

.TITLE INDEX AND LIMIT REGISTER TEST FOR SYSTEM EXERCISER.  
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/DIGITAL EQUIPMENT CORPORATION MAYNARD, MASS. 01754  
/PROGRAMMED BY: EARL L. BOUSE

/

/THIS PROGRAM IS DESIGNED TO EXERCISE THE 'INDEX' AND 'LIMIT'  
/REGISTERS OF THE PDP-15. PROVISION IS MADE BY MEANS OF  
/'PARAMETER' MODE TO TEST 'INDEXED ADDRESSING' OF ALL ADDITIONAL  
/MEMORY ABOVE '32K' UP TO '128K'. THE LOCATIONS OF 'USERSW+1'  
/+2 AND +3 MAY BE MODIFIED TO REPRESENT THE AVAILABLE  
/'FIELDS' IN 'BLOCK1', 'BLOCK2' AND 'BLOCK3' RESPECTIVELY.  
/TO REPRESENT THAT FIELDS '0' AND '7' ARE AVAILABLE IN  
/'BLOCK1', 'USERSW+1' WOULD CONTAIN '201'. WHERE  
/FIELD '0' IS REPRESENTED BY THE '1' (BIT 17) AND FIELD '7'  
/IS REPRESENTED BY THE '2' (BIT 10).  
/PROVISION IS ALSO MADE BY 'PARAMETER' MODE TO LOOP  
/ON ANY SPECIFIED TEST (1-12) VIA PLACING THE DESIRED  
/TEST NUMBER IN BITS '7 TO 11' OF THE 'USERSW' AND  
/SETTING BIT '2' TO A '1'.  
/FOURTEEN (14) POSSIBLE ERRORS MAY BE DETECTED BY  
/THE 'XRLR' TEST.

- /
- /1); PROCESSOR WON'T ENTER 'PAGE' MODE.
  - /2); PROCESSOR WON'T ENTER 'BANK' MODE.
  - /3); BAD DATA TRANSFER 'XR TO LR'.
  - /4); BAD DATA TRANSFER 'LR TO XR'.
  - /5); BAD DATA TRANSFER 'AC TO LR'.
  - /6); BAD DATA TRANSFER 'AC TO XR'.
  - /7); BAD DATA TRANSFER 'XR TO AC'.
  - /10); BAD DATA TRANSFER 'LR TO AC'.
  - /11); 'AC' FAILURE.
  - /12); 'XR' FAILURE.
  - /13); 'LR' FAILURE.
  - /14); BAD DATA TRANSFER TO 'LOC.0' OF EXTENDED FIELD.
  - /15); BAD DATA TRANSFER TO 'LOC.1' OF EXTENDED FIELD.
  - /16); BAD DATA TRANSFER TO 'LOC.7777' OF EXTENDED FIELD.

/

.EJECT

.EBREL

707764 A EBA=707764  
 707762 A EPA=707762  
 707761 A SBA=707761  
 707741 A SK15=707741  
 730000 A PLA=730000  
 726000 A PXL=726000  
 724000 A PXA=724000  
 721000 A PAX=721000  
 722000 A PAL=722000  
 731000 A PLX=731000  
 735000 A CLX=735000  
 734000 A CLAC=734000  
 736000 A CLR=736000

00000 R 000000 A  
 00001 R 000000 A  
 00002 R 000000 A  
 00003 R 000000 A  
 00004 R 000054 R  
 00005 R 000031 R  
 00006 R 302257 A  
 00007 R 142240 A  
 00010 R 004000 A  
 00011 R 000000 A  
 00020 R 000000 A  
 00021 R 000000 A  
 00022 R 000000 A  
 00023 R 000000 A  
 00024 R 000000 A  
 00025 R 000000 A  
 00026 R 000000 A  
 00027 R 000000 A  
 00030 R 000000 A

USERSW

/

0

0

0

0

.DSA SERVICE

.DSA INIT

.SIXBT 'XR/LR'

4000

.BLOCK 7

SYSERR

0

0

ERCODE

0

0

0

0

0

0

0

.EJECT

/SETUP AS A 'CPI' TEST.

/PARAMETER, BLOCK #1

/PARAMETER, BLOCK #2

/PARAMETER, BLOCK #3

/DATA 'SW6' INHIBITS XR/LR TEST.

/ERROR INDICATOR FOR MONITOR

/W.C. FOR DATA ERROR CODES

/#1, FAILING TEST NO.

/#2, ERROR CODE

/#3, FAILING TEST ADDRESS

/#4, 'BLOCK' AND 'FIELD' IN WHICH TEST FAILED.

/#5, CONTENTS OF 'AC' ON FAILING PASS.

/#6, CONTENTS OF 'LR' ON FAILING PASS.

/#7, CONTENTS OF 'XR' ON FAILING PASS.

