

**SDS 940 OLDS DIAGNOSTIC
SYSTEM**

UNIT 3 MEMORY 2ND 16K LISTING

SDS 870033-51A

February 1969

SDS

SCIENTIFIC DATA SYSTEMS • 701 South Aviation Boulevard • El Segundo, Calif., 90245 • 213/772-4511

MEM1 TAP-3.0

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	OCTAL			
	00010	*		
0 01	00000	ONE	0PD	0100000,1
0 02	00000	TWO	0PD	0200000,1
0 03	00000	THREE	0PD	0300000,1
0 04	00000	FOUR	0PD	0400000,1
0 05	00000	FIVE	0PD	0500000,1
0 06	00000	SIX	0PD	0600000,1
0 07	00000	SEVEN	0PD	0700000,1
0 10	00000	EIGHT	0PD	01000000,1
		*		
00000242		INT31	EQU	242
00000243		I31	EQU	243
00000246		INT33	EQU	246
00000247		I33	EQU	247
00000332		FLAGS	EQU	332
00000400		UAW	EQU	400
00000401		STATUS	EQU	401
00000402		LOCKS	EQU	402
00000403		RADSI2	EQU	403
00000404		DSCSI2	EQU	404
00000405		SYSIZE	EQU	405
00000406		SEED	EQU	406
00000407		TIME	EQU	407
00000410		AREG	EQU	410
00000411		RREG	EQU	411
00000412		YREG	EQU	412
00000413		BVRFL0	EQU	413
00000414		ERR0RS	EQU	414
00000415		RL1	EQU	415
00000416		RL2	EQU	416
00000417		RL4	EQU	417
00000420		UNIT	EQU	420
00000424		FUNCTN	EQU	424
00000430		SUBJECT	EQU	430
00000434		END	EQU	434

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00000440		RETURN	EQU	440
00000450		DIVERT	EQU	450
00000452		DBNE	EQU	452
00000454		REPORT	EQU	454
00000456		FDBNE	EQU	456
00000460		ERROR	EQU	460

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00010		OCTAL	
1 00 00000	PBP	OPD	10000000/1
00000267	T41	EQU	263
00000267	T43	EQU	267
00000275	156	EQU	275

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* MEMORY ACCESS DIAGNOSTIC AND MAXIMUM NOISE TEST 2.0
*
*
* FUNCTION 1 *940 TRAP AND MAP DIAGNOSTIC*
00000      04000  ZERO  BSS      04000
04000  0 43 00420  BRM     UNIT
04001  0 20 20000  NBP     UPT
04002  0 76 00401  LDA     STATUS
04003  0 72 26744  SKA     #4          SKIP IF NOT 940
04004  0 01 04006  BRU     **2
04005  0 43 00452  BRM     DONE       NOT 940, EXIT
04006  0 43 00424  FUNC1  BRM     FUNCTN
04007  0 20 20006  NBP     FPT1
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* THIS OBJECT TEST ATTEMPTS A RELABELED STA AND SHOULD NOT TRAP
* IF OUT OF BOUNDS TRAP, CHECK RLOF, TRAP, OBA, OB, SFM AND RRL1
* IF READ ONLY TRAP, CHECK ALL ABOVE PLUS PI AND STV

04010	0 43	00430	TRAP1	BRM	OBJECT	START OBJECT TEST
04011	0 77	04010		EAX	**1	X * TEST LOCATION
04012	0 43	00440		BRM	RETURN	SET TRAP RETURN
04013	0 20	04030		NOP	T1	
04014	0 75	26745		LDB	#0	B * CORRECT TRAP ID
04015	0 76	26745		LDA	#0	
04016	0 35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04017	0 76	26745		LDA	#0	
04020	0 35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04021	0 07	20400		EBM	020400	
04022	0 13	00415		PBT	RL1	SET RELABELING REGISTER 1
04023	0 02	21000		EBM	021000	
04024	0 13	00416		PBT	RL2	SET RELABELING REGISTER 2
04025	4 35	03777		STA	003777,4	SHOULD NOT TRAP
04026	0 46	00001		CLA		
04027	0 01	04031		BRU	**2	
04030	0 76	00450	T1	LDA	DIVERT	
04031	0 14	26746		ETR	#037777	
04032	0 50	26747		SKE	#T43	READ ONLY TRAP ID
04033	0 01	04035		BRU	**2	NO, SKIP
04034	0 43	00460		BRM	ERROR	YES, ERROR
04035	0 20	21600		NOP	TM1A	
04036	0 50	26750		SKE	#T41	OUT OF BOUNDS TRAP ID
04037	0 01	04041		BRU	**2	NO, SKIP
04040	0 43	00460		BRM	ERROR	YES, ERROR
04041	0 20	21623		NOP	TM1B	
04042	0 43	00434		BRM	END	LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM ANY R
* IF NO TRAP, CHECK SFM, STV, RLOF, OB, TRAP, REL, RLC1, RLS1,
* AND RB
* IF OUT OF BOUNDS TRAP, CHECK PI, OBA, AND STV

04043	0 43	00430	TRAP2	BRM	OBJECT	START OBJECT TEST
04044	0 77	04043		EAX	**1	X * TEST LOCATION
04045	0 43	00440		BRM	RETURN	SET TRAP RETURN
04046	0 20	04063		NBP	T2	
04047	0 75	26747		LDB	#T43	B * CORRECT TRAP ID
04050	0 76	26751		LDA	#077777777	
04051	0 35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04052	0 76	26751		LDA	#077777777	
04053	0 35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04054	0 02	20400		EBM	020400	
04055	0 13	00415		PBT	RL1	SET RELABELING REGISTER 1
04056	0 02	21000		EBM	021000	
04057	0 13	00416		PBT	RL2	SET RELABELING REGISTER 2
04060	4 35	03777		STA	003777,4	SHOULD READ ONLY TRAP
04061	0 46	00001		CLA		
04062	0 01	04064		BRU	**2	
04063	0 76	00450	T2	LDA	DIVERT	
04064	0 14	26746		ETR	#037777	
04065	0 50	26745		SKE	#0	NO TRAP ID
04066	0 01	04070		BRU	**2	NO, SKIP
04067	0 43	00460		BRM	ERROR	YES, ERROR
04070	0 20	21651		NBP	TM2A	
04071	0 50	26750		SKE	#T41	OUT OF BOUNDS TRAP ID
04072	0 01	04074		BRU	**2	NO, SKIP
04073	0 43	00460		BRM	ERROR	YES, ERROR
04074	0 20	21664		NBP	TM2B	
04075	0 43	00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM ANY R
 * IF NO TRAP, CHECK 0BA, AND 0B
 * IF READ ONLY TRAP, CHECK 0BA, RLOH, RLOO, RLOI, RLO2, RLO3, AND
 * RRL1

04076	0 43 00430	TRAP3	BRM	OBJECT	START OBJECT TEST
04077	0 77 04074		EAX	**1	X * TEST LOCATION
04100	0 43 00440		BRM	RETURN	SET TRAP RETURN
04101	0 20 04116		NOP	T3	
04102	0 75 26750		LDB	*T41	B * CORRECT TRAP ID
04103	0 76 26752		LDA	#040404040	
04104	0 35 00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04105	0 76 26752		LDA	#040404040	
04106	0 35 00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04107	0 02 20400		EBM	020400	
04110	0 13 00415		PBT	RL1	SET RELABELING REGISTER 1
04111	0 02 21000		EBM	021000	
04112	0 13 00416		PBT	RL2	SET RELABELING REGISTER 2
04113	* 35 03777		STA	003777,*	SHOULD OUT OF BOUND TRAP
04114	0 46 00001		CLA		
04115	0 01 04117		BRU	**2	
04116	0 76 00450	T3	LDA	DIVERT	
04117	0 14 26746		ETR	#037777	
04120	0 50 26745		SKE	*0	NO TRAP ID
04121	0 01 04123		BRU	**2	NO, SKIP
04122	0 43 00460		BRM	ERRRR	YES, ERROR
04123	0 20 21706		NBP	TM3A	
04124	0 50 26747		SKE	*T43	READ ONLY TRAP ID
04125	0 01 04127		BRU	**2	NO, SKIP
04126	0 43 00460		BRM	ERRRR YES, ERROR	
04127	0 20 21710		NBP	TM3B	
04130	0 43 00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R0
 * IF NO TRAP, CHECK 0E0, RLOP, AND 0PM
 * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

04131	0 43 00430	TRAP4	BRM	OBJECT	START OBJECT TEST
04132	0 77 04131		EAX	**1	X * TEST LOCATION
04133	0 43 00440		BRM	RETURN	SET TRAP RETURN
04134	0 20 04151		NBP	T4	
04135	0 75 26747		LDB	*T43	B * CORRECT TRAP ID
04136	0 76 26753		LDA	#077000000	
04137	0 35 00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04140	0 76 26745		LDA	#000000000	
04141	0 35 00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04142	0 02 20400		EBM	020400	
04143	0 13 00415		PBT	RL1	SET RELABELING REGISTER 1
04144	0 02 21000		EBM	021000	
04145	0 13 00416		PBT	RL2	SET RELABELING REGISTER 2
04146	* 35 03777		STA	003777,*	SHOULD READ ONLY TRAP
04147	0 46 00001		CLA		
04150	0 01 04152		BRU	**2	
04151	0 76 00450	T4	LDA	DIVERT	
04152	0 14 26746		ETR	#037777	
04153	0 50 26747		SKE	*T43	EXPECTED READ ONLY TRAP ID
04154	0 43 00460		BRM	ERRRR	
04155	0 20 21741		NBP	TM4	
04156	0 43 00434		BRM	END	LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R1
* IF NO TRAP, CHECK SEL1, RL1F, AND SFM
* BUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04157 0 43 00430 TRAP5 BRM OBJECT START OBJECT TEST
04160 0 77 04157 EAX **1 X # TEST LOCATION
04161 0 43 00440 BRM RETURN SET TRAP RETURN
04162 0 20 04177 NBP T5
04163 0 75 26747 LDB #T43 B # CORRECT TRAP ID
04164 0 76 26754 LDA #000770000
04165 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04166 0 76 26745 LDA #000000000
04167 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04170 0 02 20400 EBM 020400
04171 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04172 0 02 21000 EBM 021000
04173 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04174 4 35 07777 STA 007777,4 SHOULD READ ONLY TRAP
04175 0 46 00001 CLA
04176 0 01 04200 BRU **2
04177 0 76 00450 T5 LDA DIVERT
04200 0 14 26746 ETR #037777
04201 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
04202 0 43 00460 BRM ERROR
04203 0 20 21751 NBP TM5
04204 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R2
* IF NO TRAP, CHECK SEL2, RL2F, AND SFM
* BUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04205 0 43 00430 TRAP6 BRM OBJECT START OBJECT TEST
04206 0 77 04205 EAX **1 X # TEST LOCATION
04207 0 43 00440 BRM RETURN SET TRAP RETURN
04210 0 20 04225 NBP T6
04211 0 75 26747 LDB #T43 B # CORRECT TRAP ID
04212 0 76 26755 LDA #000007700
04213 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04214 0 76 26745 LDA #000000000
04215 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04216 0 02 20400 EBM 020400
04217 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04220 0 02 21000 EBM 021000
04221 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04222 4 35 13777 STA 013777,4 SHOULD READ ONLY TRAP
04223 0 46 00001 CLA
04224 0 01 04226 T6 BRU **2
04225 0 76 00450 LDA DIVERT
04226 0 14 26746 ETR #037777
04227 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
04230 0 43 00460 BRM ERROR
04231 0 20 21761 NBP TM6
04232 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R3
 * IF NO TRAP, CHECK SEL3, RL3F, AND SFM
 * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

04233	0 43 00430	TRAP7	BRM	OBJECT	START OBJECT TEST
04234	0 77 04233		EAX	**1	X # TEST LOCATION
04235	0 43 00440		BRM	RETURN	SET TRAP RETURN
04236	0 20 04253		NOP	T7	
04237	0 75 26747		LDB	#T43	B # CORRECT TRAP ID
04240	0 76 26756		LDA	#00000077	
04241	0 35 00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04242	0 76 26745		LDA	#00000000	
04243	0 35 00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04244	0 02 20400		EBM	020400	
04245	0 13 00415		PBT	RL1	SET RELABELING REGISTER 1
04246	0 02 21000		EBM	021000	
04247	0 13 00416		PBT	RL2	SET RELABELING REGISTER 2
04250	4 35 17777		STA	017777,4	SHOULD READ ONLY TRAP
04251	0 46 00001		CLA		
04252	0 01 04254		BRU	**2	
04253	0 76 00450	T7	LDA	DIVERT	
04254	0 14 26745		ETR	#037777	
04255	0 50 26747		SKE	#T43	EXPECTED READ ONLY TRAP ID
04256	0 43 00460		BRM	ERRBR	
04257	0 20 21771		NOP	T#7	
04260	0 43 00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R4
 * IF NO TRAP, CHECK SEL4, RL4F, RLS2, AND SFM
 * OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

04261	0 43 00430	TRAP8	BRM	OBJECT	START OBJECT TEST
04262	0 77 04261		EAX	**1	X # TEST LOCATION
04263	0 43 00440		BRM	RETURN	SET TRAP RETURN
04264	0 20 04301		NOP	T8	
04265	0 75 26747		LDB	#T43	B # CORRECT TRAP ID
04266	0 76 26745		LDA	#00000000	
04267	0 35 00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04270	0 76 26753		LDA	#07700000	
04271	0 35 00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04272	0 02 20400		EBM	020400	
04273	0 13 00415		PBT	RL1	SET RELABELING REGISTER 1
04274	0 02 21000		EBM	021000	
04275	0 13 00416		PBT	RL2	SET RELABELING REGISTER 2
04276	4 35 23777		STA	023777,4	SHOULD READ ONLY TRAP
04277	0 46 00001		CLA		
04300	0 01 04302		BRU	**2	
04301	0 76 00450	T8	LDA	DIVERT	
04302	0 14 26746		ETR	#037777	
04303	0 50 26747		SKE	#T43	EXPECTED READ ONLY TRAP ID
04304	0 43 00460		BRM	ERRBR	
04305	0 20 22001		NOP	T#8	
04306	0 43 00434		BRM	END	LOOP IF BP1 SET


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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R5
* IF NO TRAP, CHECK SEL5, RL5F, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04307 0 43 00430 TRAP9 BRM OBJECT START OBJECT TEST
04310 0 77 04307 EAX **1 X # TEST LOCATION
04311 0 43 00440 BRM RETURN SET TRAP RETURN
04312 0 20 04327 NOP T9
04313 0 75 26747 LDB #T43 B # CORRECT TRAP ID
04314 0 76 26745 LDA #000000000 RELABELING REGISTER 1 CONTENTS
04315 0 35 00415 STA RL1
04316 0 76 26754 LDA #000770000 RELABELING REGISTER 2 CONTENTS
04317 0 35 00416 STA RL2
04320 0 02 20400 EOM 020400 SET RELABELING REGISTER 1
04321 0 13 00415 POT RL1
04322 0 02 21000 EOM 021000 SET RELABELING REGISTER 2
04323 0 13 00416 POT RL2 SHOULD READ ONLY TRAP
04324 * 35 27777 STA 027777,4
04325 0 46 00001 CLA
04326 0 01 04330 BRU **2
04327 0 76 00450 T9 LDA DIVERT
04330 0 14 26746 ETR #037777
04331 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
04332 0 43 00460 BRM ERROR
04333 0 20 22015 NOP TM9
04334 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R6
* IF NO TRAP, CHECK SEL6, RL6F, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04335 0 43 00430 TRAP10 BRM OBJECT START OBJECT TEST
04336 0 77 04335 EAX **1 X # TEST LOCATION
04337 0 43 00440 BRM RETURN SET TRAP RETURN
04340 0 20 04355 NOP T10
04341 0 75 26747 LDB #T43 B # CORRECT TRAP ID
04342 0 76 26745 LDA #000000000 RELABELING REGISTER 1 CONTENTS
04343 0 35 00415 STA RL1
04344 0 76 26755 LDA #000007700 RELABELING REGISTER 2 CONTENTS
04345 0 35 00416 STA RL2
04346 0 02 20400 EOM 020400 SET RELABELING REGISTER 1
04347 0 13 00415 POT RL1
04350 0 02 21000 EOM 021000 SET RELABELING REGISTER 2
04351 0 13 00416 POT RL2 SHOULD READ ONLY TRAP
04352 * 35 33777 STA 033777,4
04353 0 46 00001 CLA
04354 0 01 04356 T10 BRU **2
04355 0 76 00450 LDA DIVERT
04356 0 14 26746 ETR #037777
04357 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
04360 0 43 00460 BRM ERROR
04361 0 20 22025 NOP TM10
04362 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R7
* IF NO TRAP, CHECK SEL7, RL7F, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04363 0 43 00430 TRAP11 BRM OBJECT START OBJECT TEST
04364 0 77 04363 EAX **1 X * TEST LOCATION
04365 0 43 00440 BRM RETURN SET TRAP RETURN
04366 0 20 04403 NOP T11
04367 0 75 26750 LDB *T41 B * CORRECT TRAP ID
04370 0 76 26745 LDA *00000000
04371 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04372 0 76 26756 LDA *000000077
04373 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04374 0 02 20400 ESM 020400
04375 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04376 0 02 21000 ESM 021000
04377 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04400 4 35 03777 STA 03777,4 SHOULD OUT OF BOUNDS TRAP
04401 0 46 00001 CLA
04402 0 01 04404 BRU **2
04403 0 76 00450 T11 LDA DIVERT
04404 0 14 26746 ETR *03777
04405 0 50 26747 SKE *T43 EXPECTED READ ONLY TRAP ID
04406 0 43 00460 BRM ERROR
04407 0 20 22035 NOP TM11
04410 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R0
* IF READ ONLY TRAP, CHECK RLOH, RLO0, RLO1, RLO2, RLO3, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04411 0 43 00430 TRAP12 BRM OBJECT START OBJECT TEST
04412 0 77 04411 EAX **1 X * TEST LOCATION
04413 0 43 00440 BRM RETURN SET TRAP RETURN
04414 0 20 04431 NOP T12
04415 0 75 26750 LDB *T41 B * CORRECT TRAP ID
04416 0 76 26757 LDA *040000000
04417 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04420 0 76 26745 LDA *000000000
04421 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04422 0 02 20400 ESM 020400
04423 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04424 0 02 21000 ESM 021000
04425 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04426 4 35 03777 STA 003777,4 SHOULD OUT OF BOUNDS TRAP
04427 0 46 00001 CLA
04430 0 01 04432 BRU **2
04431 0 76 00450 T12 LDA DIVERT
04432 0 14 26746 ETR *03777
04433 0 50 26750 SKE *T41 EXPECTED OUT OF BOUNDS TRAP ID
04434 0 43 00460 BRM ERROR
04435 0 20 22045 NOP TM12
04436 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R1
* IF READ ONLY TRAP, CHECK RL1H, RL10, RL11, RL12, RL13, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

04437	0	43	00430	TRAP13	BRM	OBJECT	START OBJECT TEST
04440	0	77	04437		EAX	**1	X # TEST LOCATION
04441	0	43	00440		BRM	RETURN	SET TRAP RETURN
04442	0	20	04457		NOP	T13	
04443	0	75	26750		LDB	#T41	B # CORRECT TRAP ID
04444	0	76	26760		LDA	#000400000	
04445	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04446	0	76	26745		LDA	#000000000	
04447	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04450	0	02	20400		EBM	020400	
04451	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
04452	0	02	21000		EBM	021000	
04453	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
04454	4	35	07777		STA	007777,4	SHOULD OUT OF BOUNDS TRAP
04455	0	46	00001		CLA		
04456	0	01	04460		BRU	**2	
04457	0	76	00450	T13	LDA	DIVERT	
04460	0	14	26746		ETR	#037777	
04461	0	50	26750		SKE	#T41	EXPECTED OUT OF BOUNDS TRAP ID
04462	0	43	00460		BRM	ERRSR	
04463	0	20	22061		NBP	TM13	
04464	0	43	00434		BRM	END	LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R2
* IF READ ONLY TRAP, CHECK RL2H, RL20, RL21, RL22, RL23, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

