

IDENTIFICATION

PRODUCT CODE: MAINDEC-15-D1CO-D  
PRODUCT NAME: PDP-15 EXTENDED MEMORY TEST  
DATE PRODUCED: JUNE 1, 1970  
MAINTAINER: DIAGNOSTIC GROUP  
AUTHOR: L. R. KOLLER

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PDP-15  
MEMORY

23

1. ABSTRACT  
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THE PDP-15 EXTENDED MEMORY TEST CHECKS FOR CORRECT OPERATION OF THE SYSTEM WHEN OPERATING WITH EXTENDED MEMORY. THE PROGRAM CAN TEST A SYSTEM WITH A MAXIMUM CONFIGURATION OF 32K OF CORE STORAGE, FOR EACH FIELD/PAGE (4K) OF STORAGE IN THE SYSTEM THE PROGRAM CHECKS FOR CORRECT OPERATION OF KEY INSTRUCTIONS, AND FOR CORRECT OPERATION OF THE INTERRUPT SYSTEM, API SYSTEM, AND AUTO-INDEX FEATURE.

2. REQUIREMENTS  
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2.1 EQUIPMENT  
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- A. STANDARD PDP-15 WITH AT LEAST 8K OF CORE STORAGE,
- B. PROGRAM LOAD DEVICE (ASR33/35 TELETYPE OR HIGH SPEED READER),
- C. THE PDP-15 TELETYPE MUST BE OPERATIONAL AS IT IS REQUIRED FOR PROGRAM TYPEOUTS.

2.2 STORAGE  
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THE PROGRAM USES LOCATIONS 0000 THROUGH 5324.

2.3 PRELIMINARY PROGRAMS  
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ALL PROGRAMS REQUIRED TO INSURE CORRECT OPERATION OF THE BASIC PROCESSOR MUST HAVE BEEN RUN SUCCESSFULLY.

LOADING PROCEDURE  
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- A. LOAD THE OBJECT TAPE IN THE TELETYPE READER, OR IN THE HIGH SPEED READER IF THE SYSTEM HAS SUCH READER.
- B. SET ADDRESS SWITCHES TO 17700,
- C. SET BANK SWITCH TO ON POSITION,
- D. PRESS "RESET"
- E. PRESS "READ IN"
- F. THE PROGRAM WILL LOAD AND HALT WITH AC=777777 IF PROGRAM LOADED CORRECTLY, IF PROGRAM HALTS WITH AC=0, A CHECKSUM ERROR HAS OCCURRED, REPEAT THE LOADING PROCEDURE.

## 4. USE PROCEDURE

THE PROGRAM IS MADE UP OF INDIVIDUAL TEST ROUTINES NUMBERED FROM 00 THROUGH 167 (OCTAL), THESE TESTS ARE RUN THROUGH SEQUENTIALLY, EACH TEST IS REPEATED 4096 TIMES BEFORE THE PROGRAM PROCEEDS TO EXECUTE THE FOLLOWING TEST ROUTINE,

THE SUCCESSFUL EXECUTION OF THE SET OF ROUTINES IN THE PROGRAM CONSTITUTES A PROGRAM PASS, COMPLETION OF A PROGRAM PASS IS INDICATED BY A SINGLE RING OF THE TELETYPE BELL.

THE PROGRAM IS CONTINUOUS RUNNING, THAT IS, AT THE COMPLETION OF A PROGRAM PASS THE PROGRAM REPEATS ITSELF, UNTIL STOPPED BY THE USER,

REFER TO SECTION 9.3, TEST ROUTINES DESCRIPTION, FOR THE NUMBERS AND DESCRIPTIONS OF THE TESTS THAT MAKE UP THE PROGRAM.

THE USER MAY CONTROL EXECUTION OF THE PROGRAM WITH THE AC SWITCHES (ACS) AT ANY TIME, AS FOLLOWS:

ACS0=1 ROUTINE-END-HALT. WITH ACS0 SET TO A 1 THE PROGRAM HALTS AT LOCATION 00576 AFTER THE ROUTINE CURRENTLY BEING EXECUTED IS COMPLETED. THE AC DISPLAYS THE NUMBER OF THE COMPLETED ROUTINE. THE PROGRAM WILL NOT HALT IF ACS1 IS SET TO A 1. AFTER PRESSING CONTINUE, THE PROGRAM PROCEEDS TO EXECUTE THE FOLLOWING ROUTINE. THE ROUTINE-END-HALT FEATURE IS USEFUL IN FINDING OUT HOW FAR THE PROGRAM HAS PROGRESSED, OR TO ADVANCE THE PROGRAM ONE ROUTINE AT A TIME PRIOR TO LOOPING ON A ROUTINE.

ACS1=1 LOOP-ON-ROUTINE. THE CURRENT ROUTINE IS REPEATED CONTINUOUSLY UNTIL ACS1 IS TURNED OFF. ACS1 MUST BE OFF BEFORE THE ROUTINE-END-HALT OPTION (ACS0) IS ACCEPTED BY THE PROGRAM. THE LOOP-ROUTINE OPTION CAN BE USEFUL WHEN TROUBLE-SHOOTING HIGHLY INTERMITTENT ERRORS.

ACS2=1 SCOPE-LOOP. THIS OPTION CAUSES THE ERROR TYPEOUT AND HALT FEATURE TO BE BYPASSED TO PERMIT SCOPING WHEN A FAILURE OCCURS. THIS OPTION SHOULD NOT BE SET UNTIL AFTER AN ERROR HAS OCCURRED. WHEN THE OPTION IS SET, THE LOOP-ON-ROUTINE OPTION (ACS1) SHOULD ALSO BE SET TO PREVENT THE PROGRAM FROM ENDING THE TEST ROUTINE AFTER 4096 TESTS HAVE BEEN PERFORMED.

HARDWARE ERRORS ARE INDICATED BY ERROR PRINTOUTS FOLLOWED BY A HALT, REFER TO SECTION 6, ERRORS, FOR A COMPLETE DESCRIPTION OF ERROR REPORTING AND THE PROCEDURE TO FOLLOW WHEN AN ERROR OCCURS.

4.1

STARTING PROCEDURE  
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- A. SET ADDRESS SWITCHES TO 00200  
 B. PRESS RESET; PRESS START  
 C. THE PROGRAM TYPES THE FOLLOWING MESSAGE AND THEN HALTS,  
 "PDP-15 EXTENDED MEMORY TEST  
 SET ACS 3-5 TO NUMBER OF ADDITIONAL EXTENDED MEMORY PAGES  
 (ONE PAGE=4K). IF SYSTEM HAS API, SET ACS 6 TO A 1,"
- D. SET THE AC SWITCHES ACCORDING TO TYPED INSTRUCTIONS AND PRESS  
 CONTINUE, IF YOU WISH TO BYPASS STEP C PRINTOUT, PERFORM  
 STEP D, AND START PROGRAM AT LOC 00203,  
 \*\*\* NOTE \*\*\*  
 SET ACS 3-5 TO THE EXACT NUMBER OF EXTENDED MEMORY PAGES,  
 SETTING THE SWITCHES TO A NUMBER LESS THAN THE ACTUAL NUMBER  
 OF PAGES WILL NOT TEST THE SYSTEM CONCLUSIVELY, SETTING  
 A LARGER NUMBER WILL CAUSE THE PROGRAM TO FAIL,
- E. THE PROGRAM READS AND CHECKS THE AC SWITCHES, IF ACS 3-5  
 ARE SET TO 000 THE PROGRAM TYPES THE FOLLOWING MESSAGE  
 AND THEN HALTS, IF ACS 3-5 ARE NOT 0 PROGRAM GOES TO  
 STEP G,  
 "ACS 3-5 INCORRECTLY SET, OR SYSTEM DOES NOT HAVE AT LEAST  
 8K OF CORE,
- F. IF STEP E TIMEOUT OCCURS, SET ACS 3-5 CORRECTLY AND PRESS  
 CONTINUE, STEP E WILL BE REPEATED,
- G. THE PROGRAM RUNS CONTINUOUSLY UNLESS ERRORS OCCUR, AT THE  
 END OF EACH PROGRAM PASS THE TELETYPE BELL RINGS ONCE,
- H. AC SWITCH OPTIONS MAY BE SET AT ANY TIME,  
 CAUTION: DO NOT SET SCOPE=LOOP OPTION UNLESS THE LOOP-  
 ROUTINE OPTION IS ALSO SET,  
 THE FUNCTIONS OF THE AC SWITCHES ARE REPEATED HERE FOR  
 QUICK REFERENCE:

ACS0=1 HALT AT END OF ROUTINE  
 =0 DO NOT HALT AT END OF ROUTINE

ACS1=1 LOOP ON ROUTINE  
 =0 DO NOT LOOP ON ROUTINE

ACS2=1 SCOPE LOOP  
 =0 NO SCOPE LOOP

ACS3-5 SET TO NUMBER OF ADDITIONAL EXTENDED MEMORY PAGES

ACS6=1 API IN SYSTEM  
 =0 NO API IN SYSTEM

5. OPERATING PROCEDURE  
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5.1 PROGRAM AND/OR OPERATOR ACTION

5.1.1 NORMAL HALTS AND DESCRIPTION

LOC 00577      COMMON HALT, THIS HALT IS USED FOR THE ROUTINE-  
END-HALT OPTION, AND AFTER AN INSTRUCTION  
TYPEOUT, TO PROCEED AFTER A ROUTINE-END-HALT,  
PRESS CONTINUE, WHEN THE HALT OCCURS AFTER  
AN INSTRUCTIONAL MESSAGE, PERFORM THE REQUIRED  
ACTION AND PRESS CONTINUE.

## 6. ERRORS

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 ERRORS DETECTED BY THIS PROGRAM ARE INDICATED BY ERROR PRINTOUTS, AFTER AN ERROR PRINTOUT THE PROGRAM HALTS AT A COMMON ERROR HALT AT LOC 00602.

ERROR PRINTOUTS CAN TAKE ONE OF THE FOLLOWING FORMS:

"ERROR LOC XXXXXX AC=YYYYYY TEST 000ZZZ"

OR

"CALERR LOC XXXXXX AC=YYYYYY TEST 000ZZZ"

AN "ERROR" TYPE PRINTOUT OCCURS WHEN A TEST ROUTINE DETECTS A PREDICTABLE ERROR FOR WHICH IT IS TESTING.

A "CALERR" TYPE PRINTOUT OCCURS WHEN DURING A TEST ROUTINE A FAILURE OCCURS WHICH CAUSES THE SYSTEM TO "CAL OUT",

IN BOTH PRINTOUT CASES THE PRINTOUTS HAVE THE FOLLOWING MEANINGS:

LOC XXXXXX INDICATES THE ADDRESS OF A CALL TO SUBROUTINE "ERR" IN THE CASE OF AN "ERROR" PRINTOUT, OR THE ADDRESS FROM WHERE THE PROGRAM "CALLED OUT" IN THE CASE OF A "CALERR" PRINTOUT.

AC=YYYYYY INDICATES THE CONTENTS OF THE AC AT THE TIME THE FAILURE OCCURRED, THE CONTENTS OF THE AC MAY OR MAY NOT BE MEANINGFUL, DEPENDING ON THE TEST ROUTINE.

TEST 000ZZZ INDICATES THE NUMBER OF THE TEST ROUTINE BEING EXECUTED AT THE TIME THE FAILURE OCCURRED.

WHEN AN "ERROR" TYPE PRINTOUT OCCURS,

- A. IN THE PROGRAM'S LISTING, REFER TO THE LOCATION SPECIFIED BY THE PRINTOUT, OPPOSITE THAT LOCATION THE STATEMENT "ERROR" OR "ERRORA" WILL BE PRINTED. IF THE "ERRORA" STATEMENT APPEARS, IT SPECIFIES THAT THE CONTENTS OF THE AC PRINTED OUT ARE MEANINGFUL.
- B. DOUBLE CHECK THAT THE LOCATION PRINTED IS WITHIN THE TEST ROUTINE SPECIFIED BY THE "TEST 000ZZZ" PORTION OF THE PRINTOUT.
- C. THE COMMENTS PORTION OF THE "ERROR" STATEMENT WILL CONTAIN THE DESCRIPTION FOR THE ERROR.
- D. AT THE BEGINNING OF THE TEST ROUTINE A DESCRIPTION OF THE TEST WILL BE PRINTED.

(6. CONT'D)

WHEN A "CALERR" TYPE PRINTOUT OCCURS,

- A. IN THE PROGRAM LISTING, REFER TO THE TEST ROUTINE REFERENCED BY THE "TEST 000ZZZ" PORTION OF THE PRINTOUT.
- B. AT THE TOP OF THE TEST ROUTINE A DESCRIPTION OF THE TEST WILL BE PRINTED.
- C. ANALYSIS OF THE ROUTINE, AS WELL AS STEPPING THROUGH THE ROUTINE IN "SINGLE INSTRUCTION" MODE SHOULD GIVE CLUES AS TO HOW THE ERROR IS OCCURRING.

7. RESTRICTIONS  
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AT LEAST DURING INITIAL TESTING OF THE SYSTEM, ACS 3-5 MUST BE SET TO CORRESPOND WITH THE ACTUAL NUMBER OF ADDITIONAL EXTENDED MEMORY PAGES (1 MEMORY PAGE = 4K), SETTING THE SWITCHES TO INDICATE A LESSER NUMBER DOES NOT PROVE THE SYSTEM CONCLUSIVELY. SETTING A LARGER NUMBER WILL CAUSE THE PROGRAM TO FAIL.

THE PROGRAM WILL NOT RUN ON A 4K SYSTEM, IT ASSUMES A MINIMUM OF 8K OF CORE STORAGE,

8. MISCELLANEOUS  
-----8.1 EXECUTION TIMES  
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THE FOLLOWING EXECUTION TIMES ARE GIVEN FOR A SINGLE PROGRAM PASS, ASSUMING A MEMORY CYCLE TIME OF 800 NANoseconds,

8K, NO API	- 7 SECONDS
8K AND API	- 8 SECONDS
12K, NO API	- 14 SECONDS
12K AND API	- 15 SECONDS
16K, NO API	- 24 SECONDS
16K AND API	- 26 SECONDS
20K, NO API	- 32 SECONDS
20K AND API	- 35 SECONDS
24K, NO API	- 42 SECONDS
24K AND API	- 46 SECONDS
28K, NO API	- 53 SECONDS
28K AND API	- 56 SECONDS
32K, NO API	- 63 SECONDS
32K AND API	- 67 SECONDS



## 9. DESCRIPTIONS

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## 9.1 TERM DEFINITIONS

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FIELD0 - LOCATIONS 00000 THROUGH 07777  
FIELD1 - LOCATIONS 10000 THROUGH 17777  
FIELD2 - LOCATIONS 20000 THROUGH 27777  
FIELD3 - LOCATIONS 30000 THROUGH 37777  
FIELD4 - LOCATIONS 40000 THROUGH 47777  
FIELD5 - LOCATIONS 50000 THROUGH 57777  
FIELD6 - LOCATIONS 60000 THROUGH 67777  
FIELD7 - LOCATIONS 70000 THROUGH 77777

LOCF0 - LOC 06000  
LOCF1 - LOC 16000  
LOCF2 - LOC 26000  
LOCF3 - LOC 36000  
LOCF4 - LOC 46000  
LOCF5 - LOC 56000  
LOCF6 - LOC 66000  
LOCF7 - LOC 76000

F0LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF0  
F1LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF1  
F2LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF2  
F3LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF3  
F4LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF4  
F5LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF5  
F6LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF6  
F7LOC - LOC IN FIELD 0 TO INDIRECTLY REFERENCE LOCF7

PROGRAM STATEMENTS DEFINITIONS  
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THE FOLLOWING STATEMENTS APPEAR THROUGHOUT THE PROGRAM'S TEST ROUTINES, THEIR MEANING IS DESCRIBED HERE,

- ERROR - CALL TO AN ERROR SUBROUTINE WHOSE PURPOSE IS TO GENERATE AN ERROR PRINTOUT AND HALT. THE SUBROUTINE RETURNS TO NEXT INSTRUCTION AFTER THE SUBROUTINE CALL.
- CHAIN - CALL TO CHAINING SUBROUTINE WHOSE FUNCTION IS TO CONTROL PROGRAM SEQUENCE, AND HONOR ACS OPTIONS. IF ROUTINE HAS NOT BEEN COMPLETED, THE SUBROUTINE RETURNS TO THE NEXT INSTRUCTION AFTER SUBROUTINE CALL.
- TF2 - CALL TO SUBROUTINE WHOSE FUNCTION IS TO DETERMINE IF MEMORY FIELD 2 IS PRESENT, IF THE FIELD IS PRESENT THE SUBROUTINE RETURNS TO THE NEXT INSTRUCTION AFTER THE SUBROUTINE CALL, IF THE FIELD IS NOT PRESENT THE TEST ROUTINE IS BYPASSED.
- TF3 - SAME AS TF2, BUT CHECKS FOR FIELD 3.
- TF4 - SAME AS TF2, BUT CHECKS FOR FIELD 4.
- TF5 - SAME AS TF2, BUT CHECKS FOR FIELD 5.
- TF6 - SAME AS TF2, BUT CHECKS FOR FIELD 6.
- TF7 - SAME AS TF2, BUT CHECKS FOR FIELD 7.
- CKAPI - CALL TO SUBROUTINE WHOSE FUNCTION IS TO DETERMINE IF API IS PRESENT IN THE SYSTEM, IF API IS PRESENT, THE SUBROUTINE RETURNS TO THE INSTRUCTION AFTER THE SUBROUTINE CALL, IF API IS NOT PRESENT, THE TEST ROUTINE IS BYPASSED.
- STFN - CALL TO SUBROUTINE WHOSE FUNCTION IS TO:  
 A. SET EACH AVAILABLE EXTENDED MEMORY FIELD TO 0'S. (FIELDS 1 THROUGH 7).  
 B. ZERO OUT LOCATIONS 06000 THROUGH 07777 OF FIELD 0.  
 C. SET LOCATION 6000 OF EACH MEMORY FIELD TO ITS OWN NUMBER, (6000 OF FIELD 1 IS SET TO A 1, ETC.),
- UPON COMPLETION THE SUBROUTINE RETURNS TO THE INSTRUCTION FOLLOWING THE SUBROUTINE CALL.
- MOVE - CALL TO SUBROUTINE WHOSE FUNCTIONS IS TO MOVE A VARIABLE LENGTH WORD STRING FROM ONE AREA TO ANOTHER. THE SUBROUTINE CALL FORMAT IS:

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MOVE      /JMS TO MOVING SUBROUTINE
XXXX     /INITIAL ADDRESS TO MOVE "FROM".
YYYY     /INITIAL ADDRESS TO MOVE "TO".
#ZZZZ    /NUMBER OF WORDS TO MOVE (COMPLEMENTED)
NSI      /INSTRUCTION THAT SUBROUTINE RETURNS TO.
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9.3

TEST ROUTINES DESCRIPTIONS  
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EACH OF THE TESTS DESCRIBED BELOW IS CONDUCTED ON ONE FIELD AT A TIME, IT IS IMPORTANT TO BE AWARE OF THE STATE OF THE OTHER MEMORY FIELDS WHEN A TEST IS BEING CONDUCTED, EXCEPT FOR TESTS T0 THROUGH T6, THE FOLLOWING OPERATIONS ARE PERFORMED BEFORE A TEST IS RUN,

- A. ALL EXTENDED MEMORY FIELDS ARE SET TO 0'S.
- B. LOCATIONS 06000 THROUGH 07777 OF FIELD 0 ARE SET TO 0'S.
- C. LOCATIONS 06000 OF EACH MEMORY FIELD IS SET TO ITS OWN MEMORY FIELD NUMBER (E.G. LOC 06000 OF FIELD 7 IS SET TO 000007).

EXCEPT WHERE SPECIFIED, ALL ROUTINES RUN IN 15 MODE (INDEX-MODE).

ROUTINES T0 THROUGH T6 TEST THAT PERFORMING A DAC IN A LOCATION IN AN EXTENDED FIELD DOES NOT ALTER THE CONTENTS OF THE EQUIVALENT LOCATION IN FIELD 0.

ROUTINES T7 THROUGH T15 TEST THAT THE ALL 1'S DATA STORED IN AN EXTENDED FIELD CAN BE FETCHED BACK CORRECTLY, IF THE DATA IS NOT ALL 1'S, THEN THE NUMBER IN THE AC INDICATES THE NUMBER OF THE FIELD THAT WAS INCORRECTLY ADDRESSED.

ROUTINES T16 THROUGH T24 TEST THAT AN XCT\* OF A NOP INSTRUCTION IN AN EXTENDED FIELD DOES NOT GIVE CONTROL TO THE EXTENDED FIELD.

ROUTINES T25 THROUGH T33 TEST THAT AN XCT\* OF A LAC 6000 INSTRUCTION IN AN EXTENDED FIELD FETCHES DATA IN THE EXTENDED FIELD AND NOT FROM FIELD 0.

ROUTINES T34 THROUGH T42 TEST AN XCT\* OF A LAC\* 6001 INSTRUCTION IN AN EXTEND FIELD, THE LAC\* 6001 INSTRUCTION SHOULD REFERENCE THE EXTENDED FIELD IT IS IN TO OBTAIN THE INDIRECT POINTER.

ROUTINES T43 THROUGH T51 TEST AN XCT\* OF A JMP\* 6001 INSTRUCTION IN AN EXTENDED FIELD, THE JMP\* 6001 INSTRUCTION SHOULD OBTAIN ITS INDIRECT POINTER FROM THE FIELD IT IS IN, AND THEN JUMP TO FIELD 0.

(9,3 CONT'D)

ROUTINES T52 THROUGH T60 TEST THAT A JMP\* 6001 INSTRUCTION IN AN EXTENDED FIELD CAN SUCCESSFULLY JUMP BACK TO FIELD 0.

ROUTINES T61 THROUGH T67 TEST THAT A SKP INSTRUCTION OPERATES CORRECTLY IN AN EXTENDED FIELD.

ROUTINES T70 THROUGH T76 TEST FOR CORRECT OPERATION OF THE SAD INSTRUCTION WHEN EXECUTED IN AN EXTENDED FIELD.

ROUTINES T77 THROUGH T105 TEST THAT A JMS INSTRUCTION IN AN EXTENDED FIELD CORRECTLY STORES PC 3-5 AT THE LOCATION JMS'ED TO.

ROUTINES T106 THROUGH T114 TEST THAT A CAL\* INSTRUCTION IN AN EXTENDED FIELD REFERENCES FIELD 0, AND THAT PC BITS 3 THROUGH 5 ARE CORRECTLY STORED AT THE LOCATION INDIRECTLY CALLED TO.

ROUTINES T115 THROUGH T123 TEST THAT A JMP\* 10 INSTRUCTION IN AN EXTENDED FIELD REFERENCES AUTO-INDEX REGISTER 10 IN FIELD 0. ALSO BY PRIMING AUTO-INDEX REG 10 TO A LOCATION POINTING TO FIELD 0, CHECKS THAT THE JUMP CAN BE SUCCESSFULLY COMPLETED TO FIELD 0, INSTEAD OF TO THE EXTENDED FIELD.

