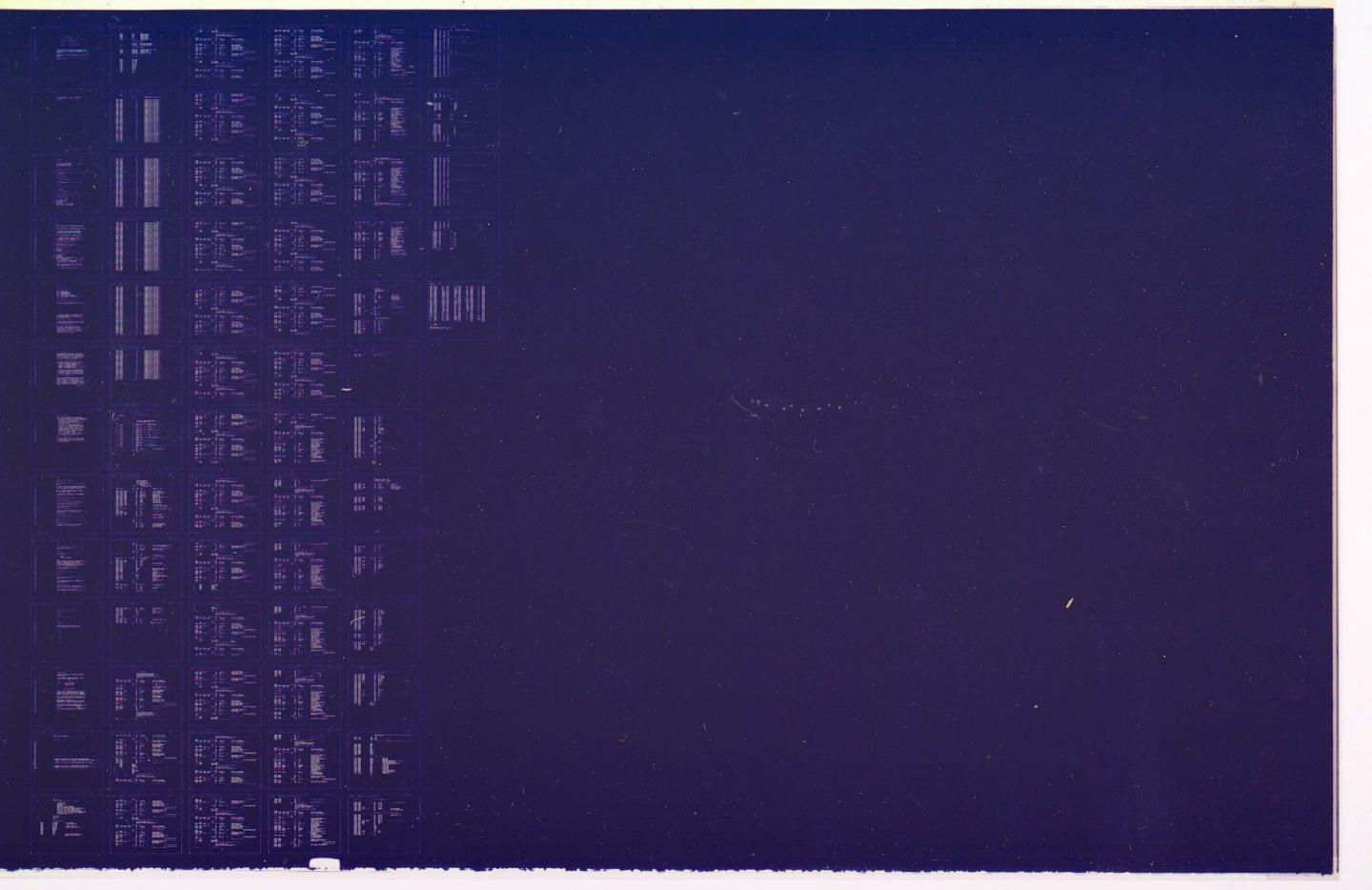
DH11

DH11 MEMORY TEST CZDHBC0

AH-FG21C-MC **OCT 1985** COPYRIGHT© 1972-85 MADE IN USA





.REM +

IDENTIFICATION

PRODUCT CODE: AC-8448C-MC

PRODUCT NAME: CZDHBCO DH11 MEMORY TEST

DATE: 12-JUN-1985

MAINTAINER: NAC SOFTWARE ENGINEERING

AUTHOR: MICHAEL DAVIS

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1234567

1. ABSTRACT

THE DH11 MEMORY TEST IS A TEST OF THE BYTE COUNT AND BUS ADDRESS MEMORIE: OF THE DH11. EACH MEMORY IS TESTED FOR ADDRESS TITY AND DATA READ/WRITE CAPABILITY

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| 44 | |
| 12345678901123145678901123145678901123345678901123456789011234567890112345678901123456789011234567890112345678901123456789000000000000000000000000000000000000 | |
| 42 | |
| 43 | |
| 0.0 | |
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| 34 | |
| 55 | |
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- 2. REQUIREMENTS
- 2.1 EQUIPMENT

PDP-11 FAMILY STANDARD COMPUTER WITH 4KW OF MEMORY ASR-33 TELETYPE OR EQUIVALENT DH11 ASYNCHRONOUS MULTIPLEXER DM11 MAINTENANCE CARD INSTALLED

2.2 STORAGE

THE PROGRAM LOADS INTO 4KW OF MEMORY

3. LOADING PROCEDURE

THE STANDART PROCEDURE FOR LOADING ABSOLUTE BINARY TAPES IS TO BE USED

- 4. STARTING PROCEDURE
- 4.1 CONTROL SWITCH SETTINGS
- 4.1.1 AFTER PROGRAM LOAD (INITIAL PROGRAM START)

ALL CONSOLE SWITCHES DOWN

4.1.2 TO MODIFY DEVICE VECTOR AND CONTROL REGISTER ADDRESSES AFTER PROGRAM RESTART

SW00=1

- 4.1.3 TO START PROGRAM AT SELECTED TEST AFTER PROGRAM RESTART
 SW01=1
- 4.2 STARTING ADDRESS

THE STARTING ADDRESS FOR ALL TESTS IS 000200
THE RESTART ADDRESS FOR ALL TESTS I 0002000

THE STARTING ADDRESS TO ENTER A SELECTED TEST IS 000200

- 4.3 PROGRAM AND/OR OPERATOR ACTION
- 4.3.1 INITIAL PROGRAM START

4.3.1.1 LOAD PROGRAM INTO MEMORY

4.3.1.2 LOAD ADDRESS 000200

4.3.1.3 CLEAR CONSOLE SWITCHES

4.3.1.4 PRESS START

4.3.1.5 THE PROGRAM WILL TYPE "DH11 MEMORY TEST"
AND WILL THEN TYPE "VECTOR ADDRESS-" AND WAIT FOR AN
INPUT FROM THE TELETYPE KEYBOARD.

| 123456789011234567890112345678901123456789011234567890123345678901 | |
|--|--|
| 4 5 | |
| 7 8 | |
| 10 | |
| 13 | |
| 16 | |
| 19 | |
| 22 | |
| 25 | |
| 28 | |
| 31 32 | |
| 34 35 | |
| 37 38 | |
| 40 | |
| 43 44 45 | |
| 46 47 48 | |
| 49 50 51 52 53 | |
| 52 53 54 | |
| | |

4.3 (CONT'D)

4.3.1.6 TYPE IN THE ADDRESS OF THE RECEIVER INTERRUPT VECTOR FOR THE DH11 TO BE TESTED FOLLOWED BY <CARRIAGE RETURN>

NOTE: WORDS IN ANGLE BRACKETS, I.E. <CARRIAGE RETURN> MEAN THAT THE TELETYPE KEY WITH THE NAMED FUNCTION SHOULD BE STRUCK

IF AN INCORRECT ADDRESS IS ENTERED, THE PROGRAM
WILL TYPE "?" AND WILL REPEAT THE SECOND MESSAGE OF 4.3.1.5

4.3.1.7 THE PROGRAM WILL TYPE "CONTROL REGISTER ADDRESS-"
AND WAIT FOR AN INPUT FROM THE TELETYPE KEYBOARD

4.3.1.8 TYPE IN THE ADDRESS OF THE SYSTEM CONTROL REGISTER OF THE DH11 TO BE TESTED FOLLOWED BY <CARRIAGE RETURN>

IF AN INCORRECT ADDRESS IS TYPED, THE PROGRAM WILL TYPE "?" AND WILL THEN REPEAT THE MESSAGE OF 4.3.1.7

4.3.1.9 THE PROGRAM WILL TYPE "R" TO INDICATE THAT IT IS ABOUT TO START TESTING, AND THEN TESTING WILL BEGIN

4.3.2 PROGRAM RESTART WITH ALL SWITCHES DOWN

4.3.2.1 PERFORM 4.3.1.2 TO 4.3.1.5
4.3.2.2 THE PROGRAM WILL TYPE "DH11 MEMORY TEST"
AND WILL THEN CONTINUE AS DESCRIBED IN 4.3.1.9

4.3.3 PROGRAM RESTART WITH SWOO=1

4.3.3.1 LOAD ADDRESS 000200

4.3.3.2 SET SW01=1

4.3.3.3 PRESS START

4.3.3.4 THE PROGRAM WILL PERFORM AS DESCRIBED IN 4.3.1.5 TO 4.3.1.9

4.3.4 PROGRAM RESTART WITH SW01=1

4.3.4.1 LOAD ADDRESS 000200

4.3.4.2 SET SW01=1

4.3.4.3 PRESS START

4.3.4.4 THE PROGRAM WILL TYPE "DH11 MEMORY TEST"
AND WILL THEN TYPE "TEST PC-" AND WILL WAIT FOR AN INPUT
FROM THE TELETYPE KEYBOARD

4.3.4.5 TYPE IN THE ADDRESS OF THE TEST AT WHICH THE PROGRAM IS TO BE STARTED FOLLOWED BY <CARRIAGE RETURN>

4.3.4.6 THE PROGRAM WILL TYPE R TO INDICATE THAT IT HAS STARTED AND WILL START TESTING AT THE SELECTED TEST.

NOTE: CARE MUST BE TAKEN WHEN THS FEATURE IS USED. SINCE THERE IS NO PROTECTION AGAINST SELECTING AN ADDRESS THAT IS IN THE MIDDLE OF A TEST

NOTE: IF IT IS DESIRED TO LOOP ON THE TEST THAT IS SELECTED SET SW14=1 BEFORE ENTERING THE TEST ADDRESS

- 5. OPERATING PROCEDURE
- 5.1 OPERATIONAL SWITCH SETTINGS

SW15*1, HALT ON ERROR SW14=1, LOOP ON CURRENT TEST SW13=1, SUPPRESS ERROR TYPEOUT SW11=1, INHIBIT ITERATIONS

SW10=1. ESCAPE TO NEXT TEST ON ERROR

SWO9=1. FREEZE VARIABLE PARAMETER IN CURRENT TEST

SW01=1. START PROGRAM AT SELECTED TEST

SWOO=1, CHANGE PARAMETERS AT PROGRAM PESTART

- 5.2 SUBROUTINE ABSTRACTS
- 5.2.1 TRAPCATCHER (LOCATIONS 000000-000776)

THIS ROUTINE IS USED TO INTERCEPT UNEXPECTED INTERRUPTS AND TRAPS. THE AREA FROM 000000-000776 IS LOADED WITH THE FOLLOWING SEQUENCE

IF AN UNEXPECTED INTERRUPT OR TRAP OCCURS, THE PROGRAM WILL HALT WITH THE PC 2 GREATER THAN THE ADDRESS TO WHICH THE PROGRAM TRAPPED. THE PROCESSOR STACK MAY BE EXAMINED TO DETERMINE WHERE THE PROGRAM WAS WHEN THE TRAP OR INTERRUPT OCCURED.

5.2.2 START (PROGRAM INITIALIZATION)

THIS ROUTINE INITIALIZES ALL PROGRAM FLAGS AND COUNTERS. TYPES THE PROGRAM TITLE MESSAGE, AND INPUTS THE VECTOR AND CONTROL REGISTER ADDRESSES OF THE DH11 TO BE TESTED.

5.2.3 BEGIN (PROGRAM START AND RESTART)

THIS ROUTINE IS ENTERED IMMEDIATLY AFTER "START" AND EACH TIME A PROGRAM PASS HAS BEEN COMPLETED. THE ROUTINE SETS UP THE PROCESSOR STACK AND STATUS WORD AND THEN TRANSFERS CONTROL TO THE TEST AT WHICH TESTING WILL BEGIN. IF SW01=0 WHEN THIS ROUTINE IS ENTERD TESTING WILL START AT T1 (TEST 1). IF SW01=1 WHEN THIS ROUTINE IS ENTERED, TESTING WILL START AT THE PC ENTERED FROM THE TELETYPE KEYBOARD.

5.2.4 EOP (END OF PASS)

THIS ROUTINE IS ENTERED ONCE PER PASS AFTER ALL TESTS HAVE BEEN COMPLETED. THIS ROUTINE TYPES THE MAINDEC IDENTIFICATION CODE OF THE PROGRAM, CLEARS ERROR FLAGS AND UPDATES THE PASS COUNT. IF THE PROGRAM WAS LOADED UNDER ACT11 OR DDP, THE ROUTINE CHECKS FOR RETURN TO THE ACT11 OR DDP MONITOR. IF THE PROGRAM IS NOT UNDER MONITOR CONTROL, THE ROUTINE TRANSFERS TO BEGIN.

5.2.5 SCOPER (SCOPE LOOP AND ITERATION HANDLER)

THIS ROUTINE IS ENTERED EACH TIME A TEST IS COMPLETED. THE ROUTINE CHECKS FOR THE FOLLOWING UPON ENTRY

A) IF SW10=1, THE ROUTINE WILL TRANSFER TO THE NEXT TEST

IN SEQUENCE, AFTER CLEARING ERROR FLAGS.

B) IF SW11=1, THE ROUTINE WILL TRANSFER TO THE NEXT TEST SEQUENCE, AFTER CLEARING ERROR FLAGS.

C) IF SW14=1, THE ROUTINE WILL LOOP ON THE CURRENT TEST REGARDLESS OF THE ITERATION COUNT.

IF NONE OF THE ABOVE IS TRUE, THE ROUTINE WILL ADD 1 TO THE COUNT OF TEST ITERATIONS, AND COMPARE THIS VALUE TO THE NUMBER OF ITERATIONS THAT SHOULD BE PERFORMED. IF THESE NUMBERS ARE EQUAL, THE ROUTINE WILL TRANSFER TO THE NEXT TEST IN SEQUENCE. THE THE NUMBERS ARE NOT EQUAL, THE TEST CURRENTLY IN PROGRESS WILL BE REPEATED.

5.2.6 SCOP1R (FREEZE ON CURRENT DATA)

THE CALL TO THIS ROUTINE FOLLOWS IMMEDIATLY AFTER THE THE CALL TO THE ERROR HANDLER IN THOSE TESTS THAT HAVE VARIABLE PARAMETERS. THIS ROUTINE IS ALWAYS ENTERED IN THOSE TESTS, WHETHER OR NOT AN ERROR OCCURS. IF SWO9=1. THE ROUTINE WILL TRANSFER CONTROL BACK TO THE TEST AT A POINT WHICH WILL ALLOW REPEATING THE FUNCTION UNDER TEST CONTINUOUSLY WITH THE SAME DATA. IF THIS OPTION IS SELECTED, THE ROUTINE "SCOPER" IS NEVER ENTERED AND ITERATION COUNTS WILL NOT BE UPDATED.

10112345678901234567890123

5.2.7 ERRORS (ERROR HANDLER)

THIS ROUTINE IS ENTERED UPON ERROR DETECTION ONLY. WITH ALL CONSOLE SWITCHES DOWN, THE ROUTINE PROCEDES AS FOLLOWS:

A) THE PC OF THE INSTRUCTION THAT CALLED THE ERROR HANDLER IS ACCESSED THRU THE STACK, AND THEN THE EMT INSTRUCTION ITSELF IS FETCHED. THE 8 LSB OF THE EMT
INSTRUCTION ARE THE ERROR CODE. THIS CODE IS
USED TO ACCESS A TABLE OF ERROR MESSAGES AND ERROR DATA STORAGE LOCATIONS.

B) IF THE TEST THAT FAILED DID NOT FAIL PREVIOUSLY DURING THIS PASS. A COMPLETE ERROR REPORT IS MADE IF THE TEST THAT FAILED FAILED MOR THAT ONCE DURING THE CURRENT PASS, ONLY THE DATA RELATING TO THE FAILUER

IS TYPED. IF SW13=1, NO ERROR TYPEOUT IS MADE.

C) THE ROUTINE NOW CHECKS FOR HALT ON ERROR. IF SW15=1
THE PROGRAM WILL HALT WITH THE PC OF THE CALL TO THE ERROR ROUTINE IN RO. IF SW15-0, THE PROGRAM WILL NOT HALT, BUT WILL CHECK FOR ESCAPE TO NEXT TEST.

D) IF SW10=0, THE ROUTINE WILL RETURN
TO THE TEST IN PROGRESS. IF SW10=1, THE ROUTINE WILL
ABORT THE CURRENT TEST, AND TRANSFER TO THE NEXT TEST IN SEQUENCE, THRU THE ROUTINE "SCOPER".

5.2.8 TRPSRV (TRAP DECODE AND DISPATCH)

THIS ROUTINE DECODES THE 8 LSB OF THE TRAP INSTRUCTION THAT CAUSED TH PROGRAM INTERRUPT, AND TRANSFERS CONTROL TO THE ROUTINE THRU THE TABLE "TRPTAB" USING THE 8 LSB OF THE TRAP INSTRUCTION AS AN OFFSET TO THE POINTER TO THE ROUTINE TO BE ENTERED.

- 5.3 PROGRAM AND OR OPERATOR ACTION
- 5.3.1 PROGRAM START WITH ALL SWITCHES DOWN
- 5.3.1.1 REFER TO SECTIONS 4.3.1 AND 4.3.2 FOR INITIAL PROGRAM BEHAVIOR.
- 5.3.1.2 AFTER "R" HAS BEEN TYPED BY THE PROGRAM, TEST EXECUTION WILL BEGIN. EACH TEST WILL BE REPEATED A SELECTED NUMBER OF ITERATIONS (SEE LISTING FOR EXACT NUMBER FOR EACH TEST) AND THEN THE PROGRAM WILL PROCEED TO THE NEXT TEST.
- 5.3.1.3 WHEN ALL ITERATIONS HAVE BEEN COMPLETED, THE PROGRAM WILL TYPE "CZDHB-C-C" AND THEN RESTART TESTING AT TEST 1 (LOCATION T1 IN THE PROGRAM).
- 5.3.1.4 IF AN ERROR OCCURS. THE PROGRAM WILL TYPE AN APPROPRIATE ERROR MESSAGE, AND THEN CONTINUE THE TEST IN PROGRESS.
- 5.3.2 PROGRAM START WITH SWOO=1

 THE PROGRAM WILL PERFORM AS DESCRIBED IN 4.3.1 AND 5.3.1
- 5.3.3 PROGRAM START WITH SW01=1
- 5.3.3.1 REFER TO SECTION 4.3.4 FOR INITIAL PROGRAM BEHAVIOR
- 5.3.3.2 TEST EXECUTION WILL START AT THE ADDRESS SPECIFIED AND WILL CONTINUE AS DESCRIBED IN 5.3.1.2
- 5.3.3.3 AFTER "CZDHB-C" HAS BEEN TYPED. THE PROGRAM WILL RESUME TESTING AT TEST 1
- 5.3.4 PROGRAM OPERATION WITH SW15=1

SAME AS 5.3.1, EXCEPT THAT IN THE CASE OF AN ERROR. THE PROGRAM WILL HALT AFTER THE ERROR TYPEOUT, AND THE PC+2 OF THE CALL TO THE ERROR ROUTINE WILL BE DISPLAYED IN RO.

- 5.3.5 PROGRAM OPERATION WITH SW13=1

 SAME AS 5.3.1 EXCEPT THAT NO ERROR TYPEOUTS WILL OCCUR
- 5.3.6 PROGRAM OPERATION WITH SW11=1

 SAME AS 5.3.1 EXCEPT THAT EACH TEST WILL BE REPEATED ONCE
 ONLY
- 5.3.7 PROGRAM OPERATION WITH SW10=1

SAME AS 5.3.1, EXCEPT THAT IN THE CASE OF AN ERROR THE CURRENT TEST WILL BE ABORTED. AND THE PROGRAM WILL PROCEED TO THE NEXT TEST IN SEQUENCE.

- 5. (CONT'D)
- 5.3.8 PROGRAM OPERATION WITH SW14=1, OR SW09=1

THESE FUNCTIONS ARE NORMALLY USED FOR TROUBLE SHOOTING. SEE SECTION 6.3 FOR THEIR USE.

- ERRORS
- 6.1 ERROR HALTS

THE ERROR MESSAGE FORMAT FOR ALL ERROR TYPEOUTS IS AS FOLLOWS

PC+2 MESSAGE HEADER (IF APPLICABLE) DATA (IF APPLICABLE)

WHERE
PC+2 IS THE ADDRESS OF THE CALL TO THE ERROR HANDLER + 2
MESSAGE IS AN ASCII MESSAGE DESCRIBING (BRIEFLY) THE FAILURE
HEADER IS A DESCRIPTION OF THE DATA TO FOLLOW
DATA IS OCTAL INFORMATION RELATING TO THE CAUSE OF THE FAILURE
IF THE SAME ERROR OCCURS IN A GIVEN TEST ON THE SAME
PASS, AND IF DATA IS ASSOCIATED WITH THAT ERROR, ONLY
DATA IS TYPE ON SUCCEEDING ERROR TYPEOUTS

IF NO DATA IS ASSOCIATED WITH THE ERROR THE COMPLETE ERROR MESSAGE IS TYPED.

6.1.1 ERROR DESCRIPTIONS

SEE LISTING FOR DETAILS OF ERRORS

- 6.2 ERROR RECOVERY
- 6.2.1 SW15=0

IF THE PROGRAM IS RUN WITH SW15-0, NO OPERATOT ACTION IS REQUIRED TO CONTINUE TESTING

6.2.2 SW15=1

IF THE PROGRAM IS RUN WITH SW15=1. TC CONTINUE TESTING AFTER THE PROGRAM HAS HALTED, PRESS THE PROCESSOR CONSOLE CONTINUE SWITCH

- 6.3 SCOPE LOOPING
- 6.3.1 TO CCOPE ON A SPECIFIC TEST, SET SW14=1 AND SW13=1
 THIS WILL CAUSE THE PROGRAM TO CONTINUOUSLY LOOP ON THE
 SAME TEST, AND WILL CAUSE ALL ERROR TYPEOUTS TO BE INHIBITED
- 6.3.2 TO SCOPE ON A SPECIFIC VALUE OF A PARAMETER WITHIN A TEST. SET SWO9=1 TO FREEZE THE DATA (SEE LISTING FOR THOSE TESTS THAT INCORPORATE THIS FEATURE)

CZDHB-CO

- 6. (CONT'D)
- PROGRAM START TO SCOPE LOOP ON SELECTED TEST
 PERFORM SECTION 4.3.4 WITH SW14=1
- 7. RESTRICTIONS
- 7.1 STARTING

THE DH11 TEST CARD MUST BE INSTALLED

7.2 RUNNING

NONE

- 8. MISCELLANEOUS
- 8.1 EXECUTION TIME

THE TIME FOR ONE PASS OF THE PROGRAM (END OF TYPEOUT OF CZDHB-C) IS GIVEN FOR VARIOUS PROCESSORS IN THE TABLE BELOW

TIME

PROCESSOR

9. PROGRAM DESCRIPTION

THE PROGRAM FIRST TESTS THE BUS ADDRESS AND BYTE COUNT MEMORIES FOR ADDRESSABILITY. THE TEST IS PERFORMED IN THE FOLLOWING MANNER:

A)EACH LOCATION OF THE MEMORY TO BE TESTED IS LOADED WITH ITS ADDRESS, DUPLICATED EVERY 4 BITS. THE BINARY CONTENTS OF EACH LOCATION IS SHOWN BELOW

| LOCATION | CONTENTS | | | | | |
|----------------------|--------------|------------------------------|------|--------------|--|--|
| 00 01 02 03 | 0001 0010 | 0000 0001 0010 0011 | 0001 | 0001 | | |
| | | | | • • • | | |
| 16 17 | | | | 1110 1111 | | |

THE ABOVE PATTERN WAS CHOSEN SINCE THE MEMORY IS COMPOSED OF FOUR (4) CHIPS EACH HAVING A CAPACITY OF 16 WORDS BY FOUR (4) BITS. IF ANY OF THE FOUR CHIPS IS ADDRESSED INCORRECTLY, THE CONTENTS OF THAT CHIP WILL BE INCORRECT AND WILL INDICATION WHAT LOCATION WAS ACTUALLY ADDRESSED.

AFTER THE ABOVE TESTS HAVE BEEN COMPLETED, EACH LOCATION IN BOTH THE BUS ADDRESS AND BYTE COUNT MEMORIES ARE TESTED TO VERIFY THAT ALL BITS CAN BE SET TO 1S AND CLEARED TO OS

THE NEXT GROUP OF TESTS VERIFY THAT A SELECTED ADDRESS IN EITHER THE BYTE COUNT OR BUS ADDRESS MEMORY CAN BE SET TO A SELECTED VALUE WITHOUT CHANGING THE CONTENTS OF ANY OTHER LOCATION IN THAT MEMORY.

THE NEXT GROUP OF TESTS SETS ALL LOCATIONS IN EITHER THE BYTE COUNT OR BUS ADDRESS MEMORY TO 1S, CLEARS A SELECTED LOCATION TO OS, AND VERIFY THAT ONLY THE SELECTED LOCATION WAS AFFECTED.

THE FINAL GROUP OF TESTS VERIFIES THAT THE MEMORY EXTENTION BITS OF THE BUS ADDRESS MEMORY CAN BE SET AND CLEARED.

10. LISTING

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104
119
131
148
158
167
303
373
520
563
595
664
691
712
743
744
745
746
747
748
  TRAPS."
           750
CLEAN END OF PASS
MESSAGE.
          752
```

TCH REGISTER"

```
; DHMAC-A - DH11 MACRO LIBRARY
; COPYRIGHT 1985, DIGITAL EQUIPMENT CORP., MAYNARD, MASS. 01754
```

LIST ME .NLIST MC, MD, CND

; 3

: CMS REPLACEMENT HISTORY

#9 SKONETSKI 26-APR-1985 16:23:08 "FIXED TYPO CAUSING ASSEMBLY ERRORS" #8 SKONETSKI 22-APR-1985 16:48:03 "TYPO ERROR IN VECTOR CHANGE CODE SOURCE FIXED" #7 SKONETSKI 22-APR-1985 16:26:04 "ADDED CODE TO SET VECTORS FOR PWR FAIL, ERRORS, AND EMT : *6 SKONETSKI 22-APR-1985 14:22:35 "FIXED BRANCH ERROR IN END OF PASS ROUTINE" : #5 SKONETSKI 22-APR-1985 08:28:54 "FIXED BUG (AN OCTASC MACRO CALL WAS WRONG) AND ADDED A

: #4 SKONETSKI 18-APR-1985 14:20:15 "ADDED SOFTWARE SWITCH REG SUPPORT, BUT UNTESTED"
: #3 SKONETSKI 12-APR-1985 10:34:52 "FIXED PROBLEMS WITH SPURIOUS CR/LFS"
: #2 SKONETSKI 11-APR-1985 16:00:24 "ADDED MACRO FROM SYSMAC.SML THAT SIZES FOR SOFTWARE SWI

; *1 SKONETSKI 11-APR-1985 15:49:05 "LIBRARY FOR DH11 DIAGNOSTICS"

