

TC2/TC11

TEST 2
MD-11-DZTCB-C

EP-DZTCB-C-DL-A

NOV 1977

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FICHE 1 OF 1

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This microfiche card contains a grid of frames. The first column on the left contains 11 frames of data, likely test results or parameters. The remaining 10 columns contain 11 frames each, for a total of 121 frames. These frames contain various types of data, including text, tables, and diagrams. The diagrams appear to be circuit schematics or block diagrams, showing components and their interconnections. The data frames contain numerical values and possibly labels for different test points or components. The overall layout is organized and systematic, typical of technical documentation on microfiche.

IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DZTCB-C-D
PRODUCT NAME: TC2 - TC11 TEST 2
DATE: MAY 1, 1975
MAINTAINER: DIAGNOSTIC GROUP
AUTHOR: L. R. KOLLER
MODIFIER: J. E. COMEAU

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1.0 GENERAL PROGRAM INFORMATION

1.1 ABSTRACT

TC2 - TC11 TEST2 IS USED TO TEST THE TC11 DECTAPE CONTROL. TC2 USES THE MAINTENANCE BIT FEATURE OF THE TC11 CONTROL TO CHECK THE TC11 CONTROL WITHOUT DEPENDING ON DECTAPE TRANSPORT MOVEMENT. PRIOR TO ACTUAL USE OF THE MAINTENANCE BIT FEATURE, CORRECT OPERATION OF THE INTERRUPT CIRCUITS IS CHECKED, AND THE MAINTENANCE BIT ITSELF IS CHECKED.

2.1.2 SYSTEM REQUIREMENTS

1.21 HARDWARE REQUIREMENTS

- A) PDP-11 SYSTEM (8k CORE).
- B) ASP33/35 TELETYPE.
- C) TC11 DECTAPE CONTROL AND AT LEAST ONE TUS6 DUAL TRANSPORT.

THE TELETYPE AND TC11 CONTROL MUST HAVE THEIR STANDARD PERIPHERAL ADDRESSES, INTERRUPT LEVELS, AND INTERRUPT VECTOR ADDRESSES. REFER TO SECTION 7.2 IF YOUR SYSTEM DOES NOT HAVE STANDARD PERIPHERAL ADDRESSES.

1.11 SOFTWARE REQUIREMENTS

THIS PROGRAM IS ABLE TO RUN "STAND ALONE" OR UNDER CONTROL OF THE ACT11 MONITOR

1.3 RELATED DOCUMENTS AND STANDARDS

SEE THE ACT11/XXDP PROGRAMERS GUIDE FOR INFORMATION ON RUNNING UNDER ACT 11

1.4 SUGGESTED PREREQUISITES

IT IS RECOMMENDED THAT ALL MAINDECS THAT CHECK OUT THE BASIC CPU BE RUN BEFORE TC2.

1.5 FAILURE ASSUMPTIONS

THROUGHOUT THIS PROGRAM IT IS ASSUMED THAT THE BASIC CPU IS IN GOOD RUNNING ORDER. IF IT IS NOT THE INFORMATION GAINED BY RUNNING THIS PROGRAM IS LIKELY TO BE FALSE (OR NONEXISTANT IF THE PROGRAM WILL NOT RUN).

2.0 OPERATING INSTRUCTIONS

2.10 LOADING PROCEDURES

THIS PROGRAM'S OBJECT TAPE IS PUNCHED IN ABSOLUTE FORMAT. THE ABS LOADER IS USED TO LOAD THE PROGRAM UNDER STAND ALONE MODE. FOR INFORMATION ON PROGRAM LOADING UNDER CONTROL OF THE VARIOUS MONITOR SYSTEMS, REFER TO THE DOCUMENTS NAMES IN SECTION 1.3 ABOVE. UNDER STAND ALONE MODE, AFTER ACERTAINING THAT THE ABS LOADER PROGRAM IS IN THE PDP-11, FOLLOW THESE STEPS TO LOAD TC2:

- A) PUT THE TC2 BINARY TAPE INTO THE PAPER TAPE READER
- B) SET THE PDP-11 CONSOLE SWITCHES TO 37750
- C) DEPRESS LOAD ADDRESS
- D) DEPRES START (TAPE SHOULD READ IN)

4.0 STARTING PROCEDURE

- A) UNIT 0: REMOTE/WRITE LOCK/. ALL OTHER UNITS OFF.
- B) WALL SWITCH ON, WRTM SWITCH OFF.
- C) LOAD ADDRESS 000200.
- D) PRESS START.
- E) THE PROGRAM IDENTIFIES ITSELF, TYPES SETUP INSTRUCTIONS, SR OPTIONS MESSAGE, AND HALTS.
- F) MAKE SURE THAT THE SETUP (STEPS A AND B) HAS BEEN PROPERLY DONE AND SELECT DESIRED SR OPTIONS, IF ANY. NORMAL SR SETTING IS 000000.
- G) PRESS CONT. THE PROGRAM BEGINS EXECUTING.
- H) AT THE END OF EACH PASS THE PASS COUNT IS PRINTED
- I) REFER TO SECTION 6.2 IF ERROR PRINTOUTS OCCUR.

2.4 EXECUTION TIME

EXECUTION TIME IS DEPENDENT ON WHICH MODEL OF PDP11 THE PROGRAM IS TO BE RUN ON. ANY TIMES GIVEN APPLY TO THE PDP-11 MODEL 40 UNLESS OTHERWISE STATED

- A) ONE NORMAL ERROR FREE PASS TAKES APPROXIMATELY 10 SECONDS
- B) ONE SINGLE ITERATION PASS (SR11=1) TAKES ABOUT 5 SECONDS.

*****NOTE*****

THE SINGLE ITERATION PASS IS A CONVENIENT WAY TO QUICKLY DETERMINE IF ANY SOLID PROBLEMS EXIST. FOR A THOROUGH TEST, THE NORMAL ITERATION PASS SHOULD BE RUN.

6.3 ERROR INFORMATION

ERRORS ARE REPORTED IN THIS PROGRAM BY THE FOLLOWING METHODS:

- A) UNCONDITIONAL ERROR HALTS, OR
- B) ERROR PRINTOUT FOLLOWED BY OPTIONAL ERROR HALT.

6.1 UNCONDITIONAL ERROR HALTS

AN UNCONDITIONAL ERROR HALT WILL OCCUR AT THE ADDRESSES LISTED BELOW IF THROUGH HARDWARE OR SOFTWARE FAILURE, PROGRAM CONTROL IS TRANSFERRED TO AN UNEXPECTED AREA BETWEEN 000000 AND 000176.

000002 RESERVED AREA

000016 DEBUG TRAP

000022 IOT TRAP

000040 THROUGH 000176 - SYSTEM SOFTWARE AND INTERRUPT VECTOR AREA
TO FIND OUT WHERE THE PROGRAM WAS AT THE TIME THE FAILURE OCCURRED,

- A) EXAMINE CONTENTS OF REGISTER 6. (ADDRESS 177706).
- B) TRANSFER THE CONTENTS OF REG 6 TO THE SR, LOAD ADDRESS AND EXAMINE.
- C) THE DATA SHOWN IN THE DATA LIGHTS IS THE VALUE OF THE PC WHEN THE FAILURE OCCURRED.
- D) LOCATE IN PROGRAM LISTING THE DISPLAYED PC VALUE.
- E) THE INSTRUCTION THAT IMMEDIATELY PRECEDES THE ONE REFERENCED BY THE DISPLAYED PC VALUE IS THE INSTRUCTION THAT WAS/WAS BEING EXECUTED WHEN THE FAILURE OCCURRED.

AN UNCONDITIONAL ERROR HALT FAILURE IS AN ABNORMAL CONDITION INDICATING A HARDWARE FAILURE, OR MOST UNLIKELY, A PROGRAM FAILURE. THIS PROGRAM ASSUMES THAT THE PROCESSOR IS IN OPERATING CONDITION IN ORDER TO PERFORM ITS TESTS. ANY FURTHER STEPS REQUIRED TO DIAGNOSE AN UNCONDITIONAL ERROR HALT ARE NOT WITHIN THE SCOPE OF THIS PROGRAM.

6.2 ERROR PRINTOUTS

THERE ARE 2 TYPES OF ERROR PRINTOUTS, NORMAL ERROR PRINTOUTS AND FATAL ERROR PRINTOUTS. EACH TYPE IS GENERATED BY THE SYSMAC .\$ERROR SUBROUTINE. THE ".\$ERROR" SUBROUTINE IS CALLED BY AN "ERFOR NN(Trap+N)" STATEMENT IN THE PROGRAM LISTING. A NORMAL ERROR PRINTOUT LOOKS AS FOLLOWS:

```
PC      SP      PS      TEST      TCCM      TCST      ADDITIONAL INFO
XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX
```

WHERE:

PC
XXXXXX IS THE ADDRESS OF THE ERROR CALL

SP
XXXXXX IS THE VALUE OF THE STACK POINTER

PS
XXXXXX IS THE VALUE OF THE PROCESSOR STATUS WORD

TEST
XXXXXX IS THE NUMBER OF THE FAILING ROUTINE

TCCM
XXXXXX IS THE VALUE OF THE DECTAPE COMMAND REGISTER

TCST
XXXXXX IS THE CONTENTS OF THE DECTAPE STATUS REGISTER

ADDITIONAL INFORMATION CAN VARY FROM TEST TO TEST AND FURTHER DESCRIBES THE ERROR. AFTER THE PRINTOUT IS COMPLETED, THE PROGRAM WILL HALT AT COMMON ERROR HALT IF SR15 IS SET. WHEN AN ERROR PRINTOUT OCCURS:

- A) LOOK UP THE ADDRESS REFERENCED BY PC DYYYYY IN THE LISTING.
- B) OPPOSITE THE PC VALUE AN "ERROR" STATEMENT WILL BE FOUND, AND IN THE COMMENTS SECTION, A DESCRIPTION OF THE ERROR.
- C) AT THE BEGINNING OF THE TEST ROUTINE A DESCRIPTION OF THE TEST WILL BE FOUND.

FATAL ERRORS ARE UNEXPECTED TRAPS TO EITHER LOCATION 4 OR TO LOCATION 10. WHEN THESE OCCUR A FATAL ERROR MESSAGE IS PRINTED OUT IN THE FOLLOWING FORMAT.

FATAL ERROR TRAP TO LOC XX FROM LOCATION XXXXXX

WHERE X IS THE TRAP VECTOR LOCATION(4 OR 10) AND XXXXXX IS THE PLACE THAT THE PROGRAM WAS EXECUTING AT WHEN THE FATAL ERROR TRAP OCCURRED. AFTER THE MESSAGE IS PRINTED THE PROGRAM ATTEMPTS TO RESTART ITSELF AT LOCATION 000200 THE STANDARD SR OPTIONS ARE DESCRIBED HERE.

SR15 HALT ON ERROR. WITH SR15 SET TO A 1, THE PROGRAM WILL HALT AFTER AN ERROR OCCURS. PRESSING 'CONT WILL CAUSE PROGRAM TO RESUME OPERATION.

SR14 SCOPE. THIS OPTION CAUSES THE PROGRAM TO REMAIN IN THE CURRENT TEST ROUTINE. WHEN THE OPTION IS REMOVED, THE PROGRAM WILL COMPLETE THE CURRENT ROUTINE, AND WILL THEN GO ON TO THE NEXT ROUTINE.

SR13 INHIBIT ERROR PRINTOUT. THIS OPTION IF SET, WILL REMOVE ALL ERROR PRINTOUTS.

SR11 PROGRAM TO EXECUTE EACH TEST ONLY ONCE, INSTEAD OF THE NORMAL NUMBER OF ITERATIONS SELECTED FOR EACH TEST. THIS ALLOWS FOR A "QUICK CHECK" OF THE TC11 HARDWARE.

SR10 BELL ON ERROR. SETTING THIS SWITCH TO A 1 WILL CAUSE THE PROGRAM TO SOUND THE BELL WHEN AN ERROR IS FOUND. THIS SWITCH DOES NOT INTERFERE WITH THE FUNCTIONS OF SW15 AND SW13

SR08 SELECT ROUTINE. WITH SR8 SET, THE PROGRAM WILL RUN NORMALLY UNTIL THE ROUTINE SPECIFIED IN SR7 THROUGH SRO IS ENCOUNTERED. THE PROGRAM WILL REMAIN LOOPING IN THE SPECIFIED ROUTINE, UNTIL EITHER SR8 IS CHANGED, OR UNTIL THE VALUE OF SWITCHES SR7 THROUGH SRO CHANGES

SR7-SRO TEST SELECT. THE NUMBER SET IN THESE SWITCHES IS THE NUMBER OF THE TEST THAT WILL BE LOCKED ONTO IF SR8 IS SET IF SR8 IS SET TO A 0 THEN SR7 THROUGH SRO HAVE NO EFFECT ON THE OPERATION OF THE PROGRAM

7.2 TESTING TC11 AT NON-STANDARD ADDRESSES AND/OR VECTORS

THIS PROGRAM CAN TEST THE TC11 AT NON-STANDARD ADDRESSES AND VECTORS PROVIDED THOSE ADDRESSES AND VECTORS ARE PROVIDED TO THE PROGRAM AS FOLLOWS:

A) AFTER LOADING PROGRAM REFER TO PROGRAM LISTING AND CHANGE LOCATIONS 001004 THROUGH 001020 TO REFLECT THE NEW TC11 ADDRESSES AND VECTORS.

B) PROCEED TO USE THE PROGRAM, OR

7.0 PROGRAM LISTING

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DZTCBC.P11

1
2
3
4
5
6
7
8

167400

.ABS
.ENABL AMA
.LIST MC,MD,BIN,LD,SEQ,ME
.NLIST CND
SSWR=167400

GO1

```

      GTN=0
      .ENABL ABS
      .MCALL .HEADER,.$SCATCH,.$SEOP,.$EQUAT
      .MCALL .SWRHI,.$SWRLO,.$SCOPE,.$SETUP
      .MCALL .STYPOCT,.$STYPDEC,.$STRAP,.$SPOWER
      .MCALL .$ERROR,.$STYPE,STARS,.$SEARTYP
      .MCALL .$CMTAG
      .SETUP (<.$SCOPE,.$SEOP,.$SPOWER,.$STRAP,.$ERROR>)
      .LIST
      .HEADER <MAINDEC-11-DZTCB-C          TC11 TEST #2>,<1972,1975>,<J. COMEAU>
      .TITLE  MAINDEC-11-DZTCB-C          TC11 TEST #2
      .*COPYRIGHT (C) 1972,1975
      .*DIGITAL EQUIPMENT CORP.
      .*MAYNARD, MASS. 01754
      .*
      .*PROGRAM BY J. COMEAU
      .*
      .*THIS PROGRAM WAS ASSEMBLED USING THE PDP-11 MAINDEC SYSMAC
      .*PACKAGE (MAINDEC-11-DZQAC-A1).
      .*
      .SWRHI

      .SBTTL  OPERATIONAL SWITCH SETTINGS
      .*
      .*      SWITCH                      USE
      .*      -----
      .*      15          HALT ON ERROR
      .*      14          LOOP ON TEST
      .*      13          INHIBIT ERROR TYPEOUTS
      .*      11          INHIBIT ITERATIONS
      .*      10          BELL ON ERROR
      .*      9           LOOP ON ERROR
      .*      8           LOOP ON TEST IN SWR<7:0>
      .MACRO  .SWRLO  S07,S06,S05,S04,S03,S02,S01,S00
      .IIF NB <S07>,,*          7          S07
      .IIF NB <S06>,,*          6          S06
      .IIF NB <S05>,,*          5          S05
      .IIF NB <S04>,,*          4          S04
      .IIF NB <S03>,,*          3          S03
      .IIF NB <S02>,,*          2          S02
      .IIF NB <S01>,,*          1          S01
      .IIF NB <S00>,,*          0          S00
      .ENDM  .SWRLO
      .*      7-0      * OF TEST TO LOOP ON IF SWR<8> IS SET
      .EQUAT

      .SBTTL  BASIC DEFINITIONS

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H01

MAINDEC-11-DZTCB-C TC11 TEST #2
DZTCBC.P11 BASIC DEFINITIONS

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57      : *INITIAL ADDRESS OF THE STACK POINTER *** 1100 ***
58      00110C  STACK= 1100
59      :EQUIV EMT,ERROR ;BASIC DEFINITION OF ERROR CALL
60      :EQUIV IOT,SCOPE ;BASIC DEFINITION OF SCOPE CALL
61      177776  PS= 177776 ;PROCESSOR STATUS WORD
62      :EQUIV PS,PSW
63      177774  STKLM= 177774 ;STACK LIMIT REGISTER
64      177772  PIRQ= 177772 ;PROGRAM INTERRUPT REQUEST REGISTER
65      177570  SWR= 177570 ;SWITCH REGISTER
66      177570  DISPLAY=SWR
67
68      : *GENERAL PURPOSE REGISTER DEFINITIONS
69      000000  R0= %0 ;GENERAL REGISTER
70      000001  R1= %1 ;GENERAL REGISTER
71      000002  R2= %2 ;GENERAL REGISTER
72      000003  R3= %3 ;GENERAL REGISTER
73      000004  R4= %4 ;GENERAL REGISTER
74      000005  R5= %5 ;GENERAL REGISTER
75      000006  R6= %6 ;GENERAL REGISTER
76      000007  R7= %7 ;GENERAL REGISTER
77      :EQUIV R6,SP ;STACK POINTER
78      :EQUIV R7,PC ;PROGRAM COUNTER
79
80      : * "SWITCH REGISTER" SWITCH DEFINITIONS
81      100000  SW15= 100000
82      040000  SW14= 40000
83      020000  SW13= 20000
84      010000  SW12= 10000
85      004000  SW11= 4000
86      002000  SW10= 2000
87      001000  SW09= 1000
88      000400  SW08= 400
89      000200  SW07= 200
90      000100  SW06= 100
91      000040  SW05= 40
92      000020  SW04= 20
93      000010  SW03= 10
94      000004  SW02= 4
95      000002  SW01= 2
96      000001  SW00= 1
97      :EQUIV SW09,SW9
98      :EQUIV SW08,SW8
99      :EQUIV SW07,SW7
100     :EQUIV SW06,SW6
101     :EQUIV SW05,SW5
102     :EQUIV SW04,SW4
103     :EQUIV SW03,SW3
104     :EQUIV SW02,SW2
105     :EQUIV SW01,SW1
106     :EQUIV SW00,SW0
107
108     : *DATA BIT DEFINITIONS (BIT00 TO BIT15)
109     100000  BIT15= 100000
110     040000  BIT14= 40000
111     020000  BIT13= 20000
112     010000  BIT12= 10000

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113 004000
114 002000
115 001000
116 000400
117 000200
118 000100
119 000040
120 000020
121 000010
122 000004
123 000002
124 000001

BIT11= 4000
BIT10= 2000
BIT09= 1000
BIT08= 400
BIT07= 200
BIT06= 100
BIT05= 40
BIT04= 20
BIT03= 10
BIT02= 4
BIT01= 2
BIT00= 1
.EQUIV BIT09,BIT9
.EQUIV BIT08,BIT8
.EQUIV BIT07,BIT7
.EQUIV BIT06,BIT6
.EQUIV BIT05,BIT5
.EQUIV BIT04,BIT4
.EQUIV BIT03,BIT3
.EQUIV BIT02,BIT2
.EQUIV BIT01,BIT1
.EQUIV BIT00,BIT0

136 000004
137 000010
138 000014
139 000014
140 000014
141 000014
142 000020
143 000024
144 000030
145 000034
146 000060
147 000064
148 000240

.*BASIC "CPU" TRAP VECTOR ADDRESSES
ERRVEC= 4 ;TIME OUT AND OTHER ERRORS
RESVEC= 10 ;RESERVED AND ILLEGAL INSTRUCTIONS
TBITVEC= 14 ;"T" BIT
TRTVEC= 14 ;TRACE TRAP
BPTVEC= 14 ;BREAKPOINT TRAP (BPT)
IOTVEC= 20 ;INPUT/OUTPUT TRAP (IOT) **SCOPE**
PWRVEC= 24 ;POWER FAIL
EMTVEC= 30 ;EMULATOR TRAP (EMT) **ERROR**
TRAPVEC= 34 ;"TRAP" TRAP
TKVEC= 60 ;TTY KEYBOARD VECTOR
TPVEC= 64 ;TTY PRINTER VECTOR
PIRQVEC= 240 ;PROGRAM INTERRUPT REQUEST VECTOR

149
150
151 000000

.LIST
;MISCELANIOUS EQUATES
;SCATCH START

152
153
154
155 000000

.SBTTL TRAP CATCHER

156
157
158
159
160

.=0
;*ALL UNUSED LOCATIONS FROM 4 - 776 CONTAIN A ".+2,HALT"
;*SEQUENCE TO CATCH ILLEGAL TRAPS AND INTERRUPTS
;*LOCATION 0 CONTAINS 0 TO CATCH IMPROPERLY LOADED VECTORS
.LIST

161
162 000200

.SBTTL STARTING ADDRESS(ES)
.=200

163
164 000200 000137 002304

JMP @#START ;JUMP TO STARTING ADDRESS OF PROGRAM

165
166 001000
167 000240
168 000000

;EQUATES
SPBOT=1000
NOP=240
OPEN=0

MAINDEC-11-DZTCB-C TC11 TEST #2
DZTCBC.P11 STARTING ADDRESS(ES)

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169	100000	MANUAL=BIT15
170	005746	PUSH=005746
171	024646	PUSH2=024646
172	005726	POPSP=005726
173	022626	POPSP2=022626
174	000007	BELL=007
175	177777	TLAST=-1
176	000003	TRC=3
177	000207	RTSPC=207
178	000340	I=40
179	177777	X=-1
180	100000	A=BIT15
181	040000	B=BIT14
182	020000	C=BIT13
183	003000	V0=0
184	000004	V1=4
185	000010	V2=10
186	000014	V3=14
187	000020	V4=20
188	000024	V5=24
189	000030	V6=30
190	000034	V7=34
191	020000	MAINT=BIT13
192	010000	DINH=BIT12
193	004000	REV=BIT11
194	000000	FWD=0
195	000204	NOP
196	000000	U0=0
197	000400	U1=BIT8
198	001000	U2=BIT9
199	001400	U3=BIT9!BIT8
200	002000	U4=BIT10
201	002400	U5=BIT10!BIT8
202	003000	U6=BIT10!BIT9
203	003400	U7=BIT10!BIT9!BIT8
204	000100	IE=BIT6
205	000000	SAT=0
206	000002	RNUM=BIT1
207	000004	RDATA=BIT2
208	000006	RALL=BIT2!BIT1
209	000010	SST=BIT3
210	000012	WRTM=BIT3!BIT1
211	000014	WDATA=BIT3!BIT2
212	000016	WALL=BIT3!BIT2!BIT1
213	000001	D0=BIT0
214	000000	EMTX=0
215		.MACRO ADITAG
216		TGST: 177340
217		TCCM: 177342
218		TCWC: 177344
219		TCBA: 177346
220		TCDT: 177350
221		TCVTR: 214
222		TCLVL: 300
223		TPS: 177564
224		TPB: 177566

;TC11 STATUS REGISTER.
;TC11 COMMAND REGISTER.
;TC11 WORD COUNT REGISTER.
;TC11 BUS ADDRESS REGISTER.
;TC11 DATA REGISTER.
;TC11 INTERRUPT VECTOR
;TC11 INTERRUPT PRIORITY LEVEL.
;LSP CSR
;LSP BUFFER

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 MAINDEC-11-DZTCB-C TC11 TEST #2
 DZTCBC.P11 STARTING ADDRESS(ES)

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CODCAL: OPEN
RTNNO: OPEN
NXTST: OPEN
CURTST: OPEN
CRBUF: OPEN
CRBUFA: OPEN
CTRA: OPEN
SBDAT1: 50505
          127272
SBDAT2: 72727
          105050
SBDAT3: 72727
          105056
POWPUS: .WORD 000000
POWPOP: .WORD 000000
TCCMT: OPEN
TCSTT: OPEN
.ENDM ADITAG

;MACRO SETRAP
MOV      #TRAP0,2#4      ;SETUP FATAL TRAP VECTOR JUST IN CASE
MOV      #340,2#6        ;NO INTERRUPTS WHILE SERVICING FATAL ERRORS
.ENDM SETRAP
.MACR C55
.BYTE I,0,I,I,0,I      ;MTK CODE 55. REV END ZONE MARK.
.ENDM
.MACR C25
.BYTE 0,I,0,I,0,I      ;MTK CODE 25. EXTENSION MARK.
.ENDM
.MACR C26      B0,B1,B2,B3,B4,B5
.BYTE 0!B0,I!B1,0!B2,I!B3,I!B4,0!B5 ;FWD BLOCK MARK.
.ENDM
.MACR C32      B0,B1,B2,B3,B4,B5
.BYTE 0!B0,I!B1,I!B2,0!B3,I!B4,0!B5 ;REV GUARD.
.ENDM
.MACR C10      B0,B1,B2,B3,B4,B5
.BYTE 0!B0,0!B1,I!B2,0!B3,0!B4,0!B5 ;MTK CODE 10.
.ENDM
.MACR C70      B0,B1,B2,B3,B4,B5
.BYTE I!B0,I!B1,I!B2,0!B3,0!B4,0!B5 ;MTK CODE 70. DATA MARK.
.ENDM
.MACR C73      B0,B1,B2,B3,B4,B5
.BYTE I!B0,I!B1,I!B2,0!B3,I!B4,I!B5 ;MTK CODE 73. DATA MARK.
.ENDM
.MACR C51      B0,B1,B2,B3,B4,B5
.BYTE I!B0,0!B1,I!B2,0!B3,0!B4,I!B5 ;MTK CODE 51. FWD GUARD.
.ENDM
.MACR C45      B0,B1,B2,B3,B4,B5
.BYTE I!B0,0!B1,0!B2,I!B3,0!B4,I!B5 ;MTK CODE 45. REV BLOCK MARK.
.ENDM
.MACR C22
.BYTE 0,I,0,0,I,0      ;MTK CODE 22. FWD END ZONE.
.ENDM
.MACR CEND
.BYTE -1

```



```

281 .ENDM
282 .MACR EMTE
283 .BYTE I,I,I,0,0,I
284 .ENDM
285 .MACR MTCOD MTADR,CNT
286 JSR RS,LMTCOD ;CALL LOAD MT CODES SUB.
287 MTADR ;ADDRESS OF MARK TRACK CODES.
288 CNT ;MARK TRACK CODE COUNT.
289 .ENDM
290 .MACR MTCOE CALADR,MTADR,CNT
291 JSR RS,LMTCOE ;CALL LOAD MT CODES SUBROUTINE.
292 CALADR ;ADDR TO GO AFTER EACH CODE PASSED.
293 MTADR ;ADDRESS OF MARK TRACK CODES.
294 CNT ;MARK TRACK CODE COUNT.
295 .ENDM
296 .MACR EMTDEF NAMEA,NAMEB
297 .WORD NAMEB ;POINTER FOR EMT CALL NAMEA
298 .NLIST
299 NAMEA=EMT+EMTX
300 EMTX=EMTX+1
301 .LIST
302 .ENDM
303 .MACRO SCOMAC
304 CLR @TCCM
305 CLR 2(SP) ;PS TO =0 AFTER WE EXIT THE SCOPE ROUTINE
306 JSR PC,SRSETT
307 JSR PC,RSTMTK
308 .ENDM SCOMAC
309 .=50
310 000050 000050
311 000052 000000
312 000054 000000
313 .MACRO $$SCMREG A,B
314 $REG'A: .WORD 0 ;CONTAINS (($REGAD)+'B)
315 .NLIST
316 $CM1=$CM1+1
317 $CM2=$CM2+2
318 .LIST
319 .ENDM $$SCMREG
320 .MACRO $$SCMTMP A
321 $TMP'A: .WORD 0 ;USER DEFINED
322 .NLIST
323 $CM4=$CM4+1
324 .LIST
325 .ENDM $$SCMTMP
326 .PAGE

```

```

327 000054 STARS
328 ;*****
329
330 .SBTTL COMMON TAGS
331
332 ;*THIS TABLE CONTAINS VARIOUS COMMON STORAGE LOCATIONS
333 ;*USED IN THE PROGRAM.
334
335 000046 000046 .=46
336 000046 011464 $ENDAD ;LOGICAL END OF PROGRAM
337
338 001100 .=1100
339
340 001100 $CMTAG: ;START OF COMMON TAGS
341 001100 000000 $PASS: .WORD 0 ;CONTAINS PASS COUNT
342 001102 000 $TSTNM: .BYTE 0 ;CONTAINS THE TEST NUMBER
343 001103 000 $ERFLG: .BYTE 0 ;CONTAINS ERROR FLAG
344 001104 000000 $ICNT: .WORD 0 ;CONTAINS SUBTEST ITERATION COUNT
345 001106 000000 $LPADR: .WORD 0 ;CONTAINS SCOPE LOOP 1100
346 001110 000000 $LPERR: .WORD 0 ;CONTAINS SCOPE RETURN FOR ERRORS
347 001112 000000 $ERTTL: .WORD 0 ;CONTAINS TOTAL ERRORS DETECTED
348 001114 000 $ITEMB: .BYTE 0 ;CONTAINS ITEM CONTROL BYTE
349 001115 001 $ERMAX: .BYTE 1 ;CONTAINS MAX. ERRORS PER TEST
350 001116 000000 $ERRPC: .WORD 0 ;CONTAINS PC OF LAST ERROR INSTRUCTION
351 001120 000000 $GDADR: .WORD 0 ;CONTAINS 1100 OF 'GOOD' DATA
352 001122 000000 $BDADR: .WORD 0 ;CONTAINS 1100 OF 'BAD' DATA
353 001124 000000 $GDDAT: .WORD 0 ;CONTAINS 'GOOD' DATA
354 001126 000000 $BDDAT: .WORD 0 ;CONTAINS 'BAD' DATA
355 001130 000000 000000 000000 .WORD 0,0,0 ;RESERVED--NOT TO BE USED
356 001136 177560 $TKS: 177560 ;TTY KBD STATUS
357 001140 177562 $TKB: 177562 ;TTY KBD BUFFER
358 001142 177564 $TPS: 177564 ;TTY PRINTER STATUS REG. 1100
359 001144 177566 $TPB: 177566 ;TTY PRINTER BUFFER REG. 1100
360 001146 000 $NULL: .BYTE 0 ;CONTAINS NULL CHARACTER FOR FILLS
361 001147 002 $FILLS: .BYTE 2 ;CONTAINS # OF FILLER CHARACTERS REQUIRED
362 001150 012 $FILLC: .BYTE 12 ;INSERT FILL CHARS. AFTER A "LINE FEED"
363 001151 000 $TPFLG: .BYTE 0 ;"TERMINAL AVAILABLE" FLAG (BIT<07>=0=YES)
364 .LIST
365 001152 000000 $REGAD: .WORD 0 ;CONTAINS THE 1100 FROM
366 ;WHICH ($REGO) WAS OBTAINED
367 .LIST
368 .REPT $CM3
369 $$CMREG \SCM1,\SCM2
370 .ENDR
371 001154 000000 $REGO: .WORD 0 ;CONTAINS (($REGAD)+0)
372 001154 000000 .LIST
373 001156 000000 $$CMREG \SCM1,\SCM2
374 001156 000000 $REG1: .WORD 0 ;CONTAINS (($REGAD)+2)
375 001156 000000 .LIST
376 001160 000000 $$CMREG \SCM1,\SCM2
377 001160 000000 $REG2: .WORD 0 ;CONTAINS (($REGAD)+4)
378 001160 000000 .LIST
379 001162 000000 $$CMREG \SCM1,\SCM2
380 001162 000000 $REG3: .WORD 0 ;CONTAINS (($REGAD)+6)
381
382 .LIST

```

```

383 001164
384 001164 000000 $REG4: $SCMREG \SCM1,\SCM2
                                .WORD 0 ;CONTAINS (($REGAD)+10)
385 .LIST
386 001166
387 001166 000000 $REG5: $SCMREG \SCM1,\SCM2
                                .WORD 0 ;CONTAINS (($REGAD)+12)
388 .LIST
389 001170
390 001170 000000 $REG6: $SCMREG \SCM1,\SCM2
                                .WORD 0 ;CONTAINS (($REGAD)+14)
391 .LIST
392 001172
393 001172 000000 $REG7: $SCMREG \SCM1,\SCM2
                                .WORD 0 ;CONTAINS (($REGAD)+16)
394 .LIST
395 .LIST
396 .REPT 10
397 $SCMTMP \SCM4
398 .ENDR
399 001174
400 001174 000000 $SCMTMP \SCM4
                                STMP0: .WORD 0 ;USER DEFINED
401 .LIST
402 001176
403 001176 000000 $SCMTMP \SCM4
                                STMP1: .WORD 0 ;USER DEFINED
404 .LIST
405 001200
406 001200 000000 $SCMTMP \SCM4
                                STMP2: .WORD 0 ;USER DEFINED
407 .LIST
408 001202
409 001202 000000 $SCMTMP \SCM4
                                STMP3: .WORD 0 ;USER DEFINED
410 .LIST
411 001204
412 001204 000000 $SCMTMP \SCM4
                                STMP4: .WORD 0 ;USER DEFINED
413 .LIST
414 001206
415 001206 000000 $SCMTMP \SCM4
                                STMP5: .WORD 0 ;USER DEFINED
416 .LIST
417 001210
418 001210 000000 $SCMTMP \SCM4
                                STMP6: .WORD 0 ;USER DEFINED
419 .LIST
420 001212
421 001212 000000 $SCMTMP \SCM4
                                STMP7: .WORD 0 ;USER DEFINED
422 .LIST
423 001214 000000 $TIMES: 0 ;MAX. NUMBER OF ITERATIONS
424 001216 000000 $ESCAPE: 0 ;ESCAPE ON ERROR 1100
425 001220 177607 000377 $BELL: .ASCIZ <207><377> .377> ;CODE FOR BELL
426 001224 077 $QUES: .ASCII /?/ ;QUESTION MARK
427 001225 015 $CRLF: .ASCII <15> ;CARRIAGE RETURN
428 001226 000012 $LF: .ASCIZ <12> ;LINE FEED
429 .IRP A,<ADITAG>
430 A
431 .ENDM
432 ADITAG
433 001230 177340 TCST: 177340 ;TC11 STATUS REGISTER.
434 001232 177342 TCCM: 177342 ;TC11 COMMAND REGISTER.
435 001234 177344 TCWC: 177344 ;TC11 WORD COUNT REGISTER.
436 001236 177346 TCBA: 177346 ;TC11 BUS ADDRESS REGISTER.
437 001240 177350 TCDT: 177350 ;TC11 DATA REGISTER.
438 001242 000214 TCVTR: 214 ;TC11 INTERRUPT VECTOR

```

MAINDEC-11-DZTCB-C TC11 TEST #2 MAC11 271732 14-SEP-76 10:51 PAGE 10
DZTCBC.P11 COMMON TAGS

439 001244 000300
440 001246 177564
441 001250 177566
442 001252 000000
443 001254 000000
444 001256 000000
445 001260 000000
446 001262 000000
447 001264 000000
448 001266 000000
449 001270 050505
450 001272 127272
451 001274 072727
452 001276 105050
453 001300 072727
454 001302 105056
455 001304 000000
456 001306 000000
457 001310 000000
458 001312 000000
459

TC1VL: 300
TPS: 177564
TPB: 177566
CODCAL: OPEN
RTNNO: OPEN
NXTST: OPEN
CURTST: OPEN
CRBUF: OPEN
CRBUFA: OPEN
CTRA: OPEN
SBDAT1: 50505
127272
SBDAT2: 72727
105050
SBDAT3: 72727
105056
POWPUS: .WORD 000000
POWPOP: .WORD 000000
TCCMT: OPEN
TCSTT: OPEN
.PAGE

;TC11 INTERRUPT PRIORITY LEVEL.
;LSP CSR
;LSP BUFFER

460 DC1314

STARS

;*****

461

462

463

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477

001314

.SBTTL ERROR POINTER TABLE

;*THIS TABLE CONTAINS THE INFORMATION FOR EACH ERROR THAT CAN OCCUR.
 ;*THE INFORMATION IS OBTAINED BY USING THE INDEX NUMBER FOUND IN
 ;*LOCATION \$ITEMB. THIS NUMBER INDICATES WHICH ITEM IN THE TABLE IS PERTINENT.
 ;*NOTE1: IF \$ITEMB IS 0 THE ONLY PERTINENT DATA IS (\$ERRPC).
 ;*NOTE2: EACH ITEM IN THE TABLE CONTAINS 4 POINTERS EXPLAINED AS FOLLOWS:

;* EM :POINTS TO THE ERROR MESSAGE
 ;* DH :POINTS TO THE DATA HEADER
 ;* DT :POINTS TO THE DATA
 ;* DF :POINTS TO THE DATA FORMAT

478

\$ERRTB:

479

001314 015617

EM1 : "SAT (STOP ALL TRANSPORTS) COMMAND DID NOT CLEAR READY"
 EH1 : " PC SP PS TEST# TCCM TCST"
 ET1 : \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
 000000

480

001316 015705

481

001320 015764

482

001322 000000

483

484

485

001324 016002

486

001326 016064

487

001330 016142

488

001332 000000

489

490

491

001334 016160

492

001336 016225

493

001340 016304

494

001342 000000

495

496

497

001344 016322

498

001346 016431

499

001350 016510

500

001352 000000

501

502

503

001354 016526

504

001356 016557

505

001360 016636

506

001362 000000

507

508

509

001364 016654

510

001366 016751

511

001370 017030

512

001372 000000

513

514

515

001374 017046

EM2 : "SST (STOP SELECTED TRANSPORT) DID NOT CLEAR READY"
 EH2 : " PC SP PS TEST# TCCM TCST"
 ET2 : \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
 000000

EM3 : "READY BIT DID NOT CAUSE AN INTERRUPT"
 EH3 : " PC SP PS TEST# TCCM TCST"
 ET3 : \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
 000000

EM4 : "READY BIT CAUSED AN INTERRUPT WITH PROCESSOR AND TC11 AT SAME PRIORITY"
 EH4 : " PC SP PS TEST# TCCM TCST"
 ET4 : \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
 000000

EM5 : "TC11 FAILED TO INTERRUPT"
 EH5 : " PC SP PS TEST# TCCM TCST"
 ET5 : \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
 000000

EM6 : "TC11 DID NOT DROP INTERRUPT REQUEST AFTER IT WAS ACKNOWLEDGED"
 EH6 : " PC SP PS TEST# TCCM TCST"
 ET6 : \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
 000000

EM7 : "DOING A RESET INSTRUCTION DID NOT CLEAR UPS"

516	001376	017122	EH7	;" PC SP PS TEST# TCCM TCST"
517	001400	017200	ET7	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
518	001402	000000	000000	
519				
520				
521	001404	017216	EM10	;"ENTERING MAINTANENCE MODE DID NOT SET UPS"
522	001406	017270	EH10	;" PC SP PS TEST# TCCM TCST"
523	001410	017346	ET10	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
524	001412	000000	000000	
525				
526				
527	001414	017364	EM11	;"UPS DID NOT CLEAR WHEN LEAVING MAINTANENCE MODE"
528	001416	017444	EH11	;" PC SP PS TEST# TCCM TCST"
529	001420	017522	ET11	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
530	001422	000000	000000	
531				
532				
533	001424	017540	EM12	;"TCST BIT 0 CAN BE SET WHILE IN MAINTANENCE MODE"
534	001426	017620	EH12	;" PC SP PS TEST# TCCM TCST"
535	001430	017676	ET12	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
536	001432	000000	000000	
537				
538				
539	001434	017714	EM13	;"TCST BIT 1 CAN BE SET WHILE IN MAINTANENCE MODE"
540	001436	017774	EH13	;" PC SP PS TEST# TCCM TCST"
541	001440	020052	ET13	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
542	001442	000000	000000	
543				
544				
545	001444	020070	EM14	;"WRTM COMMAND WITH WRTM SWITCH DISABLED FAILED TO SET ILO ERROR"
546	001446	020167	EH14	;" PC SP PS TEST# TCCM TCST"
547	001450	020246	ET14	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
548	001452	000000	000000	
549				
550				
551	001454	020264	EM15	;"ILO ERROR FAILED TO SET THE 'ERROR' BIT"
552	001456	020334	EH15	;" PC SP PS TEST# TCCM TCST"
553	001460	020412	ET15	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
554	001462	000000	000000	
555				
556				
557	001464	020430	EM16	;"CLEARING ILLEGAL OP FAILED TO CLEAR ILO ERROR"
558	001466	020506	EH16	;" PC SP PS TEST# TCCM TCST"
559	001470	020564	ET16	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
560	001472	000000	000000	
561				
562				
563	001474	020602	EM17	;"CLEARING ILLEGAL OP FAILED TO CLEAR THE 'ERROR' BIT"
564	001476	020666	EH17	;" PC SP PS TEST# TCCM TCST"
565	001500	020744	ET17	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
566	001502	000000	000000	
567				
568				
569	001504	020762	EM20	;"WRTM WITH WRTM SWITCH OFF DID NOT SET ILO ERROR BIT"
570	001506	021046	EH20	;" PC SP PS TEST# TCCM TCST"
571	001510	021124	ET20	;"\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1

E02

 MAINDEC-11-DZTCB-C TC11 TEST #2
 DZTCBC.P11 ERROR POINTER TABLE

MACY11 27(732) 14-SEP-76 10:51 PAGE 13

572	001512	000000	000000	
573				
574				
575	001514	021142	EM21	;"ILO ERROR SETTING DID NOT CAUSE THE 'ERROR' BIT TO SET"
576	001516	021231	EH21	;" PC SP PS TEST# TCCM TCST"
577	001520	021310	ET21	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
578	001522	000000	000000	
579				
580				
581	001524	021326	EM22	;"CLEARING ERROR BIT ALSO CLEARED ILO ERROR"
582	001526	021400	EH22	;" PC SP PS TEST# TCCM TCST"
583	001530	021456	ET22	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
584	001532	000000	000000	
585				
586				
587	001534	021474	EM23	;"THE 'ERROR' BIT DID NOT SET"
588	001536	021530	EH23	;" PC SP PS TEST# TCCM TCST"
589	001540	021606	ET23	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
590	001542	000000	000000	
591				
592				
593	001544	021624	EM24	;"THE 'ERROR' BIT SET DID NOT CAUSE AN INTERRUPT"
594	001546	021703	EH24	;" PC SP PS TEST# TCCM TCST"
595	001550	021762	ET24	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
596	001552	000000	000000	
597				
598				
599	001554	022000	EM25	;"DOING A RESET INSTRUCTION DID NOT SET THE READY BIT"
600	001556	022064	EH25	;" PC SP PS TEST# TCCM TCST"
601	001560	022142	ET25	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
602	001562	000000	000000	
603				
604				
605	001564	022160	EM26	;"TEST EXECUTION IS OUT OF ORDER"
606	001566	022217	EH26	;" PC SP PS TEST# TEST# S/B"
607	001570	022272	ET26	;\$ERRPC,\$REG6,\$REG7,\$REG5,TEST# S/B
608	001572	000000	000000	
609				
610				
611	001574	022306	EM27	;"ERROR TRYING TO READ A BLOCK MARK"
612	001576	022350	EH27	;" PC SP PS TEST# TCCM TCST"
613	001600	022426	ET27	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
614	001602	000000	000000	
615				
616				
617	001604	022444	EM30	;"READY WAS NOT SET AFTER BLOCK MARK WAS SHIFTED INTO THE WINDOW REGISTE
618	001606	022554	EH30	;" PC SP PS TEST# TCCM TCST"
619	001610	022632	ET30	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
620	001612	000000	000000	
621				
622				
623	001614	022650	EM31	;"INCORRECT BLOCK # IN DATA REG AFTER BLOCK MARK WAS DETECTED"
624	001616	022744	EH31	;" PC SP PS TEST# TCCM TCST"
625	001620	023044	ET31	;\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
626	001622	000000	000000	
627				

628									
629	001624	023066	EM32	;	"MTE WAS NOT SET BY AN ILLEGAL MARK TRACK CODE"				
630	001626	023144	EH32	;	" PC SP PS TEST# TCCM TCST"				
631	001630	023222	ET32	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
632	001632	000000	000000						
633									
634									
635	001634	023240	EM33	;	"MTE SETTING FAILED TO SET THE 'ERROR' BIT"				
636	001636	023312	EH33	;	" PC SP PS TEST# TCCM TCST"				
637	001640	023370	ET33	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
638	001642	000000	000000						
639									
640									
641	001644	023406	EM34	;	"ENDZ BIT DID NOT SET WHEN ENDZ MARK DETECTED"				
642	001646	023463	EH34	;	" PC SP PS TEST# TCCM TCST"				
643	001650	023542	ET34	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
644	001652	000000	000000						
645									
646									
647	001654	023406	EM34						
648	001656	023463	EH34						
649	001660	023542	ET34						
650	001662	000000	0000						
651	001664	023736	EM36	;	"MARK TRACK CODE 55 WAS MISTAKEN FOR END ZONE"				
652	001666	024013	EH36	;	" PC SP PS TEST# TCCM TCST"				
653	001670	024072	ET36	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
654	001672	000000	000000						
655									
656									
657	001674	024110	EM37	;	"ERROR"				
658	001676	024116	EH37	;	" PC SP PS TEST# TCCM TCST"				
659	001700	024174	ET37	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
660	001702	000000	000000						
661									
662									
663	001704	024212	EM40	;	"READY BIT DID NOT SET"				
664	001706	024240	EH40	;	" PC SP PS TEST# TCCM TCST"				
665	001710	024316	ET40	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
666	001712	000000	000000						
667									
668									
669	001714	024334	EM41	;	"THE 'ERROR' BIT SHOULD NOT HAVE SET"				
670	001716	024400	EH41	;	" PC SP PS TEST# TCCM TCST"				
671	001720	024456	ET41	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
672	001722	000000	000000						
673									
674									
675	001724	024474	EM42	;	"READY BIT SHOULD NOT HAVE SET"				
676	001726	024532	EH42	;	" PC SP PS TEST# TCCM TCST"				
677	001730	024610	ET42	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
678	001732	000000	000000						
679									
680									
681	001734	024626	EM43	;	"WORD TRANSFERED INCORRECTLY TO CORE"				
682	001736	024672	EH43	;	" PC SP PS TEST# TCCM TCST RBUF RBUF S/B"				
683	001740	024774	ET43	;	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, RBUF RBUF S/B				

