

# FP11

CMFF, CMPD  
MD-11-DCFPE-B

EP-DCFPE-B-DL-A

OCT 1976

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**digital**

FICHE 1 OF 1

Made in U.S.A.

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.REPT 0

IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DCFPE  
 PRODUCT NAME: FP11 BASIC INSTRUCTION TESTS  
 DATE CREATED: MARCH 12, 1973  
 MAINTAINER: DIAGNOSTIC GROUP  
 AUTHORS: BOB BRAIN & KEN CHAPMAN

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1973

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<u>MAINDEC NO.</u>	<u>INSTRUCTIONS TESTED</u>
DCFPA	LDFPS, STFPS, SETI, SETL SETF, SETD, CFCC
DCFPB	STST
DCFPC	LDF, LDD, STF, STD
DCFPD	ADD, ADD, SUBF, SUBD
DCFDE	CMDF, CMPD
DCFPE	MULF, MULD
DCFPF	DIVF, DIVD
DCFPG	CLRF, CLRD, TSTF, TSTD
DCFPH	ABSF, ABSD, NEGF, NEGD
DCFPI	LDCF, LCCDF, STCFD, STCDF
DCFPI	LDCF, LDCLF, LDCID, LDCLD
DCFPI	STCFI, STCFL, STCDI, STCDL
DCFPK	LDEXP, STEXP
DCFPL	MODF, MODD

MAINDEC-11-DCFPE-B  
DCFPB.F11



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FP11 BASIC INSTRUCTION TEST DCFPA - DCFPL  
DESCRIPTION

1. ABSTRACT  
THESE PROGRAMS TEST THE FP11 IN ALL MODES WITH FIXED NUMBER PATTERNS. THE PROGRAMS SHOULD BE RUN IN ORDER FOR AT LEAST 2 PASSES WITH ALL SWITCHES DOWN.
2. REQUIREMENTS
  - 2.1 EQUIPMENT  
PDP11/45 STANDARD COMPUTER WITH FP11 OPTION
  - 2.2 STORAGE  
PROGRAM STORAGE - THE ROUTINES USE MEMORY 0 - 17776
  - 2.3 PRELIMINARY PROGRAMS  
NONE
3. LOADING PROCEDURE  
USE STANDARD PROCEDURE FOR ABS TAPES.
4. STARTING PROCEDURE
  - 4.1 CONTROL SWITCH SETTINGS  
SEE 5.1.1 (ALL DOWN FOR WORST CASE TESTING)
  - 4.2 STARTING ADDRESS  
THE PROGRAM SHOULD ALWAYS BE STARTED AT 200.
  - 4.3 PROGRAM AND/OR OPERATOR ACTION
    - 1) LOAD PROGRAM INTO MEMORY USING ABS LOADER.
    - 2) LOAD ADDRESS 200.
    - 3) SET SWITCHES (SEE SEC 5.1.1) ALL DOWN FOR WORST CASE
    - 4) PRESS START.
    - 5) THE PROGRAM WILL LOOP AND BELL WILL RING ONCE EVERY PASS
    - 6) A MINIMUM OF TWO PASSES SHOULD ALWAYS BE RUN.

MAINDEC-11-DCFPE-B  
DCFPEB.P11

TEST OF CMPF, CMPD

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7) THE DISPLAY ON THE 11/45 WILL SHOW THE ITERATION COUNT IN  
THE LEFT BYTE AND TEST NUMBER IN THE RIGHT. TO USE, SET THE



FP11 BASIC INSTRUCTION TEST DCFPA - DCFPL  
DESCRIPTION

5.2.3 TRTRAP

IF SW<12> IS ON A 0, THE T BIT WILL BE SET ON ALTERNATE PASSES. WHEN SET, IT CAUSES A TRAP AFTER EACH INSTRUCTION. THE FIRST INSTRUCTION EXECUTED UPON TRAPPING IS AN "RTT" WHICH RETURNS TO THE INTERRUPTED SEQUENCE OF INSTRUCTIONS. THIS SEQUENCE IS CONTINUED UNTIL THE END OF THE PROGRAM IS REACHED.

5.2.4 TRAPCATCHER

A ".+2" - "HALT" SEQUENCE IS REPEATED FROM 0 - 776 TO CATCH ANY UNEXPECTED TRAPS. THUS ANY UNEXPECTED TRAPS OR INTERRUPTS WILL HALT AT THE VECTOR + 2.

5.2.5 FLOATING POINT TRAP (TO 244)

THE FP11 INTERRUPT DISABLE BIT IS ALWAYS SET IN ALL OF THESE TESTS (EXCEPT DCFPA) SO NO TRAPS TO 244 SHOULD OCCUR. IF AN INTERRUPT OCCURS, THE PROGRAM WILL HALT AT 766 IN THE ROUTINE CALLED FLTERR AND DISPLAY THE FPS REGISTER IN R0.

6. ERRORS

6.1 ERROR PRINTOUT

THE FORMAT IS AS FOLLOWS:

ADR FPS ANS1 ANS2 ANS3 ANS4 ANS5 ANS6 ANS7 ANS8  
FEC FEA

WHERE:

ADR = ADDRESS OF ERROR HLT  
FPS = FLOATING POINT STATUS  
FEC = FLOATING EXCEPTION CODES (ERROR CODES)  
FEA = FLOATING EXCEPTION ADDRESS (ERROR ADDRESS)  
ANS1-8 = ERROR DATA READ FROM THE FP11. FROM 0-8 OF THESE MAY BE TYPED DEPENDING ON THE NUMBER FOLLOWING THE HLT; I.E., HLT+3 WOULD TYPE ANS1-ANS3.

TO FIND THE FAILING TEST, LOOK AT THE LISTING ABOVE THE ADDRESS TYPED.

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FP11 BASIC INSTRUCTION TEST DCFPA - DCFPL  
DESCRIPTION

6.2 ERROR RECOVERY  
RESTART AT 200

7. RESTRICTIONS  
NONE

8. MISCELLANEOUS

8.1 EXECUTION TIME  
A BELL WILL RING WITHIN 15 SECONDS WITH ALL SWITCHES DOWN.

8.2 STACK POINTER  
STACK IS INITALLY SET TO 600

8.3 POWER FAIL  
EACH TEST CAN BE POWER FAILED WITH NO ERRORS EXCEPT ON THE  
FEC AND FEA. TO USE, START THE TEST AS USUAL AND POWER DOWN  
THEN UP AT ANY TIME. THE PROGRAM SHOULD TYPE "POWER" AND  
CONTINUE TO RUN WITH NO OTHER TYPEOUTS.

9. PROGRAM DESCRIPTION  
THESE PROGRAMS TEST ALL THE INSTRUCTIONS ON THE FP11 IN ALL  
MODES. EACH PROGRAM HAS MANY SUBTESTS (THE CODE BETWEEN 2  
SCOPE STATEMENTS) WHICH ARE RUN 256 TIMES BEFORE CONTINUING  
TO THE NEXT. SW<11> ON A 1 CAUSES EACH SUBTEST TO BE RUN  
ONLY ONCE. SW<9> ON A 1 ENABLES LOOP ON ERROR. THE ADDRESS  
ICNT (LOC 1000) AND DISPLAY REGISTER ON THE 11/45 EACH  
CONTAIN THE ITERATION COUNT IN THE LEFT BYTE AND THE TEST  
NUMBER IN THE RIGHT BYTE. ALL THE SUBTESTS SHOULD BE RUN  
SEQUENTIALLY BY STARTING AT 200 NOT BY STARTING AT THE  
BEGINNING OF THE SUBTEST. TO LOOP ON A PARTICULAR SUBTEST,  
PUT THE TEST NUMBER (SEE LISTING) IN THE RIGHT BYTE OF THE  
SWITCH REGISTER AND SW<8> ON A 1. THIS TEST WILL BE LOOPED  
UPON UNTIL SW<8> IS PUT ON A 0 OR THE RIGHT BYTE IS CHANGED.  
IF THE TEST IS NON-EXISTANT, THE PROGRAM WILL BE RUN AS  
USUAL.  
.ENDR



.TITLE MAINDEC-11-DCFPE-B TEST OF CMPF, CMPD  
:COPYRIGHT 1972, DIGITAL EQUIPMENT CORP., MAYNARD, MASS  
:PROGRAM BY KEN CHAPMAN  
.REM\*

SWITCH	USE
8	0 - LOAD UB REGISTER WITH SW<7:0> 1 - LOOP ON TEST IN SW<7:0>
9	LOOP ON ERROR
10	0 - BELL ON PASS COMPLETE 1 - BELL ON ERROR
11	INHIBIT ITERATIONS
12	INHIBIT TRACE TRAP
13	INHIBIT ERROR TYPEOUTS
14	LOOP ON TEST
15	HALT ON ERROR

OUTPUT FORM:

ADR FPS ANS1 ANS2 ANS3 ANS4 ANS5 ANS6 ANS7 ANS8  
FEC FEA

BIT	FPS	REASON	CODE	FEC	ERROR
0		CARRY	0		ADDRESS ERROR
1		OVERFLOW	2		OPCODE ERROR
2		ZERO	4		DIVIDE BY ZERO
3		NEGATIVE	6		CONVERSION ERROR
4		MAINTAINANCE MODE	10		OVERFLOW
5		TRUNCATE MODE	12		UNDERFLOW
6		LONG INTEGER MODE	14		UNDEFINED VARIABLE (-0)
7		DOUBLE PRECISION MODE	16		UBREAK TRAP
8		INTERUPT ON CONVERSION ERROR			
9		INTERUPT ON OVERFLOW			
10		INTERUPT ON UNDERFLOW			
11		INTERUPT ON UNDEFINED VARIABLE			
12					
13					
14		INTERUPT DISABLE			
15		ERROR FLAG*			

000001			.ENABL	ABS
177776			N=	1
177570			PS=	177776
177570			SWR=	177570
104400			DISPLAY=	SWR
104000			SCOPE=	TRAP
000004			HLT=	EMT
000207			TYPE=	IOT
000000			BELL=	207
000000			FPS=	%0
000000			RD=	%0
000001			R1=	%1
000002			R2=	%2
000003			R3=	%3
000004			R4=	%4
000005			R5=	%5
000005			TTY=	%5
000006			SP=	%6
000007			PC=	%7
000000			AC0=	%0
000001			AC1=	%1
000002			AC2=	%2
000003			AC3=	%3
000004			AC4=	%4
000005			AC5=	%5
100000			SW15=	100000
040000			SW14=	40000
020000			SW13=	20000
010000			SW12=	10000
004000			SW11=	4000
002000			SW10=	2000
001000			SW09=	1000
000400			SW08=	400
170003			LDUB=	170003
170005			STA0=	170005
170007			STQ0=	170007
170006			MRS=	170006
170004			LDSC=	170004
000000			.=	0
000200			.=	200
000200	000167	000622		JMP
				BEG
000760	000760		.=	760
000762	170200		FILTERR:	STFPS
000766	170367	000034		STST
000770	000000			FPS
	000002			FEC
				HALT
				RTI

;TRAP CATCHER FROM 0 - 776

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      = 1000
001000 001000      ICNT: 0      ; ITERATION COUNT - LH TEST NO. - RH
001002 000000      ANS1: 0      ; FIRST ANSWER (SEE CODE)
001004 000000      ANS2: 0
001006 000000      ANS3: 0
001010 000000      ANS4: 0
001012 000000      ANS5: 0
001014 000000      ANS6: 0
001016 000000      ANS7: 0
001020 000000      ANS8: 0
001022 000000      FEC: 0      ; FLOATING EXCEPTION CODES
001024 000000      FEA: 0      ; FLOATING EXECPTION ADDRESS

001026 012706 000600      BEG:  MOV  #600,SP      ; ** STACK AT 600 **
001032 012737 001054 000004      MOV  #M1120, @#4      ; FIND OUT WHICH MACHINE THIS IS
001040 005737 177772      TST  @#177772      ; IS PIRQ THERE?
001044 012767 000006 015210      MOV  #6, YESRT      ; FUDGE IN RTT IF 11/45
001052 000403      BR   BEGIN

001054 016737 016344 000010      M1120:  MOV  FPTADR, @#10      ; LOAD THE ILLEGAL INSTRUCTION VECTOR
                                           ; WITH THE ADDRESS OF THE FPU.
                                           ; THE FPU WILL HANDLE THE BAD OPCODES
                                           ; RESET 4

001062 012737 000006 000004      BEGIN:  MOV  #6, @#4
001070 012706 000600      MOV  #600, SP
001074 012737 016262 000014      MOV  #YESRT, @#14      ; SET TRACE TRAP VECTOR
001102 012777 017122 016322      MOV  #POWDWN, @DOWNVEC
001110 012777 000340 016316      MOV  #340, @DOWNVEC+2
001116 012737 017322 000020      MOV  #.IOT, @#20      ; SET UP VECTOR 20
001124 012700 000030      MOV  #30, R0      ; SET R0 TO VECTOR 30
001130 012720 016424      MOV  #.TRP, (0)+      ; SET EMT VECTOR
001134 012720 000340      MOV  #340, (0)+
001140 012720 016264      MOV  #.EMT, (0)+      ; SET TRAP VECTOR
001144 012710 000340      MOV  #340, (0)
001150 012777 000760 016250      MOV  #FLTERR, @FPVECT      ; LOAD INTERRUPT VECTOR
001156 012777 000340 016244      MOV  #340, @FPVECT+2      ; LOCK UP PROCESSOR
001164 005067 177610      CLR  ICNT
001170 005067 016252      CLR  LAD

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*****
:TEST 1: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 140000,000000 TO 040000,000000
:FPS = 047410, FSRC = M6-R7, AC = AC2
*****

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001174 104400          SCOPE
001176 000404          BR      TST1

001200 040000 000000  DTA1:  040000,000000
001204 140000 000000  DTB1:  140000,000000

001210 170127 047400  TST1:  LDFPS  #047400      ;LOAD FLOATING POINT STATUS
001214 172667 177760      LDF    DTA1,   AC2      ;LOAD 040000,000000 INTO AC2
001220 173667 177760      CMPF   DTB1,   AC2      ;COMPARE 140000,000000 TO AC2
001224 170200      STFPS  FPS       ;STORE FLOATING POINT STATUS
001226 022700 047410      CMP    #047410,FPS     ;CHECK FLOATING POINT STATUS
001232 001401      BEQ    .+4          ;BRANCH IF OK
001234 104000      HLT                    ;FPS NOT EQUAL TO 047410

001236 174267 177540      STF    AC2,   ANS1     ;STORE AC2 IN ANS1, ANS2
001242 022767 040000 177532  CMP    #040000,ANS1    ;040000 STILL IN AC2?
001250 001401      BEQ    .+4          ;BRANCH IF OK
001252 104002      HLT+2              ;AC2 CHANGED

001254 022767 000000 177522  CMP    #000000,ANS2    ;000000 STILL IN AC2?
001262 001401      BEQ    .+4          ;BRANCH IF OK
001264 104002      HLT+2              ;AC2 CHANGED

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*****
:TEST 2: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 040000,000000 TO 140000,000000
:FPS = 047400, FSRC = M6-R7, AC = ACO
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001266 104400          SCOPE
001270 000404          BR      TST2

001272 140000 000000  DTA2:  140000,000000
001276 040000 000000  DTB2:  040000,000000

001302 170127 047400  TST2:  LDFPS  #047400      ;LOAD FLOATING POINT STATUS
001306 172467 177760      LDF    DTA2,   ACO     ;LOAD 140000,000000 INTO ACO
001312 173467 177760      CMPF   DTB2,   ACO     ;COMPARE 040000,000000 TO ACO
001316 170200      STFPS  FPS       ;STORE FLOATING POINT STATUS
001320 022700 047400      CMP    #047400,FPS     ;CHECK FLOATING POINT STATUS
001324 001401      BEQ    .+4          ;BRANCH IF OK
001326 104000      HLT                    ;FPS NOT EQUAL TO 047400

001330 174067 177446      STF    ACO,   ANS1     ;STORE ACO IN ANS1, ANS2
001334 022767 140000 177440  CMP    #140000,ANS1    ;140000 STILL IN ACO?
001342 001401      BEQ    .+4          ;BRANCH IF OK
001344 104002      HLT+2              ;ACO CHANGED

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001346 022767 000000 177430  
001354 001401  
001356 104002

CMP #000000,ANS2 ;000000 STILL IN AC0?  
BEQ .+4 ;BRANCH IF OK  
HLT+2 ;AC0 CHANGED

\*\*\*\*\*  
TEST 3: TEST CMPF (COMPARE FLOATING POINT)  
COMPARE 177777,177777 TO 077777,177777  
FPS = 047410, FSRC = M6-R7, AC = AC1  
\*\*\*\*\*

001360 104400  
001362 000404

SCOPE  
BR TST3

001364 077777 177777  
001370 177777 177777

DTA3: 077777,177777  
DTB3: 177777,177777

001374 170127 047400  
001400 172567 177760  
001404 173567 177760  
001410 170200  
001412 022700 047410  
001416 001401  
001420 104000

TST3: LDFPS #047400 ;LOAD FLOATING POINT STATUS  
LDF DTA3, AC1 ;LOAD 077777,177777 INTO AC1  
CMPF DTB3, AC1 ;COMPARE 177777,177777 TO AC1  
STFPS FPS ;STORE FLOATING POINT STATUS  
CMP #047410,FPS ;CHECK FLOATING POINT STATUS  
BEQ .+4 ;BRANCH IF OK  
HLT ;FPS NOT EQUAL TO 047410

001422 174167 177354  
001426 022767 077777 177346  
001434 001401  
001436 104002

STF AC1, ANS1 ;STORE AC1 IN ANS1, ANS2  
CMP #077777,ANS1 ;077777 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+2 ;AC1 CHANGED

001440 022767 177777 177336  
001446 001401  
001450 104002

CMP #177777,ANS2 ;177777 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+2 ;AC1 CHANGED

\*\*\*\*\*  
TEST 4: TEST CMPF (COMPARE FLOATING POINT)  
COMPARE 077777,177777 TO 177777,177777  
FPS = 047400, FSRC = M6-R7, AC = AC3  
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001452 104400  
001454 000404

SCOPE  
BR TST4

001456 177777 177777  
001462 077777 177777

DTA4: 177777,177777  
DTB4: 077777,177777

001466 170127 047400  
001472 172767 177760  
001476 173767 177760  
001502 170200  
001504 022700 047400  
001510 001401  
001512 104000

TST4: LDFPS #047400 ;LOAD FLOATING POINT STATUS  
LDF DTA4, AC3 ;LOAD 177777,177777 INTO AC3  
CMPF DTB4, AC3 ;COMPARE 077777,177777 TO AC3  
STFPS FPS ;STORE FLOATING POINT STATUS  
CMP #047400,FPS ;CHECK FLOATING POINT STATUS  
BEQ .+4 ;BRANCH IF OK  
HLT ;FPS NOT EQUAL TO 047400

001514 174367 177262

STF AC3, ANS1 ;STORE AC3 IN ANS1, ANS2

001520	022767	177777	177254	CMP	#177777,ANS1	;177777 STILL IN AC3?
001526	001401			BEQ	+.4	;BRANCH IF OK
001530	104002			HLT+2		;AC3 CHANGED
001532	022767	177777	177244	CMP	#177777,ANS2	;177777 STILL IN AC3?
001540	001401			BEQ	+.4	;BRANCH IF OK
001542	104002			HLT+2		;AC3 CHANGED

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*****
:TEST 5: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 125252,125252 TO 052525,052525
:FPS = 047410, FSRC = M6-R7, AC = AC1
*****

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001544	104400			SCOPE		
001546	000404			BR	TST5	
001550	052525	052525		DTA5:	052525,052525	
001554	125252	125252		DTB5:	125252,125252	
001560	170127	047400		TST5:	LDFPS #047400	;LOAD FLOATING POINT STATUS
001564	172567	177760			LDF DTA5, AC1	;LOAD 052525,052525 INTO AC1
001570	173567	177760			CMPF DTB5, AC1	;COMPARE 125252,125252 TO AC1
001574	170200				STFPS FPS	;STORE FLOATING POINT STATUS
001576	022700	047410			CMP #047410,FPS	;CHECK FLOATING POINT STATUS
001602	001401				BEQ +.4	;BRANCH IF OK
001604	104000				HLT	;FPS NOT EQUAL TO 047410
001606	174167	177170		STF	AC1, ANS1	;STORE AC1 IN ANS1, ANS2
001612	022767	052525	177162	CMP	#052525,ANS1	;052525 STILL IN AC1?
001620	001401			BEQ	+.4	;BRANCH IF OK
001622	104002			HLT+2		;AC1 CHANGED
001624	022767	052525	177152	CMP	#052525,ANS2	;052525 STILL IN AC1?
001632	001401			BEQ	+.4	;BRANCH IF OK
001634	104002			HLT+2		;AC1 CHANGED

```

*****
:TEST 6: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 052525,052525 TO 125252,125252
:FPS = 047400, FSRC = M6-R7, AC = AC0
*****

```

001636	104400			SCOPE		
001640	000404			BR	TST6	
001642	125252	125252		DTA6:	125252,125252	
001646	052525	052525		DTB6:	052525,052525	
001652	170127	047400		TST6:	LDFPS #047400	;LOAD FLOATING POINT STATUS
001656	172467	177760			LDF DTA6, AC0	;LOAD 125252,125252 INTO AC0
001662	173467	177760			CMPF DTB6, AC0	;COMPARE 052525,052525 TO AC0
001666	170200				STFPS FPS	;STORE FLOATING POINT STATUS
001670	022700	047400			CMP #047400,FPS	;CHECK FLOATING POINT STATUS

```

001674 001401      BEQ      .+4      ;BRANCH IF OK
001676 104000      HLT                      ;FPS NOT EQUAL TO 047400

001700 174067 177076 177070  STF      ACO, ANS1  ;STORE ACO IN ANS1, ANS2
001704 022767 125252 177070  CMP      #125252, ANS1 ;125252 STILL IN ACO?
001712 001401      BEQ      .+4      ;BRANCH IF OK
001714 104002      HLT+2          ;ACO CHANGED

001716 022767 125252 177060  CMP      #125252, ANS2 ;125252 STILL IN ACO?
001724 001401      BEQ      .+4      ;BRANCH IF OK
001726 104002      HLT+2          ;ACO CHANGED

```

```

:*****
:TEST 7:      TEST CMPF (COMPARE FLOATING POINT)
:      COMPARE 140052,125252 TO 040052,052525
:      FPS = 047410, FSRC = M6-R7, AC = AC1
:*****

```

```

001730 104400      SCOPE
001732 000404      BR      TST7

001734 040052 052525  DTA7:    040052,052525
001740 140052 125252  DTB7:    140052,125252

001744 170127 047400  TST7:    LDFPS   #047400  ;LOAD FLOATING POINT STATUS
001750 172567 177760  LDF      DTA7, AC1  ;LOAD 040052,052525 INTO AC1
001754 173567 177760  CMPF     DTB7, AC1  ;COMPARE 140052,125252 TO AC1
001760 170200  STFPS    FPS        ;STORE FLOATING POINT STATUS
001762 022700 047410  CMP      #047410, FPS ;CHECK FLOATING POINT STATUS
001766 001401  BEQ      .+4      ;BRANCH IF OK
001770 104000  HLT                      ;FPS NOT EQUAL TO 047410

001772 174167 177004 176776  STF      AC1, ANS1  ;STORE AC1 IN ANS1, ANS2
001776 022767 040052 176776  CMP      #040052, ANS1 ;040052 STILL IN AC1?
002004 001401  BEQ      .+4      ;BRANCH IF OK
002006 104002  HLT+2          ;AC1 CHANGED

002010 022767 052525 176766  CMP      #052525, ANS2 ;052525 STILL IN AC1?
002016 001401  BEQ      .+4      ;BRANCH IF OK
002020 104002  HLT+2          ;AC1 CHANGED

```

```

:*****
:TEST 10:     TEST CMPF (COMPARE FLOATING POINT)
:      COMPARE 040052,125252 TO 140052,052525
:      FPS = 047400, FSRC = M6-R7, AC = AC2
:*****

```

```

002022 104400      SCOPE
002024 000404      BR      TST10

002026 140052 052525  DTA10:   140052,052525
002032 040052 125252  DTB10:   040052,125252

002036 170127 047400  TST10:   LDFPS   #047400  ;LOAD FLOATING POINT STATUS

```

002042	172667	177760		LDF	DTA10, AC2	:LOAD 140052,052525 INTO AC2
002046	173667	177760		CMPF	DTB10, AC2	:COMPARE 040052,125252 TO AC2
002052	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
002054	022700	047400		CMP	#047400,FPS	:CHECK FLOATING POINT STATUS
002060	001401			BEQ	+.4	:BRANCH IF OK
002062	104000			HLT		:FPS NOT EQUAL TO 047400
002064	174267	176712		STF	AC2, ANS1	:STORE AC2 IN ANS1, ANS2
002070	022767	140052	176704	CMP	#140052,ANS1	:140052 STILL IN AC2?
002076	001401			BEQ	+.4	:BRANCH IF OK
002100	104002			HLT+2		:AC2 CHANGED
002102	022767	052525	176674	CMP	#052525,ANS2	:052525 STILL IN AC2?
002110	001401			BEQ	+.4	:BRANCH IF OK
002112	104002			HLT+2		:AC2 CHANGED

```

:*****
:TEST 11: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 000525,052525 TO 000252,125252
:FPS = 047400, FSRC = M6-R7, AC = AC2
:*****