```
LIST ME
                                                .NLIST MC, MD, CND
5 000000
                                                .HEADER +/1976,1985/.+/DH11 MEMORY TEST/.+/CZDHB-CO/
                                                          STARTING PROCEDURE
                                                          :LOAD PROGRAM
                                                          :LOAD ADDRESS 000200
                                                          PRESS START
                                                          PROGRAM WILL TYPE DH11 MEMORY TEST
                                                          PROGRAM WILL TYPE "VECTOR ADDRESS-"
                                                          :TYPE IN THE ADDRESS OF THE RECEIVER INTERRUPT VECTOR
                                                         FOR THE DH11 TO BE TESTED, FOLLOWED BY CARRIAGE RETURN>
PROGRAM WILL TYPE "CONTROL REGISTER ADDRESS-"
TYPE IN THE ADDRESS OF THE SYSTEM CONTROL REGISTER
FOR THE DH11 TO BE TESTED, FOLLOWED BY CARRIAGE RETURN>
PROGRAM WILL TYPE "R" TO INDICATE THAT TESTING HAS STARTED
AT THE END OF A PASS, PROGRAM WILL TYPE "CZDHB-CO"
                                                                                                                                                     ; 3
                                                          ; AND THEN RESUM TESTING
                                               .TITLE CZDHB-CO
  000000
                                               .ENABLE ABS
                                               .NLIST MC.MD.CND
                                               LIST ME
6 000000
                                               .SYMBOLS
                                               SWITCH REGISTER OPTIONS
             100000
                                               SW15=100000
                                                                                :=1, HALT ON ERROR
             040000
                                              SW14=40000
SW13=20000
                                                                                :=1.LOOP ON CURRENT TEST
             020000
                                                                                :=1, INHIBIT ERROR TYPEOUT
             010000
                                              SW12-10000
                                              SW11-4000
SW10-2000
             004000
                                                                                :=1.INHIBIT ITERATIONS
             002000
                                                                                :=1.ESCAPE TO NEXT TEST ON ERROR
                                                                                                                                                     : 3
             001000
                                              SW09-1000
                                                                                :=1.LOOP WITH CURRENT DATA
             000400
                                              SH08=400
             000100
                                              SM06-100
             000040
                                              SH05=40
             000020
                                              SW04-20
             000010
                                              SW03-10
             000004
                                              SW02-4
             000002
                                              SW01-2
                                                                                RESTART PROGRAM AT SELECTED TEST RESELECT VECTOR AND CONTROL REGISTER
             000001
                                              SW00=1
```

ADDRESS AFTER PROGRAM RESTART

; 3

; 3

: 3

1 000000

:REGISTER DEFINITIONS

| | SMERTZIEM DELINTITONZ | | |
|--|--|---|--|
| 000000 000001 000002 000003 000004 000005 000006 000007 | RO=#0 ;GENERAL REGIRAL | ISTER ISTER ISTER ISTER ISTER IACK POINTER | |
| | LOCATION EQUIVALENCIES | | |
| 177776 012774 | PS=177776 ;PROCESSOR ST | ISPLAY REGISTER | |
| | :INSTRUCTION DEFINITIONS | | |
| 005746 005726 010046 012600 024646 022626 | POP1SP=5726 :INCREMENT PR PUSHRO=10046 :SAVE RO ON S POPRO=12600 :RESTORE RO F PUSH2SP=24646 :DECREMENT ST POP2SP=22626 :INCREMENT ST .MACRO HLT #A | ROM STACK TACK THICE | |
| | ENDM HLT | | |
| 100000 040000 020000 010000 004000 001000 000400 000200 000100 000040 000020 000010 000004 000002 000001 | BIT15=100000 BIT14=40000 BIT13=20000 BIT12=10000 BIT11=4000 BIT10=2000 BIT09=1000 BIT08=400 BIT07=200 BIT06=100 BIT05=40 BIT05=40 BIT05=40 BIT01=2 BIT01=2 BIT01=2 BIT00=1 .CATCH | | |

:TRAPCATCAER FOR ILLEGAL INTERRUPTS

| | 000000 | .=0 | THE CHILL | ON TEEFORE THIENROPIS |
|---|--|--------|-----------|-----------------------------------|
| | 000200 | | 200 | |
| | 000200 | .REPT | | |
| | | | . +2 | :UNEXPECTED TRAP TO THIS LOCATION |
| | | | HALT | EXAMINE STACK TO FIND CAUSE |
| | | . ENDR | | TENNITIE STACK TO LIND CHOSE |
| 200000 | 000002 | . CHON | | |
| | 200002 | | . +2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000002 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000004 | 000006 | | . +2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000006 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000010 | 000012 | | .2 | LINEVPECTED TOAD TO THIS LOCATION |
| 000012 | 000000 | | HALT | UNEXPECTED TRAP TO THIS LOCATION |
| 000014 | 000000 | | TALI | EXAMINE STACK TO FIND CAUSE |
| | 000016 | | . • 2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000016 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000020 | 000022 | | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000022 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000024 | 000026 | | | TIME ABELLED TOWN TO LIKE CHOSE |
| 000026 | 000000 | | HALT | :UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | | MALI | EXAMINE STACK TO FIND CAUSE |
| 000030 | 000032 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000032 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000034 | 000036 | | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000036 | 000000 | | HAL T | EXAMINE STACK TO FIND CAUSE |
| 000040 | 000042 | | . 2 | TEXAMINE STACK TO FIND CAUSE |
| 000042 | 000042 | | | UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000044 | 000046 | | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000046 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000050 | 000052 | | 2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000052 | 000000 | | HAL T | EVANTAL CLACK TO CAMP OF THE |
| 000054 | 000056 | | TINE | EXAMINE STACK TO FIND CAUSE |
| | 000036 | | | UNEXPECTED TRAP TO THIS LOCATION |
| 000056 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000060 | 000062 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000062 | 000002 000000 000000 000012 000000 000016 000000 000022 000000 000026 000000 000032 000000 000036 000000 000042 000000 000042 000000 000052 000000 000056 000000 000066 000000 000066 000000 000072 000000 000076 000000 000076 000000 000102 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000064 | 000066 | | 2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000066 | 000000 | | HAL T | EXAMINE STACK TO FIND CAUSE |
| 000070 | 000072 | | | SEVALITUE STACK IN LIND CHOSE |
| 000072 | 000000 | | | UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | | PIALI | EXAMINE STACK TO FIND CAUSE |
| 000074 | 000076 | | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000076 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000100 | 000102 | | . • 2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000102 | 000000 | | HAL T | EXAMINE STACK TO FIND CAUSE |
| 000104 | 000106 | | | TENNITAL STACK TO TIME CHOSE |
| 000106 | 000000 | | int- | UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000110 | 000112 | | .+2 | ;UNEXPECTED TRAP TO THIS LOCATION |
| 000112 | 00000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000114 | 000116 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000116 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000120 | 000122 | | | TENNITUE SINCK IN LINE CHOSE |
| THE RESERVE TO SHARE THE PARTY OF THE PARTY | | | . • 2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000122 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000124 | 000126 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000126 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000130 | 000132 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000132 | 000000 | | HALT | EVANTAG STACK TO ETHIS CALLED |
| 000134 | 000136 | | | EXAMINE STACK TO FIND CAUSE |
| | | | : *2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000136 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000140 | 000142 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000142 | 000000 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000144 | 000146 | | . +2 | UNEXPECTED TRAP TO THIS LOCATION |
| | | | | AMENICOTED THAT TO THE FOCKLINK |
| | | | | |

| 000146 | 000000 | LIAL T | FUAMENT ATTENDED |
|--------|--------|---|------------------------------------|
| | 000000 | HALT .+2 HALT | EXAMINE STACK TO FIND CAUSE |
| 000150 | 000152 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000152 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000154 | 000156 | .2 | TIME VOCATED TO A THE CHUSE |
| 000156 | 000000 | | UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | MALT | EXAMINE STACK TO FIND CAUSE |
| 000160 | 000162 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000162 | 000000 | HALT | EVENTNE CTACK TO ETHO CAUCE |
| 000164 | 000166 | 111121 | EXAMINE STACK TO FIND CAUSE |
| | 000100 | . ** | UNEXPECTED TRAP TO THIS LOCATION |
| 000166 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000170 | 000172 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000172 | 000000 | MALT | EVANTAGE CTACK TO CTAC CALLOR |
| 000174 | 000176 | TINE | EXAMINE STACK TO FIND CAUSE |
| | 000176 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000176 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000200 | 000202 | • 2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000202 | 000000 | HA! T | CVANTUE CTACK TO STUD STUDIO |
| 000204 | 000000 | TALI | EXAMINE STACK TO FIND CAUSE |
| | 000206 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000206 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000210 | 000212 | | UNEXPECTED TRAP TO THIS LOCATION |
| 000212 | 000000 | NAL T | CHEAPECIED INAP ID INTO LUCATION |
| | 000000 | TALI | EXAMINE STACK TO FIND CAUSE |
| 000214 | 000216 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000216 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000220 | 000222 | | -UNEVERTED TOAD TO TUTE LOCATION |
| 000222 | 000000 | 141 T | :UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | HALI | EXAMINE STACK TO FIND CAUSE |
| 000224 | 000226 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000226 | 000000 | HAL T | EXAMINE STACK TO FIND CAUSE |
| 000230 | 000232 | . 2 | THE ADDRESS TO THE CHOSE |
| | 000000 | | :UNEXPECTED TRAP TO THIS LOCATION |
| 000232 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000234 | 000236 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000236 | 000000 | HAL T | EXAMINE STACK TO FIND CAUSE |
| 000240 | 000242 | TINET | SEVALITUE STACK IN LIND CHOSE |
| | 000242 | . 16 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000242 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000244 | 000246 | .2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000246 | 000000 | HALT | EXAMPLE CLED LIVE IN LUTY FOCKLINK |
| 000250 | 000252 | Incl | EXAMINE STACK TO FIND CAUSE |
| | 000252 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000252 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000254 | 000256 | .9 | UNEXPECTED TRAP TO THIS LOCATION |
| 000256 | 000000 | HALT | CANADA CLACK TO LLTD FORMITON |
| | 000000 | TALI | EXAMINE STACK TO FIND CAUSE |
| 000260 | 000262 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000262 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000264 | 000266 | | WEVECTED TOAD TO TUTE LOCATION |
| 000266 | 000000 | AAL - | UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000270 | 000272 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000272 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000274 | 000276 | .+2 | - INCORPORATE TO THE COURT OF |
| | | | UNEXPECTED TRAP TO THIS LOCATION |
| 000276 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000300 | 000302 | | UNEXPECTED TRAP TO THIS LOCATION |
| 000302 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000304 | 000306 | | SEVAULUE STACK TO LIND CHOSE |
| | | .•2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000306 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000310 | 000312 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000312 | 000000 | HALT | EVANTAGE CTACK TO CTAIN CALICE |
| | | | EXAMINE STACK TO FIND CAUSE |
| 000314 | 000316 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000316 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000320 | 000322 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000322 | 000000 | | |
| | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000324 | 000326 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000326 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| | | | Tarriana attion to tallo enoge |
| | | | |
| | | | |

| | **** | | |
|--------|--|---|------------------------------------|
| 000330 | 000332 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000332 | 000000 | HALT | EVANTAGE CTACK TO ETAID CALLOR |
| 000334 | 000332 000000 000342 000000 000346 000000 000352 000000 000356 000000 000362 000000 000372 000000 000376 000000 000402 000000 000412 000000 000412 000000 000412 000000 000422 000000 000422 000000 000422 000000 000422 000000 000422 000000 000422 000000 000422 000000 000422 000000 000422 000000 000422 | TINE | EXAMINE STACK TO FIND CAUSE |
| | 000336 | . +2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000336 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000340 | 000342 | . 3 | THE STACK TO FIND CHOSE |
| | 000345 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000342 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000344 | 000346 | .+2 | LINEVACCION TO TARE CRUSE |
| | 000340 | . ** | :UNEXPECTED TRAP TO THIS LOCATION |
| 000346 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000350 | 000352 | .+2 | INEVERTED TOAD TO THE LOCATION |
| 000352 | 000000 | | UNEXPECTED TRAP TO THIS LOCATION |
| | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000354 | 000356 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000356 | 000000 | MAL T | LONEYLEGIED INNE IO INTO FOCKITON |
| | 00000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000360 | 000362 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000362 | 000000 | HALT | EVANTALE CTACK TO ETHIS SALIO |
| | 000000 | TIME | EXAMINE STACK TO FIND CAUSE |
| 000364 | 000366 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000366 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000370 | 000372 | | SEVULTUE STACK TO LIND CHOSE |
| | 000372 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000372 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000374 | 000376 | . 3 | THE STACK TO LIND CHOSE |
| | 000370 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000376 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000400 | 000402 | .+2 | INEVECTED TOAD TO TUTO LOCATION |
| | 00000 | . 75 | UNEXPECTED TRAP TO THIS LOCATION |
| 000402 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000404 | 000406 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000406 | 000000 | HAL T | MENTER IED INNE IN 1412 FOCULTON |
| | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000410 | 000412 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000412 | 000000 | HALT | CANADA CATON TO LUTS FOCULTOR |
| | 00000 | TALI | EXAMINE STACK TO FIND CAUSE |
| 000414 | 000416 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| G00416 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000420 | 000422 | Time : | SEVULTUE STUCK IN LIME CHASE |
| | 000422 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000422 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000424 | 000426 | | COUNTRIES STUCK TO LIND CHOSE |
| | 000420 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000426 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000430 | 000432 | .+2 | INCUMENTED TOTAL TO THE CHUSE |
| | 000432 | | UNEXPECTED TRAP TO THIS LOCATION |
| 000432 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000434 | 000436 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000436 | 000000 | | TOUR VLECTED INVIDIO INTO FOCULTON |
| | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000440 | 000442 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000442 | 000000 | DALT | LOUENLEGIED INVL. TO IUTO FOCKITOM |
| | 00000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000444 | 000446 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000446 | 000000 | HALT | CVANTAGE CTACK TO CTAC CALLED |
| | 00000 | MALI | EXAMINE STACK TO FIND CAUSE |
| 000450 | 000452 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000452 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| | | 그렇게 하면 가게 되었다. 그렇게 되었는데 그 그리고 그리고 그리고 그리고 있다. | SEVALITUE STACK IN LTMN CHOSE |
| 000454 | 000456 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000456 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000460 | 000462 | | LEVULTUE STUCK TO LTUD CHOSE |
| | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000462 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000464 | 000466 | | THE VOCATED TO A THE CHOSE |
| | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000466 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000470 | 000472 | .+2 | |
| | | | UNEXPECTED TRAP TO THIS LOCATION |
| 000472 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000474 | 000476 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000476 | 000000 | | LANGUE COLON LIVE IN IUTO FOCKITON |
| | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000500 | 000502 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000502 | 000000 | | |
| | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000504 | 000506 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000506 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| | [[[생물][[[[[[] [[] [[] [[] [[] [[] [[] [[] [[| | SEVULTUE SINCY IN LTUN CHOSE |
| 000510 | 000512 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| | | | |
| | | | |
| | | | |

| 000512 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
|--------|--------|--|-----------------------------------|
| 000514 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000516 | | HALT | EXAMINE STACK TO FIND CAUSE |
| 000520 | 000522 | | UNEXPECTED TRAP TO THIS LOCATION |
| 000522 | 000000 | HALT +2 HALT +4 HALT +4 HALT +4 HALT +4 HALT | EXAMINE STACK TO FIND CAUSE |
| 000524 | 000526 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000526 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000530 | 000532 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000532 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000534 | 000536 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000536 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000540 | 000542 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000542 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000544 | 000546 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000546 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000550 | 000552 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000552 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000554 | 000556 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000556 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000560 | 000562 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000562 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000564 | 000566 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000566 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000570 | 000572 | .+2_ | :UNEXPECTED TRAP TO THIS LOCATION |
| 000572 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000574 | 000576 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000576 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000600 | 000602 | .+2 | :UNEXPECTED TRAP TO THIS LOCATION |
| 000602 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000604 | 000606 | 2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000606 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000610 | 000612 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000612 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000614 | 000616 | .+2_ | UNEXPECTED TRAP TO THIS LOCATION |
| 000616 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000620 | 000622 | .+2_ | UNEXPECTED TRAP TO THIS LOCATION |
| 000622 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000624 | 000626 | .+2_ | UNEXPECTED TRAP TO THIS LOCATION |
| 000630 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000632 | 000632 | .+2_ | UNEXPECTED TRAP TO THIS LOCATION |
| 000634 | 000636 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000636 | 000000 | a Propried 다른 경기 보면 하는 것이 되었다. 그는 것이 없는 것이 없는 것이 없는 것이 없는 것이다. | UNEXPECTED TRAP TO THIS LOCATION |
| 000640 | 000642 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000642 | 000000 | .*2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000644 | 000646 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000646 | 000000 | .*2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000650 | 000652 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000652 | 000000 | .*2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000654 | 000656 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000656 | 000000 | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000660 | 000662 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000662 | 000000 | .+2 ual T | UNEXPECTED TRAP TO THIS LOCATION |
| 000664 | 000666 | HALT | EXAMINE STACK TO FIND CAUSE |
| 000666 | 000000 | .+2 HALT | UNEXPECTED TRAF TO THIS LOCATION |
| 000670 | 000672 | HALT | EXAMINE STACK TO FIND CAUSE |
| 777010 | | .+2 | UNEXPECTED TRAP TO THIS LOCATION |
| 000672 | 000000 | HALT | EXAMINE STACK TO FIND CAUSE |

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| ~ | an W | | |

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UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE :UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE :UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE :UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE :UNEXPECTED TRAP TO THIS LOCATION EXAMINE STACK TO FIND CAUSE

| 0 | 000200 | | -200 | STANDARD INTERRUPT VECTORS |
|-------------|----------------------------|--------|-----------------|---|
| 000200 | | 000600 | .=200 | JMP START ;GO TO START OF PROGRAM |
| 1 000204 | | | .TRPDEF | |
| | | | | :DEFINITIONS FOR TRAP SUBROUTINE CALLS :POINTERS TO SUBROUTINES CAN BE FOUND STARTING :AT LOCATION "TRPTAB" |
| 000204 | 104400 | | TRPDEF | SCOPE. +/SCOPE LOOP AND ITERATION HANDLER/ SCOPE=TRAP+Y ;SCOPE LOOP AND ITERATION HANDLER Y=Y+1 |
| 000204 | 104401 | | TRPDEF | TYPE.+/TELETYPE OUTPUT ROUTINE/ TYPE=TRAP+Y :TELETYPE OUTPUT ROUTINE |
| 000204 | 104402 | | TRPDEF | Y=Y+1 OCTASC.+/OCTAL TO ASCII CONVERSION/ OCTASC=TRAP+Y ;OCTAL TO ASCII CONVERSION |
| 000204 | 000003 104403 000004 | | TRPDEF | Y=Y+1 INSTR, +/INPUT ASCII STRING/ INSTR=TRAP+Y ;INPUT ASCII STRING |
| 000204 | 104404 000005 | | TRPDEF | Y=Y+1 INSTER.+/STRING INPUT ERROR/ INSTER=TRAP+Y ;STRING INPUT ERROR |
| 000204 | 104405 000006 | | TRPDEF | Y=Y+1 PARAM, +/CONVERT STRING TO OCTAL, CHECK LIMITS/ PARAM=TRAP+Y ;CONVERT STRING TO OCTAL, CHECK LIMITS |
| 000204 | 104406 000007 | | TRPDEF | Y=Y+1 SAVOSP.+/SAVE RO-R5, PC/ SAVOSP=TRAP+Y ;SAVE RO-R5, PC |
| 000204 | 104407 | | TRPDEF | Y=Y+1 RESO5. +/RESTORE RO-R5/ RESO5=TRAP+Y ;RESTORE RO-R5 |
| 000204 | 000010 104410 000011 | | TRPDEF | Y=Y+1 SCOPE1.+/CHECK FOR FREEZE ON CURRENT DATA/ SCGPE1=TRAP+Y ;CHECK FOR FREEZE ON CURRENT DATA Y=Y+1 |
| 2 3 4 | 33373 | | .MACRO | CODEM1 MOV DHSSR.DHSLR ;SET UP ADDRESS OF SILO INC DHSLR ;STATUS REGISTER HIGH BYTE |
| 6 000204 | | | .ENDM .START | CODEM1 DHRVEC, 3,4, DHSCR, 0,177776, 7,10,1 |

MOV

TST

MOV

MOV

BR

1\$:

2\$:

421,844

RO, HCORE

#2, HCORE

46,844

(RO)+

SET UP TIME OUT RETURN

NON EXISTANT MEMORY

RESTORE TRAPCATCHER

;WILL TRAP WHEN NO MEMORY ;LOCATION RESPONDED, CONTINUE ;RO CONTAINS ADDRESS OF

: 9

| | | | | | .ENDC | | | | |
|----|-------|--------|--------|--------|---------|---|---------------|--|-----|
| | | | | | | <> | | | |
| | | | | | TRACER: | | #1\$,8#10 | SET UP ILLEGAL INSTRUCTION TRAP REYURN | |
| | | | | | | SXT | RO | :DO 11/40, 11/45 INSTRUCTION | |
| | | | | | | MOV | WRTT, TRTRET | :11/40.45 RTT RETURN FROM TRACE TRAP | |
| | | | | | | BR | 2\$ | | |
| | | | | | 1\$: | MOV | #RTI.TRTRET | :1105,10,20 RTI RETURN FROM TRACE TRAP | |
| | | | | | | MOV | #12.8#10 | RESTROE TRAPCATCHER | |
| | | | | | | MOV | #TRTRET, 8#16 | SET UP TRACE TRAP VECTOR | |
| | | | | | .ENDC | | | | |
| | | | | | .IF NB | <dhrvec< td=""><td>></td><td></td><td>; 3</td></dhrvec<> | > | | ; 3 |
| | | | | | .IF B | <> | | | , , |
| C | 01162 | 000404 | | | | BR | VEC2 | | |
| | | | | | .IFF | | | | |
| | | | | | | TST | INIFLG | ; IF INTTIALIZE FLAG=0 | |
| | | | | | | BEQ | VEC2 | GET VECTOR AND CSR ACDRESS | |
| | | | | 0.420 | .ENDC | | | | |
