

TITLE AD15 SYSTEM EXERCISER TEST
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 /DIGITAL EQUIPMENT CORPORATION MAYNARD, MASS. 01754
 /PROGRAMMER: EARL L. BOUSE

/THIS PROGRAM IS DESIGNED TO EXERCISE THE 'LOGIC' OF THE "AD15"
 /ANALOG TO DIGITAL CONVERTER, CONVERSIONS ARE TAKEN UNDER PROGRAM
 /CONTROL, SEQUENTIAL AND RANDOM OPERATION, EIGHT (8) POSSIBLE
 /ERRORS MAY BE DETECTED BY THE 'AD15' SYSTEM EXERCISER,

- /1); ILLEGAL 'WORD COUNT' FLAG OCCURRED,
- /2); ILLEGAL 'MEMORY OVERFLOW' FLAG OCCURRED,
- /3); WRONG 'CHANNEL' IN 'AD15' STATUS REGISTER,
- /4); CONTENTS OF 'W,C,#26' NOT EQUAL TO '0' AFTER W,C, FLAG,
- /5); CONTENTS OF 'DATA BUFFER' UNCHANGED AFTER SEQUENTIAL CONVERSIONS,
- /6); ILLEGAL DATA TRANSFER TO DATA BUFFER,
- /7); DATA ERROR, CONVERSION VALUES OUT OF SPEC IN NOISE TEST,
- /10); ILLEGAL 'API' ERROR,
- /11); ADD TO MEMORY FAILED

EBREL

705512 A RPL=705512
 707764 A EBA=707764
 707702 A EEM=707702

00000 R	600017 A	USERSW	600017	/I/O DEVICE WITH API CHANNEL '57',
00001 R	000000 A		0	
00002 R	000000 A		0	
00003 R	000000 A		0	
00004 R	000074 R		.DSA	SERVICE
00005 R	000044 R		.DSA	INIT
00006 R	010461 A		.SIXBT	'AD15'
00007 R	654040 A			
00010 R	010000 A	DATASW	10000	/DATA SW5 INHIBITS THE AD15 TEST
00011 R	000000 A		.BLOCK 7	
00020 R	000000 A	SYSERR	0	/ERROR INDICATOR FOR MONITOR
00021 R	000000 A		0	/W,C, FOR DATA WORD ERROR CODES
00022 R	000000 A	ERCODE	0	/ERROR CODE
00023 R	000000 A		0	
00024 R	000000 A		0	
00025 R	000000 A		0	
00026 R	000000 A		0	
00027 R	000000 A		0	
00030 R	000000 A		0	
00031 R	701304 A	/AD15 IOT'S	ADCV	701304
00032 R	701312 A		ADRB	701312
00033 R	701352 A		ADRS	701352
00034 R	701362 A		ADCF	701362
00035 R	701301 A		ADSF	701301
00036 R	701341 A		WCSF	701341
00037 R	701321 A		MSSF	701321
00040 R	000024 A		WC24	24

/LOAD STATUS, CLR A/D DONE, INITIATE TIMING
 /READ DATA INTO AC, CLR A/D DONE
 /READ STATUS REGISTER INTO AC
 /CLEAR ALL A/D FLAGS
 /SKIP ON A/D DONE FLAG
 /SKIP ON WORD COUNT OVERFLOW
 /SKIP ON MEMORY OVERFLOW
 /=TO W,C, 24