```

002114	104400			SCOPE		
002116	000404			BR	TST11	
002120	000252	125252		DTA11:	000252,125252	
002124	000525	052525		DTB11:	000525,052525	
002130	170127	047400		TST11:	LDFPS #047400	:LOAD FLOATING POINT STATUS
002134	172667	177760		LDF	DTA11, AC2	:LOAD 000252,125252 INTO AC2
002140	173667	177760		CMPF	DTB11, AC2	:COMPARE 000525,052525 TO AC2
002144	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
002146	022700	047400		CMP	#047400,FPS	:CHECK FLOATING POINT STATUS
002152	001401			BEQ	+.4	:BRANCH IF OK
002154	104000			HLT		:FPS NOT EQUAL TO 047400
002156	174267	176620		STF	AC2, ANS1	:STORE AC2 IN ANS1, ANS2
002162	022767	000252	176612	CMP	#000252,ANS1	:000252 STILL IN AC2?
002170	001401			BEQ	+.4	:BRANCH IF OK
002172	104002			HLT+2		:AC2 CHANGED
002174	022767	125252	176602	CMP	#125252,ANS2	:125252 STILL IN AC2?
002202	001401			BEQ	+.4	:BRANCH IF OK
002204	104002			HLT+2		:AC2 CHANGED

```

:*****
:TEST 12: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 037777,177777 TO 040000,000000
:FPS = 047410, FSRC = M6-R7, AC = AC2
:*****

```

002206	104400			SCOPE		
002210	000404			BR	TST12	



```

002212 040000 000000      DTA12: 040000,000000
002216 037777 177777      DTB12: 037777,177777

002222 170127 047400      TST12: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
002226 172667 177760      LDF      DTA12, AC2      ;LOAD 040000,000000 INTO AC2
002232 173667 177760      CMPF     DTB12, AC2      ;COMPARE 037777,177777 TO AC2
002236 170200      STFPS    FPS              ;STORE FLOATING POINT STATUS
002240 022700 047410      CMP      #047410,FPS      ;CHECK FLOATING POINT STATUS
002244 001401      BEQ      .+4              ;BRANCH IF OK
002246 104000      HLT                               ;FPS NOT EQUAL TO 047410

002250 174267 176526      STF      AC2, ANS1        ;STORE AC2 IN ANS1, ANS2
002254 022767 040000 176520      CMP      #040000,ANS1     ;040000 STILL IN AC2?
002262 001401      BEQ      .+4              ;BRANCH IF OK
002264 104002      HLT+2                    ;AC2 CHANGED

002266 022767 000000 176510      CMP      #000000,ANS2     ;000000 STILL IN AC2?
002274 001401      BEQ      .+4              ;BRANCH IF OK
002276 104002      HLT+2                    ;AC2 CHANGED

```

```

:*****
:TEST 13:      TEST CMPF (COMPARE FLOATING POINT)
:      COMPARE 137777,177777 TO 140000,000000
:      FPS = 047400, FSRC = M6-R7, AC = ACO
:*****

```

```

002300 104400      SCOPE
002302 000404      BR      TST13

002304 140000 000000      DTA13: 140000,000000
002310 137777 177777      DTB13: 137777,177777

002314 170127 047400      TST13: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
002320 172467 177760      LDF      DTA13, ACO      ;LOAD 140000,000000 INTO ACO
002324 173467 177760      CMPF     DTB13, ACO      ;COMPARE 137777,177777 TO ACO
002330 170200      STFPS    FPS              ;STORE FLOATING POINT STATUS
002332 022700 047400      CMP      #047400,FPS      ;CHECK FLOATING POINT STATUS
002336 001401      BEQ      .+4              ;BRANCH IF OK
002340 104000      HLT                               ;FPS NOT EQUAL TO 047400

002342 174067 176434      STF      ACO, ANS1        ;STORE ACO IN ANS1, ANS2
002346 022767 140000 176426      CMP      #140000,ANS1     ;140000 STILL IN ACO?
002354 001401      BEQ      .+4              ;BRANCH IF OK
002356 104002      HLT+2                    ;ACO CHANGED

002360 022767 000000 176416      CMP      #000000,ANS2     ;000000 STILL IN ACO?
002366 001401      BEQ      .+4              ;BRANCH IF OK
002370 104002      HLT+2                    ;ACO CHANGED

```

```

:*****
:TEST 14:      TEST CMPF (COMPARE FLOATING POINT)
:      COMPARE 125525,052525 TO 125252,125252
:      FPS = 047410, FSRC = M6-R7, AC = AC2
:*****

```

```

002372 104400          SCOPE
002374 000404          BR      TST14

002376 125252 125252   DTA14: 125252,125252
002402 125525 052525   DTB14: 125525,052525

002406 170127 047400   TST14: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
002412 172667 177760   LDF     DTA14, AC2      ;LOAD 125252,125252 INTO AC2
002416 173667 177760   CMPF   DTB14, AC2      ;COMPARE 125525,052525 TO AC2
002422 170200          STFPS   FPS             ;STORE FLOATING POINT STATUS
002424 022700 047410   CMP     #047410,FPS     ;CHECK FLOATING POINT STATUS
002430 001401          BEQ     .+4             ;BRANCH IF OK
002432 104000          HLT                    ;FPS NOT EQUAL TO 047410

002434 174267 176342   STF     AC2, ANS1       ;STORE AC2 IN ANS1, ANS2
002440 022767 125252 176334 CMP     #125252,ANS1    ;125252 STILL IN AC2?
002446 001401          BEQ     .+4             ;BRANCH IF OK
002450 104002          HLT+2                ;AC2 CHANGED

002452 022767 125252 176324 CMP     #125252,ANS2    ;125252 STILL IN AC2?
002460 001401          BEQ     .+4             ;BRANCH IF OK
002462 104002          HLT+2                ;AC2 CHANGED

```

```

:*****
:TEST 15: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 052725,052525 TO 052525,052525
:FPS = 047400, FSRC = M6-R7, AC = AC3
:*****

```

```

002464 104400          SCOPE
002466 000404          BR      TST15

002470 052525 052525   DTA15: 052525,052525
002474 052725 052525   DTB15: 052725,052525

002500 170127 047400   TST15: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
002504 172767 177760   LDF     DTA15, AC3      ;LOAD 052525,052525 INTO AC3
002510 173767 177760   CMPF   DTB15, AC3      ;COMPARE 052725,052525 TO AC3
002514 170200          STFPS   FPS             ;STORE FLOATING POINT STATUS
002516 022700 047400   CMP     #047400,FPS     ;CHECK FLOATING POINT STATUS
002522 001401          BEQ     .+4             ;BRANCH IF OK
002524 104000          HLT                    ;FPS NOT EQUAL TO 047400

002526 174367 176250   STF     AC3, ANS1       ;STORE AC3 IN ANS1, ANS2
002532 022767 052525 176242 CMP     #052525,ANS1    ;052525 STILL IN AC3?
002540 001401          BEQ     .+4             ;BRANCH IF OK
002542 104002          HLT+2                ;AC3 CHANGED

002544 022767 052525 176232 CMP     #052525,ANS2    ;052525 STILL IN AC3?
002552 001401          BEQ     .+4             ;BRANCH IF OK
002554 104002          HLT+2                ;AC3 CHANGED

```

```

:*****

```

:TEST 16: TEST CMPF (COMPARE FLOATING POINT)  
: COMPARE 125252,125252 TO 125052,125252  
: FPS = 047410, FSRC = M6-R7, AC = ACO  
:\*\*\*\*\*

002556	104400			SCOPE			
002560	000404			BR	TST16		
002562	125052	125252		DTA16:	125052,125252		
002566	125252	125252		DTB16:	125252,125252		
002572	170127	047400		TST16:	LDFPS #047400	:LOAD FLOATING POINT STATUS	
002576	172467	177760			LDF DTA16, ACO	:LOAD 125052,125252 INTO ACO	
002602	173467	177760			CMPF DTB16, ACO	:COMPARE 125252,125252 TO ACO	
002606	170200				STFPS FPS	:STORE FLOATING POINT STATUS	
002610	022700	047410			CMP #047410,FPS	:CHECK FLOATING POINT STATUS	
002614	001401				BEQ .+4	:BRANCH IF OK	
002616	104000				HLT	:FPS NOT EQUAL TO 047410	
002620	174067	176156		STF	ACO, ANS1	:STORE ACO IN ANS1, ANS2	
002624	022767	125052	176150	CMP	#125052,ANS1	:125052 STILL IN ACO?	
002632	001401			BEQ	.+4	:BRANCH IF OK	
002634	104002			HLT+2		:ACO CHANGED	
002636	022767	125252	176140	CMP	#125252,ANS2	:125252 STILL IN ACO?	
002644	001401			BEQ	.+4	:BRANCH IF OK	
002646	104002			HLT+2		:ACO CHANGED	

:\*\*\*\*\*  
:TEST 17: TEST CMPF (COMPARE FLOATING POINT)  
: COMPARE 052525,052525 TO 053525,052525  
: FPS = 047410, FSRC = M6-R7, AC = AC1  
:\*\*\*\*\*

002650	104400			SCOPE			
002652	000404			BR	TST17		
002654	053525	052525		DTA17:	053525,052525		
002660	052525	052525		DTB17:	052525,052525		
002664	170127	047400		TST17:	LDFPS #047400	:LOAD FLOATING POINT STATUS	
002670	172567	177760			LDF DTA17, AC1	:LOAD 053525,052525 INTO AC1	
002674	173567	177760			CMPF DTB17, AC1	:COMPARE 052525,052525 TO AC1	
002700	170200				STFPS FPS	:STORE FLOATING POINT STATUS	
002702	022700	047410			CMP #047410,FPS	:CHECK FLOATING POINT STATUS	
002706	001401				BEQ .+4	:BRANCH IF OK	
002710	104000				HLT	:FPS NOT EQUAL TO 047410	
002712	174167	176064		STF	AC1, ANS1	:STORE AC1 IN ANS1, ANS2	
002716	022767	053525	176056	CMP	#053525,ANS1	:053525 STILL IN AC1?	
002724	001401			BEQ	.+4	:BRANCH IF OK	
002726	104002			HLT+2		:AC1 CHANGED	
002730	022767	052525	176046	CMP	#052525,ANS2	:052525 STILL IN AC1?	
002736	001401			BEQ	.+4	:BRANCH IF OK	

002740 104002

HLT+2

;AC1 CHANGED

```

*****
:TEST 20:      TEST CMPF (COMPARE FLOATING POINT)
:             COMPARE 124252,125252 TO 125252,125252
:             FPS = 047400,  FSRC = M6-R7,  AC = ACO
*****

```

002742 104400  
002744 000404

SCOPE  
BR TST20

002746 125252 125252  
002752 124252 125252

DTA20: 125252,125252  
DTB20: 124252,125252

002756 170127 047400  
002762 172467 177760  
002766 173467 177760  
002772 170200  
002774 022700 047400  
003000 001401  
003002 104000

```

TST20: LDFPS #047400 ;LOAD FLOATING POINT STATUS
LDF DTA20, ACO ;LOAD 125252,125252 INTO ACO
CMPF DTB20, ACO ;COMPARE 124252,125252 TO ACO
STFPS FPS ;STORE FLOATING POINT STATUS
CMP #047400,FPS ;CHECK FLOATING POINT STATUS
BEQ .+4 ;BRANCH IF OK
HLT ;FPS NOT EQUAL TO 047400

```

003004 174067 175772  
003010 022767 125252 175764  
003016 001401  
003020 104002

```

STF ACO, ANS1 ;STORE ACO IN ANS1, ANS2
CMP #125252,ANS1 ;125252 STILL IN ACO?
BEQ .+4 ;BRANCH IF OK
HLT+2 ;ACO CHANGED

```

003022 022767 125252 175754  
003030 001401  
003032 104002

```

CMP #125252,ANS2 ;125252 STILL IN ACO?
BEQ .+4 ;BRANCH IF OK
HLT+2 ;ACO CHANGED

```

```

*****
:TEST 21:      TEST CMPF (COMPARE FLOATING POINT)
:             COMPARE 056525,052525 TO 052525,052525
:             FPS = 047400,  FSRC = M6-R7,  AC = ACO
*****

```

003034 104400  
003036 000404

SCOPE  
BR TST21

003040 052525 052525  
003044 056525 052525

DTA21: 052525,052525  
DTB21: 056525,052525

003050 170127 047400  
003054 172467 177760  
003060 173467 177760  
003064 170200  
003066 022700 047400  
003072 001401  
003074 104000

```

TST21: LDFPS #047400 ;LOAD FLOATING POINT STATUS
LDF DTA21, ACO ;LOAD 052525,052525 INTO ACO
CMPF DTB21, ACO ;COMPARE 056525,052525 TO ACO
STFPS FPS ;STORE FLOATING POINT STATUS
CMP #047400,FPS ;CHECK FLOATING POINT STATUS
BEQ .+4 ;BRANCH IF OK
HLT ;FPS NOT EQUAL TO 047400

```

003076 174067 175700  
003102 022767 052525 175672  
003110 001401

```

STF ACO, ANS1 ;STORE ACO IN ANS1, ANS2
CMP #052525,ANS1 ;052525 STILL IN ACO?
BEQ .+4 ;BRANCH IF OK

```

```

003112 104002          HLT+2          ;AC0 CHANGED
003114 022767 052525 175662  CMP      #052525,ANS2 ;052525 STILL IN AC0?
003122 001401          BEQ      .+4          ;BRANCH IF OK
003124 104002          HLT+2          ;AC0 CHANGED

```

```

:*****
:TEST 22:      TEST CMPF (COMPARE FLOATING POINT)
:              COMPARE 121252,125252 TO 125252,125252
:              FPS = 047400,   FSRC = M6-R7,   AC = AC2
:*****

```

```

003126 104400          SCOPE
003130 000404          BR      TST22

003132 125252 125252    DTA22: 125252,125252
003136 121252 125252    DTB22: 121252,125252

003142 170127 047400    TST22: LDFPS   #047400      ;LOAD FLOATING POINT STATUS
003146 172667 177760    LDF     DTA22, AC2      ;LOAD 125252,125252 INTO AC2
003152 173667 177760    CMPF    DTB22, AC2     ;COMPARE 121252,125252 TO AC2
003156 170200          STFPS   FPS            ;STORE FLOATING POINT STATUS
003160 022700 047400    CMP     #047400,FPS    ;CHECK FLOATING POINT STATUS
003164 001401          BEQ     .+4            ;BRANCH IF OK
003166 104000          HLT                    ;FPS NOT EQUAL TO 047400

003170 174267 175606    STF     AC2, ANS1      ;STORE AC2 IN ANS1, ANS2
003174 022767 125252 175600  CMP     #125252,ANS1  ;125252 STILL IN AC2?
003202 001401          BEQ     .+4            ;BRANCH IF OK
003204 104002          HLT+2          ;AC2 CHANGED

003206 022767 125252 175570  CMP     #125252,ANS2  ;125252 STILL IN AC2?
003214 001401          BEQ     .+4            ;BRANCH IF OK
003216 104002          HLT+2          ;AC2 CHANGED

```

```

:*****
:TEST 23:      TEST CMPF (COMPARE FLOATING POINT)
:              COMPARE 040000,000001 TO 040000,000000
:              FPS = 047400,   FSRC = M6-R7,   AC = AC3
:*****

```

```

003220 104400          SCOPE
003222 000404          BR      TST23

003224 040000 000000    DTA23: 040000,000000
003230 040000 000001    DTB23: 040000,000001

003234 170127 047400    TST23: LDFPS   #047400      ;LOAD FLOATING POINT STATUS
003240 172767 177760    LDF     DTA23, AC3      ;LOAD 040000,000000 INTO AC3
003244 173767 177760    CMPF    DTB23, AC3     ;COMPARE 040000,000001 TO AC3
003250 170200          STFPS   FPS            ;STORE FLOATING POINT STATUS
003252 022700 047400    CMP     #047400,FPS    ;CHECK FLOATING POINT STATUS
003256 001401          BEQ     .+4            ;BRANCH IF OK
003260 104000          HLT                    ;FPS NOT EQUAL TO 047400

```

003262	174367	175514		STF	AC3, ANS1	:STORE AC3 IN ANS1, ANS2
003266	022767	040000	175506	CMP	#040000,ANS1	:040000 STILL IN AC3?
003274	001401			BEQ	+.4	:BRANCH IF OK
003276	104002			HLT+2		:AC3 CHANGED
003300	022767	000000	175476	CMP	#000000,ANS2	:000000 STILL IN AC3?
003306	001401			BEQ	+.4	:BRANCH IF OK
003310	104002			HLT+2		:AC3 CHANGED

```

:*****
:TEST 24: TEST CMPF (COMPARE FLOATING POINT)
:        COMPARE 177777,177776 TO 177777,177777
:        FPS = 047400, FSRC = M6-R7, AC = AC1
:*****

```

003312	104400			SCOPE		
003314	000404			BR	TST24	
003316	177777	177777		DTA24:	177777,177777	
003322	177777	177776		DTB24:	177777,177776	
003326	170127	047400		TST24:	LDFPS #047400	:LOAD FLOATING POINT STATUS
003332	172567	177760		LDF	DTA24, AC1	:LOAD 177777,177777 INTO AC1
003336	173567	177760		CMPF	DTB24, AC1	:COMPARE 177777,177776 TO AC1
003342	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
003344	022700	047400		CMP	#047400,FPS	:CHECK FLOATING POINT STATUS
003350	001401			BEQ	+.4	:BRANCH IF OK
003352	104000			HLT		:FPS NOT EQUAL TO 047400
003354	174167	175422		STF	AC1, ANS1	:STORE AC1 IN ANS1, ANS2
003360	022767	177777	175414	CMP	#177777,ANS1	:177777 STILL IN AC1?
003366	001401			BEQ	+.4	:BRANCH IF OK
003370	104002			HLT+2		:AC1 CHANGED
003372	022767	177777	175404	CMP	#177777,ANS2	:177777 STILL IN AC1?
003400	001401			BEQ	+.4	:BRANCH IF OK
003402	104002			HLT+2		:AC1 CHANGED

```

:*****
:TEST 25: TEST CMPF (COMPARE FLOATING POINT)
:        COMPARE 000010,011101 TO 000010,010101
:        FPS = 047404, FSRC = M6-R7, AC = AC1
:*****

```

003404	104400			SCOPE		
003406	000404			BR	TST25	
003410	000010	010101		DTA25:	000010,010101	
003414	000010	011101		DTB25:	000010,011101	
003420	170127	040000		TST25:	LDFPS #040000	:LOAD FLOATING POINT STATUS
003424	172567	177760		LDF	DTA25, AC1	:LOAD 000010,010101 INTO AC1
003430	170127	047400		LDFPS	#047400	:LOAD FLOATING POINT STATUS

003434	173567	177754	CMPF	DTB25, AC1	:COMPARE 000010,011101 TO AC1
003440	170200		STFPS	FPS	:STORE FLOATING POINT STATUS
003442	022700	047404	CMP	#047404,FPS	:CHECK FLOATING POINT STATUS
003446	001401		BEQ	+.4	:BRANCH IF OK
003450	104000		HLT		:FPS NOT EQUAL TO 047404
003452	174167	175324	STF	AC1, ANS1	:STORE AC1 IN ANS1, ANS2
003456	005767	175320	TST	ANS1	:CHECK ANS1
003462	001401		BEQ	+.4	:BRANCH IF OK
003464	104002		HLT+2		:AC1 NOT EQUAL TO ZERO
003466	005767	175312	TST	ANS2	:CHECK ANS2
003472	001401		BEQ	+.4	:BRANCH IF OK
003474	104002		HLT+2		:AC1 NOT EQUAL TO ZERO

```

:*****
:TEST 26: TEST CMPF (COMPARE FLOATING POINT)
:          COMPARE 135313,135313 TO 135213,135313
:          FPS = 047410, FSRC = M6-R7, AC = AC1
:*****

```

003476	104400		SCOPE		
003500	000404		BR	TST26	
003502	135213	135313	DTA26:	135213,135313	
003506	135313	135313	DTB26:	135313,135313	
003512	170127	047400	TST26:	LDFPS #047400	:LOAD FLOATING POINT STATUS
003516	172567	177760	LDF	DTA26, AC1	:LOAD 135213,135313 INTO AC1
003522	173567	177760	CMPF	DTB26, AC1	:COMPARE 135313,135313 TO AC1
003526	170200		STFPS	FPS	:STORE FLOATING POINT STATUS
003530	022700	047410	CMP	#047410,FPS	:CHECK FLOATING POINT STATUS
003534	001401		BEQ	+.4	:BRANCH IF OK
003536	104000		HLT		:FPS NOT EQUAL TO 047410
003540	174167	175236	STF	AC1, ANS1	:STORE AC1 IN ANS1, ANS2
003544	022767	135213 175230	CMP	#135213,ANS1	:135213 STILL IN AC1?
003552	001401		BEQ	+.4	:BRANCH IF OK
003554	104002		HLT+2		:AC1 CHANGED
003556	022767	135313 175220	CMP	#135313,ANS2	:135313 STILL IN AC1?
003564	001401		BEQ	+.4	:BRANCH IF OK
003566	104002		HLT+2		:AC1 CHANGED

```

:*****
:TEST 27: TEST CMPF (COMPARE FLOATING POINT)
:          COMPARE 071422,023456 TO 071422,123456
:          FPS = 047410, FSRC = M6-R7, AC = AC2
:*****

```

003570	104400		SCOPE		
003572	000404		BR	TST27	
003574	071422	123456	DTA27:	071422,123456	

```

003600 071422 023456      DTB27: 071422,023456
003604 170127 047400      TST27: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
003610 172667 177760      LDF  DTA27, AC2      ;LOAD 071422,123456 INTO AC2
003614 173667 177760      CMPF  DTB27, AC2      ;COMPARE 071422,023456 TO AC2
003620 170200      STFPS  FPS      ;STORE FLOATING POINT STATUS
003622 022700 047410      CMP  #047410,FPS      ;CHECK FLOATING POINT STATUS
003626 001401      BEQ  .+4      ;BRANCH IF OK
003630 104000      HLT      ;FPS NOT EQUAL TO 047410

003632 174267 175144      STF  AC2, ANS1      ;STORE AC2 IN ANS1, ANS2
003636 022767 071422 175136  CMP  #071422,ANS1      ;071422 STILL IN AC2?
003644 001401      BEQ  .+4      ;BRANCH IF OK
003646 104002      HLT+2      ;AC2 CHANGED

003650 022767 123456 175126  CMP  #123456,ANS2      ;123456 STILL IN AC2?
003656 001401      BEQ  .+4      ;BRANCH IF OK
003660 104002      HLT+2      ;AC2 CHANGED

```

```

:*****
:TEST 30: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 154323,071625 TO 154321,071625
:FPS = 047410, FSRC = M6-R7, AC = AC3
:*****

```

```

003662 104400      SCOPE
003664 000404      BR  TST30

003666 154321 071625      DTA30: 154321,071625
003672 154323 071625      DTB30: 154323,071625

003676 170127 047400      TST30: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
003702 172767 177760      LDF  DTA30, AC3      ;LOAD 154321,071625 INTO AC3
003706 173767 177760      CMPF  DTB30, AC3      ;COMPARE 154323,071625 TO AC3
003712 170200      STFPS  FPS      ;STORE FLOATING POINT STATUS
003714 022700 047410      CMP  #047410,FPS      ;CHECK FLOATING POINT STATUS
003720 001401      BEQ  .+4      ;BRANCH IF OK
003722 104000      HLT      ;FPS NOT EQUAL TO 047410

003724 174367 175052      STF  AC3, ANS1      ;STORE AC3 IN ANS1, ANS2
003730 022767 154321 175044  CMP  #154321,ANS1      ;154321 STILL IN AC3?
003736 001401      BEQ  .+4      ;BRANCH IF OK
003740 104002      HLT+2      ;AC3 CHANGED

003742 022767 071625 175034  CMP  #071625,ANS2      ;071625 STILL IN AC3?
003750 001401      BEQ  .+4      ;BRANCH IF OK
003752 104002      HLT+2      ;AC3 CHANGED

```

```

:*****
:TEST 31: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 040000,000000 TO 040000,000000
:FPS = 047404, FSRC = M6-R7, AC = AC3
:*****

```



003754 104400  
003756 000404

SCOPE  
BR TST31

003760 040000 000000  
003764 040000 000000

DTA31: 040000,000000  
DTB31: 040000,000000

003770 170127 047400  
003774 172767 177760  
004000 173767 177760  
004004 170200  
004006 022700 047404  
004012 001401  
004014 104000

TST31: LDFPS #047400 ;LOAD FLOATING POINT STATUS  
LDF DTA31, AC3 ;LOAD 040000,000000 INTO AC3  
CMPF DTB31, AC3 ;COMPARE 040000,000000 TO AC3  
STFPS FPS ;STORE FLOATING POINT STATUS  
CMP #047404,FPS ;CHECK FLOATING POINT STATUS  
BEQ .+4 ;BRANCH IF OK  
HLT ;FPS NOT EQUAL TO 047404

004016 174367 174760  
004022 022767 040000 174752  
004030 001401  
004032 104002

STF AC3, ANS1 ;STORE AC3 IN ANS1, ANS2  
CMP #040000,ANS1 ;040000 STILL IN AC3?  
BEQ .+4 ;BRANCH IF OK  
HLT+2 ;AC3 CHANGED

004034 022767 000000 174742  
004042 001401  
004044 104002

CMP #000000,ANS2 ;000000 STILL IN AC3?  
BEQ .+4 ;BRANCH IF OK  
HLT+2 ;AC3 CHANGED

\*\*\*\*\*  
:TEST 32: TEST CMPF (COMPARE FLOATING POINT)  
: COMPARE 140177,177777 TO 140177,177777  
: FPS = 047404, FSRC = M6-R7, AC = AC3  
\*\*\*\*\*