ROUTINES T124 THROUGH T132 TEST THAT AN INTERRUPT CAN TAKE PLACE FROM AN EXTENDED FIELD, AND THAT PC BITS 3 THROUGH 5 ARE CORRECTLY STORED IN LOC 0 OF FIELD 0.

ROUTINES T133 THROUGH T141 TEST IN 9 MODE, THAT WHEN PERFORMING AN XCT\* OF A LAC INSTRUCTION IN AN EXTENDED FIELD, THE LAC INSTRUCTION REFERENCES THE EXTENDED FIELD IT IS IN, AND NOT FIELD 0.

ROUTINES T142 THROUGH T150 TEST IN 9 MODE, THAT WHEN PERFORMING AN XCT\* OF A JMP\* IN AN EXTENDED FIELD, THE JMP\* INSTRUCTION GETS ITS INDIRECT POINTER FROM THE EXTENDED FIELD IT IS IN, AND NOT FROM FIELD 0.

ROUTINE T151, 9 MODE, TESTS THAT DATA IN FIELD 1 CAN BE DIRECTLY ACCESSED FROM FIELD 0.

ROUTINE T152, 9 MODE, TESTS THAT DATA IN FIELD 0 CAN BE DIRECTLY ACCESSED FROM FIELD 1.

9.3 CONT'D)

ROUTINE T153, 9 MODE, TESTS THAT DATA IN FIELD 3 CAN BE DIRECTLY ACCESSED FROM FIELD 2.

ROUTINE T154, 9 MODE, TESTS THAT DATA IN FIELD 2 CAN BE DIRECTLY ACCESSED FROM FIELD 3.

ROUTINE T155, 9 MODE, TESTS THAT DATA IN FIELD 5 CAN BE DIRECTLY ACCESSED FROM FIELD 4.

ROUTINE T156, 9 MODE, TESTS THAT DATA IN FIELD 4 CAN BE DIRECTLY ACCESSED FROM FIELD 5.

ROUTINE T157, 9 MODE, TESTS THAT DATA IN FIELD 7 CAN BE DIRECTLY ACCESSED FROM FIELD 6.

ROUTINE T160, 9 MODE, TESTS THAT DATA IN FIELD 6 CAN BE DIRECTLY ACCESSED FROM FIELD 7.

ROUTINES T161 THROUGH T167 ARE OPTIONAL TESTS FOR SYSTEMS WITH API. THE API BREAK IS GENERATED BY A SOFTWARE BREAK THAT BREAKS TO LOC40 OF FIELD 0. THE ROUTINES TEST THAT AN API BREAK CAN TAKE PLACE FROM AN EXTENDED FIELD, AND THAT PC BITS 3 THROUGH 5 ARE CORRECTLY STORED AT THE LOCATION JMSD TO FROM LOC 40.

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/PDP-15 EXTENDED MEMORY TEST AND EXTENDED MEMORY API TEST
/
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      .ABS
006000 LOC=6000
006000 LOCF0=LOC
016000 LOCF1=LOC+10000
026000 LOCF2=LOC+20000
036000 LOCF3=LOC+30000
046000 LOCF4=LOC+40000
056000 LOCF5=LOC+50000
066000 LOCF6=LOC+60000
076000 LOCF7=LOC+70000
000001 L1=1
010001 L1F1=10001
020001 L1F2=20001
030001 L1F3=30001
040001 L1F4=40001
050001 L1F5=50001
060001 L1F6=60001
070001 L1F7=70001
000000 L0=0
000000 L0F0=0
010000 L0F1=10000
020000 L0F2=20000
020000 L0F3=20000
030000 L0F4=30000
050000 L0F5=50000
060000 L0F6=60000
070000 L0F7=70000
000010 L10=10
000010 L10F0=00010
010010 L10F1=10010
020010 L10F2=20010
030010 L10F3=30010
040010 L10F4=40010
050010 L10F5=50010
060010 L10F6=60010
070010 L10F7=70010
000020 L20=20
000020 L20F0=20
010020 L20F1=10020
020020 L20F2=20020
030020 L20F3=30020
040020 L20F4=40020
050020 L20F5=50020
060020 L20F6=60020
070020 L20F7=70020
000040 L40=40
000040 L40F0=40
010040 L40F1=10040
020040 L40F2=20040
030040 L40F3=30040
040040 L40F4=40040

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050040 L40F5=50040  
060040 L40F6=60040  
070040 L40F7=70040  
010000 K10K=10000  
020000 K20K=20000  
030000 K30K=30000  
040000 K40K=40000  
050000 K50K=50000  
060000 K60K=60000  
070000 K70K=70000  
404000 K404K=404000  
742030 SWA=742030  
707762 EPA=707762  
707764 EBA=707764  
707761 EXBA=707761  
735000 CLX=735000  
          .EJECT

/SWAP AC HALVES  
/ASSERT 15 MODE  
/ASSERT 9 MODE  
/SKIP IF 15 MODE  
/CLEAR XR

00100			.LOC	100
00100	006000	F0LOC	LOC0	
00101	016000	F1LOC	LOC1	
00102	026000	F2LOC	LOC2	
00103	036000	F3LOC	LOC3	
00104	046000	F4LOC	LOC4	
00105	056000	F5LOC	LOC5	
00106	066000	F6LOC	LOC6	
00107	076000	F7LOC	LOC7	
00110	010001	F1L1	L1F1	
00111	020001	F2L1	L1F2	
00112	030001	F3L1	L1F3	
00113	040001	F4L1	L1F4	
00114	050001	F5L1	L1F5	
00115	060001	F6L1	L1F6	
00116	070001	F7L1	L1F7	
00117	000000	F0L0	L0F0	
00120	010000	F1L0	L0F1	
00121	020000	F2L0	L0F2	
00122	030000	F3L0	L0F3	
00123	040000	F4L0	L0F4	
00124	050000	F5L0	L0F5	
00125	060000	F6L0	L0F6	
00126	070000	F7L0	L0F7	
00127	000010	F0L10	L10F0	
00130	010010	F1L10	L10F1	
00131	020010	F2L10	L10F2	
00132	030010	F3L10	L10F3	
00133	040010	F4L10	L10F4	
00134	050010	F5L10	L10F5	
00135	060010	F6L10	L10F6	
00136	070010	F7L10	L10F7	
00137	000020	F0L20	L20F0	
00140	010020	F1L20	L20F1	
00141	020020	F2L20	L20F2	
00142	030020	F3L20	L20F3	
00143	040020	F4L20	L20F4	
00144	050020	F5L20	L20F5	
00145	060020	F6L20	L20F6	
00146	070020	F7L20	L20F7	
00147	001162	KSTART	T0	
00150	000000	NXTST	0	
00151	000000	CURTST	0	
00152	000000	TEMP	0	
00153	000000	CTRA	0	
00154	000000	CTRB	0	
00155	000000	EAC	0	
00156	000000	ELOC	0	
			.EJECT	



00177		.LOC	177	
00177	000000	RTNNO	0	
00200	100657	TYPE		/TYPE TITLE AND
00201	001101	P0MSG		/INSTRUCTIONS
00202	100576	JMS	CHLT	/HALT
00203	750004	START	LAS	/CHECK THAT CPU HAS MORE
00204	505215		AND	(K70K
00205	740200		SZA	/MORE THAN 4K?
00206	600213		JMP	GETRDY
00207	100657		TYPE	/YES.
00210	001050		MEMERR	/NO. TYPE ERROR MESSAGE.
00211	100576		JMS	CHLT
00212	600203		JMP	START
00213	200147	GETRDY	LAC	KSTART
00214	040150		DAC	NXTST
00215	100254		JMS	FORWD
00216	100301		SETA	/SET CTRA TO
00217	770000		770000	/-4096
00220	707762		EPA	/ASSERT 15 MODE
00221	735000		CLX	/CLEAR XR
00222	620151		JMP*	CURTST
00223	000000	CHAINN	0	/GO TO NEXT TEST.
00224	700002		IOF	
00225	707762		EPA	/ASSERT 15 MODE
00226	205216		LAC	(JMP CALERR
00227	040021		DAC	21
00230	140020		DZM	20
00231	140000		DZM	0
00232	750004		LAS	/READ ACS
00233	740010		RAL	
00234	741100		SPA	/LOOP ON ROUTINE?(ACS1)
00235	620223		JMP*	CHAINN
00236	440153		ISZ	CTRA
00237	620223		JMP*	CHAINN
00240	750004	CHAINA	LAS	/DONE N TIMES?
00241	740100		SMA	/NO.REPEAT TEST.
00242	600245		JMP	.+3
00243	200177		LAC	RTNNO
00244	100576		JMS	CHLT
00245	200150		LAC	NXTST
00246	345217		TAD	(1
00247	750200		SZA!CLA	/LAST TEST?
00250	600215		JMP	GETRDY+2
00251	205220		LAC	(207
00252	100567		JMS	TTOUT
00253	600213		JMP	GETRDY
00254	000000	FORWD	0	/START OVER.
00255	220150		LAC*	NXTST
00256	040177		DAC	RTNNO
00257	440150		ISZ	NXTST
00260	200150		LAC	NXTST
00261	040152		DAC	TEMP
00262	440150		ISZ	NXTST
00263	200150		LAC	NXTST
00264	040151		DAC	CURTST

```

00265 220152 LAC* TEMP
00266 040150 DAC NXTST /SET NEXT TEST ADDRESS.
00267 620254 JMP* FORWD /EXIT.
/SUBROUTINE TO SET A LOCATION TO SPECIFIED VALUE.
STCTR 0
00270 000000 LAC* STCTR /GET LOC ADDR AND
00271 220270 DAC TEMP /SAVE AT TEMP.
00272 040152 ISZ STCTR
00273 440270 LAC* STCTR /GET VALUE AND STORE
00274 220270 DAC* TEMP /AT DESIRED LOCATION
00275 060152 ISZ STCTR
00276 440270 CLA:CLL /CLEAR AC, LINK
00277 754000 JMP* STCTR /EXIT.
00300 620270 SETLOC=JMS STCTR
100270 /SUBROUTINE TO SET CTRA TO SPECIFIED VALUE.
STCTA 0
00301 000000 LAC* STCTA /GET DESIRED VALUE.
00302 220301 DAC .+4
00303 040307 ISZ STCTA /SET UP TO EXIT.
00304 440301 SETLOC /CALL ON STCTR TO
00305 100270 CTRA /SET CTRA TO
00306 000153 0 /THIS VALUE (VARIABLE).
00307 000000 JMP* STCTA /EXIT
00310 620301 SETA=JMS STCTA
100301 /SUBROUTINE TO MOVE VARIABLE LENGTH FIELDS
MOVVE 0
00311 000000 LAC* MOVVE /GET AND STORE "FROM"
00312 220311 DAC FADDR /ADDRESS
00313 040333 ISZ MOVVE
00314 440311 LAC* MOVVE /GET AND STORE "TO"
00315 220311 DAC TADDR /ADDRESS.
00316 040334 ISZ MOVVE
00317 440311 LAC* MOVVE /GET AND STORE "MOVE COUNT"
00320 220311 DAC MCTR
00321 040335 ISZ MOVVE
00322 440311 MOVEA LAC* FADDR /GET "FROM" WORD
00323 220333 DAC* TADDR /STORE AT "TO" LOCATION
00324 060334 ISZ FADDR /UPDATE "TO" AND "FROM"
00325 440333 ISZ TADDR /ADDRESSES.
00326 440334 ISZ MCTR /DONE MOVING?
00327 440335 JMP MOVEA /NO. GO MOVE ANOTHER WORD.
00330 600323 CLA:CLL
00331 754000 JMP* MOVVE /YES, DONE, EXIT.
00332 620311 FADDR 0
00333 000000 TADDR 0
00334 000000 MCTR 0
00335 000000 MOVE=JMS MOVVE
100311 .EJECT

```

00336	000000	SBFNUM	0		/SUB TO SET FIELD NUMBERS.
00337	100474		JMS	TSTF7	/FIELD 7?
00340	600354		JMP	STF7	/YES.
00341	100467		JMS	TSTF6	/FIELD 6?
00342	600363		JMP	STF6	/YES.
00343	100462		JMS	TSTF5	/NO. FIELD 5?
00344	600372		JMP	STF5	/YES.
00345	100455		JMS	TSTF4	/NO. FIELD 4?
00346	600401		JMP	STF4	/YES.
00347	100450		JMS	TSTF3	/NO. FIELD 3?
00350	600410		JMP	STF3	/YES.
00351	100443		JMS	TSTF2	/NO. FIELD 2?
00352	600417		JMP	STF2	/YES.
00353	600426		JMP	STF1	/NO. GO SET FIELD 1.
00354	165215	STF7	DZM*	(LØF7	/ZERO OUT FIELD 7
00355	100311		MOVE		
00356	070000		LØF7		
00357	070001		LØF7+1		
00360	770001		-7777		
00361	205221		LAC	(7	/7 TO LOCF7
00362	060107		DAC*	F7LOC	
00363	165222	STF6	DZM*	(LØF6	/ZERO OUT FIELD 6
00364	100311		MOVE		
00365	060000		LØF6		
00366	060001		LØF6+1		
00367	770001		-7777		
00370	205223		LAC	(6	/6 TO LOCF6
00371	060106		DAC*	F6LOC	
00372	165224	STF5	DZM*	(LØF5	/ZERO OUT FIELD 5
00373	100311		MOVE		
00374	050000		LØF5		
00375	050001		LØF5+1		
00376	770001		-7777		
00377	205225		LAC	(5	/5 TO LOCF5
00400	060105		DAC*	F5LOC	
00401	165226	STF4	DZM*	(LØF4	/ZERO OUT FIELD 4
00402	100311		MOVE		
00403	030000		LØF4		
00404	030001		LØF4+1		
00405	770001		-7777		
00406	205227		LAC	(4	/4 TO LOCF4
00407	060104		DAC*	F4LOC	
00410	165230	STF3	DZM*	(LØF3	/ZERO OUT FIELD 3
00411	100311		MOVE		
00412	020000		LØF3		
00413	020001		LØF3+1		
00414	770001		-7777		
00415	205231		LAC	(3	/3 TO LOCF3
00416	060103		DAC*	F3LOC	
00417	165230	STF2	DZM*	(LØF2	/ZERO OUT FIELD 2
00420	100311		MOVE		
00421	020000		LØF2		
00422	020001		LØF2+1		
00423	770001		-7777		
00424	205232		LAC	(2	/2 TO LOCF2

00425	060102		DAC*	F2LOC	
00426	165233	STF1	DZM*	(L0F1	/ZERO OUT FIELD 1
00427	100311		MOVE		
00430	010000		L0F1		
00431	010001		L0F1+1		
00432	770001		-7777		
00433	205217		LAC	(1	/1 TO LOCF1
00434	060101		DAC*	F1LOC	
00435	146000		DZM	LOCF0	/ZERO TO LOCF0
00436	100311		MOVE		
00437	006000		LOCF0		
00440	006001		LOCF0+1		
00441	776002		-7776+LOCF0		
00442	620336		JMP*	SBFNUM	/EXIT
		/			
00443	000000	TSTF2	0		
00444	100501		JMS	TSTFX	/FIELD 2?
00445	020000		20000		
00446	440443		ISZ	TSTF2	/NO.
00447	620443		JMP*	TSTF2	/YES.
00450	000000	TSTF3	0		
00451	100501		JMS	TSTFX	/FIELD 3?
00452	030000		30000		
00453	440450		ISZ	TSTF3	/NO.
00454	620450		JMP*	TSTF3	/YES.
00455	000000	TSTF4	0		
00456	100501		JMS	TSTFX	/FIELD 4?
00457	040000		40000		
00460	440455		ISZ	TSTF4	/NO.
00461	620455		JMP*	TSTF4	/YES.
00462	000000	TSTF5	0		
00463	100501		JMS	TSTFX	/FIELD 5?
00464	050000		50000		
00465	440462		ISZ	TSTF5	/NO.
00466	620462		JMP*	TSTF5	/YES.
00467	000000	TSTF6	0		
00470	100501		JMS	TSTFX	/FIELD 6?
00471	060000		60000		
00472	440467		ISZ	TSTF6	/NO.
00473	620467		JMP*	TSTF6	/YES.
00474	000000	TSTF7	0		
00475	100501		JMS	TSTFX	/FIELD 7?
00476	070000		70000		
00477	440474		ISZ	TSTF7	/NO.
00500	620474		JMP*	TSTF7	/YES.
00501	000000	TSTFX	0		
00502	750004		LAS		
00503	505215		AND	(70000	
00504	740001		CMA		
00505	345217		TAD	(1	
00506	360501		TAD*	TSTFX	
00507	440501		ISZ	TSTFX	
00510	741300		SPA!SNA		/FIELD IN SYSTEM?
00511	440501		ISZ	TSTFX	/YES.
00512	620501		JMP*	TSTFX	/NO.

	100336	STFN=JMS	SRFNUM	
00513	000000	CF2	0	
00514	100443	JMS	TSTF2	/FIELD 2?
00515	620513	JMP*	CF2	/YES.
00516	600240	SKIP		/NO.
00517	000000	CF3	0	
00520	100450	JMS	TSTF3	/FIELD 3?
00521	620517	JMP*	CF3	/YES.
00522	600240	SKIP		/NO.
00523	000000	CF4	0	
00524	100455	JMS	TSTF4	/FIELD 4?
00525	620523	JMP*	CF4	/YES.
00526	600240	SKIP		/NO.
00527	000000	CF5	0	
00530	100462	JMS	TSTF5	/FIELD 5?
00531	620527	JMP*	CF5	/YES.
00532	600240	SKIP		/NO.
00533	000000	CF6	0	
00534	100467	JMS	TSTF6	/FIELD 6?
00535	620533	JMP*	CF6	/YES.
00536	600240	SKIP		/NO.
00537	000000	CF7	0	
00540	100474	JMS	TSTF7	/FIELD 7?
00541	620537	JMP*	CF7	/YES.
00542	600240	SKIP		/NO.
	100513	TF2=JMS	CF2	
	100517	TF3=JMS	CF3	
	100523	TF4=JMS	CF4	
	100527	TF5=JMS	CF5	
	100533	TF6=JMS	CF6	
	100537	TF7=JMS	CF7	
		/		
00543	000000	CAPI	0	
00544	750004	LAS		/READ ACS
00545	505234	AND	(4000	
00546	751200	SNA,CLA		/API PRESENT?
00547	600240	SKIP		/NO
00550	703304	DBK		
00551	140040	DzM	40	/SET LOCATIONS
00552	100311	MOVE		/40 THROUGH 77
00553	000040	40		/TO ALL 0'S
00554	000041	41		
00555	777741	-37		
00556	620543	JMP*	CAPI	/EXIT
	100543	CKAPI=JMS	CAPI	
00557	000000	STFLG	0	/SUB TO SET TELEPRINTER FLAG
00560	700401	TSF		/FLAG SET?
00561	741000	SKP		/NO.
00562	620557	JMP*	STFLG	/YES. EXIT
00563	700406	TLS		/START PRINTER
00564	700401	TSF		/WAIT FOR FLAG.
00565	600564	JMP	.-1	
00566	620557	JMP*	STFLG	/EXIT.
00567	000000	TTOUT	0	
00570	700406	TLS		/PRINT CHAR

00571	700401	TSF		/WAIT FOR FLAG.
00572	600571	JMP	.-1	
00573	700402	TCF		/CLEAR FLAG.
00574	750000	CLA		/CLEAR AC
00575	620567	JMP*	TTOUT	/EXIT
00576	000000	CHLT	0	/COMMAND HALT
00577	740040	HLT		
00600	620576	JMP*	CHLT	
00601	000000	CEHLT	0	
00602	740040	HLT		/COMMON ERROR HALT
00603	620601	JMP*	CEHLT	/EXIT
00604	000000	ERR	0	
00605	040155	DAC	EAC	/SAVE AC
00606	200604	LAC	FRR	/SAVE ERROR CALL LOCATION
00607	040156	DAC	ELOC	
00610	100651	JMS	CSCOP	/SCOPE LOOP?
00611	620604	JMP*	FRR	/YES, EXIT
00612	100657	TYPE		/NO, TYPE "ERROR"
00613	001021	ERRMSG		
00614	100627	JMS	CETYP	/COMMON ERROR TYPEOUT AND HALT
00615	620604	JMP*	ERR	/EXIT
00616	040155	DAC	EAC	/SAVE AC
00617	200020	LAC	20	/SAVE CAL CALL LOCATION
00620	040156	DAC	ELOC	
00621	100651	JMS	CSCOP	/SCOPE LOOP?
00622	620151	JMP*	CURTST	/YES.
00623	100657	TYPE		/NO, TYPE CALERR
00624	001025	CALMSG		
00625	100627	JMS	CETYP	/COMMON ERROR TYPEOUT AND HALT.
00626	620151	JMP*	CURTST	/GO TO START OF TEST
00627	000000	CETYP	0	
00630	200156	LAC	ELOC	
00631	505235	AND	(377777)	
00632	345236	TAD	(-1	
00633	040156	DAC	ELOC	
00634	100751	JMS	OCNV	/CONVERT ERROR CALL LOCATION
00635	000156	ELOC		/TO PRINTABLE ASCII
00636	001033	ALOC		
00637	100751	JMS	OCNV	/CONVERT AC CONTENTS TO
00640	000155	EAC		/PRINTABLE ASCII
00641	001040	AACA		
00642	100751	JMS	OCNV	/CONVERT TEST NUMBER TO
00643	000177	RTNNO		/PRINTABLE ASCII
00644	001045	ARTN		
00645	100657	TYPE		/TYPE COMMON ERROR MESSAGE
00646	001031	CEMSG		
00647	100601	JMS	CEHLT	/GO TO COMMON ERROR HALT.
00650	620627	JMP*	CETYP	
00651	000000	CSCOP	0	
00652	750004	LAS		/READ ACS
00653	742010	RTL		
00654	740100	SMA		/SCOPE LOOP?
00655	440651	ISZ	CSCOP	/NO.
00656	620651	JMP*	CSCOP	/YES, EXIT.