| | 01164 | 032777 | 000001 | 177606 | VEC1: | BIT | #SWOO, @SWR | ; IF SWOO=1, GET NEW VECTOR ; 4 | |
| | 01172 | 001445 | | | | BEQ | BEGIN | AND CSR | |
| 0 | 01174 | | | | VEC2: | | | ; 4 | |
| 0 | 01174 | 012701 | 000300 | | | MOV | #300,R1 | 4 | |
| 0 | 01200 | 012702 | 000302 | | | MOV | \$302,R2 | , , | |
| | 01204 | 012703 | 000004 | | | MOV | 44,R3 | | |
| | 01210 | 010211 | | | 1\$: | MOV | R2,(R1) | RESTORE TRAPCATCHER | |
| | 01212 | 005012 | | | | CLR | (R2) | IN FLOATING VECTOR AREA | |
| 0 | 01214 | 060301 | | | | ADD | R3,R1 | TEN TENTING VECTOR AREA | |
| | 01216 | 060302 | | | | ADD | R3,R2 | | |
| 0 | 01220 | 020127 | 001000 | | | CMP | R1,#1000 | | |
| 0 | 01224 | 001371 | | | | BNE | 1\$ | | |
| 0 | 01226 | 104403 | | | | INSTR | •• | THRUT ACCRECE OF DEUTCE VECTOR | |
| 0 | 01230 | 011633 | | | | MVECTOR | | INPUT ADDRESS OF DEVICE VECTOR | |
| | 01232 | 104405 | | | | PARAM | | MESSAGE "VECTOR ADDRESS-" | |
| | 01234 | 000300 | | | | 300 | | CONVERT STRING TO OCTAL | |
| | 01236 | 000770 | | | | 770 | | LOW LIMIT | |
| | 01240 | 011356 | | | | DHRVEC | | HIGH LIMIT : 3 | |
| | 01242 | 003 | | | .BYTE | 3 | | LOCATIONS TO BE FILLED | |
| O | 01243 | 004 | | | BYTE | 4 | | NUMBER OF LOCATIONS | |
| | 01244 | 104403 | | | .DITE | | | LSB MASK | |
| | 01246 | 011655 | | | | INSTR | | INPUT ADDRESS OF DEVICE CSR | |
| | 01250 | | | | | MREGAD | | MESSAGE "CONTROL REGISTER ADDRESS-" | |
| | 01252 | 104405 | | | | PARAM | | CONVERT STRING TO OCTAL | |
| ~ | 01254 | | | | | 0 | | :LOW LIMIT | |
| | | 177776 | | | | 177776 | | HIGH LIMIT | |
| | 01256 | 011334 | | | | DHSCR | | LOCATIONS TO BE FILLED | |
| | 01260 | 007 | | | .BYTE | 7 | | NUMBER OF LOCATIONS | |
| 0 | 01261 | 010 | | | .BYTE | 10 | | ;LSB MASK | |
| | | | | | .ENDC | | | | |
| | | | | | .IF NB | <1> | | | |
| | 1262 | | | | | CODEM1 | | | |
| | 1262 | 016767 | 010064 | 010064 | | MOV | DHSSR, DHSLR | SET UP ADDRESS OF SILO | |
| 00 | 1270 | 005267 | 010060 | | | INC | DHSLR | STATUS REGISTER HIGH BYTE | |
| | | | | | .ENDC | | | | |
| | 1274 | 005767 | 010126 | | | TST | INIFLG | ;IF INITIALIZATION FLAG | |
| | 1300 | 001002 | | | | BNE | BEGIN | ;IS CLEARED | |
| 00 | 1302 | 005167 | 010120 | | | COM | INIFLG | SET IT | |
| | | | | | | | | : | |
| | | | | | | ;PROGRAM | 1 START | . 3 | |
| | | | | | | | | AT SELECTED ADDRESS | |
| | | | | | | | | THE SECTION ADDRESS | |

| S | - | ~ | - | - |
|---|---|-----|---|---|
| • | | | - | • |
| - | • | 100 | • | _ |

| CZDHB-CO MACRO V04.00 27-JUN-85 12:49:26 PAGE 17-2 | CZDHB-CO | MACRO V | 104.00 | 27-JUN-85 | 12:49:26 | PAGE 17-2 |
|--|----------|---------|--------|-----------|----------|-----------|
|--|----------|---------|--------|-----------|----------|-----------|

| 001306 001314 001320 001326 001330 001332 001334 001336 001340 001342 | 012767 012706 032777 001410 104403 012044 104405 000000 017500 011374 | 000340 012774 000002 | 176462 177452 | BEGIN: | MOV MOV BIT BEQ INSTR MTSTPC PARAM 0 17500 RETRN | #340,PS #STACK,SP #SW01,@SWR 1\$ | :LOCK OUT INTERRUPTS :SET UP PROCESSOR STACK :IF SW01=1 :GET PC FOR PROGRAM START :GET PC :MESSAGE "TEST PC" :CONVERT STRING TO OCTAL | : 4 |
|--|--|----------------------------|------------------|--------------|---|---|---|-----|
| 001344 | 001 | | | .BYTE | 1 | | | |
| 001346 | 000410 | | | .01112 | BR | 2\$ | | |
| 001350 001356 001362 | 012767 005767 001004 | 001400 010046 | 010016 | 1\$: | MOV TST BNE | #T1.RETRN STFLG 3\$ | ;NORMAL START, TEST 1 ;IF LOOPING, BYPASS TYPEOUT | |
| 001364 001370 001374 | 005167 104401 000177 | 010040 012040 007774 | | 2\$: 3\$: | COM TYPE JMP | STFLG ,MR @RETRN | TYPE "R" TO INDICATE START START | ; 3 |

| 2 001400 | | | | MEMT1 | †/BA/. | t/BUS ADDRESS/ | | | | |
|------------------|--------|--------|--------|----------|--|---|--------------------------------------|--------------------------------------|--------------------|-------------------|
| | | | | | ;LOAD ;WITH ;THE A ;VERIF | THE ADDRESS OF DDRESS IS REPEA | IN THE BUS THAT LOCA TED EVERY | ADDRESS MEMORY | EMORY | |
| 001400 | | | | TS \XN. | 100.4\$ | | | | | |
| 001400 | | | | T1: | MOV | #340,PS | | DISABLE ALL INT | TERRUPTS | |
| 001406 | 012767 | | | | MOV | #100,ICOUNT | | SET UP FOR 100 | ITERATIONS | |
| 001414 | 012767 | 001514 | 007754 | 75 40 | MOV | 44 \$, ESCAPE | | SET UP TO ESCAP | E TO NEXT TEST | |
| | | | | .IF NB | MOV | A 505574 | | | | |
| | | | | .ENDC | HUV | .FREEZ1 | | SET UP TO LOOP | WITH DATA | ; 3 |
| | 000002 | | | XN=XN+1 | | | | | | |
| 001422 | 012700 | 000020 | | _ | MOV | #20,R0 | | SET UP TO ADDRE | (IATOO) OC 22 | |
| ****** | | | | | | | | LOCATIONS IN TH | HE BUS ADDRESS MEN | IORY |
| 001426 | 005004 | | | | CLR | R4 | | START AT ADDRES | SS 0 | |
| 001430 001432 | 005002 | 007676 | | 44. | CLR | R2 | | | | |
| 001432 | 0100 | 007070 | | 1\$: | MOV | R4, ODHSCR | | SELECT ADDRESS | IN BUS ADDRESS | |
| 001436 | 010277 | 007700 | | | MOV | R2, aDHBA | | MEMORY TO BE AD | DORESSED | |
| 001442 | 062702 | 010421 | | | ADD | #10421,R2 | | :LOAD MEMORY LOC :WITH ITS ADDRES | WITON | |
| 001446 | 005204 | | | | INC | R4 | | ADVANCE TO NEXT | | |
| 001450 | 005300 | | | | DEC | RO | | | | |
| 001452 001454 | 001367 | 000000 | | | BNE | 1\$ | | CONTINUE IF NOT | DONE | |
| 001434 | 015100 | 000020 | | | MOV | #20,R0 | | SET UP TO CHECK | | |
| 001460 | 005004 | | | | CLR | R4 | | EACH MEMORY ADD | PRESS | |
| 001462 | 005002 | | | | CLR | R2 | | START AT ADDRES | 5 0 | |
| 001464 | 010477 | 007644 | | 2\$: | MOV | R4, aDHSCR | | ADDRESS MEMORY | LOCATION | |
| 001470 | 017703 | 007646 | | | MOV | ODHBA, R3 | | READ CONTENTS O |)F MEMORY | |
| 001474 | 020203 | | | | CMP | R2,R3 | | WAS MEMORY LOCA | TION LOADED | |
| 001476 | 001401 | | | | BEQ | 31 | | WITH ITS ADDRES | SS | |
| 001500 | ****** | | | .IIF ID | | <ba>, <ba>,</ba></ba> | HLT | 1 | .0110 4000 | |
| 001500 | 104001 | | | | EMT | 1 | "" | | IDUS AUUN | RESS MEMORY ERROR |
| | | | | .IIF ID | | <ba>.<bc>,</bc></ba> | HLT | 2 | BYTE COL | INT MEMORY ERROR |
| 001502 | 005204 | | | 34: | INC | R4 | | ADVANCE TO NEXT | LOCATION | |
| 001504 | 062702 | 010421 | | | ADD | #10421,R2 | | | | |
| 001512 | 001364 | | | | DEC BNE | R0 2\$ | | CONTINUE TE NOT | DOME | |
| 001514 | 104400 | | | 41: | SCOPE | • | | :CONTINUE IF NOT | DUNE | |
| 3 001516 | 4 10 | | | MEMT1 | | BYTE COUNT/ | | | | |
| | | | | | ; LOAD E ; WITH 1 ; THE AL ; VERIFY | COUNT MEMORY AD EACH LOCATION I THE ADDRESS OF DDRESS IS REPEA THAT EACH LOC DDRESSED. | N THE BYTI THAT LOCA TED EVERY | E COUNT MEMORY | IORY | |
| 001516 | | | | TC VN C | 00 44 | | | | | |
| | 012767 | 000340 | 176252 | TS \XN.1 | MOV | #340,PS | | DICADIE ALL THE | CODUCTO | |
| | | | 110232 | ••• | | 1340,13 | | DISABLE ALL INT | ERRUP I 3 | |

| | 001524 001532 | | | | .1F NB | MOV MOV | #100,ICOUNT #4\$,ESCAPE | | :SET UP FOR 100 ITE :SET UP TO ESCAPE 1 | RATIONS TO NEXT TEST | |
|--|----------------------------|----------------------------|------------------|------------------|---------------------------------|-------------------|--|-----------|--|-------------------------|--------------------------------|
| | | 000003 | | , | .ENDC XN=XN+1 | MOV | .FREEZ1 | | SET UP TO LOOP WIT | H DATA : | 3 |
| | 001540 | 012700 | | | AM-AM+1 | MOV | #20,R0 | | SET UP TO ADDRESS | 20 (OCTAL) | |
| | 001544 001546 | 005004 005002 | | | | CLR | R4 R2 | | :LOCATIONS IN THE E :START AT ADDRESS O |) | |
| | 001550 | 010477 | | | 1\$: | MOV | R4. ODHSCR | | SELECT ADDRESS IN MEMORY TO BE ADDRE | ESSED | |
| | 001554 001560 | 010277 | 007564 010421 | | | ADD | R2,8DHBC #10421,R2 | | :LOAD MEMORY LOCATI | ION | |
| | 001564 001566 001570 | 005204 005300 001367 | | | | DEC | R4 R0 | | ADVANCE TO NEXT AD | | |
| | 001572 | 012700 | 000020 | | | MOV | 1\$ #20,R0 | | CONTINUE IF NOT DO SET UP TO CHECK EACH MEMORY ADDRES | | |
| | 001576 | 005004 | | | | CLR | R4 R2 | | START AT ADDRESS |) | |
| | 001602 001612 | 010477 017703 020203 | 007526 007532 | | 2\$: | MOV CMP | R4, DHSCR DHBC, R3 R2, R3 | | :ADDRESS MEMORY LOC :READ CONTENTS OF M :WAS MEMORY LOCATION | MEMORY | |
| | 001614 | 001401 | | | 77C 704 | BEQ | 34 | | WITH ITS ADDRESS | | |
| | 001616 001616 | 104002 | | | .IIF IDN | | <bc>,<ba>,<bc>,<bc>,</bc></bc></ba></bc> | HLT | 2 | BUS ADDRESS | S MEMORY ERROR MEMORY ERROR |
| | 001620 001622 001626 | 005204 062702 005300 | 010421 | | 34: | INC ADD DEC | R4 #10421,R2 R0 | | ADVANCE TO NEXT LO | CATION | |
| | 001630 | 001364 | | | 44; | BNE SCOPE | 21 | | CONTINUE IF NOT DO | DNE | |
| 6 7 | | 000000 | | | XADRS=0 XCADRS=0 ADRS=XAD | | | | | | |
| 10 | | 000000 | | | CADRS=XC | | | | | | |
| 11 | | | | | MEMT2 .NLIST | 1/BA/,1 | BUS ADDRESS/. | XADRS,\XC | ADRS, 177777, +/177777 | 1/ | |
| 10 11 12 13 14 15 16 | | | | | XADRS=XA XCADRS=X .LIST | | | | | | |
| 16 | 001634 | | | | .ENDR MEMT2 | 1/BA/,1 | /BUS ADDRESS/,\ | XADRS,\XC | ADRS,177777,+/177777 | <i>V</i> . | |
| | | | | | | : VERIFY | DRESS MEMORY DA THAT ADDRESS O SET TO 177777 | OF BUS A | DDRESS MEMORY | | |
| | 001634 | 012767 | 000340 | 176134 | TS \XN,1 T3: | 00.2# MOV | #340,PS | | DISABLE ALL INTERR | wete | |
| | 001642 001650 | 012767 | 000100 001730 | 007532 007520 | | MOV | #100.ICOUNT | | SET UP FOR 100 ITE | RATIONS | |
| | | | | | .IF NB | MOV | •,FREEZ1 | | SET UP TO LOOP WIT | | 3 |
| | | | | | | | | | | | |

| | | | | CHOC | | | |
|--|----------------------------|----------------------------|----------------------------|--|--|----------|--|
| | 000004 | | | .ENDC XN=XN+1 | | | |
| 001656 001662 | 012705 | 177777 | | MOV | #177777.R5 #0,8DHSCR | | :EXPECTED RESULT-177777 :SELECT LOCATION 0 |
| 001670 001676 001702 001704 | 017704 020504 001401 | 177777 007440 | 007444 | MOV MOV CMP BEQ | #177777, @DHBA @DHBA,R4 R5,R4 1\$ | | OF BUS ADDRESS MEMORY WRITE 177777 INTO MEMORY READ CONTENTS OF MEMORY LOCATION COMPARE EXPECTED AND RECEIVED MEMORY CONTENTS |
| 001706 001706 | | | | .IIF IDN EMT | <ba>.<ba>. 3</ba></ba> | HLT | BUS ADDRESS MEMORY ERROR |
| 001710 001712 001720 | 042777 | 177777 007416 | 007422 | .IIF IDN 1\$: CLR BIC MOV | <ba>,<bc>, R5 #177777,9DHBA 9DHBA,R4</bc></ba> | HLT | ### BYTE COUNT MEMORY ERROR EXPECTED RESULT AFTER CLEAR=0 CLEAR MEMORY LOCATION READ CONTENTS OF BUS ADDRESS |
| 001724 | 001401 | | | BEQ | 2\$ | | MEMORY ADDRESS O |
| 001726 001726 | | | | .IIF IDN | <ba>,<ba>,</ba></ba> | HLT | 3 BUS ADDRESS MEMORY ERROR |
| | | | | .IIF IDN | <ba>,<bc>,</bc></ba> | HLT | 4 :ADDRESS O NOT O. ERROR :BYTE COUNT MEMORY ERROR |
| 001730 | 104400 000001 000001 | | | 2#: SCOPE XADRS=XADRS+1 XCADRS=XCADRS+ | 1 | | ADDRESS V NOT V, ERRUR |
| 001732 | | | | | | XADRS, \ | XCADRS,177777,+/177777/ |
| 001732 | | | | :VERIF | DDRESS MEMORY DA Y THAT ADDRESS 1 E SET TO 177777 | OF BUS | ADDRESS MEMORY ARED TO 0 |
| 001732 001740 001746 | 012767 012767 012767 | 000340 000100 002026 | 176036 007434 007422 | T4: MOV MOV MOV | #340.PS #100.ICOUNT #2#.ESCAPE | | DISABLE ALL INTERRUPTS SET UP FOR 100 ITERATIONS SET UP TO ESCAPE TO NEXT TEST |
| | | | | .ENDC | ♦,FREEZ1 | | SET UP TO LOOP WITH DATA ; 3 |
| 001754 001760 | 000005 012705 012777 | 177777 00001 | 007346 | XN-XN-1 MOV MOV | 0177777,RS 01,80HSCR | | EXPECTED RESULT-177777 SELECT LOCATION 1 |
| 001766 001774 002000 002002 002004 | | 177777 007342 | 007346 | MOV MOV CHP BEQ | 0177777, SDHBA SDHBA, R4 R5, R4 | | OF BUS ADDRESS MEMORY INFITE 177777 INTO MEMORY READ CONTENTS OF MEMORY LOCATION COMPARE EXPECTED AND RECEIVED MEMORY CONTENTS |
| 002004 | 104003 | | | .IIF ION EMT | <ba>,<ba>,</ba></ba> | HLT | 3 BUS ADDRESS MEMORY ERROR |
| 002006 002010 002016 | 005005 042777 017704 | 177777 007320 | 007324 | IIF ION 18: CLR BIC MOV | <8A>,<8C>, R5 0177777, SDHSA SDHSA, R4 | HLT | ### ### ############################## |
| 002022 002024 | 001401 | | | .IIF IDN | 28 <8A>,<8A>, | HLT | 3 ;BUS ADDRESS MEMORY ERROR |
| 002024 | 104003 | | | .IIF ION | 3 <8A>,<8C>, | HLT | 4 ABYTE COUNT HEHORY ERROR |
| | | | | | 100 | | : ADDRESS 1 NGT O. ERROR |

| 002026 | 104400 | | | - | | | | | | | |
|------------------|--------|---------|--------|------------------|------------------|--------------------------------------|----------|---|--------------|----------------|-------|
| 002020 | 000002 | | | 2\$: | SCOPE XADRS+1 | | | | | | |
| | 000002 | | | XCADRS | -XCADRS+ | 1 | | | | | |
| 002030 |) | | | MEMT2 | | | XADRS. \ | KCADRS, 177777, +/177777 | , | | |
| | | | | | | | | | • | | |
| | | | | | BUS AL | DDRESS MEMORY DA Y THAT ADDRESS 2 | TA TEST | ADDRESS MEMORY | | | |
| | | | | | CAN BE | E SET TO 177777 | AND CLE | ARED TO O | | | |
| 20222 | | | | | | | | 100 | | | |
| 002030 | | 000740 | 175740 | | 100,2\$ | | | | | | |
| 002036 | | | | T5: | MOV | #340,PS #100,ICOUNT | | DISABLE ALL INTERR | UPTS | | |
| 002044 | | | 007324 | | MOV | #2\$.ESCAPE | | SET UP FOR 100 ITE | RATIONS | | |
| | | | | .IF NB | () | | | ISET OF TO ESCAPE TO | U MEXI IESI | | |
| | | | | | MOV | 4.FREEZ1 | | SET UP TO LOOP WIT | H DATA | : 3 | |
| | 000006 | | | .ENDC XN=XN+1 | | | | | | , , | |
| 002052 | 012705 | 177777 | | VIA-VIA+1 | MOV | #177777.RS | | EVECTED DECIMAL | | | |
| 002056 | 012777 | 000002 | 007250 | | MOV | #2.8DHSCR | | :EXPECTED RESULT=17 :SELECT LOCATION 2 | //// | | |
| | | | | | | | | OF BUS ADDRESS MEM | ORY | | |
| 002064 | | | 007250 | | MOV | 4177777.8DHBA | | :WRITE 177777 INTO | MEMORY | | |
| 002076 | | 007244 | | | MOV | SDHBA,R4 R5,R4 | | READ CONTENTS OF H | EMORY LOCATI | ION | |
| 002100 | | | | | BEQ | 1\$ | | :COMPARE EXPECTED A :RECEIVED MEMORY CO | ND | | |
| 002102 | | | | .IIF ID | | <ba>.<ba>.</ba></ba> | HLT | 3 | | DORESS MEMORY | 50000 |
| 002102 | 104003 | | | | EMT | 3 | | | ,003 AL | DUNESS MEMORI | ERRUR |
| 002104 | 005005 | | | .IIF ID | | <ba>, <bc>,</bc></ba> | HLT | 4 | BYTE (| COUNT MEMORY E | RROR |
| 002106 | 042777 | 177777 | 007226 | 18: | CLR BIC | R5 #177777,80HBA | | EXPECTED RESULT AF | TER CLEAR=0 | | |
| 002114 | 017704 | 007222 | 00.220 | | MOV | SDHBA, R4 | | :CLEAR MEMORY LOCAT: :READ CONTENTS OF B | LUN | | |
| | | | | | | | | MEMORY ADDRESS 2 | US MUUNESS | | |
| 002120 | 001401 | | | | BEQ | 2: | | | | | |
| 002122 002122 | 104003 | | | .IIF IO | | <ba>, <ba>,</ba></ba> | HLT | 3 | BUS AL | DORESS MEMORY | ERROR |
| OULIEE | 204003 | | | .IIF ID | EMT | 3 <ba>,<bc>.</bc></ba> | HLT | | BYTE A | - | |
| | | | | | | -on-,-oc-, | THE I | :ADDRESS 2 NOT O. E | BOUD SALE (| COUNT MEMORY E | RROR |
| 002124 | 104400 | | | 24: | SCOPE | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | MON | | |
| | 000003 | | | XADRS=X | | | | | | | |
| 002126 | 000003 | | | | XCADRS+1 | | VADDC | CADOC 133333 | | | |
| | | | | HEHILE | ', on, , ' | TOUS MUURESST, \ | ANUNS, \ | CADRS, 177777, +/177777 | , | | |
| | | | | | BUS AD | DRESS MEMORY DA | TA TEST | | | | |
| | | | | | : VERIFY | THAT ADDRESS 3 | OF BUS | ADDRESS MEMORY | | | |
| | | | | | CAN BE | SET TO 177777 | AND CLEA | ARED TO O | | | |
| 002126 | | | | TS \XN. | 100.24 | | | | | | |
| 002126 | | 000340 | 175642 | T6: | MOV | 4340,PS | | DISABLE ALL INTERRE | IPTS | | |
| 002134 | | 000100 | 007240 | | MOV | #100,ICOUNT | | SET UP FOR 100 ITE | | | |
| 002142 | 012767 | 002222 | 007226 | | MOV | #2#,ESCAPE | | SET UP TO ESCAPE TO | NEXT TEST | | |
| | | | | .IF NB | MOV | A COCC71 | | | | | |
| | | | | .ENDC | nov | 4.FREEZ1 | | SET UP TO LOOP WITH | 1 DATA | ; 3 | |
| | 000007 | | | XN=XN+1 | | | | | | | |
| 002150 | 012705 | 1.77777 | | | MOV | 4177777,R5 | | :EXPECTED RESULT=17 | 7777 | | |
| 002154 | 012777 | 000003 | 007152 | | MOV | 03,0DHSCR | | SELECT LOCATION 3 | | | |
| 002162 | 012777 | 177777 | 007152 | | MOV | A177777 COUDA | | OF BUS ADDRESS MEMO | | | |
| 772702 | V221:1 | 2.77.77 | OULTE | | 1104 | 4177777, 9DHBA | | WRITE 177777 INTO | TETTUKT | | |
| | | | | | | | | | | | |

| SE | E | 3 | 2 |
|----|---|---|---|
| " | | | _ |

| 8- | СО | MACRO | V04.00 | 27-JUN-85 | 12:49:26 PAGE | 19-4 | | SEQ 28 |
|----|--|--------------------------------------|------------------|-----------|---|--|-----------|---|
| | 002170 002174 002176 002200 002200 | 017704 020504 001401 104003 | | | MOV CMP BEQ .IIF IDN | 8DHBA,R4 R5,R4 1\$ <ba>,<ba>.</ba></ba> | HLT | READ CONTENTS OF MEMORY LOCATION COMPARE EXPECTED AND RECEIVED MEMORY CONTENTS BUS ADDRESS MEMORY ERROR |
| | 002200 | 104003 | | | .IIF IDN | 3 | | |
| | 002202 002204 002212 | 005005 042777 017704 | | | 1\$: CLR BIC MOV | <ba>,<bc>. R5 #177777,@DHBA @DHBA,R4</bc></ba> | HLT | ### ### ############################## |
| | 002216 | 001401 | | | BEQ | 2\$ | | THEHORT ADDRESS S |
| | 002220 | 104003 | | | .IIF IDN | <ba>, <ba>,</ba></ba> | HLT | 3 BUS ADDRESS MEMORY ERROR |
| | OUEEEU | 104003 | | | .IIF IDN | 3 <ba>,<bc>,</bc></ba> | HLT | 4 BYTE COUNT MEMORY ERROR |
| | 002222 | 104400 000004 000004 | | | 2\$: SCOPE XADRS=XADRS+1 XCADRS=XCADRS+ MEMT2 +/BA/, | | XADRS,\X | ;ADDRESS 3 NOT 0, ERROR |
| | | | | | ; VERIF | DDRESS MEMORY DA Y THAT ADDRESS 4 E SET TO 177777 | OF BUS | ADDRESS MEMORY ARED TO 0 |
| | 002224 002224 002232 002240 | 012767 012767 012767 | 000100 | 007142 | TS \XN.100,2\$ T7: MOV MOV MOV .IF NB <> | #340.PS #100.ICUUNT #21.ESCAPE | | DISABLE ALL INTERRUPTS SET UP FOR 100 ITERATIONS SET UP TO ESCAPE TO NEXT TEST |
| | | | | | .ENDC | .FREEZ1 | | SET UP TO LOOP WITH DATA ; 3 |
| | | 000010 | | | XN=XN+1 | | | |
| | 002246 002252 | 012705 012777 | 177777 | 007054 | MOV | #177777.R5 | | :EXPECTED RESULT=177777 :SELECT LOCATION 4 |
| | 002260 002266 002272 002274 002276 | 012777 017704 020504 001401 | 177777 007050 | 007054 | MOV MOV CMP BEQ | #177777, SDHBA SDHBA, R4 R5, R4 1\$ | | OF BUS ADDRESS MEMORY WRITE 177777 INTO MEMORY READ CONTENTS OF MEMORY LOCATION COMPARE EXPECTED AND RECEIVED MEMORY CONTENTS |
| | 002276 | 104003 | | | .IIF IDN EMT | <ba>,<ba>,</ba></ba> | HLT | 3 :BUS ADDRESS MEMORY ERROR |
| | 002300 002302 002310 | 005005 042777 017704 | 177777 007026 | 007032 | .IIF ION 19: CLR BIC MOV | <ba>.<bc>. R5 #177777.SDHBA SDHBA,R4</bc></ba> | HLT | ### ### ############################## |
| | | 001401 | | | BEQ | 29 | | |
| | 002316 | 104003 | | | .IIF IDN | <ba>,<ba>,</ba></ba> | HLT | 3 BUS ADDRESS MEMORY ERROR |
| | | | | | .IIF IDN | <ba>,<bc>,</bc></ba> | HLT | 4 BYTE COUNT MEMORY ERROR |
| | 002320 | 104400 000005 000005 | | | 2\$: SCOPE XADRS=XADRS+1 XCADRS=XCADRS+ | | | ; ADDRESS 4 NOT O, ERROR |
| | 002322 | | | | | | KADRS. \X | CADRS.177777,+/177777/ |

CZDHB-CO

BUS ADDRESS MEMORY DATA TEST

:VERIFY THAT ADDRESS 5 OF BUS ADDRESS MEMORY :CAN BE SET TO 177777 AND CLEARED TO 0

| 002322 | | | | TS \XN,100,2\$ | | | |
|--------|--------|--------|--------|-----------------|-----------------------|-----------|----------------------------------|
| 002322 | | | | | 4340.PS | | ;DISABLE ALL INTERRUPTS |
| 002330 | | | 007044 | MOV | #100,ICOUNT | | SET UP FOR 100 ITERATIONS |
| 002336 | 012767 | 002416 | 007032 | MOV | 42\$, ESCAPE | | SET UP TO ESCAPE TO NEXT TEST |
| | | | | .IF NB <> | | | TOCH OF TO ESCAPE TO MEAT TEST |
| | | | | MOV | .FREEZ1 | | SET UP TO LOOP WITH DATA : 3 |
| | | | | .ENDC | -, | | SET UP TO LOOP WITH DATA ; 3 |
| | 000011 | | | XN=XN+1 | | | |
| 002344 | | 177777 | | MOV | \$177777.R5 | | EVECTED DECLET ADDRESS |
| 002350 | | 000005 | 006756 | MOV | | | EXPECTED RESULT=177777 |
| 002000 | 015111 | 000003 | 000730 | HOA | 45, adhscr | | SELECT LOCATION 5 |
| 002356 | 012777 | 177777 | 006756 | MOV | 44 777777 00:104 | | OF BUS ADDRESS MEMORY |
| 002364 | | | 000730 | MOV | 4177777, 9DHBA | | WRITE 177777 INTO MEMORY |
| | | 006752 | | MOV | aDHBA,R4 | | READ CONTENTS OF MEMORY LOCATION |
| 002370 | | | | CMP | R5,R4 | | COMPARE EXPECTED AND |
| 002372 | 001401 | | | BEQ | 1\$ | | RECEIVED MEMORY CONTENTS |
| 002374 | | | | .IIF IDN | <ba>, <ba>,</ba></ba> | HLT | 3 ;BUS ADDRESS MEMORY ERROR |
| 002374 | 104003 | | | EMT | 3 | | ADDRESS HEHURT ERRUR |
| | | | | .IIF IDN | <ba>, <bc>,</bc></ba> | HLT | 4 . RYTE COUNT MEMORY CODOR |
| 002376 | 005005 | | | 1\$: CLR | R5 | 116.1 | DITE COUNT PERIOR PROCES |
| 002400 | 042777 | 177777 | 006734 | BIC | #177777, @DHBA | | EXPECTED RESULT AFTER CLEAR=0 |
| 002406 | 017704 | 006730 | 000134 | | | | CLEAR MEMORY LOCATION |
| 002400 | 011:04 | 000730 | | MOV | ODHBA,R4 | | READ CONTENTS OF BUS ADDRESS |
| 000440 | 001401 | | | | | | MEMORY ADDRESS 5 |
| 002412 | 001401 | | | BEQ | 2\$ | | |
| 002414 | | | | .IIF IDN | <ba>, <ba>,</ba></ba> | HLT | 3 ;BUS ADDRESS MEMORY ERROR |
| 002414 | 104003 | | | EMT | 3 | | ADDRESS TILTION I ERROR |
| | | | | .IIF IDN | <6.4>, <8C>, | HLT | 4 RYTE COUNT MEMORY EDDOS |
| | | | | | | | |
| 002416 | 104400 | | | 24: SCOPE | | | ADDRESS 5 NOT O. ERROR |
| | 000006 | | | XADRS=XADRS+1 | | | |
| | 000006 | | | | | | |
| 002420 | 000000 | | | XCADRS=XCADRS+1 | | | |
| 002420 | | | | MEMT2 +/BA/,1 | /BUS ADDRESS/,\ | XADRS, \) | (CADRS,177777,+/177777/ |
| | | | | -RUS AC | DRESS MEMORY DA | TA TEST | |
| | | | | VEDTE | THAT ADDRESS 6 | OF PUE | ADDOCCO MEMBOY |
| | | | | CAN DE | THAT ADDRESS 6 | UF 805 | ADDRESS MEMORY |
| | | | | CAM DE | SET TO 177777 | AND CLEA | IRED 10 0 |
| 002420 | | | | | | | |
| 002420 | | | | TS \XN,100,2\$ | | | |
| 002420 | 012767 | 000340 | 175350 | T11: MOV | #340.PS | | DISABLE ALL INTERRUPTS |
| 002426 | 012767 | 000100 | 006746 | MOV | #100.ICOUNT | | SET UP FOR 100 ITERATIONS |
| 002434 | 012767 | 002514 | 006734 | MOV | 421,ESCAPE | | SET UP TO ESCAPE TO NEXT TEST |
| | | | | .IF NB () | | | TOTAL OF TO ESCAPE TO MEXT TEST |
| | | | | MOV | A EDEET4 | | 007 110 70 1 000 11711 0 100 |
| | | | | | ø,FREEZ1 | | SET UP TO LOOP WITH DATA : 3 |
| | 000010 | | | .ENDC | | | |
| 000446 | 000012 | 42222 | | XN=XN+1 | | | |
| 002442 | 012705 | 177777 | | MOV | #177777,R5 | | EXPECTED RESULT=177777 |
| 002446 | 012777 | 000006 | 006660 | MOV | 06, SDHSCR | | SELECT LOCATION 6 |
| | | | | | | | OF BUS ADDRESS MEMORY |
| 002454 | 012777 | 177777 | 006660 | MOV | #177777, 8DHBA | | WRITE 177777 INTO MEMORY |
| 002462 | 017704 | 006654 | | MOV | ODHBA,R4 | | DEAD CONTENTS OF MEMORY LOCATION |
| 002466 | 020504 | | | CMP | | | READ CONTENTS OF MEMORY LOCATION |
| 002470 | 001401 | | | | R5,R4 | | COMPARE EXPECTED AND |
| 002472 | 001401 | | | BEQ | 18 | | RECEIVED MEMORY CONTENTS |
| | 404007 | | | .IIF IDN | <ba>, <ba>,</ba></ba> | HLT | 3 ;BUS ADDRESS MEMORY ERROR |
| 002472 | 104003 | | | EMT | 3 | | |
| | | | | .IIF IDN | <ba>,<bc>,</bc></ba> | HLT | 4 BYTE COUNT MEMORY ERROR |
| | | | | | | | |

| | - |
|-----|-----|
| SEC | 1 2 |
| SEA | ı |

| 002474 002476 002504 | 042777 | | 006636 | 1\$: | CLR BIC MOV | R5 #177777, @DHGA @DHBA,R4 | | EXPECTED RESULT CLEAR MEMORY LOC READ CONTENTS OF | ATION BUS ADDRESS |
|----------------------------|----------------------------|------------------|--------|--------|--|--|-----------|---|-------------------------------|
| 002510 | 001401 | | | | BEQ | 2\$ | | :MEMORY ADDRESS 6 | |
| 002512 | | | | .IIF I | | <ba>, <ba>,</ba></ba> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 002512 | 104003 | | | | EMT | 3 | | | 1003 ADDRESS HEHORT ERROR |
| | | | | .IIF I | DN | <ba>,<bc>,</bc></ba> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| 002514 | 104400 000007 000007 | | | | SCOPE XADRS+1 =XCADRS+ | 1 | | ;ADDRESS 6 NOT 0, | ERROR |
| 002516 | | | | MEMT2 | +/BA/. | */BUS ADDRESS/.\ | XADRS, \ | KCADRS, 177777, +/1777 | 777/ |
| | | | | | : VERIF | DDRESS MEMORY DAY THAT ADDRESS 7 E SET TO 177777 | OF BUS | ADDRESS MEMORY ARED TO O | |
| 002516 | | | | TS \XN | .100.2\$ | | | | |
| 002516 | 012767 | 000340 | 175252 | T12: | MOV | #340.PS | | DISABLE ALL INTE | 2 TQI IQQ |
| 002524 | 012767 | 000100 | 006650 | | MOV | #100,ICOUNT | | SET UP FOR 100 I | TERATIONS |
| 002532 | 012767 | 002612 | 006636 | | MOV | #2\$,ESCAPE | | SET UP TO ESCAPE | TO NEXT TEST |
| | | | | .IF NB | MOV | A COCC74 | | | |
| | | | | .ENDC | | 4.FREEZ1 | | SET UP TO LOOP W | IITH DATA ; 3 |
| 002540 | 000013 012705 | 177777 | | XN=XN+ | | | | | |
| 002544 | 012777 | 177777 000007 | 006562 | | MOV | #177777,R5 #7.8DHSCR | | :SELECT LOCATION :OF BUS ADDRESS M | 7 |
| 002552 | 012777 | 177777 | 006562 | | MOV | 4177777, aDHBA | | :WRITE 177777 INT | O MEMORY |
| 002560 | 017704 | 006556 | | | MOV | ADHBA,R4 | | READ CONTENTS OF | MEMORY LOCATION |
| 002564 002566 | 020504 | | | | CMP | R5,R4 | | COMPARE EXPECTED | AND |
| 002570 | 001401 | | | .IIF I | BEQ | 1\$ <ba>,<ba>,</ba></ba> | HLT | RECEIVED MEMORY | |
| 002570 | 104003 | | | | EMT | 3 | HL I | • | BUS ADDRESS MEMORY ERROR |
| 000570 | 005005 | | | IIF I | The state of the s | <ba>, <bc>,</bc></ba> | HLT | 4 | :BYTE COUNT MEMORY ERROR |
| 002572 002574 | 005005 | 177777 | 006540 | 1\$: | CLR BIC | R5 | | EXPECTED RESULT | AFTER CLEAR=0 |
| 002602 | 017704 | | 006340 | | MOA | #177777, 9DHBA 9DHBA, R4 | | READ CONTENTS OF MEMORY ADDRESS 7 | BUS ADDRESS |
| 002606 | 001401 | | | | BEQ | 29 | | . Lancon modeless . | |
| 002610 002610 | 104007 | | | .IIF I | | <ba>,<ba>,</ba></ba> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 005010 | 104003 | | | .IIF I | EMT DN | 3 <ba>,<bc>,</bc></ba> | HLT | | |
| | | | | | | | TIL I | ADDRESS 7 NOT O. | FREOR BYTE COUNT MEMORY ERROR |
| 002612 | 104400 000010 000010 | | | | SCOPE XADRS+1 =XCADRS+1 | | | , moneso , nor o, | CAROA |
| 002614 | | | | MEMT2 | | | KADRS, \> | CADRS, 177777, +/1777 | 77/ |
| | | | | | ; VERIFY | DRESS MEMORY DATE THAT ADDRESS 10 SET TO 177777 | OF BUS | ADDRESS MEMORY | |
| | | | | TS LYN | .100,2\$ | | | | |
| 002614 | | | | | | | | | |
| 002614 002614 002622 | 012767 | 000340 | 175154 | T13: | MOV | #340,PS | | DISABLE ALL INTE | RRUPTS |

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CZDHB-CO

| 002630 | 012767 | 002710 | 006540 | N | MOV | #2\$,ESCAPE | | SET UP TO ESCAPE TO NEXT TEST |
