441 03 000030 056540 ----- -001- 15 HALT

-001- 19 # STOP_OFF
-001- 20 # SET STOP BIT IN OFF-LINE CU.
0014442 03 000031 017627 ----- CDGNM -001- 21 VFD 1,0 2,0 7,B(11111110) 6,NSTOP

-001- 23 # RETRN
-001- 24 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014443 03 000032 013710 ----- CDGNM -001- 25 VFD 1,0 2,0 7,B(10111111) 6,NRETRN

-001- 27 # COMPARE
-001- 28 # COMPARE ON-LINE MCHB BIT S(BUSER) TO CONSTANTS.
-001- 29 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014444 03 000033 120314 ----- CDGNM -001- 30 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE
0014445 03 000034 000000 ----- -001- 31 VFD 15,0 1,0 # LOOP 1
0014446 03 000035 000001 ----- -001- 32 VFD 15,0 1,1 # LOOP 2
0014447 03 000036 000000 ----- -001- 33 VFD 15,0 1,0 # LOOP 3
0014450 03 000037 000001 ----- -001- 34 VFD 15,0 1,1 # LOOP 4

-001- 36 # FAILTST
-001- 37 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBSPAR.
-001- 38 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014451 03 000040 020017 ----- CDGNM -001- 39 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014452 03 000041 000001 ----- -001- 40 VFD 16,FLBSPAR

-001- 42 # LP_END
-001- 43 # TERMINATE LOOP.
0014453 03 000042 040002 000000 CDGNM -001- 44 VFD 1,0 2,2 7,0 6,NLP_END
0014454 03 000043 000000 014422 0014422 -001- 45 ADDR LPSTART

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 47

TEST 68 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # LP_BEGIN
-001- 02 # BEGIN 4 LOOPS.
0014456 03 000045 000401 ----- CDGNM -001- 03 BPARLP2 VFD 1,0 2,0 7,0(4) 6,NBEGIN

0014457
-001- 05 # # NEXT 4 CONSTANTS HAVE PL=0
-001- 06 # SEND
-001- 07 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 08 # PARITY IS 0(2).
0014457 03 000046 147707 ----- CDGNM -001- 09 VFD 1,1 2,2 7,0(0111111) 6,N2SEND
0014460 03 000047 000040 000042 -001- 10 ADDR 0(0000042),0(2) # LOOP 1
0014462 03 000051 000040 000216 -001- 11 ADDR 0(0000216),0(2) # LOOP 2
0014464 03 000053 000040 000163 -001- 12 ADDR 0(0000163),0(2) # LOOP 3
0014466 03 000055 000040 000357 -001- 13 ADDR 0(0000357),0(2) # LOOP 4

-001- 15 # MICRO
-001- 16 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 17 # TO FIELD = ROXT FROM FIELD = MCHBXF
0014470 03 000057 020005 ----- CDGNM -001- 18 VFD 1,0 2,1 7,0 6,NMICRO
0014471 03 000060 051631 ----- -001- 19 VFD 8,ROXT 8,MCHBXF

-001- 21 # ZERO ER
-001- 22 # ZERO THE OFF-LINE ER.
0014472 03 000061 000012 ----- CDGNM -001- 23 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 25 # EXECUTE
-001- 26 # EXECUTE THE INSTRUCTION LR IN THE OFF-LINE CU.
0014473 03 000062 040015 ----- CDGNM -001- 27 VFD 1,0 2,2 7,0 6,NEXECUTE
0014474 03 000063 106020 ----- -001- 28 LR R1,RO
0014475 03 000064 056540 ----- -001- 29 HALT

-001- 33 # STOP OFF
-001- 34 # SET STOP BIT IN OFF-LINE CU.
0014476 03 000065 017627 ----- CDGNM -001- 35 VFD 1,0 2,0 7,0(1111110) 6,NSTOP

-001- 37 # RETRN
-001- 38 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014477 03 000066 013710 ----- CDGNM -001- 39 VFD 1,0 2,0 7,0(1011111) 6,NRETRN

-001- 41 # COMPARE
-001- 42 # COMPARE ON-LINE MCHB BIT S(BUSER) TO CONSTANTS.
-001- 43 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014500 03 000067 120314 ----- CDGNM -001- 44 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE
0014501 03 000070 000001 ----- -001- 45 VFD 15,0 1,1 # LOOP 1
0014502 03 000071 000001 ----- -001- 46 VFD 15,0 1,1 # LOOP 2
0014503 03 000072 000000 ----- -001- 47 VFD 15,0 1,0 # LOOP 3
0014504 03 000073 000000 ----- -001- 48 VFD 15,0 1,0 # LOOP 4

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 48

TEST 68 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W77D

					-001- 01 #	FAILTST	
					-001- 02 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBSPAR.	
					-001- 03 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0014505	03	000074	020017	-----	CDGMI	-001- 04 #	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014506	03	000075	000001	-----		-001- 05	VFD 16,FLBSPAR
					-001- 07 #	LP_END	
					-001- 08 #	TERMINATE LOOP.	
0014507	03	000076	040002	000000	CDGMI	-001- 09	VFD 1,0 2,2 7,0 6,NLP_END
0014510	03	000077	000000	014456	0014456	-001- 10	ADDR LPSTART

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 68 SEGMENT 2
-001- 04 # *
-001- 05 # *****

0014512 03 000101 000200 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(2) 6,NTESTSEG

11 # THE PARITY CHECKER ON THE HIGH 12 BITS OF THE BUS IS TESTED
12 # IN THE SAME WAY AS WAS DONE FOR THE LOW BITS IN SEGMENT 1
13 # EIGHT CONSTANTS ARE REQUIRED. THE LOW 8 BITS CONTAIN ZEROS
14 # AND PL=1 IN EACH CONSTANT

-001- 16 # LP_BEGIN
-001- 17 # BEGIN 4 LOOPS.
0014513 03 000102 000401 ----- CDGNM -001- 18 BPARLP3 VFD 1,0 2,0 7,D(4) 6,NBEGIN
0014514 20 # FIRST 4 CONSTANTS HAVE PH=1
-001- 21 # SEND
-001- 22 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 23 # PARITY IS 0(3).
0014514 03 000103 147707 ----- CDGNM -001- 24 VFD 1,1 2,2 7,B(0111111) 6,N2SEND
0014515 03 000104 000066 021000 -001- 25 ADDR 0(1421000),0(3) # LOOP 1
0014517 03 000106 000072 071400 -001- 26 ADDR 0(2471400),0(3) # LOOP 2
0014521 03 000110 000064 167400 -001- 27 ADDR 0(1167400),0(3) # LOOP 3
0014523 03 000112 000063 142000 -001- 28 ADDR 0(0742000),0(3) # LOOP 4

-001- 30 # MICRO
-001- 31 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 32 # TO FIELD = AKXT FROM FIELD = MCHBXF
0014525 03 000114 020005 ----- CDGNM -001- 33 VFD 1,0 2,1 7,0 6,NMICRO
0014526 03 000115 116231 ----- -001- 34 VFD 8,AKXT 8,MCHBXF

-001- 36 # ZERO_ER
-001- 37 # ZERO THE OFF-LINE ER.
0014527 03 000116 000012 ----- CDGNM -001- 38 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 40 # EXECUTE
-001- 41 # EXECUTE THE INSTRUCTION LRS IN THE OFF-LINE CU.
0014530 03 000117 040015 ----- CDGNM -001- 42 VFD 1,0 2,2 7,0 6,NEXECUTE
0014531 03 000120 121005 ----- -001- 43 LRS R0,AK
0014532 03 000121 056540 ----- -001- 44 HALT
    