.EJECT

00657	000000	TYP	Ø		
00660	220657		LAC*	TYP	/GET AND STORE STRING ADDRESS
00661	040747		DAC	TEMQ	
00662	140746		DZM	FLAG	/CLEAR FLAG.
00663	440657		ISZ	TYP	/SET UP EXIT ADDRESS.
00664	220747	TSC1	LAC*	TEMQ	/GET DATA WORD
00665	742010		RTL		
00666	742010		RTL		
00667	742010		RTL		
00670	740010		RAL		
00671	100703		JMS	TSC2	/TYPE FIRST CHARACTER
00672	220747		LAC*	TEMQ	
00673	742020		RTR		
00674	742020		RTR		
00675	742020		RTR		
00676	100703		JMS	TSC2	/TYPE 2ND CHARACTER
00677	220747		LAC*	TEMQ	
00700	100703		JMS	TSC2	/TYPE 3RD CHARACTER
00701	440747		ISZ	TEMQ	/UPDATE DATA ADDRESS.
00702	600664		JMP	TSC1	
00703	000000	TSC2	Ø		
00704	505237		AND	(77	/MASK OFF EXCESS BITS
00705	040750		DAC	TEMR	
00706	200746		LAC	FLAG	/SPECIAL CHAR FLAG SET?
00707	740200		SZA		
00710	600720		JMP	TYPSP	/YES.
00711	200750		LAC	TEMR	/NO. GET CHARACTER
00712	741200		SNA		/IS IT Ø?
00713	600716		JMP	+.3	/YES. SPECIAL CHARACTER
00714	100727	TYPAT	JMS	PRINT	/NO. GO PRINT CHARACTER.
00715	620703		JMP*	TSC2	/EXIT TSC2.
00716	440746		ISZ	FLAG	/GET SPECIAL CHAR FLAG.
00717	620703		JMP*	TSC2	/EXIT TSC2.
00720	140746	TYPSP	DZM	FLAG	/CLEAR SPECIAL CHAR FLAG.
00721	200750		LAC	TEMR	/GET CHARACTER
00722	741200		SNA		/Ø?
00723	620703		JMP*	TSC2	/YES. IGNORE IT. EXIT TSC2.
00724	545237		SAD	(77	/77?
00725	620657		JMP*	TYP	/YES. EXIT. TYP SUBROUTINE
00726	600714		JMP	TYPAT	/NO.
00727	000000	PRINT	Ø		
00730	545240		SAD	(45	/45?
00731	600742		JMP	PRINTB	/YES.
00732	545241		SAD	(43	/NO. 43?
00733	600744		JMP	PRINTC	/YES.
00734	345242		TAD	(-40	/NO.
00735	741100		SPA		
00736	345243		TAD	(100	
00737	345244		TAD	(240	
00740	100567	PRINTA	JMS	TIOUT	/TYPE CHARACTER
00741	620727		JMP*	PRINT	/EXIT PRINT SUB.
00742	760215	PRINTB	LAW	215	
00743	600740		JMP	PRINTA	/TYPE CR
00744	760212	PRINTC	LAW	212	
00745	600740		JMP	PRINTA	/TYPE LF

100657  
 00746 000000  
 00747 000000  
 00750 000000  
 00751 000000  
 00752 220751  
 00753 041013  
 00754 440751  
 00755 220751  
 00756 041014  
 00757 440751  
 00760 221013  
 00761 742030  
 00762 100767  
 00763 441014  
 00764 221013  
 00765 100767  
 00766 620751  
 00767 000000  
 00770 041015  
 00771 505221  
 00772 041016  
 00773 201015  
 00774 742010  
 00775 740010  
 00776 505245  
 00777 041017  
 01000 201015  
 01001 742010  
 01002 742010  
 01003 742010  
 01004 505215  
 01005 041020  
 01006 341016  
 01007 341017  
 01010 345246  
 01011 061014  
 01012 620767  
 01013 000000  
 01014 000000  
 01015 000000  
 01016 000000  
 01017 000000  
 01020 000000  
 01021 454305  
 01022 222217  
 01023 224040  
 01024 400077  
 01025 454303  
 01026 011405  
 01027 222240  
 01030 400077  
 01031 141703  
 01032 404000  
 01033 404040

TYPE=JMS            TYP  
 FLAG            0  
 TEMQ            0  
 TEMR            0  
 OCNV            0  
                 LAC\*        OCNV  
                 DAC        WASC  
                 ISZ        OCNV  
                 LAC\*        OCNV  
                 DAC        SASC  
                 ISZ        OCNV  
                 LAC\*        WASC  
                 JMS        CNV  
                 ISZ        SASC  
                 LAC\*        WASC  
                 JMS        CNV  
                 JMP\*        OCNV  
 CNV              0  
                 DAC        ASCT  
                 AND        (7  
                 DAC        D1  
                 LAC        ASCT  
                 RTL  
                 RAL  
                 AND        (700  
                 DAC        D2  
                 LAC        ASCT  
                 RTL  
                 RTL  
                 AND        (70000  
                 DAC        D3  
                 TAD        D1  
                 TAD        D2  
                 TAD        (606060  
                 DAC\*        SASC  
                 JMP\*        CNV  
 WASC            0  
 SASC            0  
 ASCT            0  
 D1              0  
 D2              0  
 D3              0  
 ERRMSG          .SIXBT '%#ERROR @?'  
 CALMSG          .SIXBT '%#CALERR @?'  
 CEMSG           .SIXBT 'LOC '  
 ALOC            .SIXBT ' '

/SUB TO CONVERT CONTENTS OF A WORD  
 /TO PRINTABLE ASCII



01034	404040	
01035	404040	
01036	010375	.SIXBT 'AC= '
01037	400000	
01040	404040	AACA .SIXBT ' ' '
01041	404040	
01042	404040	
01043	240523	.SIXBT 'TEST '
01044	244040	
01045	404040	ARTN .SIXBT ' '@?'
01046	404040	
01047	007700	
01050	454301	MEMERR .SIXBT '%#ACS 3-5 INCORRECTLY SET, OR '
01051	032340	
01052	635565	
01053	401116	
01054	031722	
01055	220503	
01056	241431	
01057	402305	
01060	245440	
01061	172240	
01062	233123	.SIXBT 'SYSTEM DOES NOT HAVE AT LEAST '
01063	240515	
01064	400417	
01065	052340	
01066	161724	
01067	401001	
01070	260540	
01071	012440	
01072	140501	
01073	232440	
01074	701340	.SIXBT '8K OF CORE.@?'
01075	170640	
01076	031722	
01077	055600	
01100	770000	
01101	454340	P0MSG .SIXBT '%# PDP-15 EXTENDED MEMORY TEST'
01102	200420	
01103	556165	
01104	400530	
01105	240516	
01106	040504	
01107	401505	
01110	151722	
01111	314024	
01112	052324	
01113	454343	.SIXBT '%##SET ACS 3-5 TO NUMBER OF ADDITIONAL '
01114	230524	
01115	400103	
01116	234063	
01117	556540	
01120	241740	
01121	162515	
01122	020522	

01123	401706
01124	400104
01125	041124
01126	111716
01127	011440
01130	053024
01131	051604
01132	050440
01133	150515
01134	172231
01135	402001
01136	070523
01137	405061
01140	402001
01141	070540
01142	754064
01143	135100
01144	454311
01145	064023
01146	312324
01147	051540
01150	100123
01151	400120
01152	115440
01153	230524
01154	400103
01155	234066
01156	402417
01157	400140
01160	615600
01161	770000

.SIXRT 'EXTENDED MEMORY PAGES (1 PAGE = 4K)'

.SIXRT '%#IF SYSTEM HAS API, SET ACS 6 TO A 1.@?'

.EJECT

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/DAC* F1LOC (LOCF0 SHOULD NOT RE MODIFIED)
01162 000000 T0 0
01163 001173 T1
01164 146000 DZM LOCF0 /0 TO LOCF0
01165 205236 LAC (-1
01166 060101 DAC* F1LOC /TRY TO SET LOCF1 TO ALL 1'S
01167 546000 SAD LOCF0 /SKIP IF LOCF0 IS NOT ALL 1'S
01170 100604 ERROR /ERROR. LOCF0 MODIFIED BY REFERENCE
/TO FIELD 1.

01171 100223 CHAIN
01172 601164 JMP T0+2 /NOT DONE. REPEAT TEST.

/DAC* F2LOC (LOCF0 SHOULD NOT BE MODIFIED)
01173 000001 T1 1
01174 001205 T2
01175 100513 TF2 /RUN IF FIELD 2 AVAILABLE
01176 146000 DZM LOCF0 /0 TO LOCF0
01177 205236 LAC (-1
01200 060102 DAC* F2LOC /TRY TO SET ALL 1'S IN LOCF2
01201 546000 SAD LOCF0 /SKIP IF LOCF0 NOT ALL 1'S
01202 100604 ERROR /ERROR. LOCF0 MODIFIED BY REFERENCE
/TO FIELD 2.

01203 100223 CHAIN
01204 601176 JMP T1+3 /NOT DONE. REPEAT TEST.

/DAC* F3LOC (LOCF0 SHOULD NOT CHANGE)
01205 000002 T2 2
01206 001217 T3
01207 100517 TF3 /RUN IF FIELD 3 AVAILABLE
01210 146000 DZM LOCF0 /0 TO LOCF0
01211 205236 LAC (-1
01212 060103 DAC* F3LOC /TRY TO SET ALL 1'S IN LOCF3
01213 546000 SAD LOCF0 /SKIP IF LOCF0 NOT ALL 1'S
01214 100604 ERROR /ERROR. LOCF0 CHANGED BY REFERENCE
/TO FIELD 3.

01215 100223 CHAIN
01216 601210 JMP T2+3 /NOT DONE. REPEAT TEST.

/DAC* F4LOC (LOCF0 SHOULD NOT CHANGE)
01217 000003 T3 3
01220 001231 T4
01221 100523 TF4 /RUN IF FIELD 4 AVAILABLE
01222 146000 DZM LOCF0 /0 TO LOCF0
01223 205236 LAC (-1
01224 060104 DAC* F4LOC /TRY TO SET ALL 1'S IN LOCF4
01225 546000 SAD LOCF0 /SKIP IF LOCF0 NOT ALL 1'S
01226 100604 ERROR /ERROR. LOCF0 CHANGED BY REFERENCE
/TO FIELD 4.

01227 100223 CHAIN
01230 601222 JMP T3+3 /NOT DONE. REPEAT TEST.

/DAC* F5LOC (LOCF0 SHOULD NOT CHANGE)
01231 000004 T4 4
01232 001243 T5
01233 100527 TF5 /RUN IF FIELD 5 AVAILABLE
01234 146000 DZM LOCF0 /0 TO LOCF0
01235 205236 LAC (-1
01236 060105 DAC* F5LOC /TRY TO SET LOCF5 TO ALL 1'S.
01237 546000 SAD LOCF0 /SKIP IF LOCF0 NOT ALL 1'S.

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01240 100604      ERROR                      /ERROR, LOCF0 CHANGED BY REFERENCE
                                           /TO FIELD 5.
01241 100223      CHAIN
01242 601234      JMP      T4+3                /NOT DONE. REPEAT TEST.
/DAC* F6LOC (LOCF0 SHOULD NOT CHANGE)
T5      5
        T6
        TF6                      /RUN IF FIELD 6 AVAILABLE
        DZM      LOCF0            /0 TO LOCF0
        LAC      (-1
        DAC*     F6LOC            /TRY TO SET ALL 1'S IN LOCF6
        SAD      LOCF0            /SKIP IF LOCF0 NOT ALL 1'S.
        ERROR                      /ERROR, LOCF0 CHANGED BY REFERENCE
                                           /TO FIELD 6.
01253 100223      CHAIN
01254 601246      JMP      T5+3                /NOT DONE. REPEAT TEST.
/DAC* F7LOC (LOCF0 SHOULD NOT CHANGE)
T6      6
        T7
        TF7                      /RUN IF FIELD 7 AVAILABLE
        DZM      LOCF0            /0 TO LOCF0
        LAC      (-1
        DAC*     F7LOC            /TRY TO SET ALL 1'S IN LOCF7
        SAD      LOCF0            /SKIP IF LOCF0 NOT ALL 1'S
        ERROR                      /ERROR, LOCF0 CHANGED BY REFERENCE
                                           /TO FIELD 7.
01265 100223      CHAIN
01266 601260      JMP      T6+3                /NOT DONE REPEAT TEST.
        .EJECT

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/TEST LAC* F1LOC
01267 000007 T7 7
01270 001303 T10
01271 100336 STFN /SET FIELDS
01272 205236 LAC (-1
01273 060101 DAC* F1LOC /ALL 1'S TO LOCF1
01274 750000 CLA
01275 220101 LAC* F1LOC /TRY TO GET C(LOCF1)
01276 545236 SAD (-1 /SKIP IF AC NOT ALL 1'S
01277 741000 SKP /OK.
01300 100604 ERRORA /ERR. AC NOT ALL 1'S. DAC* F1LOC
/DIR NOT REFERENCE FIELD 1, OR
/LAC* F1LOC DID NOT REFERENCE FIELD 1.

01301 100223 CHAIN
01302 601272 JMP T7+3 /NOT DONE. REPEAT TEST.

/TEST LAC* F2LOC
01303 000010 T10 10
01304 001320 T11
01305 100513 TF2 /RUN IF FIELD 2 AVAILARLE
01306 100336 STFN /SET FIELDS
01307 205236 LAC (-1
01310 060102 DAC* F2LOC /ALL 1'S TO LOCF2
01311 750000 CLA
01312 220102 LAC* F2LOC /TRY TO GET C(LOCF2)
01313 545236 SAD (-1 /SKIP IF AC NOT ALL 1'S.
01314 741000 SKP /OK.
01315 100604 ERRORA /ERROR. DAC* F2LOC, OR LAC* F2LOC
/DID NOT REFERENCE FIELD 2.

01316 100223 CHAIN
01317 601307 JMP T10+4 /REPEAT TEST.

/TEST LAC* F3LOC
01320 000011 T11 11
01321 001335 T12
01322 100517 TF3 /RUN IF FIELD 3 AVAILARLE
01323 100336 STFN /SET FIELDS
01324 205236 LAC (-1
01325 060103 DAC* F3LOC /ALL 1'S TO LOCF3
01326 750000 CLA
01327 220103 LAC* F3LOC /TRY TO GET C(LOCF3)
01330 545236 SAD (-1 /SKIP IF AC NOT ALL 1'S.
01331 741000 SKP /OK.
01332 100604 ERRORA /ERROR. DAC* F3LOC, OR LAC* F3LOC
/DID NOT REFERENCE FIELD 3.

01333 100223 CHAIN
01334 601324 JMP T11+4 /NOT DONE. REPEAT TEST

/TEST LAC* F4LOC
01335 000012 T12 12
01336 001352 T13
01337 100523 TF4 /RUN IF FIELD 4 AVAILARLE
01340 100336 STFN /SET FIELDS
01341 205236 LAC (-1
01342 060104 DAC* F4LOC /ALL 1'S TO LOCF4
01343 750000 CLA
01344 220104 LAC* F4LOC /TRY TO GET C(LOCF4)
01345 545236 SAD (-1 /SKIP IF AC NOT ALL 1'S

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01346	741000	SKP		/OK
01347	100604	ERRORA		/ERROR, DAC* F4LOC, OR LAC* F4LOC
				/DID NOT REFERENCE FIELD 4.
01350	100223	CHAIN		
01351	601341	JMP	T12+4	/NOT DONE. REPEAT TEST.
		/TEST LAC* F5LOC		
01352	000013	T13	13	
01353	001367	T14		
01354	100527	TF5		/RUN IF FIELD 5 AVAILABLE
01355	100336	STFN		/SET FIELDS
01356	205236	LAC	(-1	
01357	060105	DAC*	F5LOC	/ALL 1'S TO LOCF5
01360	750000	CLA		
01361	220105	LAC*	F5LOC	/TRY TO GET C(LOCF5)
01362	545236	SAD	(-1	/SKIP IF AC NOT ALL 1'S.
01363	741000	SKP		/OK
01364	100604	ERRORA		/ERROR, DAC* F5LOC, OR LAC* F5LOC
				/DID NOT REFERENCE FIELD 5.
01365	100223	CHAIN		
01366	601356	JMP	T13+4	/NOT DONE. REPEAT TEST
		/TEST LAC* F6LOC		
01367	000014	T14	14	
01370	001404	T15		
01371	100533	TF6		/RUN IF FIELD 6 AVAILABLE
01372	100336	STFN		/SET FIELDS
01373	205236	LAC	(-1	
01374	060106	DAC*	F6LOC	/ALL 1'S TO LOCF6
01375	750000	CLA		
01376	220106	LAC*	F6LOC	/TRY TO GET C(LOCF6)
01377	545236	SAD	(-1	/SKIP IF AC NOT ALL 1'S
01400	741000	SKP		/OK.
01401	100604	ERRORA		/ERROR, DAC* F6LOC, OR LAC* F6LOC
				/DID NOT REFERENCE FIELD 6.
01402	100223	CHAIN		
01403	601373	JMP	T14+4	/NOT DONE. REPEAT TEST.
		/TEST LAC* F7LOC		
01404	000015	T15	15	
01405	001421	T16		
01406	100537	TF7		/RUN IF FIELD 7 AVAILABLE
01407	100336	STFN		/SET FIELDS
01410	205236	LAC	(-1	
01411	060107	DAC*	F7LOC	/ALL 1'S TO LOCF7
01412	750000	CLA		
01413	220107	LAC*	F7LOC	/TRY TO GET C(LOCF7)
01414	545236	SAD	(-1	/SKIP IF AC NOT ALL 1'S
01415	741000	SKP		/OK.
01416	100604	ERRORA		/ERROR, DAC* F7LOC, OR LAC* F7LOC
				/DID NOT REFERENCE FIELD 7.
01417	100223	CHAIN		
01420	601410	JMP	T15+4	/NOT DONE. REPEAT TEST.
		.EJECT		

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/TEST THAT XCT* OF NOP AT LOCF1 DOES NOT TRANSFER CONTROL TO FIELD 1.
01421 000016 T16 16
01422 001440 T17
01423 100336 STFNF /SET FIELDS
01424 100311 MOVE /MOVE TEST WORDS TO TEST AREA
01425 001435 T16W /IN FIELD 1.
01426 016000 LOCF1
01427 777775 -3
01430 420101 XCT* F1LOC /XCT* OF NOP IN LOCF1
01431 100223 T16A CHAIN
01432 601424 JMP T16+3 /NOT DONE. REPEAT TEST.
01433 100604 T16B ERROR /ERROR. PROGRAM DID NOT RETURN TO
/TO T16A. INSTEAD, INSTRUCTION
/AT LOCF1+1 WAS EXECUTED.

01434 601431 JMP T16A
01435 740000 T16W NOP /TEST WORDS
01436 626002 JMP* LOC+2
01437 001433 T16B

/TEST THAT XCT* OF NOP AT LOCF2 DOES NOT TRANSFER CONTROL TO FIELD 2.
01440 000017 T17 17
01441 001460 T20
01442 100513 TF2 /RUN IF FIELD 2 AVAILABLE
01443 100336 STFNF /SET FIELDS
01444 100311 MOVE /MOVE TEST WORDS TO TEST AREA
01445 001455 T17W /IN FIELD 2.
01446 026000 LOCF2
01447 777775 -3
01450 420102 XCT* F2LOC /XCT* OF NOP IN LOCF2
01451 100223 T17A CHAIN
01452 601444 JMP T17+4 /NOT DONE. REPEAT TEST.
01453 100604 T17B ERROR /ERROR. PROGRAM DID NOT RETURN TO
/TO T17A. INSTEAD, INSTRUCTION AT
/LOCF2+1 WAS EXECUTED.

01454 601451 JMP T17A
01455 740000 T17W NOP /TEST WORDS
01456 626002 JMP* LOC+2
01457 001453 T17B

/TEST THAT XCT* OF NOP AT LOCF3 DOES NOT TRANSFER CONTROL TO FIELD 3.
01460 000020 T20 20
01461 001500 T21
01462 100517 TF3 /RUN IF FIELD 3 AVAILABLE.
01463 100336 STFNF /SET FIELDS
01464 100311 MOVE /TEST WORDS TO TEST AREA
01465 001475 T20W /IN FIELD 3.
01466 036000 LOCF3
01467 777775 -3
01470 420103 XCT* F3LOC /XCT* OF NOP IF LOCF3.
01471 100223 T20A CHAIN
01472 601464 JMP T20+4 /NOT DONE. REPEAT TEST.
01473 100604 T20B ERROR /ERROR. PROGRAM DID NOT RETURN
/TO T20A. INSTEAD, INSTRUCTION
/AT LOCF3+1 WAS EXECUTED.

01474 601471 JMP T20A
01475 740000 T20W NOP /TEST WORDS
01476 626002 JMP* LOC+2

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01477 001473          T20B
          /TEST THAT XCT* OF NOP AT LOCF4 DOES NOT TRANSFER CONTROL TO FIELD 4.
01500 000021 T21      21
01501 001520          T22
01502 100523          TF4          /RUN IF FIELD 4 AVAILABLE
01503 100336          STFN         /SET FIELDS
01504 100311          MOVE         /TEST WORDS TO FIELD 4
01505 001515          T21W        /TEST ARFA.
01506 046000          LOCF4
01507 777775          -3
01510 420104          XCT*      F4LOC          /XCT* OF NOP IN LOCF4
01511 100223 T21A    CHAIN
01512 601504          JMP      T21+4          /REPEAT TEST.
01513 100604 T21B    ERROR          /ERROR. PROGRAM DID NOT RETURN TO
          /T21A. INSTEAD INSTRUCTION AT
          /LOCF4+1 WAS EXECUTED.

01514 601511          JMP      T21A
01515 740000 T21W    NOP          /TEST WORDS
01516 626002          JMP*     LOC+2
01517 001513          T21B
          /TEST THAT XCT* OF NOP AT LOCF5 DOES NOT TRANSFER CONTROL TO FIELD 5.
01520 000022 T22      22
01521 001540          T23
01522 100527          TF5          /RUN IF FIELD 5 AVAILABLE
01523 100336          STFN         /SET FIELDS
01524 100311          MOVE         /TEST WORDS TO FIELD 5
01525 001535          T22W        /TEST ARFA.
01526 056000          LOCF5
01527 777775          -3
01530 420105          XCT*      F5LOC          /XCT* OF NOP IN LOCF5
01531 100223 T22A    CHAIN
01532 601524          JMP      T22+4          /REPEAT TEST.
01533 100604 T22B    ERROR          /ERROR. PROGRAM DID NOT RETURN
          /TO T22A. INSTEAD, INSTRUCTION
          /AT LOCF5+1 WAS EXECUTED.

01534 601531          JMP      T22A
01535 740000 T22W    NOP          /TEST WORDS
01536 626002          JMP*     LOC+2
01537 001533          T22B
          /TEST THAT XCT* OF NOP AT LOCF6 DOES NOT TRANSFER CONTROL TO FIELD 6.
01540 000023 T23      23
01541 001560          T24
01542 100533          TF6          /RUN IF FIELD 6 AVAILABLE.
01543 100336          STFN         /SET FIELDS
01544 100311          MOVE         /TEST WORDS TO FIELD 6
01545 001555          T23W        /TEST AREA
01546 066000          LOCF6
01547 777775          -3
01550 420106          XCT*      F6LOC          /XCT* OF NOP IN LOCF6.
01551 100223 T23A    CHAIN
01552 601544          JMP      T23+4          /REPEAT TEST.
01553 100604 T23B    ERROR          /ERROR. PROGRAM DID NOT RETURN TO
          /T23A. INSTEAD, INSTRUCTION AT
          /LOCF6+1 WAS EXECUTED.