04465	0	43	00430	TRAP14	BRM	OBJECT	START OBJECT TEST
04466	0	77	04465		EAX	**1	X # TEST LOCATION
04467	0	43	00440		BRM	RETURN	SET TRAP RETURN
04470	0	20	04505		NBP	T14	
04471	0	75	26750		LDB	#T41	B # CORRECT TRAP ID
04472	0	76	26761		LDA	#000004000	
04473	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
04474	0	76	26745		LDA	#000000000	
04475	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
04476	0	02	20400		EBM	020400	
04477	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
04500	0	02	21000		EBM	021000	
04501	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
04502	4	35	13777		STA	013777,4	SHOULD OUT OF BOUNDS TRAP
04503	0	46	00001		CLA		
04504	0	01	04506		BRU	**2	
04505	0	76	00450	T14	LDA	DIVERT	
04506	0	14	26746		ETR	#037777	
04507	0	50	26750		SKE	#T41	EXPECTED OUT OF BOUNDS TRAP ID
04510	0	43	00460		BRM	ERRSR	
04511	0	20	22075		NBP	TM14	
04512	0	43	00434		BRM	END	LOOP IF BP1 SET

```

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R3
* IF READ ONLY TRAP, CHECK RL3H, RL30, RL31, RL32, RL33, AND 88A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04513 0 43 00430 TRAP15 BRM OBJECT START OBJECT TEST
04514 0 77 04513 EAX **1 X * TEST LOCATION
04515 0 43 00440 BRM RETURN SET TRAP RETURN
04516 0 20 04533 NOP T15
04517 0 75 26750 LDB *T41 B * CORRECT TRAP ID
04520 0 76 26762 LDA #000000040
04521 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04522 0 76 26745 LDA #000000000
04523 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04524 0 02 20400 EOM 020400
04525 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04526 0 02 21000 EOM 021000
04527 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04530 4 35 17777 STA 017777,4 SHOULD OUT OF BOUNDS TRAP
04531 0 46 00001 CLA
04532 0 01 04534 BRU **2
04533 0 76 00450 T15 LDA DIVERT
04534 0 14 26746 ETR #037777
04535 0 50 26750 SKE *T41 EXPECTED OUT OF BOUNDS TRAP ID
04536 0 43 00460 BRM ERROR
04537 0 20 22111 NOP TM15
04540 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R4
* IF READ ONLY TRAP, CHECK RL4H, RL40, RL41, RL42, RL43, RRL2 AND
* 88A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04541 0 43 00430 TRAP16 BRM OBJECT START OBJECT TEST
04542 0 77 04541 EAX **1 X * TEST LOCATION
04543 0 43 00440 BRM RETURN SET TRAP RETURN
04544 0 20 04561 NOP T16
04545 0 75 26750 LDB *T41 B * CORRECT TRAP ID
04546 0 76 26745 LDA #000000000
04547 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04550 0 76 26757 LDA #040000000
04551 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04552 0 02 20400 EOM 020400
04553 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04554 0 02 21000 EOM 021000
04555 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04556 4 35 23777 STA 023777,4 SHOULD OUT OF BOUNDS TRAP
04557 0 46 00001 CLA
04560 0 01 04562 T16 BRU **2
04561 0 76 00450 LDA DIVERT
04562 0 14 26746 ETR #037777
04563 0 50 26750 SKE *T41 EXPECTED OUT OF BOUNDS TRAP ID
04564 0 43 00460 BRM ERROR
04565 0 20 22125 NOP TM16
04566 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R5
* IF READ ONLY TRAP, CHECK RL5H, RL50, RL51, RL52, RL53, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04567 0 43 00430 TRAP17 BRM OBJECT START OBJECT TEST
04570 0 77 04567 EAX **1 X = TEST LOCATION
04571 0 43 00440 BRM RETURN SET TRAP RETURN
04572 0 20 04A07 NOP T17
04573 0 75 26750 LDB #T41 B = CORRECT TRAP ID
04574 0 76 26745 LDA #000000000
04575 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04576 0 76 26760 LDA #000400000
04577 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04600 0 02 21400 EBM 020400
04601 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04602 0 02 21700 EBM 021000
04603 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04604 4 35 27777 STA 027777,4 SHOULD OUT OF BOUNDS TRAP
04605 0 46 00001 CLA
04606 0 01 04610 BRU **2
04607 0 76 00450 T17 LDA DIVERT
04610 0 14 26746 ETR #037777
04611 0 50 26750 SKE #T41 EXPECTED OUT OF BOUNDS TRAP ID
04612 0 43 00460 BRM ERROR
04613 0 20 22141 NOP TM17
04614 0 43 00434 BRM END LOOP IF BPI SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R6
* IF READ ONLY TRAP, CHECK RL6H, RL60, RL61, RL62, RL63, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04615 0 43 00430 TRAP18 BRM OBJECT START OBJECT TEST
04616 0 77 04615 EAX **1 X = TEST LOCATION
04617 0 43 00440 BRM RETURN SET TRAP RETURN
04620 0 20 04A35 NOP T18
04621 0 75 26750 LDB #T41 B = CORRECT TRAP ID
04622 0 76 26745 LDA #000000000
04623 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04624 0 76 26761 LDA #000004000
04625 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04626 0 02 20400 EBM 020400
04627 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04630 0 02 21700 EBM 021000
04631 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04632 4 35 33777 STA 033777,4 SHOULD OUT OF BOUNDS TRAP
04633 0 46 00001 CLA
04634 0 01 04636 T18 BRU **2
04635 0 76 00450 LDA DIVERT
04636 0 14 26746 ETR #037777
04637 0 50 26750 SKE #T41 EXPECTED OUT OF BOUNDS TRAP ID
04640 0 43 00460 BRM ERROR
04641 0 20 22155 NOP TM18
04642 0 43 00434 BRM END LOOP IF BPI SET

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* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R7
* IF READ ONLY TRAP, CHECK RL7H, RL70, RL71, RL72, RL73, AND 0BA
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04643 0 43 00430 TRAP19 BRM OBJECT START OBJECT TEST
04644 0 77 04643 EAX **1 X = TEST LOCATION
04645 0 43 00440 BRM RETURN SET TRAP RETURN
04646 0 20 04663 NBP T19
04647 0 75 26750 LDB #T41 B = CORRECT TRAP ID
04650 0 76 26745 LDA #000000000
04651 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04652 0 76 26762 LDA #000000040
04653 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04654 0 02 20400 EBM 020400
04655 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04656 0 02 21000 EBM 021000
04657 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04660 4 35 37777 STA 037777,4 SHOULD OUT OF BOUNDS TRAP
04661 0 46 00001 CLA
04662 0 01 04664 BRU **2
04663 0 76 00450 T19 LDA DIVERT
04664 0 14 26746 ETR #037777
04665 0 50 26750 SKE #T41 EXPECTED OUT OF BOUNDS TRAP ID
04666 0 43 00460 BRM ERRSR
04667 0 20 22171 NBP TM19
04670 0 43 00434 BRM END LOOP IF BP1 SET

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```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL03
* IF OUT OF BOUNDS TRAP, CHECK RL03 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04671 0 43 00430 TRAP20 BRM OBJECT START OBJECT TEST
04672 0 77 04671 EAX **1 X = TEST LOCATION
04673 0 43 00440 BRM RETURN SET TRAP RETURN
04674 0 20 04711 NBP T20
04675 0 75 26747 LDB #T43 B = CORRECT TRAP ID
04676 0 76 26763 LDA #041000000
04677 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
04700 0 76 26745 LDA #000000000
04701 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
04702 0 02 20400 EBM 020400
04703 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
04704 0 02 21000 EBM 021000
04705 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
04706 4 35 03777 STA 003777,4 SHOULD READ ONLY TRAP
04707 0 46 00001 CLA
04710 0 01 04712 BRU **2
04711 0 76 00450 T20 LDA DIVERT
04712 0 14 26746 ETR #037777
04713 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
04714 0 43 00460 BRM ERRSR
04715 0 20 22205 NBP TM20
04716 0 43 00434 BRM END LOOP IF BP1 SET

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLO2
 * IF OUT OF BOUNDS TRAP, CHECK RLO2 AND LS2A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

04717	0 43 00430	TRAP21 BRM	OBJECT	START OBJECT TEST
04720	0 77 04717	EAX	**1	X * TEST LOCATION
04721	0 43 00440	BRM	RETURN	SET TRAP RETURN
04722	0 20 04737	NOP	T21	
04723	0 75 26747	LDB	#T43	B * CORRECT TRAP ID
04724	0 76 26764	LDA	#042000000	
04725	0 35 00415	STA	RL1	RELABELING REGISTER 1 CONTENTS
04726	0 76 26745	LDA	#000000000	
04727	0 35 00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
04730	0 02 20400	EBM	020400	
04731	0 13 00415	PBT	RL1	SET RELABELING REGISTER 1
04732	0 02 21000	EBM	021000	
04733	0 13 00416	PBT	RL2	SET RELABELING REGISTER 2
04734	4 35 03777	STA	003777,4	SHOULD READ ONLY TRAP
04735	0 46 00001	CLA		
04736	0 01 04740	BRU	**2	
04737	0 76 00450	LDA	DIVERT	
04740	0 14 26746	ETR	#037777	
04741	0 50 26747	SKE	#T43	EXPECTED READ ONLY TRAP ID
04742	0 43 00460	BRM	ERRR	
04743	0 20 22212	NOP	TM21	
04744	0 43 00434	BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLO1
 * IF OUT OF BOUNDS TRAP, CHECK RLO1 AND LS1A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

04745	0 43 00430	TRAP22 BRM	OBJECT	START OBJECT TEST
04746	0 77 04745	EAX	**1	X * TEST LOCATION
04747	0 43 00440	BRM	RETURN	SET TRAP RETURN
04750	0 20 04765	NOP	T22	
04751	0 75 26747	LDB	#T43	B * CORRECT TRAP ID
04752	0 76 26765	LDA	#044000000	
04753	0 35 00415	STA	RL1	RELABELING REGISTER 1 CONTENTS
04754	0 76 26745	LDA	#000000000	
04755	0 35 00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
04756	0 02 20400	EBM	020400	
04757	0 13 00415	PBT	RL1	SET RELABELING REGISTER 1
04760	0 02 21000	EBM	021000	
04761	0 13 00416	PBT	RL2	SET RELABELING REGISTER 2
04762	4 35 03777	STA	003777,4	SHOULD READ ONLY TRAP
04763	0 46 00001	CLA		
04764	0 01 04766	BRU	**2	
04765	0 76 00450	LDA	DIVERT	
04766	0 14 26746	ETR	#037777	
04767	0 50 26747	SKE	#T43	EXPECTED READ ONLY TRAP ID
04770	0 43 00460	BRM	ERRR	
04771	0 20 22217	NOP	TM22	
04772	0 43 00434	BRM	END	LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLOO
* IF OUT OF BOUNDS TRAP, CHECK RLOO AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
04773 0 43 00430 TRAP23 BRM OBJECT START OBJECT TEST
04774 0 77 04773 EAX **1 X = TEST LOCATION
04775 0 43 00440 BRM RETURN SET TRAP RETURN
04776 0 20 05413 NOP T23
04777 0 75 26747 LDB *T43 B = CORRECT TRAP ID
05000 0 76 26766 LDA #050000000
05001 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05002 0 76 26745 LDA #000000000
05003 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05004 0 02 20400 EBM 020400
05005 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
05006 0 02 21000 EBM 021000
05007 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
05010 * 35 03777 STA 03777,4 SHOULD READ ONLY TRAP
05011 0 46 00001 CLA
05012 0 01 05014 BRU **2
05013 0 76 00450 T23 LDA DIVERT
05014 0 14 26746 ETR #037777
05015 0 50 26747 SKE *T43 EXPECTED READ ONLY TRAP ID
05016 0 43 00460 BRM ERROR
05017 0 20 22224 NOP TM23
05020 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLOH
* IF OUT OF BOUNDS TRAP, CHECK RLOH AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05021 0 43 00430 TRAP24 BRM OBJECT START OBJECT TEST
05022 0 77 05021 EAX **1 X = TEST LOCATION
05023 0 43 00440 BRM RETURN SET TRAP RETURN
05024 0 20 05041 NOP T24
05025 0 75 26747 LDB *T43 B = CORRECT TRAP ID
05026 0 76 26747 LDA #060000000
05027 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05030 0 76 26745 LDA #000000000
05031 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05032 0 02 20400 EBM 020400
05033 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
05034 0 02 21000 EBM 021000
05035 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
05036 * 35 03777 STA 003777,4 SHOULD READ ONLY TRAP
05037 0 46 00001 CLA
05040 0 01 05042 BRU **2
05041 0 76 00450 T24 LDA DIVERT
05042 0 14 26746 ETR #037777
05043 0 50 26747 SKE *T43 EXPECTED READ ONLY TRAP ID
05044 0 43 00460 BRM ERROR
05045 0 20 22231 NOP TM24
05046 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL13
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05047 0 43 00430 TRAP25 BRM OBJECT          $START OBJECT TEST
05050 0 77 05047          EAX          **1              X * TEST LOCATION
05051 0 43 00440          BRM          RETURN          SET TRAP RETURN
05052 0 20 05067          NOP          T25
05053 0 75 26747          LDB          #T43              B * CORRECT TRAP ID
05054 0 76 26771          LDA          #000410000
05055 0 35 00415          STA          RL1              RELABELING REGISTER 1 CONTENTS
05056 0 74 26745          LDA          #000000000
05057 0 35 00416          STA          RL2              RELABELING REGISTER 2 CONTENTS
05060 0 02 20400          EBM          020400
05061 0 13 00415          PBT          RL1              SET RELABELING REGISTER 1
05062 0 02 21000          EBM          021000
05063 0 13 00416          PBT          RL2              SET RELABELING REGISTER 2
05064 4 35 07777          STA          007777,4        SHOULD READ ONLY TRAP
05065 0 46 00001          CLA
05066 0 01 05070          BRU          **2
05067 0 76 00450          LDA          DIVERT
05070 0 14 26744          ETR          #037777
05071 0 50 26747          SKE          #T43              EXPECTED READ ONLY TRAP ID
05072 0 43 00460          BRM          ERROR
05073 0 20 22036          NOP          TM26
05074 0 43 00434          BRM          END              LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL12
* IF OUT OF BOUNDS TRAP, CHECK RL12 AND LS2A' BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05075 0 43 00430 TRAP26 BRM OBJECT          X * TEST LOCATION
05076 0 77 05075          EAX          **1              SET TRAP RETURN
05077 0 43 00440          BRM          RETURN
05100 0 20 05115          NOP          T26
05101 0 75 26747          LDB          #T43              B * CORRECT TRAP ID
05102 0 76 26771          LDA          #000420000
05103 0 35 00415          STA          RL1              RELABELING REGISTER 1 CONTENTS
05104 0 76 26745          LDA          #000000000
05105 0 35 00416          STA          RL2              RELABELING REGISTER 2 CONTENTS
05106 0 02 20400          EBM          020400
05107 0 13 00415          PBT          RL1              SET RELABELING REGISTER 1
05110 0 02 21000          EBM          021000
05111 0 13 00416          PBT          RL2              SET RELABELING REGISTER 2
05112 4 35 07777          STA          007777,4        SHOULD READ ONLY TRAP
05113 0 46 00001          CLA
05114 0 01 05116          BRU          **2
05115 0 76 00450          LDA          DIVERT
05116 0 14 26744          ETR          #037777
05117 0 50 26747          SKE          #T43              EXPECTED READ ONLY TRAP ID
05120 0 43 00460          BRM          ERROR
05121 0 20 22036          NOP          TM26
05122 0 43 00434          BRM          END              LOOP IF BP1 SET

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL11
 * IF OUT OF BOUNDS TRAP, CHECK RL11 AND LS1A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05123	0 43 00430	TRAP27 BRM	OBJECT	START OBJECT TEST
05124	0 77 05123	EAX	**1	X = TEST LOCATION
05125	0 43 00440	BRM	RETURN	SET TRAP RETURN
05126	0 20 05143	NOP	T27	
05127	0 75 26747	LDB	*T43	B = CORRECT TRAP ID
05130	0 76 26772	LDA	#000440000	
05131	0 35 00415	STA	RL1	RELABELING REGISTER 1 CONTENTS
05132	0 76 26745	LDA	#000000000	
05133	0 35 00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
05134	0 02 20400	EOM	020400	
05135	0 13 00415	POT	RL1	SET RELABELING REGISTER 1
05136	0 02 21000	EOM	021000	
05137	0 13 00416	POT	RL2	SET RELABELING REGISTER 2
05140	4 35 07777	STA	007777,4	SHOULD READ ONLY TRAP
05141	0 46 00001	CLA		
05142	0 01 05144	BRU	**2	
05143	0 76 00450	LDA	DIVERT	
05144	0 14 26746	ETR	#037777	
05145	0 50 26747	SKE	*T43	EXPECTED READ ONLY TRAP ID
05146	0 43 00460	BRM	ERROR	
05147	0 20 22253	NOP	TM27	
05150	0 43 00434	BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL10
 * IF OUT OF BOUNDS TRAP, CHECK RL10 AND LS0A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05151	0 43 00430	TRAP28 BRM	OBJECT	START OBJECT TEST
05152	0 77 05151	EAX	**1	X = TEST LOCATION
05153	0 43 00440	BRM	RETURN	SET TRAP RETURN
05154	0 20 05171	NOP	T28	
05155	0 75 26747	LDB	*T43	B = CORRECT TRAP ID
05156	0 76 26773	LDA	#000500000	
05157	0 35 00415	STA	RL1	RELABELING REGISTER 1 CONTENTS
05160	0 76 26745	LDA	#000000000	
05161	0 35 00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
05162	0 02 20400	EOM	020400	
05163	0 13 00415	POT	RL1	SET RELABELING REGISTER 1
05164	0 02 21000	EOM	021000	
05165	0 13 00416	POT	RL2	SET RELABELING REGISTER 2
05166	4 35 07777	STA	007777,4	SHOULD READ ONLY TRAP
05167	0 46 00001	CLA		
05170	0 01 05172	BRU	**2	
05171	0 76 00450	LDA	DIVERT	
05172	0 14 26746	ETR	#037777	
05173	0 50 26747	SKE	*T43	EXPECTED READ ONLY TRAP ID
05174	0 43 00460	BRM	ERROR	
05175	0 20 22260	NOP	TM28	
05176	0 43 00434	BRM	END	LOOP IF BP1 SET

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* THIS OBJECT ATTEMPTS A READ TRAP DEPENDENT ON RL1H
* IF OUT OF BOUNDS TRAP, CHECK RL1H AND L500A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05177 0 43 00430 TRAP29 BRM OBJECT START OBJECT TEST
05200 0 77 05177 EAX **1 X # TEST LOCATION
05201 0 43 00440 BRM RETURN SET TRAP RETURN
05202 0 80 05217 NOP T29
05203 0 75 26747 LDB #T43 B # CORRECT TRAP ID
05204 0 76 26774 LDA #000600000
05205 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05206 0 76 26745 LDA #000000000
05207 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05210 0 80 20400 EBM 020400
05211 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
05212 0 80 21000 EBM 021000
05213 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
05214 * 35 07777 STA 007777,4 SHOULD READ ONLY TRAP
05215 0 46 00001 CLA
05216 0 01 05220 BRU **2
05217 0 76 00450 T29 LDA DIVERT
05220 0 14 26746 ETR #037777
05221 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
05222 0 43 00460 BRM ERR9R
05223 0 20 20272 NOP TM29
05224 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL23
* IF OUT OF BOUNDS TRAP, CHECK RL23 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05225 0 43 00430 TRAP30 BRM OBJECT START OBJECT TEST
05226 0 77 05225 EAX **1 X # TEST LOCATION
05227 0 43 00440 BRM RETURN SET TRAP RETURN
05230 0 80 05245 NOP T30
05231 0 75 26747 LDB #T43 B # CORRECT TRAP ID
05232 0 76 26775 LDA #000004100
05233 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05234 0 76 26745 LDA #000000000
05235 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05236 0 80 20400 EBM 020400
05237 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
05240 0 80 21000 EBM 021000
05241 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
05242 * 35 13777 STA 013777,4 SHOULD READ ONLY TRAP
05243 0 46 00001 CLA
05244 0 01 05246 BRU **2
05245 0 76 00450 T30 LDA DIVERT
05246 0 14 26746 ETR #037777
05247 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
05250 0 43 00460 BRM ERR9R
05251 0 20 20272 NOP TM30
05252 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL22
 * IF OUT OF BOUNDS TRAP, CHECK RL22 AND LB2A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05253	0	43	00430	TRAP31	BRM	OBJECT	START OBJECT TEST
05254	0	77	05253		EAX	**1	X * TEST LOCATION
05255	0	43	00440		BRM	RETURN	SET TRAP RETURN
05256	0	20	05273		NBP	T31	
05257	0	75	26747		LDB	*T43	B * CORRECT TRAP ID
05260	0	76	26776		LDA	#000004200	
05261	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
05262	0	76	26745		LDA	#000000000	
05263	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
05264	0	02	20400		EBM	020400	
05265	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
05266	0	02	21000		EBM	021000	
05267	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
05270	4	35	13777		STA	013777,4	SHOULD READ ONLY TRAP
05271	0	46	00001		CLA		
05272	0	01	05274		BRU	**2	
05273	0	76	00450	T31	LDA	DIVERT	
05274	0	14	26746		ETR	#037777	
05275	0	50	26747		SKE	*T43	EXPECTED READ ONLY TRAP ID
05276	0	43	00460		BRM	ERRBR	
05277	0	20	22277		NBP	TM31	
05300	0	43	00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL21
 * IF OUT OF BOUNDS TRAP, CHECK RL21 AND LS1A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05301	0	43	00430	TRAP32	BRM	OBJECT	START OBJECT TEST
05302	0	77	05301		EAX	**1	X * TEST LOCATION
05303	0	43	00440		BRM	RETURN	SET TRAP RETURN
05304	0	20	05321		NBP	T32	
05305	0	75	26747		LDB	*T43	B * CORRECT TRAP ID
05306	0	76	26777		LDA	#000004400	
05307	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
05310	0	76	26745		LDA	#000000000	
05311	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
05312	0	02	20400		EBM	020400	
05313	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
05314	0	02	21000		EBM	021000	
05315	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
05316	4	35	13777		STA	013777,4	SHOULD READ ONLY TRAP
05317	0	46	00001		CLA		
05320	0	01	05322		BRU	**2	
05321	0	76	00450	T32	LDA	DIVERT	
05322	0	14	26746		ETR	#037777	
05323	0	50	26747		SKE	*T43	EXPECTED READ ONLY TRAP ID
05324	0	43	00460		BRM	ERRBR	
05325	0	20	22304		NBP	TM32	
05326	0	43	00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL20
 * IF OUT OF BOUNDS TRAP, CHECK RL20 AND LSOA1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05327	0 43 00430	TRAP33 BRM	OBJECT	START OBJECT TEST
05330	0 77 05327	EAX	**1	X * TEST LOCATION
05331	0 43 00440	BRM	RETURN	SET TRAP RETURN
05332	0 20 05347	NBP	T33	
05333	0 75 26747	LOB	*T43	B * CORRECT TRAP ID
05334	0 76 27000	LDA	#000005000	RELABELING REGISTER 1 CONTENTS
05335	0 35 00415	STA	RL1	RELABELING REGISTER 2 CONTENTS
05336	0 76 26745	LDA	#000000000	RELABELING REGISTER 1 CONTENTS
05337	0 35 00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
05340	0 02 20400	EBM	020400	SET RELABELING REGISTER 1
05341	0 13 00415	PBT	RL1	SET RELABELING REGISTER 2
05342	0 02 21000	EBM	021000	SHOULD READ ONLY TRAP
05343	0 13 00416	PBT	RL2	
05344	4 35 13777	STA	013777,4	
05345	0 46 00001	CLA		
05346	0 01 05350	BRU	**2	
05347	0 76 00450	LDA	DIVERT	
05350	0 14 26746	ETR	#037777	EXPECTED READ ONLY TRAP ID
05351	0 50 26747	SKE	*T43	
05352	0 43 00460	BRM	ERR0R	
05353	0 20 22311	NBP	TM33	
05354	0 43 00434	BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL2H
 * IF OUT OF BOUNDS TRAP, CHECK RL2H AND LSO0A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05355	0 43 00430	TRAP34 BRM	OBJECT	START OBJECT TEST
05356	0 77 05355	EAX	**1	X * TEST LOCATION
05357	0 43 00440	BRM	RETURN	SET TRAP RETURN
05360	0 20 05375	NBP	T34	
05361	0 75 26747	LOB	*T43	B * CORRECT TRAP ID
05362	0 76 27001	LDA	#000006000	RELABELING REGISTER 1 CONTENTS
05363	0 35 00415	STA	RL1	RELABELING REGISTER 2 CONTENTS
05364	0 76 26745	LDA	#000000000	RELABELING REGISTER 1 CONTENTS
05365	0 35 00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
05366	0 02 20400	EBM	020400	SET RELABELING REGISTER 1
05367	0 13 00415	PBT	RL1	SET RELABELING REGISTER 2
05370	0 02 21000	EBM	021000	SHOULD READ ONLY TRAP
05371	0 13 00416	PBT	RL2	
05372	4 35 13777	STA	013777,4	
05373	0 46 00001	CLA		
05374	0 01 05376	BRU	**2	
05375	0 76 00450	LDA	DIVERT	
05376	0 14 26746	ETR	#037777	EXPECTED READ ONLY TRAP ID
05377	0 50 26747	SKE	*T43	
05400	0 43 00460	BRM	ERR0R	
05401	0 20 22316	NBP	TM34	
05402	0 43 00434	BRM	END	LOOP IF BP1 SET

MEM1 TAP=3.C

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL33
* IF OUT OF BOUNDS TRAP, CHECK RL33 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05403 0 43 00430 TRAP35 BRM OBJECT START OBJECT TEST
05404 0 77 05403 EAX **1 X = TEST LOCATION
05405 0 43 00440 BRM RETURN SET TRAP RETURN
05406 0 20 05423 NOP T35
05407 0 75 26747 LDB #T43 B = CORRECT TRAP ID
05410 0 76 27002 LDA #000000041
05411 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05412 0 76 26745 LDA #000000000
05413 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05414 0 02 20400 EBM 020400
05415 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
05416 0 02 21000 EBM 021000
05417 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
05420 4 35 17777 STA 017777,4 SHOULD READ ONLY TRAP
05421 0 46 00001 CLA
05422 0 01 05424 BRU **2
05423 0 76 00450 T35 LDA DIVERT
05424 0 14 26746 ETR #037777
05425 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
05426 0 43 00460 BRM ERROR
05427 0 20 22323 NOP TM35
05430 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL32
* IF OUT OF BOUNDS TRAP, CHECK RL32 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05431 0 43 00430 TRAP36 BRM OBJECT START OBJECT TEST
05432 0 77 05431 EAX **1 X = TEST LOCATION
05433 0 43 00440 BRM RETURN SET TRAP RETURN
05434 0 20 05451 NOP T36
05435 0 75 26747 LDB #T43 B = CORRECT TRAP ID
05436 0 76 27003 LDA #000000042
05437 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05440 0 76 26745 LDA #000000000
05441 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05442 0 02 20400 EBM 020400
05443 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
05444 0 02 21000 EBM 021000
05445 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
05446 4 35 17777 STA 017777,4 SHOULD READ ONLY TRAP
05447 0 46 00001 CLA
05450 0 01 05452 BRU **2
05451 0 76 00450 T36 LDA DIVERT
05452 0 14 26746 ETR #037777
05453 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
05454 0 43 00460 BRM ERROR
05455 0 20 22330 NOP TM36
05456 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

PAGE #1

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL31
* IF OUT OF BOUNDS TRAP, CHECK RL31 AND LS1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05457	0	43	00430	TRAP37	BRM	OBJECT	START OBJECT TEST
05460	0	77	05457		EAX	**1	X = TEST LOCATION
05461	0	43	00440		BRM	RETURN	SET TRAP RETURN
05462	0	20	05477		NBP	T37	
05463	0	75	26747		LDB	#T43	B = CORRECT TRAP ID
05464	0	76	27004		LDA	#000000044	
05465	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
05466	0	76	26745		LDA	#000000000	
05467	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
05470	0	02	20400		EDM	020400	
05471	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
05472	0	02	21000		EDM	021000	
05473	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
05474	4	35	17777		STA	017777,4	SHOULD READ ONLY TRAP
05475	0	46	00001		CLA		
05476	0	01	05500		BRU	**2	
05477	0	76	00450	T37	LDA	DIVERT	
05500	0	14	26746		ETR	#037777	
05501	0	50	26747		SKE	#T43	EXPECTED READ ONLY TRAP ID
05502	0	43	00460		BRM	ERRR	
05503	0	20	22333		NBP	TM37	
05504	0	43	00434		BRM	END	LOOP IF BP1 SET

MEM1 TAP=3.0

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL30
* IF OUT OF BOUNDS TRAP, CHECK RL30 AND LS0A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

05505	0	43	00430	TRAP38	BRM	OBJECT	START OBJECT TEST
05506	0	77	05505		EAX	**1	X = TEST LOCATION
05507	0	43	00440		BRM	RETURN	SET TRAP RETURN
05510	0	20	05525		NBP	T38	
05511	0	75	26747		LDB	#T43	B = CORRECT TRAP ID
05512	0	76	27005		LDA	#000000050	
05513	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
05514	0	76	26745		LDA	#000000000	
05515	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
05516	0	02	20400		EDM	020400	
05517	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
05520	0	02	21000		EDM	021000	
05521	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
05522	4	35	17777		STA	017777,4	SHOULD READ ONLY TRAP
05523	0	46	00001		CLA		
05524	0	01	05526		BRU	**2	
05525	0	76	00450	T38	LDA	DIVERT	
05526	0	14	26746		ETR	#037777	
05527	0	50	26747		SKE	#T43	EXPECTED READ ONLY TRAP ID
05530	0	43	00460		BRM	ERRR	
05531	0	20	22342		NBP	TM38	
05532	0	43	00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL3H
 * IF OUT OF BOUNDS TRAP, CHECK RL3H AND L\$00A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

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TRAP39 BRM OBJECT START OBJECT TEST
05533 0 43 00430 EAX **1 X # TEST LOCATION
05534 0 77 05533 BRM RETURN SET TRAP RETURN
05535 0 43 00440 NBP T39
05536 0 20 05553 LDB #T43 B # CORRECT TRAP ID
05537 0 75 26747 LDA #000000060
05540 0 76 27006 STA RL1 RELABELING REGISTER 1 CONTENTS
05541 0 35 00415 LDA #000000000
05542 0 76 26745 STA RL2 RELABELING REGISTER 2 CONTENTS
05543 0 35 00416 EOM 020400
05544 0 02 20400 PBT RL1 SET RELABELING REGISTER 1
05545 0 13 00415 EOM 021000
05546 0 02 21000 PBT RL2 SET RELABELING REGISTER 2
05547 0 13 00416 STA 017777,4 SHOULD READ ONLY TRAP
05550 4 35 17777 CLA
05551 0 46 00001 BRU **2
05552 0 01 05554 LDA DIVERT
05553 0 76 00450 T39 ETR #037777
05554 0 14 26746 SKE #T43 EXPECTED READ ONLY TRAP ID
05555 0 50 26747 BRM ERROR
05556 0 43 00460 NBP TM39
05557 0 20 22347 BRM END LOOP IF BP1 SET
05560 0 43 00434

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL43
 * IF OUT OF BOUNDS TRAP, CHECK RL43 AND S31
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

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TRAP40 BRM OBJECT START OBJECT TEST
05561 0 43 00430 EAX **1 X # TEST LOCATION
05562 0 77 05561 BRM RETURN SET TRAP RETURN
05563 0 43 00440 NBP T40A
05564 0 20 05601 LDB #T43 B # CORRECT TRAP ID
05565 0 75 26747 LDA #000000000
05566 0 76 26745 STA RL1 RELABELING REGISTER 1 CONTENTS
05567 0 35 00415 LDA #041000000
05570 0 76 26763 STA RL2 RELABELING REGISTER 2 CONTENTS
05571 0 35 00416 EOM 020400
05572 0 02 20400 PBT RL1 SET RELABELING REGISTER 1
05573 0 13 00415 EOM 021000
05574 0 02 21000 PBT RL2 SET RELABELING REGISTER 2
05575 0 13 00416 STA 023777,4 SHOULD READ ONLY TRAP
05576 4 35 23777 CLA
05577 0 46 00001 BRU **2
05600 0 01 05602 T40A LDA DIVERT
05601 0 76 00450 ETR #037777
05602 0 14 26746 SKE #T43 EXPECTED READ ONLY TRAP ID
05603 0 50 26747 BRM ERROR
05604 0 43 00460 NBP TM40
05605 0 20 22354 BRM END LOOP IF BP1 SET
05606 0 43 00434

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MEM1 TAP=3.C

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* THIS OBJECT TEST ATTEMPS A READ ONLY TRAP DEPENDENT ON RL42
* IF OUT OF BOUNDS TRAP, CHECK RL42 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP#1 BRM OBJECT START OBJECT TEST
05607 0 43 00430 EAX **1 X * TEST LOCATION
05610 0 77 05607 BRM RETURN SET TRAP RETURN
05611 0 43 00440 BRM RETURN
05612 0 20 05627 NOP T41A
05613 0 75 26747 LDB #T43 B * CORRECT TRAP ID
05614 0 76 26745 LDA #000000000
05615 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05616 0 76 26764 LDA #042000000
05617 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05620 0 02 20400 EBM 020400
05621 0 13 00415 POT RL1 SET RELABELING REGISTER 1
05622 0 02 21000 EBM 021000
05623 0 13 00416 POT RL2 SET RELABELING REGISTER 2
05624 * 35 23777 STA 023777,4 SHOULD READ ONLY TRAP
05625 0 46 00001 CLA
05626 0 01 05630 BRU **2
05627 0 76 00450 T41A LDA DIVERT
05630 0 14 26746 ETR #037777
05631 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
05632 0 43 00460 BRM ERROR
05633 0 20 22361 NOP TM#1
05634 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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* THIS OBJECT TEST ATTEMPS A READ ONLY TRAP DEPENDENT ON RL41
* IF OUT OF BOUNDS TRAP, CHECK RL41 AND LS1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP#2 BRM OBJECT START OBJECT TEST
05635 0 43 00430 EAX **1 X * TEST LOCATION
05636 0 77 05635 BRM RETURN SET TRAP RETURN
05637 0 43 00440 BRM RETURN
05640 0 20 05655 NOP T42A
05641 0 75 26747 LDB #T43 B * CORRECT TRAP ID
05642 0 76 26745 LDA #000000000
05643 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
05644 0 76 26765 LDA #044000000
05645 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
05646 0 02 20400 EBM 020400
05647 0 13 00415 POT RL1 SET RELABELING REGISTER 1
05650 0 02 21000 EBM 021000
05651 0 13 00416 POT RL2 SET RELABELING REGISTER 2
05652 * 35 23777 STA 023777,4 SHOULD READ ONLY TRAP
05653 0 46 00001 CLA
05654 0 01 05656 BRU **2
05655 0 76 00450 T42A LDA DIVERT
05656 0 14 26746 ETR #037777
05657 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
05660 0 43 00460 BRM ERROR
05661 0 20 22366 NOP TM#2
05662 0 43 00434 BRM END LOOP IF BP1 SET
```

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL40
* IF OUT OF BOUNDS TRAP, CHECK RL40 AND L60A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05663 0 43 00430 TRAP43 BRM OBJECT          START OBJECT TEST
05664 0 77 05663     EAX    **1          X = TEST LOCATION
05665 0 43 00440     BRM    RETURN        SET TRAP RETURN
05666 0 20 05703     NOP    T43A
05667 0 75 26747     LDB    *T43          B = CORRECT TRAP ID
05670 0 76 26745     LDA    #0
05671 0 35 00415     STA    RL1          RELABELING REGISTER 1 CONTENTS
05672 0 76 26766     LDA    #050000000
05673 0 35 00416     STA    RL2          RELABELING REGISTER 2 CONTENTS
05674 0 02 20400     EDM    020400
05675 0 13 00415     POT    RL1          SET RELABELING REGISTER 1
05676 0 02 21000     EDM    021000
05677 0 13 00416     POT    RL2          SET RELABELING REGISTER 2
05700 4 35 23777     STA    023777,4     SHOULD READ ONLY TRAP
05701 0 46 00001     CLA
05702 0 01 05704     BRU    **2
05703 0 76 00450     LDA    DIVERT
05704 0 14 26746     ETR    #037777
05705 0 50 26747     SKE    *T43          EXPECTED READ ONLY TRAP ID
05706 0 43 00460     BRM    ERROR
05707 0 20 22373     NOP    TM43
05710 0 43 00434     BRM    END          LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL4H
* IF OUT OF BOUNDS TRAP, CHECK RL4H AND L500A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
05711 0 43 00430 TRAP44 BRM OBJECT          START OBJECT TEST
05712 0 77 05711     EAX    **1          X = TEST LOCATION
05713 0 43 00440     BRM    RETURN        SET TRAP RETURN
05714 0 20 05731     NOP    T44A
05715 0 75 26747     LDB    *T43          B = CORRECT TRAP ID
05716 0 76 26745     LDA    #000000000
05717 0 35 00415     STA    RL1          RELABELING REGISTER 1 CONTENTS
05720 0 76 26767     LDA    #060000000
05721 0 35 00416     STA    RL2          RELABELING REGISTER 2 CONTENTS
05722 0 02 20400     EDM    020400
05723 0 13 00415     POT    RL1          SET RELABELING REGISTER 1
05724 0 02 21000     EDM    021000
05725 0 13 00416     POT    RL2          SET RELABELING REGISTER 2
05726 4 35 23777     STA    023777,4     SHOULD READ ONLY TRAP
05727 0 46 00001     CLA
05730 0 01 05732     BRU    **2
05731 0 76 00450     LDA    DIVERT
05732 0 14 26746     ETR    #037777
05733 0 50 26747     SKE    *T43          EXPECTED READ ONLY TRAP ID
05734 0 43 00460     BRM    ERROR
05735 0 20 22400     NOP    TM44
05736 0 43 00434     BRM    END          LOOP IF BP1 SET