```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

TEST 68 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W770

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-001- 03 # STOP_OFF
0014533 03 000122 017627 ----- CDGMI -001- 04 # SET STOP BIT IN OFF-LINE CU.
-001- 05 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 07 # RETRN
0014534 03 000123 013710 ----- CDGMI -001- 08 # RETURN OFF-LINE ER TO ON-LINE MCHB.
-001- 09 VFD 1,0 2,0 7,B(1011111) 6,NRETRN

-001- 11 # COMPARE
-001- 12 # COMPARE ON-LINE MCHB BIT S(BUSER) TO CONSTANTS.
-001- 13 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014535 03 000124 120314 ----- CDGMI -001- 14 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE
0014536 03 000125 000000 ----- -001- 15 VFD 15,0 1,0 # LOOP 1
0014537 03 000126 000001 ----- -001- 16 VFD 15,0 1,1 # LOOP 2
0014540 03 000127 000000 ----- -001- 17 VFD 15,0 1,0 # LOOP 3
0014541 03 000130 000001 ----- -001- 18 VFD 15,0 1,1 # LOOP 4

-001- 20 # FAILTST
-001- 21 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBPAR.
0014542 03 000131 020017 ----- CDGMI -001- 22 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014543 03 000132 000002 ----- -001- 23 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
-001- 24 VFD 16,FLBPAR

-001- 26 # LP_END
-001- 27 # TERMINATE LOOP.
0014544 03 000133 040002 000000 CDGMI -001- 28 VFD 1,0 2,2 7,0 6,NLP_END
0014545 03 000134 000000 014513 0014513 -001- 29 ADDR LPSTART

-001- 31 # LP_BEGIN
-001- 32 # BEGIN 4 LOOPS.
0014547 03 000136 000401 ----- CDGMI -001- 33 BPARLP4 VFD 1,0 2,0 7,D(4) 6,NBEGIN

0014550 35 # NEXT 4 CONSTANTS HAVE PH=0
-001- 36 # SEND
-001- 37 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 38 # PARITY IS 0(1).
0014550 03 000137 147707 ----- CDGMI -001- 39 VFD 1,1 2,2 7,B(0111111) 6,N2SEND
0014551 03 000140 000037 010400 -001- 40 ADDR 0(3610400),0(1) # LOOP 1
0014553 03 000142 000034 107000 -001- 41 ADDR 0(3107000),0(1) # LOOP 2
0014555 03 000144 000025 116400 -001- 42 ADDR 0(1316400),0(1) # LOOP 3
0014557 03 000146 000021 074000 -001- 43 ADDR 0(0274000),0(1) # LOOP 4

-001- 45 # MICRO
-001- 46 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
0014561 03 000150 020005 ----- CDGMI -001- 47 # TO FIELD = AKXT FROM FIELD = MCHBXF
0014562 03 000151 116231 ----- -001- 48 VFD 1,0 2,1 7,0 6,NMICRO
-001- 49 VFD 8,AKXT 8,MCHBXF

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 2

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

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-001- 02 # ZERO_ER
-001- 03 # ZERO THE OFF-LINE ER.
0014563 03 000152 000012 ----- CDGNM -001- 04 # VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 06 # EXECUTE
-001- 07 # EXECUTE THE INSTRUCTION LRS IN THE OFF-LINE CU.
0014564 03 000153 040015 ----- CDGNM -001- 08 # VFD 1,0 2,2 7,0 6,NEXECUTE
E0014565 03 000154 121005 ----- -001- 09 # LRS R0,AK
0014566 03 000155 056540 ----- -001- 10 # HALT

-001- 14 # STOP OFF
-001- 15 # SET STOP BIT IN OFF-LINE CU.
0014567 03 000156 017627 ----- CDGNM -001- 16 # VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 18 # RETRN
-001- 19 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014570 03 000157 013710 ----- CDGNM -001- 20 # VFD 1,0 2,0 7,B(1011111) 6,NRETRN

-001- 22 # COMPARE
-001- 23 # COMPARE ON-LINE MCHB BIT S(BUSER) TO CONSTANTS.
-001- 24 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014571 03 000160 120314 ----- CDGNM -001- 25 # VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE
0014572 03 000161 000001 ----- -001- 26 # VFD 15,0 1,1 # LOOP 1
0014573 03 000162 000001 ----- -001- 27 # VFD 15,0 1,1 # LOOP 2
0014574 03 000163 000000 ----- -001- 28 # VFD 15,0 1,0 # LOOP 3
0014575 03 000164 000000 ----- -001- 29 # VFD 15,0 1,0 # LOOP 4

-001- 31 # FAILTST
-001- 32 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBPAR.
-001- 33 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014576 03 000165 020017 ----- CDGNM -001- 34 # VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014577 03 000166 000002 ----- -001- 35 # VFD 16,FLBPAR

-001- 37 # LP_END
-001- 38 # TERMINATE LOOP.
0014600 03 000167 040002 000000 CDGNM -001- 39 # VFD 1,0 2,2 7,0 6,NLP_END
0014601 03 000170 000000 014547 0014547 -001- 40 # ADDR LPSTART

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 52

TEST 68 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 68 SEGMENT 3
-001- 04 # *
-001- 05 # *****

0014603 03 000172 000300 ----- CDGMI -001- 08 VFD 1,0 2,0 2,0 5,D(3) 6,NTESTSEG

11 # THE BUS PARITY CHECKER IS INHIBITED UNDER THE FOLLOWING CONDITIONS
12 # 1. A NOP IN THE "FROM" FIELD
13 # 2. THE PROCESSOR IS STOPPED
14 # 3. THE BLOCK PARITY CHECK BIT IN THE SS IS SET.
15 # 4. A MISCELLANEOUS CROSSPOINT IS FIRED
16 # 5. THE SDRC OR SIRC "FROM" FIELD CROSSPOINTS WHEN THE DR=0
17 # 6. THE PROCESSOR IS IN THE FREEZE STATE

0014604 19 # A NOP IN THE "FROM" FIELD WILL APPEAR
# DURING EACH MACHINE CYCLE WHILE IN THE
# MICROINTERPRET MODE. THIS IS USED TO
# TEST THE BLOCKING OF THE PARITY CHECK

-001- 23 # SEND
-001- 24 # SEND 0(00000) TO OFF-LINE GENERAL REGISTER 0.
-001- 25 # PARITY IS NORMAL.
0014604 03 000173 057606 ----- CDGMI -001- 26 VFD 1,0 2,2 7,B(1111110) 6,NSEND
0014605 03 000174 051400 ----- -001- 27 VFD 8,R0XT 2,0 2,0(0)
0014606 03 000175 000000 ----- -001- 28 VFD 16,0(000000)

-001- 30 # ZERO_ER
-001- 31 # ZERO THE OFF-LINE ER.
0014607 03 000176 000012 ----- CDGMI -001- 32 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 34 # ADD_OFF
-001- 35 # START OFF-LINE PROCESSOR AT ADDRESS TSTNOP.
0014610 03 000177 040022 000000 CDGMI -001- 36 VFD 1,0 2,2 7,0 6,NADD_OFF
0014611 03 000200 000000 015020 CDGNOF -001- 37 ADDR TSTNOP

-001- 39 # STOP_OFF
-001- 40 # SET STOP BIT IN OFF-LINE CU.
0014613 03 000202 017627 ----- CDGMI -001- 41 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 43 # RETRN
-001- 44 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014614 03 000203 013710 ----- CDGMI -001- 45 VFD 1,0 2,0 7,B(1011111) 6,NRETRN

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 3

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W77D

		-001- 01 #	COMPARE	
		-001- 02 #	COMPARE ON-LINE MCHB BIT S(BUSER) TO 0.	
		-001- 03 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0014615	03 000204 020314	-----	CDGMI	
0014616	03 000205 000000	-----		
		-001- 04	VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE	
		-001- 05	VFD 15,0 1,0	
		-001- 07 #	FAILTST	
		-001- 08 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLARNOP.	
		-001- 09 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0014617	03 000206 020017	-----	CDGMI	
0014620	03 000207 000003	-----		
		-001- 10	VFD 1,0 2,1 5,0 2,0 6,NFAILTST	
		-001- 11	VFD 16,FLARNOP	
0014621		13		# THE PARITY CIRCUIT SHOULD BE DISABLED WHEN PROCESSOR IS STOPPED
		-001- 15 #	STOP OFF	
		-001- 16 #	SET STOP BIT IN OFF-LINE CU.	
0014621	03 000210 017627	-----	CDGMI	
		-001- 17	VFD 1,0 2,0 7,B(1111110) 6,NSTOP	
		-001- 19 #	ZERO_ER	
		-001- 20 #	ZERO THE OFF-LINE ER.	
0014622	03 000211 000012	-----	CDGMI	
		-001- 21	VFD 1,0 2,0 7,0 6,NZERO_ER	
		-001- 23 #	SEND	
		-001- 24 #	SEND 0(000000) TO OFF-LINE GENERAL REGISTER 0.	
		-001- 25 #	PARITY IS 0(0).	
0014623	03 000212 057607	-----	CDGMI	
0014624	03 000213 051400	-----		
0014625	03 000214 000000	-----		
		-001- 26	VFD 1,0 2,2 7,B(1111110) 6,N2SEND	
		-001- 27	VFD 8,ROXT 2,0 2,0(0)	
		-001- 28	VFD 16,0(000000)	
		-001- 30 #	RETRN	
		-001- 31 #	RETURN OFF-LINE ER TO ON-LINE MCHB.	
0014626	03 000215 013710	-----	CDGMI	
		-001- 32	VFD 1,0 2,0 7,B(1011111) 6,NRETRN	
		-001- 34 #	COMPARE	
		-001- 35 #	COMPARE ON-LINE MCHB BIT S(BUSER) TO 0.	
		-001- 36 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0014627	03 000216 020314	-----	CDGMI	
0014630	03 000217 000000	-----		
		-001- 37	VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE	
		-001- 38	VFD 15,0 1,0	
		-001- 40 #	FAILTST	
		-001- 41 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLPARSTP.	
		-001- 42 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0014631	03 000220 020017	-----	CDGMI	
0014632	03 000221 000004	-----		
		-001- 43	VFD 1,0 2,1 5,0 2,0 6,NFAILTST	
		-001- 44	VFD 16,FLPARSTP	

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 3

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

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0014633      01                                     # THE PARITY CIRCUIT SHOULD BE DISABLED
                                                    WHEN THE BPC BIT IN THE SS IS SET
-001- 03 # SEND
-001- 04 # SEND 0(1000000) TO OFF-LINE MCHB.
-001- 05 # PARITY IS NORMAL.
0014633 03 000222 047706 ----- CDGNI      VFD 1,0 2,2 7,B(0111111) 6,NSEND
0014634 03 000223 000004 000000 ----- -001- 07 ADDR 0(1000000)

-001- 09 # MICRO
-001- 10 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 11 # TO FIELD = SS_SXT FROM FIELD = MCHBXF
0014636 03 000225 020005 ----- CDGNI      VFD 1,0 2,1 7,0 6,NMICRO
0014637 03 000226 105631 ----- -001- 13 VFD 8,SS_SXT 8,MCHBXF

-001- 15 # SEND
-001- 16 # SEND 0(000000) TO OFF-LINE GENERAL REGISTER 0.
-001- 17 # PARITY IS 0(0).
0014640 03 000227 057607 ----- CDGNI      VFD 1,0 2,2 7,B(1111110) ^,N2SEND
0014641 03 000230 051400 ----- -001- 19 VFD 8,ROXT 2,0 2,0(0)
0014642 03 000231 000000 ----- -001- 20 VFD 16,0(000000)

-001- 22 # ZERO_ER
-001- 23 # ZERO THE OFF-LINE ER.
0014643 03 000232 000012 ----- CDGNI      VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 26 # EXECUTE
-001- 27 # EXECUTE THE INSTRUCTION LR IN THE OFF-LINE CU.
0014644 03 000233 040015 ----- CDGNI      VFD 1,0 2,2 7,0 6,NEXECUTE
0014645 03 000234 106001 ----- -001- 29 LR R0,R1
0014646 03 000235 056540 ----- -001- 30 HALT

-001- 34 # STOP_OFF
-001- 35 # SET STOP BIT IN OFF-LINE CU.
0014647 03 000236 017627 ----- CDGNI      VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 38 # RETRN
-001- 39 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014650 03 000237 013710 ----- CDGNI      VFD 1,0 2,0 7,B(1011111) 6,NRETRN

-001- 42 # COMPARE
-001- 43 # COMPARE ON-LINE MCHB BIT S(BUSER) TO 0.
-001- 44 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014651 03 000240 020314 ----- CDGNI      VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE
0014652 03 000241 000000 ----- -001- 46 VFD 15,0 1,0

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MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 55

TEST 68 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W77D

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-001- 01 #   FAILTST
-001- 02 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLPARBPC.
-001- 03 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014653 03 000242 020017 ----- CDGNM -001- 04 #   VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014654 03 000243 000005 ----- -001- 05 #   VFD 16,FLPARBPC

-001- 07 #   STOP_OFF
-001- 08 #   SET STOP BIT IN OFF-LINE CU.
0014655 03 000244 017627 ----- CDGNM -001- 09 #   VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 11 #   SEND
-001- 12 #   SEND 0(1000000) TO OFF-LINE MCHB.
-001- 13 #   PARITY IS NORMAL.
0014656 03 000245 047706 ----- CDGNM -001- 14 #   VFD 1,0 2,2 7,B(0111111) 6,NSEND
0014657 03 000246 000004 000000 -001- 15 #   ADDR 0(1000000)

-001- 17 #   MICRO
-001- 18 #   PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 19 #   TO FIELD = SS_RXT FROM FIELD = MCHBXF
0014661 03 000250 020005 ----- CDGNM -001- 20 #   VFD 1,0 2,1 7,0 6,NMICRO
0014662 03 000251 107231 ----- -001- 21 #   VFD 8,SS_RXT 8,MCHBXF

0014663                                     23                                     # ANY MISCELLANEOUS CROSSPOINT BLOCKS
                                                                                                     PARITY CHECK. THE TBN INSTRUCTION IS
                                                                                                     USED AS A TEST. WHEN THE CF IS SET BY
                                                                                                     MISCELLANEOUS CROSSPOINT, THE BUS
                                                                                                     CONTAINS BAD PARITY (ALL ZEROS)

-001- 28 #   SEND
-001- 29 #   SEND 0(000001) TO OFF-LINE GENERAL REGISTER 0.
-001- 30 #   PARITY IS NORMAL.
0014663 03 000252 057606 ----- CDGNM -001- 31 #   VFD 1,0 2,2 7,B(1111110) 6,NSEND
0014664 03 000253 051400 ----- -001- 32 #   VFD 8,ROXT 2,0 2,0(O)
0014665 03 000254 000001 ----- -001- 33 #   VFD 16,0(000001)

-001- 35 #   ZERO_ER
-001- 36 #   ZERO THE OFF-LINE ER.
0014666 03 000255 000012 ----- CDGNM -001- 37 #   VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 39 #   EXECUTE
-001- 40 #   EXECUTE THE INSTRUCTION TBN IN THE OFF-LINE CU.
0014667 03 000256 040015 ----- CDGNM -001- 41 #   VFD 1,0 2,2 7,0 6,NEXECUTE
0014670 03 000257 124000 ----- -001- 42 #   TBN RO,0
0014671 03 000260 056540 ----- -001- 43 #   HALT

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 3

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

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-001- 02 #   STOP_OFF
-001- 03 #   SET STOP BIT IN OFF-LINE CU.
0014672 03 000261 017627 ----- CDGNM -001- 04   VFD    1,0 2,0 7,B(1111110) 6,NSTOP
-001- 06 #   RETRN
-001- 07 #   RETURN OFF-LINE ER TO ON-LINE MCHB.
0014673 03 000262 013710 ----- CDGNM -001- 08   VFD    1,0 2,0 7,B(1011111) 6,NRETRN
-001- 10 #   COMPARE
-001- 11 #   COMPARE ON-LINE MCHB BIT S(BUSER) TO 0.
0014674 03 000263 020314 ----- CDGNM -001- 12 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
-001- 13 #   VFD    1,LPINDX 2,1 1,0 1,SUCCES 5,S(BUSER) 6,NCOMPARE
0014675 03 000264 000000 ----- -001- 14   VFD    15,0 1,0
-001- 16 #   FAILTST
-001- 17 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMISC.
-001- 18 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014676 03 000265 020017 ----- CDGNM -001- 19 #   VFD    1,0 2,1 5,0 2,0 6,NFAILTST
0014677 03 000266 000006 ----- -001- 20   VFD    16,FLMISC
-001- 22 #   STOP_OFF
-001- 23 #   SET STOP BIT IN OFF-LINE CU.
0014700 03 000267 017627 ----- CDGNM -001- 24   VFD    1,0 2,0 7,B(1111110) 6,NSTOP
0014701                                     26                                     # THE SDRS "FROM" CROSSPOINT IS USED IN
                                                ANY DATA READ. THE STORE WILL NOT BE
                                                READY WITH DATA CONTAINING GOOD PARITY
                                                WHEN THE SDRS IS ENCOUNTERED BUT THE
                                                PARITY CHECK SHOULD BE BLOCKED
-001- 31 #   ZERO_ER
-001- 32 #   ZERO THE OFF-LINE ER.
0014701 03 000270 000012 ----- CDGNM -001- 33   VFD    1,0 2,0 7,0 6,NZERO_ER
-001- 35 #   SEND
-001- 36 #   SEND 0(000000) TO OFF-LINE GENERAL REGISTER 12.
-001- 37 #   PARITY IS NORMAL.
0014702 03 000271 057606 ----- CDGNM -001- 38   VFD    1,0 2,2 7,B(1111110) 6,NSEND
0014703 03 000272 043400 ----- -001- 39   VFD    8,R12XT 2,0 2,0(0)
0014704 03 000273 000000 ----- -001- 40   VFD    16,0(000000)
-001- 42 #   SEND
-001- 43 #   SEND PAGSCR+15 TO OFF-LINE GENERAL REGISTER 13.
-001- 44 #   PARITY IS NORMAL.
0014705 03 000274 057606 ----- CDGNM -001- 45   VFD    1,0 2,2 7,B(1111110) 6,NSEND
0014706 03 000275 045400 ----- -001- 46   VFD    8,R13XT 2,0 2,0(0)
0014707 03 000276 043121 ----- CTSD  -001- 47   VFD    16,PAGSCR+15

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

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-001- 01 # EXECUTE
-001- 02 # EXECUTE THE INSTRUCTION L IN THE OFF-LINE CU.
0014710 03 000277 040015 ----- CDGNM -001- 03 VFD 1,0 2,2 7,0 6,NEXECUTE
0014711 03 000300 140000 ----- -001- 04 L R0,0(RAD)
0014712 03 000301 056540 ----- -001- 05 HALT

-001- 09 # STOP OFF
-001- 10 # SET STOP BIT IN OFF-LINE CU.
0014713 03 000302 017627 ----- CDGNM -001- 11 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 13 # RETRN
-001- 14 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014714 03 000303 013710 ----- CDGNM -001- 15 VFD 1,0 2,0 7,B(1011111) 6,NRETRN

-001- 17 # COMPARE
-001- 18 # COMPARE ON-LINE MCHB BIT S(BUSER) TO 0.
-001- 19 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014715 03 000304 020314 ----- CDGNM -001- 20 VFD 1,L,PINDX 2,1 1,0 1,SUCCESS 5,S(BUSER) 6,NCOMPARE
0014716 03 000305 000000 ----- -001- 21 VFD 15,0 1,0

-001- 23 # FAILTST
-001- 24 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLSDRC.
-001- 25 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014717 03 000306 020017 ----- CDGNM -001- 26 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014720 03 000307 000007 ----- -001- 27 VFD 16,FLSDRC

-001- 29 # STOP OFF
-001- 30 # SET STOP BIT IN OFF-LINE CU.
0014721 03 000310 017627 ----- CDGNM -001- 31 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

0014722 33 # THE SIRC "FROM" CROSSPOINT IS USED BY
# 2 WORD COMMANDS. THE STORE WILL NOT BE
# READY WITH THE SECOND WORD OF THE
# COMMAND WHEN THE SIRC IS FIRST ENCOUNTE
# ED BUT THE PARITY CHECK SHOULD BE BLOCKE

-001- 38 # ZERO_ER
-001- 39 # ZERO THE OFF-LINE ER.
0014722 03 000311 000012 ----- CDGNM -001- 40 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 42 # EXECUTE
-001- 43 # EXECUTE THE INSTRUCTION STL IN THE OFF-LINE CU.
0014723 03 000312 040015 ----- CDGNM -001- 44 VFD 1,0 2,2 7,0 6,NEXECUTE
0014724 03 000313 134400 043121 CTSD -001- 45 STL R0,PAGSCR+15

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 3

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

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-001- 03 #   STOP OFF
-001- 04 #   SET STOP BIT IN OFF-LINE CU.
0014726 03 000315 017627 ----- CDGMI  -001- 05   VFD   1,0 2,0 7,B(1111110) 6,NSTOP

-001- 07 #   RETRN
-001- 08 #   RETURN OFF-LINE ER TO ON-LINE MCHB.
0014727 03 000316 013710 ----- CDGMI  -001- 09   VFD   1,0 2,0 7,B(1011111) 6,NRETRN

-001- 11 #   COMPARE
-001- 12 #   COMPARE ON-LINE MCHB BIT S(BUSER) TO 0.
-001- 13 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014730 03 000317 020314 ----- CDGMI  -001- 14   VFD   1,LPIDX 2,1 1,0 1,SUCCES 5,S(BUSER) 6,NCOMPARE
0014731 03 000320 000000 -----  -001- 15   VFD   15,0 1,0

-001- 17 #   FAILTST
-001- 18 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLSIRC.
-001- 19 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014732 03 000321 020017 ----- CDGMI  -001- 20   VFD   1,0 2,1 5,0 2,0 6,NFAILTST
0014733 03 000322 000010 -----  -001- 21   VFD   16,FLSIRC

-001- 23 #   STOP OFF
-001- 24 #   SET STOP BIT IN OFF-LINE CU.
0014734 03 000323 017627 ----- CDGMI  -001- 25   VFD   1,0 2,0 7,B(1111110) 6,NSTOP

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 4

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 68 SEGMENT 4
-001- 04 # *
-001- 05 # *****

0014735 03 000324 000400 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(4) 6,NTESTSEG

11 # THE 2/4 CODE B(1001), WHICH IS USED IN CONTUNCTION WITH THE
12 # CONTROL BITS IN A MICRO INSTRUCTION CA CB=11, CAUSES A BUS
13 # PARITY ERROR TO BE DIVERTED TO ANOTHER ERROR BIT IN THE ER
14 # WHICH DOES NOT RESULT IN SWITCHING OF PROCESSORS. THIS FEATURE
15 # IS USED IN CONJUNCTION WITH I/O INSTRUCTIONS SUCH THAT IF A
16 # RECEIVED MESSAGE CONTAINS BAD PARITY DUE TO FAULTY PERIPHERY, SWITCHING
17 # WILL NOT OCCUR.

-001- 19 # SEND
-001- 20 # SEND 0(0000001) TO OFF-LINE MCHB.
-001- 21 # PARITY IS 0(0).
0014736 03 000325 047707 ----- CDGNM -001- 22 VFD 1,0 2,2 7,B(0111111) 6,N2SEND
0014737 03 000326 000000 000001 -001- 23 ADDR 0(0000001),0(0)

0014741 25 # OVERRIDE LOCK OFF-LINE
-001- 26 # MICRO
-001- 27 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 28 # TO FIELD = MSXT FROM FIELD = MCHBXF
0014741 03 000330 020005 ----- CDGNM -001- 29 VFD 1,0 2,1 7,0 6,NMICRO
0014742 03 000331 106631 ----- -001- 30 VFD 8,MSXT 8,MCHBXF

0014743 32 # NORMALLY, BAD PARITY SHOULD SET THE
# BUSER BIT BUT SHOULD NOT SET THE IOPARE
# ERROR BIT

-001- 35 # SEND
-001- 36 # SEND 0(000000) TO OFF-LINE GENERAL REGISTER 0.
-001- 37 # PARITY IS 0(0).
0014743 03 000332 057607 ----- CDGNM -001- 38 VFD 1,0 2,2 7,B(1111110) 6,N2SEND
0014744 03 000333 051400 ----- -001- 39 VFD 8,R0XT 2,0 2,0(0)
0014745 03 000334 000000 ----- -001- 40 VFD 16,0(C00000)

-001- 42 # ZERO ER
-001- 43 # ZERO THE OFF-LINE ER.
0014746 03 000335 000012 ----- CDGNM -001- 44 VFD 1,0 2,0 7,0 6,NZERO_ER

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 4

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI

W77D

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-001- 01 # EXECUTE
0014747 03 000336 040015 ----- CDGMI -001- 02 # EXECUTE THE INSTRUCTION LR IN THE OFF-LINE CU.
0014750 03 000337 106020 ----- -001- 03 VFD 1,0 2,2 7,0 6,NEXECUTE
0014751 03 000340 056540 ----- -001- 04 LR R1,R0
-001- 05 HALT

-001- 09 # STOP OFF
0014752 03 000341 017627 ----- CDGMI -001- 10 # SET STOP BIT IN OFF-LINE CU.
-001- 11 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 13 # RETRN
0014753 03 000342 013710 ----- CDGMI -001- 14 # RETURN OFF-LINE ER TO ON-LINE MCHB.
-001- 15 VFD 1,0 2,0 7,B(1011111) 6,NRETRN

0014754 17 # IOPARER BIT SHOULD NOT BE SET
-001- 18 # COMPARE
-001- 19 # COMPARE ON-LINE MCHB BIT S(IOPARER) TO 0.
-001- 20 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014754 03 000343 022514 ----- CDGMI -001- 21 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(IOPARER) 6,NCOMPARE
0014755 03 000344 000000 ----- -001- 22 VFD 15,0 1,0

-001- 24 # FAILTST
-001- 25 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDVRT.
-001- 26 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014756 03 000345 020017 ----- CDGMI -001- 27 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014757 03 000346 000012 ----- -001- 28 VFD 16,FLDVRT

-001- 30 # SEND
-001- 31 # SEND 0(0000001) TO OFF-LINE MCHB.
-001- 32 # PARITY IS NORMAL.
0014760 03 000347 047706 ----- CDGMI -001- 33 VFD 1,0 2,2 7,B(0111111) 6,NSEND
0014761 03 000350 000000 000001 -001- 34 ADDR 0(0000001)

-001- 36 # MICRO
-001- 37 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 38 # TO FIELD = MSXT FROM FIELD = MCHBXF
0014763 03 000352 020005 ----- CDGMI -001- 39 VFD 1,0 2,1 7,0 6,NMICRO
0014764 03 000353 106631 ----- -001- 40 VFD 8,MSXT 8,MCHBXF

0014765 42 # DIVERT PARITY CHECK USING AN I/O ORDER

-001- 45 # SEND
-001- 46 # SEND 0(000000) TO OFF-LINE GENERAL REGISTER 10.
-001- 47 # PARITY IS 0(0).
0014765 03 000354 057607 ----- CDGMI -001- 48 VFD 1,0 2,2 7,B(1111110) 6,N2SEND
0014766 03 000355 065000 ----- -001- 49 VFD 8,R10XT 2,0 2,0(0)

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 68 SEGMENT 4

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## GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

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0014767 03 000356 000000 ----- -001- 01      VFD      16,0(000000).
0014770                                     03                                     # SELECT I/O CHANNEL 0, SUBCHANNEL 0,
                                                                MESSAGE COMPLETE STATE
                                                                -001- 05 #      SEND
                                                                -001- 06 #      SEND 0(016166) TO OFF-LINE GENERAL REGISTER 9.
                                                                -001- 07 #      PARITY IS NORMAL.
0014770 03 000357 057606 ----- CDGNM      -001- 08      VFD      1,0 2,2 7,B(1111110) 6,NSEND
0014771 03 000360 064400 -----      -001- 09      VFD      8,R9XT 2,0 2,0(0)
0014772 03 000361 016166 -----      -001- 10      VFD      16,0(016166)

                                                                -001- 12 #      MICRO
                                                                -001- 13 #      PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
0014773 03 000362 020005 ----- CDGNM      -001- 14 #      MISCELLANEOUS CROSSPOINT MD0IDCHX
0014774 03 000363 164066 -----      -001- 15      VFD      1,0 2,1 7,0 6,NMICRO
                                                                -001- 16      VFD      16,MD0IDCHX

                                                                -001- 18 #      MICRO
                                                                -001- 19 #      PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                                                -001- 20 #      MISCELLANEOUS CROSSPOINT MD6RAIOX
0014775 03 000364 020005 ----- CDGNM      -001- 21      VFD      1,0 2,1 7,0 6,NMICRO
0014776 03 000365 074072 -----      -001- 22      VFD      16,MD6RAIOX

                                                                -001- 24 #      MICRO
                                                                -001- 25 #      PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                                                -001- 26 #      MISCELLANEOUS CROSSPOINT MD3CHCX
0014777 03 000366 020005 ----- CDGNM      -001- 27      VFD      1,0 2,1 7,0 6,NMICRO
0015000 03 000367 164074 -----      -001- 28      VFD      16,MD3CHCX

                                                                -001- 30 #      ZERO_ER
                                                                -001- 31 #      ZERO THE OFF-LINE ER.
0015001 03 000370 000012 ----- CDGNM      -001- 32      VFD      1,0 2,0 7,0 6,NZERO_ER
0015002                                     34                                     # OFF-LINE CODE SETS UP THE MAINTENANCE
                                                                STATE TO OVERRIDE LOCK OFF-LINE AND
                                                                EXECUTES TIO INSTRUCTION.

                                                                -001- 37 #      ADD_OFF
                                                                -001- 38 #      START OFF-LINE PROCESSOR AT ADDRESS DOTIO.
0015002 03 000371 040022 000000 CDGNM      -001- 39      VFD      1,0 2,2 7,0 6,NADD_OFF
0015003 03 000372 000000 015023 CDGNOF      -001- 40      ADDR      DOTIO

                                                                -001- 42 #      STOP OFF
                                                                -001- 43 #      SET STOP BIT IN OFF-LINE CU.
0015005 03 000374 017627 ----- CDGNM      -001- 44      VFD      1,0 2,0 7,B(1111110) 6,NSTOP

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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GATING\_BUS\_PARITY\_CHECKER DIAGNOSTIC TEST

CDGMI W77D

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-001- 01 #   RETRN
-001- 02 #   RETURN OFF-LINE ER TO ON-LINE MCHB.
0015006 03 000375 013710 ----- CDGNM -001- 03   VFD   1,0 2,0 7,B(1011111) 6,NRETRN
0015007                                05                                #   BUSER SHOULD NOT BE SET, IOPARER
                                                SHOULD
-001- 07 #   COMPARE
-001- 08 #   COMPARE ON-LINE MCHB BIT S(BUSER) TO 0.
-001- 09 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015007 03 000376 020314 ----- CDGNM -001- 10   VFD   1,LPINDX 2,1 1,0 1,SUCCES 5,S(BUSER) 6,NCOMPARE
0015010 03 000377 000000 ----- -001- 11   VFD   15,0 1,0
-001- 13 #   FAILTST
-001- 14 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDVRT.
-001- 15 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015011 03 000400 020017 ----- CDGNM -001- 16   VFD   1,0 2,1 5,0 2,0 6,NFAILTST
0015012 03 000401 000012 ----- -001- 17   VFD   16,FLDVRT
-001- 19 #   COMPARE
-001- 20 #   COMPARE ON-LINE MCHB BIT S(IOPARER) TO 1.
-001- 21 #   IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015013 03 000402 022514 ----- CDGNM -001- 22   VFD   1,LPINDX 2,1 1,0 1,SUCCES 5,S(IOPARER) 6,NCOMPARE
0015014 03 000403 000001 ----- -001- 23   VFD   15,0 1,1
-001- 25 #   FAILTST
-001- 26 #   FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLDVRT.
-001- 27 #   DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015015 03 000404 020017 ----- CDGNM -001- 28   VFD   1,0 2,1 5,0 2,0 6,NFAILTST
0015016 03 000405 000012 ----- -001- 29   VFD   16,FLDVRT
-001- 31 #   PASSTST
-001- 32 #   GO TO DIAGNOSTIC MONITOR PASS BRANCH.
0015017 03 000406 000021 ----- CDGNM -001- 33   VFD   1,0 2,0 7,0 6,NPASSTST

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 63

TEST 69

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # ** CU DIAGNOSTIC TEST NO. 69, IB_X_AND_Y_FIELD_PARITY_GENERATOR
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0013761

-001- 10 CPOXYPAR CSECT

0013761 04 000000 000145 ----- CDGMI

-001- 14 VFD 1,0 2,0 2,0 2,0 3,1 6,NB6N