/INITIALIZE THE 'INDEX, LIMIT REGISTER' TEST.

```

INIT 0
00031 R 000000 A          EBA          /ENABLE BANK ADDRESSING
00032 R 707764 A
00033 R 200031 R          LAC          INIT
00034 R 040054 R          DAC          SERVICE
00035 R 140020 R          DZM          SYSERR          /CLEAR ERROR LOCATIONS
00036 R 140021 R          DZM          SYSERR+1
00037 R 140022 R          DZM          ERCODE
00040 R 142630 R          DZM          PARMODE          /CLEAR PARAMETER INDICATOR
00041 R 142631 R          DZM          EXDMODE          /CLEAR EXTEND MODE INDICATOR
00042 R 142624 R          DZM          PAGESW          /CLEAR PAGE SW INDICATOR.
00043 R 202701 R          LAC          (TST1
00044 R 040077 R          DAC          DSTSW1          /SET DISTRIBUTION SW FOR 1ST TEST.
00045 R 102561 R          JMS          HOLDSW          /CHECK FOR THE HOLD SWITCH
00046 R 102337 R          JMS          CKPAR1          /CHECK PARAMETER FOR SELECTED TEST
00047 R 777773 A          LAW          -5
00050 R 040020 R          DAC          SYSERR
00051 R 777760 A          LAW          -20
00052 R 042617 R          DAC          RUNCTR
00053 R 620031 R          JMP*         INIT

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/SERVICE ENTRANCE FOR INDEX, LIMIT REGISTER TEST

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SERVICE 0
00054 R 000000 A          EBA
00055 R 707764 A          DAC          SAVEAC          /SAVE CONTENTS OF AC
00056 R 042612 R          LAC          SAVXR
00057 R 202627 R          PAX          /RESTORE CONTENTS OF XR
00060 R 721000 A          LAC          SERVICE
00061 R 200054 R          AND          (70000          /MASK FIELD BITS.
00062 R 502702 R          DAC          FIELDA
00063 R 042635 R          LAC          SAVLR
00064 R 202626 R          PAL          /RESTORE CONTENTS OF LR
00065 R 722000 A          LAC          PAGESW
00066 R 202624 R          SNA          /WAS MACHINE IN PAGE MODE.
00067 R 741200 A          JMP          SERV1
00070 R 600075 R          EPA          /YES, ENABLE PAGE ADDRESSING.
00071 R 707762 A
      .DBREL
00072 R 142624 R          DZM          PAGESW
00073 R 202614 R          LAC          SAVAAC          /RESTORE AC FROM A PREVIOUS ERROR
00074 R 620077 R          JMP*         DSTSW1          /DISTRIBUTION SWITCH
      .EBREL
00075 R 202614 R          SERV1     LAC          SAVAAC
00076 R 620077 R          JMP*         DSTSW1
00077 R 000000 A          DSTSW1     0
00100 R 102561 R          TST1      JMS          HOLDSW
00101 R 102356 R          JMS          UPDATE          /UPDATE TEST NO.
00102 R 000100 A          100          /= TO TST1
00103 R 707762 A          EPA          /SET TO PAGE MODE
00104 R 707761 A          SBA          /SKIP IF IN BANK MODE
      .DBREL
00105 R 600110 R          JMP          .+3
/

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.EJECT

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00106 R 102466 R ER5 JMS ERRMES /ERROR, SHOULD BE IN PAGE MODE
00107 R 000001 A 1 /ERROR 1
      .EBREL
00110 R 707764 A EBA /ENABLE BANK MODE
00111 R 707761 A SBA /ERROR, SHOULD BE IN BANK MODE
00112 R 741000 A SKP /ERROR 2
00113 R 600116 R JMP .+3
00114 R 102466 R ER4 JMS ERRMES
00115 R 000002 A 2
      /TEST BASIC DATA TRANSFERS WITH ONES AND ZEROES
00116 R 750001 A CLC /ALL ONES IN AC
00117 R 722000 A PAL /PLACE AC IN LR
00120 R 750000 A CLA
00121 R 730000 A PLA /PLACE LR IN AC
00122 R 542703 R SAD (777777) /SKIP IF AC IS NOT ALL ONES
00123 R 600120 R JMP .+3
00124 R 102466 R ER13 JMS ERRMES /BAD (1) DATA TRANSFER
00125 R 000010 A 10 /ERROR 8, LR TO AC
00126 R 750000 A CLA
00127 R 722000 A PAL /PLACE AC IN LR
00130 R 730000 A PLA /PLACE LR IN AC
00131 R 741200 A SNA
00132 R 600135 R JMP .+3
00133 R 102466 R ER14 JMS ERRMES /BAD (0) DATA TRANSFER
00134 R 000010 A 10 /ERROR 8, LR TO AC
00135 R 750001 A CLC /ALL ONES IN AC
00136 R 721000 A PAX /PLACE AC IN XR
00137 R 750000 A CLA
00140 R 724000 A PXA /PLACE XR IN AC
00141 R 542703 R SAD (777777) /SKIP IF NOT ALL ONES
00142 R 600145 R JMP .+3
00143 R 102466 R ER15 JMS ERRMES /BAD (1) DATA TRANSFER
00144 R 000007 A 7 /ERROR 7, XR TO AC
00145 R 750000 A CLA
00146 R 721000 A PAX /PLACE AC IN XR
00147 R 724000 A PXA /PLACE XR IN AC
00150 R 741200 A SNA
00151 R 600154 R JMP .+3
00152 R 102466 R ER20 JMS ERRMES /BAD (0) DATA TRANSFER
00153 R 000007 A 7 /ERROR 7, XR TO AC
00154 R 750001 A CLC /ALL ONES IN THE AC
00155 R 722000 A PAL /PLACE LR IN XR
00156 R 731000 A PLX /PLACE AC IN XR
00157 R 750000 A CLA
00160 R 722000 A PAL /PLACE AC IN LR
00161 R 730000 A PLA /PLACE LR IN AC
00162 R 741200 A SNA
00163 R 600166 R JMP .+3
00164 R 102466 R JMS ERRMES /BAD (0) DATA TRANSFER
00165 R 000010 A 10 /ERROR 8, LR TO AC
00166 R 750001 A CLC /ALL ONES IN AC
00167 R 721000 A PAX /PLACE AC IN XR
      .EJECT

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00170	R	750000	A		CLA		
00171	R	724000	A		PXA		
00172	R	542703	R		SAD	(777777	
00173	R	600176	R		JMP	.+3	
00174	R	102466	R		JMS	ERRMES	/BAD (1) DATA TRANSFER
00175	R	000007	A		7		/ERROR 7, XR TO AC
00176	R	750000	A		CLA		
00177	R	721000	A		PAX		/PLACE AC IN XR
00200	R	724000	A		PXA		/PLACE XR IN AC
00201	R	741200	A		SNA		
00202	R	600205	R		JMP	.+3	
00203	R	102466	R		JMS	ERRMES	/BAD (0) DATA TRANSFER
00204	R	000007	A		7		/ERROR 7, XR TO AC
00205	R	750001	A		CLC		/ALL ONES IN AC
00206	R	722000	A		PAL		/PLACE AC IN LR
00207	R	731000	A		PLX		/PLACE LR IN XR
00210	R	750000	A		CLA		
00211	R	724000	A		PXA		/PLACE XR IN AC
00212	R	542703	R		SAD	(777777	
00213	R	600216	R		JMP	.+3	
00214	R	102466	R	ER21	JMS	ERRMES	/BAD (1) DATA TRANSFER
00215	R	000004	A		4		/ERROR 4, LR TO XR
00216	R	750000	A		CLA		
00217	R	722000	A		PAL		/PLACE AC IN LR
00220	R	731000	A		PLX		/PLACE LR IN XR
00221	R	724000	A		PXA		
00222	R	741200	A		SNA		
00223	R	600226	R		JMP	.+3	
00224	R	102466	R	ER22	JMS	ERRMES	/BAD (0) DATA TRANSFER
00225	R	000004	A		4		/ERROR 4, LR TO XR
00226	R	750001	A		CLC		/ALL ONES IN AC
00227	R	721000	A		PAX		/PLACE AC IN XR
00230	R	726000	A		PXL		/PLACE XR IN LR
00231	R	750000	A		CLA		
00232	R	730000	A		PLA		/PLACE LR IN AC
00233	R	542703	R		SAD	(777777	
00234	R	600237	R		JMP	.+3	
00235	R	102466	R	ER23	JMS	ERRMES	/BAD (1) DATA TRANSFER
00236	R	000003	A		3		/ERROR 3, XR TO LR
00237	R	750000	A		CLA		
00240	R	721000	A		PAX		/PLACE AC IN XR
00241	R	726000	A		PXL		/PLACE XR IN LR
00242	R	730000	A		PLA		/PLACE LR IN AC
00243	R	741200	A		SNA		
00244	R	600247	R		JMP	.+3	
00245	R	102466	R	ER24	JMS	ERRMES	/BAD (0) DATA TRANSFER
00246	R	000003	A		3		/ERROR 3, XR TO LR
00247	R	750001	A		CLC		/PLACE ONES IN AC
00250	R	722000	A		PAL		/PLACE AC IN LR
00251	R	542703	R		SAD	(777777	
00252	R	600255	R		JMP	.+3	
					.EJECT		

00253	R	102466	R	ER25	JMS	ERRMES	
00254	R	000005	A		5		/ERROR 5, AC TO LR
00255	R	750001	A		CLC		
00256	R	721000	A		PAX		/PLACE AC IN XR
00257	R	724000	A		PXA		
00260	R	750000	A		CLA		
00261	R	724000	A		PXA		
00262	R	542703	R		SAD	(777777	
00263	R	600266	R		JMP	.+3	
00264	R	102466	R	ER31	JMS	ERRMES	/BAD (1) DATA TRANSFER
00265	R	000010	A		10		/ERROR 8, XR TO AC
00266	R	750001	A		CLC		/ALL ONES IN AC
00267	R	722000	A		PAL		/PLACE AC IN LR
00270	R	730000	A		PLA		/PLACE LR IN AC
00271	R	750000	A		CLA		
00272	R	730000	A		PLA		
00273	R	542703	R		SAD	(777777	
00274	R	600277	R		JMP	.+3	
					/		
00275	R	102466	R	ER32	JMS	ERRMES	/BAD (1) DATA TRANSFER
00276	R	000010	A		10		/ERROR 8, LR TO AC
00277	R	736000	A		CLR		
00300	R	750001	A		CLC		
00301	R	721000	A		PAX		
00302	R	726000	A		PXL		
00303	R	750000	A		CLA		
00304	R	724000	A		PXA		
00305	R	542703	R		SAD	(777777	
00306	R	600311	R		JMP	.+3	
00307	R	102466	R	ER33	JMS	ERRMES	
00310	R	000007	A		7		
00311	R	736000	A		CLR		
00312	R	735000	A		CLX		
00313	R	750001	A		CLC		
00314	R	722000	A		PAL		
00315	R	731000	A		PLX		
00316	R	750000	A		CLA		
00317	R	730000	A		PLA		
00320	R	542703	R		SAD	(777777	
00321	R	600324	R		JMP	.+3	
00322	R	102466	R	ER34	JMS	ERRMES	
00323	R	000010	A		10		
00324	R	754003	A		CLA!CLL!CMA!CML		/SET AC, LINK TO ALL ONES
00325	R	734000	A		CLAC		
00326	R	741200	A		SNA		
00327	R	600332	R		JMP	.+3	
00330	R	102466	R	ER35	JMS	ERRMES	
00331	R	000011	A		11		
00332	R	750001	A		CLC		
00333	R	721000	A		PAX		
00334	R	735000	A		CLX		
00335	R	724000	A		PXA		
00336	R	741200	A		SNA		

00337 R 600342 R

JMP .+3  
.EJECT



00340	R	102466	R	ER41	JMS	ERRMES
00341	R	000012	A		12	
00342	R	750001	A		CLC	
00343	R	722000	A		PAL	
00344	R	736000	A		CLR	
00345	R	730000	A		PLA	
00346	R	741200	A		SNA	
00347	R	600352	R		JMP	.+3
					/	
00350	R	102466	R	ER42	JMS	ERRMES
00351	R	000013	A		13	
00352	R	735000	A		CLX	
00353	R	750000	A		CLA	
00354	R	722000	A		PAL	
00355	R	730000	A		PLA	
00356	R	750001	A		CLC	
00357	R	722000	A		PAL	
00360	R	730000	A		PLA	
00361	R	724000	A		PXA	
00362	R	741200	A		SNA	
00363	R	600366	R		JMP	.+3
00364	R	102466	R	ER43	JMS	ERRMES
00365	R	000013	A		13	
00366	R	750001	A		CLC	
00367	R	721000	A		PAX	
00370	R	722000	A		PAL	
00371	R	730000	A		PLA	
00372	R	750000	A		CLA	
00373	R	722000	A		PAL	
00374	R	730000	A		PLA	
00375	R	724000	A		PXA	
00376	R	542703	R		SAD	(777777
00377	R	600402	R		JMP	.+3
00400	R	102466	R	ER44	JMS	ERRMES
00401	R	000012	A		12	
00402	R	736000	A		CLR	
00403	R	750000	A		CLA	
00404	R	721000	A		PAX	
00405	R	724000	A		PXA	
00406	R	750001	A		CLC	
00407	R	721000	A		PAX	
00410	R	730000	A		PLA	
00411	R	741200	A		SNA	