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MEM1 TAP=3.0

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL52
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP45 BRM OBJECT START OBJECT TEST
EAX **1 X = TEST LOCATION
BRM RETURN SET TRAP RETURN
NOP T45 B = CORRECT TRAP ID
LDB *T43
LDA #00000000 RELABELING REGISTER 1 CONTENTS
STA RL1
LDA #00041000 RELABELING REGISTER 2 CONTENTS
STA RL2
EOM 020400
PBT RL1 SET RELABELING REGISTER 1
EOM 021000
PBT RL2 SET RELABELING REGISTER 2
STA 027777,4 SHOULD READ ONLY TRAP
CLA **2
BRU DIVERT
LDA *037777
ETR *T43 EXPECTED READ ONLY TRAP ID
SKE *T43
BRM ERROR
NOP TM45
BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL52
* IF OUT OF BOUNDS TRAP, CHECK RL52 AND L62A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP46 BRM OBJECT START OBJECT TEST
EAX **1 X = TEST LOCATION
BRM RETURN SET TRAP RETURN
NOP T46 B = CORRECT TRAP ID
LDB *T43
LDA #00000000 RELABELING REGISTER 1 CONTENTS
STA RL1
LDA #00042000 RELABELING REGISTER 2 CONTENTS
STA RL2
EOM 020400
PBT RL1 SET RELABELING REGISTER 1
EOM 021000
PBT RL2 SET RELABELING REGISTER 2
STA 027777,4 SHOULD READ ONLY TRAP
CLA **2
BRU DIVERT
LDA *037777
ETR *T43 EXPECTED READ ONLY TRAP ID
SKE *T43
BRM ERROR
NOP TM46
BRM END LOOP IF BP1 SET
```

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL51
* IF OUT OF BOUNDS TRAP, CHECK RL51 AND L51A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP47 BRM OBJECT START OBJECT TEST
06013 0 43 00430 EAX **1 X = TEST LOCATION
06014 0 77 06013 BRM RETURN SET TRAP RETURN
06015 0 43 00440 NBP T47
06016 0 20 06033 LDB #T43 B = CORRECT TRAP ID
06017 0 75 26747 LDA #000000000
06020 0 76 26745 STA RL1 RELABELING REGISTER 1 CONTENTS
06021 0 35 00415 LDA #000440000
06022 0 76 26772 STA RL2 RELABELING REGISTER 2 CONTENTS
06023 0 35 00416 EBM 020400
06024 0 02 20400 PBT RL1 SET RELABELING REGISTER 1
06025 0 13 00415 EBM 021000
06026 0 02 21000 PBT RL2 SET RELABELING REGISTER 2
06027 0 13 00416 STA 027777,4 SHOULD READ ONLY TRAP
06030 4 35 27777 CLA
06031 0 46 00001 BRU **2
06032 0 01 06034 LDA DIVERT
06033 0 76 00450 T47 ETR #037777
06034 0 14 26746 SKE #T43 EXPECTED READ ONLY TRAP ID
06035 0 50 26747 BRM ERROR
06036 0 43 00460 NBP TM47
06037 0 20 22422 BRM END LOOP IF BP1 SET
06040 0 43 00434

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL50
* IF OUT OF BOUNDS TRAP, CHECK RL50 AND L50A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP48 BRM OBJECT START OBJECT TEST
06041 0 43 00430 EAX **1 X = TEST LOCATION
06042 0 77 06041 BRM RETURN SET TRAP RETURN
06043 0 43 00440 NBP T48
06044 0 20 06061 LDB #T43 B = CORRECT TRAP ID
06045 0 75 26747 LDA #000000000
06046 0 76 26745 STA RL1 RELABELING REGISTER 1 CONTENTS
06047 0 35 00415 LDA #000500000
06050 0 76 26773 STA RL2 RELABELING REGISTER 2 CONTENTS
06051 0 35 00416 EBM 020400
06052 0 02 20400 PBT RL1 SET RELABELING REGISTER 1
06053 0 13 00415 EBM 021000
06054 0 02 21000 PBT RL2 SET RELABELING REGISTER 2
06055 0 13 00416 STA 027777,4 SHOULD READ ONLY TRAP
06056 4 35 27777 CLA
06057 0 46 00001 BRU **2
06060 0 01 06062 LDA DIVERT
06061 0 76 00450 T48 ETR #037777
06062 0 14 26746 SKE #T43 EXPECTED READ ONLY TRAP ID
06063 0 50 26747 BRM ERROR
06064 0 43 00460 NBP TM48
06065 0 20 22427 BRM END LOOP IF BP1 SET
06066 0 43 00434

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MEM1 TAP=3.0

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLBH
* IF OUT OF BOUNDS TRAP, CHECK RLBH AND LSOQA! BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

06067	0	43	00430	TRAP49 BRM	OBJECT	START OBJECT TEST
06070	0	77	06067	EAX	**1	X = TEST LOCATION
06071	0	43	00440	BRM	RETURN	SET TRAP RETURN
06072	0	20	06107	NOP	T49	
06073	0	75	26747	LDB	#T43	B = CORRECT TRAP ID
06074	0	76	26745	LDA	#000000000	
06075	0	35	00415	STA	RL1	RELABELING REGISTER 1 CONTENTS
06076	0	76	26774	LDA	#000600000	
06077	0	35	00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
06100	0	02	20400	EOM	020400	
06101	0	13	00415	POT	RL1	SET RELABELING REGISTER 1
06102	0	02	21000	EOM	021000	
06103	0	13	00416	POT	RL2	SET RELABELING REGISTER 2
06104	4	35	27777	STA	027777,4	SHOULD READ ONLY TRAP
06105	0	46	00001	CLA		
06106	0	01	06110	BRU	**2	
06107	0	76	00450	LDA	DIVERT	
06110	0	14	26746	ETR	#037777	
06111	0	50	26747	SKE	#T43	EXPECTED READ ONLY TRAP ID
06112	0	43	00460	BRM	ERRRR	
06113	0	20	22434	NOP	T49	
06114	0	43	00434	BRM	END	LOOP IF BP1 SET

MEM1 TAP=3.0

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL63
* IF OUT OF BOUNDS TRAP, CHECK RL63 AND S3!
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

06115	0	43	00430	TRAP50 BRM	OBJECT	START OBJECT TEST
06116	0	77	06115	EAX	**1	X = TEST LOCATION
06117	0	43	00440	BRM	RETURN	SET TRAP RETURN
06120	0	20	06135	NOP	T50	
06121	0	75	26747	LDB	#T43	B = CORRECT TRAP ID
06122	0	76	26745	LDA	#000000000	
06123	0	35	00415	STA	RL1	RELABELING REGISTER 1 CONTENTS
06124	0	76	26775	LDA	#000004100	
06125	0	35	00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
06126	0	02	20400	EOM	020400	
06127	0	13	00415	POT	RL1	SET RELABELING REGISTER 1
06130	0	02	21000	EOM	021000	
06131	0	13	00416	POT	RL2	SET RELABELING REGISTER 2
06132	4	35	33777	STA	033777,4	SHOULD READ ONLY TRAP
06133	0	46	00001	CLA		
06134	0	01	06136	BRU	**2	
06135	0	76	00450	LDA	DIVERT	
06136	0	14	26746	ETR	#037777	
06137	0	50	26747	SKE	#T43	EXPECTED READ ONLY TRAP ID
06140	0	43	00460	BRM	ERRRR	
06141	0	20	22441	NOP	T50	
06142	0	43	00434	BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL62
 * IF OUT OF BOUNDS TRAP, CHECK RL62 AND LS2A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

06143	0	43	00430	TRAP51	BRM	OBJECT	START OBJECT TEST
06144	0	77	06143		EAX	**1	X = TEST LOCATION
06145	0	43	00440		BRM	RETURN	SET TRAP RETURN
06146	0	20	06163		NOP	T51	
06147	0	75	26747		LDB	#T43	B = CORRECT TRAP ID
06150	0	76	26745		LDA	#00000000	
06151	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
06152	0	76	26776		LDA	#00004200	
06153	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
06154	0	02	20400		EBM	020400	
06155	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
06156	0	02	21000		EBM	021000	
06157	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
06160	4	35	33777		STA	033777,4	SHOULD READ ONLY TRAP
06161	0	46	00001		CLA		
06162	0	01	06164		BRU	**2	
06163	0	76	00450	T51	LDA	DIVERT	
06164	0	14	26746		ETR	#037777	
06165	0	50	26747		SKE	#T43	EXPECTED READ ONLY TRAP ID
06166	0	43	00460		BRM	ERR0R	
06167	0	20	22446		NOP	TM51	
06170	0	43	00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL61
 * IF OUT OF BOUNDS TRAP, CHECK RL61 AND LS1A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

06171	0	43	00430	TRAP52	BRM	OBJECT	START OBJECT TEST
06172	0	77	06171		EAX	**1	X = TEST LOCATION
06173	0	43	00440		BRM	RETURN	SET TRAP RETURN
06174	0	20	06211		NOP	T52	
06175	0	75	26747		LDB	#T43	B = CORRECT TRAP ID
06176	0	76	26745		LDA	#00000000	
06177	0	35	00415		STA	RL1	RELABELING REGISTER 1 CONTENTS
06200	0	76	26777		LDA	#00004400	
06201	0	35	00416		STA	RL2	RELABELING REGISTER 2 CONTENTS
06202	0	02	20400		EBM	020400	
06203	0	13	00415		PBT	RL1	SET RELABELING REGISTER 1
06204	0	02	21000		EBM	021000	
06205	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
06206	4	35	33777		STA	033777,4	SHOULD READ ONLY TRAP
06207	0	46	00001		CLA		
06210	0	01	06212		BRU	**2	
06211	0	76	00450	T52	LDA	DIVERT	
06212	0	14	26746		ETR	#037777	
06213	0	50	26747		SKE	#T43	EXPECTED READ ONLY TRAP ID
06214	0	43	00460		BRM	ERR0R	
06215	0	20	22453		NOP	TM52	
06216	0	43	00434		BRM	END	LOOP IF BP1 SET

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL60
* IF OUT OF BOUNDS TRAP, CHECK RL60 AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06217 0 43 00430 TRAP53 BRM OBJECT START OBJECT TEST
06220 0 77 06217 EAX **1 X = TEST LOCATION
06221 0 43 00440 BRM RETURN SET TRAP RETURN
06222 0 20 06237 NOP T53
06223 0 75 26747 LDB *T43 B = CORRECT TRAP ID
06224 0 76 26745 LDA #00000000
06225 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
06226 0 76 27000 LDA #000005000 RELABELING REGISTER 2 CONTENTS
06227 0 35 00416 STA RL2
06230 0 02 20400 ERM 020400 SET RELABELING REGISTER 1
06231 0 13 00415 PBT RL1
06232 0 02 21000 ERM 021000 SET RELABELING REGISTER 2
06233 0 13 00416 PBT RL2 SHOULD READ ONLY TRAP
06234 4 35 33777 STA 033777,4
06235 0 46 00001 CLA
06236 0 01 06240 BRU **2
06237 0 76 00450 T53 LDA DIVERT
06240 0 14 26746 ETR #037777
06241 0 50 26747 SKE *T43 EXPECTED READ ONLY TRAP ID
06242 0 43 00460 BRM ERROR
06243 0 20 22460 NOP TMS3
06244 0 43 00434 BRM END LOOP IF BP1 SET

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* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL6H
* IF OUT OF BOUNDS TRAP, CHECK RL6H AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06245 0 43 00430 TRAP54 BRM OBJECT START OBJECT TEST
06246 0 77 06245 EAX **1 X = TEST LOCATION
06247 0 43 00440 BRM RETURN SET TRAP RETURN
06250 0 20 06265 NOP T54
06251 0 75 26747 LDB *T43 B = CORRECT TRAP ID
06252 0 76 26745 LDA #000000000
06253 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
06254 0 76 27001 LDA #000006000 RELABELING REGISTER 2 CONTENTS
06255 0 35 00416 STA RL2
06256 0 02 20400 ERM 020400 SET RELABELING REGISTER 1
06257 0 13 00415 PBT RL1
06260 0 02 21000 ERM 021000 SET RELABELING REGISTER 2
06261 0 13 00416 PBT RL2 SHOULD READ ONLY TRAP
06262 4 35 33777 STA 033777,4
06263 0 46 00001 CLA
06264 0 01 06266 BRU **2
06265 0 76 00450 T54 LDA DIVERT
06266 0 14 26746 ETR #037777
06267 0 50 26747 SKE *T43 EXPECTED READ ONLY TRAP ID
06270 0 43 00460 BRM ERROR
06271 0 20 22465 NOP TMS4
06272 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL73
* IF OUT OF BOUNDS TRAP, CHECK RL73 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06273 0 43 00430 TRAP55 BRM OBJECT START OBJECT TEST
06274 0 77 06273 EAX **1 X # TEST LOCATION
06275 0 43 00440 BRM RETURN SET TRAP RETURN
06276 0 20 06313 NOP T55
06277 0 75 26747 LDB #T43 B # CORRECT TRAP ID
06300 0 76 26745 LDA #000000000
06301 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
06302 0 76 27002 LDA #000000041
06303 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
06304 0 02 20400 EOM 020400
06305 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
06306 0 02 21000 EOM 021000
06307 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
06310 4 35 37777 STA 037777,4 SHOULD READ ONLY TRAP
06311 0 46 00001 CLA
06312 0 01 06314 BRU **2
06313 0 76 00450 T55 LDA DIVERT
06314 0 14 26746 ETR #037777
06315 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
06316 0 43 00440 BRM ERROR
06317 0 20 22472 NOP TMS5
06320 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL72
* IF OUT OF BOUNDS TRAP, CHECK RL72 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
06321 0 43 00430 TRAP56 BRM OBJECT START OBJECT TEST
06322 0 77 06321 EAX **1 X # TEST LOCATION
06323 0 43 00440 BRM RETURN SET TRAP RETURN
06324 0 20 06341 NOP T56
06325 0 75 26747 LDB #T43 B # CORRECT TRAP ID
06326 0 76 26745 LDA #000000000
06327 0 35 00415 STA RL1 RELABELING REGISTER 1 CONTENTS
06330 0 76 27003 LDA #000000042
06331 0 35 00416 STA RL2 RELABELING REGISTER 2 CONTENTS
06332 0 02 20400 EOM 020400
06333 0 13 00415 PBT RL1 SET RELABELING REGISTER 1
06334 0 02 21000 EOM 021000
06335 0 13 00416 PBT RL2 SET RELABELING REGISTER 2
06336 4 35 37777 STA 037777,4 SHOULD READ ONLY TRAP
06337 0 46 00001 CLA
06340 0 01 06342 BRU **2
06341 0 76 00450 T56 LDA DIVERT
06342 0 14 26746 ETR #037777
06343 0 50 26747 SKE #T43 EXPECTED READ ONLY TRAP ID
06344 0 43 00440 BRM ERROR
06345 0 20 22477 NOP TMS6
06346 0 43 00434 BRM END LOOP IF BP1 SET

```


* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL71
 * IF OUT OF BOUNDS TRAP, CHECK RL71 AND LS1A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

06347	0	43	00430	TRAP57	BRM	OBJECT	START OBJECT TEST
06350	0	77	06347		EAX	**1	X # TEST LOCATION
06351	0	43	00440		BRM	RETURN	SET TRAP RETURN
06352	0	20	06347		NBP	T57	
06353	0	75	26747		LDB	#T43	B # CORRECT TRAP ID
06354	0	76	26745		LDA	#000000000	RELABELING REGISTER 1 CONTENTS
06355	0	35	00415		STA	RL1	
06356	0	76	27004		LDA	#000000044	RELABELING REGISTER 2 CONTENTS
06357	0	35	00416		STA	RL2	
06360	0	02	20400		EQM	020400	SET RELABELING REGISTER 1
06361	0	13	00415		PBT	RL1	
06362	0	02	21000		EQM	021000	SET RELABELING REGISTER 2
06363	0	13	00416		PBT	RL2	SHOULD READ ONLY TRAP
06364	4	35	37777,4		STA	037777,4	
06365	0	46	00001		CLA		
06366	0	01	06370	T57	BRU	**2	
06367	0	76	00450		LDA	DIVERT	
06370	0	14	26746		ETR	#037777	EXPECTED TEAD ONLY TRAP ID
06371	0	50	26747		SKE	#T43	
06372	0	43	00460		BRM	ERRBR	
06373	0	20	22504		NBP	TMS7	
06374	0	43	00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL70
 * IF OUT OF BOUNDS TRAP, CHECK RL70 AND LS0A1 BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

06375	0	43	00430	TRAP58	BRM	OBJECT	START OBJECT TEST
06376	0	77	06375		EAX	**1	X # TEST LOCATION
06377	0	43	00440		BRM	RETURN	SET TRAP RETURN
06400	0	20	06415		NBP	T58	
06401	0	75	26747		LDB	#T43	B # CORRECT TRAP ID
06402	0	76	26745		LDA	#000000000	RELABELING REGISTER 1 CONTENTS
06403	0	35	00415		STA	RL1	
06404	0	76	27005		LDA	#000000050	RELABELING REGISTER 2 CONTENTS
06405	0	35	00416		STA	RL2	
06406	0	02	20400		EQM	020400	SET RELABELING REGISTER 1
06407	0	13	00415		PBT	RL1	
06410	0	02	21000		EQM	021000	SET RELABELING REGISTER 2
06411	0	13	00416		PBT	RL2	SHOULD READ ONLY TRAP
06412	4	35	37777,4		STA	037777,4	
06413	0	46	00001		CLA		
06414	0	01	06416	T58	BRU	**2	
06415	0	76	00450		LDA	DIVERT	
06416	0	14	26746		ETR	#037777	EXPECTED READ ONLY TRAP ID
06417	0	50	26747		SKE	#T43	
06420	0	43	00460		BRM	ERRBR	
06421	0	20	22511		NBP	TMS8	
06422	0	43	00434		BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL7H
 * IF OUT OF BOUNDS TRAP, CHECK RL7H AND LSOOA! BAR
 * NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

06423	0	43	00430	TRAP59 BRM	OBJECT	START OBJECT TEST
06424	0	77	26423	EAX	**1	X = TEST LOCATION
06425	0	43	00440	BRM	RETURN	SET TRAP RETURN
06426	0	20	06443	NBP	T59	
06427	0	75	26747	LDB	*T43	B = CORRECT TRAP ID
06430	0	76	26745	LDA	#00000000	
06431	0	35	00415	STA	RL1	RELABELING REGISTER 1 CONTENTS
06432	0	76	27006	LDA	#00000060	
06433	0	35	00416	STA	RL2	RELABELING REGISTER 2 CONTENTS
06434	0	02	20400	EBM	020400	
06435	0	13	00415	PBT	RL1	SET RELABELING REGISTER 1
06436	0	02	21000	EBM	021000	
06437	0	13	00416	PBT	RL2	SET RELABELING REGISTER 2
06440	4	35	37777	STA	037777,4	SHOULD READ ONLY TRAP
06441	0	46	00001	CLA		
06442	0	01	06444	BRU	**2	
06443	0	76	00450	LDA	DIVERT	
06444	0	14	26746	ETR	#037777	EXPECTED READ ONLY TRAP ID
06445	0	50	26747	SKE	*T43	
06446	0	43	00460	BRM	ERRBR	
06447	0	20	22516	NBP	TM59	
06450	0	43	00434	BRM	END	LOOP IF BP1 SET

* THIS OBJECT TEST ATTEMPTS A STA THROUGH RL4

06451	0	43	00430	TRAP60 BRM	OBJECT	START OBJECT TEST
06452	0	77	26451	EAX	**1	X = TEST LOCATION
06453	0	43	00440	BRM	RETURN	SET TRAP RETURN
06454	0	20	06465	NBP	T60	
06455	0	75	26745	LDB	#0	B = CORRECT TRAP ID
06456	0	76	27007	LDA	#0607	
06457	0	35	00417	STA	RL4	RELABELING REGISTER 4 CONTENTS
06460	0	02	21400	EBM	021400	
06461	0	13	00417	PBT	RL4	SET RELABELING REGISTER 4
06462	0	35	33777	STA	033777	SHOULD NOT TRAP
06463	0	46	00001	CLA		
06464	0	01	06466	BRU	**2	
06465	0	76	00450	LDA	DIVERT	
06466	0	14	26746	ETR	#037777	EXPECTED ID
06467	0	50	26745	SKE	#0	
06470	0	43	00460	BRM	ERRBR	
06471	0	20	22523	NBP	TM60	NO
06472	0	43	00434	BRM	END	LOOP IF BP1 SET

MEM1 TAP=3.C

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```
* THIS OBJECT TEST SHOULD OUT OF BOUNDS TRAP FROM RL4
TRAP61 BRM OBJECT START OBJECT TEST
EAX *+1 X # TEST LOCATION
BRM RETURN SET TRAP RETURN
NOP T61
LDB #T41 B # CORRECT TRAP ID
LDA #0000
STA RL4 RELABELING REGISTER 4 CONTENTS
EOM 021400
PDT RL4 SET RELABELING REGISTER 4
STA 033777 SHOULD OGBT
CLA
BRU **2
LDA DIVERT
ETR #037777
SKE #T41 EXPECTED ID
BRM ERROR
NOP TM61 NO
BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* THIS OBJECT TEST SHOULD OGBT FROM M6
TRAP62 BRM OBJECT START OBJECT TEST
EAX *+1 X # TEST LOCATION
BRM RETURN SET TRAP RETURN
NOP T62
LDB #T41 B # CORRECT TRAP ID
LDA #00037
STA RL4 RELABELING REGISTER 4 CONTENTS
EOM 021400
PDT RL4 SET RELABELING REGISTER 4
STA 033777 SHOULD NOT TRAP
CLA
BRU **2
LDA DIVERT
ETR #037777
SKE #T41 EXPECTED ID
BRM ERROR
NOP TM62 NO
BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* THIS OBJECT TEST SHOULD OBBT THROUGH M7
06537 0 43 00430 TRAP63 BRM OBJECT START OBJECT TEST
06540 0 77 06537 EAX **1 X # TEST LOCATION
06541 0 43 00440 BRM RETURN SET TRAP RETURN
06542 0 20 06553 NOP T63
06543 0 75 26750 LDB #T41 B # CORRECT TRAP ID
06544 0 76 27111 LDA #03700
06545 0 35 00417 STA RL4 RELABELING REGISTER 4 CONTENTS
06546 0 02 21400 EBM 021400
06547 0 13 00417 PBT RL4 SET RELABELING REGISTER 4
06550 0 35 37777 STA 037777 SHOULD NOT TRAP
06551 0 46 00001 CLA
06552 0 01 06554 BRU **2
06553 0 76 00450 T63 LDA DIVERT
06554 0 14 26746 ETR #037777
06555 0 50 26750 SKE #T41 EXPECTED ID
06556 0 43 00460 BRM ERROR
06557 0 20 22554 NOP TM63 NO
06560 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M63
06561 0 43 00430 TRAP64 BRM OBJECT START OBJECT TEST
06562 0 77 06561 EAX **1 X # TEST LOCATION
06563 0 43 00440 BRM RETURN SET TRAP RETURN
06564 0 20 06575 NOP T64
06565 0 75 26745 LDB #0 B # CORRECT TRAP ID
06566 0 76 27012 LDA #00100
06567 0 35 00417 STA RL4 RELABELING REGISTER 4 CONTENTS
06570 0 02 21400 EBM 021400
06571 0 13 00417 PBT RL4 SET RELABELING REGISTER 4
06572 0 35 33777 STA 033777 SHOULD NOT TRAP
06573 0 46 00001 CLA
06574 0 01 06576 BRU **2
06575 0 76 00450 T64 LDA DIVERT
06576 0 14 26746 ETR #037777
06577 0 50 26745 SKE #0 EXPECTED ID
06600 0 43 00460 BRM ERROR
06601 0 20 22571 NOP TM64
06602 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M62
TRAP65 BRM OBJECT START OBJECT TEST
06603 0 43 00430 EAX **1 X * TEST LOCATION
06604 0 77 06603 BRM RETURN SET TRAP RETURN
06605 0 43 00440 NOP T65
06606 0 20 06617 LDB #0 B * CORRECT TRAP ID
06607 0 75 26745 LDA #00200
06610 0 76 27013 STA RL4 RELABELING REGISTER 4 CONTENTS
06611 0 35 00417 ERM 021400
06612 0 02 21400 PST RL4 SET RELABELING REGISTER 4
06613 0 13 00417 STA 033777 SHOULD NOT TRAP
06614 0 35 33777 CLA
06615 0 46 00001 BRU **2
06616 0 01 06620 T65 LDA DIVERT
06617 0 76 00450 ETR #037777
06620 0 14 26746 SKE #0 EXPECTED ID
06621 0 50 26745 BRM ERROR
06622 0 43 00460 NOP TM65
06623 0 20 22476 BRM END LOOP IF BP1 SET
06624 0 43 00434
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M61
TRAP66 BRM OBJECT START OBJECT TEST
06625 0 43 00430 EAX **1 X * TEST LOCATION
06626 0 77 06625 BRM RETURN SET TRAP RETURN
06627 0 43 00440 NOP T66
06630 0 20 06641 LDB #0 B * CORRECT TRAP ID
06631 0 75 26745 LDA #00400
06632 0 76 27014 STA RL4 RELABELING REGISTER 4 CONTENTS
06633 0 35 00417 ERM 021400
06634 0 02 21400 PST RL4 SET RELABELING REGISTER 4
06635 0 13 00417 STA 033777 SHOULD NOT TRAP
06636 0 35 33777 CLA
06637 0 46 00001 BRU **2
06640 0 01 06642 T66 LDA DIVERT
06641 0 76 00450 ETR #037777
06642 0 14 26746 SKE #0 EXPECTED ID
06643 0 50 26745 BRM ERROR
06644 0 43 00460 NOP TM66
06645 0 20 22403 BRM END LOOP IF BP1 SET
06646 0 43 00434
```