```

18 # SEGMENT 1
19 # THE PARITY GENERATOR ON THE X FIELD OF THE IB USED FOR
20 # TABLE INDEXING IN MICROSTORE IS TESTED AS FOLLOWS. AN ADDRESS
21 # OF A TEST MICRO WORD WITH PTA=0 PNA=0 IS FROZEN IN
22 # THE MAR. A CONSTANT IS PUT IN X FIELD OF THE IB, THE ER
23 # IS CLEARED AND THE INDEXING CROSSPOINT ("TX") IS FIRED.
24 # IF THE CONSTANT CONTAINS AN ODD NUMBER OF ONES, THE COMPLEMENT
25 # OF PNA IS COMPARED WITH PTA BY THE MAR PARITY CIRCUIT AND
26 # A MISMATCH RESULTS, SETTING THE "MADER" ERROR BIT. IF THE
27 # CONSTANT CONTAINS AN EVEN NUMBER OF ONES, NO ERROR SHOULD RESULT

29 # SEGMENT 2
30 # THE PARITY GENERATOR ON THE IB Y FIELD IS TESTED AS THE
31 # X FIELD WAS TESTED IN SEGMENT 1

33 # SEGMENT 3
34 # WHEN THE IB IS LOADED EITHER FROM THE BUS OR FROM THE
35 # SIR, A CHECK IS MADE ON THE PARITY OF THE X AND Y FIELDS.
36 # THE OUTPUT OF THE TWO PARITY GENERATORS WHICH WERE TESTED
37 # IN SEGMENTS 1 AND 2 ARE COMBINED AND COMPARED WITH PL.
38 # LACK OF AGREEMENT SETS ERROR BIT "IBER". THIS FUNCTION IS
39 # CHECKED USING ALL 8 COMBINATIONS OF X PARITY, Y PARITY AND PL.

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

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TEST 69 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 69 SEGMENT 1
-001- 04 # *
-001- 05 # *****

0013762 04 000001 000100 ----- CDGMI -001- 08 VFD 1,0 2,0 2,0 5,D(1) 6,NTESTSEG

11 # THE PARITY GENERATOR ON THE X FIELD OF THE IB USED FOR
12 # TABLE INDEXING IN MICROSTORE IS TESTED AS FOLLOWS. AN STOP
13 # ADDRESS WITH PTA=0 PNA=0 IS IN
14 # THE MAR. A CONSTANT IS PUT IN X FIELD OF THE IB, THE ER
15 # IS CLEARED AND THE INDEXING CROSSPOINT ("TX") IS FIRED.
16 # IF THE CONSTANT CONTAINS AN ODD NUMBER OF ONES, THE COMPLEMENT
17 # OF PNA IS COMPARED WITH PTA BY THE MAR PARITY CIRCUIT AND
18 # A MISMATCH RESULTS, SETTING THE "MADER" ERROR BIT. IF THE
19 # CONSTANT CONTAINS AN EVEN NUMBER OF ONES, NO ERROR SHOULD RESULT

-001- 21 # SEND
-001- 22 # SEND 0(0000000) TO OFF-LINE MCHB.
-001- 23 # PARITY IS 0(2).
0013763 04 000002 047707 ----- CDGMI -001- 24 VFD 1,0 2,2 7,B(0111111) 6,N2SEND
0013764 04 000003 000040 000000 -001- 25 ADDR 0(0000000),0(2)

0013766 27 # MAINTENANCE STATE TO ENABLE MAR
# PARITY ERROR CIRCUIT IN STOP MODE.

-001- 29 # MICRO
-001- 30 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 31 # TO FIELD = MSXT FROM FIELD = MCHBZF
0013766 04 000005 020005 ----- CDGMI -001- 32 VFD 1,0 2,1 7,0 6,NMICRO
0013767 04 000006 106631 ----- -001- 33 VFD 8,MSXT 8,MCHBZF

-001- 35 # MICRO
-001- 36 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 37 # MISCELLANEOUS CROSSPOINT ZDRX
0013770 04 000007 020005 ----- CDGMI -001- 38 VFD 1,0 2,1 7,0 6,NMICRO
0013771 04 000010 015472 ----- -001- 39 VFD 16,ZDRX

-001- 41 # LP_BEGIN
-001- 42 # BEGIN 16 LOOPS.
0013772 04 000011 002001 ----- CDGMI -001- 43 TSTXLP VFD 1,0 2,0 7,D(16) 6,NBEGIN

-001- 45 # SEND
-001- 46 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 47 # PARITY IS NORMAL.
0013773 04 000012 147706 ----- CDGMI -001- 48 VFD 1,1 2,2 7,B(0111111) 6,NSEND
0013774 04 000013 000000 000020 -001- 49 ADDR 0(0000020) # LOOP 1

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

TEST 69 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

## IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI

W77D

0013776	04	000015	000000	000040		-001- 01	ADDR	0(0000040)	#	LOOP 2
0014000	04	000017	000000	000100		-001- 02	ADDR	0(0000100)	#	LOOP 3
0014002	04	000021	000000	000200		-001- 03	ADDR	0(0000200)	#	LOOP 4
0014004	04	000023	000000	000160		-001- 04	ADDR	0(0000160)	#	LOOP 5
0014006	04	000025	000000	000260		-001- 05	ADDR	0(0000260)	#	LOOP 6
0014010	04	000027	000000	000320		-001- 06	ADDR	0(0000320)	#	LOOP 7
0014012	04	000031	000000	000340		-001- 07	ADDR	0(0000340)	#	LOOP 8
0014014	04	000033	000000	000060		-001- 08	ADDR	0(0000060)	#	LOOP 9
0014016	04	000035	000000	000120		-001- 09	ADDR	0(0000120)	#	LOOP 10
0014020	04	000037	000000	000140		-001- 10	ADDR	0(0000140)	#	LOOP 11
0014022	04	000041	000000	000220		-001- 11	ADDR	0(0000220)	#	LOOP 12
0014024	04	000043	000000	000240		-001- 12	ADDR	0(0000240)	#	LOOP 13
0014026	04	000045	000000	000300		-001- 13	ADDR	0(0000300)	#	LOOP 14
0014030	04	000047	000000	000360		-001- 14	ADDR	0(0000360)	#	LOOP 15
0014032	04	000051	000000	000000		-001- 15	ADDR	0(0000000)	#	LOOP 16
						-001- 17 #	MICRO			
						-001- 18 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.			
						-001- 19 #	TO FIELD = IBXT FROM FIELD = MCHB%F			
0014034	04	000053	020005	-----	CDGNM	-001- 20	VFD	1,0 2,1 7,0 6,NMICRO		
0014035	04	000054	143231	-----		-001- 21	VFD	8,IBXT 8,MCHB%F		
						-001- 23 #	ZERO ER			
						-001- 24 #	ZERO THE OFF-LINE ER.			
0014036	04	000055	000012	-----	CDGNM	-001- 25	VFD	1,0 2,0 7,0 6,NZERO_ER		
						-001- 27 #	MICRO			
						-001- 28 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.			
						-001- 29 #	MISCELLANEOUS CROSSPOINT TX%			
0014037	04	000056	020005	-----	CDGNM	-001- 30	VFD	1,0 2,1 7,0 6,NMICRO		
0014040	04	000057	144750	-----		-001- 31	VFD	16,TX%		
						-001- 33 #	RETRN			
						-001- 34 #	RETURN OFF-LINE ER TO ON-LINE MCHB.			
0014041	04	000060	013710	-----	CDGNM	-001- 35	VFD	1,0 2,0 7,B(1011111) 6,NRETRN		
						-001- 37 #	COMPARE			
						-001- 38 #	COMPARE ON-LINE MCHB BIT S(MARER) TO CONSTANTS.			
						-001- 39 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.			
0014042	04	000061	120514	-----	CDGNM	-001- 40	VFD	1,LPINDX 2,1 1,0 1,SUCCESS 5,S(MARER) 6,NCOMPARE		
0014043	04	000062	000001	-----		-001- 41	VFD	15,0 1,1	#	LOOP 1
0014044	04	000063	000001	-----		-001- 42	VFD	15,0 1,1	#	LOOP 2
0014045	04	000064	000001	-----		-001- 43	VFD	15,0 1,1	#	LOOP 3
0014046	04	000065	000001	-----		-001- 44	VFD	15,0 1,1	#	LOOP 4
0014047	04	000066	000001	-----		-001- 45	VFD	15,0 1,1	#	LOOP 5
0014050	04	000067	000001	-----		-001- 46	VFD	15,0 1,1	#	LOOP 6
0014051	04	000070	000001	-----		-001- 47	VFD	15,0 1,1	#	LOOP 7
0014052	04	000071	000001	-----		-001- 48	VFD	15,0 1,1	#	LOOP 8
0014053	04	000072	000000	-----		-001- 49	VFD	15,0 1,0	#	LOOP 9

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 66

TEST 69 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

## IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI

W77D

```

0014054 04 000073 000000 ----- -001- 01 VFD 15,0 1,0 # LOOP 10
0014055 04 000074 000000 ----- -001- 02 VFD 15,0 1,0 # LOOP 11
0014056 04 000075 000000 ----- -001- 03 VFD 15,0 1,0 # LOOP 12
0014057 04 000076 000000 ----- -001- 04 VFD 15,0 1,0 # LOOP 13
0014060 04 000077 000000 ----- -001- 05 VFD 15,0 1,0 # LOOP 14
0014061 04 000100 000000 ----- -001- 06 VFD 15,0 1,0 # LOOP 15
0014062 04 000101 000000 ----- -001- 07 VFD 15,0 1,0 # LOOP 16

```

```

-001- 09 # FAILTST
-001- 10 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLXPAR.
-001- 11 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014063 04 000102 020017 ----- CDGNM -001- 12 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014064 04 000103 000001 ----- -001- 13 VFD 16,FLXPAR

-001- 15 # LP_END
-001- 16 # TERMINATE LOOP.
0014065 04 000104 040002 000000 CDGNM -001- 17 VFD 1,0 2,2 7,0 6,NLP_END
0014066 04 000105 000000 013772 0013772 -001- 18 ADDR LPSTART

```

0014070

20

# THE X FILLD PARITY GENERATOR HAS BEEN COMPLETELY TESTED BUT SOME OF THE LOGI IN THE MAR PARITY CIRCUIT HAS NOT. TWO INDEXING OPERATIONS ARE NECESSARY, ONE WITH EVEN PARITY, THE OTHER WITH ODD PARITY, WITH THE MAR FROZEN WITH THE ADDRESS OF A TEST WORD CONTAINING PTA= AND PNA=1

```

-001- 28 # LOAD_MAR
-001- 29 # LOAD AND FREEZE THE OFF-LINE MAR WITH 0(000042).
0014070 04 000107 020033 ----- CDGNM -001- 30 VFD 1,0 2,1 7,0 6,NFRZ
0014071 04 000110 000042 ----- -001- 31 VFD 16,0(000042)

```

```

-001- 33 # LP_BEGIN
-001- 34 # BEGI. 2 LOOPS.
0014072 04 000111 000201 ----- CDGNM -001- 35 TSTXLP2 VFD 1,0 2,0 7,0(2) 6,NBEGIN

```

```

-001- 37 # SEND
-001- 38 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 39 # PARITY IS NORMAL.
0014073 04 000112 147706 ----- CDGNM -001- 40 VFD 1,1 2,2 7,0(0111111) 6,NSEND
0014074 04 000113 000000 000000 -001- 41 ADDR 0(0000000) # LOOP 1
0014076 04 000115 000000 000020 -001- 42 ADDR 0(0000020) # LOOP 2