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00041 R 000025 A CA25 25 /=TO CURRENT ADDRESS 25
00042 R 000026 A WC26 26 /=TO W,C, 26
00043 R 000027 A CA27 27 /=TO CURRENT ADDRESS 27
/INITILIZE THE 'AD15' TEST
/
00044 R 000000 A INIT 0
00045 R 707764 A EBA
00046 R 707702 A EEM
00047 R 200044 R LAC INIT
00050 R 040074 R DAC SERVICE
00051 R 140020 R DZM SYSERR /CLEAR ERROR LOCATIONS
00052 R 140021 R DZM SYSERR+1
00053 R 140022 R DZM ERCODE
00054 R 141212 R DZM FLGDRV /CLEAR 'FLAG DRIVE' INDICATOR,
00055 R 760000 A LAW
00056 R 041222 R DAC RUNCTR /SET UP FOR 8192 PASSES,
00057 R 201227 R LAC (PGCVRT
00060 R 040102 R DAC DSTSW1 /SET DISTRIBUTION SWITCH
00061 R 201230 R LAC (1
00062 R 041207 R DAC CHANEL /=TO CHANNEL #1
00063 R 100610 R JMS HOLDSW /CHECK FOR HOLD SWITCH
00064 R 201231 R LAC (200001 /GAIN=2, PROG, CONTROL, CHA, #1
00065 R 040625 R DAC STAWRD
00066 R 400031 R XCT ADCV /START 1ST CONVERSION
00067 R 141223 R DZM CNTRA
00070 R 141226 R DZM DELAYS
00071 R 777770 A LAW -10
00072 R 041225 R DAC STALCT /INITIALIZE STALL COUNTER
00073 R 620044 R JMP* INIT
/
/SERVICE ROUTINE FOR THE 'AD15' TEST
/
00074 R 000000 A SERVICE 0
00075 R 707764 A EBA
00076 R 707702 A EEM
00077 R 041210 R DAC SAVEAC /SAVE CONTENTS OF THE AC
00100 R 141212 R DZM FLGDRV /CLEAR 'FLAG DRIVEN' INDICATOR,
00101 R 620102 R JMP* DSTSW1
00102 R 000000 A DSTSW1 0 /DISTRIBUTION LOCATION FOR TESTS
/
/ENTER HERE AFTER COMPLETING A 'PROGRAM CONTROL' CONVERSATION
/
00103 R 400035 R PGCVRT XCT ADSF /IS 'A/D DONE' FLAG SET?
00104 R 600147 R JMP EXIT /NO, EXIT
00105 R 441223 R ISZ CNTRA /INCREMENT THE LOOP CNTR,
00106 R 740000 A NOP
00107 R 777777 A LAW -1 /YES
00110 R 041212 R DAC FLGDRV /SET 'FLAG DRIVEN' INDICATOR
00111 R 100560 R JMS CKWCSP /CHECK FOR AN ILLEGAL W,C, FLAG,
00112 R 100567 R JMS CKMSSF /CHECK FOR AN ILLEGAL MEM, OFLO FLAG,
00113 R 400033 R XCT ADRS /READ 'AD15' STATUS REGISTER
00114 R 501232 R AND (177 /MASK OUT CHANNEL
/

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EJECT

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00115 R 541207 R SAD CHANEL /CORRECT CHANNEL?
00116 R 600121 R JMP ,+3 /YES, CONTINUE
00117 R 100467 R JMS ERRMES /NO, WRONG CHANNEL IN STATUS REG
00120 R 000003 A 3 /ERROR CODE #3
00121 R 400034 R XCT ADCF /CLEAR ALL 'A/D' FLAGS
00122 R 201233 R LAC (SEQTST
00123 R 040102 R DAC DSTSW1 /SET UP TO TEST 'SEQUENTIAL' MODE
00124 R 160040 R DZM* WC24
00125 R 777601 A LAW =177
00126 R 060042 R DAC* WC26 /'127' CONVERSIONS
00127 R 777600 A LAW =200
00130 R 041214 R DAC CNTR1
00131 R 201234 R LAC (DATABUF=1
00132 R 060043 R DAC* CA27 /DATA BUFFER ADDRESS=1
00133 R 201235 R LAC (DATABUF
00134 R 041215 R DAC TEMP1
00135 R 201236 R LAC (377777
00136 R 061215 R DAC* TEMP1 /PRE=LOAD DATA BUFFER
00137 R 441215 R ISZ TEMP1
00140 R 441214 R ISZ CNTR1
00141 R 600136 R JMP ,=3
00142 R 100610 R JMS HOLDSW /CHECK FOR HOLD SWITCH
00143 R 201237 R LAC (402200 /GAIN=4, MULTI CYCLE, SEQ,, CHA, #0
00144 R 400031 R XCT ADCV /START CONVERSION
00145 R 201232 R LAC (177
00146 R 041207 R DAC CHANEL /=TO CHA, 128
00147 R 201212 R EXIT LAC FLGDRV
00150 R 741200 A SNA /ANY 'A/D' FLAGS SET?
00151 R 600520 R JMP NOFLAG /NO, EXIT MINUS '5'
00152 R 705512 A RPL /YES
00153 R 751100 A SPAICLA /IS 'API' ON?
00154 R 201210 R LAC SAVEAC /YES, RESTORE THE AC,
00155 R 703344 A DBR /NO, EXIT
00156 R 620074 R JMP* SERVC