```

* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M60
06647 0 43 00430 TRAP67 BRM OBJECT START OBJECT TEST
06650 0 77 06647 EAX **1 X # TEST LOCATION
06651 0 43 00440 BRM RETURN SET TRAP RETURN
06652 0 20 06663 NOP T67
06653 0 75 26745 LDB #0 B # CORRECT TRAP ID
06654 0 76 27215 LDA #01000
06655 0 35 00417 STA RL4 RELABELING REGISTER & CONTENTS
06656 0 02 21400 EQM 021400
06657 0 13 00417 PBT RL4 SET RELABELING REGISTER &
06660 0 35 33777 STA 033777 SHOULD NOT TRAP
06661 0 46 00001 CLA
06662 0 01 06664 BRU **2
06663 0 76 00450 T67 LDA DIVERT
06664 0 14 26746 ETR #037777
06665 0 50 26745 SKE #0 EXPECTED ID
06666 0 43 00460 BRM ERROR
06667 0 20 22610 NOP TM67
06670 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M6H
06671 0 43 00430 TRAP68 BRM OBJECT START OBJECT TEST
06672 0 77 06671 EAX **1 X # TEST LOCATION
06673 0 43 00440 BRM RETURN SET TRAP RETURN
06674 0 20 06705 NOP T68
06675 0 75 26745 LDB #0 B # CORRECT TRAP ID
06676 0 76 27216 LDA #02000
06677 0 35 00417 STA RL4 RELABELING REGISTER & CONTENTS
06700 0 02 21400 EQM 021400
06701 0 13 00417 PBT RL4 SET RELABELING REGISTER &
06702 0 35 33777 STA 033777 SHOULD NOT TRAP
06703 0 46 00001 CLA
06704 0 01 06706 BRU **2
06705 0 76 00450 T68 LDA DIVERT
06706 0 14 26746 ETR #037777
06707 0 50 26745 SKE #0 EXPECTED ID
06710 0 43 00460 BRM ERROR
06711 0 20 22615 NOP TM68
06712 0 43 00434 BRM END LOOP IF BP1 SET

```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M73
TRAP69 BRM OBJECT START OBJECT TEST
06713 0 43 00430 EAX **1 X # TEST LOCATION
06714 0 77 06713 BRM RETURN SET TRAP RETURN
06715 0 43 00440 NSP T69
06716 0 20 06727 LDB #0 B # CORRECT TRAP ID
06717 0 75 26745 LDA #00001
06720 0 76 27017 STA RL4 RELABELING REGISTER & CONTENTS
06721 0 35 00417 EDM 021400
06722 0 02 21400 PBT RL4 SET RELABELING REGISTER &
06723 0 13 00417 STA 037777 SHOULD NOT TRAP
06724 0 35 37777 CLA
06725 0 46 00001 BRU **2
06726 0 01 06730 LDA DIVERT
06727 0 76 00450 T69 ETR #037777
06730 0 14 26746 ETR #0 EXPECTED ID
06731 0 50 26745 SKE #0
06732 0 43 00460 BRM ERROR
06733 0 20 22622 NSP TM69 LOOP IF BP1 SET
06734 0 43 00434 BRM END
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M72
TRAP70 BRM OBJECT START OBJECT TEST
06735 0 43 00430 EAX **1 X # TEST LOCATION
06736 0 77 06735 BRM RETURN SET TRAP RETURN
06737 0 43 00440 NSP T70
06740 0 20 06751 LDB #0 B # CORRECT TRAP ID
06741 0 75 26745 LDA #00002
06742 0 76 27020 STA RL4 RELABELING REGISTER & CONTENTS
06743 0 35 00417 EDM 021400
06744 0 02 21400 PBT RL4 SET RELABELING REGISTER &
06745 0 13 00417 STA 037777 SHOULD NOT TRAP
06746 0 35 37777 CLA
06747 0 46 00001 BRU **2
06750 0 01 06752 LDA DIVERT
06751 0 76 00450 T70 ETR #037777
06752 0 14 26746 ETR #0 EXPECTED ID
06753 0 50 26745 SKE #0
06754 0 43 00460 BRM ERROR
06755 0 20 22622 NSP TM70 LOOP IF BP1 SET
06756 0 43 00434 BRM END
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M71
TRAP71 BRM OBJECT START OBJECT TEST
EAX **1 X = TEST LOCATION
BRM RETURN SET TRAP RETURN
NSP T71
LDB #0 B = CORRECT TRAP ID
LDA #00004
STA RL4 RELABELING REGISTER & CONTENTS
EOM 021400
POT RL4 SET RELABELING REGISTER &
STA 037777 SHOULD NOT TRAP
CLA
BRU **2
LDA DIVERT
ETR #037777
SKE #0 EXPECTED ID
BRM ERROR
NSP TM71
BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M70
TRAP72 BRM OBJECT START OBJECT TEST
EAX **1 X = TEST LOCATION
BRM RETURN SET TRAP RETURN
NSP T72
LDB #0 B = CORRECT TRAP ID
LDA #00010
STA RL4 RELABELING REGISTER & CONTENTS
EOM 021400
POT RL4 SET RELABELING REGISTER &
STA 037777 SHOULD NOT TRAP
CLA
BRU **2
LDA DIVERT
ETR #037777
SKE #0 EXPECTED ID
BRM ERROR
NSP TM72
BRM END LOOP IF BP1 SET
```


MEM1 TAP=3.C

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```
* THIS OBJECT TEST SHOULD NOT TRAP DEPENDENT ON M7H
07023 0 43 00430 TRAP73 BRM OBJECT START OBJECT TEST
07024 0 77 07023 BRM EAX **1 X = TEST LOCATION
07025 0 43 00440 BRM RETURN SET TRAP RETURN
07026 0 20 07037 NBP T73
07027 0 75 26745 LDB #0 B = CORRECT TRAP ID
07030 0 76 27022 LDA #00020
07031 0 35 00417 STA RL4 RELABELING REGISTER 4 CONTENTS
07032 0 02 21400 EBM 021400
07033 0 13 00417 PBT RL4 SET RELABELING REGISTER 4
07034 0 35 37777 STA 037777 SHOULD NOT TRAP
07035 0 46 00001 CLA
07036 0 01 07040 BRU **2
07037 0 76 00450 T73 LDA DIVERT
07040 0 14 26746 ETR #037777
07041 0 50 26745 SKE #0 EXPECTED ID
07042 0 43 00460 BRM ERROR
07043 0 20 22646 NBP TM73 LOOP IF BP1 SET
07044 0 43 00434 BRM END
```

MEM1 TAP=3.C

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```
* THIS OBJECT TEST SHOULD TRAP FROM USER MODE
07045 0 43 00430 TRAP74 BRM OBJECT
07046 0 43 00440 BRM RETURN SET TRAP RETURN
07047 0 20 07066 NBP T74A
07050 0 77 07045 EAX TRAP74 X = TEST LOCATION
07051 0 75 26747 LDB #T43 B = CORRECT TRAP ID
07052 0 76 27023 LDA #00010203
07053 0 35 00415 STA RL1
07054 0 76 27024 LDA #04770000
07055 0 35 00416 STA RL2
07056 0 02 20400 EBM 020400
07057 0 13 00415 PBT RL1 SET RL1
07060 0 02 21000 EBM 021000
07061 0 13 00416 PBT RL2 SET RL2
07062 4 01 07063 BRU **1,4 TO USER MODE
07063 0 35 27777 STA 027777 SHOULD NOT THROUGH R5
07064 0 46 00001 CLA
07065 0 01 07067 BRU **2
07066 0 76 00450 T74A LDA DIVERT
07067 0 14 26746 ETR #037777
07070 0 50 26747 SKE #T43 IS ID = RBT
07071 0 43 00460 BRM ERROR NO
07072 0 20 22453 NBP TM74A YES
07073 0 43 00440 BRM RETURN SET TRAP RETURN
07074 0 20 07100 NBP T74B
07075 0 02 22000 EBM 22000 IF STILL IN USER MODE SHOULD PIT
07076 0 46 00001 CLA
07077 0 01 07101 BRU **2
07100 0 76 00450 T74B LDA DIVERT
07101 0 50 26745 SKE #0 IS ID = 0
07102 0 43 00460 BRM ERROR NO
07103 0 20 22656 NBP TM74B YES
07104 0 43 00434 BRM END LOOP IF BP1 SET
```

```

* THIS OBJECT TEST SHOULD TRAP FROM USER MODE
07105 0 43 00430 TRAP75 BRM OBJECT
07106 0 43 00440 BRM RETURN SET TRAP RETURN
07107 0 20 07126 NOP T75A
07110 0 77 07105 EAX TRAP75 X = TEST LOCATION
07111 0 75 26747 LDB #T43 B = CORRECT TRAP ID
07112 0 76 27^23 LDA #00010203
07113 0 35 00415 STA RL1
07114 0 76 27^25 LDA #04050664
07115 0 35 00416 STA RL2
07116 0 02 20400 EBM 020400
07117 0 13 00415 PBT RL1 SET RL1
07120 0 02 21000 EBM 021000
07121 0 13 00416 PBT RL2 SET RL2
07122 * 01 07123 BRU **1,4 TO USER MODE
07123 0 35 37777 STA 037777 SHOULD RBT THROUGH R7
07124 0 46 00001 CLA
07125 0 01 07127 BRU **2
07126 0 76 00450 T75A LDA DIVERT
07127 0 14 26746 ETR #037777
07130 0 50 26747 SKE #T43 IS ID = RBT
07131 0 43 00460 BRM ERROR NO
07132 0 20 22660 NOP TM75A YES
07133 0 43 00440 BRM RETURN SET TRAP RETURN
07134 0 20 07140 NOP T75B
07135 0 02 22000 EBM 22000 IF STILL IN USER MODE SHOULD PIT
07136 0 46 00001 CLA
07137 0 01 07141 BRU **2
07140 0 76 00450 T75B LDA DIVERT
07141 0 14 26746 ETR #037777
07142 0 50 26745 SKE #0 IS ID = 0
07143 0 43 00460 BRM ERROR NO
07144 0 20 22663 NOP TM75B YES
07145 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* THIS OBJECT TEST SHOULD TRAP FROM USER MODE
07146 0 43 00430 TRAP76 BRM OBJECT
07147 0 43 00440 BRM RETURN SET TRAP RETURN
07150 0 20 07167 NOP T76A
07151 0 77 07146 EAX TRAP76 X = TEST LOCATION
07152 0 75 26747 LDB #T43 B = CORRECT TRAP ID
07153 0 76 27023 LDA #00010203
07154 0 35 00415 STA RL1
07155 0 76 27026 LDA #04050653
07156 0 35 00416 STA RL2
07157 0 02 20400 EBM 020400
07160 0 13 00415 PBT RL1 SET RL1
07161 0 02 21000 EBM 021000
07162 0 13 00416 PBT RL2 SET RL2
07163 * 01 07164 BRU **1,4 TO USER MODE
07164 0 35 37777 STA 037777
07165 0 46 00001 CLA
07166 0 01 07170 BRU **2
07167 0 76 00450 T76A LDA DIVERT
07170 0 14 26746 ETR #037777
07171 0 50 26747 SKE #T43 IS ID = RBT
07172 0 43 00460 BRM ERROR NO
07173 0 20 22665 NOP TM76A YES
07174 0 43 00440 BRM RETURN SET TRAP RETURN
07175 0 20 07201 NOP T76B
07176 0 02 22000 EBM 22000 IF STILL IN USER MODE SHOULD PIT
07177 0 46 00001 CLA
07200 0 01 07202 BRU **2
07201 0 76 00450 T76B LDA DIVERT
07202 0 50 26745 SKE #0 IS ID = 0
07203 0 43 00460 BRM ERROR NO
07204 0 20 22670 NOP TM76B YES
07205 0 43 00434 BRM END LOOP IF BP1 SET

```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP ON A RELABELED SHIFT
TRAP77 BRM OBJECT
07206 0 43 00430 TRAP77 BRM OBJECT
07207 0 43 00440 BRM RETURN SET TRAP RETURN
07210 0 20 07226 NBP T77
07211 0 77 0720A EAX TRAP77 X * TEST LOCATION
07212 0 46 00002 CLB B * CORRECT TRAP ID
07213 0 46 00001 CLA
07214 0 35 00415 STA RL1
07215 0 35 00416 STA RL2
07216 0 02 20400 EBM 020400
07217 0 13 00415 PBT RL1 SET RL1
07220 0 02 21000 EBM 021000
07221 0 13 00416 PBT RL2 SET RL2
07222 4 66 00010 RGM 01014 SHOULD NOT TRAP
07223 4 67 00010 LSH 01014 SHOULD NOT TRAP
07224 0 46 00001 CLA
07225 0 01 07227 BRU **2
07226 0 76 00450 T77 LDA DIVERT
07227 0 14 26746 ETR #037777
07230 0 50 26745 SKE #0 IS ID = 0
07231 0 43 00460 BRM ERRBR NO, ERROR
07232 0 20 22472 NBP TM77 YES
07233 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT FROM A RELABELED IA CHAIN
TRAP78 BRM OBJECT
07234 0 43 00430 TRAP78 BRM OBJECT
07235 0 43 00440 BRM RETURN SET TRAP RETURN
07236 0 20 07263 NBP T78
07237 0 77 07234 EAX TRAP78 X * TEST LOCATION
07240 0 75 26750 LDB #T41 B * CORRECT TRAP ID
07241 0 76 27023 LDA #00010203
07242 0 35 00415 STA RL1
07243 0 76 27227 LDA #04054040
07244 0 35 00416 STA RL2
07245 0 76 27007 LDA #0607
07246 0 35 00417 STA RL4
07247 0 02 20400 EBM 020400
07250 0 13 00415 PBT RL1 SET RL1
07251 0 02 21000 EBM 021000
07252 0 13 00416 PBT RL2 SET RL2
07253 0 02 21400 EBM 021400
07254 0 13 00417 PBT RL4 SET RL4
07255 0 76*07256 LDA* **1
07256 0 20*07257 NBP* **1
07257 4 20*07260 NBP* **1,4
07260 0 20 34000 NBP 034000
07261 0 46 00001 CLA
07262 0 01 07264 BRU **2
07263 0 76 00450 T78 LDA DIVERT
07264 0 14 26746 ETR #037777
07265 0 50 26750 SKE #T41 IS ID = 00BT
07266 0 43 00460 BRM ERRBR NO
07267 0 20 22475 NBP TM78 YES
07270 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST SHOULD NOT TRAP ON A OUT OF BOUNDS EAX
TRAP79 BRM OBJECT
07271 0 43 00430 BRM OBJECT
07272 0 43 00440 BRM RETURN SET TRAP RETURN
07273 0 20 07310 NOP T79
07274 0 77 07271 EAX TRAP79 X = TEST LOCATION
07275 0 46 00002 CLB B = CORRECT TRAP ID
07276 0 46 00001 CLA
07277 0 35 00415 STA RL1
07300 0 35 00416 STA RL2
07301 0 02 20400 EBM 020400
07302 0 13 00415 PBT RL1 SET RL1
07303 0 02 21000 EBM 021000
07304 0 13 00416 PBT RL2 SET RL2
07305 6 77 00000 EAX 0,6 SHOULD NOT TRAP
07306 0 46 00001 CLA
07307 0 01 07311 BRU **2
07310 0 76 00450 T79 LDA DIVERT
07311 0 14 26746 ETR #037777
07312 0 50 26745 SKE #0 IS ID = 0
07313 0 43 00460 BRM ERROR NO, ERROR
07314 0 20 22477 NOP TM79 YES
07315 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST CHECKES A XMA TO A READ ONLY LBC
TRAP80 BRM OBJECT START OF OBJECT TEST
07316 0 43 00430 BRM RETURN SET TRAP RETURN
07317 0 43 00440 BRM RETURN SET TRAP RETURN
07320 0 20 07335 NOP T80
07321 0 77 07316 EAX TRAP80 X = TEST LOCATION
07322 0 76 27030 LDA #040414243
07323 0 35 00415 STA RL1
07324 0 76 27031 LDA #044455647
07325 0 35 00416 STA RL2
07326 0 02 20400 EBM 020400
07327 0 13 00415 PBT RL1 SET RL1
07330 0 02 21000 EBM 021000
07331 0 13 00416 PBT RL2 SET RL2
07332 0 76 27032 LDB #052252552 B = TEST PATTERN
07333 0 76 27032 LDA #052252552 A = TEST PATTERN
07334 * 62 23777 XMA 023777,4 SHOULD NOT TRAP
07335 0 50 27032 T80 SKE #052252552 IS PATTERN CHANGED
07336 0 43 00460 BRM ERROR YES, ERROR
07337 0 20 22702 NOP TM80
07340 0 43 00434 BRM END
```

MEM1 TAP=3.0

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```
* THIS OBJECT TEST CHECKS A BRM WITH AN OUT OF BOUNDS MARK LOC
07341 0 43 00430 TRAP81 BRM OBJECT
07342 0 43 00440 BRM RETURN SET TRAP RETURN
07343 0 20 07364 BRM T81B
07344 0 77 07341 ZAX TRAP81 X = OBJECT TEST LOCATION
07345 0 75 26750 LDB #T41 B = CORRECT TRAP ID
07346 0 76 27023 LDA #00010203
07347 0 35 00415 STA RL1
07350 0 76 27033 LDA #04050640
07351 0 35 00416 STA RL2
07352 0 02 20400 EBM 020400
07353 0 13 00415 PBT RL1 SET RL1
07354 0 02 21000 EBM 021000
07355 0 13 00416 PBT RL2 SET RL2
07356 0 76 07556 LDA BRU81 NON-TRAP RETURN
07357 0 35 00000 STA 0
07360 4 43 37777 T81A BRM 037777,4 SHOULD 00BT
07361 0 01 07374 BRU T81C
07362 0 46 00001 CLA
07363 0 01 07365 BRU **2
07364 0 76 00450 T81B LDA DIVERT
07365 0 75 27034 LDB #T81A B = CORRECT MARK
07366 0 76 00062 LDA T41=1 GET MARK
07367 0 14 26746 ETR #037777 IS TRAP MARK OK
07370 0 50 27034 SKE #T81A NO
07371 0 43 00460 BRM ERRBR
07372 0 20 22722 BRU TMB1B
07373 0 01 07378 BRU **2
07374 0 43 00460 T81C BRM ERRBR
07375 0 20 22717 BRU TMB1A
07376 0 43 00434 BRM END LOOP IF BPI SET
```

MEM1 TAP=3.0

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```
* THIS TEST CHECKS THAT A POP TO A RB PAGE DOES NOT CLEAR OVERFLOW
07400 0 71 27035 TRAP82 BRM OBJECT START TEST
07401 0 43 00440 LDX #TRAP82 TEST LOCATION
07402 0 20 07416 BRM RETURN SET TRAP RETURN
07403 0 76 27036 BRM T82
07404 0 35 00415 LDA #77010203
07405 0 02 20400 STA RL1
07406 0 13 00415 EBM 20400 SET RL1
07407 0 76 27037 LDA #04050607
07410 0 35 00416 STA RL2
07411 0 02 21000 EBM 21000
07412 0 13 00416 PBT RL2 SET RL2
07413 0 67 00030 LSH 240 SET OVERFLOW
07414 4 01 07415 BRU **1,4
07415 1 00 00000 POP
07416 0 02 22000 T82 EBM 22000 SHOULD PIT IF RBT FAILED
07417 0 22 00101 SVT IS OVERFLOW STILL SET
07420 0 01 07422 BRU **2
07421 0 43 00460 BRM ERRBR
07422 0 20 22732 BRU TMB2
07423 0 43 00434 BRM END LOOP IF BPI SET
```

MEM1 TAP=3.C

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```
* THIS OBJECT TEST CHECKS A BRU TO AN OUT OF BOUNDS LOCATION
07424 0 43 00430 TRAP83 BRM OBJECT
07425 0 43 00440 BRM RETURN SET TRAP RETURN
07426 0 20 07446 NOP T83B
07427 0 77 07424 EAX TRAP83 X = OBJECT TEST LOCATION
07430 0 75 26750 LDB #T41 B = CORRECT TRAP ID
07431 0 76 27040 LDA #040010203
07432 0 35 00415 STA RL1
07433 0 76 27037 LDA #004050607
07434 0 35 00416 STA RL2
07435 0 02 20400 EBM 020400
07436 0 13 00415 PBT RL1 SET TL1
07437 0 02 21000 EBM 021000
07440 0 13 00416 PBT RL2 SET RL2
07441 0 76 07557 LDA BRU83 NON-TRAP RETURN
07442 0 35 00000 STA 0 NON-TRAP RETURN
07443 4 01 00000 BRU 0,4 SHOULD BEBT
07444 0 43 00460 T83A BRM ERROR DIDNT TRAP
07445 0 20 22742 NOP TMB3A
07446 0 46 00001 T83B CLA
07447 0 35 00450 STA DIVERT CLEAR DIVERT
07450 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* THIS OBJECT TEST CHECKS A NON-BRANCHING BRX TO OUT OF BOUNDS
07451 0 43 00430 TRAP84 BRM OBJECT
07452 0 43 00440 BRM RETURN SET TRAP RETURN
07453 0 20 07466 NOP T84
07454 0 35 00416 STA RL2
07455 0 02 20400 EBM 020400
07456 0 13 00415 PBT RL1 SET RL1
07457 0 02 21000 EBM 021000
07460 0 13 00416 PBT RL2 SET RL2
07461 0 76 07460 LDA BRU84 NON-TRAP RETURN
07462 0 35 00000 STA 0 NON-TRAP RETURN
07463 4 41 00000 BRX 0,4
07464 0 46 00001 CLA
07465 0 01 07467 BRU **2
07466 0 76 00450 T84 LDA DIVERT
07467 0 14 26746 ETR #037777
07470 0 50 26746 SKE #0 IS ID OK
07471 0 43 00460 BRM ERROR ID WRONG
07472 0 20 22745 NOP TMB4
07473 2 46 00000 CLX
07474 0 43 00434 BRM END LOOP IF BP1 SET
```

```

* THIS SUBJECT TEST CHECKS A BRX BRANCHING OUT OF BOUNDS
07475 0 43 04430 TRAP85 BRM OBJECT
07476 0 43 04440 BRM RETURN SET TRAP RETURN
07477 0 20 07520 NOP T85B
07500 0 75 06750 LDB T41 B = CORRECT TRAP ID
07501 0 71 07541 LDX #TRAP85+040000 X = TEST LOCATION
07502 0 76 07040 LDA #040010203
07503 0 35 00415 STA RL1
07504 0 76 07537 LDA #004050607
07505 0 35 00416 STA RL2
07506 0 02 00400 EBM 020400
07507 0 13 00415 PBT RL1 SET RL1
07510 0 02 01000 EBM 021000
07511 0 13 00416 PBT RL2 SET RL2
07512 0 76 07561 LDA BRU85 NON-TRAP RETURN
07513 0 35 00400 STA C NON-TRAP RETURN
07514 4 41 00400 BRX 044 SHOULD 00BT
07515 0 43 00460 T85A BRM ERROR ID ARNG
07516 0 20 02750 NOP T85A
07517 2 46 00400 CLX
07520 0 43 04434 T85B BRM END LOOP IF BP1 SET

```

```

* THIS SUBJECT TEST CHECKS A PBP TO AN OUT OF BOUNDS PAGE 0
07521 0 43 00430 TRAP86 BRM OBJECT
07522 0 43 00440 BRM RETURN
07523 0 20 07540 NOP T86B
07524 0 75 06747 LDB T43 B = CORRECT TRAP ID
07525 0 77 07521 EAX TRAP86 X = TEST LOCATION
07526 0 76 07040 LDA #040010203
07527 0 35 00415 STA RL1
07530 0 76 07537 LDA #004050607
07531 0 35 00416 STA RL2
07532 0 02 00400 EBM 020400
07533 0 13 00415 PBT RL1 SET RL1
07534 0 02 01000 EBM 021000
07535 0 13 00416 PBT RL2 SET RL2
07536 4 01 07537 T86A BRU **1,4 TO USER MODE
07537 1 00 00400 T86B PBP 0 SHOULD 00BT
07540 0 02 02000 EBM 22000 IF STILL IN USER MODE SHOULD PIT
07541 0 76 00450 LDA DIVERT
07542 0 14 06746 ETR #037777
07543 0 50 06750 SKE T41
07544 0 43 00460 BRM ERROR
07545 0 20 02753 NOP TMR6A
07546 0 76 00462 LDA T41=1 GET TRAP MARK
07547 0 75 07042 LDB T86A B = CORRECT MARK
07550 0 14 06746 ETR #037777
07551 0 50 07042 SKE T86A
07552 0 43 00460 BRM ERROR IS MARK OK
07553 0 20 02756 NOP TMR6B NO
07554 0 43 00434 BRM END
07555 0 43 00456 BRM FDBYE
07556 0 01 07374 BRU81 BRU T810
07557 0 01 07444 BRU83 BRU T83A
07560 0 01 07466 BRU84 BRU T84
07561 0 01 07515 BRU85 BRU T85A
07562 0 0216 BSS 010000***ZERO

```

MEM1 TAP-3.C

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```
* FUNCTION 2
* THIS CHECKS DATA BITS IN MEMORY DOOR 1
10000 0 76 00405  PUNC2 LDA SYSIZE
10001 0 72 27017  SKA #1 SKIP IF NOT 2ED 16K THERE
10002 0 01 10004  BRU **2
10003 0 01 14502  BRU FUNC3
10004 0 43 00424  BRM FUNCTN
10005 0 20 20015  NBP FPT2
10006 0 02 20002  EBM 020002 ENABLE INTERRUPTS
10007 2 46 00000  CLX
```

MEM1 TAP-3.C

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```
* SET USER MAP TO RELABEL OVER DOOR 1 (LOC 40000 TO 77777)
10010 0 76 27043 LDA #010111213
10011 0 38 00415 STA RL1
10012 0 02 20400 EBM 020400
10013 0 13 00415 PBT RL1 SET RL1
10014 0 76 27044 LDA #014151617
10015 0 35 00416 STA RL2
10016 0 02 21000 EBM 021000
10017 0 13 00416 PBT RL2 SET RL2
* CHECK THAT ANY BITS IN MEMORY CAN BE SET
10020 0 43 00430 MEM1 BRM OBJECT
10021 0 43 00440 BRM RETURN SET PARITY RETURN
10022 0 20 10027 NBP M1
10023 0 77 10020 EAX MEM1 X = OBJECT TEST LOCATION
10024 0 75 26751 LDB #077777777 B = ALL ONES
10025 4 36 00000 STB 0,4 STORE ONES
10026 4 76 00000 LDA 0,4 READ
10027 0 50 26745 M1 SKL #0 ARE ANY ONES SET
10030 0 01 10032 BRU **2 YES
10031 0 43 00460 BRM ERROR NO, CHECK DOOR POWER AND CABLES
10032 0 20 24000 NBP MMOO
10033 0 43 00434 BRM END LOOP IF BP1 SET
```


MEM1 TAP=3.0

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```
* CHECK BIT 0 IN 1ST 4K CAN BE SET
MEM2 BRM OBJECT
10034 0 43 00430 BRM RETURN SET PARITY RETURN
10035 0 43 00440 BRM RETURN SET PARITY RETURN
10036 0 20 10443 NBP M2
10037 0 77 10434 EAX MEM2 X = OBJECT TEST LOCATION
10040 0 75 26757 LDB #04000000 B = BIT BEING TESTED
10041 4 36 00000 STB 000000,4 STORE BIT
10042 4 76 00000 LDA 000000,4 GET BIT
10043 0 72 26757 M2 SKA #04000000 IS BIT SET
10044 0 01 10446 BRU ++2 YES
10045 0 43 04460 BRM ERROR NO, ERROR
10046 0 20 24761 NBP MM100 ERROR MESSAGE
10047 0 43 00434 BRM END LOOP IF BPI SET

* CHECK BIT 1 IN 1ST 4K CAN BE SET
MEM3 BRM OBJECT
10050 0 43 00430 BRM RETURN SET PARITY RETURN
10051 0 43 00440 BRM RETURN SET PARITY RETURN
10052 0 20 10457 NBP M3
10053 0 77 10450 EAX MEM3 X = OBJECT TEST LOCATION
10054 0 75 27445 LDB #02000000 B = BIT BEING TESTED
10055 4 36 00000 STB 000000,4 STORE BIT
10056 4 76 00000 LDA 000000,4 GET BIT
10057 0 72 27045 M3 SKA #02000000 IS BIT SET
10060 0 01 10462 BRU ++2 YES
10061 0 43 00460 BRM ERROR NO, ERROR
10062 0 20 24703 NBP MM101 ERROR MESSAGE
10063 0 43 00434 BRM END LOOP IF BPI SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 2 IN 1ST 4K CAN BE SET
MEM4 BRM OBJECT
10064 0 43 00430 BRM RETURN SET PARITY RETURN
10065 0 43 00440 BRM RETURN SET PARITY RETURN
10066 0 20 10473 NBP M4
10067 0 77 10464 EAX MEM4 X = OBJECT TEST LOCATION
10070 0 75 27446 LDB #01000000 B = BIT BEING TESTED
10071 4 36 00000 STB 000000,4 STORE BIT
10072 4 76 00000 LDA 000000,4 GET BIT
10073 0 72 27446 M4 SKA #01000000 IS BIT SET
10074 0 01 10076 BRU ++2 YES
10075 0 43 00460 BRM ERROR NO, ERROR
10076 0 20 24725 NBP MM102 ERROR MESSAGE
10077 0 43 00434 BRM END LOOP IF BPI SET

* CHECK BIT 3 IN 1ST 4K CAN BE SET
MEM5 BRM OBJECT
10100 0 43 00430 BRM RETURN SET PARITY RETURN
10101 0 43 00440 BRM RETURN SET PARITY RETURN
10102 0 20 10107 NBP M5
10103 0 77 10100 EAX MEM5 X = OBJECT TEST LOCATION
10104 0 75 27447 LDB #04000000 B = BIT BEING TESTED
10105 4 36 00000 STB 000000,4 STORE BIT
10106 4 76 00000 LDA 000000,4 GET BIT
10107 0 72 27447 M5 SKA #04000000 IS BIT SET
10110 0 01 10112 BRU ++2 YES
10111 0 43 00460 BRM ERROR NO, ERROR
10112 0 20 24747 NBP MM103 ERROR MESSAGE
10113 0 43 00434 BRM END LOOP IF BPI SET
```