```

```

-001- 44 # MICRO
-001- 45 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 46 # TO FIELD = IBXT FROM FIELD = MC:IBXF
0014100 04 000117 020005 ----- CDGMI -001- 47 VFD 1,0 2,1 7,0 6,NMICRO
0014101 04 000120 143231 ----- -001- 48 VFD 8,IBXT 8,MCHBXF

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C950-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 67

TEST 69 SEGMENT 1

22:59:51 2/05/81 \*\*\*\*

## IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

				-001- 01 #	ZERO ER			
				-001- 02 #	ZERO THE OFF-LINE ER.			
0014102	04	000121	000012	-----	CDGNM	-001- 03	VFD	1,0 2,0 7,0 6,NZERO_ER
						-001- 05 #	MICRO	
						-001- 06 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
0014103	04	000122	020005	-----	CDGNM	-001- 07 #	MISCELLANEOUS CROSSPOINT TX%	
0014104	04	000123	144750	-----		-001- 08	VFD	1,0 2,1 7,0 6,NMICRO
						-001- 09	VFD	16,TX%
						-001- 11 #	RETRN	
						-001- 12 #	RETURN OFF-LINE ER TO ON-LINE MCHB.	
0014105	04	000124	013710	-----	CDGNM	-001- 13	VFD	1,0 2,0 7,B(1011111) 6,NRETRN
						-001- 15 #	COMPARE	
						-001- 16 #	COMPARE ON-LINE MCHB BIT S(MARER) TO CONSTANTS.	
						-001- 17 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0014106	04	000125	120514	-----	CDGNM	-001- 18	VFD	1,LPINDX 2,1 1,0 1,SUCCESS 5,S(MARER) 6,NCOMPARE
0014107	04	000126	000000	-----		-001- 19	VFD	15,0 1,0 # LOOP 1
0014110	04	000127	000001	-----		-001- 20	VFD	15,0 1,1 # LOOP 2
						-001- 22 #	FAILTST	
						-001- 23 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMCPAR.	
						-001- 24 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0014111	04	000130	020017	-----	CDGNM	-001- 25	VFD	1,0 2,1 5,0 2,0 6,NFAILTST
0014112	04	000131	000002	-----		-001- 26	VFD	16,FLMCPAR
						-001- 28 #	LP_END	
						-001- 29 #	TERMINATE LOOP.	
0014113	04	000132	040002	000000	CDGNM	-001- 30	VFD	1,0 2,2 7,0 6,NLP_END
0014114	04	000133	000000	014072	0014072	-001- 31	ADDR	LPSTART

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 68

TEST 69 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 69 SEGMENT 2
-001- 04 # *
-001- 05 # *****

0014116 04 000135 000200 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(2) 6,NTESTSEG

11 # THE PARITY GENERATOR ON THE IB Y FIELD IS TESTED AS THE
12 # X FIELD WAS TESTED IN SEGMENT 1

-001- 14 # STOP OFF
-001- 15 # SET STOP BIT IN OFF-LINE CU.
0014117 04 000136 017627 ----- CDGNM -001- 16 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 18 # LP BEGIN
-001- 19 # BEGIN 16 LOOPS.
0014120 04 000137 002001 ----- CDGNM -001- 20 TSTYLP VFD 1,0 2,0 7,D(16) 6,NBEGIN

-001- 22 # SEND
-001- 23 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 24 # PARITY IS NORMAL.
0014121 04 000140 147706 ----- CDGNM -001- 25 VFD 1,1 2,2 7,B(0111111) 6,NSEND
0014122 04 000141 000000 000001 -001- 26 ADDR 0(0000001) # LOOP 1
0014124 04 000143 000000 000002 -001- 27 ADDR 0(0000002) # LOOP 2
0014126 04 000145 000000 000004 -001- 28 ADDR 0(0000004) # LOOP 3
0014130 04 000147 000000 000010 -001- 29 ADDR 0(0000010) # LOOP 4
0014132 04 000151 000000 000007 -001- 30 ADDR 0(0000007) # LOOP 5
0014134 04 000153 000000 000013 -001- 31 ADDR 0(0000013) # LOOP 6
0014136 04 000155 000000 000015 -001- 32 ADDR 0(0000015) # LOOP 7
0014140 04 000157 000000 000016 -001- 33 ADDR 0(0000016) # LOOP 8
0014142 04 000161 000000 000003 -001- 34 ADDR 0(0000003) # LOOP 9
0014144 04 000163 000000 000005 -001- 35 ADDR 0(0000005) # LOOP 10
0014146 04 000165 000000 000006 -001- 36 ADDR 0(0000006) # LOOP 11
0014150 04 000167 000000 000011 -001- 37 ADDR 0(0000011) # LOOP 12
0014152 04 000171 000000 000012 -001- 38 ADDR 0(0000012) # LOOP 13
0014154 04 000173 000000 000014 -001- 39 ADDR 0(0000014) # LOOP 14
0014156 04 000175 000000 000017 -001- 40 ADDR 0(0000017) # LOOP 15
0014160 04 000177 000000 000000 -001- 41 ADDR 0(0000000) # LOOP 16

-001- 43 # MICRO
-001- 44 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 45 # TO FIELD = IBXT FROM FIELD = MCHBXF
0014162 04 000201 020005 ----- CDGNM -001- 46 VFD 1,0 2,1 7,0 6,NMICRO
0014163 04 000202 143231 ----- -001- 47 VFD 8,IBXT 8,MCHBXF

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 69

TEST 69 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI M77D

```

-001- 01 # ZERO_ER
-001- 02 # ZERO THE OFF-LINE ER.
0014164 04 000203 000012 ----- CDGNM -001- 03 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 05 # MICRO
-001- 06 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 07 # MISCELLANEOUS CROSSPOINT TYX
0014165 04 000204 020005 ----- CDGNM -001- 08 VFD 1,0 2,1 7,0 6,NMICRO
0014166 04 000205 145350 ----- -001- 09 VFD 16,TYX

-001- 11 # RETRN
-001- 12 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014167 04 000206 013710 ----- CDGNM -001- 13 VFD 1,0 2,0 7,B(1011111) 6,NRETRN

-001- 15 # COMPARE
-001- 16 # COMPARE ON-LINE MCHB BIT S(MARER) TO CONSTANTS.
-001- 17 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014170 04 000207 120514 ----- CDGNM -001- 18 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(MARER) 6,NCOMPARE
0014171 04 000210 000001 ----- -001- 19 VFD 15,0 1,1 # LOOP 1
0014172 04 000211 000001 ----- -001- 20 VFD 15,0 1,1 # LOOP 2
0014173 04 000212 000001 ----- -001- 21 VFD 15,0 1,1 # LOOP 3
0014174 04 000213 000001 ----- -001- 22 VFD 15,0 1,1 # LOOP 4
0014175 04 000214 000001 ----- -001- 23 VFD 15,0 1,1 # LOOP 5
0014176 04 000215 000001 ----- -001- 24 VFD 15,0 1,1 # LOOP 6
0014177 04 000216 000001 ----- -001- 25 VFD 15,0 1,1 # LOOP 7
0014200 04 000217 000001 ----- -001- 26 VFD 15,0 1,1 # LOOP 8
0014201 04 000220 000000 ----- -001- 27 VFD 15,0 1,0 # LOOP 9
0014202 04 000221 000000 ----- -001- 28 VFD 15,0 1,0 # LOOP 10
0014203 04 000222 000000 ----- -001- 29 VFD 15,0 1,0 # LOOP 11
0014204 04 000223 000000 ----- -001- 30 VFD 15,0 1,0 # LOOP 12
0014205 04 000224 000000 ----- -001- 31 VFD 15,0 1,0 # LOOP 13
0014206 04 000225 000000 ----- -001- 32 VFD 15,0 1,0 # LOOP 14
0014207 04 000226 000000 ----- -001- 33 VFD 15,0 1,0 # LOOP 15
0014210 04 000227 000000 ----- -001- 34 VFD 15,0 1,0 # LOOP 16

-001- 36 # FAILTST
-001- 37 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLYPAR.
-001- 38 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014211 04 000230 020017 ----- CDGNM -001- 39 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014212 04 000231 000003 ----- -001- 40 VFD 16,FLYPAR

-001- 42 # LP_END
-001- 43 # TERMINATE LOOP.
0014213 04 000232 040002 000000 CDGNM -001- 44 VFD 1,0 2,2 7,0 6,NLP_END
0014214 04 000233 000000 014120 0014120 -001- 45 ADDR LPSTART

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 70

TEST 69 SEGMENT 2

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

0014216 04 000235 017627 ----- CDGNM	-001- 01 #	STOP OFF
	-001- 02 #	SET STOP BIT IN OFF-LINE CU.
	-001- 03	VFD 1,0 2,0 7,B(1111110) 6,NSTOP

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI

ISSUE 04 PAGE 71

TEST 69 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 69 SEGMENT 3
-001- 04 # *
-001- 05 # *****

0014217 04 000236 000300 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(3) 6,NTESTSEG

11 # WHEN THE IB IS LOADED EITHER FROM THE BUS OR FROM THE
12 # SIR, A CHECK IS MADE ON THE PARITY OF THE X AND Y FIELDS.
13 # THE OUTPUT OF THE TWO PARITY GENERATORS WHICH WERE TESTED
14 # IN SEGMENTS 1 AND 2 ARE COMBINED AND COMPARED WITH PL.
15 # LACK OF AGREEMENT SETS ERROR BIT "IBER". THIS FUNCTION IS
16 # CHECKED USING ALL 8 COMBINATIONS OF X PARITY, Y PARITY AND PL.

0014220 18 # THE GATING SIR==>IB TAKES PLACE WHEN
THE NEXT ADDRESS FIELD OF THE MICRO
STORE IS ALL ZEROS, NO INTERRUPTS ARE
PRESENT AND DR=1. IN THE STOP STATE,
NEXT ADDRESS IS ALL OS. BIN IS SET
BEFORE EVERY DIAGNOSTIC.

-001- 24 # LP_BEGIN
-001- 25 # BEGIN 4 LOOPS.
0014220 04 000237 000401 ----- CDGNM -001- 26 LDIBLP1 VFD 1,0 2,0 7,D(4) 6,NBEGIN

-001- 28 # MICRO
-001- 29 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 30 # MISCELLANEOUS CROSSPOINT SDRX
0014221 04 000240 020005 ----- CDGNM -001- 31 VFD 1,0 2,1 7,0 6,NMICRO
0014222 04 000241 015471 ----- -001- 32 VFD 16,SDRX

-001- 34 # MICRO
-001- 35 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 36 # MISCELLANEOUS CROSSPOINT ZBRX
0014223 04 000242 020005 ----- CDGNM -001- 37 VFD 1,0 2,1 7,0 6,NMICRO
0014224 04 000243 025712 ----- -001- 38 VFD 16,ZBRX

-001- 40 # MICRO
-001- 41 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 42 # TO FIELD = SIRXT FROM FIELD = BRXF
0014225 04 000244 020005 ----- CDGNM -001- 43 VFD 1,0 2,1 7,0 6,NMICRO
0014226 04 000245 017342 ----- -001- 44 VFD 8,SIRXT 8,BRXF

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 72

TEST 69 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI

W77D

```

-001- 01 # ZERO ER
-001- 02 # ZERO THE OFF-LINE ER.
0014227 04 000246 000012 ----- CDGNM -001- 03 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 05 # SEND
-001- 06 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 07 # PARITY IS 0(2).
0014230 04 000247 147707 ----- CDGNM -001- 08 VFD 1,1 2,2 7,B(0111111) 6,N2SEND
0014231 04 000250 000040 000000 -001- 09 ADDR 0(0000000),0(2) # LOOP 1
0014233 04 000252 000040 000001 -001- 10 ADDR 0(0000001),0(2) # LOOP 2
0014235 04 000254 000040 000020 -001- 11 ADDR 0(0000020),0(2) # LOOP 3
0014237 04 000256 000040 000021 -001- 12 ADDR 0(0000021),0(2) # LOOP 4

-001- 14 # MICRO
-001- 15 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 16 # TO FIELD = SIRXT FROM FIELD = MCHBXF
0014241 04 000260 020005 ----- CDGNM -001- 17 VFD 1,0 2,1 7,0 6,NMICRO
0014242 04 000261 017231 ----- -001- 18 VFD 8,SIRXT 8,MCHBXF

-001- 20 # SEND
-001- 21 # SEND 0(0000100) TO OFF-LINE MCHB.
-001- 22 # PARITY IS NORMAL.
0014243 04 000262 047706 ----- CDGNM -001- 23 VFD 1,0 2,2 7,B(0111111) 6,NSEND
0014244 04 000263 000000 000100 -001- 24 ADDR 0(0000100)

-001- 26 # MICRO
-001- 27 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 28 # TO FIELD = MSXT FROM FIELD = MCHBXF
0014246 04 000265 020005 ----- CDGNM -001- 29 VFD 1,0 2,1 7,0 6,NMICRO
0014247 04 000266 106631 ----- -001- 30 VFD 8,MSXT 8,MCHBXF

-001- 32 # RETRN
-001- 33 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014250 04 000267 013710 ----- CDGNM -001- 34 VFD 1,0 2,0 7,B(1011111) 6,NRETRN

-001- 36 # COMPARE
-001- 37 # COMPARE ON-LINE MCHB BIT S(IBER) TO CONSTANTS.
-001- 38 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014251 04 000270 120214 ----- CDGNM -001- 39 VFD 1,LPINDX 2,1 1,0 1,SUCCES 5,S(IBER) 6,NCOMPARE
0014252 04 000271 000001 ----- -001- 40 VFD 15,0 1,1 # LOOP 1
0014253 04 000272 000000 ----- -001- 41 VFD 15,0 1,0 # LOOP 2
0014254 04 000273 000000 ----- -001- 42 VFD 15,0 1,0 # LOOP 3
0014255 04 000274 000001 ----- -001- 43 VFD 15,0 1,1 # LOOP 4

-001- 45 # FAILTST
-001- 46 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLIBCK.
-001- 47 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014256 04 000275 020017 ----- CDGNM -001- 48 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014257 04 000276 000004 ----- -001- 49 VFD 16,FLIBCK

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 73

TEST 69 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

```

-001- 02 # ZERO MS
-001- 03 # ZERO THE OFF-LINE MS REGISTER.
0014260 04 000277 000042 ----- CDGNM -001- 04 VFD 1,0 2,0 7,0 6,NCLRMS

-001- 06 # LP_END
-001- 07 # TERMINATE LOOP.
0014261 04 000300 040002 000000 CDGNM -001- 08 VFD 1,0 2,2 7,0 6,NLP_END
0014262 04 000301 000000 014220 0014220 -001- 09 ADDR LPSTART

-001- 11 # LP_BEGIN
-001- 12 # BEGIN 4 LOOPS.
0014264 04 000303 000401 ----- CDGNM -001- 13 LDIBLP2 VFD 1,0 2,0 7,D(4) 6,NBEGIN

-001- 15 # MICRO
-001- 16 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 17 # MISCELLANEOUS CROSSPOINT SDRX
0014265 04 000304 020005 ----- CDGNM -001- 18 VFD 1,0 2,1 7,0 6,NMICRO
0014266 04 000305 015471 ----- -001- 19 VFD 16,SDRX

-001- 21 # MICRO
-001- 22 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 23 # MISCELLANEOUS CROSSPOINT ZBRX
0014267 04 000306 020005 ----- CDGNM -001- 24 VFD 1,0 2,1 7,0 6,NMICRO
0014270 04 000307 025712 ----- -001- 25 VFD 16,ZBRX

-001- 27 # MICRO
-001- 28 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 29 # TO FIELD = SIRXT FROM FIELD = BRXF
0014271 04 000310 020005 ----- CDGNM -001- 30 VFD 1,0 2,1 7,0 6,NMICRO
0014272 04 000311 017342 ----- -001- 31 VFD 8,SIRXT 8,BRXF

-001- 33 # ZERO ER
-001- 34 # ZERO THE OFF-LINE ER.
0014273 04 000312 000012 ----- CDGNM -001- 35 VFD 1,0 2,0 7,0 6,NZERO_ER

-001- 37 # SEND
-001- 38 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 39 # PARITY IS 0(3).
0014274 04 000313 147707 ----- CDGNM -001- 40 VFD 1,1 2,2 7,B(0111111) 6,N2SEND
0014275 04 000314 000060 000000 -001- 41 ADDR 0(0000000),0(3) # LOOP 1
0014277 04 000316 000060 000001 -001- 42 ADDR 0(0000001),0(3) # LOOP 2
0014301 04 000320 000060 000020 -001- 43 ADDR 0(0000020),0(3) # LOOP 3
0014303 04 000322 000060 000021 -001- 44 ADDR 0(0000021),0(3) # LOOP 4

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 74

TEST 69 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

```

-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # TO FIELD = SIRXT FROM FIELD = MCHBXF
0014305 04 000324 020005 ----- CDGNM -001- 04 VFD 1,0 2,1 7,0 6,NMICRO
0014306 04 000325 017231 ----- -001- 05 VFD 8,SIRXT 8,MCHBXF

-001- 07 # SEND
-001- 08 # SEND 0(0000100) TO OFF-LINE MCHB.
-001- 09 # PARITY IS NORMAL.
0014307 04 000326 047706 ----- CDGNM -001- 10 VFD 1,0 2,2 7,8(0111111) 6,NSEND
0014310 04 000327 000000 000100 -001- 11 ADDR 0(0000100)

-001- 13 # MICRO
-001- 14 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 15 # TO FIELD = MSXT FROM FIELD = MCHBXF
0014312 04 000331 020005 ----- CDGNM -001- 16 VFD 1,0 2,1 7,0 6,NMICRO
0014313 04 000332 106631 ----- -001- 17 VFD 8,MSXT 8,MCHBXF

-001- 19 # RETRN
-001- 20 # RETURN OFF-LINE ER TO ON-LINE MCHB.
0014314 04 000333 013710 ----- CDGNM -001- 21 VFD 1,0 2,0 7,8(1011111) 6,NRETRN

-001- 23 # COMPARE
-001- 24 # COMPARE ON-LINE MCHB BIT S(IBER) TO CONSTANTS.
-001- 25 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0014315 04 000334 120214 ----- CDGNM -001- 26 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(IBER) 6,NCOMPARE
0014316 04 000335 000000 ----- -001- 27 VFD 15,0 1,0 # LOOP 1
0014317 04 000336 000001 ----- -001- 28 VFD 15,0 1,1 # LOOP 2
0014320 04 000337 000001 ----- -001- 29 VFD 15,0 1,1 # LOOP 3
0014321 04 000340 000000 ----- -001- 30 VFD 15,0 1,0 # LOOP 4

-001- 32 # FAILTST
-001- 33 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLIBCK.
-001- 34 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0014322 04 000341 020017 ----- CDGNM -001- 35 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0014323 04 000342 000004 ----- -001- 36 VFD 16,FLIBCK

-001- 38 # ZERO MS
-001- 39 # ZERO THE OFF-LINE MS REGISTER.
0014324 04 000343 000042 ----- CDGNM -001- 40 VFD 1,0 2,0 7,0 6,NCLRMS

-001- 42 # LP_END
-001- 43 # TERMINATE LOOP.
0014325 04 000344 040002 000000 CDGNM -001- 44 VFD 1,0 2,2 7,0 6,NLP_END
0014326 04 000345 000000 014264 0014264 -001- 45 ADDR LPSTART

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 75

TEST 69 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

## IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

```

0014330          01          # THE CHECK SHOULD ALSO BE PERFORMED
                                WHEN THE IB IS LOADED FROM THE BUS
                                -001- 03 # MICRO
                                -001- 04 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                -001- 05 # MISCELLANEOUS CROSSPOINT ZDRX
0014330 04 000347 020005 ----- CDGNM -001- 06 VFD 1,0 2,1 7,0 6,NMICRO
0014331 04 000350 015472 ----- -001- 07 VFD 16,ZDRX

                                -001- 09 # LP_BEGIN
                                -001- 10 # BEGIN 2 LOOPS.
0014332 04 000351 000201 ----- CDGNM -001- 11 LPLDIB3 VFD 1,0 2,0 7,D(2) 6,NBEGIN

0014333          13          # CLERR OUT BAD PARITY CONSTANT
                                -001- 14 # MICRO
                                -001- 15 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                -001- 16 # MISCELLANEOUS CROSSPOINT ZDRX
0014333 04 000352 020005 ----- CDGNM -001- 17 VFD 1,0 2,1 7,0 6,NMICRO
0014334 04 000353 015472 ----- -001- 18 VFD 16,ZDRX