004046 104400  
004050 000404

SCOPE  
BR TST32

004052 140177 177777  
004056 140177 177777

DTA32: 140177,177777  
DTB32: 140177,177777

004062 170127 047400  
004066 172767 177760  
004072 173767 177760  
004076 170200  
004100 022700 047404  
004104 001401  
004106 104000

TST32: LDFPS #047400 ;LOAD FLOATING POINT STATUS  
LDF DTA32, AC3 ;LOAD 140177,177777 INTO AC3  
CMPF DTB32, AC3 ;COMPARE 140177,177777 TO AC3  
STFPS FPS ;STORE FLOATING POINT STATUS  
CMP #047404,FPS ;CHECK FLOATING POINT STATUS  
BEQ .+4 ;BRANCH IF OK  
HLT ;FPS NOT EQUAL TO 047404

004110 174367 174666  
004114 022767 140177 174660  
004122 001401  
004124 104002

STF AC3, ANS1 ;STORE AC3 IN ANS1, ANS2  
CMP #140177,ANS1 ;140177 STILL IN AC3?  
BEQ .+4 ;BRANCH IF OK  
HLT+2 ;AC3 CHANGED

004126 022767 177777 174650  
004134 001401  
004136 104002

CMP #177777,ANS2 ;177777 STILL IN AC3?  
BEQ .+4 ;BRANCH IF OK  
HLT+2 ;AC3 CHANGED

\*\*\*\*\*  
:TEST 33: TEST CMPF (COMPARE FLOATING POINT)  
\*\*\*\*\*

COMPARE 002000,000000 TO 002000,000000  
FPS = 047404, FSRC = M6-R7, AC = AC3  
\*\*\*\*\*

004140	104400			SCOPE		
004142	000404			BR	TST33	
004144	002000	000000		DTA33:	002000,000000	
004150	002000	000000		DTB33:	002000,000000	
004154	170127	047400		TST33:	LDFPS #047400	:LOAD FLOATING POINT STATUS
004160	172767	177760		LDF	DTA33, AC3	:LOAD 002000,000000 INTO AC3
004164	173767	177760		CMPF	DTB33, AC3	:COMPARE 002000,000000 TO AC3
004170	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
004172	022700	047404		CMP	#047404,FPS	:CHECK FLOATING POINT STATUS
004176	001401			BEQ	+.4	:BRANCH IF OK
004200	104000			HLT		:FPS NOT EQUAL TO 047404
004202	174367	174574		STF	AC3, ANS1	:STORE AC3 IN ANS1, ANS2
004206	022767	002000	174566	CMP	#002000,ANS1	:002000 STILL IN AC3?
004214	001401			BEQ	+.4	:BRANCH IF OK
004216	104002			HLT+2		:AC3 CHANGED
004220	022767	000000	174556	CMP	#000000,ANS2	:000000 STILL IN AC3?
004226	001401			BEQ	+.4	:BRANCH IF OK
004230	104002			HLT+2		:AC3 CHANGED

\*\*\*\*\*  
TEST 34: TEST CMPF (COMPARE FLOATING POINT)  
COMPARE 125252,125252 TO 125252,125252  
FPS = 047404, FSRC = M6-R7, AC = AC2  
\*\*\*\*\*

004232	104400			SCOPE		
004234	000404			BR	TST34	
004236	125252	125252		DTA34:	125252,125252	
004242	125252	125252		DTB34:	125252,125252	
004246	170127	047400		TST34:	LDFPS #047400	:LOAD FLOATING POINT STATUS
004252	172667	177760		LDF	DTA34, AC2	:LOAD 125252,125252 INTO AC2
004256	173667	177760		CMPF	DTB34, AC2	:COMPARE 125252,125252 TO AC2
004262	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
004264	022700	047404		CMP	#047404,FPS	:CHECK FLOATING POINT STATUS
004270	001401			BEQ	+.4	:BRANCH IF OK
004272	104000			HLT		:FPS NOT EQUAL TO 047404
004274	174267	174502		STF	AC2, ANS1	:STORE AC2 IN ANS1, ANS2
004300	022767	125252	174474	CMP	#125252,ANS1	:125252 STILL IN AC2?
004306	001401			BEQ	+.4	:BRANCH IF OK
004310	104002			HLT+2		:AC2 CHANGED
004312	022767	125252	174464	CMP	#125252,ANS2	:125252 STILL IN AC2?
004320	001401			BEQ	+.4	:BRANCH IF OK
004322	104002			HLT+2		:AC2 CHANGED

```

*****
:TEST 35: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 052525,052525 TO 052525,052525
:FPS = 047404, FSRC = M6-R7, AC = AC2
*****

```

```

004324 104400          SCOPE
004326 000404          BR      TST35

004330 052525 052525   DTA35: 052525,052525
004334 052525 052525   DTB35: 052525,052525

004340 170127 047400   TST35: LDFPS #047400      ;LOAD FLOATING POINT STATUS
004344 172667 177760   LDF      DTA35, AC2      ;LOAD 052525,052525 INTO AC2
004350 173667 177760   CMPF     DTB35, AC2      ;COMPARE 052525,052525 TO AC2
004354 170200          STFPS    FPS              ;STORE FLOATING POINT STATUS
004356 022700 047404   CMP      #047404,FPS     ;CHECK FLOATING POINT STATUS
004362 001401          BEQ      .+4              ;BRANCH IF OK
004364 104000          HLT                    ;FPS NOT EQUAL TO 047404

004366 174267 174410   STF      AC2, ANS1       ;STORE AC2 IN ANS1, ANS2
004372 022767 052525 174402 CMP      #052525,ANS1    ;052525 STILL IN AC2?
004400 001401          BEQ      .+4              ;BRANCH IF OK
004402 104002          HLT+2                    ;AC2 CHANGED

004404 022767 052525 174372 CMP      #052525,ANS2    ;052525 STILL IN AC2?
004412 001401          BEQ      .+4              ;BRANCH IF OK
004414 104002          HLT+2                    ;AC2 CHANGED

```

```

*****
:TEST 36: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 120040,000200 TO 100040,000200
:FPS = 047410, FSRC = M6-R7, AC = AC3
*****

```

```

004416 104400          SCOPE
004420 000404          BR      TST36

004422 100040 000200   DTA36: 100040,000200
004426 120040 000200   DTB36: 120040,000200

004432 170127 040000   TST36: LDFPS #040000      ;LOAD FLOATING POINT STATUS
004436 172767 177760   LDF      DTA36, AC3      ;LOAD 100040,000200 INTO AC3
004442 170127 047400   LDFPS    #047400        ;LOAD FLOATING POINT STATUS
004446 173767 177754   FPI36: CMPF     DTB36, AC3 ;COMPARE 120040,000200 TO AC3
004452 170200          STFPS    FPS              ;STORE FLOATING POINT STATUS
004454 022700 047410   CMP      #047410,FPS     ;CHECK FLOATING POINT STATUS
004460 001401          BEQ      .+4              ;BRANCH IF OK
004462 104000          HLT                    ;FPS NOT EQUAL TO 047410

004464 174367 174312   STF      AC3, ANS1       ;STORE AC3 IN ANS1, ANS2
004470 022767 100040 174304 CMP      #100040,ANS1    ;100040 STILL IN AC3?
004476 001401          BEQ      .+4              ;BRANCH IF OK

```

```

004500 104002          HLT+2          ;AC3 CHANGED
004502 022767 000200 174274  CMP      #000200,ANS2 ;000200 STILL IN AC3?
004510 001401          BEQ      .+4        ;BRANCH IF OK
004512 104002          HLT+2          ;AC3 CHANGED

```

```

:*****
:TEST 37:      TEST CMPF (COMPARE FLOATING POINT)
:              COMPARE 000010,000020 TO 001010,000020
:              FPS = 047410, FSRC = M6-R7, AC = AC2
:*****

```

```

004514 104400          SCOPE
004516 000404          BR      TST37

004520 001010 000020  DTA37: 001010,000020
004524 000010 000020  DTB37: 000010,000020

004530 170127 047400  TST37: LDFPS  #047400 ;LOAD FLOATING POINT STATUS
004534 172667 177760  LDF      DTA37, AC2 ;LOAD 001010,000020 INTO AC2
004540 173667 177760  CMPF    DTB37, AC2 ;COMPARE 000010,000020 TO AC2
004544 170200          STFPS  FPS ;STORE FLOATING POINT STATUS
004546 022700 047410  CMP      #047410,FPS ;CHECK FLOATING POINT STATUS
004552 001401          BEQ      .+4        ;BRANCH IF OK
004554 104000          HLT          ;FPS NOT EQUAL TO 047410

004556 174267 174220  STF      AC2, ANS1 ;STORE AC2 IN ANS1, ANS2
004562 022767 001010 174212  CMP      #001010,ANS1 ;001010 STILL IN AC2?
004570 001401          BEQ      .+4        ;BRANCH IF OK
004572 104002          HLT+2          ;AC2 CHANGED

004574 022767 000020 174202  CMP      #000020,ANS2 ;000020 STILL IN AC2?
004602 001401          BEQ      .+4        ;BRANCH IF OK
004604 104002          HLT+2          ;AC2 CHANGED

```

```

:*****
:TEST 40:      TEST CMPF (COMPARE FLOATING POINT)
:              COMPARE 100010,002000 TO 000004,000300
:              FPS = 147417, FSRC = M6-R7, AC = AC0
:              FEC = 14, FEA = FPI40
:*****

```

```

004606 104400          SCOPE
004610 000404          BR      TST40

004612 000004 000300  DTA40: 000004,000300
004616 100010 002000  DTB40: 100010,002000

004622 170127 040000  TST40: LDFPS  #040000 ;LOAD FLOATING POINT STATUS
004626 172467 177760  LDF      DTA40, AC0 ;LOAD 000004,000300 INTO AC0
004632 170127 047417  LDFPS  #047417 ;LOAD FLOATING POINT STATUS
004636 173467 177754  FPI40: CMPF    DTB40, AC0 ;COMPARE 100010,002000 TO AC0
004642 170200          STFPS  FPS ;STORE FLOATING POINT STATUS
004644 170367 174152  STST   FEC ;STORE EXCEPTION CODES

```

004650	022700	147417		CMP	#147417, FPS	:CHECK FLOATING POINT STATUS
004654	001401			BEG	+.4	:BRANCH IF OK
004656	104000			HLT		:FPS NOT EQUAL TO 147417
004660	022767	000014	174134	CMP	#14, FEC	:CHECK FLOATING EXCEPTION CODE
004666	001401			BEG	+.4	:BRANCH IF OK
004670	104000			HLT		:FEC NOT EQUAL TO 14
004672	022767	004636	174124	CMP	#FPI40, FEA	:CHECK FLOATING EXCEPTION ADDRESS
004700	001401			BEG	+.4	:BRANCH IF OK
004702	104000			HLT		:FEA NOT EQUAL TO FPI40
004704	174067	174072		STF	ACD, ANS1	:STORE ACD IN ANS1, ANS2
004710	022767	000004	174064	CMP	#000004, ANS1	:000004 STILL IN ACD?
004716	001401			BEG	+.4	:BRANCH IF OK
004720	104002			HLT+2		:ACD CHANGED
004722	022767	000300	174054	CMP	#000300, ANS2	:000300 STILL IN ACD?
004730	001401			BEG	+.4	:BRANCH IF OK
004732	104002			HLT+2		:ACD CHANGED

```

*****
:TEST 41:      TEST CMPF (COMPARE FLOATING POINT)
:             COMPARE 100004,000050 TO 006030,000020
:             FPS = 147417,  FSRC = M6-R7,  AC = ACD
:             FEC = 14,    FEA = FPI41
*****

```

004734	104400			SCOPE		
004736	000404			BR	TST41	
004740	006030	000020		DTA41:	006030,000020	
004744	100004	000050		DTB41:	100004,000050	
004750	170127	040000		TST41:	LDFPS #040000	:LOAD FLOATING POINT STATUS
004754	172467	177760		LDF	DTA41, ACD	:LOAD 006030,000020 INTO ACD
004760	170127	047417		LDFPS	#047417	:LOAD FLOATING POINT STATUS
004764	173467	177754		FPI41:	DTB41, ACD	:COMPARE 100004,000050 TO ACD
004770	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
004772	170367	174024		STST	FEC	:STORE EXCEPTION CODES
004776	022700	147417		CMP	#147417, FPS	:CHECK FLOATING POINT STATUS
005002	001401			BEG	+.4	:BRANCH IF OK
005004	104000			HLT		:FPS NOT EQUAL TO 147417
005006	022767	000014	174006	CMP	#14, FEC	:CHECK FLOATING EXCEPTION CODE
005014	001401			BEG	+.4	:BRANCH IF OK
005016	104000			HLT		:FEC NOT EQUAL TO 14
005020	022767	004764	173776	CMP	#FPI41, FEA	:CHECK FLOATING EXCEPTION ADDRESS
005026	001401			BEG	+.4	:BRANCH IF OK
005030	104000			HLT		:FEA NOT EQUAL TO FPI41
005032	174067	173744		STF	ACD, ANS1	:STORE ACD IN ANS1, ANS2
005036	022767	006030	173736	CMP	#006030, ANS1	:006030 STILL IN ACD?
005044	001401			BEG	+.4	:BRANCH IF OK

```

005046 104002          HLT+2          ;ACD CHANGED
005050 022767 000020 173726  CMP      #000020,ANS2  ;000020 STILL IN ACD?
005056 001401          BEQ      .+4          ;BRANCH IF OK
005060 104002          HLT+2          ;ACD CHANGED

```

```

*****
:TEST 42:          TEST CMPF (COMPARE FLOATING POINT)
:                COMPARE 000040,005000 TO 100002,000030
:                FPS = 047404, FSRC = M6-R7, AC = ACD
*****

```

```

005062 104400          SCOPE
005064 000404          BR          TST42

005066 100002 000030  DTA42: 100002,000030
005072 000040 005000  DTB42: 000040,005000

005076 170127 040000  TST42: LDFPS  #040000          ;LOAD FLOATING POINT STATUS
005102 172467 177760  LDF      DTA42, ACD        ;LOAD 100002,000030 INTO ACD
005106 170127 047400  LDFPS  #047400          ;LOAD FLOATING POINT STATUS
005112 173467 177754  CMPF    DTB42, ACD        ;COMPARE 000040,005000 TO ACD
005116 170200          STFPS  FPS                ;STORE FLOATING POINT STATUS
005120 022700 047404  CMP     #047404,FPS       ;CHECK FLOATING POINT STATUS
005124 001401          BEQ     .+4                ;BRANCH IF OK
005126 104000          HLT                    ;FPS NOT EQUAL TO 047404

005130 174067 173646  STF     ACD, ANS1         ;STORE ACD IN ANS1, ANS2
005134 005767 173642  TST     ANS1              ;CHECK ANS1
005140 001401          BEQ     .+4                ;BRANCH IF OK
005142 104002          HLT+2          ;ACD NOT EQUAL TO ZERO

005144 005767 173634  TST     ANS2              ;CHECK ANS2
005150 001401          BEQ     .+4                ;BRANCH IF OK
005152 104002          HLT+2          ;ACD NOT EQUAL TO ZERO

```

```

*****
:TEST 43:          TEST CMPF (COMPARE FLOATING POINT)
:                COMPARE 100300,004000 TO 000010,002000
:                FPS = 047410, FSRC = M6-R7, AC = ACD
*****

```

```

005154 104400          SCOPE
005156 000404          BR          TST43

005160 000010 002000  DTA43: 000010,002000
005164 100300 004000  DTB43: 100300,004000

005170 170127 047400  TST43: LDFPS  #047400          ;LOAD FLOATING POINT STATUS
005174 172467 177760  LDF     DTA43, ACD        ;LOAD 000010,002000 INTO ACD
005200 173467 177760  CMPF    DTB43, ACD        ;COMPARE 100300,004000 TO ACD
005204 170200          STFPS  FPS                ;STORE FLOATING POINT STATUS
005206 022700 047410  CMP     #047410,FPS       ;CHECK FLOATING POINT STATUS
005212 001401          BEQ     .+4                ;BRANCH IF OK

```

# E03

MAINDEC-11-DCFPE-B  
DCFPEB.P11

TEST OF CMPF, CMPD  
TEST SECTION

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```
005214 104000          HLT          ;FPS NOT EQUAL TO 047410
005216 174067 173560   STF          ACO,   ANS1   ;STORE ACO IN ANS1, ANS2
005222 022767 000010 173552   CMP          #000010,ANS1 ;:000010 STILL IN ACO?
005230 001401          BEQ          .+4         ;BRANCH IF OK
005232 104002          HLT+2        ;ACO CHANGED

005234 022767 002000 173542   CMP          #002000,ANS2 ;:002000 STILL IN ACO?
005242 001401          BEQ          .+4         ;BRANCH IF OK
005244 104002          HLT+2        ;ACO CHANGED
```

```
*****
:TEST 44:      TEST CMPF (COMPARE FLOATING POINT)
:              COMPARE 100004,000050 TO 100002,000300
:              FPS = 147417,   FSRC = M6-R7,   AC = ACO
:              FEC = 14,      FEA = FPI44
*****
```

```
005246 104400          SCOPE
005250 000404          BR          TST44

005252 100002 000300   DTA44: 100002,000300
005256 100004 000050   DTB44: 100004,000050

005262 170127 040000   TST44: LDFPS   #040000   ;LOAD FLOATING POINT STATUS
005266 172467 177760   LDF        DTA44,   ACO   ;LOAD 100002,000300 INTO ACO
005272 170127 047417   LDFPS   #047417   ;LOAD FLOATING POINT STATUS
005276 173467 177754   FPI44: CMPF    DTB44,   ACO   ;COMPARE 100004,000050 TO ACO
005302 170200          STFPS   FPS          ;STORE FLOATING POINT STATUS
005304 170367 173512   STST     FEC        ;STORE EXCEPTION CODES
005310 022700 147417   CMP     #147417,FPS   ;CHECK FLOATING POINT STATUS
005314 001401          BEQ     .+4         ;BRANCH IF OK
005316 104000          HLT          ;FPS NOT EQUAL TO 147417

005320 022767 000014 173474   CMP     #14,   FEC    ;CHECK FLOATING EXCEPTION CODE
005326 001401          BEQ     .+4         ;BRANCH IF OK
005330 104000          HLT          ;FEC NOT EQUAL TO 14

005332 022767 005276 173464   CMP     #FPI44, FEA   ;CHECK FLOATING EXCEPTION ADDRESS
005340 001401          BEQ     .+4         ;BRANCH IF OK
005342 104000          HLT          ;FEA NOT EQUAL TO FPI44

005344 174067 173432   STF     ACO,   ANS1   ;STORE ACO IN ANS1, ANS2
005350 022767 100002 173424   CMP     #100002,ANS1 ;:100002 STILL IN ACO?
005356 001401          BEQ     .+4         ;BRANCH IF OK
005360 104002          HLT+2        ;ACO CHANGED

005362 022767 000300 173414   CMP     #000300,ANS2 ;:000300 STILL IN ACO?
005370 001401          BEQ     .+4         ;BRANCH IF OK
005372 104002          HLT+2        ;ACO CHANGED
```

```
*****
:TEST 45:      TEST CMPF (COMPARE FLOATING POINT)
:              COMPARE 100010,002000 TO 000004,000300
*****
```

FPS = 147417, FSRC = M6-R7, AC = ACO  
FEC = 14, FEA = FPI45  
\*\*\*\*\*

005374	104400			SCOPE			
005376	000404			BR	TST45		
005400	000004	000300		DTA45:	000004,000300		
005404	100010	002000		DTB45:	100010,002000		
005410	170127	040000		TST45:	LDFPS #040000	:LOAD FLOATING POINT STATUS	
005414	172467	177760		LDF	DTA45, ACO	:LOAD 000004,000300 INTO ACO	
005420	170127	047417		LDFPS	#047417	:LOAD FLOATING POINT STATUS	
005424	173467	177754		FPI45:	CMPF DTB45, ACO	:COMPARE 100010,002000 TO ACO	
005430	170200			STFPS	FPS -	:STORE FLOATING POINT STATUS	
005432	170367	173364		STST	FEC	:STORE EXCEPTION CODES	
005436	022700	147417		CMP	#147417,FPS	:CHECK FLOATING POINT STATUS	
005442	001401			BEQ	+.4	:BRANCH IF OK	
005444	104000			HLT		:FPS NOT EQUAL TO 147417	
005446	022767	000014	173346	CMP	#14, FEC	:CHECK FLOATING EXCEPTION CODE	
005454	001401			BEQ	+.4	:BRANCH IF OK	
005456	104000			HLT		:FEC NOT EQUAL TO 14	
005460	022767	005424	173336	CMP	#FPI45, FEA	:CHECK FLOATING EXCEPTION ADDRESS	
005466	001401			BEQ	+.4	:BRANCH IF OK	
005470	104000			HLT		:FEA NOT EQUAL TO FPI45	
005472	174067	173304		STF	ACO, ANS1	:STORE ACO IN ANS1, ANS2	
005476	022767	000004	173276	CMP	#000004,ANS1	:000004 STILL IN ACO?	
005504	001401			BEQ	+.4	:BRANCH IF OK	
005506	104002			HLT+2		:ACO CHANGED	
005510	022767	000300	173266	CMP	#000300,ANS2	:000300 STILL IN ACO?	
005516	001401			BEQ	+.4	:BRANCH IF OK	
005520	104002			HLT+2		:ACO CHANGED	

\*\*\*\*\*  
:TEST 46: TEST CMPF (COMPARE FLOATING POINT)  
:COMPARE 100004,000050 TO 006030,000020  
:FPS = 147417, FSRC = M6-R7, AC = ACO  
:FEC = 14, FEA = FPI46  
\*\*\*\*\*

005522	104400			SCOPE			
005524	000404			BR	TST46		
005526	006030	000020		DTA46:	006030,000020		
005532	100004	000050		DTB46:	100004,000050		
005536	170127	040000		TST46:	LDFPS #040000	:LOAD FLOATING POINT STATUS	
005542	172467	177760		LDF	DTA46, ACO	:LOAD 006030,000020 INTO ACO	
005546	170127	047417		LDFPS	#047417	:LOAD FLOATING POINT STATUS	
005552	173467	177754		FPI46:	CMPF DTB46, ACO	:COMPARE 100004,000050 TO ACO	
005556	170200			STFPS	FPS	:STORE FLOATING POINT STATUS	



005560	170367	173236		STST	FEC		:STORE EXCEPTION CODES
005564	022700	147417		CMP	#147417,FPS		:CHECK FLOATING POINT STATUS
005570	001401			BEQ	+.4		:BRANCH IF OK
005572	104000			HLT			:FPS NOT EQUAL TO 147417
005574	022767	000014	173220	CMP	#14, FEC		:CHECK FLOATING EXCEPTION CODE
005602	001401			BEQ	+.4		:BRANCH IF OK
005604	104000			HLT			:FEC NOT EQUAL TO 14
005606	022767	005552	173210	CMP	#FPI46, FEA		:CHECK FLOATING EXCEPTION ADDRESS
005614	001401			BEQ	+.4		:BRANCH IF OK
005616	104000			HLT			:FEA NOT EQUAL TO FPI46
005620	174067	173156		STF	ACD, ANS1		:STORE ACD IN ANS1, ANS2
005624	022767	006030	173150	CMP	#006030,ANS1		:006030 STILL IN ACD?
005632	001401			BEQ	+.4		:BRANCH IF OK
005634	104002			HLT+2			:ACD CHANGED
005636	022767	000020	173140	CMP	#000020,ANS2		:000020 STILL IN ACD?
005644	001401			BEQ	+.4		:BRANCH IF OK
005646	104002			HLT+2			:ACD CHANGED

```

*****
:TEST 47: TEST CMPF (COMPARE FLOATING POINT)
:COMPARE 100004,000050 TO 100002,000300
:FPS = 147417, FSRC = M6-R7, AC = ACD
:FEC = 14, FEA = FPI47
*****

```

005650	104400			SCOPE			
005652	000404			BR	TST47		
005654	100002	000300		DTA47:	100002,000300		
005660	100004	000050		DTB47:	100004,000050		
005664	170127	040000		TST47:	LDFPS #040000		:LOAD FLOATING POINT STATUS
005670	172467	177760		LDF	DTA47, ACD		:LOAD 100002,000300 INTO ACD
005674	170127	047417		LDFPS	#047417		:LOAD FLOATING POINT STATUS
005700	173467	177754		FPI47:	DTB47, ACD		:COMPARE 100004,000050 TO ACD
005704	170200			STFPS	FPS		:STORE FLOATING POINT STATUS
005706	170367	173110		STST	FEC		:STORE EXCEPTION CODES
005712	022700	147417		CMP	#147417,FPS		:CHECK FLOATING POINT STATUS
005716	001401			BEQ	+.4		:BRANCH IF OK
005720	104000			HLT			:FPS NOT EQUAL TO 147417
005722	022767	000014	173072	CMP	#14, FEC		:CHECK FLOATING EXCEPTION CODE
005730	001401			BEQ	+.4		:BRANCH IF OK
005732	104000			HLT			:FEC NOT EQUAL TO 14
005734	022767	005700	173062	CMP	#FPI47, FEA		:CHECK FLOATING EXCEPTION ADDRESS
005742	001401			BEQ	+.4		:BRANCH IF OK
005744	104000			HLT			:FEA NOT EQUAL TO FPI47
005746	174067	173030		STF	ACD, ANS1		:STORE ACD IN ANS1, ANS2
005752	022767	100002	173022	CMP	#100002,ANS1		:100002 STILL IN ACD?

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TEST OF CMPF, CMPD  
TEST SECTION

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005760	001401			BEQ	+.4			:BRANCH IF OK
005762	104002			HLT+2				:AC0 CHANGED
005764	022767	000300	173012	CMP	#000300,ANS2			:000300 STILL IN AC0?
005772	001401			BEQ	+.4			:BRANCH IF OK
005774	104002			HLT+2				:AC0 CHANGED