```

* CHECK BIT 4 IN 1ST 4K CAN BE SET
10114 0 43 00430 MEM6 BRM 0BJECT
10115 0 43 00440 BRM RETURN SET PARITY RETURN
10116 0 20 10123 NOP M6
10117 0 77 10114 EAX MEM6 X * OBJECT TEST LOCATION
10120 0 75 27450 LDB #02000000 B * BIT BEING TESTED
10121 4 36 00000 STB 000000,4 STORE BIT
10122 4 76 00000 LDA 000000,4 GET BIT
10123 0 72 27450 M6 SKA #02000000 IS BIT SET
10124 0 01 10126 BRU ++2 YES
10125 0 43 00460 BRM ERROR NO, ERROR
10126 0 20 24171 NOP MM104 ERROR MESSAGE
10127 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 5 IN 1ST 4K CAN BE SET
10130 0 43 00430 MEM7 BRM 0BJECT
10131 0 43 00440 BRM RETURN SET PARITY RETURN
10132 0 20 10137 NOP M7
10133 0 77 10130 EAX MEM7 X * OBJECT TEST LOCATION
10134 0 75 27451 LDB #01000000 B * BIT BEING TESTED
10135 4 36 00000 STB 000000,4 STORE BIT
10136 4 76 00000 LDA 000000,4 GET BIT
10137 0 72 27451 M7 SKA #01000000 IS BIT SET
10140 0 01 10142 BRU ++2 YES
10141 0 43 00460 BRM ERROR NO, ERROR
10142 0 20 24213 NOP MM105 ERROR MESSAGE
10143 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 6 IN 1ST 4K CAN BE SET
10144 0 43 00430 MEM8 BRM 0BJECT
10145 0 43 00440 BRM RETURN SET PARITY RETURN
10146 0 20 10153 NOP M8
10147 0 77 10144 EAX MEM8 X * OBJECT TEST LOCATION
10150 0 75 26760 LDB #00400000 B * BIT BEING TESTED
10151 4 36 00000 STB 000000,4 STORE BIT
10152 4 76 00000 LDA 000000,4 GET BIT
10153 0 72 26760 M8 SKA #00400000 IS BIT SET
10154 0 01 10156 BRU ++2 YES
10155 0 43 00460 BRM ERROR NO, ERROR
10156 0 20 24235 NOP MM106 ERROR MESSAGE
10157 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 7 IN 1ST 4K CAN BE SET
10160 0 43 00430 MEM9 BRM 0BJECT
10161 0 43 00440 BRM RETURN SET PARITY RETURN
10162 0 20 10167 NOP M9
10163 0 77 10160 EAX MEM9 X * OBJECT TEST LOCATION
10164 0 75 27052 LDB #00200000 B * BIT BEING TESTED
10165 4 36 00000 STB 000000,4 STORE BIT
10166 4 76 00000 LDA 000000,4 GET BIT
10167 0 72 27052 M9 SKA #00200000 IS BIT SET
10170 0 01 10172 BRU ++2 YES
10171 0 43 00460 BRM ERROR NO, ERROR
10172 0 20 24257 NOP MM107 ERROR MESSAGE
10173 0 43 00434 BRM END LOOP IF BP1 SET

```

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* CHECK BIT 8 IN 1ST 4K CAN BE SET
10174 0 43 00430 MEM10 BRM OBJECT
10175 0 43 00440 BRM RETURN SET PARITY RETURN
10176 0 20 10203 NOP M10
10177 0 77 10174 EAX MEM10 X = OBJECT TEST LOCATION
10200 0 75 27553 LDB #00100000 B = BIT BEING TESTED
10201 4 36 00000 STB 000000,4 STORE BIT
10202 4 76 00000 LDA 000000,4 GET BIT
10203 0 72 27053 M10 SKA #00100000 IS BIT SET
10204 0 01 10206 BRU **2 YES
10205 0 43 00460 BRM ERROR NO, ERROR
10206 0 20 24301 NOP MM108 ERROR MESSAGE
10207 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 9 IN 1ST 4K CAN BE SET
10210 0 43 00430 MEM11 BRM OBJECT
10211 0 43 00440 BRM RETURN SET PARITY RETURN
10212 0 20 10217 NOP M11
10213 0 77 10210 EAX MEM11 X = OBJECT TEST LOCATION
10214 0 75 27054 LDB #00040000 B = BIT BEING TESTED
10215 4 36 00000 STB 000000,4 STORE BIT
10216 4 76 00000 LDA 000000,4 GET BIT
10217 0 72 27054 M11 SKA #00040000 IS BIT SET
10220 0 01 10222 BRU **2 YES
10221 0 43 00460 BRM ERROR NO, ERROR
10222 0 20 24323 NOP MM109 ERROR MESSAGE
10223 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 10 IN 1ST 4K CAN BE SET
10224 0 43 00430 MEM12 BRM OBJECT
10225 0 43 00440 BRM RETURN SET PARITY RETURN
10226 0 20 10233 NOP M12
10227 0 77 10224 EAX MEM12 X = OBJECT TEST LOCATION
10230 0 75 27555 LDB #00020000 B = BIT BEING TESTED
10231 4 36 00000 STB 000000,4 STORE BIT
10232 4 76 00000 LDA 000000,4 GET BIT
10233 0 72 27555 M12 SKA #00020000 IS BIT SET
10234 0 01 10236 BRU **2 YES
10235 0 43 00460 BRM ERROR NO, ERROR
10236 0 20 24345 NOP MM110 ERROR MESSAGE
10237 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 11 IN 1ST 4K CAN BE SET
10240 0 43 00430 MEM13 BRM OBJECT
10241 0 43 00440 BRM RETURN SET PARITY RETURN
10242 0 20 10247 NOP M13
10243 0 77 10240 EAX MEM13 X = OBJECT TEST LOCATION
10244 0 75 27056 LDB #00010000 B = BIT BEING TESTED
10245 4 36 00000 STB 000000,4 STORE BIT
10246 4 76 00000 LDA 000000,4 GET BIT
10247 0 72 27056 M13 SKA #00010000 IS BIT SET
10250 0 01 10252 BRU **2 YES
10251 0 43 00460 BRM ERROR NO, ERROR
10252 0 20 24367 NOP MM111 ERROR MESSAGE
10253 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 12 IN 1ST 4K CAN BE SET
10254 0 43 00430 MEM14 BRM OBJECT
10255 0 43 00440 BRM RETURN SET PARITY RETURN
10256 0 20 10263 NOP M14
10257 0 77 10254 EAX MEM14 X # OBJECT TEST LOCATION
10260 0 75 26761 LDB #00004000 B # BIT BEING TESTED
10261 4 36 00000 STB 000000,4 STORE BIT
10262 4 76 00000 LDA 000000,4 GET BIT
10263 0 72 26761 M14 SKA #00004000 IS BIT SET
10264 0 01 10266 BRU **2 YES
10265 0 43 00460 BRM ERROR NO, ERROR
10266 0 20 24411 NOP MM112 ERROR MESSAGE
10267 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 13 IN 1ST 4K CAN BE SET
10270 0 43 00430 MEM15 BRM OBJECT
10271 0 43 00440 BRM RETURN SET PARITY RETURN
10272 0 20 10277 NOP M15
10273 0 77 10270 EAX MEM15 X # OBJECT TEST LOCATION
10274 0 75 27016 LDB #00002000 B # BIT BEING TESTED
10275 4 36 00000 STB 000000,4 STORE BIT
10276 4 76 00000 LDA 000000,4 GET BIT
10277 0 72 27016 M15 SKA #00002000 IS BIT SET
10300 0 01 10302 BRU **2 YES
10301 0 43 00460 BRM ERROR NO, ERROR
10302 0 20 24433 NOP MM113 ERROR MESSAGE
10303 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 14 IN 1ST 4K CAN BE SET
10304 0 43 00430 MEM16 BRM OBJECT
10305 0 43 00440 BRM RETURN SET PARITY RETURN
10306 0 20 10313 NOP M16
10307 0 77 10304 EAX MEM16 X # OBJECT TEST LOCATION
10310 0 75 27015 LDB #00001000 B # BIT BEING TESTED
10311 4 36 00000 STB 00000,4 STORE BIT
10312 4 76 00000 LDA 00000,4 GET BIT
10313 0 72 27015 M16 SKA #00001000 IS BIT SET
10314 0 01 10316 BRU **2 YES
10315 0 43 00460 BRM ERROR NO, ERROR
10316 0 20 24455 NOP MM114 ERROR MESSAGE
10317 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 15 IN 1ST 4K CAN BE SET
10320 0 43 00430 MEM17 BRM OBJECT
10321 0 43 00440 BRM RETURN SET PARITY RETURN
10322 0 20 10327 NOP M17
10323 0 77 10320 EAX MEM17 X # OBJECT TEST LOCATION
10324 0 75 27014 LDB #00000400 B # BIT BEING TESTED
10325 4 36 00000 STB 000000,4 STORE BIT
10326 4 76 00000 LDA 000000,4 GET BIT
10327 0 72 27014 M17 SKA #00000400 IS BIT SET
10330 0 01 10332 BRU **2 YES
10331 0 43 00460 BRM ERROR NO, ERROR
10332 0 20 24477 NOP MM115 ERROR MESSAGE
10333 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 16 IN 1ST 4K CAN BE SET
MEM18 BRM OBJECT
10334 0 43 00430 BRM RETURN SET PARITY RETURN
10335 0 43 00440 BRM RETURN SET PARITY RETURN
10336 0 20 10343 NOP M18
10337 0 77 10334 EAX MEM18 X * OBJECT TEST LOCATION
10340 0 75 27013 LDB #00000200 B * BIT BEING TESTED
10341 4 36 00000 STB #00000,4 STORE BIT
10342 4 76 00000 LDA #00000,4 GET BIT
10343 0 72 27013 M18 SKA #00000200 IS BIT SET
10344 0 01 10346 BRU ++2 YES
10345 0 43 00460 BRM ERROR NO, ERROR
10346 0 20 24521 NOP MM116 ERROR MESSAGE
10347 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 17 IN 1ST 4K CAN BE SET
MEM19 BRM OBJECT
10350 0 43 00430 BRM RETURN SET PARITY RETURN
10351 0 43 00440 BRM RETURN SET PARITY RETURN
10352 0 20 10357 NOP M19
10353 0 77 10350 EAX MEM19 X * OBJECT TEST LOCATION
10354 0 75 27012 LDB #00000100 B * BIT BEING TESTED
10355 4 36 00000 STB #00000,4 STORE BIT
10356 4 76 00000 LDA #00000,4 GET BIT
10357 0 72 27012 M19 SKA #00000100 IS BIT SET
10360 0 01 10362 BRU ++2 YES
10361 0 43 00460 BRM ERROR NO, ERROR
10362 0 20 24543 NOP MM117 ERROR MESSAGE
10363 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 18 IN 1ST 4K CAN BE SET
MEM20 BRM OBJECT
10364 0 43 00430 BRM RETURN SET PARITY RETURN
10365 0 43 00440 BRM RETURN SET PARITY RETURN
10366 0 20 10373 NOP M20
10367 0 77 10364 EAX MEM20 X * OBJECT TEST LOCATION
10370 0 75 00040 LDB #00000040 B * BIT BEING TESTED
10371 4 36 00000 STB #00000,4 STORE BIT
10372 4 76 00000 LDA #00000,4 GET BIT
10373 0 72 00040 M20 SKA #00000040 IS BIT SET
10374 0 01 10376 BRU ++2 YES
10375 0 43 00460 BRM ERROR NO, ERROR
10376 0 20 24565 NOP MM118 ERROR MESSAGE
10377 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 19 IN 1ST 4K CAN BE SET
MEM21 BRM OBJECT
10400 0 43 00430 BRM RETURN SET PARITY
10401 0 43 00440 BRM RETURN SET PARITY
10402 0 20 10407 NOP M21
10403 0 77 10400 EAX MEM21 X * OBJECT TEST LOCATION
10404 0 75 27022 LDB #00000020 B * BIT BEING TESTED
10405 4 36 00000 STB #00000,4 STORE BIT
10406 4 76 00000 LDA #00000,4 GET BIT
10407 0 72 27022 M21 SKA #00000020 IS BIT SET
10410 0 01 10412 BRU ++2 YES
10411 0 43 00460 BRM ERROR NO, ERROR
10412 0 20 24607 NOP MM119 ERROR MESSAGE
10413 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 20 IN 1ST 4K CAN BE SET
10414 0 43 00430 MEM22 BRM OBJECT
10415 0 43 00440 BRM RETURN SET PARITY RETURN
10416 0 20 10423 NOP M22
10417 0 77 10414 EAX MEM22 X # OBJECT TEST LOCATION
10420 0 75 27021 LDB #00000010 B # BIT BEING TESTED
10421 4 36 00000 STB 000000,4 STORE BIT
10422 4 76 00000 LDA 000000,4 GET BIT
10423 0 72 27021 M22 SKA #00000010 IS BIT SET
10424 0 01 10426 BRU **2 YES
10425 0 43 00460 BRM ERROR NO, ERROR
10426 0 20 24431 NOP MM120 ERROR MESSAGE
10427 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 21 IN 1ST 4K CAN BE SET
10430 0 43 00430 MEM23 BRM OBJECT
10431 0 43 00440 BRM RETURN SET PARITY RETURN
10432 0 20 10437 NOP M23
10433 0 77 10430 EAX MEM23 X # OBJECT TEST LOCATION
10434 0 75 24744 LDB #00000004 B # BIT BEING TESTED
10435 4 36 00000 STB 000000,4 STORE BIT
10436 4 76 00000 LDA 000000,4 GET BIT
10437 0 72 24744 M23 SKA #00000004 IS BIT SET
10440 0 01 10442 BRU **2 YES
10441 0 43 00460 BRM ERROR NO, ERROR
10442 0 20 24453 NOP MM121 ERROR MESSAGE
10443 0 43 00434 BRM END LOOP IF BP1 SET
```

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```
* CHECK BIT 22 IN 1ST 4K CAN BE SET
10444 0 43 00430 MEM24 BRM OBJECT
10445 0 43 00440 BRM RETURN SET PARITY RETURN
10446 0 20 10453 NOP M24
10447 0 77 10444 EAX MEM24 X # OBJECT TEST LOCATION
10450 0 75 27020 LDB #00000002 B # BIT BEING TESTED
10451 4 36 00000 STB 000000,4 STORE BIT
10452 4 76 00000 LDA 000000,4 GET BIT
10453 0 72 27020 M24 SKA #00000002 IS BIT SET
10454 0 01 10456 BRU **2 YES
10455 0 43 00460 BRM ERROR NO, ERROR
10456 0 20 24475 NOP MM122 ERROR MESSAGE
10457 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 23 IN 1ST 4K CAN BE SET
10460 0 43 00430 MEM25 BRM OBJECT
10461 0 43 00440 BRM RETURN SET PARITY RETURN
10462 0 20 10467 NOP M25
10463 0 77 10460 EAX MEM25 X # OBJECT TEST LOCATION
10464 0 75 27017 LDB #00000001 B # BIT BEING TESTED
10465 4 36 00000 STB 000000,4 STORE BIT
10466 4 76 00000 LDA 000000,4 GET BIT
10467 0 72 27017 M25 SKA #00000001 IS BIT SET
10470 0 01 10472 BRU **2 YES
10471 0 43 00460 BRM ERROR NO, ERROR
10472 0 20 24717 NOP MM123 ERROR MESSAGE
10473 0 43 00434 BRM END LOOP IF BP1 SET
```

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* CHECK THAT BIT 0 IN 2ED 4K CAN BE SET
10474 0 43 00430 MEM26 BRM OBJECT
10475 0 43 00440 BRM RETURN SET PARITY RETURN
10476 0 20 10503 NOP M26
10477 0 77 10474 EAX MEM26 X # OBJECT TEST LOCATION
10500 0 75 26757 LDB #040000000 B # BIT BEING TESTED
10501 4 36 10000 STB 010000,4 STORE BIT
10502 4 76 10000 LDA 010000,4 GET BIT
10503 0 72 26757 M26 SKA #040000000 IS BIT SET
10504 0 01 10506 BRU ++2 YES
10505 0 43 00460 BRM ERROR NO, ERROR
10506 0 20 24741 NOP MM200 ERROR MESSAGE
10507 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 1 IN 2ED 4K CAN BE SET
10510 0 43 00430 MEM27 BRM OBJECT
10511 0 43 00440 BRM RETURN SET PARITY RETURN
10512 0 20 10517 NOP M27
10513 0 77 10510 EAX MEM27 X # OBJECT TEST LOCATION
10514 0 75 27045 LDB #020000000 B # BIT BEING TESTED
10515 4 36 10000 STB 010000,4 STORE BIT
10516 4 76 10000 LDA 010000,4 GET BIT
10517 0 72 27045 M27 SKA #020000000 IS BIT SET
10520 0 01 10522 BRU ++2 YES
10521 0 43 00460 BRM ERROR NO, ERROR
10522 0 20 25000 NOP MM201 ERROR MESSAGE
10523 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 2 IN 2ED 4K CAN BE SET
10524 0 43 00430 MEM28 BRM OBJECT
10525 0 43 00440 BRM RETURN SET PARITY RETURN
10526 0 20 10533 NOP M28
10527 0 77 10524 EAX MEM28 X # OBJECT TEST LOCATION
10530 0 75 27046 LDB #010000000 B # BIT BEING TESTED
10531 4 36 10000 STB 010000,4 STORE BIT
10532 4 76 10000 LDA 010000,4 GET BIT
10533 0 72 27046 M28 SKA #010000000 IS BIT SET
10534 0 01 10536 BRU ++2 YES
10535 0 43 00460 BRM ERROR NO, ERROR
10536 0 20 25007 NOP MM202 ERROR MESSAGE
10537 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 3 IN 2ED 4K CAN BE SET
10540 0 43 00430 MEM29 BRM OBJECT
10541 0 43 00440 BRM RETURN SET PARITY RETURN
10542 0 20 10547 NOP M29
10543 0 77 10540 EAX MEM29 X # OBJECT TEST LOCATION
10544 0 75 27047 LDB #040000000 B # BIT BEING TESTED
10545 4 36 10000 STB 010000,4 STORE BIT
10546 4 76 10000 LDA 010000,4 GET BIT
10547 0 72 27047 M29 SKA #040000000 IS BIT SET
10550 0 01 10552 BRU ++2 YES
10551 0 43 00460 BRM ERROR NO, ERROR
10552 0 20 25016 NOP MM203 ERROR MESSAGE
10553 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 4 IN 2ED 4K CAN BE SET
10554 0 43 00430 MEM30 BRM 0BJECT
10555 0 43 00440 BRM RETURN SET PARITY RETURN
10556 0 20 10563 NOP M30
10557 0 77 10554 EAX MEM30 X # OBJECT TEST LOCATION
10560 0 75 27550 LDB #02000000 B # BIT BEING TESTED
10561 * 36 10000 STB 010000,4 STORE BIT
10562 * 76 10000 LDA 010000,4 GET BIT
10563 0 7P 27550 M30 SKA #02000000 IS BIT SET
10564 0 01 10566 BRU **2 YES
10565 0 43 00460 BRM ERROR NO, ERROR
10566 0 20 25025 NOP MM204 ERROR MESSAGE
10567 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 5 IN 2ED 4K CAN BE SET
10570 0 43 00430 MEM31 BRM 0BJECT
10571 0 43 00440 BRM RETURN SET PARITY RETURN
10572 0 20 10577 NOP M31
10573 0 77 10570 EAX MEM31 X # OBJECT TEST LOCATION
10574 0 75 27551 LDB #01000000 B # BIT BEING TESTED
10575 * 36 10000 STB 010000,4 STORE BIT
10576 * 76 10000 LDA 010000,4 GET BIT
10577 0 72 27551 M31 SKA #01000000 IS BIT SET
10600 0 01 10602 BRU **2 YES
10601 0 43 00460 BRM ERROR NO, ERROR
10602 0 20 25034 NOP MM205 ERROR MESSAGE
10603 0 43 00434 BRM END LOOP IF BP1 SET

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```

* CHECK BIT 6 IN 2ED 4K CAN BE SET
10604 0 43 00430 MEM32 BRM 0BJECT
10605 0 43 00440 BRM RETURN SET PARITY RETURN
10606 0 20 10613 NOP M32
10607 0 77 10604 EAX MEM32 X # OBJECT TEST LOCATION
10610 0 75 26760 LDB #00400000 B # BIT BEING TESTED
10611 * 36 10000 STB 010000,4 STORE BIT
10612 * 76 10000 LDA 010000,4 GET BIT
10613 0 72 26760 M32 SKA #00400000 IS BIT SET
10614 0 01 10616 BRU **2 YES
10615 0 43 00460 BRM ERROR NO, ERROR
10616 0 20 25044 NOP MM206 ERROR MESSAGE
10617 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 7 IN 2ED 4K CAN BE SET
10620 0 43 00430 MEM33 BRM 0BJECT
10621 0 43 00440 BRM RETURN SET PARITY RETURN
10622 0 20 10627 NOP M33
10623 0 77 10620 EAX MEM33 X # OBJECT TEST LOCATION
10624 0 75 27552 LDB #00200000 B # BIT BEING TESTED
10625 * 36 10000 STB 010000,4 STORE BIT
10626 * 76 10000 LDA 010000,4 GET BIT
10627 0 72 27552 M33 SKA #00200000 IS BIT SET
10630 0 01 10632 BRU **2 YES
10631 0 43 00460 BRM ERROR NO, ERROR
10632 0 20 25054 NOP MM207 ERROR MESSAGE
10633 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 8 IN 2ED 4K CAN BE SET
10634 0 43 00430 MEM34 BRM OBJECT
10635 0 43 00440 BRM RETURN SET PARITY RETURN
10636 0 20 10643 NOP M34
10637 0 77 10634 EAX MEM34 X = OBJECT TEST LOCATION
10640 0 75 27553 LDB #00100000 B = BIT BEING TESTED
10641 4 36 10000 STB 010000,4 STORE BIT
10642 4 76 10000 LDA 010000,4 GET BIT
10643 0 72 27553 M34 SKA #00100000 IS BIT SET
10644 0 01 10646 BRU **2 YES
10645 0 43 00460 BRM ERROR NO, ERROR
10646 0 20 25064 NOP MM208 ERROR MESSAGE
10647 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 9 IN 2ED 4K CAN BE SET
10650 0 43 00430 MEM35 BRM OBJECT
10651 0 43 00440 BRM RETURN SET PARITY RETURN
10652 0 20 10657 NOP M35
10653 0 77 10650 EAX MEM35 X = OBJECT TEST LOCATION
10654 0 75 27554 LDB #00040000 B = BIT BEING TESTED
10655 4 36 10000 STB 010000,4 STORE BIT
10656 4 76 10000 LDA 010000,4 GET BIT
10657 0 72 27554 M35 SKA #00040000 IS BIT SET
10660 0 01 10662 BRU **2 YES
10661 0 43 00460 BRM ERROR NO, ERROR
10662 0 20 25074 NOP MM209 ERROR MESSAGE
10663 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 10 IN 2ED 4K CAN BE SET
10664 0 43 00430 MEM36 BRM OBJECT
10665 0 43 00440 BRM RETURN SET PARITY RETURN
10666 0 20 10673 NOP M36
10667 0 77 10664 EAX MEM36 X = OBJECT TEST LOCATION
10670 0 75 27555 LDB #00020000 B = BIT BEING TESTED
10671 4 36 10000 STB 010000,4 STORE BIT
10672 4 76 10000 LDA 010000,4 GET BIT
10673 0 72 27555 M36 SKA #00020000 IS BIT SET
10674 0 01 10676 BRU **2 YES
10675 0 43 00460 BRM ERROR NO, ERROR
10676 0 20 25104 NOP MM210 ERROR MESSAGE
10677 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 11 IN 2ED 4K CAN BE SET
10700 0 43 00430 MEM37 BRM OBJECT
10701 0 43 00440 BRM RETURN SET PARITY RETURN
10702 0 20 10707 NOP M37
10703 0 77 10700 EAX MEM37 X = OBJECT TEST LOCATION
10704 0 75 27556 LDB #00010000 B = BIT BEING TESTED
10705 4 36 10000 STB 010000,4 STORE BIT
10706 4 76 10000 LDA 010000,4 GET BIT
10707 0 72 27556 M37 SKA #00010000 IS BIT SET
10710 0 01 10712 BRU **2 YES
10711 0 43 00460 BRM ERR9R NO, ERROR
10712 0 20 25116 NOP MM211 ERROR MESSAGE
10713 0 43 00434 BRM END LOOP IF BP1 SET

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MEM1 TAP=3.C

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* CHECK BIT 12 IN 2ED 4K CAN BE SET
MEM38 BRM OBJECT
10714 0 43 00430 BRM RETURN SET PARITY RETURN
10715 0 43 00440 BRM RETURN SET PARITY RETURN
10716 0 20 10723 NOP M38
10717 0 77 10714 EAX MEM38 X = OBJECT TEST LOCATION
10720 0 75 26761 LDB #00004000 B = BIT BEING TESTED
10721 4 36 10000 STB 010000,4 STORE BIT
10722 4 76 10000 LDA 010000,4 GET BIT
10723 0 72 26761 M38 SKA #00004000 IS BIT SET
10724 0 01 10726 BRU **2 YES
10725 0 43 00460 BRM ERROR NO, ERROR
10726 0 20 25130 NOP MM212 ERROR MESSAGE
10727 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 13 IN 2ED 4K CAN BE SET
MEM39 BRM OBJECT
10730 0 43 00430 BRM RETURN SET PARITY RETURN
10731 0 43 00440 BRM RETURN SET PARITY RETURN
10732 0 20 10737 NOP M39
10733 0 77 10730 EAX MEM39 X = OBJECT TEST LOCATION
10734 0 75 27016 LDB #00002000 B = BIT BEING TESTED
10735 4 36 10000 STB 010000,4 STORE BIT
10736 4 76 10000 LDA 010000,4 GET BIT
10737 0 72 27016 M39 SKA #00002000 IS BIT SET
10740 0 01 10742 BRU **2 YES
10741 0 43 00460 BRM ERROR NO, ERROR
10742 0 20 25142 NOP MM213 ERROR MESSAGE
10743 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* CHECK BIT 14 IN 2ED 4K CAN BE SET
MEM40 BRM OBJECT
10744 0 43 00430 BRM RETURN SET PARITY RETURN
10745 0 43 00440 BRM RETURN SET PARITY RETURN
10746 0 20 10753 NOP M40
10747 0 77 10744 EAX MEM40 X = OBJECT TEST LOCATION
10750 0 75 27015 LDB #00001000 B = BIT BEING TESTED
10751 4 36 10000 STB 010000,4 STORE BIT
10752 4 76 10000 LDA 010000,4 GET BIT
10753 0 72 27015 M40 SKA #00001000 IS BIT SET
10754 0 01 10756 BRU **2 YES
10755 0 43 00460 BRM ERROR NO, ERROR
10756 0 20 25154 NOP MM214 ERROR MESSAGE
10757 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 15 IN 2ED 4K CAN BE SET
MEM41 BRM OBJECT
10760 0 43 00430 BRM RETURN SET PARITY RETURN
10761 0 43 00440 BRM RETURN SET PARITY RETURN
10762 0 20 10767 NOP M41
10763 0 77 10760 EAX MEM41 X = OBJECT TEST LOCATION
10764 0 75 27014 LDB #00000400 B = BIT BEING TESTED
10765 4 36 10000 STB 010000,4 STORE BIT
10766 4 76 10000 LDA 010000,4 GET BIT
10767 0 72 27014 M41 SKA #00000400 IS BIT SET
10770 0 01 10772 BRU **2 YES
10771 0 43 00460 BRM ERROR NO, ERROR
10772 0 20 25166 NOP MM215 ERROR MESSAGE
10773 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 16 IN 2ED 4K CAN BE SET
MEM42 BRM OBJECT
10774 0 43 00430 BRM RETURN SET PARITY RETURN
10775 0 43 00440 BRM RETURN SET PARITY RETURN
10776 0 20 11003 NOP M42
10777 0 77 10774 EAX MEM42 X = OBJECT TEST LOCATION
11000 0 75 27013 LDB #00000200 B = BIT BEING TESTED
11001 4 36 10000 STB 010000,4 STORE BIT
11002 4 76 10000 LDA 010000,4 GET BIT
11003 0 72 27013 M42 SKA #00000200 IS BIT SET
11004 0 01 11006 BRU ++2 YES
11005 0 43 00460 BRM ERROR NO, ERROR
11006 0 20 25176 NOP MM216 ERROR MESSAGE
11007 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 17 IN 2ED 4K CAN BE SET
MEM43 BRM OBJECT
11010 0 43 00430 BRM RETURN SET PARITY RETURN
11011 0 43 00440 BRM RETURN SET PARITY RETURN
11012 0 20 11017 NOP M43
11013 0 77 11010 EAX MEM43 X = OBJECT TEST LOCATION
11014 0 75 27012 LDB #00000100 B = BIT BEING TESTED
11015 4 36 10000 STB 010000,4 STORE BIT
11016 4 76 10000 LDA 010000,4 GET BIT
11017 0 72 27012 M43 SKA #00000100 IS BIT SET
11020 0 01 11022 BRU ++2 YES
11021 0 43 00460 BRM ERROR NO, ERROR
11022 0 20 25206 NOP MM217 ERROR MESSAGE
11023 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 18 IN 2ED 4K CAN BE SET
MEM44 BRM OBJECT
11024 0 43 00430 BRM RETURN SET PARITY RETURN
11025 0 43 00440 BRM RETURN SET PARITY RETURN
11026 0 20 11033 NOP M44
11027 0 77 11024 EAX MEM44 X = OBJECT TEST LOCATION
11030 0 75 00040 LDB 000000040 B = BIT BEING TESTED
11031 4 36 10000 STB 010000,4 STORE BIT
11032 4 76 10000 LDA 010000,4 GET BIT
11033 0 72 00040 M44 SKA 000000040 IS BIT SET
11034 0 01 11036 BRU ++2 YES
11035 0 43 00460 BRM ERROR NO, ERROR
11036 0 20 25216 NOP MM218 ERROR MESSAGE
11037 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 19 IN 2ED 4K CAN BE SET
MEM45 BRM OBJECT
11040 0 43 00430 BRM RETURN SET PARITY RETURN
11041 0 43 00440 BRM RETURN SET PARITY RETURN
11042 0 20 11047 NOP M45
11043 0 77 11040 EAX MEM45 X = OBJECT TEST LOCATION
11044 0 75 27222 LDB #00000020 B = BIT BEING TESTED
11045 4 36 10000 STB 010000,4 STORE BIT
11046 4 76 10000 LDA 010000,4 GET BIT
11047 0 72 27022 M45 SKA #00000020 IS BIT SET
11050 0 01 11052 BRU ++2 YES
11051 0 43 00460 BRM ERROR NO, ERROR
11052 0 20 25226 NOP MM219 ERROR MESSAGE
11053 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 20 IN 2ED 4K CAN BE SET
11054 0 43 00430 MEM46 BRM SUBJECT
11055 0 43 00440 BRM RETURN SET PARITY RETURN
11056 0 20 11063 NOP M46
11057 0 77 11054 EAX MEM46 X = OBJECT TEST LOCATION
11060 0 75 27021 LDB #00000010 B = BIT BEING TESTED
11061 4 36 10000 STB 010000,4 STORE BIT
11062 4 76 10000 LDA 010000,4 GET BIT
11063 0 72 27021 M46 SKA #00000010 IS BIT SET
11064 0 01 11066 BRU **2 YES
11065 0 43 00460 BRM ERROR NO, ERROR
11066 0 20 25236 NOP MM220 ERROR MESSAGE
11067 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 21 IN 2ED 4K CAN BE SET
11070 0 43 00430 MEM47 BRM SUBJECT
11071 0 43 00440 BRM RETURN SET PARITY RETURN
11072 0 20 11077 NOP M47
11073 0 77 11070 EAX MEM47 X = OBJECT TEST LOCATION
11074 0 75 26744 LDB #00000004 B = BIT BEING TESTED
11075 4 36 10000 STB 010000,4 STORE BIT
11076 4 76 10000 LDA 010000,4 GET BIT
11077 0 72 26744 M47 SKA #00000004 IS BIT SET
11100 0 01 11102 BRU **2 YES
11101 0 43 00460 BRM ERROR NO, ERROR
11102 0 20 25246 NOP MM221 ERROR MESSAGE
11103 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 22 IN 2ED 4K CAN BE SET
11104 0 43 00430 MEM48 BRM SUBJECT
11105 0 43 00440 BRM RETURN SET PARITY RETURN
11106 0 20 11113 NOP M48
11107 0 77 11104 EAX MEM48 X = OBJECT TEST LOCATION
11110 0 75 27020 LDB #00000002 B = BIT BEING TESTED
11111 4 36 10000 STB 010000,4 STORE BIT
11112 4 76 10000 LDA 010000,4 GET BIT
11113 0 72 27020 M48 SKA #00000002 IS BIT SET
11114 0 01 11116 BRU **2 YES
11115 0 43 00460 BRM ERROR NO, ERROR
11116 0 20 25256 NOP MM222 ERROR MESSAGE
11117 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 23 IN 2ED 4K CAN BE SET
11120 0 43 00430 MEM49 BRM SUBJECT
11121 0 43 00440 BRM RETURN SET PARITY RETURN
11122 0 20 11127 NOP M49
11123 0 77 11120 EAX MEM49 X = OBJECT TEST LOCATION
11124 0 75 27017 LDB #00000001 B = BIT BEING TESTED
11125 4 36 10000 STB 010000,4 STORE BIT
11126 4 76 10000 LDA 010000,4 GET BIT
11127 0 72 27017 M49 SKA #00000001 IS BIT SET
11130 0 01 11132 BRU **2 YES
11131 0 43 00460 BRM ERROR NO, ERROR
11132 0 20 25266 NOP MM223 ERROR MESSAGE
11133 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* CHECK BIT 0 IN 3ED 4K CAN BE SET
11134 0 43 00430 MEM50 BRM OBJECT
11135 0 43 00440 BRM RETURN SET PARITY RETURN
11136 0 20 11143 NOP M50
11137 0 77 11134 EAX MEM50 X # OBJECT TEST LOCATION
11140 0 75 26757 LDB #040000000 B # BIT BEING TESTED
11141 4 36 20000 STB 020000,4 STORE BIT
11142 4 76 20000 LDA 020000,4 GET BIT
11143 0 72 26757 M50 SKA #040000000 IS BIT SET
11144 0 01 11146 BRU **2 YES
11145 0 43 00460 BRM ERROR NO, ERROR
11146 0 20 25305 NOP MM300
11147 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 1 IN 3ED 4K CAN BE SET
11150 0 43 00430 MEM51 BRM OBJECT SET PARITY RETURN
11151 0 43 00440 BRM RETURN
11152 0 20 11157 NOP M51
11153 0 77 11150 EAX MEM51 X # OBJECT TEST LOCATION
11154 0 75 27045 LDB #020000000 B # BIT BEING TESTED
11155 4 36 20000 STB 020000,4 STORE BIT
11156 4 76 20000 LDA 020000,4 GET BIT
11157 0 72 27045 M51 SKA #020000000 IS BIT SET
11160 0 01 11162 BRU **2 YES
11161 0 43 00460 BRM ERROR NO, ERROR
11162 0 20 25323 NOP MM301 ERROR MESSAGE
11163 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* CHECK BIT 2 IN 3ED 4K CAN BE SET
11164 0 43 00430 MEM52 BRM OBJECT
11165 0 43 00440 BRM RETURN SET PARITY RETURN
11166 0 20 11173 NOP M52
11167 0 77 11164 EAX MEM52 X # OBJECT TEST LOCATION
11170 0 75 27046 LDB #010000000 B # BIT BEING TESTED
11171 4 36 20000 STB 020000,4 STORE BIT
11172 4 76 20000 LDA 020000,4 GET BIT
11173 0 72 27046 M52 SKA #010000000 IS BIT SET
11174 0 01 11176 BRU **2 YES
11175 0 43 00460 BRM ERROR NO, ERROR
11176 0 20 25332 NOP MM302 ERROR MESSAGE
11177 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 3 IN 3ED 4K CAN BE SET
11200 0 43 00430 MEM53 BRM OBJECT SET PARITY RETURN
11201 0 43 00440 BRM RETURN
11202 0 20 11207 NOP M53
11203 0 77 11200 EAX MEM53 X # OBJECT TEST LOCATION
11204 0 75 27047 LDB #040000000 B # BIT BEING TESTED
11205 4 36 20000 STB 020000,4 STORE BIT
11206 4 76 20000 LDA 020000,4 GET BIT
11207 0 72 27047 M53 SKA #040000000 IS BIT SET
11210 0 01 11212 BRU **2 YES
11211 0 43 00460 BRM ERROR NO, ERROR
11212 0 20 25341 NOP MM303 ERROR MESSAGE
11213 0 43 00434 BRM END LOOP IF BP1 SET
```

```

* CHECK BIT 4 IN 3ED 4K CAN BE SET
11214 0 43 00430 MEM54 BRM OBJECT
11215 0 43 00440 BRM RETURN SET PARITY RETURN
11216 0 20 11223 NOP M54
11217 0 77 11214 EAX MEM54 X = OBJECT TEST LOCATION
11220 0 75 27050 LDB #02000000 B = BIT BEING TESTED
11221 * 36 20000 STB 020000,4 STORE BIT
11222 * 76 20000 LDA 020000,4 GET BIT
11223 0 72 27050 M54 SKA #02000000 IS BIT SET
11224 0 01 11226 BRU **2 YES
11225 0 43 00460 BRM ERROR NO, ERROR
11226 0 20 25350 NOP MM304 ERROR MESSAGE
11227 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 5 IN 3ED 4K CAN BE SET
11230 0 43 00430 MEM55 BRM OBJECT
11231 0 43 00440 BRM RETURN SET PARITY RETURN
11232 0 20 11237 NOP M55
11233 0 77 11230 EAX MEM55 X = OBJECT TEST LOCATION
11234 0 75 27051 LDB #01000000 B = BIT BEING TESTED
11235 * 36 20000 STB 020000,4 STORE BIT
11236 * 76 20000 LDA 020000,4 GET BIT
11237 0 72 27051 M55 SKA #01000000 IS BIT SET
11240 0 01 11242 BRU **2 YES
11241 0 43 00460 BRM ERROR NO, ERROR
11242 0 20 25357 NOP MM305 ERROR MESSAGE
11243 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 6 IN 3ED 4K CAN BE SET
11244 0 43 00430 MEM56 BRM OBJECT
11245 0 43 00440 BRM RETURN SET PARITY RETURN
11246 0 20 11253 NOP M56
11247 0 77 11244 EAX MEM56 X = OBJECT TEST LOCATION
11250 0 75 26760 LDB #00400000 B = BIT BEING TESTED
11251 * 36 20000 STB 020000,4 STORE BIT
11252 * 76 20000 LDA 020000,4 GET BIT
11253 0 72 26760 M56 SKA #00400000 IS BIT SET
11254 0 01 11256 BRU **2 YES
11255 0 43 00460 BRM ERROR NO, ERROR
11256 0 20 25366 NOP MM306 ERROR MESSAGE
11257 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 7 IN 3ED 4K CAN BE SET
11260 0 43 00430 MEM57 BRM OBJECT
11261 0 43 00440 BRM RETURN SET PARITY RETURN
11262 0 20 11267 NOP M57
11263 0 77 11260 EAX MEM57
11264 0 75 27052 LDB #00200000 B = BIT BEING TESTED
11265 * 36 20000 STB 020000,4 STORE BIT
11266 * 76 20000 LDA 020000,4 GET BIT
11267 0 72 27052 M57 SKA #00200000 IS BIT SET
11270 0 01 11272 BRU **2 YES
11271 0 43 00460 BRM ERROR NO, ERROR
11272 0 20 25376 NOP MM307 ERROR MESSAGE
11273 0 43 00434 BRM END LOOP IF BP1 SET