/
/ENTER HERE AFTER TAKING ALL 'SEQUENTIAL' CONVERSIONS,
/
00157 R 100567 R SEQTST JMS CKMSSE /CHECK FOR AN ILLEGAL MEM. FLAG,
00160 R 400036 R XCT WCSF /W,C, OVRFLOW FLAG SET,
00161 R 600147 R JMP EXIT /NO, EXIT
00162 R 777777 A LAW =1 /YES
00163 R 041212 R DAC FLGDRV /SET 'FLAG DRIVE' INDICATOR
00164 R 400034 R XCT ADCF /CLEAR ALL A/D FLAGS
00165 R 220042 R LAC* WC26
00166 R 741200 A SNA /IS W,C, #26 = '0'
00167 R 600172 R JMP ,+3 /YES
00170 R 100467 R JMS ERRMES /W,C, 26 ISN'T '0'
00171 R 000004 A 4 /ERROR CODE #4
00172 R 400033 R XCT ADRS
00173 R 501232 R AND (177 /MASK CHANNEL
00174 R 541232 R SAD (177 /CHANNEL CORRECT?
00175 R 600200 R JMP ,+3 /YES, CONTINUE
00176 R 100467 R JMS ERRMES /NO, WRONG CHANNEL IN STATUS REG,

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00177 R 000003 A

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EJECT

/ERROR CODE #3

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00200 R 200765 R LAC DATABUF
00201 R 541236 R SAD (377777)
00202 R 741000 A SKP
00203 R 600206 R JMP ,+3
00204 R 100467 R JMS ERRMES /DATA BUFFER UNCHANGED
00205 R 000005 A 5 /ERROR CODE #5
00206 R 201163 R LAC DATABUF+176
00207 R 541236 R SAD (377777) /WAS THE LAST BUFFER CHANGED?
00210 R 741000 A SKP /NO, ERROR
00211 R 600214 R JMP ,+3 /YES, CONTINUE
00212 R 100467 R JMS ERRMES /DATA BUFFER UNCHANGED
00213 R 000005 A 5 /ERROR CODE #5
00214 R 201164 R LAC DATABUF+177
00215 R 541236 R SAD (377777) /CHECK FOR AN EXTRA CONVERSION
00216 R 600221 R JMP ,+3
00217 R 100467 R JMS ERRMES /ERROR LAST DATA BUFFER+1 MODIFIED
00220 R 000006 A 6 /ERROR CODE #6
00221 R 740000 A NOP /TEST LOCATION FOR 'DBK'
00222 R 201240 R LAC (RANTST
00223 R 040102 R DAC DSTSW1 /SET UP FOR 'RANDOM' MODE
00224 R 201241 R LAC (STAWRD
00225 R 041215 R DAC TEMP1 /TO STATUS WORD BUFFER,
00226 R 201242 R LAC (002000 /GAIN=1, MULTI-CYCLE, RAN., CHA #0
00227 R 100576 R JMS SETSTA /SET UP '10' STAWRD'S
00230 R 201243 R LAC (202001 /CHA #1
00231 R 100576 R JMS SETSTA
00232 R 201244 R LAC (402002 /CHA #2
00233 R 100576 R JMS SETSTA
00234 R 201245 R LAC (602003 /CHA #3
00235 R 100576 R JMS SETSTA
00236 R 201246 R LAC (602420 /CHA #20
00237 R 100576 R JMS SETSTA
00240 R 201247 R LAC (402007 /TO CHA, #7
00241 R 100576 R JMS SETSTA
00242 R 201250 R LAC (102077 /TO CHA, #77
00243 R 100576 R JMS SETSTA
00244 R 201251 R LAC (602005 /TO CHA, #5
00245 R 100576 R JMS SETSTA
00246 R 201252 R LAC (002010
00247 R 061215 R DAC* TEMP1 /TO THE LAST STATUS WORD, #81
00250 R 777656 A LAW -122
00251 R 060040 R DAC* WC24 /SET UP FOR 81 CONVERSIONS
00252 R 201253 R LAC (STAWRD-1
00253 R 060041 R DAC* CA25 /STATUS WORD ADDRESS=1
00254 R 777657 A LAW -121
00255 R 060042 R DAC* WC26
00256 R 201234 R LAC (DATABUF-1 /DATA BUFFER ADDRESS -1
00257 R 060043 R DAC* CA27
00260 R 201254 R LAC (10
00261 R 041207 R DAC CHANEL /TO CHANNEL #10
00262 R 100610 R JMS HOLDSW /CHECK FOR HOLD SWITCH
00263 R 200625 R LAC STAWRD
00264 R 400031 R XCT ADCV /START 'RANDOM' CONVERSIONS