```

*****
:TEST 50:      TEST CMPF (COMPARE FLOATING POINT)
:             COMPARE 052525,052525 TO 125252,125252
:             FPS = 047400,   FSRC = MO-AC2,   AC = AC3
*****

```

005776	104400			SCOPE				
006000	000404			BR	TST50			
006002	125252	125252		DTA50:	125252,125252			
006006	052525	052525		DTB50:	052525,052525			
006012	170127	047400		TST50:	LDFPS	#047400		:LOAD FLOATING POINT STATUS
006016	172767	177760			LDF	DTA50, AC3		:LOAD 125252,125252 INTO AC3
006022	172667	177760			LDF	DTB50, AC2		:LOAD 052525,052525 INTO AC2
006026	173702				CMPF	AC2, AC3		:COMPARE AC2 TO AC3
006030	170200				STFPS	FPS		:STORE FLOATING POINT STATUS
006032	022700	047400			CMP	#047400,FPS		:CHECK FLOATING POINT STATUS
006036	001401				BEQ	+.4		:BRANCH IF OK
006040	104000				HLT			:FPS NOT EQUAL TO 047400
006042	174367	172734			STF	AC3, ANS1		:STORE AC3 IN ANS1, ANS2
006046	022767	125252	172726		CMP	#125252,ANS1		:125252 STILL IN AC3?
006054	001401				BEQ	+.4		:BRANCH IF OK
006056	104002				HLT+2			:AC3 CHANGED
006060	022767	125252	172716		CMP	#125252,ANS2		:125252 STILL IN AC3?
006066	001401				BEQ	+.4		:BRANCH IF OK
006070	104002				HLT+2			:AC3 CHANGED
006072	174267	172710			STF	AC2, ANS3		:STORE AC2 IN ANS3, ANS4
006076	022767	052525	172702		CMP	#052525,ANS3		:052525 STILL IN AC2?
006104	001401				BEQ	+.4		:BRANCH IF OK
006106	104004				HLT+4			:AC2 CHANGED
006110	022767	052525	172672		CMP	#052525,ANS4		:052525 STILL IN AC2?
006116	001401				BEQ	+.4		:BRANCH IF OK
006120	104004				HLT+4			:AC2 CHANGED

```

*****
:TEST 51:      TEST CMPF (COMPARE FLOATING POINT)
:             COMPARE 050525,052525 TO 052525,052525
:             FPS = 047410,   FSRC = MO-AC0,   AC = AC3
*****

```

006122	104400			SCOPE				
006124	000404			BR	TST51			

```

006126 052525 052525      DTAS1: 052525,052525
006132 050525 052525      DTB51: 050525,052525

006136 170127 047400      TST51: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
006142 172767 177760      LDF      DTAS1,  AC3      ;LOAD 052525,052525 INTO AC3
006146 172467 177760      LDF      DTB51,  AC0      ;LOAD 050525,052525 INTO AC0
006152 173700      CMPF     AC0,    AC3      ;COMPARE AC0 TO AC3
006154 170200      STFPS   FPS      ;STORE FLOATING POINT STATUS
006156 022700 047410      CMP      #047410,FPS      ;CHECK FLOATING POINT STATUS
006162 001401      BEQ     .+4          ;BRANCH IF OK
006164 104000      HLT

006166 174367 172610      STF      AC3,    ANS1      ;STORE AC3 IN ANS1, ANS2
006172 022767 052525 172602      CMP      #052525,ANS1      ;052525 STILL IN AC3?
006200 001401      BEQ     .+4          ;BRANCH IF OK
006202 104002      HLT+2      ;AC3 CHANGED

006204 022767 052525 172572      CMP      #052525,ANS2      ;052525 STILL IN AC3?
006212 001401      BEQ     .+4          ;BRANCH IF OK
006214 104002      HLT+2      ;AC3 CHANGED

006216 174067 172564      STF      AC0,    ANS3      ;STORE AC0 IN ANS3, ANS4
006222 022767 050525 172556      CMP      #050525,ANS3      ;050525 STILL IN AC0?
006230 001401      BEQ     .+4          ;BRANCH IF OK
006232 104004      HLT+4      ;AC0 CHANGED

006234 022767 052525 172546      CMP      #052525,ANS4      ;052525 STILL IN AC0?
006242 001401      BEQ     .+4          ;BRANCH IF OK
006244 104004      HLT+4      ;AC0 CHANGED

```

```

:*****
:TEST 52:      TEST CMPF (COMPARE FLOATING POINT)
:      COMPARE 071422,023456 TO 071422,123456
:      FPS = 047410,  FSRC = MD-AC3,  AC = AC1
:*****

```

```

006246 104400      SCOPE
006250 000404      BR      TST52

006252 071422 123456      DTAS2: 071422,123456
006256 071422 023456      DTB52: 071422,023456

006262 170127 047400      TST52: LDFPS  #047400      ;LOAD FLOATING POINT STATUS
006266 172567 177760      LDF      DTAS2,  AC1      ;LOAD 071422,123456 INTO AC1
006272 172767 177760      LDF      DTB52,  AC3      ;LOAD 071422,023456 INTO AC3
006276 173503      CMPF     AC3,    AC1      ;COMPARE AC3 TO AC1
006300 170200      STFPS   FPS      ;STORE FLOATING POINT STATUS
006302 022700 047410      CMP      #047410,FPS      ;CHECK FLOATING POINT STATUS
006306 001401      BEQ     .+4          ;BRANCH IF OK
006310 104000      HLT

006312 174167 172464      STF      AC1,    ANS1      ;STORE AC1 IN ANS1, ANS2
006316 022767 071422 172456      CMP      #071422,ANS1      ;071422 STILL IN AC1?
006324 001401      BEQ     .+4          ;BRANCH IF OK

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006326 104002          HLT+2          ;AC1 CHANGED
006330 022767 123456 172446  CMP      #123456,ANS2  ;123456 STILL IN AC1?
006336 001401          BEQ      .+4        ;BRANCH IF OK
006340 104002          HLT+2          ;AC1 CHANGED
006342 174367 172440          STF      AC3, ANS3    ;STORE AC3 IN ANS3, ANS4
006346 022767 071422 172432  CMP      #071422,ANS3 ;071422 STILL IN AC3?
006354 001401          BEQ      .+4        ;BRANCH IF OK
006356 104004          HLT+4          ;AC3 CHANGED
006360 022767 023456 172422  CMP      #023456,ANS4 ;023456 STILL IN AC3?
006366 001401          BEQ      .+4        ;BRANCH IF OK
006370 104004          HLT+4          ;AC3 CHANGED

```

```

:*****
:TEST 53:          TEST CMPF (COMPARE FLOATING POINT)
:          COMPARE 125252,125252 TO 125252,125252
:          FPS = 047404, FSRC = MD-AC1, AC = AC2
:*****

```

```

006372 104400          SCOPE
006374 000404          BR      TST53
006376 125252 125252          DTA53: 125252,125252
006402 125252 125252          DTB53: 125252,125252
006406 170127 047400          TST53: LDFPS  #047400    ;LOAD FLOATING POINT STATUS
006412 172667 177760          LDF      DTA53, AC2  ;LOAD 125252,125252 INTO AC2
006416 172567 177760          LDF      DTB53, AC1 ;LOAD 125252,125252 INTO AC1
006422 173601          CMPF     AC1, AC2    ;COMPARE AC1 TO AC2
006424 170200          STFPS   FPS          ;STORE FLOATING POINT STATUS
006426 022700 047404          CMP      #047404,FPS ;CHECK FLOATING POINT STATUS
006432 001401          BEQ      .+4        ;BRANCH IF OK
006434 104000          HLT          ;FPS NOT EQUAL TO 047404
006436 174267 172340          STF      AC2, ANS1   ;STORE AC2 IN ANS1, ANS2
006442 022767 125252 172332  CMP      #125252,ANS1 ;125252 STILL IN AC2?
006450 001401          BEQ      .+4        ;BRANCH IF OK
006452 104002          HLT+2          ;AC2 CHANGED
006454 022767 125252 172322  CMP      #125252,ANS2 ;125252 STILL IN AC2?
006462 001401          BEQ      .+4        ;BRANCH IF OK
006464 104002          HLT+2          ;AC2 CHANGED
006466 174167 172314          STF      AC1, ANS3   ;STORE AC1 IN ANS3, ANS4
006472 022767 125252 172306  CMP      #125252,ANS3 ;125252 STILL IN AC1?
006500 001401          BEQ      .+4        ;BRANCH IF OK
006502 104004          HLT+4          ;AC1 CHANGED
006504 022767 125252 172276  CMP      #125252,ANS4 ;125252 STILL IN AC1?
006512 001401          BEQ      .+4        ;BRANCH IF OK
006514 104004          HLT+4          ;AC1 CHANGED

```

\*\*\*\*\*  
:TEST 54: TEST CMPD (COMPARE DOUBLE PERCISION)  
: COMPARE 140000,000000,000000,000000 TO 040000,000000,000000,000000  
: FPS = 047610, FSRC = M6-R7, AC = AC1  
:\*\*\*\*\*

006516	104400				SCOPE				
006520	000410				BR	TST54			
006522	040000	000000	000000	DTA54:	040000,000000,000000,000000				
006530	000000								
006532	140000	000000	000000	DTB54:	140000,000000,000000,000000				
006540	000000								
006542	170127	047600		TST54:	LDFPS #047600			:LOAD FLOATING POINT STATUS	
006546	172567	177750			LDD DTA54, AC1			:LOAD 040000,000000,000000,000000 INTO AC1	
006552	173567	177754			CMPD DTB54, AC1			:COMPARE 140000,000000,000000,000000 TO AC1	
006556	170200				STFPS FPS			:STORE FLOATING POINT STATUS	
006560	022700	047610			CMP #047610,FPS			:CHECK FLOATING POINT STATUS	
006564	001401				BEQ .+4			:BRANCH IF OK	
006566	104000				HLT			:FPS NOT EQUAL TO 047610	
006570	174167	172206			STD AC1, ANS1			:STORE AC1 IN ANS1 THRU ANS4	
006574	022767	040000	172200		CMP #040000,ANS1			:040000 STILL IN AC1?	
006602	001401				BEQ .+4			:BRANCH IF OK	
006604	104004				HLT+4			:AC1 CHANGED	
006606	022767	000000	172170		CMP #000000,ANS2			:000000 STILL IN AC1?	
006614	001401				BEQ .+4			:BRANCH IF OK	
006616	104004				HLT+4			:AC1 CHANGED	
006620	022767	000000	172160		CMP #000000,ANS3			:000000 STILL IN AC1?	
006626	001401				BEQ .+4			:BRANCH IF OK	
006630	104004				HLT+4			:AC1 CHANGED	
006632	022767	000000	172150		CMP #000000,ANS4			:000000 STILL IN AC1?	
006640	001401				BEQ .+4			:BRANCH IF OK	
006642	104004				HLT+4			:AC1 CHANGED	

\*\*\*\*\*  
:TEST 55: TEST CMPD (COMPARE DOUBLE PERCISION)  
: COMPARE 040000,000000,000000,000000 TO 140000,000000,000000,000000  
: FPS = 047600, FSRC = M6-R7, AC = AC2  
:\*\*\*\*\*

006644	104400				SCOPE				
006646	000410				BR	TST55			
006650	140000	000000	000000	DTA55:	140000,000000,000000,000000				
006656	000000								
006660	040000	000000	000000	DTB55:	040000,000000,000000,000000				
006666	000000								
006670	170127	047600		TST55:	LDFPS #047600			:LOAD FLOATING POINT STATUS	
006674	172667	177750			LDD DTA55, AC2			:LOAD 140000,000000,000000,000000 INTO AC2	

006700	173667	177754		CMPD	DTB55, AC2	; COMPARE 040000,000000,000000,000000 TO AC2
006704	170200			STFPS	FPS	; STORE FLOATING POINT STATUS
006706	022700	047600		CMP	#047600,FPS	; CHECK FLOATING POINT STATUS
006712	001401			BEQ	.+4	; BRANCH IF OK
006714	104000			HLT		; FPS NOT EQUAL TO 047600
006716	174267	172060		STD	AC2, ANS1	; STORE AC2 IN ANS1 THRU ANS4
006722	022767	140000	172052	CMP	#140000,ANS1	; 140000 STILL IN AC2?
006730	001401			BEQ	.+4	; BRANCH IF OK
006732	104004			HLT+4		; AC2 CHANGED
006734	022767	000000	172042	CMP	#000000,ANS2	; 000000 STILL IN AC2?
006742	001401			BEQ	.+4	; BRANCH IF OK
006744	104004			HLT+4		; AC2 CHANGED
006746	022767	000000	172032	CMP	#000000,ANS3	; 000000 STILL IN AC2?
006754	001401			BEQ	.+4	; BRANCH IF OK
006756	104004			HLT+4		; AC2 CHANGED
006760	022767	000000	172022	CMP	#000000,ANS4	; 000000 STILL IN AC2?
006766	001401			BEQ	.+4	; BRANCH IF OK
006770	104004			HLT+4		; AC2 CHANGED

```

*****
:TEST S6:      TEST CMPD (COMPARE DOUBLE PERCISION)
:      COMPARE 177777,177777,177777,177777 TO 077777,177777,177777,177777
:      FPS = 047610,  FSRC = M6-R7,  AC = AC1
*****

```

006772	104400			SCOPE		
006774	000410			BR	TST56	
006776	077777	177777	177777	DTA56:	077777,177777,177777,177777	
007004	177777					
007006	177777	177777	177777	DTB56:	177777,177777,177777,177777	
007014	177777					
007016	170127	047600		TST56:	LDFPS	#047600
007022	172567	177750			LDD	DTA56, AC1
007026	173567	177754			CMPD	DTB56, AC1
007032	170200				STFPS	FPS
007034	022700	047610			CMP	#047610,FPS
007040	001401				BEQ	.+4
007042	104000				HLT	
						; LOAD FLOATING POINT STATUS
						; LOAD 077777,177777,177777,177777 INTO AC1
						; COMPARE 177777,177777,177777,177777 TO AC1
						; STORE FLOATING POINT STATUS
						; CHECK FLOATING POINT STATUS
						; BRANCH IF OK
						; FPS NOT EQUAL TO 047610
007044	174167	171732		STD	AC1, ANS1	; STORE AC1 IN ANS1 THRU ANS4
007050	022767	077777	171724	CMP	#077777,ANS1	; 077777 STILL IN AC1?
007056	001401			BEQ	.+4	; BRANCH IF OK
007060	104004			HLT+4		; AC1 CHANGED
007062	022767	177777	171714	CMP	#177777,ANS2	; 177777 STILL IN AC1?
007070	001401			BEQ	.+4	; BRANCH IF OK
007072	104004			HLT+4		; AC1 CHANGED
007074	022767	177777	171704	CMP	#177777,ANS3	; 177777 STILL IN AC1?

007102	001401			BEQ	+.4		;BRANCH IF OK
007104	104004			HLT+4			;AC1 CHANGED
007106	022767	177777	171674	CMP	#177777,ANS4		;177777 STILL IN AC1?
007114	001401			BEQ	+.4		;BRANCH IF OK
007116	104004			HLT+4			;AC1 CHANGED

```

*****
:TEST 57: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 077777,177777,177777,177777 TO 177777,177777,177777,177777
:FPS = 047600, FSRC = M6-R7, AC = AC3
*****

```

007120	104400			SCOPE			
007122	000410			BR	TST57		
007124	177777	177777	177777	DTA57:	177777,177777,177777,177777		
007132	177777						
007134	077777	177777	177777	DTB57:	077777,177777,177777,177777		
007142	177777						

007144	170127	047600		TST57:	LDFPS	#047600	;LOAD FLOATING POINT STATUS
007150	172767	177750			LDD	DTA57, AC3	;LOAD 177777,177777,177777,177777 INTO AC3
007154	173767	177754			CMPD	DTB57, AC3	;COMPARE 077777,177777,177777,177777 TO AC3
007160	170200				STFPS	FPS	;STORE FLOATING POINT STATUS
007162	022700	047600			CMP	#047600,FPS	;CHECK FLOATING POINT STATUS
007166	001401				BEQ	+.4	;BRANCH IF OK
007170	104000				HLT		;FPS NOT EQUAL TO 047600

007172	174367	171604		STD	AC3, ANS1		;STORE AC3 IN ANS1 THRU ANS4
007176	022767	177777	171576	CMP	#177777,ANS1		;177777 STILL IN AC3?
007204	001401			BEQ	+.4		;BRANCH IF OK
007206	104004			HLT+4			;AC3 CHANGED

007210	022767	177777	171566	CMP	#177777,ANS2		;177777 STILL IN AC3?
007216	001401			BEQ	+.4		;BRANCH IF OK
007220	104004			HLT+4			;AC3 CHANGED

007222	022767	177777	171556	CMP	#177777,ANS3		;177777 STILL IN AC3?
007230	001401			BEQ	+.4		;BRANCH IF OK
007232	104004			HLT+4			;AC3 CHANGED

007234	022767	177777	171546	CMP	#177777,ANS4		;177777 STILL IN AC3?
007242	001401			BEQ	+.4		;BRANCH IF OK
007244	104004			HLT+4			;AC3 CHANGED

```

*****
:TEST 60: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 125252,125252,125252,125252 TO 052525,052525,052525,052525
:FPS = 047610, FSRC = M6-R7, AC = AC1
*****

```

007246	104400			SCOPE			
007250	000410			BR	TST60		

```

007252 052525 052525 052525 DTA60: 052525,052525,052525,052525
007260 052525
007262 125252 125252 125252 DTB60: 125252,125252,125252,125252
007270 125252

007272 170127 047600          TST60: LDFPS #047600      ;LOAD FLOATING POINT STATUS
007276 172567 177750          LDD   DTA60, AC1      ;LOAD 052525,052525,052525,052525 INTO AC1
007302 173567 177754          CMPD  DTB60, AC1      ;COMPARE 125252,125252,125252,125252 TO AC1
007306 170200          STFPS FPS             ;STORE FLOATING POINT STATUS
007310 022700 047610          CMP   #047610,FPS     ;CHECK FLOATING POINT STATUS
007314 001401          BEQ   .+4             ;BRANCH IF OK
007316 104000          HLT                   ;FPS NOT EQUAL TO 047610

007320 174167 171456          STD   AC1, ANS1       ;STORE AC1 IN ANS1 THRU ANS4
007324 022767 052525 171450  CMP   #052525,ANS1    ;052525 STILL IN AC1?
007332 001401          BEQ   .+4             ;BRANCH IF OK
007334 104004          HLT+4                 ;AC1 CHANGED

007336 022767 052525 171440  CMP   #052525,ANS2    ;052525 STILL IN AC1?
007344 001401          BEQ   .+4             ;BRANCH IF OK
007346 104004          HLT+4                 ;AC1 CHANGED

007350 022767 052525 171430  CMP   #052525,ANS3    ;052525 STILL IN AC1?
007356 001401          BEQ   .+4             ;BRANCH IF OK
007360 104004          HLT+4                 ;AC1 CHANGED

007362 022767 052525 171420  CMP   #052525,ANS4    ;052525 STILL IN AC1?
007370 001401          BEQ   .+4             ;BRANCH IF OK
007372 104004          HLT+4                 ;AC1 CHANGED

```

```

:*****
:TEST 61: TEST CMPD (COMPARE DOUBLE PRECISION)
:COMPARE 052525,052525,052525,052525 TO 125252,125252,125252,125252
:FPS = 047600, FSRC = M6-R7, AC = ACO
:*****

```

```

007374 104400          SCOPE
007376 000410          BR   TST61

007400 125252 125252 125252 DTA61: 125252,125252,125252,125252
007406 125252
007410 052525 052525 052525 DTB61: 052525,052525,052525,052525
007416 052525

007420 170127 047600          TST61: LDFPS #047600      ;LOAD FLOATING POINT STATUS
007424 172467 177750          LDD   DTA61, ACO      ;LOAD 125252,125252,125252,125252 INTO ACO
007430 173467 177754          CMPD  DTB61, ACO      ;COMPARE 052525,052525,052525,052525 TO ACO
007434 170200          STFPS FPS             ;STORE FLOATING POINT STATUS
007436 022700 047600          CMP   #047600,FPS     ;CHECK FLOATING POINT STATUS
007442 001401          BEQ   .+4             ;BRANCH IF OK
007444 104000          HLT                   ;FPS NOT EQUAL TO 047600

007446 174067 171330          STD   ACO, ANS1       ;STORE ACO IN ANS1 THRU ANS4
007452 022767 125252 171322  CMP   #125252,ANS1    ;125252 STILL IN ACO?

```



007460	001401			BEQ	.+4	:BRANCH IF OK
007462	104004			HLT+4		:ACO CHANGED
007464	022767	125252	171312	CMP	#125252,ANS2	:125252 STILL IN ACO?
007472	001401			BEQ	.+4	:BRANCH IF OK
007474	104004			HLT+4		:ACO CHANGED
007476	022767	125252	171302	CMP	#125252,ANS3	:125252 STILL IN ACO?
007504	001401			BEQ	.+4	:BRANCH IF OK
007506	104004			HLT+4		:ACO CHANGED
007510	022767	125252	171272	CMP	#125252,ANS4	:125252 STILL IN ACO?
007516	001401			BEQ	.+4	:BRANCH IF OK
007520	104004			HLT+4		:ACO CHANGED

```

:*****
:TEST 62: TEST CMPD (COMPARE DOUBLE PERCISION)
:          COMPARE 140052,125252,125252,125252 TO 040052,052522,052522,052525
:          FPS = 047610, FSRC = M6-R7, AC = AC3
:*****

```

007522	104400			SCOPE		
007524	000410			BR	TST62	
007526	040052	052522	052522	DTA62:	040052,052522,052522,052525	
007534	052525					
007536	140052	125252	125252	DTB62:	140052,125252,125252,125252	
007544	125252					
007546	170127	047600		TST62:	LDFPS #047600	:LOAD FLOATING POINT STATUS
007552	172767	177750		LDD	DTA62, AC3	:LOAD 040052,052522,052522,052525 INTO AC3
007556	173767	177754		CMPD	DTB62, AC3	:COMPARE 140052,125252,125252,125252 TO AC3
007562	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
007564	022700	047610		CMP	#047610,FPS	:CHECK FLOATING POINT STATUS
007570	001401			BEQ	.+4	:BRANCH IF OK
007572	104000			HLT		:FPS NOT EQUAL TO 047610
007574	174367	171202		STD	AC3, ANS1	:STORE AC3 IN ANS1 THRU ANS4
007600	022767	040052	171174	CMP	#040052,ANS1	:040052 STILL IN AC3?
007606	001401			BEQ	.+4	:BRANCH IF OK
007610	104004			HLT+4		:AC3 CHANGED
007612	022767	052522	171164	CMP	#052522,ANS2	:052522 STILL IN AC3?
007620	001401			BEQ	.+4	:BRANCH IF OK
007622	104004			HLT+4		:AC3 CHANGED
007624	022767	052522	171154	CMP	#052522,ANS3	:052522 STILL IN AC3?
007632	001401			BEQ	.+4	:BRANCH IF OK
007634	104004			HLT+4		:AC3 CHANGED
007636	022767	052525	171144	CMP	#052525,ANS4	:052525 STILL IN AC3?
007644	001401			BEQ	.+4	:BRANCH IF OK
007646	104004			HLT+4		:AC3 CHANGED

```

*****
:TEST 63:      TEST CMPD (COMPARE DOUBLE PERCISION)
:      COMPARE 040052,125252,125252,125252 TO 140052,052522,052522,052525
:      FPS = 047600,  FSRC = M6-R7,  AC = AC1
*****

```

```

007650 104400          SCOPE
007652 000410          BR      TST63

007654 140052 052522 052522 DTA63: 140052,052522,052522,052525
007662 052525
007664 040052 125252 125252 DTB63: 040052,125252,125252,125252
007672 125252

007674 170127 047600      TST63: LDFPS  #047600      :LOAD FLOATING POINT STATUS
007700 172567 177750      LDD      DTA63, AC1      :LOAD 140052,052522,052522,052525 INTO AC1
007704 173567 177754      CMPD     DTB63, AC1      :COMPARE 040052,125252,125252,125252 TO AC1
007710 170200      STFPS   FPS              :STORE FLOATING POINT STATUS
007712 022700 047600      CMP      #047600,FPS     :CHECK FLOATING POINT STATUS
007716 001401      BEQ     .+4              :BRANCH IF OK
007720 104000      HLT                    :FPS NOT EQUAL TO 047600

007722 174167 171054      STD      AC1, ANS1       :STORE AC1 IN ANS1 THRU ANS4
007726 022767 140052 171046  CMP      #140052,ANS1    :140052 STILL IN AC1?
007734 001401      BEQ     .+4              :BRANCH IF OK
007736 104004      HLT+4                    :AC1 CHANGED

007740 022767 052522 171036  CMP      #052522,ANS2    :052522 STILL IN AC1?
007746 001401      BEQ     .+4              :BRANCH IF OK
007750 104004      HLT+4                    :AC1 CHANGED