|--|--|--|--------------------------------------|---|---|--|---------------------------------|--|
| | | | | .IF N | MOV | A COCC74 | | |
| | | | | .ENDC | | #,FREEZ1 | | SET UP TO LOOP WITH DATA ; 3 |
| | 000014 | | | XN=XN | | | | |
| 002636 | | | | | MOV | #177777,R5 | | EXPECTED RESULT=177777 |
| 002642 | 012777 | 000010 | 006464 | | MOV | #10, aDHSCR | | SELECT LOCATION 10 |
| | | | | | | | | OF BUS ADDRESS MEMORY |
| 002650 | | 177777 | 006464 | | MOV | #177777, aDHBA | | WRITE 177777 INTO MEMORY |
| 002656 | | 006460 | | | MOV | ODHBA, R4 | | READ CONTENTS OF MEMORY LOCATION |
| 002662 | | | | | CMP | R5,R4 | | COMPARE EXPECTED AND |
| 002664 002666 | 001401 | | | TTE | BEQ | 1\$ | | RECEIVED MEMORY CONTENTS |
| 002666 | 104003 | | | .IIF | EMT | <ba>.<ba>.</ba></ba> | HLT | 3 ;BUS ADDRESS MEMORY ERRO |
| 002000 | 104003 | | | .IIF | | <ba>, <bc>,</bc></ba> | LII T | |
| 002670 | 005005 | | | 15: | CLR | R5 | HLT | BYTE COUNT MEMORY ERROR |
| 002672 | 042777 | 177777 | 006442 | | BIC | #177777, aDHBA | | EXPECTED RESULT AFTER CLEAR=0 |
| 002700 | 017704 | 006436 | | | MOV | aDHBA.R4 | | READ CONTENTS OF BUS ADDRESS |
| | | | | | | | | MEMORY ADDRESS 10 |
| 002704 | 001401 | | | | BEQ | 2\$ | | THE TOTAL PROPERTY TO |
| 002706 | | | | .IIF | | <ba>, <ba>,</ba></ba> | HLT | 3 ;BUS ADDRESS MEMORY ERRO |
| 002706 | 104003 | | | | EMT | 3 | | 1000 NOUNESS TIETION I ENRO |
| | | | | .IIF | IDN | <ba>,<bc>,</bc></ba> | HLT | 4 BYTE COUNT MEMORY ERROR |
| 002710 | 104400 | | | 24 | 00005 | | | ;ADDRESS 10 NOT O, ERROR |
| 005110 | 104400 | | | 24: | SCOPE | | | |
| | 000011 | | | YCAND | =XADRS+1 S=XCADRS+ | | | |
| | | | | | | 1 | | |
| 002712 | | | | MEMT2 | | | XADRS. \ | (CADRS 177777 +/177777/ |
| 002712 | | | | | +/BA/. | +/BUS ADDRESS/,\ | | XCADRS,177777,+/177777/ |
| 602712 | | | | | +/BA/, ;BUS A ;VERIF | †/BUS ADDRESS/.\\ DDRESS MEMORY DA' Y THAT ADDRESS 1 | TA TEST | S ADDRESS MEMORY |
| | | | | MEMT2 | +/BA/, :BUS A ;VERIF ;CAN B | †/BUS ADDRESS/.\\ DDRESS MEMORY DA | TA TEST | S ADDRESS MEMORY |
| 002712 | | | | MEMT2 | +/BA/, ;BUS A ;VERIF ;CAN B | †/BUS ADDRESS/.\\ DDRESS MEMORY DA' Y THAT ADDRESS 1 | TA TEST | S ADDRESS MEMORY |
| 002712 002712 | 012767 | 000340 | 175056 | MEMT2 | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV | THAT ADDRESS TE SET TO 177777 | TA TEST | S ADDRESS MEMORY ARED TO 0 |
| 002712 002712 002720 | 012767 012767 | 000100 | 006454 | MEMT2 | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV | THAT ADDRESS TO SET TO 177777 | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS |
| 002712 002712 | 012767 | | | TS \XI | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV | THAT ADDRESS TE SET TO 177777 | TA TEST | S ADDRESS MEMORY ARED TO 0 |
| 002712 002712 002720 | 012767 012767 | 000100 | 006454 | MEMT2 | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV B <> | **DDRESS MEMORY DAY THAT ADDRESS 1: E SET TO 177777 #340.PS #100,ICOUNT #2\$,ESCAPE | TA TEST | S ADDRESS MEMORY ARED TO 0 :DISABLE ALL INTERRUPTS :SET UP FOR 100 ITERATIONS :SET UP TO ESCAPE TO NEXT TEST |
| 002712 002712 002720 | 012767 012767 | 000100 | 006454 | TS \XI T14: | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV B <> | THAT ADDRESS TO SET TO 177777 | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS |
| 002712 002712 002720 | 012767 012767 012767 | 000100 | 006454 | TS \XI T14: | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV B <> | **DDRESS MEMORY DAY THAT ADDRESS 1: E SET TO 177777 #340.PS #100,ICOUNT #2\$,ESCAPE | TA TEST | ARED TO O ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST |
| 002712 002712 002720 00272€ | 012767 012767 012767 | 000100 003006 | 006454 | TS \XI T14: | +/BA/, :BUS A :VERIF :CAN B N.100,2\$ MOV MOV MOV MOV B <> MOV | **DDRESS MEMORY DAY Y THAT ADDRESS 1: E SET TO 177777 #340.PS #100.ICOUNT #2\$.ESCAPE #.FREEZ1 | TA TEST | S ADDRESS MEMORY ARED TO 0 :DISABLE ALL INTERRUPTS :SET UP FOR 100 ITERATIONS :SET UP TO ESCAPE TO NEXT TEST :SET UP TO LOOP WITH DATA ; 3 |
| 002712 002712 002720 002726 | 012767 012767 012767 000015 012705 | 000100 003006 | 006454 006442 | TS \XI T14: | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV B <> MOV | **DDRESS MEMORY DAY Y THAT ADDRESS 1: E SET TO 177777 **340.PS **100.ICOUNT **2*,ESCAPE **FREEZ1 **177777.R5 | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 |
| 002712 002712 002720 00272€ | 012767 012767 012767 | 000100 003006 | 006454 | TS \XI T14: | +/BA/, :BUS A :VERIF :CAN B N.100,2\$ MOV MOV MOV MOV B <> MOV | **DDRESS MEMORY DAY Y THAT ADDRESS 1: E SET TO 177777 #340.PS #100.ICOUNT #2\$.ESCAPE #.FREEZ1 | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 |
| 002712 002712 002720 002726 | 012767 012767 012767 000015 012705 012777 | 000100 003006 177777 000011 | 006454 006442 006366 | TS \XI T14: | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV HOV HOV HOV | **DDRESS MEMORY DAY Y THAT ADDRESS 1: E SET TO 177777 **340.PS **100.ICOUNT **2*,ESCAPE **,FREEZ1 **177777.R5 **11.@DHSCR | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY |
| 002712 002712 002720 002726 002734 002740 002746 002754 | 012767 012767 012767 000015 012705 | 000100 003006 | 006454 006442 | TS \XI T14: | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV B <> MOV | **PUS ADDRESS/.NI DDRESS MEMORY DAY Y THAT ADDRESS 1: E SET TO 177777 **340.PS **100.ICOUNT **2*,ESCAPE **################################## | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY ;WRITE 177777 INTO MEMORY |
| 002712 002712 002720 002726 002726 002740 002746 002754 002760 | 012767 012767 012767 000015 012705 012777 012777 012777 012777 012774 020504 | 000100 003006 177777 000011 177777 | 006454 006442 006366 | TS \XI T14: | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV HOV MOV MOV | **PUS ADDRESS/.NI DDRESS MEMORY DAY Y THAT ADDRESS 1: E SET TO 177777 ***340.PS ***100.ICOUNT **2**.ESCAPE *********************************** | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY ;WRITE 177777 INTO MEMORY ;READ CONTENTS OF MEMORY LOCATION |
| 002712 002712 002720 002726 002726 002740 002746 002754 002760 002762 | 012767 012767 012767 000015 012705 012777 012777 | 000100 003006 177777 000011 177777 | 006454 006442 006366 | TS \XI T14: | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV HOV MOV MOV MOV | **PUS ADDRESS/.NI DDRESS MEMORY DAY Y THAT ADDRESS 1: E SET TO 177777 **340.PS **100.ICOUNT **2*,ESCAPE **################################## | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY ;WRITE 177777 INTO MEMORY ;READ CONTENTS OF MEMORY LOCATION ;COMPARE EXPECTED AND |
| 002712 002712 002720 002726 002726 002740 002740 002760 002760 002762 002764 | 012767 012767 012767 000015 012705 012777 012777 017704 020504 001401 | 000100 003006 177777 000011 177777 | 006454 006442 006366 | TS \XI T14: .IF NO .ENDC XN=XN- | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV MOV MOV MOV MOV CMP BEQ IDN | **TOP TO STATE OF THE STATE OF THE STATE OF THE SET TO 177777 TO STATE OF THE STATE | TA TEST | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY ;WRITE 177777 INTO MEMORY ;READ CONTENTS OF MEMORY LOCATION ;COMPARE EXPECTED AND ;RECEIVED MEMORY CONTENTS |
| 002712 002712 002720 002726 002726 002740 002746 002754 002760 002762 | 012767 012767 012767 000015 012705 012777 012777 012777 012777 012774 020504 | 000100 003006 177777 000011 177777 | 006454 006442 006366 | TS \XI T14: .IF NO .ENDC XN=XN | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV MOV MOV MOV MOV CMP BEQ IDN EMT | **TOTAL STATE OF THE STATE OF THE STATE OF THE SET TO 177777 **TOTAL STATE OF THE S | TA TEST 1 OF BUS AND CLE | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY ;WRITE 177777 INTO MEMORY ;READ CONTENTS OF MEMORY LOCATION ;COMPARE EXPECTED AND ;RECEIVED MEMORY CONTENTS |
| 002712 002712 002720 002726 002726 002740 002740 002760 002762 002764 002764 | 012767 012767 012767 012767 000015 012705 012777 012777 012777 017704 020504 001401 104003 | 000100 003006 177777 000011 177777 | 006454 006442 006366 | TS \XI T14: .IF NO .ENDC XN=XN | +/BA/, ;BUS A ;VERIF ;CAN B N.100.2\$ MOV | **DDRESS MEMORY DAY THAT ADDRESS 1: E SET TO 177777 **340.PS **100.ICOUNT **2*.ESCAPE **.FREEZ1 **177777.RS **11.@DHSCR **177777.@DHBA **BA>, <ba>,<ba>, 3 <ba>,<bc>,</bc></ba></ba></ba> | TA TEST 1 OF BUS AND CLE/ | S ADDRESS MEMORY ARED TO 0 :DISABLE ALL INTERRUPTS :SET UP FOR 100 ITERATIONS :SET UP TO ESCAPE TO NEXT TEST :SET UP TO LOOP WITH DATA : 3 :EXPECTED RESULT=177777 :SELECT LOCATION 11 :OF BUS ADDRESS MEMORY :WRITE 177777 INTO MEMORY :READ CONTENTS OF MEMORY LOCATION :COMPARE EXPECTED AND :RECEIVED MEMORY CONTENTS 3 :BUS ADDRESS MEMORY ERROR |
| 002712 002712 002720 002726 002726 002740 002740 002760 002762 002764 002764 002764 | 012767 012767 012767 012767 000015 012705 012777 012777 017704 020504 001401 104003 005005 | 000100 003006 177777 000011 177777 006362 | 006454 006442 006366 006366 | TS \XI T14: .IF NO .ENDC XN=XN | +/BA/, ;BUS A ;VERIF ;CAN B N.100.2\$ MOV | ************************************** | TA TEST 1 OF BUS AND CLE | S ADDRESS MEMORY ARED TO 0 :DISABLE ALL INTERRUPTS :SET UP FOR 100 ITERATIONS :SET UP TO ESCAPE TO NEXT TEST :SET UP TO LOOP WITH DATA : 3 :EXPECTED RESULT=177777 :SELECT LOCATION 11 :OF BUS ADDRESS MEMORY :WRITE 177777 INTO MEMORY :READ CONTENTS OF MEMORY LOCATION :COMPARE EXPECTED AND :RECEIVED MEMORY CONTENTS 3 :BUS ADDRESS MEMORY ERROR 4 :BYTE COUNT MEMORY ERROR |
| 002712 002712 002720 002726 002726 002740 002740 002764 002764 002764 002764 002766 002766 002770 | 012767 012767 012767 012767 000015 012705 012777 012777 017704 020504 001401 104003 005005 042777 | 000100 003006 177777 000011 177777 006362 | 006454 006442 006366 | TS \XI T14: .IF NO .ENDC XN=XN | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV MOV MOV MOV MOV CMP BEQ IDN EMT IDN CLR BIC | ************************************** | TA TEST 1 OF BUS AND CLE | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY ;WRITE 177777 INTO MEMORY ;READ CONTENTS OF MEMORY LOCATION ;COMPARE EXPECTED AND ;RECEIVED MEMORY CONTENTS 3 ;BUS ADDRESS MEMORY ERROR 4 ;EXPECTED RESULT AFTER CLEAR=0 ;CLEAR MEMORY LOCATION |
| 002712 002712 002720 002726 002726 002740 002740 002760 002762 002764 002764 002764 | 012767 012767 012767 012767 000015 012705 012777 012777 017704 020504 001401 104003 005005 | 000100 003006 177777 000011 177777 006362 | 006454 006442 006366 006366 | TS \XI T14: .IF NO .ENDC XN=XN | +/BA/, ;BUS A ;VERIF ;CAN B N.100.2\$ MOV | ************************************** | TA TEST 1 OF BUS AND CLE | S ADDRESS MEMORY ARED TO 0 :DISABLE ALL INTERRUPTS :SET UP FOR 100 ITERATIONS :SET UP TO ESCAPE TO NEXT TEST :SET UP TO LOOP WITH DATA ; 3 :EXPECTED RESULT=177777 :SELECT LOCATION 11 :OF BUS ADDRESS MEMORY :WRITE 177777 INTO MEMORY :READ CONTENTS OF MEMORY LOCATION :COMPARE EXPECTED AND :RECEIVED MEMORY CONTENTS 4 :BYTE CGUNT MEMORY ERROR :EXPECTED RESULT AFTER CLEAR=0 :CLEAR MEMORY LOCATION :READ CONTENTS OF BUS ADDRESS |
| 002712 002712 002720 002726 002734 002740 002754 002760 002764 002764 002764 002766 002776 | 012767 012767 012767 012767 000015 012705 012777 012777 012777 017704 020504 001401 104003 005005 042777 017704 | 000100 003006 177777 000011 177777 006362 | 006454 006442 006366 006366 | TS \XI T14: .IF NO .ENDC XN=XN | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV MOV MOV MOV MOV CMP BEQ IDN CLR BIC MOV | **DDRESS MEMORY DAY THAT ADDRESS 1: E SET TO 177777 **340.PS **DO.ICOUNT **2*,ESCAPE **################################## | TA TEST 1 OF BUS AND CLE | S ADDRESS MEMORY ARED TO 0 ;DISABLE ALL INTERRUPTS ;SET UP FOR 100 ITERATIONS ;SET UP TO ESCAPE TO NEXT TEST ;SET UP TO LOOP WITH DATA ; 3 ;EXPECTED RESULT=177777 ;SELECT LOCATION 11 ;OF BUS ADDRESS MEMORY ;WRITE 177777 INTO MEMORY ;READ CONTENTS OF MEMORY LOCATION ;COMPARE EXPECTED AND ;RECEIVED MEMORY CONTENTS 3 ;BUS ADDRESS MEMORY ERROR 4 ;EXPECTED RESULT AFTER CLEAR=0 ;CLEAR MEMORY LOCATION |
| 002712 002712 002720 002726 002726 002740 002740 002764 002764 002764 002764 002766 002766 002770 | 012767 012767 012767 012767 000015 012705 012777 012777 017704 020504 001401 104003 005005 042777 | 000100 003006 177777 000011 177777 006362 | 006454 006442 006366 006366 | TS \XI T14: .IF NO .ENDC XN=XN | +/BA/, ;BUS A ;VERIF ;CAN B N.100,2\$ MOV MOV MOV MOV MOV MOV MOV MOV CMP BEQ IDN CLR BIC MOV BEQ | ************************************** | TA TEST 1 OF BUS AND CLE | S ADDRESS MEMORY ARED TO 0 :DISABLE ALL INTERRUPTS :SET UP FOR 100 ITERATIONS :SET UP TO ESCAPE TO NEXT TEST :SET UP TO LOOP WITH DATA ; 3 :EXPECTED RESULT=177777 :SELECT LOCATION 11 :OF BUS ADDRESS MEMORY :WRITE 177777 INTO MEMORY :READ CONTENTS OF MEMORY LOCATION :COMPARE EXPECTED AND :RECEIVED MEMORY CONTENTS 4 :BYTE CGUNT MEMORY ERROR :EXPECTED RESULT AFTER CLEAR=0 :CLEAR MEMORY LOCATION :READ CONTENTS OF BUS ADDRESS |

| 003004 | 104003 | | | .IIF I | EMT | 3 <ba>,<bc>,</bc></ba> | HLT | 4 | BYTE CO | OUNT MEMORY ERROR | |
|------------------|------------------|------------------|------------------|------------------|------------------|---|---------------------|--|----------------|--------------------|--|
| 003006 | 104400 000012 | | | 2\$: XADRS=) | SCOPE KADRS+1 | | | ;ADDRESS 11 NOT O, | ERROR | JOHT HEHURT ERRUR | |
| 003010 | 000012 | | | XCADRS: MEMT2 | =XCADRS+1 | | XADRS,\X | CADRS,177777,+/177777 | , | | |
| | | | | | BUS AC | DRESS MEMORY DA | TA TEST 2 OF BUS | ADDRESS MEMORY | | | |
| | | | | | CAN BE | SET TO 177777 | AND CLEA | RED TO O | | | |
| 003010 | | | | TS \XN. | | | | | | | |
| 003010 | 012767 | 000340 | | T15: | MOV | #340,PS | | DISABLE ALL INTERR | UPTS | | |
| 603024 | 012767 | 603104 | 006356 006344 | | MOV | #100,ICOUNT #2\$,ESCAPE | | SET UP FOR 100 ITE | RATIONS | | |
| | | | | .IF NB | <> | WEV / COCHI E | | SET UP TO ESCAPE T | U NEXT TEST | | |
| | 000016 | | | .ENDC XN=XN+1 | MOV | 4.FREEZ1 | | SET UP TO LOOP WIT | H DATA | ; 3 | |
| 003032 | 012705 | 177777 | | VIA-VIA+T | MOV | #177777,R5 | | EXPECTED RESULT=17 | 7777 | | |
| 003036 | 012777 | 000012 | 006270 | | MOV | #12, aDHSCR | | SELECT LOCATION 12 OF BUS ADDRESS MEM | ! | | |
| 003044 | 012777 | 177777 006264 | 006270 | | MOV | #177777, 8DHBA | | WRITE 177777 INTO | MEMORY | | |
| 003056 | 020504 | 000204 | | | MOV | ODHBA,R4 R5,R4 | | READ CONTENTS OF M COMPARE EXPECTED A | EMORY LOCATION | DN | |
| 003060 | 001401 | | | | BEQ | 1\$ | | RECEIVED MEMORY CO | NTENTS | | |
| 003062 | 104007 | | | .IIF ID | | <ba>, <ba>,</ba></ba> | HLT | 3 | | DRESS MEMORY ERROR | |
| 003062 | 104003 | | | .IIF ID | EMT | 3 | M T | | | | |
| 003064 | 005005 | | | 18: | CLR | <ba>,<bc>,</bc></ba> | HLT | # ;EXPECTED RESULT AF | BYTE CO | OUNT MEMORY ERROR | |
| 003066 003074 | 042777 017704 | 177777 006242 | 006246 | | BIC | 4177777, 80HBA 80HBA, R4 | | CLEAR MEMORY LOCAT READ CONTENTS OF B | ION | | |
| 003100 | 001401 | | | | BEQ | 2\$ | | MEMORY ADDRESS 12 | | | |
| 003102 | 104003 | | | .IIF IO | | <ba>,<ba>,</ba></ba> | HLT | 3 | BUS ADD | DRESS MEMORY ERROR | |
| | | | | .IIF ID | N | <ba>, <bc>,</bc></ba> | HLT | 4 | BYTE CO | OUNT MEMORY ERROR | |
| 003104 | 104400 000013 | | | 2\$: XADRS=X | | | | :ADDRESS 12 NOT 0. | ERROR | | |
| 003106 | 000013 | | | XCADRS= MEMT2 | XCADRS+1 | | VADDE LV | CADRS, 177777, +/177777 | | | |
| | | | | | | | | CHURS, ITTTTT, T/ITTTT | • | | |
| | | | | | : VERIFY | DRESS MEMORY DATE THAT ADDRESS 1: SET TO 177777 | S OF BUS | ADDRESS MEMORY RED TO 0 | | | |
| 003106 | | | | TS \XN. | 100.24 | | | | | | |
| 003106 | 012767 | 000340 | 174662 | T16: | MOV | #340.PS | | DISABLE ALL INTERR | UPTS | | |
| 003114 | 012767 | 000100 | 006260 | | MOV | #100,ICOUNT | | SET UP FOR 100 ITE | RATIONS | | |
| 003122 | 012767 | 003202 | 006246 | .IF NB | MOV | #2\$,ESCAPE | | SET UP TO ESCAPE TO | D NEXT TEST | | |
| | | | | . 21 110 | MOV | #,FREEZ1 | | SET UP TO LOOP WITH | H DATA | : 3 | |
| | | | | .ENDC | | | | TOUT OF TO EGG! MAIN | . Jain | | |
| 003130 | 000017 012705 | 177777 | | XN=XN+1 | MOV | #177777,R5 | | EXPECTED RESULT-17 | רדדו | | |
| | | | | | | | | | | | |

| 003134 | 012777 | 000013 | 006172 | MO | #13,8DHSCR | | SELECT LOCATION 13 | |
|--------|---|--------|--------|-------------|---|----------|---|----------------------------|
| 003142 | 012777 | 177777 | 006172 | MO | 4 4177777 001104 | | OF BUS ADDRESS MEMOR | RY |
| 003150 | | | | MO | | | WRITE 177777 INTO ME | MORY |
| | | | | MO | | | READ CONTENTS OF MEN | 10RY LOCATION |
| 003154 | | | | CM | | | COMPARE EXPECTED AND |) |
| 003156 | | | | BE | 1 1 1 1 | | RECEIVED MEMORY CONT | FNTS |
| 003160 | | | | .IIF IDN | <ba>, <ba>,</ba></ba> | HLT | 3 | |
| 003160 | 104003 | | | EM1 | 3 | 116.1 | 3 | BUS ADDRESS MEMORY ERROR |
| | | | | .IIF IDN | | LR T | | |
| 003162 | 005005 | | | | <ba>,<bc>,</bc></ba> | HLT | 4 | BYTE COULT MEMORY ERROR |
| | | 477777 | 004450 | 1\$: CLF | | | EXPECTED RESULT AFTE | R CLEAR=O |
| 003164 | | | 006150 | BIC | | | CLEAR MEMORY LOCATIO | ON |
| 003172 | 017704 | 006144 | | MOV | 9DHBA.R4 | | READ CONTENTS OF BUS | ANNOFEE |
| | | | | | | | MEMORY ADDRESS 13 | NUMESS |
| 003176 | 001401 | | | BEG | 2\$ | | MEHON I NEDRESS 13 | |
| 003200 | | | | .IIF IDN | <ba>, <ba>,</ba></ba> | LII T | • | |
| 003200 | 104003 | | | | Sous, ous, | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 303500 | 104003 | | | EMI | | | | |
| | | | | .IIF IDN | <ba>.<bc>.</bc></ba> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| | | | | | | | ;ADDRESS 13 NOT O. E | RUB |
| 003202 | 104400 | | | 2\$: SCC | PE | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| | 000014 | | | XADRS=XADRS | | | | |
| | 000014 | | | XCADRS=XCAD | | | | |
| 003204 | 000024 | | | | | W4000 | | |
| 00350- | | | | HEITIE 178 | MY, TYBUS MUUKESSY, \ | XAURS, \ | KCADRS,177777,+/177777/ | |
| | | | | ; VE | S ADDRESS MEMORY DA RIFY THAT ADDRESS 1 IN BE SET TO 177777 | 4 OF BUS | S ADDRESS MEMORY ARED TO 0 | |
| | | | | | | | | |
| 003204 | | | | TS \XN,100, | 2\$ | | | |
| 003204 | 012767 | 000340 | 174564 | T17: MOV | #340.PS | | DISABLE ALL INTERRU | OTE |
| 003212 | 012767 | 000100 | 006162 | MOV | | | SET UP FOR 100 ITER | ITTONE |
| 003220 | 012767 | 003300 | 006150 | MOV | | | CET UP TO COOLE TO | /I TOWS |
| | | | 000250 | .IF NB O | VET, ESCAPE | | SET UP TO ESCAPE TO | NEXT TEST |
| | | | | | A 505534 | | | |
| | | | | MOV | #,FREEZ1 | | SET UP TO LOOP WITH | DATA ; 3 |
| | | | | .ENDC | | | | |
| | 000020 | | | XN=XN+1 | | | | |
| 003226 | 012705 | 177777 | | HOV | 0177777.R5 | | :EXPECTED RESULT=1777 | 777 |
| 003232 | 012777 | 000014 | 006074 | MOV | | | CELECT LOCATION AA | *** |
| | | | | | VIV, SUNGER | | SELECT LOCATION 14 | |
| 003240 | 012777 | 177777 | 006074 | WAY | A4 22 22 22 AND A | | OF BUS ADDRESS MEMOR | (Y |
| | CONTRACTOR OF THE PARTY OF THE | | 006074 | MOV | | | ;WRITE 177777 INTO ME | MORY |
| | | 006070 | | MOV | | | READ CONTENTS OF MEN | 10RY LOCATION |
| 003252 | 020504 | | | CMP | R5,R4 | | COMPARE EXPECTED AND | |
| 003254 | 001401 | | | BEQ | | | RECEIVED MEMORY CONT | ENTE |
| 003256 | | | | .IIF IDN | <ba>, <ba>,</ba></ba> | LH T | SUCCETAED HELIONE COM | |
| 003256 | 104003 | | | | 30mr, 10mr, | HLT | | BUS ADDRESS MEMORY ERROR |
| 003230 | 104003 | | | EMT | | | L - [보기 등학교 및 경기 등 기계 등 | |
| | | | | .IIF IDN | <ba>,<bc>,</bc></ba> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| 003260 | 005005 | | | 1\$: CLR | R5 | | EXPECTED RESULT AFTE | R CI FAR=0 |
| 003262 | 042777 | 177777 | 006052 | BIC | #177777.8DHBA | | CLEAR MEMORY LOCATIO | N |
| 003270 | 017704 | 006046 | | MOV | | | PEAD CONTENTS OF DUE | ADDDECC |
| | | | | | | | READ CONTENTS OF BUS | NUURE33 |
| 003274 | 001401 | | | 050 | | | MEMORY AUDRESS 14 | |
| | 001401 | | | BEQ | | | | |
| 003276 | | | | .IIF IDN | <ba>,<ba>,</ba></ba> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 003276 | 104003 | | | EMT | 3 | | | |
| | | | | .IIF IDN | <ba>, <bc>,</bc></ba> | HLT | | BYTE COUNT MEMORY ERROR |
| | | | | | | | ADDRESS 14 NOT O. ER | אטאאם ואטהבור וואטטט בוועל |
| 003300 | 104400 | | | 2\$: SCO | 0E | | INDONESS IT HO! O. EN | |
| | 000015 | | | XADRS=XADRS | | | | |
| | 000015 | | | | | | | |
| | 000012 | | | XCADRS=XCAD | 19.1 | | | |
| | | | | | | | | |

003302

MEMT2 */BA/. */BUS ADDRESS/.\XADRS.\XCADRS.177777, */177777/ BUS ADDRESS MEMORY DATA TEST VERIFY THAT ADDRESS 15 OF BUS ADDRESS MEMORY CAN BE SET TO 177777 AND CLEARED TO O 003302 TS \XN.100.2\$ 003302 012767 000340 174466 T20: MOV #340.PS :DISABLE ALL INTERRUPTS 003310 000100 012767 006064 MOV \$100.ICOUNT SET UP FOR 100 ITERATIONS 003316 012767 003376 006052 MOV #2\$, ESCAPE SET UP TO ESCAPE TO NEXT TEST .IF NB 4> MOV #.FREEZ1 :SET UP TO LOOP WITH DATA : 3 .ENDC 000021 XN=XN+1 003324 012705 177777 #177777,R5 MOV EXPECTED RESULT=177777 003330 012777 000015 005776 MOV #15, GDHSCR SELECT LOCATION 15 OF BUS ADDRESS MEMORY 003336 012777 177777 005776 MOV 4177777, 8DHBA :WRITE 177777 INTO MEMORY 003344 017704 005772 ADHBA, R4 MOV READ CONTENTS OF MEMORY LOCATION 003350 020504 CMP R5.R4 COMPARE EXPECTED AND 003352 001401 BEQ RECEIVED MEMORY CONTENTS 003354 .IIF IDN <BA>, <BA>. HLT BUS ADDRESS MEMORY ERROR 003354 104003 EMT .IIF IDN <BA>. <BC>. HLT BYTE COUNT MEMORY ERROR 003356 005005 CLR 1\$: EXPECTED RESULT AFTER CLEAR=0 177777 005754 003360 042777 BIC \$177777. SDHBA CLEAR MEMORY LOCATION 003366 017704 005750 MOV **BDHBA.R4** READ CONTENTS OF BUS ADDRESS :MEMORY ADDRESS 15 003372 001401 BEQ 003374 .IIF IDN <BA>, <BA>. HLT BUS ADDRESS MEMORY ERROR 003374 104003 EMT .IIF IDN <BA>. <BC>. HLT BYTE COUNT MEMORY ERROR :ADDRESS 15 NOT O, ERROR 003376 104400 21: SCOPE 000016 XADRS=XADRS+1 000016 XCADRS=XCADRS+1 003400 MEMT2 +/BA/, +/BUS ADDRESS/,\XADRS,\XCADRS,177777,+/177777/ BUS ADDRESS MEMORY DATA TEST VERIFY THAT ADDRESS 16 OF BUS ADDRESS MEMORY CAN BE SET TO 177777 AND CLEARED TO O 003400 TS \XN,100,2\$ 003400 012767 000340 174370 T21: MOV #340.PS DISABLE ALL INTERRUPTS 003406 012767 000100 005766 #100,ICOUNT MOV SET UP FOR 100 ITERATIONS 003414 012767 003474 005754 #24.ESCAPE MOV SET UP TO ESCAPE TO NEXT TEST . IF NB () MOV 4. FREEZ1 SET UP TO LOOP WITH DATA ; 3 .ENDC 000022 XN=XN+1 003422 012705 177777 #177777.R5 :EXPECTED RESULT=177777 003426 012777 000016 005700 MOV #16. ODHSCR SELECT LOCATION 16 OF BUS ADDRESS MEMORY 003434 012777 177777 005700 MOV 4177777. aDHBA :WRITE 177777 INTO MEMORY 003442 017704 005674 MOV READ CONTENTS OF MEMORY LOCATION SOHBA, R4 003446 020504 R5,R4 COMPARE EXPECTED AND 003450 001401 BEQ RECEIVED MEMORY CONTENTS

| | 003452 | | | | .IIF | | <ba>,<ba>,</ba></ba> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
|----------------|------------------|--------------------------------------|------------------|------------------|------------------|-------------------|----------------------------------|----------|---|-------------------------------------|
| | 003452 | 104003 | | | .IIF | EMT | 3 | - | | |
| | 003454 | 005005 | | | 1\$: | CLR | <ba>,<bc>, R5</bc></ba> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| | 003456 003464 | 042777 017704 | 177777 005652 | 005656 | | BIC | #177777, @DHBA @DHBA,R4 | | EXPECTED RESULT A CLEAR MEMORY LOCA READ CONTENTS OF | TION BUS ADDRESS |
| | 003470 | 001401 | | | *** | BEQ | 2\$ | | MEMORY ADDRESS 16 | |
| | 003472 | 104003 | | | .IIF 1 | EMT | <ba>,<ba>,</ba></ba> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| | | | | | .IIF I | DN | <ba>, <bc>,</bc></ba> | HLT | 4 :ADDRESS 16 NOT 0. | BYTE COUNT MEMORY ERROR |
| | 003474 | 104400 000017 000017 | | | | SCOPE XADRS+1 | | | 1000E33 10 NOT 0, | ERROR |
| | 003476 | 000017 | | | MEMT2 | +/BA/,1 | | XADRS,\X | CADRS,177777,+/17777 | 7/ |
| | | | | | | BUS AC | DRESS MEMORY DA | TA TEST | ADDRESS MEMORY | |
| | 003476 | | | | | ,100,2\$ | | | | |
| | 003476 003504 | | | 174272 | T22: | MOV | 4340.PS | | DISABLE ALL INTER | RUPTS |
| | 003512 | 012767 | 000100 | 005670 005656 | | MOV | #100.ICOUNT | | SET UP FOR 100 IT | ERATIONS |
| | ****** | OZE.O. | 000512 | 003030 | .IF NB | | #2\$.ESCAPE | | SET UP TO ESCAPE | TO NEXT TEST |
| | | | | | ENDO | MOV | .FREEZ1 | | SET UP TO LOOP WI | TH DATA : 3 |
| | | 000023 | | | .ENDC | 1 | | | | |
| | 003520 003524 | 012705 012777 | 177777 000017 | 005602 | | MOV | 0177777,RS 017,GDHSCR | | :EXPECTED RESULT=1 :SELECT LOCATION 1 | 7 |
| | 003532 | 012777 | 177777 | 005602 | | MOV | 4177777. ADHBA | | OF BUS ADDRESS ME | MORY |
| | 003540 | 017704 | 005576 | | | MOV | ODHBA,R4 | | READ CONTENTS OF | MEMORY LOCATION |
| | 003544 | 020504 | | | | CMP | R5,R4 | | COMPARE EXPECTED | AND |
| | 003546 | 001401 | | | *** | BEQ | 18 | | RECEIVED MEMORY C | ONTENTS |
| | 003550 | 104003 | | | .IIF I | EMT | <ba>,<ba>,</ba></ba> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| | 003552 | 005005 | | | .IIF I | | <ba>, <bc>,</bc></ba> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| | 003554 003562 | 042777 017704 | 177777 005554 | 005560 | 1\$: | CLR BIC MOV | RS 4177777, SDHBA SDHBA,R4 | | :EXPECTED RESULT A :CLEAR MEMORY LOCA :READ CONTENTS OF | FTER CLEAR=0 TION BUS ADDRESS |
| | 003566 | 001401 | | | | BEQ | 2# | | :MEMORY ADDRESS 17 | |
| | 003570 | 104007 | | | .IIF I | DN | <ba>, <ba>,</ba></ba> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| | 003570 | 104003 | | | .IIF I | EMT DN | 5 <ba>,<bc>,</bc></ba> | HLT | | BUTE COURT MENORY CORD |
| | | | | | | | 'On', 'OC', | | ADDRESS 17 NOT O. | ERROR ERROR |
| 18 19 | 003572 | 104400 000020 000020 000000 | | | XCADRS XADRS | | | | | |
| 20 | | 000000 | | | XCADRS ADRS=X | | | | | |
| 20 21 23 | | 000000 | | | CADRS= | XCADRS | | | | |
| 23 | | 000020 | | | REPT | 16. | 46VTC 66VET 1 | | | |
| 24 | | | | | MEMT2 | 1/80/,1 | ARTIE COUNTY, /X/ | ADRS,\XC | ADRS,177777,+/177777 | |