                                -001- 20 # MICRO
                                -001- 21 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                -001- 22 # MISCELLANEOUS CROSSPOINT ZBRX
0014335 04 000354 020005 ----- CDGNM -001- 23 VFD 1,0 2,1 7,0 6,NMICRO
0014336 04 000355 025712 ----- -001- 24 VFD 16,ZBRX

                                -001- 26 # MICRO
                                -001- 27 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                -001- 28 # TO FIELD = SIRXT FROM FIELD = BRXF
0014337 04 000356 020005 ----- CDGNM -001- 29 VFD 1,0 2,1 7,0 6,NMICRO
0014340 04 000357 017342 ----- -001- 30 VFD 8,SIRXT 8,BRXF

                                -001- 32 # MICRO
                                -001- 33 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                -001- 34 # TO FIELD = IBXT FROM FIELD = BRXF
0014341 04 000360 020005 ----- CDGNM -001- 35 VFD 1,0 2,1 7,0 6,NMICRO
0014342 04 000361 143342 ----- -001- 36 VFD 8,IBXT 8,BRXF

                                -001- 38 # ZERO_ER
                                -001- 39 # ZERO THE OFF-LINE ER.
0014343 04 000362 000012 ----- CDGNM -001- 40 VFD 1,0 2,0 7,0 6,NZERO_ER

                                -001- 42 # SEND
                                -001- 43 # SEND CONSTANTS TO OFF-LINE MCHB.
                                -001- 44 # PARITY IS 0(2).
0014344 04 000363 147707 ----- CDGNM -001- 45 VFD 1,1 2,2 7,B(0111111) 6,NZSEND
0014345 04 000364 000040 000000 -001- 46 ADDR 0(0000000),0(2) # LOOP 1
0014347 04 000366 000040 000001 -001- 47 ADDR 0(0000001),0(2) # LOOP 2

```

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 76

TEST 69 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI

W77D

				-001- 01 #	MICRO			
				-001- 02 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.			
				-001- 03 #	TO FIELD = IBXT FROM FIELD = MCHBXF			
0014351	04	000370	020005	-----	CDGMI	-001- 04	VFD	1,0 2,1 7,0 6,NMICRO
0014352	04	000371	143231	-----		-001- 05	VFD	8,IBXT 8,MCHBXF
						-001- 07 #	RETRN	
						-001- 08 #	RETURN OFF-LINE ER TO ON-LINE MCHB.	
0014353	04	000372	013710	-----	CDGMI	-001- 09	VFD	1,0 2,0 7,8(1011111) 6,NRETRN
						-001- 11 #	COMPARE	
						-001- 12 #	COMPARE ON-LINE MCHB BIT S(IBER) TO CONSTANTS.	
						-001- 13 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0014354	04	000373	120214	-----	CDGMI	-001- 14	VFD	1,LPINDX 2,1 1,0 1,SUCCESS 5,S(IBER) 6,NCOMPARE
0014355	04	000374	000001	-----		-001- 15	VFD	15,0 1,1 # LOOP 1
0014356	04	000375	000000	-----		-001- 16	VFD	15,0 1,0 # LOOP 2
						-001- 18 #	FAILTST	
						-001- 19 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLPGIB.	
						-001- 20 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0014357	04	000376	020017	-----	CDGMI	-001- 21	VFD	1,0 2,1 5,0 2,0 6,NFAILTST
0014360	04	000377	000005	-----		-001- 22	VFD	16,FLPGIB
						-001- 24 #	LP_END	
						-001- 25 #	TERMINATE LOOP.	
0014361	04	000400	040002	000000	CDGMI	-001- 26	VFD	1,0 2,2 7,0 6,NLP_END
0014362	04	000401	000000	014332	0014332	-001- 27	ADDR	LPSTART
0014364						29		# CLEAR OUT BAD PARITY CONSTANT
						-001- 30 #	MICRO	
						-001- 31 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
						-001- 32 #	MISCELLANEOUS CROSSPOINT ZDRX	
0014364	04	000403	020005	-----	CDGMI	-001- 33	VFD	1,0 2,1 7,0 6,NMICRO
0014365	04	000404	015472	-----		-001- 34	VFD	16,ZDRX
						-001- 36 #	MICRO	
						-001- 37 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
						-001- 38 #	MISCELLANEOUS CROSSPOINT ZBRX	
0014366	04	000405	020005	-----	CDGMI	-001- 39	VFD	1,0 2,1 7,0 6,NMICRO
0014367	04	000406	025712	-----		-001- 40	VFD	16,ZBRX
						-001- 42 #	MICRO	
						-001- 43 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
						-001- 44 #	TO FIELD = SIRXT FROM FIELD = BRXF	
0014370	04	000407	020005	-----	CDGMI	-001- 45	VFD	1,0 2,1 7,0 6,NMICRO
0014371	04	000410	017342	-----		-001- 46	VFD	8,SIRXT 8,BRXF

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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TEST 69 SEGMENT 3

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IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

			-001- 01 #	MICRO	
			-001- 02 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
			-001- 03 #	TO FIELD = IBXT FROM FIELD = BRXF	
0014372	04	000411	020005	-----	CDGNM
0014373	04	000412	143342	-----	
			-001- 04	VFD 1,0 2,1 7,0 6,NMICRO	
			-001- 05	VFD 8,IBXT 8,BRXF	
0014374			07		# THE LNOP SIGNAL SHOULD BLOCK THE CHECK
			-001- 09 #	MICRO	
			-001- 10 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
			-001- 11 #	MISCELLANEOUS CROSSPOINT SDRX	
0014374	04	000413	020005	-----	CDGNM
0014375	04	000414	015471	-----	
			-001- 12	VFD 1,0 2,1 7,0 6,NMICRO	
			-001- 13	VFD 16,SDRX	
			-001- 15 #	SEND	
			-001- 16 #	SEND 0(0000000) TO OFF-LINE MCHB.	
			-001- 17 #	PARITY IS 0(2).	
0014376	04	000415	047707	-----	CDGNM
0014377	04	000416	000040	000000	
			-001- 18	VFD 1,0 2,2 7,B(0111111) 6,N2SEND	
			-001- 19	ADDR 0(0000000),0(2)	
			-001- 21 #	MICRO	
			-001- 22 #	PERFORM MICRO INSTRUCTION IN OFF-LINE CU.	
			-001- 23 #	TO FIELD = SIRXT FROM FIELD = MCHBFX	
0014401	04	000420	020005	-----	CDGNM
0014402	04	000421	017231	-----	
			-001- 24	VFD 1,0 2,1 7,0 6,NMICRO	
			-001- 25	VFD 8,SIRXT 8,MCHBFX	
			-001- 27 #	RETRN	
			-001- 28 #	RETURN OFF-LINE ER TO ON-LINE MCHB.	
0014403	04	000422	013710	-----	CDGNM
			-001- 29	VFD 1,0 2,0 7,B(1011111) 6,NRETRN	
			-001- 31 #	COMPARE	
			-001- 32 #	COMPARE ON-LINE MCHB BIT S(IBER) TO 0.	
			-001- 33 #	IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.	
0014404	04	000423	020214	-----	CDGNM
0014405	04	000424	000000	-----	
			-001- 34	VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(IBER) 6,NCOMPARE	
			-001- 35	VFD 15,0 1,0	
			-001- 37 #	FAILTST	
			-001- 38 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLNOPI.	
			-001- 39 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.	
0014406	04	000425	020017	-----	CDGNM
0014407	04	000426	000006	-----	
			-001- 40	VFD 1,0 2,1 5,0 2,0 6,NFAILTST	
			-001- 41	VFD 16,FLNOPI	
			-001- 43 #	PASSTST	
			-001- 44 #	GO TO DIAGNOSTIC MONITOR PASS BRANCH.	
0014410	04	000427	000021	-----	CDGNM
			-001- 45	VFD 1,0 2,0 7,0 6,NPASSTST	

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

PR-1C930-50

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E03

TEST 69 SEGMENT 3

22:59:51 2/05/81 \*\*\*\*

IB\_X\_AND\_Y\_FIELD\_PARITY\_GENERATOR DIAGNOSTIC TEST

CDGMI W77D

01 CMINTERP MAXSIZE 0,133  
02 CMTMSCXP MAXSIZE 0,722  
03 CBUSPAR MAXSIZE 0,407  
04 CPOXYPAR MAXSIZE 0,430

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1c930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 79

PATCH HISTORY

22:59:51 2/05/81 \*\*\*\*

LISTING OF INDIVIDUAL PATCHES

CDGMI W77D

```

          ,  */*/*/*/013323/*/*/*/
-002- 01      PBEGIN  PROG=CDGMI      TRNO=13323  SERNOB=49321
02 # THIS PATCH WILL MAKE CU DIAGNOSTIC TEST 66 IMMUNE TO LONG
03 # INTERRUPTS SUCH AS THOSE SEEN IN ETS APPLICATION.
04 # THIS PATCH COORDINATES WITH TR 13324 TC 49503
0014410 05      TCEND
-001- 06      NOTE *****

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

LISTING OF INDIVIDUAL PATCHES

CDGMI

W77D

0014410

```

-001- 03 #& TBL 6501
-001- 04 #& TEST 65
-001- 05 #& SEGMENT 1
-001- 06 #& PR CDGMI
-001- 07 #
08 # THE MICROINTERPRET MODE HAS FAILED. EITHER BOTH THE "TO"
09 # AND "FROM" ERROR BITS WERE SET OR NEITHER ERROR BIT
10 # WAS SET BUT NO MICROINSTRUCTIONS WERE PROCESSED.
11 #
12 # PROC 02-32 FA1022 MICRO CONTROL 7
13 # MICROINTERPRET CONTROL CIRCUITRY
14 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
15 # "MINT" BIT IS BIT 11 IN SS REGISTER
16 # NOTE--3 DMA 02-03 FB6 FUSE BOARD-STORE ERROR AND PARITY
17 # MASCH 08-04 FA1060 MAIN STORE CONTROLLER - BITS 2 &10

```

0014410

```

-001- 20 #& TBL 6502
-001- 21 #& TEST 65
-001- 22 #& SEGMENT 1
-001- 23 #& PR CDGMI
-001- 24 #
25 # A "TO" FIELD ERROR HAS OCCURRED WHILE IN THE MICRINTERPRET
26 # MODE BUT A "FROM" FIELD ERROR HAS NOT OCCURRED. THE DEDICATED
27 # GATING PATH SIR==>IB IS FAULTY.
28 #
29 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9
30 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10
31 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8
32 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11
33 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12
34 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13
35 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14
36 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 81

TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6503 FLMIGTFM

CDGMI W77D

0014410

```

-001- 01 #& TBL 6503
-001- 02 #& TEST 65
-001- 03 #& SEGMENT 1
-001- 04 #& PR CDGMI
-001- 05 #
06 # A "FROM" FIELD ERROR HAS OCCURRED WHILE IN THE MICROINTERPRET
07 # MODE BUT A "TO" FIELD ERROR HAS NOT OCCURRED. THE DEDICATED
08 # GATING PATH SIR==>IB IS FAULTY.
09 #
10 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8
11 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9
12 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10
13 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11
14 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12
15 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13
16 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14
17 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

```

0014410

```

-001- 20 #& TBL 6504
-001- 21 #& TEST 65
-001- 22 #& SEGMENT 2
-001- 23 #& PR CDGMI
-001- 24 #
25 # THE MICROINTERPRET BIT HAS FAILED TO INHIBIT THE LOADING
26 # OF A NEW OP INTO THE IB.
27 #
28 # PROC 02-33 FA1018 MICRO CONTROL 3
29 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
30 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 82

TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6601 FLMCSO

CDGMI W77D

-001- 01 #& TBL 6601  
 -001- 02 #& TEST 66  
 -001- 03 #& SEGMENT 1  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 07 # SUB-FIELD=0 AND THE MICRO CONTROL STATUS REGISTER  
 08 # WAS AFFECTED. ONE OF THE FOLLOWING CROSSPOINTS FIRED THOUGH  
 09 # IT SHOULD NOT HAVE:  
 10 # ZRU OPFXDS ZCF DSXCF SDS STR1 STR2 TPAR SDR  
 11 # SI ZOPF TCH TINT TFLZ TMCH  
 12 #  
 13 # PROC 06-32 FA1019 MICRO CONTROL 4  
 14 # PROC 06-35 FA1021 MICRO CONTROL 6  
 15 # THE CROSSPOINT DECODING AND MCS ARE ON THESE BOARDS  
 16 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19  
 17 # "TMCH" CROSSPOINT DECODING

0014410

-001- 20 #& TBL 6602  
 -001- 21 #& TEST 66  
 -001- 22 #& SEGMENT 1  
 -001- 23 #& PR CDGMI  
 -001- 24 #  
 25 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 26 # SUB-FIELD=0 AND THE BR COPY 0 WAS AFFECTED. ONE OF THE FOLLOWING  
 27 # CROSSPOINTS FIRED WHEN IT SHOULD NOT HAVE:  
 28 # ABRO ABR4 ABR12 SBR ZBR  
 29 #  
 30 # PROC 06-26 FA1015 DMLD ROTATE AND PARITY GENERATOR  
 31 # PROC 06-27 FA1012 DMLD BITS 00-07  
 32 # PROC 06-25 FA1012 DMLD BITS 08-15  
 33 # PROC 06-28 FA1014 DMLD BITS 16-19

0014410

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 83

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6603 ROTBO

CDGMI W77D

-001- 01 #& TBL 6603  
 -001- 02 #& TEST 66  
 -001- 03 #& SEGMENT 1  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 07 # SUB-FIELD=0 AND THE AR COPY 0 WAS AFFECTED. ONE OF THE FOLLOWING  
 08 # CROSSPOINTS FIRED WHEN IT SHOULD NOT HAVE:  
 09 # BAR0 BAR1 BAR2 BAR3  
 11 # PROC 06-26 FA1015 DML0 ROTATE AND PARITY GENERATOR  
 12 # PROC 06-27 FA1012 DML0 BITS 00-07  
 13 # PROC 06-25 FA1012 DML0 BITS 08-15  
 14 # PROC 06-28 FA1014 DML0 BITS 16-19

-001- 17 #& TBL 6604  
 -001- 18 #& TEST 66  
 -001- 19 #& SEGMENT 1  
 -001- 20 #& PR CDGMI  
 -001- 21 #  
 22 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 23 # SUB-FIELD=0 AND THE AR OR BR COPY 1 WAS AFFECTED. ONE OF  
 24 # THE FOLLOWING CROSSPOINTS FIRED WHEN IT SHOULD NOT HAVE:  
 25 # ABR0 ABR4 ABR12 SBR ZBR BAR0 BAR1 BAR2 BAR3  
 26 #  
 27 # PROC 06-23 FA1015 DML1 ROTATE AND PARITY GENERATOR  
 28 # PROC 06-24 FA1012 DML1 BITS 00-07  
 29 # PROC 06-22 FA1012 DML1 BITS 08-15  
 30 # PROC 06-21 FA1013 DML1 BITS 16-19

0014410

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 84

TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6605 FLMI

CDGMI W77D

0014410

-001- 01 #& TBL 6605  
 -001- 02 #& TEST 66  
 -001- 03 #& SEGMENT 1  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 07 # SUB-FIELD=0. THE MICROINTERPRET BIT WAS CLEARED WHEN IT  
 08 # SHOULD NOT HAVE BEEN.  
 09 #  
 10 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19  
 11 # DECODING OF ZMINT CROSSPOINT

0014410

-001- 14 #& TBL 6606  
 -001- 15 #& TEST 66  
 -001- 16 #& SEGMENT 1  
 -001- 17 #& PR CDGMI  
 -001- 18 #  
 19 # A SERIES OF MISCELLANEOUS CROSSPOINTS WAS TRIED WITH ONE  
 20 # SUB-FIELD = 0 AND THE STP BIT IN THE SS WAS SET. ONE  
 21 # OF THE FOLLOWING CROSSPOINTS FIRED BUT SHOULD NOT HAVE.  
 22 # SSTP STPASH  
 23 #  
 24 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 25 # DECODING OF CROSSPOINTS SSTP AND STPASH

0014410

-001- 28 #& TBL 6607  
 -001- 29 #& TEST 66  
 -001- 30 #& SEGMENT 1  
 -001- 31 #& PR CDGMI  
 -001- 32 #  
 33 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 34 # SUB-FIELD=0. THE MMSR WAS AFFECTED. EITHER THE SRW OR  
 35 # BRXMS CROSSPOINT FIRED BUT SHOULD NOT HAVE.  
 36 #  
 37 # PROC 02-21 FA1029 MAIN STORE CONTROL 0  
 38 # PROC 02-22 FA1029 MAIN STORE CONTROL 1

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

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## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6608 FLDML1CR

CDGMI W77D

0014410

-001- 01 #& TBL 6608  
 -001- 02 #& TEST 66  
 -001- 03 #& SEGMENT 1  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 07 # SUB-FIELD=0. THE CR WAS AFFECTED. THE DML1XCR FIRED BUT  
 08 # SHOULD NOT HAVE  
 09 #  
 10 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 11 # DECODING OF DML1XCR CROSSPOINT

0014410

-001- 14 #& TBL 6609  
 -001- 15 #& TEST 66  
 -001- 16 #& SEGMENT 1  
 -001- 17 #& PR CDGMI  
 -001- 18 #  
 19 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 20 # SUB-FIELD=0. R11 WAS AFFECTED BY THE IODXR11 CROSSPOINT  
 21 # WHICH SHOULD NOT HAVE FIRED.  
 22 #  
 23 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 24 # DECODING OF IODXR11 CROSSPOINT

0014410

-001- 27 #& TBL 6610  
 -001- 28 #& TEST 66  
 -001- 29 #& SEGMENT 1  
 -001- 30 #& PR CDGMI  
 -001- 31 #  
 32 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 33 # SUB-FIELD=0. THE IOD OF THE CHANNEL DESIGNATED IN R9  
 34 # WAS AFFECTED BY THE MD6RA10 OR MD5E10S CROSSPOINT WHICH SHOULD  
 35 # NOT HAVE FIRED  
 36 #  
 37 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD  
 38 # DECODING OF MD6RA10 AND MD5E10S CROSSPOINTS  
 39 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 40 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19  
 41 # NOTE--3 CTI 02-06 FA1213 CTI BOARD 3  
 42 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL  
 43 # NOTE--3 CTI 02-10 FA1211 CTI BOARD 4  
 44 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL  
 45 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11  
 46 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10  
 47 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12  
 48 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15  
 49 # NOTE--3 DMA 02-19 FC385 DMA ADD ONE CIRCUIT

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS.