```

MEM1 TAP=3.0

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```
* CHECK BIT 8 IN 3ED 4K CAN BE SET
MEM58 BRM 8BJECT
          BRM RETURN SET PARITY RETURN
          NOP M58
          EAX MEM58 X * OBJECT TEST LOCATION
          LDB #00100000 B * BIT BEING TESTED
          STB 020000,4 STORE BIT
          LDA 020000,4 GET BIT
          SKA #00100000 IS BIT SET
          BRU **2 YES
          BRM ERROR NO, ERROR
          NOP MM308 ERROR MESSAGE
          BRM END LOOP IF BP1 SET

* CHECK BIT 9 IN 3ED 4K CAN BE SET
MEM59 BRM 8BJECT
          BRM RETURN SET PARITY RETURN
          NOP M59
          EAX MEM59 X * OBJECT TEST LOCATION
          LDB #00040000 B * BIT BEING TESTED
          STB 020000,4 STORE BIT
          LDA 020000,4 GET BIT
          SKA #00040000 IS BIT SET
          BRU **2 YES
          BRM ERROR NO, ERROR
          NOP MM309 ERROR MESSAGE
          BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 10 IN 3ED 4K CAN BE SET
MEM60 BRM 8BJECT
          BRM RETURN SET PARITY RETURN
          NOP M60
          EAX MEM60 X * OBJECT TEST LOCATION
          LDB #00020000 B * BIT BEING TESTED
          STB 020000,4 STORE BIT
          LDA 020000,4 GET BIT
          SKA #00020000 IS BIT SET
          BRU **2 YES
          BRM ERROR NO, ERROR
          NOP MM310 ERROR MESSAGE
          BRM END LOOP IF BP1 SET

* CHECK BIT 11 IN 3ED 4K CAN BE SET
MEM61 BRM 8BJECT
          BRM RETURN SET PARITY RETURN
          NOP M61
          EAX MEM61 X * OBJECT TEST LOCATION
          LDB #00010000 B * BIT BEING TESTED
          STB 020000,4 STORE BIT
          LDA 020000,4 GET BIT
          SKA #00010000 IS BIT SET
          BRU **2 YES
          BRM ERROR NO, ERROR
          NOP MM311 ERROR MESSAGE
          BRM END LOOP IF BP1 SET
```

```

* CHECK BIT 12 IN 3ED 4K CAN BE SET
11354 0 43 00430 MEM62 BRM OBJECT
11355 0 43 00440 BRM RETURN SET PARITY RETURN
11356 0 20 11363 NOP M62
11357 0 77 11354 EAX MEM62 X # OBJECT TEST LOCATION
11360 0 75 26761 LDB #0000*000 B # BIT BEING TESTED
11361 4 36 20000 STB 020000,* STORE BIT
11362 4 76 20000 LDA 020000,* GET BIT
11363 0 72 26761 M62 SKA #0000*000 IS BIT SET
11364 0 01 11366 BRU ++2 YES
11365 0 43 00460 BRM ERROR NO, ERROR
11366 0 20 25446 NOP MM312 ERROR MESSAGE
11367 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 13 IN 3ED 4K CAN BE SET
11370 0 43 00430 MEM63 BRM OBJECT
11371 0 43 00440 BRM RETURN SET PARITY RETURN
11372 0 20 11377 NOP M63
11373 0 77 11370 EAX MEM63 X # OBJECT TEST LOCATION
11374 0 75 27016 LDB #00002000 B # BIT BEING TESTED
11375 4 36 20000 STB 020000,* STORE BIT
11376 4 76 20000 LDA 020000,* GET BIT
11377 0 72 27016 M63 SKA #00002000 IS BIT SET
11400 0 01 11402 BRU ++2 YES
11401 0 43 00460 BRM ERROR NO, ERROR
11402 0 20 25456 NOP MM313 ERROR MESSAGE
11403 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 14 IN 3ED 4K CAN BE SET
11404 0 43 00430 MEM64 BRM OBJECT
11405 0 43 00440 BRM RETURN SET PARITY RETURN
11406 0 20 11413 NOP M64
11407 0 77 11404 EAX MEM64 X # OBJECT TEST LOCATION
11410 0 75 27015 LDB #00001000 B # BIT BEING TESTED
11411 4 36 20000 STB 020000,* STORE BIT
11412 4 76 20000 LDA 020000,* GET BIT
11413 0 72 27015 M64 SKA #00001000 IS BIT SET
11414 0 01 11416 BRU ++2 YES
11415 0 43 00460 BRM ERROR NO, ERROR
11416 0 20 25466 NOP MM314 ERROR MESSAGE
11417 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 15 IN 3ED 4K CAN BE SET
11420 0 43 00430 MEM65 BRM OBJECT
11421 0 43 00440 BRM RETURN SET PARITY RETURN
11422 0 20 11427 NOP M65
11423 0 77 11420 EAX MEM65 X # OBJECT TEST LOCATION
11424 0 75 27014 LDB #00000400 B # BIT BEING TESTED
11425 4 36 20000 STB 020000,* STORE BIT
11426 4 76 20000 LDA 020000,* GET BIT
11427 0 72 27014 M65 SKA #00000400 IS BIT SET
11430 0 01 11432 BRU ++2 YES
11431 0 43 00460 BRM ERROR NO, ERROR
11432 0 20 25476 NOP MM315 ERROR MESSAGE
11433 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 16 IN 3ED 4K CAN BE SET
11434 0 43 00430 MEM66 BRM SUBJECT
11435 0 43 00440 BRM RETURN SET PARITY RETURN
11436 0 20 11443 NOP M66
11437 0 77 11434 EAX MEM66 X = OBJECT TEST LOCATION
11440 0 75 27413 LDB #00000200 B = BIT BEING TESTED
11441 4 36 20000 STB 020000,4 STORE BIT
11442 4 76 20000 LDA 020000,4 GET BIT
11443 0 72 27413 M66 SKA #00000200 IS BIT SET
11444 0 01 11446 BRU ++2 YES
11445 0 43 00460 BRM ERROR NO, ERROR
11446 0 20 25806 NOP MM316 ERROR MESSAGE
11447 0 43 00434 BRM END LOOP IF BPI SET

* CHECK THAT BIT 17 IN 3ED 4K CAN BE SET
11450 0 43 00430 MEM67 BRM SUBJECT
11451 0 43 00440 BRM RETURN SET PARITY RETURN
11452 0 20 11457 NOP M67
11453 0 77 11450 EAX MEM67 X = OBJECT TEST LOCATION
11454 0 75 27412 LDB #00000100 B = BIT BEING TESTED
11455 4 36 20000 STB 020000,4 STORE BIT
11456 4 76 20000 LDA 020000,4 GET BIT
11457 0 72 27412 M67 SKA #00000100 IS BIT SET
11458 0 01 11462 BRU ++2 YES
11461 0 43 00460 BRM ERROR NO, ERROR
11462 0 20 25816 NOP MM317 ERROR MESSAGE
11463 0 43 00434 BRM END LOOP IF BPI SET

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```

* CHECK BIT 18 IN 3ED 4K CAN BE SET
11464 0 43 00430 MEM68 BRM SUBJECT
11465 0 43 00440 BRM RETURN SET PARITY RETURN
11466 0 20 11473 NOP M68
11467 0 77 11464 EAX MEM68 X = OBJECT TEST LOCATION
11470 0 75 00340 LDB 000000040 B = BIT BEING TESTED
11471 4 36 20000 STB 020000,4 STORE BIT
11472 4 76 20000 LDA 020000,4 GET BIT
11473 0 72 00340 M68 SKA 000000040 IS BIT SET
11474 0 01 11476 BRU ++2 YES
11475 0 43 00460 BRM ERROR NO, ERROR
11476 0 20 25826 NOP MM318 ERROR MESSAGE
11477 0 43 00434 BRM END LOOP IF BPI SET

* CHECK BIT 19 IN 3ED 4K CAN BE SET
11500 0 43 00430 MEM69 BRM SUBJECT
11501 0 43 00440 BRM RETURN SET PARITY RETURN
11502 0 20 11507 NOP M69
11503 0 77 11500 EAX MEM69 X = OBJECT TEST LOCATION
11504 0 75 27422 LDB #00000020 B = BIT BEING TESTED
11505 4 36 20000 STB 020000,4 STORE BIT
11506 4 76 20000 LDA 020000,4 GET BIT
11507 0 72 27422 M69 SKA #00000020 IS BIT SET
11510 0 01 11512 BRU ++2 YES
11511 0 43 00460 BRM ERROR NO, ERROR
11512 0 20 25836 NOP MM319 ERROR MESSAGE
11513 0 43 00434 BRM END LOOP IF BPI SET

```

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```
* CHECK BIT 20 IN 3ED *K CAN BE SET
11514 0 43 00430 MEM70 BRM OBJECT
11515 0 43 00440 BRM RETURN SET PARITY RETURN
11516 0 20 11523 NOP M70
11517 0 77 11514 EAX MEM70 X # OBJECT TEST LOCATION
11520 0 75 27021 LDB #00000010 B # BIT BEING TESTED
11521 4 36 20000 STB 020000,4 STORE BIT
11522 4 76 20000 LDA 020000,4 GET BIT
11523 0 72 27021 M70 SKA #00000010 IS BIT SET
11524 0 01 11526 BRU ++2 YES
11525 0 43 00460 BRM ERROR NO, ERROR
11526 0 20 25546 NOP MM320 ERROR MESSAGE
11527 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 21 IN 3ED *K CAN BE SET
11530 0 43 00430 MEM71 BRM OBJECT
11531 0 43 00440 BRM RETURN SET PARITY RETURN
11532 0 20 11537 NOP M71
11533 0 77 11530 EAX MEM71 X # OBJECT TEST LOCATION
11534 0 75 26744 LDB #00000004 B # BIT BEING TESTED
11535 4 36 20000 STB 020000,4 STORE BIT
11536 4 76 20000 LDA 020000,4 GET BIT
11537 0 72 26744 M71 SKA #00000004 IS BIT SET
11540 0 01 11542 BRU ++2 YES
11541 0 43 00460 BRM ERROR NO, ERROR
11542 0 20 25556 NOP MM321 ERROR MESSAGE
11543 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 22 IN 3ED *K CAN BE SET
11544 0 43 00430 MEM72 BRM OBJECT
11545 0 43 00440 BRM RETURN SET PARITY RETURN
11546 0 20 11553 NOP M72
11547 0 77 11544 EAX MEM72 X # OBJECT TEST LOCATION
11550 0 75 27020 LDB #00000002 B # BIT BEING TESTED
11551 4 36 20000 STB 020000,4 STORE BIT
11552 4 76 20000 LDA 020000,4 GET BIT
11553 0 72 27020 M72 SKA #00000002 IS BIT SET
11554 0 01 11556 BRU ++2 YES
11555 0 43 00460 BRM ERROR NO, ERROR
11556 0 20 25566 NOP MM322 ERROR MESSAGE
11557 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 23 IN 3ED *K CAN BE SET
11560 0 43 00430 MEM73 BRM OBJECT
11561 0 43 00440 BRM RETURN SET PARITY RETURN
11562 0 20 11567 NOP M73
11563 0 77 11560 EAX MEM73 X # OBJECT TEST LOCATION
11564 0 75 27017 LDB #00000001 B # BIT BEING TESTED
11565 4 36 20000 STB 020000,4 STORE BIT
11566 4 76 20000 LDA 020000,4 GET BIT
11567 0 72 27017 M73 SKA #00000001 IS BIT SET
11570 0 01 11572 BRU ++2 YES
11571 0 43 00460 BRM ERROR NO, ERROR
11572 0 20 25576 NOP MM323 ERROR MESSAGE
11573 0 43 00434 BRM END LOOP IF BP1 SET
```

```

* CHECK BIT 0 IN 4TH 4K CAN BE SET
11574 0 43 00430 MEM74 BRM 0BJECT
11575 0 43 00440 BRM RETURN SET PARITY RETURN
11576 0 20 11403 NOP M74
11577 0 77 11574 EAX MEM74 X # OBJECT TEST LOCATION
11600 0 75 26757 LDB #04000000 B # BIT BEING TESTED
11601 4 36 30000 STB 030000,4 STORE BIT
11602 4 76 30000 LDA 030000,4 GET BIT
11603 0 72 26757 M74 SKA #04000000 IS BIT SET
11604 0 01 11406 BRU ++2 YES
11605 0 43 00460 BRM ERROR NO, ERROR
11606 0 20 25415 NOP MM400 ERROR MESSAGE
11607 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 1 IN 4TH 4K CAN BE SET
11610 0 43 00430 MEM75 BRM 0BJECT
11611 0 43 00440 BRM RETURN SET PARITY RETURN
11612 0 20 11417 NOP M75
11613 0 77 11410 EAX MEM75 X # OBJECT TEST LOCATION
11614 0 75 27045 LDB #02000000 B # BIT BEING TESTED
11615 4 36 30000 STB 030000,4 STORE BIT
11616 4 76 30000 LDA 030000,4 GET BIT
11617 0 72 27045 M75 SKA #02000000 IS BIT SET
11620 0 01 11422 BRU ++2 YES
11621 0 43 00460 BRM ERROR NO, ERROR
11622 0 20 25424 NOP MM401 ERROR MESSAGE
11623 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK BIT 2 IN 4TH 4K CAN BE SET
11624 0 43 00430 MEM76 BRM 0BJECT
11625 0 43 00440 BRM RETURN SET PARITY RETURN
11626 0 20 11433 NOP M76
11627 0 77 11624 EAX MEM76 X # OBJECT TEST LOCATION
11630 0 75 27046 LDB #01000000 B # BIT BEING TESTED
11631 4 36 30000 STB 030000,4 STORE BIT
11632 4 76 30000 LDA 030000,4 GET BIT
11633 0 72 27046 M76 SKA #01000000 IS BIT SET
11634 0 01 11436 BRU ++2 YES
11635 0 43 00460 BRM ERROR NO, ERROR
11636 0 20 25433 NOP MM402 ERROR MESSAGE
11637 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 3 IN 4TH 4K CAN BE SET
11640 0 43 00430 MEM77 BRM 0BJECT
11641 0 43 00440 BRM RETURN SET PARITY RETURN
11642 0 20 11647 NOP M77
11643 0 77 11440 EAX MEM77 X # OBJECT TEST LOCATION
11644 0 75 27047 LDB #04000000 B # BIT BEING TESTED
11645 4 36 30000 STB 030000,4 STORE BIT
11646 4 76 30000 LDA 030000,4 GET BIT
11647 0 72 27047 M77 SKA #04000000 IS BIT SET
11650 0 01 11452 BRU ++2 YES
11651 0 43 00460 BRM ERROR NO, ERROR
11652 0 20 25442 NOP MM403 ERROR MESSAGE
11653 0 43 00434 BRM END LOOP IF BP1 SET

```

MEM1 TAP=3.0

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```
* CHECK BIT 4 IN 4TH CAN BE SET
11654 0 43 00430 MEM78 BRM OBJECT
11655 0 43 00440 BRM RETURN SET PARITY RETURN
11656 0 20 11663 NOP M78
11657 0 77 11A54 EAX MEM78 X * OBJECT TEST LOCATION
11660 0 75 27050 LDB #02000000 B * BIT BEING TESTED
11661 4 36 30000 STB 030000,4 STORE BIT
11662 4 76 30000 LDA 030000,4 GET BIT
11663 0 72 27050 M78 SKA #02000000 IS BIT SET
11664 0 01 11666 BRU ++2 YES
11665 0 43 00460 BRM ERROR NO, ERROR
11666 0 20 25A51 NOP MM404 ERROR MESSAGE
11667 0 43 00434 BRM END LOOP IF BPI SET

* CHECK BIT 5 IN 4TH 4K CAN BE SET
11670 0 43 00430 MEM79 BRM OBJECT
11671 0 43 00440 BRM RETURN SET PARITY RETURN
11672 0 20 11677 NOP M79
11673 0 77 11670 EAX MEM79 X * OBJECT TEST LOCATION
11674 0 75 27051 LDB #01000000 B * BIT BEING TESTED
11675 4 36 30000 STB 030000,4 STORE BIT
11676 4 76 30000 LDA 030000,4 GET BIT
11677 0 72 27051 M79 SKA #01000000 IS BIT SET
11700 0 01 11702 BRU ++2 YES
11701 0 43 00460 BRM ERROR NO, ERROR
11702 0 20 25A60 NOP MM405 ERROR MESSAGE
11703 0 43 00434 BRM END LOOP IF BPI SET
```

MEM1 TAP=3.0

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```
* CHECK BIT 6 IN 4TH 4K CAN BE SET
11704 0 43 00430 MEM80 BRM OBJECT
11705 0 43 00440 BRM RETURN SET PARITY RETURN
11706 0 20 11713 NOP M80
11707 0 77 11704 EAX MEM80 X * OBJECT TEST LOCATION
11710 0 75 26760 LDB #00400000 B * BIT BEING TESTED
11711 4 36 30000 STB 030000,4 STORE BIT
11712 4 76 30000 LDA 030000,4 GET BIT
11713 0 72 26760 M80 SKA #00400000 IS BIT SET
11714 0 01 11716 BRU ++2 YES
11715 0 43 00460 BRM ERROR NO, ERROR
11716 0 20 25A67 NOP MM406 ERROR MESSAGE
11717 0 43 00434 BRM END LOOP IF BPI SET

* CHECK BIT 7 IN 4TH CAN BE SET
11720 0 43 00430 MEM81 BRM OBJECT
11721 0 43 00440 BRM RETURN SET PARITY RETURN
11722 0 20 11727 NOP M81
11723 0 77 11720 EAX MEM81 X * OBJECT TEST LOCATION
11724 0 75 27052 LDB #00200000 B * BIT BEING TESTED
11725 4 36 30000 STB 030000,4 STORE BIT
11726 4 76 30000 LDA 030000,4 GET BIT
11727 0 72 27052 M81 SKA #00200000 IS BIT SET
11730 0 01 11732 BRU ++2 YES
11731 0 43 00460 BRM ERROR NO, ERROR
11732 0 20 25A77 NOP MM407 ERROR MESSAGE
11733 0 43 00434 BRM END LOOP IF BPI SET
```