```
.NLIST
26
27
28
                                    XADRS=XADRS+1
                                    XCADRS=XCADRS+1
                                    .LIST
29
                                    .ENDR
   003574
                                            */BC/. */BYTE COUNT/.\XADRS,\XCADRS,177777, */177777/
                                    MEMT2
                                            BYTE COUNT MEMORY DATA TEST
                                            VERIFY THAT ADDRESS O OF BYTE COUNT MEMORY
                                            CAN BE SET TO 177777 AND CLEARED TO O
  003574
                                    TS \XN,100,2$
  003574
          012767
                   000340
                           174174
                                   T23:
                                            MOV
                                                    #340.PS
                                                                             DISABLE ALL INTERRUPTS
  003602
                   000100
          012767
                           005572
                                            MOV
                                                    #100,ICOUNT
                                                                             SET UP FOR 100 ITERATIONS
                  003670
  003610
          012767
                          005560
                                            MOV
                                                    #2$, ESCAPE
                                                                             SET UP TO ESCAPE TO NEXT TEST
                                    . IF NB
                                            <>
                                            MOV
                                                    #.FREEZ1
                                                                             SET UP TO LOOP WITH DATA
                                                                                                                ; 3
                                    .ENDC
           000024
                                   XN=XN+1
  003616
          012705
                   177777
                                            MOV
                                                    #177777,R5
                                                                             :EXPECTED RESULT=177777
  003622
          012777
                   000000
                           005504
                                            MOV
                                                    40, aDHSCR
                                                                             SELECT LOCATION O
                                                                             OF BYTE COUNT MEMORY
  003630
          012777
                  177777
                           005506
                                            MOV
                                                    4177777.8DHBC
                                                                             WRITE 177777 INTO MEMORY
  003636
          017704
                  005502
                                            MOV
                                                    BDHBC, R4
                                                                             READ CONTENTS OF MEMORY LOCATION
  003642
          020504
                                            CMP
                                                    R5,R4
                                                                             COMPARE. EXPECTED AND
  003644
          001401
                                            BEQ
                                                                             RECEIVED MEMORY CONTENTS
                                    .IIF IDN
                                                    <BC>, <BA>.
                                                                     HLT
                                                                                                      BUS ADDRESS MEMORY ERROR
  003646
                                    .IIF IDN
                                                    <BC>, <BC>.
                                                                     HLT
                                                                                                      BYTE COUNT MEMORY ERROR
  003646
          104004
                                            EMT
  003650
          005005
                                   1$:
                                            CLR
                                                                             EXPECTED RESULT AFTER CLEAR=0
  003652
          042777
                  177777
                           005464
                                            BIC
                                                    4177777, SOHBC
                                                                             CLEAR MEMORY LOCATION
  003660
          017704
                  005460
                                           MOV
                                                    BDHBC, R4
                                                                             READ CONTENTS OF BYTE COUNT
                                                                             MEMORY ADDRESS O
  003664
          001401
                                           BEQ
                                    .IIF IDN
                                                    <BC>, <BA>,
                                                                     HLT
                                                                                                      BUS ADDRESS MEMORY ERROR
  003666
                                   .IIF IDN
                                                    <BC>, <BC>.
                                                                    HLT
                                                                                                      BYTE COUNT MEMORY ERROR
  003666
          104004
                                           EMT
                                                                             ; ADDRESS O NOT O, ERROR
  003670
          104400
                                           SCOPE
                                   XADRS=XADRS+1
          000001
          000001
                                   XCADRS=XCADRS+1
 003672
                                           */BC/, */BYTE COUNT/, \XADRS, \XCADRS, 177777, */17777/
                                            BYTE COUNT MEMORY DATA TEST
                                            VERIFY THAT ADDRESS 1 OF BYTE COUNT MEMORY
                                            CAN BE SET TO 177777 AND CLEARED TO O
 003672
                                   TS \XN,100,2$
  003672
          012767
                  000340
                          174076
                                   T24:
                                           MOV
                                                    #340,PS
                                                                             DISABLE ALL INTERRUPTS
  003700
                          005474
         012767
                  000100
                                                    #100,ICOUNT
                                           MOV
                                                                             SET UP FOR 100 ITERATIONS
         012767
                  003766
 003706
                          005462
                                           MOV
                                                    #2$, ESCAPE
                                                                             SET UP TO ESCAPE TO NEXT TEST
                                   TF NB
                                           MOV
                                                    #.FREEZ1
                                                                             SET UP TO LOOP WITH DATA
                                                                                                                ; 3
                                   .ENDC
          000025
                                   XN=XN+1
 003714 012705
                  177777
                                           MOV
                                                    4177777,R5
                                                                             :EXPECTED RESULT=177777
 003720
         012777
                          005406
                  000001
                                           MOV
                                                    #1, aDHSCR
                                                                             SELECT LOCATION 1
```

| | | | | | | | OF BUTE BOUND | |
|--|--|------------------|------------------|--|--|------------|---|--|
| 003726 003734 003740 003742 | 017704 | 177777 005404 | 005410 | MOV CMP BEQ | #177777,@DHBC @DHBC,R4 R5,R4 1\$ | | OF BYTE COUNT MEMORY WRITE 177777 INTO ME READ CONTENTS OF MEM COMPARE EXPECTED AND RECEIVED MEMORY CONT | MORY IORY LOCATION |
| 003744 003744 | 104004 | | | .IIF IDN .IIF IDN EMT | <bc>.<ba>.<bc>.<bc>.</bc></bc></ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR BYTE COUNT MEMORY ERROR |
| 003746 003750 003756 | 042777 | 177777 005362 | 005366 | 1#: CLR BIC MOV | R5 #177777,@DHBC @DHBC,R4 | | EXPECTED RESULT AFTE CLEAR MEMORY LOCATION READ CONTENTS OF BYTE | N . |
| 003762 | 001401 | | | BEQ | 2\$ | | MEMORY ADDRESS 1 | |
| 003764 003764 | 104004 | | | .IIF IDN .IIF IDN EMT | <bc>,<ba>,<bc>,<bc>,</bc></bc></ba></bc> | HLT | 3 4 | BUS ADDRESS MEMORY ERROR BYTE COUNT MEMORY ERROR |
| 003766 | 104400 000002 000002 | | | 2\$: SCOPE XADRS=XADRS+1 XCADRS=XCADRS+ | | ADDC NV | ;ADDRESS 1 NOT 0, ERR | OR |
| 003110 | | | | HEH12 1/80/, | PARTIE COUNTY, X | ADRS,\XC | CADRS,177777,+/177777/ | |
| | | | | ; VERIF | COUNT MEMORY DAT Y THAT ADDRESS 2 E SET TO 177777 | OF BYTE | COUNT MEMORY | |
| 003770 | | | | TS \XN,100,2\$ | | | | |
| 003770 | 012767 | 000340 | 174000 | T25: MOV | #340,PS | | DISABLE ALL INTERRUP | TS |
| 003776 | 012767 | 000100 | 005376 005364 | MOV | #100.ICOUNT #2\$,ESCAPE | | SET UP FOR 100 ITERA | TIONS |
| | | | | .IF NB O | VEV, COUNTE | | SET UP TO ESCAPE TO | NEXT TEST |
| | | | | .ENDC | .FREEZ1 | | SET UP TO LOOP WITH | DATA ; 3 |
| 004012 | 000026 | | | XN=XN+1 | | | | |
| 004012 004016 | 012705 012777 | 177777 | 005310 | MOV | #177777,R5 #2,8DHSCR | | :EXPECTED RESULT=1777 :SELECT LOCATION 2 | |
| | | | | | | | | |
| 004024 | 012777 | 177777 | 005312 | MOV | #177777,80HBC | | OF BYTE COUNT MEMORY | MORY |
| 004032 | 017704 | 177777 005306 | 005312 | MOV | #177777, SOHBC SOHBC, R4 | | ;WRITE 177777 INTO ME ;READ CONTENTS OF MEM | MORY ORY LOCATION |
| | | | 005312 | MOV | SDHBC,R4 R5,R4 | | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND | MORY LOCATION |
| 004032 004036 004040 | 017704 | | 005312 | MÔV CMP BEQ .IIF IDN | 8DHBC,R4 R5,R4 1\$ <bc>,<ba>,</ba></bc> | HLT | ;WRITE 177777 INTO ME ;READ CONTENTS OF MEM | MORY ORY LOCATION ENTS |
| 004032 004036 004040 004042 | 017704 020504 001401 | | 005312 | MÖV CMP BEQ .IIF IDN .IIF IDN | 8DHBC,R4 R5,R4 1\$ | HLT HLT | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND | MORY LOCATION |
| 004032 004036 004040 | 017704 | | 005312 | MÖV CMP BEQ .IIF IDN .IIF IDN EMT | 8DHBC,R4 R5,R4 13 <bc>,<ba>, <bc>,<bc>,</bc></bc></ba></bc> | | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 | MORY ORY LOCATION ENTS :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR |
| 004032 004036 004040 004042 004044 004046 | 017704 020504 001401 104004 005005 042777 | 177777 | 005312 | MOV CMP BEQ .IIF IDN .IIF IDN EMT 1\$: CLR BIC | 8DHBC,R4 R5,R4 1\$ <bc>.<ba>, <bc>,<bc>, 4 R5 #177777,8DHBC</bc></bc></ba></bc> | | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE | MORY ORY LOCATION ENTS :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR R CLEAR=0 |
| 004032 004036 004040 004042 004042 004044 | 017704 020504 001401 104004 005005 | 005306 | | MOV CMP BEQ .IIF IDN .IIF IDN EMT 1\$: CLR | ###################################### | | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE :CLEAR MEMORY LOCATIO :READ CONTENTS OF BYT | MORY ORY LOCATION ENTS ;BUS ADDRESS MEMORY ERROR ;BYTE COUNT MEMORY ERROR R CLEAR=0 |
| 004032 004036 004040 004042 004044 004046 | 017704 020504 001401 104004 005005 042777 | 177777 | | MOV CMP BEQ .IIF IDN .IIF IDN EMT 1\$: CLR BIC | SDHBC,R4 R5,R4 1\$ <bc>.<ba>, <bc>.<bc>. 4 R5 Ø177777,SDHBC SDHBC,R4</bc></bc></ba></bc> | | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE :CLEAR MEMORY LOCATIO | MORY ORY LOCATION ENTS ;BUS ADDRESS MEMORY ERROR ;BYTE COUNT MEMORY ERROR R CLEAR=0 |
| 004032 004036 004040 004042 004044 004046 004054 | 017704 020504 001401 104004 005005 042777 017704 | 177777 | | MOV CMP BEQ .IIF IDN .IIF IDN .IIF IDN 1\$: CLR BIC MOV | ## ## ## ## ## ## ## ## ## ## ## ## ## | HLT | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE :CLEAR MEMORY LOCATIO :READ CONTENTS OF BYT ;MEMORY ADDRESS 2 3 | MORY ORY LOCATION ENTS ;BUS ADDRESS MEMORY ERROR ;BYTE COUNT MEMORY ERROR R CLEAR=0 |
| 004032 004036 004040 004042 004044 004046 004054 | 017704 020504 001401 104004 005005 042777 017704 | 177777 | | MOV CMP BEQ .IIF IDN .IIF IDN 1\$: CLR BIC MOV BEQ .IIF IDN .IIF IDN | 8DHBC,R4 R5,R4 1\$ <bc>,<ba>, <bc>,<bc>, 4 R5 \$177777,\$DHBC \$DHBC,R4</bc></bc></ba></bc> | HLT | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE :CLEAR MEMORY LOCATIO :READ CONTENTS OF BYT ;MEMORY ADDRESS 2 | MORY ORY LOCATION ENTS :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR R CLEAR=0 N E COUNT |
| 004032 004036 004040 004042 004044 004046 004054 004060 004062 004062 | 017704 020504 001401 104004 005005 042777 017704 001401 | 177777 | | MOV CMP BEQ .IIF IDN .IIF IDN 1\$: CLR BIC MOV .IIF IDN .IIF IDN EMT | ## ## ## ## ## ## ## ## ## ## ## ## ## | HLT | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE :CLEAR MEMORY LOCATIO :READ CONTENTS OF BYT ;MEMORY ADDRESS 2 3 | MORY LOCATION ENTS :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR R CLEAR=0 N E COUNT :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR |
| 004032 004036 004040 004042 004044 004046 004054 004060 | 017704 020504 001401 104004 005005 042777 017704 001401 104004 104400 | 177777 | | MOV CMP BEQ .IIF IDN .IIF IDN .IIF IDN BEQ .IIF IDN .IIF IDN EMT | ## ## ## ## ## ## ## ## ## ## ## ## ## | HLT | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE :CLEAR MEMORY LOCATIO :READ CONTENTS OF BYT :MEMORY ADDRESS 2 3 4 | MORY LOCATION ENTS :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR R CLEAR=0 N E COUNT :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR |
| 004032 004036 004040 004042 004044 004046 004054 004060 004062 004062 | 017704 020504 001401 104004 005005 042777 017704 001401 | 177777 | | MOV CMP BEQ .IIF IDN .IIF IDN 1\$: CLR BIC MOV .IIF IDN .IIF IDN EMT | 8DHBC,R4 R5,R4 1\$ <bc>.<ba>.< <bc>.<bc>. 4 R5 #177777, ********************************</bc></bc></ba></bc> | HLT | :WRITE 177777 INTO ME :READ CONTENTS OF MEM :COMPARE EXPECTED AND :RECEIVED MEMORY CONT 3 4 :EXPECTED RESULT AFTE :CLEAR MEMORY LOCATIO :READ CONTENTS OF BYT :MEMORY ADDRESS 2 3 4 | MORY LOCATION ENTS :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR R CLEAR=0 N E COUNT :BUS ADDRESS MEMORY ERROR :BYTE COUNT MEMORY ERROR |

*BYTE COUNT MEMORY DATA TEST *VERIFY THAT ADDRESS 3 OF BYTE COUNT MEMORY *CAN BE SET TO 177777 AND CLEARED TO 0

| 00406 | | | | TS \XN, | | | | |
|--------|----------|--------|--------|------------------|----------|--|-----------|--|
| 00406 | | | | T26: | MOV | #340,PS | | DISABLE ALL INTERRUPTS |
| 00410 | | | | | MOV | #100,ICOUNT #2\$,ESCAPE | | SET UP FOR 100 ITERATIONS |
| | - 012101 | 004102 | 003200 | .IF NB | <> | WZ7, ESCAPE | | SET UP TO ESCAPE TO NEXT TEST |
| | | | | | MOV | #.FREEZ1 | | SET UP TO LOOP WITH DATA : 3 |
| | | | | .ENDC | | | | SET UP TO LOOP WITH DATA ; 3 |
| 00444 | 000027 | | | XN=XN+1 | | | | |
| 00411 | | | 005212 | | MOV | #177777,R5 | | EXPECTED RESULT-177777 |
| 00411 | 4 OLZIII | 000003 | 005212 | | MOV | #3, @DHSCR | | SELECT LOCATION 3 |
| 00412 | 2 012777 | 177777 | 005214 | | MOV | #177777, SDHBC | | OF BYTE COUNT MEMORY |
| 00413 | 0 017704 | 005210 | | | MOV | SOHBC,R4 | | READ CONTENTS OF MEMORY LOCATION |
| 00413 | | | | | CMP | R5,R4 | | COMPARE EXPECTED AND |
| 00413 | 6 001401 | | | | BEQ | 1\$ | | RECEIVED MEMORY CONTENTS |
| 00414 | 0 | | | .IIF ID | | <bc>, <ba>,</ba></bc> | HLT | 3 ;BUS ADDRESS MEMORY ERROR |
| 00414 | | | | .IIF ID | EMT | <bc>,<bc>,</bc></bc> | HLT | 4 BYTE COUNT MEMORY ERROR |
| 00414 | | | | 14: | CLR | R5 | | EXPECTED RESULT AFTER CLEAR=0 |
| 00414 | 4 042777 | 177777 | 005172 | | BIC | #177777, 8DHBC | | CLEAR MEMORY LOCATION |
| 00415 | 2 017704 | 005166 | | | MOV | SOHBC, R4 | | READ CONTENTS OF BYTE COUNT |
| 00448 | | | | | | | | MEMORY ADDRESS 3 |
| 00415 | 6 001401 | | | TTE TO | BEQ | 21 | | |
| 00416 | 0 | | | .IIF ID | N | <bc>,<ba>,<bc>,<bc>,</bc></bc></ba></bc> | HLT | 3 :BUS ADDRESS MEMORY ERROR |
| 00416 | | | | | EMT | 4 | III. I | BYTE COUNT MEMORY ERROR |
| | | | | | | | | ; ADDRESS 3 NOT O, ERROR |
| 00416 | | | | 24: | SCOPE | | | The state of the s |
| | 000004 | | | XADRS=X | ADRS+1 | | | |
| 00416 | | | | MEMT2 | XCADRS+1 | | ADDC LV | 1000 17777 4/17777 |
| ****** | | | | HEHTE | 17067,1 | POTTE COUNTY, XX | ואר, כאטא | CADRS.177777.+/177777/ |
| | | | | | BYTE C | OUNT MEMORY DAT | A TEST | 프라마 이렇게 되었다면 하나 나는 그는 것이 되고 있다면 하다. |
| | | | | | : VERIFY | THAT ADDRESS 4 | OF BYTE | E COUNT MEMORY |
| | | | | | CAN BE | SET TO 177777 | AND CLE | ARED TO O |
| 004164 | | | | TS XXN. | 100 24 | | | |
| 00416 | | 000340 | 173604 | T27: | MOV | #340.PS | | ATCARLE ALL TATERRIPTS |
| 00417 | 012767 | 000100 | 005202 | | MOV | #100.ICOUNT | | :DISABLE ALL INTERRUPTS :SET UP FOR 100 ITERATIONS |
| 004200 | | 004260 | 005170 | | MOV | #21,ESCAPE | | SET UP TO ESCAPE TO NEXT TEST |
| | | | | .IF NB | () | | | |
| | | | | | MOV | ♦,FREEZ1 | | SET UP TO LOOP WITH DATA ; 3 |
| | 000030 | | | .ENDC XN=XN+1 | | | | |
| 004200 | | 177777 | | VIA-VIA-T | MOV | 0177777,R5 | | EVOCATED DECIN 7-433333 |
| 00421 | | 000004 | 005114 | | MOV | 44. BDHSCR | | :EXPECTED RESULT-177777 :SELECT LOCATION 4 |
| | • | | | | | | | OF BYTE COUNT MEMORY |
| 004220 | | 177777 | 005116 | | MOV | 4177777, 80HBC | | WRITE 177777 INTO MEMORY |
| 004220 | 017704 | 005112 | | | MOV | SOHBC,R4 | | READ CONTENTS OF MEMORY LOCATION |
| 00423 | 020504 | | | | CMP | R5,R4 | | :COMPARE EXPECTED AND |
| 004634 | 001401 | | | .IIF ID | BEQ | 18 | | RECEIVED MEMORY CONTENTS |
| | | | | .11, 10 | | <bc>,<ba>,</ba></bc> | HLT | 3 ;BUS ADDRESS MEMORY ERROR |
| | | | | | | | | |

| - | _ | - | - |
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| | | | |
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| нв-со | MACRO | V04.00 | 27-JUN-85 | 12:49:26 PAGE | 19-15 | | | SEQ 39 |
|--|--------------------------------------|----------------------------|----------------------------|---|---|------------|---|--|
| 004236 004236 004240 004242 004250 | 104004 005005 042777 017704 | 177777 | ^05074 | .IIF IDN EMT 14: CLR BIC MOV | <bc>,<bc>, 4 R5 #177777,SDHBC SDHBC,R4</bc></bc> | HLT | ### ### ### ### ###################### | TION |
| 004254 | 001401 | | | BEQ | 2\$ | | MEMORY ADDRESS 4 | |
| 004256 004256 | 104004 | | | .IIF IDN .IIF IDN EMT | <bc>,<ba>,<bc>,<bc>,</bc></bc></ba></bc> | HLT | 3 4 | BUS ADDRESS MEMORY ERROR BYTE COUNT MEMORY ERROR |
| 004260 | 104400 000005 000005 | | | 2#: SCOPE XADRS=XADRS+1 XCADRS=XCADRS+ MEMT2 +/BC/. | | 4000 \ V | :ADDRESS 4 NOT 0. | |
| | | | | BYTE VERIF | COUNT MEMORY DAT Y THAT ADDRESS 5 E SET TO 177777 | A TEST | COUNT MEMORY | |
| 004262 004262 004270 004276 | 012767 012767 012767 | 000340 000100 004356 | 173506 005104 005072 | TS \XN,100,2\$ T30: MOV | #340.PS #100.ICOUNT #2#.ESCAPE | | ;DISABLE ALL INTER ;SET UP FOR 100 IT ;SET UP TO ESCAPE ;SET UP TO LOOP WI | ERATIONS TO NEXT TEST |
| 004304 004310 | 000031 012705 012777 | 177777 000005 | 005016 | .ENDC XN=XN+1 MOV MOV | #177777,R5 | | :EXPECTED RESULT=1 | 77777 |
| 004316 004324 004330 004332 | 012777 017704 020504 001401 | 177777 005014 | 005020 | MOV MOV CMP BEQ | #177777, SDHBC SDHBC, R4 R5, R4 1# | | OF BYTE COUNT MEM HRITE 177777 INTO READ CONTENTS OF COMPARE EXPECTED RECEIVED MEMORY C | MEMORY MEMORY LOCATION AND |
| 004334 004334 004336 004340 004346 | 104004 005005 042777 017704 | 177777 004772 | 004776 | .IIF IDN .IIF IDN EMT 14: CLR BIC | <bc>,<ba>, <bc>,<bc>, 4 R5 #177777, SDHBC</bc></bc></ba></bc> | HLT | 3 4 :EXPECTED RESULT A :CLEAR MEMORY LOCA | BUS ADDRESS MEMORY ERROR BYTE COUNT MEMORY ERROR FTER CLEAR=0 TION |
| | | 211400 | | MOV | BDHBC.R4 | | READ CONTENTS OF | BYTE COUNT |
| 004354 | 001401 | | | .IIF IDN | <bc>, <ba>, <bc>, <bc>,</bc></bc></ba></bc> | HLT HLT | 3 | BUS ADDRESS MEMORY ERROR |
| | 104004 104400 000006 000006 | | | EMT 2\$: SCOPE XADRS=XADRS+1 XCADRS=XCADRS+1 MEMT2 +/8C/, | | ADRS.\XC | ADDRESS 5 NOT 0, 1 | ERROR |
| | | | | :VERIF | COUNT MEMORY DATA THAT ADDRESS 6 SET TO 177777 | OF BYTE | COUNT MEMORY RED TO 0 | |

004360

CZDHB-CO

TS \XN,100,2#

| 004360 | | | 173410 | T31: | MOV | #340,PS | | DISABLE ALL INTERRUPT | re | |
|------------------|--------|------------------|--------|----------|------------|---------------------------|-----------|---|--------------------------|--|
| 004366 | | | 005006 | | MOV | #100,ICOUNT | | SET UP FOR 100 ITERAT | TIONS | |
| 004374 | 012767 | 004454 | 004774 | TC NO | MOV | 42\$, ESCAPE | | SET UP TO ESCAPE TO M | NEXT TEST | |
| | | | | .IF NB | MOV | A EDEE71 | | 257 110 70 1000 11501 | | |
| | | | | .ENDC | HUV | .FREEZ1 | | SET UP TO LOOP WITH O | DATA ; 3 | |
| | 000032 | | | XN=XN+1 | | | | | | |
| 004402 | | 177777 | | | MOV | 4177777,R5 | | :EXPECTED RESULT=17777 | 77 | |
| 004406 | 012777 | 000006 | 004720 | | MOV | 46, SDHSCR | | SELECT LOCATION 6 | | |
| 004414 | 012777 | 177777 | 004722 | | MOV | ******* | | OF BYTE COUNT MEMORY | | |
| 004422 | 017704 | 004716 | 004722 | | MOV | 4177777,9DHBC 9DHBC,R4 | | WRITE 177777 INTO MEN | MORY | |
| 004426 | 020504 | 004.20 | | | CMP | R5,R4 | | READ CONTENTS OF MEMO | DRY LOCATION | |
| 004430 | 001401 | | | | BEQ | 1\$ | | RECEIVED MEMORY CONTE | FNTC | |
| | | | | .IIF ID | | <bc>, <ba>,</ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR | |
| 004432 | | | | .IIF ID | | <bc>,<bc>,</bc></bc> | HLT | 4 | BYTE COUNT MEMORY ERROR | |
| 004432 | 104004 | | | 14. | EMT | 4 | | | | |
| 004436 | 042777 | 177777 | 004700 | 1: | CLR BIC | R5 #177777,8DHBC | | EXPECTED RESULT AFTER | R CLEAR=0 | |
| 004444 | 017704 | 004674 | 004100 | | MOV | SDHBC,R4 | | :CLEAR MEMORY LOCATION :READ CONTENTS OF BYTE | N F COUNT | |
| | | | | | | 00.00,114 | | MEMORY ADDRESS 6 | E COUNT | |
| 004450 | 001401 | | | | BEQ | 2\$ | | THE HOUSE OF | | |
| 004450 | | | | .IIF IDA | | <bc>.<ba>.</ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR | |
| 0C4452 0C4452 | 104004 | | | .IIF ID | | <bc>.<bc>.</bc></bc> | HLT | 4 | BYTE COUNT MEMORY ERROR | |
| 004432 | 104004 | | | | EMT | 4 | | ADDDECC C NOT A COR | | |
| 004454 | 104400 | | | 21: | SCOPE | | | :ADDRESS 6 NOT O, ERRO | OR | |
| | 000007 | | | XADRS=XA | | | | | | |
| | 000007 | | | XCADRS=) | | | | | | |
| 004456 | | | | MEMT2 | +/BC/.+ | /BYTE COUNT/.\X/ | ADRS.\XC | ADRS,177777,+/177777/ | | |
| | | | | | DVTC C | - | | | | |
| | | | | | STIE C | OUNT MEMORY DATA | A TEST | COUNT MEMORY | | |
| | | | | | CAN RE | THAT ADDRESS 7 | AND CLEA | DED TO A | | |
| | | | | | | | MIND CEEN | NED TO U | | |
| 004456 | | | | TS \XN,1 | | | | | | |
| 004456 | 012767 | 000340 | 173312 | T32: | MOV | 4340.PS | | DISABLE ALL INTERRUPT | rs | |
| 004464 | 012767 | 000100 004552 | 004710 | | MOV | #100,ICOUNT | | SET UP FOR 100 ITERAT | TIONS | |
| 004412 | 015101 | 004332 | 004676 | | MOV | #21.ESCAPE | | SET UP TO ESCAPE TO N | NEXT TEST | |
| | | | | | MOV | 4.FREEZ1 | | - SET UP TO 1 000 UTTU | | |
| | | | | .ENDC | | 41, 46677 | | SET UP TO LOOP WITH O | DATA : 3 | |
| | 000033 | | | XN=XN+1 | | | | | | |
| 004500 | 012705 | 177777 | | | MOV | 0177777.R5 | | EXPECTED RESULT-1777 | 77 | |
| 004504 | 012777 | 000007 | 004622 | | MOV | 97, adhscr | | SELECT LOCATION 7 | | |
| 004512 | 012777 | 177777 | 004604 | | MOU | ****** | | OF BYTE COUNT MEMORY | | |
| 004512 | 017704 | 177777 | 004624 | | MOV | 9177777, 90HBC | | WRITE 177777 INTO MEN | 10RY | |
| 004524 | 020504 | 004020 | | | CMP | SOHBC,R4 R5,R4 | | READ CONTENTS OF MEMO | DRY LOCATION | |
| 004526 | 001401 | | | | BEQ | 19 | | RECEIVED MEMORY CONTE | INTE | |
| | | | | .IIF IDN | | <bc>, <ba>,</ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR | |
| 004530 | | | | .IIF IDN | | <bc>, <bc>,</bc></bc> | HLT | 4 | BYTE COUNT MEMORY ERROR | |
| 004530 | 104004 | | | | EMT | 4_ | | | | |
| 004532 004534 | 005005 | 177777 | 004600 | | CLR | R5 | | EXPECTED RESULT AFTER | | |
| 004542 | 042777 | 177777 | 004602 | | BIC | #177777, 80HBC | | CLEAR MEMORY LOCATION | | |
| 004342 | 021104 | 004310 | | | MOV | aDHBC,R4 | | READ CONTENTS OF BYTE | COUNT | |
| | | | | | | | | MEMORY ADDRESS 7 | | |
| | | | | | | | | | | |

| - | - | - | |
|---|---|---|-----|
| - | • | a | - 4 |
| - | _ | • | ~ |

: 3

#100,ICOUNT

#2#, ESCAPE

4. FREEZ1

SET UP FOR 100 ITERATIONS

SET UP TO LOOP WITH DATA

SET UP TO ESCAPE TO NEXT TEST

MOV

MOV

<> MOV

. IF NB

.ENDC

004660 012767

012767

004666

000100

004746

004514

| 00467 | | 177777 | | XN=X | MOV | #177777.R5 | * | EXPECTED RESU | LT=177777 |
|------------------|----------|--------|------------------|--------------|--------------------|---|------------|-------------------------------|--|
| 00470 | 0 012777 | 000011 | 004426 | | 710V | #11. ODHSCR | | SELECT LOCATION | ON 11 |
| 00470 | 012777 | 177777 | 004430 | | MOV | #177777, 8DHBC | | OF BYTE COUNT | MEMORY THIO MEMORY |
| 004714 | | 004424 | | | MOV | SDHBC,R4 | | :WRITE 177777 | OF MEMORY LOCATION |
| 004720 | | | | | CMP | R5,R4 | | COMPARE EXPECT | TED AND |
| 004722 | 001401 | | | | BEQ | 1\$ | | RECEIVED MEMO | RY CONTENTS |
| 004724 | | | | | IDN | <bc>, <ba>,</ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 004724 | | | | .11 | IDN | <bc>, <bc>,</bc></bc> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| 004726 | | | | 13: | CLR | R5 | | .EVDECTED DECIM | T AFTER CLEAR-A |
| 004730 | | 177777 | 004406 | | BIC | 4177777, SUHBC | | CLEAR MEMORY | LT AFTER CLEAR=0 |
| 004736 | 017704 | 004402 | | | MOV | SDHBC, R4 | | :READ CONTENTS | OF BYTE COUNT |
| 004742 | 001401 | | | | 250 | • | | MEMORY ADDRES | S 11 |
| 004742 | 001401 | | | TTE | IDN | 2\$ | | | |
| 004744 | | | | | IDN | <bc>.<ba>.<bc>.</bc></ba></bc> | HLT HLT | 3 4 | BUS ADDRESS MEMORY ERROR |
| 004744 | | | | | EMT | 4 | HL I | 4 | BYTE COUNT MEMORY ERROR |
| | | | | | | • | | ;ADDRESS 11 NO | T O EDDOD |
| 004746 | 104400 | | | 2\$: XADR | SCOPE S=XADRS+1 | | | 1110011100 11 110 | , Ennon |
| | 000012 | | | | RS=XCADRS+ | 1 | | | |
| 004750 | | | | MEMT | 2 +/BC/. | +/BYTE COUNT/,\X | ADRS.\X | CADRS,177777,+/17 | 7777/ |
| 004750 | | | | - | :VERIF :CAN B | COUNT MEMORY DAT Y THAT ADDRESS 1 E SET TO 177777 | 2 OF BY | TE COUNT MEMORY ARED TO O | |
| 004750 004750 | | 000740 | 177000 | | XN,100,2\$ | | | | |
| 004756 | | 000340 | 173020 004416 | T35: | MOV | #340.PS | | DISABLE ALL II | NTERRUPTS |
| 004764 | | 005044 | 004404 | | MOV | #100,ICOUNT | | SET UP FOR 10 | D ITERATIONS |
| | | | | .IF | | AEA LEGGIA E | | Taci of to Each | APE TO NEXT TEST |
| | | | | | YOM | ø,FREEZ1 | | SET UP TO LOOK | P WITH DATA : 3 |
| | 000036 | | | .END | | | | | |
| 004772 | | 177777 | | XN=X | MOA | #177777.R5 | | CVDCOTCO OCO. | |
| 004776 | | 000012 | 004330 | | MOV | #12.9DHSCR | | EXPECTED RESUL | 1.=177777 |
| | | | | | | *1E, SUIDER | | SELECT LOCATION OF BYTE COUNT | MEMUDA MEMUDA |
| 005004 | | 177777 | 004332 | | MOV | 4177777, 8DHBC | | :WRITE 177777 | INTO MEMORY |
| 005012 | | 004326 | | | MOV | aDHBC,R4 | | READ CONTENTS | OF MEMORY LOCATION |
| 005016 005020 | | | | | CMP | R5,R4 | | COMPARE EXPECT | TED AND |
| 003020 | 001401 | | | .IIF | BEQ | 15 | AB . | RECEIVED MEMOR | 사람들의 선생님들이 경기를 가게 되는 것으로 있다. 그는 것은 보고 있는 것이 없는 것이다. 그런 그런 그런 그는 것은 것은 것은 것이다. 그런 것이다. 그는 것은 것이다. 그는 것은 것이다. 그는 |
| 005022 | | | | IIF | | <bc>,<ba>, <bc>,<bc>,</bc></bc></ba></bc> | HLT HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 005022 | 104004 | | | | EMT | 4 | | | BYTE COUNT MEMORY ERROR |
| 005024 | 005005 | | | 1\$: | CLR | R5 | | EXPECTED RESUL | T AFTER CLEAR=0 |
| 005026 | | 177777 | 004310 | | BIC | 4177777, aDHBC | | CLEAR MEMORY L | LOCATION |
| 005034 | | 004304 | | | MOV | SDHBC,R4 | | READ CONTENTS | OF BYTE COUNT |
| 005040 | 001401 | | | | BEQ | 21 | | | |
| 005040 | | | | .IIF | | <bc>, <ba>,</ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 005042 005042 | 104004 | | | .IIF | | <bc>,<bc>,</bc></bc> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| 003042 | 104004 | | | | EMT | | | . ADDDECC 10 NOT | 0 50000 |
| 005044 | 104400 | | | 20: | SCOPE | | | ADDRESS 12 NOT | O, ERRUR |
| | | | | | | | | | |
| | | | | | | | | | |

| 005046 | 000013 000013 | | | XADRS= XCADRS MEMT2 | XADRS+1 =XCADRS+: +/BC/. | | ADRS.\¥ | CADRS,177777,+/177777/ | |
|------------------|------------------|--|--------|---------------------------|--------------------------------|---|----------|---|--|
| | | | | | | | | | |
| | | | | | : VERIF | COUNT MEMORY DAT Y THAT ADDRESS 1 E SET TO 177777 | 3 OF BY | TE COUNT MEMORY ARED TO O | |
| 005046 | | | | TS \XN | .100.2\$ | | | | |
| 005046 | 012767 | The state of the s | | T36: | MOV | #340,PS | | DISABLE ALL INTERR | LIPTS |
| 005054 | 012767 | | | | MOV | #100,ICOUNT | | SET UP FOR 100 ITE | RATIONS |
| 005062 | 012767 | 005142 | 004306 | .IF NB | MOV | #2\$,ESCAPE | | SET UP TO ESCAPE T | O NEXT TEST |
| | | | | TL ND | MOV | #.FREEZ1 | | SET UD TO 1 000 UTT | |
| | | | | .ENDC | | W. INCEZI | | SET UP TO LOOP WIT | H DATA ; 3 |
| | 000037 | | | XN=XN+ | | | | | |
| 005070 | 012705 | 177777 | 004070 | | MOV | #177777,R5 | | :EXPECTED RESULT = 17 | 7777 |
| 005074 | 012777 | 000013 | 004232 | | MOV | #13, ODHSCR | | SELECT LOCATION 13 | |
| 005102 | 012777 | 177777 | 004234 | | MOV | #177777, SDHBC | | OF BYTE COUNT MEMO | RY |
| 005110 | 017704 | 004230 | | | MOV | ODHBC,R4 | | WRITE 177777 INTO | FMORY LOCATION |
| 005114 | 020504 | | | | CMP | R5,R4 | | COMPARE EXPECTED A | ND |
| 005116 | 001401 | | | TTC T0 | BEQ | 1\$ | | RECEIVED MEMORY CO | NTENTS |
| 005120 | | | | .IIF I | | <bc>.<ba>. <bc>.<bc>.</bc></bc></ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 005120 | 104004 | | | | EMT | 4 | HL I | • | BYTE COUNT MEMORY ERROR |
| 005122 | 005005 | | | 1\$: | CLR | R5 | | EXPECTED RESULT AF | TER CLEAR=0 |
| 005124 | 042777 | 177777 | 004212 | | BIC | #177777, aDHBC | | CLEAR MEMORY LOCAT | ION |
| 005132 | 017704 | 004206 | | | MOV | aDHBC,R4 | | READ CONTENTS OF B | YTE COUNT |
| 005136 | 001401 | | | | BEQ | 2\$ | | MEMORY ADDRESS 13 | |
| | | | | .IIF ID | | <bc>. <ba>.</ba></bc> | HLT | 3 | BUC ADDRECS MEMORY CORD |
| 005140 | | | | .IIF IO | N | <bc>, <bc>,</bc></bc> | HLT | 4 | BUS ADDRESS MEMORY ERROR BYTE COUNT MEMORY ERROR |
| 005140 | 104004 | | | | EMT | 4 | | 1812 billion (inc. 18) | |
| 005142 | 104400 | | | 2\$: | SCOPE | | | ADDRESS 13 NOT O. | ERROR |
| | 000014 | | | XADRS=X | | | | | |
| | 000014 | | | XCADRS= | XCADRS+1 | | | | |
| 005144 | | | | MEMT2 | 1/BC/,1 | BYTE COUNT /. \X | ADRS,\XC | ADRS.177777,+/177777/ | |
| | | | | | -RYTE C | OUNT MEMORY DATA | A TEST | | |
| | | | | | VERIFY | THAT ADDRESS 14 | OF BYT | E COUNT MEMORY | |
| | | | | | CAN BE | SET TO 177777 / | AND CLEA | RED TO O | |
| 005144 | | | | TC LVN | 100 24 | | | | |
| | 012767 | 000340 | 172624 | TS \XN, T37: | MOV | 4340.PS | | DISABLE ALL INTERRE | IDTC |
| 005152 | 012767 | 000100 | 004222 | | MOV | #100,ICOUNT | | SET UP FOR 100 ITE | |
| 005160 | 012767 | 005240 | 004210 | | MOV | 424,ESCAPE | | SET UP TO ESCAPE TO | D NEXT TEST |
| | | | | .IF NB | () | | | | |
| | | | | .ENDC | MOV | #,FREEZ1 | | SET UP TO LOOP WITH | H DATA ; 3 |
| | 000040 | | | XN=XN+1 | | | | | |
| 005166 | 012705 | 177777 | | | MOV | 4177777,R5 | | EXPECTED RESULT-17 | 7777 |
| 005172 | 012777 | 000014 | 004134 | | MOV | #14, ODHSCR | | SELECT LOCATION 14 | |
| 005200 | 012777 | 177777 | 004136 | | MOV | A177777 COURC | | OF BYTE COUNT MEMOR | RY |
| 005206 | | | 004130 | | | | | SEAD CONTENTS OF ME | TEMORY COATTON |
| 005200 005206 | 012777 017704 | 177777 004132 | 004136 | | MOV | #177777, aDHBC aDHBC,R4 | | ; OF BYTE COUNT MEMOR ; WRITE 177777 INTO P ; READ CONTENTS OF ME | MEMORY |