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00265 R 600147 R

JMP EXIT
EJECT

/ENTER HERE AFTER TAKING ALL 'RANDOM' CONVERSIONS

00266	R	100567	R	RANTST	JMS	CKMSSF	/CHECK FOR AN ILLEGAL MEM, FLAG,
00267	R	400036	R		XCT	WCSF	/W,C, OVRFLOW FLAG SET?
00270	R	600147	R		JMP	EXIT	/NO, EXIT
00271	R	777777	A		LAW	-1	
00272	R	041212	R		DAC	FLGDRV	/SET 'FLAG DRIVE' INDICATOR
00273	R	400034	R		XCT	ADCF	/CLEAR ALL A/D FLAGS
00274	R	400033	R		XCT	ADRS	/READ 'AD15' STATUS REGISTER
00275	R	501232	R		AND	(177	/MASK OUT CHANNEL
00276	R	541207	R		SAD	CHANEL	/CHANNEL RIGHT
00277	R	600302	R		JMP	,+3	/YES
00300	R	100467	R		JMS	ERRMES	/WRONG CHANNEL IN STATUS
00301	R	000003	A		3		/ERROR CODE #3
00302	R	740000	A		NOP		/TEST LOCATION FOR 'DBK'
00303	R	201255	R		LAC	(ADD MEM	
00304	R	040102	R		DAC	DSTSW1	/SET UP FOR THE ADD TO MEM, TEST,
00305	R	140765	R		DZM	DATABUF	/PRE-LOAD DATA BUFFER
00306	R	140766	R		DZM	DATABUF+1	
00307	R	140767	R		DZM	DATABUF+2	
00310	R	140770	R		DZM	DATABUF+3	
00311	R	140771	R		DZM	DATABUF+4	
00312	R	201236	R		LAC	(377777	
00313	R	040772	R		DAC	DATABUF+5	
00314	R	040773	R		DAC	DATABUF+6	
00315	R	040774	R		DAC	DATABUF+7	
00316	R	201256	R		LAC	(006401	/GAIN=1, MEM, OVRFLOW, ADD TO MEM,
00317	R	040625	R		DAC	STAWRD	
00320	R	040626	R		DAC	STAWRD+1	
00321	R	040627	R		DAC	STAWRD+2	
00322	R	040630	R		DAC	STAWRD+3	
00323	R	040631	R		DAC	STAWRD+4	
00324	R	040632	R		DAC	STAWRD+5	
00325	R	040633	R		DAC	STAWRD+6	
00326	R	040634	R		DAC	STAWRD+7	
00327	R	777767	A		LAW	-11	
00330	R	060040	R		DAC*	WC24	
00331	R	201253	R		LAC	(STAWRD-1	
00332	R	060041	R		DAC*	CA25	
00333	R	777770	A		LAW	-10	/SET UP FOR '8' CONVERSIONS,
00334	R	060042	R		DAC*	WC26	
00335	R	201234	R		LAC	(DATABUF-1	
00336	R	060043	R		DAC*	CA27	
00337	R	201230	R		LAC	(1	
00340	R	041207	R		DAC	CHANEL	/=TO CHANNEL #1
00341	R	100610	R		JMS	HOLDSW	/CHECK FOR HOLD SWITCH
00342	R	200625	R		LAC	STAWRD	
00343	R	400031	R		XCT	ADCV	/START ADD TO MEM, TEST,
00344	R	600147	R		JMP	EXIT	