684	001742	000000		000000
685				
686				
687	001744	025016	EM44	; "WORD COUNT INCREMENTED IMPROPERLY"
688	001746	025060	EH44	; " PC SP PS TEST# TCCM TCST TCWC"
689	001750	025162	ET44	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, TCWC
690	001752	000000		000000
691				
692				
693	001754	025204	EM45	; "TCBA INCREMENTED IMPROPERLY"
694	001756	025240	EH45	; " PC SP PS TEST# TCCM TCST TCBA"
695	001760	025342	ET45	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, TCBA
696	001762	000000		000000
697				
698				
699	001764	025364	EM46	; "PARITY ERROR"
700	001766	025401	EH46	; " PC SP PS TEST# TCCM TCST"
701	001770	025460	ET46	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
702	001772	000000		000000
703				
704				
705	001774	025476	EM47	; "READY DID NOT SET AFTER READING WAS COMPLETED"
706	001776	025554	EH47	; " PC SP PS TEST# TCCM TCST"
707	002000	025632	ET47	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
708	002002	000000		000000
709				
710				
711	002004	025550	EM50	; "TRANSFERED TOO MANY WORDS"
712	002006	025702	EH50	; " PC SP PS TEST# TCCM TCST RBUF+2"
713	002010	025772	ET50	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, RBUF+2
714	002012	000000		000000
715				
716				
717	002014	026012	EM51	; "TCBA CONTAINS AN INCORRECT ADDRESS"
718	002016	026055	EH51	; " PC SP PS TEST# TCCM TCST TCBA TCBA S/B"
719	002020	026156	ET51	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, TCBA TCBA S/B
720	002022	000000		000000
721				
722				
723	002024	026200	EM52	; "PARITY ERROR WAS NOT DETECTED"
724	002026	026237	EH52	; " PC SP PS TEST# TCCM TCST"
725	002030	026326	ET52	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
726	002032	000000		000000
727				
728				
729	002034	026346	EM53	; "PARITY ERROR DID NOT SET THE 'ERROR' BIT"
730	002036	026417	EH53	; " PC SP PS TEST# TCCM TCST"
731	002040	026506	ET53	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
732	002042	000000		000000
733				
734				
735	002044	026526	EM54	; "PARITY ERROR BIT WILL NOT CLEAR"
736	002046	026566	EH54	; " PC SP PS TEST# TCCM TCST"
737	002050	026654	ET54	; \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
738	002052	000000		000000
739				

H02

MAINDEC-11-DZTCB-C TC11 TEST #2
DZTCBC.P11 ERROR POINTER TABLE

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740									
741	002054	026674	EM55	;	"BLOCK MISS SHOULD NOT HAVE SET"				
742	002056	026733	EH55	;	" PC SP PS TEST# TCCM TCST"				
743	002060	027022	ET55	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1				
744	002062	000000	000000						
745									
746									
747	002064	027042	EM56	;	"RDATA WAS ISSUED BUT BLOCK MISS FAILED TO SET"				
748	002066	027120	EH56	;	" PC SP PS TEST# TCCM TCST"				
749	002070	027206	ET56	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1				
750	002072	000000	000000						
751									
752									
753	002074	027226	EM57	;	"BLOCK MISS SETTING DID NOT SET THE 'ERROR' BIT"				
754	002076	027305	EH57	;	" PC SP PS TEST# TCCM TCST"				
755	002100	027374	ET57	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1				
756	002102	000000	000000						
757									
758									
759	002104	027414	EM60	;	"CLEARING ERROR BIT FAILED TO CLEAR BLOCK MISS"				
760	002106	027472	EH60	;	" PC SP PS TEST# TCCM TCST"				
761	002110	027560	ET60	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1				
762	002112	000000	000000						
763									
764									
765	002114	027600	EM61	;	"FORWARD CHECKSUM WAS WRITTEN INCORRECTLY INTO CORE"				
766	002116	027663	EH61	;	" PC SP PS TEST# TCCM TCST RBUF+514"				
767	002120	027762	ET61	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,RBUF+514				
768	002122	000000	000000						
769									
770									
771	002124	030004	EM62	;	"TCWC WAS MODIFIED DURING RAL"				
772	002126	030042	EH62	;	" PC SP PS TEST# TCCM TCST TCWC"				
773	002130	030130	ET62	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,TCWC				
774	002132	000000	000000						
775									
776									
777	002134	030150	EM63	;	"TCBA WAS MODIFIED DURING RAL"				
778	002136	030206	EH63	;	" PC SP PS TEST# TCCM TCST TCBA"				
779	002140	030310	ET63	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,TCBA				
780	002142	000000	000000						
781									
782									
783	002144	030330	EM64	;	"DATA MISS DID NOT SET"				
784	002146	030356	EH64	;	" PC SP PS TEST# TCCM TCST"				
785	002150	030444	ET64	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1				
786	002152	000000	000000						
787									
788									
789	002154	030464	EM65	;	"DATA MISS SETTING DID NOT CAUSE THE 'ERROR' BIT TO SET"				
790	002156	030553	EH65	;	" PC SP PS TEST# TCCM TCST"				
791	002160	030632	ET65	;	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1				
792	002162	000000	000000						
793									
794									
795	002164	030650	EM66	;	"CLEARING THE 'ERROR' BIT DID NOT CAUSE DATA MISS TO BE CLEARED"				

MAINDEC-11-DZTCB-C TC11 TEST #2
DZTCBC.P11 ERROR POINTER TABLE

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796	002166	030747	EH66	;" PC SP PS TEST# TCCM TCST"
797	002170	031026	ET66	;"SERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
798	002172	000000	000000	
799				
800				
801	002174	031044	EM67	;"READY BIT WAS NOT SET AFTER THE DATA WAS WRITTEN"
802	002176	031125	EH67	;" PC SP PS TEST# TCCM TCST"
803	002200	031204	ET67	;"SERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
804	002202	000000	000000	
805				
806				
807	002204	031222	EM70	;"THE REVERSE CHECKSUM WAS WRITTEN INCORRECTLY"
808	002206	031277	EH70	;" PC SP PS TEST# TCCM TCST RBUF+512 RBUF+512 S/B
809	002210	031406	ET70	;"SERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,RBUF+512 RBUF+512 S/B
810	002212	000000	000000	
811				
812				
813	002214	031430	EM71	;"WORD COUNT MODIFIED DURING WRITE ALL"
814	002216	031476	EH71	;" PC SP PS TEST# TCCM TCST TCWC"
815	002220	031564	ET71	;"SERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,TCWC
816	002222	000000	000000	
817				
818				
819	002224	031604	EM72	;"TCBA MODIFIED DURING WRITE ALL"
820	002226	031644	EH72	;" PC SP PS TEST# TCCM TCST TCBA"
821	002230	031732	ET72	;"SERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,TCBA
822	002232	000000	000000	
823				
824				
825	002234	031752	EM73	;"SST DID NOT CAUSE A SELECT ERROR"
826	002236	032013	EH73	;" PC SP PS TEST# TCCM TCST"
827	002240	032072	ET73	;"SERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
828	002242	000000	000000	
829	002244	032110	EM74	
830	002246	032163	EH74	
831	002250	032222	ET74	
832	002252	000000	0000	
833				
834	002254	032234	EM75	
835	002256	032307	EH75	
836	002260	032346	ET75	
837	002262	000000	0000	
838				
839	002264	032360	EM76	
840	002266	032433	EH76	
841	002270	032472	ET76	
842	002272	000000	0000	
843				
844	002274	032504	EM77	
845	002276	032557	EH77	
846	002300	032616	ET77	
847	002302	000000	0000	
848	002304			
849				
850	002304	000240		
851	002306	000240		

.SETUP
.LIST
START: NOP
NOP

(.SEOP,.SSCOPE,.STRAP,.SERROR,.SPOWER)

852	002310	000240		NOP		
853	002312	000240		NOP		
854	002314			SETUP	1000	
855	002314	012706	001100	MOV	#SCMTAG,R6	;FIRST LOCATION TO BE CLEARED
856	002320	005026		CLR	(R6)+	;CLEAR MEMORY LOCATION
857	002322	022706	001136	CMP	#STKS,R6	;DONE?
858	002326	001374		BNE	.-6	;LOOP BACK IF NO
859	002330	012706	001000	MOV	#1000,SP	;SETUP THE STACK POINTER
860	002334	012737	013210	MOV	#SSCOPE,2#IOTVEC	;IOT VECTOR FOR SCOPE ROUTINE
861	002342	012737	000340	MOV	#340,2#IOTVEC+2	;LEVEL 7
862	002350	012737	013476	MOV	#SEERROR,2#EMTVEC	;EMT VECTOR FOR ERROR ROUTINE
863	002356	012737	000340	MOV	#340,2#EMTVEC+2	;LEVEL 7
864	002364	012737	014776	MOV	#STRAP,2#TRAPVEC	;TRAP VECTOR FOR TRAP CALLS
865	002372	012737	000340	MOV	#340,2#TRAPVEC+2	;LEVEL 7
866	002400	012737	013706	MOV	#SPWRON,2#PWRVEC	;POWER FAILURE VECTOR
867	002406	012737	000340	MOV	#340,2#PWRVEC+2	;LEVEL 7
868	002414	013737	011434	MOV	#ENDCT,SEOPCT	;SETUP END-OF-PROGRAM COUNTER
869	002422	112737	000001	MOVB	#1,SEMAX	;ALLOW ONE ERROR PER TEST
870	002430	012737	002430	MOV	#,SLPADR	;INITIALIZE THE LOOP ADDRESS FOR SCOPE
871	002436	012706	001000	MOV	#1000,SP	;SET BOTTOM OF SP STACK.
872	002442	005037	001254	CLR	RTNNO	
873	002446	104400	001225	TYPE	,SCRLF	
874	002452	104400	015032	TYPE	,STMES	;PRINTOUT STARTUP MESSAGE
875	002456	000240		NOP		
876	002460	000000		HALT		;HERE IS YOUR CHANCE TO SET THE SWITCH REGISTER
877	002462	005737	000042	STARTX: TST	42	
878	002466	001401		BEQ	GETRDY	
879	002470	000005		RESET		
880	002472	005037	177776	GETRDY: CLR	PSW	
881	002476	012706	001000	MOV	#1000,SP	;SET BOTTOM OF STACK.
882	002502	004737	012046	JSR	PC,SRSETT	;ISSUE RESET.
883	002506	004737	012070	JSR	PC,RSTMTK	;RESTORE MARK TRACK.
884	002512	000137	002516	JMP	T0001	
885				.SBTTL T0001		
886				;CHECK THAT THE TCCM REGISTER CAN BE ACCESSED WITHOUT A TRAP OCCURING		
887				*****		
888	002516	000004		T0001: SCOPE		
889	002520	012737	002564	MOV	#A0001,2#4	;SETUP THE FATAL TRAP VECTOR
890	002526	012737	000340	MOV	#340,2#6	;MAKE SURE WE GET NO INTERRUPTS IF WE TRAP
891	002534	012706	001000	MOV	#1000,SP	;SETUP THE STACK POINTER
892	002540	004737	011614	JSR	PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
893	002544	000001		00001		;HERE LIES THE NUMBER OF THIS TEST
894	002546	012706	001000	R0001: MOV	#1000,SP	;INIT THE STACK POINTER
895	002552	005777	176454	TST	2TCCM	;TRY TO READ THE TCCM
896	002556	005077	176450	CLR	2TCCM	;TRY TO MODIFY THE TCCM
897	002562	000401		BR	T0002	;NO ERRORS. GO ON TO THE NEXT TEXT
898	002564	104074		A0001: ERROR	74	;COULD NOT ACCESS TCCM
899				.SBTTL T0002		
900				;CHECK THAT THE TCST REGISTER CAN BE ACCESSED WITHOUT A TRAP OCCURING		
901				*****		
902	002566	000004		T0002: SCOPE		
903	002570	012737	002634	MOV	#A0002,2#4	;SETUP THE FATAL TRAP VECTOR
904	002576	012737	000340	MOV	#340,2#6	;MAKE SURE WE GET NO INTERRUPTS IF WE TRAP
905	002604	012706	001000	MOV	#1000,SP	;SETUP THE STACK POINTER
906	002610	004737	011614	JSR	PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
907	002614	000002		00002		;HERE LIES THE NUMBER OF THIS TEST

K02

MAINDEC-11-DZTCB-C
DZTCBC.P11

T0002

TC11 TEST #2

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908 002616 012706 001000
 909 002622 005777 176402
 910 002626 005077 176376
 911 002632 000401
 912 002634 104075

913
 914
 915

916 002636 000004
 917 002640 012737 002704 000004
 918 002646 012737 000340 000006
 919 002654 012706 001000
 920 002660 004737 011614

921 002664 000003
 922 002666 012706 001000
 923 002672 005777 176336
 924 002676 005077 176332

925 002702 000401
 926 002704 104076

927
 928
 929

930 002706 000004
 931 002710 012737 002754 000004
 932 002716 012737 000340 000006
 933 002724 012706 001000
 934 002730 004737 011614

935 002734 000004
 936 002736 012706 001000
 937 002742 005777 176270
 938 002746 005077 176264

939 002752 000401
 940 002754 104077

941
 942
 943
 944
 945

946 002756 000004
 947 002760 012737 011530 000004
 948 002766 012737 011520 000010
 949 002774 012737 000340 000006
 950 003002 012737 000340 000012

951 003010 012706 001000
 952 003014 004737 011614
 953 003020 000005
 954 003022 013700 001232

955 003026 005010
 956 003030 005210
 957 003032 105710
 958 003034 100001

959 003036 104001
 960 003040
 961 003044 012706 001000
 962 003044 000400

963

R0002: MOV #1000,SP ;INIT THE STACK POINTER
 TST @TCST ;TRY TO READ THE TCST
 CLR @TCST ;TRY TO MODIFY THE TCST
 BR T0003 ;NO ERRORS. GO ON TO THE NEXT TEXT
 A0002: ERROR 75 ;COULD NOT ACCESS TCST
 ;CHECK THAT THE TCWC REGISTER CAN BE ACCESSED WITHOUT A TRAP OCCURING
 .SBTTL T0003

T0003: SCOPE
 MOV #A0003, @#4 ;SETUP THE FATAL TRAP VECTOR
 MOV #340, @#6 ;MAKE SURE WE GET NO INTERRUPTS IF WE TRAP
 MOV #1000, SP ;SETUP THE STACK POINTER
 JSR PC, TORDER ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
 00003 ;HERE LIES THE NUMBER OF THIS TEST

R0003: MOV #1000, SP ;INIT THE STACK POINTER
 TST @TCWC ;TRY TO READ THE TCWC
 CLR @TCWC ;TRY TO MODIFY THE TCWC
 BR T0004 ;NO ERRORS. GO ON TO THE NEXT TEXT
 A0003: ERROR 76 ;COULD NOT ACCESS TCWC
 ;CHECK THAT THE TCBA REGISTER CAN BE ACCESSED WITHOUT A TRAP OCCURING
 .SBTTL T0004

T0004: SCOPE
 MOV #A0004, @#4 ;SETUP THE FATAL TRAP VECTOR
 MOV #340, @#6 ;MAKE SURE WE GET NO INTERRUPTS IF WE TRAP
 MOV #1000, SP ;SETUP THE STACK POINTER
 JSR PC, TORDER ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
 00004 ;HERE LIES THE NUMBER OF THIS TEST

R0004: MOV #1000, SP ;INIT THE STACK POINTER
 TST @TCBA ;TRY TO READ THE TCBA
 CLR @TCBA ;TRY TO MODIFY THE TCBA
 BR T0005 ;NO ERRORS. GO ON TO THE NEXT TEXT
 A0004: ERROR 77 ;COULD NOT ACCESS TCBA

;CHECK THAT ISSUING A SAT COMMAND (STOP ALL TRANSPORTS) CAUSES READY BIT
 ;TO CLEAR IMMEDIATELY (TCCM BIT 7).

.SBTTL T0005

T0005: SCOPE
 MOV #TRAP4, 4 ;SETUP FATAL TRAP VECTORS
 MOV #TRAP10, 10
 MOV #340, 6
 MOV #340, 12
 MOV #1000, SP ;SETUP THE STACK POINTER
 JSR PC, TORDER ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
 00005 ;HERE LIES THE NUMBER OF THIS TEST

R0005: MOV TCCM, R0 ;TCCM ADDR TO R0.
 CLR (0) ;SELECT UO, FUNCTION 0. (SAT COMMAND).
 INC (0) ;DO.
 TSTB (0) ;SEE IF READY IS SET.
 BPL A0005 ;BR IF READY NOT SET. (OK).
 ERROR 1 ;SAT COMMAND FAILED TO CLEAR READY.

A0005: MOV #1000, SP ;RESTORE THE STACK POINTER
 BR T0006 ;GO ON TO THE NEXT TEST
 ;CHECK THAT ISSUING SST COMMAND (STOP SELECTED TRANSPORT) CAUSES READY