```
005212 020504
                                          CMP
                                                  R5,R4
                                                                          :COMPARE EXPECTED AND
 005214
         001401
                                         BEQ
                                                  1$
                                                                          RECEIVED MEMORY CONTENTS
                                  .IIF IDN
                                                  <BC>, <BA>,
                                                                  HLT
                                                                                                   BUS ADDRESS MEMORY ERROR
 005216
                                  .IIF IDN
                                                  <BC>, <BC>.
                                                                  HLT
                                                                                                   BYTE COUNT MEMORY ERROR
 005216
       104004
                                         EMT
 005220 005005
                                 1$:
                                         CLR
                                                                          :EXPECTED RESULT AFTER CLEAR=0
 005222 042777
                177777
                         004114
                                         BIC
                                                  #177777. aDHBC
                                                                          CLEAR MEMORY LOCATION
 005230 017704 004110
                                                  aDHBC,R4
                                         MOV
                                                                          READ CONTENTS OF BYTE COUNT
                                                                          MEMORY ADDRESS 14
005234
         201401
                                         BEQ
                                  .IIF IDN
                                                  <BC>, <BA>.
                                                                  HLT
                                                                          3
                                                                                                   BUS ADDRESS MEMORY ERROR
005236
                                  . IIF IDN
                                                  <BC>, <BC>,
                                                                  HL T
                                                                                                   BYTE COUNT MEMORY ERROR
005236
        104004
                                         EMT
                                                                          :ADDRESS 14 NOT O. ERRGR
005240 104400
                                 2$:
                                         SCOPE
                                 XADRS=XADRS+1
        000015
         000015
                                 XCADRS=XCADRS+1
                                 MEMT2 +/BC/.+/BYTE COUNT/.\XADRS.\XCADRS.177777,+/177777/
005242
                                         BYTE COUNT MEMORY DATA TEST
                                         VERIFY THAT ADDRESS 15 OF BYTE COUNT MEMORY
                                         CAN BE SET TO 177777 AND CLEARED TO O
005242
                                 TS \XN,100,2$
005242 012767 000340 172526
                                 T40:
                                         MOV
                                                 #340,PS
                                                                          DISABLE ALL INTERRUPTS
005250 012767
                000100
                        004124
                                         MOV
                                                 #100.ICOUNT
                                                                          SET UP FOR 100 ITERATIONS
005256
        012767
                005336
                        004112
                                         MOV
                                                 #2$.ESCAPE
                                                                          SET UP TO ESCAPE TO NEXT TEST
                                 .IF NB
                                         <>
                                         MOV
                                                 4. FREEZ1
                                                                          SET UP TO LOOP WITH DATA
                                                                                                             ; 3
                                 .ENDC
        000041
                                 XN=XN+1
005264
        012705
                177777
                                         MOV
                                                 #177777.R5
                                                                          :EXPECTED RESULT=177777
005270
        012777
                000015
                        004036
                                         MOV
                                                 #15, aDHSCR
                                                                          SELECT LOCATION 15
                                                                          OF BYTE COUNT MEMORY
005276
       012777
                177777
                        004040
                                         MOV
                                                 #177777, @DHBC
                                                                          ;WRITE 177777 INTO MEMORY
005304
        017704
                004034
                                         MOV
                                                 BDHBC,R4
                                                                          READ CONTENTS OF MEMORY LOCATION
005310
       020504
                                         CMP
                                                 R5,R4
                                                                          COMPARE EXPECTED AND
005312 001401
                                         BEQ
                                                                          RECEIVED MEMORY CONTENTS
                                 .IIF IDN
                                                 <BC>, <BA>,
                                                                  HLT
                                                                                                   BUS ADDRESS MEMORY ERROR
005314
                                 .IIF IDN
                                                 <BC>,<BC>,
                                                                  HLT
                                                                                                   BYTE COUNT MEMORY ERROR
005314
       104004
                                         EMT
005316
       005005
                                         CLR
                                 1$:
                                                                          EXPECTED RESULT AFTER CLEAR=0
005320
                        004016
        042777
                177777
                                         BIC
                                                 4177777, aDHBC
                                                                          CLEAR MEMORY LOCATION
005326
       017704
                004012
                                         MOV
                                                 aDHBC, R4
                                                                          READ CONTENTS OF BYTE COUNT
                                                                          MEMORY ADDRESS 15
005332 001401
                                         BEQ
                                 .IIF IDN
                                                 <BC>, <BA>,
                                                                  HLT
                                                                                                   BUS ADDRESS MEMORY ERROR
005334
                                 .IIF IDN
                                                 <BC>, <BC>,
                                                                  HLT
                                                                                                   BYTE COUNT MEMORY ERROR
005334
       104004
                                         EMT
                                                                          ; ADDRESS 15 NOT O. ERROR
005336
       104400
                                         SCOPE
        000016
                                 XADRS=XADRS+1
        000016
                                 XCADRS=XCADRS+1
005340
                                 MEMT2
                                        +/BC/,+/BYTE COUNT/,\XADRS,\XCADRS,177777,+/177777/
```

BYTE COUNT MEMORY DATA TEST VERIFY THAT ADDRESS 16 OF BYTE COUNT MEMORY

CAN BE SET TO 177777 AND CLEARED TO O

| ANEZAA | | | | | | | | | |
|---------|--------|--------|--------|---------|-----------|-----------------------|------------|--------------------------|---|
| 005340 | | | | | ,100,2\$ | | | | |
| 005340 | | | | T41: | MOV | #340,PS | | DISABLE ALL INTER | DIDTC |
| 005346 | 012767 | 000100 | 004026 | | MOV | #100.ICOUNT | | SET UP FOR 100 IT | PATTONO |
| 005354 | 012767 | | | | MOV | #2\$,ESCAPE | | SET UP TO SCOADS | ERAITONS |
| | | | 001021 | .IF NB | <> | WEY, ESCAPE | | SET UP TO ESCAPE | TO NEXT TEST |
| | | | | TL MD | | | | | |
| | | | | | MOV | #.FREEZ1 | | SET UP TO LOOP WIT | TH DATA ; 3 |
| | | | | .ENDC | | | | | |
| | 000042 | | | XN=XN+ | | | | | |
| 005362 | 012705 | 177777 | | | MOV | #177777,R5 | | :EXPECTED RESULT=1 | 77777 |
| 005366 | 012777 | 000016 | 003740 | | MOV | #16, BDHSCR | | CELECTED RESULT=1 | |
| | | 000020 | 000140 | | 1104 | WID, BUNGCK | | SELECT LOCATION 1 | • |
| 005374 | 012777 | 477777 | 007740 | | MOV | | | OF BYTE COUNT MEM | ORY |
| | | 177777 | 003742 | | MOV | \$177777, @DHBC | | :WRITE 177777 INTO | MEMORY |
| 005402 | | 003736 | | | MOV | aDHBC,R4 | | READ CONTENTS OF | MEMORY LOCATION |
| 005406 | | | | | CMP | R5,R4 | | COMPARE EXPECTED | AND |
| 005410 | 001401 | | | | BEQ | 1\$ | | RECEIVED MEMORY C | ONTENTO |
| | | * | | .IIF I | | <bc>, <ba>,</ba></bc> | HLT | | |
| 005412 | | | | .IIF IC | | ADC ADC. | | 3 | BUS ADDRESS MEMORY ERROR |
| 005412 | 104004 | | | .11. 10 | | <bc>,<bc>,</bc></bc> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| | | | | | EMT | 4 | | | |
| 005414 | 005005 | | | 1\$: | CLR | R5 | | EXPECTED RESULT A | FTER CLEAR=A |
| 005416 | 042777 | 177777 | 003720 | | BIC | \$177777. @DHBC | | CLEAR MEMORY LOCA | TTON |
| 005424 | 017704 | 003714 | | | MOV | aDHBC,R4 | | DEAD CONTENTS OF | TUN |
| | | | | | 1104 | aprioc, k4 | | READ CONTENTS OF | BYTE COUNT |
| OOE 470 | 001401 | | | | | | | MEMORY ADDRESS 16 | |
| 005430 | 001401 | | | | BEQ | 2\$ | | | |
| | | | | .IIF IO | | <bc>, <ba>,</ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| 005432 | | | | .IIF IO | N | <bc>, <bc>,</bc></bc> | HLT | 4 | DYTE COUNT MEMORY FERRUR |
| 005432 | 104004 | | | | EMT | 4 | Film i | • | BYTE COUNT MEMORY ERROR |
| | | | | | Em | 7 | | | |
| OOFATA | 104400 | | | | | | | ; ADDRESS 16 NOT O. | ERROR |
| -005434 | 104400 | | | 2\$: | SCOPE | | | | |
| | 000017 | | | XADRS=X | ADRS+1 | | | | |
| | 000017 | | | XCADRS= | XCADRS+1 | | | | |
| 005436 | | | | MEMT2 | | | ADDS VY | ADRS . 177777 , +/177777 | |
| | | | | | | ישיין יוור | חטונט, זאנ | WOND'TLLLLE' LYTLLLL | |
| | | | | | .DVTE | CIBIT MEMORY DAT | | | |
| | | | | | BILE C | OUNT MEMORY DAT | A IESI | [발발다] 이렇지 않아! 뭐 하는 ^^ | |
| | | | | | : AFKTL I | THAT ADDRESS 1 | 7 OF BYT | TE COUNT MEMORY | |
| | | | | | ; CAN BE | SET TO 177777 | AND CLEA | ARED TO O | |
| | | | | | | | | | |
| 005436 | | | | TS \XN. | 100.24 | | | | |
| 005436 | 012767 | 000340 | 172332 | T42: | | 20 0154 | | | |
| | | | | 146: | VCM | #340.PS | | DISABLE ALL INTER | RUPTS |
| 005444 | 012767 | 000100 | 003730 | | MOV | #100,ICOUNT | | SET UP FOR 100 ITE | ERATIONS |
| 005452 | 012767 | 005532 | 003716 | | MOV | #2+.ESCAPE | | SET UP TO ESCAPE | O NEXT TEST |
| | | | | .IF NB | () | | | | IS HERT TEST |
| | | | | | MOV | 4.FREEZ1 | | CET UP TO LOOP UT | |
| | | | | .ENDC | 1101 | A'LUECTI | | SET UP TO LOOP WIT | TH DATA : 3 |
| | 000047 | | | | | | | | |
| | 000043 | | | XN=XN+1 | | | | | |
| 005460 | 012705 | 177777 | | | MOV | #177777,R5 | | :EXPECTED RESULT=17 | רדרו |
| 005464 | 012777 | 000017 | 003642 | | MOV | 417, SDHSCR | | SELECT LOCATION 17 | |
| | | | | | | #11,00115CK | | SELECT LUCATION I | |
| 005472 | 040777 | 477777 | 007644 | | | | | OF BYTE COUNT MEMO |)RY |
| 005472 | 012777 | 177777 | 003644 | | MOV | #177777, 8DHBC | | :WRITE 177777 INTO | MEMORY |
| 005500 | 017704 | 003640 | | | MOV | aDHBC,R4 | | READ CONTENTS OF M | SEMORY LOCATION |
| 005504 | 020504 | | | | CMP | R5.R4 | | COMPARE EXPECTED | IND |
| 005506 | 001401 | | | | BEQ | 18 | | | |
| | 002402 | | | TTE TO | | | | RECEIVED MEMORY CO | 레이트 레이트 레이트 아이트 프로그램 (1982년 1982년 |
| 005540 | | | | .IIF ID | | <bc>, <ba>,</ba></bc> | HLT | 5 | BUS ADDRESS MEMORY ERROR |
| 005510 | | | | .IIF ID | | <bc>, <bc>,</bc></bc> | HLT | 4 | BYTE COUNT MEMORY ERROR |
| 005510 | 104004 | | | | EMT | 4 | | | |
| 005512 | 005005 | | | 14: | CLR | R5 | • | EXPECTED RESULT AF | TER CLEARSO |
| | | | | | | | | TENLEDIED HEADE! ME | ILN CLENN-V |
| | | | | | | | | | |

| | 005514 | | | 003622 | | BIC | #177777, 9DHBC | | CLEAR MEMORY LOCATION | |
|----|------------------|----------------------------|--------|------------------|------------------|---|--|---------------------------------------|--|----------|
| | 005522 | 017704 | 003616 | | | MOV | SDHBC,R4 | | READ CONTENTS OF BYTE COUNT | |
| | 005526 | 001401 | | | .IIF I | BEQ | 2\$ <bc>.<ba>.</ba></bc> | • | | |
| | 005530 | | | | .IIF I | | <bc>, <bc>,</bc></bc> | HLT | 3 ;BUS ADDRESS MEMORY ERR 4 ;BYTE COUNT MEMORY ERRO | OR OR |
| | | | | | | 2.11 | 7 | | :ADDRESS 17 NOT O, ERROR | |
| | 005532 | 104400 000020 000020 | | | 2\$: XADRS=) | SCOPE (ADRS+1 •XCADRS+: | | | THE TOTAL PROPERTY OF LINEAR | |
| 30 | 005534 | 000020 | | | MEMT3 | | */BUS ADDRESS/,1 | 77777,+ | /17777/ | |
| | | | | | | BUS AFFICE SET SET SET SET SET SET SET SET SET SE | DDRESS MEMORY TE ALL LOCATIONS I ELECTED LOCATION Y THAT SELECTED | ST N BUS AN TO VALU LOCATION | DDRESS MEMORY UE 177777 N WAS SET | |
| | | | | | | | | COCHITO | N WAS HODIFIED. | |
| | 005534 005534 | 012767 | 000340 | 172274 | | 100,6\$, | | | | |
| | 005542 | 012767 | 000100 | 172234 003632 | T43: | MOV | #340,PS #100,ICOUNT | | DISABLE ALL INTERRUPTS | |
| | 005550 | 012767 | 005706 | 003620 | | MOV | #6\$,ESCAPE | | SET UP FOR 100 ITERATIONS SET UP TO ESCAPE TO NEXT TEST | |
| | | | | | .IF NB | <2\$> | | | TOET OF TO ESCAPE TO NEXT TEST | |
| | 005356 | 012767 | 005602 | 003614 | CHOC | MOV | 42\$,FREEZ1 | | SET UP TO LOOP WITH DATA : 3 | |
| | | 000044 | | | .ENDC XN=XN+1 | | | | | |
| | 005564 | 012700 | 000020 | | VIA-VIA+T | MOV | #20.R0 | | CET UP TO TEST COCCETAL > | |
| | | | | | | | 4E4,110 | | SET UP TO TEST 20(OCTAL) LOCATIONS IN BUS ADDRESS MEMORY | |
| | 005570 | 005003 | | | | CLR | R3 | | FIRST LOCATION TO BE | |
| | 005572 | 012701 | 000000 | | | MOU | | | ;WRITTEN INTO IS O | |
| | 003372 | 012701 | 000020 | | 1\$: | MOV | #20,R1 | | SET UP TO CLEAR 20 (OCTAL) | |
| | 005576 | 005077 | 003532 | | | CLR | aDHSCR | | LOCATIONS IN BUS ADDRESS MEMORY START AT LOCATION C | |
| | 005602 | 005077 | 003534 | | 2\$: | CLR | SOHBA | | CLEAR LOCATION IN | |
| | | | | | | | | | BUS ADDRESS MEMORY | |
| | 005606 | 005277 | 003522 | | | INC | BDHSCR | | ADVANCE TO NEXT LOCATION | |
| | 005612 005614 | | | | + | DEC | R1 | | CONTINUE CLEARING | |
| | 005616 | 010377 | 007512 | | | BNE | 2\$ | | ;IF NOT DONE | |
| | 005622 | | 177777 | 003512 | | MOV | R3, ODHSCR | | SELECT ADDRESS TO BE TESTED | |
| | 005630 | 005077 | 003500 | 003315 | | MOV | 4177777, 8DHBA | | HRITE 177777 INTO LOCATION | |
| | 005634 | 012701 | 000020 | | | CLR | SOHSCR 420,R1 | | ADDRESS LOCATION O | |
| | | | | | | | AEA'WT | | SET UP TO CHECK ALL ADDRESSES IN BUS ADDRESS MEMORY | |
| | 005640 | 012705 | 177777 | | 3\$: | MOV | 0177777.RS | | :177777=EXPECTED RESULT | |
| | | | | | | | | | ; IF ADDRESS READ IS LOCATION | |
| | 005644 | 047704 | | | | | | | ; WRITTEN INTO | |
| | | 017704 | | | | MOV | ODHBA,R4 | | READ MEMORY LOCATION | |
| | 005650 | 027703 | 003460 | | | CMP | adhscr, R3 | | ; IF LINE NUMBER-ADDRESS | |
| | | | | | | | | | OF LOCATION WRITTEN INTO | |
| | 005654 | 001401 | | | | BEQ | 48 | | :EXPECTED CONTENTS=177777 | |
| | 005656 | 005005 | | | | CLR | R5 | | OTHERUTSE EXPECTED DECID TO-A | |
| | 005660 | 020504 | | | 44: | CMP | R5,R4 | | OTHERWISE, EXPECTED RESULTS=0 DOES MEMORY LOCATION CONTAIN | |
| | 005662 | 001401 | A | | | BEQ | 54 | | EXPECTED RESULT | |
| | 005664 | | | | .IIF ID | | <ba>, <ba>,</ba></ba> | HLT | 3 :BUS ADDRESS MEMORY ERR | np. |
| | | | | | | [10] [10] [10] [10] [10] [10] [10] [10] | | - C-100 | 1000 HOUNESS HEHOR! ERK | - |

| | 005664 | 104003 | | | | EMT | 3 | | |
|----|------------------|--------|---------------|--------|---------|-----------|-----------------------|-----------|--|
| | DOFCCC | | | | .IIF I | | <ba>, <bc>,</bc></ba> | HLT | BYTE COUNT MEMORY ERROR |
| | 005666 | 104410 | 007440 | | 5\$: | SCOPE1 | | | CHECK FOR LOOP WITH CURRENT DATA |
| | 005670 005674 | 005277 | 003440 | | | INC | aDHSCR | | CHECK CONTENTS OF NEXT LOCATION |
| | 005676 | (05301 | | | | DEC | R1 | | |
| | | 001360 | | | | BNE | 3\$ | | |
| | 005700 | | | | | INC | R3 | | :NEXT ADDRESS TO BE WRITTEN |
| | 005702 | 005300 | | | | DEC | RO | | |
| | 005704 005706 | 001332 | | | | BNE | 1\$ | | |
| 71 | 005710 | 104400 | | | 6\$: | SCOPE | | | CHECK FOR ITERATIONS, LOOP |
| 31 | 003/10 | | | | MEMT3 | T/BA/, 1 | /BUS ADDRESS/,1 | .25252,+/ | 125252/ |
| | | | | | | BUS AD | DRESS MEMORY TE | ST | |
| | | | | | | :CLEAR | ALL LOCATIONS 1 | N BUS AD | DRESS MEMORY |
| | | | | | | SET SE | LECTED LOCATION | I TO VALU | JE 125252 |
| | | | | | | : VERIFY | THAT SELECTED | LOCATION | I WAS SET |
| | | | | | | :TO 125 | 252. | | |
| | | | | | | :VERIFY | THAT NO OTHER | LOCATION | WAS MODIFIED. |
| | 005710 | | | | | 100,6\$,2 | :\$ | | |
| | 005710 | 012767 | | 172060 | T44: | MOV | #340.PS | | DISABLE ALL INTERRUPTS |
| | 005716 | 012767 | 000100 | 003456 | | MOV | #100,ICOUNT | | SET UP FOR 100 ITERATIONS |
| | 005724 | 012767 | 006062 | 003444 | | MOV | #61, ESCAPE | | SET UP TO ESCAPE TO NEXT TEST |
| | | | | | .IF NB | <2\$> | | | The second of th |
| | 005732 | 012767 | 005756 | CO3440 | | MOV | 42\$,FREEZ1 | | SET UP TO LOOP WITH DATA : 3 |
| | | | | | .ENDC | | | | , J |
| | | 000045 | Table Landson | | XN=XN+1 | | | | |
| | 005740 | 012700 | 000020 | | | MOV | #20,R0 | | SET UP TO TEST 20(OCTAL) |
| | | | | | | | | | LOCATIONS IN BUS ADDRESS MEMORY |
| | 005744 | 005003 | | | | CLR | R3 | | FIRST LOCATION TO BE |
| | | | | | | | | | WRITTEN INTO IS O |
| | 005746 | 012701 | 000020 | | 1\$: | MOV | #20,R1 | | SET UP TO CLEAR 20 (OCTAL) |
| | | | | | | | | | LOCATIONS IN BUS ADDRESS MEMORY |
| | 005752 | 005077 | C03356 | | | CLR | a DHSCR | | START AT LOCATION O |
| | 005756 | 005077 | 003360 | | 2\$: | CLR | SDHBA | | CLEAR LOCATION IN |
| | | | | | | | | | BUS ADDRESS MEMORY |
| | 005762 | 005277 | 003346 | | | INC | ODHSCR | | ADVANCE TO NEXT LOCATION |
| | 005766 | 005301 | | | | DEC | R1 | | CONTINUE CLEARING |
| | 005770 | 001372 | | | | BNE | 2\$ | | ; IF NOT DONE |
| | | 010377 | | | | MOV | R3, ODHSCH | | SELECT ADDRESS TO BE TESTED |
| | 005776 | 012777 | 125252 | 003336 | | MOV | 4125252. 8DHBA | | WRITE 125252 INTO LOCATION |
| | 006004 | 005077 | 003324 | | | CLR | BOHSCR | | ADDRESS LOCATION O |
| | 006010 | 012701 | 000020 | | | MOV | 420,R1 | | SET UP TO CHECK ALL ADDRESSES |
| | | | | | | | | | ; IN BUS ADDRESS MEMORY |
| | 006014 | 012705 | 125252 | | 3\$: | MOV | #125252,R5 | | :125252-EXPECTED RESULT |
| | | | | | | | | | ; IF ADDRESS READ IS LOCATION |
| | | | | | | | | | WRITTEN INTO |
| | | 017704 | 003316 | | | MOV | SOHBA,R4 | | READ MEMORY LOCATION |
| | 006024 | 027703 | 003304 | | | CMP | BDHSCR,R3 | | :IF LINE NUMBER=ADDRESS |
| | | | | | | | | | OF LOCATION WRITTEN INTO |
| | | | | | | | | | EXPECTED CONTENTS=125252 |
| | 006030 | 001401 | | | | BEQ | 41 | | I TO TO TOUR TOUR TENEDS |
| | 006032 | 005005 | | | | CLR | R5 | | OTHERWISE, EXPECTED RESULTS-0 |
| | 006034 | 020504 | | | 4\$: | CMP | R5,R4 | | DOES MEMORY LOCATION CONTAIN |
| | 006036 | 001401 | | | | BEQ | 54 | | EXPECTED RESULT |
| | 006040 | | | | .IIF ID | | <ba>, <ba>,</ba></ba> | HLT | 3 BUS ADDRESS MEMORY ERROR |
| | 006040 | 104003 | | | | EMT | 3 | | TOOS HOUNESS HEHOR ERROR |
| | | | | | | | | | |

| | | | | | | IDN | <ba>, <bc>,</bc></ba> | HLT | 4 | BYTE COUNT | MEMORY | E0000 |
|----|------------------|------------------|--------|------------------|------|------------|------------------------------------|-----------|--------------------------------------|--|--------|-------|
| | 00,042 | 005277 | | | 5\$: | SCOF | aDHSCR | | CHECK FOR LOOP | WITH CURRENT DATA OF NEXT LOCATION | HEHORT | ERRUR |
| | 006050 006052 | | | | | DEC | R1 3\$ | | | | | |
| | 006054 | 005203 | | | | INC | R3 | | ; NEXT ADDRESS TO | DE UDITIEN | | |
| | 006056 | 005300 | | | | DEC | RO | | THEN ADDRESS TO | DE METLIEM | | |
| | 006060 | 001332 104400 | | | 6\$: | BNE | 1\$ | | | And delination of the Common C | | |
| 32 | 006064 | 104400 | | | MEMT | SCOP | .+/BUS ADDRESS/ | 52525,+/5 | ;CHECK FOR ITERA 2525/ | TIONS, LOOP | | |
| | | | | | | BUS | ADDRESS MEMORY 1 | TEST | | | | |
| | | | | | | SET | AR ALL LOCATIONS SELECTED LOCATION | IN BUS AD | DRESS MEMORY | | | |
| | | | | | | ; VER | IFY THAT SELECTED | LOCATION | WAS SET | | | |
| | | | | | | ;T0 | 52525. | | | | | |
| | | | | | | ! AEM | IFY THAT NO OTHER | LOCATION | WAS MODIFIED. | | | |
| | 006064 | 010767 | 000740 | | | XN,100,6 | | | | | | |
| | 006064 006072 | 012767 012767 | 000340 | 171704 003302 | T45: | | #340.PS | | DISABLE ALL INT | ERRUPTS | | |
| | 006100 | 012767 | 006236 | 003302 | | MOV | #100.ICOUNT #6\$.ESCAPE | | SET UP FOR 100 | ITERATIONS | | |
| | | | ****** | 000210 | .IF | | WOY, ESCAPE | | SET UP TO ESCAP | E TO NEXT TEST | | |
| | 006106 | 012767 | 006132 | 003264 | | MOV | #2\$,FREEZ1 | | SET UP TO LOOP | WITH DATA . | 3 | |
| | | 000046 | | | .END | | | | | | • | |
| | 006114 | 012700 | 000020 | | XN=X | MOV HOV | 420.R0 | | CET UD TO TEST | | | |
| | | ******* | COUCE | | | 1104 | 420, NO | | SET UP TO TEST | S ADDRESS MEMORY | | |
| | 006120 | 005003 | | | | CLR | R3 | | FIRST LOCATION | TO BE | | |
| | 006122 | 012701 | 000020 | | 14. | MOV | 400 04 | | :WRITTEN INTO IS | 0 | | |
| | 000122 | OLETOI | 000020 | | 1\$: | MOV | #20,R1 | | SET UP TO CLEAR | 20 (OCTAL) | | |
| | 006126 | 005077 | 003202 | | | CLR | SOHSCR | | START AT LOCATI | S ADDRESS MEMORY | | |
| | 006132 | 005077 | 003204 | | 2\$: | CLR | ADHBA | | :CLEAR LOCATION | TN | | |
| | 006136 | 005277 | 003172 | | | INC | ODUCOO | | BUS ADDRESS MEM | ORY | | |
| | 006142 | 005301 | 003112 | | | DEC | SDHSCR R1 | | ADVANCE TO NEXT | LOCATION | | |
| | 006144 | 001372 | | | | BNE | 21 | | CONTINUE CLEARI | MG | | |
| | 006146 | 010377 | | | | MOV | R3, ODHSCR | | SELECT ADDRESS | TO BE TESTED | | |
| | 006152 | 012777 | 052525 | 003162 | | MOV | 452525, 80HBA | | WRITE 52525 INT | O LOCATION | | |
| | | 005077 | 003150 | | | CLR MOV | #20.R1 | | ADDRESS LOCATIO | N O | | |
| | | | | | | 1101 | WEV, RI | | SET UP TO CHECK | ALL ADDRESSES | | |
| | 006170 | 012705 | 052525 | | 3\$: | MOV | 452525,RS | | :52525-EXPECTED | RESULT | | |
| | | | | | | | | | :IF ADDRESS READ | | | |
| | 006174 | 017704 | 003142 | | | MOV | ODHBA,R4 | | WRITTEN INTO | | | |
| | 006200 | 027703 | 003130 | | | CMP | ODHSCR.R3 | | :READ MEMORY LOC :IF LINE NUMBER= | VITON | | |
| | | | | | | | | | OF LOCATION WRI | TTEN INTO | | |
| | 006204 | 001401 | | | | 050 | | | EXPECTED CONTEN | TS-52525 | | |
| | | 001401 | | | | BEQ | 4 \$ R5 | | ATHERUTAE PURE | 0750 050H 70 4 | | |
| | | 020504 | | | 44: | CMP | R5,R4 | | OTHERWISE, EXPE | ATTON CONTATE | | |
| | 006212 | 001401 | | | | BEQ | 5# | | EXPECTED RESULT | VITON CONINTH | | |
| | 006214 | | | | .IIF | IDN | <ba>, <ba>,</ba></ba> | HLT | 3 | BUS ADDRESS | MEMORY | ERROR |
| | 006214 | 104003 | | | 775 | EMT | 3 | | | | | |
| | | | | | .IIF | TON | <ba>,<bc>.</bc></ba> | HLT | 4 | BYTE COUNT | MEMORY | ERROR |
| | | | | | | | | | | | | |

| | 006216 006220 006224 | 005301 | 003110 | | 5\$: | SCOPE1 INC DEC | adhscr R1 | | CHECK FOR LOOP | WITH CURRENT DATA OF NEXT LOCATION |
|----|--------------------------------------|--------------------------------------|--------|--------|---------------|---------------------------|--|---------------------------------|--------------------------------------|------------------------------------|
| | 006226 006230 006232 006234 | 001360 005203 005300 001332 | | | | BNE INC DEC | 3\$ R3 R0 | | NEXT ADDRESS TO | BE WRITTEN |
| 33 | 006236 006240 | 104400 | | | 6\$: MEMT3 | SCOPE 1/BC/, | 1\$ P/BYTE COUNT/,17 | 7777.+/ | CHECK FOR ITERA | TIONS, LOOP |
| | | | | | | CLEAR SET SE VERIFY | COUNT MEMORY TES ALL LOCATIONS I ELECTED LOCATION THAT SELECTED 1777. THAT NO OTHER | N BYTE (TO VALU LOCATION | JE 177777 N WAS SET | |
| | 006240 | | | | TC \YN | 100.6\$,2 | 14 | | | |
| | 006240 | 012767 | 000340 | 171530 | T46: | MOV | #340.PS | | DICABLE ALL TAIT | 75001050 |
| | 006246 | 012767 | 000100 | 003126 | 140. | MOV | #100,ICOUNT | | DISABLE ALL INT | ERRUPTS |
| | 006254 | 012767 | 006412 | 003114 | 75 40 | MOV | 46\$,ESCAPE | | SET UP FOR 100 | PE TO NEXT TEST |
| | 006262 | 012767 | 006306 | 003110 | .IF NB | <2\$> | 42\$,FREEZ1 | | SET UP TO LOOP | |
| | | | | | .ENDC | | | | | , , |
| | 006070 | 000047 | | | XN=XN+1 | | | | | |
| | 006270 | 012700 | 000020 | | | MOV | #20,R0 | | SET UP TO TEST | 20(OCTAL) |
| | 006274 | 005003 | | | | CLR | R3 | | LOCATIONS IN BY FIRST LOCATION | TO BE |
| | 006276 | 012701 | 000020 | | 1\$: | MOV | #20,R1 | | :WRITTEN INTO IS | 0 (OCTAL) |
| | 000700 | 005077 | | | | | | | LOCATIONS IN BY | TE COUNT MEMORY |
| | 006302 | 005077 | 003026 | | | CLR | a DHSCR | | START AT LOCATI | ON O |
| | 006306 | 005077 | 003032 | | 2\$: | CLR | SDHBC | | CLEAR LOCATION | IN |
| | 006312 | 005277 | 003016 | | | INC | ODHSCR | | BYTE COUNT MEMO | RY |
| | 006316 | 005301 | 003010 | | | DEC | R1 | | ADVANCE TO NEXT | LOCATION |
| | | 001372 | | | | BNE | 24 | | CONTINUE CLEARI | |
| | | 010377 | 003006 | | | MOV | R3. ODHSCR | | SELECT ADDRESS | TO BE TEETED |
| | | | 177777 | 003010 | | MOV | 4177777, 8DHBC | | SELECT ADDRESS | TO LOCATION |
| | | 005077 | | | | CLR | SOHSCR | | ADDRESS LOCATIO | IN COCKLION |
| | | 012701 | 000020 | | | MOV | 420,R1 | | SET UP TO CHECK | ALL ADDRESSES |
| | | | | | | | | | IN BYTE COUNT H | EMUDA |
| | 006344 | 012705 | 177777 | | 34: | MOV | 4177777.RS | | :177777-EXPECTED | RECULT |
| | | | | | | | | | IF ADDRESS READ | IS LOCATION |
| | | | | | | | | | WRITTEN INTO | |
| | | 017704 | 002770 | | | MOV | aDHBC.R4 | | READ MEMORY LOC | ATION |
| | 006354 | 027703 | 002754 | | | CMP | ODHSCR,R3 | | :IF LINE NUMBER= | |
| | | | | | | | | | OF LOCATION WRI | |
| | 006360 | 001401 | | | | 050 | | | EXPECTED CONTEN | TS=177777 |
| | | 005005 | | | | BEQ | 4 \$ R5 | | 07UE0UE0E EVE | |
| | | 020504 | | | 48: | CMP | R5,R4 | | OTHERWISE, EXPE | CTED RESULTS=0 |
| | | 001401 | | | | BEQ | 54 | | ;DOES MEMORY LOC ;EXPECTED RESULT | VITON CONINTN |
| | | | | | .IIF ID | | <bc>, <ba>,</ba></bc> | HLT | 3 | BUS ADDRESS MEMORY ERROR |
| | 006370 | | | | .IIF ID | | <bc>, <bc>,</bc></bc> | HLT | i | BYTE COUNT MEMORY ERROR |
| | | 104004 | | | | EMT | 4 | | | TOTAL COURT HERONT ENNOR |
| | 006372 | 104410 | | | 5\$: | SCOPE1 | | | CHECK FOR LOOP | WITH CURRENT DATA |
| | | | | | | | | | | |

| | 006374 006400 006402 | 005277 005301 001360 | 002734 | | | INC | aDHSCR R1 | | CHECK CONTENTS OF NEXT | LOCATION |
|----|---|----------------------------|------------------|--------|------------------|---------------------------|--|-----------------------------------|--|--------------------------|
| | 006404 006406 006410 | 005203 005300 001332 | | | | BNE INC DEC BNE | 3\$ R3 R0 1\$ | | ;NEXT ADDRESS TO BE WRIT | TEN |
| 34 | 006412 006414 | 104400 | | | 6\$: MEMT3 | SCOPE | */BYTE COUNT/,12 | 25252,+/1 | ;CHECK FOR ITERATIONS, L .25252/ | .00P |
| | | | | | | CLEAR SET SE VERIFY | COUNT MEMORY TES ALL LOCATIONS I ELECTED LOCATION 7 THAT SELECTED 5252. 7 THAT NO OTHER | N BYTE C I TO VALU LOCATION | E 125252 I WAS SET | |
| | 006414 | | | | TS \XN. | 100,6\$,2 | 2\$ | | | |
| | 006414 | 012767 | | 171354 | T47: | MOV | #340,PS | | DISABLE ALL INTERRUPTS | |
| | 006422 | 012767 012767 | 000100 | 002752 | | MOV | #100,ICOUNT #6\$,ESCAPE | | SET UP FOR 100 ITERATIO | INS |
| | *************************************** | | 000300 | 002140 | .IF NB | <2\$> | WOY, ESCAPE | | SET UP TO ESCAPE TO NEX | T TEST |
| | 006436 | 012767 | 006462 | 002734 | | MOV | #2#,FREEZ1 | | SET UP TO LOGP WITH DAT | A : 3 |
| | | 000050 | | | .ENDC XN=XN+1 | | | | | |
| | 006444 | 012700 | 000020 | | VIA-VIAAT | MOV | #20,R0 | | SET UP TO TEST 20(OCTAL | |
| | 006450 | 005007 | | | | | | | LOCATIONS IN BYTE COUNT | MEMORY |
| | 006450 | 005003 | | | | CLR | R3 | | FIRST LOCATION TO BE | |
| | 006452 | 012701 | 000020 | | 18: | MOV | #20,R1 | | ;WRITTEN INTO IS O ;SET UP TO CLEAR 20 (OCT | (A) |
| | 006456 | 005077 | 000050 | | | | | | LOCATIONS IN BYTE COUNT | MEMORY |
| | 006456 | 005077 | 002652 002656 | | 2\$: | CLR | SOHSCR SOHBC | | START AT LOCATION O | |
| | | | 002030 | | E | CLR | CONDC | | CLEAR LOCATION IN BYTE COUNT MEMORY | |
| | 006466 | 005277 | 002642 | | | INC | BDHSCR | | ADVANCE TO NEXT LOCATIO | N |
| | 006472 | 005301 | | | | DEC BNE | R1 2\$ | | CONTINUE CLEARING | |
| | 006476 | 010377 | 002632 | | | MOV | R3, BDHSCR | | ; IF NOT DONE : SELECT ADDRESS TO BE TE | CTED |
| | 006502 | 012777 | 125252 | 002634 | | MOV | #125252, GOHBC | | :WRITE 125252 INTO LOCAT | TON |
| | 006510 | 005077 | 002620 | | | CLR | BDHSCR | | ; ADDRESS LOCATION O | |
| | 000214 | 012701 | 000020 | | | MOV | 420,R1 | | SET UP TO CHECK ALL ADD | RESSES |
| | 006520 | 012705 | 125252 | | 34: | MOV | 4125252,R5 | | :IN BYTE COUNT MEMORY :125252-EXPECTED RESULT | |
| | | | | | | | | | :IF ADDRESS READ IS LOCA | TION |
| | 006524 | 017704 | 002614 | | | MOV | SDHBC.R4 | | WRITTEN INTO | |
| | | 027703 | 002600 | | | CMP | aDHSCR,R3 | | READ MEMORY LOCATION; IF LINE NUMBER-ADDRESS | |
| | | | | | | | | | OF LOCATION WRITTEN INT | 0 |
| | 006534 | 001401 | | | | DEO | | | EXPECTED CONTENTS-12525 | 2 |
| | | 005005 | | | | BEQ | 44 R5 | | ATHERUTCE EXPECTED DEC | W 70-0 |
| | 006540 | 020504 | | | 48: | CMP | R5,R4 | | OTHERWISE, EXPECTED RES | NTATN |
| | 006542 | 001401 | | | *** | BEQ | 51 | | EXPECTED RESULT | |
| | 006544 | | | | .IIF ID | | <bc>,<ba>,<bc>,<bc>,</bc></bc></ba></bc> | HLT | | BUS ADDRESS MEMORY ERROR |
| | 006544 | 104004 | | | | EMT | 4 | nL1 | | BYTE COUNT MEMORY ERROR |
| | | 104410 | 000000 | | 5\$: | SCOPE1 | | | CHECK FOR LOOP WITH CUR | |
| | 006550 | 005277 | 002560 | | | INC | ODHSCR | | CHECK CONTENTS OF NEXT | |

| 35 | 006554 006560 006562 006564 006566 006570 | 005301 001360 005203 005300 001332 164400 | | | 64: MEMT3 | DEC BNE INC DEC BNE SCOPE +/BC/, | R1 3\$ R3 R0 1\$ */BYTE COUNT/.52 | 2525,†/52 | :NEXT ADDRESS TO BE :CHECK FOR ITERATION: | | |
|----|--|--|--------------------------------------|----------------------------|--------------|--|---|------------------------------------|--|-----------------|------------------|
| | | | | | | CLEAR SET SI VERIF | COUNT MEMORY TES ALL LOCATIONS : ELECTED LOCATION Y THAT SELECTED 525. Y THAT NO OTHER | IN BYTE (N TO VALU LOCATION | JE 52525 I WAS SET | | |
| | 006570 | | | | TC LYN | 100,6\$, | | | | | |
| | 006570 006576 006604 | 012767 012767 012767 | 000340 000100 006742 | 171200 002576 002564 | 150: | MOV MOV MOV | #340,PS #100,ICOUNT #6#.ESCAPE | | DISABLE ALL INTERF | ERATIONS | |
| | | | | | .IF NB | <2\$> | | | SET UP TO ESCAPE | IU NEXT TEST | |
| | 006612 | 012767 | 006636 | 002560 | .ENDC | MOV | #2#,FREEZ1 | | SET UP TO LOOP WIT | TH DATA | ; 3 |
| | | 000051 | | | XN=XN+1 | | | | | | |
| | 006620 | 012700 | 000020 | | | MOV | #20,R0 | | SET UP TO TEST 200 | (OCTAL) | |
| | 006624 | 005003 | | | | CLR | R3 | | FIRST LOCATION TO | BE MEMORY | |
| | 006626 | 012701 | 000020 | | 14: | MOV | #20,R1 | | :WRITTEN INTO IS 0 :SET UP TO CLEAR 20 | (OCTAL) | |
| | 006632 006636 | 005077 005077 | 002476 002502 | | 28: | CLR | SDHSCR SDHBC | | :LOCATIONS IN BYTE :START AT LOCATION :CLEAR LOCATION IN | COUNT MEMORY | |
| | 006642 006646 006650 | 005277 005301 001372 | 002466 | | | INC DEC BNE | SDHSCR R1 24 | | :BYTE COUNT MEMORY :ADVANCE TO NEXT LO :CONTINUE CLEARING :IF NOT DONE | DCATION | |
| | 006652 006656 006664 006670 | 010377 012777 005077 012701 | 002456 052525 002444 000020 | 002460 | | MOV MOV CLR MOV | R3, DHSCR 452525, DHBC BDHSCR 420, R1 | | SELECT ADDRESS TO WRITE 52525 INTO LANGUAGES LOCATION CONTROL OF TO CHECK AL | LOCATION | |
| | 006674 | 012705 | | | •• | | | | IN BYTE COUNT MEMO | DRY | |
| | 000014 | OTELOS | 052525 | | 3#: | MOV | #52525,R5 | | :52525-EXPECTED RES :IF ADDRESS READ IS | | |
| | 006700 006704 | 017704 027703 | 002440 002424 | | | MOV | aDHBC,R4 aDHSCR,R3 | | :WRITTEN INTO :READ MEMORY LOCATI :IF LINE NUMBER-ADD :OF LOCATION WRITTE | RESS EN INTO | |
| | 006712 | 001401 005005 020504 001401 | | | 41: | BEQ CLR CMP | 43 R5 R5,R4 | | OTHERWISE, EXPECTE DOES MEMORY LOCATI | ED RESULTS-0 | |
| | | 001401 | | | .IIF ID | BEQ | 5\$ <bc>,<ba>,</ba></bc> | HLT | EXPECTED RESULT | BUS ADDR | ESS MEMORY ERROR |
| | 006720 | 104004 | | | .IIF ID | ENT | <bc>,<bc>,</bc></bc> | HLT | å . | BYTE COL | INT MEMORY ERROR |
| 1 | 006722 | 104410 005277 005301 | 002404 | | 5#: | SCOPE1 INC DEC | SDHSCR R1 | | CHECK FOR LOOP WIT CHECK CONTENTS OF | | |