.EJECT


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/ENTER HERE FOR THE 'ADD TO MEMORY' TEST
00345 R 100560 R ADDMEM JMS CKWCSF /CHECK FOR AN ILLEGAL W,C, FLAG,
00346 R 400037 R XCT MSSF /MEM, OVRFLOW FLAG SET?
00347 R 600147 R JMP EXIT
00350 R 777777 A LAW -1
00351 R 041212 R DAC FLGDRV
00352 R 400034 R XCT ADCF /CLEAR ALL 'A/D' FLAGS,
00353 R 400037 R XCT MSSF /DID THE MEM, OVRFLOW FLAG CLEAR?
00354 R 600357 R JMP ,+3 /YES, CONTINUE
00355 R 100467 R JMS ERRMES /NO, ADCF DIDN'T CLEAR MEM, FLAG,
00356 R 000012 A 12 /ERROR CODE #12
00357 R 400032 R XCT ADRB /READ DATA BUFFER
00360 R 341236 R TAD (377777 /ADD CONSTANT
00361 R 540772 R SAD DATABUF+5 /IS RESULT = TO DATA BUFFER?
00362 R 600365 R JMP ,+3 /YES
00363 R 100467 R JMS ERRMES /NO, ADD TO MEM, FAILED
00364 R 000011 A 11 /ERROR CODE #11
00365 R 201257 R LAC (NOISE
00366 R 040102 R DAC DSTSW1 /SET UP FOR NOISE TEST
00367 R 777634 A LAW -144
00370 R 041214 R DAC CNTR1 /SET UP '100' CONVERSIONS
00371 R 201235 R LAC (DATABUF
00372 R 041215 R DAC TEMP1
00373 R 100610 R JMS HOLDSW /CHECK FOR HOLD SWITCH
00374 R 201230 R RAN1 LAC (000001 /GAIN=1, PROG CONTROL, CHA, #1
00375 R 400031 R XCT ADCV /START CONVERSION
00376 R 600147 R JMP EXIT

/ENTER HERE FOR 'NOISE' TEST
00377 R 100560 R NOISE JMS CKWCSF /CHECK FOR W,C, FLAG,
00400 R 100567 R JMS CKMSSF /CHECK FOR MEM, FLAG
00401 R 400035 R XCT ADSF /DONE FLAG SET?
00402 R 600147 R JMP EXIT /NO, EXIT
00403 R 777777 A LAW -1 /YES
00404 R 041212 R DAC FLGDRV /SET FLAG DRIVE INDICATOR
00405 R 400034 R XCT ADCF /CLEAR ALL A/D FLAGS
00406 R 400032 R XCT ADRB /READ DATA BUFFER
00407 R 061215 R DAC* TEMP1 /SAVE IT
00410 R 441215 R ISZ TEMP1
00411 R 441214 R ISZ CNTR1
00412 R 600374 R JMP RAN1 /FINISHED '100' CONVERSIONS?
00413 R 740000 A NOP /NO, START NEXT CONVERSION
00414 R 201235 R LAC (DATABUF /TEST LOCATION FOR 'DBK'
00415 R 041215 R DAC TEMP1
00416 R 777634 A LAW -144
00417 R 041214 R DAC CNTR1
00420 R 200765 R LAC DATABUF
00421 R 341260 R TAD (5 /ADD '5' TO 1ST CONVERSION VALUE
00422 R 740001 A CMA
00423 R 341230 R TAD (1
00424 R 041216 R DAC TEMP2 /SAVE ITS COMPLIMENT
00425 R 200765 R LAC DATABUF
00426 R 341261 R TAD (-5 /ADD '-5' TO 1ST CONVERSION VALUE
00427 R 740001 A CMA