01554 601551          JMP      T23A

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01555	740000	T23W	NOP		/TEST WORDS
01556	626002		JMP*	LOC+2	
01557	001553		T23B		
		/TEST THAT XCT* OF NOP AT LOCF7 DOES NOT TRANSFER CONTROL TO FIELD 7.			
01560	000024	T24	24		
01561	001600		T25		
01562	100537		TF7		/RUN IF FIELD 7 AVAILABLE
01563	100336		STFN		/SET FIELDS
01564	100311		MOVE		/TEST VOIDS TO FIELD 7
01565	001575		T24W		/TEST AREA.
01566	076000		LOCF7		
01567	777775		-3		
01570	420107		XCT*	F7LOC	/XCT* OF NOP INLOCF7
01571	100223	T24A	CHAIN		
01572	601564		JMP	T24+4	
01573	100604	T24B	ERROR		/ERROR. PROGRAM DID NOT RETURN TO /T24A. INSTEAD INSTRUCTION AT /LOCF7+1 WAS EXECUTED.
01574	601571		JMP	T24A	
01575	740000	T24W	NOP		/TEST WORDS
01576	626002		JMP*	LOC+2	
01577	001573		T24B		
			.EJECT		

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/TST XCT* OF LAC IN LOCF1 (DATA IN FIELD 0)
01600 000025 T25 25
01601 001614 T26
01602 100336 STFN /SET FIELDS
01603 205247 LAC (LAC 6000 /TEST WORD TO LOCF1
01604 060101 DAC* F1LOC
01605 750000 CLA
01606 420101 XCT* F1LOC /XCT* OF LAC AT LOCF1
01607 545247 SAD (LAC 6000 /SKIP IF AC DIFFERENT FROM (LAC 6000
01610 741000 SKP /OK
01611 100604 ERRORA /ERROR, XCT* OF LAC AT LOCF1.
/LAC 6000 DID NOT REFERENCE FIELD 1.

01612 100223 CHAIN
01613 601603 JMP T25+3 /REPEAT TEST.
/TST XCT* OF LAC IN LOCF2 (DATA IN FIELD 0)
01614 000026 T26 26
01615 001631 T27
01616 100513 TF2 /RUN IF FIELD 2 AVAILABLE
01617 100336 STFN /SET FIELDS
01620 205247 LAC (LAC 6000 /TEST WORD TO LOCF2.
01621 060102 DAC* F2LOC
01622 750000 CLA
01623 420102 XCT* F2LOC /XCT* OF LAC AT LOCF2
01624 545247 SAD (LAC 6000 /SKIP IF DIFFERENT FROM (LAC 6000
01625 741000 SKP /OK.
01626 100604 ERRORA /ERROR, XCT* OF LAC AT LOCF2.
/LAC 6000 DID NOT REFERENCE FIFLD 2.

01627 100223 CHAIN
01630 601620 JMP T26+4 /REPEAT REST.
/TST XCT* OF LAC N LOCF3 (DATA IN FIELD 0)
01631 000027 T27 27
01632 001646 T30
01633 100517 TF3 /RUN IF FIELD 3 AVAILBLE
01634 100336 STFN /SET FIELDS
01635 205247 LAC (LAC 6000 /TEST WORD TO LOCF3.
01636 060103 DAC* F3LOC
01637 750000 CLA
01640 420103 XCT* F3LOC /XCT* OF LAC AT LOCF3
01641 545247 SAD (LAC 6000 /SKIP IF AC DIFFERENT FROM (LAC 6000
01642 741000 SKP /OK.
01643 100604 ERRORA /ERROR, XCT* OF LAC AT LOCF3.
/LAC 6000 DID NOT REFERENCE FIELD 3.

01644 100223 CHAIN
01645 601635 JMP T27+4 /REPEAT TEST.
/TST XCT* OF LAC IN LOCF4 (DATA IN FIELD 0).
01646 000030 T30 30
01647 001663 T31
01650 100523 TF4 /RUN IF FIELD 4 AVAILABLE
01651 100336 STFN /SET FIELDS
01652 205247 LAC (LAC 6000 /TEST WORD TO LOCF4
01653 060104 DAC* F4LOC
01654 750000 CLA
01655 420104 XCT* F4LOC /XCT* OF LAC AT LOCF4
01656 545247 SAD (LAC 6000 /SKIP IF AC DIFFERENT FROM (LAC 6000
01657 741000 SKP /OK

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01660 100604          ERRORA          /ERROR, XCT* OF LAC AT LOCF4.
                                           /LAC 6000 DID NOT REFERENCE FIELD 4.
01661 100223          CHAIN
01662 601652          JMP          T30+4          /REPEAT TEST.
/TEST XCT* OF LAC IN LOCF5 (DATA IN FIELD 0)
T31          31
01663 000031          T32
01664 001700          TF5          /RUN IF FIELD 5 AVAILABLE
01665 100527          STF5          /SET FIELDS
01666 100336          STFN
01667 205247          LAC          (LAC 6000          /TEST WORD TO LOCF5
01670 060105          DAC*         F5LOC
01671 750000          CLA
01672 420105          XCT*         F5LOC          /XCT* OF LAC AT LOCF5
01673 545247          SAD          (LAC 6000          /SKIP IF AC DIFFERENT FROM LAC 6000
01674 741000          SKP
01675 100604          ERRORA          /OK.
                                           /ERROR, XCT* OF LAC AT LOCF5.
                                           /LAC 6000 DID NOT REFERENCE FIELD 5.

01676 100223          CHAIN
01677 601667          JMP          T31+4          /REPEAT TEST
/TEST XCT* OF LAC IN LOCF6 (DATA IN FIELD 0)
T32          32
01700 000032          T33
01701 001715          TF6          /RUN IF FIELD 6 AVAILABLE
01702 100533          STF6          /SET FIELDS
01703 100336          STFN
01704 205247          LAC          (LAC 6000          /TEST WORD TO LOCF6
01705 060106          DAC*         F6LOC
01706 750000          CLA
01707 420106          XCT*         F6LOC          /XCT* OF LAC AT LOCF6
01710 545247          SAD          (LAC 6000          /SKIP IF AC DIFFERENT FROM (LAC 6000
01711 741000          SKP
01712 100604          ERRORA          /OK.
                                           /ERROR, XCT* OF LAC AT LOCF6.
                                           /LAC 6000 DID NOT REFERENCE FIELD 6.

01713 100223          CHAIN
01714 601704          JMP          T32+4          /REPEAT TEST.
/TEST XCT* OF LAC IN LOCF7 (DATA IN FIELD 0).
T33          33
01715 000033          T34
01716 001732          TF7          /RUN IF FIELD 7 AVAILABLE
01717 100537          STF7          /SET FIELDS
01720 100336          STFN
01721 205247          LAC          (LAC 6000          /TEST WORD TO LOCF7.
01722 060107          DAC*         F7LOC
01723 750000          CLA
01724 420107          XCT*         F7LOC          /XCT* OF LAC AT LOCF7
01725 545247          SAD          (LAC 6000          /SKIP IF AC DIFFERENT FROM (LAC 6000
01726 741000          SKP
01727 100604          ERRORA          /OK.
                                           /ERROR, XCT* OF LAC AT LOCF7.
                                           /LAC 6000 DID NOT REFERENCE FIELD 7.

01730 100223          CHAIN
01731 601721          JMP          T33+4          /REPEAT TEST.
.EJECT

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/TEST XCT* OF LAC* IN LOCF1 (DATA IN FIELD 0)
01732 000034 T34 34
01733 001754 T35
01734 100336 STFN /SET FIELDS
01735 100311 MOVE /2 TEST WORDS OF FIELD 1.
01736 001752 T34W
01737 016000 LOCF1
01740 777776 -2
01741 205250 LAC (LOCF0
01742 046001 DAC LOCF0+1
01743 750000 CLA
01744 420101 XCT* F1LOC /XCT* OF LAC* AT LOCF1
01745 545251 SAD (LAC* 6001 /SKIP IF AC DIFFERENT FROM (LAC* 6001
01746 741000 SKP /OK.
01747 100604 ERRORA /ERROR, XCT* OF LAC* AT LOCF1.
/ LAC* 6001 DID NOT REFERENCE FIELD 1.

01750 100223 CHAIN
01751 601735 JMP T34+3 /REPEAT TEST.
01752 226001 T34W LAC* 6001 /TEST WORDS.
01753 016000 LOCF1

/TEST XCT* OF LAC* IN LOCF2 (DATA IN FIELD 0)
01754 000035 T35 35
01755 001777 T36
01756 100513 TF2 /RUN IF FIELD 2 AVAILABLE
01757 100336 STFN /SET FIELDS
01760 100311 MOVE /2 TEST WORDS TO FIELD 2
01761 001775 T35W
01762 026000 LOCF2
01763 777776 -2
01764 205250 LAC (LOCF0
01765 046001 DAC LOCF0+1
01766 750000 CLA
01767 420102 XCT* F2LOC /XCT* OF LAC* IN LOCF2
01770 545251 SAD (LAC* 6001 /SKIP IF AC DIFFERENT FROM (LAC* 6001
01771 741000 SKP /OK.
01772 100604 ERRORA /ERROR, XCT* OF LAC* AT LOCF2.
/ LAC* 6001 DID NOT REFERENCE FIELD 2.

01773 100223 CHAIN
01774 601760 JMP T35+4 /REPEAT TEST.
01775 226001 T35W LAC* 6001 /TEST WORDS.
01776 026000 LOCF2

/TEST XCT* OF LAC* IN LOCF3 (DATA IN FIELD 0)
01777 000036 T36 36
02000 002022 T37
02001 100517 TF3 /RUN IF FIELD 3 AVAILABLE
02002 100336 STFN /SET FIELDS
02003 100311 MOVE /2 TEST WORDS TO FIELD 3
02004 002020 T36W
02005 036000 LOCF3
02006 777776 -2
02007 205250 LAC (LOCF0
02010 046001 DAC LOCF0+1
02011 750000 CLA
02012 420103 XCT* F3LOC /XCT* OF LAC* IN LOCF3
02013 545251 SAD (LAC* 6001 /SKIP IF AC DIFFERENT FROM (LAC* 6001

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02014 741000 SKP /OK.
02015 100604 ERRORA /ERROR. XCT* OF LAC* AT LOCF3.
                                         /LAC* 6001 DID NOT REFERENCE FIELD 3.

02016 100223 CHAIN
02017 602003 JMP T36+4 /REPEAT TEST.
02020 226001 T36W LAC* 6001 /TEST WORDS.
02021 036000 LOCF3
/TEST XCT* OF LAC* IN LOCF4 (DATA IN FIELD 0)
T37 37
02022 000037 T40
02023 002045 TF4 /RUN IF FIELD 4 AVAILABLE
02024 100523 STF4 /SET FIELDS
02025 100336 STFN /2 TEST WORDS TO FIELD 4
02026 100311 MOVE
02027 002043 T37W
02030 046000 LOCF4
02031 777776 -2
02032 205250 LAC (LOCF0
02033 046001 DAC LOCF0+1
02034 750000 CLA
02035 420104 XCT* F4LOC /XCT* OF LAC* IN LOCF4
02036 545251 SAD (LAC* 6001 /SKIP IF AC DIFFERENT FROM (LAC* 6001
02037 741000 SKP /OK.
02040 100604 ERRORA /ERROR. XCT* OF LAC* IN LOCF4.
                                         /LAC* 6001 DID NOT REFERENCE FIELD 4.

02041 100223 CHAIN
02042 602026 JMP T37+4 /REPEAT TEST.
02043 226001 T37W LAC* 6001 /TEST WORDS.
02044 046000 LOCF4
/TEST XCT* OF LAC* IN LOCF5 (DATA IN FIELD 0)
T40 40
02045 000040 T41
02046 002070 TF5 /RUN IF FIELD 5 AVAILABLE
02047 100527 STF5 /SET FIELDS
02050 100336 STFN /2 TEST WORDS TO FIELD 5
02051 100311 MOVE
02052 002066 T40W
02053 056000 LOCF5
02054 777776 -2
02055 205250 LAC (LOCF0
02056 046001 DAC LOCF0+1
02057 750000 CLA
02060 420105 XCT* F5LOC /XCT* OF LAC* IN LOCF5
02061 545251 SAD (LAC* 6001 /SKIP IF AC DIFFERENT FROM (LAC* 6001
02062 741000 SKP /OK.
02063 100604 ERRORA /ERROR. XCT* OF LAC* IN LOCF5.
                                         /LAC* 6001 DID NOT REFERENCE FIELD 5.

02064 100223 CHAIN
02065 602051 JMP T40+4 /REPEAT TEST.
02066 226001 T40W LAC* 6001 /TEST WORDS.
02067 056000 LOCF5
/TEST XCT* OF LAC* IN LOCF6 (DATA IN FIELD 0)
T41 41
02070 000041 T42
02071 002113 TF6 /RUN IF FIELD 6 AVAILABLE
02072 100533 STF6 /SET FIELDS
02073 100336 STFN /2 TEST WORDS TO FIELD 6
02074 100311 MOVE

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02075	002111	T41W		
02076	066000	LOCF6		
02077	777776	-2		
02100	205250	LAC	(LOCF0	
02101	046001	DAC	LOCF0+1	
02102	750000	CLA		
02103	420106	XCT*	F6LOC	/XCT* OF LAC* IN LOCF6
02104	545251	SAD	(LAC* 6001	/SKIP IF AC DIFFERENT FROM (LAC* 6001
02105	741000	SKP		/OK
02106	100604	ERRORA		/ERROR, XCT* OF LAC* IN LOCF6.
				/LAC* 6001 DID NOT REFERENCE FIELD 6.
02107	100223	CHAIN		
02110	602074	JMP	T41+4	/REPEAT TEST.
02111	226001	T41W LAC*	6001	/TEST WORDS.
02112	066000	LOCF6		
		/TEST XCT* OF LAC* IN LOCF7 (DATA IN FIELD 0)		
02113	000042	T42	42	
02114	002136		T43	
02115	100537		TF7	/RUN IF FIELD 7 AVAILABLE
02116	100336		STFN	/SET FIELDS
02117	100311		MOVE	/2 TEST WORDS TO FIELD 7
02120	002134		T42W	
02121	076000		LOCF7	
02122	777776		-2	
02123	205250		LAC	(LOCF0
02124	046001		DAC	LOCF0+1
02125	750000		CLA	
02126	420107		XCT*	F7LOC
02127	545251		SAD	(LAC* 6001
02130	741000		SKP	/OK.
02131	100604		ERRORA	/ERROR, XCT* OF LAC* IN LOCF7.
				/LAC* 6001 DID NOT REFERENCE FIELD 7.
02132	100223	CHAIN		
02133	602117	JMP	T42+4	/REPEAT TEST
02134	226001	T42W LAC*	6001	/TEST WORDS.
02135	076000	LOCF7		
		.EJECT		

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/TEST XCT* OF JMP* AT LOCF1 (JUMPS TO FIELD 0)
02136 000043 T43 43
02137 002156 T44
02140 100336 STFNF /SET FIELDS
02141 100311 MOVE /2 TEST WORDS TO FIELD 1
02142 002154 T43W
02143 016000 LOCF1
02144 777776 -2
02145 205252 LAC (T43B
02146 046001 DAC LOCF0+1
02147 420101 XCT* F1LOC /XCT* OF JMP* IN LOCF1
02150 100223 T43A CHAIN
02151 602141 JMP T43+3 /REPEAT TEST
02152 100604 T43B ERROR /ERROR. JMP* 6001 AT LOCF1 REFERENCED
02153 602150 JMP T43A /FIELD 0 INSTEAD OF FIELD 1.
02154 626001 T43W JMP* 6001 /TEST WORDS.
02155 002150 T43A

/TEST XCT* OF JMP* AT LOCF2 (JUMPS TO FIELD 0)
02156 000044 T44 44
02157 002177 T45
02160 100513 TF2 /RUN IF FIELD 2 AVAILABLE
02161 100336 STFNF /SET FIELDS
02162 100311 MOVE /2 TEST WORDS TO FIELD 2
02163 002175 T44W
02164 026000 LOCF2
02165 777776 -2
02166 205253 LAC (T44B
02167 046001 DAC LOCF0+1
02170 420102 XCT* F2LOC /XCT* OF JMP* IN LOCF2
02171 100223 T44A CHAIN
02172 602162 JMP T44+4 /REPEAT TEST
02173 100604 T44B ERROR /ERROR. JMP* 6001 AT LOCF2 REFERENCED
02174 602171 JMP T44A /FIELD 0 INSTEAD OF FIELD 2.
02175 626001 T44W JMP* 6001 /TEST WORDS.
02176 002171 T44A

/TEST XCT* OF JMP* AT LOCF3 (JUMPS TO FIELD 0)
02177 000045 T45 45
02200 002220 T46
02201 100517 TF3 /RUN IF FIELD 3 AVAILABLE
02202 100336 STFNF /SET FIELDS
02203 100311 MOVE /2 TEST WORDS TO FIELD 3
02204 002216 T45W
02205 036000 LOCF3
02206 777776 -2
02207 205254 LAC (T45B
02210 046001 DAC LOCF0+1
02211 420103 XCT* F3LOC /XCT* OF JMP* IN LOCF3
02212 100223 T45A CHAIN
02213 602203 JMP T45+4 /REPEAT TEST
02214 100604 T45B ERROR /ERROR. JMP* 6001 AT LOCF3 REFERENCED
02215 602212 JMP T45A /FIELD 0 INSTEAD OF FIELD 3.
02216 626001 T45W JMP* 6001 /TEST WORDS.
02217 002212 T45A

/TEST XCT* OF JMP* AT LOCF4 (JUMPS TO FIELD 0)
02220 000046 T46 46

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02221 002241      T47
02222 100523      TF4                /RUN IF FIELD 4 AVAILABLE
02223 100336      STF5                /SET FIELDS
02224 100311      MOVE                /2 TEST WORDS TO FIELD 4.
02225 002237      T46W
02226 046000      LOCF4
02227 777776      -2
02230 205255      LAC          (T46R
02231 046001      DAC          LOCF0+1
02232 420104      XCT*         F4LOC                /XCT* OF JMP* IN LOCF4
02233 100223      T46A  CHAIN
02234 602224      JMP          T46+4                /REPEAT TEST
02235 100604      T46B  ERROR                /ERROR, JMP* 6001 AT LOCF4 REFERENCED
02236 602233      JMP          T46A                /FIELD 0 INSTEAD OF FIELD 4.
02237 626001      T46W  JMP*         6001                /TEST WORDS.
02240 002233      T46A
/TEST XCT* OF JMP* AT LOCF5 (JUMPS TO FIELD 0).
02241 000047      T47   47
02242 002262      T50
02243 100527      TF5                /RUN IF FIELD 5 AVAILABLE
02244 100336      STF5                /SET FIELDS
02245 100311      MOVE                /2 TEST WORDS TO FIELD 5
02246 002260      T47W
02247 056000      LOCF5
02250 777776      -2
02251 205256      LAC          (T47B
02252 046001      DAC          LOCF0+1
02253 420105      XCT*         F5LOC                /XCT* OF JMP* IN LOCF5
02254 100223      T47A  CHAIN
02255 602245      JMP          T47+4                /REPEAT TEST
02256 100604      T47B  ERROR                /ERROR, JMP* 6001 AT LOCF5 REFERENCED
02257 602254      JMP          T47A                /FIELD 0 INSTEAD OF FIELD 5.
02260 626001      T47W  JMP*         6001                /TEST WORDS.
02261 002254      T47A
/TEST XCT* OF JMP* AT LOCF6 (JUMPS TO FIELD 0)
02262 000050      T50   50
02263 002303      T51
02264 100533      TF6                /RUN IF FIELD 6 AVAILABLE
02265 100336      STF5                /SET FIELDS
02266 100311      MOVE                /2 TEST WORDS TO FIELD 6
02267 002301      T50W
02270 066000      LOCF6
02271 777776      -2
02272 205257      LAC          (T50B
02273 046001      DAC          LOCF0+1
02274 420106      XCT*         F6LOC                /XCT* OF JMP* IN LOCF6
02275 100223      T50A  CHAIN
02276 602266      JMP          T50+4                /REPEAT TEST
02277 100604      T50B  ERROR                /ERROR, JMP* 6001 AT LOCF6 REFERENCED
02300 602275      JMP          T50A                /FIELD 0 INSTEAD OF FIELD 6.
02301 626001      T50W  JMP*         6001                /TEST WORDS
02302 002275      T50A
/TEST XCT* OF JMP* AT LOCF7 (JUMPS TO FIELD 0)
02303 000051      T51   51
02304 002324      T52

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02305 100537  
 02306 100336  
 02307 100311  
 02310 002322  
 02311 076000  
 02312 777776  
 02313 205260  
 02314 046001  
 02315 420107  
 02316 100223  
 02317 602307  
 02320 100604  
 02321 602316  
 02322 626001  
 02323 002316

TF7  
 STFN  
 MOVE  
 T51W  
 LOCF7  
 -2  
 LAC (T51B  
 DAC LOCF0+1  
 XCT\* F7LOC  
 T51A CHAIN  
 JMP T51+4  
 T51B ERROR  
 JMP T51A  
 T51W JMP\* 6001  
 T51A  
 .EJECT

/RUN IF FIELD 7 AVAILABLE  
 /SET FIELDS  
 /2 TEST WORDS TO FIELD 7.

/XCT\* OF JMP\* IN LOCF7

/REPEAT TEST  
 /ERROR. JMP\* 6001 AT LOCF7 RFFERENCED  
 /FIELD 0 INSTEAD OF FIELD 7.  
 /TEST WORDS.