007752 022767 052522 171026  CMP      #052522,ANS3    :052522 STILL IN AC1?
007760 001401      BEQ     .+4              :BRANCH IF OK
007762 104004      HLT+4                    :AC1 CHANGED

007764 022767 052525 171016  CMP      #052525,ANS4    :052525 STILL IN AC1?
007772 001401      BEQ     .+4              :BRANCH IF OK
007774 104004      HLT+4                    :AC1 CHANGED

```

```

*****
:TEST 64:      TEST CMPD (COMPARE DOUBLE PERCISION)
:      COMPARE 000525,052525,052525,052525 TO 000252,125252,125252,125252
:      FPS = 047600,  FSRC = M6-R7,  AC = AC2
*****

```

```

007776 104400          SCOPE
010000 000410          BR      TST64

010002 000252 125252 125252 DTA64: 000252,125252,125252,125252
010010 125252
010012 000525 052525 052525 DTB64: 000525,052525,052525,052525
010020 052525

010022 170127 047600      TST64: LDFPS  #047600      :LOAD FLOATING POINT STATUS
010026 172667 177750      LDD      DTA64, AC2      :LOAD 000252,125252,125252,125252 INTO AC2

```

010032	173667	177754		CMPD	DTB64, AC2	: COMPARE 000525, 052525, 052525, 052525 TO AC2
010036	170200			STFPS	FPS	: STORE FLOATING POINT STATUS
010040	022700	047600		CMP	#047600, FPS	: CHECK FLOATING POINT STATUS
010044	001401			BEQ	.+4	: BRANCH IF OK
010046	104000			HLT		: FPS NOT EQUAL TO 047600
010050	174267	170726		STD	AC2, ANS1	: STORE AC2 IN ANS1 THRU ANS4
010054	022767	000252	170720	CMP	#000252, ANS1	: 000252 STILL IN AC2?
010062	001401			BEQ	.+4	: BRANCH IF OK
010064	104004			HLT+4		: AC2 CHANGED
010066	022767	125252	170710	CMP	#125252, ANS2	: 125252 STILL IN AC2?
010074	001401			BEQ	.+4	: BRANCH IF OK
010076	104004			HLT+4		: AC2 CHANGED
010100	022767	125252	170700	CMP	#125252, ANS3	: 125252 STILL IN AC2?
010106	001401			BEQ	.+4	: BRANCH IF OK
010110	104004			HLT+4		: AC2 CHANGED
010112	022767	125252	170670	CMP	#125252, ANS4	: 125252 STILL IN AC2?
010120	001401			BEQ	.+4	: BRANCH IF OK
010122	104004			HLT+4		: AC2 CHANGED

\*\*\*\*\*  
: TEST 65: TEST CMPD (COMPARE DOUBLE PRECISION)  
: COMPARE 037777, 177777, 177777, 177777 TO 040000, 000000, 000000, 000000  
: FPS = 047610, FSRC = M6-R7, AC = AC2  
\*\*\*\*\*

010124	104400			SCOPE		
010126	000410			BR	TST65	
010130	040000	000000	000000	DTA65:	040000, 000000, 000000, 000000	
010136	000000					
010140	037777	177777	177777	DTB65:	037777, 177777, 177777, 177777	
010146	177777					
010150	170127	047600		TST65:	LDFPS #047600	: LOAD FLOATING POINT STATUS
010154	172667	177750		LDD	DTA65, AC2	: LOAD 040000, 000000, 000000, 000000 INTO AC2
010160	173667	177754		CMPD	DTB65, AC2	: COMPARE 037777, 177777, 177777, 177777 TO AC2
010164	170200			STFPS	FPS	: STORE FLOATING POINT STATUS
010166	022700	047610		CMP	#047610, FPS	: CHECK FLOATING POINT STATUS
010172	001401			BEQ	.+4	: BRANCH IF OK
010174	104000			HLT		: FPS NOT EQUAL TO 047610
010176	174267	170600		STD	AC2, ANS1	: STORE AC2 IN ANS1 THRU ANS4
010202	022767	040000	170572	CMP	#040000, ANS1	: 040000 STILL IN AC2?
010210	001401			BEQ	.+4	: BRANCH IF OK
010212	104004			HLT+4		: AC2 CHANGED
010214	022767	000000	170562	CMP	#000000, ANS2	: 000000 STILL IN AC2?
010222	001401			BEQ	.+4	: BRANCH IF OK
010224	104004			HLT+4		: AC2 CHANGED
010226	022767	000000	170552	CMP	#000000, ANS3	: 000000 STILL IN AC2?

E04

MAINDEC-11-DCFPE-B  
DCFPEB.P11

TEST OF CMPF, CMPD  
TEST SECTION

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010234 001401  
010236 104004

BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC2 CHANGED

010240 022767 000000 170542  
010246 001401  
010250 104004

CMP #000000,ANS4 ;000000 STILL IN AC2?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC2 CHANGED

\*\*\*\*\*  
:TEST 66: TEST CMPD (COMPARE DOUBLE PERCISION)  
:COMPARE 137777,177777,177777,177777 TO 140000,000000,000000,000000  
:FPS = 047600, FSRC = M6-R7, AC = AC1  
\*\*\*\*\*

010252 104400  
010254 000410

SCOPE  
BR TST66

010256 140000 000000 000000  
010264 000000  
010266 137777 177777  
010274 177777

DTA66: 140000,000000,000000,000000  
DTB66: 137777,177777,177777,177777

010276 170127 047600  
010302 172567 177750  
010306 173567 177754  
010312 170200  
010314 022700 047600  
010320 001401  
010322 104000

TST66: LDFPS #047600 ;LOAD FLOATING POINT STATUS  
LDD DTA66, AC1 ;LOAD 140000,000000,000000,000000 INTO AC1  
CMPD DTB66, AC1 ;COMPARE 137777,177777,177777,177777 TO AC1  
STFPS FPS ;STORE FLOATING POINT STATUS  
CMP #047600,FPS ;CHECK FLOATING POINT STATUS  
BEQ .+4 ;BRANCH IF OK  
HLT ;FPS NOT EQUAL TO 047600

010324 174167 170452  
010330 022767 140000 170444  
010336 001401  
010340 104004

STD AC1, ANS1 ;STORE AC1 IN ANS1 THRU ANS4  
CMP #140000,ANS1 ;140000 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

010342 022767 000000 170434  
010350 001401  
010352 104004

CMP #000000,ANS2 ;000000 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

010354 022767 000000 170424  
010362 001401  
010364 104004

CMP #000000,ANS3 ;000000 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

010366 022767 000000 170414  
010374 001401  
010376 104004

CMP #000000,ANS4 ;000000 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

\*\*\*\*\*  
:TEST 67: TEST CMPD (COMPARE DOUBLE PERCISION)  
:COMPARE 052725,052525,052525,052525 TO 052525,052525,052525,052525  
:FPS = 047600, FSRC = M6-R7, AC = AC0  
\*\*\*\*\*

010400 104400  
010402 000410

SCOPE  
BR TST67

# F04

MAINDEC-11-DCFPE-B  
DCFPEB.P11

TEST OF CMPF, CMPD  
TEST SECTION

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```
010404 052525 052525 052525 DTA67: 052525,052525,052525,052525
010412 052525
010414 052725 052525 052525 DTB67: 052725,052525,052525,052525
010422 052525

010424 170127 047600          TST67: LDFPS #047600      ;LOAD FLOATING POINT STATUS
010430 172467 177750          LDD   DTA67,  AC0  ;LOAD 052525,052525,052525,052525 INTO AC0
010434 173467 177754          CMPD  DTB67,  AC0  ;COMPARE 052725,052525,052525,052525 TO AC0
010440 170200          STFPS FPS          ;STORE FLOATING POINT STATUS
010442 022700 047600          CMP   #047600,FPS ;CHECK FLOATING POINT STATUS
010446 001401          BEQ   .+4         ;BRANCH IF OK
010450 104000          HLT                   ;FPS NOT EQUAL TO 047600

010452 174067 170324          STD   AC0,  ANS1  ;STORE AC0 IN ANS1 THRU ANS4
010456 022767 052525 170316  CMP   #052525,ANS1 ;052525 STILL IN AC0?
010464 001401          BEQ   .+4         ;BRANCH IF OK
010466 104004          HLT+4              ;AC0 CHANGED

010470 022767 052525 170306  CMP   #052525,ANS2 ;052525 STILL IN AC0?
010476 001401          BEQ   .+4         ;BRANCH IF OK
010500 104004          HLT+4              ;AC0 CHANGED

010502 022767 052525 170276  CMP   #052525,ANS3 ;052525 STILL IN AC0?
010510 001401          BEQ   .+4         ;BRANCH IF OK
010512 104004          HLT+4              ;AC0 CHANGED

010514 022767 052525 170266  CMP   #052525,ANS4 ;052525 STILL IN AC0?
010522 001401          BEQ   .+4         ;BRANCH IF OK
010524 104004          HLT+4              ;AC0 CHANGED
```

```
*****
:TEST 70:          TEST CMPD (COMPARE DOUBLE PRECISION)
:          COMPARE 125252,125252,125252,125252 TO 125052,125252,125252,125252
:          FPS = 047610,  FSRC = M6-R7,  AC = AC2
*****
```

```
010526 104400          SCOPE
010530 000410          BR      TST70

010532 125052 125252 125252 DTA70: 125052,125252,125252,125252
010540 125252
010542 125252 125252 125252 DTB70: 125252,125252,125252,125252
010550 125252

010552 170127 047600          TST70: LDFPS #047600      ;LOAD FLOATING POINT STATUS
010556 172667 177750          LDD   DTA70,  AC2  ;LOAD 125052,125252,125252,125252 INTO AC2
010562 173667 177754          CMPD  DTB70,  AC2  ;COMPARE 125252,125252,125252,125252 TO AC2
010566 170200          STFPS FPS          ;STORE FLOATING POINT STATUS
010570 022700 047610          CMP   #047610,FPS ;CHECK FLOATING POINT STATUS
010574 001401          BEQ   .+4         ;BRANCH IF OK
010576 104000          HLT                   ;FPS NOT EQUAL TO 047610

010600 174267 170176          STD   AC2,  ANS1  ;STORE AC2 IN ANS1 THRU ANS4
010604 022767 125052 170170  CMP   #125052,ANS1 ;125052 STILL IN AC2?
```

```

010612 001401      BEQ      .+4      ;BRANCH IF OK
010614 104004      HLT+4          ;AC2 CHANGED

010616 022767 125252 170160  CMP      #125252,ANS2 ;125252 STILL IN AC2?
010624 001401      BEQ      .+4      ;BRANCH IF OK
010626 104004      HLT+4          ;AC2 CHANGED

010630 022767 125252 170150  CMP      #125252,ANS3 ;125252 STILL IN AC2?
010636 001401      BEQ      .+4      ;BRANCH IF OK
010640 104004      HLT+4          ;AC2 CHANGED

010642 022767 125252 170140  CMP      #125252,ANS4 ;125252 STILL IN AC2?
010650 001401      BEQ      .+4      ;BRANCH IF OK
010652 104004      HLT+4          ;AC2 CHANGED

```

```

:*****
:TEST 71:      TEST CMPD (COMPARE DOUBLE PRECISION)
:      COMPARE 056525,052525,052525,052525 TO 052525,052525,052525,052525
:      FPS = 047600, FSRC = M6-R7, AC = AC2
:*****

```

```

010654 104400      SCOPE
010656 000410      BR      TST71

010660 052525 052525 052525 052525  DTA71: 052525,052525,052525,052525
010666 052525
010670 056525 052525 052525  DTB71: 056525,052525,052525,052525
010676 052525

010700 170127 047600      TST71: LDFPS  #047600      ;LOAD FLOATING POINT STATUS
010704 172667 177750      LDD      DTA71, AC2 ;LOAD 052525,052525,052525,052525 INTO AC2
010710 173667 177754      CMPD    DTB71, AC2 ;COMPARE 056525,052525,052525,052525 TO AC2
010714 170200      STFPS  FPS ;STORE FLOATING POINT STATUS
010716 022700 047600      CMP      #047600,FPS ;CHECK FLOATING POINT STATUS
010722 001401      BEQ      .+4      ;BRANCH IF OK
010724 104000      HLT ;FPS NOT EQUAL TO 047600

010726 174267 170050 170042  STD      AC2, ANS1 ;STORE AC2 IN ANS1 THRU ANS4
010732 022767 052525 170042  CMP      #052525,ANS1 ;052525 STILL IN AC2?
010740 001401      BEQ      .+4      ;BRANCH IF OK
010742 104004      HLT+4          ;AC2 CHANGED

010744 022767 052525 170032  CMP      #052525,ANS2 ;052525 STILL IN AC2?
010752 001401      BEQ      .+4      ;BRANCH IF OK
010754 104004      HLT+4          ;AC2 CHANGED

010756 022767 052525 170022  CMP      #052525,ANS3 ;052525 STILL IN AC2?
010764 001401      BEQ      .+4      ;BRANCH IF OK
010766 104004      HLT+4          ;AC2 CHANGED

010770 022767 052525 170012  CMP      #052525,ANS4 ;052525 STILL IN AC2?
010776 001401      BEQ      .+4      ;BRANCH IF OK
011000 104004      HLT+4          ;AC2 CHANGED

```

\*\*\*\*\*  
:TEST 72: TEST CMPD (COMPARE DOUBLE PRECISION)  
: COMPARE 052525,052525,052525,052525 TO 072525,052525,052525,052525  
: FPS = 047610, FSRC = M6-R7, AC = AC1  
:\*\*\*\*\*

011002	104400				SCOPE			
011004	000410				BR	TST72		
011006	072525	052525	052525	DTA72:	072525,052525,052525,052525			
011014	052525							
011016	052525	052525	052525	DTB72:	052525,052525,052525,052525			
011024	052525							
011026	170127	047600		TST72:	LDFPS #047600		:LOAD FLOATING POINT STATUS	
011032	172567	177750			LDD DTA72, AC1		:LOAD 072525,052525,052525,052525 INTO AC1	
011036	173567	177754			CMPD DTB72, AC1		:COMPARE 052525,052525,052525,052525 TO AC1	
011042	170200				STFPS FPS		:STORE FLOATING POINT STATUS	
011044	022700	047610			CMP #047610,FPS		:CHECK FLOATING POINT STATUS	
011050	001401				BEQ .+4		:BRANCH IF OK	
011052	104000				HLT		:FPS NOT EQUAL TO 047610	
011054	174167	167722			STD AC1, ANS1		:STORE AC1 IN ANS1 THRU ANS4	
011060	022767	072525	167714		CMP #072525,ANS1		:072525 STILL IN AC1?	
011066	001401				BEQ .+4		:BRANCH IF OK	
011070	104004				HLT+4		:AC1 CHANGED	
011072	022767	052525	167704		CMP #052525,ANS2		:052525 STILL IN AC1?	
011100	001401				BEQ .+4		:BRANCH IF OK	
011102	104004				HLT+4		:AC1 CHANGED	
011104	022767	052525	167674		CMP #052525,ANS3		:052525 STILL IN AC1?	
011112	001401				BEQ .+4		:BRANCH IF OK	
011114	104004				HLT+4		:AC1 CHANGED	
011116	022767	052525	167664		CMP #052525,ANS4		:052525 STILL IN AC1?	
011124	001401				BEQ .+4		:BRANCH IF OK	
011126	104004				HLT+4		:AC1 CHANGED	

\*\*\*\*\*  
:TEST 73: TEST CMPD (COMPARE DOUBLE PRECISION)  
: COMPARE 125252,125252,125252,125252 TO 105252,125252,125252,125252  
: FPS = 047610, FSRC = M6-R7, AC = AC3  
:\*\*\*\*\*

011130	104400				SCOPE			
011132	000410				BR	TST73		
011134	105252	125252	125252	DTA73:	105252,125252,125252,125252			
011142	125252							
011144	125252	125252	125252	DTB73:	125252,125252,125252,125252			
011152	125252							
011154	170127	047600		TST73:	LDFPS #047600		:LOAD FLOATING POINT STATUS	
011160	172767	177750			LDD DTA73, AC3		:LOAD 105252,125252,125252,125252 INTO AC3	

011164	173767	177754		CMPD	DTB73, AC3	:COMPARE 125252,125252,125252,125252 TO AC3
011170	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
011172	022700	047610		CMP	#047610,FPS	:CHECK FLOATING POINT STATUS
011176	001401			BEQ	.+4	:BRANCH IF OK
011200	104000			HLT		:FPS NOT EQUAL TO 047610
011202	174367	167574		STD	AC3, ANS1	:STORE AC3 IN ANS1 THRU ANS4
011206	022767	105252	167566	CMP	#105252,ANS1	:105252 STILL IN AC3?
011214	001401			BEQ	.+4	:BRANCH IF OK
011216	104004			HLT+4		:AC3 CHANGED
011220	022767	125252	167556	CMP	#125252,ANS2	:125252 STILL IN AC3?
011226	001401			BEQ	.+4	:BRANCH IF OK
011230	104004			HLT+4		:AC3 CHANGED
011232	022767	125252	167546	CMP	#125252,ANS3	:125252 STILL IN AC3?
011240	001401			BEQ	.+4	:BRANCH IF OK
011242	104004			HLT+4		:AC3 CHANGED
011244	022767	125252	167536	CMP	#125252,ANS4	:125252 STILL IN AC3?
011252	001401			BEQ	.+4	:BRANCH IF OK
011254	104004			HLT+4		:AC3 CHANGED

```

*****
:TEST 74: TEST CMPD (COMPARE DOUBLE PERCISION)
: COMPARE 165252,125252,125252,125252 TO 125252,125252,125252,125252
: FPS = 047610, FSRC = M6-R7, AC = AC2
*****

```

011256	104400			SCOPE		
011260	000410			BR	TST74	
011262	125252	125252	125252	DTA74:	125252,125252,125252,125252	
011270	125252					
011272	165252	125252	125252	DTB74:	165252,125252,125252,125252	
011300	125252					
011302	170127	047600		TST74:	LDFPS #047600	:LOAD FLOATING POINT STATUS
011306	172667	177750		LDD	DTA74, AC2	:LOAD 125252,125252,125252,125252 INTO AC2
011312	173667	177754		CMPD	DTB74, AC2	:COMPARE 165252,125252,125252,125252 TO AC2
011316	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
011320	022700	047610		CMP	#047610,FPS	:CHECK FLOATING POINT STATUS
011324	001401			BEQ	.+4	:BRANCH IF OK
011326	104000			HLT		:FPS NOT EQUAL TO 047610
011330	174267	167446		STD	AC2, ANS1	:STORE AC2 IN ANS1 THRU ANS4
011334	022767	125252	167440	CMP	#125252,ANS1	:125252 STILL IN AC2?
011342	001401			BEQ	.+4	:BRANCH IF OK
011344	104004			HLT+4		:AC2 CHANGED
011346	022767	125252	167430	CMP	#125252,ANS2	:125252 STILL IN AC2?
011354	001401			BEQ	.+4	:BRANCH IF OK
011356	104004			HLT+4		:AC2 CHANGED
011360	022767	125252	167420	CMP	#125252,ANS3	:125252 STILL IN AC2?



```

011366 001401      BEQ      .+4      ;BRANCH IF OK
011370 104004      HLT+4      ;AC2 CHANGED

011372 022767 125252 167410  CMP      #125252,ANS4 ;125252 STILL IN AC2?
011400 001401      BEQ      .+4      ;BRANCH IF OK
011402 104004      HLT+4      ;AC2 CHANGED

```

```

*****
:TEST 75:      TEST CMPD (COMPARE DOUBLE PERCISION)
:      COMPARE 040000,000000,000000,000001 TO 040000,000000,000000,000000
:      FPS = 047600, FSRC = M6-R7, AC = AC3
*****

```

```

011404 104400      SCOPE
011406 000410      BR      TST75

011410 040000 000000 000000  DTA75: 040000,000000,000000,000000
011416 000000
011420 040000 000000 000000  DTB75: 040000,000000,000000,000001
011426 000001

011430 170127 047600      TST75: LDFPS      #047600      ;LOAD FLOATING POINT STATUS
011434 172767 177750      LDD      DTA75, AC3      ;LOAD 040000,000000,000000,000000 INTO AC3
011440 173767 177754      CMPD     DTB75, AC3      ;COMPARE 040000,000000,000000,000001 TO AC3
011444 170200      STFPS     FPS      ;STORE FLOATING POINT STATUS
011446 022700 047600      CMP      #047600,FPS      ;CHECK FLOATING POINT STATUS
011452 001401      BEQ      .+4      ;BRANCH IF OK
011454 104000      HLT      ;FPS NOT EQUAL TO 047600

011456 174367 167320      STD      AC3, ANS1      ;STORE AC3 IN ANS1 THRU ANS4
011462 022767 040000 167312  CMP      #040000,ANS1      ;040000 STILL IN AC3?
011470 001401      BEQ      .+4      ;BRANCH IF OK
011472 104004      HLT+4      ;AC3 CHANGED

011474 022767 000000 167302  CMP      #000000,ANS2      ;000000 STILL IN AC3?
011502 001401      BEQ      .+4      ;BRANCH IF OK
011504 104004      HLT+4      ;AC3 CHANGED

011506 022767 000000 167272  CMP      #000000,ANS3      ;000000 STILL IN AC3?
011514 001401      BEQ      .+4      ;BRANCH IF OK
011516 104004      HLT+4      ;AC3 CHANGED

011520 022767 000000 167262  CMP      #000000,ANS4      ;000000 STILL IN AC3?
011526 001401      BEQ      .+4      ;BRANCH IF OK
011530 104004      HLT+4      ;AC3 CHANGED

```

```

*****
:TEST 76:      TEST CMPD (COMPARE DOUBLE PERCISION)
:      COMPARE 177777,177777,177777,177776 TO 177777,177777,177777,177777
:      FPS = 047600, FSRC = M6-R7, AC = AC1
*****

```

```

011532 104400      SCOPE
011534 000410      BR      TST76

```

011536 177777 177777 177777 DTA76: 177777,177777,177777,177777  
 011544 177777  
 011546 177777 177777 177777 DTB76: 177777,177777,177777,177776  
 011554 177776

011556 170127 047600 TST76: LDFPS #047600 ;LOAD FLOATING POINT STATUS  
 011562 172567 177750 LDD DTA76, AC1 ;LOAD 177777,177777,177777,177777 INTO AC1  
 011566 173567 177754 CMPD DTB76, AC1 ;COMPARE 177777,177777,177777,177776 TO AC1  
 011572 170200 STFPS FPS ;STORE FLOATING POINT STATUS  
 011574 022700 047600 CMP #047600,FPS ;CHECK FLOATING POINT STATUS  
 011600 001401 BEQ .+4 ;BRANCH IF OK  
 011602 104000 HLT ;FPS NOT EQUAL TO 047600

011604 174167 167172 STD AC1, ANS1 ;STORE AC1 IN ANS1 THRU ANS4  
 011610 022767 177777 167164 CMP #177777,ANS1 ;177777 STILL IN AC1?  
 011616 001401 BEQ .+4 ;BRANCH IF OK  
 011620 104004 HLT+4 ;AC1 CHANGED

011622 022767 177777 167154 CMP #177777,ANS2 ;177777 STILL IN AC1?  
 011630 001401 BEQ .+4 ;BRANCH IF OK  
 011632 104004 HLT+4 ;AC1 CHANGED

011634 022767 177777 167144 CMP #177777,ANS3 ;177777 STILL IN AC1?  
 011642 001401 BEQ .+4 ;BRANCH IF OK  
 011644 104004 HLT+4 ;AC1 CHANGED

011646 022767 177777 167134 CMP #177777,ANS4 ;177777 STILL IN AC1?  
 011654 001401 BEQ .+4 ;BRANCH IF OK  
 011656 104004 HLT+4 ;AC1 CHANGED

\*\*\*\*\*  
 :TEST 77: TEST CMPD (COMPARE DOUBLE PERCISION)  
 : COMPARE 000010,011100,011100,011101 TO 000010,010100,010100,010101  
 : FPS = 047604, FSRC = M6-R7, AC = AC1  
 :\*\*\*\*\*

011660 104400 SCOPE  
 011662 000410 BR TST77  
 011664 000010 010100 010100 DTA77: 000010,010100,010100,010101  
 011672 010101  
 011674 000010 011100 011100 DTB77: 000010,011100,011100,011101  
 011702 011101

011704 170127 040200 TST77: LDFPS #040200 ;LOAD FLOATING POINT STATUS  
 011710 172567 177750 LDD DTA77, AC1 ;LOAD 000010,010100,010100,010101 INTO AC1  
 011714 170127 047600 LDFPS #047600 ;LOAD FLOATING POINT STATUS  
 011720 173567 177750 CMPD DTB77, AC1 ;COMPARE 000010,011100,011100,011101 TO AC1  
 011724 170200 STFPS FPS ;STORE FLOATING POINT STATUS  
 011726 022700 047604 CMP #047604,FPS ;CHECK FLOATING POINT STATUS  
 011732 001401 BEQ .+4 ;BRANCH IF OK  
 011734 104000 HLT ;FPS NOT EQUAL TO 047604