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DZTCBC.P11 T0005

TC11 TEST #2

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964 ;BIT TO CLEAR IMMEDIATELY (TCCM BIT 7)
965 .SBTTL T0006
966 *****
967 003046 000004
968 003050 012706 001000
969 003054 004737 011614
970 003060 000006
971 003062 013700 001232
972 003066 012710 000010
973 003072 005210
974 003074 105710
975 003076 100001
976 003100 104002
977 003102
978 003102 012706 001000
979 003106 000400
980
981 ;TEST THAT READY BIT CAN CAUSE AN INTERRUPT. IF THE INTERRUPT IS SERVICED,
982 ;IT WILL HAVE OCCURRED AT THE CORRECT VECTOR.
983 .SBTTL T0007
984 *****
985 003110 000004
986 003112 012706 001000
987 003116 004737 011614
988 003122 000007
989 003124 004737 012022
990 003130 003154
991 003132 005077 176074
992 003136 005037 177776
993 003142 052777 000100 176062
994 003150 000240
995 003152 104003
996 003154
997 003154 012706 001000
998 003160 000400
999
1000 ;TEST THAT READY DOES NOT CAUSE INTERRUPT WITH PROCESSOR AT SAME PRIORITY
1001 ;LEVEL AS THE TC11 INTERRUPT PRIORITY.
1002 .SBTTL T0010
1003 *****
1004 003162 000004
1005 003164 012706 001000
1006 003170 004737 011614
1007 003174 000010
1008 003176 004737 012022
1009 003202 003240
1010 003204 013737 001244 177776
1011 003212 005077 176014
1012 003216 052777 000100 176006
1013 003224 000240
1014 003226 005077 176000
1015
1016 003232 012706 001000
1017 003236 000402
1018 003240 104000
1019 003242 000771

```

;BIT TO CLEAR IMMEDIATELY (TCCM BIT 7)

.SBTTL T0006

T0006: SCOPE

MOV #1000, SP

;SETUP THE STACK POINTER

JSR PC, TORDER

;MAKE SURE TESTS ARE IN PROPER SEQUENCE

00006

;HERE LIES THE NUMBER OF THIS TEST

R0006: MOV TCCM, R0

;TCCM ADDR TO R0

MOV #10, (0)

;SELECT UO, FUNCTION 100. (SST COMMAND).

INC (0)

;DO.

TSTB (0)

;SEE IF READY IS SET.

BPL A0006

;BR IF READY NOT SET. (OK).

ERROR 2

;SST COMMAND FAILED TO CLEAR READY.

A0006:

MOV #1000, SP

;RESTORE THE STACK POINTER

BR T0007

;GO ON TO THE NEXT TEST

;TEST THAT READY BIT CAN CAUSE AN INTERRUPT. IF THE INTERRUPT IS SERVICED,

;IT WILL HAVE OCCURRED AT THE CORRECT VECTOR.

.SBTTL T0007

T0007: SCOPE

MOV #1000, SP

;SETUP THE STACK POINTER

JSR PC, TORDER

;MAKE SURE TESTS ARE IN PROPER SEQUENCE

00007

;HERE LIES THE NUMBER OF THIS TEST

R0007: JSR PC, STTCV

;SET INTERRUPT VECTOR TO CB.

A0007

CLR @TCCM

;DISABLE TC11 INTERRUPTS.

CLR PSW

;SET PROCESSOR PRIORITY 0.

BIS #BIT6, @TCCM

;ENABLE TC11 INTERRUPTS.

NOP

ERROR 3

;READY DID NOT INTERRUPT.

A0007:

MOV #1000, SP

;RESTORE THE STACK POINTER

BR T0010

;GO ON TO THE NEXT TEST

;TEST THAT READY DOES NOT CAUSE INTERRUPT WITH PROCESSOR AT SAME PRIORITY

;LEVEL AS THE TC11 INTERRUPT PRIORITY.

.SBTTL T0010

T0010: SCOPE

MOV #1000, SP

;SETUP THE STACK POINTER

JSR PC, TORDER

;MAKE SURE TESTS ARE IN PROPER SEQUENCE

00010

;HERE LIES THE NUMBER OF THIS TEST

R0010: JSR PC, STTCV

;SET INTERRUPT VECTOR TO DC.

B0010

MOV TCLVL, PSW

;SET PROCESSOR TO SAME PRY AS TC11.

CLR @TCCM

;DISABLE TC11 INTERRUPTS.

BIS #BIT6, @TCCM

;ENABLE TC11 INTERRUPTS.

NOP

A0010: CLR @TCCM

;DISABLE TC11 INTERRUPTS. (OK).

MOV #1000, SP

;RESTORE THE STACK POINTER

BR T0011

;GO ON TO THE NEXT TEST

B0010: ERROR

;HERE IF INT. OCCURS.

BR A0010

;TC11 INTERRUPTED. WITH PROCESSOR AT SAME

;PRY AS TC11 INTERRUPT PRY.

;TEST THAT TC11 INTERRUPTS WHEN PROCESSOR IS AT PRIORITY ONE LEVEL LOWER

M02

MAINDEC-11-DZTCB-C
DZTCBC.P11

T0010

TC11 TEST #2

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1020 ;THAN THE TC11 INTERRUPT PRIORITY.
1021 .SBTTL T0011
1022 ;*****
1023 T0011: SCOPE
1024         MOV     #1000,SP      ;SETUP THE STACK POINTER
1025         JSR     PC,TORDER    ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1026         00011              ;HERE LIES THE NUMBER OF THIS TEST
1027         JSR     PC,STTCV     ;SET INTERRUPT VECTOR TO EB.
1028         A0011
1029         CLR     @TCCM        ;DISABLE TC11 INTERRUPTS.
1030         MOV     TCLVL,PSW    ;SET PROCESSOR TO PRY ONE LEVEL LOWER
1031         SUB     #40,PSW      ;THAN TC11 INTERRUPT PRY.
1032         BIS     #BIT6,@TCCM ;ENABLE TC11 INTERRUPTS.
1033         NOP
1034         ERROR 3              ;TC11 FAILED TO INT. WITH PROCESSOR AT
1035         BR       B0011        ;PRY ONE LEVEL LOWER THAN TC11 INT. PRY.
1036         A0011: POPSP2         ;HERE IF INT. OCCURS. POP STACK TWICE.
1037         B0011: CLR     @TCCM ;DISABLE TC11 INTERRUPTS.
1038
1039         MOV     #1000,SP      ;RESTORE THE STACK POINTER
1040         BR       T0012        ;GO ON TO THE NEXT TEST
1041
1042 ;TEST TC11 DOES NOT REINTERRUPT AFTER INITIAL INTERRUPT HAS BEEN SERVICED.
1043 .SBTTL T0012
1044 ;*****
1045 T0012: SCOPE
1046         MOV     #1000,SP      ;SETUP THE STACK POINTER
1047         JSR     PC,TORDER    ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1048         00012              ;HERE LIES THE NUMBER OF THIS TEST
1049         JSR     PC,STTCV     ;SET INTERRUPT VECTOR TO FC.
1050         B0012
1051         CLR     @TCCM        ;DISABLE TC11 INTERRUPTS.
1052         CLR     PSW          ;SET PROCESSOR PRY 0.
1053         BIS     #BIT6,@TCCM ;ENABLE TC11 INTERRUPTS.
1054         NOP
1055         ERROR 5              ;TC11 FAILED TO INTERRUPT.
1056         A0012: CLR     @TCCM ;DISABLE TC11 INTERRUPTS.
1057
1058         MOV     #1000,SP      ;RESTORE THE STACK POINTER
1059         BR       T0013        ;GO ON TO THE NEXT TEST
1060         B0012: MOV     #D0012,@TCVTR ;CHANGE INT POINTER TO FE.
1061         MOV     #C0012,@SP    ;CHANGE INT EXIT POINTER TO FD.
1062         RTI              ;EXIT INTERRUPT.
1063         C0012: NOP          ;OK IF NO INT. REOCCURS.
1064         BR       A0012
1065         D0012: POPSP2         ;HERE IF REINTERRUPT OCCURS.
1066         ERROR 6              ;TC11 REINTERRUPTED AFTER RTI.
1067         BR       A0012
1068 ;TEST THAT SETTING MAINTENANCE BIT (TCCM BIT 13) SETS UPS BIT (TCST BIT 7)
1069 ;THAT CLEARING MAINTENANCE BIT CLEARS UPS, AND THAT RESET CLEARS UPS.
1070 .SBTTL T0013
1071 ;*****
1072 T0013: SCOPE
1073         MOV     #1000,SP      ;SETUP THE STACK POINTER
1074         JSR     PC,TORDER    ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1075         00013              ;HERE LIES THE NUMBER OF THIS TEST

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MAINDEC-11-DZTCB-C
DZTCBC.P11

T0013

TC11 TEST #2

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1076 003456 032777 000200 175544 R0013: BIT #BIT7,ATCST ;SEE IF UPS IS CLEAR.
1077 003464 001402 BEQ A0013 ;BR IF UPS IS CLEAR.
1078 003466 104007 ERROR 7 ;RESET FAILED TO CLEAR UPS.
1079 003470 000421 BR C0013
1080 003472 052777 020000 175532 A0013: BIS #BIT13,ATCCM ;SET MAINTENANCE BIT.
1081 003500 032777 000200 175522 BIT #BIT7,ATCST ;SEE IF UPS IS SET.
1082 003506 001002 BNE B0013 ;BR IF UPS IS SET.
1083 003510 104010 ERROR 10 ;MAINT BIT FAILED TO SET UPS.
1084 003512 000410 BR C0013
1085 003514 042777 020000 175510 B0013: BIC #BIT13,ATCCM ;CLEAR MAINT BIT.
1086 003522 032777 000200 175500 BIT #BIT7,ATCST ;SEE IF UPS IS CLEAR.
1087 003530 001401 BEQ C0013 ;BR IF UPS IS CLEAR.
1088 003532 104011 ERROR 11 ;CLEARING MAINT. BIT FAILED TO CLEAR UPS.
1089 003534 052777 020000 175470 C0013: BIS #BIT13,ATCCM ;SET MAINT BIT TO SET UPS.
1090 003542 004737 012046 JSR PC,SRSETT ;ISSUE PESET TO CLEAR MAINT AND UPS BITS.
1091
1092 003546 012706 001000 MOV #1000,SP ;RESTORE THE STACK POINTER
1093 003552 000400 BR T0014 ;GO ON TO THE NEXT TEST
1094 ;TEST THAT SETTING MAINT. BIT DISABLES LOADING XD16 (TCST BIT 0).
1095 .SBTTL T0014
1096 *****
1097 003554 000004 T0014: SCOPE
1098 003556 012706 001000 MOV #1000,SP ;SETUP THE STACK POINTER
1099 003562 004737 011614 JSR PC,TORDER ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1100 003566 000014 00014 ;HERE LIES THE NUMBER OF THIS TEST
1101 003570 052777 020000 175434 R0014: BIS #BIT13,ATCCM ;SET MAINTENANCE BIT.
1102 003576 052777 000001 175424 BIS #BIT0,ATCST ;TRY SETTING XD16.
1103 003604 032777 000001 175416 BIT #BIT0,ATCST ;SEE IF XD16 IS SET.
1104 003612 001401 BEQ A0014 ;BR IF XD16 IS CLEAR.
1105 003614 104012 ERROR 12 ;MAINT BIT SET FAIL TO PREVENT LOADING
1106 003616 004737 012046 A0014: JSR PC,SRSETT ;OF XD16.
1107
1108 003622 012706 001000 MOV #1000,SP ;RESTORE THE STACK POINTER
1109 003626 000400 BR T0015 ;GO ON TO THE NEXT TEST
1110 ;TEST THAT SETTING MAINT. BIT DISABLES LOADING XD17 (TCST BIT 1).
1111 .SBTTL T0015
1112 *****
1113 003630 000004 T0015: SCOPE
1114 003632 012706 001000 MOV #1000,SP ;SETUP THE STACK POINTER
1115 003636 004737 011614 JSR PC,TORDER ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1116 003642 000015 00015 ;HERE LIES THE NUMBER OF THIS TEST
1117 003644 052777 020000 175360 R0015: BIS #BIT13,ATCCM ;SET MAINTENANCE BIT.
1118 003652 052777 000002 175350 BIS #BIT1,ATCST ;TRY SETTING XD17.
1119 003660 032777 000002 175342 BIT #BIT1,ATCST ;SEE IF XD17 IS SET.
1120 003666 001401 BEQ A0015 ;BR IF XD17 IS CLEAR.
1121 003670 104013 ERROR 13 ;MAINT BIT FAILED TO PREVENT SETTING
1122 003672 004737 012046 A0015: JSR PC,SRSETT ;OF XD17.
1123
1124 003676 012706 001000 MOV #1000,SP ;RESTORE THE STACK POINTER
1125 003702 000400 BR T0016 ;GO ON TO THE NEXT TEST
1126
1127 ;CHECK THAT ISSUING WATH COMMAND WITH WATH SWITCH OFF CAUSES AN ILO ERROR.
1128 ; (ILLEGAL OP- TCST BIT 12), AND THAT ERROR BIT SETS.; (TCCM BIT 15).
1129 ;TEST DONE WITH MAINTENANCE BIT SET.
1130 .SBTTL T0016
1131 *****

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B03

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D2TCBC.P11

T0016

T011 TEST #2

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1132 003704 000004 T0016: SCOPE
1133 003706 012706 001000 MOV #1000,SP ;SETUP THE STACK POINTER
1134 003712 004737 011614 JSR PC,TORDER ;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
1135 003716 000016 00016 ;HERE LIES THE NUMBER OF THIS TEST
1136 003720 012777 020012 175304 R0016: MOV #MAINT!FWD!UO!WRTM,ATCCM
1137 003726 000240 NOP
1138 003730 032777 010000 175272 BIT #BIT12,ATCST ;SEE IF ILO ERROR IS SET.
1139 003736 001002 BNE A0016 ;BR IF ILO ERR IS SET.
1140 003740 104014 ERROR 14 ;WRTM COMMAND WITH WRTM SWITCH DISABLED
1141 003742 000421 BR D0016 ;FAILED TO SET ILO ERROR.
1142 003744 005777 175262 A0016: TST ATCCM ;SEE IF ERROR BIT IS SET.
1143 003750 100402 BMI B0016 ;BR IF ERROR BIT IS SET.
1144 003752 104015 ERROR 15 ;ILO ERR FAILED TO SET ERROP BIT.
1145 003754 000414 BR D0016
1146 003756 005077 175250 B0016: CLR ATCCM ;CLEAR ILLEGAL COMMAND.
1147 003762 032777 010000 175240 BIT #BIT12,ATCST ;SEE IF ILO ERROR IS SET.
1148 003770 001402 BEQ C0016 ;BR IF ILO ERROR IS CLEAR.
1149 003772 104016 ERROR 16 ;CLEARING ILLEGAL OP FAILED TO CLEAR
1150 003774 000404 BR D0016 ;ILO ERROR.
1151 003776 005777 175230 C0016: TST ATCCM ;SEE IF ERROR BIT IS CLEAR.
1152 004002 100001 BPL D0016 ;BR IF ERROR IS CLEAR.
1153 004004 104017 ERROR 17 ;CLEARING ILLEGAL OP FAILED TO
1154 004006 004737 012046 D0016: JSR PC,SRSETT ;CLEAR ERROR BIT.
1155
1156 004012 012706 001000 MOV #1000,SP ;RESTORE THE STACK POINTER
1157 004016 000400 BR T0017 ;GO ON TO THE NEXT TEST
1158 ;CHECK THAT ISSUING WRTM COMMAND (WRITE TIMING AND MARK) WITH WRTM SWITCH
1159 ;OFF CAUSES AN ILO ERROR(ILLEGAL OP- TCST BIT 12) AND THAT ERROR BIT SETS.
1160 ;(TCCM BIT 15). TEST DONE WITH MAINTENANCE BIT SET.
1161 .SBTTL T0017
1162 *****
1163 004020 000004 T0017: SCOPE
1164 004022 012706 001000 MOV #1000,SP ;SETUP THE STACK POINTER
1165 004026 004737 011614 JSR PC,TORDER ;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
1166 004032 000017 00017 ;HERE LIES THE NUMBER OF THIS TEST
1167 004034 012777 020012 175170 R0017: MOV #MAINT!FWD!UO!WRTM,ATCCM
1168 004042 000240 NOP
1169 004044 032777 010000 175156 BIT #BIT12,ATCST ;SEE IF ILO ERR IS SET.
1170 004052 001002 BNE A0017 ;BR IF ILO SET.
1171 004054 104020 ERROR 20 ;WRTM WITH WRTM SW OFF FAILED TO SET
1172 004056 000421 BR D0017 ;ILO ERROR.
1173 004060 005777 175146 A0017: TST ATCCM ;ERROR BIT SET?
1174 004064 100402 BMI B0017 ;BR IF ERROR BIT SET.
1175 004066 104021 ERROR 21 ;ERROR BIT NOT SET WITH ILO ERR SET.
1176 004070 000414 BR D0017
1177 004072 005077 175134 B0017: CLR ATCCM ;CLEAR ILLEGAL COMMAND.
1178 004076 032777 010000 175124 BIT #BIT12,ATCST ;SEE IF ILO ER IS CLEAR.
1179 004104 001402 BEQ C0017 ;BR ID ILO ERR IS CLEAR.
1180 004106 104016 ERROR 16 ;CLEARING ILLEGAL OP FAILED TO
1181 004110 000404 BR D0017 ;CLEAR ILO ERR.
1182 004112 005777 175114 C0017: TST ATCCM ;ERROR BIT SET?
1183 004116 100001 BPL D0017 ;BR IF ERROR BIT IS CLEAR.
1184 004120 104017 ERROR 17 ;CLEARING ILLEGAL OP FAILED TO
1185 004122 004737 012046 D0017: JSR PC,SRSETT ;CLEAR ERROR BIT.
1186
1187 004126 012706 001000 MOV #1000,SP ;RESTORE THE STACK POINTER

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C03

MAINDEC-11-DZTCB-C
DZTCBC.P11

T001-

TC11 TEST #2

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1188 004132 000400      BR      T0020      ;GO ON TO THE NEXT TEST
1189
1190      ;TEST THAT CLEARING ERROR BIT DOES NOT CLEAR ILO ERROR.
1191      .SBTTL T0020
1192      ;*****
1193 004134 000004      T0020: SCOPE
1194 004136 012706 001000      MOV      #1000,SP      ;SETUP THE STACK POINTER
1195 004142 004737 011614      JSR      PC,TORDER      ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1196 004146 000020      00020      ;HERE LIES THE NUMBER OF THIS TEST
1197 004150 012777 020012 175054 R0020: MOV      #MAINT!FWD!UO!WRM,ATCCM
1198 004156 000240      NOP
1199 004160 005777 175046      TST      ATCCM      ;ERROR SET?
1200 004164 100402      BMI      A0020      ;BR IF ERROR BIT IS SET.
1201 004166 104023      ERROR 23      ;ERROR BIT FAILED TO SET.
1202 004170 000410      BR      B0020
1203 004172 042777 100000 175032 A0020: BIC      #BIT15,ATCCM      ;TRY CLEARING ERROR BIT.
1204 004200 ~32777 010000 175022      BIT      #BIT12,ATCST      ;ILO SET?
1205 004206 001001      BNE      B0020      ;BR IF ILO IS SET.
1206 004210 104022      ERROR 22      ;O TO ERROR BIT CLEARED ILO ERROR.
1207 004212 004737 012046      B0020: JSR      PC,SRSETT      ;RESET.
1208
1209 004216 012706 001000      MOV      #1000,SP      ;RESTORE THE STACK POINTER
1210 004222 000400      BR      T0021      ;GO ON TO THE NEXT TEST
1211      ;TEST THAT ERROR BIT (TCCM BIT15) IS ABLE TO CAUSE AN INTERRUPT.
1212      .SBTTL T0021
1213      ;*****
1214 004224 000004      T0021: SCOPE
1215 004226 012706 001000      MOV      #1000,SP      ;SETUP THE STACK POINTER
1216 004232 004737 011614      JSR      PC,TORDER      ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1217 004236 000021      00021      ;HERE LIES THE NUMBER OF THIS TEST
1218 004240 004737 012022      R0021: JSR      PC,STTCV      ;SET TC11 INT. VECTOR TO MB.
1219 004244 004272      A0021
1220 004246 005077 174760      CLR      ATCCM      ;DISABLE TC11 INTERRUPTS.
1221 004252 005037 177776      CLR      PSW      ;SET PRTY 0.
1222 004256 052777 000100 174746      BIS      #BIT6,ATCCM      ;ENABLE TC11 INTERRUPTS.
1223 004264 000240      NOP
1224 004266 104005      ERROR 5      ;TC11 FAILED TO INTERRUPT.
1225 004270 000415      BR      D0021
1226 004272 012777 004322 174742 A0021: MOV      #C0021,ATCVTR      ;CHANGE INT VECTOR TO MD.
1227 004300 012716 004306      MOV      #B0021,ASP      ;CHANGE INT EXIT POINTER TO MC.
1228 004304 000002      RTI      ;EXIT INTERRUPT.
1229 004306 052777 020012 174716 B0021: BIS      #MAINT!FWD!UO!WRM,ATCCM
1230 004314 000240      NOP
1231 004316 104024      ERROR 24      ;ERROR BIT FAILED TO INTERRUPT.
1232 004320 000401      BR      D0021
1233 004322 022626      C0021: POPSP2      ;HERE IF ERROR INTERRUPTS.
1234 004324 005077 174702      D0021: CLR      ATCCM      ;DISABLE INT. CLEAR ILLEGAL OP.
1235
1236 004330 012706 001000      MOV      #1000,SP      ;RESTORE THE STACK POINTER
1237 004334 000400      BR      T0022      ;GO ON TO THE NEXT TEST
1238
1239      ;TEST THAT ISSUING RNUM COMMAND (READ BLOCK #) CLEARS READY BIT.
1240      ;RESET INSTRUCTION SHOULD SET READY. TEST DONE WITH MAINT. BIT SET.
1241      .SBTTL T0022
1242      ;*****
1243 004336 000004      T0022: SCOPE

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DZTCBC.P11

T0022

TC11 TEST #2

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1244 004340 012706 001000      MOV      #1000,SP      ;SETUP THE STACK POINTER
1245 004344 004737 011614      JSR      PC,TORDER    ;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
1246 004350 000022              00022      ;HERE LIES THE NUMBER OF THIS TEST
1247 004352 105777 174654      R0022:  TSTB      @TCCM      ;READY SET?
1248 004356 100402              BMI      A0022      ;BR IF READY IS SET.
1249 004360 104025              ERROR 25      ;RESET DID NOT FORCE READY TO SET.
1250 004362 000407              BR      B0022
1251 004364 012777 020003 174640 A0022:  MOV      #MAINT!UO!FWD!RNUM!DO,@TCCM
1252 004372 105777 174634      TSTB      @TCCM      ;READY CLEAR?
1253 004376 100001              BPL      B0022      ;BR IF READY IS CLEAR.
1254 004400 104076              ERROR 76      ;RNUM DO, FAILED TO CLEAR READY.
1255 004402 004737 012046      B0022:  JSR      PC,SRSETT    ;ISSUE RESET TO FORCE READY TO SET.
1256
1257 004406 012706 001000      MOV      #1000,SP      ;RESTORE THE STACK POINTER
1258 004412 000400              BR      T0023      ;GO ON TO THE NEXT TEST
1259
1260      ;TEST THAT TC11 CONTROL CAN RECOGNIZE A BLOCK MARK. WITH MAINT BIT SET,
1261      ;RNUM COMMAND IS ISSUED. A SUBROUTINE PROVIDES TIMING AND MARK DATA.
1262      ;WHEN THE BLOCK MARK HAS BEEN SHIFTED INTO THE WINDOW, THE READY BIT SHOULD SET.
1263      .SBTTL T0023
1264      *****
1264 004414 000004      T0023:  SCOPE
1265 004416 012706 001000      MOV      #1000,SP      ;SETUP THE STACK POINTER
1266 004422 004737 011614      JSR      PC,TORDER    ;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
1267 004426 000023              00023      ;HERE LIES THE NUMBER OF THIS TEST
1268 004430 005077 174576      R0023:  CLR      @TCCM
1269 004434 012777 020003 174570      MOV      #MAINT!UO!FWD!RNUM!DO,@TCCM
1270 004442              MTCO0      MTK7,6
1271 004442 004537 012522      JSR      RS,LATCO0    ;CALL LOAD MT CODES SUB.
1272 004446 032666              MTK7              ;ADDRESS OF MARK TRACK CODES.
1273 004450 000006              6              ;MARK TRACK CODE COUNT.
1274 004452 005777 174554      TST      @TCCM      ;ERROR BIT SET?
1275 004456 100002              BPL      A0023      ;BR IF NO ERROR.
1276 004460 104027              ERROR 27      ;ERROR BIT SET. EXAMINE TCST OR LIGHT PANEL.
1277 004462 000404              BR      B0023
1278 004464 105777 174542      A0023:  TSTB      @TCCM      ;READY BIT SET?
1279 004470 100401              BMI      B0023      ;BR IF READY IS SET.
1280 004472 104030              ERROR 30      ;READY NOT SET AFTER BLOCK MARK WAS
1281              ;SHIFTED INTO WINDOW REG WITH RNUM COMMAND
1282              ;IN EFFECT.EVERYTHING IS SUSPECT AT THIS
1283              ;POINT. ABILITY TO SHIFT TIMING AND MARK
1284              ;DATA WHILE IN MAINT MODE HAS NOT BEEN
1285
1285 004474              B0023:
1286 004474 012706 001000      MOV      #1000,SP      ;RESTORE THE STACK POINTER
1287 004500 000400              BR      T0024      ;GO ON TO THE NEXT TEST
1288
1288      ;TEST THAT TC11 CONTROL TRANSFERS THE BLOCK NUMBER TO THE DATA REGISTER
1289      ;WHEN BLOCK MARK IS DETECTED AND CONTROL IS DOING RNUM COMMAND. A SUBROUTINE
1290      ;PROVIDES TIMING, MARK, AND DATA. WHEN THE READY BIT SETS, THE BLOCK #
1291      ;EXPECTED IN THE DATA REGISTER IS 000525.
1292      .SBTTL T0024
1293      *****
1294 004502 000004      T0024:  SCOPE
1295 004504 012706 001000      MOV      #1000,SP      ;SETUP THE STACK POINTER
1296 004510 004737 011614      JSR      PC,TORDER    ;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
1297 004514 000024              00024      ;HERE LIES THE NUMBER OF THIS TEST
1298 004516 005077 174510      R0024:  CLR      @TCCM
1299 004522 012777 020003 174502      MOV      #MAINT!UO!FWD!RNUM!DO,@TCCM

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E03

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CZTCBC.P11 T0024

TC11 TEST #2

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1300	004530		
1301	004530	004537	012522
1302	004534	032666	
1303	004536	000006	
1304	004540	022777	052525 174472
1305	004546	001415	
1306	004550	017737	174464 001164
1307	004556	012737	052525 001154
1308	004564	017737	174450 00115-
1309	004572	012737	052525 001154
1310	004600	104031	
1311	004602		
1312	004602	012706	001000
1313	004606	000400	
1314			
1315			
1316			
1317			
1318			
1319	004610	000004	
1320	004612	012706	001000
1321	004616	004737	011614
1322	004622	000025	
1323	004624	004537	012474
1324	004630	032636	
1325	004632	032740	
1326	004634	000006	
1327	004636	012777	020003 174366
1328	004644		
1329	004644	004537	012522
1330	004650	032666	
1331	004652	000011	
1332	004654	032777	020000 174346
1333	004662	001002	
1334	004664	104032	
1335	004666	000404	
1336	004670	005777	174336
1337	004674	100401	
1338	004676	104033	
1339	004700		
1340	004700	012706	001000
1341	004704	000400	
1342			
1343			
1344			
1345			
1346			
1347	004706	000004	
1348	004710	012706	001000
1349	004714	004737	011614
1350	004720	000026	
1351	004722	004537	012474
1352	004726	032644	
1353	004730	032716	
1354	004732	000006	
1355	004734	012777	020003 174270

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MICOD MTK7,6
JSR R5,LMTCD ;CALL LOAD MT CODES SUB.
MTK7 ;ADDRESS OF MARK TRACK CODES.
6 ;MARK TRACK CODE COUNT.
CMP #52525,@TCDT ;TCDT=52525?
BEQ A0024 ;BR IF TCDT CORRECT.
MOV @TCDT,$REG4 ;SETUP BLOK # FOR PRINTOUT
MOV #52525,$REG0 ;SETUP GOOD BLOK # TO PRINTOUT
MOV @TCDT,$REG4 ;SETUP BLOK # FOR PRINTOUT
MOV #52525,$REG0 ;SETUP GOOD BLOK # TO PRINTOUT
ERROR 31 ;ERROR.BLOCK # IN TCDT NOT 52525. EXAMINE TCDT.

A0024: MOV #1000,SP ;RESTORE THE STACK POINTER
BR T0025 ;GO ON TO THE NEXT TEST
;TEST THAT TC11 CONTROL IS ABLE TO DETECT AN INCORRECT MARK TRACK CODE.
;A SUBROUTINE PROVIDES TIMING AND MARK DATA WHILE CONTROL IS IN RNUM
;COMMAND. WHEN THE INCORRECT MARK IS SHIFTED, THE MTE AND ERR BITS SHOULD SET.
SBTTL T0025
*****
T0025: SCOPE
MOV #1000,SP ;SETUP THE STACK POINTER
JSR PC,TORDER ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
00025 ;HERE LIES THE NUMBER OF THIS TEST
R0025: JSR R5,BMOVE ;SET INVALID CODE IN MARK TRACK.
MTKER
MTKVAR
6
MOV #MAINT!UD!FWD!RNUM!DO,@TCCM
MTCOD MTK7,9.
JSR R5,LMTCD ;CALL LOAD MT CODES SUB.
MTK7 ;ADDRESS OF MARK TRACK CODES.
9. ;MARK TRACK CODE COUNT.
BIT #BIT13,@TCST ;MTE BIT SET? (MARK TRACK ERROR).
BNE A0025 ;BR IF MTE BIT IS SET.
ERROR 32 ;INVALID MARK TRACK CODE FAILED TO SET MTE.
BR B0025
A0025: TST @TCCM ;ERROR BIT SET?
BMI B0025 ;BR IF ERROR BIT IS SET.
ERROR 33 ;MTE BIT FAILED TO SET ERROR BIT.
B0025: MOV #1000,SP ;RESTORE THE STACK POINTER
BR T0026 ;GO ON TO THE NEXT TEST
;TEST THAT TC11 CONTROL DETECTS END ZONE MARK CODES. A SUBROUTINE PROVIDES
;TIMING AND MARK DATA WHILE CONTROL IS IN RNUM COMMAND. WHEN THE ENDZ
;MARK CODE IS SHIFTED INTO THE WINDOW, THE ENDZ AND ERROR BITS SHOULD SET.
SBTTL T0026
*****
T0026: SCOPE
MOV #1000,SP ;SETUP THE STACK POINTER
JSR PC,TORDER ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
00026 ;HERE LIES THE NUMBER OF THIS TEST
R0026: JSR R5,BMOVE ;SET END CODE IN MARK TRACK.
MTKEND
MTK5
6
MOV #MAINT!UD!FWD!RNUM!DO,@TCCM

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F03

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DZTCBC.P11

T0026

TC11 TEST #2

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1356	004742			MTCOD	MTK7,5	
1357	004742	004537	012522	JSR	R5,LMTCOD	;CALL LOAD MT CODES SUB.
1358	004746	032666		MTK7		;ADDRESS OF MARK TRACK CODES.
1359	004750	000005		5		;MARK TRACK CODE COUNT.
1360	004752	005777	174252	TST	@TCST	;ENDZ BIT SET?
1361	004756	100402		BMI	A0026	;BR IF ENDZ BIT IS SET.
1362	004760	104034		ERROR 34		;ENDZ MARK FAILED TO SET ENDZ BIT.
1363	004762	000404		BR	B0026	
1364	004764	005777	174242	A0026: TST	@TCCM	;ERROR BIT SET?
1365	004770	100401		BMI	B0026	;BR IF ERROR BIT IS SET.
1366	004772	104035		ERROR 35		;ENDZ BIT FAILED TO SET ERROR BIT.
1367	004774			B0026:		
1368	004774	012706	001000	MOV	#1000,SP	;RESTORE THE STACK POINTER
1369	005000	000400		BR	T0027	;GO ON TO THE NEXT TEST
1370				;TEST THAT TC11 CONTROL DOES NOT RECOGNIZE MARK TRACK CODE 55 AS END ZONE		
1371				;BLOCK MARK. SUBROUTINE PROVIDES TIMING AND MARK DATA.		
1372				.SBTTL T0027		
1373				*****		
1374	005002	000004		T0027: SCOPE		
1375	005004	012706	001000	MOV	#1000,SP	;SETUP THE STACK POINTER
1376	005010	004737	011614	JSR	PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1377	005014	000027		00027		;HERE LIES THE NUMBER OF THIS TEST
1378	005016	004537	012474	R0027: JSR	R5,BMOVE	;SET CODE 55 IN MARK TRACK.
1379	005022	032652		MTK55		
1380	005024	032716		MTK5		
1381	005026	000006		6		
1382	005030	005077	174176	CLR	@TCCM	
1383	005034	012777	020003 174170	MOV	#MAINT!UO!FWD!RNUM!DO,@TCCM	
1384	005042			MTCOD	MTK7,5	
1385	005042	004537	012522	JSR	R5,LMTCOD	;CALL LOAD MT CODES SUB.
1386	005046	032666		MTK7		;ADDRESS OF MARK TRACK CODES.
1387	005050	007005		5		;MARK TRACK CODE COUNT.
1388	005052	005777	174152	TST	@TCST	;ENDZ BIT SET?
1389	005056	100002		BPL	A0027	;BR IF NOT SET.
1390	005060	104036		ERROR 36		;MARK CODE 55 INTERPRETED AS END ZONE.
1391	005062	000404		BR	B0027	
1392	005064	005777	174142	A0027: TST	@TCCM	;ERROR BIT SET?
1393	005070	100001		BPL	B0027	;BR IF NO ERROR.
1394	005072	104037		ERROR 37		;ERROR BIT SET. EXAMINE TCST.
1395	005074			B0027:		
1396	005074	012706	001000	MOV	#1000,SP	;RESTORE THE STACK POINTER
1397	005100	000400		BR	T0030	;GO ON TO THE NEXT TEST
1398				;TEST THAT TC11 INTERRUPTS. RNUM COMMAND IS ISSUED. SUBROUTINE PROVIDES		
1399				;TIMING AND MARK. WHEN BLOCK IS FOUND INTERRUPT SHOULD OCCUR.		
1400				.SBTTL T0030		
1401				*****		
1402	005102	000004		T0030: SCOPE		
1403	005104	012706	001000	MOV	#1000,SP	;SETUP THE STACK POINTER
1404	005110	004737	011614	JSR	PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1405	005114	000030		00030		;HERE LIES THE NUMBER OF THIS TEST
1406	005116	004737	012022	R0030: JSR	PC,STTCV	;SET INTERRUPT VECTOR TO UE.
1407	005122	005162		00030		
1408	005124	005077	174102	CLR	@TCCM	
1409	005130	012777	020103 174074	MOV	#MAINT!UO!FWD!IE!RNUM!DO,@TCCM	
1410	005136			MTCOD	MTK7,4	
1411	005136	004537	012522	JSR	R5,LMTCOD	;CALL LOAD MT CODES SUB.

G03

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DZTCBC.P11

T0030

TC11 TEST #2

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1412	005142	032666			MTK7		; ADDRESS OF MARK TRACK CODES.
1413	005144	000004			4		; MARK TRACK CODE COUNT.
1414	005146	105777	174060		TSTB	ATCCM	; READY SET?
1415	005152	100402			BMI	A0030	; BR IF READY SET.
1416	005154	104040			ERROR 40		; READY DID NOT SET.
1417	005156	000401			BR	D0030	
1418	005160	104003			A0030: ERROR 3		; READY FAILED TO INTERRUPT.
1419	005162				D0030:		
1420	005162	012706	001000		MOV	#1000, SP	; RESTORE THE STACK POINTER
1421	005166	000400			BR	T0031	; GO ON TO THE NEXT TEST
1422					; TEST THAT TC11 IS ABLE TO TRANSFER ONE WORD TO CORE STORAGE. SUBROUTINE		
1423					; PROVIDES TIMING AND MARK. AFTER BLOCK IS "FOUND" TEST SWITCHES TO		
1424					; RDATA COMMAND WITH WORD COUNT OF -1.		
1425					.SBTTL T0031		
1426					*****		
1427	005170	000004			T0031: SCOPE		
1428	005172	012706	001000		MOV	#1000, SP	; SETUP THE STACK POINTER
1429	005176	004737	011614		JSR	PC, TORDER	; MAKE SURE TESTS ARE IN PROPER SEQUENCE
1430	005202	000031			00031		; HERE LIES THE NUMBER OF THIS TEST
1431	005204	004737	012316		R0031: JSR	PC, CLABUF	; CLEAR READ BUFFER.
1432	005210	004737	012022		JSR	PC, STICV	; SET INTERRUPT VECTOR TO VG.
1433	005214	005360			G0031		
1434	005216	005077	174010		CLR	ATCCM	
1435	005222	012777	020103	174002	MOV	#MAINT!UO!FWD!IE!RNUM!DO, ATCCM	
1436	005230				MTCOD	MTK7, 7	
1437	005230	004537	012522		JSR	RS, LMTCOD	; CALL LOAD MT CODES SUB.
1438	005234	032666			MTK7		; ADDRESS OF MARK TRACK CODES.
1439	005236	000007			7		; MARK TRACK CODE COUNT.
1440	005240	005777	173766		TST	ATCCM	; ERROR BIT SET?
1441	005244	100002			BPL	A0031	; BR IF NO ERROR.
1442	005246	104041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1443	005250	000440			BR	F0031	
1444	005252	105777	173754		A0031: TSTB	ATCCM	; READY BIT SET?
1445	005256	100002			BPL	B0031	; BR IF READY NOT SET.
1446	005260	104042			ERROR 42		; READY SHOULD NOT BE SET.
1447	005262	000433			BR	F0031	
1448	005264	022737	050505	036010	B0031: CMP	#50505, RBUF	; SEE IF 1ST WORD IN RBUF IS 50505.
1449	005272	001405			BEQ	C0031	; BR IF WORD IS 50505.
1450	005274	012737	050505	001154	MOV	#50505, \$REG0	; GOOD DATA FOR PRINTOUT
1451	005302	104043			ERROR 43		; WORD IN RBUF IS NOT 50505. EXAMINE RBUF.
1452	005304	000422			BR	F0031	; TRANSFER MAY NOT HAVE OCCURRED.
1453	005306	005777	173722		C0031: TST	ATCWC	; WORD COUNT 0?
1454	005312	001407			BEQ	D0031	; BR IF WORD COUNT IS 0.
1455	005314	017737	173714	001164	MOV	ATCWC, \$REG4	; PREPARE ERONIOUS WORD COUNT FOR PRINTOUT
1456	005322	005077	173626		CLR	\$REG0	; PREPARE GOOD WORD COUNT INFO FOR PRINTOUT
1457	005326	104044			ERROR 44		; WORD COUNT NOT 0.
1458	005330	000410			BR	F0031	
1459	005332	022777	036012	173676	D0031: CMP	#RBUF+2, ATCBA	; DID BUS ADDRESS INCREMENT CORRECTLY?
1460	005340	001404			BEQ	F0031	; BR IF TCBA IS CORRECT.
1461	005342	017737	173670	001164	MOV	ATCBA, \$REG4	
1462	005350	104045			ERROR 45		; TCBA DID NOT INCREMENT OR DID IT INCORRECTLY.
1463	005352				F0031:		
1464	005352	012706	001000		MOV	#1000, SP	; RESTORE THE STACK POINTER
1465	005356	000421			BR	T0032	; GO ON TO THE NEXT TEST
1466	005360	005777	173646		G0031: TST	ATCCM	; HERE WHEN RNUM INTERRUPTS. ERROR BIT SET?
1467	005364	100004			BPL	T0031	; BR IF NO ERROR.

H03

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T0031

TC11 TEST #2

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1468	005366	104041			ERROR 41		;ERROR BIT SET. EXAMINE TCST.
1469							
1470	005370	012706	001000		MOV	#1000,SP	;RESTORE THE STACK POINTER
1471	005374	000412			BR	T0032	;GO ON TO THE NEXT TEST
1472	005376	012777	177777	173630	10031: MOV	#-1,ATCWC	;SET WORD COUNT TO -1.
1473	005404	012777	036010	173624	MOV	#RBUF,ATCBA	;SET BUS ADDR TO RBUF.
1474	005412	112777	000005	173612	MOVB	#RDATA!DO,ATCCM	;READ DATA COMMAND.
1475	005420	000002			RTI		;EXIT INTERRUPT.
1476							
1477							
1478							
1479							
1480							
1481	005422	000004					
1482	005424	012706	001000		T0032: SCOPE		
1483	005430	004737	011614		MOV	#1000,SP	;SETUP THE STACK POINTER
1484	005434	000032			JSR	PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1485	005436	004737	012316		00032		;HERE LIES THE NUMBER OF THIS TEST
1486	005442	004737	012022		R0032: JSR	PC,CLABUF	;CLEAR READ BUFFER.
1487	005446	005632			JSR	PC,STTCV	;SET INTERRUPT VECTOR TO WI.
1488	005450	005077	173556		I0032		
1489	005454	012777	020103	173550	CLR	ATCCM	
1490	005462				MOV	#MAINT!UD!FWD!IE!RNUM!DO,ATCCM	
1491	005462	004537	012522		MTCCD	MTK7,267.	
1492	005466	032666			JSR	R5,LATCOD	;CALL LOAD MT CODES SUB.
1493	005470	000413			MTK7		;ADDRESS OF MARK TRACK CODES.
1494	005472	005777	173534		267.		;MARK TRACK CODE COUNT.
1495	005476	100010			TST	ATCCM	;ERROR BIT SET?
1496	005500	032777	040000	173522	BPL	B0032	;BR IF NO ERROR.
1497	005506	001402			BIT	#BIT14,ATCST	;WAS IT PARITY ERROR?
1498	005510	104046			BEQ	A0032	;BR IF NOT PARITY ERROR.
1499	005512	000444			ERROR 46		;PARITY ERROR.
1500	005514	104041			BR	H0032	
1501	005516	000442			A0032: ERROR 41		;ERROR BIT SET. NOT DUE TO PARITY ERROR.
1502	005520	105777	173506		BR	H0032	
1503	005524	100402			B0032: TSTB	ATCCM	;READY BIT SET?
1504	005526	104047			BMI	C0032	;BR IF READY IS SET.
1505	005530	000435			ERROR 47		;READY FAILED TO SET AFTER COMPLETION
1506	005532	022737	050505	036010	BR	H0032	;OF RDATA COMMAND.
1507	005540	001405			C0032: CMP	#50505,RBUF	;1ST WORD EQUAL 50505?
1508	005542	012737	050505	001154	BEQ	D0032	;BR IF WORD IS 50505.
1509	005550	104043			MOV	#50505,%REG0	;GOOD DATA FOR PRINTOUT
1510	005552	000424			ERROR 43		;1ST WORD DID NOT TRANSFER TO RBUF CORRECTLY.
1511	005554	005737	036012		BR	H0032	
1512	005560	001402			D0032: TST	RBUF+2	;RBUF+2 EQUAL 0?
1513	005562	104050			BEQ	F0032	;BR IF RBUF+2 EQUAL 0.
1514	005564	000417			ERROR 50		;RBUF+2 NOT 0. NO DATA SHOULD HAVE
1515	005566	005777	173442		BR	H0032	;TRANSFERRED TO IT.
1516	005572	001407			F0032: TST	ATCWC	;WORD COUNT 0?
1517	005574	017737	173434	001164	BEQ	G0032	;BR IF WORD COUNT IS 0.
1518	005602	005077	173346		MOV	ATCWC,%REG4	;PREPARE ERONIOUS WORD COUNT FOR PRINTOUT
1519	005606	104044			CLR	%REG0	;PREPARE GOOD WORD COUNT INFO FOR PRINTOUT
1520	005610	000405			ERROR 44		;WORD COUNT NOT 0.
1521	005612	022777	036012	173416	BR	H0032	
1522	005620	001401			G0032: CMP	#RBUF+2,ATCBA	;IS BUS ADDR CORRECT?
1523	005622	104045			BEQ	H0032	;BR IF TCBA OK.
					ERROR 45		;TCBA ADDR INCORRECT. SHOULD CONTAIN RBUF+2.

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T0032

TC11 TEST #2

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1524	005624				H0032:	MOV	#1000,SP	;RESTORE THE STACK POINTER
1525	005624	012706	001000			BR	T0033	;GO ON TO THE NEXT TEST
1526	005630	000421			I0032:	TST	@TCCM	;HERE WHEN RNUM INTERRUPTS. ERROR?
1527	005632	005777	173374			BPL	K0032	;BR IF NO ERROR.
1528	005636	100004				ERROR 41		;ERROR BIT SET. EXAMINE TCST.
1529	005640	104041						
1530								
1531	005642	012706	001000			MOV	#1000,SP	;RESTORE THE STACK POINTER
1532	005646	000412				BR	T0033	;GO ON TO THE NEXT TEST
1533	005650	012777	177777	173356	K0032:	MOV	#-1,@TCWC	;SET WORD COUNT TO -1.
1534	005656	012777	036010	173352		MOV	#RBUF,@TCBA	;SET BUS ADDR TO RBUF.
1535	005664	112777	000005	173340		MOVB	#RDATA!DO,@TCCM	;READ DATA COMMAND.
1536	005672	000002				RTI		;EXIT INTERRUPT.
1537								;TEST THAT TC11 IS ABLE TO DETECT INCORRECT PARITY. RDATA COMMAND IS ISSUED.
1538								;TCWC=-1. BLOCK TO BE READ CONTAINS BAD CHECKSUM. TEST DONE IN MAINT. MODE.
1539								.SBTTL T0033
1540								*****
1541	005674	000004			T0033:	SCOPE		
1542	005676	012706	001000			MOV	#1000,SP	;SETUP THE STACK POINTER
1543	005702	004737	011614			JSR	PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1544	005706	000033				00033		;HERE LIES THE NUMBER OF THIS TEST
1545	005710	004737	013000		R0033:	JSR	PC,MBCSM	;BAD CHECKSUM TO FCKSM.
1546	005714	004737	012316			JSR	PC,CLRBUF	;CLEAR READ BUFFER.
1547	005720	004737	012022			JSR	PC,STTCV	;SET INTERRUPT VECTOR TO XE.
1548	005724	006042				00033		
1549	005726	005077	173300			CLR	@TCCM	
1550	005732	012777	020103	173272		MOV	#MAINT!UO!FWD!IE!RNUM!DO,@TCCM	
1551	005740					MTCOD	MTK7,267.	
1552	005740	004537	012522			JSR	R5,LATCOD	;CALL LOAD MT CODES SUB.
1553	005744	032666				MTK7		;ADDRESS OF MARK TRACK CODES.
1554	005746	000413				267.		;MARK TRACK CODE COUNT.
1555	005750	032777	040000	173252		BIT	#BIT14,@TCST	;PARITY ERROR SET?
1556	005756	001005				BNE	A0033	;BR IF PARITY ERROR SET.
1557	005760	017737	173250	001154		MOV	@TCWC,\$REGO	
1558	005766	104052				ERROR 52		;PARITY ERROR NOT DETECTED.(BIT NOT SET).
1559	005770	000421				BR	C0033	
1560	005772	005777	173234		A0033:	TST	@TCCM	;ERROR BIT SET?
1561	005776	100405				BMI	B0033	;BR IF ERROR BIT SET.
1562	006000	017737	173230	001154		MOV	@TCWC,\$REGO	
1563	006006	104053				ERROR 53		;PARITY ERROR DID NOT SET ERROR BIT.
1564	006010	000411				BR	C0033	
1565	006012	005077	173214		B0033:	CLR	@TCCM	;CLEAR COMMAND REGISTER.
1566	006016	005777	173210			TST	@TCCM	;ERROR BIT CLEAR?
1567	006022	100004				BPL	C0033	;BR IF ERROR BIT IS CLEAR.
1568	006024	017737	173204	001154		MOV	@TCWC,\$REGO	
1569	006032	104054				ERROR 54		;CLEARING TCCM FAILED TO CLEAR PARITY ERROR.
1570	006034				C0033:			
1571	006034	012706	001000			MOV	#1000,SP	;RESTORE THE STACK POINTER
1572	006040	000421				BR	T0034	;GO ON TO THE NEXT TEST
1573	006042	005777	173164		D0033:	TST	@TCCM	;HERE WHEN RNUM INTERRUPTS. ERROR?
1574	006046	100004				BPL	G0033	;BR IF NO ERROR.
1575	006050	104041				ERROR 41		;ERROR BIT SET. EXAMINE TCST.
1576								
1577	006052	012706	001000			MOV	#1000,SP	;RESTORE THE STACK POINTER
1578	006056	000412				BR	T0034	;GO ON TO THE NEXT TEST
1579	006060	012777	177777	173146	G0033:	MOV	#-1,@TCWC	; -1 TO WORD COUNT.

J03

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T0033

TC11 TEST #2

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1580 006066 012777 036010 173142      MOV      #RBUF,ATCBA      ;SET BUS ADDR TO RBUF.
1581 006074 112777 000005 173130      MOV      #RDATA!DO,ATCCM ;RDATA COMMAND.
1582 006102 000002                      RTI                ;EXIT INTERRUPT.
1583                                     ;READ 256 WORDS WITH RDATA COMMAND UNDER MAINTENANCE MODE. ALL DATA SHOULD
1584                                     ;TRANSFER CORRECTLY. NO CONTROL ERRORS SHOULD OCCUR.
1585                                     .SBTTL T0034
1586                                     *****
1587 006104 000004      T0034: SCOPE
1588 006106 012706 001000      MOV      #1000,SP      ;SETUP THE STACK POINTER
1589 006112 004737 011614      JSR      PC,TORDER      ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1590 006116 000034      D0034      ;HERE LIES THE NUMBER OF THIS TEST
1591 006120 004737 012316      R0034: JSR      PC,CLRBUF      ;CLEAR READ BUFFER.
1592 006124 004737 012022      JSR      PC,STTCV      ;SET INTERRUPT VECTOR TO YF.
1593 006130 006246      F0034
1594 006132 005077 173074      CLR      ATCCM
1595 006136 012777 020103 173066      MOV      #MAINT!UO!FWD!IE!RNUM!DO,ATCCM
1596 006144      MTCOD      MTK7,267.
1597 006144 004537 012522      JSR      R5,LATCOD      ;CALL LOAD MT CODES SUB.
1598 006150 032666      MTK7      ;ADDRESS OF MARK TRACK CODES.
1599 006152 000413      267.      ;MARK TRACK CODE COUNT.
1600 006154 005777 173052      TST      ATCCM      ;ERROR BIT SET?
1601 006160 100002      BPL      A0034      ;BR IF NO ERROR.
1602 006162 104041      ERROR 41      ;ERROR BIT SET. EXAMINE TCST.
1603 006164 000425      BR      D0034
1604 006166 005777 173042      A0034: TST      ATCWC      ;WORD COUNT 0?
1605 006172 001407      BEQ      B0034      ;BR IF WORD COUNT IS 0.
1606 006174 017737 173034 001164      MOV      ATCWC,$REG4      ;PREPARE ERONIOUS W'RD COUNT FOR PRINTOUT
1607 006202 005077 172746      CLR      $REG0      ;PREPARE GOOD WORD COUNT INFO FOR PRINTOUT
1608 006206 104044      ERROR 44      ;WORD COUNT NOT 0.
1609 006210 000413      BR      D0034
1610 006212 022777 037010 173016      B0034: CMP      #RBUF+512.,ATCBA ;BUS ADDR CORRECT?
1611 006220 001402      BEQ      C0034      ;BR IF TCBA OK.
1612 006222 104051      ERROR 51      ;TCBA INCORRECT. SHOULD BE EQUAL TO
1613 006224 000405      BR      D0034      ;RBUF+512.
1614 006226 004537 013014      C0034: JSR      R5,CKDAT      ;COMPARE 256 WORDS STARTING AT RBUF.
1615 006232 001270      SBDAT1      ;REPORT ANY ERRORS.
1616 006234 036010      RBUF
1617 006236 000400      256.
1618      D0034:
1619 006240 012706 001000      MOV      #1000,SP      ;RESTORE THE STACK POINTER
1620 006244 000421      BR      T0035      ;GO ON TO THE NEXT TEST
1621 006246 005777 172760      F0034: TST      ATCCM      ;HERE WHEN RNUM INTERRUPTS. ERROR?
1622 006252 100004      BPL      H0034      ;BR IF NO ERROR.
1623 006254 104041      ERROR 41      ;ERROR BIT SET. EXAMINE TCST.
1624
1625 006256 012706 001000      MOV      #1000,SP      ;RESTORE THE STACK POINTER
1626 006262 000412      BR      T0035      ;GO ON TO THE NEXT TEST
1627 006264 012777 177400 172742      H0034: MOV      #-256.,ATCWC      ;-256 TO WORD COUNT.
1628 006272 012777 036010 172736      MOV      #RBUF,ATCBA      ;SET BUS ADDR TO RBUF.
1629 006300 112777 000005 172724      MOV      #RDATA!DO,ATCCM ;READ DATA COMMAND.
1630 006306 000002      RTI                ;EXIT INTERRUPT.
1631                                     ;READ 2 DATA BLOCKS (512 WORDS) WITH RDATA COMMAND UNDER MAINTENANCE MODE.
1632                                     ;ALL DATA SHOULD TRANSFER CORRECTLY. NO ERRORS SHOULD OCCUR.
1633                                     .SBTTL T0035
1634                                     *****
1635 006310 000004      T0035: SCOPE

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K03

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T0035

TC11 TEST #2

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1636	006312	012706	001000		MOV	#1000, SP	; SETUP THE STACK POINTER
1637	006316	004737	011614		JSR	PC, TORDER	; MAKE SURE TESTS ARE IN PROPER SEQUENCE
1638	006322	000035			00035		; HERE LIES THE NUMBER OF THIS TEST
1639	006324	004737	012316		JSR	PC, CLRBUF	; CLEAR READ BUFFER.
1640	006330	004737	012022		JSR	PC, STTCV	; SET INTERRUPT VECTOR TOZF.
1641	006334	006452			F0035		
1642	006336	005077	172670		CLR	@TCCM	
1643	006342	012777	020103	172662	MOV	#MAINT!UO!FWD!IE!RNUM!DO, @TCCM	
1644	006350				MTCOD	MTK7, 534.	
1645	006350	004537	012522		JSR	R5, LMTCD	; CALL LOAD MT CODES SUB.
1646	006354	032666			MTK7		; ADDRESS OF MARK TRACK CODES.
1647	006356	001026			534.		; MARK TRACK CODE COUNT.
1648	006360	005777	172646		TST	@TCCM	; ERROR BIT SET?
1649	006364	100002			BPL	A0035	; BR IF NO ERROR.
1650	006366	104041			ERROR 41		; ERROR BIT SET EXAMINE TCST.
1651	006370	000425			BR	D0035	
1652	006372	005777	172636		TST	@TCWC	; WORD COUNT 0?
1653	006376	001407			BEQ	B0035	; BR IF WORD COUNT IS 0.
1654	006400	017737	172630	001164	MOV	@TCWC, \$REG4	; PREPARE ERONIOUS WORD COUNT FOR PRINTOUT
1655	006406	005077	172542		CLR	@\$REG0	; PREPARE GOOD WORD COUNT INFO FOR PRINTOUT
1656	006412	104044			ERROR 44		; WORD COUNT NOT 0.
1657	006414	000413			BR	D0035	
1658	006416	022777	040010	172612	B0035: CMP	#RBUF+1024., @TCBA	; TCBA CORRECT?
1659	006424	001402			BEQ	C0035	; BR IF TCBA IS OK.
1660	006426	104045			ERROR 45		; TCBA INCORRECT. SHOULD BE RBUF+1024.
1661	006430	000405			BR	D0035	
1662	006432	004537	013014		C0035: JSR	R5, CKDAT	; COMPARE 512 WORDS STARTING AT RBUF.
1663	006436	001270			SBDAT1		; REPORT ANY ERRORS.
1664	006440	036010			RBUF		
1665	006442	001000			512.		
1666	006444				D0035:		
1667	006444	012706	001000		MOV	#1000, SP	; RESTORE THE STACK POINTER
1668	006450	000421			BR	T0036	; GO ON TO THE NEXT TEST
1669	006452	005777	172554		F0035: TST	@TCCM	; HERE WHEN RNUM INTERRUPTS. ERROR?
1670	006456	100004			BPL	H0035	; BR IF NO ERROR.
1671	006460	104041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1672							
1673	006462	012706	001000		MOV	#1000, SP	; RESTORE THE STACK POINTER
1674	006466	000412			BR	T0036	; GO ON TO THE NEXT TEST
1675	006470	012777	177000	172536	H0035: MOV	#-512., @TCWC	; -512 TO WORD COUNT.
1676	006476	012777	036010	172532	MOV	#RBUF, @TCBA	; SET BUS ADDR TO RBUF.
1677	006504	112777	000005	172520	MOVB	#RDATA!DO, @TCCM	; READ DATA COMMAND.
1678	006512	000002			RTI		; EXIT INTERRUPT.
1679							
1680							; READ 1.5 BLOCKS (384 WORDS) WITH RDATA COMMAND UNDER MAINTENANCE MODE.
1681							; ALL DATA SHOULD TRANSFER CORRECTLY. NO ERRORS SHOULD OCCUR.
1682							.SBTTL T0036
1683	006514	000004			T0036: SCOPE		
1684	006516	012706	001000		MOV	#1000, SP	; SETUP THE STACK POINTER
1685	006522	004737	011614		JSR	PC, TORDER	; MAKE SURE TESTS ARE IN PROPER SEQUENCE
1686	006526	000036			00036		; HERE LIES THE NUMBER OF THIS TEST
1687	006530	004737	012316		JSR	PC, CLRBUF	; CLEAR READ BUFFER.
1688	006534	004737	012022		JSR	PC, STTCV	; SET INTERRUPT VECTOR TO AIF.
1689	006540	006654			F0036		
1690	006542	005077	172464		CLR	@TCCM	
1691	006546	012777	020103	172456	MOV	#MAINT!UO!FWD!IE!RNUM!DO, @TCCM	

1692	006554				MTCOD	MTK7, 534.	
1693	006554	004537	012522		JSR	R5, LMTCOD	; CALL LOAD MT CODES SUB.
1694	006560	032666			MTK7		; ADDRESS OF MARK TRACK CODES.
1695	006562	001026			534.		; MARK TRACK CODE COUNT.
1696	006564	005777	172442		TST	@TCCM	; ERROR BIT SET?
1697	006570	100002			BPL	A0036	; BR IF NO ERROR.
1698	006572	104041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1699	006574	000424			BR	D0036	
1700	006576	005777	172432		TST	@TCWC	; WORD COUNT 0?
1701	006602	001407			BEQ	B0036	; BR IF WORD COUNT 0.
1702	006604	017737	172424	001164	MOV	@TCWC, \$REG4	; PREFERE ERONIOUS WORD COUNT FOR PRINTOUT
1703	006612	005077	172336		CLR	@\$REG0	; PREPARE GOOD WORD COUNT INFO FOR PRINTOUT
1704	006616	104044			ERROR 44		; WORD COUNT NOT 0.
1705	006620	000412			BR	D0036	
1706	006622	022777	037410	172406	B0036: CMP	#RBUF+768., @TCBA	; TCBA CORRECT?
1707	006630	001401			BEQ	C0036	; BR IF TCBA OK.
1708	006632	104045			ERROR 45		; TCBA INCORRECT. SHOULD BE RBUF+768.
1709	006634	004537	013014		C0036: JSR	R5, CKDAT	; COMPARE 384 WORDS STARTING AT RBUF.
1710	006640	001270			SBDAT1		; REPORT ANY ERRORS.
1711	006642	036010			RBUF		
1712	006644	000600			384.		
1713	006646				D0036:		
1714	006646	012706	001000		MOV	#1000, SP	; RESTORE THE STACK POINTER
1715	006652	000421			BR	T0037	; GO ON TO THE NEXT TEST
1716	006654	005777	172352		F0036: TST	@TCCM	; HERE WHEN RNUM INTERRUPTS. ERROR?
1717	006660	100004			BPL	H0036	; BR IF NO ERROR.
1718	006662	104041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1719							
1720	006664	012706	001000		MOV	#1000, SP	; RESTORE THE STACK POINTER
1721	006670	000412			BR	T0037	; GO ON TO THE NEXT TEST
1722	006672	012777	177200	172334	H0036: MOV	#-384., @TCWC	; -384 TO WORD COUNT.
1723	006700	012777	036010	172330	MOV	#RBUF, @TCBA	; SET BUS ADDR TO RBUF.
1724	006706	112777	000005	172316	MOVB	#RDATA!DO, @TCCM	; READ DATA COMMAND.
1725	006714	000002			RTI		; EXIT INTERRUPT.
1726							; COMPLEMENT OBVERSE READ TEST. READ ONE BLOCK (256 WORDS) WITH RDATA IN REVERSE.
1727							; ALL DATA SHOULD COMPLEMENT OBVERSE CORRECTLY. NO CONTROL ERRORS SHOULD OCCUR.
1728							; SBTTL T0037
1729							; *****
1730	006716	000004			T0037: SCOPE		
1731	006720	012706	001000		MOV	#1000, SP	; SETUP THE STACK POINTER
1732	006724	004737	011614		JSR	PC, TORDER	; MAKE SURE TESTS ARE IN PRPOER SEQUENCE
1733	006730	000037			D0037		; HERE LIES THE NUMBER OF THIS TEST
1734	006732	004737	012316		R0037: JSR	PC, CLRBUF	; CLEAR READ BUFFER
1735	006736	004737	012022		JSR	PC, STICV	; SET INTERRUPT VECTOR TO BID
1736	006742	007020			C0037		
1737	006744	005077	172262		CLR	@TCCM	
1738	006750	012777	024103	172254	MOV	#MAINT!UO!REV!IE!RNUM!DO, @TCCM	
1739	006756				MTCOD	MTK7, 267.	
1740	006756	004537	012522		JSR	R5, LMTCOD	; CALL LOAD MT CODES SUB.
1741	006762	032666			MTK7		; ADDRESS OF MARK TRACK CODES.
1742	006764	000413			267.		; MARK TRACK CODE COUNT.
1743	006766	005777	172240		TST	@TCCM	; ERROR BIT SET?
1744	006772	100002			BPL	A0037	; BR IF NO ERROR.
1745	006774	104041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1746	006776	000405			BR	B0037	
1747	007000	004537	013014		A0037: JSR	R5, CKDAT	; COMPARE 256 WORDS STARTING AT RBUF.

M03

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T0037

T011 TEST #2

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1748 007004 001274          SBDAT2          ;REPORT ANY ERRORS.
1749 007006 036010          RBUF
1750 007010 000400          256.
1751 007012
1752 007012 012706 001000    B0037: MOV      #1000,SP          ;RESTORE THE STACK POINTER
1753 007016 000421          BR      T0040          ;GO ON TO THE NEXT TEST
1754 007020 005777 172206    C0037: TST      @TCCM          ;HERE WHEN RNUM INTERRUPTS. ERROR.
1755 007024 100004          BPL      F0037          ;BR IF NO ERROR.
1756 007026 104041          ERROR 41          ;ERROR BIT SET. EXAMINE TCST.
1757
1758 007030 012706 001000    MOV      #1000,SP          ;RESTORE THE STACK POINTER
1759 007034 000412          BR      T0040          ;GO ON TO THE NEXT TEST
1760 007036 012777 177400 172170 F0037: MOV      #-256,@TCWC          ;-256 TO AND COUNT.
1761 007044 012777 036010 172164    MOV      @RBUF,@TCBA          ;ADDR OF RBUF TO BUS ADDRESS.
1762 007052 112777 000005 172152    MOV      @RDATA!DO,@TCCM          ;READ DATA COMMAND.
1763 007060 000002          RTI          ;EXIT INTERRUPT
1764          ;CHECK FOR CORRECT OPERATION OF BLOCK MISS ERROR.
1765          .SBTTL T0040
1766          *****
1767 007062 000004          T0040: SCOPE
1768 007064 012706 001000    MOV      #1000,SP          ;SETUP THE STACK POINTER
1769 007070 004737 011614    JSR      PC,TORDER          ;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1770 007074 000040          00040          ;HERE LIES THE NUMBER OF THIS TEST
1771 007076 005077 172130    R0040: CLR      @TCCM
1772 007102 012777 177776 172124    MOV      #-2,@TCWC          ; -2 TO WORD COUNT.
1773 007110 012777 036010 172120    MOV      @RBUF,@TCBA          ;RBUF ADDR TO TCBA.
1774 007116 012777 020003 172106    MOV      @MAINT!UO!FWD!RNUM!DO,@TCCM
1775 007124          MTCOD      MTK7,5
1776 007124 004537 012522    JSR      R5,LMTCOD          ;CALL LOAD MT CODES SUB.
1777 007130 032666          MTK7          ;ADDRESS OF MARK TRACK CODES.
1778 007132 000005          5          ;MARK TRACK CODE COUNT.
1779 007134 005777 172072    TST      @TCCM          ;ERROR BIT SET?
1780 007140 100002          BPL      A0040          ;BR IF NO ERROR.
1781 007142 104041          R0040A: ERROR 41          ;ERROR BIT SET EXAMINE TCST.
1782 007144 000506          BR      F0040
1783 007146 112777 000005 172056 A0040: MOV      @RDATA!DO,@TCCM          ;ISSUE RDATA COMMAND.
1784 007154          MTCOD      MTK7A,2
1785 007154 004537 012522    JSR      R5,LMTCOD          ;CALL LOAD MT CODES SUB.
1786 007160 032724          MTK7A          ;ADDRESS OF MARK TRACK CODES.
1787 007162 000002          2          ;MARK TRACK CODE COUNT.
1788 007164 032777 002000 172036    BIT      @BIT10,@TCST          ;BLOCK MISS ERROR SET?
1789 007172 001405          BEQ      B0040          ;BR IF NO BLOCK MISS. OK.
1790 007174 017737 172034 001154    MOV      @TCWC,$REG0          ;MAKE WORD COUNT INFO PRINTABLE
1791 007202 104055          ERROR 55          ;BLOCK MISS SET WHEN RDATA ISSUED JUST
1792 007204 000466          BR      F0040          ;BEFORE REV CHECK MARK. SHOULDN'T HAVE.
1793 007206 005077 172020    B0040: CLR      @TCCM
1794 007212 012777 177776 172014    MOV      #-2,@TCWC          ; -2 TO WORD COUNT.
1795 007220 012777 036010 172010    MOV      @RBUF,@TCBA          ;RBUF ADDR TO TCBA.
1796 007226 012777 020003 171776    MOV      @MAINT!UO!FWD!RNUM!DO,@TCCM
1797 007234          MTCOD      MTK7,6
1798 007234 004537 012522    JSR      R5,LMTCOD          ;CALL LOAD MT CODES SUB.
1799 007240 032666          MTK7          ;ADDRESS OF MARK TRACK CODES.
1800 007242 000006          6          ;MARK TRACK CODE COUNT.
1801 007244 005777 171762    TST      @TCCM          ;ERROR BIT SET?
1802 007250 100734          BMI      R0040A          ;BR IF ERROR BIT SET?
1803 007252 112777 000005 171752    MOV      @RDATA!DO,@TCCM          ;ISSUE RDATA COMMAND.

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N03

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T0040

TC11 TEST #2

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1804	007260				MTCOD	MTK7B,2	
1805	007260	004537	012522		JSR	R5,LMTCOD	;CALL LOAD MT CODES SUB.
1806	007264	032732			MTK7B		;ADDRESS OF MARK TRACK CODES.
1807	007266	000002			2		;MARK TRACK CODE COUNT.
1808	007270	032777	002000	171732	BIT	#BIT10,@TCST	;BLOCK MISS ERROR SET?
1809	007276	001005			BNE	CO040	;BR IF BLOCK MISS.
1810	007300	017737	171730	001154	MOV	@TCWC,\$REGO	;MAKE WORD COUNT INFO PRINTABLE
1811	007306	104056			ERROR 56		;BLOCK MISS FAILED TO SET WHEN RDATA ISSUED
1812	007310	000424			BR	FO040	;RIGHT AFTER REV CHECK MARK. IT SHOULD HAVE.
1813	007312	005777	171714		TST	@TCCM	;ERROR BIT SET?
1814	007316	100405			BMI	DO040	;BR IF ERROR BIT SET.
1815	007320	017737	171710	001154	MOV	@TCWC,\$REGO	;MAKE WORD COUNT INFO PRINTABLE
1816	007326	104057			ERROR 57		;BLOCK MISS FAILED TO SET ERROR BIT.
1817	007330	000414			BR	FO040	
1818	007332	005077	171674		CLR	@TCCM	;0 TO ERROR BIT.
1819	007336	032777	002000	171666	BIT	#BIT10,@TCCM	;BLOCK MISS CLEARED?
1820	007344	001406			BEG	FO040	;BR IF BLOCK MISS CLEARED.
1821	007346	017737	171662	001154	MOV	@TCWC,\$REGO	;MAKE WORD COUNT INFO PRINTABLE
1822	007354	104060			ERROR 60		;0 TO ERROR FAILED TO CLEAR BLOCK MISS.
1823	007356	004737	012046		JSR	PC,\$RSETT	
1824	007362				FO040:		
1825	007362	012706	001000		MOV	#1000,SP	;RESTORE THE STACK POINTER
1826	007366	000400			BR	T0041	;GO ON TO THE NEXT TEST
1827							
1828							;READ ALL TEST (RALL)
1829							;AFTER BLOCK IS FOUND, SWITCH TO RALL. READ 258 WORDS. 1ST WORD READ SHOULD BE
1830							;THE REVERSE CHECKSUM (SHOULD BE 0). LAST WORD READ SHOULD BE THE FORWARD
1831							;CHECKSUM (SHOULD BE 770000). ALL OTHER WORDS SHOULD BE DATA.