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/TEST OF JMP* TO LOCF1, AND FROM LOCF1 BACK TO FIELD 0
02324 000052 T52 52
02325 002340 T53
02326 100336 STFN /SET FIELDS
02327 100311 MOVE /2 TEST WORDS TO FIELD 1
02330 002336 T52W
02331 016000 LOCF1
02332 777776 -2
02333 620101 JMP* F1LOC /JUMP TO FIELD 1
02334 100223 T52A CHAIN
02335 602327 JMP T52+3 /REPEAT TEST
02336 626001 T52W JMP* 6001 /TEST WORDS
02337 002334 T52A

/TEST JMP* TO LOCF2 AND FROM LOCF2 BACK TO FIELD 0
02340 000053 T53 53
02341 002355 T54
02342 100513 TF2 /RUN IF FIELD 2 AVAILABLE
02343 100336 STFN /SET FIELDS
02344 100311 MOVE /2 TEST WORDS TO FIELD 2
02345 002353 T53W
02346 026000 LOCF2
02347 777776 -2
02350 620102 JMP* F2LOC /JUMP TO FIELD 2
02351 100223 T53A CHAIN
02352 602344 JMP T53+4 /REPEAT TEST
02353 626001 T53W JMP* 6001 /TEST WORDS
02354 002351 T53A

/TEST JMP* TO LOCF3, AND FROM LOCF3 BACK TO FIELD 0
02355 000054 T54 54
02356 002372 T55
02357 100517 TF3 /RUN IF FIELD 3
02360 100336 STFN /SET FIELDS
02361 100311 MOVE /2 TEST WORDS TO FIELD 3
02362 002370 T54W
02363 036000 LOCF3
02364 777776 -2
02365 620103 JMP* F3LOC /JUMP TO FIELD 3
02366 100223 T54A CHAIN
02367 602361 JMP T54+4 /REPEAT TEST
02370 626001 T54W JMP* 6001 /TEST WORDS
02371 002366 T54A

/TEST JMP* TO LOCF4, AND FROM LOCF4 BACK TO FIELD 0
02372 000055 T55 55
02373 002407 T56
02374 100523 TF4 /RUN IF FIELD 4 AVAILABLE
02375 100336 STFN /SET FIELDS
02376 100311 MOVE /2 TEST WORDS TO FIELD 4
02377 002405 T55W
02400 046000 LOCF4
02401 777776 -2
02402 620104 JMP* F4LOC /JUMP TO FIELD 4.
02403 100223 T55A CHAIN
02404 602376 JMP T55+4 /REPEAT TEST
02405 626001 T55W JMP* 6001 /TEST WORDS
02406 002403 T55A

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/TEST JMP* TO LOCF5 AND FROM LOCF5 BACK TO FIELD 0.
02407 000056 T56 56
02410 002424 T57
02411 100527 TF5 /RUN IF FIELD 5 AVAILABLE
02412 100336 STFN /SET FIELDS
02413 100311 MOVE /2 TEST WORDS TO FIELD 5
02414 002422 T56W
02415 056000 LOCF5
02416 777776 -2
02417 620105 T56A JMP* F5LOC /JUMP TO FIELD 5
02420 100223 T56A CHAIN
02421 602413 JMP T56+4 /REPEAT TEST
02422 626001 T56W JMP* 6001 /TEST WORDS
02423 002420 T56A

/TEST JMP* TO LOCF6 AND FROM LOCF6 BACK TO FIELD 0
02424 000057 T57 57
02425 002441 T60
02426 100533 TF6 /RUN IF FIELD 6 AVAILBLE
02427 100336 STFN /SET FIELDS
02430 100311 MOVE /2 TEST WORDS TO FIELD 6
02431 002437 T57W
02432 066000 LOCF6
02433 777776 -2
02434 620106 T57A JMP* F6LOC /JUMP TO FIELD 6
02435 100223 T57A CHAIN
02436 602430 JMP T57+4 /REPEAT TEST.
02437 626001 T57W JMP* 6001 /TEST WORDS
02440 002435 T57A

/TEST JMP* TO LOCF7 AND FROM LOCF7 BACK TO FIELD 0
02441 000060 T60 60
02442 002456 T61
02443 100537 TF7 /RUN IF FIELD 7 AVAILABLE
02444 100336 STFN /SET FIELDS
02445 100311 MOVE /2 TEST WORDS TO FIELD 7
02446 002454 T60W
02447 076000 LOCF7
02450 777776 -2
02451 620107 T60A JMP* F7LOC /JUMP TO FIELD 7
02452 100223 T60A CHAIN
02453 602445 JMP T60+4 /REPEAT TEST
02454 626001 T60W JMP* 6001 /TEST WORDS
02455 002452 T60A
.EJECT

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		/TEST OF SKP IN LOCF1		
02456	000061	T61	61	
02457	002473		T62	
02460	100336		STFN	/SET FIELDS
02461	100311		MOVE	/TEST WORDS TO FIELD :
02462	002470		T61W	
02463	016000		LOCF1	
02464	777775		-3	
02465	620101		JMP*	F1LOC /GO TO FIELD 1
02466	100223	T61A	CHAIN	
02467	602461		JMP	T61+3 /REPEAT TEST
02470	741000	T61W	SKP	/TEST WORDS.
02471	002466		T61A	
02472	626001		JMP*	6001
		/TEST OF SKP IN LOCF2		
02473	000062	T62	62	
02474	002511		T63	
02475	100513		TF2	/RUN IF FIELD 2 AVAILARLE
02476	100336		STFN	/SET FIELDS
02477	100311		MOVE	/TEST WORDS TO FIELD 2
02500	002506		T62W	
02501	026000		LOCF2	
02502	777775		-3	
02503	620102		JMP*	F2LOC /GO TO FIELD 2
02504	100223	T62A	CHAIN	
02505	602477		JMP	T62+4 /REPEAT TEST.
02506	741000	T62W	SKP	/TEST WORDS
02507	002504		T62A	
02510	626001		JMP*	6001
		/TEST OF SKP IN LOCF3		
02511	000063	T63	63	
02512	002527		T64	
02513	100517		TF3	/RUN IF FIELD 3 AVAILARLE
02514	100336		STFN	/SET FIELDS
02515	100311		MOVE	/TEST WORDS TO FIELD 3
02516	002524		T63W	
02517	036000		LOCF3	
02520	777775		-3	
02521	620103		JMP*	F3LOC /GO TO FIELD 3
02522	100223	T63A	CHAIN	
02523	602515		JMP	T63+4 /REPEAT TEST
02524	741000	T63W	SKP	/TEST WORDS
02525	002522		T63A	
02526	626001		JMP*	6001
		/TEST OF SKP IN LOCF4		
02527	000064	T64	64	
02530	002545		T65	
02531	100523		TF4	/RUN IF FIELD 4 AVAILARLE
02532	100336		STFN	/SET FIELDS
02533	100311		MOVE	/TEST WORDS TO FIELD 4
02534	002542		T64W	
02535	046000		LOCF4	
02536	777775		-3	
02537	620104		JMP*	F4LOC /GO TO FIELD 4
02540	100223	T64A	CHAIN	

02541	602533	JMP	T64+4	/REPEAT TEST
02542	741000	T64W	SKP	/TEST WORDS
02543	002540		T64A	
02544	626001		JMP*	6001
		/TEST OF SKP IN LOCF5		
02545	000065	T65	65	
02546	002563		T66	
02547	100527		TF5	/RUN IF FIELD 5 AVAILABLE
02550	100336		STFN	/SET FIELDS
02551	100311		MOVE	/TEST WORDS TO FIELD 5
02552	002560		T65W	
02553	056000		LOCF5	
02554	777775		-3	
02555	620105		JMP*	F5LOC
02556	100223	T65A	CHAIN	/GO TO FIELD 5.
02557	602551		JMP	T65+4
02560	741000	T65W	SKP	/REPEAT TEST
02561	002556		T65A	/TEST WORDS
02562	626001		JMP*	6001
		/TEST OF SKP IN LOCF6		
02563	000066	T66	66	
02564	002601		T67	
02565	100533		TF6	/RUN IF FIELD 6 AVAILABLE
02566	100336		STFN	/SET FIELDS
02567	100311		MOVE	/TEST WORDS TO FIELD 6
02570	002576		T66W	
02571	066000		LOCF6	
02572	777775		-3	
02573	620106		JMP*	F6LOC
02574	100223	T66A	CHAIN	/GO TO FIELD 6
02575	602567		JMP	T66+4
02576	741000	T66W	SKP	/REPEAT TEST
02577	002574		T66A	/TEST WORDS
02600	626001		JMP*	6001
		/TEST OF SKP IN LOCF7		
02601	000067	T67	67	
02602	002617		T70	
02603	100537		TF7	/RUN IF FIELD 7 AVAILABLE
02604	100336		STFN	/SET FIELD NUMBERS
02605	100311		MOVE	/TEST WORDS TO FIELD 7
02606	002614		T67W	
02607	076000		LOCF7	
02610	777775		-3	
02611	620107		JMP*	F7LOC
02612	100223	T67A	CHAIN	/GO TO FIELD 7
02613	602605		JMP	T67+4
02614	741000	T67W	SKP	/REPEAT TEST
02615	002612		T67A	/TEST WORDS
02616	626001		JMP*	6001
		.EJECT		

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/TEST OF SAD IN LOCF1
02617 000070 T70 70
02620 002634 T71
02621 100336 STFN /SET FIELDS
02622 100311 MOVE /TEST WORDS TO FIELD 1
02623 002631 T70W
02624 016000 LOCF1
02625 777775 -3
02626 620101 JMP* F1LOC /GO TO FIELD 1. AC IS 0.
02627 100223 T70A CHAIN
02630 602622 JMP T70+3 /REPEAT TEST
02631 546000 T70W SAD 6000 /TEST WORDS
02632 002627 T70A
02633 626001 JMP* 6001

/TEST OF SAD IN LOCF2
02634 000071 T71 71
02635 002652 T72
02636 100513 TF2 /RUN IF FIELD 2 AVAILABLE
02637 100336 STFN /SET FIELDS
02640 100311 MOVE /TEST WORDS TO FIELD 2
02641 002647 T71W
02642 026000 LOCF2
02643 777775 -3
02644 620102 JMP* F2LOC /GO TO FIELD 2. AC IS 0.
02645 100223 T71A CHAIN
02646 602640 JMP T71+4 /REPEAT TEST
02647 546000 T71W SAD 6000
02650 002645 T71A
02651 626001 JMP* 6001

/TEST OF SAD IN LOCF3
02652 000072 T72 72
02653 002670 T73
02654 100517 TF3 /RUN IF FIELD 3 AVAILABLE
02655 100336 STFN /SET FIELDS
02656 100311 MOVE /TEST WORDS TO FIELD 3
02657 002665 T72W
02660 036000 LOCF3
02661 777775 -3
02662 620103 JMP* F3LOC /GO TO FIELD 3. AC IS 0.
02663 100223 T72A CHAIN
02664 602656 JMP T72+4 /REPEAT TEST
02665 546000 T72W SAD 6000 /TEST WORDS
02666 002663 T72A
02667 626001 JMP* 6001

/TEST OF SAD IN LOCF4
02670 000073 T73 73
02671 002706 T74
02672 100523 TF4 /RUN IF FIELD 4 AVAILABLE
02673 100336 STFN /SET FIELDS
02674 100311 MOVE /TEST WORDS TO FIELD 4
02675 002703 T73W
02676 046000 LOCF4
02677 777775 -3
02700 620104 JMP* F4LOC /GO TO FIELD 4. AC IS 0.
02701 100223 T73A CHAIN

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02702	602674		JMP	T73+4	/REPEAT TEST
02703	546000	T73W	SAD	6000	/TEST WORDS
02704	002701		T73A		
02705	626001		JMP*	6001	
/TEST OF SAD IN LOCF5					
02706	000074	T74	74		
02707	002724		T75		
02710	100527		TF5		/RUN IF FIELD 5 AVAILABLE
02711	100336		STFN		/SET FIELDS
02712	100311		MOVE		/TEST WORDS TO FIELD 5
02713	002721		T74W		
02714	056000		LOCF5		
02715	777775		-3		
02716	620105		JMP*	F5LOC	/GO TO FIELD 5. AC IS 0.
02717	100223	T74A	CHAIN		
02720	602712		JMP	T74+4	/REPEAT TEST
02721	546000	T74W	SAD	6000	/TEST WORDS
02722	002717		T74A		
02723	626001		JMP*	6001	
/TEST OF SAD IN LOCF6					
02724	000075	T75	75		
02725	002742		T76		
02726	100533		TF6		/RUN IF FIELD 6 AVAILABLE
02727	100336		STFN		/SET FIELDS
02730	100311		MOVE		/TEST WORDS TO FIELD 6
02731	002737		T75W		
02732	066000		LOCF6		
02733	777775		-3		
02734	620106		JMP*	F6LOC	/GO TO FIELD 6. AC IS 0.
02735	100223	T75A	CHAIN		
02736	602730		JMP	T75+4	/REPEAT TEST
02737	546000	T75W	SAD	6000	/TEST WORDS
02740	002735		T75A		
02741	626001		JMP*	6001	
/TEST OF SAD IN LOCF7					
02742	000076	T76	76		
02743	002760		T77		
02744	100537		TF7		/RUN IF FIELD 7 AVAILABLE
02745	100336		STFN		/SET FIELDS
02746	100311		MOVE		/TEST WORDS TO FIELD 7
02747	002755		T76W		
02750	076000		LOCF7		
02751	777775		-3		
02752	620107		JMP*	F7LOC	/GO TO FIELD 7. AC IS 0.
02753	100223	T76A	CHAIN		
02754	602746		JMP	T76+4	/REPEAT TEST
02755	546000	T76W	SAD	6000	/TEST WORDS
02756	002753		T76A		
02757	626001		JMP*	6001	

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/TEST THAT JMS IN LOCF1 STORES PC3-5 CORRECTLY
02760 000077 T77 77
02761 003003 T100 T100
02762 100336 STFN /SET FIELDS
02763 100311 MOVE /TEST WORDS TO FIELD 1
02764 002776 T77W T77W
02765 016000 LOCF1 LOCF1
02766 777773 -5
02767 620101 JMP* F1LOC /GO TO FIELD 1
02770 505215 T77A AND (K70K /ISOLATE AC 3-5
02771 545233 SAD (K10K /AC3-5=001?
02772 741000 SKP /YES.
02773 100604 ERRORA /NO. ERROR. JMS IN FIELD 1 DID
/NOT STORE PC3-5 CORRECTLY.

02774 100223 CHAIN
02775 602763 JMP T77+3 /REPEAT TEST.
02776 106001 T77W JMS 6001 /TEST WORDS
02777 000000 0
03000 206001 LAC 6001
03001 626004 JMP* 6004
03002 002770 T77A

/TEST THAT JMS IN LOCF2 STORES PC3-5 CORRECTLY
03003 000100 T100 100
03004 003027 T101 T101
03005 100513 TF2 /RUN IF FIELD 2 AVAILABLE
03006 100336 STFN /SET FIELDS
03007 100311 MOVE /TEST WORDS TO FIELD 2
03010 003022 T100W T100W
03011 026000 LOCF2 LOCF2
03012 777773 -5
03013 620102 JMP* F2LOC /GO TO FIELD 2
03014 505215 T100A AND (K70K /ISOLATE AC3-5
03015 545230 SAD (K20K /AC3-5=010?
03016 741000 SKP /YES.
03017 100604 ERRORA /NO. ERROR. JMS IN FIELD 2
/DID NOT STORE PC3-5 CORRECTLY.

03020 100223 CHAIN
03021 603007 JMP T100+4
03022 106001 T100W JMS 6001 /TEST WORDS.
03023 000000 0
03024 206001 LAC 6001
03025 626004 JMP* 6004
03026 003014 T100A

/TEST THAT JMS IN LOCF3 STORES PC3-5 CORRECTLY
03027 000101 T101 101
03030 003053 T102 T102
03031 100517 TF3 /RUN IF FIELD 3 AVAILABLE
03032 100336 STFN /SET FIELDS
03033 100311 MOVE /TEST WORDS TO FIELD 3
03034 003046 T101W T101W
03035 036000 LOCF3 LOCF3
03036 777773 -5
03037 620103 JMP* F3LOC /GO TO FIELD 3
03040 505215 T101A AND (K70K /ISOLATE AC3-5
03041 545226 SAD (K30K /AC3-5=011?

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03042 741000 SKP /YES.
03043 100604 ERRORA /NO. ERROR. JMS IN FIELD 3 DID
/NOT STORE PC3-5 CORRECTLY.

03044 100223 CHAIN
03045 603033 JMP T101+4 /REPEAT TEST.
03046 106001 T101W JMS 6001 /TEST WORDS.
03047 000000 0
03050 206001 LAC 6001
03051 626004 JMP* 6004
03052 003040 T101A
/TEST THAT JMS IN LOCF4 STORES PC3-5 CORRECTLY
03053 000102 T102 102
03054 003077 T103
03055 100523 TF4 /RUN IF FIELD 4 AVAILABLE
03056 100336 STFN /SET FIELDS
03057 100311 MOVE /TEST WORDS TO FIELD 4
03060 003072 T102W
03061 046000 LOCF4
03062 777773 -5
03063 620104 JMP* F4LOC /GO TO FIELD 4
03064 505215 T102A AND (K70K /ISOLATE AC3-5
03065 545261 SAD (K40K /AC3-5= 00?
03066 741000 SKP /YES.
03067 100604 ERRORA /NO. ERROR. JMS IN FIELD 4 DID
/NOT STORE PC3-5 CORRECTLY.

03070 100223 CHAIN
03071 603057 JMP T102+4 /REPEAT TEST.
03072 106001 T102W JMS 6001 /TEST WORDS.
03073 000000 0
03074 206001 LAC 6001
03075 626004 JMP* 6004
03076 003064 T102A
/TEST THAT JMS IN LOCF5 STORES PC3-5 CORRECTLY
03077 000103 T103 103
03100 003123 T104
03101 100527 TF5 /RUN IF FIELD 5 AVAILABLE
03102 100336 STFN /SET FIELDS
03103 100311 MOVE /TEST WORDS TO FIELD 5
03104 003116 T103W
03105 056000 LOCF5
03106 777773 -5
03107 620105 JMP* F5LOC /GO TO FIELD 5
03110 505215 T103A AND (K70K /ISOLATE AC3-5
03111 545224 SAD (K50K /AC3-5= 01?
03112 741000 SKP /YES.
03113 100604 ERRORA /NO. ERROR. JMS IN FIELD 5 DID
/NOT STORE PC3-5 CORRECTLY.

03114 100223 CHAIN
03115 603103 JMP T103+4 /REPEAT TEST.
03116 106001 T103W JMS 6001 /TEST WORDS.
03117 000000 0
03120 206001 LAC 6001
03121 626004 JMP* 6004
03122 003110 T103A
/TEST THAT JMS IN LOCF6 STORES PC3-5 CORRECTLY

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03123	000104	T104	104		
03124	003147		T105		
03125	100533		TF6		/RUN IF FIELD 6 AVAILABLE
03126	100336		STFN		/SET FIELDS
03127	100311		MOVE		/TEST WORDS TO FIELD 6
03130	003142		T104W		
03131	066000		LOCF6		
03132	777773		-5		
03133	620106		JMP*	F6LOC	/GO TO FIELD 6
03134	505215	T104A	AND	(K70K	/ISOLATE AC3-5
03135	545222		SAD	(K60K	/AC3-5=110?
03136	741000		SKP		/YES.
03137	100604		ERRORA		/NO. ERROR. JMS IN FIELD 6 DID /NOT STORE PC3-5 CORRECTLY
03140	100223		CHAIN		
03141	603127		JMP	T104+4	/REPEAT TEST
03142	106001	T104W	JMS	6001	/TEST WORDS.
03143	000000		0		
03144	206001		LAC	6001	
03145	626004		JMP*	6004	
03146	003134		T104A		
			/TEST THAT JMS IN LOCF7 STORES PC3-5 CORRECTLY		
03147	000105	T105	105		
03150	003173		T106		
03151	100537		TF7		/RUN IF FIELD 7 AVAILABLE
03152	100336		STFN		/SET FIELDS
03153	100311		MOVE		/TEST WORDS TO FIELD 7
03154	003166		T105W		
03155	076000		LOCF7		
03156	777773		-5		
03157	620107		JMP*	F7LOC	/GO TO FIELD 7
03160	505215	T105A	AND	(K70K	/ISOLATE AC3-5
03161	545215		SAD	(K70K	/AC3-5=111?
03162	741000		SKP		/YES.
03163	100604		ERRORA		/NO. ERROR. JMS IN FIELD 7 DID /NOT STORE PC3-5 CORRECTLY
03164	100223		CHAIN		
03165	603153		JMP	T105+4	/REPEAT TEST
03166	106001	T105W	JMS	6001	/TEST WORDS.
03167	000000		0		
03170	206001		LAC	6001	
03171	626004		JMP*	6004	
03172	003160		T105A		
			.EJECT		

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/TEST THAT CAL* IN LOCF1 REFERENCES FIELD 0 AND STORES PC3-5 CORRECTLY.
03173 000106 T106 106
03174 003214 T107
03175 100336 STFN /SET FIELDS
03176 205230 LAC (CAL* /TEST WORD TO LOCF1
03177 060101 DAC* F1LOC
03200 205262 LAC (T106A /SET INDIRECT POINTER IN LOC 20
03201 040020 DAC L20 /TO T106A.
03202 143204 DZM T106A /ZERO OUT T106A
03203 620101 JMP* F1LOC /GO TO FIELD 1 TO DO CAL*
03204 000000 T106A 0
03205 203204 LAC T106A /GET C (T106A)
03206 505215 AND (K70K /ISOLATE AC3-5
03207 545233 SAD (K10K /AC3-5=001?
03210 741000 SKP /YES.
03211 100604 ERRORA /NO. ERROR. CAL* IN LOCF1
/NO DID NOT STORE PC3-5 CORRECTLY.

03212 100223 CHAIN
03213 603176 JMP T106+3 /REPEAT TEST.
/TEST THAT CAL* IN LOCF2 REFERENCES FIELD 0 AND STORES PC3-5 CORRECTLY.
03214 000107 T107 107
03215 003236 T110
03216 100513 TF2 /RUN IF FIELD 2 AVAILABLE
03217 100336 STFN /SET FIELDS
03220 205230 LAC (CAL* /TEST WORD TO LOCF2
03221 060102 DAC* F2LOC
03222 205263 LAC (T107A /SET INDIRECT POINTER IN LOC20
03223 040020 DAC L20 /TO T107A
03224 143226 DZM T107A /ZERO TO T107A
03225 620102 JMP* F2LOC /GO TO FIELD 2 TO DO CAL*
03226 000000 T107A 0
03227 203226 LAC T107A /GET C(T107A)
03230 505215 AND (K70K /ISOLATE AC3-5
03231 545230 SAD (K20K /AC3-5=010?
03232 741000 SKP /YES.
03233 100604 ERRORA /NO. ERROR. CAL* IN LOCF2
/NO DID NOT STORE PC3-5 CORRECTLY.

03234 100223 CHAIN
03235 603220 JMP T107+4 /REPEAT TEST.
/TEST THAT CAL* IN LOCF3 REFERENCES FIELD 0 AND STORES PC3-5 CORRECTLY.
03236 000110 T110 110
03237 003260 T111
03240 100517 TF3 /RUN IF FIELD 3 AVAILABLE
03241 100336 STFN /SET FIELDS
03242 205230 LAC (CAL* /TEST WORD TO LOCF3
03243 060103 DAC* F3LOC
03244 205264 LAC (T110A /SET POINTER IN LOC20 TO T110A
03245 040020 DAC L20
03246 143250 DZM T110A /ZERO T110A
03247 620103 JMP* F3LOC /GO TO FIELD 3 TO DO CAL*
03250 000000 T110A 0
03251 203250 LAC T110A /GET C (T110A)
03252 505215 AND (K70K /ISOLATE AC3-5
03253 545226 SAD (K30K /AC3-5=011?
03254 741000 SKP /YES.

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03255 100604          ERRORA          /NO. ERROR. CAL* IN LOCF3
                                         /DID NOT STORE PC3-5 CORRECTLY.

03256 100223          CHAIN
03257 603242          JMP          T110+4          /REPEAT TEST.
/TEST THAT CAL* IN LOCF4 REFERENCES FIELD 0 AND STORES PC3-5 CORRECTLY.

T111 111
03261 003302          T112
03262 100523          TF4          /RUN IF FIELD 4 AVAILABLE
03263 100336          STFN          /SET FIELDS
03264 205230          LAC          (CAL*          /TEST WORD TO LOCF4
03265 060104          DAC*         F4LOC
03266 205265          LAC          (T111A          /SET POINTER IN LOC20 TO T111A
03267 040020          DAC          L20
03270 143272          DZM          T111A          /ZERO T111A
03271 620104          JMP*         F4LOC          /GO TO FIELD 4 TO DO CAL*
03272 000000          T111A 0
03273 203272          LAC          T111A          /GET C (T111A)
03274 505215          AND          (K70K          /ISOLATE AC3-5
03275 545261          SAD          (K40K          /AC3-5= 00?
03276 741000          SKP
03277 100604          ERRORA          /NO. ERROR. CAL* IN LOCF4
                                         /DID NOT STORE PC3-5 CORRECTLY.