011736 174167 167040 STD AC1, ANS1 ;STORE AC1 IN ANS1 THRU ANS4

011742	005767	167034	TST	ANS1	;CHECK ANS1
011746	001401		BEQ	.+4	;BRANCH IF OK
011750	104004		HLT+4		;AC1 NOT EQUAL TO ZERO
011752	005767	167026	TST	ANS2	;CHECK ANS2
011756	001401		BEQ	.+4	;BRANCH IF OK
011760	104004		HLT+4		;AC1 NOT EQUAL TO ZERO
011762	005767	167020	TST	ANS3	;CHECK ANS3
011766	001401		BEQ	.+4	;BRANCH IF OK
011770	104004		HLT+4		;AC1 NOT EQUAL TO ZERO
011772	005767	167012	TST	ANS4	;CHECK ANS4
011776	001401		BEQ	.+4	;BRANCH IF OK
012000	104004		HLT+4		;AC1 NOT EQUAL TO ZERO

```

:*****
:TEST 100: TEST CMPD (COMPARE DOUBLE PERCISION)
:          COMPARE 135313,135313,135313,135313 TO 135213,135313,135313,135313
:          FPS = 047610, FSRC = M6-R7, AC = AC2
:*****

```

012002	104400		SCOPE		
012004	000410		BR	TST100	
012006	135213	135313	DTA100:	135213,135313,135313,135313	
012014	135313				
012016	135313	135313	DTB100:	135313,135313,135313,135313	
012024	135313				
012026	170127	047600	TST100:	LDFPS	#047600
012032	172667	177750		LDD	DTA100, AC2
012036	173667	177754		CMPD	DTB100, AC2
012042	170200			STFPS	FPS
012044	022700	047610		CMP	#047610,FPS
012050	001401			BEQ	.+4
012052	104000			HLT	
					;LOAD FLOATING POINT STATUS
					;LOAD 135213,135313,135313,135313 INTO AC2
					;COMPARE 135313,135313,135313,135313 TO AC2
					;STORE FLOATING POINT STATUS
					;CHECK FLOATING POINT STATUS
					;BRANCH IF OK
					;FPS NOT EQUAL TO 047610
012054	174267	166722	STD	AC2, ANS1	;STORE AC2 IN ANS1 THRU ANS4
012060	022767	135213	CMP	#135213,ANS1	;135213 STILL IN AC2?
012066	001401		BEQ	.+4	;BRANCH IF OK
012070	104004		HLT+4		;AC2 CHANGED
012072	022767	135313	CMP	#135313,ANS2	;135313 STILL IN AC2?
012100	001401		BEQ	.+4	;BRANCH IF OK
012102	104004		HLT+4		;AC2 CHANGED
012104	022767	135313	CMP	#135313,ANS3	;135313 STILL IN AC2?
012112	001401		BEQ	.+4	;BRANCH IF OK
012114	104004		HLT+4		;AC2 CHANGED
012116	022767	135313	CMP	#135313,ANS4	;135313 STILL IN AC2?
012124	001401		BEQ	.+4	;BRANCH IF OK
012126	104004		HLT+4		;AC2 CHANGED

\*\*\*\*\*  
:TEST 101: TEST CMPD (COMPARE DOUBLE PERCISION)  
:COMPARE 071422,023452,023452,023456 TO 071422,123452,123452,123456  
:FPS = 047610, FSRC = M6-R7, AC = AC1  
:\*\*\*\*\*

012130 104400  
012132 000410

SCOPE  
BR TST101

012134 071422 123452 123452 DTA101: 071422,123452,123452,123456  
012142 123456  
012144 071422 023452 023452 DTB101: 071422,023452,023452,023456  
012152 023456

012154 170127 047600  
012160 172567 177750  
012164 173567 177754  
012170 170200  
012172 022700 047610  
012176 001401  
012200 104000

TST101: LDFPS #047600 ;LOAD FLOATING POINT STATUS  
LDD DTA101, AC1 ;LOAD 071422,123452,123452,123456 INTO AC1  
CMPD DTB101, AC1 ;COMPARE 071422,023452,023452,023456 TO AC1  
STFPS FPS ;STORE FLOATING POINT STATUS  
CMP #047610,FPS ;CHECK FLOATING POINT STATUS  
BEQ .+4 ;BRANCH IF OK  
HLT ;FPS NOT EQUAL TO 047610

012202 174167 166574  
012206 022767 071422 166566  
012214 001401  
012216 104004

STD AC1 ANS1 ;STORE AC1 IN ANS1 THRU ANS4  
CMP #071422,ANS1 ;071422 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

012220 022767 123452 166556  
012226 001401  
012230 104004

CMP #123452,ANS2 ;123452 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

012232 022767 123452 166546  
012240 001401  
012242 104004

CMP #123452,ANS3 ;123452 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

012244 022767 123456 166536  
012252 001401  
012254 104004

CMP #123456,ANS4 ;123456 STILL IN AC1?  
BEQ .+4 ;BRANCH IF OK  
HLT+4 ;AC1 CHANGED

\*\*\*\*\*  
:TEST 102: TEST CMPD (COMPARE DOUBLE PERCISION)  
:COMPARE 154323,071623,071623,071625 TO 154321,071621,071621,071625  
:FPS = 047610, FSRC = M6-R7, AC = AC1  
:\*\*\*\*\*

012256 104400  
012260 000410

SCOPE  
BR TST102

012262 154321 071621 071621 DTA102: 154321,071621,071621,071625  
012270 071625  
012272 154323 071623 071623 DTB102: 154323,071623,071623,071625  
012300 071625

012302 170127 047600

TST102: LDFPS #047600 ;LOAD FLOATING POINT STATUS

012306	172567	177750		LDD	DTA102, AC1	:LOAD 154321,071621,071621,071625 INTO AC1
012312	173567	177754		CMPD	DTB102, AC1	:COMPARE 154323,071623,071623,071625 TO AC1
012316	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
012320	022700	047610		CMP	#047610,FPS	:CHECK FLOATING POINT STATUS
012324	001401			BEQ	+.4	:BRANCH IF OK
012326	104000			HLT		:FPS NOT EQUAL TO 047610
012330	174167	166446		STD	AC1, ANS1	:STORE AC1 IN ANS1 THRU ANS4
012334	022767	154321	166440	CMP	#154321,ANS1	:154321 STILL IN AC1?
012342	001401			BEQ	+.4	:BRANCH IF OK
012344	104004			HLT+4		:AC1 CHANGED
012346	022767	071621	166430	CMP	#071621,ANS2	:071621 STILL IN AC1?
012354	001401			BEQ	+.4	:BRANCH IF OK
012356	104004			HLT+4		:AC1 CHANGED
012360	022767	071621	166420	CMP	#071621,ANS3	:071621 STILL IN AC1?
012366	001401			BEQ	+.4	:BRANCH IF OK
012370	104004			HLT+4		:AC1 CHANGED
012372	022767	071625	166410	CMP	#071625,ANS4	:071625 STILL IN AC1?
012400	001401			BEQ	+.4	:BRANCH IF OK
012402	104004			HLT+4		:AC1 CHANGED

```

*****
:TEST 103: TEST CMPD (COMPARE DOUBLE PRECISION)
:COMPARE 040000,000000,000000,000000 TO 040000,000000,000000,000000
:FPS = 047604, FSRC = M6-R7, AC = AC2
*****

```

012404	104400			SCOPE		
012406	000410			BR	TST103	
012410	040000	000000	000000	DTA103:	040000,000000,000000,000000	
012416	000000					
012420	040000	000000	000000	DTB103:	040000,000000,000000,000000	
012426	000000					
012430	170127	047600		TST103: LDFPS	#047600	:LOAD FLOATING POINT STATUS
012434	172667	177750		LDD	DTA103, AC2	:LOAD 040000,000000,000000,000000 INTO AC2
012440	173667	177754		CMPD	DTB103, AC2	:COMPARE 040000,000000,000000,000000 TO AC2
012444	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
012446	022700	047604		CMP	#047604,FPS	:CHECK FLOATING POINT STATUS
012452	001401			BEQ	+.4	:BRANCH IF OK
012454	104000			HLT		:FPS NOT EQUAL TO 047604
012456	174267	166320		STD	AC2, ANS1	:STORE AC2 IN ANS1 THRU ANS4
012462	022767	040000	166312	CMP	#040000,ANS1	:040000 STILL IN AC2?
012470	001401			BEQ	+.4	:BRANCH IF OK
012472	104004			HLT+4		:AC2 CHANGED
012474	022767	000000	166302	CMP	#000000,ANS2	:000000 STILL IN AC2?
012502	001401			BEQ	+.4	:BRANCH IF OK
012504	104004			HLT+4		:AC2 CHANGED

012506	022767	000000	166272	CMP	#000000,ANS3	:000000 STILL IN AC2?
012514	001401			BEG	+.4	:BRANCH IF OK
012516	104004			HLT+4		:AC2 CHANGED
012520	022767	000000	166262	CMP	#000000,ANS4	:000000 STILL IN AC2?
012526	001401			BEG	+.4	:BRANCH IF OK
012530	104004			HLT+4		:AC2 CHANGED

```

*****
:TEST 104:      TEST CMPD (COMPARE DOUBLE PERCISION)
:              COMPARE 140177,177777,177777,177777 TO 140177,177777,177777,177777
:              FPS = 047604,  FSRC = M6-R7,  AC = AC3
*****

```

012532 104400  
012534 000410

SCOPE  
BR TST104

012536	140177	177777	177777	DTA104:	140177,177777,177777,177777
012544	177777				
012546	140177	177777	177777	DTB104:	140177,177777,177777,177777
012554	177777				

012556	170127	047600		TST104: LDFPS	#047600	:LOAD FLOATING POINT STATUS
012562	172767	177750		LDD	DTA104, AC3	:LOAD 140177,177777,177777,177777 INTO AC3
012566	173767	177754		CMPD	DTB104, AC3	:COMPARE 140177,177777,177777,177777 TO AC3
012572	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
012574	022700	047604		CMP	#047604,FPS	:CHECK FLOATING POINT STATUS
012600	001401			BEG	+.4	:BRANCH IF OK
012602	104000			HLT		:FPS NOT EQUAL TO 047604

012604	174367	166172		STD	AC3, ANS1	:STORE AC3 IN ANS1 THRU ANS4
012610	022767	140177	166164	CMP	#140177,ANS1	:140177 STILL IN AC3?
012616	001401			BEG	+.4	:BRANCH IF OK
012620	104004			HLT+4		:AC3 CHANGED

012622	022767	177777	166154	CMP	#177777,ANS2	:177777 STILL IN AC3?
012630	001401			BEG	+.4	:BRANCH IF OK
012632	104004			HLT+4		:AC3 CHANGED

012634	022767	177777	166144	CMP	#177777,ANS3	:177777 STILL IN AC3?
012642	001401			BEG	+.4	:BRANCH IF OK
012644	104004			HLT+4		:AC3 CHANGED

012646	022767	177777	166134	CMP	#177777,ANS4	:177777 STILL IN AC3?
012654	001401			BEG	+.4	:BRANCH IF OK
012656	104004			HLT+4		:AC3 CHANGED

```

*****
:TEST 105:      TEST CMPD (COMPARE DOUBLE PERCISION)
:              COMPARE 002000,000000,000000,000000 TO 002000,000000,000000,000000
:              FPS = 047604,  FSRC = M6-R7,  AC = AC3
*****

```

012660 104400

SCOPE

```

012662 000410 BR TST105
012664 002000 000000 000000 DTA105: 002000,000000,000000,000000
012672 000000
012674 002000 000000 000000 DTB105: 002000,000000,000000,000000
012702 000000

012704 170127 047600 TST105: LDFPS #047600 ;LOAD FLOATING POINT STATUS
012710 172767 177750 LDD DTA105, AC3 ;LOAD 002000,000000,000000,000000 INTO AC3
012714 173767 177754 CMPD DTB105, AC3 ;COMPARE 002000,000000,000000,000000 TO AC3
012720 170200 STFPS FPS ;STORE FLOATING POINT STATUS
012722 022700 047604 CMP #047604, FPS ;CHECK FLOATING POINT STATUS
012726 001401 BEQ .+4 ;BRANCH IF OK
012730 104000 HLT ;FPS NOT EQUAL TO 047604

012732 174367 166044 STD AC3, ANS1 ;STORE AC3 IN ANS1 THRU ANS4
012736 022767 002000 166036 CMP #002000, ANS1 ;002000 STILL IN AC3?
012744 001401 BEQ .+4 ;BRANCH IF OK
012746 104004 HLT+4 ;AC3 CHANGED

012750 022767 000000 166026 CMP #000000, ANS2 ;000000 STILL IN AC3?
012756 001401 BEQ .+4 ;BRANCH IF OK
012760 104004 HLT+4 ;AC3 CHANGED

012762 022767 000000 166016 CMP #000000, ANS3 ;000000 STILL IN AC3?
012770 001401 BEQ .+4 ;BRANCH IF OK
012772 104004 HLT+4 ;AC3 CHANGED

012774 022767 000000 166006 CMP #000000, ANS4 ;000000 STILL IN AC3?
013002 001401 BEQ .+4 ;BRANCH IF OK
013004 104004 HLT+4 ;AC3 CHANGED

```

```

:*****
:TEST 106: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 125252,125252,125252,125252 TO 125252,125252,125252,125252
:FPS = 047604, FSRC = M6-R7, AC = AC3
:*****

```

```

013006 104400 SCOPE
013010 000410 BR TST106

013012 125252 125252 125252 DTA106: 125252,125252,125252,125252
013020 125252
013022 125252 125252 125252 DTB106: 125252,125252,125252,125252
013030 125252

013032 170127 047600 TST106: LDFPS #047600 ;LOAD FLOATING POINT STATUS
013036 172767 177750 LDD DTA106, AC3 ;LOAD 125252,125252,125252,125252 INTO AC3
013042 173767 177754 CMPD DTB106, AC3 ;COMPARE 125252,125252,125252,125252 TO AC3
013046 170200 STFPS FPS ;STORE FLOATING POINT STATUS
013050 022700 047604 CMP #047604, FPS ;CHECK FLOATING POINT STATUS
013054 001401 BEQ .+4 ;BRANCH IF OK
013056 104000 HLT ;FPS NOT EQUAL TO 047604

013060 174367 165716 STD AC3, ANS1 ;STORE AC3 IN ANS1 THRU ANS4

```

013064	022767	125252	165710	CMP	#125252,ANS1	:125252 STILL IN AC3?
013072	001401			BEQ	+.4	:BRANCH IF OK
013074	104004			HLT+4		:AC3 CHANGED
013076	022767	125252	165700	CMP	#125252,ANS2	:125252 STILL IN AC3?
013104	001401			BEQ	+.4	:BRANCH IF OK
013106	104004			HLT+4		:AC3 CHANGED
013110	022767	125252	165670	CMP	#125252,ANS3	:125252 STILL IN AC3?
013116	001401			BEQ	+.4	:BRANCH IF OK
013120	104004			HLT+4		:AC3 CHANGED
013122	022767	125252	165660	CMP	#125252,ANS4	:125252 STILL IN AC3?
013130	001401			BEQ	+.4	:BRANCH IF OK
013132	104004			HLT+4		:AC3 CHANGED

```

:*****
:TEST 107: TEST CMPD (COMPARE DOUBLE PERCISION)
: COMPARE 000005,002000,100005,002000 TO 100205,002000,100005,002000
: FPS = 047600, FSRC = M6-R7, AC = AC2
:*****

```

013134 104400  
013136 000410

SCOPE  
BR TST107

013140	100205	002000	100005	DTA107:	100205,002000,100005,002000
013146	002000				
013150	000005	002000	100005	DTB107:	000005,002000,100005,002000
013156	002000				

013160	170127	047600		TST107:	LDFPS	#047600	:LOAD FLOATING POINT STATUS
013164	172667	177750			LDD	DTA107, AC2	:LOAD 100205,002000,100005,002000 INTO AC2
013170	173667	177754			CMPD	DTB107, AC2	:COMPARE 000005,002000,100005,002000 TO AC2
013174	170200				STFPS	FPS	:STORE FLOATING POINT STATUS
013176	022700	047600			CMP	#047600,FPS	:CHECK FLOATING POINT STATUS
013202	001401				BEQ	+.4	:BRANCH IF OK
013204	104000				HLT		:FPS NOT EQUAL TO 047600

013206	174267	165570		STD	AC2, ANS1	:STORE AC2 IN ANS1 THRU ANS4
013212	022767	100205	165562	CMP	#100205,ANS1	:100205 STILL IN AC2?
013220	001401			BEQ	+.4	:BRANCH IF OK
013222	104004			HLT+4		:AC2 CHANGED

013224	022767	002000	165552	CMP	#002000,ANS2	:002000 STILL IN AC2?
013232	001401			BEQ	+.4	:BRANCH IF OK
013234	104004			HLT+4		:AC2 CHANGED

013236	022767	100005	165542	CMP	#100005,ANS3	:100005 STILL IN AC2?
013244	001401			BEQ	+.4	:BRANCH IF OK
013246	104004			HLT+4		:AC2 CHANGED

013250	022767	002000	165532	CMP	#002000,ANS4	:002000 STILL IN AC2?
013256	001401			BEQ	+.4	:BRANCH IF OK
013260	104004			HLT+4		:AC2 CHANGED



```

*****
:TEST 110: TEST CMPD (COMPARE DOUBLE PERCISION)
: COMPARE 004030,000010,000200,000040 TO 000030,000010,000200,000040
: FPS = 047600, FSRC = M6-R7, AC = AC2
*****

```

```

013262 104400          SCOPE
013264 000410          BR      TST110

013266 000030 000010 000200 DTA110: 000030,000010,000200,000040
013274 000040
013276 004030 000010 000200 DTB110: 004030,000010,000200,000040
013304 000040

013306 170127 047600      TST110: LDFPS  #047600      ;LOAD FLOATING POINT STATUS
013312 172667 177750      LD      DTA110, AC2      ;LOAD 000030,000010,000200,000040 INTO AC2
013316 173657 177754      CMP     DTB110, AC2      ;COMPARE 004030,000010,000200,000040 TO AC2
013322 170200      STFPS  FPS              ;STORE FLOATING POINT STATUS
013324 022700 047600      CMP     #047600,FPS      ;CHECK FLOATING POINT STATUS
013330 001401      BEQ    .+4              ;BRANCH IF OK
013332 104000      HLT                    ;FPS NOT EQUAL TO 047600

013334 174267 165442      STD     AC2, ANS1        ;STORE AC2 IN ANS1 THRU ANS4
013340 022767 000030 165434  CMP     #000030,ANS1     ;000030 STILL IN AC2?
013346 001401      BEQ    .+4              ;BRANCH IF OK
013350 104004      HLT+4                  ;AC2 CHANGED

013352 022767 000010 165424  CMP     #000010,ANS2     ;000010 STILL IN AC2?
013360 001401      BEQ    .+4              ;BRANCH IF OK
013362 104004      HLT+4                  ;AC2 CHANGED

013364 022767 000200 165414  CMP     #000200,ANS3     ;000200 STILL IN AC2?
013372 001401      BEQ    .+4              ;BRANCH IF OK
013374 104004      HLT+4                  ;AC2 CHANGED

013376 022767 000040 165404  CMP     #000040,ANS4     ;000040 STILL IN AC2?
013404 001401      BEQ    .+4              ;BRANCH IF OK
013406 104004      HLT+4                  ;AC2 CHANGED

```

```

*****
:TEST 111: TEST CMPD (COMPARE DOUBLE PERCISION)
: COMPARE 006000,007000,000100,020000 TO 100020,000300,000004,000500
: FPS = 047600, FSRC = M6-R7, AC = AC3
*****

```

```

013410 104400          SCOPE
013412 000410          BR      TST111

013414 100020 000300 000004 DTA111: 100020,000300,000004,000500
013422 000500
013424 006000 007000 000100 DTB111: 006000,007000,000100,020000
013432 020000

013434 170127 040200      TST111: LDFPS  #040200      ;LOAD FLOATING POINT STATUS

```

013440	172767	177750		LDD	DTA111, AC3	:LOAD 100020,000300,000004,000500 INTO AC3
013444	170127	047600		LDFPS	#047600	:LOAD FLOATING POINT STATUS
013450	173767	177750	FPI111:	CMPD	DTB111, AC3	:COMPARE 006000,007000,000100,020000 TO AC3
013454	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
013456	022700	047600		CMP	#047600,FPS	:CHECK FLOATING POINT STATUS
013462	001401			BEQ	.+4	:BRANCH IF OK
013464	104000			HLT		:FPS NOT EQUAL TO 047600
013466	174367	165310		STD	AC3, ANS1	:STORE AC3 IN ANS1 THRU ANS4
013472	022767	100020	165302	CMP	#100020,ANS1	:100020 STILL IN AC3?
013500	001401			BEQ	.+4	:BRANCH IF OK
013502	104004			HLT+4		:AC3 CHANGED
013504	022767	000300	165272	CMP	#000300,ANS2	:000300 STILL IN AC3?
013512	001401			BEQ	.+4	:BRANCH IF OK
013514	104004			HLT+4		:AC3 CHANGED
013516	022767	000004	165262	CMP	#000004,ANS3	:000004 STILL IN AC3?
013524	001401			BEQ	.+4	:BRANCH IF OK
013526	104004			HLT+4		:AC3 CHANGED
013530	022767	000500	165252	CMP	#000500,ANS4	:000500 STILL IN AC3?
013536	001401			BEQ	.+4	:BRANCH IF OK
013540	104004			HLT+4		:AC3 CHANGED

```

*****
:TEST 112: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 100050,060000,007000,000011 TO 010000,000200,003000,040000
:FPS = 147617, FSRC = M6-R7, AC = AC3
:FEC = 14, FEA = FPI112
*****

```

013542	104400			SCOPE		
013544	000410			BR	TST112	
013546	010000	000200	003000	DTA112:	010000,000200,003000,040000	
013554	040000					
013556	100050	060000	007000	DTB112:	100050,060000,007000,000011	
013564	000011					
013566	170127	040200		TST112:	LDFPS #040200	:LOAD FLOATING POINT STATUS
013572	172767	177750		LDD	DTA112, AC3	:LOAD 010000,000200,003000,040000 INTO AC3
013576	170127	047617		LDFPS	#047617	:LOAD FLOATING POINT STATUS
013602	173767	177750	FPI112:	CMPD	DTB112, AC3	:COMPARE 100050,060000,007000,000011 TO AC3
013606	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
013610	170367	165206		STST	FEC	:STORE EXCEPTION CODES
013614	022700	147617		CMP	#147617,FPS	:CHECK FLOATING POINT STATUS
013620	001401			BEQ	.+4	:BRANCH IF OK
013622	104000			HLT		:FPS NOT EQUAL TO 147617
013624	022767	000014	165170	CMP	#14, FEC	:CHECK FLOATING EXCEPTION CODE
013632	001401			BEQ	.+4	:BRANCH IF OK
013634	104000			HLT		:FEC NOT EQUAL TO 14
013636	022767	013602	165160	CMP	#FPI112, FEA	:CHECK FLOATING EXCEPTION ADDRESS

```

013644 001401      BEQ      .+4      ;BRANCH IF OK
013646 104000      HLT                ;FEA NOT EQUAL TO FPI112

013650 174367 165126 STD      AC3,   ANS1 ;STORE AC3 IN ANS1 THRU ANS4
013654 022767 010000 165120 CMP      #010000,ANS1 ;010000 STILL IN AC3?
013662 001401      BEQ      .+4      ;BRANCH IF OK
013664 104004      HLT+4           ;AC3 CHANGED

013666 022767 000200 165110 CMP      #000200,ANS2 ;000200 STILL IN AC3?
013674 001401      BEQ      .+4      ;BRANCH IF OK
013676 104004      HLT+4           ;AC3 CHANGED

013700 022767 003000 165100 CMP      #003000,ANS3 ;003000 STILL IN AC3?
013706 001401      BEQ      .+4      ;BRANCH IF OK
013710 104004      HLT+4           ;AC3 CHANGED

013712 022767 040000 165070 CMP      #040000,ANS4 ;040000 STILL IN AC3?
013720 001401      BEQ      .+4      ;BRANCH IF OK
013722 104004      HLT+4           ;AC3 CHANGED

```

```

:*****
:TEST 113: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 100005,000600,007000,000100 TO 000010,000200,003000,004000
:FPS = 147617, FSRC = M6-R7, AC = AC3
:FEC = 14, FEA = FPI113
:*****

```

```

013724 104400      SCOPE
013726 000410      BR      TST113

013730 000010 000200 003000 DTA113: 000010,000200,003000,004000
013736 004000
013740 100005 000600 007000 DTB113: 100005,000600,007000,000100
013746 000100

013750 170127 040200 TST113: LDFPS #040200 ;LOAD FLOATING POINT STATUS
013754 172767 177750 LDD      DTA113, AC3 ;LOAD 000010,000200,003000,004000 INTO AC3
013760 170127 047617 LDFPS #047617 ;LOAD FLOATING POINT STATUS
013764 173767 177750 FPI113: CMPD DTB113, AC3 ;COMPARE 100005,000600,007000,000100 TO AC3
013770 170200 STFPS FPS ;STORE FLOATING POINT STATUS
013772 170367 165024 STST   FEC ;STORE EXCEPTION CODES
013776 022700 147617 CMP      #147617,FPS ;CHECK FLOATING POINT STATUS
014002 001401      BEQ      .+4      ;BRANCH IF OK
014004 104000      HLT                ;FPS NOT EQUAL TO 147617

014006 022767 000014 165006 CMP      #14,   FEC ;CHECK FLOATING EXCEPTION CODE
014014 001401      BEQ      .+4      ;BRANCH IF OK
014016 104000      HLT                ;FEC NOT EQUAL TO 14

014020 022767 013764 164776 CMP      #FPI113, FEA ;CHECK FLOATING EXCEPTION ADDRESS
014026 001401      BEQ      .+4      ;BRANCH IF OK
014030 104000      HLT                ;FEA NOT EQUAL TO FPI113

014032 174367 164744 STD      AC3,   ANS1 ;STORE AC3 IN ANS1 THRU ANS4
014036 022767 000010 164736 CMP      #000010,ANS1 ;000010 STILL IN AC3?