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 86

TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6610 FLRAIO

CDGMI W77D

01 # NOTE--3 DMA 02-26 FC387 DMA CONTROL CIRCUIT  
 02 # NOTE--3 DMA 02-21 FC390 DMA STATUS BOARD 1  
 03 # NOTE--3 DMA 02-24 FC391 DMA STATUS BOARD 2  
 04 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8  
 05 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9  
 06 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13  
 07 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14  
 08 # NOTE--3 DMA 02-12 FB382 DMA REGISTER BITS 2, 6, 10, 14  
 09 # NOTE--3 DMA 02-10 FC382 DMA REGISTER BITS 3, 7, 11, 15  
 10 # NOTE--3 DMA 02-08 FC384 DMA REGISTER BITS PL, PH

-001- 13 #&amp; TBL 6611

-001- 14 #&amp; TEST 66

-001- 15 #&amp; SEGMENT 1

-001- 16 #&amp; PR CDGMI

-001- 17 #

18 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 19 # SUB-FIELD=0. THE IOS OF THE I/O CHANNEL DESIGNATED IN  
 20 # R9 WAS AFFECTED. ONE OF THE FOLLOWING CROSSPOINTS FIRED  
 21 # BUT SHOULD NOT HAVE:

22 # MD1CHTN MD2CHTM MD3CHC

23 #

24 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD

25 # DECODING OF ABOVE CROSSPOINTS

26 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL

27 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8

28 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9

29 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10

30 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE

0014410

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

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## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6612 FLSDB

CDGMI W77D

-001- 01 #& TBL 6612  
 -001- 02 #& TEST 66  
 -001- 03 #& SEGMENT 1  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 07 # SUB-FIELD=0 AND THE DB WAS AFFECTED. ONE OF THE FOLLOWING  
 08 # CROSSPOINTS FIRED BUT SHOULD NOT HAVE:  
 09 # SIS1XDB SIS2XDB SIS3XDB  
 10 #  
 11 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 12 # DECODING OF SIS1XDB AND SIS2XDB  
 13 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19  
 14 # DECODING OF SIS3XDB

0014410

-001- 17 #& TBL 6613  
 -001- 18 #& TEST 66  
 -001- 19 #& SEGMENT 2  
 -001- 20 #& PR CDGMI  
 -001- 21 #  
 22 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 23 # SUB-FIELD=0 AND THE MICRO CONTROL STATUS REGISTER  
 24 # WAS AFFECTED. ONE OF THE FOLLOWING CROSSPOINTS FIRED THOUGH  
 25 # IT SHOULD NOT HAVE:  
 26 # SOPF SCF ZDS ZI ZDR ZTR1 ZTR2 SBR TBRO  
 27 #  
 28 # PROC 06-32 FA1019 MICRO CONTROL 4  
 29 # PROC 06-35 FA1021 MICRO CONTROL 6  
 30 # THE CROSSPOINT DECODING AND MCS ARE ON THESE BOARDS  
 31 # PROC 02-33 FA1018 MICRO CONTROL 3

0014410

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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TROUBLE LOCATION MANUAL

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6614 FLEX

CDGMI W77D

0014410

-001- 01 #& TBL 6614  
 -001- 02 #& TEST 66  
 -001- 03 #& SEGMENT 2  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WERE TRIED WITH ONE  
 07 # SUB-FIELD=0. THE IB WAS AFFECTED BY THE EXEC CROSSPOINT  
 08 # WHICH SHOULD NOT HAVE FIRED.  
 09 #  
 10 # PROC 06-35 FA1021 MICRO CONTROL 6  
 11 # DECODING OF EXEC CROSSPOINT

0014410

-001- 14 #& TBL 6615  
 -001- 15 #& TEST 66  
 -001- 16 #& SEGMENT 2  
 -001- 17 #& PR CDGMI  
 -001- 18 #  
 19 # A SERIES OF MISCELLANEOUS CROSSPOINTS WAS TRIED WITH ONE  
 20 # SUB-FIELD=0. SIR1 WAS AFFECTED BY THE SIBXSIR1 WHICH  
 21 # SHOULD NOT HAVE FIRED.  
 22 #  
 23 # PROC 06-32 FA1019 MICRO CONTROL 4  
 24 # DECODING OF SIBXSIR1 CROSSPOINT

0014410

-001- 27 #& TBL 6616  
 -001- 28 #& TEST 66  
 -001- 29 #& SEGMENT 2  
 -001- 30 #& PR CDGMI  
 -001- 31 #  
 32 # A SERIES OF MISCELLANEOUS CROSSPOINTS WAS TRIED WITH ONE  
 33 # SUB-FIELD=0. THE I/O CHANNELS WERE DISABLED BY THE SDIS  
 34 # CROSSPOINT WHICH SHOULD NOT HAVE FIRED.  
 35 #  
 36 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 37 # DECODING OF SDIS CROSSPOINT  
 38 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE  
 39 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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## TROUBLE LOCATION MANUAL

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6617 FLTIM

CDGMI W77D

-001- 01 #& TBL 6617  
 -001- 02 #& TEST 66  
 -001- 03 #& SEGMENT 3  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WAS TRIED WITH ONE  
 07 # SUB-FIELD = 0 AND THE TI WAS AFFECTED. ONE OF THE FOLLOWING  
 08 # CROSSPOINTS FIRED BUT SHOULD NOT HAVE:  
 09 # BRXTI ZPT INCTC  
 10 #  
 11 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 12 # DECODING OF BRXTI AND INCTC  
 13 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19  
 14 # DECODING OF ZPT  
 15 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER  
 16 # TIMER BOARD HAS NOT BEEN DIAGNOSED YET  
 17 # PROC 02-23 FA1046 DOUBLE STORE READ  
 18 # SUBFIELDS OF THESE CROSSPOINTS ARE BUFFERED  
 19 # ON THIS BOARD  
 20 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11

0014410

-001- 23 #& TBL 6618  
 -001- 24 #& TEST 66  
 -001- 25 #& SEGMENT 3  
 -001- 26 #& PR CDGMI  
 -001- 27 #  
 28 # A SERIES OF MISCELLANEOUS CROSSPOINTS WAS TRIED WITH ONE  
 29 # SUB-FIELD = 0. THE BTC BIT WAS SET BY THE SBTC  
 30 # CROSSPOINT WHICH SHOULD NOT HAVE FIRED.  
 31 #  
 32 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18  
 33 # DECODING OF SBTC  
 34 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11  
 35 # BTC BIT  
 36 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11  
 37 # BTC BIT

0014410

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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TROUBLE LOCATION MANUAL

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6619 FLZER

CDGMI

W770

0014410

```

-001- 01 #& TBL 6619
-001- 02 #& TEST 66
-001- 03 #& SEGMENT 3
-001- 04 #& PR CDGMI
-001- 05 #
06 # A SERIES OF MISCELLANEOUS CROSSPOINTS WAS TRIED WITH ONE
07 # SUB-FIELD = 0. THE ER WAS AFFECTED BY THE ZER CROSSPOINT.
08
09 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19
10 # DECODING OF ZER CROSSPOINT

```

0014410

```

-001- 13 #& TBL 6620
-001- 14 #& TEST 66
-001- 15 #& SEGMENT 3
-001- 16 #& PR CDGMI
-001- 17 #
18 # THE SDIS OR ENA CROSSPOINT HAS FAILED TO PUT THE I/O DISABLE
19 # CIRCUIT INTO THE PROPER STATE
20
21 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18
22 # DECODING OF SDIS CROSSPOINT
23 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD
24 # I/O DIAABLE CIRCUIT AND ENA CROSSPOINT DECODING
25 # PROC 02-29 FA1035 MAINTENANCE CHANNEL BITS 00-10
26 # DEDICATED PATH FOR DISABLE CIRCUIT TO MCH
27 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
28 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9

```

0014410

```

-001- 31 #& TBL 6621
-001- 32 #& TEST 66
-001- 33 #& SEGMENT 3
-001- 34 #& PR CDGMI
-001- 35 #
36 # A SERIES OF MISCELLANEOUS CROSSOPINTS WAS TRIED WITH ONE
37 # SUB-FIELD = 0 AND THE I/O DISABLE CIRCUIT WAS AFFECTED BY THE
38 # ENA OR ENB CROSSPOINT.
39
40 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD
41 # DECODING OF ENA OR ENB CRSSPOINT.

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6801 FLBSPAR

CDGMI W77D

0014410

```

-001- 01 #& TBL 6801
-001- 02 #& TEST 68
-001- 03 #& SEGMENT 1
-001- 04 #& PR CDGMI
-001- 05 #
06 # THE GATING BUS PARITY CIRCUIT HAS EITHER INDICATED AN ERROR WHEN
07 # ONE DID NOT EXIST OR HAS FAILED TO INDICATE AN EXISTING ERROR
08
09 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH
10 # PROC 10-23 FA1027 ERROR REG/DISPLAY BUFFER LOW BITS
11 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
12 # CONTAINS ERROR DIVERT CIRCUITRY
13 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18
14 # NOTE--3 CTI 02-02 FA1212 CTI BOARD 2
15 # PROC 02-34 FA1017 MICRO CONTROL 2

```

0014410

```

-001- 18 #& TBL 6802
-001- 19 #& TEST 68
-001- 20 #& SEGMENT 2
-001- 21 #& PR CDGMI
-001- 22 #
23 # THE GATING BUS PARITY CIRCUIT HAS EITHER INDICATED AN ERROR WHEN
24 # ONE DID NOT EXIST OR HAS FAILED TO INDICATE AN EXISTING ERROR
25
26 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH
27 # PROC 06-32 FA1019 MICRO CONTROL 4
28 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD

```

0014410

```

-001- 31 #& TBL 6803
-001- 32 #& TEST 68
-001- 33 #& SEGMENT 3
-001- 34 #& PR CDGMI
-001- 35 #
36 # THE GATING BUS PARITY CIRCUIT HAS NOT BEEN DISABLED BY A NOP IN
37 # THE "FROM" FIELD.
38
39 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6804 FLPARSTP

CDGMI W77D

0014410

-001- 01 #& TBL 6804  
 -001- 02 #& TEST 68  
 -001- 03 #& SEGMENT 3  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # THE GATING BUS PARITY CIRCUIT HAS NOT BEEN DISABLED WHEN THE  
 07 # PROCESSOR WAS STOPPED  
 08 #  
 09 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH

0014410

-001- 12 #& TBL 6805  
 -001- 13 #& TEST 68  
 -001- 14 #& SEGMENT 3  
 -001- 15 #& PR CDGMI  
 -001- 16 #  
 17 # THE BLOCK PARITY CHECK BIT IN THE SS REGISTER HAS FAILED TO BLOCK  
 18 # THE OPERATION OF THE BUS PARITY CHECK CIRCUIT  
 19 #  
 20 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH

0014410

-001- 23 #& TBL 6806  
 -001- 24 #& TEST 68  
 -001- 25 #& SEGMENT 3  
 -001- 26 #& PR CDGMI  
 -001- 27 #  
 28 # THE GATING BUS PARITY CHECKER HAS NOT BEEN DISABLED BY THE  
 29 # FIRING OF A MISCELLANEOUS CROSSPOINT  
 30 #  
 31 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6807 FLSDRC

CDGMI W77D

```

-001- 01 #& TBL 6807
-001- 02 #& TEST 68
-001- 03 #& SEGMENT 3
-001- 04 #& PR CDGMI
-001- 05 #
06 # THE SDRC "FROM" FIELD CROSSPOINT SHOULD BLOCK THE GATING
07 # BUS PARITY CHECK IF DR=0. THIS HAS FAILED.
0014410 08 #
09 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH
10 # PROC 02-23 FA1046 DOUBLE STORE READ

-001- 13 #& TBL 6808
-001- 14 #& TEST 68
-001- 15 #& SEGMENT 3
-001- 16 #& PR CDGMI
-001- 17 #
0014410 18 # THE SIRC "FROM" FIELD CROSSPOINT SHOULD BLOCK THE GATING
19 # BUS PARITY CHECK IF DR=0. THIS HAS FAILED.
20 #
21 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH

-001- 24 #& TBL 6809
-001- 25 #& TEST 68
-001- 26 #& SEGMENT 3
-001- 27 #& PR CDGMI
-001- 28 #
0014410 29 # THE GATING BUS PARITY CIRCUIT HAS NOT BEEN DISABLED BY
30 # THE PROCESSOR BEING IN THE FREEZE STATE.
31 #
32 # PROC 06-20 FA1026 GATING BUS PARITY CHECK AND DML MATCH

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6810 FLDVRT

CDGMI W77D

0014410

```

-001- 01 #8 TBL 6810
-001- 02 #8 TEST 68
-001- 03 #8 SEGMENT 4
-001- 04 #8 PR CDGMI
-001- 05 #
06 # THE 2/4 CODE B(1001) USED WITH C(A)C(B)=B(11) HAS FAILED TO
07 # PROPERLY DIVERT A BUS PARITY ERROR TO THE IOPARER ERROR
08 # BIT.
09 #
10 # PROC 10-22 FA1028 ERROR REG/DISPLAY BUFFER HIGH BITS
11 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
12 # CONTAINS ERROR DIVERT CIRCUITRY
13 # PROC 02-32 FA1022 MICRO CONTROL 7
14 # 2/4 DECODER WHICH ACTIVATES DIVERT CIRCUITRY
15 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
16 # MAINTENANCE STATE TO OVERRIDE LOCK OFF-LINE
17 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
18 # CIRCUITRY TO OVERRIDE LOCK OFF-LINE
19 # PROC 06-31 FA1025 SYSTEM CLOCK
20 # PARTS OF THIS BOARD WHICH CANNOT BE DIRECTLY
21 # TESTED IN TEST 3 ARE FUNCTIONALLY TESTED HERE
22 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
23 # PROC 06-18 FA1010 GENERAL REGISTERS BITS PL AND PH
24 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9
25 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10
26 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

```

0014410