1832							;SBTTL T0041
1833	007370	000004					*****
1834	007372	012706	001000		T0041:	SCOPE	
1835	007376	004737	011614		MOV	#1000,SP	;SETUP THE STACK POINTER
1836	007402	000041			JSR	PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1837	007404	004737	012316		DO041		;HERE LIES THE NUMBER OF THIS TEST
1838	007410	004737	012022		RO041:	JSR	PC,CLRBUFF
1839	007414	007604			JSR	PC,STTCV	;CLEAR READ BUFFER.
1840	007416	005077	171610		FO041		;SET INTERRUPT VECTOR TO EIF.
1841	007422	012777	020103	171602	CLR	@TCCM	
1842	007430				MOV	#MAINT!UD!FWD!IE!RNUM!DO,@TCCM	
1843	007430	004537	012522		MTCOD	MTK7,267.	
1844	007434	032666			JSR	R5,LMTCOD	;CALL LOAD MT CODES SUB.
1845	007436	000413			MTK7		;ADDRESS OF MARK TRACK CODES.
1846	007440	005777	171566		267.		;MARK TRACK CODE COUNT.
1847	007444	100002			RO041A:	TST	@TCCM
1848	007446	104041			BPL	RO041B	;ERROR BIT SET?
1849	007450	000461			ERROR 41		;BR IF NO ERROR.
1850	007452	017724	171562		BR	GO041	;ERROR BIT SET. EXAMINE TCST.
1851	007456	005337	001266		RO041B:	MOV	@TCDT,(4)+
1852	007462	001401			DEC	CTRA	;SAVE DATA IN READ BUFFER.
1853	007464	000002			BEG	A0041	;258 WORDS READ?
1854	007466	005737	036010		RTI		;BR IF 258 WORDS READ.
1855	007472	001416			A0041:	TST	RBUF
1856	007474	022737	055555	036010	BEG	DO041	;NOT DONE YET. EXIT INTERRUPT.
1857	007502	001002			CMP	#55555,RBUF	;1ST WORD IN RBUF EQUAL 0?
1858	007504	104043			EVE	BO041	;BR IF 1ST WORD IS 0.
1859	007506	000442			ERROR 43		;1ST WORD EQUAL 55555?
					BR	GO041	;BR IF NOT 55555.
							;55555. 1ST WORD READ WITH RALL WAS
							;REV GUARD INSTEAD OF REV CHECKSUM.

Line	Address	Offset	Label	Instruction	Comment
1860	007510	022737	066666 036010	80041: CMP #66666,RBUF	;1ST WORD EQUAL 66666?
1861	007516	001002		BNE C0041	;BR IF NOT 66666.
1862	007520	104043		ERROR 43	;66666. 1ST WORD READ WITH RALL WAS
1863	007522	000434		BR G0041	;REV LOCK INSTEAD OF REV CHECKSUM.
1864	007524	104043	C0041: ERROR 43		;1ST WORD READ WITH RALL WAS NOT
1865	007526	000432		BR G0041	;REV CHECKSUM. EXAMINE RBUF (1ST WORD).
1866	007530	004537	013014	D0041: JSR R5,CKDAT	
1867	007534	001270		SBDAT1	
1868	007536	036012		RBUF+2	
1869	007540	000400		256.	
1870	007542	022737	170000 037012	CMP #170000,RBUF+514.	;FWD CHKSUM EQUAL 170000? 1ST WORD READ.
1871	007550	001402		BEQ D0041A	
1872	007552	104061		ERROR 61	;LAST WORD READ SHOULD HAVE BEEN THE FWD CHECKSUM.
1873	007554	000417		BR G0041	;IN CORE IT SHOULD BE 170000.
1874	007556	005777	171452	D0041A: TST @TCWC	;WORD COUNT STILL 0?
1875	007558	001402		BEQ D0041B	
1876	007560	104062		ERROR 62	;TCWC (WORD COUNT) WAS MODIFIED DURING
1877	007562	000412		BR G0041	;RALL. SHOULDN'T HAVE.
1878	007570	022777	036010 171440	D0041B: CMP #RBUF,@TCBA	;BUS ADDRESS STILL EQUAL #RBUF?
1879	007576	001406		BEQ G0041	
1880	007600	104063		ERROR 63	;TCBA (BUS ADDRESS) MODIFIED DURING
1881	007602	000404		BR G0041	;RALL. SHOULDN'T HAVE.
1882	007604	005777	171422	F0041: TST @TCOM	;HERE WHEN RNUM INTERRUPTS. ERROR!
1883	007610	100004		BPL I0041	;BR IF NO ERROR.
1884	007612	104041		ERROR 41	;ERROR BIT SET. EXAMINE TCST.
1885	007614		G0041:		
1886	007614	012706	001000	MOV #1000,SP	;RESTORE THE STACK POINTER
1887	007620	000421		BR T0042	;GO ON TO THE NEXT TEST
1888	007622	012737	000402 001266	I0041: MOV #258,CTRA	;NUMBER OF WORDS TO READ TO CTRA.
1889	007630	012704	036010	MOV #RBUF,R4	;ADDR TO STORE DATA TO R4.
1890	007634	005077	171374	CLR @TCWC	;ZERO WORD COUNT.
1891	007640	012777	036010 171370	MOV #RBUF,@TCBA	;SET BUS ADDRESS TO RBUF.
1892	007646	004737	012022	JSR PC,STTCV	;SET INTERRUPT VECTOR TO E1AA.
1893	007652	007440		R0041A	
1894	007654	112777	000107 171350	MOVB #RALL!IE!DO,@TCOM	;RALL COMMAND.
1895	007662	000002		RTI	;EXIT INTERRUPT.
1896					;DATA MISS TEST. TEST THAT DATA MISS ERROR SETS WHEN DATA REGISTER (TCDT) IS
1897					;NOT REFERENCED UNDER RALL COMMAND, BEFORE THE NEXT DATA WORD IS LOADED INTO
1898					;THE DATA REGISTER. (READY BIT IS CLEARED WHEN IN RALL BY REFERENCING
1899					;THE DATA REGISTER (TCDT).
1900					.SBTTL T0042
1901					*****
1902	007664	000004		T0042: SCOPE	
1903	007666	012706	001000	MOV #1000,SP	;SETUP THE STACK POINTER
1904	007672	004737	011614	JSR PC,TORDER	;MAKE SURE TESTS ARE IN PROPER SEQUENCE
1905	007676	000042		00042	;HERE LIES THE NUMBER OF THIS TEST
1906	007700	004737	012022	R0042: JSR PC,STTCV	;SET INTERRUPT VECTOR TO F1E.
1907	007704	010006		D0042	
1908	007706	005077	171320	CLR @TCOM	
1909	007712	012777	020103 171312	MOV #MAINT!UO!FWD!IE!RNUM!DO,@TCOM	
1910	007720			HTC00	
1911	007720	004537	012522	JSR R5,LATC00	;CALL LOAD MT CODES SUB.
1912	007724	032666		HTK7	;ADDRESS OF MARK TRACK CODES.
1913	007726	000007		7	;MARK TRACK CODE COUNT.
1914	007730	032777	001000 171272	BIT #BIT9,@TCST	;DATA MISS ERROR SET?
1915	007736	001002		BNE A0042	;BR IF DATA MISS IS SET.

C04

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T0042

TC11 TEST #2

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1916	007740	104064			ERROR 64		; DATA MISS FAILED TO SET.
1917	007742	000416			BR C0042		
1918	007744	005777	171262		A0042: TST 2TCCM		; ERROR BIT SET?
1919	007750	100402			6MI 80042		; BR IF ERROR BIT SET.
1920	007752	104065			ERROR 65		; DATA MISS FAILED TO SET ERROR BIT.
1921	007754	000411			BR C0042		
1922	007756	005077	171250		B0042: CLR 2TCCM		; 0 TO ERROR BIT.
1923	007762	032777	001000	171240	BIT 8BIT9, 2TCST		; DATA MISS CLEARED?
1924	007770	001403			BEQ C0042		; BR IF DATA MISS IS CLEAR.
1925	007772	104066			ERROR 66		; 0 TO ERROR FAILED TO CLEAR DATA MISS.
1926	007774	004737	012046		JSR PC, SRSETT		
1927	010000				C0042:		
1928	010000	012706	001000		MOV 81000, SP		; RESTORE THE STACK POINTER
1929	010004	000422			BR T0043		; GO ON TO THE NEXT TEST
1930	010006	005777	171220		D0042: TST 2TCCM		; HERE WHEN RNUM INTERRUPTS. ERROR?
1931	010012	100004			BPL G0042		; BR IF NO ERROR.
1932	010014	154041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1933							
1934	010016	012706	001000		MOV 81000, SP		; RESTORE THE STACK POINTER
1935	010022	000413			BR T0043		; GO ON TO THE NEXT TEST
1936	010024	004737	012022		G0042: JSR PC, STTCV		; SET INTERRUPT VECTOR TO FIH.
1937	010030	010042			H0042		
1938	010032	112777	000107	171172	MOVB 8RALL! IE! DO, 2TCCM		; ISSUE RALL. IE SET.
1939	010040	000002			RTI		; EXIT INTERRUPT.
1940	010042	112777	000007	171162	H0042: MOVB 8RALL! DO, 2TCCM		; HERE WHEN RALL INTERRUPTS. DISABLE INTERRUPTS,
1941	010050	000002			RTI		; DO NOT READ TCDT. EXIT INTERRUPT.
1942							; WRITE DATA TEST. AFTER BLOCK NUMBER IS "FOUND" ISSUE WDATA COMMAND
1943							; UNDER MAINTENANCE MODE, WORD COUNT = -256, TCBA = RBUF. AFTER
1944							; EACH MARK TRACK CODE IS PASSED, THE DATA IN THE DATA REGISTER IS SAVED.
1945							; WHEN THE OPERATION IS COMPLETED, A COMPARE OF WRITE DATA AND THE DATA
1946							; REGISTER DATA SAVED IS MADE TO SEE IF THEY MATCH. WORD COUNT AND TCBA
1947							; ARE ALSO CHECKED FOR CORRECT CONTENTS.
1948							; SBTTL T0043
1949							*****
1950	010052	000004			T0043: SCOPE		
1951	010054	012706	001000		MOV 81000, SP		; SETUP THE STACK POINTER
1952	010060	004737	011614		JSR PC, TORDER		; MAKE SURE TESTS ARE IN PROPER SEQUENCE
1953	010064	000043			00043		; HERE LIES THE NUMBER OF THIS TEST
1954	010066	004737	012700		R0043: JSR PC, LBOAT1		; SET UP WRITE DATA (256 WORDS).
1955	010072	005077	171134		CLR 2TCCM		
1956	010076	012777	020003	171126	MOV 8MAINT! UO! FWD! RNUM! DO, 2TCCM		
1957	010104				MTCD0 MTK7, 5		
1958	010104	004537	012522		JSR R5, LMTCD0		; CALL LOAD MT CODES SUB.
1959	010110	032666			MTK7		; ADDRESS OF MARK TRACK CODES.
1960	010112	000005			5		; MARK TRACK CODE COUNT.
1961	010114	005777	171112		TST 2TCCM		; ERROR BIT SET?
1962	010120	100002			BPL A0043		; BR IF NO ERROR.
1963	010122	104041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1964	010124	000457			BR G0043		
1965	010126	012777	177400	171100	A0043: MOV 8-256, 2TCWC		; -256 TO WORD COUNT.
1966	010134	012777	036010	171074	MOV 8RBUF, 2TCBA		; ADDR OF RBUF TO TCBA.
1967	010142	012704	037010		MOV 8RBUF+512, R4		; ADDR TO SAVE TCDT DATA TO R4.
1968	010146	112777	000015	171056	MOVB 8WDATA! DO, 2TCCM		; ISSUE WDATA COMMAND.
1969	010154				MTCD0E H0043, MTK7A, 262.		
1970	010154	004537	012672		JSR R5, LMTCD0E		; CALL LOAD MT CODES SUBROUTINE.
1971	010160	010272			H0043		; ADDR TO GO AFTER EACH CODE PASSED.

D04

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T0043

TC11 TEST #2

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1972	010162	032724			MTK7A		; ADDRESS OF MARK TRACK CODES.
1973	010164	000406			262.		; MARK TRACK CODE COUNT.
1974	010166	005777	171040		TST	@TCOM	; ERROR BIT SET?
1975	010172	100002			BPL	B0043	; BR IF NO ERROR.
1976	010174	104041			ERROR 41		; ERROR BIT SET. EXAMINE TCST.
1977	010176	000432			BR	G0043	
1978	010200	105777	171026		TSTB	@TCOM	; READY BIT SET?
1979	010204	100402			BMI	C0043	; BR IF READY IS SET.
1980	010206	104067			ERROR 67		; READY BIT FAILED TO SET.
1981	010210	000425			BR	G0043	
1982	010212	005777	171016		TST	@TCWC	; WORD COUNT 0?
1983	010216	001407			BEQ	D0043	; BR IF WORD COUNT IS 0.
1984	010220	017737	171010	001164	MOV	@TCWC, \$REG4	; PREPARE ERONIOUS WORD COUNT FOR PRINTOUT
1985	010226	005077	170722		CLR	@\$REG0	; PREPARE GOOD WORD COUNT INFO FOR PRINTOUT
1986	010232	104044			ERROR 44		; WORD COUNT NOT 0.
1987	010234	000413			BR	G0043	
1988	010236	022777	037010	170772	COMP	@RBUF+512., @TCBA	; TCBA CORRECT?
1989	010244	001402			BEQ	F0043	; BR IF TCBA CORRECT.
1990	010246	104045			ERROR 45		; TCBA INCORRECT. SHOULD BE RBUF+512.
1991	010250	000405			BR	G0043	
1992	010252	004537	013014		JSR	R5, CKDAT	; COMPARE WRITE DATA AGAINST TCDT SAVED
1993	010256	001270			SB DAT1		; DATA. REPORT ERRORS.
1994	010260	037010			RBUF+512.		
1995	010262	000400			256.		
1996	010264				G0043:		
1997	010264	012706	001000		MOV	@1000, SP	; RESTORE THE STACK POINTER
1998	010270	000403			BR	T0044	; GO ON TO THE NEXT TEST
1999	010272	017724	170742		H0043:	MOV	@TCDT, (4)+
2000	010276	000002			RTI		; HERE AFTER EACH MARK CODE IS PASSED.
2001							; SAVE TCDT DATA AND EXIT IOT TRAP.
2002							
2003							
2004	010300	000004					
2005	010302	012706	001000				
2006	010306	004737	011614				
2007	010312	000044					
2008	010314	004737	012700				
2009	010320	005077	170706				
2010	010324	012777	024003	170700			
2011	010332						
2012	010332	004537	012522				
2013	010336	032666					
2014	010340	000005					
2015	010342	005777	170664				
2016	010346	100002					
2017	010350	104041					
2018	010352	000432					
2019	010354	012777	177400	170652			
2020	010362	012777	036010	170646			
2021	010370	012704	037010				
2022	010374	112777	000015	170630			
2023	010402						
2024	010402	004537	012672				
2025	010406	010446					
2026	010410	032724					
2027	010412	000406					

; WRITE DATA COMPLEMENT OBVERSE TEST.

.SBTTL T0044

;*****

T0044: SCOPE

MOV @1000, SP

JSR PC, TORDER

D0044

R0044: JSR PC, LBDAT1

CLR @TCOM

MOV @MAINT!UO!REV!RNUM!DO, @TCOM

MTCOD

JSR R5, LMTCOD

MTK7

S

TST @TCOM

BPL A0044

ERROR 41

BR C0044

A0044: MOV @-256, @TCWC

MOV @RBUF, @TCBA

MOV @RBUF+512, R4

MOVB @WDATA!DO, @TCOM

MTCOE

JSR D0044, MTK7A, 262.

D0044

MTK7A

262.

; SETUP THE STACK POINTER

; MAKE SURE TESTS ARE IN PROPER SEQUENCE

; HERE LIES THE NUMBER OF THIS TEST

; SET UP WRITE DATA (256 WORDS).

; CALL LOAD MT CODES SUB.

; ADDRESS OF MARK TRACK CODES.

; MARK TRACK CODE COUNT.

; ERROR BIT SET?

; BR IF NO ERROR.

; ERROR BIT SET EXAMINE TCST.

; -256 TO WORD COUNT.

; ADDR OF RBUF TO TCBA.

; ADDR TO SAVE TCDT DATA TO R4.

; ISSUE WDATA COMMAND.

; CALL LOAD MT CODES SUBROUTINE.

; ADDR TO GO AFTER EACH CODE PASSED.

; ADDRESS OF MARK TRACK CODES.

; MARK TRACK CODE COUNT.

E04

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T0044

TC11 TEST #2

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2028	010414	005777	170612		TST	ATCCM		;ERROR BIT SET?
2029	010420	100002			BPL	B0044		;BR IF NO ERROR.
2030	010422	104041			ERROR 41			;ERROR BIT SET. EXAMINE TCST.
2031	010424	000405			BR	C0044		
2032	010426	004537	013014	B0044:	JSR	RS,CKDAT		;CHECK THAT SAVED TCDT DATA WAS COMP.EMENT
2033	010432	001300			SBDAT3			;OBSERVED CORRECTLY.
2034	010434	037010			RBUF+512.			
2035	010436	000400			256.			
2036	010440			C0044:				
2037	010440	012706	001000		MOV	#1000,SP		;RESTORE THE STACK POINTER
2038	010444	000403			BR	T0045		;GO ON TO THE NEXT TEST
2039	010446	017724	170566	D0044:	MOV	ATCDT,(4)+		;HERE AFTER EACH MARK CODE IS PASSED.
2040	010452	000002			RTI			;SAVE TCDT DATA AND EXIT IOT TRAP.
2041								
2042					;WRITE ALL TEST.			
2043					.SBTTL T0045			
2044	010454	000004			*****			
2045	010456	012706	001000	T0045:	SCOPE			
2046	010462	004737	011614		MOV	#1000,SP		;SETUP THE STACK POINTER
2047	010466	000045			JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PROPER SEQUENCE
2048	010470	004737	012700	R0045:	00045			;HERE LIES THE NUMBER OF THIS TEST
2049	010474	005077	170532		JSR	PC,LBDAT1		;SET UP WRITE DATA.
2050	010500	012777	020003	170524	CLR	ATCCM		
2051	010506				MOV	#MAINT!UO!FWD!RNUM!DO,ATCCM		
2052	010506	004537	012522		MTCD	MTK7,4		
2053	010512	032666			JSR	RS,LMTCD		;CALL LOAD MT CODES SUB.
2054	010514	000004			MTK7			;ADDRESS OF MARK TRACK CODES.
2055	010516	005777	170510		4			;MARK TRACK CODE COUNT.
2056	010522	100002			TST	ATCCM		;ERROR BIT SET?
2057	010524	104041			BPL	A0045		;BR IF NO ERROR.
2058	010526	000470			ERROR 41			;ERROR BIT SET. EXAMINE TCST.
2059	010530	005077	170500	A0045:	BR	G0045		
2060	010534	012777	036010	170474	CLR	ATCWC		;0 TO WORD COUNT.
2061	010542	012703	036006		MOV	#RBUF,ATCBA		;ADDR OF RBUF TO TCBA.
2062	010546	012704	037010		MOV	#RBUF-2,R3		
2063	010552	012737	000402	001266	MOV	#RBUF+512,R4		
2064	010560	004737	012022		MOV	#258,CTRA		;# OF WORDS TO WRITE TO CTRA.
2065	010564	010606			JSR	PC,STICV		;SET INTERRUPT VECTOR TO IIC.
2066	010566	112777	000117	170436	B0045			
2067	010574				MOV	#WALL!IE!DO,ATCCM;ISSUE WRITE ALL COMMAND. INTERRUPT ENABLED.		
2068	010574	004537	012672		MTCD	I0045,MTK5,260.		
2069	010600	010716			JSR	RS,LMTCD		;CALL LOAD MT CODES SUBROUTINE.
2070	010602	032716			I0045			;ADDR TO GO AFTER EACH CODE PASSED.
2071	010604	000404			MTK5			;ADDRESS OF MARK TRACK CODES.
2072	010606	005777	170420	B0045:	260.			;MARK TRACK CODE COUNT.
2073	010612	100002			TST	ATCCM		;ERROR BIT SET?
2074	010614	104041			BPL	B0045A		;BR IF NO ERROR.
2075	010616	000434			ERROR 41			;ERROR BIT SET. EXAMINE TCST.
2076	010620	012377	170414	B0045A:	BR	G0045		
2077	010624	005337	001266		MOV	(3)+,ATCDT		;WRITE DATA TO TCDT.
2078	010630	001401			DEC	CTRA		;WROTE 257 WORDS?
2079	010632	000002			BEQ	C0045		;BR IF 257 WORDS WRITTEN.
2080	010634	005737	037010	C0045:	RTI			;NOT DONE. EXIT INTERRUPT.
2081	010640	001404			TST	#RBUF+512.		;1ST WORD WRITTEN EQUAL 0?
2082	010642	005037	001154		BEQ	D0045		;BR IF FIRST WORD 0.
2083	010646	104070			CLR	SREGD		
					ERROR 70			;1ST WORD WRITTEN NOT 0. (REV CHECKSUM).

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DZTCBC.P11

T0045

TC11 TEST #2

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2084	010650	000417							
2085	010652	004537	013014		00045:	JSR	R5,CKDAT		;CHECK THAT SAVED TCDT DATA MATCHES
2086	010656	001270				SBDAT1			;WRITE DATA.
2087	010660	037012				RBUF+514.			
2088	010662	000400				256.			
2089	010664	005777	170344			TST	ATCWC		;WORD COUNT STILL 0?
2090	010670	001402				BEQ	F0045		;BR IF WORD COUNT IS 0.
2091	010672	104071				ERROR 71			;WORD COUNT MODIFIED DURING WRITE ALL.
2092	010674	000405				BR	G0045		
2093	010676	022777	036010	170332	F0045:	CMP	#RBUF,ATCBA		;TCBA STILL EQUAL RBUF?
2094	010704	001401				BEQ	G0045		;BR IF TCBA STILL SAME.
2095	010706	104072				ERROR 72			;TCBA MODIFIED DURING WRITE ALL.
2096	010710				G0045:				
2097	010710	012706	001000			MOV	#1000,SP		;RESTORE THE STACK POINTER
2098	010714	000403				BR	T0046		;GO ON TO THE NEXT TEST
2099	010716	017724	170316		I0045:	MOV	ATCDT,(4)+		;HERE AFTER EACH MARK CODE IS PASSED.
2100	010722	000002				RTI			;SAVE TCDT DATA AND EXIT IOT TRAP.
2101									
2102									
2103									
2104	010724	000004							
2105	010726	012706	001000		T0046:	SCOPE			
2106	010732	004737	011614			MOV	#1000,SP		;SETUP THE STACK POINTER
2107	010736	000046				JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PROPER SEQUENCE
2108	010740	004537	013142		R0046:	00046			;HERE LIES THE NUMBER OF THIS TEST
2109	010744	000400				JSR	R5,CKSELE		;SST TO U1.
2110	010746	104073				U1			
2111						ERROR 73			;SST TO U1 DID NOT CAUSE SELECT ERROR.
2112	010750	012706	001000			MOV	#1000,SP		;RESTORE THE STACK POINTER
2113	010754	000400				BR	T0047		;GO ON TO THE NEXT TEST
2114									
2115									
2116	010756	000004							
2117	010760	012706	001000		T0047:	SCOPE			
2118	010764	004737	011614			MOV	#1000,SP		;SETUP THE STACK POINTER
2119	010770	000047				JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PROPER SEQUENCE
2120	010772	004537	013142		R0047:	00047			;HERE LIES THE NUMBER OF THIS TEST
2121	010776	001000				JSR	R5,CKSELE		;SST TO U2.
2122	011000	104073				U2			
2123						ERROR 73			;SST TO U2 DID NOT CAUSE SELECT ERROR.
2124	011002	012706	001000			MOV	#1000,SP		;RESTORE THE STACK POINTER
2125									
2126									
2127	011006	000004							
2128	011010	012706	001000		T0050:	SCOPE			
2129	011014	004737	011614			MOV	#1000,SP		;SETUP THE STACK POINTER
2130	011020	000050				JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PROPER SEQUENCE
2131	011022	004537	013142		R0050:	00050			;HERE LIES THE NUMBER OF THIS TEST
2132	011026	001400				JSR	R5,CKSELE		;SST TO U1.
2133	011030	104073				U3			
2134						ERROR 73			;SST TO U3 DID NOT CAUSE SELECT ERROR.
2135	011032	012706	001000			MOV	#1000,SP		;RESTORE THE STACK POINTER
2136									
2137									
2138	011036	000004			T0051:	SCOPE			
2139	011040	012706	001000			MOV	#1000,SP		;SETUP THE STACK POINTER

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TC051

TC11 TEST #2

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2140	011044	004737	011614		JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
2141	011050	000051			00051			;HERE LIES THE NUMBER OF THIS TEST
2142	011052	004537	013142	RO051:	JSR	RS,CKSELE		;ISSUE A SST COMMAND
2143	011056	002000			U4			
2144	011060	104073			ERROR 73			;SST TO U4 DID NOT CAUSE SELECT ERPR.
2145								
2146	011062	012706	001000		MOV	#1000,SP		;RESTORE THE STACK POINTER
2147					.SBTTL	T0052		
2148					*****			
2149	011066	000004		T0052:	SCOPE			
2150	011070	012706	001000		MOV	#1000,SP		;SETUP THE STACK POINTER
2151	011074	004737	011614		JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
2152	011100	000052			00052			;HERE LIES THE NUMBER OF THIS TEST
2153	011102	004537	013142	RO052:	JSR	RS,CKSELE		;ISSUE A SST COMMAND
2154	011106	002400			U5			
2155	011110	104073			ERROR 73			;SST TO U5 DID NOT CAUSE SELECT ERROR.
2156								
2157	011112	012706	001000		MOV	#1000,SP		;RESTORE THE STACK POINTER
2158					.SBTTL	T0053		
2159					*****			
2160	011116	000004		T0053:	SCOPE			
2161	011120	012706	001000		MOV	#1000,SP		;SETUP THE STACK POINTER
2162	011124	004737	011614		JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
2163	011130	000053			00053			;HERE LIES THE NUMBER OF THIS TEST
2164	011132	004537	013142	RO053:	JSR	RS,CKSELE		;ISSUE A SST COMMAND
2165	011136	003000			U6			
2166	011140	104073			ERROR 73			;SST TO U6 DID NOT CAUSE SELECT ERROR.
2167	011142	000240			NOP			
2168	011144	000240			NOP			
2169	011146	000240			NOP			
2170								
2171	011150	012706	001000		MOV	#1000,SP		;RESTORE THE STACK POINTER
2172					.SBTTL	T0054		
2173					*****			
2174	011154	000004		T0054:	SCOPE			
2175	011156	012706	001000		MOV	#1000,SP		;SETUP THE STACK POINTER
2176	011162	004737	011614		JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
2177	011166	000054			00054			;HERE LIES THE NUMBER OF THIS TEST
2178	011170	004537	013142	RO054:	JSR	RS,CKSELE		;ISSUE A SST COMMAND
2179	011174	003400			U7			
2180	011176	104073			ERROR 73			;SST TO U7 DID NOT CAUSE SELECT ERROR.
2181								
2182	011200	012706	001000		MOV	#1000,SP		;RESTORE THE STACK POINTER
2183					.SBTTL	T0055		
2184					*****			
2185	011204	000004		T0055:	SCOPE			
2186	011206	012706	001000		MOV	#1000,SP		;SETUP THE STACK POINTER
2187	011212	004737	011614		JSR	PC,TORDER		;MAKE SURE TESTS ARE IN PRPOER SEQUENCE
2188	011216	000055			00055			;HERE LIES THE NUMBER OF THIS TEST
2189	011220	004737	012732		JSR	PC,LBBIND		;LOAD BUFFER WITH BINARY DATA.
2190	011224	005077	170002		CLR	@TCCM		
2191	011230	012777	020003	167774	MOV	#MAINT!UO!FWD!RNUM!DO,@TCCM		
2192	011236				MTK7,5			
2193	011236	004537	012522		JSR	RS,LATCOD		;CALL LOAD MT CODES SUB.
2194	011242	032666			MTK7			;ADDRESS OF MARK TRACK CODES.
2195	011244	000005			5			;MARK TRACK CODE COUNT.

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T0055

TC11 TEST #2

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2196	011246	005777	167760		TST	ATCCM		;ERROR BIT SET?
2197	011252	100002			BPL	A0055		;BR IF NO ERROR.
2198	011254	104041			ERROR 41			;ERROR BIT SET. EXAMINE TCST.
2199	011256	000441			BR	D0055		
2200	011260	012777	177400	167746	A0055: MOV	#-256, ATCWC		; -256 TO WORD COUNT.
2201	011266	012777	036010	167742	MOV	#RBUF, ATCBA		;RBUF ADDR TO TCBA.
2202	011274	012704	037010		MOV	#RBUF+512, R4		;ADDR TO SAVE TCDT DATA TO R4.
2203	011300	112777	000015	167724	MOV8	#WDATA!00, ATCCM		;ISSUE WRITE DATA COMMAND.
2204	011306				MTCOE	F0055, MTK7A, 262.		
2205	011306	004537	012672		JSR	R5, LMTCOE		;CALL LOAD MT CODES SUBROUTINE.
2206	011312	011370			F0055			;ADDR TO GO AFTER EACH CODE PASSED.
2207	011314	032724			MTK7A			;ADDRESS OF MARK TRACK CODES.
2208	011316	000406			262.			;MARK TRACK CODE COUNT.
2209	011320	005777	167706		TST	ATCCM		;ERROR BIT SET?
2210	011324	100002			BPL	B0055		;BR IF NO ERROR.
2211	011326	104044			ERROR 44			;ERROR BIT SET. EXAMINE TCST.
2212	011330	000414			BR	D0055		
2213	011332	012701	037010		B0055: MOV	#RBUF+512, R1		;ADDR OF DATA TO CHECK TO R1.
2214	011336	012703	036010		MOV	#RBUF, R3		;ADDR OF EXPECTED DATA TO R3.
2215	011342	012702	000400		MOV	#256, R2		;# OF WORDS TO CHECK TO R2.
2216	011346	005037	013140		CLR	WDCNT		
2217	011352	004737	013066		C0055: JSR	PC, CDTCK		;CHECK DATA WORD.
2218	011356	005302			DEC	R2		;ALL WORDS CHECKED?
2219	011360	001374			BNE	C0055		;BR IF NOT DONE YET.
2220	011362				D0055:			
2221	011362	012706	001000		MOV	#1000, SP		;RESTORE THE STACK POINTER
2222	011366	000403			BR	T0056		;GO ON TO THE NEXT TEST
2223	011370	017724	167644		F0055: MOV	ATCDT, (4)+		;HERE AFTER EACH MARK CODE IS PASSED.
2224	011374	000002			RTI			;SAVE TCDT DATA AND EXIT.
2225								
2226					.SBTTL	T0056		
2227	011376	000004			T0056: SCOPE			
2228	011400				.SEOP	STARTX, PASCNT		
2229	011400				STARS			
2230					;;*****			
2231								
2232					.SBTTL	END OF PASS ROUTINE		
2233								
2234					;*INCREMENT THE PASS NUMBER (\$PASS)			
2235					;*TYPE "END PASS #XXXXX" (WHERE XXXXX IS A DECIMAL NUMBER)			
2236					;*IF THERES A MONITOR GO TO IT			
2237					;*IF THERE ISN'T JUMP TO STARTX			
2238								
2239	011400				.SEOP:			
2240	011400	000004			SCOPE			
2241	011402	005037	001102		CLR	\$TSTNM		;ZERO THE TEST NUMBER
2242	011406	005037	001214		CLR	\$TIMES		;ZERO THE NUMBER OF ITERATIONS
2243	011412	005237	001100		INC	\$PASS		;INCREMENT THE PASS NUMBER
2244	011416	042737	100000	001100	BIC	#100000, \$PASS		;DON'T ALLOW A NEG. NUMBER
2245	011424	005327			DEC	(PC)+		;LOOP?
2246	011426	000001			.SEOPCT:	1		
2247	011430	003021			BGT	\$DOAGN		;YES
2248	011432	012737			MOV	(PC)+, 2(PC)+		;RESTORE COUNTER
2249	011434	000001			.SENOCT:	1		
2250	011436	011426			.SEOPCT			
2251	011440	104400	011500		TYPE	, \$ENDMG		;TYPE "END PASS #"

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DZTCBC.P11TC11 TEST #2
END OF PASS ROUTINE

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2252	011444				TYPDEC	\$PASS	
2253	011444	013746	001100		MOV	\$PASS, -(SP)	;SAVE \$PASS FOR TYPEOUT
2254	011450	104410			TYPDS		;GO TYPE--DECIMAL ASCII WITH SIGN
2255	011452	104400	011515		TYPE	\$ENULL	;TYPE A NULL CHARACTER
2256	011456	013700	000042		\$GET42: MOV	\$#42, RO	;GET MONITOR ADDRESS
2257	011462	001404			BEQ	\$DOAGN	;IF NONE
2258	011464	004710			\$ENDAD: JSR	PC, (RO)	;GO TO MONITOR
2259	011466	000240			NOP		;SAVE ROOM
2260	011470	000240			NOP		;FOR
2261	011472	000240			NOP		;ACT11
2262	011474	000137	002462		\$DOAGN: JMP	\$#STARTX	;RETURN
2263	011500	005015	047105	020104	\$ENDMG: .ASCIZ	<15><12>/END PASS #/	
2264	011506	040520	051523	021440			
2265	011514	000					
2266	011515	377	377	000	\$ENULL: .BYTE	-1, -1, 0	;NULL CHARACTER STRING
2267					;		
2268	011520	012737	015421	011556	TRAP10: MOV	\$TRPM10, TMESAD	;ADDRESS OF TRAP TO 10 MESSAGE TO THE MESSAGE PO
2269	011526	000403			BR	TRAPX	;ENTER THE FATAL TRAP ERROR REPORT ROUTINE
2270	011530	012737	015277	011556	TRAP4: MOV	\$TRPM45, TMESAD	
2271	011536	011600			TRAPX: MOV	(SP), RO	;SAVE PC OF WHERE TRAP OCCURRED
2272	011540	162700	000002		SUB	\$2, RO	;MAKE IT POINT EXACTLY AT THE OFFENDING WORD
2273	011544	012706	001000		MOV	\$1000, SP	;MAKE SURE THAT THE STACK GIVES NO PROBLEMS
2274	011550	005046			CLR	-(SP)	;FAKEOUT THE PRINTOUT ROUTINE
2275	011552	004737	014062		JSR	PC, \$TYPE	;PRINT THE TRAP MESSAGE
2276	011556	000000			TMESAD: 000000		;ADDRESS OF THE TRAP MESSAGE GOES HERE
2277	011560	010016			MOV	RO, (SP)	;PUT ERROR PC BACK ONTO THE STACK
2278	011562	104402			TYPOC		
2279	011564	104400	001225		TRYAGN: TYPE	\$CRLF	
2280	011570	104400	015347		TYPE	\$TRPMES	;THEN PRINTOUT THE TRAP MESSAGE
2281	011574	000240			NOP		;PATCHING SPACE, THOUGHTFULLY PROVIDED
2282	011576	000240			NOP		;PATCHING SPACE, THOUGHTFULLY PROVIDED
2283	011600	000240			NOP		;PATCHING SPACE, THOUGHTFULLY PROVIDED
2284	011602	000240			NOP		;PATCHING SPACE, THOUGHTFULLY PROVIDED
2285	011604	000240			NOP		;PATCHING SPACE, THOUGHTFULLY PROVIDED
2286	011606	000005			RESET		
2287	011610	000137	002304		JMP	\$#START	
2288							
2289							
2290	011614	011637	001154		TORDER: MOV	(SP), \$REGO	;GET ADDRESS OF TEST #
2291	011620	062716	000002		ADD	\$2, (SP)	;BUMP PRETURN ADDRESS TO HOP OVER THE IN LINE TEST #
2292	011624	123777	001102	167322	CMPB	\$TSTNM, \$SREGO	;FIND OUT IF THE TEST #'S MATCH
2293	011632	001410			BEQ	TORDER	;IF THEY DO HOP OVER THE ERROR SIGNAL STUFF
2294	011634	013737	001154	001156	MOV	\$REGO, \$REG1	;SAVE ADDRESS OF TEST
2295	011642	017737	167306	001154	MOV	\$SREGO, \$REGO	;GET TEST# WAS DATA READY FOR PRINTOUT
2296	011650	104026			ERROR	26	;PRINTOUT "OUT OF ORDER" MESSAGE
2297	011652	000744			BR	TRYAGN	;GO TRY TO START OVER
2298	011654	000207			TORDER: RTS	PC	;RETURN
2299							
2300	011656	012666	177764				
2301	011662	012737	000207	011734	\$V04: MOV	(6)+, -12.(6)	;MOVE PC UPSTACK.
2302	011670	000412			MOV	\$RTSPC, \$V05C	
2303					BR	\$V05B	
2304	011672	012737	000240	011734			
2305	011700	000403			\$V05S: MOV	\$NOP, \$V05C	
2306					BR	\$V05A	
2307	011702	012737	000207	011734	\$V05: MOV	\$RTSPC, \$V05C	

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 MAINDEC-11-DZTCB-C TC11 TEST #2
 DZTCBC.P11 END OF PASS ROUTINE

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2308	011710	012666	177762	SV05A:	MOV	(6)+, -14.(6)	;MOVE PC JPSTACK.
2309	011714	010546			MOV	R5, -(6)	
2310	011716	010446		SV05B:	MOV	R4, -(6)	
2311	011720	010346			MOV	R3, -(6)	
2312	011722	010246			MOV	R2, -(6)	
2313	011724	010146			MOV	R1, -(6)	
2314	011726	010046			MOV	R0, -(6)	
2315	011730	162706	000002		SUB	#2, SP	
2316	011734	000207		SV05C:	RTS	PC	;RTS PC OR NOP.
2317	011736	016605	000016		MOV	14.(6), R5	;JSR PC TO R5.
2318	011742	000207			RTS	PC	;EXIT.
2319							
2320	011744	062706	000002				
2321	011750	012600		RS04:	ADD	#2, SP	
2322	011752	012601			MOV	(6)+, R0	;RESTORE REGS 0 TO 4.
2323	011754	012602			MOV	(6)+, R1	
2324	011756	012603			MOV	(6)+, R2	
2325	011760	012604			MOV	(6)+, R3	
2326	011762	016646	177764		MOV	(6)+, R4	
2327	011766	000207			MOV	-12.(6), -(6)	;MOVE PC DOWN STACK.
2328					RTS	PC	;EXIT
2329	011770	010566	000016				
2330							
2331	011774	062706	000002				
2332	012000	012600					
2333	012002	012601					
2334	012004	012602					
2335	012006	012603					
2336	012010	012604					
2337	012012	012605					
2338	012014	016646	177762				
2339	012020	000207					
2340							
2341	012022	004737	011672				
2342	012026	013701	001242				
2343	012032	012521					
2344	012034	013721	001244				
2345	012040	004737	011770				
2346	012044	000207					
2347							
2348	012046	010046					
2349	012050	012700	052525				
2350	012054	005100					
2351	012056	010037	012052				
2352	012062	000005					
2353	012064	012600					
2354	012066	000207					
2355	012070	004537	012474				
2356	012074	032630					
2357	012076	032740					
2358	012100	000006					
2359	012102	004537	012474				
2360	012106	032660					
2361	012110	032716					
2362	012112	000006					
2363	012114	004537	012474				

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 MAINDEC-11-DZTCB-C TC11 TEST #2
 DZTCBC.P11 END OF PASS ROUTINE

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2364	012120	035771		GUKSM		
2365	012122	035732		FCKSM		
2366	012124	000006		6		
2367	012126	000207		RTS	PC	;EXIT.
2368				HALT ROUTINE		
2369	012130	004737	011672	CHLT: JSR	PC,SV055	
2370	012134	010500		MOV	R5,RO	;DEVELOP ADDR OF CALLER.
2371	012136	005740		TST	-(0)	
2372	012140	000000		HALT		;HALT CALL ADDR IN DATA LIGTHS.
2373	012142	004737	011770	JSR	PC,RS055	
2374	012146	000207		RTS	PC	;EXIT.
2375				NUMBER GENERATOR. ROUTINE		EXITS WITH NUMBER IN REGISTER 0.
2376	012150	013700	012216	RNGEN: MOV	RP1,RO	
2377	012154	006100		ROL	RO	
2378	012156	006100		ROL	RO	
2379	012160	063700	012220	ADD	RP2,RO	
2380	012164	010037	012216	MOV	RO,RP1	
2381	012170	006100		ROL	RO	
2382	012172	006100		ROL	RO	
2383	012174	063700	012220	ADD	RP2,RO	
2384	012200	006100		ROL	RO	
2385	012202	006100		ROL	RO	
2386	012204	010037	012220	MOV	RO,RP2	
2387	012210	013700	012216	MOV	RP1,RO	
2388	012214	000207		RTS	PC	;EXIT. NUMBER IN RO
2389	012216	001233		RP1:	1233	
2390	012220	007622		RP2:	7622	
2391				SUBROUTINE TO DELAY A SPECIFIED		NUMBER OF MILLISECONDS
2392	012222	004737	011672	DLY: JSR	PC,SV055	
2393	012226	012500		MOV	(5)+,RO	;DELAY COUNT TO RO.
2394	012230	005037	177776	CLR	PSW	;SET PRIORITY 0.
2395	012234	012701	006226	DLYA: MOV	#226,R1	;1 MSEC COUNT TO R1.
2396	012240	005301		DLYB: DEC	R1	;DECREMENT 1 MSEC COUNT.
2397	012242	001376		BNE	DLYB	;BR IF NOT 0.
2398	012244	005300		DEC	RO	;DECREMENT DELAY COUNT.
2399	012246	001372		BNE	DLYA	;BR IF NOT DONE DELAYING.
2400	012250	004737	011770	JSR	PC,RS055	
2401	012254	000207		RTS	PC	;EXIT.
2402				SUBROUTINE TO STALL A RANDOM		NUMBER OF MILLISECONDS. MAXIMUM STALL
2403				DETERMINED BY CONTENTS OF LOC		STLMSK.
2404	012256	004737	011672	STAL: JSR	PC,SV055	
2405	012262	004737	012150	JSR	PC,RNGEN	;GO GET RANDOM NUMBER.
2406	012266	043700	012314	BIC	STLMSK,RO	;# IN RO. APPLY STALL MASK.
2407	012272	001407		BEQ	STALB	;BRANCH IF RESULT IS 0.
2408	012274	010037	012304	MOV	RO,STALA	
2409	012300	004737	012222	JSR	PC,DLY	;DELAY
2410	012304	000000		STALA: OPEN		;DELAY COUNT
2411	012306	004737	011770	JSR	PC,RS055	
2412	012312	000207		STALB: RTS	PC	;DONE. EXIT.
2413	012314	000000		STLMSK: OPEN		;STALL MASK.
2414				SUBROUTINE TO CLEAR DECTAPE		READ BUFFER.
2415	012316	005037	036010	CLRBUF: CLR	RBUF	;CLEAR 512 WORD READ BUFFER.
2416	012322	004537	012474	JSR	RS,BMOVE	;TO ALL 0'S.
2417	012326	036010		RBUF		
2418	012330	036011		RBUF+1		
2419	012332	001777		1023.		

MAINDEC-11-DZTCB-C
DZTCBC.P11

TC11 TEST #2
END OF PASS ROUTINE

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2420 012334 000207      RTS      PC      ;EXIT
2421      ;SUBROUTINE TO INITIALIZE BINARY COUNT PATTERNS
2422 012336 012737 177777 012360 INBIN: MOV     #-1,RIND ;SET ALL VARIABLES
2423 012344 004537 012474      JSR     R5,BMOVE ;TO MINUS 1.
2424 012350 012360      RIND
2425 012352 012361      RIND+1
2426 012354 000013      11.
2427 012356 000207      RTS      PC      ;EXIT
2428 012360 000000      RIND: OPEN
2429 012362 000000      PTO: OPEN
2430 012364 000000      PT1: OPEN
2431 012366 000000      PIND: OPEN
2432 012370 000000      PTO: OPEN
2433 012372 000000      PTIP: OPEN
2434      ;SPECIAL BINARY COUNT PATTERN SUBROUTINE. EXITS WITH BIN CHAR IN RO
2435 012374 013737 012362 012364 GTBIN: MOV     PTO,PT1 ;PREVIOUS BIN CHAR TO PT1
2436 012402 005137 012364      COM     PT1
2437 012406 005137 012360      COM     RIND
2438 012412 001002      BNE     .+6
2439 012414 005237 012364      INC     PT1
2440 012420 013737 012364 012362 MOV     PT1,PTO ;SAVE BIN CHAR IN PTO
2441 012426 013700 012364      MOV     PT1,RO ;BIN CHAR TO RO.
2442 012432 000207      RTS      PC      ;EXIT.
2443 012434 013737 012370 012372 GTBINP: MOV     PTO,PTIP ;PREVIOUS BIN CHAR TO PTIP
2444 012442 005137 012372      COM     PTIP
2445 012446 005137 012366      COM     PIND
2446 012452 001002      BNE     .+6
2447 012454 005237 012372      INC     PTIP
2448 012460 013737 012372 012370 MOV     PTIP,PTOP ;SAVE BIN CHAR IN PTO.
2449 012466 013701 012372      MOV     PTIP,R1 ;BIN CHAR TO R1.
2450 012472 000207      RTS      PC      ;EXIT.
2451      ;SUBROUTINE TO MOVE A VARIABLE NUMBER OF BYTES.
2452 012474 004737 011656 BMOVE: JSR     PC,SVO4 ;SAVE REGS.
2453 012500 012501      MOV     (5)+,R1 ;GET FROM ADDRESS
2454 012502 012502      MOV     (5)+,R2 ;GET TO ADDRESS
2455 012504 012503      MOV     (5)+,R3 ;GET COUNT
2456 012506 112122 BMOVA: MOVB     (1)+,(2)+ ;MOVE BYTE
2457 012510 005303      DEC     R3 ;DECREMENT COUNT
2458 012512 001375      BNE     BMOVA ;BRANCH IF NOT DONE.
2459 012514 004737 011744 JSR     PC,R504 ;RESTORE REGS.
2460 012520 000205      RTS      R5 ;DONE EXIT
2461      ;SUB TO PASS TIMING, MARK, AND DATA TO TC11 CONTROL UNDER MAINTENANCE MODE.
2462 012522 005037 001252 LMTCD: CLR     CODCAL ;DO NOT CALL CODE AFTER EACH MARK
2463 012526 012537 012662 LMTCA: MOV     (5)+,MTKADR ;GET MARK TRACK ADDRESS.
2464 012532 012537 012666      MOV     (5)+,CDCNT ;GET NTH CODE COUNT.
2465 012536 052777 020000 166466 BIS     #BIT13,ATCCM ;SET MAINTENANCE BIT.
2466 012544 013737 012666 012670 MOV     CDCNT,CDCR ;CODE COUNT TO CODE COUNTER.
2467 012552 013701 001230      MOV     TCST,R1 ;ADDR CONTAINING TCST ADDR TO R1.
2468 012556 012702 000100      MOV     #100,R2
2469 012562 013700 012662 LMTCA: MOV     MTKADR,RO ;MARK TRACK ADDR TO RO.
2470 012566 012737 000006 012664 LMTCB: MOV     #6,BTCR ;6 TO BIT COUNTER.
2471 012574 111011 LMTCC: MOVB     (0),(1) ;SET MARK TRACK BIT AND DATA.
2472 012576 150210      BISB     R2,(0)
2473 012600 111011      MOVB     (0),(1)
2474 012602 111011      MOVB     (0),(1)
2475 012604 140210      BICB     R2,(0)

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MAINDEC-11-DZTCB-C
DZTCBC.P11TC11 TEST #2
END OF PASS ROUTINE

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2476	012606	112011		MOVB	(0)+(1)	;TPO. SHIFTS DATA IN RWB.
2477	012610	005337	012664	DEC	BTCTP	;6TH BIT SET?
2478	012614	001413		BEQ	LMTCE	;BR IF 6TH BIT SET.
2479	012616	022737	000002 012664	CMP	#2, BTCTR	;NOT 6TH. 4TH BIT SET?
2480	012624	001363		BNE	LMTCC	;BRANCH IF NOT.
2481	012626	005737	001252	TST	CODCAL	;DO WE WANT TO CALL CODE
2482	012632	001760		BEQ	LMTCC	;DO NOT IF CODE CALL SWITCH = 0
2483	012634	005046		CLR	-(6)	;IF ITS NOT =0 FAKE A INTERRUPT
2484	012636	004777	166410	JSR	PC, CODCAL	;TO LOCATION SPECIFIED IN CODE CALL SWITCH
2485	012642	000754		BR	LMTCC	
2486	012644	005337	012670	LMTCE:	DEC	;NTH CODE SET?
2487	012650	001001		BNE	CDCTR	;BRANCH IF NOT.
2488	012652	000205		RTS	LMTCD	;EXIT.
2489	012654	105710		LMTCD:	RTS	;LAST CODE?
2490	012656	100343		TSTB	ORO	;BRANCH IF NOT LAST CODE.
2491	012660	000740		BPL	LMTCB	;LAST CODE.
2492	012662	000000		BR	LMTCA	
2493	012664	000000		MTKADR:	OPEN	
2494	012666	000000		BTCTR:	OPEN	
2495	012670	000000		CDCTR:	OPEN	
2496	012672	012537	001252	CDCTR:	OPEN	
2497	012676	000713		LMTCOE:	MOV	(5)+, CODCAL
2498	012700	004737	012316	BR	LMTCAA	;SAVE ADDRESS TO GO TO AFTER EACH MARK
2499	012704	004537	012474	LBDAT1:	JSR	PC, CLRBUF
2500	012710	001270		JSR	RS, BMOVE	;CLEAR BUFFER AREA.
2501	012712	036010		SBDAT1		;LOAD 256 WORD BUFFER WITH SBDAT1 DATA.
2502	012714	000004		RBUF		
2503	012716	004537	012474	4		
2504	012722	036010		JSR	RS, BMOVE	
2505	012724	036014		RBUF		
2506	012726	000774		RBUF+4		
2507	012730	000207		508.		
2508	012732	004737	011656	RTS	PC	;EXIT.
2509	012736	004737	012316	LBBIND:	PC, SVO4	
2510	012742	012704	036010	JSR	PC, CLRBUF	;CLEAR BUFFER AREA AND FILL
2511	012746	012737	000400 012776	MOV	#RBUF, R4	;256 WORD BUFFER WITH BINARY DATA.
2512	012754	004737	012374	MOV	#256, CTRLB	
2513	012760	010024		LBINDA:	JSR	PC, GTBIN
2514	012762	005337	012776	MOV	RO, (4)+	;GET BINARY WORD.
2515	012766	001372		DEC	CTRLB	;STORE PER R4.
2516	012770	004737	011744	BNE	LBINDA	;256 WORDS STORED?
2517	012774	000207		JSR	PC, RS04	;BR IF NOT DONE YET.
2518	012776	000000		RTS	PC	;DONE. EXIT.
2519	013000	004537	012474	CTRLB:	OPEN	
2520	013004	035777		MBCKSM:	JSR	RS, BMOVE
2521	013006	035732		BCKSM		;BAD CHECKSUM TO FCKSM.
2522	013010	000006		FCKSM		
2523	013012	000207		6		
2524	013014	004737	011656	CKDAT:	RTS	;EXIT.
2525	013020	012537	013134	JSR	PC, SVO4	;SAVE REGS.
2526	013024	012501		MOV	(5)+, SBDAT	;ADDR OF S/B DATA TO SBDAT.
2527	013026	012502		MOV	(5)+, R1	;ADDR OF DATA TO R1.
2528	013030	005037	013140	MOV	(5)+, R2	;WORD COUNT TO R2.
2529	013034	013703	013134	CLR	WDCNT	;CLEAR # OF WORD BEING CHECKED.
2530	013040	004737	013066	CKDTA:	MOV	SBDAT, R3
2531	013044	005302		JSR	PC, CDICK	;ADDR OF S/B DATA TO R3.
				DEC	R2	;GO CHECK DATA.
						;LAST WORD CHECKED?

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MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 48
DZTCBC.P11 END OF PASS ROUTINE

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2532 013046 001404      BEQ      CKDTB      ;BR IF LAST WORD CHECKED.
2533 013050 004737 013066 JSR      PC,CDTCK    ;CHECK ANOTHER WORD.
2534 013054 005302      DEC      R2          ;LAST WORD CHECKED?
2535 013056 001366      BNE      CKDTA      ;BR IF NOT LAST WORD.
2536 013060 004737 011744 CKDTB: JSR      PC,R504    ;RESTORE REGS.
2537 013064 000205      RTS      R5          ;EXIT.
2538 013066 010137 013136 CDTCK: MOV     R1,DATADR  ;ADDR OF DATA TO DATADR.
2539 013072 012337 001262      MOV     (3)+,CRBUF  ;S/B WORD TO CRBUF.
2540 013076 012137 001264      MOV     (1)+,CRBUFA  ;WAS WORD TO CRBUFA.
2541 013102 005237 013140      INC      WDCNT      ;INCREMENT WORD NUMBER.
2542 013106 023737 001262 001264 CMP     CRBUF,CRBUFA ;COMPARE S/B AND WAS DATA.
2543 013114 001001      BNE      CDTCKA      ;BR IF DATA NOT SAME.
2544 013116 000207      RTS      PC          ;EXIT.
2545 013120 016737 000004 013132 CDTCKA: MOV    4(PC),MLPC  ;MAKE MAIN LINE PC ACCESSABLE
2546
2547 013126 104035      ERROR    35          ;PRINTOUT ERROR MESSAGE
2548 013130 000207      RTS      PC          ;EXIT
2549 013132 000000      MLPC:    000000
2550 013134 000000      SBDAT:  OPE!
2551 013136 000000      DATADR: OPEN
2552 013140 000000      WDCNT:  OPEN
2553 013142 012537 015030      CKSELE: MOV    (5)+,CKSELT ;UNIT # TO CKSELT.
2554 013146 052737 000011 015030 BIS     #SST!DO,CKSELT ;ISSUE SST TO DESIRED UNIT
2555 013154 013777 015030 166050 MOV     CKSELT,ATCCM ;WAIT FOR READY.
2556 013162 105777 166044      TSTB     ATCCM
2557 013166 100375      BPL      -4
2558 013170 032777 004000 166032 BIT     #BIT11,ATCST ;SELECT ERROR SET?
2559 013176 001001      BNE      +4          ;BR IF SELECT ERROR SET.
2560 013200 000205      RTS      R5          ;ERROR EXIT. SELECT ERROR SHOULD BE SET.
2561 013202 062705 000006      ADD      #6,R5
2562 013206 000205      RTS      R5          ;OK EXIT.
2563 013210      $SCOPE 4,SCOMAC
2564 013210      STARS
2565      ;*****
2566
2567      .SBTTL SCOPE HANDLER ROUTINE
2568
2569      ;*SW14=1      LOOP ON TEST
2570      ;*SW11=1      INHIBIT ITERATIONS
2571      ;*SW09=1      LOOP ON ERROR
2572      ;*SW08=1      LOOP ON TEST IN SWR<7:0>
2573      ;*THE TEST NUMBER ($STNM) IS INCREMENTED AND DISPLAYED IN DISPLAY<7:0>
2574      ;*AND THE ERROR FLAG ($ERFLG) IS DISPLAYED IN DISPLAY<15:08>
2575
2576 013210      $SCOPE:
2577      .IRP NEWINS,<SCOMAC>
2578      NEWINS
2579      .ENDM
2580 013210      SCOMAC
2581 013210 005077 166016      CLR      ATCCM
2582 013214 005066 000002      CLR      2(SP)      ;PS TO =0 AFTER WE EXIT THE SCOPE ROUTINE
2583 013220 004737 012046      JSR      PC,SRSETT
2584 013224 004737 012070      JSR      PC,RSTMTK
2585 013230 006137 177570      ROL      @SWR      ;LOOP ON PRESENT TEST?
2586 013234 100511      BMI      $OVER      ;YES IF SW14=1
2587      ;*****START OF CODE FOR THE XOR TESTER*****

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2588 013236 000416          SXTSTR: BH      6S      IF RUNNING ON THE "XOR" TESTER CHANGE
2589                                MOV      2#ERRVEC, -(SP) THIS INSTRUCTION TO A "NOP" (NOP=240,
2590 013240 013746 000004          MOV      2#ERRVEC SAVE THE CONTENTS OF THE ERROR VECTOR
2591 013244 012737 013264 000004          TST      2#177060 SET FOR TIMEOUT
2592 013252 005737 177060          MOV      (SP)+, 2#ERRVEC TIME OUT ON XOR?
2593 013256 012637 000004          BR      SSVLAD RESTORE THE ERROR VECTOR
2594 013262 000463          5S: CMP      (SP)+, (SP)+ GO TO THE NEXT TEST
2595 013264 022626          MOV      (SP)+, 2#ERRVEC CLEAR THE STACK AFTER A TIME CUT
2596 013266 012637 000004          BR      7S RESTORE THE ERROR VECTOR
2597 013272 000423          6S: :*****END OF CODE FOR THE XOR TESTER***** LOOP ON THE PRESENT TEST
2598 013274          BIT      2#SW08, 2#SWR LOOP ON SPEC. TEST?
2599 013274 032737 000400 177570          BEQ      2S BR IF NO
2600 013302 001404          CMPB     2#SWR, STSTNM ON THE RIGHT TEST? SWR<7:0>
2601 013304 123737 177570 001102          BEQ      SOVER BR IF YES
2602 013312 001462          2S: TSTB     SERFLG HAS AN ERROR OCCURRED?
2603 013314 105737 001103          BEQ      3S BR IF NO
2604 013320 001421          CMPB     SERMAX, SERFLG MAX. ERRORS FOR THIS TEST OCCURRED?
2605 013322 123737 001115 001103          BHI      3S BR IF NO
2606 013330 101015          BIT      2#SW09, 2#SWR LOOP ON ERROR?
2607 013332 032737 001000 177570          BEQ      4S BR IF NO
2608 013340 001404          7S: MOV      $LPERR, $LPADR SET LOOP ADDRESS TO LAST SCOPE
2609 013342 013737 001110 001106          BR      SOVER
2610 013350 000443          4S: CLRB     SERFLG ZERO THE ERROR FLAG
2611 013352 105037 001103          CLR      $TIMES CLEAR THE NUMBER OF ITERATIONS TO MAKE
2612 013356 005037 001214          BR      1S ESCAPE TO THE NEXT TEST
2613 013362 000415          3S: BIT      2#SW11, 2#SWR INHIBIT ITERATIONS?
2614 013364 032737 004000 177570          BNE      1S BR IF YES
2615 013372 001011          TST      $PASS IF FIRST PASS OF PROGRAM
2616 013374 005737 001100          BEQ      1S INHIBIT ITERATIONS
2617 013400 001406          INC      $ICNT INCREMENT ITERATION COUNT
2618 013402 005237 001104          CMP      $TIMES, $ICNT CHECK THE NUMBER OF ITERATIONS MADE
2619 013406 023737 001214 001104          BGE      SOVER BR IF MORE ITERATION REQUIRED
2620 013414 002021          1S: MOV      #1, $ICNT REINITIALIZE THE ITERATION COUNTER
2621 013416 012737 000001 001104          MOV      $MXCNT, $TIMES SET NUMBER OF ITERATIONS TO DO
2622 013424 013737 013474 001214          SSVLAD: INCB     $STSTNM COUNT TEST NUMBERS
2623 013432 105237 001102          MOV      (SP), $LPADR SAVE SCOPE LOOP ADDRESS
2624 013436 011637 001106          MOV      (SP), $LPERR SAVE ERROR LOOP ADDRESS
2625 013442 011637 001110          CLR      $ESCAPE CLEAR THE ESCAPE FROM ERROR ADDRESS
2626 013446 005037 001216          MOVB     #1, $SERMAX ONLY ALLOW ONE(1) ERROR ON NEXT TEST
2627 013452 112737 000001 001115          SOVER: MOV      $STSTNM, 2#DISPLAY DISPLAY TEST NUMBER
2628 013460 013737 001102 177570          MOV      $LPADR, (SP) FUDGE RETURN ADDRESS
2629 013466 013716 001106          RTI      FIXES PS
2630 013472 000002          4          MAX. NUMBER OF ITERATIONS
2631 013474 000004          .MACRO SAVE
2632          MOV      SP, $REG6
2633          SUB      #4, $REG6
2634          MOV      2(SP), $REG7
2635          CLR      $REG5
2636          MOVB     $STSTNM, $REG5
2637          MOV      $JTCCH, $REG2
2638          MOV      $JTCST, $REG1
2639          MOV      $JTCBA, $REG3
2640          .ENDM SAVE
2641          .ERROR $ERRTYP, SAVE
2642 013476          STARS
2643 013476

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2644      ;*****
2645
2646      .SBTTL  ERROR HANDLER ROUTINE
2647
2648      ;*SW15=1      HALT ON ERROR
2649      ;*SW13=1      INHIBIT ERROR TYPEOUTS
2650      ;*SW10=1      BELL ON ERROR
2651      ;*SW09=1      LOOP ON ERROR
2652      ;*GO TO $ERRTYP ON ERROR
2653
2654      013476      $ERROR:
2655      .IRP NEWINS,(<SAVE>
2656                  NEWINS
2657      .ENDM
2658      SAVE
2659      013476      MOV      SP,$REG6
2660      013502      SUB      #4,$REG6
2661      013510      MOV      2(SP),$REG7
2662      013516      CLR      $REG5
2663      013522      MOV      $STSNM,$REG5
2664      013530      MOV      $TCCH,$REG2
2665      013536      MOV      $TCST,$REG1
2666      013544      MOV      $TCBA,$REG3
2667      013552      7$:      INCB      $ERFLG
2668      013556      BEQ      7$
2669      013560      MOV      $STSNM,$@DISPLAY
2670      013564      BIT      $SW10,$@SWR
2671      013574      BEQ      1$
2672      013576      TYPE      $BELL
2673      013602      1$:      INC      $ERTTL
2674      013606      MOV      (SP),$ERRPC
2675      013612      SUB      #2,$ERRPC
2676      013620      MOV      $ERRPC,$ITEMB
2677      013626      BIT      $SW13,$@SWR
2678      013634      BNE      2$
2679      013636      JSR      PC,$@ERRTYP
2680      013642      TYPE      $SCRLF
2681      013646      2$:      TST      $@SWR
2682      013652      BPL      3$
2683      013654      HALT
2684      013656      3$:      BIT      $SW09,$@SWR
2685      013664      BEQ      4$
2686      013666      MOV      $LPERR,(SP)
2687      013672      4$:      TST      $ESCAPE
2688      013676      BEQ      5$
2689      013700      MOV      $ESCAPE,(SP)
2690      013704      5$:      RTI
2691      013706      .POWER (<<POWPUS>,<POWPOP>,<POWMES>)
2692      013706      STARS
2693      ;*****
2694
2695      .SBTTL  POWER DOWN AND UP ROUTINES
2696
2697      :POWER DOWN ROUTINE
2698      013706      $PWDRN: MOV      $SILLUP,$@PWRVEC      ;SET FOR FAST UP
2699      013714      MOV      #340,$@PWRVEC+2      ;PRIO:7

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2700 013722          PUSH    <R0,R1,R2,R3,R4,R5>
2701                .IRP    B,<R0,R1,R2,R3,R4,R5>
2702                MOV     B,-(SP)          ;PUSH B ON STACK
2703                .ENDM
2704 013722 010046    MOV     R0,-(SP)        ;PUSH R0 ON STACK
2705 013724 010146    MOV     R1,-(SP)        ;PUSH R1 ON STACK
2706 013726 010246    MOV     R2,-(SP)        ;PUSH R2 ON STACK
2707 013730 010346    MOV     R3,-(SP)        ;PUSH R3 ON STACK
2708 013732 010446    MOV     R4,-(SP)        ;PUSH R4 ON STACK
2709 013734 010546    MOV     R5,-(SP)        ;PUSH R5 ON STACK
2710 013736          PUSH    <<POWPUS>,<POWPOP>,<POWMES>>
2711                .IRP    B,<<POWPUS>,<POWPOP>,<POWMES>>
2712                MOV     B,-(SP)          ;PUSH B ON STACK
2713                .ENDM
2714 013736 013746 001304    MOV     POWPUS,-(SP)    ;PUSH POWPUS ON STACK
2715 013742 013746 001306    MOV     POWPOP,-(SP)    ;PUSH POWPOP ON STACK
2716 013746 013746 015552    MOV     POWMES,-(SP)    ;PUSH POWMES ON STACK
2717 013752 010637 014050    MOV     SP,$SAVR6      ;SAVE SP
2718 013756 012737 013770 000024    MOV     $SPWRUP,$PWRVEC    ;SET UP VECTOR
2719 013764 000000          HALT
2720 013766 000776          BR      -2          ;HANG UP
2721
2722          :POWER UP ROUTINE
2723 013770 013706 014050    $PWRUP: MOV     $SAVR6,SP    ;GET SP
2724 013774 005037 014050    CLR      $SAVR6          ;WAIT LOOP FOR THE TTY
2725 014000 005237 014050    IS:      INC      $SAVR6    ;WAIT FOR THE INC
2726 014004 001375          BNE      IS              ;OF <POWPUS>,<POWPOP>,<POWMES> WORD
2727 014006          POP      <R5,R4,R3,R2,R1,R0>
2728                .IRP    B,<R5,R4,R3,R2,R1,R0>
2729                MOV     B,(SP)+,B          ;POP STACK INTO B
2730                .ENDM
2731 014006 012605    MOV     (SP)+,R5          ;POP STACK INTO R5
2732 014010 012604    MOV     (SP)+,R4          ;POP STACK INTO R4
2733 014012 012603    MOV     (SP)+,R3          ;POP STACK INTO R3
2734 014014 012602    MOV     (SP)+,R2          ;POP STACK INTO R2
2735 014016 012601    MOV     (SP)+,R1          ;POP STACK INTO R1
2736 014020 012600    MOV     (SP)+,R0          ;POP STACK INTO R0
2737 014022 012737 013706 000024    MOV     $SPWRUP,$PWRVEC    ;SET UP THE POWER DOWN VECTOR
2738 014030 012737 000340 000026    MOV     $340,$PWRVEC+2    ;PRIO:7
2739 014036 104400 014052    TYPE     $POWER          ;POWER FAIL MESSAGE
2740 014042 000002          RTI
2741 014044 000000          $ILLUP: HALT
2742 014046 000776          BR      -2          ;THE POWER UP SEQUENCE WAS STARTED
2743 014050 000000          $SAVR6: 0          ;BEFORE THE POWER DOWN WAS COMPLETE
2744 014052 005015 047520 042527    $POWER: .ASCIZ <15><12>"POWER"
2745 014060 000122          .EVEN
2746
2747 014062          .$TYPE
2748 014062          STARS
2749          ;*****
2750
2751          .SBT'L TYPE ROUTINE
2752
2753          ;*ROUTINE TO TYPE ASCIZ MESSAGE. MESSAGE MUST TERMINATE WITH A 0 BYTE.
2754          ;*THE ROUTINE WILL INSERT A NUMBER OF NULL CHARACTERS AFTER A LINE FEED.
2755          ;*NOTE1: $NULL CONTAINS THE CHARACTER TO BE USED AS THE FILLER CHARACTER.

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2756      ;*NOTE2:      $FILLS CONTAINS THE NUMBER OF FILLER CHARACTERS REQUIRED.
2757      ;*NOTE3:      $FILLC CONTAINS THE CHARACTER TO FILL AFTER.
2758      ;*
2759      ;*CALL:
2760      ;*1) USING A TRAP INSTRUCTION
2761      ;*      TYPE      ,MESADR      ;MESADR IS FIRST ADDRESS OF AN ASCIZ STRING
2762      ;*OR
2763      ;*      TYPE
2764      ;*      MESADR
2765      ;*
2766      ;*2) USING A JSR INSTRUCTION
2767      ;*      MOV      PS,-(SP)      ;PUSH PROCESSOR STATUS WORD ON THE STACK
2768      ;*      JSR      PC,$TYPE      ;CALL TYPE ROUTINE
2769      ;*      MESADDR      ;FIRST ADDRESS OF MESSAGE
2770
2771      014062 105737 001151 $TYPE: TSTB $TFPLG      ;IS THERE A TERMINAL?
2772      014066 100002      BPL 1$      ;BR IF YES
2773      014070 000000      HALT      ;HALT HERE IF NO TERMINAL
2774      014072 000407      BR 3$      ;LEAVE
2775      014074 010046      1$: MOV RO,-(SP)      ;SAVE RO
2776      014076 017600 000002      MOV 22(SP),RO      ;GET ADDRESS OF ASCIZ STRING
2777      014102 112046      2$: MOVB (RO)+,-(SP)      ;PUSH CHARACTER TO BE TYPED ONTO STACK
2778      014104 001005      BNE 4$      ;BR IF IT ISN'T THE TERMINATOR
2779      014106 005726      TST (SP)+      ;IF TERMINATOR POP IT OFF THE STACK
2780      014110 012600      MOV (SP)+,RO      ;RESTORE RO
2781      014112 062716 000002      3$: ADD #2,(SP)      ;ADJUST RETURN PC
2782      014116 000002      RTI      ;RETURN
2783      014120 004737 014152      4$: JSR PC,7$      ;GO TYPE THIS CHARACTER
2784      014124 123726 001150      5$: CMPB $FILLC,(SP)+      ;IS IT TIME FOR FILLER CHARS.?
2785      014130 001364      BNE 2$      ;IF NO GO GET NEXT CHAR.
2786      014132 013746 001146      MOV $NULL,-(SP)      ;GET # OF FILLER CHARS. NEEDED
2787      ;AND THE NULL CHAR.
2788      014136 105366 000001      6$: DECB 1(SP)      ;DOES A NULL NEED TO BE TYPED?
2789      014142 002770      BLT 5$      ;BR IF NO--GO POP THE NULL OFF OF STACK
2790      014144 004737 014152      JSR PC,7$      ;GO TYPE A NULL
2791      014150 000772      BR 6$      ;LOOP
2792      014152 105777 164764      7$: TSTB 2$TPS      ;WAIT UNTIL PRINTER IS READY
2793      014156 100375      BPL 7$
2794      014160 116677 000002 164756      MOVB 2(SP),2$TPB      ;LOAD CHAR TO BE TYPED INTO DATA REG.
2795      014166 000207      RTS PC
2796      014170
2797      014170
2798      ;*STYPDEC
2799      ;*STARS
2800      ;*****
2801      ;SBTTL CONVERT BINARY TO DECIMAL AND TYPE ROUTINE
2802      ;*CALL:
2803      ;*      MOV      NUM,-(SP)      ;PUT THE BINARY NUMBER ON THE STACK
2804      ;*      TYPDS      ;GO TO THE ROUTINE
2805
2806      014170 $TYPDS: PUSH <RO,R1,R2,R3,R5>
2807      .IRP B,<RO,R1,R2,R3,R5>
2808      MOV B,-(SP)      ;PUSH B ON STACK
2809      .ENDM
2810      014170 010046      MOV RO,-(SP)      ;PUSH RO ON STACK
2811      014172 010146      MOV R1,-(SP)      ;PUSH R1 ON STACK