```

```

014044 001401      BEQ      .+4      ;BRANCH IF OK
014046 104004      HLT+4          ;AC3 CHANGED

014050 022767 000200 164726  CMP      #000200,ANS2 ;000200 STILL IN AC3?
014056 001401      BEQ      .+4      ;BRANCH IF OK
014060 104004      HLT+4          ;AC3 CHANGED

014062 022767 003000 164716  CMP      #003000,ANS3 ;003000 STILL IN AC3?
014070 001401      BEQ      .+4      ;BRANCH IF OK
014072 104004      HLT+4          ;AC3 CHANGED

014074 022767 004000 164706  CMP      #004000,ANS4 ;004000 STILL IN AC3?
014102 001401      BEQ      .+4      ;BRANCH IF OK
014104 104004      HLT+4          ;AC3 CHANGED

```

```

:*****
:TEST 114: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 100006,007000,000200,003000 TO 100020,000300,040000,000050
:FPS = 147617, FSRC = M6-R7, AC = AC3
:FEC = 14, FEA = FPI114
:*****

```

```

014106 104400      SCOPE
014110 000410      BR      TST114

014112 100020 000300 040000 DTA114: 100020,000300,040000,000050
014120 000050
014122 100006 007000 000200 DTB114: 100006,007000,000200,003000
014130 003000

014132 170127 040200      TST114: LDFPS  #040200      ;LOAD FLOATING POINT STATUS
014136 172767 177750      LD      DTA114, AC3 ;LOAD 100020,000300,040000,000050 INTO AC3
014142 170127 047617      LDFPS  #C47617      ;LOAD FLOATING POINT STATUS
014146 173767 177750      FPI114: CMPD  DTB114, AC3 ;COMPARE 100006,007000,000200,003000 TO AC3
014152 170200      STFPS  FPS          ;STORE FLOATING POINT STATUS
014154 170367 164642      STST   FEC          ;STORE EXCEPTION CODES
014160 022700 147617      CMP    #147617,FPS ;CHECK FLOATING POINT STATUS
014164 001401      BEQ    .+4          ;BRANCH IF OK
014166 104000      HLT                    ;FPS NOT EQUAL TO 147617

014170 022767 000014 164624      CMP    #14, FEC      ;CHECK FLOATING EXCEPTION CODE
014176 001401      BEQ    .+4          ;BRANCH IF OK
014200 104000      HLT                    ;FEC NOT EQUAL TO 14

014202 022767 014146 164614      CMP    #FPI114, FEA ;CHECK FLOATING EXCEPTION ADDRESS
014210 001401      BEQ    .+4          ;BRANCH IF OK
014212 104000      HLT                    ;FEA NOT EQUAL TO FPI114

014214 174367 164562      STD    AC3, ANS1     ;STORE AC3 IN ANS1 THRU ANS4
014220 022767 100020 164554      CMP    #100020,ANS1 ;100020 STILL IN AC3?
014226 001401      BEQ    .+4          ;BRANCH IF OK
014230 104004      HLT+4          ;AC3 CHANGED

014232 022767 000300 164544      CMP    #000300,ANS2 ;000300 STILL IN AC3?
014240 001401      BEQ    .+4          ;BRANCH IF OK

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014242 104004          HLT+4          ;AC3 CHANGED
014244 022767 040000 164534  CMP      #040000,ANS3  ;040000 STILL IN AC3?
014252 001401          BEQ      .+4          ;BRANCH IF OK
014254 104004          HLT+4          ;AC3 CHANGED
014256 022767 000050 164524  CMP      #000050,ANS4  ;000050 STILL IN AC3?
014264 001401          BEQ      .+4          ;BRANCH IF OK
014266 104004          HLT+4          ;AC3 CHANGED

```

```

;*****
;TEST 115: TEST CMPD (COMPARE DOUBLE PERCISION)
;          COMPARE 100050,060000,007000,000011 TO 010000,000200,003000,040000
;          FPS = 147617, FSRC = M6-R7, AC = AC3
;          FEC = 14, FEA = FPI115
;*****

```

```

014270 104400          SCOPE
014272 000410          BR      TST115
014274 010000 000200 003000 DTA115: 010000,000200,003000,040000
014302 040000
014304 100050 060000 007000 DTB115: 100050,060000,007000,000011
014312 000011
014314 170127 040200          TST115: LDFPS  #040200          ;LOAD FLOATING POINT STATUS
014320 172767 177750          LDD      DTA115, AC3      ;LOAD 010000,000200,003000,040000 INTO AC3
014324 170127 047617          LDFPS  #047617          ;LOAD FLOATING POINT STATUS
014330 173767 177750          FPI115: CMPD   DTB115, AC3      ;COMPARE 100050,060000,007000,000011 TO AC3
014334 170200          STFPS  FPS              ;STORE FLOATING POINT STATUS
014336 170367 164460          STST   FEC              ;STORE EXCEPTION CODES
014342 022700 147617          CMP     #147617,FPS      ;CHECK FLOATING POINT STATUS
014346 001401          BEQ     .+4              ;BRANCH IF OK
014350 104000          HLT                    ;FPS NOT EQUAL TO 147617
014352 022767 000014 164442  CMP     #14, FEC          ;CHECK FLOATING EXCEPTION CODE
014360 001401          BEQ     .+4              ;BRANCH IF OK
014362 104000          HLT                    ;FEC NOT EQUAL TO 14
014364 022767 014330 164432  CMP     #FPI115, FEA      ;CHECK FLOATING EXCEPTION ADDRESS
014372 001401          BEQ     .+4              ;BRANCH IF OK
014374 104000          HLT                    ;FEA NOT EQUAL TO FPI115
014376 174367 164400          STD     AC3, ANS1         ;STORE AC3 IN ANS1 THRU ANS4
014402 022767 010000 164372  CMP     #010000,ANS1      ;010000 STILL IN AC3?
014410 001401          BEQ     .+4              ;BRANCH IF OK
014412 104004          HLT+4          ;AC3 CHANGED
014414 022767 000200 164362  CMP     #000200,ANS2      ;000200 STILL IN AC3?
014422 001401          BEQ     .+4              ;BRANCH IF OK
014424 104004          HLT+4          ;AC3 CHANGED
014426 022767 003000 164352  CMP     #003000,ANS3      ;003000 STILL IN AC3?
014434 001401          BEQ     .+4              ;BRANCH IF OK
014436 104004          HLT+4          ;AC3 CHANGED

```

```

014440 022767 040000 164342    CMP    #040000,ANS4    :040000 STILL IN AC3?
014446 001401                    BEQ    .+4            :BRANCH IF OK
014450 104004                    HLT+4                :AC3 CHANGED

```

```

*****
:TEST 116:      TEST CMPD (COMPARE DOUBLE PERCISION)
:              COMPARE 100005,000600,007000,000100 TO 000010,000200,003000,004000
:              FPS = 147617,  FSRC = M6-R7,  AC = AC3
:              FEC = 14,      FEA = FPI116
*****

```

```

014452 104400                    SCOPE
014454 000410                    BR      TST116

014456 000010 000200 003000 DTA116: 000010,000200,003000,004000
014464 004000
014466 100005 000600 007000 DTB116: 100005,000600,007000,000100
014474 000100

014476 170127 040200    TST116: LDFPS    #040200    :LOAD FLOATING POINT STATUS
014502 172767 177750    LDD     DTA116, AC3    :LOAD 000010,000200,003000,004000 INTO AC3
014506 170127 047617    LDFPS    #047617      :LOAD FLOATING POINT STATUS
014512 173767 177750    FPI116: CMPD     DTB116, AC3    :COMPARE 100005,000600,007000,000100 TO AC3
014516 170200          STFPS    FPS           :STORE FLOATING POINT STATUS
014520 170367 164276    STST    FEC           :STORE EXCEPTION CODES
014524 022700 147617    CMP     #147617,FPS    :CHECK FLOATING POINT STATUS
014530 001401          BEQ     .+4            :BRANCH IF OK
014532 104000          HLT                    :FPS NOT EQUAL TO 147617

014534 022767 000014 164260    CMP     #14,  FEC      :CHECK FLOATING EXCEPTION CODE
014542 001401          BEQ     .+4            :BRANCH IF OK
014544 104000          HLT                    :FEC NOT EQUAL TO 14

014546 022767 014512 164250    CMP     #FPI116, FEA    :CHECK FLOATING EXCEPTION ADDRESS
014554 001401          BEQ     .+4            :BRANCH IF OK
014556 104000          HLT                    :FEA NOT EQUAL TO FPI116

014560 174367 164216          STD     AC3,  ANS1     :STORE AC3 IN ANS1 THRU ANS4
014564 022767 000010 164210    CMP     #000010,ANS1    :000010 STILL IN AC3?
014572 001401          BEQ     .+4            :BRANCH IF OK
014574 104004          HLT+4                :AC3 CHANGED

014576 022767 000200 164200    CMP     #000200,ANS2    :000200 STILL IN AC3?
014604 001401          BEQ     .+4            :BRANCH IF OK
014606 104004          HLT+4                :AC3 CHANGED

014610 022767 003000 164170    CMP     #003000,ANS3    :003000 STILL IN AC3?
014616 001401          BEQ     .+4            :BRANCH IF OK
014620 104004          HLT+4                :AC3 CHANGED

014622 022767 004000 164160    CMP     #004000,ANS4    :004000 STILL IN AC3?
014630 001401          BEQ     .+4            :BRANCH IF OK
014632 104004          HLT+4                :AC3 CHANGED

```

```

*****
:TEST 117: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 100006,007000,000200,003000 TO 100020,000300,040000,000050
:FPS = 147617, FSRC = M6-R7, AC = AC3
:FEC = 14, FEA = FPI117
*****

```

```

014634 104400          SCOPE
014636 000410          BR      TST117

014640 100020 000300 040000 DTA117: 100020,000300,040000,000050
014646 000050
014650 100006 007000 000200 DTB117: 100006,007000,000200,003000
014656 003000

014660 170127 040200          TST117: LDFPS #040200          ;LOAD FLOATING POINT STATUS
014664 172767 177750          LDD      DTA117, AC3          ;LOAD 100020,000300,040000,000050 INTO AC3
014670 170127 047617          LDFPS #047617          ;LOAD FLOATING POINT STATUS
014674 173767 177750          FPI117: CMPD DTB117, AC3          ;COMPARE 100006,007000,000200,003000 TO AC3
014700 170200          STFPS FPS          ;STORE FLOATING POINT STATUS
014702 170367 164114          STST  FEC          ;STORE EXCEPTION CODES
014706 022700 147617          CMP      #147617,FPS          ;CHECK FLOATING POINT STATUS
014712 001401          BEQ      .+4          ;BRANCH IF OK
014714 104000          HLT

014716 022767 000014 164076          CMP      #14, FEC          ;CHECK FLOATING EXCEPTION CODE
014724 001401          BEQ      .+4          ;BRANCH IF OK
014726 104000          HLT          ;FEC NOT EQUAL TO 14

014730 022767 014674 164066          CMP      #FPI117, FEA          ;CHECK FLOATING EXCEPTION ADDRESS
014736 001401          BEQ      .+4          ;BRANCH IF OK
014740 104000          HLT          ;FEA NOT EQUAL TO FPI117

014742 174367 164034          STD      AC3, ANS1          ;STORE AC3 IN ANS1 THRU ANS4
014746 022767 100020 164026          CMP      #100020,ANS1          ;100020 STILL IN AC3?
014754 001401          BEQ      .+4          ;BRANCH IF OK
014756 104004          HLT+4          ;AC3 CHANGED

014760 022767 000300 164016          CMP      #000300,ANS2          ;000300 STILL IN AC3?
014766 001401          BEQ      .+4          ;BRANCH IF OK
014770 104004          HLT+4          ;AC3 CHANGED

014772 022767 040000 164006          CMP      #040000,ANS3          ;040000 STILL IN AC3?
015000 001401          BEQ      .+4          ;BRANCH IF OK
015002 104004          HLT+4          ;AC3 CHANGED

015004 022767 000050 163776          CMP      #000050,ANS4          ;000050 STILL IN AC3?
015012 001401          BEQ      .+4          ;BRANCH IF OK
015014 104004          HLT+4          ;AC3 CHANGED

```

```

*****
:TEST 120: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 000060,007000,000020,000030 TO 100002,000030,004000,000005
:FPS = 047604, FSRC = M6-R7, AC = AC3
*****

```

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```

015016 104400          SCOPE
015020 000410          BR      TST120

015022 100002 000030 004000 DTA120: 100002,000030,004000,000005
015030 000005
015032 000060 007000 000020 DTB120: 000060,007000,000020,000030
015040 000030

015042 170127 040200      TST120: LDFPS  #040200      ;LOAD FLOATING POINT STATUS
015046 172767 177750      LDD      DTA120, AC3      ;LOAD 100002,000030,004000,000005 INTO AC3
015052 170127 047600      LDFPS  #047600      ;LOAD FLOATING POINT STATUS
015056 173767 177750      CMPD   DTB120, AC3      ;COMPARE 000060,007000,000020,000030 TO AC3
015062 170200          STFPS  FPS           ;STORE FLOATING POINT STATUS
015064 022700 047604      CMP    #047604,FPS     ;CHECK FLOATING POINT STATUS
015070 001401          BEQ    .+4           ;BRANCH IF OK
015072 104000          HLT                    ;FPS NOT EQUAL TO 047604

015074 174367 163702      STD    AC3,      ANS1    ;STORE AC3 IN ANS1 THRU ANS4
015100 005767 163676      TST   ANS1
015104 001401          BEQ    .+4           ;CHECK ANS1
015106 104004          HLT+4         ;BRANCH IF OK
                                ;AC3 NOT EQUAL TO ZERO

015110 005767 163670      TST   ANS2
015114 001401          BEQ    .+4           ;CHECK ANS2
015116 104004          HLT+4         ;BRANCH IF OK
                                ;AC3 NOT EQUAL TO ZERO

015120 005767 163662      TST   ANS3
015124 001401          BEQ    .+4           ;CHECK ANS3
015126 104004          HLT+4         ;BRANCH IF OK
                                ;AC3 NOT EQUAL TO ZERO

015130 005767 163654      TST   ANS4
015134 001401          BEQ    .+4           ;CHECK ANS4
015136 104004          HLT+4         ;BRANCH IF OK
                                ;AC3 NOT EQUAL TO ZERO

```

```

*****
;TEST 121:      TEST CMPD (COMPARE DOUBLE PRECISION)
;              COMPARE 052525,052525,052525,052525 TO 125252,125252,125252,125252
;              FPS = 047600,      FSRC = MO-AC2,      AC = AC1
*****

```

```

015140 104400          SCOPE
015142 000410          BR      TST121

015144 125252 125252 125252 DTA121: 125252,125252,125252,125252
015152 125252
015154 052525 052525 052525 DTB121: 052525,052525,052525,052525
015162 052525

015164 170127 047600      TST121: LDFPS  #047600      ;LOAD FLOATING POINT STATUS
015170 172567 177750      LDD      DTA121, AC1      ;LOAD 125252,125252,125252,125252 INTO AC1
015174 172667 177754      LDD      DTB121, AC2      ;LOAD 052525,052525,052525,052525 INTO AC2
015200 173502          CMPD   AC2,      AC1      ;COMPARE AC2 TO AC1
015202 170200          STFPS  FPS           ;STORE FLOATING POINT STATUS

```



015204	022700	047600		CMP	#047600, FPS	;CHECK FLOATING POINT STATUS
015210	001401			BEQ	.+4	;BRANCH IF OK
015212	104000			HLT		;FPS NOT EQUAL TO 047600
015214	174167	163562		STD	AC1, ANS1	;STORE AC1 IN ANS1 THRU ANS4
015220	022767	125252	163554	CMP	#125252, ANS1	;125252 STILL IN AC1?
015226	001401			BEQ	.+4	;BRANCH IF OK
015230	104004			HLT+4		;AC1 CHANGED
015232	022767	125252	163544	CMP	#125252, ANS2	;125252 STILL IN AC1?
015240	001401			BEQ	.+4	;BRANCH IF OK
015242	104004			HLT+4		;AC1 CHANGED
015244	022767	125252	163534	CMP	#125252, ANS3	;125252 STILL IN AC1?
015252	001401			BEQ	.+4	;BRANCH IF OK
015254	104004			HLT+4		;AC1 CHANGED
015256	022767	125252	163524	CMP	#125252, ANS4	;125252 STILL IN AC1?
015264	001401			BEQ	.+4	;BRANCH IF OK
015266	104004			HLT+4		;AC1 CHANGED
015270	174267	163516		STD	AC2, ANS5	;STORE AC2 IN ANS5 THRU ANS8
015274	022767	052525	163510	CMP	#052525, ANS5	;052525 STILL IN AC2?
015302	001401			BEQ	.+4	;BRANCH IF OK
015304	104010			HLT+10		;AC2 CHANGED
015306	022767	052525	163500	CMP	#052525, ANS6	;052525 STILL IN AC2?
015314	001401			BEQ	.+4	;BRANCH IF OK
015316	104010			HLT+10		;AC2 CHANGED
015320	022767	052525	163470	CMP	#052525, ANS7	;052525 STILL IN AC2?
015326	001401			BEQ	.+4	;BRANCH IF OK
015330	104010			HLT+10		;AC2 CHANGED
015332	022767	052525	163460	CMP	#052525, ANS8	;052525 STILL IN AC2?
015340	001401			BEQ	.+4	;BRANCH IF OK
015342	104010			HLT+10		;AC2 CHANGED

```

;*****
;TEST 122: TEST CMPD (COMPARE DOUBLE PRECISION)
; COMPARE 050525,052525,052525,052525 TO 052525,052525,052525,052525
; FPS = 047610, FSRC = MO-AC0, AC = AC1
;*****

```

015344 104400  
015346 000410

SCOPE  
BR TST122

015350 052525 052525 052525 DTA122: 052525,052525,052525,052525  
015356 052525  
015360 050525 052525 052525 DTB122: 050525,052525,052525,052525  
015366 052525

015370 170127 047600 TST122: LDFPS #047600 ;LOAD FLOATING POINT STATUS  
015374 172567 177750 LDD DTA122, AC1 ;LOAD 052525,052525,052525,052525 INTO AC1  
015400 172467 177754 LDD DTB122, AC0 ;LOAD 050525,052525,052525,052525 INTO AC0

015404	173500			CMPD	AC0, AC1	;COMPARE AC0 TO AC1
015406	170200			STFPS	FPS	;STORE FLOATING POINT STATUS
015410	022700	047610		CMP	#047610,FPS	;CHECK FLOATING POINT STATUS
015414	001401			BEQ	+.4	;BRANCH IF OK
015416	104000			HLT		;FPS NOT EQUAL TO 047610
015420	174167	163356		STD	AC1, ANS1	;STORE AC1 IN ANS1 THRU ANS4
015424	022767	052525	163350	CMP	#052525,ANS1	;052525 STILL IN AC1?
015432	001401			BEQ	+.4	;BRANCH IF OK
015434	104004			HLT+4		;AC1 CHANGED
015436	022767	052525	163340	CMP	#052525,ANS2	;052525 STILL IN AC1?
015444	001401			BEQ	+.4	;BRANCH IF OK
015446	104004			HLT+4		;AC1 CHANGED
015450	022767	052525	163330	CMP	#052525,ANS3	;052525 STILL IN AC1?
015456	001401			BEQ	+.4	;BRANCH IF OK
015460	104004			HLT+4		;AC1 CHANGED
015462	022767	052525	163320	CMP	#052525,ANS4	;052525 STILL IN AC1?
015470	001401			BEQ	+.4	;BRANCH IF OK
015472	104004			HLT+4		;AC1 CHANGED
015474	174067	163312		STD	AC0, ANS5	;STORE AC0 IN ANS5 THRU ANS8
015500	022767	050525	163304	CMP	#050525,ANS5	;050525 STILL IN AC0?
015506	001401			BEQ	+.4	;BRANCH IF OK
015510	104010			HLT+10		;AC0 CHANGED
015512	022767	052525	163274	CMP	#052525,ANS6	;052525 STILL IN AC0?
015520	001401			BEQ	+.4	;BRANCH IF OK
015522	104010			HLT+10		;AC0 CHANGED
015524	022767	052525	163264	CMP	#052525,ANS7	;052525 STILL IN AC0?
015532	001401			BEQ	+.4	;BRANCH IF OK
015534	104010			HLT+10		;AC0 CHANGED
015536	022767	052525	163254	CMP	#052525,ANS8	;052525 STILL IN AC0?
015544	001401			BEQ	+.4	;BRANCH IF OK
015546	104010			HLT+10		;AC0 CHANGED

```

*****
:TEST 123: TEST CMPD (COMPARE DOUBLE PERCISION)
:COMPARE 071422,023422,023422,023456 TO 071422,123422,123422,123456
:FPS = 047610, FSRC = MD-AC1, AC = AC0
*****

```

015550	104400			SCOPE		
015552	000410			BR	TST123	
015554	071422	123422	123422	DTA123:	071422,123422,123422,123456	
015562	123456					
015564	071422	023422	023422	DTB123:	071422,023422,023422,023456	
015572	023456					
015574	170127	047600		TST123:	LDFPS #047600	;LOAD FLOATING POINT STATUS

015600	172467	177750		LDL	DTA123, ACO	:LOAD 071422,123422,123422,123456 INTO ACO
015604	172567	177754		LDD	DTB123, AC1	:LOAD 071422,023422,023422,023456 INTO AC1
015610	173401			CMPD	AC1, ACO	:COMPARE AC1 TO ACO
015612	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
015614	022700	047610		CMP	#047610,FPS	:CHECK FLOATING POINT STATUS
015620	001401			BEQ	+.4	:BRANCH IF OK
015622	104000			HLT		:FPS NOT EQUAL TO 047610
015624	174067	163152		STD	ACO, ANS1	:STORE ACO IN ANS1 THRU ANS4
015630	022767	071422	163144	CMP	#071422,ANS1	:071422 STILL IN ACO?
015636	001401			BEQ	+.4	:BRANCH IF OK
015640	104004			HLT+4		:ACO CHANGED
015642	022767	123422	163134	CMP	#123422,ANS2	:123422 STILL IN ACO?
015650	001401			BEQ	+.4	:BRANCH IF OK
015652	104004			HLT+4		:ACO CHANGED
015654	022767	123422	163124	CMP	#123422,ANS3	:123422 STILL IN ACO?
015662	001401			BEQ	+.4	:BRANCH IF OK
015664	104004			HLT+4		:ACO CHANGED
015666	022767	123456	163114	CMP	#123456,ANS4	:123456 STILL IN ACO?
015674	001401			BEQ	+.4	:BRANCH IF OK
015676	104004			HLT+4		:ACO CHANGED
015700	174167	163106		STD	AC1, ANS5	:STORE AC1 IN ANS5 THRU ANS8
015704	022767	071422	163100	CMP	#071422,ANS5	:071422 STILL IN AC1?
015712	001401			BEQ	+.4	:BRANCH IF OK
015714	104010			HLT+10		:AC1 CHANGED
015716	022767	023422	163070	CMP	#023422,ANS6	:023422 STILL IN AC1?
015724	001401			BEQ	+.4	:BRANCH IF OK
015726	104010			HLT+10		:AC1 CHANGED
015730	022767	023422	163060	CMP	#023422,ANS7	:023422 STILL IN AC1?
015736	001401			BEQ	+.4	:BRANCH IF OK
015740	104010			HLT+10		:AC1 CHANGED
015742	022767	023456	163050	CMP	#023456,ANS8	:023456 STILL IN AC1?
015750	001401			BEQ	+.4	:BRANCH IF OK
015752	104010			HLT+10		:AC1 CHANGED