00412	R	600415	R		JMP	.+3
00413	R	102466	R	ER45	JMS	ERRMES
00414	R	000013	A		13	
00415	R	750001	A		CLC	
00416	R	722000	A		PAL	
00417	R	721000	A		PAX	
00420	R	724000	A		PXA	
00421	R	750000	A		CLA	
00422	R	721000	A		PAX	
					.EJECT	

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00423 R 724000 A PXA
00424 R 730000 A PLA
00425 R 542703 R SAD (777777)
00426 R 600431 R JMP .+3
00427 R 102466 R ER50 JMS ERRMES
00430 R 000013 A 13
00431 R 735000 A CLR
00432 R 735000 A CLX
00433 R 750001 A CLC
00434 R 722000 A PAL
00435 R 750000 A CLA
00436 R 731000 A PLX
00437 R 735000 A CLR
00440 R 726000 A PXL
00441 R 741200 A SNA
00442 R 600445 R JMP .+3
00443 R 102466 R ER51 JMS ERRMES
00444 R 000012 A 12
00445 R 735000 A CLR
00446 R 735000 A CLX
00447 R 750001 A CLC
00450 R 721000 A PAX
00451 R 726000 A PXL
00452 R 735000 A CLX
00453 R 731000 A PLX
00454 R 542703 R SAD (777777)
00455 R 600460 R JMP .+3
00456 R 102466 R ER52 JMS ERRMES
00457 R 000003 A 3
00460 R 102601 R JMS CKHOLD /CHECK FOR PARAMETER MODE
00461 R 202704 R LAC (TST2
00462 R 040077 R DAC DSTSW1
00463 R 602554 R JMP EXITM5 /EXIT MINUS '5'.

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/START 2ND PART OF TEST HERE

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00464 R 102561 R TST2 JMS HOLDSW
00465 R 102356 R JMS UPDATE /RESET 'USERSW' FOR 'TST2'
00466 R 000200 A 200 /= TO TEST 2
00467 R 202705 R LAC (525252)
00470 R 722000 A PAL
00471 R 721000 A PAX
00472 R 734000 A CLAC
00473 R 730000 A PLA
00474 R 542705 R SAD (525252)
00475 R 600500 R JMP .+3
00476 R 102466 R ER53 JMS ERRMES
00477 R 000005 A 5
00500 R 724000 A PXA
00501 R 542705 R SAD (525252)
00502 R 600505 R JMP .+3
.EJECT

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00503	R	102466	R	ER54	JMS	ERRMES
00504	R	000006	A		6	
00505	R	202705	R		LAC	(525252
00506	R	721000	A		PAX	
00507	R	736000	A		CLR	
00510	R	542705	R		SAD	(525252
00511	R	600514	R		JMP	.+3
00512	R	102466	R	ER55	JMS	ERRMES
00513	R	000013	A		13	
00514	R	750000	A		CLA	
00515	R	724000	A		PXA	
00516	R	542705	R		SAD	(525252
00517	R	600522	R		JMP	.+3
00520	R	102466	R	ER56	JMS	ERRMES
00521	R	000012	A		12	
00522	R	202705	R		LAC	(525252
00523	R	722000	A		PAL	
00524	R	735000	A		CLX	
00525	R	542705	R		SAD	(525252
00526	R	600531	R		JMP	.+3
00527	R	102466	R	ER60	JMS	ERRMES
00530	R	000011	A		11	
00531	R	750000	A		CLA	
00532	R	730000	A		PLA	
00533	R	542705	R		SAD	(525252
00534	R	600537	R		JMP	.+3
00535	R	102466	R	ER61	JMS	ERRMES
00536	R	000013	A		13	
00537	R	202706	R		LAC	(252525
00540	R	722000	A		PAL	
00541	R	730000	A		PLA	
00542	R	542706	R		SAD	(252525
00543	R	600546	R		JMP	.+3
00544	R	102466	R	ER62	JMS	ERRMES
00545	R	000013	A		13	
00546	R	202705	R		LAC	(525252
00547	R	722000	A		PAL	
00550	R	730000	A		PLA	
00551	R	542705	R		SAD	(525252
00552	R	600555	R		JMP	.+3
00553	R	102466	R	ER62A	JMS	ERRMES
00554	R	000013	A		13	
00555	R	202705	R		LAC	(525252
00556	R	721000	A		PAX	
00557	R	724000	A		PXA	
00560	R	542705	R		SAD	(525252
00561	R	600564	R		JMP	.+3
00562	R	102466	R	ER63	JMS	ERRMES
00563	R	000012	A		12	

.EJECT

/TEST ADDING MAXIMUM AND MINIMUM POSITIVE QUANTITIES TO AC.

00564	R	735000	A		CLX		/CLEAR XR, LR, AC
00565	R	736000	A		CLR		
00566	R	750000	A		CLA		
00567	R	723377	A		AAC+377		/ADD 377 TO AC
00570	R	542707	R		SAD	(377	
00571	R	600574	R		JMP	.+3	
00572	R	102466	R	ER64	JMS	ERRMES	
00573	R	000011	A		11		
00574	R	723000	A		AAC+0		
00575	R	542707	R		SAD	(377	
00576	R	600601	R		JMP	.+3	
00577	R	102466	R	ER65	JMS	ERRMES	
00600	R	000011	A		11		
00601	R	724000	A		PXA		
00602	R	741200	A		SNA		
00603	R	600606	R		JMP	.+3	
00604	R	102466	R	ER66	JMS	ERRMES	
00605	R	000012	A		12		
00606	R	730000	A		PLA		
00607	R	741200	A		SNA		
00610	R	600613	R		JMP	.+3	
00611	R	102466	R	ER67	JMS	ERRMES	
00612	R	000013	A		13		
00613	R	735000	A		CLX		
00614	R	736000	A		CLR		
00615	R	750000	A		CLA		
00616	R	737377	A		AXR+377		
00617	R	741200	A		SNA		
00620	R	600623	R		JMP	.+3	
00621	R	102466	R	ER70	JMS	ERRMES	
00622	R	000011	A		11		
00623	R	724000	A		PXA		
00624	R	542707	R		SAD	(377	
00625	R	600630	R		JMP	.+3	
00626	R	102466	R	ER71	JMS	ERRMES	
00627	R	000012	A		12		
00630	R	737000	A		AXR+0		
00631	R	724000	A		PXA		
00632	R	542707	R		SAD	(377	
00633	R	600636	R		JMP	.+3	
00634	R	102466	R	ER72	JMS	ERRMES	
00635	R	000012	A		12		
00636	R	730000	A		PLA		
00637	R	741200	A		SNA		
00640	R	600643	R		JMP	.+3	
					.EJECT		

00641	R	102466	R	ER73	JMS	ERRMES
00642	R	000013	A		13	
00643	R	754000	A		CLA!CLL	
00644	R	723777	A		AAC+777	
00645	R	542703	R		SAD	(777777
00646	R	600651	R		JMP	.+3
00647	R	102466	R	ER74	JMS	ERRMES
00650	R	777777	A		LAW	-1
00651	R	723400	A		AAC+400	
00652	R	542710	R		SAD	(777377
00653	R	600656	R		JMP	.+3
00654	R	102466	R	ER75	JMS	ERRMES
00655	R	000012	A		12	
00656	R	735000	A		CLX	
00657	R	737777	A		AXR+777	
00660	R	724000	A		PXA	
00661	R	542703	R		SAD	(777777
00662	R	600665	R		JMP	.+3
00663	R	102466	R	ER76	JMS	ERRMES
00664	R	000012	A		12	
00665	R	737400	A		AXR+400	
00666	R	724000	A		PXA	
00667	R	542710	R		SAD	(777377
00670	R	600673	R		JMP	.+3
00671	R	102466	R	ER77	JMS	ERRMES
00672	R	000012	A		12	
00673	R	102601	R		JMS	CKHOLD
00674	R	202711	R		LAC	(TST3
00675	R	040077	R		DAC	DSTSW1
00676	R	602554	R		JMP	EXITM5
					/	
00677	R	102561	R	TST3	JMS	HOLDSW
00700	R	102356	R		JMS	UPDATE
00701	R	000300	A		300	
00702	R	735000	A		CLX	
00703	R	142620	R		DZM	TEMP1
00704	R	777400	A		LAW	-400
00705	R	042625	R		DAC	MINCYC
00706	R	737001	A	L6.4	AXR+1	
00707	R	442620	R		ISZ	TEMP1
00710	R	741000	A		SKP	
00711	R	600726	R		JMP	L6.4A
00712	R	724000	A		PXA	
00713	R	542620	R		SAD	TEMP1
00714	R	741000	A		SKP	
00715	R	600724	R		JMP	ER100
00716	R	102561	R		JMS	HOLDSW
00717	R	442625	R		ISZ	MINCYC
00720	R	600706	R		JMP	L6.4
00721	R	202712	R		LAC	(L6.4-2
00722	R	040077	R		DAC	DSTSW1
00723	R	602554	R		JMP	EXITM5
					.EJECT	

00724	R	102466	R	ER100	JMS	ERRMES
00725	R	000012	A		12	
00726	R	102601	R	L6.4A	JMS	CKHOLD
00727	R	202713	R		LAC	(TST4
00730	R	040077	R		DAC	DSTSW1
00731	R	602554	R		JMP	EXITM5
					/	
				/TEST 4	/	
					/	
00732	R	102561	R	TST4	JMS	HOLDSW
00733	R	102356	R		JMS	UPDATE
00734	R	000400	A		400	
00735	R	724000	A		PXA	
00736	R	741200	A		SNA	
00737	R	600742	R		JMP	.+3
00740	R	102466	R	ER100A	JMS	ERRMES
00741	R	000012	A		12	
00742	R	754000	A		CLAICLL	
00743	R	142620	R		DZH	TEMP1
00744	R	777400	A		LAW	-400
00745	R	042625	R		DAC	MINCYC
00746	R	202620	R		LAC	TEMP1
00747	R	723001	A	L6.5	AAC+1	
00750	R	442620	R		ISZ	TEMP1
00751	R	741000	A		SKP	
00752	R	600766	R		JMP	L6.6
00753	R	542620	R		SAD	TEMP1
00754	R	741000	A		SKP	
00755	R	600764	R		JMP	ER101
00756	R	442625	R		ISZ	MINCYC
00757	R	600747	R		JMP	L6.5
00760	R	102561	R		JMS	HOLDSW
00761	R	202714	R		LAC	(L6.5-3
00762	R	040077	R		DAC	DSTSW1
00763	R	602554	R		JMP	EXITM5
					/	
					.EJECT	

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00764 R 102466 R ER101 JMS ERRMES
00765 R 000011 A 11
00766 R 102601 R L6.6 JMS CKHOLD
00767 R 202715 R LAC (TST5
00770 R 040077 R DAC DSTSW1
00771 R 602554 R JMP EXITM5
/
/TEST 5
/
00772 R 102561 R TST5 JMS HOLDSW
00773 R 102356 R JMS UPDATE
00774 R 000500 A 500
00775 R 777777 A LAW -1
00776 R 721000 A PAX
00777 R 042620 R DAC TEMP1
01000 R 777400 A LAW -400
01001 R 042625 R DAC MINCYC
01002 R 737777 A L6.6A AXR+777
01003 R 202620 R LAC TEMP1
01004 R 342703 R TAD (-1
01005 R 042620 R DAC TEMP1
01006 R 741200 A SNA
01007 R 601024 R JMP L6.6B
01010 R 724000 A PXA
01011 R 542620 R SAD TEMP1
01012 R 741000 A SKP
01013 R 601022 R JMP ER102
01014 R 102561 R JMS HOLDSW
01015 R 442625 R ISZ MINCYC
01016 R 601002 R JMP L6.6A
01017 R 202716 R LAC (L6.6A-2
01020 R 040077 R DAC DSTSW1
01021 R 602554 R JMP EXITM5
/
01022 R 102466 R ER102 JMS ERRMES
01023 R 000012 A 12
01024 R 724000 A L6.6B PXA
01025 R 741200 A SNA
01026 R 601031 R JMP .+3
01027 R 102466 R ER102A JMS ERRMES
01030 R 000012 A 12
01031 R 102601 R JMS CKHOLD
01032 R 202717 R LAC (TST6
01033 R 040077 R DAC DSTSW1
01034 R 602554 R JMP EXITM5
/
.EJECT

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/TEST 6

01035	R	102501	R	TST6	JMS	HOLDSW
01036	R	102356	R		JMS	UPDATE
01037	R	000600	A		600	
01040	R	750001	A		CLAICMA	
01041	R	042620	R		DAC	TEMP1
01042	R	777400	A		LAW	-400
01043	R	042625	R		DAC	MINCYC
01044	R	202620	R		LAC	TEMP1
01045	R	723777	A	L6.7	AAC+777	
01046	R	042621	R		DAC	TEMP2
01047	R	202620	R		LAC	TEMP1
01050	R	342703	R		TAD	(-1
01051	R	042620	R		DAC	TEMP1
01052	R	202621	R		LAC	TEMP2
01053	R	741200	A		SNA	
01054	R	601070	R		JMP	L7.1
01055	R	542620	R		SAD	TEMP1
01056	R	741000	A		SKP	
01057	R	601066	R		JMP	ER103
01060	R	442625	R		ISZ	MINCYC
01061	R	601045	R		JMP	L6.7
01062	R	102561	R		JMS	HOLDSW
01063	R	202720	R		LAC	(L6.7-3
01064	R	040077	R		DAC	DSTSW1
01065	R	602554	R		JMP	EXITM5
					/	
01066	R	102466	R	ER103	JMS	ERRMES
01067	R	000011	A		11	
01070	R	202620	R	L7.1	LAC	TEMP1
01071	R	741200	A		SNA	
01072	R	601075	R		JMP	.+3
01073	R	102466	R	ER103A	JMS	ERRMES
01074	R	000011	A		11	
					.EJECT	



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01075 R 724000 A PXA
01076 R 042620 R DAC TEMP1 /SAVE XR IN SUM MEMORY CELL
01077 R 102453 R JMS RANDOM
01100 R 502721 R AND (777
01101 R 042621 R DAC TEMP2
01102 R 342722 R TAD (AXR
01103 R 041114 R DAC X6.8
01104 R 202621 R LAC TEMP2
01105 R 502723 R AND (400
01106 R 741200 A SNA
01107 R 601111 R JMP .+2
01110 R 202724 R LAC (777000
01111 R 342621 R TAD TEMP2
01112 R 342620 R TAD TEMP1