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00430 R 341230 R          TAD      (1
00431 R 041217 R          DAC      TEMP3      /SAVE ITS COMPLIMENT
00432 R 201216 R          LAC      TEMP2
00433 R 361215 R          TAD*     TEMP1
00434 R 740100 A          SMA
00435 R 100542 R          JMS      ERROR7     /IS VALUE LESS THAN HIGH LIMIT
00436 R 201217 R          LAC      TEMP3     /NO, CONVERSION OUT OF SPEC
00437 R 361215 R          TAD*     TEMP1
00440 R 741300 A          SZA!SPA
00441 R 100542 R          JMS      ERROR7     /IS VALUE GREATER THAN LOW LIMIT
00442 R 441215 R          ISZ      TEMP1     /NO, VALUE OUT OF SPEC
00443 R 441214 R          ISZ      CNTR1
00444 R 600432 R          JMP      NOISE1     /CHECKED ALL VALUES?
00445 R 201262 R          LAC      (+2       /NO, COMPARE NEXT CONVERSION
00446 R 040102 R          DAC      DSTSW1     /INITIALIZE STALL
00447 R 101172 R          JMS      STALL
00450 R 201227 R          LAC      (PGCVRT
00451 R 040102 R          DAC      DSTSW1     /SET DISTRIBUTION SWITCH FOR P,C, TEST
00452 R 441222 R          ISZ      RUNCTR     /FINISHED TEST?
00453 R 741000 A          SKP
00454 R 600463 R          JMP      EXITM4     /NO, LOOP AGAIN
00455 R 100610 R          JMS      HOLDSW     /YES, TYPE DONE,
00456 R 201263 R          LAC      (400610   /CHECK FOR HOLD SWITCH
00457 R 400031 R          XCT      ADCV       /GAIN=4, PROG CONTROL, ADD TO MEM,, CHA 10
00460 R 201254 R          LAC      (10
00461 R 041207 R          DAC      CHANEL     /START NEXT CONVERSION
00462 R 600147 R          JMP      EXITM4     /=TO CHANNEL '10'
00463 R 777774 A          LAW      =4
00464 R 040020 R          DAC      SYSERR     /SET UP TO TYPE 'DONE'
00465 R 140021 R          DZM      SYSERR+1
00466 R 600147 R          JMP      EXIT
/
/ERROR EXIT FOR ERRORS #1, #2, #3, #4, #5, AND #6
/
ERRMES 0
00467 R 000000 A          DAC      SAVACC     /SAVE CONTENTS OF AC
00470 R 041211 R          LAC*     ERRMES
00471 R 220467 R          DAC      ERCODE     /#1, ERROR CODE
00472 R 040022 R          LAC      (NOISE2
00473 R 201264 R          DAC      DSTSW1     /#1, ERROR CODE
00474 R 040102 R          LAW      =1         /RESET DISTRIBUTION SWITCH,
00475 R 777777 A          DAC      SYSERR     /SET ERROR INDICATOR
00476 R 040020 R          LAW      =6
00477 R 777772 A          DAC      ERCODE=1   /6 DATA WORDS
00500 R 040021 R          LAC      SAVACC
00501 R 201211 R          DAC      ERCODE+1   /#2, CONTENTS OF AC
00502 R 040023 R          XCT      ADRS       /#3, 'AD15' STATUS REG
00503 R 400033 R          DAC      ERCODE+2   /#4, CURRENT CHANNEL
00504 R 040024 R          LAC      CHANEL
00505 R 201207 R          DAC      ERCODE+3   /#4, CURRENT CHANNEL
00506 R 040025 R          LAC*     WC24        /#5, CONTENTS OF W,C, #24
00507 R 220040 R          DAC      ERCODE+4   /#5, CONTENTS OF W,C, #24
00510 R 040026 R          LAC*     WC26        /#6, CONTENTS OF W,C, #26
00511 R 220042 R

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00512 R 040027 R
00513 R 400034 R
00514 R 600152 R

DAC ERCODE+5
XCT ADCF
JMP EXIT+5
/
.EJECT

/CLEAR ALL A/D FLAGS,

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/SET UP FOR A "-5" EXIT
00515 R 777773 A EXITM5 LAW =2
00516 R 040020 R DAC SYSERR
00517 R 600152 R JMP EXIT+3
/
/EXIT FOR A 'NO-FLAG' CONDITION
00520 R 705512 A NOFLAG RPL /TEST FOR 'API'
00521 R 741100 A SPA /IS 'API' ON?
00522 R 100526 R JMS ERROR8 /YES, 'API' ERROR
00523 R 777777 A LAW =1 /NO
00524 R 703344 A DBR
00525 R 620074 R JMP* SERVICE /NORMAL EXIT
/
/ERROR #8, API INTERRUPTED WITH NO FLAGS SET
00526 R 000000 A ERROR8 0
00527 R 777776 A LAW =2 /SET UP ERROR 8
00530 R 040020 R DAC SYSERR
00531 R 201254 R LAC (10 /ERROR CODE, 'API' ERROR
00532 R 040022 R DAC ERCODE
00533 R 400033 R XCT ADRS
00534 R 040023 R DAC ERCODE+1
00535 R 201223 R LAC CNTRA
00536 R 040024 R DAC ERCODE+2
00537 R 777775 A LAW =3
00540 R 040021 R DAC ERCODE-1
00541 R 600152 R JMP EXIT+3
/
/ERROR #7, DATA NOISE ERROR, CONVERSION'S OUT OF SPEC.
00542 R 000000 A ERROR7 0
00543 R 201264 R LAC (NOISE2
00544 R 040102 R DAC DSTSW1 /SET DISTRIBUTION SW FOR NEXT TEST.
00545 R 777777 A LAW =1
00546 R 040020 R DAC SYSERR
00547 R 201265 R LAC (7
00550 R 040022 R DAC ERCODE /ERROR CODE #7
00551 R 777775 A LAW =3
00552 R 040021 R DAC ERCODE-1
00553 R 200765 R LAC DATABUF
00554 R 040023 R DAC ERCODE+1 /1ST CONVERSION VALUE
00555 R 221215 R LAC* TEMP1
00556 R 040024 R DAC ERCODE+2 /2ND CONVERSION VALUE
00557 R 600152 R JMP EXIT+3
/
,EJECT