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* CHECK BIT 8 IN 4TH 4K CAN BE SET
MEM82 BRM OBJECT
11734 0 43 00430 BRM RETURN SET PARITY RETURN
11735 0 43 00440 BRM RETURN
11736 0 20 11743 NOP M82
11737 0 77 11734 EAX MEM82 X = OBJECT TEST LOCATION
11740 0 75 27053 LDB #00100000 B = BIT BEING TESTED
11741 4 36 30000 STB 030000,4 STORE BIT
11742 4 76 30000 LDA 030000,4 GET BIT
11743 0 72 27053 M82 SKA #00100000 IS BIT SET
11744 0 01 11746 BRU **2 YES
11745 0 43 00460 BRM ERROR NO, ERROR
11746 0 20 25707 NOP MM408 ERROR MESSAGE
11747 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 9 IN 4TH 4K CAN BE SET
MEM83 BRM OBJECT
11750 0 43 00430 BRM RETURN SET PARITY RETURN
11751 0 43 00440 BRM RETURN
11752 0 20 11757 NOP M83
11753 0 77 11750 EAX MEM83 X = OBJECT TEST LOCATION
11754 0 75 27054 LDB #00040000 B = BIT BEING TESTED
11755 4 36 30000 STB 030000,4 STORE BIT
11756 4 76 30000 LDA 030000,4 GET BIT
11757 0 72 27054 M83 SKA #00040000 IS BIT SET
11760 0 01 11762 BRU **2 YES
11761 0 43 00460 BRM ERROR NO, ERROR
11762 0 20 25717 NOP MM409 ERROR MESSAGE
11763 0 43 00434 BRM END LOOP IF BP1 SET
```

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```
* CHECK BIT 10 IN 4TH 4K CAN BE SET
MEM84 BRM OBJECT
11764 0 43 00430 BRM RETURN SET PARITY RETURN
11765 0 43 00440 BRM RETURN
11766 0 20 11773 NOP M84
11767 0 77 11764 EAX MEM84 X = OBJECT TEST LOCATION
11770 0 75 27055 LDB #00020000 B = BIT BEING TESTED
11771 4 36 30000 STB 030000,4 STORE BIT
11772 4 76 30000 LDA 030000,4 GET BIT
11773 0 72 27055 M84 SKA #00020000 IS BIT SET
11774 0 01 11776 BRU **2 YES
11775 0 43 00460 BRM ERROR NO, ERROR
11776 0 20 25727 NOP MM410 ERROR MESSAGE
11777 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 11 IN 4TH 4K CAN BE SET
MEM85 BRM OBJECT
12000 0 43 00430 BRM RETURN SET PARITY RETURN
12001 0 43 00440 BRM RETURN
12002 0 20 12007 NOP M85
12003 0 77 12000 EAX MEM85 X = OBJECT TEST LOCATION
12004 0 75 27056 LDB #00010000 B = BIT BEING TESTED
12005 4 36 30000 STB 030000,4 STORE BIT
12006 4 76 30000 LDA 030000,4 GET BIT
12007 0 72 27056 M85 SKA #00010000 IS BIT SET
12010 0 01 12012 BRU **2 YES
12011 0 43 00460 BRM ERROR NO, ERROR
12012 0 20 25737 NOP MM411 ERROR MESSAGE
12013 0 43 00434 BRM END LOOP IF BP1 SET
```

```

* CHECK THAT BIT 12 IN 4TH 4K CAN BE SET
12014 0 43 00430 MEM86 BRM OBJECT
12015 0 43 00440 BRM RETURN SET PARITY RETURN
12016 0 20 12023 NOP M86
12017 0 77 12014 EAX MEM86 X = OBJECT TEST LOCATION
12020 0 75 26761 LDB #00004000 B = BIT BEING TESTED
12021 * 36 30000 STB 030000,4 STORE BIT
12022 * 76 30000 LDA 030000,4 GET BIT
12023 0 72 26761 M86 SKA #00004000 IS BIT SET
12024 0 01 12026 BRU ++2 YES
12025 0 43 00460 BRM ERROR NO, ERROR
12026 0 20 25747 NOP MM412 ERROR MESSAGE
12027 0 43 00434 BRM END LOOP IF BPI SET

* CHECK BIT 13 IN 4TH 4K CAN BE SET
12030 0 43 00430 MEM87 BRM OBJECT
12031 0 43 00440 BRM RETURN SET PARITY RETURN
12032 0 20 12037 NOP M87
12033 0 77 12030 EAX MEM87 X = OBJECT TEST LOCATION
12034 0 75 27016 LDB #00002000 B = BIT BEING TESTED
12035 * 36 30000 STB 030000,4 STORE BIT
12036 * 76 30000 LDA 030000,4 GET BIT
12037 0 72 27016 M87 SKA #00002000 IS BIT SET
12040 0 01 12042 BRU ++2 YES
12041 0 43 00460 BRM ERROR NO, ERROR
12042 0 20 25757 NOP MM413 ERROR MESSAGE
12043 0 43 00434 BRM END LOOP IF BPI SET

```

```

* CHECK BIT 14 IN 4TH 4K CAN BE SET
12044 0 43 00430 MEM88 BRM OBJECT
12045 0 43 00440 BRM RETURN SET PRITY RETURN
12046 0 20 12053 NOP M88
12047 0 77 12044 EAX MEM88 X = OBJECT TEST LOCATION
12050 0 75 27015 LDB #00001000 B = BIT BEING TESTED
12051 * 36 30000 STB 030000,4 STORE BIT
12052 * 76 30000 LDA 030000,4 GET BIT
12053 0 72 27015 M88 SKA #00001000 IS BIT SET
12054 0 01 12056 BRU ++2 YES
12055 0 43 00460 BRM ERROR NO, ERROR
12056 0 20 25767 NOP MM414 ERROR MESSAGE
12057 0 43 00434 BRM END LOOP IF BPI SET

* CHECK BIT 15 IN 4TH 4K CAN BE SET
12060 0 43 00430 MEM89 BRM OBJECT
12061 0 43 00440 BRM RETURN SET PARITY RETURN
12062 0 20 12067 NOP M89
12063 0 77 12060 EAX MEM89 X = OBJECT TEST LOCATION
12064 0 75 27014 LDB #00000400 B = BIT BEING TESTED
12065 * 36 30000 STB 030000,4 STORE BIT
12066 * 76 30000 LDA 030000,4 GET BIT
12067 0 72 27014 M89 SKA #00000400 IS BIT SET
12070 0 01 12072 BRU ++2 YES
12071 0 43 00460 BRM ERROR NO, ERROR
12072 0 20 25777 NOP MM415 ERROR MESSAGE
12073 0 43 00434 BRM END LOOP IF BPI SET

```

```

* CHECK BIT 16 IN 4TH 4K CAN BE SET
MEM90 BRM OBJECT
      BRM RETURN SET PARITY RETURN
      NOP M90
      EAX MEM90 X = OBJECT TEST LOCATION
      LDB #00000200 B = BIT BEING TESTED
      STB 030000,4 STORE BIT
      LDA 030000,4 GET BIT
      SKA #00000200 IS BIT SET
      BRU ++2 YES
      BRM ERROR NO, ERROR
      NOP MM416 ERROR MESSAGE
      BRM END LOOP IF BP1 SET

* CHECK BIT 17 IN 4TH 4K CAN BE SET
MEM91 BRM OBJECT
      BRM RETURN SET PARITY RETURN
      NOP M91
      EAX MEM91 X = OBJECT TEST LOCATION
      LDB #00000100 B = BIT BEING TESTED
      STB 030000,4 STORE BIT
      LDA 030000,4 GET BIT
      SKA #00000100 IS BIT SET
      BRU ++2 YES
      BRM ERROR NO, ERROR
      NOP MM417 ERROR MESSAGE
      BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 18 IN 4TH 4K CAN BE SET
MEM92 BRM OBJECT
      BRM RETURN SET PARITY RETURN
      NOP M92
      EAX MEM92 X = OBJECT TEST LOCATION
      LDB 000000040 B = BIT BEING TESTED
      STB 030000,4 STORE BIT
      LDA 030000,4 GET BIT
      SKA 000000040 IS BIT SET
      BRU ++2 YES
      BRM ERROR NO, ERROR
      NOP MM418 ERROR MESSAGE
      BRM END LOOP IF BP1 SET

* CHECK BIT 19 IN 4TH 4K CAN BE SET
MEM93 BRM OBJECT
      BRM RETURN SET PARITY RETURN
      NOP M93
      EAX MEM93 X = OBJECT TEST LOCATION
      LDB #00000020 B = BIT BEING TESTED
      STB 030000,4 STORE BIT
      LDA 030000,4 GET BIT
      SKA #00000020 IS BIT SET
      BRU ++2 YES
      BRM ERROR NO, ERROR
      NOP MM419 ERROR MESSAGE
      BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 20 IN 4TH 4K CAN BE SET
MEM94 BRM OBJECT
2154 0 43 00430 BRM RETURN SET PARITY RETURN
2155 0 43 00440 BRM RETURN SET PARITY RETURN
2156 0 20 12163 NOP M94
2157 0 77 12154 EAX MEM94 X # OBJECT TEST LOCATION
2160 0 75 27221 LDB #00000010 B # BIT BEING TESTED
2161 4 36 30000 STB 030000,4 STORE BIT
2162 4 76 30000 LDA 030000,4 GET BIT
2163 0 72 27221 M94 SKA #00000010 IS BIT SET
2164 0 01 12166 BRU ++2 YES
2165 0 43 00460 BRM ERROR NO, ERROR
2166 0 20 26747 NOP MM420 ERROR MESSAGE
2167 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 21 IN 4TH 4K CAN BE SET
MEM95 BRM OBJECT
2170 0 43 00430 BRM RETURN SET PARITY RETURN
2171 0 43 00440 BRM RETURN SET PARITY RETURN
2172 0 20 12177 NOP M95
2173 0 77 12170 EAX MEM95 X # OBJECT TEST LOCATION
2174 0 75 26744 LDB #00000004 B # BIT BEING TESTED
2175 4 36 30000 STB 030000,4 STORE BIT
2176 4 76 30000 LDA 030000,4 GET BIT
2177 0 72 26744 M95 SKA #00000004 IS BIT SET
12200 0 01 12202 BRU ++2 YES
12201 0 43 00460 BRM ERROR NO, ERROR
12202 0 20 26757 NOP MM421 ERROR MESSAGE
12203 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK BIT 22 IN 4TH 4K CAN BE SET
MEM96 BRM OBJECT
12204 0 43 00430 BRM RETURN SET PARITY RETURN
12205 0 43 00440 BRM RETURN SET PARITY RETURN
12206 0 20 12213 NOP M96
12207 0 77 12204 EAX MEM96 X # OBJECT TEST LOCATION
12210 0 75 27020 LDB #00000002 B # BIT BEING TESTED
12211 4 36 30000 STB 030000,4 STORE BIT
12212 4 76 30000 LDA 030000,4 GET BIT
12213 0 72 27020 M96 SKA #00000002 IS BIT SET
12214 0 01 12216 BRU ++2 YES
12215 0 43 00460 BRM ERROR NO, ERROR
12216 0 20 26767 NOP MM422 ERROR MESSAGE
12217 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK BIT 23 IN 4TH 4K CAN BE SET
MEM97 BRM OBJECT
12220 0 43 00430 BRM RETURN SET PARITY RETURN
12221 0 43 00440 BRM RETURN SET PARITY RETURN
12222 0 20 12226 NOP M97
12223 0 77 12220 EAX MEM97 X # OBJECT TEST LOCATION
12224 0 75 27017 LDB #00000001 B # BIT BEING TESTED
12225 4 36 30000 STB 030000,4 STORE BIT
12226 4 76 30000 M97 LDA 030000,4 GET BIT
12227 0 72 27017 SKA #00000001 IS BIT SET
12230 0 01 12232 BRU ++2 YES
12231 0 43 00460 BRM ERROR NO, ERROR
12232 0 20 26777 NOP MM423 ERROR MESSAGE
12233 0 43 00434 BRM END LOOP IF BP1 SET

```



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* CHECK THAT BIT 0 IN 1ST 4K CAN BE RESET
12234 0 43 00430 MEM100 BRM OBJECT
12235 0 43 00440 BRM RETURN SET PARITY RETURN
12236 0 20 12242 NBP M100
12237 0 75 27457 LDB #037777777 B = TEST BIT CLEARED
12240 4 36 00000 STB 000000,4 STORE BIT
12241 4 76 00000 LDA 000000,4 GET BIT
12242 0 72 26757 M100 SKA #040000000 IS BIT RESET
12243 0 43 00460 BRM ERROR NO
12244 0 20 24161 NBP MM100 YES
12245 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 1 IN 1ST 4K CAN BE RESET
12246 0 43 00430 MEM101 BRM OBJECT
12247 0 43 00440 BRM RETURN SET PARITY RETURN
12250 0 20 12254 NBP M101
12251 0 75 27460 LDB #057777777 B = TEST BIT CLEARED
12252 4 36 00000 STB 000000,4 STORE BIT
12253 4 76 00000 LDA 000000,4 GET BIT
12254 0 72 27445 M101 SKA #020000000 IS BIT RESET
12255 0 43 00460 BRM ERROR NO
12256 0 20 24103 NBP MM101 YES
12257 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 2 IN 1ST 4K CAN BE RESET
12260 0 43 00430 MEM102 BRM OBJECT
12261 0 43 00440 BRM RETURN SET PARITY RETURN
12262 0 20 12266 NBP M102
12263 0 75 27461 LDB #067777777 B = TEST BIT CLEARED
12264 4 36 00000 STB 000000,4 STORE BIT
12265 4 76 00000 LDA 000000,4 GET BIT
12266 0 72 27446 M102 SKA #010000000 IS BIT RESET
12267 0 43 00460 BRM ERROR NO
12270 0 20 24125 NBP MM102 YES
12271 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 3 IN 1ST 4K CAN BE RESET
12272 0 43 00430 MEM103 BRM OBJECT
12273 0 43 00440 BRM RETURN SET PARITY RETURN
12274 0 20 12300 NBP M103
12275 0 75 27462 LDB #073777777 B = TEST BIT CLEARED
12276 4 36 00000 STB 000000,4 STORE BIT
12277 4 76 00000 LDA 000000,4 GET BIT
12300 0 72 27447 M103 SKA #040000000 IS BIT RESET
12301 0 43 00460 BRM ERROR NO
12302 0 20 24147 NBP MM103 YES
12303 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK THAT BIT 4 IN 1ST 4K CAN BE RESET
12304 0 43 00430 MEM104 BRM OBJECT
12305 0 43 00440 BRM RETURN SET PARITY RETURN
12306 0 20 12312 NOP M104
12307 0 75 27063 LDB #075777777 B = TEST BIT CLEARED
12310 4 36 00000 STB 000000,4 STORE BIT
12311 4 76 00000 LDA 000000,4 GET BIT
12312 0 72 27050 M104 SKA #02000000 IS BIT RESET
12313 0 43 00460 BRM ERROR NO
12314 0 20 24171 NOP MM104 YES
12315 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 5 IN 1ST 4K CAN BE RESET
12316 0 43 00430 MEM105 BRM OBJECT
12317 0 43 00440 BRM RETURN SET PARITY RETURN
12320 0 20 12324 NOP M105
12321 0 75 27064 LDB #076777777 B = TEST BIT CLEARED
12322 4 36 00000 STB 000000,4 STORE BIT
12323 4 76 00000 LDA 000000,4 GET BIT
12324 0 72 27051 M105 SKA #01000000 IS BIT RESET
12325 0 43 00460 BRM ERROR NO
12326 0 20 24213 NOP MM105 YES
12327 0 43 00434 BRM END LOOP IF BP1 SET
```

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* CHECK THAT BIT 6 IN 1ST 4K CAN BE RESET
12330 0 43 00430 MEM106 BRM OBJECT
12331 0 43 00440 BRM RETURN SET PARITY RETURN
12332 0 20 12336 NOP M106
12333 0 75 27065 LDB #077377777 B = TEST BIT CLEARED
12334 4 36 00000 STB 000000,4 STORE BIT
12335 4 76 00000 LDA 000000,4 GET BIT
12336 0 72 26760 M106 SKA #00400000 IS BIT RESET
12337 0 43 00460 BRM ERROR NO
12340 0 20 24235 NOP MM106 YES
12341 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 7 IN 1ST 4K CAN BE RESET
12342 0 43 00430 MEM107 BRM OBJECT
12343 0 43 00440 BRM RETURN SET PARITY RETURN
12344 0 20 12350 NOP M107
12345 0 75 27066 LDB #077577777 B = TEST BIT CLEARED
12346 4 36 00000 STB 000000,4 STORE BIT
12347 4 76 00000 LDA 000000,4 GET BIT
12350 0 72 27052 M107 SKA #00200000 IS BIT RESET
12351 0 43 00460 BRM ERROR NO
12352 0 20 24257 NOP MM107 YES
12353 0 43 00434 BRM END LOOP IF BP1 SET
```

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```
* CHECK THAT BIT 8 IN 1ST 4K CAN BE RESET
12354 0 43 00430 MEM108 BRM OBJECT
12355 0 43 00440 BRM RETURN SET PARITY RETURN
12356 0 20 12362 NBP M108
12357 0 75 27057 LDB #077677777 B = TEST BIT CLEARED
12360 4 36 00000 STB 000000,4 STORE BIT
12361 4 76 00000 LDA 000000,4 GET BIT
12362 0 72 27053 M108 SKA #00100000 IS BIT RESET
12363 0 43 00460 BRM ERROR NO
12364 0 20 24301 NBP MM108 YES
12365 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 9 IN 1ST 4K CAN BE RESET
12366 0 43 00430 MEM109 BRM OBJECT
12367 0 43 00440 BRM RETURN SET PARITY RETURN
12370 0 20 12374 NBP M109
12371 0 75 27070 LDB #077737777 B = TEST BIT CLEARED
12372 4 36 00000 STB 000000,4 STORE BIT
12373 4 76 00000 LDA 000000,4 GET BIT
12374 0 72 27054 M109 SKA #00040000 IS BIT RESET
12375 0 43 00460 BRM ERROR NO
12376 0 20 24323 NBP MM109 YES
12377 0 43 00434 BRM END LOOP IF BP1 SET
```

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```
* CHECK THAT BIT 10 IN 1ST 4K CAN BE RESET
12400 0 43 00430 MEM110 BRM OBJECT
12401 0 43 00440 BRM RETURN SET PARITY RETURN
12402 0 20 12406 NBP M110
12403 0 75 27071 LDB #077757777 B = TEST BIT CLEARED
12404 4 36 00000 STB 000000,4 STORE BIT
12405 4 76 00000 LDA 000000,4 GET BIT
12406 0 72 27055 M110 SKA #00020000 IS BIT RESET
12407 0 43 00460 BRM ERROR NO
12410 0 20 24345 NBP MM110 YES
12411 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 11 IN 1ST 4K CAN BE RESET
12412 0 43 00430 MEM111 BRM OBJECT
12413 0 43 00440 BRM RETURN SET PARITY RETURN
12414 0 20 12420 NBP M111
12415 0 75 27072 LDB #077767777 B = TEST BIT CLEARED
12416 4 36 00000 STB 000000,4 STORE BIT
12417 4 76 00000 LDA 000000,4 GET BIT
12420 0 72 27056 M111 SKA #00010000 IS BIT RESET
12421 0 43 00460 BRM ERROR NO
12422 0 20 24367 NBP MM111 YES
12423 0 43 00434 BRM END LOOP IF BP1 SET
```

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* CHECK THAT BIT 12 IN 1ST 4K CAN BE RESET
12424 0 43 00430 MEM112 BRM OBJECT
12425 0 43 00440 BRM RETURN SET PARITY RETURN
12426 0 20 12432 NOP M112
12427 0 75 27073 LDB #077773777 B = TEST BIT CLEARED
12430 4 36 00000 STB 000000,4 STORE BIT
12431 4 76 00000 LDA 000000,4 GET BIT
12432 0 72 26761 M112 SKA #00004000 IS BIT RESET
12433 0 43 00460 BRM ERROR NO
12434 0 20 24411 NOP MM112 YES
12435 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 13 IN 1ST 4K CAN BE RESET
2436 0 43 00430 MEM113 BRM OBJECT
2437 0 43 00440 BRM RETURN SET PARITY RETURN
2440 0 20 12444 NOP M113
2441 0 75 27074 LDB #077775777 B = TEST BIT CLEARED
2442 4 36 00000 STB 000000,4 STORE BIT
2443 4 76 00000 LDA 000000,4 GET BIT
2444 0 72 27016 M113 SKA #00002000 IS BIT RESET
2445 0 43 00460 BRM ERROR NO
2446 0 20 24433 NOP MM113 YES
2447 0 43 00434 BRM END LOOP IF BP1 SET

```

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* CHECK THAT BIT 14 IN 1ST 4K CAN BE RESET
2450 0 43 00430 MEM114 BRM OBJECT
2451 0 43 00440 BRM RETURN SET PARITY RETURN
2452 0 20 12456 NOP M114
2453 0 75 27075 LDB #077774777 B = TEST BIT CLEARED
2454 4 36 00000 STB 000000,4 STORE BIT
2455 4 76 00000 LDA 000000,4 GET BIT
2456 0 72 27015 M114 SKA #00001000 IS BIT RESET
2457 0 43 00460 BRM ERROR NO
2460 0 20 24455 NOP MM114 YES
2461 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 15 IN 1ST 4K CAN BE RESET
2462 0 43 00430 MEM115 BRM OBJECT
2463 0 43 00440 BRM RETURN SET PARITY RETURN
2464 0 20 12470 NOP M115
2465 0 75 27076 LDB #077777377 B = TEST BIT CLEARED
2466 4 36 00000 STB 000000,4 STORE BIT
2467 4 76 00000 LDA 000000,4 GET BIT
2470 0 72 27014 M115 SKA #00000400 IS BIT RESET
2471 0 43 00460 BRM ERROR NO
2472 0 20 24477 NOP MM115 YES
2473 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 16 IN 1ST 4K CAN BE RESET
2474 0 43 00430 MEM116 BRM OBJECT
2475 0 43 00440 BRM RETURN SET PARITY RETURN
2476 0 20 12502 NOP M116
2477 0 75 27277 LDB #077777577 B = TEST BIT CLEARED
12500 4 36 00000 STB 000000,4 STORE BIT
12501 4 76 00000 LDA 000000,4 GET BIT
12502 0 72 27-13 M116 SKA #00000200 IS BIT RESET
12503 0 43 00460 BRM ERROR NO
12504 0 20 24521 NOP MM116 YES
12505 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 17 IN 1ST 4K CAN BE RESET
12506 0 43 00430 MEM117 BRM OBJECT
12507 0 43 00440 BRM RETURN SET PARITY RETURN
12510 0 20 12514 NOP M117
12511 0 75 27100 LDB #077777677 B = TEST BIT CLEARED
12512 4 36 00000 STB 000000,4 STORE BIT
12513 4 76 00000 LDA 000000,4 GET BIT
12514 0 72 27-12 M117 SKA #00000100 IS BIT RESET
12515 0 43 00460 BRM ERROR NO
12516 0 20 24543 NOP MM117 YES
12517 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 18 IN 1ST 4K CAN BE RESET
12520 0 43 00430 MEM118 BRM OBJECT
12521 0 43 00440 BRM RETURN SET PARITY RETURN
12522 0 20 12526 NOP M118
12523 0 75 27101 LDB #077777737 B = TEST BIT CLEARED
12524 4 36 00000 STB 000000,4 STORE BIT
12525 4 76 00000 LDA 000000,4 GET BIT
12526 0 72 26762 M118 SKA #00000040 IS BIT RESET
12527 0 43 00460 BRM ERROR NO
12530 0 20 24565 NOP MM118 YES
12531 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 19 IN 1ST 4K CAN BE RESET
12532 0 43 00430 MEM119 BRM OBJECT
12533 0 43 00440 BRM RETURN SET PARITY RETURN
12534 0 20 12540 NOP M119
12535 0 75 27102 LDB #077777757 B = TEST BIT CLEARED
12536 4 36 00000 STB 000000,4 STORE BIT
12537 4 76 00000 LDA 000000,4 GET BIT
12540 0 72 27222 M119 SKA #00000020 IS BIT RESET
12541 0 43 00460 BRM ERROR NO
12542 0 20 24507 NOP MM119 YES
12543 0 43 00434 BRM END LOOP IF BP1 SET

```

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```
* CHECK THAT BIT 20 IN 1ST 4K CAN BE RESET
MEM120 BRM OBJECT
          BRM RETURN SET PARITY RETURN
          NOP M120
          LDB #07777767 B = TEST BIT CLEARED
          STB 000000,4 STORE BIT
          LDA 000000,4 GET BIT
          SKA #00000010 IS BIT RESET
          BRM ERROR NO
          NOP MM120 YES
          BRM END LOOP IF BP1 SET

* CHECK THAT BIT 21 IN 1ST 4K CAN BE RESET
MEM121 BRM OBJECT
          BRM RETURN SET PARITY RETURN
          NOP M121
          LDB #07777773 B = TEST BIT CLEARED
          STB 000000,4 STORE BIT
          LDA 000000,4 GET BIT
          SKA #00000004 IS BIT RESET
          BRM ERROR NO
          NOP MM121 YES
          BRM END LOOP IF BP1 SET
```

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```
* CHECK THAT BIT 22 IN 1ST 4K CAN BE RESET
MEM122 BRM OBJECT
          BRM RETURN SET PARITY RETURN
          NOP M122
          LDB #07777775 B = TEST BIT CLEARED
          STB 000000,4 STORE BIT
          LDA 000000,4 GET BIT
          SKA #00000002 IS BIT RESET
          BRM ERROR NO
          NOP MM122 YES
          BRM END LOOP IF BP1 SET

* CHECK THAT BIT 23 IN 1ST 4K CAN BE RESET
MEM123 BRM OBJECT
          BRM RETURN SET PARITY RETURN
          NOP M123
          LDB #07777776 B = TEST BIT CLEARED
          STB 000000,4 STORE BIT
          LDA 000000,4 GET BIT
          SKA #00000001 IS BIT RESET
          BRM ERROR NO
          NOP MM123 YES
          BRM END LOOP IF BP1 SET
```

```

* CHECK THAT BIT 0 IN 2ED 4K CAN BE RESET
2614 0 43 00430 MEM124 BRM OBJECT
2615 0 43 00440 BRM RETURN SET PARITY RETURN
2616 0 20 12622 NBP M124
2617 0 75 27057 LDB #037777777 B = TEST BIT CLEARED
2620 4 36 10000 STB 010000,4 STORE BIT
2621 4 76 10000 LDA 010000,4 GET BIT
2622 0 72 26757 M124 SKA #040000000 IS BIT RESET
2623 0 43 00460 BRM ERROR NO
2624 0 20 24761 NBP MM200 YES
2625 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 1 IN 2ED 4K CAN BE RESET
12626 0 43 00430 MEM125 BRM OBJECT
12627 0 43 00440 BRM RETURN SET PARITY RETURN
12630 0 20 12634 NBP M125
12631 0 75 27060 LDB #057777777 B = TEST BIT CLEARED
12632 4 36 10000 STB 010000,4 STORE BIT
12633 4 76 10000 LDA 010000,4 GET BIT
12634 0 72 27045 M125 SKA #020000000 IS BIT RESET
12635 0 43 00460 BRM ERROR NO
12636 0 20 25000 NBP MM201 YES
12637 0 43 00434 BRM END LOOP IF BP1 SET