```
006732
           001360
                                                     3#
   006734
006736
           005203
                                            INC
                                                     R3
                                                                              NEXT ADDRESS TO BE WRITTEN
           005300
                                            DEC
                                                     RO
   006740
           001332
                                            BNE
                                                     1$
   006742
           104400
                                            SCOPE
                                    6#:
                                                                              :CHECK FOR ITERATIONS, LOOP
36 006744
                                    MEMT4
                                            */BA/, */BUS ADDRESS/.0.*/0/
                                            BUS ADDRESS MEMORY TEST
                                            SET ALL LOCATIONS IN BUS ADDRESS MEMORY TO 177777
                                            SET SELECTED LOCATION TO VALUE O
                                            VERIFY THAT SELECTED LOCATION WAS SET
                                            :TO O.
                                            EVERIFY THAT NO OTHER LOCATION WAS MODIFIED.
  006744
                                    TS \XN,100,6$,2$
  006744
          012767
                   000340
                           171024
                                    T51:
                                            MOV
                                                    #340,PS
                                                                              DISABLE ALL INTERRUPTS
  006752
          012767
                   000100
                           002422
                                            MOV
                                                     #100.ICOUNT
                                                                              SET UP FOR 100 ITERATIONS
  006760
          012767
                   007120
                           002410
                                            MOV
                                                     46 . ESCAPE
                                                                              SET UP TO ESCAPE TO NEXT TEST
                                    .IF NB
                                            (2$>
  006766
          012767
                   007012
                           002404
                                            MOV
                                                    #2#.FREEZ1
                                                                              SET UP TO LOOP WITH DATA
                                                                                                                 ; 3
                                    .ENDC
           000052
                                    XN=XN+1
  006774
          012700
                   000020
                                            MOV
                                                    #20,R0
                                                                              SET UP TO TEST 20(OCTAL)
                                                                              LOCATIONS IN BUS ADDRESS MEMORY
  007000
          005003
                                            CLR
                                                    R3
                                                                              FIRST LOCATION TO BE
                                                                              ; WRITTEN INTO IS O
  007002
          012701
                  000020
                                    18:
                                            MOV
                                                    420.R1
                                                                              SET UP TO SET 20 (OCTAL)
                                                                              LOCATIONS IN BUS ADDRESS MEMORY TO 177777
  007006
          005077
                                                    BOHSCR
                                                                              STACT AT LOCATION O
  007012
          012777 177777
                           002322 24:
                                            MOV
                                                    $177777, SDHBA
                                                                              SET LOCATION IN
                                                                              BUS ADDRESS MEMORY
  007020
          005277
                  002310
                                                    SOHSCR
                                                                              ADVANCE TO NEXT LOCATION
  007024
          005301
                                            DEC
                                                    R1
                                                                              CONTINUE SETTING
  007026
          001371
                                            BNE
                                                                             IF NOT DONE SELECT ADDRESS TO BE TESTED
  007030
          010377
                  002300
                                                    R3, aDHSCR
                                            MOV
  007034
          012777
                  000000
                           002300
                                            MOV
                                                    40. ODHBA
                                                                              :WRITE O INTO LOCATION
  007042
          005077
                  002266
                                            CLR
                                                    SOHSCR
                                                                              : ADDRESS LOCATION O
  007046
          012701
                  000020
                                            MOV
                                                    #20.R1
                                                                              SET UP TO CHECK ALL ADDRESSES
                                                                              IN BUS ADDRESS MEMORY
  007052
          012705
                  000000
                                   3# :
                                            MOV
                                                    40,R5
                                                                     :0=EXPECTED RESULT
                                                                              IF ADDRESS READ IS LOCATION
                                                                              :WRITTEN INTO
  007056 017704
                  002260
                                            MOV
                                                    SOHBA, R4
                                                                              READ MEMORY LOCATION
  007062
         027703
                  002246
                                            CMP
                                                    BOHSCR . 93
                                                                              :IF LINE NUMBER-ADDRESS
                                                                              OF LOCATION WRITTEN INTO
                                                                              EXPECTED CONTENTS-0
  007066
          001401
                                            BEQ
                                                    41
  007070
         005105
                                            COM
                                                    R5
                                                                              OTHERWISE, EXPECTED RESULTS-17777; DOES MEMORY LOCATION CONTAIN
  007072
         020504
                                            CMP
                                                    R5,R4
                                   48:
 007074
         001401
                                            BEQ
                                                                              EXPECTED RESULT
 007076
                                    .IIF IDN
                                                    <BA>, <BA>,
                                                                     HLT
                                                                                                       IBUS ADDRESS MEMORY ERROR
 007076
         104003
                                            EMT
                                    IIF IDN
                                                    <BA>, <BC>,
                                                                     HLT
                                                                              CHECK FOR LOOP WITH CURRENT DATA
 007100
          104410
                                            SCOPE1
                                   51:
 007102
          005277
                  002226
                                                    BOHSCR
                                                                              CHECK CONTENTS OF NEXT LOCATION
          005301
                                            DEC
 007110
         001360
```

| SCOPE Scop | | 007112 007114 007116 | 005203 005300 001331 | | | | INC DEC BNE | R3 R0 1\$ | | ;NEXT ADDRESS TO BE W | RITTEN |
|--|----|----------------------------|----------------------------|--------|--------|----------|-------------------|--|---------------------------------|-----------------------|-------------------------|
| SET ALL LOCATIONS IN BYTE COUNT MEMORY TO 177777 SET SELECTED LOCATION NO VALUE 0 1/VERIFY THAT SELECTED LOCATION MAS SET 1/VERIFY THAT SELECTED LOCATION MAS SET 1/VERIFY THAT NO OTHER LOCATION MAS SET 1/VERIFY THAT NO OTHER LOCATION MAS MODIFIED. 1/VERIFY TO THAT NO OTHER LOCATION MAS MODIFIED. 1/VERTIFY THAT NO OTHER LOCATION MAS MODIFIED. | 37 | 007120 | | | | | SCOPE | | +/0/ | CHECK FOR ITERATIONS | 6, LOOP |
| 007122 012767 000340 170646 152: MOV 07130 012767 000100 00224 MOV 07130 012767 000100 00224 MOV 07130 012767 000100 00224 MOV 07130 012767 000270 002212 MOV 07130 012767 000270 000203 | | | | | | | SET ALL | LL LOCATIONS IN ELECTED LOCATION Y THAT SELECTED | BYTE COU TO VALU LOCATION | E 0 WAS SET | |
| 007122 012767 000340 170646 152: MOV 07130 012767 000100 00224 MOV 07130 012767 000100 00224 MOV 07130 012767 000100 00224 MOV 07130 012767 000270 002212 MOV 07130 012767 000270 000203 | | 007122 | | | | TC VN | 100 64 5 | 24 | | | |
| 007130 012767 00100 002244 MOV 6100.TCOUNT MOV 6100.TCOUNT MOV 6100.TCOUNT MOV 6100.TCOUNT MOV 664.ESCAPE 1SET UP TO ESCAPE TO NEXT TEST MOV 664.ESCAPE 1SET UP TO LOOP WITH DATA 3 3 007152 01270 000005 | | | 012767 | 000340 | 170646 | T52. | | | | DICABLE ALL THISBOUR | |
| O07136 O1276 O0222 O07276 O0222 O07276 O0222 O07276 O0727 | | | | | | | | | | SET UP FOR AND TREE | 715 |
| O07144 O12767 O07170 O02226 O07170 O02226 O07170 O02226 O07170 O02226 O07170 O02226 O07170 O02226 O07170 O02020 O07170 O02020 O07170 O02020 O07170 O | | | | | | | | | | SET UP FOR 100 ITER | ITIONS |
| 007144 012767 007170 002226 | | | | | | . IF NB | | 401, ESCHIE | | SET OF TO ESCAPE TO | NEXT TEST |
| 007152 012700 000020 | | 007144 | | 007170 | 002226 | | | #2\$,FREEZ1 | | SET UP TO LOOP WITH | DATA ; 3 |
| OCTISE OCTION O | | | | | | XN=XN+1 | | | | | |
| OC7156 OO5003 CLR | | 007152 | 012700 | 000020 | | | MOV | #20,R0 | | SET UP TO TEST 20(00 | CTAL) |
| O7160 O12701 O00020 D18: MOV O20,R1 SET UP TO SET 20 (OCTAL) | | | | | | | | | | LOCATIONS IN BYTE CO | OUNT MEMORY |
| 007160 01270 000020 1\$; MOV 020,R1 MRXITTEN INTO IS 0 SET 20 (OCTAL) | | 007136 | 005003 | | | | CLR | RE | | FIRST LOCATION TO BE | |
| O7164 O5077 O507 | | 007460 | | | | | | | | ;WRITTEN INTO IS O | |
| O07164 O05077 O02144 O05077 O02146 24 | | 00/160 | 012701 | 000020 | | 1\$: | MOV | #20,R1 | | SET UP TO SET 20 (00 | TAL) |
| OCT | | 007164 | 005077 | | | | | | | LOCATIONS IN BYTE CO | OUNT MEMORY TO 177777 |
| OTTO | | | | | | | | | | START AT LOCATION O | |
| O07202 O05277 O02132 O02132 O02132 O02132 O02132 O02204 O01371 O07206 O01377 O02122 O07201 O07220 O02177 O00000 O02110 O07220 O05077 O02110 O07220 O0210 O07220 O0200 O07220 O072 | | 00/1/0 | 012/// | 1///// | 002146 | 2\$: | MOV | 4177777, SDHBC | | SET LOCATION IN | |
| 007202 005301 | | 007476 | 005037 | | | | | | | BYTE COUNT MEMORY | |
| 007204 001371 002122 | | | | 002132 | | | | | | ADVANCE TO NEXT LOCA | TION |
| 00720 010377 00000 002124 MOV R3.8DMSCR SELECT ADDRESS TO BE TESTED 007220 005077 002110 CLR ADDRESS COATION 007224 012701 000000 MOV 820.R1 SET UP TO CHECK ALL ADDRESSES 1 IN BYTE COUNT MEMORY 1.1 IF ADDRESS READ IS LOCATION 1.1 IF IDN 48C. R8. R8. RAPECTED CONTENTS 000000 PROVED RECOUNT MEMORY 1.2 IF ADDRESS READ IS LOCATION 1.3 IF LINE NUMBER RADDRESS READ IS LOCATION 1.4 IF LINE NUMBER RADDRESS READ IS LOCATION 1.5 IF | | | | | | | | | | CONTINUE SETTING | |
| 007212 012777 000000 002124 MDV 00.8DMBC MBTE OINTO LOCATION OCCUPANT | | | | | | | | | | :IF NOT DONE | |
| 007220 005077 002110 000200 000200 | | | | | | | | | | SELECT ADDRESS TO BE | TESTED |
| 007224 012701 000020 | | | | | 002124 | | | | | ;WRITE O INTO LOCATIO |)N |
| 007230 012705 000000 3\$: MOV #0.R5 : IN BYTE COUNT MEMORY 007234 017704 G02104 MOV #0.R5 : IN BYTE COUNT MEMORY 007240 027703 002070 CMP #008CR,R3 : IF LINE NUMBER=ADDRESS 007244 001401 BEQ 4\$ 007246 005105 COM R5 007250 020504 4\$: CMP R5,R4 : DOES MEMORY LOCATION CONTAIN 007252 001401 BEQ 5\$ I.IF IDN | | | | | | | | | | :ADDRESS LOCATION O | |
| O07234 O17704 O02104 MOV ODHBC,R4 IF ADDRESS READ IS LOCATION IMPITTEN INTO READ MEMORY LOCATION IF LINE NUMBER=ADDRESS INCATION INC | | 001224 | 012/01 | 000020 | | | MOA | 020,RI | | SET UP TO CHECK ALL | ADDRESSES |
| Second S | | 007270 | 01 2705 | 000000 | | | | | | IN BYTE COUNT MEMORY | |
| 007244 001401 | | 007230 | 012/03 | 000000 | | 39: | MOA | 00.R5 | :0=EXP | | |
| 007240 027703 002070 CMP GDHBC,R4 | | | | | | | | | | :IF ADDRESS READ IS L | OCATION |
| 007240 027703 002070 CMP GDMSCR,R3 :IF LINE NUMBER=ADDRESS : 0F LOCATION WRITTEN INTO : EXPECTED CONTENTS=0 007244 001401 | | 007234 | 017704 | 602104 | | | MOV | 001100 04 | | | |
| OF CONTENTS | | | | | | | | | | READ MEMORY LOCATION | |
| 007244 001401 007246 005105 007250 020504 007252 001401 007254 001401 007254 001401 007254 001401 007254 005301 007260 001360 007260 001360 BEQ 4\$ COM R5 COM RS COM | | 001240 | 021103 | 002010 | | | CHP | OUNSCR, KS | | | |
| 007244 001401 | | | | | | | | | | | INTO |
| 007250 020504 | | 007244 | 001401 | | | | 9EO | | | FEXPECIED CONTENTS=0 | |
| 007250 020504 | | | | | | | | | | OTHERWISE EXPENSES | AFA:1 |
| 007252 001401 BEQ 5# IIF IDN | | | | | | 44. | | DS DA | | INILEMMISE' EXACTION | RESUL 15=1///// |
| 007254 007254 104004 .IIF IDN | | | | | | *** | | | | EXPECTED DECK! I | CONTAIN |
| 007254 104004 | | | | | | TTE TO | | | LH T | EXPECTED RESULT | BUS 4000000 NEWSON |
| 007254 104004 EMT 4 007256 104410 5\$: SCOPE1 :CHECK FOR LOOP WITH CURRENT DATA 007260 005277 002050 INC @DHSCR :CHECK CONTENTS OF NEXT LOCATION 007264 005301 DEC R1 007266 001360 BNE 3\$ | | 007254 | | | | | | | | | |
| 007256 104410 5\$: SCOPE1 :CHECK FOR LOOP WITH CURRENT DATA 007260 005277 002050 INC @DHSCR :CHECK CONTENTS OF NEXT LOCATION DEC R1 007266 001360 BNE 3\$ | | 007254 | 104004 | | | .22. 201 | | | riL i | | BTTE COUNT MEMORY ERROR |
| 007260 005277 002050 INC ADHSCR CHECK CONTENTS OF NEXT LOCATION 007264 005301 DEC R1 007266 001360 BNE 3\$ | | | | | | 54 . | | | | CHECK EUD 1 000 HTTH | CURRENT DATA |
| 007264 005301 DEC R1 007266 001360 BNE 3\$ | | | | 002050 | | | | ADHSCA | | CHECK CONTENTS OF ME | VI LOCATION |
| 007266 001360 BNE 3\$ | | | | | | | | | | TOURCE CONTENTS OF NE | XI COCKITON |
| AARORA AAROAR | | | | | | | | | | | |
| INEXT NONESS TO BE METITED | | | | | | | | | | NEXT ADDRESS TO BE U | PTTTEN |
| | | | | | | | | | | THEN HOUSESS TO BE M | W4116W |

| | 007272 | | | | | DEC | RO | |
|----|--------|------------------|------------------|------------------|----------------|------------------|------------------|--|
| | 007274 | | | | | BNE | 1\$ | |
| 38 | 007276 | | | | 6\$: MXTST2 | SCOPE 1/LOW / | AND HIGH/.60.300 | CHECK FOR ITERATIONS, LOOP |
| | | | | | | :MEMORY | Y EXTENSION MEMO | RY TEST |
| | | | | | | : VERIF | Y THAT LOW AND H | IGH ORDER MEMORY EXTENSION RIT CAN RE |
| | 007700 | | | | | SEI AN | ND CLEARED IN SE | LECTED MEMORY EXTENSION MEMORY LOCATION |
| | 007300 | | 000740 | 170470 | | 100,65,2 | 2\$ | |
| | 007306 | 012767 | 000340 | 170470 | T53: | MOV | #340.PS | DISABLE ALL INTERRUPTS |
| | 007314 | 012767 | 007470 | 002066 002054 | | MOV | #100.ICOUNT | SET UP FOR 100 ITERATIONS |
| | 001314 | OIEIOI | 001410 | 002034 | .IF NB | MOV <2\$> | #6 \$, ESCAPE | SET UP TO ESCAPE TO NEXT TEST |
| | 007322 | 012767 | 007346 | 002050 | . Ir NO | MOV | #2\$,FREEZ1 | CET 110 TO 1 COO 117711 CATA |
| | | | 00.040 | 002030 | .ENDC | 1104 | ASA'LKEEST | SET UP TO LOOP WITH DATA ; 3 |
| | | 000054 | | | XN=XN+1 | | | |
| | 007330 | 012700 | 000020 | | | MOV | #20.R0 | SET UP TO TEST 20(OCTAL) |
| | | | | | | | 4501110 | LOCATIONS IN MEMORY EXTENSION MEMORY |
| | 007334 | 005003 | | | | CLR | R3 | FIRST LOCATION TO BE |
| | | | | | | | | WRITEEN INTO IS O |
| | 007336 | 012701 | 000020 | | 1\$: | MOV | #20.R1 | SET UP TO CLEAR 20 (OCTAL) |
| | | | | | | | | LOCATIONS IN MEMORY EXTENSION MEMORY |
| | 007342 | 005277 | 001766 | | | CLR | ODHSCR | START AT LOCATION O |
| | OC7346 | 042777 | 000060 | 001760 | 2\$: | BIC | 460, adhscr | CLEAR LOCATION IN |
| | 007354 | 012777 | 000000 | 001760 | | MOV | ABHOS. CO | MEMORY EXTENSION MEMORY |
| | 007362 | 005277 | CO1746 | | | INC | aDHSCR | ADVANCE TO NEXT LOCATION |
| | 007366 | 005301 | | | | DEC | R1 | CONTINUE CLEARING |
| | 007370 | | 001776 | | | BNE | 2\$ | ;IF NOT DONE |
| | 007376 | 010377 052777 | 001736 000060 | 001770 | | MOV | R3, BDHSCR | SELECT ADDRESS TO BE TESTED |
| | 007404 | 012777 | 000000 | 001730 001730 | | BIS | 060, adhscr | WRITE LOW AND HIGH INTO LOCATION |
| | 007412 | 005077 | 001716 | 001120 | | MOV | 40, aDHBA | ;LOAD ADDRESS |
| | 007416 | 012701 | 000020 | | | CLR | SOHSCR | ADDRESS LOCATION O |
| | 00.410 | OILIOI | 000020 | | | HUV | #20,R1 | SET UP TO CHECK ALL ADDRESSES |
| | 007422 | 012705 | 000300 | | 3\$: | MOV | #300,R5 | IN MEMORY EXTENSION MEMORY |
| | | | | | | | 4300,113 | LOW AND HIGH-EXPECTED RESULT |
| | | | | | | | | :IF ADDRESS READ IS LOCATION :WRITTEN INTO |
| | 007426 | 017704 | 001720 | | | MOV | ODHSSR,R4 | READ MEMORY LOCATION |
| | 007432 | 027703 | 001676 | | | CMP | ODHSCR,R3 | ;IF LINE NUMBER=ADDRESS |
| | | | | | | | | OF LOCATION WRITTEN INTO |
| | | | | | | | | EXPECTED CONTENTS=LOW AND HIGH |
| | 007436 | 001401 | | | | BEQ | 41 | |
| | 007440 | 005005 | | | | CLR | R5 | OTHERWISE, EXPECTED RESULTS=0 |
| | 007442 | 020504 | | | 45: | CMP | R5,R4 | DOES MEMORY LOCATION CONTAIN |
| | 007444 | 001401 | | | | BEQ | 51 | EXPECTED RESULT |
| | 007446 | 406005 | | | | HLT | 5 | MEMORY EXTENSION DATA ERROR |
| | 007446 | 104005 | | | | EMT | 5 | |
| | 007450 | 104410 | 001656 | | 5#: | SCOPE1 | | CHECK FOR LOOP WITH CURRENT DATA |
| | 007456 | 005277 005301 | 001656 | | | INC | BOHSCR | CHECK CONTENTS OF NEXT LOCATION |
| | 007460 | 001360 | | | | DEC | R1 | |
| | 007462 | 005203 | | | | BNE | 34 | NEVY ADDRESS TO SELECTION |
| | 007464 | 005300 | | | | DEC | R3 | NEXT ADDRESS TO BE WRITTEN |
| | 007466 | 001323 | | | | BNE | R0 | |
| | 007470 | 104400 | | | 61: | SCOPE | | CHECK FOR TTERATIONS 1 000 |
| | 007472 | | | | MXTST2 | +/LOW/. | 20.100 | CHECK FOR ITERATIONS, LOOP |
| | | | | | | , com, , | 20,200 | |
| | | | | | | | | |

| | | | | | | MEMORY | EXTENSION MEMO | DV TEST | |
|---|--------|--------|---|--------|-----------|-------------|-----------------|------------|--|
| | | | | | | : VERIFY | THAT LOW ORDER | MEMORY EX | TENSION BIT CAN BE |
| | | | | | | : SET AN | D CLEARED IN SE | LECTED MEM | ORY EXTENSION MEMORY LOCATION |
| | 007472 | | 000740 | 470076 | TS \XN. | 100.01.5 | \$ | | |
| | 007472 | 012767 | | | 154: | MOV | 4340.PS | | DISABLE ALL INTERRUPTS |
| | 007506 | 012767 | | | | MOV | \$100.ICOUNT | | SET UP FOR 100 ITERATIONS |
| | 007306 | 015101 | 001002 | 001662 | TE NO | MOV | #6\$,ESCAPE | | SET UP TO ESCAPE TO NEXT TEST |
| | 007514 | 012767 | 007540 | 001656 | .IF NB | <2\$> | *** | | |
| | 00.314 | 012101 | 001340 | 001030 | .ENDC | MOV | #2\$,FREEZ1 | | SET UP TO LOOP WITH DATA ; 3 |
| | | 000055 | | | XN=XN+1 | | | | |
| | 007522 | 012700 | 000020 | | VIA-VIA-T | MOV | #20.R0 | | CET 110 TO TEST CO/COTAL 5 |
| | | | *************************************** | | | | 4EO, NO | | SET UP TO TEST 20(OCTAL) |
| | 007526 | 005003 | | | | CLR | R3 | | LOCATIONS IN MEMORY EXTENSION MEMORY |
| | | | | | | CLI | No | | FIRST LOCATION TO BE WRITEEN INTO IS O |
| | 007530 | 012701 | 000020 | | 1\$: | MOV | #20.R1 | | SET UP TO CLEAR 20 (OCTAL) |
| | | | | | | | | | LOCATIONS IN MEMORY EXTENSION MEMORY |
| | 007534 | 005077 | 001574 | | | CLR | a DHSCR | | START AT LOCATION O |
| | 007540 | 042777 | 000060 | 001566 | 2\$: | BIC | 460, SDHSCR | | CLEAR LOCATION IN |
| | 007546 | 012777 | 000000 | 001566 | | MOV | 40. aDHBA | | MEMORY EXTENSION MEMORY |
| | 007554 | 005277 | 001554 | | | INC | ODHSCR | | ADVANCE TO NEXT LOCATION |
| | 007560 | 005301 | | | | DEC | R1 | | CONTINUE CLEARING |
| | 007562 | 001366 | | | | BNE | 2\$ | | ; IF NOT DONE |
| | 007564 | 010377 | | | | MOV | R3, adhscr | | SELECT ADDRESS TO BE TESTED |
| | | 052777 | 000020 | 001536 | | BIS | #20. ODHSCR | | WRITE LOW INTO LOCATION |
| | 007576 | 012777 | 000000 | 001536 | | MOV | 40, adhea | | ;LOAD ADDRESS |
| | 007604 | 005077 | 001524 | | | CLR | ODHSCR | | ADDRESS LOCATION O |
| | 007610 | 012701 | 000020 | | | MOV | #20.R1 | | SET UP TO CHECK ALL ADDRESSES |
| | 007614 | 010705 | 000100 | | | | | | IN MEMORY EXTENSION MEMORY |
| | 007614 | 012705 | 000100 | | 3\$: | MOV | \$100.R5 | :LOW=EXP | ECTED RESULT |
| | | | | | | | | | ; IF ADDRESS READ IS LOCATION |
| | 007620 | 017704 | 001526 | | | | | | ; WRITTEN INTO |
| | 007624 | 027703 | 001526 001504 | | | MOV | ODHSSR,R4 | | READ MEMORY LOCATION |
| | 007024 | 021103 | 001204 | | | CMP | ODHSCR,R3 | | :IF LINE NUMBER=ADDRESS |
| | | | | | | | | | OF LOCATION WRITTEN INTO |
| | 007630 | 001401 | | | | BEQ | 41 | | EXPECTED CONTENTS=LOW |
| | 007632 | 005005 | | | | CLR | R5 | | ATURNITURE CURRENCE CO. |
| | 007634 | 020504 | | | 45: | CMP | R5.R4 | | OTHERWISE, EXPECTED RESULTS = 0 |
| | | 001401 | | | ··· | BEQ | 5# | | DOES MEMORY LOCATION CONTAIN |
| | 007640 | | | | | HLT | 5 | | EXPECTED RESULT |
| | 007640 | 104005 | | | | EMT | 5 | | :MEMORY EXTENSION DATA ERROR |
| | 007642 | 104410 | | | 5\$: | SCOPE1 | | | CHECK FOR LOOP WITH CURRENT DATA |
| | 007644 | 005277 | 001464 | | | INC | BDHSCR | | CHECK CONTENTS OF NEXT LOCATION |
| | 007650 | 005301 | | | | DEC | R1 | | TOURCH CONTENTS OF MEXT FOCKITON |
| | 007652 | 001360 | | | | BNE | 34 | | |
| | 007654 | 005203 | | | | INC | R3 | | NEXT ADDRESS TO BE WRITTEN |
| | 007656 | 005300 | | | | DEC | RO | | MENT MONESS TO BE MUTITED |
| | 007660 | 001323 | | | | SNE | 18 | | |
| | 007662 | 104400 | | | 6\$: | SCOPE | | | CHECK FOR ITERATIONS, LOOP |
|) | 007664 | | | | MXTST2 | +/HIGH/. | 40,200 | | recent the aranna and a con- |
| | | | | | | | | | |
| | | | | | | :MEMORY | EXTENSION MEMOR | RY TEST | |
| | | | | | | ; VERIFY | THAT HIGH ORDER | MEMORY E | XTENSION BIT CAN BE |
| | 007664 | | | | 70 | SET AND | CLEARED IN SEL | ECTED MEM | ORY EXTENSION MEMORY LOCATION |
| | 007664 | 012767 | 000740 | 170104 | | 100,6\$,2\$ | | | |
| | 001004 | 015101 | 000340 | 170104 | T55: | MOV | #340.PS | | DISABLE ALL INTERRUPTS |
| | | | | | | | | | |

| 007672 | | | 001502 | | MOV | #100.ICOUNT | SET UP FOR 100 ITERATIONS | |
|--------|------------------|--------|--------|---------|--------|---------------|--------------------------------------|---|
| | | | | .IF NB | (2\$> | WOY, LOCKIE | SET UP TO ESCAPE TO NEXT TEST | |
| 007706 | 012767 | 007732 | 001464 | | MOV | #2\$,FREEZ1 | SET UP TO LOOP WITH DATA : 3 | |
| | 000056 | | | .ENDC | | | , 3 | |
| 007714 | 000056 012700 | 000020 | | XN=XN+1 | | *** | | |
| 001114 | 012700 | 000020 | | | MOV | #20,R0 | SET UP TO TEST 20(OCTAL) | |
| 007720 | 005003 | | | | CLR | R3 | LOCATIONS IN MEMORY EXTENSION MEMORY | |
| | | | | | | | FIRST LOCATION TO BE | |
| 007722 | 012701 | 000020 | | 1\$: | MOV | #20.R1 | SET UP TO CLEAR 20 (OCTAL) | |
| 007706 | 005077 | | | | | | LOCATIONS IN MEMORY EXTENSION MEMORY | , |
| 007726 | 005077 | 001402 | | | CLR | adhscr | START AT LOCATION O | |
| 007732 | 042777 | 000060 | 001374 | 2\$: | BIC | #60, aDHSCR | CLEAR LOCATION IN | |
| 007740 | 012777 | 000000 | 001374 | | MOV | 40. aDHBA | MEMORY EXTENSION MEMORY | |
| 007746 | 005277 | 001362 | | | INC | aDHSCR | ADVANCE TO NEXT LOCATION | |
| 007752 | 005301 | | | | DEC | R1 | CONTINUE CLEARING | |
| 007754 | 001366 | | | | BNE | 2\$ | ; IF NOT DONE | |
| 007756 | 010377 | 001352 | | | MOV | R3, aDHSCR | CELECT ADDRESS TO BE TESTED | |
| 007762 | 052777 | 000040 | 001344 | | BIS | 440. aDHSCR | SELECT ADDRESS TO BE TESTED | |
| 007770 | 012777 | 000000 | 001344 | | MOV | 40, SDHBA | HRITE HIGH INTO LOCATION | |
| 007776 | 005077 | 001332 | 001344 | | CLR | | ;LOAD ADDRESS | |
| 010002 | 012701 | 000020 | | | | ODHSCR | ADDRESS LOCATION O | |
| 010005 | OTEIOT | 000020 | | | MOV | #20,R1 | SET UP TO CHECK ALL ADDRESSES | |
| 010006 | 01270E | 000000 | | | ***** | | IN MEMORY EXTENSION MEMORY | |
| 010006 | 015102 | 000200 | | 3\$: | MOV | #200,R5 | HIGH=EXPECTED RESULT | |
| | | | | | | | ; IF ADDRESS READ IS LOCATION | |
| | | | | | Land 1 | | ; MRITTEN INTO | |
| 010012 | 017704 | 001334 | | | MOV | adhssr, R4 | READ MEMORY LOCATION | |
| 010016 | 027703 | 001312 | | | CMP | aDHSCR.R3 | :IF LINE NUMBER=ADDRESS | |
| | | | | | | | OF LOCATION WRITTEN INTO | |
| | | | | | | | EXPECTED CONTENTS=HIGH | |
| 010022 | 001401 | | | | BEQ | 4\$ | 15% COLED COMITMID-UTGU | |
| 010024 | 005005 | | | | CLR | R5 | ATHERUTEE EVACATED ACCUSES | |
| 010026 | 020504 | | | 45: | CMP | R5.R4 | OTHERWISE, EXPECTED RESULTS=0 | |
| 010030 | 001401 | | | | BEQ | 5# | DOES MEMORY LOCATION CONTAIN | |
| 010032 | | | | | HLT | 5 | EXPECTED RESULT | |
| 010032 | 104005 | | | | EMT | Š | MEMORY EXTENSION DATA ERROR | |
| 010034 | 104410 | | | E4. | | 3 | | |
| 010036 | | 001070 | | 5\$: | SCOPE1 | | CHECK FOR LOOP WITH CURRENT DATA | |
| | 005277 | 001272 | | | INC | BDHSCR | CHECK CONTENTS OF NEXT LOCATION | |
| 010042 | 005301 | | | | DEC | R1 | | |
| 010044 | 001360 | | | | BNE | 3\$ | | |
| 010046 | 005203 | | | | INC | R3 | :NEXT ADDRESS TO BE WRITTEN | |
| 010050 | 005300 | | | | DEC | RO | | |
| 010052 | 001323 | | | | BNE | 1\$ | | |
| 010054 | 104400 | | | 6\$: | SCOPE | | CHECK FOR TTERATTONS LOOP | |
| 010054 | 104400 | | | 6\$: | SCOPE | | CHECK FOR ITERATIONS, LCOP | |
| | | | | | | | | |

| - | | |
|---|------|----|
| | | 57 |
| - | - 13 | 7/ |
| _ | - 4 | - |

| 10-00 | HACKU | V04.00 | 21-JUN-83 | 12:49:2 | 6 PAGE | 20 | | | | | | | | |
|--|---|--|------------------|-------------------------------------|---|---|-------------------------|--------------------------------|---|-----|------------|----|-----|--|
| 2 010056 | | | | .EOP | +/BEGI | N/ | | | | | | | | |
| | | | | | : UPDATE | NAME OF THE PASS COL | EST UNT TO ACT-11 | | | | | | | |
| 010056 010060 010062 010066 010072 010076 010102 010104 010110 010112 010114 010116 010116 010124 010124 010130 010132 010134 010136 010140 010142 010143 010150 010152 | 104401 012005 005067 005067 005267 005767 001005 104401 012020 104402 010150 000403 016767 013701 001405 000005 004711 000240 000240 000240 000240 000167 000001 006 011370 | 001344 001274 001272 170700 001246 000042 171136 002 | 170656 | 2\$: 3\$: LOGICAL RESTRT: PASARG: | NOP NOP NOP JMP | LAST ERRFLG PASCNT LIGHTS 2\$ PASCNT, I 8042,R1 RESTRT JSR BEGIN 1 6,2 PASCNT | PC.(R1) | CLE CLE UPD AR BR TY PR CO UIS | AR LAST ERROR PC AR ERROR FLAG ATE PASS COUNT E WE USING LIGHTS? ANCH IF WE ARE PE PASCOUNT MESSAGE INT PASSCOUNT NTINUE PLAY PASS COUNT CK FOR ACT-11 OR DDP NOT. CONTINUE TESTING | | 46554 44 4 | :4 | : 6 | |
| | | | | .Score | CHECK | FOR LOOP | ON CURRENT | TEST SSION | | : | 3 | | | |
| 010212 010220 010222 010226 010232 010236 010240 010244 010246 | 032777 001030 032777 001021 032777 001006 005267 026767 001007 005067 005067 011667 000002 016716 000002 005767 001745 | 002000 040000 004000 001172 001166 001134 001136 001130 001114 | 170604 170574 | SCOPER: 1#: 2#: 3#: 4#: | BIT BNE BIT BNE BIT BNE INC CMP BNE CLR CLR MOV RTI MOV RTI TST BEQ | #SW10, #S #\$W14, #S #\$W11, #S 2\$ LPCNT LPCNT, IC 3; LPCNT ERRFLG (SP), RET RETRN, (S | SWR SWR COUNT | | | : : | 4 | | | |

| CZDHB-CO | MACRO VO4.00 27-JUN-85 12:49:26 PAGE 20-1 | SEQ 58 |
|--------------------|--|--------|
| 010254 4 010256 | 000762 BR 2\$ | |
| | CHECK FOR FREEZE ON CURRENT DATA | |
| 010256 010264 | 032777 001000 170514 SCOP1R: BIT #SW09, @SWR 1\$ | ; 4 |
| 010266 010272 | 016716 001106 MOV FREEZ1,(SP) 000002 1\$: RTI | |

1 010274

.ERROR

| - | | 20 | | IO:A | - |
|---|-----|----|------------|------|---|
| | 901 | 10 | M 0 | | |
| | | | | | |

| 010274 | | 020000 | 170476 | ERRORS: | BIT | #SW13. @SWR | |
|--------|--------|--------|--------|---------|--------|---------------|----------------------------------|
| 010302 | | | | | BNE | HALTS | : 4 |
| 010304 | | 001122 | | | CMP | (SP),LAST | |
| 010310 | 001404 | | | | BEQ | 1\$ | |
| 010312 | 011667 | 001114 | | | MOV | (SP).LAST | |
| 010316 | 005067 | 001044 | | | CLR | ERRFLG | |
| 010322 | 104406 | 002011 | | 1\$: | SAV05P | ERRILO | |
| 010324 | 011605 | | | 14. | | (CD) DE | |
| 010326 | 162705 | 000002 | | | MOV | (SP),R5 | |
| 010332 | 011504 | 000002 | | | SUB | #2,R5 | |
| 010334 | 006304 | | | | MOV | (R5),R4 | |
| 010336 | | | | | ASL | R4 | |
| 010336 | 006304 | 477004 | | | ASL | R4 | |
| 010340 | 042704 | 177001 | | | BIC | #177001,R4 | |
| 010344 | 062704 | 012140 | | | ADD | ØERRTAB,R4 | |
| 010350 | 012467 | 000040 | | | MOV | (R4)+, ERRMSG | |
| 010354 | 011467 | 000052 | | | MOV | (R4),DATABP | |
| 010360 | 005767 | 001002 | | | TST | ERRFLG | |
| 010364 | 001403 | | | | BEQ | TYPMSG | |
| 010366 | 005767 | 000040 | | | TST | DATABP | |
| 010372 | 001011 | | | | BNE | TYPDAT | _ |
| 010374 | 104401 | | | TYPMSG: | TYPE | | ; 3 |
| 010376 | 011715 | | | | MCRLF | | ; 5 |
| 010400 | 104402 | | | | OCTASC | | ; 5 ; 5 |
| 010402 | 010500 | | | | ERTABO | | ; 5 |
| 010404 | 012767 | 000001 | 000754 | | | AL FROM C | |
| 010412 | 104401 | 000001 | 000134 | | MOV | ♦1,ERRFLG | |
| 010414 | 000000 | | | CODMCC | TYPE | | |
| 010414 | | 000010 | | ERRMSG: | | | |
| | 005767 | 000010 | | TYPDAT: | | DATABP | |
| 010422 | 001404 | | | | BEQ | RESREG | |
| 010424 | 104401 | | | | TYPE | | : 5 |
| 010426 | 011715 | | | | MCRLF | | ; 5 ; 5 |
| 010430 | 104402 | | | | OCTASC | | 병장 얼마가 그리면 되었다. |
| 010432 | 000000 | | | DATABP: | | | |
| 010434 | 104407 | | | RESREG: | RESO5 | | |
| 010436 | 005777 | 170336 | | HALTS: | TST | OSHR | 지원이다 함께 없는데 하는데 하는 이번 그리지만 되었다면서 |
| 010442 | 100005 | | | | BPL | EXITER | : 4 |
| 010444 | 010046 | | | | PUSHRO | | |
| 010446 | 016600 | 200000 | | | MOV | 2(SP).R0 | |
| 010452 | 000000 | | | | HALT | E.O | |
| 010454 | 012600 | | | | POPRO | | |
| 010456 | 005267 | 000710 | | EXITER: | | EDBONT | |
| 010462 | 032777 | 002000 | 170310 | EVTIEK: | | ERRCNT | |
| 010470 | 001402 | 002000 | 110310 | | BIT | PSW10. BSWR | |
| 010472 | | 000700 | | | BEQ | 16 | |
| | 016716 | 000700 | | | MOV | ESCAPE,(SP) | |
| 010476 | 000002 | | | 15: | RTI | | |
| 010500 | 000001 | | | ERTABO: | 1 | | |
| 010502 | 006 | 002 | | | .BYTE | 6.2 | |
| 010504 | 011424 | | | | SAVPC | | |
| | | | | | | | |

| CZDHB-CO | MACRO V04.00 | 27-JUN-85 12:49:2 | 26 PAGE 22 | | | SEQ 6 |
|--|--|-------------------|--|--------------------------------------|--|-------|
| 010506 | | .TRPSR | :TRAP DISPAT | TRAP IS EXTRACTED OFFSET TO OBTAIN P | OINTER | ; 3 |
| 010506 010510 010514 010520 010522 010526 010532 010536 2 010540 | 011646 162716 00000 017616 00000 006316 042716 17700 062716 01206 017616 00000 000136 | TRPOK: | SUB #2,(MOV @(SP) ASL (SP) BIC #177 ADD #TRP MOV @(SP) JMP @(SP) | 001.(SP) TAB.(SP) (SP) | GET PC OF RETURN =PC OF TRAP GET TRP MULTIPLY TRAP ARG BY 2 CLEAR UNWANTED BITS POINTER TO SUBROUTINE ADDRESS SUBROUTINE ADDRESS GO TO SUBROUTINE | |
| 010540 | 016567 00000 | | SAVE PC OF | TEST THAT FAILED AN | ID RO-R5 | |
| | | | SAVE RO-RS | | | |
| 010556 010562 010566 | 010567 000640 010467 000640 010367 000630 010267 000620 010167 000610 010067 000610 | | MOV R5.S MOV R4.S MOV R3.S MOV R2.S MOV R1.S MOV R0.S | AVR4 AVR3 AVR2 AVR1 | | ; 3 |
| 0 02000 | | .REJREG | RESTORE RO- | R5 | | |
| 010604 010610 010614 010620 010624 | 016700 000602 016701 000600 016702 000576 016703 000576 016704 000572 016705 000570 | | MOV SAVR MOV SAVR MOV SAVR MOV SAVR MOV SAVR RTI | 1,R1 2,R2 3,R3 4,R4 | | |

:ASCII STRING INPUT ROUTINE

a(SP), MSG

#INBUF,R4

STKDBR,(R4)

STKDBR, STPDBR

#200,(R4)

(R4)+, 415

47.R3

1\$

OTKCSR

INSTR2

OTPCSR

INSTR1

2\$

R3

1\$

#2.(SP)

INSTRG: MOV

INSTR1: TYPE

MSG:

1\$:

2\$:

ADD

MOV

MOV

TSTB

MOVB

BICB

CMPB

BEQ

HOVB

TSTB

BPL

DEC

BNE

MQM

INSTRE: TYPE

INSTR2: RTI

0

010664 017667 000000 000006

000002

000007

000406

000402

000200

000015

000360

000364 000366

010672 062716

010702 012704

010706 012703

010712 105777

010716 100375

010720 117714

010724 142714

010730 122427

010734 001413

010736 117777

010744 105777

010750 100375

010752 005303

010754 001356

010760 011711

010762 000745

104401

200000

010756

010764

104401

000000

010676