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/CHECK FOR AN ILLEGAL 'WORD COUNT' OVRFLOW FLAG,

```

00560 R 000000 A   CKWCSF 0
00561 R 400036 R   XCT      WCSF      /IS THE W.C. FLAG SET?
00562 R 620560 R   JMP*    CKWCSF    /NO, EXIT
00563 R 777777 A   LAW      =1
00564 R 041212 R   DAC      FLGDRV    /YES, SET FLAG INDICATOR,
00565 R 100467 R   JMS      ERRMES    /ERROR, ILLEGAL W.C. FLAG,
00566 R 000001 A   1          /ERROR CODE #1

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/CHECK FOR AN ILLEGAL 'MEM. OVRFLOW' FLAG,

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00567 R 000000 A   CKMSSF 0
00570 R 400037 R   XCT      MSSF      /IS THE MEM. FLAG SET?
00571 R 620567 R   JMP*    CKMSSF    /NO, EXIT
00572 R 777777 A   LAW      =1
00573 R 041212 R   DAC      FLGDRV    /YES, SET FLAG INDICATOR,
00574 R 100467 R   JMS      ERRMES    /ERROR, ILLEGAL MEM. OVRFLOW FLAG,
00575 R 000002 A   2          /ERROR CODE #2

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/SET UP '10' RANDOM STATUS WORDS ON ENTRY,

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00576 R 000000 A   SETSTA 0
00577 R 041224 R   DAC      SAVSTA    /SAVE THE STATUS WORD,
00600 R 777766 A   LAW      =12
00601 R 041214 R   DAC      CNTR1     /SET UP FOR 10 WORDS,
00602 R 201224 R   LAC      SAVSTA
00603 R 061215 R   DAC*    TEMP1     /SAVE IN STATUS BUFFER,
00604 R 441215 R   ISZ     TEMP1
00605 R 441214 R   ISZ     CNTR1
00606 R 600602 R   JMP      =4
00607 R 620576 R   JMP*    SETSTA

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/TEST FOR DATA SW5 WHICH INHIBITS THE 'AD15' TEST

```

00610 R 000000 A   HOLDSW 0
00611 R 750004 A   LAS
00612 R 500010 R   AND      DATASW    /DATA SW5
00613 R 741200 A   SNA      /IS SWITCH SET?
00614 R 620610 R   JMP*    HOLDSW    /NO, CONTINUE
00615 R 200102 R   LAC      DSTSW1   /YES
00616 R 041221 R   DAC      SAVDSI   /SAVE RETURN ADDRSS
00617 R 201266 R   LAC      (HOLD,1
00620 R 040102 R   DAC      DSTSW1
00621 R 600515 R   JMP      EXITM5   /EXIT '=5'
00622 R 201221 R   HOLD,1 LAC      SAVDSI
00623 R 040102 R   DAC      DSTSW1   /RESTORE RETURN ADDRESS
00624 R 600611 R   JMP      HOLDSW+1 /RE=TEST SWITCH

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,EJECT

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00625 R      A      STAWRD  /BLOCK 140      /STATUS WORD LOCATIONS
00765 R      A      DATABUF /BLOCK 205      /DATA STORAGE TABLE
01172 R 000000 A      STALL  /
01173 R 441225 R      ISZ      STALCT
01174 R 600515 R      JMP      EXITMS
01175 R 201226 R      LAC      DELAYS
01176 R 740001 A      CMA
01177 R 041226 R      DAC      DELAYS
01200 R 740200 A      SZA
01201 R 601204 R      JMP      +3      /STALL EVERY OTHER PASS
01202 R 777777 A      LAW      -1      /SET UP STALL
01203 R 741000 A      SKP
01204 R 777775 A      LAW      -3
01205 R 041225 R      DAC      STALCT
01206 R 621172 R      JMP*     STALL
01207 R 000000 A      CHANEL  /
01210 R 000000 A      SAVEAC  /
01211 R 000000 A      SAVACC  /
01212 R 000000 A      FLGDRV  /
01213 R 000000 A      WAITCT  /
01214 R 000000 A      CNTR1   /
01215 R 000000 A      TEMP1   /
01216 R 000000 A      TEMP2   /
01217 R 000000 A      TEMP3   /
01220 R 000000 A      SAVDSW  /
01221 R 000000 A      SAVDST  /
01222 R 000000 A      RUNCTR  /
01223 R 000000 A      CNTRA   /
01224 R 000000 A      SAVSTA  /
01225 R 000000 A      STALCT  /
01226 R 000000 A      DELAYS  /
000000 R      /END USERSW
01227 R 000103 R #L
01230 R 000001 A #L
01231 R 200001 A #L
01232 R 000177 A #L
01233 R 000157 R #L
01234 R 000764 R #L
01235 R 000765 R #L
01236 R 377777 A #L
01237 R 402200 A #L
01240 R 000266 R #L
01241 R 000625 R #L
01242 R 002000 A #L
01243 R 202001 A #L
01244 R 402002 A #L
01245 R 602003 A #L
01246 R 602420 A #L