01113 R 042620 R DAC TEMP1
01114 R 740040 A X6.8 XX
01115 R 724000 A PXA
01116 R 542620 R SAD TEMP1
01117 R 601122 R JMP .+3
01120 R 102466 R ER104 JMS ERRMES
01121 R 000012 A 12
01122 R 736000 A CLR
01123 R 754001 A CLA!CLL!CMA
01124 R 721000 A PAX
01125 R 750000 A CLA
01126 R 725001 A AXS+1
01127 R 741000 A SKP
01130 R 601133 R JMP .+3
01131 R 102466 R ER110 JMS ERRMES
01132 R 000003 A 3
01133 R 750001 A CLC
01134 R 722000 A PAL
01135 R 721000 A PAX
01136 R 725000 A AXS+0
01137 R 741000 A SKP
01140 R 601143 R JMP .+3
01141 R 102466 R ER111 JMS ERRMES
01142 R 000003 A 3
.EJECT

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01143 R 736000 A CLR
01144 R 754030 A CLA!CLL!IAC
01145 R 721000 A PAX
01146 R 725000 A AXS+0
01147 R 741000 A SKP
01150 R 601153 R JMP .+3
01151 R 102466 R ER112 JMS ERRMES
01152 R 000003 A 3
01153 R 740010 A RAL
01154 R 740100 A SMA
01155 R 601145 R JMP ER112-4
01156 R 721000 A PAX
01157 R 725000 A AXS+0
01160 R 601163 R JMP .+3
01161 R 102466 R ER113 JMS ERRMES
01162 R 000003 A 3
01163 R 735000 A CLX
01164 R 754030 A CLL!CLA!IAC
01165 R 722000 A PAL
01166 R 725000 A AXS+0
01167 R 601172 R JMP .+3
01170 R 102466 R ER114 JMS ERRMES
01171 R 000003 A 3
01172 R 740010 A RAL
01173 R 740100 A SMA
01174 R 601165 R JMP ER114-3
01175 R 740030 A IAC
01176 R 722000 A PAL
01177 R 725000 A AXS+0
01200 R 741000 A SKP
01201 R 601204 R JMP .+3
01202 R 102466 R ER115 JMS ERRMES
01203 R 000003 A 3
01204 R 102601 R JMS CKHOLD
01205 R 202725 R LAC (TST7
01206 R 040077 R DAC DSTSW1
01207 R 602554 R JMP EXITM5
/
/TEST 7 /
/
01210 R 102561 R TST7 JMS HOLDSW
01211 R 102356 R JMS UPDATE
01212 R 000700 A 700
01213 R 736000 A CLR
01214 R 754001 A CLA!CLL!CMA
01215 R 721000 A PAX
01216 R 725001 A AXS+1
01217 R 741000 A SKP
01220 R 601223 R JMP .+3
/
.EJECT

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01221	R	102400	R	ER116	JMS	ERRMES
01222	R	000003	A		3	
01223	R	202705	R		LAC	(525252
01224	R	722000	A		PAL	
01225	R	202700	R		LAC	(252525
01226	R	721000	A		PAX	
01227	R	730000	A		PLA	
01230	R	726000	A		PXL	
01231	R	721000	A		PAX	
01232	R	724000	A		PXA	
01233	R	731000	A		PLX	
01234	R	722000	A		PAL	
01235	R	730000	A		PLA	
01236	R	736000	A		CLR	
01237	R	722000	A		PAL	
01240	R	724000	A		PXA	
01241	R	735000	A		CLX	
01242	R	721000	A		PAX	
01243	R	734000	A		CLAC	
01244	R	730000	A		PLA	
01245	R	542705	R		SAD	(525252
01246	R	601251	R		JMP	.+3
01247	R	102400	R	ER117	JMS	ERRMES
01250	R	000013	A		13	
01251	R	724000	A		PXA	
01252	R	542700	R		SAD	(252525
01253	R	601250	R		JMP	.+3
					/	
					.EJECT	

01254	R	102466	R	ER120	JMS	ERRMES
01255	R	000012	A		12	
01256	R	750001	A		CLC	
01257	R	722000	A		PAL	
01260	R	721000	A		PAX	
01261	R	707764	A		EBA	
01262	R	707762	A		EPA	
01263	R	735000	A		CLX	
01264	R	707764	A		EBA	
					.DBREL	
01265	R	707762	A		EPA	
01266	R	736000	A		CLR	
01267	R	730000	A		PLA	
					.EBREL	
01270	R	707764	A		EBA	
					.DBREL	
01271	R	707762	A		EPA	
01272	R	737100	A		AXR+100	
01273	R	723100	A		AAC+100	
01274	R	722000	A		PAL	
01275	R	730000	A		PLA	
01276	R	542726	R		SAD	(100
01277	R	601302	R		JMP	.+3
01300	R	102466	R	ER121	JMS	ERRMES
01301	R	000013	A		13	
01302	R	724000	A		PXA	
01303	R	542726	R		SAD	(100
01304	R	601307	R		JMP	.+3
01305	R	102466	R	ER122	JMS	ERRMES
01306	R	000013	A		13	
01307	R	735000	A		CLX	
01310	R	202707	R		LAC	(377
01311	R	722000	A		PAL	
01312	R	734000	A		CLAC	
					.EBREL	
01313	R	707764	A		EBA	
					.DBREL	
01314	R	707762	A		EPA	
01315	R	734000	A		CLAC	
01316	R	725377	A		AXS+377	
01317	R	741000	A		SKP	
01320	R	601323	R		JMP	.+3
01321	R	102466	R	ER124	JMS	ERRMES
01322	R	000012	A		12	
					.EBREL	
01323	R	707764	A		EBA	
					.DBREL	
01324	R	707762	A		EPA	
01325	R	730000	A		PLA	
01326	R	542707	R		SAD	(377
01327	R	601332	R		JMP	.+3
					/	
					.EJECT	

01330	R	102466	R	ER125	JMS	ERRMES
01331	R	000013	A		13	
01332	R	777400	A	ER125A	LAW	-400
01333	R	042625	R		DAC	MINCYC
01334	R	102453	R		JMS	RANDOM
01335	R	722000	A		PAL	
01336	R	730000	A		PLA	
01337	R	542623	R		SAD	RANB
01340	R	601343	R		JMP	.+3
01341	R	102466	R	ER130	JMS	ERRMES
01342	R	000013	A		13	
01343	R	102453	R		JMS	RANDOM
01344	R	721000	A		PAX	
01345	R	724000	A		PXA	
01346	R	542623	R		SAD	RANB
01347	R	601352	R		JMP	.+3
01350	R	102466	R	ER131	JMS	ERRMES
01351	R	000012	A		12	
01352	R	102453	R		JMS	RANDOM
01353	R	721000	A		PAX	
01354	R	726000	A		PXL	
01355	R	730000	A		PLA	
01356	R	542623	R		SAD	RANB
01357	R	601362	R		JMP	.+3
01360	R	102466	R	ER132	JMS	ERRMES
01361	R	000003	A		3	
01362	R	102453	R		JMS	RANDOM
01363	R	722000	A		PAL	
01364	R	731000	A		PLX	
01365	R	724000	A		PXA	
01366	R	542623	R		SAD	RANB
01367	R	601372	R		JMP	.+3
01370	R	102466	R	ER133	JMS	ERRMES
01371	R	000004	A		4	
01372	R	442625	R		ISZ	MINCYC
01373	R	601334	R		JMP	ER125A+2
01374	R	102601	R		JMS	CKHOLD
01375	R	202727	R		LAC	(TST10
01376	R	040077	R		DAC	DSTSW1
01377	R	602554	R		JMP	EXITM5
				/START TEST 10		
				/		
01400	R	102561	R	TST10	JMS	HOLD5W
01401	R	102356	R		JMS	UPDATE
01402	R	001000	A		1000	
01403	R	707762	A		EPA	
01404	R	141754	R		DZM	PUT+2
01405	R	202730	R		LAC	(2
01406	R	721000	A		PAX	
01407	R	211747	R		LAC	GET,X
01410	R	541751	R		SAD	GET+2
01411	R	601414	R		JMP	.+3
01412	R	102466	R	ER134	JMS	ERRMES

01413	R	000012	A		12	
01414	R	051752	R		DAC	PUT,X
01415	R	201754	R		LAC	PUT+2
01416	R	541751	R		SAD	GET+2
01417	R	601422	R		JMP	.+3
01420	R	102466	R	ER135	JMS	ERRMES
01421	R	000012	A		12	
01422	R	141754	R		DZM	PUT+2
01423	R	202731	R		LAC	(-2
01424	R	721000	A		PAX	
01425	R	211753	R		LAC	GET+4,X
01426	R	541751	R		SAD	GET+2
01427	R	601432	R		JMP	.+3
01430	R	102466	R	ER136	JMS	ERRMES
01431	R	000012	A		12	
01432	R	051756	R		DAC	PUT+4,X
01433	R	201754	R		LAC	PUT+2
01434	R	541751	R		SAD	GET+2
01435	R	601440	R		JMP	.+3
01436	R	102466	R	ER137	JMS	ERRMES
01437	R	000012	A		12	
01440	R	202732	R		LAC	(1
01441	R	721000	A		PAX	
01442	R	750001	A		CLC	
01443	R	041753	R		DAC	PUT+1
01444	R	151752	R		DZM	PUT,X
01445	R	201753	R		LAC	PUT+1
01446	R	741200	A		SNA	
01447	R	601452	R		JMP	.+3
01450	R	102466	R	ER140	JMS	ERRMES
01451	R	000012	A		12	
01452	R	202705	R		LAC	(525252
01453	R	251460	R		XDR	K9.1,X
01454	R	542703	R		SAD	(777777
01455	R	601462	R		JMP	.+5
01456	R	102466	R	ER141	JMS	ERRMES
01457	R	000012	A		12	
01460	R	741000	A	K9.1	SKP	
01461	R	252525	A		252525	
01462	R	202703	R		LAC	(-1
01463	R	721000	A		PAX	
01464	R	750001	A		CLC	
01465	R	041753	R		DAC	PUT+1
01466	R	151754	R		DZM	PUT+2,X
01467	R	201753	R		LAC	PUT+1
01470	R	741200	A		SNA	
01471	R	601474	R		JMP	.+3
01472	R	102466	R	ER142	JMS	ERRMES
01473	R	000012	A		12	
01474	R	202705	R		LAC	(525252
01475	R	251504	R		XDR	K9.11+2,X
01476	R	542703	R		SAD	(777777
01477	R	601504	R		JMP	.+5

.EJECT

01500	R	102466	R	ER143	JMS	ERRMES
01501	R	000012	A		12	
01502	R	741000	A	K9.11	SKP	
01503	R	252525	A		252525	
01504	R	202730	R		LAC	(2
01505	R	721000	A		PAX	
01506	R	111757	R		JMS	SUB1,X
01507	R	741000	A		SKP	
01510	R	601513	R		JMP	.+3
01511	R	102466	R	ER144	JMS	ERRMES
01512	R	000012	A		12	
01513	R	202732	R		LAC	(1
01514	R	721000	A		PAX	
01515	R	611764	R		JMP	SUB2,X
01516	R	102466	R	ER145	JMS	ERRMES
01517	R	000012	A		12	
01520	R	736000	A		CLR	
01521	R	202730	R		LAC	(2
01522	R	721000	A		PAX	
01523	R	201751	R		LAC	GET+2
01524	R	551747	R		SAD	GET,X
01525	R	601530	R		JMP	.+3
01526	R	102466	R	ER146	JMS	ERRMES
01527	R	000012	A		12	
01530	R	202732	R		LAC	(1
01531	R	721000	A		PAX	
01532	R	411766	R		XCT	SUB3,X
01533	R	102466	R	ER147	JMS	ERRMES
01534	R	000012	A		12	
01535	R	141752	R		DZM	PUT
01536	R	141754	R		DZM	PUT+2
01537	R	202732	R		LAC	(1
01540	R	721000	A		PAX	
01541	R	750000	A		CLA	
01542	R	311770	R		ADD	TOTE,X
01543	R	541771	R		SAD	TOTE+1
01544	R	601547	R		JMP	.+3
01545	R	102466	R	ER150	JMS	ERRMES
01546	R	000012	A		12	
01547	R	737001	A		AXR+1	
01550	R	351770	R		TAD	TOTE,X
01551	R	542733	R		SAD	(770
01552	R	601555	R		JMP	.+3
01553	R	102466	R	ER151	JMS	ERRMES
01554	R	000012	A		12	
01555	R	451752	R		ISZ	PUT,X
01556	R	201754	R		LAC	PUT+2
01557	R	542732	R		SAD	(1
01560	R	601563	R		JMP	.+3

/  
.EJECT



01561	R	102466	R	ER152	JMS	ERRMES
01562	R	000012	A		12	
01563	R	511752	R		AND	PUT,X
01564	R	542732	R		SAD	(1
01565	R	601570	R		JMP	.+3
01566	R	102466	R	ER153	JMS	ERRMES
01567	R	000006	A		6	
01570	R	102601	R		JMS	CKHOLD
01571	R	202734	R		LAC	(TST11
01572	R	040077	R		DAC	DSTSW1
01573	R	602554	R		JMP	EXITM5
					/	
				/TEST 11		
					/	
01574	R	102561	R	TST11	JMS	HOLDSW
01575	R	102356	R		JMS	UPDATE
01576	R	001100	A		1100	
01577	R	142001	R		DZM	IGET+1
01600	R	201747	R		LAC	GET
01601	R	740031	A		CMAIAC	
01602	R	342000	R		TAD	IGET
01603	R	721000	A		PAX	
01604	R	750000	A		CLA	
01605	R	231747	R		LAC*	GET,X
01606	R	542000	R		SAD	IGET
01607	R	601612	R		JMP	.+3
01610	R	102466	R	ER160	JMS	ERRMES
01611	R	000006	A		6	
01612	R	737001	A		AXR+1	
01613	R	201747	R		LAC	GET
01614	R	071747	R		DAC*	GET,X
01615	R	202001	R		LAC	IGET+1
01616	R	541747	R		SAD	GET
01617	R	601622	R		JMP	.+3
01620	R	102466	R	ER161	JMS	ERRMES
01621	R	000006	A		6	
01622	R	202735	R		LAC	(JMP ER162
01623	R	041755	R		DAC	PUT+3
01624	R	202736	R		LAC	(5
01625	R	721000	A		PAX	
01626	R	132002	R		JMS*	JGET,X
01627	R	741000	A	ER162	SKP	
01630	R	601633	R		JMP	.+3
01631	R	102466	R		JMS	ERRMES
01632	R	000006	A		6	
01633	R	202732	R		LAC	(1
01634	R	721000	A		PAX	
01635	R	632003	R		JMP*	JSUB2,X
01636	R	102466	R	ER163	JMS	ERRMES
01637	R	000006	A		6	
01640	R	202730	R		LAC	(2
01641	R	721000	A		PAX	
					.EJECT	