```

-001- 29 #8 TBL 6901
-001- 30 #8 TEST 69
-001- 31 #8 SEGMENT 1
-001- 32 #8 PR CDGMI
-001- 33 #
34 # BAD PARITY HAS BEEN GENERATED ON THE X FIELD OF THE IB
35 # IN CONJUNCTION WITH TABLE INDEXING ("TX" MISCELLANEOUS
36 # CROSSPOINT) OR THE MAR PARITY CIRCUITRY IN THE MICRO
37 # CONTROL HAS FAILED
38 #
39 # PROC 06-32 FA1019 MICRO CONTROL 4
40 # PROC 06-19 FA1020 MICRO CONTROL 5
41 # PROC 02-31 FA1023 MICRO CONTROL 8

```

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 95

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6902 FLMCPAR

CDGMI W77D

0014410

-001- 01 #& TBL 6902  
 -001- 02 #& TEST 69  
 -001- 03 #& SEGMENT 1  
 -001- 04 #& PR CDGMI  
 -001- 05 #  
 06 # THE MICROCONTROL PARITY CIRCUITRY HAS FAILED IN  
 07 # CONJUNCTION WITH TABLE INDEXING ON THE X FIELD OF THE  
 08 # IB ("TX" CROSSPOINT). THE X FIELD PARITY HAS BEEN  
 09 # PREVIOUSLY DIAGNOSED. THE PROBLEM IS IN THE MAR PARITY  
 10 # CIRCUIT  
 11 #  
 12 # PROC 06-32 FA1019 MICRO CONTROL 4

0014410

-001- 15 #& TBL 6903  
 -001- 16 #& TEST 69  
 -001- 17 #& SEGMENT 2  
 -001- 18 #& PR CDGMI  
 -001- 19 #  
 20 # BAD PARITY HAS BEEN GENERATED ON THE Y FIELD OF THE IB  
 21 # IN CONJUNCTION WITH TABLE INDEXING ("TY" MISCELLANEOUS  
 22 # CROSSPOINT) OR THE MAR PARITY CIRCUITRY IN THE MICRO  
 23 # CONTROL HAS FAILED  
 24 #  
 25 # PROC 06-32 FA1019 MICRO CONTROL 4  
 26 # PROC 06-19 FA1020 MICRO CONTROL 5  
 27 # PROC 02-31 FA1023 MICRO CONTROL 8

0014410

-001- 30 #& TBL 6904  
 -001- 31 #& TEST 69  
 -001- 32 #& SEGMENT 3  
 -001- 33 #& PR CDGMI  
 -001- 34 #  
 35 # THE CHECKER WHICH COMPARES THE IB X AND Y FIELD PARITY  
 36 # WITH THE FL BIT HAS EITHER INDICATED A FALSE ERROR OR  
 37 # FAILED TO INDICATE AN ERROR  
 38 #  
 39 # PROC 02-31 FA1023 MICRO CONTROL 8  
 40 # PROC 10-23 FA1027 ERROR REG/DISPLAY BUFFER LOW BITS  
 41 # PROC 02-32 FA1022 MICRO CONTROL 7  
 42 # PROC 02-18 FA1024 SPECIAL REGISTERS BITS PL AND PH  
 43 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 96

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6905 FLP61B

CDGMI W77D

-001- 01 #8 TBL 6905  
 -001- 02 #8 TEST 69  
 -001- 03 #8 SEGMENT 3  
 -001- 04 #8 PR CDGMI  
 -001- 05 #  
 06 # THE CHECKER WHICH COMPARES THE IB X AND Y FIELD PARITY  
 07 # WITH THE PL BIT HAS FAILED TO INDICATE AN ERROR WHEN  
 08 # THE IB WAS LOADED FROM THE BUS  
 09 #  
 10 # PROC 02-31 FA1023 MICRO CONTROL 8

0014410

-001- 13 #8 TBL 6906  
 -001- 14 #8 TEST 69  
 -001- 15 #8 SEGMENT 3  
 -001- 16 #8 PR CDGMI  
 -001- 17 #  
 18 # THE LOAD NEW OP CONDITION HAS FAILED TO BLOCK THE IB PARITY CHECK  
 19 #  
 20 # PROC 02-32 FA1022 MICRO CONTROL 7

0014410

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

6906 FLNOPI

CDGMI W77D

0014410

01 END

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 98



## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
0145312	A	BRXMMSX		78-05 LIBNUM=10		15-33
07 0013417	L	BRXTI	35-19	35-08		
0154066	A	BRXTIX		LIBNUM=10		35-30
'#	P					
ROC 06-18						
FA1010		GENE				
RAL REGISTER						
S BITS PL AN						
D PH'	T	BSOPLPH		LIBNUM=6		
'#	P					
ROC 06-09						
FA1010		GENE				
RAL REGISTER						
S BITS 0 AND						
8'	T	BS00008		LIBNUM=6		
'#	P					
ROC 06-10						
FA1010		GENE				
RAL REGISTER						
S BITS 1 AND						
9'	T	BS00109		LIBNUM=6		
'#	P					
ROC 06-11						
FA1010		GENE				
RAL REGISTER						
S BITS 2 AND						
10'	T	BS00210		LIBNUM=6		
'#	P					
ROC 06-12						
FA1010		GENE				
RAL REGISTER						
S BITS 3 AND						
11'	T	BS00311		LIBNUM=6		
'#	P					
ROC 06-13						
FA1010		GENE				
RAL REGISTER						
S BITS 4 AND						
12'	T	BS00412		LIBNUM=6		
'#	P					
ROC 06-14						
FA1010		GENE				
RAL REGISTER						
S BITS 5 AND						
13'	T	BS00513		LIBNUM=6		
'#	P					
ROC 06-16						
FA1010		GENE				

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1c930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 100

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
RAL REGISTER S BITS 6 AND 14' '#	P	T BS00614		LIBNUM=6		
ROC 06-17 FA1010 GENE RAL REGISTER S BITS 7 AND 15' '#	P	T BS00715		LIBNUM=6		
ROC 02-18 FA1024 SPEC IAL REGISTER S BITS PL AN D PH' '#	P	T BS1PLPH		LIBNUM=6		
ROC 02-08 FA1024 SPEC IAL REGISTER S BITS 0 AND 8' '#	P	T BS10008		LIBNUM=6		
ROC 02-09 FA1024 SPEC IAL REGISTER S BITS 1 AND 9' '#	P	T BS10109		LIBNUM=6		
ROC 02-10 FA1024 SPEC IAL REGISTER S BITS 2 AND 10' '#	P	T BS10210		LIBNUM=6		
ROC 02-11 FA1024 SPEC IAL REGISTER S BITS 3 AND 11' '#	P	T BS10311		LIBNUM=6		
ROC 02-12 FA1024 SPEC IAL REGISTER S BITS 4 AND 12' '#	P	T BS10412		LIBNUM=6		
ROC 02-13 FA1024 SPEC IAL REGISTER						

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 101

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
S BITS 5 AND 13'	T	BS10513		LIBNUM=6		
'#	P					
ROC 02-16 FA1024 SPEC IAL REGISTER S BITS 6 AND 14'	T	BS10614		LIBNUM=6		
'#	P					
ROC 02-17 FA1024 SPEC IAL REGISTER S BITS 7 AND 15'	T	BS10715		LIBNUM=6		
'#	P					
ROC 02-19 FA1030 MISC . DEC. - REGISTER BITS 16 AND 18'	T	BS1618		LIBNUM=6		
'#	P					
ROC 02-20 FA1030 MISC . DEC. - REGISTER BITS 17 AND 19'	T	BS1719		LIBNUM=6		
17 R BTC				S=3 LIBNUM=10		38-23
12 R BUSER				S=3 LIBNUM=10		47-30, 48-44, 51-14, 52-25, 54-04, 54-37, 55-45, 57-13, 58-20, 59-14, 63-10
0000104 A BUSPAR				LIBNUM=11		43-06
D U BO						
D U C						
07 0014411 L CBUSPAR			1-36	44-14		
17 R CC				S=14 LIBNUM=10		
D U CC03						
'#	P					
ROC 06-31 FA1025 SYST EM CLOCK'	T	CLCK		LIBNUM=6		
0113401 L CLR_ABT			36-39	36-28		
07 0013611 L CMINTERP			1-34	6-14		
07 0012667 L CHTMSCXP			1-35	14-11		
0000006 A COUNT			6-11	LIBNUM=11		14-11, 44-11, 64-11, 81-01, 81-03, 81-20, 82-01, 82-20, 82-31, 83-01, 83-20, 84-01, 84-17, 85-01, 85-14, 85-28, 86-01, 86-14, 86-27, 87-13, 88-01, 88-17, 89-01, 89-14, 89-27, 90-01, 90-23, 91-01, 91-13, 91-31, 91-42, 92-01, 92-18, 92-31, 93-01, 93-12, 93-23, 94-01, 94-13, 94-24, 95-01, 95-27, 95-29, 96-01, 96-15, 96-30, 97-01, 97-13
0111432 L CPATCH			1-42			
0112562 L CPATCH1			1-43	34-33, 36-35		
0114107 L CPATCH2			1-44			

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

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## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
0115073	L	CPATCH3	1-45			
0121238	L	CPATCH7	1-46			
07 0013761	L	CPOXYPAR	1-37	64-11		
0000063	A	CRXT		LIBNUM=10 16-11		
'#	P					
ROC 06-06						
FA1034	CONS					
OLE AND STAT						
US PANEL INT						
ERFACE'	T	CSSPITRF		LIBNUM=6		
'# NOTE--3	C					
TI 02-02						
FA1212	CTI					
BOARD 2'	T	CTI2		LIBNUM=6		
'# NOTE--3	C					
TI 02-06						
FA1213	CTI					
BOARD 3'	T	CTI3		LIBNUM=6		
'# NOTE--3	C					
TI 02-10						
FA1211	CTI					
BOARD 4'	T	CTI4		LIBNUM=6		
O U C O						
O U C8E00						
O U D						
0000000	A	DATAWD	6-11	14-11, 44-11, 64-11		
0000251	A	DBXF		LIBNUM=10 25-39		
0000251	A	DBXT		LIBNUM=10 19-29		
O R DISAB			S=7	LIBNUM=10 32-47, 40-05, 41-43, 42-34		
'# NOTE--3	D					
MA 02-19						
FC385	DMA					
ADD ONE CIRC						
UIT'	T	DMAADD1		LIBNUM=6		
'# NOTE--3	D					
MA 02-26						
FC387	DMA					
CONTROL CIRC						
IUT'	T	DMADCTL		LIBNUM=6		
'# NOTE--3	D					
MA 02-03						
FB6	FUSE					
BOARD-STORE						
ERROR AND P						
ARITY'	T	DMAFUS3		LIBNUM=6		
'# NOTE--3	D					
MA 02-21						
FC390	DMA					
STATUS BOARD						

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
1'	T	DMASTS1		LIBNUM=6		
'# NOTE--3 D MA 02-24 FC391 DMA STATUS BOARD						
2'	T	DMASTS2		LIBNUM=6		
'# NOTE--3 D MA 02-12 FB382 DMA REGISTER BIT S 2, 6, 10,						
14'	T	DMA1C		LIBNUM=6		
'# NOTE--3 D MA 02-10 FC382 DMA REGISTER BIT S 3, 7, 11,						
15'	T	DMA1D		LIBNUM=6		
'# NOTE--3 D MA 02-08 FC384 DMA REGISTER BIT S PL, PH'						
12	R	DMLER		LIBNUM=6 S=4 LIBNUM=10		22-30
'# P ROC 06-26 FA1015 DML0 ROTATE AND PARITY GENER ATOR'						
12	R	DMLER		LIBNUM=6		
'# P ROC 06-27 FA1012 DML0 BITS 00-07'	T	DML00007		LIBNUM=6		
'# P ROC 06-25 FA1012 DML0 BITS 08-15'	T	DML00815		LIBNUM=6		
'# P ROC 06-28 FA1014 DML0 BITS 16-19'	T	DML01619		LIBNUM=6		
'# P ROC 06-23 FA1015 DML1 ROTATE AND PARITY GENER ATOR'						
12	R	DMLER		LIBNUM=6		
'# P ROC 06-23 FA1015 DML1 ROTATE AND PARITY GENER ATOR'	T	DML1RPH		LIBNUM=6		

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 104

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W770
ROC 06-24						
FA1012	DML1					
BITS 00-07'	T	DML10007		LIBNUM=6		
'#	P					
ROC 06-22						
FA1012	DML1					
BITS 08-15'	T	DML10815		LIBNUM=6		
'#	P					
ROC 06-21						
FA1013	DML1					
BITS 16-19'	T	DML11619		LIBNUM=6		
CDGNOF	V	DOTIO	5-11	62-40		
'#	P					
ROC 02-23						
FA1046	DOUB					
LE STORE REA						
D'	T	DSR		LIBNUM=6		
	O	U DD				
	O	U E				
0035072	A	ENAX		LIBNUM=10	29-23, 41-22	
07 0013536	D	ENALP	40-28	40-29		
0035071	A	ENBX		LIBNUM=10	29-29	
07 0013571	D	ENBLP	42-10	42-11		
0000252	A	ERXT		LIBNUM=10	38-48	
'#	P					
ROC 10-22						
FA1028	ERRO					
R REG/DISPLA						
Y BUFFER HIG						
H BITS'	T	ERHL1910		LIBNUM=6		
07 0013504	D	ERLP	39-03	39-04		
'#	P					
ROC 10-23						
FA1027	ERRO					
R REG/DISPLA						
Y BUFFER LOW						
BITS'	T	ER0900		LIBNUM=6		
	O	J ESS2	1-10			
	1	J ESS2E	1-09			
	O	U EO				
	O	U F				
	O	J FACTORY	1-26			
CDGNOF	V	FAILOFF	3-41			
	O	U FFF				
	O	U FFFF				
	1	J FIELD	1-09			
0000002	A	FLBPAR	92-18	51-24, 52-35, 92-18		
0000007	A	FLBRMMS	85-28	23-39, 85-28		
0000001	A	FLBSPAR	92-01	47-40, 49-05, 92-01		

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 105

## TROUBLE LOCATION MANUAL

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VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
0000022	A	FLBTC	90-23	38-30, 90-23		
0000013	A	FLCHTNMC	87-13	25-33, 87-13		
0000004	A	FLCNTIB	82-20	11-40, 82-20		
0000024	A	FLDISAB	91-13	40-12, 40-24, 41-38, 42-05, 91-13		
0000010	A	FLDML1CR	86-01	24-06, 86-01		
0000012	A	FLDVRT	95-01	61-28, 63-17, 63-29, 95-01		
0000025	A	FLFNAB	91-31	41-16, 42-41, 91-31		
0000016	A	FLEX	89-01	32-16, 89-01		
0000004	A	FLIBCK	96-30	73-49, 75-36, 96-30		
0000011	A	FLIODR11	86-14	24-23, 86-14		
0000002	A	FLMCPAR	96-01	68-26, 96-01		
0000001	A	FLMCS0	83-01	21-37, 83-01		
0000015	A	FLMCS1	88-17	31-43, 88-17		
0000005	A	FLMI	85-01	23-05, 85-01		
0000001	A	FLMICNTL	81-03	9-21, 81-03		
0000003	A	FLMIGTFM	82-01	9-33, 82-01		
0000002	A	FLMIGTTO	81-20	9-27, 81-20		
0000006	A	FLMISC	93-23	57-20, 93-23		
0000006	A	FLNOPI	97-13	78-41, 97-13		
0000005	A	FLPARBPC	93-12	56-05, 93-12		
0000011	A	FLPARFRZ	94-24			
0000003	A	FLPARNOP	92-31	54-11, 92-31		
0000004	A	FLPARSTP	93-01	54-44, 93-01		
0000005	A	FLPGIB	97-01	77-22, 97-01		
0000012	A	FLRAIO	86-27	24-46, 86-27		
0000014	A	FLSDB	88-01	26-06, 88-01		
0000020	A	FLSDIS	89-27	33-05, 89-27		
0000007	A	FLSDRC	94-01	58-27, 94-01		
0000017	A	FLSIBSIR	89-14	32-38, 89-14		
0000010	A	FLSIRC	94-13	59-21, 94-13		
0000006	A	FLSTP	85-14	23-17, 85-14		
0000021	A	FLTIM	90-01			
0000001	A	FLXPAP	95-29	67-13, 95-29		
0000003	A	FLYPAR	96-15	70-40, 96-15		
0000023	A	FLZER	91-01	39-34, 91-01		
07 0013666	L	FMBDGT	9-29	12-42		
	U	FR				
	16 R	FREEZ		S=6 LIBNUM=10		
	12 R	FRMDER		S=1 LIBNUM=10		12-20, 12-30
	U	FO				
	U	F1100				
'#	P					
ROC		06-20				
FA1026		GATI				
NG BUS		PARIT				
Y CHECK		AND				
DML MATCH'	T	GBP		LIBNUM=6		
07 0013737	L	GOSEG2	13-01	9-15		
0000306	A	IBXF		LIBNUM=10		31-49

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 106

## TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
0000306	A	IBXT		LIBNUM=10 28-41, 66-21, 67-48, 69-47, 76-36, 77-05, 78-05		
12	R	IBER	S=2	LIBNUM=10 73-39, 75-26, 77-14, 78-34		
'ILLEGAL CON DITON!' 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 ITIONAL'S' T IFERROR7						
0000207	A	IMXT		LIBNUM=10 16-47		
	O	J INTERDATA	1-26			
CDGMI	X	INTRPN03	3-38	12-27, 12-37, 12-43, 13-07		
0025466	A	IODXR11X		LIBNUM=10 24-29, 25-11		
'#	P					
ROC		10-04				
FA1039		I/O				
CHAN	O	CONTR				
OL'	T	I0D00		LIBNUM=6		
	12	R IOPARER	S=25	LIBNUM=10 61-21, 63-22		
'#	P					
ROC		10-03				
FA1038		I/O				
CHAN	O	CONTR				
OL'	T	I0S00		LIBNUM=6		
0000071	A	IS_SXT		LIBNUM=10 16-35		
0113371	L	LD_BR	34-37	34-24		

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 107

TROUBLE LOCATION MANUAL

22:59:51 2/05/81 \*\*\*\*

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W770
07	0014220	D LDIBLP1	72-26	72-27		
07	0014264	D LDIBLP2	74-13	74-14		
	0000000	A LPINDX	8-05	8-08, 9-01, 9-04, 11-30, 11-33, 21-25, 21-28, 21-43, 21-46, 22-11, 22-14, 22-27, 22-30, 22-43, 22-46, 23-07, 23-10, 23-29, 23-32, 23-45, 23-48, 24-13, 24-16, 24-36, 24-39, 25-23, 25-26, 25-45, 25-48, 31-33, 31-36, 32-06, 32-09, 32-28, 32-31, 32-44, 32-47, 36-17, 36-20, 38-20, 38-23, 39-24, 39-27, 40-02, 40-05, 40-14, 40-17, 41-06, 41-09, 41-28, 41-31, 41-40, 41-43, 42-31, 42-34, 47-27, 47-30, 48-41, 48-44, 51-11, 51-14, 52-22, 52-25, 54-01, 54-04, 54-34, 54-37, 55-42, 55-45, 57-10, 57-13, 58-17, 58-20, 59-11, 59-14, 61-18, 61-21, 63-07, 63-10, 63-19, 63-22, 66-37, 66-40, 68-15, 68-18, 70-15, 70-18, 73-36, 73-39, 75-23, 75-26, 77-11, 77-14, 78-31, 78-34		