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01247 R 402007 A *L
01250 R 102077 A *L
01251 R 602005 A *L
01252 R 002010 A *L
01253 R 000624 R *L
01254 R 000010 A *L
01255 R 000345 R *L
01256 R 006401 A *L
01257 R 000377 R *L
01260 R 000005 A *L
01261 R 777773 A *L
01262 R 000447 R *L
01263 R 400610 A *L
01264 R 000445 R *L
01265 R 000007 A *L
01266 R 000622 R *L

SIZE=01275

NO ERROR LINES

ADCF	00034	R	ADCV	00031	R	ADMEM	00345	R	AURB	00032	R
ADRS	00033	R	ADSF	00035	R	CA25	00041	R	CA27	00043	R
CHANEL	01207	R	CKMSSF	00567	R	CKWCSF	00560	R	CNTRA	01223	R
CNTR1	01214	R	DATABU	00765	R	DATASW	00010	R	DELAYS	01226	R
DSTSW1	00102	R	EBA	707764	A	EEM	707702	A	ERCODE	00022	R
ERRMES	00467	R	ERROR7	00542	R	ERROR8	00526	R	EXIT	00147	R
EXITM4	00463	R	EXITM5	00515	R	FLGDRV	01212	R	HOLDSW	00610	R
HOLD.1	00622	R	INIT	00044	R	MSSF	00037	R	NOFLAG	00520	R
NOISE	00377	R	NOISE1	00432	R	NOISE2	00445	R	PGCVRT	00103	R
RANTST	00266	R	RAN1	00374	R	RPL	705512	A	RUNCTR	01222	R
SAVACC	01211	R	SAVDST	01221	R	SAVDSW	01220	R	SAVEAC	01210	R
SAVSTA	01224	R	SEQTST	00157	R	SERVICE	00074	R	SETSTA	00576	R
STALCT	01225	R	STALL	01172	R	STAWRD	00625	R	SYSERR	00020	R
TEMP1	01215	R	TEMP2	01216	R	TEMP3	01217	R	USERSW	00000	R
WAITCT	01213	R	WCSF	00036	R	WC24	00040	R	WC26	00042	R

USERSW	00000	R	DATASW	00010	R	SYSERR	00020	R	ERCODE	00022	R
ADCV	00031	R	ADRB	00032	R	ADRS	00033	R	ADCF	00034	R
ADSF	00035	R	WCSF	00036	R	MSSF	00037	R	WC24	00040	R
CA25	00041	R	WC26	00042	R	CA27	00043	R	INIT	00044	R
SERVICE	00074	R	DSTSW1	00102	R	PGCVRT	00103	R	EXIT	00147	R
SEQTST	00157	R	RANTST	00266	R	ADDMEM	00345	R	RAN1	00374	R
NOISE	00377	R	NOISE1	00432	R	NOISE2	00445	R	EXITM4	00463	R
ERRMES	00467	R	EXITM5	00515	R	NOFLAG	00520	R	ERROR8	00526	R
ERROR7	00542	R	CKWCSF	00560	R	CKMSSF	00567	R	SETSTA	00576	R
HOLDSW	00610	R	HOLD,1	00622	R	STAWRD	00625	R	DATABU	00765	R
STALL	01172	R	CHANEL	01207	R	SAVEAC	01210	R	SAVACC	01211	R
FLGDRV	01212	R	WAITCT	01213	R	CNTR1	01214	R	TEMP1	01215	R
TEMP2	01216	R	TEMP3	01217	R	SAVDSW	01220	R	SAVDST	01221	R
RUNCTR	01222	R	CNTRA	01223	R	SAVSTA	01224	R	STALCT	01225	R
DELAYS	01226	R	RPL	705512	A	EEM	707702	A	EBA	707764	A