```

01642 R 201751 R          LAC      GET+2
01643 R 572006 R          SAD*     SGET,X
01644 R 601647 R          JMP      .+3
01645 R 102466 R    ER164  JMS      ERRMES
01646 R 000012 A          12
01647 R 432007 R          XCT*     SGETX,X
01650 R 541747 R          SAD      GET
01651 R 601654 R          JMP      .+3
01652 R 102466 R    ER165  JMS      ERRMES
01653 R 000012 A          12

```

/TEST INDIRECT INDEX AUTO INCREMENTED ADDRESSING

```

01654 R 202012 R    T11.0  LAC      DATA
01655 R 062737 R          DAC*     (15           /INITIALIZE 15
01656 R 202732 R          LAC      (1
01657 R 721000 A          PAX
01660 R 230015 A          LAC*     15,X
01661 R 542014 R          SAD      DATA+2
01662 R 601665 R          JMP      .+3
01663 R 102466 R    ER170  JMS      ERRMES
01664 R 000012 A          12
01665 R 142017 R          DZM      STORE+2
01666 R 202740 R          LAC      (STORE
01667 R 062737 R          DAC*     (15
01670 R 202705 R          LAC      (525252
01671 R 070015 A          DAC*     15,X
01672 R 202017 R          LAC      STORE+2
01673 R 542705 R          SAD      (525252
01674 R 601677 R          JMP      .+3
01675 R 102466 R    ER171  JMS      ERRMES
01676 R 000012 A          12

```

/TEST SAD\* 16, XCT\* 16

```

01677 R 202732 R          LAC      (1
01700 R 721000 A          PAX
01701 R 202012 R          LAC      DATA
01702 R 062741 R          DAC*     (16
01703 R 202014 R          LAC      DATA+2
01704 R 570016 A          SAD*     16,X
01705 R 601710 R          JMP      .+3
01706 R 102466 R    ER172  JMS      ERRMES
01707 R 000012 A          12
01710 R 750000 A          CLA
01711 R 737004 A          AXR+4
01712 R 430016 A          XCT*     16,X
01713 R 542014 R          SAD      DATA+2
01714 R 601717 R          JMP      .+3
01715 R 102466 R    ER173  JMS      ERRMES
01716 R 000012 A          12
                          .EJECT

```

/TEST JMP\* 17, JMS\* 17 INDEXED

01717	R	202732	R	T11.2	LAC	(1	
01720	R	721000	A		PAX		
01721	R	202022	R		LAC	JSUB3	/PUT ADDRESS JSUB3+1 IN 17
01722	R	062742	R		DAC*	(17	
01723	R	630017	A		JMP*	17,X	
01724	R	102466	R	ER174	JMS	ERRMES	
01725	R	000012	A		12		
01726	R	737001	A		AXR+1		
01727	R	462742	R		ISZ*	(17	
01730	R	130017	A		JMS*	17,X	
01731	R	102466	R	ER175	JMS	ERRMES	
01732	R	000012	A		12		

01733	R	750000	A		CLA		
01734	R	723002	A		AAC+2		
01735	R	721000	A		PAX		
01736	R	707764	A		EBA		
01737	R	707762	A		EPA		
01740	R	211747	R		LAC	GET,X	
01741	R	541751	R		SAD	GET+2	
01742	R	601745	R		JMP	.+3	
01743	R	102466	R	ER176	JMS	ERRMES	
01744	R	000007	A		7		
01745	R	102601	R		JMS	CKHOLD	
01746	R	602032	R		JMP	CKT12	/CHECK FOR EXTENDED MEMORY.

/REFERENCE AREA FOR CORRECT INDEXING TESTS  
/USED FOR LAC,XDR,SAD

01747	R	001747	R	GET	.DBREL		
01750	R	001750	R		GET		
01751	R	001751	R		GET+1		
					GET+2		

/USED FOR DAC,DZM,ISZ,AND

01752	R	000000	A	PUT	0		
01753	R	000000	A		0		
01754	R	000000	A		0		
01755	R	000000	A		0		
01756	R	000000	A		0		

/USED FOR JMS

01757	R	000000	A	SUB1	0		
01760	R	621757	R		JMP*	SUB1	
01761	R	000000	A	SUB1X	0		
01762	R	441761	R		ISZ	SUB1X	
01763	R	621761	R		JMP*	SUB1X	

/  
.EJECT

/USED FOR 'JMP'

01764 R 601516 R SUB2 JMP ER145  
 01765 R 601520 R JMP ER145+2

/USED FOR 'XCT'

01766 R 601533 R SUB3 JMP ER147  
 01767 R 601535 R JMP ER147+2

/USED FOR ADD, TAD

01770 R 000007 A TOTE 7  
 01771 R 000070 A 70  
 01772 R 000700 A 700

/USED FOR CAL\*

01773 R 000000 A SUB4 0  
 01774 R 441773 R ISZ SUB4 /CAL HERE IF GOOD  
 01775 R 621773 R JMP\* SUB4  
 01776 R 000000 A SUB4X 0 /CAL HERE IF BAD  
 01777 R 621776 R JMP\* SUB4X

02000 R 002000 R IGET IGET  
 02001 R 000000 A 0

/USED FOR JMS\*, JMP\*

02002 R 001754 R JGET SUB1-3  
 02003 R 002004 R JSUB2 JSUB2+1  
 02004 R 601636 R JMP ER163  
 02005 R 601640 R JMP ER163+2

.EJECT

```

/USED FOR SAD*, XCT*
/
02006 R 001747 R SGET GET
02007 R 002007 R SGETX SGETX
02010 R 001751 R GET+2
02011 R 201747 R LAC GET
/
/USED FOR SAD*, XCT*,
/
02012 R 002012 R DATA DATA
02013 R 002013 R DATA+1
02014 R 002014 R DATA+2
02015 R 000000 A STORE 0
02016 R 000000 A 0
02017 R 000000 A 0
02020 R 000000 A 0
02021 R 202014 R JXCT LAC DATA+2
/
/USED FOR JMP*, JMS*
/
02022 R 002023 R JSUB3 JSUB3+1
02023 R 601724 R JMP ER174
02024 R 601724 R JMP ER174
02025 R 601726 R JMP ER174+2
02026 R 000000 A 0
02027 R 622026 R JMP* .-1
02030 R 000000 A 0
02031 R 601733 R JMP ER175+2
/
.EJECT

```

.EBREL  
 /DETERMINE AMOUNT OF EXTENDED MEMORY AVAILABLE VIA  
 /EXAMINING 'USERSW+1,+2 AND +3'.

02032	R	707764	A	CKT12	EBA		
02033	R	102561	R		JMS	HOLDSW	/CHECK FOR THE HOLD SWITCH.
02034	R	102035	R		JMS	TST12	
02035	R	000000	A	TST12	0		
02036	R	200001	R		LAC	USERSW+1	/EXTENDED MEMORY AVAILABLE?
02037	R	340002	R		TAD	USERSW+2	
02040	R	340003	R		TAD	USERSW+3	
02041	R	741200	A		SNA		
02042	R	602440	R		JMP	EXITST	/NO, EXIT TEST
02043	R	102356	R		JMS	UPDATE	/SET UP TEST #12.
02044	R	001200	A		1200		
02045	R	202035	R		LAC	TST12	
02046	R	502702	R		AND	(70000)	/MASK OUT 'P.C.' BITS
02047	R	740031	A		TCA		
02050	R	042632	R		DAC	LOCPC	/SAVE COMPLIMENT OF 'P.C.' LOCATION.
02051	R	200001	R		LAC	USERSW+1	
02052	R	740200	A		SZA		/IS BLOCK #1 AVAILABLE?
02053	R	102065	R		JMS	BLOCK1	/YES, TEST BLOCK #1
02054	R	200002	R		LAC	USERSW+2	
02055	R	740200	A		SZA		/IS BLOCK #2 AVAILABLE?
02056	R	102112	R		JMS	BLOCK2	/YES, TEST BLOCK #2
02057	R	200003	R		LAC	USERSW+3	
02060	R	740200	A		SZA		/IS BLOCK #3 AVAILABLE?
02061	R	102137	R		JMS	BLOCK3	/YES, TEST BLOCK #3
02062	R	202743	R		LAC	(TST12A	/SETUP TO CHECK LOADED DATA.
02063	R	040077	R		DAC	DSTSW1	/RESET DISTRIBUTION SWITCH
02064	R	602554	R		JMP	EXITM5	

/DETERMINE THE NO. OF 'FIELDS' AVAILABLE IN BLOCK #1 AND  
 /LOAD EACH FIELD WITH TEST DATA.

02065	R	000000	A	BLOCK1	0		
02066	R	202744	R		LAC	(100000	/= TO BANK #1.
02067	R	042633	R		DAC	BLOCK	
02070	R	202745	R		LAC	(BKSTR1	
02071	R	042620	R		DAC	TEMP1	
02072	R	202746	R		LAC	(FLOTAB	
02073	R	042634	R		DAC	FIELD	/ADDRESS OF 'FIELD' CONSTANT TABLE.
02074	R	200001	R		LAC	USERSW+1	/CONTAINS AVAILABLE 'FIELDS' IN BLOCK #1.
02075	R	102164	R		JMS	STEXTD	
02076	R	202637	R	BLK1A	LAC	KSTOR2	/CONSTANT STORAGE
02077	R	740020	A		RAR		
02100	R	042637	R		DAC	KSTOR2	
02101	R	741400	A		SZL		/CURRENT FIELD AVAILABLE?
02102	R	102201	R		JMS	LOADM	/YES, LOAD MEMORY
02103	R	062620	R		DAC*	TEMP1	/SAVE CONSTANT LOADED IN LAST ADDRESS
02104	R	442620	R		ISZ	TEMP1	/INCREMENT STORE BUFFER ADDRESS.
02105	R	442634	R		ISZ	FIELD	/INCREMENT 'FIELD' BITS
02106	R	740000	A		NOP		
02107	R	442621	R		ISZ	TEMP2	/ALL FIELDS CHECKED?