```

2812	014174	010246		MOV	R2,-(SP)	;PUSH R2 ON STACK
2813	014176	010346		MOV	R3,-(SP)	;PUSH R3 ON STACK
2814	014200	010546		MOV	R5,-(SP)	;PUSH R5 ON STACK
2815	014202	012746	020200	MOV	#20200,-(SP)	;SET BLANK SWITCH AND SIGN
2816	014206	016605	0C0020	MOV	20(SP),R5	;GET THE INPUT NUMBER
2817	014212	100004		BPL	1\$	;BR IF INPUT IS POS.
2818	014214	005405		NEG	R5	;MAKE THE BINARY NUMBER POS.
2819	014216	112766	000055 000001	MOVB	#'-,1(SP)	;MAKE THE ASCII NUMBER NEG.
2820	014224	005000		CLR	R0	;ZERO THE CONSTANTS INDEX
2821	014226	012703	014404	MOV	#\$DBLK,R3	;SETUP THE OUTPUT POINTER
2822	014232	112723	000040	MOVB	#',(R3)+	;SET THE FIRST CHARACTER TO A BLANK
2823	014236	005002		CLR	R2	;CLEAR THE BCD NUMBER
2824	014240	016001	014374	MOV	\$DTBL(R0),R1	;GET THE CONSTANT
2825	014244	160105		SUB	R1,R5	;FORM THIS BCD DIGIT
2826	014246	002402		BLT	4\$	;BR IF DONE
2827	014250	005202		INC	R2	;INCREASE THE BCD DIGIT BY 1
2828	014252	000774		BR	3\$	
2829	014254	060105		ADD	R1,R5	;ADD BACK THE CONSTANT
2830	014256	005702		TST	R2	;CHECK IF BCD DIGIT=0
2831	014260	001002		BNE	5\$	;FALL THROUGH IF 0
2832	014262	105716		TSTB	(SP)	;STILL DOING LEADING 0'S?
2833	014264	100407		BMI	7\$	;BR IF YES
2834	014266	106316		ASLB	(SP)	;MSD?
2835	014270	103003		BCC	6\$	;BR IF NO
2836	014272	116663	000001 177777	MOVB	1(SP),-1(R3)	;YES--SET THE SIGN
2837	014300	052702	000060	BIS	#'0,R2	;MAKE THE BCD DIGIT ASCII
2838	014304	052702	000040	BIS	#',R2	;MAKE IT A SPACE IF NOT ALREADY A DIGIT
2839	014310	110223		MOVB	R2,(R3)+	;PUT THIS CHARACTER IN THE OUTPUT BUFFER
2840	014312	005720		TST	(R0)+	;JUST INCREMENTING
2841	014314	020027	000010	CMP	R0,#10	;CHECK THE TABLE INDEX
2842	014320	002746		BLT	2\$	;GO DO THE NEXT DIGIT
2843	014322	003002		BGT	8\$	;GO TO EXIT
2844	014324	010502		MOV	R5,R2	;GET THE LSD
2845	014326	000764		BR	6\$	;GO CHANGE TO ASCII
2846	014330	105726		TSTB	(SP)+	;WAS THE LSD THE FIRST NON-ZERO?
2847	014332	100003		BPL	9\$	;BR IF NO
2848	014334	116663	177777 177776	MOVB	-1(SP),-2(R3)	;YES--SET THE SIGN FOR TYPING
2849	014342	105013		CLRB	(R3)	;SET THE TERMINATOR
2850	014344			POP	(R5,R3,R2,R1,R0)	
2851				.IRP	B,(R5,R3,R2,R1,R0)	
2852				MOV	(SP)+,B	;POP STACK INTO B
2853				.ENDM		
2854	014344	012605		MOV	(SP)+,R5	;POP STACK INTO R5
2855	014346	012603		MOV	(SP)+,R3	;POP STACK INTO R3
2856	014350	012602		MOV	(SP)+,R2	;POP STACK INTO R2
2857	014352	012601		MOV	(SP)+,R1	;POP STACK INTO R1
2858	014354	012600		MOV	(SP)+,R0	;POP STACK INTO R0
2859	014356	104400	014404	TYPE	\$DBLK	;NOW TYPE THE NUMBER
2860	014362	016666	000002 000004	MOV	2(SP),4(SP)	;ADJUST THE STACK
2861	014370	012616		MOV	(SP)+,(SP)	
2862	014372	000002		RTI		;RETURN TO USER
2863	014374	023420		\$DTBL:	10000.	
2864	014376	001750			1000.	
2865	014400	000144			100.	
2866	014402	000012			10.	
2867	014404	000074		\$DBLK:	.BLKW 4	

G05

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 DZTCBC.P11 CONVERT BINARY TO DECIMAL AND TYPE ROUTINE

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2868 014414 .STYPOCT
2869 014414 STARS
2870 ;*****
2871
2872 .SBTTL BINARY TO OCTAL (ASCII) AND TYPE
2873
2874 ;*STYPOS---ENTER HERE TO SETUP SUPPRESS ZEROS AND NUMBER OF DIGITS TO TYPE
2875 ;*CALL:
2876 ;*      MOV      NUM,-(SP)          ;NUMBER TO BE TYPED
2877 ;*      TYPOS    ;CALL FOR TYPEOUT
2878 ;*      .BYTE    N          ;N=1 TO 6 FOR NUMBER OF DIGITS TO TYPE
2879 ;*      .BYTE    M          ;M=1 OR 0
2880 ;*                               ;1=TYPE LEADING ZEROS
2881 ;*                               ;0=SUPPRESS LEADING ZEROS
2882
2883 ;*STYPON---ENTER HERE TO TYPE OUT WITH THE SAME PARAMETERS AS THE LAST
2884 ;*STYPOS OR STYPOC
2885 ;*CALL:
2886 ;*      MOV      NUM,-(SP)          ;NUMBER TO BE TYPED
2887 ;*      TYPON    ;CALL FOR TYPEOUT
2888
2889 ;*STYPOC---ENTER HERE FOR TYPEOUT OF A 16 BIT NUMBER
2890 ;*CALL:
2891 ;*      MOV      NUM,-(SP)          ;NUMBER TO BE TYPED
2892 ;*      TYPOC    ;CALL FOR TYPEOUT
2893
2894 014414 017646 000000 014637 STYPOS: MOV      2(SP),-(SP)          ;PICKUP THE MODE
2895 014420 116637 000001 014637 MOV      1(SP),SOFILL      ;LOAD ZERO FILL SWITCH
2896 014426 112637 014641 014637 MOV      (SP)+,SOMODE+1      ;NUMBER OF DIGITS TO TYPE
2897 014432 062716 000002 014637 ADD      #2,(SP)          ;ADJUST RETURN ADDRESS
2898 014436 000406 014637 BR      STYPON
2899 014440 112737 000001 014637 STYPOC: MOV      #1,SOFILL      ;SET THE ZERO FILL SWITCH
2900 014446 112737 000006 014641 MOV      #6,SOMODE+1      ;SET FOR SIX(6) DIGITS
2901 014454 112737 000005 014636 STYPON: MOV      #5,SOCNT      ;SET THE ITERATION COUNT
2902 014462 010346 014636 MOV      R3,-(SP)          ;SAVE R3
2903 014464 010446 014636 MOV      R4,-(SP)          ;SAVE R4
2904 014466 010546 014636 MOV      R5,-(SP)          ;SAVE R5
2905 014470 113704 014641 MOV      SOMODE+1,R4      ;GET THE NUMBER OF DIGITS TO TYPE
2906 014474 005404 014641 NEG      R4
2907 014476 062704 000006 014641 ADD      #6,R4          ;SUBTRACT IT FOR MAX. ALLOWED
2908 014502 110437 014640 MOV      R4,SOMODE      ;SAVE IT FOR USE
2909 014506 113704 014637 MOV      SOFILL,R4      ;GET THE ZERO FILL SWITCH
2910 014512 016605 000012 014637 MOV      12(SP),R5      ;PICKUP THE INPUT NUMBER
2911 014516 005003 014637 CLR      R3          ;CLEAR THE OUTPUT WORD
2912 014520 006105 014637 1$: ROL      R5          ;ROTATE MSB INTO "C"
2913 014522 000404 014637 BR      3$          ;GO DO MSB
2914 014524 006105 014637 2$: ROL      R5          ;FORM THIS DIGIT
2915 014526 006105 014637 ROL      R5
2916 014530 006105 014637 ROL      R5
2917 014532 010503 014637 MOV      R5,R3
2918 014534 006103 014637 3$: ROL      R3          ;GET LSB OF THIS DIGIT
2919 014536 105337 014640 DECB      SOMODE      ;TYPE THIS DIGIT?
2920 014542 100016 014640 BPL      7$          ;BR IF NO
2921 014544 042703 177770 014640 BIC      #177770,R3      ;GET RID OF JUNK
2922 014550 001002 014640 BNE      4$          ;TEST FOR 0
2923 014552 005704 014640 TST      R4          ;SUPPRESS THIS 0?