03300 100223          CHAIN
03301 603264          JMP          T111+4          /REPEAT TEST
/TEST THAT CAL* IN LOCF5 REFERENCES FIELD 0 AND STORES PC3-5 CORRECTLY.

T112 112
03303 003324          T113
03304 100527          TF5          /RUN IF FIELD 5 AVAILABLE
03305 100336          STFN          /SET FIELDS
03306 205230          LAC          (CAL*          /TEST WORD TO LOCF5
03307 060105          DAC*         F5LOC
03310 205266          LAC          (T112A          /SET POINTER IN LOC20 TO T112A
03311 040020          DAC          L20
03312 143314          DZM          T112A          /ZERO T112A
03313 620105          JMP*         F5LOC          /GO TO FIELD 5 TO DO CAL*
03314 000000          T112A 0
03315 203314          LAC          T112A          /GET C (T112A)
03316 505215          AND          (K70K          /ISOLATE AC3-5
03317 545224          SAD          (K50K          /AC3-5=101?
03320 741000          SKP
03321 100604          ERRORA          /NO. ERROR. CAL* IN LOCF5 DID
                                         /NOT STORE PC3-5 CORRECTLY.

03322 100223          CHAIN
03323 603306          JMP          T112+4          /REPEAT TEST
/TEST THAT CAL* IN LOCF6 REFERENCES FIELD 0 AND STORES PC3-5 CORRECTLY.

T113 113
03325 003346          T114
03326 100533          TF6          /RUN IF FIELD 6 AVAILABLE
03327 100336          STFN          /SET FIELDS
03330 205230          LAC          (CAL*          /TEST WORD TO LOCF6
03331 060106          DAC*         F6LOC
03332 205267          LAC          (T113A          /SET POINTER IN LOC20 TO T113A
03333 040020          DAC          L20
03334 143336          DZM          T113A          /ZERO T113A
03335 620106          JMP*         F6LOC          /GO TO FIELD 6 TO DO CAL*

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03336 000000 T113A 0
03337 203336 LAC T113A /GET C (T113A)
03340 505215 AND (K70K /ISOLATE AC3-5
03341 545222 SAD (K60K /AC3-5= 0?
03342 741000 SKP /YES.
03343 100604 ERRORA /NO. ERROR. CAL* IN LOCF6
/NO. ERROR. CAL* IN LOCF6
/DID NOT STORE PC3-5 CORRECTLY.

03344 100223 CHAIN
03345 603330 JMP T113+4 /REPEAT TEST.
/TEST THAT CAL* IN LOCF7 REFERENCES FIELD 0 AND STORES PC3-5 CORRECTLY.

03346 000114 T114 114
03347 003370 T115
03350 100537 TF7 /RUN IF FIELD 7 AVAILABLE
03351 100336 STFN /SET FIELDS
03352 205230 LAC (CAL* /TEST WORD TO LOCF7
03353 060107 DAC* F7LOC
03354 205270 LAC (T114A /SET POINTER IN LOC20 TO T114A
03355 040020 DAC L20
03356 143360 DZM T114A /ZERO T114A
03357 620107 JMP* F7LOC /GO TO FIELD 7 TO DO CAL*

03360 000000 T114A 0
03361 203360 LAC T114A /GET C (T114A)
03362 505215 AND (K70K /ISOLATE AC3-5
03363 545215 SAD (K70K /AC3-5= 11?
03364 741000 SKP /YES.
03365 100604 ERRORA /NO. ERROR. CAL* IN LOCF7
/NO. ERROR. CAL* IN LOCF7
/DID NOT STORE PC3-5 CORRECTLY.

03366 100223 CHAIN
03367 603352 JMP T114+4 /REPEAT TEST
.EJECT

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/TEST THAT AUTO-INDEX FROM FIELD 1 REFERENCES FIELD 0 AND POINTS TO FIELD 0
03370 000115 T115 115
03371 003412 T116
03372 100336 STFN /SET FIELDS
03373 100311 MOVE /TEST WORDS TO FIELD 1
03374 003407 T115W
03375 016000 LOCF1
03376 777775 -3
03377 205271 LAC (JMP T115B /RETURN INSTRUCTION TO LOCF0+1
03400 046001 DAC LOCF0+1
03401 205250 LAC (LOCF0 /SET LOC10 IN FIELD 0
03402 040010 DAC L10
03403 620101 JMP* F1LOC /GO TO FIELD 1
03404 100604 T115A ERROR /ERROR, AUTO-INDEXING FROM FIELD 1
/POINTED TO FIELD 1 INSTEAD OF FIELD 0

03405 100223 T115B CHAIN
03406 603373 JMP T115+3 /REPEAT TEST.
03407 620010 T115W JMP* 10 /TEST WORDS.
03410 626002 JMP* 6002
03411 003404 T115A

/TEST THAT AUTO-INDEX FROM FIELD 2 REFERENCES FIELD 0 AND POINTS TO FIELD 0
03412 000116 T116 116
03413 003435 T117
03414 100513 TF2 /RUN IF FIELD 2 AVAILABLE
03415 100336 STFN /SET FIELDS
03416 100311 MOVE /TEST WORDS TO FIELD 2
03417 003432 T116W
03420 026000 LOCF2
03421 777775 -3
03422 205272 LAC (JMP T116B /RETURN INSTRUCTION TO LOCF0+1
03423 046001 DAC LOCF0+1
03424 205250 LAC (LOCF0 /SET LOC10 IN FIELD 0
03425 040010 DAC L10
03426 620102 JMP* F2LOC /GO TO FIELD 2
03427 100604 T116A ERROR /ERROR, AUTO INDEXING FROM FIELD 2
/POINTED TO FIELD 2 INSTEAD OF FIELD 0.

03430 100223 T116B CHAIN
03431 603416 JMP T116+4 /REPEAT TEST
03432 620010 T116W JMP* 10 /TEST WORDS.
03433 626002 JMP* 6002
03434 003427 T116A

/TEST THAT AUTO-INDEX FROM FIELD 3 REFERENCES FIELD 0 AND POINTS TO FIELD 0
03435 000117 T117 117
03436 003460 T120
03437 100517 TF3 /RUN IF FIELD 3 AVAILABLE
03440 100336 STFN /SET FIELDS
03441 100311 MOVE /TEST WORDS TO FIELD 3
03442 003455 T117W
03443 036000 LOCF3
03444 777775 -3
03445 205273 LAC (JMP T117B /RETURN INSTRUCTION TO LOCF0+1
03446 046001 DAC LOCF0+1
03447 205250 LAC (LOCF0 /SET LOC10 IN FIELD 0
03450 040010 DAC L10
03451 620103 JMP* F3LOC /GO TO FIELD 3

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03452	100604	T117A	ERROR	/ERROR. AUTO-INDEXING FROM FIELD 3 /POINTED TO FIELD 3 INSTEAD OF FIELD 0
03453	100223	T117R	CHAIN	
03454	603441	JMP	T117+4	/REPEAT TEST
03455	620010	T117W	JMP*	10 /TEST WORDS
03456	626002	JMP*	6002	
03457	003452	T117A		
		/TEST THAT AUTO-INDEX FROM FIELD 4 REFERENCES FIELD 0 AND POINTS TO FIELD 0.		
03460	000120	T120	120	
03461	003503	T121		
03462	100523	TF4		/RUN IF FIELD 4 AVAILABLE
03463	100336	STFN		/SET FIELDS
03464	100311	MOVE		/TEST WORDS TO FIELD 4.
03465	003500	T120W		
03466	046000	LOCF4		
03467	777775	-3		
03470	205274	LAC	(JMP T120B	/RETURN INSTRUCTION TO LOCF0+1
03471	046001	DAC	LOCF0+1	
03472	205250	LAC	(LOCF0	/SET LOC10 IN FIELD 0
03473	040010	DAC	L10	
03474	620104	JMP*	F4LOC	/GO TO FIELD 4
03475	100604	T120A	ERROR	/ERROR. AUTO-INDEXING FROM FIELD 4 /POINTED TO FIELD 4 INSTEAD OF FIELD 0
03476	100223	T120B	CHAIN	
03477	603464	JMP	T120+4	/REPEAT TEST.
03500	620010	T120W	JMP*	10 /TEST WORDS.
03501	626002	JMP*	6002	
03502	003475	T120A		
		/TEST THAT AUTO-INDEX FROM FIELD 5 REFERENCES FIELD 0 AND POINTS TO FIELD 0		
03503	000121	T121	121	
03504	003526	T122		
03505	100527	TF5		/RUN IF FIELD 5 IS AVAILABLE
03506	100336	STFN		/SET FIELDS
03507	100311	MOVE		/TEST WORDS TO FIELD 5
03510	003523	T121W		
03511	056000	LOCF5		
03512	777775	-3		
03513	205275	LAC	(JMP T121B	/RETURN INSTRUCTION TO LOCF0+1
03514	046001	DAC	LOCF0+1	
03515	205250	LAC	(LOCF0	/SET LOC10 IN FIELD 0
03516	040010	DAC	L10	
03517	620105	JMP*	F5LOC	/GO TO FIELD 5
03520	100604	T121A	ERROR	/ERROR. AUTO-INDEXING FROM FIELD 5 /POINTED TO FIELD 5 INSTEAD OF FIELD 0
03521	100223	T121B	CHAIN	
03522	603507	JMP	T121+4	/REPEAT TEST
03523	620010	T121W	JMP*	10 /TEST WORDS.
03524	626002	JMP*	6002	
03525	003520	T121A		
		/TEST THAT AUTO-INDEX FROM FIELD 6 REFERENCES FIELD 0 AND POINTS TO FIELD 0		
03526	000122	T122	122	
03527	003551	T123		
03530	100533	TF6		/RUN IF FIELD 6 AVAILABLE
03531	100336	STFN		/SET FIELDS
03532	100311	MOVE		/TEST WORDS TO FIELD 6

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03533 003546 T122W
03534 066000 LOCF6
03535 777775 -3
03536 205276 LAC (JMP T122B /RETURN INSTRUCTION TO LOCF0+1
03537 046001 DAC LOCF0+1
03540 205250 LAC (LOCF0 /SET LOC10 IN FIELD 0
03541 040010 DAC L10
03542 620106 JMP* F6LOC /GO TO FIELD 6
03543 100604 T122A ERROR /ERROR, AUTO-INDEX FROM FIELD 6
/POINTED TO FIELD 6 INSTEAD OF FIELD 0

03544 100223 T122B CHAIN
03545 603532 JMP T122+4 /REPEAT TEST
03546 620010 T122W JMP* 10 /TEST WORDS
03547 626002 JMP* 6002
03550 003543 T122A
/TEST THAT AUTO-INDEX FROM FIELD 7 REFERENCES FIELD 0 AND POINTS TO FIELD 0

03551 000123 T123 123
03552 003574 T124
03553 100537 TF7 /RUN IF FIELD 7 AVAILABLE
03554 100336 STFN /SET FIELDS
03555 100311 MOVE /TEST WORDS TO FIELD 7
03556 003571 T123W
03557 076000 LOCF7
03560 777775 -3
03561 205277 LAC (JMP T123B /RETURN INSTRUCTION TO LOCF0+1
03562 046001 DAC LOCF0+1
03563 205250 LAC (LOCF0 /SET LOC10 IN FIELD 0.
03564 040010 DAC L10
03565 620107 JMP* F7LOC /GO TO FIELD 7
03566 100604 T123A ERROR /ERROR, AUTO-INDEX FROM FIELD 7
/POINTED TO FIELD 7 INSTEAD OF FIELD 0

03567 100223 T123B CHAIN
03570 603555 JMP T123+4 /REPEAT TEST
03571 620010 T123W JMP* 10 /TEST WORDS
03572 626002 JMP* 6002
03573 003566 T123A
.EJECT

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/TEST THAT INTERRUPT FROM FIELD 1 STORES PC3-5 CORRECTLY
03574 000124 T124 124
03575 003626 T125
03576 100336 STFN /SET FIELDS
03577 100311 MOVE /TEST WORDS TO FIELD 1
03600 003620 T124W
03601 016000 LOCF1
03602 777772 -6
03603 205300 LAC (JMP T124A /SET INTERRUPT RETURN
03604 040001 DAC 1
03605 100557 JMS STFLG /SET TTY PRINTER FLAG.
03606 620101 JMP* F1LOC /GO TO FIELD 1
03607 200000 T124A LAC 0 /GET CONTENTS OF LOC0
03610 505215 AND (K70K /ISOLATE AC3-5
03611 545233 SAD (K10K /AC3-5=001?
03612 741000 SKP /YES.
03613 100604 ERRORA /NO. ERROR. INTERRUPT FROM FIELD 1
/STORED PC3-5 INCORRECTLY

03614 100223 CHAIN
03615 603577 JMP T124+3 /REPEAT TEST
03616 100604 T124B ERROR /FAILED TO
03617 603614 JMP .-3 /INTERRUPT
03620 700042 T124W ION /TEST WORDS.
03621 740000 NOP
03622 740000 NOP
03623 700002 IOF
03624 626005 JMP* 6005
03625 003616 T124B

/TEST THAT INTERRUPT FROM FIELD 2 STORES PC3-5 CORRECTLY.
03626 000125 T125 125
03627 003661 T126
03630 100513 TF2 /RUN IF FIELD 2 AVAILABLE
03631 100336 STFN /SET FIELDS
03632 100311 MOVE /TEST WORDS TO FIELD 2
03633 003653 T125W
03634 026000 LOCF2
03635 777772 -6
03636 205301 LAC (JMP T125A /SET INTERRUPT RETURN
03637 040001 DAC 1
03640 100557 JMS STFLG /SET TTY PRINTER FLAG
03641 620102 JMP* F2LOC /GO TO FIELD 2.
03642 200000 T125A LAC 0 /GET CONTENTS OF LOC0
03643 505215 AND (K70K /ISOLATE AC3-5
03644 545230 SAD (K20K /AC3-5=010?
03645 741000 SKP /YES.
03646 100604 ERRORA /NO. ERROR. INTERRUPT FROM FIELD 2
/STORED PC3-5 INCORRECTLY.

03647 100223 CHAIN
03650 603632 JMP T125+4 /REPEAT TEST.
03651 100604 T125B ERROR /FAILED TO INTERRUPT
03652 603647 JMP .-3
03653 700042 T125W ION /TEST WORDS.
03654 740000 NOP
03655 740000 NOP
03656 700002 IOF

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03657 626005      JMP*      6005
03660 003651      T125B
/TEST THAT INTERRUPT FROM FIELD 3 STORES PC3-5 CORRECTLY.
T126 126
03661 000126      T126
03662 003714      T127
03663 100517      TF3          /RUN IF FIELD 3 AVAILABLF
03664 100336      STFN        /SET FIELDS
03665 100311      MOVE        /TEST WORDS TO FIELD 3
03666 003706      T126W
03667 036000      LOCF3
03670 777772      -6
03671 205302      LAC          (JMP T126A      /SET INTFRRUPT RETURN
03672 040001      DAC          1
03673 100557      JMS         STFLG      /SET TELEPRINTER FLAG.
03674 620103      JMP*        F3LOC      /GO TO FIELD 3
03675 200000      T126A      LAC          0      /GET CONTENTS OF LOC 0
03676 505215      AND         (K70K      /ISOLATE AC3-5
03677 545226      SAD         (K30K      /AC3-5=011?
03700 741000      SKP
03701 100604      ERRORA     /YES.
/NO. ERROR. INTERRUPT FROM FIELD 3
/STORED PC3-5 INCORRECTLY.

03702 100223      CHAIN
03703 603665      JMP          T126+4     /REPEAT TEST.
03704 100604      T126B      ERROR      /FAILED TO INTERRUPT
03705 603702      JMP          .-3
03706 700042      T126W      ION          /TEST WORDS.
03707 740000      NOP
03710 740000      NOP
03711 700002      IOF
03712 626005      JMP*        6005
03713 003704      T126B
/TEST THAT INTERRUPT FROM FIELD 4 STORES PC3-5 CORRECTLY.
T127 127
03714 000127      T127
03715 003747      T130
03716 100523      TF4          /RUN IF FIELD 4 AVAILABLF
03717 100336      STFN        /SET FIELDS
03720 100311      MOVE        /TEST WORDS TO FIELD 4
03721 003741      T127W
03722 046000      LOCF4
03723 777772      -6
03724 205303      LAC          (JMP T127A     /SET INTERRUPT RETURN
03725 040001      DAC          1
03726 100557      JMS         STFLG      /SET TELEPRINTER FLAG.
03727 620104      JMP*        F4LOC      /GO TO FIELD 4
03730 200000      T127A      LAC          0      /GET CONTENTS OF LOC0
03731 505215      AND         (K70K      /ISOLATE AC3-5
03732 545261      SAD         (K40K      /AC3-5=100?
03733 741000      SKP
03734 100604      ERRORA     /YES.
/NO. ERROR. INTERRUPT FROM FIELD 4
/STORED PC3-5 INCORRECTLY.

03735 100223      CHAIN
03736 603720      JMP          T127+4     /REPEAT TEST.
03737 100604      T127B      ERROR      /FAILED TO INTERRUPT
03740 603735      JMP          .-3
03741 700042      T127W      ION          /TEST WORDS.

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03742 740000 NOP
03743 740000 NOP
03744 700002 IOF
03745 626005 JMP* 6005
03746 003737 T127B
/TEST THAT INTERRUPT FROM FIELD 5 STORES PC3-5 CORRECTLY.
03747 000130 T130 130
03750 004002 T131
03751 100527 TF5 /RUN IF FIELD 5 AVAHLABLE
03752 100336 STF5 /SET FIELDS
03753 100311 MOVE /TEST WORDS TO FIELD 5.
03754 003774 T130W
03755 056000 LOCF5
03756 777772 -6
03757 205304 LAC (JMP T130A /SET INTERRUPT RETURN
03760 040001 DAC 1
03761 100557 JMS STFLG /SET TELEPRINTER FLAG.
03762 620105 JMP* F5LOC /GO TO FIELD 5
03763 200000 T130A LAC 0 /GET CONTENTS OF LOC0
03764 505215 AND (K70K /ISOLATE AC3-5
03765 545224 SAD (K50K /AC3-5=101?
03766 741000 SKP /YES.
03767 100604 ERRORA /NO. ERROR. INTERRUPT FROM FIELD 5
/STORED PC3-5 INCORRECTLY

03770 100223 CHAIN
03771 603753 JMP T130+4 /REPEAT TEST.
03772 100604 T130B ERROR /FAILED TO INTERRUPT
03773 603770 JMP .-3
03774 700042 T130W ION /TEST WORDS.
03775 740000 NOP
03776 740000 NOP
03777 700002 IOF
04000 626005 JMP* 6005
04001 003772 T130B
/TEST THAT INTERRUPT FROM FIELD 6 STORES PC3-5 CORRECTLY.
04002 000131 T131 131
04003 004035 T132
04004 100533 TF6 /RUN IF FIELD 6 AVAILABLE
04005 100336 STF6 /SET FIELDS
04006 100311 MOVE /TEST WORDS TO FIELD 6
04007 004027 T131W
04010 066000 LOCF6
04011 777772 -6
04012 205305 LAC (JMP T131A /SET INTERRUPT RETURN
04013 040001 DAC 1
04014 100557 JMS STFLG /SET TELEPRINTER FLAG
04015 620106 JMP* F6LOC /GO TO FIELD 6
04016 200000 T131A LAC 0 /GET CONTENTS OF LOC0
04017 505215 AND (K70K /ISOLATE AC3-5
04020 545222 SAD (K60K /AC3-5=110?
04021 741000 SKP /YES.
04022 100604 ERRORA /NO. ERROR. INTERRUPT FROM FIELD 6
/STORED PC3-5 INCORRECTLY.

04023 100223 CHAIN
04024 604006 JMP T131+4 /REPEAT TEST.

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04025 100604 T131R ERROR /FAILED TO INTERRUPT
04026 604023 JMP -3
04027 700042 T131W ION /TEST WORDS.
04030 740000 NOP
04031 740000 NOP
04032 700002 IOF
04033 626005 JMP* 6005
04034 004025 T131B
/TEST THAT INTERRUPT FROM FIELD 7 STORES PC 3-5 CORRECTLY
04035 000132 T132 132
04036 004070 T133 T133
04037 100537 TF7 /RUN IF FIELD 7 AVAILABLE
04040 100336 STF7 /SET FIELDS
04041 100311 MOVE /TEST WORDS TO FIELD 7
04042 004062 T132W T132W
04043 076000 LOCF7
04044 777772 -6
04045 205306 LAC (JMP T132A) /SET INTERRUPT RETURN
04046 040001 DAC 1
04047 100557 JMS STFLG /SET TELEPRINTER FLAG.
04050 620107 JMP* F7LOC /GO TO FIELD 7
04051 200000 T132A LAC 0 /GET C(LOC0)
04052 505215 AND (K70K /ISOLATE AC 3-5
04053 545215 SAD (K70K /AC3-5=111?
04054 741000 SKP /YES.
04055 100604 ERRORA /NO. ERROR. INTERRUPT FROM FIELD 7
/STORED PC 3-5 INCORRECTLY.

04056 100223 CHAIN
04057 604041 JMP T132+4 /REPEAT TEST
04060 100604 T132B ERROR /FAILED TO INTERRUPT
04061 604056 JMP -3
04062 700042 T132W ION /TEST WORDS
04063 740000 NOP
04064 740000 NOP
04065 700002 IOF
04066 626005 JMP* 6005
04067 004060 T132B
.EJECT

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/9 MODE. TEST XCT* OF LAC IN LOCF1 (DATA FETCHED IN FIELD 1 ALSO)
04070 000133 T133 133
04071 004105 T134
04072 100336 STFN /SET FIELDS
04073 205307 LAC (LAC 16000 /TEST WORD TO LOCF1
04074 060101 DAC* F1LOC
04075 750000 CLA
04076 707764 EBA
04077 420101 XCT* F1LOC /XCT* OF LAC AT LOCF1
04100 545307 SAD (LAC 16000 /SKIP IF AC NOT=(LAC 16000
04101 741000 SKP /OK.
04102 100604 ERRORA /ERROR. XCT* OF LAC IN LOCF1 WHILE
/IN 9 MODE DID NOT REFERENCE FIELD 1.

04103 100223 CHAIN
04104 604073 JMP T133+3 /REPEAT TEST.

/9 MODE. TEST XCT* OF LAC IN LOCF2 (DATA FETCHED IN FIELD 2 ALSO)
04105 000134 T134 134
04106 004123 T135
04107 100513 TF2 /RUN IF FIELD 2 AVAILABLE
04110 100336 STFN /SET FIELDS
04111 205247 LAC (LAC 6000 /TEST WORD TO LOCF2
04112 060102 DAC* F2LOC
04113 750000 CLA
04114 707764 EBA /ASSERT 9 MODE
04115 420102 XCT* F2LOC /XCT* OF LAC AT LOCF2
04116 545247 SAD (LAC 6000 /SKIP IF AC NOT=(LAC 6000
04117 741000 SKP /OK.
04120 100604 ERRORA /ERROR. XCT* OF LAC IN LOCF2 WHILE
/IN 9 MODE DID NOT REFERENCE FIELD 2.