```

02110 R 602076 R      JMP      BLK1A      /NO, CHECK THE NEXT FIELD
02111 R 622065 R      JMP*     BLOCK1
/DETERMINE THE NO. OF 'FIELDS' AVAILABLE IN BLOCK #2 AND
/LOAD EACH 'FIELD' WITH TEST DATA.
/
02112 R 000000 A      BLOCK2  0
02113 R 202747 R      LAC      (200000
02114 R 042633 R      DAC      BLOCK      /= TO BLOCK #2
02115 R 202746 R      LAC      (FLDTAB
02116 R 042634 R      DAC      FIELD      /ADDRESS OF 'FIELD' CONSTANT TABLE
02117 R 202750 R      LAC      (BKSTR2
02120 R 042620 R      DAC      TEMP1
02121 R 200002 R      LAC      USERSW+2    /= TO AVAILABLE 'FIELDS' IN BLOCK #2
02122 R 102164 R      JMS      STEXTD
02123 R 202637 R      BLK2A  LAC      KSTOR2
02124 R 740020 A      RAR
02125 R 042637 R      DAC      KSTOR2
02126 R 741400 A      SZL
02127 R 102201 R      JMS      LOADM      /CURRENT FIELD AVAILABLE?
02130 R 062620 R      DAC*     TEMP1      /YES, LOAD MEMORY FIELD
02131 R 442620 R      ISZ      TEMP1      /SAVE NO. LOADED IN LAST FIELD ADDR.
02132 R 442634 R      ISZ      FIELD      /INCREMENT STORE BUFFER ADDRESS.
02133 R 740000 A      NOP
02134 R 442621 R      ISZ      TEMP2      /INCREMENT 'FIELD' BITS
02135 R 602123 R      JMP      BLK2A      /ALL FIELDS CHECKED?
02136 R 622112 R      JMP*     BLOCK2      /NO, CHECK THE NEXT FIELD
/DETERMINE THE NO. OF 'FIELDS' AVAILABLE IN BLOCK #3 AND
/LOAD EACH 'FIELD' WITH TEST DATA.
/
02137 R 000000 A      BLOCK3  0
02140 R 202751 R      LAC      (300000
02141 R 042633 R      DAC      BLOCK
02142 R 202746 R      LAC      (FLDTAB
02143 R 042634 R      DAC      FIELD      /= TO 'FIELD' CONSTANT TABLE
02144 R 202752 R      LAC      (BKSTR3
02145 R 042620 R      DAC      TEMP1
02146 R 200003 R      LAC      USERSW+3    /= TO AVAILABLE 'FIELDS' IN BLOCK #3
02147 R 102164 R      JMS      STEXTD
02150 R 202637 R      BLK3A  LAC      KSTOR2
02151 R 740020 A      RAR
02152 R 042637 R      DAC      KSTOR2
02153 R 741400 A      SZL
02154 R 102201 R      JMS      LOADM      /CURRENT FIELD AVAILABLE?
02155 R 062620 R      DAC*     TEMP1      /YES, LOAD MEMORY 'FIELD'.
02156 R 442620 R      ISZ      TEMP1      /SAVE NO. LOADED IN LAST FIELD ADDR.
02157 R 442634 R      ISZ      FIELD      /INCREMENT STORE BUFFER ADDRESS.
02160 R 740000 A      NOP
02161 R 442621 R      ISZ      TEMP2      /INCREMENT 'FIELD' BITS
02162 R 602150 R      JMP      BLK3A      /ALL FIELDS CHECKED?
02163 R 622137 R      JMP*     BLOCK3      /NO, CHECK THE NEXT FIELD
02164 R 000000 A      STEXTD  0
02165 R 042637 R      DAC      KSTOR2
02166 R 777770 A      LAW      -10

```

02167 R 042621 R  
02170 R 622164 R

DAC TEMP2  
JMP\* STEXTD  
.EJECT



/SET UP 'FIELD' BITS "0-7"

02171	R	000000	A	FLDTAB	0	/= TO FIELD #0
02172	R	010000	A		10000	/#1
02173	R	020000	A		20000	/#2
02174	R	030000	A		30000	/#3
02175	R	040000	A		40000	/#4
02176	R	050000	A		50000	/#5
02177	R	060000	A		60000	/#6
02200	R	070000	A		70000	/#7

/DEPOSIT THE CONTENTS OF THE 'XR' IN ADDRESS '0' AND THE  
 /COMPLIMENT OF THE 'XR' IN ADDRESS '1' OF ALL EXTENDED '4K'  
 /FIELDS. ALSO DEPOSIT THE COMPLIMENT OF THE 'XR' + A 'RANDOM'  
 /NUMBER IN ADDRESS '7777' OF ALL FIELDS.

02201	R	000000	A	LOADM	0	
				.DBREL		
02202	R	707762	A	EPA		
02203	R	202633	R	LAC	BLOCK	/= TO SELECTED 'BLOCK'
02204	R	362634	R	TAD*	FIELD	/ADD SELECTED 'FIELD'
02205	R	342632	R	TAD	LOCPC	/MINUS CURRENT 'P.C.' LOCATION.
02206	R	721000	A	PAX		/SAVE IN 'XR'
02207	R	150000	A	DZM	0,X	/CLEAR EXTENDED LOCATIONS.
02210	R	150001	A	DZM	1,X	
02211	R	157777	A	DZM	7777,X	
02212	R	724000	A	PXA		/RESTORE THE 'AC'.
02213	R	050000	A	DAC	0,X	/PLACE RESULT IN SELECTED 'LOC'.
02214	R	740001	A	CMA		
02215	R	050001	A	DAC	1,X	/SAVE COMPLIMENT IN NEXT 'LOC'.
02216	R	102453	R	JMS	RANDOM	/ADD A RANDOM NO.
02217	R	057777	A	DAC	7777,X	/SAVE RESULT IN LAST FIELD ADDRESS.
02220	R	703344	A	DOR		
02221	R	622201	R	JMP*	LOADM	/EXIT WITH NO. IN 'AC'.

/SET UP TO EXAMINE DATA STORED IN EXTENDED 'FIELDS'.

				.EBREL		
02222	R	707764	A	TST12A	EBA	
02223	R	200001	R	LAC	USERSW+1	
02224	R	740200	A	SZA		/WAS BLOCK #1 AVAILABLE?
02225	R	102246	R	JMS	CKBLK1	/YES, CHECK STORED DATA.
02226	R	200002	R	LAC	USERSW+2	
02227	R	740200	A	SZA		/WAS BLOCK #2 AVAILABLE?
02230	R	102271	R	JMS	CKBLK2	/YES, CHECK STORED DATA.
02231	R	200003	R	LAC	USERSW+3	
02232	R	740200	A	SZA		/WAS BLOCK #3 AVAILABLE?
02233	R	102314	R	JMS	CKBLK3	/YES, CHECK STORED DATA
02234	R	202631	R	LAC	EXDMODE	
02235	R	741200	A	SNA		/RUNNING PARAMETER MODE?
02236	R	602440	R	JMP	EXTTST	/NO, SET UP 'TST1'
02237	R	202753	R	TST12B	LAC	(CKT12
02240	R	040077	R	DAC	DSTSW1	/YES, RUN 'TST12' ONLY
02241	R	602554	R	JMP	EXITM5	
				.EJECT		

/ERRD EXIT FOR PARAMETER MODE TEST #12

```

02242 R 202753 R TST12C LAC (CKT12
02243 R 040077 R DAC DSTSW1
02244 R 142524 R DZM PAGESW
02245 R 602543 R JMP EXIT
    
```

/SETUP TO CHECK DATA STORED IN 'FIELDS' OF BLOCK #1.

```

02246 R 000000 A CKBLK1 0
02247 R 102164 R JMS STEXTD
02250 R 202744 R LAC (100000
02251 R 042633 R DAC BLOCK /= TO BLOCK #1
02252 R 202746 R LAC (FLDTAB
02253 R 042634 R DAC FIELD /= TO FIELD CONSTANT TABLE
02254 R 202745 R LAC (BKSTR1
02255 R 042620 R DAC TEMP1
02256 R 202637 R CK1A LAC KSTOR2
02257 R 740020 A RAR
02260 R 042637 R DAC KSTOR2
02261 R 741400 A SZL /CURRENT FIELD AVAILABLE?
02262 R 102405 R JMS CKDATA /YES, CHECK 'FIELD' DATA
02263 R 442620 R ISZ TEMP1 /INCREMENT BUFFER STORAGE ADDRESS
02264 R 442634 R ISZ FIELD /INCREMENT 'FIELD' BITS.
02265 R 740000 A NOP
02266 R 442621 R ISZ TEMP2
02267 R 602256 R JMP CK1A
02270 R 622246 R JMP* CKBLK1
    
```

/SETUP TO CHECK DATA STORED IN ALL FIELDS OF BLOCK #2.

```

02271 R 000000 A CKBLK2 0
02272 R 102164 R JMS STEXTD
02273 R 202747 R LAC (200000
02274 R 042633 R DAC BLOCK /= TO BLOCK #2
02275 R 202746 R LAC (FLDTAB
02276 R 042634 R DAC FIELD /= TO FIELD BITS
02277 R 202750 R LAC (BKSTR2
02300 R 042620 R DAC TEMP1
02301 R 202637 R CK2A LAC KSTOR2
02302 R 740020 A RAR
02303 R 042637 R DAC KSTOR2
02304 R 741400 A SZL /CURRENT FIELD AVAILABLE?
02305 R 102405 R JMS CKDATA /YES, CHECK 'FIELD' DATA.
02306 R 442620 R ISZ TEMP1 /INCREMENT BUFFER STORAGE AREA
02307 R 442634 R ISZ FIELD
02310 R 740000 A NOP
02311 R 442621 R ISZ TEMP2 /ALL 'FIELDS' CHECKED?
02312 R 602301 R JMP CK2A /NO, CHECK NEXT FIELD
02313 R 622271 R JMP* CKBLK2
    
```

.EJECT

/SETUP TO CHECK DATA STORED IN 'FIELDS' OF BLOCK #3

```

/
02314 R 000000 A CKBLK3 0
02315 R 102164 R JMS STEXTD
02316 R 202751 R LAC (300000
02317 R 042633 R DAC BLOCK /= TO BLOCK #3
02320 R 202746 R LAC (FLDTAB
02321 R 042634 R DAC FIELD /= TO FIELD CONSTANT TABLE
02322 R 202752 R LAC (BKSTR3
02323 R 042620 R DAC TEMP1
02324 R 202637 R CK3A LAC KSTOR2
02325 R 740020 A RAR
02326 R 042637 R DAC KSTOR2
02327 R 741400 A SZL /CURRENT 'FIELD' AVAILABLE?
02330 R 102405 R JMS CKDATA /YES, CHECK 'FIELD' DATA.
02331 R 442620 R ISZ TEMP1
02332 R 442634 R ISZ FIELD
02333 R 740000 A NOP
02334 R 442621 R ISZ TEMP2
02335 R 602324 R JMP CK3A
02336 R 622314 R JMP* CKBLK3
    
```

/CHECK FOR A SELECTED TEST SET UP VIA PARAMETER MODE

```

02337 R 000000 A CKPAR1 .EBREL
02340 R 707764 A EBA
02341 R 200000 R LAC USERSW
02342 R 502744 R AND (100000 /MASK BIT '2'
02343 R 741200 A SNA /IS PARAMETER MODE SELECTED?
02344 R 622337 R JMP* CKPAR1 /NO, EXIT
02345 R 200000 R LAC USERSW
02346 R 502754 R AND (1700 /MASK 'TEST' BITS
02347 R 042641 R DAC KSTOR4 /SAVE NO.
02350 R 542755 R SAD (1200 /WAS TEST NO. 12 SELECTED?
02351 R 741000 A SKP /YES, SET EXTEND SWITCH.
02352 R 622337 R JMP* CKPAR1 /NO, EXIT
02353 R 777777 A LAW -1
02354 R 042631 R DAC EXDMODE
02355 R 622337 R JMP* CKPAR1
    
```

/UPDATE THE USERSW TO INCLUDE THE CURRENT TEST NO. AND  
/CHECK FOR PARAMETER MODE.