07	0014332	D LPLDIB3	76-11	76-12		
07	0014332	D LPSTART	20-04	21-09, 30-09, 31-13, 34-47, 36-47, 37-44, 38-13, 39-04, 39-17, 40-29, 40-48, 42-11, 42-24, 46-38, 47-45, 48-04, 49-10, 50-19, 51-29, 51-34, 52-40, 65-44, 67-18, 67-36, 68-31, 69-21, 70-45, 72-27, 74-09, 74-14, 75-45, 76-12, 77-27		
		12 R MARER	S=5	LIBNUM=10	66-40, 68-18, 70-18	
'#		M				
		ASCM 08-04				
		FA1060 MAIN				
		STORE CONTR				
		OLLER - BITS				
		2 810'				
		T MASCBS2		LIBNUM=6		
		3 R MCHB		LIBNUM=10	12-16	
		0000231 A MCHBXF		LIBNUM=10	16-23, 16-35, 16-47, 19-17, 19-29, 29-05, 29-41, 37-38, 38-48, 46-33, 47-05, 48-19, 50-34, 51-49, 55-13, 56-21, 60-30, 61-40, 65-33, 66-21, 67-48, 69-47, 73-18, 73-30, 75-05, 75-17, 77-05, 78-25	
		0000231 A MCHBXT		LIBNUM=10	7-48, 8-45, 11-28, 23-23, 24-11, 24-34, 25-16, 25-39, 31-49, 32-22, 36-11	
'#		P				
		ROC 02-29				
		FA1035 MAIN				
		TENANCE CHAN				
		NEL BITS 00-				
		10'				
		T MCH0010		LIBNUM=6		
'#		P				
		ROC 02-34				
		FA1017 MICR				
		O CONTROL 2'		LIBNUM=6		
'#		P				
		ROC 02-33				
		FA1018 MICR				
		O CONTROL 3'		LIBNUM=6		
'#		P				
		ROC 06-32				
		FA1019 MICR				
		O CONTROL 4'		LIBNUM=6		
'#		P				
		ROC 06-19				
		FA1020 MICR				
		O CONTROL 5'		LIBNUM=6		
'#		P				

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

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## TROUBLE LOCATION MANUAL

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VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
ROC 06-35						
FA1021	MICR					
O CONTROL 6'	T	MC6		LIBNUM=6		
'#	P					
ROC 02-32						
FA1022	MICR					
O CONTROL 7'	T	MC7		LIBNUM=6		
'#	P					
ROC 02-31						
FA1023	MICR					
O CONTROL 8'	T	MC8		LIBNUM=6		
0164066	A	MDDIDCHX		LIBNUM=10	18-20, 62-16	
0164074	A	MD3CHCX		LIBNUM=10	62-28	
0074066	A	MD4STCHX		LIBNUM=10	18-14	
0074071	A	MD5EIOSX		LIBNUM=10	25-05	
0074072	A	MD6RAIOX		LIBNUM=10	18-33, 62-22	
17	R	MINT		S=13 LIBNUM=10	22-46	
0000101	A	MINTERP		LIBNUM=11	5-13	
'#	P					
ROC 02-25						
FA1032	MISC					
ELLANEIOUS CI						
RCUIT BOARD'	T	MISC		LIBNUM=6		
07 00:3007	D	MISCLP1	20-03	20-04		
07 0013272	D	MISCLP2	30-08	30-09		
CDGNOF	V	MITST1	5-08	7-38		
CDGNOF	V	MITST1A	5-09	8-36		
CDGNOF	V	MITST2	5-10	11-19		
0000232	A	MMSXF		LIBNUM=10	23-23	
0000215	A	MSXT		LIBNUM=10	29-05, 60-30, 61-40, 65-33, 73-30, 75-17	
'#	P					
ROC 02-21						
FA1029	MAIN					
STORE CONTR						
OL 0'	T	MSTCONTO		LIBNUM=6		
'#	P					
ROC 02-22						
FA1029	MAIN					
STORE CONTR						
OL 1'	T	MSTCONT1		LIBNUM=6		
0000102	A	MTMSXP		LIBNUM=11	13-09	
CDGNM	V	NABT	3-31	35-03, 36-42		
CDGNM	V	NADD_OFF	3-22	7-37, 8-35, 11-18, 53-36, 62-39		
CDGNM	V	NADNIC	3-23			
CDGNM	V	NBEGIN	3-28	20-03, 30-08, 34-46, 37-43, 39-03, 40-28, 42-10, 46-37, 48-03, 50-18, 51-33, 65-43, 67-35, 69-20, 72-26, 74-13, 76-11		
CDGNM	V	NBGN	3-39	6-17, 14-14, 44-17, 64-14		
CDGNM	V	NCLRMS	3-33	74-04, 75-40		
CDGNM	V	NCOMPARE	3-26	8-08, 9-04, 11-33, 21-28, 21-46, 22-14, 22-30, 22-46, 23-10, 23-32, 23-48, 24-16, 24-39,		

MICRO INTERPRET, MULTI CROSSPOINT, AND PARITY CHK TESTS

PR-1C930-50

22:59:51 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGMI ISSUE 04 PAGE 109

## TROUBLE LOCATION MANUAL

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VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
				25-26, 25-48, 31-36, 32-09, 32-31, 32-47, 36-20, 38-23, 39-27, 40-05, 40-17, 41-09, 41-31, 41-43, 42-34, 47-30, 48-44, 51-14, 52-25, 54-04, 54-37, 55-45, 57-13, 58-20, 59-14, 61-21, 63-10, 63-22, 66-40, 68-18, 70-18, 73-39, 75-26, 77-14, 78-34		
CDGNM	V	NDISABA	3-07			
CDGNM	V	NDISABB	3-08			
CDGNM	V	NEXECUTE	3-25			
CDGNM	V	NFAILTST	3-16	47-13, 48-27, 50-42, 52-08, 55-28, 56-41, 58-03, 58-44, 61-03 9-20, 9-26, 9-32, 11-39, 21-36, 22-04, 22-20, 22-36, 23-04, 23-16, 23-38, 24-05, 24-22, 24-45, 25-32, 26-05, 31-42, 32-15, 32-37, 33-04, 38-29, 39-33, 40-11, 40-23, 41-15, 41-37, 42-04, 42-40, 47-39, 49-04, 51-23, 52-34, 54-10, 54-43, 56-04, 57-19, 58-26, 59-20, 61-27, 63-16, 63-28, 67-12, 68-25, 70-39, 73-48, 75-35, 77-21, 78-40		
CDGNM	V	NFLBITS	3-37			
CDGNM	V	NFRZ	3-27	19-35, 67-30		
07 0013662	L	NGMI	9-17	12-26		
CDGNM	V	NLDMIR	3-24	17-45		
CDGNM	V	NLP_END	3-29	21-08, 31-12, 36-46, 38-12, 39-16, 40-47, 42-23, 47-44, 49-09, 51-28, 52-39, 67-17, 68-30, 70-44, 74-08, 75-44, 77-26		
CDGNM	V	NMASK	3-18	21-22, 25-20, 31-30		
CDGNM	V	NMICRO	3-02	7-47, 8-20, 8-26, 15-32, 16-10, 16-22, 16-34, 16-46, 17-04, 17-10, 17-16, 17-22, 17-28, 17-34, 17-40, 18-13, 18-19, 18-32, 18-45, 19-04, 19-16, 19-28, 20-08, 23-22, 24-28, 25-04, 25-10, 25-38, 27-22, 27-28, 27-34, 27-40, 27-46, 28-04, 28-10, 28-16, 28-22, 28-28, 28-34, 28-40, 29-04, 29-10, 29-16, 29-22, 29-28, 29-40, 30-12, 31-48, 32-21, 35-23, 35-29, 35-39, 36-10, 37-37, 38-03, 38-47, 39-07, 39-41, 40-33, 40-38, 41-21, 42-14, 46-32, 47-04, 48-18, 50-33, 51-48, 55-12, 56-20, 60-29, 61-39, 62-15, 62-21, 62-27, 65-32, 65-38, 66-20, 66-30, 67-47, 68-08, 69-46, 70-08, 72-31, 72-37, 72-43, 73-17, 73-29, 74-18, 74-24, 74-30, 75-04, 75-16, 76-06, 76-17, 76-23, 76-29, 76-35, 77-04, 77-33, 77-39, 77-45, 78-04, 78-12, 78-24,		
CDGNM	V	NNO3CD	3-34	8-14, 9-09, 9-14		
CDGNM	V	NPASSTST	3-19	11-44, 42-46, 43-04, 63-33, 78-45		
CDGNM	V	NPROS	3-14	37-26		
CDGNM	V	NRDMICRO	3-32			
CDGNM	V	NRESCLK	3-12			
CDGNM	V	NRETRN	3-03	8-03, 21-41, 22-09, 22-25, 23-27, 23-43, 25-43, 32-04, 32-26, 36-15, 39-22, 47-25, 48-39, 51-09, 52-20, 53-45, 54-32, 55-40, 57-08, 58-15, 59-09, 61-15, 63-03, 66-35, 68-13, 70-13, 73-34, 75-21, 77-09, 78-29		
CDGNM	V	NRTNBLM	3-45	38-35		
CDGNM	V	NSEND	3-20	7-27, 15-26, 15-38, 15-44, 16-04, 16-16, 16-28, 16-40, 18-04, 18-25, 18-38, 19-10, 19-22, 29-34, 34-41, 37-31, 38-41, 46-26, 53-26, 55-06, 56-14, 56-31, 57-38, 57-45, 61-33, 62-08, 65-48, 67-40, 69-25, 73-23, 75-10		
CDGNM	V	NSKIP	3-30	34-23, 35-07, 36-27, 37-03		
CDGNM	V	NSTOP	3-06	7-42, 8-40, 11-23, 47-21, 48-35, 51-05, 52-16, 53-41, 54-17, 55-36, 56-09, 57-04, 57-24, 58-11, 58-31, 59-05, 59-25, 61-11, 62-44, 69-16, 71-03		
CDGNM	V	NSTPCLK	3-10			
CDGNM	V	NSTRT	3-05			
CDGNM	V	NSTRTCLK	3-09			
CDGNM	V	NTESTSEG	3-15	7-08, 11-08, 15-08, 27-08, 34-08, 46-08, 50-08, 53-08, 60-08, 65-08, 69-08, 72-08		
CDGNM	V	NTGCLK	3-11			
CDGNM	V	NTMTEST	3-35			
CDGNM	V	NTTY	3-17			
000000	A	NUM	5-13	13-09, 20-04, 21-10, 30-09, 31-14, 34-47, 36-48, 37-44, 38-14, 39-04, 39-18, 40-29, 40-49,		

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VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W770
				42-11, 42-25, 43-06, 46-38, 47-46, 48-04, 49-11, 50-19, 51-30, 51-34, 52-41, 64-01, 65-44, 67-19, 67-36, 68-32, 69-21, 70-46, 72-27, 74-10, 74-14, 75-46, 76-12, 77-28		
CDGNM	V	NWDST	3-46			
CDGNM	V	NZERO_ER	3-13	7-33, 8-31, 47-09, 48-23, 50-38, 52-04, 53-32, 54-21, 55-24, 56-37, 57-33, 58-40, 60-44, 62-32, 66-25, 68-03, 70-03, 73-03, 74-35, 76-40		
CDGNM	V	NZERPT	3-36	37-18		
CDGNM	V	N2RETRN	3-04	8-44, 11-27, 21-18, 22-41, 24-10, 24-33, 25-15, 31-26, 32-42, 38-18, 39-49, 41-04, 41-26, 42-29		
CDGNM	V	N2SEND	3-21	28-46, 46-43, 48-09, 50-24, 51-39, 54-26, 55-18, 60-22, 60-38, 61-48, 65-24, 73-08, 74-40, 76-45, 78-18		
	V	OBUSPAR	44-19	44-18		
	V	OMINTERP	6-19	6-18		

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	T	OPTR				
0000250	A	ORG_000523	34-17			
0000265	A	ORG_000530	35-16			
0000274	A	ORG_000547	36-04			
0000313	A	ORG_000562	37-12			
0000255	A	ORG_000607	34-37			
0000304	A	ORG_000617	36-39			
16	R	OVL0F		S=0 LIBNUM=10		
CTSD	V	PAGSCR	5-01	57-47, 58-45		
0000002	A	PARITY	7-24	15-23, 15-35, 15-41, 16-01, 16-13, 16-25, 16-37, 18-01, 18-22, 18-35, 19-07, 19-19, 28-43, 29-31, 34-38, 37-28, 38-38, 46-23, 46-40, 48-06, 50-21, 51-36, 53-23, 54-23, 55-03, 55-15, 56-11, 56-28, 57-35, 57-42, 60-19, 60-35, 61-30, 61-45, 62-05, 65-21, 65-45, 67-37, 69-22, 73-05, 73-20, 74-37, 75-07, 76-42, 78-15		
CDGNOF	V	PASSOFF	3-40			
'CDGMI'	T	PNAME				
0000105	A	POXYPAR		LIBNUM=11 64-01		

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VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W770
07 0014750	L	PRESLOC	47-14	48-28, 50-43, 52-09, 55-29, 56-42, 58-04, 58-45, 61-04		
0000042	A	PTPN11		LIBNUM=10		
'#	P					
ROC		02-24				
FA1033		PROG				
RAM		TIMER/TI				
MING		COUNTER				
	T	PTTC		LIBNUM=6		
	P	RAO		LIBNUM=3		
07 0013705	L	RESMI	12-01	8-15, 9-10		12-26, 12-36, 12-42, 13-06, 58-04
0000002	A	ROTAO	83-20	22-05, 83-20		
0000003	A	ROTB0	84-01	22-21, 84-01		
0000004	A	ROT1	84-17	22-37, 84-17		
07 0013451	L	RT_BRK	37-15	37-04		
'DGMI'	T	RTNAME				
0000213	A	RTNER		LIBNUM=10		12-13
	O	R RO		LIBNUM=3		12-13, 12-26, 12-36, 12-42, 13-06, 47-14, 48-28, 50-43, 52-09, 55-29, 56-42,
				58-04, 58-45,		61-04
0000123	A	ROXF		LIBNUM=10		11-28
0000123	A	ROXT		LIBNUM=10		47-05, 48-19, 53-27, 54-27, 55-19, 56-32, 60-39
	R	R1		LIBNUM=3		47-14, 48-28, 55-29, 61-04
	R	R10		LIBNUM=3		
0000152	A	R10XF		LIBNUM=10		18-46
0000152	A	R10XT		LIBNUM=10		18-26, 18-39, 61-49
	R	R11		LIBNUM=3		
0000154	A	R11XF		LIBNUM=10		24-11, 24-34, 25-16
0000154	A	R11XT		LIBNUM=10		18-46
	R	R12		LIBNUM=3		
0000107	A	R12XT		LIBNUM=10		57-39
	R	R13		LIBNUM=3		
0000113	A	R13XT		LIBNUM=10		57-46
	R	R3		LIBNUM=3		12-17, 12-20, 12-30
	R	R6		LIBNUM=3		
0000143	A	R6XF		LIBNUM=10		8-45
0000143	A	R6XT		LIBNUM=10		7-28, 8-27
	R	R9		LIBNUM=3		
0000151	A	R9XT		LIBNUM=10		18-05, 62-09
0023712	A	SBRX		LIBNUM=10		29-11
0025471	A	SBTCX		LIBNUM=10		35-24
0036071	A	SCFX		LIBNUM=10		17-11
0016471	A	SDISX		LIBNUM=10		39-42, 40-34
0015471	A	SDRX		LIBNUM=10		27-41, 72-32, 74-19, 78-13
0146071	A	SDSX		LIBNUM=10		27-29
07 0013670	L	SEG2	10-01	13-06		
	O	SENAB		S=6 LIBNUM=10		40-17, 41-09, 41-31
0000753	A	SERNO_049321	80-02			
0015730	A	SIX		LIBNUM=10		27-35
0000342	A	SIBXT		LIBNUM=10		28-23, 29-17
0144474	A	SIBXSIR1X		LIBNUM=10		28-29
0000036	A	SIRXT		LIBNUM=10		28-35, 72-44, 73-18, 74-31, 75-05, 76-30, 77-46, 78-25

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VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
0000035	A	SIR1XF		LIBNUM=10 32-22		
CDGNM	V	SLDMCHBF	3-42			
CDGNM	V	SLDMIRLF	3-43			
CSYSUB	V	SMCH	12-14	12-15		
CDGNM	V	SMCHF	3-44			
0036330	A	SOPFX		LIBNUM=10 17-05		
0000216	A	SS_RXT		LIBNUM=10 16-23, 29-41, 37-38, 46-33, 56-21		
0000213	A	SS_SXT		LIBNUM=10 19-17, 55-13		
17	R	STP		S=16 LIBNUM=10 23-10		
0145071	A	STR1X		LIBNUM=10 27-47		
0144471	A	STR2X		LIBNUM=10 28-05		
0000000	A	SUCCESS	8-05	8-08, 9-01, 9-04, 11-30, 11-33, 21-25, 21-28, 21-43, 21-46, 22-11, 22-14, 22-27, 22-30, 22-43, 22-46, 23-07, 23-10, 23-29, 23-32, 23-45, 23-48, 24-13, 24-16, 24-36, 24-39, 25-23, 25-26, 25-45, 25-48, 31-33, 31-36, 32-06, 32-09, 32-28, 32-31, 32-44, 32-47, 36-17, 36-20, 38-20, 38-23, 39-24, 39-27, 40-02, 40-05, 40-14, 40-17, 41-06, 41-09, 41-28, 41-31, 41-40, 41-43, 42-31, 42-34, 47-27, 47-30, 48-41, 48-44, 51-11, 51-14, 52-22, 52-25, 54-01, 54-04, 54-34, 54-37, 55-42, 55-45, 57-10, 57-13, 58-17, 58-20, 59-11, 59-14, 61-18, 61-21, 63-07, 63-10, 63-19, 63-22, 66-37, 66-40, 68-15, 68-18, 70-15, 70-18, 73-36, 73-39, 75-23, 75-26, 77-11, 77-14, 78-31, 78-34		
0000000	A	SV_REG				
0000105	A	TESTNO	5-13	13-09, 43-06, 64-01, 81-01, 82-31, 91-42, 95-27		
0116774	L	TFAPCH2	2-01			
0000223	A	TIXF		LIBNUM=10 36-11		
0113374	D	TIMLP1	34-46	34-47		
07 0013460	D	TIMLP2	37-43	37-44		
0000101	A	TLMFRST	5-01	5-13, 81-01		
07 0013664	L	TOBDGT	9-23	12-36		
12	R	TODER		S=0 LIBNUM=10 12-17		
07 0013723	L	TOER	12-29	12-18		
0600000	L	TPATCH	2-03			
0000753	A	TR_013323	80-02			
0000313	A	TR_13323	34-17	34-37, 35-16, 36-04, 36-39, 37-12		
07 0013451	L	TRORG	34-17	35-16, 36-04, 37-12		
CDGNOF	V	TSTNOP	5-12	53-37		
07 0013772	D	TSTXLP	65-43	65-44		
07 0014072	D	TSTXLP2	67-35	67-36		
07 0014120	D	TSTYLP	69-20	69-21		
0144750	A	TXX		LIBNUM=10 66-31, 68-09		
'3'	T	TXTSEG				
0145350	A	TYX		LIBNUM=10 70-09		
	V	XBUSPAR	44-19	44-10		
	V	XMINTEP	6-19	6-18		
0025712	A	ZBRX		LIBNUM=10 8-21, 28-17, 72-38, 74-25, 76-24, 77-40		
0036072	A	ZCFX		LIBNUM=10 27-23		
0015472	A	ZDRX		LIBNUM=10 17-29, 65-39, 76-07, 76-18, 77-34		
0146072	A	ZDSX		LIBNUM=10 17-17		
0025750	A	ZERX		LIBNUM=10 19-05		
0145330	A	ZIX		LIBNUM=10 17-23		
0146330	A	ZOPFX		LIBNUM=10 28-11		

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VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGMI	W77D
0145072	A	ZTR1X		LIBNUM=10 17-35		
0144472	A	ZTR2X		LIBNUM=10 17-41		
	0	U 000C4				
	0	U 000EF				
	0	U 0008E				
	0	U 0009D				
	0	U 1COF				
	0	U 1C76				
07 0013716	L	20R0	12-22	12-31		
	1	J 3ACC	1-09			
	0	U 3C400				
	0	U 3FFC				
	0	U 4EF00				
	0	U 59D00				

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TROUBLE LOCATIO: MANUAL

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COUNT	FLAG	PAGE-LINE OF FLAG
2	E	50-43, 52-09

CDGMI W77D

2 FLAG(S) FOUND IN THIS ASSEMBLY

MICRO INTERPRET,MULTI CROSSPOINT,AND PARITY CHK TESTS

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