```
CZDH8-CO
```

011142 000000

000000

000000

000000

011151

011144

011146

011150

SEQ 62

: 3

: 3

```
1 010766
                                 .PARAMS
                                         CONVERT ASCII STRING TO OCTAL
 010766 011605
                                 PARAMS: MOV
                                                 (SP), R5
  010770 012567 000146
                                         MOV
                                                 (R5)+,LOLIM
 010774
         012567
                 000144
                                         MOV
                                                 (R5)+,HILIM
 011000
         012567
                 000142
                                         MOV
                                                 (R5)+, DEVADR
 C11004 112567
                 000140
                                         MOVB
                                                 (R5)+,LOBITS
 011010 112567
                 000135
                                         MOVB
                                                 (R5) . ADRCHT
 011014
         010516
                                         MOV
                                                 R5,(SP)
 011016
         005005
                                 PARAM1: CLR
 011020
         012704
                 012102
                                         MOV
                                                 #INBUF.R4
 011024
         122714
                 000015
                                         CMPB
                                                 #15,(R4)
 011030
         001420
                                         BEQ
                                                 PARERR
 011032
         121427
                 000060
                                         CMPB
                                                 (R4).460
 011036
         002415
                                         BLT
                                                 PARERR
 011040
         121427
                 000067
                                         CMPB
                                                 (R4), 467
 011044
         003012
                                         BGT
                                                 PARERR
 011046
         142714
                 000060
                                         BICB
                                                 460, (R4)
 011052
         152405
                                         BISB
                                                 (R4)+,R5
 011054 122714
                 000015
                                                 #15,(R4)
                                         CMPB
 011060 001406
                                         BEQ
                                                 LIMITS
 011062 006305
                                         ASL
                                                 R5
 011064 006305
                                         ASL
                                                 R5
 011066 006305
                                         ASL
                                                 R5
 011070 000760
                                                 1$
 011072 104404
                                 PARERR: INSTER
 011074 000750
                                                 PARAM1
                                         BR
                                         :TEST TO SEE IF NUMBER IS WITHIN LIMITS
 011076 020567 000042
                                 LIMITS: CMP
                                                 R5.HILIM
 011102 101373
                                         BHI
                                                 PARERR
 011104
         020567
                 000032
                                         CMP
                                                 R5.LOLIM
 011110
        103770
                                         BLO
                                                 PARERR
 011112 136705
                000032
                                         BITB
                                                 LOBITS,R5
 011116 001365
                                         BNE
                                                 PARERR
                                         STORE NUMBER AT SPECIFIED ADDRESS
 011120 016704
                000022
                                                 DEVADR.R4
011124 010524
                                1$:
                                         MOV
                                                 R5,(R4)+
011126 062705
                000002
                                         ADD
                                                 02.R5
011132 105367
                000013
                                         DECB
                                                 ADRCNT
011136 001372
                                         BNE
011140 000002
                                         RTI
```

LOLIM: 0

HILIM: 0

DEVADR: 0

LOBITS: 0

ADRCNT=LOBITS+1

```
SEQ 63
CZDHB-CO
                  MACRO VO4.00 27-JUN-85 12:49:26 PAGE 25
         011152
                                                .OCTASC
                                                         CONVERT OCTAL NUMBER TO ASCII AND OUTPUT TO TELEPRINTER
        011152 017601
                           000000
                                               OCTASN: MOV
                                                                  8(SP),R1
        011156 062716
                            000002
                                                         ADD
                                                                  #2.(SP)
         011162 012167
                            000130
                                                         MOV
                                                                  (R1)+, WRDCNT
        011166 112167
011172 112167
                            000126
                                               1$:
                                                         MOVB
                                                                  (R1)+, CHRCNT
                            000123
                                                         MOVB
                                                                  (R1)+, SPACNT
                                                                                                                                         : 3
        011176 013167
                           000120
                                                         MOV
                                                                  B(R1)+,BINWRD
        011202 016704
                           000114
                                               2$:
                                                         MOV
                                                                  BINWRD, R4
        011206 116705
011212 012700
011216 010403
011220 042703
011224 062703
                           000106
                                                         MOVB
                                                                  CHRCNT, R5
                           012114
                                                        VOM
                                                                  ATEMP, RO
                                               3$:
                                                        MOV
                                                                  R4.R3
                           177770
                                                        BIC
                                                                  4177770.R3
                           000260
                                                         ADD
                                                                  #260,R3
        011230 110320
                                                        MOVB
                                                                  R3,(R0)+
        011232 006204
011234 006204
011236 006204
011240 005305
                                                                  R4
R4
                                                         ASR
                                                         ASR.
                                                                  R4
                                                         ASR
                                                                  R5
                                                        DEC
        011242 001365
                                                        BNE
                                                                  3$
        011244 012703
                           012126
                                                                  MOATA, R3
                                                        MOV
        011250 114023
                                                                  -(RO),(R3)+
                                               4$:
                                                        MOVB
       011252 105367
011256 001374
011260 105767
011264 001405
011266 112723
011272 105367
                           000042
                                                        DECB
                                                                  CHRCNT
                                                        BNE
                           000035
                                                                  SPACNT
                                                        TSTB
                                                        BEQ
                           000240
                                               54:
                                                        MOVB
                                                                  #240,(R3)+
                           000023
                                                        DECB
                                                                  SPACNT
        011276 001373
                                                        BNE
                                                                  5#
        011300
                105013
                                              6$:
                                                        CLRB
                                                                  (R3)
        011302 104401
011304 012126
                                                        TYPE
                                                        MDATA
        011306 005367
                           000004
                                                        DEC
                                                                  WRDCNT
        011312 001325
                                                        BNE
                                                                  1$
        011314 000002
                                                        RTI
        011316 000000
                                               WRDCNT: 0
        011320 000000
                                               CHRCNT: 0
```

SPACNT=CHRCNT+1

BINLIRD: 0

011321

```
SEQ 64
CZDHB-CO
                MACRO VO4.00 27-JUN-85 12:49:26 PAGE 26
        011324
                                          .POINT +/DHSCR, DHNRC, DHLPR, DHBA, DHBC, DHBAR, DHBCR, DHSSR, DHSLR, DHRVEC, DHRLVL, DHTVEC, DHTLVL/
                                                  :INDIRECT POINTERS
        011324
                177560
                                         TKCSR:
                                                 177560
                177562
177564
        011326
                                         TKDBR:
                                                 177562
        011330
                                          TPCSR:
                                                 177564
        011332
               177566
                                         TPDBR:
                                                 177566
                                                          <DHSCR,DHNRC,DHLPR,DHBA,DHBC,DHBAR,DHBCR,DHSSR,DHSLR,DHRVEC,DHRLVL,DHTVEC,DH</pre>
                                          . IRP
TLVL>
                                          .ENDM
        011334
                000000
                                         DHSCR:
        011336
                000000
                                         DHNRC:
                                                 0
        011340
                000000
                                                 ō
                                         DHLPR:
                                                 C
        011342
                000000
                                         DHBA:
        011344
                                                 C
                                         DHBC:
                000000
        011346
                000000
                                         DHBAR:
                                                 0
        011350
                                         DHBCR:
                000000
        011352
                000000
                                         DHSSR:
        011354
                000000
                                         DHSLR:
       011356
                000000
                                         DHRVEC:
       011360
                000000
                                         DHRLVL: 0
       011362
                000000
                                         DHTVEC: 0
       011364
                000000
                                         DHTLVL: 0
     2 011366
                                         . VARIA
                                                 :PROGRAM VARIABLES
       011366
                                         ERRFLG: 0
                                                                  :ERROR FLAG
       011370
                000000
                                         PASCNT: 0
                                                                  PASS COUNT
       011372
                000000
                                         ERRCNT: 0
                                                                  ERROR COUNT
       011374
                000000
                                         RETRN: 0
                                                                  SCOPE RETURN ADDRESS FOR TEST LOOPING
       011376
                000000
                                         ESCAPE: 0
                                                                  ADDRESS FOR ERROR ESCAPE
       011400
                000000
                                         FREEZ1: 0
                                                                  DATA LOOPING RETURN ADDRESS
       011402
               000000
                                         ICOUNT: 0
                                                                  ITERATION COUNT FOR TEST IN PROGRESS
       011404
                000000
                                         LPCNT:
                                                 0
                                                                  NUMBER OF ITERATIONS THIS TEST
       011406
               000000
                                         SAVRO:
                                                                  RO SAVE AREA
       011410
               000000
                                         SAVR1: 0
                                                                  RI SAVE AREA
       011412
                                         SAVR2:
               000000
                                                                  R2 SAVE AREA
                                                                                                                      : 3
               000000
       011414
                                         SAVR3:
                                                                  :R3 SAVE ARE
       011416
               000000
                                         SAVR4:
                                                                  R4 SAVE AREA
       011420
               000000
                                         SAVR5:
                                                                  RS SAVE AREA
       011422
               000000
                                         SAVSP: 0
                                                                  STACK POINTER SAVE AREA
       011424
               000000
                                         SAVPC: 0
                                                                  CALLING ROUTINE SAVE AREA
       011426
               000000
                                         INIFLG: 0
                                                                  PROGRAM INITIALIZATION FLAG
       011430
               000000
                                         STFLG: 0
                                                                  PROGRAM START FLAG
       011432
               000000
                                         LAST:
                                                0
                                                                  :LAST ERROR PC
                                         .IRP
                                                 0
```

.ENDM

| 4 | | | .PFAIL | | | * | | |
|--|--|--|--|--|---|-----------|---|----------|
| | | | | ENTER | HERE ON POWER | FAILURE | | |
| 010146 010246 010346 010446 010546 | | | PFAIL: | MOV MOV MOV MOV MOV | RO,-(SP) R1,-(SP) R2,-(SP) R3,-(SP) R4,-(SP) | | SAVE RO-R5 ON PROCESSOR STACK | |
| 010667 012767 000000 | 177742 011472 | 166336 | | MOV MOV HALT BR | SP, SAVSP | | SAVE STACK POINTER SET UP FOR POWER UP TRAP HALT ON POWER DOWN NORMAL | ; 3 |
| | | | | PROCES | SSOR WILL TRAP | HERE WHEN | POWER IS RESTORED | |
| 012605 012604 012603 012602 012601 | 177724 | | RESTAR: | MOV MOV MOV MOV | SAVSP, SP (SP)+, R5 (SP)+, R4 (SP)+, R3 (SP)+, R2 (SP)+, R1 (SP)+, R0 | | RESTORE STACK POINTER RESTORE RO-RS | |
| 012767 012706 005067 005267 001375 | 011434 000340 012774 000356 000352 | 166304 166250 | | MOV MOV CLR INC BNE | OPFAIL, 24 0340, PS OSTACK, SP TEMP TEMP 4 | | SET UP FOR POWER FAILURE | |
| 011715 104402 011574 104401 011720 | | | | MCRLF OCTASC PFTAB TYPE MPFAIL | | | | : 5 |
| 005067 005067 000177 000001 000006 011374 | 177602 177642 177600 000002 | | PFTAB: | CLR CLR JMP 1 6.2 RETRN | ERRFLG LAST GRETRN | | | |
| | 010146 010246 010346 010346 010546 010546 010667 012767 000000 000777 012604 012605 012604 012603 012602 012601 012600 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 012767 005067 005067 005067 005067 005067 000001 000006 | 010046 010146 010246 010346 010546 010546 010667 177742 012767 011472 000000 000777 012604 012603 012604 012603 012604 012767 011434 012767 000340 012767 011434 012767 000356 005267 000356 005267 000352 011574 104401 011715 104402 011574 104401 011720 005067 177602 015067 177602 005067 177602 005067 177602 | 010046 010146 010246 010346 010546 010546 010667 177742 012767 011472 166336 000000 000777 016706 177724 012605 012604 012603 012602 012601 012767 011434 166304 012767 000340 166250 012706 012774 005067 000356 005267 000352 001375 104401 011715 104402 011574 104401 011720 005067 177602 011574 104401 011720 005067 177602 005067 177602 005067 177642 000001 0000001 | # 010046 | # 010046 | # 010046 | # 010046 | # 010046 |

| ZDHB-CO | MACRO | V04.00 | 27-JUN-85 | 12:49:26 | PAGE | 28 | SE3 66 |
|------------------|------------|------------|------------|-----------|---------|--|--------|
| 011604 | | | | .MSG | +/DH11 | MEMORY TEST/, +/CZDHB-CO/ | |
| C11604 | 015 | 012 | | MTITLE: | . ASCIZ | <15><12><12>/DH11 MEMORY TEST /<15><12> | |
| 011607 | 104 | 110 | | | | | |
| 011612 011615 | 061 | 040 | | | | | |
| 011620 | 105 122 | 115 | | | | | |
| 011623 | 124 | 105 | | | | | |
| 011626 | 124 | 040 | | | | | |
| 011631 | 012 | 000 | | | | | |
| 011633 | 015 | 012 | 126 | MVECTO: | . ASCIZ | <15><12>/VECTOR ADDRESS-/ | |
| 011636 | 105 | 103 | 124 | | | The state of the s | |
| 011641 | 117 | 122 | | | | | |
| 011644 | 101 | 104 | | | | | |
| 011647 011652 | 122 | 105 055 | | | | | |
| 011655 | 015 | 012 | | MREGAD: | ACCTZ | (15)(12)(CONTROL DECTETED ADDRESS (| |
| 011660 | 117 | 116 | | TINEGRU: | . MOCIZ | <15><12>/CONTROL REGISTER ADDRESS-/ | |
| 011663 | 122 | 117 | 114 | | | | |
| 011666 | 040 | 122 | 105 | | | | |
| 011671 | 107 | 111 | | | | | |
| 011674 | 124 | 105 | | | | | |
| 011677 | 040 | 101 | | | | | |
| 011702 011705 | 104 | 122 | 105 | | | | |
| 011710 | 123 | 123 | 055 | | | | |
| 011711 | 040 | 040 | 077 | MQM: | ASCIZ | / ?/ | |
| 011714 | 000 | 040 | • | | . MJCIZ | <i>' ' ' '</i> | |
| 011715 | 015 | 012 | 000 | MCRLF: | ASCIZ | <15><12> | |
| 011720 | 040 | 040 | 120 | MPFAIL: | ASCIZ | / POWER FAILURE, PROGRAM RESTART AT TEST IN PROGRESS/ | |
| 011723 | 117 | 127 | | | | | |
| 011726 | 122 | 040 | | | | | |
| 011731 011734 | 101 | 111 | | | | | |
| 011737 | 125 054 | 122 | | | | | |
| 011742 | 122 | 117 | | | | | |
| 011745 | 122 | 101 | | | | | |
| 011750 | 040 | 122 | 105 | | | | |
| 011753 | 123 | 124 | 101 | | | | |
| 011756 | 122 | 124 | 040 | | | | |
| 011761 | 101 | 124 | 040 | | | | |
| 011764 | 124 | 105 | | | | | |
| 011767 011772 | 124 | 040 | | | | | |
| 011775 | 116 | 040 117 | 120 | | | | |
| 012000 | 122 | 105 | 107 123 | | | | |
| 012003 | 123 | 200 | | | | | |
| 012005 | 015 | 012 | | MEPASS: . | ASCIZ | <15><12>/CZDHB-CO/ | |
| 012010 | 132 | 104 | 110 | | | | |
| 012013 | 102 | 055 | 103 | | | | |
| 012016 | 060 | 000 | | | | | |
| 012020 | 015 | 012 | 120 | PASTXT: . | ASCIZ | <15><12>/PASS COUNT = / | : 5 |
| 012023 012026 | 101 | 123 | 123 | | | | |
| 012026 | 040 125 | 103 116 | | | | | |
| 012034 | 040 | 075 | 040 | | | | |
| 012037 | 000 | 7.3 | | | | | |

| B-CO | MACRO VOA | .00 | 27-JUN-85 | 12:49:26 | PAGE 2 | 8-2 | | SEQ 68 |
|--------------------------------------|-----------|--------------------------|-----------|----------|----------|--|------|----------|
| 012223 | 130 | 120 | 040 | | | | | |
| 012226 | 040 | 040 | 040 | | | · · · · · · · · · · · · · · · · · · · | | |
| 012231 | 040 | 122 | | | | | | |
| 012234 | 103 | 040 | | | | | | |
| 012237 | 040 | 040 | | | | | | |
| 012242 | 101 | 104 | | | | | | |
| 012245 | 122 | 105 | | | | | | |
| 012250 | 123 | 000 | | | | | | |
| 18 012252 | 102 | 131 | | EM2: | . ASCIZ | /BYTE COUNT MEMORY ERROR/<15><12>/EXP | | |
| 012255 | 105 | 040 | 103 | | . 113612 | ALLE COOK! HEHOK! EKKOK/(13)(15)/EXP | REC | ADDRESS/ |
| 012255 012260 012263 012266 | 117 | 125 | 116 | | | | | |
| 012263 | 124 | 040 | | | | | | |
| 012266 | 105 | 115 | 117 | | | | | |
| 012271 | 122 | 131 | | | | | | |
| 012274 012277 | 105 | 122 | | | | | | |
| 012277 | 117 | 122 | 015 | | | | | |
| 012302 | 012 | 105 | 130 | | | | | |
| 012302 012305 012310 | 120 | 040 | | | | | | |
| 012310 | 040 | 040 | 040 | | | | | |
| 012313 | 122 | 105 | 103 | | | | | |
| 012316 | 040 | 040 | 040 | | | | | |
| 012321 | 040 | 040 | 101 | | | | | |
| 012324 012327 012332 | 104 | 104 | 122 | | | | | |
| 012327 | 105 | 123 | 123 | | | | | |
| 012332 | 000 | | | | | | | |
| 19 012333 | 102 | 125 | 123 | EM3: . | .ASCIZ | /BUS ADDRESS MEMORY ERROR/<15><12>/EXP | REC/ | |
| 012336 | 040 | 101 | 104 | | | TOO HOULESS HEHOM ENNOW IT TO TENE | MEC/ | |
| 012341 | 104 | 122 | 105 | | | | | |
| 012344 | 123 | 123 | 040 | | | | | |
| 012347 012352 012355 | 115 | 105 | 115 | | | | | |
| 012352 | 117 | 122 | 131 | | | | | |
| 012355 | 040 | 105 | 122 | | | | | |
| 012360 | 122 | 117 | 122 | | | | | |
| 012363 | 015 | 012 | 105 | | | | | |
| 012366 | 130 | 120 | 040 | | | | | |
| 012371 | 040 | 040 | 040 | | | 살이다 그들은 모르네이 나무 바닷컴 [14] 하고 아니다 | | |
| 012374 | 040 | 122 | 105 | | | | | |
| 012377 | 103 | 000 | | | | | | |
| 20 012401 | 102 | 131 | 124 | EM4: . | ASCIZ | /BYTE COUNT MEMORY ERROR/<15><12>/EXP | REC/ | |
| 012404 | 105 | 040 | 103 | | | THE SOUTH HEMOTI ENGLISH TENEAR | NEC | |
| 012407 | 117 | 125 | 116 | | | | | |
| 012412 | 124 | 040 | 115 | | | | | |
| 012415 | 105 | 115 | 117 | | | | | |
| 012420 | 122 | 131 | 040 | | | | | |
| 012423 | 105 | 122 | 122 | | | | | |
| 012426 | 117 | 122 | 015 | | | | | |
| 012426 012431 | 012 | 105 | 130 | | | | | |
| 012434 | 120 | 040 | 040 | | | | | |
| 012437 | 040 | 040 | 040 | | | | | |
| 012442 | 122 | 105 | 103 | | | | | |
| 012445 | 000 | | | | | | | |
| 21 012446 | 115 | 105 | 115 | EMS: . | ASCIZ | /MEMORY EXTENSION ERROR/<15><12>/EXP | REC | ADDRESS! |
| 012451 | 117 | 122 | 131 | | | THE PRICE OF THE P | HEL | ADDRESS/ |
| 012454 | 040 | 105 | 130 | | | | | |
| 012457 | 124 | 105 | 116 | | | | | |
| 012462 | 123 | 111 | 117 | | | | | |
| 012465 | 116 | 040 | 105 | | | | | |
| | | The Land of the State of | | | | | | |

| 012470 012473 012476 012501 012504 012507 012512 012515 012520 012523 | 122 122 105 040 040 105 040 040 104 123 | 122 015 130 040 040 103 040 101 122 123 | 117 012 120 040 122 040 040 104 105 000 | | |
|--|--|--|--|------------------------|-----------------------|
| 22 23 012526 24 012530 | 000003 006 | 002 | | .EVEN DT1: .BYTE | 3 6,2 |
| 25 012532 26 012534 27 012536 | 011412 006 011414 | 002 | | .BYTE | SAVR2 6.2 SAVR3 |
| 28 012540 29 012542 | 002 011416 | 000 | | .BYTE | 2.0 SAVR4 |
| 30 012544 31 012546 32 012550 | 000002 006 011420 | 002 | | DT2: .BYTE | 6.2 |
| 33 012552 34 012554 | 006 011416 | 002 | | .BYTE | SAVR5 6.2 SAVR4 |
| 35 012556 36 012560 37 012562 | 000003 | 002 | | DT3: .BYTE | 3 6,2 |
| 37 012562 38 012564 39 012566 | 011420 006 011416 | 002 | | .BYTE | SAVR5 6.2 SAVR4 |
| 40 012570 41 012572 | 002 011414 | 000 | | .BYTE | 2.0 SAVR3 |
| 42 012574 012574 | 000000 | | | .ENDCOD : | 0 |
| 43 | 000001 | | | .END | |

| CZDHB- | | MACRO V04.00 | 27-JUN-85 | 12:49:26 PAGE 2 | 8-4 | | | | |
|----------------|--------|--------------|-----------|-----------------|--------|--------|--------|------------|--------|
| ADRENT | 011151 | EM3 | 012333 | MVECTO | 011633 | STFLG | 011430 | T21 | 003400 |
| ADRS | 000000 | EM4 | 012401 | | 000001 | SV05 | 010546 | 122 | 003476 |
| BEGIN | 001306 | EM5 | 012446 | OCTASC= | 104402 | SV05P | 010540 | T23 | 003574 |
| BINWRD | 011322 | ENDCOD | 012574 | OCTASN | 011152 | SWR | 001000 | T24 | 003672 |
| BITOO . | 000001 | EOP | 010056 | PARAM = | 104405 | | 000001 | T25 | 003672 |
| BITO1 : | 000002 | ERRCNT | 011372 | PARAMS | 010756 | | 000002 | T26 | 004066 |
| BITO2 . | 000004 | ERRFLG | 011366 | PARAMI | 011016 | | 000004 | T27 | 004164 |
| BITO3 - | 000010 | ERRMSG | 010414 | PARERR | 011072 | | 000010 | T3 | 001634 |
| | 000020 | ERRORS | 010274 | PASARG | 010150 | | 000020 | T30 | 001634 |
| BITOS - | 000040 | ERRTAB | 012140 | PASCNT | 011370 | | 000040 | T31 | |
| BITO6 = | 000100 | ERTABO | 010500 | PASTXT | 012020 | | G00100 | T32 | 004360 |
| BITO7 = | 000200 | ESCAPE | 011376 | PFAIL | 011434 | | 000400 | | 004456 |
| BITO8 = | 000400 | EXITER | 010456 | PFTAB | 011574 | | 001000 | T33 | 004554 |
| BIT09 = | 001000 | FREEZ1 | 011400 | POPRO = | 012600 | SW10 = | 002000 | T34 | 004652 |
| BIT10 = | 002000 | HALTS | 010436 | POP1SP= | 005726 | | 004000 | T35 T36 | 004750 |
| BIT11 = | 004000 | HILIM | 011144 | POP2SP= | 022626 | | 010000 | | 005046 |
| BIT12 = | | ICOUNT | 011402 | | 177776 | | 020000 | T37 | 005144 |
| BIT13 = | 020000 | INBUF | 012102 | PUSHRO= | | | 040000 | T4 | 001732 |
| BIT14 = | 040000 | INIFLG | 011426 | PUSH1S= | | | | T40 | 005242 |
| BIT15 = | 100000 | | 104404 | PUSH2S= | | TEMP | 100000 | T41 | 005340 |
| CADRS = | | INSTR = | | RESREG | 010434 | | 012114 | 142 | 005436 |
| CHRCNT | 011320 | INSTRE | 010756 | RESTAR | 011472 | TKCSR | 011324 | T43 | 005534 |
| DATABP | 010432 | INSTRG | 010664 | RESTRT | 010144 | TKDBR | 011326 | T44 | 005710 |
| DEVADR | 011146 | INSTR1 | 010676 | RESO5 = | | TPCSR | 011330 | T45 | 006064 |
| DHBA | 011342 | INSTR2 | 010764 | RETRN | | TPDBR | 011332 | T46 | 006240 |
| DHBAR | 011346 | LAST | 011432 | RSOS | 011374 | TRPOK | 010520 | T47 | 006414 |
| DHBC | 011344 | LIGHTS | 001002 | | 010600 | TRPSRV | 010506 | T5 | 002030 |
| DHBCR | 011350 | LIMITS | 011076 | SAVPC | 011424 | TRPTAB | 012060 | T50 | 006570 |
| DHLPR | 011340 | LOBITS | 011150 | SAVRO | 011406 | TYPDAT | 010416 | T51 | 006744 |
| DHNRC | 011336 | LOGICA | 011130 | SAVR1 | 011410 | TYPE = | 104401 | T52 | 007122 |
| DHRLVL | 011360 | | 010134 | SAVR2 | 011412 | TYPER | 010632 | T53 | 007300 |
| | | LOLIM | 011142 | SAVR3 | 011414 | | 010374 | T54 | 007472 |
| DHRVEC | 011356 | LPCNT | 011404 | SAVR4 | 011416 | T1 | 001400 | T55 | 007664 |
| DHSCR | 011334 | MCRLF | 011715 | SAVR5 | 011420 | T10 | 002322 | T6 | 002126 |
| DHSLR | 011354 | MDATA | 012126 | SAVSP | 011422 | T11 | 002420 | 17 | 002224 |
| DHSSR | 011352 | MEPASS | 012005 | SAVOSP= | 104406 | T12 | 002516 | VEC1 | 001164 |
| DHTLVL | 011364 | MPFAIL | 011720 | SCOPE = | | T13 | 002614 | VEC2 | 001174 |
| DHTVEC | 011362 | MQM | 011711 | SCOPER | 010156 | | 002712 | WRDCNT | 011316 |
| DT1 | 012526 | MR | 012040 | SCOPE1= | 104410 | | 003010 | | 000000 |
| DT2 | 012544 | MREGAD | 011655 | SCOP1R | 010256 | T16 | 003106 | XADRS = | |
| DT3 | 012556 | MSG | 010700 | SPACNT= | 011321 | | 003204 | XCADRS= | 000020 |
| EM1 | 012170 | MTITLE | 011604 | STACK = | 012774 | | 001516 | | 000020 |
| EM2 | 012252 | MTSTPC | 012044 | START | 001004 | | 003302 | | 000036 |

. ABS. 012576 000 000000 001 ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 20224 WORDS (79 PAGES)
DYNAMIC MEMORY AVAILABLE FOR 71 PAGES
CZDHBC.BIN,CZDHBC.SEQ=CZDHBC.DOC,DHMACA.MAC,CZDHBC.P11