```

/
02356 R 000000 A UPDATE 0
02357 R 707764 A .EBREL
02360 R 200000 R EBA
02361 R 502756 R LAC USERSW
02362 R 362356 R AND (770000 /MASK OUT OLD TEST NO.
02363 R 040000 R TAD* UPDATE /ADD CURRENT TEST NO.
02364 R 742010 A RTL
02365 R 740100 A SMA /PARAMETER BIT '2' SET?
02366 R 602402 R JMP EXDATE /NO EXIT
    
```

.EJECT

02367	R	222356	R	LAC*	UPDATE	
02370	R	542641	R	SAD	KSTOR4	/=TO THE SELECTED TEST?
02371	R	741000	A	SKP		/YES, SET UP LOOP
02372	R	602402	R	JMP	EXDATE	/NO, EXIT
02373	R	542755	R	SAD	(1200	/IS EXTEND MODE SELECTED?
02374	R	602402	R	JMP	EXDATE	/YES,EXIT
02375	R	777777	A	LAW	-1	
02376	R	042630	R	DAC	PARMODE	
02377	R	202356	R	LAC	UPDATE	
02400	R	342731	R	TAD	(-2	
02401	R	042642	R	DAC	KSTOR5	
02402	R	442356	R	EXDATE	ISZ	UPDATE
02403	R	703344	A	DBR		
02404	R	622356	R	JMP*	UPDATE	
						/CHECK DATA STORED IN EXTENDED 'FIELDS'.
						/
02405	R	000000	A	CKDATA	0	
					.DBREL	
02406	R	707762	A	EPA		
02407	R	202633	R	LAC	BLOCK	/= TO SELECTED BLOCK
02410	R	362634	R	TAD*	FIELD	/ADD SELECTED 'FIELD' BITS.
02411	R	042635	R	DAC	FIELDA	
02412	R	342632	R	TAD	LOPC	/MINUS CURRENT 'P.C.' LOCATION.
02413	R	721000	A	PAX		/SAVE RESULT IN 'XR'.
02414	R	042640	R	DAC	KSTOR3	
02415	R	754000	A	CLL CLA		
02416	R	210000	A	LAC	0,X	
02417	R	542640	R	SAD	KSTOR3	/IS 'XR' SAME AS STORED DATA?
02420	R	602423	R	JMP	.+3	/YES, CONTINUE
02421	R	102466	R	JMS	ERRMES	/NO, BAD DATA IN ADDRESS '0' OF CURRENT FIELD.
02422	R	000014	A	14		/ERROR CODE #14
02423	R	724000	A	PXA		/PLACE 'XR' IN 'AC'.
02424	R	740001	A	CMA		
02425	R	550001	A	SAD	1,X	
02426	R	602431	R	JMP	.+3	
02427	R	102466	R	JMS	ERRMES	
02430	R	000015	A	15		/ERROR CODE #15
02431	R	222620	R	LAC*	TEMP1	/= TO STORED CONSTANT
02432	R	557777	A	SAD	7777,X	
02433	R	602436	R	JMP	.+3	
02434	R	102466	R	JMS	ERRMES	
02435	R	000016	A	16		/ERROR CODE #16
02436	R	703344	A	DBR		
02437	R	622405	R	JMP*	CKDATA	
						/
02440	R	740000	A	EXTTST	NUP	
					.EBREL	
02441	R	707764	A	EBA		
02442	R	202701	R	LAC	(TST1	
02443	R	040077	R	DAC	DSTSW1	/SET DISTRIBUTION SW TO RE-CYCLE TEST.
02444	R	442617	R	ISZ	RUNCTR	/FINISHED TEST?
02445	R	602554	R	JMP	EXITM5	/NO, LOOP AGAIN
02446	R	602447	R	JMP	EXITM4	/YES, TYPE DONE

.EJECT

```

02447 R 777774 A EXITM4 /
02450 R 040020 R DAC -4 /SET UP TO TYPE 'DONE'
02451 R 140021 R DZM SYSERR+1
02452 R 602543 R JMP EXIT
/RANDOM NUMBER GENERATOR
/
02453 R 000000 A RANDOM 0
.EBREL
02454 R 707764 A EBA
02455 R 342622 R TAD RANA
02456 R 342623 R TAD RANB
02457 R 042622 R DAC RANA
02460 R 750010 A GLK
02461 R 342622 R TAD RANA
02462 R 342623 R TAD RANB
02463 R 042623 R DAC RANB
02464 R 707742 A RES
02465 R 622453 R JMP* RANDOM
/
/ERROR EXITS FOR ALL ERRORS
/
02466 R 000000 A ERRMES 0
.EBREL
02467 R 707765 A SBA!EBA
02470 R 442624 R ISZ PAGESW
02471 R 042614 R DAC SAVAAC /SAVE CONTENTS OF AC.
02472 R 202466 R LAC ERRMES
02473 R 502757 R AND (77777
02474 R 042615 R DAC SAVEPC
02475 R 222466 R LAC* ERRMES
02476 R 040023 R DAC ERCODE+1 /#2. ERROR CODE
02477 R 777776 A LAW -2
02500 R 040020 R DAC SYSERR /SET ERROR INDICATOR
02501 R 777771 A LAW -7
02502 R 040021 R DAC ERCODE-1 /7 DATA WORDS
02503 R 200000 R LAC USERSW
02504 R 502760 R AND (3700 /MASK TST.N0.
02505 R 746020 A RTR!CLL
02506 R 742020 A RTR
02507 R 742020 A RTR
02510 R 040022 R DAC ERCODE /#1,TST.N0.
02511 R 202635 R LAC FIELDA
02512 R 040025 R DAC ERCODE+3 /#4,BANK AND FIELD BITS
02513 R 202614 R LAC SAVAAC
02514 R 040026 R DAC ERCODE+4 /#5, CONTENTS OF AC
02515 R 730000 A PLA /PLACE LIMIT REG. IN AC
02516 R 040030 R DAC ERCODE+6 /#7, CONTENTS OF 'LR'
02517 R 724000 A PXA
02520 R 040027 R DAC ERCODE+5 /#6, CONTENTS OF 'XR'
/
.EJECT

```

```

02521 R 202615 R LAC SAVEPC
02522 R 342703 R TAD (-1
02523 R 042616 R DAC TEMP3
02524 R 202761 R LAC (USERSW
02525 R 740031 A TCA
02526 R 342616 R TAD TEMP3
02527 R 040024 R DAC ERCODE+2 /#3, M.O. ADDRESS
02530 R 202642 R LAC KSTORS
02531 R 040077 R DAC DSTSW1
02532 R 202630 R LAC PARMODE
02533 R 740200 A SZA
02534 R 602543 R JHP EXIT
02535 R 202631 R LAC EXDMODE
02536 R 740200 A SZA
02537 R 602242 R JMP TST12C
02540 R 442466 R ISZ ERRMES
02541 R 202466 R LAC ERRMES
02542 R 040077 R DAC DSTSW1
02543 R 724000 A EXIT PXA
02544 R 042627 R DAC SAVXR /SAVE CONTENTS OF XR
02545 R 730000 A PLA
02546 R 042626 R DAC SAVLR /SAVE CONTENTS OF LR
02547 R 705512 A RPL
02550 R 751100 A SPAICLA /IS 'API' ON?
02551 R 202612 R LAC SAVEAC /YES, RESTORE THE AC
02552 R 703344 A DBR /NO, EXIT
02553 R 620054 R JMP* SERVICE
/
/SETUP FOR A "-5" EXIT
02554 R 707765 A EXITM5 .EBREL
02555 R 442624 R SBAIEBA
02556 R 777773 A ISZ PAGESW
02557 R 040020 R LAW -5
02560 R 602543 R DAC SYSERR
JMP EXIT
/TEST FOR DATA SW5 WHICH INHIBITS THE 'XR/LR' TESTS
/
02561 R 000000 A HOLDSW 0
02562 R 707764 A EBA
02563 R 750004 A LAS
02564 R 502762 R AND (10000 /DATA SW5
02565 R 741200 A SNA /IS SWITCH SET?
02566 R 602577 R JMP HOLD.2 /NO, CONTINUE
02567 R 200077 R LAC DSTSW1 /YES
02570 R 042613 R DAC SAVDST /SAVE RETURN ADDRESS
02571 R 202763 R LAC (HOLD.1
02572 R 040077 R DAC DSTSW1
02573 R 602554 R JMP EXITM5 /EXIT '-5'
02574 R 202613 R HOLD.1 LAC SAVDST
02575 R 040077 R DAC DSTSW1 /RESTORE RETURN ADDRESS
02576 R 602562 R JMP HOLDSW+1 /RE-TEST SWITCH
02577 R 703344 A HOLD.2 DBR
02600 R 622561 R JMP* HOLDSW

```

.EJECT



```

02601 R 000000 A CKHOLD 0
02602 R 707765 A .EBREL
02603 R 442624 R SBAIEBA
02604 R 202630 R ISZ PAGESW
02605 R 740200 A LAC PARMODE
02606 R 602554 R SZA
02607 R 142624 R JMP EXITM5
02610 R 703344 A DZM PAGESW
02611 R 622601 R DBR
02612 R 000000 A JMP* CKHOLD
02613 R 000000 A SAVEAC 0
02614 R 000000 A SAVDST 0
02615 R 000000 A SAVAAC 0
02616 R 000000 A SAVEPC 0
02617 R 000000 A TEMP3 0
02620 R 000000 A RUNCTR 0
02621 R 000000 A TEMP1 0
02622 R 746321 A TEMP2 0
02623 R 654120 A RANA 746321
02624 R 000000 A RANB 654120
02625 R 000000 A PAGESW 0
02626 R 000000 A MINCYC 0
02627 R 000000 A SAVLR 0
02630 R 000000 A SAVXR 0
02631 R 000000 A PARMODE 0
02632 R 000000 A EXDMODE 0
02633 R 000000 A LOCPC 0
02634 R 000000 A BLOCK 0
02635 R 000000 A FIELD 0
02636 R 000000 A FIELDA 0
02637 R 000000 A KSTOR1 0
02640 R 000000 A KSTOR2 0
02641 R 000000 A KSTOR3 0
02642 R 000000 A KSTOR4 0
02643 R 000000 A KSTOR5 0

```

```

/RUNNING PARAMETER MODE?
/YES, EXIT MINUS '5'
/CLEAR THE PAGE SWITCH.
/NO, SET UP FOR NEXT TEST.

```

/DATA STORAGE FOR EXTENDED MEMORY CONSTANTS.