04121 100223 CHAIN
04122 604111 JMP T134+4 /REPEAT TEST

/9 MODE. TEST XCT* OF LAC IN LOCF3. (DATA FETCHED IN FIELD 3 ALSO).
04123 000135 T135 135
04124 004141 T136
04125 100517 TF3 /RUN IF FIELD 3 AVAILABLE
04126 100336 STFN /SET FIELDS
04127 205307 LAC (LAC 16000 /TEST WORD TO LOCF3
04130 060103 DAC* F3LOC
04131 750000 CLA
04132 707764 EBA /ASSERT 9 MODE
04133 420103 XCT* F3LOC /XCT* OF LAC AT LOCF3
04134 545307 SAD (LAC 16000 /SKIP IF AC NOT=(LAC 16000
04135 741000 SKP /OK.
04136 100604 ERRORA /ERROR. XCT* OF LAC IN LOCF3 WHILE
/IN 9 MODE DID NOT REFERENCE FIELD 3.

04137 100223 CHAIN
04140 604127 JMP T135+4 /REPEAT TEST

/9 MODE. TEST XCT* OF LAC IN LOCF4 (DATA FETCHED IN FIELD 4 ALSO).
04141 000136 T136 136
04142 004157 T137
04143 100523 TF4 /RUN IF FIELD 4 AVAILABLE
04144 100336 STFN /SET FIELDS
04145 205247 LAC (LAC 6000 /TEST WORD TO LOCF4
04146 060104 DAC* F4LOC
04147 750000 CLA

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04150 707764 EBA /ASSERT 9 MODE
04151 420104 XCT* F4LOC /XCT* OF LAC AT LOCF4
04152 545247 SAD (LAC 6000) /SKIP IF AC NOT = (LAC 6000)
04153 741000 SKP /OK.
04154 100604 ERRORA /ERROR. XCT* OF LAC IN LOCF4 WHILE
/IN 9 MODE DID NOT REFERENCE FIELD 4.

04155 100223 CHAIN
04156 604145 JMP T136+4 /REPEAT TEST
/9 MODE. TEST XCT* OF LAC IN LOCF5 (DATA IN FIELD 5 ALSO).
T137 137
04160 004175 T140
04161 100527 TF5 /RUN IF FIELD 5 AVAILABLE
04162 100336 STFJ /SET FIELDS
04163 205307 LAC (LAC 16000) /TEST WORD TO LOCF5
04164 060105 DAC* F5LOC
04165 750000 CLA
04166 707764 EBA /ASSERT 9 MODE
04167 420105 XCT* F5LOC /XCT* OF LAC AT LOCF5
04170 545307 SAD (LAC 16000) /SKIP IF AC NOT = (LAC 16000)
04171 741000 SKP /OK.
04172 100604 ERRORA /ERROR. XCT* OF LAC IN LOCF5 WHILE
/IN 9 MODE DID NOT REFERENCE FIELD 5.

04173 100223 CHAIN
04174 604163 JMP T137+4 /REPEAT TEST
/9 MODE. TEST XCT* OF LAC IN LOCF6 (DATA IN FIELD 6 ALSO)
T140 140
04175 000140 T141
04176 004213 T141
04177 100533 TF6 /RUN IF FIELD 6 AVAILABLE
04200 100336 STFJ /SET FIELDS.
04201 205247 LAC (LAC 6000) /TEST WORD TO LOCF6
04202 060106 DAC* F6LOC
04203 750000 CLA
04204 707764 EBA /ASSERT 9 MODE
04205 420106 XCT* F6LOC /XCT* OF LAC IN LOCF6
04206 545247 SAD (LAC 6000) /SKIP IF AC NOT=(LAC 6000)
04207 741000 SKP /OK
04210 100604 ERRORA /ERROR. XCT* OF LAC AT LOCF6 WHILE
/IN 9 MODE DID NOT REFERENCE FIELD 6.

04211 100223 CHAIN
04212 604201 JMP T140+4 /REPEAT TEST.
/9 MODE. TEST XCT* OF LAC IN LOCF7 (DATA IN FIELD 7 ALSO).
T141 141
04213 000141 T142
04214 004231 T142
04215 100537 TF7 /RUN IF FIELD 7 AVAILABLE
04216 100336 STFJ /SET FIELDS
04217 205307 LAC (LAC 16000) /TEST WORD TO LOCF7
04220 060107 DAC* F7LOC
04221 750000 CLA
04222 707764 EBA /ASSERT 9 MODE.
04223 420107 XCT* F7LOC /XCT* OF LAC IN LOCF7
04224 545307 SAD (LAC 16000) /SKIP IF AC NOT=(LAC 16000)
04225 741000 SKP /OK.
04226 100604 ERRORA /ERROR. XCT* OF LAC IN LOCF7 WHILE
/IN 9 MODE DID NOT REFERENCE FIELD 7.

04227 100223 CHAIN

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04230 604217

JMP T141+4  
.EJECT

/REPEAT TEST.

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/9 MODE. TEST XCT* OF JMP* AT LOCF1 (JUMP TO FIELD 0)
04231 000142 T142 142
04232 004252 T143
04233 100336 STFN /SET FIELDS
04234 100311 MOVE /TEST WORDS TO FIELD 1
04235 004250 T142W
04236 016000 LOCF1
04237 777776 -2
04240 205310 LAC (T142B /SET TRAP
04241 046001 DAC LOCF0+1 /POINTER IN FIELD 0
04242 707764 EBA /ASSERT 9 MODE
04243 420101 XCT* F1LOC /XCT* OF JMP* AT LOCF1
04244 100223 T142A CHAIN
04245 604234 JMP T142+3 /REPEAT TEST
04246 100604 T142B ERROR /ERROR. JMP* 16001 AT LOCF1 TOOK ITS
04247 604244 JMP .-3 /INDIRECT POINTER FROM FIELD 0 INSTEAD OF FIELD 1.
04250 T142W JMP* 16001 /TEST WORDS
04251 004244 T142A

/9 MODE. TEST XCT* OF JMP* AT LOCF2 (JUMPS TO FIELD 0)
04252 000143 T143 143
04253 004274 T144
04254 100513 TF2 /RUN IF FIELD 2 AVAILABLE
04255 100336 STFN /SET FIELDS
04256 100311 MOVE /TEST WORDS TO FIELD 2
04257 004272 T143W
04260 026000 LOCF2
04261 777776 -2
04262 205311 LAC (T143B /SET TRAP POINTER
04263 046001 DAC LOCF0+1 /IN FIELD 0
04264 707764 EBA /ASSERT 9 MODE
04265 420102 XCT* F2LOC /XCT* OF JMP* AT LOCF2
04266 100223 T143A CHAIN
04267 604256 JMP T143+4 /REPEAT TEST
04270 100604 T143B ERROR /ERROR. JMP* 6001 AT LOCF2 TOOK ITS
04271 604266 JMP .-3 /INDIRECT POINTER FROM FIELD 0 INSTEAD OF FIELD 2.
04272 626001 T143W JMP* 6001 /TEST WORDS
04273 004266 T143A

/9 MODE. TEST XCT* OF JMP* AT LOCF3 (JUMPS TO FIELD 0)
04274 000144 T144 144
04275 004316 T145
04276 100517 TF3 /RUN IF FIELD 3 AVAILABLE
04277 100336 STFN /SET FIELDS
04300 100311 MOVE /TEST WORDS TO FIELD 3
04301 004314 T144W
04302 036000 LOCF3
04303 777776 -2
04304 205312 LAC (T144B /SET TRAP POINTER
04305 046001 DAC LOCF0+1 /IN FIELD 0
04306 707764 EBA /ASSERT 9 MODE
04307 420103 XCT* F3LOC /XCT* OF JMP* AT LOCF3
04310 100223 T144A CHAIN
04311 604300 JMP T144+4 /REPEAT TEST
04312 100604 T144B ERROR /ERROR. JMP* 16001 AT LOCF3 TOOK ITS
04313 604310 JMP .-3 /INDIRECT POINTER FROM FIELD 0 INSTEAD OF FIELD 3.
04314 636001 T144W JMP* 16001 /TEST WORDS

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04315	004310	T144A		
		/9 MODE. TEST	XCT* OF JMP* AT LOCF4 (JUMPS TO FIELD 0)	
04316	000145	T145	145	
04317	004340	T146		
04320	100523	TF4		/RUN IF FIELD 4 AVAILABLE
04321	100336	STFN		/SET FIELDS.
04322	100311	MOVE		/TEST WORDS TO FIELD 4
04323	004336	T145W		
04324	046000	LOCF4		
04325	777776	-2		
04326	205313	LAC	(T145B	/SET TRAP POINTER
04327	046001	DAC	LOCF0+1	/IN FIELD 0
04330	707764	EBA		/ASSERT 9 MODE
04331	420104	XCT*	F4LOC	/XCT* OF JMP* AT LOCF4
04332	100223	T145A	CHAIN	
04333	604322	JMP	T145+4	/REPEAT TEST
04334	100604	T145B	ERROR	/ERROR. JMP* 6001 AT LOCF4 TOOK ITS
04335	604332	JMP	._3	/INDIRECT POINTER FROM FIELD 0 INSTEAD OF FIELD 4.
04336	626001	T145W	JMP*	6001 /TEST WORDS
04337	004332	T145A		
		/9 MODE. TEST	XCT* OF JMP* AT LOCF5 (JUMPS TO FIELD 0)	
04340	000146	T146	146	
04341	004362	T147		
04342	100527	TF5		/RUN IF FIELD 5 AVAILABLE
04343	100336	STFN		/SET FIELDS
04344	100311	MOVE		/TEST WORDS TO FIELD 5
04345	004360	T146W		
04346	056000	LOCF5		
04347	777776	-2		
04350	205314	LAC	(T146B	/SET TRAP POINTER
04351	046001	DAC	LOCF0+1	/IN FIELD 0
04352	707764	EBA		/ASSERT 9 MODE
04353	420105	XCT*	F5LOC	/XCT* OF JMP* AT LOCF5
04354	100223	T146A	CHAIN	
04355	604344	JMP	T146+4	/REPEAT TEST
04356	100604	T146B	ERROR	/ERROR. JMP* 16001 AT LOCF5 TOOK ITS
04357	604354	JMP	._3	/INDIRECT POINTER FROM FIELD 0 INSTEAD OF FIELD 5.
04360	636001	T146W	JMP*	16001 /TEST WORDS
04361	004354	T146A		
		/9 MODE. TEST	XCT* OF JMP* AT LOCF6 (JUMPS TO FIELD 0)	
04362	000147	T147	147	
04363	004404	T150		
04364	100533	TF6		/RUN IF FIELD 6 AVAILABLE
04365	100336	STFN		/SET FIELDS
04366	100311	MOVE		/TEST WORDS TO FIELD 6
04367	004402	T147W		
04370	066000	LOCF6		
04371	777776	-2		
04372	205315	LAC	(T147B	/SET TRAP POINTER
04373	046001	DAC	LOCF0+1	/IN FIELD 0
04374	707764	FBA		/ASSERT 9 MODE
04375	420106	XCT*	F6LOC	/XCT* OF JMP* AT LOCF6
04376	100223	T147A	CHAIN	
04377	604366	JMP	T147+4	/REPEAT TEST
04400	100604	T147B	ERROR	/ERROR. JMP* 6001 AT LOCF6 TOOK ITS

04401	604376	JMP	.-3	/INDIRECT POINTER FROM FIELD 0 INSTEAD OF FIELD 6.
04402	626001	T147W	JMP*	6001 /TEST WORDS
04403	004376		T147A	
		/9 MODE. TEST XCT* OF JMP* AT LOCF7 (JUMPS TO FIELD 0)		
04404	000150	T150	150	
04405	004426		T151	
04406	100537		TF7	/RUN IF FIELD 7 AVAILABLE
04407	100336		STFN	/SET FIELDS
04410	100311		MOVE	/TEST WORDS TO FIELD 7
04411	004424		T150W	
04412	076000		LOCF7	
04413	777776		-2	
04414	205316		LAC	(T150B /SET TRAP POINTER
04415	046001		DAC	LOCF0+1 /IN FIELD 0
04416	707764		EBA	/ASSERT 9 MODE
04417	420107		XCT*	F7LOC /XCT* OF JMP* AT LOCF7
04420	100223	T150A	CHAIN	
04421	604410		JMP	T150+4 /REPEAT TEST
04422	100604	T150B	ERROR	/ERROR. JMP* 16001 AT LOCF7 TOOK ITS
04423	604420		JMP	.-3 /INDIRECT POINTER FROM FIELD 0 INSTEAD OF FIELD 7.
04424	636001	T150W	JMP*	16001 /TEST WORDS.
04425	004420		T150A	
			.EJECT	

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/9 MODE. TEST THAT DATA IN FIELD 1 CAN BE ACCESSED DIRECTLY FROM FIELD 0
04426 000151 T151 151
04427 004443 T152
04430 100336 STFNB
04431 205236 LAC (-1 /SET FIELDS
/ -1 TO LOCF1
04432 060101 DAC* F1LOC
04433 750000 CLA
04434 707764 EBA /ASSERT 9 MODE
04435 216000 LAC 16000 /GET C(LOCF1) DIRECTLY
04436 545236 SAD (-1 /AC=-1?
04437 741000 SKP /YES. OK.
04440 100604 ERRORA /NO. ERROR. DIRECT ACCESS TO LOCF1
/ DID NOT FETCH CORRECT DATA.

04441 100223 CHAIN
04442 604431 JMP T151+3 /REPEAT TEST.

/9 MODE. TEST THAT DATA IN FIELD 0 CAN BE ACCESSED DIRECTLY FROM FIELD 1.
04443 000152 T152 152
04444 004466 T153
04445 100336 STFNB
04446 205236 LAC (-1 /-1 TO LOCF0
04447 046000 DAC LOCF0
04450 100311 MOVE /TEST WORDS TO FIELD 1
04451 004463 T152W
04452 016000 LOCF1
04453 777775 -3
04454 707764 EBA /ASSERT 9 MODE.
04455 620101 JMP* F1LOC /GO TO FIELD 1
04456 545236 T152A SAD (-1 /SKIP IF AC NOT 1.
04457 741000 SKP /OK.
04460 100604 ERRORA /ERROR. DIRECT ACCESS TO LOCF0 FROM
/ FIELD 1 FETCHED INCORRECT DATA

04461 100223 CHAIN
04462 604446 JMP T152+3 /REPEAT TEST
04463 206000 T152W LAC 6000 /TEST WORDS
04464 636002 JMP* 16002
04465 004456 T152A

/9 MODE. TEST THAT DATA IN FIELD 3 CAN BE ACCESSED DIRECTLY FROM FIELD 2
04466 000153 T153 153
04467 004512 T154
04470 100517 TF3 /RUN IF FIELD 3 AVAILABLE
04471 100336 STFNB /SET FIELDS
04472 205236 LAC (-1 /-1 TO LOCF3
04473 060103 DAC* F3LOC
04474 100311 MOVE /TEST WORDS TO FIELD 2
04475 004507 T153W
04476 026000 LOCF2
04477 777775 -3
04500 707764 EBA /ASSERT 9 MODE
04501 620102 JMP* F2LOC /GO TO FIELD 2
04502 545236 T153A SAD (-1 /AC=1?
04503 741000 SKP /YES. OK.
04504 100604 ERRORA /NO. ERROR. DIRECT ACCESS TO LOCF3 FROM
/ FIELD 2 FETCHED INCORRECT DATA

04505 100223 CHAIN
04506 604472 JMP T153+4 /REPEAT TEST.

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04507 216000 T153W LAC 16000 /TEST WORDS.
04510 626002 JMP* 6002
04511 004502 T153A
/9 MODE. TEST THAT DATA IN FIELD 2 CAN BE ACCESSED DIRECTLY FROM FIELD 3
T154 154
T155 T155
TF3 /RUN IF FIELD 3 AVAILABLE
STFN /SET FIELDS
LAC (-1 /-1 TO LOCF2
DAC* F2LOC
MOVE /TEST WORDS TO FIELD 3
T154W T154W
LOCF3
-3
EBA /ASSERT 9 MODE
JMP* F3LOC /GO TO FIELD 3
T154A SAD (-1 /AC=-1?
SKP /YES. OK.
ERRORA /NO. ERROR. DIRECT ACCESS TO LOCF2 FROM
/FIELD 3 FETCHED INCORRECT DATA
04531 100223 CHAIN
04532 604516 JMP T154+4 /REPEAT TEST.
04533 206000 T154W LAC 6000 /TEST WORDS.
04534 636002 JMP* 16002
04535 004526 T154A
/9 MODE. TEST THAT DATA IN FIELD 5 CAN BE ACCESSED DIRECTLY FROM FIELD 4.
T155 155
T156 T156
TF5 /RUN IF FIELD 5 AVAILABLE
STFN /SET FIELDS
LAC (-1 /-1 TO LOCF5
DAC* F5LOC
MOVE /TEST WORDS TO FIELD 4
T155W T155W
LOCF4
-3
EBA /ASSERT 9 MODE
JMP* F4LOC /GO TO FIELD 4
T155A SAD (-1 /AC=-1?
SKP /YES. OK.
ERRORA /NO. ERROR. DIRECT ACCESS TO LOCF5 FROM
/FIELD 4 FETCHED INCORRECT DATA.
04555 100223 CHAIN
04556 604542 JMP T155+4 /REPEAT TEST.
04557 216000 T155W LAC 16000 /TEST WORDS.
04560 626002 JMP* 6002
04561 004552 T155A
/9 MODE. TEST THAT DATA IN FIELD 4 CAN BE DIRECTLY ACCESSED FROM FIELD 5
T156 156
T157 T157
TF5 /RUN IF FIELD 5 AVAILABLE
STFN /SET FIELDS
LAC (-1 /-1 TO LOCF4
DAC* F4LOC
MOVE /TEST WORDS TO FIELD 5

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04571	004603	T156W		
04572	056000	LOCF5		
04573	777775	-3		
04574	707764	EBA		/ASSERT 9 MODE
04575	620105	JMP*	F5LOC	/GO TO FIELD 5
04576	545236	T156A	SAD (-1	/AC=-1?
04577	741000	SKP		/YES, OK.
04600	100604	ERRORA		/NO. ERROR, DIRECT ACCESS TO LOCF4 FROM /FIELD 5 FETCHED INCORRECT DATA.
04601	100223	CHAIN		
04602	604566	JMP	T156+4	/REPEAT TEST.
04603	206000	T156W	LAC 6000	/TEST WORDS
04604	636002	JMP*	16002	
04605	004576	T156A		
		/9 MODE, TEST THAT DATA IN FIELD 7 CAN BE ACCESSED DIRECTLY FROM FIELD 6		
04606	000157	T157	157	
04607	004632	T160		
04610	100537	TF7		/RUN IF FIELD 7 AVAILABLE
04611	100336	STFN		/SET FIELDS
04612	205236	LAC	(-1	/-1 TO LOCF7
04613	060107	DAC*	F7LOC	
04614	100311	MOVE		/TEST WORDS TO FIELD 6
04615	004627	T157W		
04616	066000	LOCF6		
04617	777775	-3		
04620	707764	EBA		/ASSERT 9 MODE
04621	620106	JMP*	F6LOC	/GO TO FIELD 6
04622	545236	T157A	SAD (-1	/AC=-1?
04623	741000	SKP		/YES, OK.
04624	100604	ERRORA		/NO. ERROR, DIRECT ACCESS TO LOCF7 FROM /FIELD 6 FETCHED INCORRECT DATA.
04625	100223	CHAIN		
04626	604612	JMP	T157+4	/REPEAT TEST.
04627	216000	T157W	LAC 16000	/TEST WORDS
04630	626002	JMP*	6002	
04631	004622	T157A		
		/9 MODE, TEST THAT DATA IN FIELD 6 CAN BE ACCESSED DIRECTLY FROM FIELD 7.		
04632	000160	T160	160	
04633	004656	T161		
04634	100537	TF7		/RUN IF FIELD 7 AVAILABLE
04635	100336	STFN		/SET FIELDS
04636	205236	LAC	(-1	/-1 TO LOCF6
04637	060106	DAC*	F6LOC	
04640	100311	MOVE		/TEST WORDS TO FIELD 7
04641	004653	T160W		
04642	076000	LOCF7		
04643	777775	-3		
04644	707764	EBA		/ASSERT 9 MODE
04645	620107	JMP*	F7LOC	/GO TO FIELD 7
04646	545236	T160A	SAD (-1	/AC=-1?
04647	741000	SKP		/YES, OK.
04650	100604	ERRORA		/NO. ERROR, DIRECT ACCESS TO LOCF6 FROM /FIELD 7 FETCHED INCORRECT DATA.
04651	100223	CHAIN		
04652	604636	JMP	T160+4	/REPEAT TEST

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EXM15

04653 206000  
04654 636002  
04655 004646

T160W

LAC 6000  
JMP\* 16002  
T160A  
.EJECT

/TEST WORDS

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/OPTIONAL API TEST
/
/TEST THAT API CAN BREAK FROM FIELD 1 AND STORES PC 3-5 CORRECTLY
04656 000161 T161 161
04657 004715 T162
04660 100543 CKAPI /RUN IF API AVAILABLE
04661 100336 STFN /SET FIELDS
04662 100311 MOVE /TEST WORDS TO FIELD 1
04663 004707 AT0W
04664 016000 LOCF1
04665 777772 -6
04666 205317 LAC (JMS AT0A /BREAK HANDLER TO LOC40
04667 040040 DAC L40
04670 144673 DZM AT0A
04671 205320 LAC (K404K /GET API BREAK REQUEST DATA
04672 620101 JMP* F1LOC /GO TO FIELD 1
04673 000000 AT0A 0
04674 204673 LAC AT0A /GET JMS INFO
04675 505215 AND (K70K /ROTATE AC 3-5
04676 545233 SAD (K10K /AC3-5=001?
04677 741000 SKP /YES.
04700 100604 ERRORA /NO. ERROR. PC3-5 INCORRECTLY
/STORED.

04701 703304 DBK
04702 703302 CAF
04703 100223 CHAIN
04704 604662 JMP T161+4 /REPEAT TEST
04705 100604 AT0B ERROR /API FAILED TO BREAK
04706 604701 JMP .-5
04707 705504 AT0W ISA /TEST WORDS
04710 740000 NOP
04711 740000 NOP
04712 740000 NOP
04713 626005 JMP* 6005
04714 004705 AT0B

/TEST THAT API CAN BREAK FROM FIELD 2 AND STORES PC 3-5 CORRECTLY.
04715 000162 T162 162
04716 004755 T163
04717 100543 CKAPI /RUN IF API AVAILABLE
04720 100513 TF2 /RUN IF FIELD 2 AVAILABLE
04721 100336 STFN /SET FIELDS
04722 100311 MOVE /TEST WORDS TO FIELD 2
04723 004747 AT1W
04724 026000 LOCF2
04725 777772 -6
04726 205321 LAC (JMS AT1A /BREAK HANDLER TO LOC40
04727 040040 DAC L40
04730 144733 DZM AT1A /ZERO AT1A
04731 205320 LAC (K404K /GET API BREAK REQUEST DATA.
04732 620102 JMP* F2LOC /GO TO FIELD 2
04733 000000 AT1A 0
04734 204733 LAC AT1A /GET JMS INFO
04735 505215 AND (K70K /ISOLATE AC 3-5
04736 545230 SAD (K20K /AC3-5=010?
04737 741000 SKP /YES.