```

*****
:TEST 124: TEST CMPD (COMPARE DOUBLE PRECISION)
: COMPARE 125252,125252,125252,125252 TO 125252,125252,125252,125252
: FPS = 047604, FSRC = MO-AC3, AC = AC1
*****

```

015754	104400			SCOPE	
015756	000410			BR	TST124
015760	125252	125252	125252	DTA124:	125252,125252,125252,125252
015766	125252				
015770	125252	125252	125252	DTB124:	125252,125252,125252,125252
015776	125252				

016000	170127	047600		TST124: LDFPS	#047600	:LOAD FLOATING POINT STATUS
016004	172567	177750		LDD	DTA124, AC1	:LOAD 125252,125252,125252,125252 INTO AC1
016010	172767	177754		LDD	DTB124, AC3	:LOAD 125252,125252,125252,125252 INTO AC3
016014	173503			CMPD	AC3, AC1	:COMPARE AC3 TO AC1
016016	170200			STFPS	FPS	:STORE FLOATING POINT STATUS
016020	022700	047604		CMP	#047604, FPS	:CHECK FLOATING POINT STATUS
016024	001401			BEG	+.4	:BRANCH IF OK
016026	104000			HLT		:FPS NOT EQUAL TO 047604
016030	174167	162746		STD	AC1 ANS1	:STORE AC1 IN ANS1 THRU ANS4
016034	022767	125252	162740	CMP	#125252, ANS1	:125252 STILL IN AC1?
016042	001401			BEG	+.4	:BRANCH IF OK
016044	104004			HLT+4		:AC1 CHANGED
016046	022767	125252	162730	CMP	#125252, ANS2	:125252 STILL IN AC1?
016054	001401			BEG	+.4	:BRANCH IF OK
016056	104004			HLT+4		:AC1 CHANGED
016060	022767	125252	162720	CMP	#125252, ANS3	:125252 STILL IN AC1?
016066	001401			BEG	+.4	:BRANCH IF OK
016070	104004			HLT+4		:AC1 CHANGED
016072	022767	125252	162710	CMP	#125252, ANS4	:125252 STILL IN AC1?
016100	001401			BEG	+.4	:BRANCH IF OK
016102	104004			HLT+4		:AC1 CHANGED
016104	174367	162702		STD	AC3 ANS5	:STORE AC3 IN ANS5 THRU ANS8
016110	022767	125252	162674	CMP	#125252, ANS5	:125252 STILL IN AC3?
016116	001401			BEG	+.4	:BRANCH IF OK
016120	104010			HLT+10		:AC3 CHANGED
016122	022767	125252	162664	CMP	#125252, ANS6	:125252 STILL IN AC3?
016130	001401			BEG	+.4	:BRANCH IF OK
016132	104010			HLT+10		:AC3 CHANGED
016134	022767	125252	162654	CMP	#125252, ANS7	:125252 STILL IN AC3?
016142	001401			BEG	+.4	:BRANCH IF OK
016144	104010			HLT+10		:AC3 CHANGED
016146	022767	125252	162644	CMP	#125252, ANS8	:125252 STILL IN AC3?
016154	001401			BEG	+.4	:BRANCH IF OK
016156	104010			HLT+10		:AC3 CHANGED

016160	104400			DONE:	SCOPE		
016162	032737	002000	177570		BIT	#SW10,@#SWR	:RING THE BELL?
016170	001005				BNE	1\$	:NO!
016172	012767	000207	001242		MOV	#BELL,.TYPE	:TYPE A BELL
016200	000004	017442			TYPE	..TYPE	
016204	005046			1\$:	CLR	-(6)	:CLEAR TRACE TRAP
016206	032737	010000	177570		BIT	#SW12,@#SWR	:RUN WITH TRT?
016214	001010				BNE	2\$	
016216	005167	001222			COM	TRPB	
016222	100005				BPL	2\$	
016224	052716	000020			BIS	#20,(6)	:SET TRACE TRAP
016230	012746	001062			MOV	#BEGIN,-(6)	:JUMP TO START OF TEST
016234	000412				BR	YESRT	
016236	012746	001062		2\$:	MOV	#BEGIN,-(6)	:JUMP TO START OF TEST
016242	013700	000042			MOV	@#42,R0	:GET MONITOR ADDRESS
016246	001404				BEQ	3\$	:IF NONE
016250	004710				JSR	7,(0)	:GO TO MONITOR
016252	000240				NOP		
016254	000240				NOP		
016256	000240				NOP		
016260	000002			3\$:	RTI		
016262	000002			YESRT:	RTI		:RETURN TO PROGRAM FROM TRAP
016264	032737	000400	177570	.EMT:	BIT	#SW08,@#SWR	:KILL LDUB OR LOOP ON SPEC. TEST
016272	001404				BEQ	1\$	
016274	123767	177570	162476		CMPB	@#SWR,ICNT	:ON RIGHT TEST? *SW7-0*
016302	001437				BEQ	OVER	
016304	113703	177570		1\$:	MOVB	@#SWR,R3	:GET UB BITS
016310	170003				LDUB		
016312	032737	040000	177570		BIT	#SW14,@#SWR	:LOOP ON TEST
016320	001026				BNE	KIT	
016322	032737	004000	177570		BIT	#SW11,@#SWR	:KILL ITERATIONS
016330	001012				BNE	SAVLAD	
016332	105767	162443			TSTB	ICNT+1	
016336	001404				BEQ	2\$	:BRANCH IF FIRST
016340	126767	001106	162433		CMPB	TIMES,ICNT+1	:DONE?
016346	001013				BNE	KIT	:BRANCH IF NOT
016350	112767	000001	162423	2\$:	MOVB	#1,ICNT+1	:FIRST ITERATION
016356	105267	162416		SAVLAD:	INCB	ICNT	:COUNT TEST NUMBERS
016362	011667	001060			MOV	(6),LAD	:SAVE LOOP ADDRESS
016366	016737	162406	177570		MOV	ICNT,@#DISPLAY	:DISPLAY TEST NO. AND ITERATION COUNT
016374	000002				RTI		:RETURN
016376	105267	162377		KIT:	INCB	ICNT+1	
016402	016737	162372	177570	OVER:	MOV	ICNT,@#DISPLAY	:SET UP DISPLAY
016410	005767	001032			TST	LAD	:FIRST ONE?
016414	001760				BEQ	SAVLAD	
016416	016716	001024			MOV	LAD,(6)	:FUDGE RETURN ADDRESS
016422	000002				RTI		:FIXES PS

016424	032737	002000	177570	.TRP:	BIT	#SW10,2#SWR	:BELL ON ERROR?
016432	001405				BEQ	1\$	:NO - SKIP
016434	012767	000207	001000		MOV	#BELL,.TYPE	:TYPE A BELL
016442	000004	017442			TYPE	.TYPE	
016446	004767	000406		1\$:	JSR	PC,ERROR	:COUNT THE NUMBER OF ERRORS
016452	010446				MOV	R4,-(6)	
016454	032737	020000	177570		BIT	#SW13,2#SWR	:SKIP TYPEOUT IF SET
016462	001072				BNE	4\$	
016464	000004	017410			TYPE	.RETURN	
016470	016646	000002			MOV	2(6),-(6)	:PUT ADDRESS OF INSTRUCTION ON STACK
016474	162716	000002			SUB	#2,(6)	
016500	011605				MOV	(6),TTY	:TYPE (6) IN OCTAL
016502	004767	000212			JSR	%7,PRINTR	:TYPE LEADING ZERO'S
016506	000004	017416			TYPE	.SPACE+3	
016512	010005				MOV	R0,TTY	:TYPE R0 IN OCTAL
016514	004767	000200			JSR	%7,PRINTR	:TYPE LEADING ZERO'S
016520	000004	017417			TYPE	.SPACE+4	
016524	012703	001002			MOV	#ANS1,R3	:ADDRESS OF DATA
016530	113604				MOVB	2(6)+,R4	:AMOUNT OF DATA IN TABLE
016532	001426				BEQ	3\$	
016534	100016				BPL	2\$	:TYPE STACK?
016536	016667	000006	162236		MOV	6(6),ANS1	
016544	016667	000010	162232		MOV	10(6),ANS2	
016552	016667	000012	162226		MOV	12(6),ANS3	
016560	016667	000014	162222		MOV	14(6),ANS4	
016566	042704	177600			BIC	#177600,R4	:CLEAR SIGN
016572	000004	017417		2\$:	TYPE	.SPACE+4	
016576	012305				MOV	(3)+,TTY	:TYPE (3)+ IN OCTAL
016600	004767	000114			JSR	%7,PRINTR	:TYPE LEADING ZERO'S
016604	005304				DEC	R4	
016606	001371				BNE	2\$	
016610	005700			3\$:	TST	FPS	
016612	100016				BPL	4\$	
016614	000004	017413			TYPE	.SPACE	
016620	170367	162176			STST	FEC	
016624	016705	162172			MOV	FEC,TTY	:TYPE FEC IN OCTAL
016630	004767	000064			JSR	%7,PRINTR	:TYPE LEADING ZERO'S
016634	000004	017416			TYPE	.SPACE+3	
016640	016705	162160			MOV	FEA,TTY	:TYPE FEA IN OCTAL
016644	004767	000050			JSR	%7,PRINTR	:TYPE LEADING ZERO'S
016650	012604			4\$:	MOV	(6)+,R4	
016652	005737	177570			TST	2#SWR	:HALT ON ERROR
016656	100001				BPL	.+4	:SKIP IF CONTINUE
016660	000000				HALT		:HALT ON ERROR!
016662	032737	001000	177570		BIT	#SW09,2#SWR	:CHECK FOR INHIBIT LOOP ON ERROR
016670	001001				BNE	.+4	:SKIP IF LOOP ON ERROR
016672	000002				RTI		
016674	105067	162101			CLRB	ICNT+1	
016700	032737	000400	177570		BIT	#SW08,2#SWR	:CHECK FOR LOAD MICROBREAK
016706	001233				BNE	KIT	:BRANCH IF NOT
016710	113703	177570			MOVB	2#SWR,R3	:PUT MICROBREAK ADDRESS IN R3
016714	170003				LDUB		:LOAD MICROBREAK
016716	000627				BR	KIT	:LOOP ON TEST UNTIL NO ERRORS

016720	112767	000001	000130	PRINTR:	MOVB	#1, A4\$	:SET ZERO FILL SWITCH
016726	000402				BR	.+6	
016730	005067	000122		PRINTS:	CLR	A4\$	:SUPPRESS LEADING ZERO'S
016734	112767	177772	000115		MOVB	#-6, A4\$+1	:SET COUNT
016742	010446				MOV	R4, -(6)	:SAVE R4
016744	012704	017046			MOV	#3\$, R4	:SET POINTER TO FIRST ASCII CHAR.
016750	105014				CLRB	(4)	:CLEAR FIRST BYTE
016752	000405				BR	2\$	:ROTATE FIRST BIT
016754	105014			1\$:	CLRB	(4)	:CLEAR BYTE OF CHARACTER
016756	006105				ROL	TTY	:ROTATE BIT INTO C
016760	106114				ROLB	(4)	:PACK IT
016762	006105				ROL	TTY	:ROTATE BIT INTO C
016764	106114				ROLB	(4)	:PACK IT
016766	006105			2\$:	ROL	TTY	:ROTATE BIT INTO C
016770	106114				ROLB	(4)	:PACK IT
016772	105714				TSTB	(4)	
016774	001402				BEG	.+6	
016776	105267	000054			INCB	A4\$	
017002	105767	000050			TSTB	A4\$	:CHECK FILL SWITCH
017006	001402				BEG	.+6	
017010	152724	000060			BISB	#'0, (4)+	:MAKE INTO ASCII CHAR
017014	105267	000037			INCB	A4\$+1	
017020	001355				BNE	1\$	:REPEAT
017022	022704	017046			CMP	#3\$, R4	
017026	001002				BNE	.+6	
017030	112724	000060			MOVB	#'0, (4)+	
017034	105014				CLRB	(4)	
017036	000004	017046			TYPE	3\$	:TYPE IT
017042	012604				MOV	(6)+, R4	:RESTORE R4
017044	000207				RTS	PC	
017046	000004			3\$:	.BLKW	4	
017056	000000			A4\$:	0		
017060	005267	000364		ERROR:	INC	ERRORS	:COUNT ERRORS
017064	132737	000001	000041		BITB	#1, @#41	:AUTO MODE?
017072	001412				BEG	1\$	:NO!
017074	022767	000010	000346		CMP	#10, ERRORS	:TOO MANY?
017102	001006				BNE	1\$	:NOT YET
017104	013700	000042			MOV	@#42, R0	:GET ADDRESS
017110	001403				BEG	1\$	:FORGET IT IF ZERO
017112	005037	000042			CLR	@#42	:ZAP 42
017116	004710				JSR	PC, (0)	:CALL THE MONITOR
017120	000207			1\$:	RTS	PC	:RETURN

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017122 012777 017316 000306 POWDOWN: MOV #ILLUP, @UPVEC :SET FOR FAST UP
017130 012777 000340 000302 MOV #340, @UPVEC+2 :PRIO:7
017136 170246 STFPS -(6) :GET THE FPS
017140 170011 SETD :
017142 174046 STD ACO, -(6) :SAVE AC'S
017144 174146 STD AC1, -(6)
017146 174246 STD AC2, -(6)
017150 174346 STD AC3, -(6)
017152 172404 LDD AC4, ACO
017154 174046 STD ACO, -(6)
017156 172405 LDD AC5, ACO
017160 174046 STD ACO, -(6)
017162 010046 MOV R0, -(6) :SAVE REGISTERS
017164 010146 MOV R1, -(6)
017166 010246 MOV R2, -(6)
017170 010346 MOV R3, -(6)
017172 010446 MOV R4, -(6)
017174 010546 MOV R5, -(6)
017176 010667 000220 MOV SP, SAVE6 :SAVE SP
017202 012777 017212 000226 MOV #POWUP, @UPVEC :SET UP VECTOR
017210 000000 HALT

017212 016706 000204 POWUP: MOV SAVE6, SP :GET SP
017216 005001 CLR R1 :WAIT LOOP FOR THE TTY
017220 005201 1$: INC R1
017222 001376 BNE 1$
017224 012605 MOV (6)+, R5 :GET THE REGISTERS
017226 012604 MOV (6)+, R4
017230 012603 MOV (6)+, R3
017232 012602 MOV (6)+, R2
017234 012601 MOV (6)+, R1
017236 012600 MOV (6)+, R0
017240 170011 SETD :
017242 172426 LDD (6)+, ACO :RESTORE THE AC'S
017244 174005 STD ACO, AC5
017246 172426 LDD (6)+, ACO
017250 174004 STD ACO, AC4
017252 172726 LDD (6)+, AC3
017254 172626 LDD (6)+, AC2
017256 172526 LDD (6)+, AC1
017260 172426 LDD (6)+, ACO
017262 170126 LDFPS (6)+ :RESTORE FPS
017264 012777 017122 000140 MOV #POWDOWN, @DOWNVEC :SET UP THE POWER DOWN VECTOR
017272 012777 000340 000134 MOV #340, @DOWNVEC+2
017300 000004 017304 TYPE ..+2 :.ASCIZ <15><12>"POWER"
017316 000000 ILLUP: HALT :THE POWER UP SEQUENCE WAS STARTED
017320 000776 BR -2 : BEFORE THE POWER DOWN WAS COMPLETE

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017322 010546          .IOT:  MOV    TTY,-(6)      :SAVE TTY
017324 017605 000002  MOV    2(6),TTY      :GET ADDRESS TO BE TYPED
017330 105715          1$:   TSTB  (TTY)      :TERMINATOR?
017332 001406          BEQ    2$            :
017334 112537 177566  MOVB  (TTY)+,2#177566 :LOAD AND TYPE THE CHARACTER
017340 105737 177564  TSTB  2#177564      :IS THE PRINTER READY
017344 100375          BPL    -4            :
017346 000770          BR     1$            :GET THE NEXT CHARACTER
017350 017646 000002  2$:   MOV    2(6),-(6)  :GET ADDRESS TO BE TYPED
017354 062766 000002 000004  ADD    2,4(6)        :ADD 2 TO THE ADDRESS
017362 022666 000002  CMP    (6)+,2(6)     :IS IT .+2?
017366 001006          BNE    3$            :NO
017370 062705 000002  ADD    2,TTY         :ADD 2 TO THE ADDRESS
017374 042705 000001  BIC    #1,TTY        :BACK UP TO AN EVEN BYTE
017400 010566 000002  MOV    TTY,2(6)     :RESTORE ADDRESS
017404 012605          3$:   MOV    (6)+,TTY     :RESTORE TTY
017406 000002          RTI                    :RETURN

017410 005015          000  RETURN: .ASCIZ <15><12>  :RETURN AND LINEFEED
017413          015 020012 020040 SPACE: .ASCIZ <15><12>" " :RETURN AND 3 SPACES
017420          000

017422 017422          .EVEN
017422 000000          SAVE6: 0
017424 172160          FPTADR: 172160      :FLOATING POINT ADDRESS ON THE 11/20
017426 000244 000246  FPVECT: 244,246    :FLOATING POINT VECTOR ADDRESS
017432 000024 000026  DWNVEC: 24,26     :POWER DOWN VECTOR ADDRESS
017436 000024 000026  UPVEC:  24,26     :POWER UP VECTOR ADDRESS
017442 000000          .TYPE: 00
017444 000000          TRPB:  00
017446 000000          LAD:   00          :LOOP ADDRESS
017450 000000          ERRORS: 0         :ERROR COUNT
017452 000377          TIMES: 377      :ITERATION COUNT
017452 000001          .END

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AC0	=%000000	391#	504*	505	511	624*	625	631	774*	775	781	864*	865	871
		924*	925	931	954*	955	961	1407*	1409	1424	1448*	1450	1465	1488*
		1490	1496	1519*	1520	1526	1550*	1552	1567	1591*	1593	1608	1632*	1634
		1649	1673*	1675	1690	1754*	1755	1770	2075*	2076	2082	2315*	2316	2322
		3483*	3484	3507	3540*	3542	3548	3791	3795*	3796	3797*	3798	3820*	3821
		3822*	3823	3827*										
AC1	=%000001	392#	534*	535	541	594*	595	601	654*	655	661	894*	895	901
		1044*	1045	1051	1074*	1076	1082	1105*	1106	1112	1793*	1795	1801	1834*
		1835	1850	1875*	1876	1882	1955*	1956	1962	2035*	2036	2042	2155*	2156
		2162	2275*	2276	2282	2435*	2436	2442	2595*	2596	2602	2635*	2637	2643
		2716*	2717	2723	2756*	2757	2763	3424*	3426	3432	3482*	3484	3490	3541*
		3542	3565	3598*	3600	3606	3792	3826*						
AC2	=%000002	393#	474*	475	481	684*	685	691	714*	715	721	744*	745	751
		804*	805	811	984*	985	991	1135*	1136	1142	1285*	1286	1292	1315*
		1316	1322	1376*	1377	1383	1714*	1715	1730	1833*	1835	1841	1915*	1916
		1922	2195*	2196	2202	2235*	2236	2242	2355*	2356	2362	2395*	2396	2402
		2515*	2516	2522	2676*	2677	2683	2796*	2797	2803	2956*	2957	2963	2996*
		2997	3003	3425*	3426	3449	3793	3825*						
AC3	=%000003	394#	564*	565	571	834*	835	841	1014*	1015	1021	1165*	1166	1172
		1195*	1196	1202	1225*	1226	1232	1255*	1256	1262	1345*	1347	1353	1713*
		1715	1721	1753*	1755	1761	1794*	1795	1810	1995*	1996	2002	2115*	2116
		2122	2475*	2476	2482	2555*	2556	2562	2836*	2837	2843	2876*	2877	2883
		2916*	2917	2923	3036*	3038	3044	3078*	3080	3095	3129*	3131	3146	3180*
		3182	3197	3231*	3233	3248	3282*	3284	3299	3333*	3335	3350	3383*	3385
		3391	3599*	3600	3623	3794	3824*							
AC4	=%000004	395#	3795	3823*										
AC5	=%000005	396#	3797	3821*										
ANS1	001002	425#	481*	482	511*	512	541*	542	571*	572	601*	602	631*	632
		661*	662	691*	692	721*	722	751*	752	781*	782	811*	812	841*
		842	871*	872	901*	902	931*	932	961*	962	991*	992	1021*	1022
		1051*	1052	1082*	1083	1112*	1113	1142*	1143	1172*	1173	1202*	1203	1232*
		1233	1262*	1263	1292*	1293	1322*	1323	1353*	1354	1383*	1384	1424*	1425
		1465*	1466	1496*	1497	1526*	1527	1567*	1568	1608*	1609	1649*	1650	1690*
		1691	1721*	1722	1761*	1762	1801*	1802	1841*	1842	1882*	1883	1922*	1923
		1962*	1963	2002*	2003	2042*	2043	2082*	2083	2122*	2123	2162*	2163	2202*
		2203	2242*	2243	2282*	2283	2322*	2323	2362*	2363	2402*	2403	2442*	2443
		2482*	2483	2522*	2523	2562*	2563	2602*	2603	2643*	2644	2683*	2684	2723*
		2724	2763*	2764	2803*	2804	2843*	2844	2883*	2884	2923*	2924	2963*	2964
		3003*	3004	3044*	3045	3095*	3096	3146*	3147	3197*	3198	3248*	3249	3299*
		3300	3350*	3351	3391*	3392	3432*	3433	3490*	3491	3548*	3549	3606*	3607
		3707	3711*											
ANS2	001004	426#	486	516	546	576	606	636	666	696	726	756	796	816
		846	876	906	936	966	996	1026	1056	1087	1117	1147	1177	1207
		1237	1267	1297	1327	1358	1388	1429	1470	1501	1531	1572	1613	1654
		1695	1726	1766	1806	1846	1887	1927	1967	2007	2047	2087	2127	2167
		2207	2247	2287	2327	2367	2407	2447	2487	2527	2567	2607	2648	2688
		2728	2768	2808	2848	2888	2928	2968	3008	3049	3100	3151	3202	3253
		3304	3355	3396	3437	3495	3553	3611	3712*					
ANS3	001006	427#	1730*	1731	1770*	1771	1810*	1811	1850*	1851	1891	1931	1971	2011
		2051	2091	2131	2171	2211	2251	2291	2331	2371	2411	2451	2491	2531
		2571	2611	2652	2692	2732	2772	2812	2852	2892	2932	2972	3012	3053
		3104	3155	3206	3257	3308	3359	3400	3441	3499	3557	3615	3713*	
ANS4	001010	428#	1735	1775	1815	1855	1895	1935	1975	2015	2055	2095	2135	2175
		2215	2255	2295	2335	2375	2415	2455	2495	2535	2575	2615	2655	2695
		2736	2776	2816	2856	2896	2936	2976	3016	3057	3109	3159	3210	3261
		3312	3363	3404	3445	3503	3561	3619	3714*					

ANS5	001012	429#	3449*	3450	3507*	3508	3565*	3566	3623*	3624
ANS6	001014	430#	3454	3512	3570	3628				
ANS7	001016	431#	3458	3516	3574	3632				
ANS8	001020	432#	3462	3520	3578	3636				
A4\$	017056	3743*	3745*	3746*	3760*	3761	3764*	3775#		
BEG	001026	415	436#							
BEGIN	001062	440	445#	3652	3654					
BELL =	000207	380#	3644	3692						
DISPLA=	177570	376#	3681*	3685*						
DONE	016160	3641#								
DTA1	001200	470#	474							
DTA10	002026	680#	684							
DTA100	012006	2670#	2676							
DTA101	012134	2710#	2716							
DTA102	012262	2750#	2756							
DTA103	012410	2790#	2796							
DTA104	012536	2830#	2836							
DTA105	012664	2870#	2876							
DTA106	013012	2910#	2916							
DTA107	013140	2950#	2956							
DTA11	002120	710#	714							
DTA110	013266	2990#	2996							
DTA111	013414	3030#	3036							
DTA112	013546	3072#	3078							
DTA113	013730	3123#	3129							
DTA114	014112	3174#	3180							
DTA115	014274	3225#	3231							
DTA116	014456	3276#	3282							
DTA117	014640	3327#	3333							
DTA12	002212	740#	744							
DTA120	015022	3377#	3383							
DTA121	015144	3418#	3424							
DTA122	015350	3476#	3482							
DTA123	015554	3534#	3540							
DTA124	015760	3592#	3598							
DTA13	002304	770#	774							
DTA14	002376	800#	804							
DTA15	002470	830#	834							
DTA16	002562	860#	864							
DTA17	002654	890#	894							
DTA2	001272	500#	504							
DTA20	002746	920#	924							
DTA21	003040	950#	954							
DTA22	003132	980#	984							
DTA23	003224	1010#	1014							
DTA24	003316	1040#	1044							
DTA25	003410	1070#	1074							
DTA26	003502	1101#	1105							
DTA27	003574	1131#	1135							
DTA3	001364	530#	534							
DTA30	003666	1161#	1165							
DTA31	003760	1191#	1195							
DTA32	004052	1221#	1225							
DTA33	004144	1251#	1255							
DTA34	004236	1281#	1285							
DTA35	004330	1311#	1315							

DTA36	004422	1341#	1345
DTA37	004520	1372#	1376
DTA4	001456	560#	564
DTA40	004612	1403#	1407
DTA41	004740	1444#	1448
DTA42	005066	1484#	1488
DTA43	005160	1515#	1519
DTA44	005252	1546#	1550
DTA45	005400	1587#	1591
DTA46	005526	1628#	1632
DTA47	005654	1669#	1673
DTA5	001350	590#	594
DTA50	006002	1709#	1713
DTA51	006126	1749#	1753
DTA52	006252	1789#	1793
DTA53	006376	1829#	1833
DTA54	006522	1869#	1875
DTA55	006650	1909#	1915
DTA56	006776	1949#	1955
DTA57	007124	1989#	1995
DTA6	001642	620#	624
DTA60	007252	2029#	2035
DTA61	007400	2069#	2075
DTA62	007526	2109#	2115
DTA63	007654	2149#	2155
DTA64	010002	2189#	2195
DTA65	010130	2229#	2235
DTA66	010256	2269#	2275
DTA67	010404	2309#	2315
DTA7	001734	650#	654
DTA70	010532	2349#	2355
DTA71	010660	2389#	2395
DTA72	011006	2429#	2435
DTA73	011134	2469#	2475
DTA74	011262	2509#	2515
DTA75	011410	2549#	2555
DTA76	011536	2589#	2595
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C07

MAINDEC-11-DCFPE-B  
DCFPEB.P11

TEST OF CMPF, CMPD  
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DOFPEB.F11

DOFPEB.F11





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	2980	3020	3061	3112	3163	3214	3265	3316	3367	3408	3466	3524	3582	3640	3690
	3743	3787	3832	3836											
.PAGE	460	3640													
.REM	331														
.REPT	2	412													
.SBTTL	327	372	422	460	3640	3690	3743	3787	3836						
.TITLE	328														

ERRORS DETECTED: 0  
DEFAULT GLOBALS GENERATED: 0

\*DCFPEB, DCFPEB, SEQ/SOL/CRF/DS:ERFZ/EN:ABS=DSKM:DCFPEB.P11  
RUN-TIME: 25 37 5 SECONDS  
RUN-TIME RATIO: 3641/69=52.1  
CORE USED: 10K (20 PAGES)