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2924 014554 001403          BEQ      5$
2925 014556 005204          4$: INC      R4
2926 014560 052703 000060    BIS      #'0,R3
2927 014564 052703 000040    5$: BIS      #' ,R3
2928 014570 110337 014634    MOVB     R3,8$
2929 014574 104400 014634    TYPE     8$
2930 014600 105337 014636    7$: DECB     $OCNT
2931 014604 003347          BGT      2$
2932 014606 002402          BLT      6$
2933 014610 005204          INC      R4
2934 014612 000744          BR       2$
2935 014614 012605          6$: MOV      (SP)+,R5
2936 014616 012604          MOV      (SP)+,R4
2937 014620 012603          MOV      (SP)+,R3
2938 014622 016666 000002 000004 MOV      2(SP),4(SP)
2939 014630 012616          MOV      (SP)+,(SP)
2940 014632 000002          RTI
2941 014634 000          8$: .BYTE     0
2942 014635 000          .BYTE     0
2943 014636 000          $OCNT: .BYTE     0
2944 014637 000          $OFILL: .BYTE     0
2945 014640 000000          $OMODE: 0
2946 014642          .SERRTYP
2947 014642          STARS
2948          ;;*****
2949
2950          .SBTTL  ERROR MESSAGE TYPEOUT ROUTINE
2951
2952          ;*THIS ROUTINE USES THE "ITEM CONTROL BYTE" ($ITEMB) TO DETERMINE WHICH
2953          ;*ERROR IS TO BE REPORTED. IT THEN OBTAINS, FROM THE "ERROR TABLE" ($ERRTB),
2954          ;*AND REPORTS THE APPROPRIATE INFORMATION CONCERNING THE ERROR.
2955
2956          SERRTYP:
2957 014642 104400 001225          TYPE     $SCRLF
2958 014646 010046          MOV      RO,-(SP)
2959 014650 005000          CLR      RO
2960 014652 153700 001114          BISB     2*$ITEMB,RO
2961 014656 001004          BNE      1$
2962
2963 014660          TYPOCT  $ERRPC,<ERROR ADDRESS>
2964 014660 013746 001116          MOV      $ERRPC,-(SP)
2965
2966 014664 104402          TYPOC
2967 014666 000426          BR       6$
2968 014670 005300          1$: DEC      RO
2969 014672 006300          ASL      RO
2970 014674 006300          ASL      RO
2971 014676 006300          ASL      RO
2972 014700 062700 001314          ADD      #SERRTB,RO
2973 014704 012037 014714          MOV      (RO)+,2$
2974 014710 001404          BEQ      3$
2975 014712 104400          TYPE
2976 014714 000000          2$: .WORD     0
2977 014716 104400 001225          TYPE     $SCRLF
2978 014722 012037 014732          3$: MOV      (RO)+,4$
2979 014726 001404          BEQ      5$

```

;BR IF YES
;DON'T SUPPRESS ANYMORE 0'S
;MAKE THIS DIGIT ASCII
;MAKE ASCII IF NOT ALREADY
;SAVE FOR TYPING
;GO TYPE THIS DIGIT
;COUNT BY 1
;BR IF MORE TO DO
;BR IF DONE
;INSURE LAST DIGIT ISN'T A BLANK
;GO DO THE LAST DIGIT
;RESTORE R5
;RESTORE R4
;RESTORE R3
;SET THE STACK FOR RETURNING
;RETURN
;STORAGE FOR ASCII DIGIT
;TERMINATOR FOR TYPE ROUTINE
;OCTAL DIGIT COUNTER
;ZERO FILL SWITCH
;NUMBER OF DIGITS TO TYPE

;*****

.SBTTL ERROR MESSAGE TYPEOUT ROUTINE

;*THIS ROUTINE USES THE "ITEM CONTROL BYTE" (\$ITEMB) TO DETERMINE WHICH
;*ERROR IS TO BE REPORTED. IT THEN OBTAINS, FROM THE "ERROR TABLE" (\$ERRTB),
;*AND REPORTS THE APPROPRIATE INFORMATION CONCERNING THE ERROR.

SERRTYP:

TYPE \$SCRLF ;"CARRIAGE RETURN" & "LINE FEED"
MOV RO,-(SP) ;SAVE RO
CLR RO ;PICKUP THE ITEM INDEX
BISB 2*\$ITEMB,RO
BNE 1\$;IF ITEM NUMBER IS ZERO, JUST
;TYPE THE PC OF THE ERROR
TYPOCT \$ERRPC,<ERROR ADDRESS>
MOV \$ERRPC,-(SP) ;SAVE \$ERRPC FOR TYPEOUT
;ERROR ADDRESS
GO TYPE--OCTAL ASCII(ALL DIGITS)
GET OUT
ADJUST THE INDEX SO THAT IT WILL
;WORK FOR THE ERROR TABLE
1\$: DEC RO
ASL RO
ASL RO
ASL RO
ADD #SERRTB,RO ;FORM TABLE POINTER
MOV (RO)+,2\$;PICKUP "ERROR MESSAGE" POINTER
BEQ 3\$;SKIP TYPEOUT IF NO POINTER
TYPE "ERROR MESSAGE"
"ERROR MESSAGE" POINTER GOES HERE
; "CARRIAGE RETURN" & "LINE FEED"
3\$: MOV (RO)+,4\$;PICKUP "DATA HEADER" POINTER
BEQ 5\$;SKIP TYPEOUT IF 0

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 DZTCBC.P11 ERROR MESSAGE TYPEOUT ROUTINE

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2980 014730 104400          TYPE                                ;TYPE THE "DATA HEADER"
2981 014732 000000          4$: WORD 0                        ;"DATA HEADER" POINTER GOES HERE
2982 014734 104400 001225   TYPE ,SCRLF                      ;"CARRIAGE RETURN" & "LINE FEED"
2983 014740 011000          5$: MOV (RO),RO                  ;PICKUP "DATA TABLE" POINTER
2984 014742 001004          BNE 7$                          ;GO TYPE THE DATA
2985 014744 012600          6$: MOV (SP)+,RO                 ;RESTORE RO
2986 014746 104400 001225   TYPE ,SCRLF                      ;"CARRIAGE RETURN" & "LINE FEED"
2987 014752 000207          RTS PC                           ;RETURN
2988 014754          7$: TYPOCT 2(RO)+                       ;TYPE AN OCTAL NUMBER
2989 014754 013046          MOV 2(RO)+,-(SP)                 ;SAVE 2(RO)+ FOR TYPEOUT
2990 014756 104402          TYPOC                             ;GO TYPE--OCTAL ASCII(ALL DIGITS)
2991 014760 005710          TST (RO)                          ;IS THERE ANOTHER NUMBER?
2992 014762 001770          BEQ 6$                           ;BR IF NO
2993 014764 104400 014772   TYPE ,8$                         ;TYPE TWO(2) SPACES
2994 014770 000771          BR 7$                             ;LOOP
2995 014772 020340 000      8$: .ASCIZ / /                   ;TWO(2) SPACES
2996 014776 014776          .STRAP
2997 014776          STARS
2999          ;*****
3000          .SBTTL TRAP DECODER
3001
3002          ;*THIS ROUTINE WILL PICKUP THE LOWER BYTE OF THE "TRAP" INSTRUCTION
3003          ;*AND USE IT TO INDEX THROUGH THE TRAP TABLE FOR THE STARTING ADDRESS
3004          ;*OF THE DESIRED ROUTINE. THEN USING THE ADDRESS OBTAINED IT WILL
3005          ;*GO TO THAT ROUTINE.
3006
3007          STRAP: MOV RO,-(SP)                                ;SAVE RO
3008 014776 010046          MOV 2(SP),RO                       ;GET TRAP ADDRESS
3009 015000 016600 000002   TST -(RO)                          ;BACKUP BY 2
3010 015004 005740          MOVB (RO),RO                       ;GET RIGHT BYTE OF TRAP
3011 015006 111000          MOV STRPAD(RO),RO                 ;INDEX TO TABLE
3012 015010 016000 015016   RTS RO                             ;GO TO ROUTINE
3013 015014 000200
3014
3015          .MACRO SETTRAP A,B,MSG
3016          $$SET A,B,\(TRAP+STRP),\STRP,<MSG>
3017
3018          .NLIST
3019          STRP=STRP+2
3020          .LIST
3021          .ENDM SETTRAP
3022          .MACRO $$SET A,B,C,D,COMNT
3023          .IF EQ STRP
3024          .SBTTL TRAP TABLE
3025
3026          ;*THIS TABLE CONTAINS THE STARTING ADDRESSES OF THE ROUTINES CALLED
3027          ;*BY THE "TRAP" INSTRUCTION.
3028
3029          ; ROUTINE
3030          ;-----
3031          STRPAD:
3032          .ENDC
3033          .IIF NDF GNS,.NLIST
3034          A=C
3035          .IIF NDF GNS,.LIST

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3036                                     B          ;CALL=A TRAP+D(C)      COMNT
3037                                     .ENDM      $$SET
3038                                     .MACRO      TRMTRP
3039                                     $TERM=-.$TRPAD
3040                                     .ENDM      TRMTRP
3041                                     .LIST
3042 015016                               SETTRAP TYPE,$TYPE,↑/TTY TYPEOUT ROUTINE/
3043 015016                               $$SET  TYPE,$TYPE,\<TRAP+$TRP>,\$TRP,<TTY TYPEOUT ROUTINE>
3044
3045                                     .SBTTL  TRAP TABLE
3046
3047                                     ;*THIS TABLE CONTAINS THE STARTING ADDRESSES OF THE ROUTINES CALLED
3048                                     ;*BY THE "TRAP" INSTRUCTION.
3049
3050                                     ;          ROUTINE
3051                                     ;          -----
3052 015016                               $TRPAD:
3053                                     .LIST
3054 015016 014062                       $TYPE          ;CALL=TYPE      TRAP+0(104400)  TTY TYPEOUT ROUTINE
3055                                     .LIST
3056 015020                               SETTRAP TYPOC,$TYPOC,↑/TYPE OCTAL NUMBER (WITH LEADING ZEROS)/
3057 015020                               $$SET  TYPOC,$TYPOC,\<TRAP+$TRP>,\$TRP,<TYPE OCTAL NUMBER (WITH LEADING ZEROS)>
3058                                     .LIST
3059 015020 014440                       $TYPOC          ;CALL=TYPOC      TRAP+2(104402)  TYPE OCTAL NUMBER (WITH LEADING
3060                                     .LIST
3061 015022                               SETTRAP TYPOS,$TYPOS,↑/TYPE OCTAL NUMBER (NO LEADING ZEROS)/
3062 015022                               $$SET  TYPOS,$TYPOS,\<TRAP+$TRP>,\$TRP,<TYPE OCTAL NUMBER (NO LEADING ZEROS)>
3063                                     .LIST
3064 015022 014414                       $TYPOS          ;CALL=TYPOS      TRAP+4(104404)  TYPE OCTAL NUMBER (NO LEADING ZE
3065                                     .LIST
3066 015024                               SETTRAP TYPON,$TYPON,↑/TYPE OCTAL NUMBER (AS PER LAST CALL)/
3067 015024                               $$SET  TYPON,$TYPON,\<TRAP+$TRP>,\$TRP,<TYPE OCTAL NUMBER (AS PER LAST CALL)>
3068                                     .LIST
3069 015024 014454                       $TYPON          ;CALL=TYPON      TRAP+6(104406)  TYPE OCTAL NUMBER (AS PER LAST C
3070                                     .LIST
3071 015026                               SETTRAP TYPDS,$TYPDS,↑/TYPE DECIMAL NUMBER (WITH SIGN)/
3072 015026                               $$SET  TYPDS,$TYPDS,\<TRAP+$TRP>,\$TRP,<TYPE DECIMAL NUMBER (WITH SIGN)>
3073                                     .LIST
3074 015026 014170                       $TYPDS          ;CALL=TYPDS      TRAP+10(104410) TYPE DECIMAL NUMBER (WITH SIGN)
3075                                     .LIST
3076 015030 000000                       CKSELT: OPEN
3077 015032 055104 041524 026502          STMES: .ASCII 'DZTCB-C - TC11 TEST'<15><12>
3078 015040 020103 020055 041524
3079 015046 030461 052040 051505
3080 015054 006524 012
3081 015057 123 052105 052440          .ASCII 'SET UNITS TO REMOTE AND WRITE LOCK.'
3082 015064 044516 030124 052040
3083 015072 020117 042522 047515
3084 015100 042524 040440 042116
3085 015106 053440 044522 042524
3086 015114 046040 041517 027113
3087 015122 046101 020114 052117          .ASCII 'ALL OTHER UNITS OFF.'<15><12>
3088 015130 042510 020122 047125
3089 015136 052111 020123 043117
3090 015144 027106 005015
3091 015150 051127 046524 051140          .ASCII 'WRTM SWITCH OFF, WALL SWITCH ON.'<15><12>

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K05

MAINDEC-11-DZTCB-C
DZTCBC.P11TC11 TEST #2
TRAP TABLE

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3092	015156	044527	041524	020110
3093	015164	043117	026106	053440
3094	015172	046101	020114	053523
3095	015200	052111	044103	047440
3096	015206	027116	005015	000
3097	015213	015	051412	052105
3098	015220	051440	020122	050117
3099	015226	044524	047117	027123
3100	015234	047040	051117	040515
3101	015242	020114	051123	036440
3102	015250	030040	000	
3103	015253	015	044412	053116
3104	015260	046101	042111	052040
3105	015266	051505	027124	000
3106	015273	007		
3107	015274	025045	000	
3108	015277	106	052101	046101
3109	015304	042440	051122	051117
3110	015312	052040	040522	020120
3111	015320	047524	046040	041517
3112	015326	052101	047511	020116
3113	015334	020064	051106	046517
3114	015342	046040	041517	000
3115	015347	050	041077	042101
3116	015354	041440	052520	024477
3117	015362	040440	052124	046505
3118	015370	052120	047111	020107
3119	015376	047524	051040	051505
3120	015404	040524	052122	050040
3121	015412	047522	051107	046501
3122	015420	000		
3123	015421	106	052101	046101
3124	015426	042440	051122	051117
3125	015434	052040	040522	020120
3126	015442	047524	046040	041517
3127	015450	052101	047511	020116
3128	015456	030061	043040	047522
3129	015464	020115	047514	020103
3130	015472	000		
3131	015473	124	051505	051524
3132	015500	040440	042522	047440
3133	015506	052125	047440	020106
3134	015514	042523	052521	047105
3135	015522	042503	026440	026440
3136	015530	026440	051040	051505
3137	015536	040524	052122	047111
3138	015544	027107	027056	000056
3139	015552	005015	042522	052123
3140	015560	051101	044524	043516
3141	015566	040440	052106	051105
3142	015574	040440	050040	053517
3143	015602	051105	043040	044501
3144	015610	052514	042522	005015
3145	015616	000		
3146	015617	123	052101	024040
3147	015624	052123	050117	040440

ASETSR: .ASCIZ <15><12>'SET SR OPTIONS. NORMAL SR = 0'

AINCRT: .ASCIZ <15><12>'INVALID TEST.'

APGEND: .BYTE 007

.ASCIZ '%*'

TRPM45: .ASCIZ "FATAL ERROR TRAP TO LOCATION 4 FROM LOC"

TRPMES: .ASCIZ "(?BAD CPU?) ATTEMPTING TO RESTART PROGRAM"

TRPM10: .ASCIZ "FATAL ERROR TRAP TO LOCATION 10 FROM LOC "

RESTART: .ASCIZ "TESTS ARE OUT OF SEQUENCE - - - RESTARTING...."

POWMES: .ASCIZ <15> <12> "RESTARTING AFTER A POWER FAILURE"<15> <12>

EMI: .ASCIZ "SAT (STOP ALL TRANSPORTS) COMMAND DID NOT CLEAR READY"

3148	015632	046114	052040	040522
3149	015640	051516	047520	052122
3150	015646	024523	041440	046517
3151	015654	040515	042116	042040
3152	015662	042111	047040	052117
3153	015670	041440	042514	051101
3154	015676	051040	040505	054504
3155	015704	000		
3156	015705	040	050040	020103
3157	015712	020040	020040	051440
3158	015720	020120	020040	020040
3159	015726	050040	020123	020040
3160	015734	020040	042524	052123
3161	015742	020043	020040	041524
3162	015750	046503	020040	020040
3163	015756	041524	052123	000
3164		015764		
3165	015764	001116	001170	001172
3166	015772	001166	001160	001156
3167	016000	000000		
3168				
3169				
3170	016002	051523	020124	051450
3171	016010	047524	020120	042523
3172	016016	042514	052103	042105
3173	016024	052040	040522	051516
3174	016032	047520	052122	020051
3175	016040	044504	020104	047516
3176	016046	020124	046103	040505
3177	016054	020122	042522	042101
3178	016062	000131		
3179	016064	020040	041520	020040
3180	016072	020040	020040	050123
3181	016100	020040	020040	020040
3182	016106	051520	020040	020040
3183	016114	052340	051505	021524
3184	016122	020040	052040	041503
3185	016130	020115	020040	052040
3186	016136	051503	000124	
3187				
3188	016142	001116	001170	001172
3189	016150	001166	001160	001156
3190	016156	000000		
3191				
3192				
3193	016160	042522	042101	020131
3194	016166	044502	020124	044504
3195	016174	020104	047516	020124
3196	016202	040503	051525	020105
3197	016210	047101	044440	052116
3198	016216	051105	052522	052120
3199	016224	000		
3200	016225	040	050040	020103
3201	016232	020040	020040	051440
3202	016240	020120	020040	020040
3203	016246	050040	020123	020040

EH1: .ASCIZ " PC SP PS TEST# TCCM TCST"

.EVEN
ET1: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
000000

EM2: .ASCIZ "SST (STOP SELECTED TRANSPORT) DID NOT CLEAR READY"

EH2: .ASCIZ " PC SP PS TEST# TCCM TCST"

.EVEN
ET2: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
000000

EM3: .ASCIZ "READY BIT DID NOT CAUSE AN INTERRUPT"

EH3: .ASCIZ " PC SP PS TEST# TCCM TCST"

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MAINDEC-11-DZTCB-C
DZTCBC.P11TC11 TEST #2
TRAP TABLE

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3204	016254	020040	042524	052123	
3205	016262	020043	020040	041524	
3206	016270	046503	020040	020040	
3207	016276	041524	052123	000	
3208		016304			
3209	016304	001116	001170	001172	.EVEN
3210	016312	001166	001160	001156	ET3: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
3211	016320	000000			000000
3212					
3213					
3214	016322	042522	042101	020131	EM4: .ASCIZ "READY BIT CAUSED AN INTERRUPT WITH PROCESSOR AND TC11 AT SAME PRIORITY"
3215	016330	044502	020124	040503	
3216	016336	051525	042105	040440	
3217	016344	020116	047111	042524	
3218	016352	051122	050125	020124	
3219	016360	044527	044124	050040	
3220	016366	047522	042503	051523	
3221	016374	051117	040440	042116	
3222	016402	052040	030503	020061	
3223	016410	052101	051440	046501	
3224	016416	020105	051120	047511	
3225	016424	044522	054524	000	
3226	016431	040	050040	020103	EM4: .ASCIZ " PC SP PS TEST# TCCM TCST"
3227	016436	020040	020040	051440	
3228	016444	020120	020040	020040	
3229	016452	050040	020123	020040	
3230	016460	020040	042524	052123	
3231	016466	020043	020040	041524	
3232	016474	046503	020040	020040	
3233	016502	041524	052123	000	
3234		016510			
3235	016510	001116	001170	001172	.EVEN
3236	016516	001166	001160	001156	ET4: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
3237	016524	000000			000000
3238					
3239					
3240	016526	041524	030461	043040	EM5: .ASCIZ "TC11 FAILED TO INTERRUPT"
3241	016534	044501	042514	020104	
3242	016542	047524	044440	052116	
3243	016550	051105	052522	052120	
3244	016556	000			
3245	016557	040	050040	020103	EM5: .ASCIZ " PC SP PS TEST# TCCM TCST"
3246	016564	020040	020040	051440	
3247	016572	020120	020040	020040	
3248	016600	050040	020123	020040	
3249	016606	020040	042524	052123	
3250	016614	020043	020040	041524	
3251	016622	046503	020040	020040	
3252	016630	041524	052123	000	
3253		016636			
3254	016636	001116	001170	001172	.EVEN
3255	016644	001166	001160	001156	ET5: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
3256	016652	000000			000000
3257					
3258					
3259	016654	041524	030461	042040	EM6: .ASCIZ "TC11 DID NOT DROP INTERRUPT REQUEST AFTER IT WAS ACKNOLEDGED"

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MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 61
DZTCBC.P11 TRAP TABLE

3260	016662	042111	047040	052117						
3261	016670	042040	047522	020120						
3262	016676	047111	042524	051122						
3263	016704	050125	020124	042522						
3264	016712	052521	051505	020124						
3265	016720	043101	042524	020122						
3266	016726	052111	053440	051501						
3267	016734	040440	045503	047516						
3268	016742	042514	043504	042105						
3269	016750	000								
3270	016751	040	050040	020103	EH6:	.ASCIZ	"	PC	SP	PS
3271	016756	020040	020040	051440		TEST#	TCCM	TCST"		
3272	016764	020120	020040	020040						
3273	016772	050040	020123	020040						
3274	017000	020040	042524	052123						
3275	017006	020043	020040	041524						
3276	017014	046503	020040	020040						
3277	017022	041524	052123	000						
3278		017030			.EVEN					
3279	017030	001116	001170	001172	ET6:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
3280	017036	001166	001160	001156						
3281	017044	000000				000000				
3282										
3283										
3284	017046	047504	047111	020107	EM7:	.ASCIZ	"DOING A RESET INSTRUCTION 'DID NOT CLEAR UPS"			
3285	017054	020101	042522	042523						
3286	017062	020124	047111	052123						
3287	017070	052522	052103	047511						
3288	017076	020116	044504	020104						
3289	017104	047516	020124	046103						
3290	017112	040505	020122	050125						
3291	017120	000123								
3292	017122	020040	041520	020040	EH7:	.ASCIZ	"	PC	SP	PS
3293	017130	020040	020040	050123		TEST#	TCCM	TCST"		
3294	017136	020040	020040	020040						
3295	017144	051520	020040	020040						
3296	017152	052040	051505	021524						
3297	017160	020040	052040	041503						
3298	017166	020115	020040	052040						
3299	017174	051503	000124							
3300					.EVEN					
3301	017200	001116	001170	001172	ET7:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
3302	017206	001166	001160	001156						
3303	017214	000000				000000				
3304										
3305										
3306	017216	047105	042524	044522	EM10:	.ASCIZ	"ENTERING MAINTANENCE MODE DID NOT SET UPS"			
3307	017224	043516	046440	044501						
3308	017232	052116	047101	047105						
3309	017240	042503	046440	042117						
3310	017246	020105	044504	020104						
3311	017254	047516	020124	042523						
3312	017262	020124	050125	000123						
3313	017270	020040	041520	020040	EH10:	.ASCIZ	"	PC	SP	PS
3314	017276	020040	020040	050123		TEST#	TCCM	TCST"		
3315	017304	020040	020040	020040						

3316	017312	051520	020040	020040	
3317	017320	052040	051505	021524	
3318	017326	020040	052040	041503	
3319	017334	020115	020040	052040	
3320	017342	051503	000124		
3321					.EVEN
3322	017346	001116	001170	001172	ET10: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3323	017354	001166	001160	001156	
3324	017362	000000			000000
3325					
3326					
3327	017364	050125	020123	044504	EM11: .ASCIZ "UPS DID NOT CLEAR WHEN LEAVING MAINTANENCE MODE"
3328	017372	020104	047516	020124	
3329	017400	046103	040505	020122	
3330	017406	044127	047105	046040	
3331	017414	040505	044526	043516	
3332	017422	046440	044501	052116	
3333	017430	047101	047105	042503	
3334	017436	046440	042117	000105	
3335	017444	020040	041520	020040	EM11: .ASCIZ " PC SP PS TEST# TCCM TCST"
3336	017452	020040	020040	050123	
3337	017460	020040	020040	020040	
3338	017466	051520	020040	020040	
3339	017474	052040	051505	021524	
3340	017502	020040	052040	041503	
3341	017510	020115	020040	052040	
3342	017516	051503	000124		
3343					.EVEN
3344	017522	001116	001170	001172	ET11: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3345	017530	001166	001160	001156	
3346	017536	000000			000000
3347					
3348					
3349	017540	041524	052123	041040	EM12: .ASCIZ "TCST BIT 0 CAN BE SET WHILE IN MAINTANENCE MODE"
3350	017546	052111	030040	041440	
3351	017554	047101	041040	020105	
3352	017562	042523	020124	044127	
3353	017570	046111	020105	047111	
3354	017576	046440	044501	052116	
3355	017604	047101	047105	042503	
3356	017612	046440	042117	000105	
3357	017620	020040	041520	020040	EM12: .ASCIZ " PC SP PS TEST# TCCM TCST"
3358	017626	020040	020040	050123	
3359	017634	020040	020040	020040	
3360	017642	051520	020040	020040	
3361	017650	052040	051505	021524	
3362	017656	020040	052040	041503	
3363	017664	020115	020040	052040	
3364	017672	051503	000124		
3365					.EVEN
3366	017676	001116	001170	001172	ET12: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3367	017704	001166	001160	001156	
3368	017712	000000			000000
3369					
3370					
3371	017714	041524	052123	041040	EM13: .ASCIZ "TCST BIT 1 CAN BE SET WHILE IN MAINTANENCE MODE"

3372	017722	052111	030440	041440						
3373	017730	047101	041040	020105						
3374	017736	042523	020124	044127						
3375	017744	046111	020105	047111						
3376	017752	046440	044501	052116						
3377	017760	047101	047105	042503						
3378	017766	046440	042117	000105						
3379	017774	020040	041520	020040	EH13:	.ASCIZ	"	PC	SP	PS
3380	020002	020040	020040	050123		TEST#	TCCM	TCST"		
3381	020010	020040	020040	020040						
3382	020016	051520	020040	020040						
3383	020024	052040	051505	021524						
3384	020032	020040	052040	041503						
3385	020040	020115	020040	052040						
3386	020046	051503	000124							
3387					.EVEN					
3388	020052	001116	001170	001172	ET13:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
3389	020060	001166	001160	001156						
3390	020066	000000				000000				
3391										
3392										
3393	020070	051127	046524	041440	EM14:	.ASCIZ	"	WRTM COMMAND WITH WRTM SWITCH DISABLED FAILED TO SET ILO ERROR"		
3394	020076	042517	040515	042116						
3395	020104	053440	052111	020110						
3396	020112	051127	046524	051440						
3397	020120	044527	041524	020110						
3398	020126	044504	040523	046102						
3399	020134	042105	043040	044501						
3400	020142	042514	020104	047524						
3401	020150	051440	052105	044440						
3402	020156	047514	042440	051122						
3403	020164	051117	000							
3404	020167	040	050040	020103	EH14:	.ASCIZ	"	PC	SP	PS
3405	020174	020040	020040	051440		TEST#	TCCM	TCST"		
3406	020202	020120	020040	020040						
3407	020210	050040	020123	020040						
3408	020216	020040	042524	052123						
3409	020224	020043	020040	041524						
3410	020232	046503	020040	020040						
3411	020240	041524	052123	000						
3412		020246			.EVEN					
3413	020246	001116	001170	001172	ET14:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
3414	020254	001166	001160	001156						
3415	020262	000000				000000				
3416										
3417										
3418	020264	046111	020117	051105	EM15:	.ASCIZ	"	ILO ERROR FAILED TO SET THE 'ERROR' BIT"		
3419	020272	047522	020122	040506						
3420	020300	046111	042105	052040						
3421	020306	020117	042523	020124						
3422	020314	044124	020105	042447						
3423	020322	051122	051117	020047						
3424	020330	044502	000124							
3425	020334	020040	041520	020040	EH15:	.ASCIZ	"	PC	SP	PS
3426	020342	020040	020040	050123		TEST#	TCCM	TCST"		
3427	020350	020040	020040	020040						

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MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 64
 DZTCBC.P11 TRAP TABLE

3428	020356	051520	020040	020040	
3429	020364	052040	051505	021524	
3430	020372	020040	052040	041503	
3431	020400	020115	020040	052040	
3432	020406	051503	000124		
3433					.EVEN
3434	020412	001116	001170	001172	ET15: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3435	020420	001166	001160	001156	
3436	020426	000000			000000
3437					
3438					
3439	020430	046103	040505	044522	EH16: .ASCIZ "CLEARING ILLEGAL OP FAILED TO CLEAR ILO ERROR"
3440	020436	043516	044440	046114	
3441	020444	043505	046101	047440	
3442	020452	020120	040506	046111	
3443	020460	042105	052040	020117	
3444	020466	046103	040505	020122	
3445	020474	046111	020117	051105	
3446	020502	047522	000122		
3447	020506	020040	041520	020040	EH16: .ASCIZ " PC SP PS TEST# TCCM TCST"
3448	020514	020040	020040	050123	
3449	020522	020040	020040	020040	
3450	020530	051520	020040	020040	
3451	020536	052040	051505	021524	
3452	020544	020040	052040	041503	
3453	020552	020115	020040	052040	
3454	020560	051503	000124		
3455					.EVEN
3456	020564	001116	001170	001172	ET16: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3457	020572	001166	001160	001156	
3458	020600	000000			000000
3459					
3460					
3461	020602	046103	040505	044522	EH17: .ASCIZ "CLEARING ILLEGAL OP FAILED TO CLEAR THE 'ERROR' BIT"
3462	020610	043516	044440	046114	
3463	020616	043505	046101	047440	
3464	020624	020120	040506	046111	
3465	020632	042105	052040	020117	
3466	020640	046103	040505	020122	
3467	020646	044124	020105	042447	
3468	020654	051122	051117	020047	
3469	020662	044502	000124		
3470	020666	020040	041520	020040	EH17: .ASCIZ " PC SP PS TEST# TCCM TCST"
3471	020674	020040	020040	050123	
3472	020702	020040	020040	020040	
3473	020710	051520	020040	020040	
3474	020716	052040	051505	021524	
3475	020724	020040	052040	041503	
3476	020732	020115	020040	052040	
3477	020740	051503	000124		
3478					.EVEN
3479	020744	001116	001170	001172	ET17: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3480	020752	001166	001160	001156	
3481	020760	000000			000000
3482					
3483					

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MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 65
 DZTCBC.P11 TRAP TABLE

3484	020762	051127	046524	053440	EM20:	.ASCIZ "WRTM WITH WRTM SWITCH OFF DID NOT SET ILO ERROR BIT"					
3485	020770	052111	020110	051127							
3486	020776	046524	051440	044527							
3487	021004	041524	020110	043117							
3488	021012	020106	044504	020104							
3489	021020	047516	020124	042523							
3490	021026	020124	046111	020117							
3491	021034	051105	047522	020122							
3492	021042	044502	000124								
3493	021046	020040	041520	020040	EH20:	.ASCIZ " PC SP PS TEST# TCCM TCST"					
3494	021054	020040	020040	050123							
3495	021062	020040	020040	020040							
3496	021070	051520	020040	020040							
3497	021076	052040	051505	021524							
3498	021104	020040	052040	041503							
3499	021112	020115	020040	052040							
3500	021120	051503	000124								
3501					.EVEN						
3502	021124	001116	001170	001172	ET20:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1					
3503	021132	001166	001160	001156							
3504	021140	000000				000000					
3505											
3506											
3507	021142	046111	020117	051105	EM21:	.ASCIZ "ILO ERROR SETTING DID NOT CAUSE THE 'ERROR' BIT TO SET"					
3508	021150	047522	020122	042523							
3509	021156	052124	047111	020107							
3510	021164	044504	020104	047516							
3511	021172	020124	040503	051525							
3512	021200	020105	044124	020105							
3513	021206	042447	051122	051117							
3514	021214	020047	044502	020124							
3515	021222	047524	051440	052105							
3516	021230	000									
3517	021231	040	050040	020103	EH21:	.ASCIZ " PC SP PS TEST# TCCM TCST"					
3518	021236	020040	020040	051440							
3519	021244	020120	020040	020040							
3520	021252	050040	020123	020040							
3521	021260	020040	042524	052123							
3522	021266	020043	020040	041524							
3523	021274	046503	020040	020040							
3524	021302	041524	052123	000							
3525		021310			.EVEN						
3526	021310	001116	001170	001172	ET21:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1					
3527	021316	001166	001160	001156							
3528	021324	000000				000000					
3529											
3530											
3531	021326	046103	040505	044522	EM22:	.ASCIZ "CLEARING ERROR BIT ALSO CLEARED ILO ERROR"					
3532	021334	043516	042440	051122							
3533	021342	051117	041040	052111							
3534	021350	040440	051514	020117							
3535	021356	046103	040505	042522							
3536	021364	020104	046111	020117							
3537	021372	051105	047522	000122							
3538	021400	020040	041520	020040	EH22:	.ASCIZ " PC SP PS TEST# TCCM TCST"					
3539	021406	020040	020040	050123							

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MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 66
 DZTCBC.P11 TRAP TABLE

3540	021414	020040	020040	020040	
3541	021422	051520	020040	020040	
3542	021430	052040	051505	021524	
3543	021436	020040	052040	041503	
3544	021444	020115	020040	052040	
3545	021452	051503	000124		
3546					.EVEN
3547	021456	001116	001170	001172	ET22: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3548	021464	001166	001160	001156	
3549	021472	000000			000000
3550					
3551					
3552	021474	044124	020105	042447	EM23: .ASCIZ "THE 'ERROR' BIT DID NOT SET"
3553	021502	051122	051117	020047	
3554	021510	044502	020124	044504	
3555	021516	020104	047516	020124	
3556	021524	042523	000124		
3557	021530	020040	041520	020040	EH23: .ASCIZ " PC SP PS TEST# TCCM TCST"
3558	021536	020040	020040	050123	
3559	021544	020040	020040	020040	
3560	021552	051520	020040	020040	
3561	021560	052040	051505	021524	
3562	021566	020040	052040	041503	
3563	021574	020115	020040	052040	
3564	021602	051503	000124		
3565					.EVEN
3566	021606	001116	001170	001172	ET23: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3567	021614	001166	001160	001156	
3568	021622	000000			000000
3569					
3570					
3571	021624	044124	020105	042447	EM24: .ASCIZ "THE 'ERROR' BIT SET DID NOT CAUSE AN INTERRUPT"
3572	021632	051122	051117	020047	
3573	021640	044502	020124	042523	
3574	021646	020124	044504	020104	
3575	021654	047516	020124	040503	
3576	021662	051525	020105	047101	
3577	021670	044440	052116	051105	
3578	021676	052522	052120	000	
3579	021703	040	050040	020103	EH24: .ASCIZ " PC SP PS TEST# TCCM TCST"
3580	021710	020040	020040	051440	
3581	021716	020120	020040	020040	
3582	021724	050040	020123	020040	
3583	021732	020040	042524	052123	
3584	021740	020043	020040	041524	
3585	021746	046503	020040	020040	
3586	021754	041524	052123	000	
3587		021762			.EVEN
3588	021762	001116	001170	001172	ET24: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3589	021770	001166	001160	001156	
3590	021776	000000			000000
3591					
3592					
3593	022000	047504	047111	020107	EM25: .ASCIZ "DOING A RESET INSTRUCTION DID NOT SET THE READY BIT"
3594	022006	020101	042522	042523	
3595	022014	020124	047111	052123	

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MAINDEC-11-DZTCB-C T011 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 67
 DZTCBC.P11 TRAP TABLE

3596	022022	052522	052103	047511							
3597	022030	020116	044504	020104							
3598	022036	047516	020124	042523							
3599	022044	020124	044124	020105							
3600	022052	042522	042101	020131							
3601	022060	044502	000124								
3602	022064	020040	041520	020040	EH25:	.ASCIZ	"	PC	SP	PS	TEST# TCCM TCST"
3603	022072	020040	020040	050123							
3604	022100	020040	020040	020040							
3605	022106	051520	020040	020040							
3606	022114	052040	051505	021524							
3607	022122	020040	052040	041503							
3608	022130	020115	020040	052040							
3609	022136	051503	000124								
3610					.EVEN						
3611	022142	001116	001170	001172	ET25:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1					
3612	022150	001166	001160	001156							
3613	022156	000000				000000					
3614											
3615											
3616	022160	042524	052123	042440	EM26:	.ASCIZ	"TEST EXECUTION IS OUT OF ORDER"				
3617	022166	042530	052503	044524							
3618	022174	047117	044440	020123							
3619	022202	052517	020124	043117							
3620	022210	047440	042122	051105							
3621	022216	000									
3622	022217	040	050040	020103	EH26:	.ASCIZ	"	PC	SP	PS	TEST# TEST# S/B"
3623	022224	020040	020040	051440							
3624	022232	020120	020040	020040							
3625	022240	050040	020123	020040							
3626	022246	020040	042524	052123							
3627	022254	020043	052040	051505							
3628	022262	021524	051440	041057							
3629	022270	000									
3630		022272			.EVEN						
3631	022272	001116	001170	001172	ET26:	\$ERRPC, \$REG6, \$REG7, \$REG0, \$REG5					
3632	022300	001154	001166								
3633	022304	000000				000000					
3634											
3635											
3636	022306	051105	047522	020122	EM27:	.ASCIZ	"ERROR TRYING TO READ A BLOCK MARK"				
3637	022314	051124	044531	043516							
3638	022322	052040	020117	042522							
3639	022330	042101	040440	041040							
3640	022336	047514	045503	046440							
3641	022344	051101	000113								
3642	022350	020040	041520	020040	EH27:	.ASCIZ	"	PC	SP	PS	TEST# TCCM TCST"
3643	022356	020040	020040	050123							
3644	022364	020040	020040	020040							
3645	022372	051520	020040	020040							
3646	022400	052040	051505	021524							
3647	022406	020040	052040	041503							
3648	022414	020115	020040	052040							
3649	022422	051503	000124								
3650					.EVEN						
3651	022426	001116	001170	001172	ET27:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1					

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MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 68
 DZTCBC.P11 TRAP TABLE

3652	022434	001166	001160	001156	
3653	022442	000000			000000
3654					
3655					
3656	022444	042522	042101	020131	EM30: .ASCIZ "READY WAS NOT SET AFTER BLOCK MARK WAS SHIFTED INTO THE WINDOW REGISTER"
3657	022452	040527	020123	047516	
3658	022460	020124	042523	020124	
3659	022466	043101	042524	020122	
3660	022474	046102	041517	020113	
3661	022502	040515	045522	053440	
3662	022510	051501	051440	044510	
3663	022516	052106	042105	044440	
3664	022524	052116	020117	044124	
3665	022532	020105	044527	042116	
3666	022540	053517	051040	043505	
3667	022546	051511	042524	000122	
3668	022554	020040	041520	020040	EH30: .ASCIZ " PC SP PS TEST# TCCM TCST"
3669	022562	020040	020040	050123	
3670	022570	020040	020040	020040	
3671	022576	051520	020040	020040	
3672	022604	052040	051505	021524	
3673	022612	020040	052040	041503	
3674	022620	020115	020040	052040	
3675	022626	051503	000124		
3676					.EVEN
3677	022632	001116	001170	001172	ET30: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
3678	022640	001166	001160	001156	
3679	022646	000000			000000
3680					
3681					
3682	022650	047111	047503	051122	EM31: .ASCIZ "INCORRECT BLOCK # IN DATA REG AFTER BLOCK MARK WAS DETECTED"
3683	022656	041505	020124	046102	
3684	022664	041517	020113	020043	
3685	022672	047111	042040	052101	
3686	022700	020101	042522	020107	
3687	022706	043101	042524	020122	
3688	022714	046102	041517	020113	
3689	022722	040515	045522	053440	
3690	022730	051501	042040	052105	
3691	022736	041505	042524	000104	
3692	022744	020040	041520	020040	EH31: .ASCIZ " PC SP PS TEST# TCCM TCST TCDT TCDT S/B"
3693	022752	020040	020040	050123	
3694	022760	020040	020040	020040	
3695	022766	051520	020040	020040	
3696	022774	052040	051505	021524	
3697	023002	020040	052040	041503	
3698	023010	020115	020040	052040	
3699	023016	051503	020124	020040	
3700	023024	052040	042103	020124	
3701	023032	052040	042103	020124	
3702	023040	027523	000102		
3703					.EVEN
3704	023044	001116	001170	001172	ET31: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, \$REG4, \$REG0
3705	023052	001166	001160	001156	
3706	023060	001164	001154		
3707	023064	000000			000000

3708										
3709										
3710	023066	052115	020105	040527	EM32:	.ASCIZ	"MTE WAS NOT SET BY AN ILLEGAL MARK TRACK CODE"			
3711	023074	020123	047516	020124						
3712	023102	042523	020124	054502						
3713	023110	040440	020116	046111						
3714	023116	042514	040507	020114						
3715	023124	040515	045522	052040						
3716	023132	040522	045503	041440						
3717	023140	042117	000105							
3718	023144	020040	041520	020040	EH32:	.ASCIZ	" PC SP PS TEST# TCCM TCST"			
3719	023152	020040	020040	050123						
3720	023160	020040	020040	020040						
3721	023166	051520	020040	020040						
3722	023174	052040	051505	021524						
3723	023202	020040	052040	041503						
3724	023210	020115	020040	052040						
3725	023216	051503	000124							
3726					.EVEN					
3727	023222	001116	001170	001172	ET32:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
3728	023230	001166	001160	001156						
3729	023236	000000								
3730										
3731										
3732	023240	052115	020105	042523	EM33:	.ASCIZ	"MTE SETTING FAILED TO SET THE 'ERROR' BIT"			
3733	023246	052124	047111	020107						
3734	023254	040506	046111	042105						
3735	023262	052040	020117	042523						
3736	023270	020124	044124	020105						
3737	023276	042447	051122	051117						
3738	023304	020047	044502	000124						
3739	023312	020040	041520	020040	EH33:	.ASCIZ	" PC SP PS TEST# TCCM TCST"			
3740	023320	020040	020040	050123						
3741	023326	020040	020040	020040						
3742	023334	051520	020040	020040						
3743	023342	052040	051505	021524						
3744	023350	020040	052040	041503						
3745	023356	020115	020040	052040						
3746	023364	051503	000124							
3747					.EVEN					
3748	023370	001116	001170	001172	ET33:	\$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1				
3749	023376	001166	001160	001156						
3750	023404	000000								
3751										
3752										
3753	023406	047105	055104	041040	EM34:	.ASCIZ	"ENDZ BIT DID NOT SET WHEN ENDZ MARK DETECTED"			
3754	023414	052111	042040	042111						
3755	023422	047040	052117	051440						
3756	023430	052105	053440	042510						
3757	023436	020116	047105	055104						
3758	023444	046440	051101	020113						
3759	023452	042504	042524	052103						
3760	023460	042105	000							
3761	023463	040	050040	020103	EH34:	.ASCIZ	" PC SP PS TEST# TCCM TCST"			
3762	023470	020040	020040	051440						
3763	023476	020120	020040	020040						

3764	023504	050040	020123	020040	
3765	023512	020040	042524	052123	
3766	023520	020043	020040	041524	
3767	023526	046503	020040	020040	
3768	023534	041524	052123	000	
3769		023542			.EVEN
3770	023542	001116	001170	001172	ET34: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3771	023550	001166	001160	001156	
3772	023556	000000			000000
3773					
3774					
3775	023560	040504	040524	052040	EM35: .ASCIZ "DATA TRANSFERED INCORECTLY"
3776	023566	040522	051516	042506	
3777	023574	042522	020104	047111	
3778	023602	047503	042522	052103	
3779	023610	054514	000		
3780	023613	040	050040	020103	EH35: .ASCIZ " PC SP PS TEST# TCCM TCST DATA S/B DATA WAS"
3781	023620	020040	020040	020040	
3782	023626	050123	020040	020040	
3783	023634	020040	051520	020040	
3784	023642	020040	042524	052123	
3785	023650	020043	020040	052040	
3786	023656	041503	020115	020040	
3787	023664	052040	051503	020124	
3788	023672	042040	052101	020101	
3789	023700	027523	020102	040504	
3790	023706	040524	053440	051501	
3791	023714	000			
3792		023716			.EVEN
3793	023716	001116	001170	001172	ET35: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,CBUIF,CBUIFA
3794	023724	001166	001160	001156	
3795	023732	001262	001264		
3796	023736	040515	045522	052040	EM36: .ASCIZ "MARK TRACK CODE 55 WAS MISTAKEN FOR END ZONE"
3797	023744	040522	045503	041440	
3798	023752	042117	020105	032465	
3799	023760	053440	051501	046440	
3800	023766	051511	040524	042513	
3801	023774	020116	047506	020122	
3802	024002	047105	020104	047532	
3803	024010	042516	000		
3804	024013	040	050040	020103	EH36: .ASCIZ " PC SP PS TEST# TCCM TCST"
3805	024020	020040	020040	051440	
3806	024026	020120	020040	020040	
3807	024034	050040	020123	020040	
3808	024042	020040	042524	052123	
3809	024050	020043	020040	041524	
3810	024056	046503	020040	020040	
3811	024064	041524	052123	000	
3812		024072			.EVEN
3813	024072	001116	001170	001172	ET36: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3814	024100	001166	001160	001156	
3815	024106	000000			000000
3816					
3817					
3818	024110	051105	047522	000122	EM37: .ASCIZ "ERROR"
3819	024116	020040	041520	020040	EH37: .ASCIZ " PC SP PS TEST# TCCM TCST"

3820	024124	020040	020040	050123	
3821	024132	020040	020040	020040	
3822	024140	051520	020040	020040	
3823	024146	052040	051505	021524	
3824	024154	020040	052040	041503	
3825	024162	020115	020040	052040	
3826	024170	051503	000124		
3827					.EVEN
3828	024174	001116	001170	001172	ET37: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3829	024202	001166	001160	001156	
3830	024210	000000			000000
3831					
3832					
3833	024212	042522	042101	020131	EM40: .ASCIZ "READY BIT DID NOT SET"
3834	024220	044502	020124	044504	
3835	024226	020104	047516	020124	
3836	024234	042523	000124		
3837	024240	020040	041520	020040	EH40: .ASCIZ " PC SP PS TEST# TCCM TCST"
3838	024246	020040	020040	050123	
3839	024254	020040	020040	020040	
3840	024262	051520	020040	020040	
3841	024270	052040	051505	021524	
3842	024276	020040	052040	041503	
3843	024304	020115	020040	052040	
3844	024312	051503	000124		
3845					.EVEN
3846	024316	001116	001170	001172	ET40: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3847	024324	001166	001160	001156	
3848	024332	000000			000000
3849					
3850					
3851	024334	044124	020105	042447	EM41: .ASCIZ "THE 'ERROR' BIT SHOULD NOT HAVE SET"
3852	024342	051122	051117	020047	
3853	024350	044502	020124	044123	
3854	024356	052517	042114	047040	
3855	024364	052117	044040	053101	
3856	024372	020105	042523	000124	
3857	024400	020040	041520	020040	EH41: .ASCIZ " PC SP PS TEST# TCCM TCST"
3858	024406	020040	020040	050123	
3859	024414	020040	020040	020040	
3860	024422	051520	020040	020040	
3861	024430	052040	051505	021524	
3862	024436	020040	052040	041503	
3863	024444	020115	020040	052040	
3864	024452	051503	000124		
3865					.EVEN
3866	024456	001116	001170	001172	ET41: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3867	024464	001166	001160	001156	
3868	024472	000000			000000
3869					
3870					
3871	024474	042522	042101	020131	EM42: .ASCIZ "READY BIT SHOULD NOT HAVE SET"
3872	024502	044502	020124	044123	
3873	024510	052517	042114	047040	
3874	024516	052117	044040	053101	
3875	024524	020105	042523	000124	

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EH42: .HSCIZ " PC SF PS TEST# TCCM TCST"

```

.EVEN
ET42:  $ERRPC,$REG6,$REG7,$REG5,$REG2,$REG1
       000000

```

EM43: .ASCIZ "WORD TRANSFERED INCORRECTLY TO CORE"

EH43: .ASCII " PC SP PS TEST# TCCM TCST RBUF RBUF S/B"

```

.EVEN
ET43:  $ERRPC,$REG6,$REG7,$REG5,$REG2,$REG1,RBUF,$REG0

000000

```

EM44: .ASCIZ "WORD COUNT INCREMENTED IMPROPERLY"

EH44: .ASCII " PC SP PS TEST# TCCM TCST TCWC TCWC S/B"

.EVEN

3932	025162	001116	001170	001172	ET44:	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG4,\$REG0
3933	025170	001166	001160	001156		
3934	025176	001164	001154			
3935	025202	000000				000000
3936						
3937						
3938	025204	041524	040502	044440	EM45:	.ASCIZ "TCBA INCREMENTED IMPROPERLY"
3939	025212	041516	042522	042515		
3940	025220	052116	042105	044440		
3941	025226	050115	047522	042520		
3942	025234	046122	000131			
3943	025240	020040	041520	020040	EH45:	.ASCIZ " PC SP PS TEST# TCCM TCST TCBA TCBA S/B"
3944	025246	020040	020040	050123		
3945	025254	020040	020040	020040		
3946	025262	051520	020040	020040		
3947	025270	052040	051505	021524		
3948	025276	020040	052040	041503		
3949	025304	020115	020040	052040		
3950	025312	051503	020124	020040		
3951	025320	052040	041103	020101		
3952	025326	020040	041524	040502		
3953	025334	051440	041057	000		
3954		025342			.EVEN	
3955	025342	001116	001170	001172	ET45:	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG4,RBUF+2
3956	025350	001166	001160	001156		
3957	025356	001164	036012			
3958	025362	000000				000000
3959						
3960						
3961	025364	040520	044522	054524	EM46:	.ASCIZ "PARITY ERROR"
3962	025372	042440	051122	051117		
3963	025400	000				
3964	025401	040	050040	020103	EH46:	.ASCIZ " PC SP PS TEST# TCCM TCST"
3965	025406	020040	020040	051440		
3966	025414	020120	020040	020040		
3967	025422	050040	020123	020040		
3968	025430	020040	042524	052123		
3969	025436	020043	020040	041524		
3970	025444	046503	020040	020040		
3971	025452	041524	052123	000		
3972		025460			.EVEN	
3973	025460	001116	001170	001172	ET46:	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
3974	025466	001166	001160	001156		
3975	025474	000000				000000
3976						
3977						
3978	025476	042522	042101	020131	EM47:	.ASCIZ "READY DID NOT SET AFTER READING WAS COMPLETED"
3979	025504	044504	020104	047516		
3980	025512	020124	042523	020124		
3981	025520	043101	042524	020122		
3982	025526	042522	042101	047111		
3983	025534	020107	040527	020123		
3984	025542	047503	050115	042514		
3985	025550	042524	000104			
3986	025554	020040	041520	020040	EH47:	.ASCIZ " PC SP PS TEST# TCCM TCST"
3987	025562	020040	020040	050123		

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3988	025570	020040	020040	020040
3989	025576	051520	020040	020040
3990	025604	052040	051505	021524
3991	025612	020040	052040	041503
3992	025620	020115	020040	052040
3993	025626	051503	000124	
3994				
3995	025632	001116	001170	001172
3996	025640	001166	001160	001156
3997	025646	000000		
3998				
3999				
4000	025650	051124	047101	043123
4001	025656	051105	042105	052040
4002	025664	047517	046440	047101
4003	025672	020131	047527	042122
4004	025700	000123		
4005	025702	020040	041520	020040
4006	025710	020040	020040	050123
4007	025716	020040	020040	020040
4008	025724	051520	020040	020040
4009	025732	052040	051505	021524
4010	025740	020040	052040	041503
4011	025746	020115	020040	052040
4012	025754	051503	020124	020040
4013	025762	051040	052502	025506
4014	025770	000062		
4015				
4016	025772	001116	001170	001172
4017	026000	001166	001160	001156
4018	026006	036012		
4019	026010	000000		
4020				
4021				
4022	026012	041524	040502	041440
4023	026020	047117	040524	047111
4024	026026	020123	047101	044440
4025	026034	041516	051117	042522
4026	026042	052103	040440	042104
4027	026050	042522	051523	000
4028	026055	040	050040	020103
4029	026062	020040	020040	051440
4030	026070	020120	020040	020040
4031	026076	050040	020123	020040
4032	026104	020040	042524	052123
4033	026112	020043	020040	041524
4034	026120	046503	020040	020040
4035	026126	041524	052123	020040
4036	026134	020040	041524	040502
4037	026142	020040	052040	041103
4038	026150	020101	027523	000102
4039				
4040	026156	001116	001170	001172
4041	026164	001166	001160	001156
4042	026172	001162	036522	
4043	026176	000000		

.EVEN
ET47:

```
$ERRPC,$REG6,$REG7,$REG5,$REG2,$REG1
000000
```

EMSO: .ASCIZ "TRANSFERED TOO MANY WORDS"

EH50: .ASCIZ " PC SP PS TEST# TCCM TCST RBUF+2"

.EVEN
ET50:

```
$ERRPC,$REG6,$REG7,$REG5,$REG2,$REG1,RBUF+2

000000
```

EM51: .ASCIZ "TCBA CONTAINS AN INCORRECT ADDRESS"

EH51: .ASCIZ " PC SP PS TEST# TCCM TCST TCBA TCBA S/B"

.EVEN
ETS1:

```
SERRPC, SREG6, SREG7, SREG5, SREG2, SREG1, SREG3, RBUF+512
```


Address	Hex Data	Disassembly	Comment
4044			
4045			
4046	026200	040520	051122 052111 EMS2: .ASCIZ "PARITY ERROR WAS NOT DETECTED"
4047	026206	020131	051105 047522
4048	026214	020122	040527 020123
4049	026222	047516	020124 042504
4050	026230	042524	052103 042105
4051	026236	000	
4052	026237	040	050040 020103 EHS2: .ASCIZ " PC SP PS TEST# TCCM TCST TCWC"
4053	026244	020040	020040 051440
4054	026252	020120	020040 020040
4055	026260	050040	020123 020040
4056	026266	020040	042524 052123
4057	026274	020043	020040 041524
4058	026302	046503	020040 020040
4059	026310	041524	052123 020040
4060	026316	020040	041524 041527
4061	026324	000	
4062		026326	.EVEN
4063	026326	001116	001170 001172 ETS2: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG0
4064	026334	001166	001160 001156
4065	026342	001154	
4066	026344	000000	000000
4067			
4068			
4069	026346	040520	044522 054524 EMS3: .ASCIZ "PARITY ERROR DID NOT SET THE 'ERROR' BIT"
4070	026354	042440	051122 051117
4071	026362	042040	042111 047040
4072	026370	052117	051440 052105
4073	026376	052040	042510 023440
4074	026404	051105	047522 023522
4075	026412	041040	052111 000
4076	026417	040	050040 020103 EHS3: .ASCIZ " PC SP PS TEST# TCCM TCST TCWC"
4077	026424	020040	020040 051440
4078	026432	020120	020040 020040
4079	026440	050040	020123 020040
4080	026446	020040	042524 052123
4081	026454	020043	020040 041524
4082	026462	046503	020040 020040
4083	026470	041524	052123 020040
4084	026476	020040	041524 041527
4085	026504	000	
4086		026506	.EVEN
4087	026506	001116	001170 001172 ETS3: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG0
4088	026514	001166	001160 001156
4089	026522	001154	
4090	026524	000000	000000
4091			
4092			
4093	026526	040520	044522 054524 EMS4: .ASCIZ "PARITY ERROR BIT WILL NOT CLEAR"
4094	026534	042440	051122 051117
4095	026542	041040	052111 053440
4096	026550	046111	020114 047516
4097	026556	020124	046103 040505
4098	026564	000122	
4099	026566	020040	041520 020040 EHS4: .ASCIZ " PC SP PS TEST# TCCM TCST TCWC"

4100	026574	020040	020040	050123	
4101	026602	020040	020040	020040	
4102	026610	051520	020040	020040	
4103	026616	052040	051505	021524	
4104	026624	020040	052040	041503	
4105	026632	020115	020040	052040	
4106	026640	051503	020124	020040	
4107	026646	052040	053503	000103	
4108					.EVEN
4109	026654	001116	001170	001172	ET54: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, \$REG0
4110	026662	001166	001160	001156	
4111	026670	001154			
4112	026672	000000			000000
4113					
4114					
4115	026674	046102	041517	020113	EM55: .ASCIZ "BLOCK MISS SHOULD NOT HAVE SET"
4116	026702	044515	051523	051440	
4117	026710	047510	046125	020104	
4118	026716	047516	020124	040510	
4119	026724	042526	051440	052105	
4120	026732	000			
4121	026733	040	050040	020103	EM55: .ASCIZ " PC SP PS TEST# TCCM TCST TCWC"
4122	026740	020040	020040	051440	
4123	026746	020120	020040	020040	
4124	026754	050040	020123	020040	
4125	026762	020040	042524	052123	
4126	026770	020043	020040	041524	
4127	026776	046503	020040	020040	
4128	027004	041524	052123	020040	
4129	027012	020040	041524	041527	
4130	027020	000			
4131		027022			.EVEN
4132	027022	001116	001170	001172	ET55: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, \$REG0
4133	027030	001166	001160	001156	
4134	027036	001154			
4135	027040	000000			000000
4136					
4137					
4138	027042	042122	052101	020101	EM56: .ASCIZ "RDATA WAS ISSUED BUT BLOCK MISS FAILED TO SET"
4139	027050	040527	020123	051511	
4140	027056	052523	042105	041040	
4141	027064	052125	041040	047514	
4142	027072	045503	046440	051511	
4143	027100	020123	040506	046111	
4144	027106	042105	052040	020117	
4145	027114	042523	000124		
4146	027120	020040	041520	020040	EM56: .ASCIZ " PC SP PS TEST# TCCM TCST TCWC"
4147	027126	020040	020040	050123	
4148	027134	020040	020040	020040	
4149	027142	051520	020040	020040	
4150	027150	052040	051505	021524	
4151	027156	020040	052040	041503	
4152	027164	020115	020040	052040	
4153	027172	051503	020124	020040	
4154	027200	052040	053503	000103	
4155					.EVEN

4156	027206	001116	001170	001172	ET56:	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG0
4157	027214	001166	001160	001156		
4158	027222	001154				
4159	027224	000000				000000
4160						
4161						
4162	027226	046102	041517	020113	EM57:	.ASCIZ "BLOCK MISS SETTING DID NOT SET THE 'ERROR' BIT"
4163	027234	044515	051523	051440		
4164	027242	052105	044524	043516		
4165	027250	042040	042111	047040		
4166	027256	052117	051440	052105		
4167	027264	052040	042510	023440		
4168	027272	051105	047522	023522		
4169	027300	041040	052111	000		
4170	027305	040	050040	020103	EH57:	.ASCIZ " PC SP PS TEST# TCCM TCST TCWC"
4171	027312	020040	020040	051440		
4172	027320	020120	020040	020040		
4173	027326	050040	020123	020040		
4174	027334	020040	042524	052123		
4175	027342	020043	020040	041524		
4176	027350	046503	020040	020040		
4177	027356	041524	052123	020040		
4178	027364	020040	041524	041527		
4179	027372	000				
4180		027374			.EVEN	
4181	027374	001116	001170	001172	ET57:	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG0
4182	027402	001166	001160	001156		
4183	027410	001154				
4184	027412	000000				000000
4185						
4186						
4187	027414	046103	040505	044522	EM60:	.ASCIZ "CLEARING ERROR BIT FAILED TO CLEAR BLOCK MISS"
4188	027422	043516	042440	051122		
4189	027430	051117	041040	052111		
4190	027436	043040	044501	042514		
4191	027444	020104	047524	041440		
4192	027452	042514	051101	041040		
4193	027460	047514	045503	046440		
4194	027466	051511	000123			
4195	027472	020040	041520	020040	EH60:	.ASCIZ " PC SP PS TEST# TCCM TCST TCWC"
4196	027500	020040	020040	050123		
4197	027506	020040	020040	020040		
4198	027514	051520	020040	020040		
4199	027522	052040	051505	021524		
4200	027530	020040	052040	041503		
4201	027536	020115	020040	052040		
4202	027544	051503	020124	020040		
4203	027552	052040	053503	000103		
4204					.EVEN	
4205	027560	001116	001170	001172	ET60:	\$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG0
4206	027566	001166	001160	001156		
4207	027574	001154				
4208	027576	000000				000000
4209						
4210						
4211	027600	047506	053522	051101	EM61:	.ASCIZ "FORWARD CHECKSUM WAS WRITTEN INCORRECTLY INTO CORE"

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4212	027606	020104	044103	041505
4213	027614	051513	046525	053440
4214	027622	051501	053440	044522
4215	027630	052124	047105	044440
4216	027636	041516	051117	042522
4217	027644	052103	054514	044440
4218	027652	052116	020117	047503
4219	027660	042522	000	
4220	027663	040	050040	020103
4221	027670	020040	020040	051440
4222	027676	020120	020040	020040
4223	027704	050040	020123	020040
4224	027712	020040	042524	052123
4225	027720	020043	020040	041524
4226	027726	046503	020040	020040
4227	027734	041524	052123	020040
4228	027742	051040	052502	025506
4229	027750	030465	020064	041524
4230	027756	041527	000	
4231		027762		
4232	027762	001116	001170	001172
4233	027770	001166	001160	001156
4234	027776	036524	001154	
4235	030002	000000		
4236				
4237				
4238	030004	041524	041527	053440
4239	030012	051501	046440	042117
4240	030020	043111	042511	020104
4241	030026	052504	051122	047111
4242	030034	020107	040522	000114
4243	030042	020040	041520	020040
4244	030050	020040	020040	050123
4245	030056	020040	020040	020040
4246	030064	051520	020040	020040
4247	030072	052040	051505	021524
4248	030100	020040	052040	041503
4249	030106	020115	020040	052040
4250	030114	051503	020124	020040
4251	030122	052040	053503	000103
4252				
4253	030130	001116	001170	001172
4254	030136	001166	001160	001156
4255	030144	001234		
4256	030146	000000		
4257				
4258				
4259	030150	041524	040502	053440
4260	030156	051501	046440	042117
4261	030164	043111	042511	020104
4262	030172	052504	051122	047111
4263	030200	020107	040522	000114
4264	030206	020040	041520	020040
4265	030214	020040	020040	050123
4266	030222	020040	020040	020040
4267	030230	051520	020040	020040

```
EM61: .ASCII " PC SP PS TEST# TCCM TCST RBLF+514 TCWC"
```

```

.EVEN
ET61:  $ERRPC,$REG6,$REG7,$REG5,$REG2,$REG1,RBUF+514,$REG0

```

000000

EM62: .ASCIZ "TCWC WAS MODIFIED DURING RAL"

EH62: .ASCII " PC SP PS TEST# TCCM TCST TCWC"

.EVEN
ET62: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, TCWC

000000

EM63: .ASCIZ "TCBA WAS MODIFIED DURING RAL"

EH63: .ASCII " PC SP PS TEST# TCCM TCST TCBA TCBA S/B"

4268	030236	052040	051505	021524	
4269	030244	020040	052040	041503	
4270	030252	020115	020040	052040	
4271	030260	051503	020124	020040	
4272	030266	052040	041103	020101	
4273	030274	020040	052040	041103	
4274	030302	020101	027523	000102	
4275					.EVEN
4276	030310	001116	001170	001172	ET63: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, \$REG3
4277	030316	001166	001160	001156	
4278	030324	001162			
4279	030326	000000			000000
4280					
4281					
4282	030330	040504	040524	046440	EM64: .ASCIZ "DATA MISS DID NOT SET"
4283	030336	051511	020123	044504	
4284	030344	020104	047516	020124	
4285	030352	042523	000124		
4286	030356	020040	041520	020040	EH64: .ASCIZ " PC SP PS TEST# TCCM TCST TCWC"
4287	030364	020040	020040	050123	
4288	030372	020040	020040	020040	
4289	030400	051520	020040	020040	
4290	030406	052040	051505	021524	
4291	030414	020040	052040	041503	
4292	030422	020115	020040	052040	
4293	030430	051503	020124	020040	
4294	030436	052040	053503	000103	
4295					.EVEN
4296	030444	001116	001170	001172	ET64: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, \$REG0
4297	030452	001166	001160	001156	
4298	030460	001154			
4299	030462	000000			000000
4300					
4301					
4302	030464	040504	040524	046440	EM65: .ASCIZ "DATA MISS SETTING DID NOT CAUSE THE 'ERROR' BIT TO SET"
4303	030472	051511	020123	042523	
4304	030500	052124	047111	020107	
4305	030506	044504	020104	047516	
4306	030514	020124	040503	051525	
4307	030522	020105	044124	020105	
4308	030530	042447	051122	051117	
4309	030536	020047	044502	020124	
4310	030544	047524	051440	052105	
4311	030552	000			
4312	030553	040	050040	020103	EH65: .ASCIZ " PC SP PS TEST# TCCM TCST"
4313	030560	020040	020040	051440	
4314	030566	020120	020040	020040	
4315	030574	050040	020123	020040	
4316	030602	020040	042524	052123	
4317	030610	020043	020040	041524	
4318	030616	046503	020040	020040	
4319	030624	041524	052123	000	
4320		030632			.EVEN
4321	030632	001116	001170	001172	ET65: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1
4322	030640	001166	001160	001156	
4323	030646	000000			000000

4324					
4325					
4326	030650	046103	040505	044522	EM66: .ASCIZ "CLEARING THE 'ERROR' BIT DID NOT CAUSE DATA MISS TO BE CLEARED"
4327	030656	043516	052040	042510	
4328	030664	023440	051105	047522	
4329	030672	023522	041040	052111	
4330	030700	042040	042111	047040	
4331	030706	052117	041440	052501	
4332	030714	042523	042040	052101	
4333	030722	020101	044515	051523	
4334	030730	052040	020117	042502	
4335	030736	041440	042514	051101	
4336	030744	042105	000		
4337	030747	040	050040	020103	EM66: .ASCIZ " PC SP PS TEST# TCCM TCST"
4338	030754	020040	020040	051440	
4339	030762	020120	020040	020040	
4340	030770	050040	020123	020040	
4341	030776	020040	042524	052123	
4342	031004	020043	020040	041524	
4343	031012	046503	020040	020040	
4344	031020	041524	052123	000	
4345		031026			.EVEN
4346	031026	001116	001170	001172	ET66: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
4347	031034	001166	001160	001156	
4348	031042	000000			000000
4349					
4350					
4351	031044	042522	042101	020131	EM67: .ASCIZ "READY BIT WAS NOT SET AFTER THE DATA WAS WRITTEN"
4352	031052	044502	020124	040527	
4353	031060	020123	047516	020124	
4354	031066	042523	020124	043101	
4355	031074	042524	020122	044124	
4356	031102	020105	040504	040524	
4357	031110	053440	051501	053440	
4358	031116	044522	052124	047105	
4359	031124	000			
4360	031125	040	050040	020103	EM67: .ASCIZ " PC SP PS TEST# TCCM TCST"
4361	031132	020040	020040	051440	
4362	031140	020120	020040	020040	
4363	031146	050040	020123	020040	
4364	031154	020040	042524	052123	
4365	031162	020043	020040	041524	
4366	031170	046503	020040	020040	
4367	031176	041524	052123	000	
4368		031204			.EVEN
4369	031204	001116	001170	001172	ET67: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
4370	031212	001166	001160	001156	
4371	031220	000000			000000
4372					
4373					
4374	031222	044124	020105	042522	EM70: .ASCIZ "THE REVERSE CHECKSUM WAS WRITTEN INCORRECTLY"
4375	031230	042526	051522	020105	
4376	031236	044103	041505	051513	
4377	031244	046525	053440	051501	
4378	031252	053440	044522	052124	
4379	031260	047105	044440	041516	

MAINDEC-11-DZTCB-C TC11 TEST #2
DZTCBC.P11 TRAP TABLE

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4380	031266	051117	042522	052103
4381	031274	054514	000	
4382	031277	040	050040	020103
4383	031304	020040	020040	051440
4384	031312	020120	020040	020040
4385	031320	050040	020123	020040
4386	031326	020040	042524	052123
4387	031334	020043	020040	041524
4388	031342	046503	020040	020040
4389	031350	041524	052123	020040
4390	031356	051040	052502	025506
4391	031364	030465	020062	041122
4392	031372	043125	032453	031061
4393	031400	051440	041057	000
4394		031406		
4395	031406	001116	001170	001172
4396	031414	001166	001160	001156
4397	031422	036522	001154	
4398	031426	000000		

EH70: .ASCII " PC SP PS TEST# TCCM TCST RBUF+512 RBUF+512 S/B"