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04740 100604 FRRORA /NO. ERROR. PC 3-5 INCORRECTLY STORED.
04741 703304 DBK
04742 703302 CAF
04743 100223 CHAIN
04744 604722 JMP T162+5 /REPEAT TEST
04745 100604 AT1B ERROR /API FAILED TO BREAK
04746 604741 JMP .-5
04747 705504 AT1W ISA /TEST WORDS
04750 740000 NOP
04751 740000 NOP
04752 740000 NOP
04753 626005 JMP* 6005
04754 004745 AT1B
/TEST THAT API CAN BREAK FROM FIELD 3 AND STORES PC 3-5 CORRECTLY.
04755 000163 T163 163
04756 005015 T164 T164
04757 100543 CKAPI /RUN IF API AVAILABLE
04760 100517 TF3 /RUN IF FIELD 3 AVAILABLE
04761 100336 STFN /SET FIELDS
04762 100311 MOVE /TEST WORDS TO FIELD 3
04763 005007 AT2W
04764 036000 LOCF3
04765 777772 -6
04766 205322 LAC (JMS AT2A /BREAK HANDLER TO LOC40
04767 040040 DAC L40
04770 144773 DZM AT2A /ZERO AT2A
04771 205320 LAC (K404K /GET API BREAK REQUEST DATA
04772 620103 JMP* F3LOC /GO TO FIELD 3
04773 000000 AT2A 0
04774 204773 LAC AT2A /GET JMS INFO
04775 505215 AND (K70K /ISOLATE AC 3-5
04776 545226 SAD (K30K /AC3-5=011?
04777 741000 SKP /YES.
05000 100604 FRRORA /NO. ERROR. PC3-5 INCORRECTLY STORED.
05001 703304 DBK
05002 703302 CAF
05003 100223 CHAIN
05004 604762 JMP T163+5 /REPEAT TEST.
05005 100604 AT2B ERROR /API FAILED TO BREAK
05006 605001 JMP .-5
05007 705504 AT2W ISA /TEST WORDS
05010 740000 NOP
05011 740000 NOP
05012 740000 NOP
05013 626005 JMP* 6005
05014 005005 AT2B
/TEST THAT API CAN BREAK FROM FIELD 4 AND STORES PC 3-5 CORRECTLY
05015 000164 T164 164
05016 005055 T165 T165
05017 100543 CKAPI /RUN IF API AVAILABLE
05020 100523 TF4 /RUN IF FIELD 4 AVAILABLE
05021 100336 STFN /SET FIELDS
05022 100311 MOVE /TEST WORDS TO FIELD 4
05023 005047 AT3W
05024 046000 LOCF4

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05025 777772 -6
05026 205323 LAC (JMS AT3A /BREAK HANDLERS TO LOC40
05027 040040 DAC L40
05030 145033 DZM AT3A /ZERO AT3A
05031 205320 LAC (K404K /GET API BREAK REQUEST DATA.
05032 620104 JMP* F4LOC /GO TO FIELD 4
05033 000000 AT3A 0
05034 205033 LAC AT3A /GET JMS INFO
05035 505215 AND (K70K /ISOLATE AC 3-5
05036 545261 SAD (K40K /AC3-5=100?
05037 741000 SKP /YES.
05040 100604 ERRORA /NO. ERROR. PC 3-5 INCORRECTLY STORED
05041 703304 DBK
05042 703302 CAF
05043 100223 CHAIN
05044 605022 JMP T164+5 /REPEAT TEST
05045 100604 AT3B ERROR /API FAILED TO BREAK
05046 605041 JMP .-5
05047 705504 AT3W ISA /TEST WORDS
05050 740000 NOP
05051 740000 NOP
05052 740000 NOP
05053 626005 JMP* 6005
05054 005045 AT3B
/TEST THAT API BREAK FROM FIELD 5 STORES PC 3-5 CORRECTLY.
05055 000165 T165 165
05056 005115 T166
05057 100543 CKAPI /RUN IF API AVAILABLE
05060 100527 TF5 /RUN IF FIELD 5 AVAILABLE
05061 100336 STFN /SET FIELDS
05062 100311 MOVE /TEST WORDS TO FIELD 5
05063 005107 AT4W
05064 056000 LOCF5
05065 777772 -6
05066 205324 LAC (JMS AT4A /BREAK HANDLER TO LOC40
05067 040040 DAC L40
05070 145073 DZM AT4A /ZERO AT4A
05071 205320 LAC (K404K /GET API BREAK REQUEST DATA
05072 620105 JMP* F5LOC /GO TO FIELD 5
05073 000000 AT4A 0
05074 205073 LAC AT4A /GET JMS INFO
05075 505215 AND (K70K /ISOLATE AC 3-5
05076 545224 SAD (K50K /AC3-5=101?
05077 741000 SKP /YES.
05100 100604 ERRORA /NO. ERROR. PC3-5 INCORRECTLY STORED
05101 703304 DBK
05102 703302 CAF
05103 100223 CHAIN
05104 605062 JMP T165+5 /REPEAT TEST.
05105 100604 AT4B ERROR /API FAILED TO BREAK
05106 605101 JMP .-5
05107 705504 AT4W ISA /TEST WORDS
05110 740000 NOP
05111 740000 NOP
05112 740000 NOP

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05113 626005      JMP*   6005
05114 005105      AT4B
/TEST THAT API CAN BREAK FROM FIELD 6 AND STORES PC3-5 CORRECTLY
T166 166
05115 000166      T167
05116 005155      CKAPI           /RUN IF API AVAILABLE
05117 100543      TF6            /RUN IF FIELD 6 AVAILABLE
05120 100533      STFN          /SET FIELDS
05121 100336      MOVE         /TEST WORDS TO FIELD 6
05122 100311      AT5W
05123 005147      LOCF6
05124 066000      -6
05125 777772      LAC          (JMS AT5A           /BREAK HANDLER TO LOC40
05126 205325      DAC          L40
05127 040040      DZM          AT5A           /ZERO AT5A
05130 145133      LAC          (K404K        /GET API BREAK REQUEST DATA.
05131 205320      JMP*        F6LOC        /GO TO FIELD 6
05132 620106      AT5A 0
05133 000000      LAC          AT5A           /GET JMS INFO
05134 205133      AND          (K70K        /ISOLATE AC3-5
05135 505215      SAD          (K60K        /AC3-5= 10?
05136 545222      SKP         /YES.
05137 741000      ERRORA      /NO. ERROR. PC 3-5 INCORRECTLY STORED.
05140 100604      DBK
05141 703304      CAF
05142 703302      CHAIN
05143 100223      JMP          T166+5       /REPEAT TEST
05144 605122      AT5B ERROR    /API FAILED TO BREAK
05145 100604      JMP          -5
05146 605141      AT5W ISA      /TEST WORDS
05147 705504      NOP
05150 740000      NOP
05151 740000      NOP
05152 740000      JMP*        6005
05153 626005      AT5B
05154 005145      /TEST THAT API CAN BREAK FROM FIELD 7 AND STORES PC3-5 CORRECTLY.
T167 167
05155 000167      777777
05156 777777      CKAPI           /RUN IF API AVAILABLE
05157 100543      TF7            /RUN IF FIELD 7 AVAILABLE
05160 100537      STFN          /SET FIELDS
05161 100336      MOVE         /TEST WORDS TO FIELD 7
05162 100311      AT6W
05163 005207      LOCF7
05164 076000      -6
05165 777772      LAC          (JMS AT6A           /BREAK HANDLER TO LOC40
05166 205326      DAC          L40
05167 040040      DZM          AT6A           /ZERO AT6A
05170 145173      LAC          (K404K        /GET API BREAK REQUEST DATA
05171 205320      JMP*        F7LOC        /GO TO FIELD 7
05172 620107      AT6A 0
05173 000000      LAC          AT6A           /GET JMS INFO
05174 205173      AND          (K70K        /ISOLATE AC 3-5
05175 505215      SAD          (K70K        /AC3-5= 11?
05176 545215      SKP         /YES.
05177 741000

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05200	100604		ERRORA		/NO. ERROR. PC3-5 INCORRECTLY STORED
05201	703304		DBK		
05202	703302		CAF		
05203	100223		CHAIN		
05204	605162		JMP	T167+5	/REPEAT TEST.
05205	100604	AT6B	ERROR		/API FAILED TO BREAK
05206	605201		JMP	.-5	
05207	705504	AT6W	ISA		/TEST WORDS
05210	740000		NOP		
05211	740000		NOP		
05212	740000		NOP		
05213	626005		JMP*	6005	
05214	005205		AT6B		
	100604		ERROR=JMS ERR		
	100604		ERRORA=JMS ERR		
	600240		SKIP=JMP CHAINA		
	100223		CHAIN=JMS CHAINN		
	000000		.END		
05215	070000		*L		
05216	600616		*L		
05217	000001		*L		
05220	000207		*L		
05221	000007		*L		
05222	060000		*L		
05223	000006		*L		
05224	050000		*L		
05225	000005		*L		
05226	030000		*L		
05227	000004		*L		
05230	020000		*L		
05231	000003		*L		
05232	000002		*L		
05233	010000		*L		
05234	004000		*L		
05235	377777		*L		
05236	777777		*L		
05237	000077		*L		
05240	000045		*L		
05241	000043		*L		
05242	777740		*L		
05243	000100		*L		
05244	000240		*L		
05245	000700		*L		
05246	606060		*L		
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05250	006000		*L		
05251	226001		*L		
05252	002152		*L		
05253	002173		*L		
05254	002214		*L		
05255	002235		*L		
05256	002256		*L		
05257	002277		*L		
05260	002320		*L		
05261	040000		*L		

05262	003204	*L
05263	003226	*L
05264	003250	*L
05265	003272	*L
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05303	603730	*L
05304	603763	*L
05305	604016	*L
05306	604051	*L
05307	216000	*L
05310	004246	*L
05311	004270	*L
05312	004312	*L
05313	004334	*L
05314	004356	*L
05315	004400	*L
05316	004422	*L
05317	104673	*L
05320	404000	*L
05321	104733	*L
05322	104773	*L
05323	105033	*L
05324	105073	*L
05325	105133	*L
05326	105173	*L

SIZE=05327

NO ERROR LINES

AACA	01040
ALOC	01033
ARTN	01045
ASCT	01015
AT0A	04673
AT0B	04705
AT0W	04707
AT1A	04733
AT1B	04745
AT1W	04747
AT2A	04773
AT2B	05005
AT2W	05007
AT3A	05033
AT3B	05045
AT3W	05047
AT4A	05073
AT4B	05105
AT4W	05107
AT5A	05133
AT5B	05145
AT5W	05147
AT6A	05173
AT6B	05205
AT6W	05207
CALERR	00616
CALMSG	01025
CAPI	00543
CEHLT	00601
CEMSG	01031
CETYP	00627
CF2	00513
CF3	00517
CF4	00523
CF5	00527
CF6	00533
CF7	00537
CHAIN	100223
CHAINA	00240
CHAINN	00223
CHLT	00576
CKAPI	100543
CLOF	700004
CLON	700044
CLSF	700001
CLX	735000
CNV	00767
CSCOP	00651
CTRA	00153
CTRB	00154
CURTST	00151
D1	01016
D2	01017
D3	01020
EAC	00155

FBA	707764
FEM	707702
FLOC	00156
EPA	707762
FRR	00604
ERRMSG	01021
ERROR	100604
ERRORA	100604
EXBA	707761
FADDR	00333
FLAG	00746
FORWD	00254
F0LOC	00100
F0L0	00117
F0L10	00127
F0L20	00137
F1LOC	00101
F1L0	00120
F1L1	00110
F1L10	00130
F1L20	00140
F2LOC	00102
F2L0	00121
F2L1	00111
F2L10	00131
F2L20	00141
F3LOC	00103
F3L0	00122
F3L1	00112
F3L10	00132
F3L20	00142
F4LOC	00104
F4L0	00123
F4L1	00113
F4L10	00133
F4L20	00143
F5LOC	00105
F5L0	00124
F5L1	00114
F5L10	00134
F5L20	00144
F6LOC	00106
F6L0	00125
F6L1	00115
F6L10	00135
F6L20	00145
F7LOC	00107
F7L0	00126
F7L1	00116
F7L10	00136
F7L20	00146
GETRDY	00213
KRB	700312
KSF	700301
KSTART	00147

K10K	010000
K20K	020000
K30K	030000
K40K	040000
K404K	404000
K50K	050000
K60K	060000
K70K	070000
LEM	707704
LOC	006000
LOCF0	006000
LOCF1	016000
LOCF2	026000
LOCF3	036000
LOCF4	046000
LOCF5	056000
LOCF6	066000
LOCF7	076000
L0	000000
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L0F2	020000
L0F3	020000
L0F4	030000
L0F5	050000
L0F6	060000
L0F7	070000
L1	000001
L1F1	010001
L1F2	020001
L1F3	030001
L1F4	040001
L1F5	050001
L1F6	060001
L1F7	070001
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L10F0	000010
L10F1	010010
L10F2	020010
L10F3	030010
L10F4	040010
L10F5	050010
L10F6	060010
L10F7	070010
L20	000020
L20F0	000020
L20F1	010020
L20F2	020020
L20F3	030020
L20F4	040020
L20F5	050020
L20F6	060020
L20F7	070020
L40	000040
L40F0	000040

L40F1	010040
L40F2	020040
L40F3	030040
L40F4	040040
L40F5	050040
L40F6	060040
L40F7	070040
MCTR	00335
MEMERR	01050
MOVE	100311
MOVEA	00323
MOVVE	00311
NXTST	00150
OCNV	00751
PCF	700202
PRINT	00727
PRINTA	00740
PRINTB	00742
PRINTC	00744
PSA	700204
PSB	700244
PSF	700201
P0MSG	01101
RCF	700102
RRB	700112
RSA	700104
RSB	700144
RSF	700101
RTNNO	00177
SASC	01014
SBFNUM	00336
SETA	100301
SETLOC	100270
SKIP	600240
START	00203
STCTA	00301
STCTR	00270
STFLG	00557
STFN	100336
STF1	00426
STF2	00417
STF3	00410
STF4	00401
STF5	00372
STF6	00363
STF7	00354
SWA	742030
TADDR	00334
TCF	700402
TEMP	00152
TEMQ	00747
TEMR	00750
TF2	100513
TF3	100517
TF4	100523



TF5	102527
TF6	102533
TF7	102537
TLS	702426
TSC1	02664
TSC2	02703
TSF	702401
TSTFX	02521
TSTF2	02443
TSTF3	02450
TSTF4	02455
TSTF5	02462
TSTF6	02467
TSTF7	02474
TTOUT	02567
TYP	02657
TYPAT	02714
TYPE	102657
TYPSP	02720
T0	01162
T1	01173
T10	01303
T100	03003
T100A	03014
T100W	03022
T101	03027
T101A	03040
T101W	03046
T102	03053
T102A	03064
T102W	03072
T103	03077
T103A	03110
T103W	03116
T104	03123
T104A	03134
T104W	03142
T105	03147
T105A	03160
T105W	03166
T106	03173
T106A	03204
T107	03214
T107A	03226
T11	01320
T110	03236
T110A	03250
T111	03260
T111A	03272
T112	03302
T112A	03314
T113	03324
T113A	03336
T114	03346
T114A	03360

T115	03370
T115A	03404
T115R	03405
T115W	03407
T116	03412
T116A	03427
T116R	03430
T116W	03432
T117	03435
T117A	03452
T117R	03453
T117W	03455
T12	01335
T120	03460
T120A	03475
T120R	03476
T120W	03500
T121	03503
T121A	03520
T121R	03521
T121W	03523
T122	03526
T122A	03543
T122R	03544
T122W	03546
T123	03551
T123A	03566
T123R	03567
T123W	03571
T124	03574
T124A	03607
T124R	03616
T124W	03620
T125	03626
T125A	03642
T125R	03651
T125W	03653
T126	03661
T126A	03675
T126R	03704
T126W	03706
T127	03714
T127A	03730
T127R	03737
T127W	03741
T13	01352
T130	03747
T130A	03763
T130R	03772
T130W	03774
T131	04002
T131A	04016
T131R	04025
T131W	04027
T132	04035

T132A	04051
T132B	04060
T132W	04062
T133	04070
T134	04105
T135	04123
T136	04141
T137	04157
T14	01367
T140	04175
T141	04213
T142	04231
T142A	04244
T142B	04246
T142W	04250
T143	04252
T143A	04266
T143B	04270
T143W	04272
T144	04274
T144A	04310
T144B	04312
T144W	04314
T145	04316
T145A	04332
T145B	04334
T145W	04336
T146	04340
T146A	04354
T146B	04356
T146W	04360
T147	04362
T147A	04376
T147B	04400
T147W	04402
T15	01404
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T150A	04420
T150B	04422
T150W	04424
T151	04426
T152	04443
T152A	04456
T152W	04463
T153	04466
T153A	04502
T153W	04507
T154	04512
T154A	04526
T154W	04533
T155	04536
T155A	04552
T155W	04557
T156	04562
T156A	04576

T156h	04603
T157	04606
T157A	04622
T157W	04627
T16	01421
T16A	01431
T16B	01433
T16W	01435
T160	04632
T160A	04646
T160W	04653
T161	04656
T162	04715
T163	04755
T164	05015
T165	05055
T166	05115
T167	05155
T17	01440
T17A	01451
T17B	01453
T17W	01455
T2	01205
T20	01460
T20A	01471
T20B	01473
T20W	01475
T21	01500
T21A	01511
T21B	01513
T21W	01515
T22	01520
T22A	01531
T22B	01533
T22W	01535
T23	01540
T23A	01551
T23B	01553
T23W	01555
T24	01560
T24A	01571
T24B	01573
T24W	01575
T25	01600
T26	01614
T27	01631
T3	01217
T30	01646
T31	01663
T32	01700
T33	01715
T34	01732
T34W	01752
T35	01754
T35W	01775

T36	01777
T36W	02020
T37	02022
T37W	02043
T4	01231
T40	02045
T40W	02066
T41	02070
T41W	02111
T42	02113
T42W	02134
T43	02136
T43A	02150
T43B	02152
T43W	02154
T44	02156
T44A	02171
T44B	02173
T44W	02175
T45	02177
T45A	02212
T45B	02214
T45W	02216
T46	02220
T46A	02233
T46B	02235
T46W	02237
T47	02241
T47A	02254
T47B	02256
T47W	02260
T5	01243
T50	02262
T50A	02275
T50B	02277
T50W	02301
T51	02303
T51A	02316
T51B	02320
T51W	02322
T52	02324
T52A	02334
T52W	02336
T53	02340
T53A	02351
T53W	02353
T54	02355
T54A	02366
T54W	02370
T55	02372
T55A	02403
T55W	02405
T56	02407
T56A	02420
T56W	02422

T57	02424
T57A	02435
T57W	02437
T6	01255
T60	02441
T60A	02452
T60W	02454
T61	02456
T61A	02466
T61W	02470
T62	02473
T62A	02504
T62W	02506
T63	02511
T63A	02522
T63W	02524
T64	02527
T64A	02540
T64W	02542
T65	02545
T65A	02556
T65W	02560
T66	02563
T66A	02574
T66W	02576
T67	02601
T67A	02612
T67W	02614
T7	01267
T70	02617
T70A	02627
T70W	02631
T71	02634
T71A	02645
T71W	02647
T72	02652
T72A	02663
T72W	02665
T73	02670
T73A	02701
T73W	02703
T74	02706
T74A	02717
T74W	02721
T75	02724
T75A	02735
T75W	02737
T76	02742
T76A	02753
T76W	02755
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F7LOC	00107
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F0L0	00117
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F4L20	00143
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F6L20	00145
F7L20	00146
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TEMP	00152
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CTRB	00154

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CF7	00537
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FRR	00604
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PRINTA	00740
PRINTB	00742
PRINTC	00744
FLAG	00746



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T104A	03134
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AT0W	04707
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AT1B	04745
AT1W	04747
T163	04755
AT2A	04773

AT2B	05005
AT2W	05007
T164	05015
AT3A	05033
AT3B	05045
AT3W	05047
T165	05055
AT4A	05073
AT4B	05105
AT4W	05107
T166	05115
AT5A	05133
AT5B	05145
AT5W	05147
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AT6B	05205
AT6W	05207
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LOCF1	016000
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L20F3	030020
L40F3	030040
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L40F4	040040
LOCF4	046000
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L0F5	050000
L1F5	050001
L10F5	050010
L20F5	050020
L40F5	050040
LOCF5	056000

K60K	060000
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L20F6	060020
L40F6	060040
LOCF6	066000
K70K	070000
L0F7	070000
L1F7	070001
L10F7	070010
L20F7	070020
L40F7	070040
LOCF7	076000
CHAIN	100223
SETLOC	100270
SETA	100301
MOVE	100311
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TF3	100517
TF4	100523
TF5	100527
TF6	100533
TF7	100537
CKAPI	100543
ERROR	100604
ERRORA	100604
TYPE	100657
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CLOF	700004
CLON	700044
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RCF	700102
RSA	700104
RRB	700112
RSB	700144
PSF	700201
PCF	700202
PSA	700204
PSB	700244
KSF	700301
KRB	700312
TSF	700401
TCF	700402
TLS	700406
EEM	707702
LEM	707704
EXBA	707761
EPA	707762
EBA	707764
CLX	735000
SWA	742030



MAINDEC EVALUATION REQUEST

After sufficient familiarization with the operation and documentation of this MAINDEC, please indicate your assessment of the following areas and return this form to Digital Equipment Corporation.

IDENTIFICATION: MAINDEC NO. \_\_\_\_\_ Program Title \_\_\_\_\_

USAGE: Used by: Field Service  Production  Other \_\_\_\_\_

Frequency of Usage: Daily  Weekly  Monthly

SUGGESTIONS FOR IMPROVEMENT

1. Are the program loading and operating instructions: clear? , incomplete? , difficult to follow?
2. Do the error reports and program documentation provide sufficient diagnostic information. in all cases? , in most cases? , in very few cases? . Suggestions for improvement:

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3. Is the program effective in isolating malfunctions: in all cases? , in most cases? , in very few cases? . Would additional Scope loops or Switch Register control be helpful? \_\_\_\_\_  
Suggestions for improvement:

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4. Does the program ever fail to detect malfunctions exposed by other software? \_\_\_\_\_  
Were Margins used? \_\_\_\_\_ Please describe malfunction in detail:

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5. Does the program ever report non-existent malfunctions? \_\_\_\_\_  
Please indicate erroneous report and any pertinent operating conditions:

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6. Does this MAINDEC ever expose malfunctions in the Central Processor or other peripheral units not detected by the appropriate MAINDEC? \_\_\_\_\_  
Please describe malfunction and MAINDEC(S) used:

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7. Does the document provide a general understanding of the functional programming requirements of the system? Good , Fair , None . Would a general description of programming requirements increase the effectiveness of this MAINDEC? \_\_\_\_\_

Remarks:

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