```

02643 R A BKSTR1 .BLOCK 12
02655 R A BKSTR2 .BLOCK 12
02667 R A BKSTR3 .BLOCK 12
.EJECT

```

.END USERSW

000000 R  
02701 R 000100 R \*L  
02702 R 070000 A \*L  
02703 R 777777 A \*L  
02704 R 000464 R \*L  
02705 R 525252 A \*L  
02706 R 252525 A \*L  
02707 R 000377 A \*L  
02710 R 777377 A \*L  
02711 R 000677 R \*L  
02712 R 000704 R \*L  
02713 R 000732 R \*L  
02714 R 000744 R \*L  
02715 R 000772 R \*L  
02716 R 001000 R \*L  
02717 R 001035 R \*L  
02720 R 001042 R \*L  
02721 R 000777 A \*L  
02722 R 737000 A \*L  
02723 R 000400 A \*L  
02724 R 777000 A \*L  
02725 R 001210 R \*L  
02726 R 000100 A \*L  
02727 R 001400 R \*L  
02730 R 000002 A \*L  
02731 R 777776 A \*L  
02732 R 000001 A \*L  
02733 R 000770 A \*L  
02734 R 001574 R \*L  
02735 R 601627 R \*L  
02736 R 000005 A \*L  
02737 R 000015 A \*L  
02740 R 002015 R \*L  
02741 R 000016 A \*L  
02742 R 000017 A \*L  
02743 R 002222 R \*L  
02744 R 100000 A \*L  
02745 R 002643 R \*L  
02746 R 002171 R \*L  
02747 R 200000 A \*L  
02750 R 002655 R \*L  
02751 R 300000 A \*L  
02752 R 002667 R \*L  
02753 R 002032 R \*L  
02754 R 001700 A \*L  
02755 R 001200 A \*L  
02756 R 770000 A \*L  
02757 R 077777 A \*L  
02760 R 003700 A \*L  
02761 R 000000 R \*L  
02762 R 010000 A \*L  
02763 R 002574 R \*L

SIZE=02773

NO ERROR LINES

BKSTR1	02643	R	BKSTR2	02655	R	BKSTR3	02667	R	BLK1A	02076	R
BLK2A	02123	R	BLK3A	02150	R	BLOCK	02633	R	BLOCK1	02065	R
BLOCK2	02112	R	BLOCK3	02137	R	CKBLK1	02246	R	CKBLK2	02271	R
CKBLK3	02314	R	CKDATA	02405	R	CKHOLD	02601	R	CKPAR1	02337	R
CKT12	02032	R	CK1A	02256	R	CK2A	02301	R	CK3A	02324	R
CLAC	734000	A	CLR	736000	A	CLX	735000	A	DATA	02012	R
DSTSW1	00077	R	EBA	707764	A	EPA	707762	A	ERCODE	00022	R
ERRMES	02466	R	ER100	00724	R	ER100A	00740	R	ER101	00764	R
ER102	01022	R	ER102A	01027	R	ER103	01066	R	ER103A	01073	R
ER104	01120	R	ER110	01131	R	ER111	01141	R	ER112	01151	R
ER113	01161	R	ER114	01170	R	ER115	01202	R	ER116	01221	R
ER117	01247	R	ER120	01254	R	ER121	01300	R	ER122	01305	R
ER124	01321	R	ER125	01330	R	ER125A	01332	R	ER13	00124	R
ER130	01341	R	ER131	01350	R	ER132	01360	R	ER133	01370	R
ER134	01412	R	ER135	01420	R	ER136	01430	R	ER137	01436	R
ER14	00133	R	ER140	01450	R	ER141	01456	R	ER142	01472	R
ER143	01500	R	ER144	01511	R	ER145	01516	R	ER146	01526	R
ER147	01533	R	ER15	00143	R	ER150	01545	R	ER151	01553	R
ER152	01561	R	ER153	01566	R	ER160	01610	R	ER161	01620	R
ER162	01627	R	ER163	01636	R	ER164	01645	R	ER165	01652	R
ER170	01663	R	ER171	01675	R	ER172	01706	R	ER173	01715	R
ER174	01724	R	ER175	01731	R	ER176	01743	R	ER20	00152	R
ER21	00214	R	ER22	00224	R	ER23	00235	R	ER24	00245	R
ER25	00253	R	ER31	00264	R	ER32	00275	R	ER33	00307	R
ER34	00322	R	ER35	00330	R	ER4	00114	R	ER41	00340	R
ER42	00350	R	ER43	00364	R	ER44	00400	R	ER45	00413	R
ER5	00106	R	ER50	00427	R	ER51	00443	R	ER52	00456	R
ER53	00476	R	ER54	00503	R	ER55	00512	R	ER56	00520	R
ER60	00527	R	ER61	00535	R	ER62	00544	R	ER62A	00553	R
ER63	00562	R	ER64	00572	R	ER65	00577	R	ER66	00604	R
ER67	00611	R	ER70	00621	R	ER71	00626	R	ER72	00634	R
ER73	00641	R	ER74	00647	R	ER75	00654	R	ER76	00663	R
ER77	00671	R	EXDATE	02402	R	EXDMOD	02631	R	EXIT	02543	R
EXITM4	02447	R	EXITM5	02554	R	EXTTST	02440	R	FIELD	02634	R
FIELDA	02635	R	FLUTAB	02171	R	GET	01747	R	HOLDSW	02561	R
HOLD.1	02574	R	HOLD.2	02577	R	IGET	02000	R	INIT	00031	R
JGET	02002	R	JSUB2	02003	R	JSUB3	02022	R	JXCT	02021	R
KSTOR1	02636	R	KSTOR2	02637	R	KSTOR3	02640	R	KSTOR4	02641	R
KSTOR5	02642	R	K9.1	01460	R	K9.11	01502	R	LOADM	02201	R
L0CPC	02632	R	L6.4	00706	R	L6.4A	00726	R	L6.5	00747	R
L6.6	00766	R	L6.6A	01002	R	L6.6B	01024	R	L6.7	01045	R
L7.1	01070	R	MINCYC	02625	R	PAGESW	02624	R	PAL	722000	A
PARMOD	02630	R	PAX	721000	A	PLA	730000	A	PLX	731000	A
PUT	01752	R	PXA	724000	A	PXL	726000	A	RANA	02622	R
RANB	02623	R	RANDOM	02453	R	RUNCTR	02617	R	SAVAAC	02614	R
SAVDST	02613	R	SAVEAC	02612	R	SAVEPC	02615	R	SAVLR	02626	R
SAVXR	02627	R	SBA	707761	A	SERVCE	00054	R	SERV1	00075	R
SGET	02006	R	SGETX	02007	R	SK15	707741	A	STEXTD	02164	R
STORE	02015	R	SUB1	01757	R	SUB1X	01761	R	SUB2	01764	R
SUB3	01766	R	SUB4	01773	R	SUB4X	01776	R	SYSERR	00020	R
TEMP1	02620	R	TEMP2	02621	R	TEMP3	02616	R	TOTE	01770	R
TST1	00100	R	TST10	01400	R	TST11	01574	R	TST12	02035	R
TST12A	02222	R	TST12B	02237	R	TST12C	02242	R	TST2	00464	R

TST3	00677 R	TST4	00732 R	TST5	00772 R	TST6	01035 R
TST7	01210 R	T11.0	01654 R	T11.2	01717 R	UPDATE	02356 R
USERSW	00000 R	X6.8	01114 R				

USERSW	00000 R	SYSERR	00020 R	ERCODE	00022 R	INIT	00031 R
SERVICE	00054 R	SERV1	00075 R	DSTSW1	00077 R	TST1	00100 R
ER5	00106 R	ER4	00114 R	ER13	00124 R	ER14	00133 R
ER15	00143 R	ER20	00152 R	ER21	00214 R	ER22	00224 R
ER23	00235 R	ER24	00245 R	ER25	00253 R	ER31	00264 R
ER32	00275 R	ER33	00307 R	ER34	00322 R	ER35	00330 R
ER41	00340 R	ER42	00350 R	ER43	00364 R	ER44	00400 R
ER45	00413 R	ER50	00427 R	ER51	00443 R	ER52	00456 R
TST2	00464 R	ER53	00476 R	ER54	00503 R	ER55	00512 R
ER56	00520 R	ER60	00527 R	ER61	00535 R	ER62	00544 R
ER62A	00553 R	ER63	00562 R	ER64	00572 R	ER65	00577 R
ER66	00604 R	ER67	00611 R	ER70	00621 R	ER71	00626 R
ER72	00634 R	ER73	00641 R	ER74	00647 R	ER75	00654 R
ER76	00663 R	ER77	00671 R	TST3	00677 R	L6.4	00706 R
ER100	00724 R	L6.4A	00726 R	TST4	00732 R	ER100A	00740 R
L6.5	00747 R	ER101	00764 R	L6.6	00766 R	TST5	00772 R
L6.6A	01002 R	ER102	01022 R	L6.6B	01024 R	ER102A	01027 R
TST6	01035 R	L6.7	01045 R	ER103	01066 R	L7.1	01070 R
ER103A	01073 R	X6.8	01114 R	ER104	01120 R	ER110	01131 R
ER111	01141 R	ER112	01151 R	ER113	01161 R	ER114	01170 R
ER115	01202 R	TST7	01210 R	ER116	01221 R	ER117	01247 R
ER120	01254 R	ER121	01300 R	ER122	01305 R	ER124	01321 R
ER125	01330 R	ER125A	01332 R	ER130	01341 R	ER131	01350 R
ER132	01360 R	ER133	01370 R	TST10	01400 R	ER134	01412 R
ER135	01420 R	ER136	01430 R	ER137	01436 R	ER140	01450 R
ER141	01456 R	K9.1	01460 R	ER142	01472 R	ER143	01500 R
K9.11	01502 R	ER144	01511 R	ER145	01516 R	ER146	01526 R
ER147	01533 R	ER150	01545 R	ER151	01553 R	ER152	01561 R
ER153	01566 R	TST11	01574 R	ER160	01610 R	ER161	01620 R
ER162	01627 R	ER163	01636 R	ER164	01645 R	ER165	01652 R
T11.0	01654 R	ER170	01663 R	ER171	01675 R	ER172	01706 R
ER173	01715 R	T11.2	01717 R	ER174	01724 R	ER175	01731 R
ER176	01743 R	GET	01747 R	PUT	01752 R	SUB1	01757 R
SUB1X	01761 R	SUB2	01764 R	SUB3	01766 R	TOTE	01770 R
SUB4	01773 R	SUB4X	01776 R	IGET	02000 R	JGET	02002 R
JSUB2	02003 R	SGET	02006 R	SGETX	02007 R	DATA	02012 R
STORE	02015 R	JXCT	02021 R	JSUB3	02022 R	CKT12	02032 R
TST12	02035 R	BLOCK1	02065 R	BLK1A	02076 R	BLOCK2	02112 R
BLK2A	02123 R	BLOCK3	02137 R	BLK3A	02150 R	STEXTD	02164 R
FLDTAB	02171 R	LOADM	02201 R	TST12A	02222 R	TST12B	02237 R
TST12C	02242 R	CKBLK1	02246 R	CK1A	02256 R	CKBLK2	02271 R
CK2A	02301 R	CKBLK3	02314 R	CK3A	02324 R	CKPAR1	02337 R
UPDATE	02356 R	EXDATE	02402 R	CKDATA	02405 R	EXTTST	02440 R
EXITM4	02447 R	RANDOM	02453 R	ERRMES	02466 R	EXIT	02543 R
EXITM5	02554 R	HOLD5W	02561 R	HOLD.1	02574 R	HOLD.2	02577 R
CKHOLD	02601 R	SAVEAC	02612 R	SAVDST	02613 R	SAVAAC	02614 R
SAVEPC	02615 R	TEMP3	02616 R	RUNCTR	02617 R	TEMP1	02620 R
TEMP2	02621 R	RANA	02622 R	RANB	02623 R	PAGESW	02624 R
MINCYC	02625 R	SAVLR	02626 R	SAVXR	02627 R	PARMOD	02630 R
EXDMOD	02631 R	LOCPC	02632 R	BLOCK	02633 R	FIELD	02634 R
FIELDA	02635 R	KSTOR1	02636 R	KSTOR2	02637 R	KSTOR3	02640 R
KSTOR4	02641 R	KSTOR5	02642 R	BKSTR1	02643 R	BKSTR2	02655 R
BKSTR3	02667 R	SK15	707741 A	SBA	707761 A	EPA	707762 A

EBA	707764 A	PAX	721000 A	PAL	722000 A	PXA	724000 A
PXL	726000 A	PLA	730000 A	PLX	731000 A	CLAC	734000 A
CLX	735000 A	CLR	736000 A				