```

.EVEN
ET70:  $ERRPC,$REG6,$REG7,$REG5,$REG2,$REG1,RBUF+512,$REG0

```

000000

4399				
4400				
4401	031430	047527	042122	041440
4402	031436	052517	052116	046440
4403	031444	042117	043111	042511
4404	031452	020104	052504	051122
4405	031460	047111	020107	051127
4406	031466	052111	020105	046101
4407	031474	000114		
4408	031476	020040	041520	020040
4409	031504	020040	020040	050123
4410	031512	020040	020040	020040
4411	031520	051520	020040	020040
4412	031526	052040	051505	021524
4413	031534	020040	052040	041503
4414	031542	020115	020040	052040
4415	031550	051503	020124	020040
4416	031556	052040	053503	000103

EM71: .ASCIZ "WORD COUNT MODIFIED DURING WRITE ALL"

EH71: .ASCII " PC SP PS TEST# TCCM TCST TCWC"

4417	031552	001070	000100	000100
4418	031564	001116	001170	001172
4419	031572	001166	001160	001156
4420	031600	001234		
4421	031602	000000		

.EVEN
ET71: \$ERRPC, \$REG6, \$REG7, \$REG5, \$REG2, \$REG1, TCWC

000000

4422	031602	041522	040502	046440
4423				
4424	031604	041524	040502	046440
4425	031612	042117	043111	042511
4426	031620	020104	052504	051122
4427	031626	047111	020107	051127
4428	031634	052111	020105	046101

EM72: .ASCIIZ "TCBA MODIFIED DURING WRITE ALL"

4429	031642	000114	000000	000000
4430	031644	020040	041520	020040
4431	031652	020040	020040	050123
4432	031660	020040	020040	020040
4433	031666	051520	020040	020040
4434	031674	052040	051505	021524
4435	031702	020040	052040	041503

```
EH72: .ASCIZ " PC      SP      PS      TEST#   TCCM      TCST      TCBA"
```

4436	031710	020115	020040	052040	
4437	031716	051503	020124	020040	
4438	031724	052040	041103	000101	
4439					.EVEN
4440	031732	001116	001170	001172	ET72: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1,\$REG3
4441	031740	001166	001160	001156	
4442	031746	001162			
4443	031750	000000			000000
4444					
4445					
4446	031752	051523	020124	044504	EM73: .ASCIZ "SST DID NOT CAUSE A SELECT ERROR"
4447	031760	020104	047516	020124	
4448	031766	040503	051525	020105	
4449	031774	020101	042523	042514	
4450	032002	052103	042440	051122	
4451	032010	051117	000		
4452	032013	040	050040	020103	EH73: .ASCIZ " PC SP PS TEST# TCCM TCST"
4453	032020	020040	020040	051440	
4454	032026	020120	020040	020040	
4455	032034	050040	020123	020040	
4456	032042	020040	042524	052123	
4457	032050	020043	020040	041524	
4458	032056	046503	020040	020040	
4459	032064	041524	052123	000	
4460		032072			.EVEN
4461	032072	001116	001170	001172	ET73: \$ERRPC,\$REG6,\$REG7,\$REG5,\$REG2,\$REG1
4462	032100	001166	001160	001156	
4463	032106	000000			000000
4464					
4465	032110	051124	050101	042520	EM74: .ASCIZ "TRAPPED TO LOC 4 ATTEMPTING TO ACCESS TCCM"
4466	032116	020104	047524	046040	
4467	032124	041517	032040	040440	
4468	032132	052124	046505	052120	
4469	032140	047111	020107	047524	
4470	032146	040440	041503	051505	
4471	032154	020123	041524	046503	
4472	032162	000			
4473	032163	040	050040	020103	EH74: .ASCIZ " PC SP PS TEST#"
4474	032170	020040	020040	051440	
4475	032176	020120	020040	020040	
4476	032204	050040	020123	020040	
4477	032212	020040	042524	052123	
4478	032220	000043			
4479					.EVEN
4480	032222	001116	001170	001172	ET74: \$ERRPC,\$REG6,\$REG7,\$REG5
4481	032230	001166			
4482	032232	000000			000000
4483	032234	051124	050101	042520	EM75: .ASCIZ "TRAPPED TO LOC 4 ATTEMPTING TO ACCESS TCST"
4484	032242	020104	047524	046040	
4485	032250	041517	032040	040440	
4486	032256	052124	046505	052120	
4487	032264	047111	020107	047524	
4488	032272	040440	041503	051505	
4489	032300	020123	041524	052123	
4490	032306	000			
4491	032307	040	050040	020103	EH75: .ASCIZ " PC SP PS TEST#"

4492	032314	020040	020040	051440	
4493	032322	020120	020040	020040	
4494	032330	050040	020123	020040	
4495	032336	020040	042524	052123	
4496	032344	000043			
4497					.EVEN
4498	032346	001116	001170	001172	ET75: \$ERRPC,\$REG6,\$REG7,\$REG5
4499	032354	001166			
4500	032356	000000			000000
4501	032360	051124	050101	042520	EM76: .ASCIZ "TRAPPED TO LOC 4 ATTEMPTING TO ACCESS TCWC"
4502	032366	020104	047524	046040	
4503	032374	041517	032040	040440	
4504	032402	052124	046505	052120	
4505	032410	047111	020107	047524	
4506	032416	040440	041503	051505	
4507	032424	020123	041524	041527	
4508	032432	000			
4509	032433	040	050040	020103	EH76: .ASCIZ " PC SP PS TEST#"
4510	032440	020040	020040	051440	
4511	032446	020120	020040	020040	
4512	032454	050040	020123	020040	
4513	032462	020040	042524	052123	
4514	032470	000043			
4515					.EVEN
4516	032472	001116	001170	001172	ET76: \$ERRPC,\$REG6,\$REG7,\$REG5
4517	032500	001166			
4518	032502	000000			000000
4519	032504	051124	050101	042520	EM77: .ASCIZ "TRAPPED TO LOC 4 ATTEMPTING TO ACCESS TCBA"
4520	032512	020104	047524	046040	
4521	032520	041517	032040	040440	
4522	032526	052124	046505	052120	
4523	032534	047111	020107	047524	
4524	032542	040440	041503	051505	
4525	032550	020123	041524	040502	
4526	032556	000			
4527	032557	040	050040	020103	EH77: .ASCIZ " PC SP PS TEST#"
4528	032564	020040	020040	051440	
4529	032572	020120	020040	020040	
4530	032600	050040	020123	020040	
4531	032606	020040	042524	052123	
4532	032614	000043			
4533					.EVEN
4534	032616	001116	001170	001172	ET77: \$ERRPC,\$REG6,\$REG7,\$REG5
4535	032624	001166			
4536	032626	000000			000000
4537	032630				MTKC10:
4538	032630				C10 V7,V2,V7,V2,V7,V2
4539	032630	034	010	074	.BYTE 0!V7,0!V2,1!V7,0!V2,0!V7,0!V2 ;MTK CODE 10.
4540	032633	010	034	010	
4541	032636				MTKER:
4542	032636				EMTE
4543	032636	040	040	040	.BYTE I,I,I,0,0,I
4544	032641	000	000	040	
4545	032644				MTKEND:
4546	032644				C22
4547	032644	000	040	000	.BYTE 0,I,0,0,I,0 ;MTK CODE 22. FWD END ZONE.

K07

 MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 84
 DZTCBC.P11 TRAP TABLE

4548	032647	000	040	000	
4549	032652				MTK55:
4550	032652				C55
4551	032652	040	000	040	.BYTE I,0,I,I,0,I ;MTK CODE 55. REV END ZONE MARK.
4552	032655	040	000	040	
4553	032660				MTK5P:
4554	032660				C10
4555	032660	000	030	070	.BYTE V0,V6,V6,V6,V6,V6 ;MTK CODE 10.
4556	032663	030	030	030	
4557	032666				MTK7:
4558	032666				C25
4559	032666	000	040	000	.BYTE 0,I,0,I,0,I ;MTK CODE 25. EXTENSION MARK.
4560	032671	040	000	040	
4561	032674				C25
4562	032674	000	040	000	.BYTE 0,I,0,I,0,I ;MTK CODE 25. EXTENSION MARK.
4563	032677	040	000	040	
4564	032702				C26
4565	032702	000	064	010	.BYTE V0,V5,V2,V5,V2,V5 ;FWD BLOCK MARK.
4566	032705	064	050	024	
4567	032710				C32
4568	032710	000	064	064	.BYTE V0,V5,V5,V5,V5,V5 ;REV GUARD.
4569	032713	024	064	024	
4570	032716				MTK5:
4571	032716				C10
4572	032716	000	030	070	.BYTE V0,V6,V6,V6,V6,V6 ;MTK CODE 10.
4573	032721	030	030	030	
4574	032724				MTK7A:
4575	032724				C10
4576	032724	000	000	040	.BYTE V0,V0,V0,V0,V0,V0 ;MTK CODE 10.
4577	032727	000	000	000	
4578	032732				MTK7B:
4579	032732				C10
4580	032732	000	024	040	.BYTE V0,V5,V0,V5,V0,V5 ;MTK CODE 10.
4581	032735	024	000	024	
4582	032740				MTKVAR:
4583	032740				C10
4584	032740	034	010	074	.BYTE V7,V2,V7,V2,V7,V2 ;MTK CODE 10.
4585	032743	010	034	010	
4586					.REPT 126.
4587					C70
4588					C70
4589					.ENDR
4590	032746				C70
4591	032746	040	064	040	.BYTE V0,V5,V0,V5,V0,V5 ;MTK CODE 70. DATA MARK.
4592	032751	024	000	024	
4593	032754				C70
4594	032754	074	050	074	.BYTE V7,V2,V7,V2,V7,V2 ;MTK CODE 70. DATA MARK.
4595	032757	010	034	010	
4596	032762				C70
4597	032762	040	064	040	.BYTE V0,V5,V0,V5,V0,V5 ;MTK CODE 70. DATA MARK.
4598	032765	024	000	024	
4599	032770				C70
4600	032770	074	050	074	.BYTE V7,V2,V7,V2,V7,V2 ;MTK CODE 70. DATA MARK.
4601	032773	010	034	010	
4602	032776				C70
4603	032776	040	064	040	.BYTE V0,V5,V0,V5,V0,V5 ;MTK CODE 70. DATA MARK.

4604	033001	024	000	024	C70	V7,V2,V7,V2,V7,V2	
4605	033004				.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4606	033004	074	050	074			
4607	033007	010	034	010			
4608	033012				C70	V0,V5,V0,V5,V0,V5	
4609	033012	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4610	033015	024	000	024			
4611	033020				C70	V7,V2,V7,V2,V7,V2	
4612	033020	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4613	033023	010	034	010			
4614	033026				C70	V0,V5,V0,V5,V0,V5	
4615	033026	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4616	033031	024	000	024			
4617	033034				C70	V7,V2,V7,V2,V7,V2	
4618	033034	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4619	033037	010	034	010			
4620	033042				C70	V0,V5,V0,V5,V0,V5	
4621	033042	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4622	033045	024	000	024			
4623	033050				C70	V7,V2,V7,V2,V7,V2	
4624	033050	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4625	033053	010	034	010			
4626	033056				C70	V0,V5,V0,V5,V0,V5	
4627	033056	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4628	033061	024	000	024			
4629	033064				C70	V7,V2,V7,V2,V7,V2	
4630	033064	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4631	033067	010	034	010			
4632	033072				C70	V0,V5,V0,V5,V0,V5	
4633	033072	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4634	033075	024	000	024			
4635	033100				C70	V7,V2,V7,V2,V7,V2	
4636	033100	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4637	033103	010	034	010			
4638	033106				C70	V0,V5,V0,V5,V0,V5	
4639	033106	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4640	033111	024	000	024			
4641	033114				C70	V7,V2,V7,V2,V7,V2	
4642	033114	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4643	033117	010	034	010			
4644	033122				C70	V0,V5,V0,V5,V0,V5	
4645	033122	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4646	033125	024	000	024			
4647	033130				C70	V7,V2,V7,V2,V7,V2	
4648	033130	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4649	033133	010	034	010			
4650	033136				C70	V0,V5,V0,V5,V0,V5	
4651	033136	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4652	033141	024	000	024			
4653	033144				C70	V7,V2,V7,V2,V7,V2	
4654	033144	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4655	033147	010	034	010			
4656	033152				C70	V0,V5,V0,V5,V0,V5	
4657	033152	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4658	033155	024	000	024			
4659	033160				C70	V7,V2,V7,V2,V7,V2	

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DZTCBC.P11 TRAP TABLE

4660	033160	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4661	033163	010	034	010			
4662	033166				C70	V0,V5,V0,V5,V0,V5	
4663	033166	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4664	033171	024	000	024			
4665	033174				C70	V7,V2,V7,V2,V7,V2	
4666	033174	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4667	033177	010	034	010			
4668	033202				C70	V0,V5,V0,V5,V0,V5	
4669	033202	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4670	033205	024	000	024			
4671	033210				C70	V7,V2,V7,V2,V7,V2	
4672	033210	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4673	033213	010	034	010			
4674	033216				C70	V0,V5,V0,V5,V0,V5	
4675	033216	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4676	033221	024	000	024			
4677	033224				C70	V7,V2,V7,V2,V7,V2	
4678	033224	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4679	033227	010	034	010			
4680	033232				C70	V0,V5,V0,V5,V0,V5	
4681	033232	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4682	033235	024	000	024			
4683	033240				C70	V7,V2,V7,V2,V7,V2	
4684	033240	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4685	033243	010	034	010			
4686	033246				C70	V0,V5,V0,V5,V0,V5	
4687	033246	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4688	033251	024	000	024			
4689	033254				C70	V7,V2,V7,V2,V7,V2	
4690	033254	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4691	033257	010	034	010			
4692	033262				C70	V0,V5,V0,V5,V0,V5	
4693	033262	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4694	033265	024	000	024			
4695	033270				C70	V7,V2,V7,V2,V7,V2	
4696	033270	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4697	033273	010	034	010			
4698	033276				C70	V0,V5,V0,V5,V0,V5	
4699	033276	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4700	033301	024	000	024			
4701	033304				C70	V7,V2,V7,V2,V7,V2	
4702	033304	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4703	033307	010	034	010			
4704	033312				C70	V0,V5,V0,V5,V0,V5	
4705	033312	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4706	033315	024	000	024			
4707	033320				C70	V7,V2,V7,V2,V7,V2	
4708	033320	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4709	033323	010	034	010			
4710	033326				C70	V0,V5,V0,V5,V0,V5	
4711	033326	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4712	033331	024	000	024			
4713	033334				C70	V7,V2,V7,V2,V7,V2	
4714	033334	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4715	033337	010	034	010			

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DZTCBC.P11 TRAP TABLE

4716	033342				C70	V0,V5,V0,V5,V0,V5	
4717	033342	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4718	033345	024	000	024			
4719	033350				C70	V7,V2,V7,V2,V7,V2	
4720	033350	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4721	033353	010	034	010			
4722	033356				C70	V0,V5,V0,V5,V0,V5	
4723	033356	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4724	033361	024	000	024			
4725	033364				C70	V7,V2,V7,V2,V7,V2	
4726	032364	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4727	035337	010	034	010			
4728	033372				C70	V0,V5,V0,V5,V0,V5	
4729	033372	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4730	033375	024	000	024			
4731	033400				C70	V7,V2,V7,V2,V7,V2	
4732	033400	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4733	033403	010	034	010			
4734	033406				C70	V0,V5,V0,V5,V0,V5	
4735	033406	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4736	033411	024	000	024			
4737	033414				C70	V7,V2,V7,V2,V7,V2	
4738	033414	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4739	033417	010	034	010			
4740	033422				C70	V0,V5,V0,V5,V0,V5	
4741	033422	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4742	033425	024	000	024			
4743	033430				C70	V7,V2,V7,V2,V7,V2	
4744	033430	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4745	033433	010	034	010			
4746	033436				C70	V0,V5,V0,V5,V0,V5	
4747	033436	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4748	033441	024	000	024			
4749	033444				C70	V7,V2,V7,V2,V7,V2	
4750	033444	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4751	033447	010	034	010			
4752	033452				C70	V0,V5,V0,V5,V0,V5	
4753	033452	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4754	033455	024	000	024			
4755	033460				C70	V7,V2,V7,V2,V7,V2	
4756	033460	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4757	033463	010	034	010			
4758	033466				C70	V0,V5,V0,V5,V0,V5	
4759	033466	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4760	033471	024	000	024			
4761	033474				C70	V7,V2,V7,V2,V7,V2	
4762	033474	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4763	033477	010	034	010			
4764	033502				C70	V0,V5,V0,V5,V0,V5	
4765	033502	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4766	033505	024	000	024			
4767	033510				C70	V7,V2,V7,V2,V7,V2	
4768	033510	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4769	033513	010	034	010			
4770	033516				C70	V0,V5,V0,V5,V0,V5	
4771	033516	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.

4772	033521	024	000	024	C70	V7,V2,V7,V2,V7,V2	
4773	033524				.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4774	033524	074	050	074			
4775	033527	010	034	010			
4776	033532				C70	V0,V5,V0,V5,V0,V5	
4777	033532	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4778	033535	024	000	024			
4779	033540				C70	V7,V2,V7,V2,V7,V2	
4780	033540	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4781	033543	010	034	010			
4782	033546				C70	V0,V5,V0,V5,V0,V5	
4783	033546	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4784	033551	024	000	024			
4785	033554				C70	V7,V2,V7,V2,V7,V2	
4786	033554	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4787	033557	010	034	010			
4788	033562				C70	V0,V5,V0,V5,V0,V5	
4789	033562	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4790	033565	024	000	024			
4791	033570				C70	V7,V2,V7,V2,V7,V2	
4792	033570	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4793	033573	010	034	010			
4794	033576				C70	V0,V5,V0,V5,V0,V5	
4795	033576	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4796	033601	024	000	024			
4797	033604				C70	V7,V2,V7,V2,V7,V2	
4798	033604	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4799	033607	010	034	010			
4800	033612				C70	V0,V5,V0,V5,V0,V5	
4801	033612	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4802	033615	024	000	024			
4803	033620				C70	V7,V2,V7,V2,V7,V2	
4804	033620	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4805	033623	010	034	010			
4806	033626				C70	V0,V5,V0,V5,V0,V5	
4807	033626	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4808	033631	024	000	024			
4809	033634				C70	V7,V2,V7,V2,V7,V2	
4810	033634	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4811	033637	010	034	010			
4812	033642				C70	V0,V5,V0,V5,V0,V5	
4813	033642	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4814	033645	024	000	024			
4815	033650				C70	V7,V2,V7,V2,V7,V2	
4816	033650	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4817	033653	010	034	010			
4818	033656				C70	V0,V5,V0,V5,V0,V5	
4819	033656	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4820	033661	024	000	024			
4821	033664				C70	V7,V2,V7,V2,V7,V2	
4822	033664	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4823	033667	010	034	010			
4824	033672				C70	V0,V5,V0,V5,V0,V5	
4825	033672	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4826	033675	024	000	024			
4827	033700				C70	V7,V2,V7,V2,V7,V2	

4828	033700	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4829	033703	010	034	010			
4830	033706				C70	V0,V5,V0,V5,V0,V5	
4831	033706	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4832	033711	024	000	024			
4833	033714				C70	V7,V2,V7,V2,V7,V2	
4834	033714	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4835	033717	010	034	010			
4836	033722				C70	V0,V5,V0,V5,V0,V5	
4837	033722	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4838	033725	024	000	024			
4839	033730				C70	V7,V2,V7,V2,V7,V2	
4840	033730	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4841	033733	010	034	010			
4842	033736				C70	V0,V5,V0,V5,V0,V5	
4843	033736	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4844	033741	024	000	024			
4845	033744				C70	V7,V2,V7,V2,V7,V2	
4846	033744	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4847	033747	010	034	010			
4848	033752				C70	V0,V5,V0,V5,V0,V5	
4849	033752	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4850	033755	024	000	024			
4851	033760				C70	V7,V2,V7,V2,V7,V2	
4852	033760	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4853	033763	010	034	010			
4854	033766				C70	V0,V5,V0,V5,V0,V5	
4855	033766	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4856	033771	024	000	024			
4857	033774				C70	V7,V2,V7,V2,V7,V2	
4858	033774	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4859	033777	010	034	010			
4860	034002				C70	V0,V5,V0,V5,V0,V5	
4861	034002	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4862	034005	024	000	024			
4863	034010				C70	V7,V2,V7,V2,V7,V2	
4864	034010	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4865	034013	010	034	010			
4866	034016				C70	V0,V5,V0,V5,V0,V5	
4867	034016	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4868	034021	024	000	024			
4869	034024				C70	V7,V2,V7,V2,V7,V2	
4870	034024	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4871	034027	010	034	010			
4872	034032				C70	V0,V5,V0,V5,V0,V5	
4873	034032	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4874	034035	024	000	024			
4875	034040				C70	V7,V2,V7,V2,V7,V2	
4876	034040	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4877	034043	010	034	010			
4878	034046				C70	V0,V5,V0,V5,V0,V5	
4879	034046	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4880	034051	024	000	024			
4881	034054				C70	V7,V2,V7,V2,V7,V2	
4882	034054	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4883	034057	010	034	010			

4884	034062				C70	V0,V5,V0,V5,V0,V5	
4885	034062	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4886	034065	024	000	024			
4887	034070				C70	V7,V2,V7,V2,V7,V2	
4888	034070	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4889	034073	010	034	010			
4890	034076				C70	V0,V5,V0,V5,V0,V5	
4891	034076	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4892	034101	024	000	024			
4893	034104				C70	V7,V2,V7,V2,V7,V2	
4894	034104	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4895	034107	010	034	010			
4896	034112				C70	V0,V5,V0,V5,V0,V5	
4897	034112	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4898	034115	024	000	024			
4899	034120				C70	V7,V2,V7,V2,V7,V2	
4900	034120	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4901	034123	010	034	010			
4902	034126				C70	V0,V5,V0,V5,V0,V5	
4903	034126	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4904	034131	024	000	024			
4905	034134				C70	V7,V2,V7,V2,V7,V2	
4906	034134	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4907	034137	010	034	010			
4908	034142				C70	V0,V5,V0,V5,V0,V5	
4909	034142	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4910	034145	024	000	024			
4911	034150				C70	V7,V2,V7,V2,V7,V2	
4912	034150	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4913	034153	010	034	010			
4914	034156				C70	V0,V5,V0,V5,V0,V5	
4915	034156	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4916	034161	024	000	024			
4917	034164				C70	V7,V2,V7,V2,V7,V2	
4918	034164	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4919	034167	010	034	010			
4920	034172				C70	V0,V5,V0,V5,V0,V5	
4921	034172	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4922	034175	024	000	024			
4923	034200				C70	V7,V2,V7,V2,V7,V2	
4924	034200	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4925	034203	010	034	010			
4926	034206				C70	V0,V5,V0,V5,V0,V5	
4927	034206	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4928	034211	024	000	024			
4929	034214				C70	V7,V2,V7,V2,V7,V2	
4930	034214	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4931	034217	010	034	010			
4932	034222				C70	V0,V5,V0,V5,V0,V5	
4933	034222	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
4934	034225	024	000	024			
4935	034230				C70	V7,V2,V7,V2,V7,V2	
4936	034230	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
4937	034233	010	034	010			
4938	034236				C70	V0,V5,V0,V5,V0,V5	
4939	034236	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.

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 DZTCBC.P11 TRAP TABLE

4940	034241	024	000	024	C70	V7,V2,V7,V2,V7,V2	
4941	034244				.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4942	034244	074	050	074			
4943	034247	010	034	010			
4944	034252				C70	V0,V5,V0,V5,V0,V5	
4945	034252	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4946	034255	024	000	024			
4947	034260				C70	V7,V2,V7,V2,V7,V2	
4948	034260	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4949	034263	010	034	010			
4950	034266				C70	V0,V5,V0,V5,V0,V5	
4951	034266	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4952	034271	024	000	024			
4953	034274				C70	V7,V2,V7,V2,V7,V2	
4954	034274	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4955	034277	010	034	010			
4956	034302				C70	V0,V5,V0,V5,V0,V5	
4957	034302	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4958	034305	024	000	024			
4959	034310				C70	V7,V2,V7,V2,V7,V2	
4960	034310	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4961	034313	010	034	010			
4962	034316				C70	V0,V5,V0,V5,V0,V5	
4963	034316	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4964	034321	024	000	024			
4965	034324				C70	V7,V2,V7,V2,V7,V2	
4966	034324	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4967	034327	010	034	010			
4968	034332				C70	V0,V5,V0,V5,V0,V5	
4969	034332	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4970	034335	024	000	024			
4971	034340				C70	V7,V2,V7,V2,V7,V2	
4972	034340	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4973	034343	010	034	010			
4974	034346				C70	V0,V5,V0,V5,V0,V5	
4975	034346	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4976	034351	024	000	024			
4977	034354				C70	V7,V2,V7,V2,V7,V2	
4978	034354	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4979	034357	010	034	010			
4980	034362				C70	V0,V5,V0,V5,V0,V5	
4981	034362	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4982	034365	024	000	024			
4983	034370				C70	V7,V2,V7,V2,V7,V2	
4984	034370	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4985	034373	010	034	010			
4986	034376				C70	V0,V5,V0,V5,V0,V5	
4987	034376	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4988	034401	024	000	024			
4989	034404				C70	V7,V2,V7,V2,V7,V2	
4990	034404	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4991	034407	010	034	010			
4992	034412				C70	V0,V5,V0,V5,V0,V5	
4993	034412	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4994	034415	024	000	024			
4995	034420				C70	V7,V2,V7,V2,V7,V2	

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 DZTCBC.P11 TRAP TABLE

4996	034420	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
4997	034423	010	034	010	C70	V0,V5,V0,V5,V0,V5	
4998	034426	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
4999	034426	024	000	024	C70	V7,V2,V7,V2,V7,V2	
5000	034431	024	000	024	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5001	034434	074	050	074	C70	V0,V5,V0,V5,V0,V5	
5002	034434	010	034	010	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5003	034437	040	064	040	C70	V7,V2,V7,V2,V7,V2	
5004	034442	024	000	024	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5005	034442	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5006	034445	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5007	034450	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5008	034450	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5009	034453	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5010	034456	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5011	034456	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5012	034461	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5013	034464	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5014	034464	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5015	034467	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5016	034472	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5017	034472	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5018	034475	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5019	034500	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5020	034500	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5021	034503	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5022	034506	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5023	034506	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5024	034511	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5025	034514	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5026	034514	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5027	034517	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5028	034522	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5029	034522	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5030	034525	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5031	034530	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5032	034530	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5033	034533	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5034	034536	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5035	034536	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5036	034541	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5037	034544	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5038	034544	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5039	034547	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5040	034552	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5041	034552	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5042	034555	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5043	034560	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5044	034560	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5045	034563	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5046	034566	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5047	034566	074	050	074	C70	V7,V2,V7,V2,V7,V2	
5048	034571	010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5049	034574	040	064	040	C70	V0,V5,V0,V5,V0,V5	
5050	034574	024	000	024	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5051	034577	074	050	074	C70	V7,V2,V7,V2,V7,V2	
		010	034	010	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.

5052	034602				C70	V0,V5,V0,V5,V0,V5	
5053	034602	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5054	034605	024	000	024			
5055	034610				C70	V7,V2,V7,V2,V7,V2	
5056	034610	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5057	034613	010	034	010			
5058	034616				C70	V0,V5,V0,V5,V0,V5	
5059	034616	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5060	034621	024	000	024			
5061	034624				C70	V7,V2,V7,V2,V7,V2	
5062	034624	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5063	034627	010	034	010			
5064	034632				C70	V0,V5,V0,V5,V0,V5	
5065	034632	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5066	034635	024	000	024			
5067	034640				C70	V7,V2,V7,V2,V7,V2	
5068	034640	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5069	034643	010	034	010			
5070	034646				C70	V0,V5,V0,V5,V0,V5	
5071	034646	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5072	034651	024	000	024			
5073	034654				C70	V7,V2,V7,V2,V7,V2	
5074	034654	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5075	034657	010	034	010			
5076	034662				C70	V0,V5,V0,V5,V0,V5	
5077	034662	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5078	034665	024	000	024			
5079	034670				C70	V7,V2,V7,V2,V7,V2	
5080	034670	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5081	034673	010	034	010			
5082	034676				C70	V0,V5,V0,V5,V0,V5	
5083	034676	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5084	034701	024	000	024			
5085	034704				C70	V7,V2,V7,V2,V7,V2	
5086	034704	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5087	034707	010	034	010			
5088	034712				C70	V0,V5,V0,V5,V0,V5	
5089	034712	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5090	034715	024	000	024			
5091	034720				C70	V7,V2,V7,V2,V7,V2	
5092	034720	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5093	034723	010	034	010			
5094	034726				C70	V0,V5,V0,V5,V0,V5	
5095	034726	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5096	034731	024	000	024			
5097	034734				C70	V7,V2,V7,V2,V7,V2	
5098	034734	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5099	034737	010	034	010			
5100	034742				C70	V0,V5,V0,V5,V0,V5	
5101	034742	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.
5102	034745	024	000	024			
5103	034750				C70	V7,V2,V7,V2,V7,V2	
5104	034750	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2	;MTK CODE 70. DATA MARK.
5105	034753	010	034	010			
5106	034756				C70	V0,V5,V0,V5,V0,V5	
5107	034756	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5	;MTK CODE 70. DATA MARK.

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DZTCBC.P11 TRAP TABLE

5108	034761	024	000	024	C70	V7,V2,V7,V2,V7,V2	
5109	034764				.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5110	034764	074	050	074			
5111	034767	010	034	010			
5112	034772				C70	V0,V5,V0,V5,V0,V5	
5113	034772	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5114	034775	024	000	024			
5115	035000				C70	V7,V2,V7,V2,V7,V2	
5116	035000	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5117	035003	010	034	010			
5118	035006				C70	V0,V5,V0,V5,V0,V5	
5119	035006	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5120	035011	024	000	024			
5121	035014				C70	V7,V2,V7,V2,V7,V2	
5122	035014	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5123	035017	010	034	010			
5124	035022				C70	V0,V5,V0,V5,V0,V5	
5125	035022	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5126	035025	024	000	024			
5127	035030				C70	V7,V2,V7,V2,V7,V2	
5128	035030	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5129	035033	010	034	010			
5130	035036				C70	V0,V5,V0,V5,V0,V5	
5131	035036	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5132	035041	024	000	024			
5133	035044				C70	V7,V2,V7,V2,V7,V2	
5134	035044	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5135	035047	010	034	010			
5136	035052				C70	V0,V5,V0,V5,V0,V5	
5137	035052	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5138	035055	024	000	024			
5139	035060				C70	V7,V2,V7,V2,V7,V2	
5140	035060	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5141	035063	010	034	010			
5142	035066				C70	V0,V5,V0,V5,V0,V5	
5143	035066	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5144	035071	024	000	024			
5145	035074				C70	V7,V2,V7,V2,V7,V2	
5146	035074	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5147	035077	010	034	010			
5148	035102				C70	V0,V5,V0,V5,V0,V5	
5149	035102	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5150	035105	024	000	024			
5151	035110				C70	V7,V2,V7,V2,V7,V2	
5152	035110	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5153	035113	010	034	010			
5154	035116				C70	V0,V5,V0,V5,V0,V5	
5155	035116	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5156	035121	024	000	024			
5157	035124				C70	V7,V2,V7,V2,V7,V2	
5158	035124	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5159	035127	010	034	010			
5160	035132				C70	V0,V5,V0,V5,V0,V5	
5161	035132	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5162	035135	024	000	024			
5163	035140				C70	V7,V2,V7,V2,V7,V2	

5164	035140	074	050	074	.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5165	035143	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5166	035146				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5167	035146	040	064	040			
5168	035151	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5169	035154				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5170	035154	074	050	074			
5171	035157	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5172	035162				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5173	035162	040	064	040			
5174	035165	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5175	035170				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5176	035170	074	050	074			
5177	035173	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5178	035176				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5179	035176	040	064	040			
5180	035201	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5181	035204				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5182	035204	074	050	074			
5183	035207	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5184	035212				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5185	035212	040	064	040			
5186	035215	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5187	035220				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5188	035220	074	050	074			
5189	035223	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5190	035226				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5191	035226	040	064	040			
5192	035231	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5193	035234				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5194	035234	074	050	074			
5195	035237	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5196	035242				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5197	035242	040	064	040			
5198	035245	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5199	035250				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5200	035250	074	050	074			
5201	035253	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5202	035256				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5203	035256	040	064	040			
5204	035261	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5205	035264				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5206	035264	074	050	074			
5207	035267	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5208	035272				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5209	035272	040	064	040			
5210	035275	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5211	035300				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5212	035300	074	050	074			
5213	035303	010	034	010	C70	V0, V5, V0, V5, V0, V5	
5214	035306				.BYTE	I!V0, I!V5, I!V0, 0!V5, 0!V0, 0!V5	; MTK CODE 70. DATA MARK.
5215	035306	040	064	040			
5216	035311	024	000	024	C70	V7, V2, V7, V2, V7, V2	
5217	035314				.BYTE	I!V7, I!V2, I!V7, 0!V2, 0!V7, 0!V2	; MTK CODE 70. DATA MARK.
5218	035314	074	050	074			
5219	035317	010	034	010			

5220	035322				C70	V0,V5,V0,V5,V0,V5	
5221	035322	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5222	035325	024	000	024			
5223	035330				C70	V7,V2,V7,V2,V7,V2	
5224	035330	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5225	035333	010	034	010			
5226	035336				C70	V0,V5,V0,V5,V0,V5	
5227	035336	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5228	035341	024	000	024			
5229	035344				C70	V7,V2,V7,V2,V7,V2	
5230	035344	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5231	035347	010	034	010			
5232	035352				C70	V0,V5,V0,V5,V0,V5	
5233	035352	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5234	035355	024	000	024			
5235	035360				C70	V7,V2,V7,V2,V7,V2	
5236	035360	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5237	035363	010	034	010			
5238	035366				C70	V0,V5,V0,V5,V0,V5	
5239	035366	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5240	035371	024	000	024			
5241	035374				C70	V7,V2,V7,V2,V7,V2	
5242	035374	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5243	035377	010	034	010			
5244	035402				C70	V0,V5,V0,V5,V0,V5	
5245	035402	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5246	035405	024	000	024			
5247	035410				C70	V7,V2,V7,V2,V7,V2	
5248	035410	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5249	035413	010	034	010			
5250	035416				C70	V0,V5,V0,V5,V0,V5	
5251	035416	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5252	035421	024	000	024			
5253	035424				C70	V7,V2,V7,V2,V7,V2	
5254	035424	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5255	035427	010	034	010			
5256	035432				C70	V0,V5,V0,V5,V0,V5	
5257	035432	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5258	035435	024	000	024			
5259	035440				C70	V7,V2,V7,V2,V7,V2	
5260	035440	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5261	035443	010	034	010			
5262	035446				C70	V0,V5,V0,V5,V0,V5	
5263	035446	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5264	035451	024	000	024			
5265	035454				C70	V7,V2,V7,V2,V7,V2	
5266	035454	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5267	035457	010	034	010			
5268	035462				C70	V0,V5,V0,V5,V0,V5	
5269	035462	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5270	035465	024	000	024			
5271	035470				C70	V7,V2,V7,V2,V7,V2	
5272	035470	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5273	035473	010	034	010			
5274	035476				C70	V0,V5,V0,V5,V0,V5	
5275	035476	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.

5276	035501	024	000	024		
5277	035504				C70	V7,V2,V7,V2,V7,V2
5278	035504	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5279	035507	010	034	010		
5280	035512				C70	V0,V5,V0,V5,V0,V5
5281	035512	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5282	035515	024	000	024		
5283	035520				C70	V7,V2,V7,V2,V7,V2
5284	035520	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5285	035523	010	034	010		
5286	035526				C70	V0,V5,V0,V5,V0,V5
5287	035526	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5288	035531	024	000	024		
5289	035534				C70	V7,V2,V7,V2,V7,V2
5290	035534	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5291	035537	010	034	010		
5292	035542				C70	V0,V5,V0,V5,V0,V5
5293	035542	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5294	035545	024	000	024		
5295	035550				C70	V7,V2,V7,V2,V7,V2
5296	035550	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5297	035553	010	034	010		
5298	035556				C70	V0,V5,V0,V5,V0,V5
5299	035556	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5300	035561	024	000	024		
5301	035564				C70	V7,V2,V7,V2,V7,V2
5302	035564	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5303	035567	010	034	010		
5304	035572				C70	V0,V5,V0,V5,V0,V5
5305	035572	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5306	035575	024	000	024		
5307	035600				C70	V7,V2,V7,V2,V7,V2
5308	035600	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5309	035603	010	034	010		
5310	035606				C70	V0,V5,V0,V5,V0,V5
5311	035606	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5312	035611	024	000	024		
5313	035614				C70	V7,V2,V7,V2,V7,V2
5314	035614	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5315	035617	010	034	010		
5316	035622				C70	V0,V5,V0,V5,V0,V5
5317	035622	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5318	035625	024	000	024		
5319	035630				C70	V7,V2,V7,V2,V7,V2
5320	035630	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5321	035633	010	034	010		
5322	035636				C70	V0,V5,V0,V5,V0,V5
5323	035636	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5324	035641	024	000	024		
5325	035644				C70	V7,V2,V7,V2,V7,V2
5326	035644	074	050	074	.BYTE	I!V7,I!V2,I!V7,O!V2,O!V7,O!V2 ;MTK CODE 70. DATA MARK.
5327	035647	010	034	010		
5328	035652				C70	V0,V5,V0,V5,V0,V5
5329	035652	040	064	040	.BYTE	I!V0,I!V5,I!V0,O!V5,O!V0,O!V5 ;MTK CODE 70. DATA MARK.
5330	035655	024	000	024		
5331	035660				C70	V7,V2,V7,V2,V7,V2

5332	035660	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5333	035663	010	034	010			
5334	035666				C70	V0,V5,V0,V5,V0,V5	
5335	035666	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5336	035671	024	000	024			
5337	035674				C70	V7,V2,V7,V2,V7,V2	
5338	035674	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5339	035677	010	034	010			
5340	035702				C70	V0,V5,V0,V5,V0,V5	
5341	035702	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,0!V0,0!V5	;MTK CODE 70. DATA MARK.
5342	035705	024	000	024			
5343	035710				C70	V7,V2,V7,V2,V7,V2	
5344	035710	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,0!V7,0!V2	;MTK CODE 70. DATA MARK.
5345	035713	010	034	010			
5346	035716				C73	V0,V5,V0,V5,V0,V5	
5347	035716	040	064	040	.BYTE	I!V0,I!V5,I!V0,0!V5,I!V0,I!V5	;MTK CODE 73. DATA MARK.
5348	035721	024	040	064			
5349	035724				C73	V7,V2,V7,V2,V7,V2	
5350	035724	074	050	074	.BYTE	I!V7,I!V2,I!V7,0!V2,I!V7,I!V2	;MTK CODE 73. DATA MARK.
5351	035727	010	074	050			
5352	035732				FCKSM:		
5353	035732				C73	V0,V0,V0,V0,V0,V0	
5354	035732	040	040	040	.BYTE	I!V0,I!V0,I!V0,0!V0,I!V0,I!V0	;MTK CODE 73. DATA MARK.
5355	035735	000	040	040			
5356	035740				C73	V0,V0,V0,V0,V0,V0	
5357	035740	040	040	040	.BYTE	I!V0,I!V0,I!V0,0!V0,I!V0,I!V0	;MTK CODE 73. DATA MARK.
5358	035743	000	040	040			
5359	035746				C51	V0,V0,V0,V0,V0,V0	
5360	035746	040	000	040	.BYTE	I!V0,0!V0,I!V0,0!V0,0!V0,I!V0	;MTK CODE 51. FWD GUARD.
5361	035751	000	000	040			
5362	035754				C45	V0,V0,V0,V0,V0,V0	
5363	035754	040	000	000	.BYTE	I!V0,0!V0,0!V0,I!V0,0!V0,I!V0	;MTK CODE 45. REV BLOCK MARK.
5364	035757	040	000	040			
5365	035762				C25		
5366	035762	000	040	000	.BYTE	0,I,0,I,0,I	;MTK CODE 25. EXTENSION MARK.
5367	035765	040	000	040			
5368	035770				CEND		
5369	035770	377			.BYTE	-1	
5370	035771				GCKSM:		
5371	035771				C73	V7,V7,V0,V0,V0,V0	
5372	035771	074	074	040	.BYTE	I!V7,I!V7,I!V0,0!V0,I!V0,I!V0	;MTK CODE 73. DATA MARK.
5373	035774	000	040	040			
5374	035777				BCKSM:		
5375	035777				C73	V0,V0,V0,V0,V0,V0	
5376	035777	040	040	040	.BYTE	I!V0,I!V0,I!V0,0!V0,I!V0,I!V0	;MTK CODE 73. DATA MARK.
5377	036002	000	040	040			
5378		036006			.EVEN		
5379	036006	000000			OPEN		
5380		036010			RBUF=		
5381		040010			.=RBUF+1024.		
5382		000001			.END		

A	= 100000	180#		
AINCRT	015253	3103#		
APGENO	015273	3106#		
ASETSR	015213	3097#		
A0001	002564	889	898#	
A0002	002634	903	912#	
A0003	002704	917	926#	
A0004	002754	931	940#	
A0005	003040	958	960#	
A0006	003102	975	977#	
A0007	003154	989	995#	
A0010	003226	1012#	1018	
A0011	003322	1028	1036#	
A0012	003402	1056#	1064	1067
A0013	003472	1077	1080#	
A0014	003616	1104	1106#	
A0015	003672	1120	1122#	
A0016	003744	1139	1142#	
A0017	004060	1170	1173#	
A0020	004172	1200	1203#	
A0021	004272	1219	1226#	
A0022	004364	1248	1251#	
A0023	004464	1275	1278#	
A0024	004602	1305	1311#	
A0025	004670	1333	1336#	
A0026	004764	1361	1364#	
A0027	005064	1389	1392#	
A0030	005160	1415	1418#	
A0031	005252	1441	1444#	
A0032	005514	1497	1500#	
A0033	005772	1556	1560#	
A0034	006166	1601	1604#	
A0035	006372	1649	1652#	
A0036	006576	1697	1700#	
A0037	007000	1744	1747#	
A0040	007146	1780	1783#	
A0041	007466	1852	1854#	
A0042	007744	1915	1918#	
A0043	010126	1962	1965#	
A0044	010354	2016	2019#	
A0045	010530	2056	2059#	
A0055	011260	2197	2200#	
B	= 040000	181#		
BCKSM	035777	2520	5374#	
BELL	= 000007	174#		
BIT0	= 000001	134#	213	1102 1103
BIT00	= 000001	124#	134	
BIT01	= 000002	123#	133	
BIT02	= 000004	122#	132	
BIT03	= 000010	121#	131	
BIT04	= 000020	120#	130	
BIT05	= 000040	119#	129	
BIT06	= 000100	118#	128	
BIT07	= 000200	117#	127	
BIT08	= 000400	116#	126	
BIT09	= 001000	115#	125	

MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 101
DZTCBC.P11 CROSS REFERENCE TABLE -- USER SYMBOLS

BIT1	=	000002	133#	206	208	210	212	1118	1119								
BIT10	=	002000	114#	200	201	202	203	1798	1808	1819							
BIT11	=	004000	113#	193	2558												
BIT12	=	010000	112#	192	1138	1147	1169	1178	1204								
BIT13	=	020000	111#	182	191	1080	1085	1089	1101	1117	1332	2465					
BIT14	=	040000	110#	181	1496	1555											
BIT15	=	100000	109#	169	180	1203											
BIT2	=	000004	132#	207	208	211	212										
BIT3	=	000010	131#	209	210	211	212										
BIT4	=	000020	130#														
BIT5	=	000040	129#														
BIT6	=	000100	128#	204	992	1010	1032	1053	1222								
BIT7	=	000200	127#	1076	1081	1086											
BIT8	=	000400	126#	197	199	201	203										
BIT9	=	001000	125#	198	199	202	203	1914	1923								
BMOVA		012506	2456#	2458													
BMOVE		012474	1323	1351	1378	2355	2359	2363	2416	2423	2452#	2499	2503	2519			
BPTVEC	=	000014	141#														
BTCTR		012664	2470*	2477*	2479	2493#											
B0010		003240	1007	1016#													
B0011		003324	1035	1037#													
B0012		003414	1050	1060#													
B0013		003514	1082	1085#													
B0016		003756	1143	1146#													
B0017		004072	1174	1177#													
B0020		004212	1202	1205	1207#												
B0021		004306	1227	1229#													
B0022		004402	1250	1253	1255#												
B0023		004474	1277	1279	1285#												
B0025		004700	1335	1337	1339#												
B0026		004774	1363	1365	1367#												
B0027		005074	1391	1393	1395#												
B0031		005264	1445	1448#													
B0032		005520	1495	1502#													
B0033		006012	1561	1565#													
B0034		006212	1605	1610#													
B0035		006416	1653	1658#													
B0036		006622	1701	1706#													
B0037		007012															

CKSELE	013142	2108	2120	2131	2142	2153	2164	2178	2553#								
CKSEL	015030	2553*	2554*	2555	3076#												
CLRBUF	012316	1431	1485	1546	1591	1639	1687	1734	1827	2415#	2498	2509					
COCAL	001252	442#	2462*	2481	2484	2496*											
CRBUF	001262	446#	2533*	2542	3793												
CRBUFA	001264	447#	2540*	2542	3793												
CTRA	001266	448#	1851*	1888*	2063*	2077*											
CTRLB	012776	2511*	2514*	2518#													
CURTST	001260	445#															
C0012	003430	1061	1063#														
C0013	003534	1079	1084	1087	1089#												
C0016	003776	1148	1151#														
C0017	004112	1179	1132#														
C0021	004322	1226	1233#														
C0031	005306	1449	1453#														
C0032	005532	1503	1506#														
C0033	006034	1559	1564	1567	1570#												
C0034	006226	1611	1614#														
C0035	006432	1659	1662#														
C0036	006634	1707	1709#														
C0037	007020	1736	1754#														
C0040	007312	1809	1813#														
C0041	007524	1861	1864#														
C0042	010000	1917	1921	1924	1927#												
C0043	010212	1979	1982#														
C0044	010440	2018	2031	2036#													
C0045	010634	2078	2080#														
C0055	011352	2217#	2219														
DATADR	013136	2538*	2551#														
CINH =	010000	192#															
DISPLA=	177570	66#	2628*	2669*													
DLY	012222	2392#	2409														
DLYA	012234	2395#	2399														
DLYB	012240	2396#	2397														
DO =	000001	213#	1251	1269	1299	1327	1355	1383	1409	1435	1474	1489	1535	1550			
		1581	1595	1629	1643	1677	1691	1724	1738	1762	1774	1783	1796	1803			
		1841	1894	1909	1938	1940	1956	1968	2010	2022	2050	2066	2191	2203			
		2554															
D0012	003434	1060	106														

00045	010652	2081	2085#	
00055	011362	2199	2212	2220#
EH1	015705	480	3156#	
EH10	017270	522	3313#	
EH11	017444	528	3335#	
EH12	017620	534	3357#	
EH13	017774	540	3379#	
EH14	020167	546	3404#	
EH15	020334	552	3425#	
EH16	020506	558	3447#	
EH17	020666	564	3470#	
EH2	016064	486	3179#	
EH20	021046	570	3493#	
EH21	021231	576	3517#	
EH22	021400	582	3538#	
EH23	021530	588	3557#	
EH24	021703	594	3579#	
EH25	022064	600	3602#	
EH26	022217	606	3622#	
EH27	022350	612	3642#	
EH3	016225	492	3200#	
EH30	022554	618	3668#	
EH31	022744	624	3692#	
EH32	023144	630	3718#	
EH33	023312	636	3739#	
EH34	023463	642	648	3761#
EH35	023613	3780#		
EH36	024013	652	3804#	
EH37	024116	658	3819#	
EH4	016431	498	3226#	
EH40	024240	664	3837#	
EH41	024400	670	3857#	
EH42	024532	676	3876#	
EH43	024672	682	3896#	
EH44	025060	688	3920#	
EH45	025240	694	3943#	
EH46	025401	700	3964#	
EH47	025554	706	3986#	
EH5	016557	504	3245#	
EH50	025702	712	4005#	
EH51	026055	718	4028#	
EH52	026237	724	4052#	
EH53	026417	730	4076#	
EH54	026566	736	4099#	
EH55	026733	742	4121#	
EH56	027120	748	4146#	
EH57	027305	754	4170#	
EH6	016751	510	3270#	
EH60	027472	760	4195#	
EH61	027663	766	4220#	
EH62	030042	772	4243#	
EH63	030206	778	4264#	
EH64	030356	784	4286#	
EH65	030553	790	4312#	
EH66	030747	796	4337#	
EH67	031125	802	4360#	

EH7	017122	516	3292#	
EH70	031277	808	4382#	
EH71	031476	814	4408#	
EH72	031644	820	4430#	
EH73	032013	826	4452#	
EH74	032163	830	4473#	
EH75	032307	835	4491#	
EH76	032433	840	4509#	
EH77	032557	845	4527#	
EMTVEC=	000030	144#	862#	863#
EMTX =	000000	214#		
EM1	015617	479	3146#	
EM10	017216	521	3306#	
EM11	017364	527	3327#	
EM12	017540	533	3349#	
EM13	017714	539	3371#	
EM14	020070	545	3393#	
EM15	020264	551	3418#	
EM16	020430	557	3439#	
EM17	020602	563	3461#	
EM2	016002	485	3170#	
EM20	020762	569	3484#	
EM21	021142	575	3507#	
EM22	021326	581	3531#	
EM23	021474	587	3552#	
EM24	021624	593	3571#	
EM25	022000	599	3593#	
EM26	022160	605	3616#	
EM27	022306	611	3636#	
EM3	016160	491	3193#	
EM30	022444	617	3656#	
EM31	022650	623	3682#	
EM32	023066	629	3710#	
EM33	023240	635	3732#	
EM34	023406	641	647	3753#
EM35	023560	3775#		
EM36	023736	651	3796#	
EM37	024110	657	3818#	
EM4	016322	497	3214#	
EM40	024212	663	3833#	
EM41	024334	669	3851#	
EM42	024474	675	3871#	
EM43	024626	681	3890#	
EM44	025016	687	3914#	
EM45	025204	693	3938#	
EM46	025364	699	3961#	
EM47	025476	705	3978#	
EM5	016526	503	3240#	
EM50	025650	711	4000#	
EM51	026012	717	4022#	
EM52	026200	723	4046#	
EM53	026346	729	4069#	
EM54	026526	735	4093#	
EM55	026674	741	4115#	
EM56	027042	747	4138#	
EM57	027226	753	4162#	

EM6	016654	509	3259#			
EM60	027414	759	4187#			
EM61	027600	765	4211#			
EM62	030004	771	4238#			
EM63	030150	777	4259#			
EM64	030330	783	4282#			
EM65	030464	789	4302#			
EM66	030650	795	4326#			
EM67	031044	801	4351#			
EM7	017046	515	3284#			
EM70	031222	807	4374#			
EM71	031430	813	4401#			
EM72	031604	819	4424#			
EM73	031752	825	4446#			
EM74	032110	829	4465#			
EM75	032234	834	4483#			
EM76	032360	839	4501#			
EM77	032504	844	4519#			
ERRVEC=	000004	137#	2590	2591*	2593*	2596*
ET1	015764	481	3165#			
ET10	017346	523	3322#			
ET11	017522	529	3344#			
ET12	017676	535	3366#			
ET13	020052	541	3388#			
ET14	020246	547	3413#			
ET15	020412	553	3434#			
ET16	020564	559	3456#			
ET17	020744	565	3479#			
ET2	016142	487	3188#			
ET20	021124	571	3502#			
ET21	021310	577	3526#			
ET22	021456	583	3547#			
ET23	021606	589	3566#			
ET24	021762	595	3588#			
ET25	022142	601	3611#			
ET26	022272	607	3631#			
ET27	022426	613	3651#			
ET3	016304	493	3209#			
ET30	022632	619	3677#			
ET31	023044	625	3704#			
ET32	023222	631	3727#			
ET33	023370	637	3748#			
ET34	023542	643	649	3770#		
ET35	023716	3793#				
ET36	024072	653	3813#			
ET37	024174	659	3828#			
ET4	016510	499	3235#			
ET40	024316	665	3846#			
ET41	024456	671	3866#			
ET42	024610	677	3885#			
ET43	024774	683	3908#			
ET44	025162	689	3932#			
ET45	025342	695	3955#			
ET46	025460	701	3973#			
ET47	025632	707	3995#			
ETS	016636	505	3254#			

[illegible]

[illegible]

[illegible]

RO051	011052	2142*												
RO052	011102	2153*												
RO053	011132	2164*												
RO054	011170	2178*												
R1	=%000001	70*	2213*	2313	2322*	2333*	2342*	2395*	2396*	2449*	2453*	2467*	2526*	2538
		2705	2735*	2811	2824*	2825	2829	2857*						
R2	=%000002	71*	2215*	2218*	2312	2323*	2334*	2454*	2468*	2472	2475	2527*	2531*	2534*
		2706	2734*	2812	2823*	2827*	2830	2837*	2838*	2839	2844*	2856*		
R3	=%000003	72*	2061*	2214*	2311	2324*	2335*	2455*	2457*	2529*	2707	2733*	2813	2821*
		2822*	2836*	2839*	2848*	2849*	2855*	2902	2911*	2917*	2918*	2921*	2926*	2927*
		2928	2937*											
R4	=%000004	73*	1889*	1967*	2021*	2062*	2202*	2310	2325*	2336*	2510*	2708	2732*	2903
		2905*	2906*	2907*	2908	2909*	2923	2925*	2933*	2936*				
R5	=%000005	74*	1271*	1301*	1323*	1329*	1351*	1357*	1378*	1385*	1411*	1437*	1491*	1552*
		1597*	1614*	1645*	1662*	1693*	1709*	1740*	1747*	1776*	1785*	1798*	1805*	1843*
		1866*	1911*	1958*	1970*	1992*	2012*	2024*	2032*	2052*	2068*	2085*	2108*	2120*
		2131*	2142*	2153*	2164*	2178*	2193*	2205*	2309	2317*	2329	2337*	2355*	2359*
		2363*	2370	2416*	2423*	2460*	2488*	2499*	2503*	2519*	2537*	2560*	2561*	2562*
		2709	2731*	2814	2816*	2818*	2825*	2829*	2844	2854*	2904	2910*	2912*	2914*
		2915*	2916*	2917	2935*									
R6	=%000006	75*	77	855*	856*	857								
R7	=%000007	76*	78											
SAT	= 000000	205*												
SBDAT	013134	2525*	2529	2550*										
SBDAT1	001270	449*	1615	1663	1710	1867	1993	2086	2500					
SBDAT2	001274	451*	1748											
SBDAT3	001300	453*	2033											
SP	=%000006	77*	859*	871*	881*	891*	894*	905*	908*	919*	922*	933*	936*	951*
		961*	968*	978*	985*	996*	1003*	1014*	1024*	1039*	1046*	1058*	1061*	1073*
		1092*	1098*	1108*	1114*	1124*	1133*	1156*	1164*	1187*	1194*	1209*	1215*	1227*
		1236*	1244*	1257*	1265*	1286*	1295*	1312*	1320*	1340*	1348*	1368*	1375*	1396*
		1403*	1420*	1428*	1464*	1470*	1482*	1525*	1531*	1542*	1571*	1577*	1588*	1619*
		1625*	1636*	1667*	1673*	1684*	1714*	1720*	1731*	1752*	1758*	1768*	1825*	1834*
		1886*	1903*	1928*	1934*	1951*	1997*	2005*	2037*	2045*	2097*	2105*	2112*	2117*
		2124*	2128*	2135*	2139*	2146*	2150*	2157*	2161*	2171*	2175*	2182*	2186*	2221*
		2253*	2271	2273*	2274*	2277*	2290	2291*	2315*	2320*	2331*	2582*	2590*	2593
		2595	2596	2624	2625	2629*	2659	2661	2674	2686*	2689*	2704*	2705*	2706*
		2707*	2708*	2709*	2714*	2715*	2716*	2717	2723*	2731	2732	2733	2734	2735
		2736	2775*	2776	2777*	2779	2780	2781*	2784	2786*	2788*	2794	2810*	2811*
		2812*	2813*	2814*	2815*	2816	2819*	2832	2834*	2836	2846	2848	2854	2855
		2856	2857	2858	2860*	2861*	2894*	2895	2896	2897*	2902*	2903*	2904*	2910
		2935	2936	2937	2938*	2939*	2958*	2964*	2985	2989*	3008*	3009		
SPBOT	= 001000	166*												
SRSETT	012046	882	1090	1106	1122	1154	1185	1207	1255	1823	1926	2348*	2351*	2583
SST	= 000010	209*	2554											
STACK	= 001100	58*												
STAL	012256	2404*												
STALA	012304	2408*	2410*											
STALB	012312	2407	2412*											
START	002304	164	850*	2287										
STARTX	002462	877*	2262											
STKLMT	= 177774	63*												
STLMSK	012314	2406	2413*											
STMES	015032	874	3077*											
STTCV	012022	988	1006	1027	1049	1218	1406	1432	1486	1547	1592	1640	1688	1735
		1838	1892	1906	1936	2064	2341*							

SV04	011656	2300#	2452	2508	2524												
SV05	011702	2307#															
SV05A	011710	2305	2308#														
SV05B	011716	2302	2310#														
SV05C	011734	2301*	2304*	2307*	2316#												
SV05S	011672	2304#	2341	2369	2392	2404											
SWR	= 177570	65#	66	2585*	2599	2601	2607	2614	2670	2677	2681	2684					
SW0	= 000001	106#															
SW00	= 000001	96#	106														
SW01	= 000002	95#	105														
SW02	= 000004	94#	104														
SWC3	= 000010	93#	103														
SW04	= 000020	92#	102														
SW05	= 000040	91#	101														
SW06	= 000100	90#	100														
SW07	= 000200	89#	99														
SW08	= 000400	88#	98	2572	2599												
SW09	= 001000	87#	97	424	869	2571	2597	2600	2603	2605	2607	2625	2628	2631			
		2651	2684	2691													
SW1	= 000002	105#															
SW10	= 002000	86#	425	2650	2670	2691											
SW11	= 004000	85#	423	869	2242	2570	2600	2603	2604	2605	2612	2613	2614	2628			
		2631															
SW12	= 010000	84#	870	2236	2256	2263											
SW13	= 020000	83#	2649	2677													
SW14	= 040000	82#	2569	2585													
SW15	= 100000	81#	2648	2681													
SW2	= 000004	104#															
SW3	= 000010	103#															
SW4	= 000020	102#															
SW5	= 000040	101#															
SW6	= 000100	100#															
SW7	= 000200	99#															
SW8	= 000400	98#															
SW9	= 001000	97#															
TB:TYE	= 000014	139#															
TCBA	001236	436#	937	938*	1459	1461	1473*	1521	1534*	1580*	1610	1628*	1658	1676*			
		1706	1723*	1761*	1773*	1795*	1878	1891*	1966*	1988	2020*	2060*	2093	2201*			
		2666															
TCCM	001232	434#	895	896*	954	971	990*	992*	10								

[illegible]

T0030	005102	1397	1402#												
T0031	005170	1421	1427#												
T0032	005422	1465	1471	1481#											
T0033	005674	1526	1532	1541#											
T0034	006104	1572	1578	1587#											
T0035	006310	1620	1626	1635#											
T0036	006514	1668	1674	1683#											
T0037	006716	1715	1721	1730#											
T0040	007062	1753	1759	1767#											
T0041	007370	1826	1833#												
T0042	007664	1887	1902#												
T0043	010052	1929	1935	1950#											
T0044	010300	1998	2004#												
T0045	010454	2038	2044#												
T0046	010724	2098	2104#												
T0047	010756	2113	2116#												
T0050	011006	2127#													
T0051	011036	2138#													
T0052	011066	2149#													
T0053	011116	2160#													
T0054	011154	2174#													
T0055	011204	2185#													
T0056	011376	2222	2227#												
U0	= 000000	196#	1136	1167	1197	1229	1251	1269	1299	1327	1355	1383	1409	1435	
		1489	1550	1595	1643	1691	1738	1774	1796	1841	1909	1956	2010	2050	
		2191													
U1	= 000400	197#	2109												
U2	= 001000	198#	2121												
U3	= 001400	199#	2132												
U4	= 002000	200#	2143												
U5	= 002400	201#	2154												
U6	= 003000	202#	2165												
U7	= 003400	203#	2179												
V0	= 000000	183#	4555	4565	4568	4572	4576	4580	4591	4597	4603	4609	4615	4621	
		4627	4633	4639	4645	4651	4657	4663	4669	4675	4681	4687	4693	4699	
		4705	4711	4717	4723	4729	4735	4741	4747	4753	4759	4765	4771	4777	
		4783	4789	4795	4801	4807	4813	4819	4825	4831	4837	4843	4849	4855	
		4861	4867	4873	4879	4885	4891	4897	4903	4909	4915	4921	4927	4933	
		4939	4945	4951	4957	4963	4969	4975	4981	4987	4993	4999	5005	5011	
		5017	5023	5029	5035	5041	5047	5053	5059	5065	5071	5077	5083	5089	
		5095	5101	5107	5113	5119	5125	5131	51						

V3	=	000014	186#												
V4	=	000020	187#												
V5	=	000024	188#	4565	4568	4580	4591	4597	4603	4609	4615	4621	4627	4633	4639
			4645	4651	4657	4663	4669	4675	4681	4687	4693	4699	4705	4711	4717
			4723	4729	4735	4741	4747	4753	4759	4765	4771	4777	4783	4789	4795
			4801	4807	4813	4819	4825	4831	4837	4843	4849	4855	4861	4867	4873
			4879	4885	4891	4897	4903	4909	4915	4921	4927	4933	4939	4945	4951
			4957	4963	4969	4975	4981	4987	4993	4999	5005	5011	5017	5023	5029
			5035	5041	5047	5053	5059	5065	5071	5077	5083	5089	5095	5101	5107
			5113	5119	5125	5131	5137	5143	5149	5155	5161	5167	5173	5179	5185
			5191	5197	5203	5209	5215	5221	5227	5233	5239	5245	5251	5257	5263
			5269	5275	5281	5287	5293	5299	5305	5311	5317	5323	5329	5335	5341
			5347												
V6	=	000030	189#	4555	4572										
V7	=	000034	190#	4539	4584	4594	4600	4606	4612	4618	4624	4630	4636	4642	4648
			4654	4660	4666	4672	4678	4684	4690	4696	4702	4708	4714	4720	4726
			4732	4738	4744	4750	4756	4762	4768	4774	4780	4786	4792	4798	4804
			4810	4816	4822	4828	4834	4840	4846	4852	4858	4864	4870	4876	4882
			4888	4894	4900	4906	4912	4918	4924	4930	4936	4942	4948	4954	4960
			4966	4972	4978	4984	4990	4996	5002	5008	5014	5020	5026	5032	5038
			5044	5050	5056	5062	5068	5074	5080	5086	5092	5098	5104	5110	5116
			5122	5128	5134	5140	5146	5152	5158	5164	5170	5176	5182	5188	5194
			5200	5206	5212	5218	5224	5230	5236	5242	5248	5254	5260	5266	5272
			5278	5284	5290	5296	5302	5308	5314	5320	5326	5332	5338	5344	5350
			5372												
WALL	=	000016	212#	2066											
WDATA	=	000014	211#	1968	2022	2203									
WDCNT		013140	2216*	2528*	2541*	2552#									
WRTM	=	000012	210#	1136	1167	1197	1229								
X	=	177777	179#												
SBDDADR		001122	352#												
SBDDAT		001126	354#												
SBELL		001220	425#	2672	2691										
SCMTAG		001100	340#	855	862	868	869								
SCM1	=	000010	367#	371	373#	374	376#	377	379#	380	382#	383	385#	386	388#
			389	391#	392	3									

		3611	3631	3651	3677	3704	3727	3748	3770	3793	3813	3829	3846	3866
		3885	3908	3932	3955	3973	3995	4016	4040	4063	4087	4109	4132	4156
		4181	4205	4232	4253	4276	4296	4321	4346	4369	4395	4418	4440	4461
		4480	4498	4516	4534									
SERRTB	001314	477#	2972											
SERTY	014642	2679	2956#											
SERTTL	001112	347#	2673#	2691		2691								
SESCAP	001216	424#	2626#	2687	2689	2691								
SFILLC	001150	362#	2784	2796										
SFILLS	001147	361#	2796											
SGOADR	001120	351#												
SGCDAT	001124	353#												
SGET42	011456	2256#												
SHO =	000000	29												
SICNT	001104	344#	2618#	2619	2621#	2631								
SILLUP	014044	2698	2741#											
SITEMB	001114	349#	2676#	2691	2960									
SLF	001226	428#	2691											
SLPADR	001106	345#	870#	2609#	2624#	2629	2631							
SLPERR	001110	346#	2609	2625#	2631	2686								
SMXCNT	013474	2622	2631#											
SNUL	001146	360#	2786	2796										
SOCNT	014636	2901#	2930#	2943#										
SOMODE	014640	2896#	2900#	2905	2908#	2919#	2945#							
SOVER	013460	2586	2602	2610	2620	2628#								
SPASS	001100	341#	2243#	2244#	2253	2263	2616	2632						
SPOWER	014052	2739	2744#											
SPWRON	013706	866	2698#	2737										
SPWRUP	013770	2718	2723#											
SQUES	001224	426#	2691											
SROCHR=	*****	3076												
SRODEC=	*****	3076												
SROLIN=	*****	3076												
SROCT=	*****	3076												
SREGAD	001152	365#												
SREGO	001154	372#	1307#	1309#	1450#	1456#	1508#	1518#	1557#	1562#	1568#	1607#	1655#	1703#
		1790#	1810#	1815#	1821#	1985#	2082#	2290#	2292	2294	2295#	3631	3704	3908
		3932	4063	4087	4109	4132	4156	4181	4205	4232	4296	4395		
SREG1	001156	375#	2294#	2665#	3165	3188	3209	3235	3254	3279	3301	3322	3344	3366
		3388	3413	3434	3456	3479	3502	3526	3547	3566	3588	3611	3651	3677
		3704	3727	3748	3770	3793	3813	3828	3846	3866	3885	3908		

SREG6	001170	390#	2659*	2660*	3165	3188	3209	3235	3254	3279	3301	3322	3344	3366
		3388	3413	3434	3456	3479	3502	3526	3547	3566	3588	3611	3631	3651
		3677	3704	3727	3748	3770	3793	3813	3828	3846	3866	3885	3908	3932
		3955	3973	3995	4016	4040	4063	4087	4109	4132	4156	4181	4205	4232
		4253	4276	4296	4321	4346	4369	4395	4418	4440	4461	4480	4498	4516
		4534												
SREG7	001172	393#	2661*	3165	3188	3209	3235	3254	3279	3301	3322	3344	3366	3388
		3413	3434	3456	3479	3502	3526	3547	3566	3588	3611	3631	3651	3677
		3704	3727	3748	3770	3793	3813	3828	3846	3866	3885	3908	3932	3955
		3973	3995	4016	4040	4063	4087	4109	4132	4156	4181	4205	4232	4253
		4276	4296	4321	4346	4369	4395	4418	4440	4461	4480	4498	4516	4534
		3076												
SSAVRE=	***** U	2717*	2723	2724*	2725*	2743#								
SSAVR6	014050	860	2576#											
SSCOPE	013210	17#	849#	860	862	864	866	868	869	870	2241			
SSETUP=	010037	17#	849#											
SSTUP=	177777													
SSVLAD	013432	2594	2623#											
SSMR =	167400	8#	29	35	36	37	38	39	40	41	423	424	425	869
		870	2236	2242	2256	2263	2569	2570	2571	2572	2585	2597	2599	2600
		2603	2604	2605	2612	2613	2614	2625	2628	2631	2648	2649	2650	2651
		2670	2677	2681	2684	2691								
		423#	2242*	2612*	2619	2622*	2631							
STIMES	00.214	357#												
STKB	001140	356#	857											
STKS	001136	400#												
STMP0	001174	403#												
STMP1	001176	406#												
STMP2	001200	409#												
STMP3	001302	412#												
STMP4	001304	415#												
STMP5	001306	418#												
STMP6	001310	421#												
STMP7	001312	9#	29											
STN =	000100	359#	2794*	2796										
STPB	001.44	363#	2771	2796										
STPFLG	001.51	358#	2792	2796										
STPS	001.42	864	3008#											
STRAP	014776	3041#	3043	3044	3055#	3057	3058	3060#	3062	3063	3065#	3067	3068	3070#
STRP =	000012	3072	3073	3075#										
STRPAD	015016	3012	3052#											
STSTNM	001.02	342#	2241*	2292	2574	2601	2623*	2623	2632	2663	2669	2691		
STYPBN=	***+** U	3076												
STYPDS	014.70	2806#	3071	3074										
STYPE	014062	2275	2771#	3042	3054									
STYPOC	014440	2899#	3056	3059										
STYPON	014454	2898	2901#	3069										
STYPOS	014414	2894#	3064											
SXTSTR	013236	2588#												
SOFILL	014537	2895*	2899*	2909	2944#									
.	= 040010	155#	159	162#	309#	335#	338#	429	858	870	2263	2267	2438	2446
		2557	2559	2631	2632	2691	2720	2742	2796	2867#	2996#	3164#	3208#	3234#
		3253#	3278#	3412#	3525#	3587#	3630#	3769#	3792#	3812#	3931#	3954#	3972#	4062#
		4086#	4131#	4180#	4231#	4320#	4345#	4368#	4394#	4460#	5378#	5380	5381#	

ADITAG	215#	432													
CEND	279#	5368													
COMMEN	1#	149#													
C10	261#	4538	4554	4571	4575	4579	4583								
C22	276#	4546													
C25	252#	4558	4561	5365											
C26	255#	4564													
C30	258#	4567													
C45	273#	5362													
C51	270#	5359													
C55	249#	4550													
C70	264#	4590	4593	4596	4599	4602	4605	4608	4611	4614	4617	4620	4623	4626	4629
	4632	4635	4638	4641	4644	4647	4650	4653	4656	4659	4662	4665	4668	4671	4674
	4677	4680	4683	4686	4689	4692	4695	4698	4701	4704	4707	4710	4713	4716	4719
	4722	4725	4728	4731	4734	4737	4740	4743	4746	4749	4752	4755	4758	4761	4764
	4767	4770	4773	4776	4779	4782	4785	4788	4791	4794	4797	4800	4803	4806	4809
	4812	4815	4818	4821	4824	4827	4830	4833	4836	4839	4842	4845	4848	4851	4854
	4857	4860	4863	4866	4869	4872	4875	4878	4881	4884	4887	4890	4893	4896	4899
	4902	4905	4908	4911	4914	4917	4920	4923	4926	4929	4932	4935	4938	4941	4944
	4947	4950	4953	4956	4959	4962	4965	4968	4971	4974	4977	4980	4983	4986	4989
	4992	4995	4998	5001	5004	5007	5010	5013	5016	5019	5022	5025	5028	5031	5034
	5037	5040	5043	5046	5049	5052	5055	5058	5061	5064	5067	5070	5073	5076	5079
	5082	5085	5088	5091	5094	5097	5100	5103	5106	5109	5112	5115	5118	5121	5124
	5127	5130	5133	5136	5139	5142	5145	5148	5151	5154	5157	5160	5163	5166	5169
	5172	5175	5178	5181	5184	5187	5190	5193	5196	5199	5202	5205	5208	5211	5214
	5217	5220	5223	5226	5229	5232	5235	5238	5241	5244	5247	5250	5253	5256	5259
	5262	5265	5268	5271	5274	5277	5280	5283	5286	5289	5292	5295	5298	5301	5304
	5307	5310	5313	5316	5319	5322	5325	5328	5331	5334	5337	5340	5343		
C73	267#	5346	5349	5353	5356	5371	5375								
EMTDEF	296#														
EMTE	282#	4542													
ENDCOM	1#	149#													
ERROR	59#	898	912	926	940	959	976	994	1016	1034	1055	1066	1078	1083	1088
	1105	1121	1140	1144	1149	1153	1171	1175	1180	1184	1201	1206	1224	1231	1249
	1254	1276	1280	1310	1334	1338	1362	1366	1390	1394	1416	1418	1442		

SETUP	18	1498	854															
SKIP	18	1498																
SLASH	18	1498																
SPACE	1498																	
STARS	18	148	1498	327	460	2229	2564	2643	2692	2748	2797	2869	2947	2998				
TRMTRP	30388																	
TYPBIN	18	1498																
TYPDEC	18	1498	2252															
TYPNUM	18	1498																
TYPOCS	18	1498																
TYPOCT	18	1498	2963	2989														
TYPTXT	18	1498																
SSCMRE	3138	371	374	377	380	383	386	389	392									
SSCMTH	3208	399	402	405	408	411	414	417	420									
SSSCA	18	1498																
SSNEWT	18	1498																
SSSET	30218	3043	3057	3062	3067	3072												
SSSKIP	18	1498																
.EQUAT	18	118	53															
.HEADE	18	118	18															
.KT11	18																	
.SETUP	18	128	16	848														
.SWRHI	18	128	29															
.SWRLO	128	428																
.SCATC	18	118	151															
.SCMTA	18	158	312															
.SDB2D	18																	
.SDB2D	18																	
.SDIV	18																	
.SEOP	18	118	2228															
.SERRO	18	148	2642															
.SERRT	18	148	2946															
.SMULT	18																	
.SPOWE	18	138	2691															
.SRAND	18																	
.SRDE	18																	
.SRDOC	18																	
.SREAO	18																	
.SSAVE	18																	
.SSB2D	18																	
.SSB2D	18																	
.SSCOP	18	128	2563															
.SSIZE	18																	
.SSUPR	18																	
.STRAP	18	138	2997															
.STYPB	18																	
.STYPD	18	138	2796															
.STYPE	18	148	2747															
.STYPC	18	138	2868															

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MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 121
 DZTCBC.P11 CROSS REFERENCE TABLE -- PERMANENT SYMBOLS

ADD	2291	2320	2331	2379	2383	2561	2781	2829	2897	2907	2972				
ASL	2969	2970	2971												
ASLB	2934														
BCC	2835														
BEQ	878	1077	1087	1104	1120	1148	1179	1305	1449	1454	1460	1497	1507	1512	1516
	1522	1605	1611	1653	1659	1701	1707	1789	1820	1852	1855	1871	1875	1879	1924
	1983	1989	2078	2081	2090	2094	2257	2293	2407	2478	2482	2532	2600	2602	2604
	2608	2617	2668	2671	2685	2688	2924	2974	2979	2992					
BGE	2620														
BGT	2247	2843	2931												
BHI	2606														
BIC	1085	1203	2244	2406	2921										
BICB	2475														
BIS	992	1010	1032	1053	1080	1089	1101	1102	1117	1118	1222	1229	2465	2554	2837
	2838	2926	2927												
BISB	2472	2960													
BIT	1076	1081	1086	1103	1119	1138	1147	1169	1178	1204	1332	1496	1555	1788	1808
	1819	1914	1923	2558	2599	2607	2614	2670	2677	2684					
BLT	2789	2826	2842	2932											
BMI	1143	1174	1200	1248	1279	1337	1361	1365	1415	1503	1561	1802	1814	1919	1979
	2586	2833													
BNE	858	1082	1139	1170	1205	1333	1556	1809	1857	1861	1915	2219	2397	2399	2438
	2446	2458	2480	2487	2515	2535	2543	2559	2615	2678	2726	2778	2785	2831	2922
	2961	2984													
BPL	958	975	1152	1183	1253	1275	1389	1393	1441	1445	1467	1495	1528	1567	1574
	1601	1622	1649	1670	1697	1717	1744	1755	1780	1847	1883	1931	1962	1975	2016
	2029	2056	2073	2197	2210	2490	2557	2682	2772	2793	2817	2847	2920		
BR	897	911	925	939	962	979	997	1015	1018	1035	1040	1059	1064	1067	1079
	1084	1093	1109	1125	1141	1145	1150	1157	1172	1176	1181	1188	1202	1210	1225
	1232	1237	1250	1258	1277	1287	1313	1335	1341	1363	1369	1391	1397	1417	1421
	1443	1447	1452	1458	1465	1471	1499	1501	1505	1510	1514	1520	1526	1532	1559
	1564	1572	1578	1603	1609	1613	1620	1626	1651	1657	1661	1668	1674	1699	1705
	1715	1721	1746	1753	1759	1782	1792	1812	1817	1826	1849	1859	1863	1865	1873
	1877	1881	1887	1917	1921	1929	1935	1964	1977	1981	1987	1991	1998	2018	2031
	2038	2058	2075	2084	2092	2098	2113	2199	2212	2222	2269	2297	2302	2305	2485
	2491	2497	2588	2594	2597	2610	2613	2720	2742	2774	2791	2828	2845	2898	2913
	2934	2967	2994												
CLR	856	872	880	896	910	924	938	955	990	991	1009	1012	1029	1037	1051
	1052	1056	1146	1177	1220	1221	1234	1268	1298	1382	1408	1434	1456	1488	1518
	1549	1565	1594	1607	1642	1655	1690	1703	1737	1771	1793	1818	1840	1890	1908
	1922	1955	1985	2009	2049	2059	2082	2190	2216	2241	2242	2274	2394	2415	2462
	2483	2528	2581	2582	2612	2626	2662	2724	2820	2823	2911	2959			
CLRB	2611	2849													
CMP	957	1304	1448	1459	1506	1521	1610	1658	1706	1856	1860	1870	1878	1988	2093
	2479	2542	2595	2619	2841										
CMPB	2292	2601	2605	2784											
COM	2350	2436	2437	2444	2445										
DEC	1851	2077	2218	2245	2396	2398	2457	2477	2486	2514	2531	2534	2968		
DECB	2788	2919	2930												
ENT	59														
HALT	159	876	2372	2683	2719	2741	2773								
INC	956	973	2243	2439	2447	2541	2618	2673	2725	2827	2925	2933			
INCB	2623	2667													
IOT	60														
JMP	164	884	2262	2287											
JSR	882	883	892	906	920	934	952	969	986	988	1004	1006	1025	1027	1047

MOV

MOV8

NEG
NOP

RESET

ROL

RTI

RTS

SUB
TRAP
TST

1049	1074	1090	1099	1106	1115	1122	1134	1154	1165	1185	1195	1207	1216	1218
1245	1255	1266	1271	1296	1301	1321	1323	1323	1349	1351	1357	1376	1378	1385
1404	1406	1411	1429	1431	1432	1437	1463	1485	1486	1491	1543	1545	1546	1547
1552	1599	1591	1592	1597	1614	1637	1639	1640	1645	1662	1685	1687	1688	1693
1709	1732	1734	1735	1740	1747	1769	1776	1785	1798	1805	1823	1835	1837	1839
1843	1866	1892	1904	1906	1911	1926	1936	1952	1954	1958	1970	1992	2006	2008
2012	2024	2032	2046	2048	2052	2064	2068	2085	2106	2108	2118	2120	2129	2131
2140	2142	2151	2153	2162	2164	2176	2178	2187	2189	2193	2205	2217	2258	2275
2341	2345	2355	2359	2363	2369	2373	2392	2400	2404	2405	2409	2411	2416	2423
2452	2459	2484	2498	2499	2503	2508	2509	2512	2516	2519	2524	2530	2533	2536
2583	2584	2679	2783	2790										
855	859	860	861	862	863	864	865	866	867	868	870	871	881	889
890	891	894	903	904	905	908	917	918	919	922	931	932	933	936
947	948	949	950	951	954	961	968	971	972	978	985	996	1003	1008
1014	1024	1030	1039	1046	1058	1060	1061	1073	1092	1098	1108	1114	1124	1133
1136	1156	1164	1167	1187	1194	1197	1209	1215	1226	1227	1236	1244	1251	1257
1265	1269	1286	1295	1299	1306	1307	1308	1309	1312	1320	1327	1340	1348	1355
1368	1375	1383	1396	1403	1409	1420	1428	1435	1450	1455	1461	1464	1470	1472
1473	1482	1489	1508	1517	1525	1531	1533	1534	1542	1550	1557	1562	1568	1571
1577	1579	1580	1588	1595	1606	1619	1625	1627	1628	1636	1643	1654	1667	1673
1675	1676	1684	1691	1702	1714	1720	1722	1723	1731	1738	1752	1758	1760	1761
1768	1772	1773	1774	1790	1794	1795	1796	1810	1815	1821	1825	1834	1841	1850
1886	1888	1889	1891	1903	1909	1928	1934	1951	1956	1965	1966	1967	1984	1997
1999	2005	2010	2019	2020	2021	2037	2039	2045	2050	2060	2061	2062	2063	2076
2097	2099	2105	2112	2117	2124	2128	2135	2139	2146	2150	2157	2161	2171	2175
2182	2186	2191	2200	2201	2202	2213	2214	2215	2221	2223	2248	2253	2256	2268
2270	2271	2273	2277	2290	2294	2295	2300	2301	2304	2307	2308	2309	2310	2311
2312	2313	2314	2317	2321	2322	2323	2324	2325	2326	2329	2332	2333	2334	2335
2336	2337	2338	2342	2343	2344	2348	2349	2351	2353	2370	2376	2380	2386	2387
2393	2395	2408	2422	2435	2440	2441	2443	2448	2449	2453	2454	2455	2463	2464
2466	2467	2468	2469	2470	2496	2510	2511	2513	2525	2526	2527	2529	2538	2539
2540	2545	2553	2555	2590	2591	2593	2596	2609	2621	2622	2624	2625	2628	2629
2659	2661	2664	2665	2666	2669	2674	2686	2689	2698	2699	2704	2705	2706	2707
2708	2709	2714	2715	2716	2717	2718	2723	2731	2732	2733	2734	2735	2736	2737
2738	2775	2776	2780	2786	2810	2811	2812	2813	2814	2815	2816	2821	2824	2844
2854	2855	2856	2857	2858	2860	2861	2894	2902	2903	2904	2910	2917	2935	2936
2937	2938	2939	2958	2964	2973	2978	2983	2985	2989	3008	3009	3012		
869	1474	1535	1581	1629	1677	1724	1762	1783	1803	1894	1938	1940	1968	2022
2066	2203	2456	2471	2473	2474	2476	2627	2663	2676	2777	2794	2819	2822	2836
2839	2848	2895	2896	2899	2900	2901	2905	2908	2909	2928	3011			
2918	2906													
195	850	851	852	853	875	993	1011	1033	1054	1063	1137	1168	1198	1223
1230	2167	2168	2169	2259	2260	2261	2281	2282	2283	2284	2285			
879	2286	2352												
2377	2378	2381	2382	2384	2385	2585	2912	2914	2915	2916	2918			
1062	1228	1475	1536	1582	1630	1678	1725	1763	1853	1895	1939	1941	2000	2040
2079	2100	2224	2630	2690	2740	2782	2862	2940						
2298	2316	2318	2327	2339	2346	2354	2367	2374	2388	2401	2412	2420	2427	2442
2450	2460	2488	2507	2517	2523	2537	2544	2548	2560	2562	2795	2987	3013	
1031	2272	2315	2660	2675	2825									
3043	3057	3062	3067	3072										
877	895	909	923	937	1142	1151	1173	1182	1199	1274	1336	1360	1364	1388
1392	1440	1453	1466	1494	1511	1515	1527	1560	1566	1573	1600	1604	1621	1648
1652	1669	1696	1700	1716	1743	1754	1779	1801	1813	1846	1854	1874	1882	1918
1930	1961	1974	1982	2015	2028	2055	2072	2080	2089	2196	2209	2371	2481	2592
2616	2681	2687	2779	2830	2840	2923	2991	3010						

H10

MAINDEC-11-DZTCB-C TC11 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 123
 DZTCBC.P11 CROSS REFERENCE TABLE -- PERMANENT SYMBOLS

TSTB	957	974	1247	1252	1278	1414	1444	1502	1978	2489	2556	2603	2771	2792	2832
.ABS	2846														
.ASCII	4														
.ASCII	426	427	3077	3081	3087										
.ASCII	425	428	2263	2744	2995	3091	3097	3103	3107	3108	3115	3123	3131	3139	3146
	3156	3170	3179	3193	3200	3214	3226	3240	3245	3259	3270	3294	3292	3306	3313
	3327	3335	3349	3357	3371	3379	3393	3404	3418	3425	3439	3447	3461	3470	3484
	3493	3507	3517	3531	3538	3552	3557	3571	3579	3593	3602	3616	3622	3636	3642
	3656	3668	3682	3692	3710	3718	3732	3739	3753	3761	3775	3780	3796	3804	3818
	3819	3833	3837	3851	3857	3871	3876	3890	3896	3914	3920	3928	3943	3961	3964
	3978	3986	4000	4005	4022	4028	4046	4052	4069	4076	4093	4099	4115	4121	4138
	4146	4162	4170	4187	4195	4211	4220	4238	4243	4259	4264	4282	4286	4302	4312
	4326	4337	4351	4360	4374	4382	4401	4408	4424	4430	4446	4452	4465	4473	4483
	4491	4501	4509	4519	4527										
.BLKW	2867														
.BYTE	342	343	348	349	360	361	362	363	2266	2941	2942	2943	2944	3106	4539
	4543	4547	4551	4555	4559	4562	4565	4568	4572	4576	4580	4584	4591	4594	4597
	4600	4603	4606	4609	4612	4615	4618	4621	4624	4627	4630	4633	4636	4639	4642
	4645	4648	4651	4654	4657	4660	4663	4666	4669	4672	4675	4678	4681	4684	4687
	4690	4693	4696	4699	4702	4705	4708	4711	4714	4717	4720	4723	4726	4729	4732
	4735	4738	4741	4744	4747	4750	4753	4756	4759	4762	4765	4768	4771	4774	4777
	4780	4783	4786	4789	4792	4795	4798	4801	4804	4807	4810	4813	4816	4819	4822
	4825	4828	4831	4834	4837	4840	4843	4846	4849	4852	4855	4858	4861	4864	4867
	4870	4873	4876	4879	4882	4885	4888	4891	4894	4897	4900	4903	4906	4909	4912
	4915	4918	4921	4924	4927	4930	4933	4936	4939	4942	4945	4948	4951	4954	4957
	4960	4963	4966	4969	4972	4975	4978	4981	4984	4987	4990	4993	4996	4999	5002
	5005	5008	5011	5014	5017	5020	5023	5026	5029	5032	5035	5038	5041	5044	5047
	5050	5053	5056	5059	5062	5065	5068	5071	5074	5077	5080	5083	5086	5089	5092
	5095	5098	5101	5104	5107	5110	5113	5116	5119	5122	5125	5128	5131	5134	5137
	5140	5143	5146	5149	5152	5155	5158	5161	5164	5167	5170	5173	5176	5179	5182
	5185	5188	5191	5194	5197	5200	5203	5206	5209	5212	5215	5218	5221	5224	5227
	5230	5233	5236	5239	5242	5245	5248	5251	5254	5257	5260	5263	5266	5269	5272
	5275	5278	5281	5284	5287	5290	5293	5296	5299	5302	5305	5308	5311	5314	5317
	5320	5323	5326	5329	5332	5335	5338	5341	5344	5347	5350	5354	5357	5360	5363
	5366	5369	5372	5376											
.ENABL	1	5	10												
.END	5382														
.ENDC	17	24	38	40	41	42	59	135	149	165	329	339	365	395	423
	424	425	426	459	462	849	859	860	862	864	866	868	869	870	2231
	2234	2235	2236	2238	2241	2247	2250	2251	2256	2263	2266	2267	2566	2575	2585
	2587	2598	2601	2603	2605	2607	2614	2618	2623	2628	2631	2632	2645	2653	2667
	2674	2680	2681	2691	2694	2717	2727	2740	2747	2750	2799	2871	2949	2968	2997
	3000	3009	3012	3053	3056	3059	3063	3068	3071	3073	3076				
.EQUIV	59	60	62	77	78	97	98	99	100	101	102	103	104	105	106
	125	126	127	128	129	130	131	132	133	134					
.EVEN	2746	2996	3164	3187	3208	3234	3253	3278	3300	3321	3343	3365	3387	3412	3433
	3455	3478	3501	3525	3546	3565	3587	3610	3630	3650	3676	3703	3726	3747	3769
	3792	3812	3827	3845	3865	3884	3907	3931	3954	3972	3994	4015	4039	4062	4086
	4108	4131	4155	4180	4204	4231	4252	4275	4295	4320	4345	4368	4394	4417	4439
	4460	4479	4497	4515	4533	5378									
.IF	17	20	38	39	40	41	42	57	107	135	160	328	338	364	365
	395	423	424	425	429	461	849	855	859	860	862	864	866	868	869
	870	2230	2234	2235	2236	2237	2238	2240	2246	2249	2251	2256	2262	2263	2565
	2574	2577	2585	2597	2599	2600	2603	2604	2605	2614	2616	2625	2631	2632	2644
	2652	2655	2670	2677	2679	2680	2681	2684	2691	2693	2710	2727	2739	2740	2744
	2749	2798	2870	2948	2967	2983	2999	3008	3012	3042	3044	3056	3058	3063	3068

MAINDEC-11-DZTCB-C T011 TEST #2 MACY11 27(732) 14-SEP-76 10:51 PAGE 124
 DZTCBC.P11 CROSS REFERENCE TABLE -- PERMANENT SYMBOLS

.IFF	3071 38 2263 2949	3073 40 2566 2968	3076 41 2598 2997	42 2601 3000	57 2605 3009	329 2631	339 2645	364 2652	462 2670	860 2691	2231 2694	2237 2740	2241 2750	2247 2799	2250 2871
.IFT	2613	2680													
.IFTF	2611	2679													
.IIF	19	24	29	35	36	37	38	159	429	860	862	868	869	870	2235
	2241	2242	2254	2263	2267	2569	2570	2571	2572	2612	2613	2628	2631	2632	2648
	2649	2650	2651	2691	2796	2965	2990	3053	3058	3063	3068	3073			
.IRP	17	429	849	2577	2655	2701	2711	2728	2807	2851					
.LIST	1	6	17	149	159	364	367	373	376	379	382	385	388	391	394
	395	401	404	407	410	413	416	419	422	849	3041	3053	3055	3058	3060
	3063	3065	3068	3070	3073	3075									
.MACR	249	252	255	258	261	264	267	270	273	276	279	282	285	290	296
.MACRO	1	42	215	245	303	313	320	2632	3015	3021	3038				
.MCALL	11	12	13	14	15	149									
.NLIST	1	7	17	149	159	364	367	373	376	379	382	385	388	391	394
	395	401	404	407	410	413	416	419	422	849	3041	3053	3055	3058	3060
	3063	3065	3068	3070	3073	3075									
.PAGE	326	459													
.REPT	159	368	396	4586											
.SBTTL	31	55	153	161	330	463	895	899	914	928	944	965	982	1000	1021
	1043	1070	1095	1111	1130	1161	1191	1212	1241	1262	1292	1317	1345	1372	1400
	1425	1479	1539	1585	1633	1681	1728	1765	1831	1900	1948	2002	2042	2102	2114
	2125	2136	2147	2158	2172	2183	2226	2232	2567	2646	2695	2751	2800	2872	2950
	3001	3045													
.TITLE	19														
.WORD	159	310	311	341	344	345	346	347	350	351	352	353	354	355	365
	372	375	378	381	384	387	390	393	400	403	406	409	412	415	418
	421	455	456	2246	2249	2976	2981								

ERRORS DETECTED: 0
 DEFAULT GLOBALS GENERATED: 0

*DZTCBC,DZTCBC,SEQ/SOL/CRF/DS:ERFZ/EN:ABS=DSKM:SYSMAC.SML,DSKM:DZTCBC.P11
 RUN-TIME: 41 51 10 SECONDS
 RUN-TIME RATIO: 133/103=1.2
 CORE USED: 23K (46 PAGES)