```

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* CHECK THAT BIT 2 IN 2ED 4K CAN BE RESET
12640 0 43 00430 MEM126 BRM OBJECT
12641 0 43 00440 BRM RETURN SET PARITY RETURN
12642 0 20 12646 NBP M126
12643 0 75 27061 LDB #067777777 B = TEST BIT CLEARED
12644 4 36 10000 STB 010000,4 STORE BIT
12645 4 76 10000 LDA 010000,4 GET BIT
12646 0 72 27046 M126 SKA #010000000 IS BIT RESET
12647 0 43 00460 BRM ERROR NO
12650 0 20 25007 NBP MM202 YES
12651 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 3 IN 2ED 4K CAN BE RESET
12652 0 43 00430 MEM127 BRM OBJECT
12653 0 43 00440 BRM RETURN SET PARITY RETURN
12654 0 20 12660 NBP M127
12655 0 75 27062 LDB #073777777 B = TEST BIT CLEARED
12656 4 36 10000 STB 010000,4 STORE BIT
12657 4 76 10000 LDA 010000,4 GET BIT
12660 0 72 27047 M127 SKA #040000000 IS BIT RESET
12661 0 43 00460 BRM ERROR NO
12662 0 20 25016 NBP MM203 YES
12663 0 43 00434 BRM END LOOP IF BP1 SET

```

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```
* CHECK THAT BIT 4 IN 2ED 4K CAN BE RESET
12664 0 43 00430 MEM128 BRM OBJECT
12665 0 43 00440 BRM RETURN SET PARITY RETURN
12666 0 20 12672 NOP M128
12667 0 75 27063 LDB #075777777 B = TEST BIT CLEARED
12670 4 36 10000 STB 010000,4 STORE BIT
12671 4 76 10000 LDA 010000,4 GET BIT
12672 0 72 27050 M128 SKA #02000000 IS BIT RESET
12673 0 43 00460 BRM ERROR NO
12674 0 20 25025 NOP MM204 YES
12675 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 5 IN 2ED 4K CAN BE RESET
12676 0 43 00430 MEM129 BRM OBJECT
12677 0 43 00440 BRM RETURN SET PARITY RETURN
12700 0 20 12704 NOP M129
12701 0 75 27064 LDB #076777777 B = TEST BIT CLEARED
12702 4 36 10000 STB 010000,4 STORE BIT
12703 4 76 10000 LDA 010000,4 GET BIT
12704 0 72 27051 M129 SKA #01000000 IS BIT RESET
12705 0 43 00460 BRM ERROR NO
12706 0 20 25034 NOP MM205 YES
12707 0 43 00434 BRM END LOOP IF BP1 SET
```

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```
* CHECK THAT BIT 6 IN 2ED 4K CAN BE RESET
12710 0 43 00430 MEM130 BRM OBJECT
12711 0 43 00440 BRM RETURN SET PARITY RETURN
12712 0 20 12716 NOP M130
12713 0 75 27065 LDB #077377777 B = TEST BIT CLEARED
12714 4 36 10000 STB 010000,4 STORE BIT
12715 4 76 10000 LDA 010000,4 GET BIT
12716 0 72 26760 M130 SKA #00400000 IS BIT RESET
12717 0 43 00460 BRM ERROR NO
12720 0 20 25044 NOP MM206 YES
12721 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 7 IN 2ED 4K CAN BE RESET
12722 0 43 00430 MEM131 BRM OBJECT
12723 0 43 00440 BRM RETURN SET PARITY RETURN
12724 0 20 12730 NOP M131
12725 0 75 27066 LDB #077577777 B = TEST BIT CLEARED
12726 4 36 10000 STB 010000,4 STORE BIT
12727 4 76 10000 LDA 010000,4 GET BIT
12730 0 72 27052 M131 SKA #00200000 IS BIT RESET
12731 0 43 00460 BRM ERROR NO
12732 0 20 25054 NOP MM207 YES
12733 0 43 00434 BRM END LOOP IF BP1 SET
```



```

* CHECK THAT BIT 8 IN 2ED 4K CAN BE RESET
12734 0 43 00430 MEM132 BRM OBJECT
12735 0 43 00440 BRM RETURN SET PARITY RETURN
12736 0 20 12742 NOP M132
12737 0 75 27067 LDB #077677777 B = TEST BIT CLEARED
12740 4 36 10000 STB 010000,4 STORE BIT
12741 4 76 10000 LDA 010000,4 GET BIT
12742 0 72 27153 M132 SKA #00100000 IS BIT RESET
12743 0 43 00460 BRM ERROR NO
12744 0 20 25164 NOP MM208 YES
12745 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 9 IN 2ED 4K CAN BE RESET
12746 0 43 00430 MEM133 BRM OBJECT
12747 0 43 00440 BRM RETURN SET PARITY RETURN
12750 0 20 12754 NOP M133
12751 0 75 27070 LDB #077737777 B = TEST BIT CLEARED
12752 4 36 10000 STB 010000,4 STORE BIT
12753 4 76 10000 LDA 010000,4 GET BIT
12754 0 72 27154 M133 SKA #00040000 IS BIT RESET
12755 0 43 00460 BRM ERROR NO
12756 0 20 25174 NOP MM209 YES
12757 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 10 IN 2ED 4K CAN BE RESET
12760 0 43 00430 MEM134 BRM OBJECT
12761 0 43 00440 BRM RETURN SET PARITY RETURN
12762 0 20 12766 NOP M134
12763 0 75 27071 LDB #077757777 B = TEST BIT CLEARED
12764 4 36 10000 STB 010000,4 STORE BIT
12765 4 76 10000 LDA 010000,4 GET BIT
12766 0 72 27155 M134 SKA #00020000 IS BIT RESET
12767 0 43 00460 BRM ERROR NO
12770 0 20 25104 NOP MM210 YES
12771 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 11 IN 2ED 4K CAN BE RESET
12772 0 43 00430 MEM135 BRM OBJECT
12773 0 43 00440 BRM RETURN SET PARITY RETURN
12774 0 20 13000 NOP M135
12775 0 75 27072 LDB #077767777 B = TEST BIT CLEARED
12776 4 36 10000 STB 010000,4 STORE BIT
12777 4 76 10000 LDA 010000,4 GET BIT
13000 0 72 27156 M135 SKA #00010000 IS BIT RESET
13001 0 43 00460 BRM ERROR NO
13002 0 20 25116 NOP MM211 YES
13003 0 43 00434 BRM END LOOP IF BP1 SET

```

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```
* CHECK THAT BIT 12 IN 2ED 4K CAN BE RESET
13004 0 43 00430 MEM136 BRM OBJECT
13005 0 43 00440 BRM RETURN SET PARITY RETURN
13006 0 20 13012 NOP M136
13007 0 75 27073 LDB #077773777 B * TEST BIT CLEARED
13010 4 36 10000 STB 010000,4 STORE BIT
13011 4 76 10000 LDA 010000,4 GET BIT
13012 0 72 26761 M136 SKA #00004000 IS BIT RESET
13013 0 43 00460 BRM ERROR NO
13014 0 20 25130 NOP MM212 YES
13015 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 10 IN 2ED 4K CAN BE RESET
13016 0 43 00430 MEM137 BRM OBJECT
13017 0 43 00440 BRM RETURN SET PARITY RETURN
13020 0 20 13024 NOP M137
13021 0 75 27074 LDB #077775777 B * TEST BIT CLEARED
13022 4 36 10000 STB 010000,4 STORE BIT
13023 4 76 10000 LDA 010000,4 GET BIT
13024 0 72 27016 M137 SKA #00002000 IS BIT RESET
13025 0 43 00460 BRM ERROR NO
13026 0 20 25142 NOP MM213 YES
13027 0 43 00434 BRM END LOOP IF BP1 SET
```

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* CHECK THAT BIT 14 IN 2ED 4K CAN BE RESET
13030 0 43 00430 MEM138 BRM OBJECT
13031 0 43 00440 BRM RETURN SET PARITY RETURN
13032 0 20 13036 NOP M138
13033 0 75 27075 LDB #077776777 B * TEST BIT CLEARED
13034 4 36 10000 STB 010000,4 STORE BIT
13035 4 76 10000 LDA 010000,4 GET BIT
13036 0 72 27015 M138 SKA #00001000 IS BIT RESET
13037 0 43 00460 BRM ERROR NO
13040 0 20 25154 NOP MM214 YES
13041 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 15 IN 2ED 4K CAN BE RESET
13042 0 43 00430 MEM139 BRM OBJECT
13043 0 43 00440 BRM RETURN SET PARITY RETURN
13044 0 20 13050 NOP M139
13045 0 75 27076 LDB #077777777 B * TEST BIT CLEARED
13046 4 36 10000 STB 010000,4 STORE BIT
13047 4 76 10000 LDA 010000,4 GET BIT
13050 0 72 27014 M139 SKA #00000400 IS BIT RESET
13051 0 43 00460 BRM ERROR NO
13052 0 20 25166 NOP MM215 YES
13053 0 43 00434 BRM END LOOP IF BP1 SET
```

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* CHECK THAT BIT 16 IN 2ED 4K CAN BE RESET
13054 0 43 00430 MEM140 BRM 0BJECT
13055 0 43 00440 BRM RETURN SET PARITY RETURN
13056 0 20 13062 N0P M140
13057 0 75 27077 LDB #077777577 B * TEST BIT CLEARED
13060 4 36 10000 STB 010000,4 STORE BIT
13061 4 76 10000 LDA 010000,4 GET BIT
13062 0 72 27013 M140 SKA #00000200 IS BIT RESET
13063 0 43 00460 BRM ERROR NO
13064 0 20 25176 N0P MM216 YES
13065 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 17 IN 2ED 4K CAN BE RESET
13066 0 43 00430 MEM141 BRM 0BJECT
13067 0 43 00440 BRM RETURN SET PARITY RETURN
13070 0 20 13074 N0P M141
13071 0 75 27100 LDB #077777677 B * TEST BIT CLEARED
13072 4 36 10000 STB 010000,4 STORE BIT
13073 4 76 10000 LDA 010000,4 GET BIT
13074 0 72 27012 M141 SKA #00000100 IS BIT RESET
13075 0 43 00460 BRM ERROR NO
13076 0 20 25206 N0P MM217 YES
13077 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 18 IN 2ED 4K CAN BE RESET
13100 0 43 00430 MEM142 BRM 0BJECT
13101 0 43 00440 BRM RETURN SET PARITY RETURN
13102 0 20 13106 N0P M142
13103 0 75 27101 LDB #077777737 B * TEST BIT CLEARED
13104 4 36 10000 STB 010000,4 STORE BIT
13105 4 76 10000 LDA 010000,4 GET BIT
13106 0 72 26762 M142 SKA #00000040 IS BIT RESET
13107 0 43 00460 BRM ERROR NO
13110 0 20 25216 N0P MM218 YES
13111 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 19 IN 2ED 4K CAN BE RESET
13112 0 43 00430 MEM143 BRM 0BJECT
13113 0 43 00440 BRM RETURN SET PARITY RETURN
13114 0 20 13120 N0P M143
13115 0 75 27102 LDB #077777757 B * TEST BIT CLEARED
13116 4 36 10000 STB 010000,4 STORE BIT
13117 4 76 10000 LDA 010000,4 GET BIT
13120 0 72 27022 M143 SKA #00000020 IS BIT RESET
13121 0 43 00460 BRM ERROR NO
13122 0 20 25226 N0P MM219 YES
13123 0 43 00434 BRM END LOOP IF BP1 SET

```

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* CHECK THAT BIT 20 IN 2ED 4K CAN BE RESET
13124 0 43 00430 MEM144 BRM OBJECT
13125 0 43 00440 BRM RETURN SET PARITY RETURN
13126 0 20 13132 NOP M144
13127 0 75 27103 LDB #077777767 B # TEST BIT CLEARED
13130 4 36 10000 STB 010000,4 STORE BIT
13131 4 76 10000 LDA 010000,4 GET BIT
13132 0 72 27421 M144 SKA #00000010 IS BIT RESET
13133 0 43 00460 BRM ERROR NO
13134 0 20 25236 NOP MM220 YES
13135 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 21 IN 2ED 4K CAN BE RESET
13136 0 43 00430 MEM145 BRM OBJECT
13137 0 43 00440 BRM RETURN SET PARITY RETURN
13140 0 20 13144 NOP M145
13141 0 75 27104 LDB #077777773 B # TEST BIT CLEARED
13142 4 36 10000 STB 010000,4 STORE BIT
13143 4 76 10000 LDA 010000,4 GET BIT
13144 0 72 26744 M145 SKA #00000004 IS BIT RESET
13145 0 43 00460 BRM ERROR NO
13146 0 20 25246 NOP MM221 YES
13147 0 43 00434 BRM END LOOP IF BP1 SET

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* CHECK THAT BIT 22 IN 2ED 4K CAN BE RESET
13150 0 43 00430 MEM146 BRM OBJECT
13151 0 43 00440 BRM RETURN SET PARITY RETURN
13152 0 20 13156 NOP M146
13153 0 75 27105 LDB #077777775 B # TEST BIT CLEARED
13154 4 36 10000 STB 010000,4 STORE BIT
13155 4 76 10000 LDA 010000,4 GET BIT
13156 0 72 27420 M146 SKA #00000002 IS BIT RESET
13157 0 43 00460 BRM ERROR NO
13160 0 20 25256 NOP MM222 YES
13161 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 20 IN 2ED 4K CAN BE RESET
13162 0 43 00430 MEM147 BRM OBJECT
13163 0 43 00440 BRM RETURN SET PARITY RETURN
13164 0 20 13170 NOP M147
13165 0 75 27106 LDB #077777776 B # TEST BIT CLEARED
13166 4 36 10000 STB 010000,4 STORE BIT
13167 4 76 10000 LDA 010000,4 GET BIT
13170 0 72 27017 M147 SKA #00000001 IS BIT RESET
13171 0 43 00460 BRM ERROR NO
13172 0 20 25266 NOP MM223 YES
13173 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 0 IN 3ED 4K CAN BE RESET
13174 0 43 00430 MEM148 BRM OBJECT
13175 0 43 00440 BRM RETURN SET PARITY RETURN
13176 0 20 13202 NOP M148
13177 0 75 27057 LDB #037777777 B = TEST BIT CLEARED
13200 4 36 20000 STB 020000,4 STORE BIT
13201 4 76 20000 LDA 020000,4 GET BIT
13202 0 72 26757 M148 SKA #040000000 IS BIT RESET
13203 0 43 00460 BRM ERROR NO
13204 0 20 25305 NOP MM300 YES
13205 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 1 IN 3ED CAN BE RESET
13206 0 43 00430 MEM149 BRM OBJECT
13207 0 43 00440 BRM RETURN SET PARITY RETURN
13210 0 20 13214 NOP M149
13211 0 75 27060 LDB #057777777 B = TEST BIT CLEARED
13212 4 36 20000 STB 020000,4 STORE BIT
13213 4 76 20000 LDA 020000,4 GET BIT
13214 0 72 27045 M149 SKA #020000000 IS BIT RESET
13215 0 43 00460 BRM ERROR NO
13216 0 20 25323 NOP MM301 YES
13217 0 43 00434 BRM END LOOP IF BP1 SET

```

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* CHECK THAT BIT 2 IN 3ED 4K CAN BE RESET
13220 0 43 00430 MEM150 BRM OBJECT
13221 0 43 00440 BRM RETURN SET PARITY RETURN
13222 0 20 13226 NOP M150
13223 0 75 27061 LDB #067777777 B = TEST BIT CLEARED
13224 4 36 20000 STB 020000,4 STORE BIT
13225 4 76 20000 LDA 020000,4 GET BIT
13226 0 72 27046 M150 SKA #010000000 IS BIT RESET
13227 0 43 00460 BRM ERROR NO
13230 0 20 25332 NOP MM302 YES
13231 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 3 IN 3ED 4K CAN BE RESET
13232 0 43 00430 MEM151 BRM OBJECT
13233 0 43 00440 BRM RETURN SET PARITY RETURN
13234 0 20 13240 NOP M151
13235 0 75 27062 LDB #073777777 B = TEST BIT CLEARED
13236 4 36 20000 STB 020000,4 STORE BIT
13237 4 76 20000 LDA 020000,4 GET BIT
13240 0 72 27047 M151 SKA #040000000 IS BIT RESET
13241 0 43 00460 BRM ERROR NO
13242 0 20 25341 NOP MM303 YES
13243 0 43 00434 BRM END LOOP IF BP1 SET

```

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* CHECK THAT BIT 4 IN 3ED 4K CAN BE RESET
13244 0 43 00430 MEM152 BRM OBJECT
13245 0 43 00440 BRM RETURN SET PARITY RETURN
13246 0 20 13252 NOP M152
13247 0 75 27063 LDB #075777777 B = TEST BIT CLEARED
13250 4 36 20000 STB 020000,4 STORE BIT
13251 4 76 20000 LDA 020000,4 GET BIT
13252 0 72 27050 M152 SKA #02000000 IS BIT RESET
13253 0 43 00460 BRM ERROR NO
13254 0 20 25350 NOP MM304 YES
13255 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 5 IN 3ED 4K CAN BE RESET
13256 0 43 00430 MEM153 BRM OBJECT
13257 0 43 00440 BRM RETURN SET PARITY RETURN
13260 0 20 13264 NOP M153
13261 0 75 27064 LDB #076777777 B = TEST BIT CLEARED
13262 4 36 20000 STB 020000,4 STORE BIT
13263 4 76 20000 LDA 020000,4 GET BIT
13264 0 72 27051 M153 SKA #01000000 IS BIT RESET
13265 0 43 00460 BRM ERROR NO
13266 0 20 25357 NOP MM305 YES
13267 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK THAT BIT 6 IN 3ED 4K CAN BE RESET
13270 0 43 00430 MEM154 BRM OBJECT
13271 0 43 00440 BRM RETURN SET PARITY RETURN
13272 0 20 13276 NOP M154
13273 0 75 27065 LDB #077377777 B = TEST BIT CLEARED
13274 4 36 20000 STB 020000,4 STORE BIT
13275 4 76 20000 LDA 020000,4 GET BIT
13276 0 72 26760 M154 SKA #00400000 IS BIT RESET
13277 0 43 00460 BRM ERROR NO
13300 0 20 25366 NOP MM306 YES
13301 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 7 IN 3ED 4K CAN BE RESET
13302 0 43 00430 MEM155 BRM OBJECT
13303 0 43 00440 BRM RETURN SET PARITY RETURN
13304 0 20 13310 NOP M155
13305 0 75 27066 LDB #077577777 B = TEST BIT CLEARED
13306 4 36 20000 STB 020000,4 STORE BIT
13307 4 76 20000 LDA 020000,4 GET BIT
13310 0 72 27052 M155 SKA #00200000 IS BIT RESET
13311 0 43 00460 BRM ERROR NO
13312 0 20 25376 NOP MM307 YES
13313 0 43 00434 BRM END LOOP IF BP1 SET
```

```

* CHECK THAT BIT 8 IN 3ED 4K CAN BE RESET
13314 0 43 00430 MEM156 BRM 0BJECT
13315 0 43 00440 BRM RETURN SET PARITY RETURN
13316 0 20 13322 NOP M156
13317 0 75 27267 LDB #077677777 B = TEST BIT CLEARED
13320 4 36 20000 STB 020000,4 STORE BIT
13321 4 76 20000 LDA 020000,4 GET BIT
13322 0 72 27253 M156 SKA #00100000 IS BIT RESET
13323 0 43 00460 BRM ERROR NO
13324 0 20 25406 NOP MM308 YES
13325 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 9 IN 3ED 4K CAN BE RESET
13326 0 43 00430 MEM157 BRM 0BJECT
13327 0 43 00440 BRM RETURN SET PARITY RETURN
13330 0 20 13334 NOP M157
13331 0 75 27271 LDB #077737777 B = TEST BIT CLEARED
13332 4 36 20000 STB 020000,4 STORE BIT
13333 4 76 20000 LDA 020000,4 GET BIT
13334 0 72 27254 M157 SKA #00040000 IS BIT RESET
13335 0 43 00460 BRM ERROR NO
13336 0 20 25416 NOP MM309 YES
13337 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 10 IN 3ED 4K CAN BE RESET
13340 0 43 00430 MEM158 BRM 0BJECT
13341 0 43 00440 BRM RETURN SET PARITY RETURN
13342 0 20 13346 NOP M158
13343 0 75 27271 LDB #077757777 B = TEST BIT CLEARED
13344 4 36 20000 STB 020000,4 STORE BIT
13345 4 76 20000 LDA 020000,4 GET BIT
13346 0 72 27255 M158 SKA #00020000 IS BIT RESET
13347 0 43 00460 BRM ERROR NO
13350 0 20 25426 NOP MM310 YES
13351 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 11 IN 3ED 4K CAN BE RESET
13352 0 43 00430 MEM159 BRM 0BJECT
13353 0 43 00440 BRM RETURN SET PARITY RETURN
13354 0 20 13360 NOP M159
13355 0 75 27272 LDB #077767777 B = TEST BIT CLEARED
13356 4 36 20000 STB 020000,4 STORE BIT
13357 4 76 20000 LDA 020000,4 GET BIT
13360 0 72 27256 M159 SKA #00010000 IS BIT RESET
13361 0 43 00460 BRM ERROR NO
13362 0 20 25436 NOP MM311 YES
13363 0 43 00434 BRM END LOOP IF BP1 SET

```

MEM1 TAP=3.C

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```
* CHECK THAT BIT 12 IN 3ED 4K CAN BE RESET
13364 0 43 00430 MEM160 BRM OBJECT
13365 0 43 00440 BRM RETURN SET PARITY RETURN
13366 0 20 13372 NOP M160
13367 0 75 27773 LDB #077773777 B = TEST BIT CLEARED
13370 4 36 20000 STB 020000,4 STORE BIT
13371 4 76 20000 LDA 020000,4 GET BIT
13372 0 72 26761 *160 SKA #00004000 IS BIT RESET
13373 0 43 00460 BRM ERROR NO
13374 0 20 25446 NOP MM312 YES
13375 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 13 IN 3ED 4K CAN BE RESET
13376 0 43 00430 MEM161 BRM OBJECT
13377 0 43 00440 BRM RETURN SET PARITY RETURN
13400 0 20 13404 NOP M161
13401 0 75 27774 LDB #077773777 B = TEST BIT CLEARED
13402 4 36 20000 STB 020000,4 STORE BIT
13403 4 76 20000 LDA 020000,4 GET BIT
13404 0 72 27716 *161 SKA #00002000 IS BIT RESET
13405 0 43 00460 BRM ERROR NO
13406 0 20 25456 NOP MM313 YES
13407 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.C

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```
* CHECK THAT BIT 14 IN 3ED 4K CAN BE RESET
13410 0 43 00430 MEM162 BRM OBJECT
13411 0 43 00440 BRM RETURN SET PARITY RETURN
13412 0 20 13416 NOP M162
13413 0 75 27775 LDB #077776777 B = TEST BIT CLEARED
13414 4 36 20000 STB 020000,4 STORE BIT
13415 4 76 20000 LDA 020000,4 GET BIT
13416 0 72 27715 *162 SKA #00001000 IS BIT RESET
13417 0 43 00460 BRM ERROR NO
13420 0 20 25466 NOP MM314 YES
13421 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 15 IN 3ED 4K CAN BE RESET
13422 0 43 00430 MEM163 BRM OBJECT
13423 0 43 00440 BRM RETURN SET PARITY RETURN
13424 0 20 13430 NOP M163
13425 0 75 27776 LDB #077773777 B = TEST BIT CLEARED
13426 4 36 20000 STB 020000,4 STORE BIT
13427 4 76 20000 LDA 020000,4 GET BIT
13430 0 72 27014 *163 SKA #00000400 IS BIT RESET
13431 0 43 00460 BRM ERROR NO
13432 0 20 25476 NOP MM315 YES
13433 0 43 00434 BRM END LOOP IF BP1 SET
```



```

* CHECK THAT BIT 16 IN 3ED 4K CAN BE RESET
13434 0 43 00430 MEM164 BRM OBJECT
13435 0 43 00440 BRM RETURN SET PARITY RETURN
13436 0 20 13442 NOP M164
13437 0 75 27277 LDB #077777577 B = TEST BIT CLEARED
13440 4 36 20000 STB 020000,4 STORE BIT
13441 4 76 20000 LDA 020000,4 GET BIT
13442 0 72 27213 M164 SKA #00000200 IS BIT RESET
13443 0 43 00460 BRM ERROR NO
13444 0 20 25506 NOP MM316 YES
13445 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 17 IN 3ED 4K CAN BE RESET
13446 0 43 00430 MEM165 BRM OBJECT
13447 0 43 00440 BRM RETURN SET PARITY RETURN
13450 0 20 13454 NOP M165
13451 0 75 27100 LDB #077777677 B = TEST BIT CLEARED
13452 4 36 20000 STB 020000,4 STORE BIT
13453 4 76 20000 LDA 020000,4 GET BIT
13454 0 72 27012 M165 SKA #00000100 IS BIT RESET
13455 0 43 00460 BRM ERROR NO
13456 0 20 25516 NOP MM317 YES
13457 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 18 IN 3ED 4K CAN BE RESET
13460 0 43 00430 MEM166 BRM OBJECT
13461 0 43 00440 BRM RETURN SET PARITY RETURN
13462 0 20 13466 NOP M166
13463 0 75 27101 LDB #077777737 B = TEST BIT CLEARED
13464 4 36 20000 STB 020000,4 STORE BIT
13465 4 76 20000 LDA 020000,4 GET BIT
13466 0 72 26762 M166 SKA #00000040 IS BIT RESET
13467 0 43 00460 BRM ERROR NO
13470 0 20 25526 NOP MM318 YES
13471 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 19 IN 3ED 4K CAN BE RESET
13472 0 43 00430 MEM167 BRM OBJECT
13473 0 43 00440 BRM RETURN SET PARITY RETURN
13474 0 20 13500 NOP M167
13475 0 75 27102 LDB #077777757 B = TEST BIT CLEARED
13476 4 36 20000 STB 020000,4 STORE BIT
13477 4 76 20000 LDA 020000,4 GET BIT
13500 0 72 27022 M167 SKA #00000020 IS BIT RESET
13501 0 43 00460 BRM ERROR NO
13502 0 20 25536 NOP MM319 YES
13503 0 43 00434 BRM END LOOP IF BP1 SET

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MEM1 TAP=3.0

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* CHECK THAT BIT 20 IN 3ED 4K CAN BE RESET
13504 0 43 0C430 MEM168 BRM OBJECT
13505 0 43 0C440 BRM RETURN SET PARITY RETURN
13506 0 20 13512 NOP M168
13507 0 75 27103 LDB #077777767 B = TEST BIT CLEARED
13510 4 36 20000 STB 020000,4 STORE BIT
13511 4 76 20000 LDA 020000,4 GET BIT
13512 0 72 27,21 M168 SKA #00000010 IS BIT RESET
13513 0 43 00460 BRM ERROR NO
13514 0 20 25546 NOP MM320 YES
13515 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 21 IN 3ED 4K CAN BE RESET
13516 0 43 0C430 MEM169 BRM OBJECT
13517 0 43 0C440 BRM RETURN SET PARITY RETURN
13520 0 20 13524 NOP M169
13521 0 75 27104 LDB #077777773 B = TEST BIT CLEARED
13522 4 36 20000 STB 020000,4 STORE BIT
13523 4 76 20000 LDA 020000,4 GET BIT
13524 0 72 26744 M169 SKA #00000004 IS BIT RESET
13525 0 43 00460 BRM ERROR NO
13526 0 20 25556 NOP MM321 YES
13527 0 43 0C434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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* CHECK THAT BIT 22 IN 3ED 4K CAN BE RESET
13530 0 43 0C430 MEM170 BRM OBJECT
13531 0 43 0C440 BRM RETURN SET PARITY RETURN
13532 0 20 13536 NOP M170
13533 0 75 27105 LDB #077777775 B = TEST BIT CLEARED
13534 4 36 20000 STB 020000,4 STORE BIT
13535 4 76 20000 LDA 020000,4 GET BIT
13536 0 72 27,20 M170 SKA #00000002 IS BIT RESET
13537 0 43 00460 BRM ERROR NO
13540 0 20 25566 NOP MM322 YES
13541 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 23 IN 3 ED 4K CAN BE RESET
13542 0 43 0C430 MEM171 BRM OBJECT
13543 0 43 0C440 BRM RETURN SET PARITY RETURN
13544 0 20 13550 NOP M171
13545 0 75 27106 LDB #077777776 B = TEST BIT CLEARED
13546 4 36 20000 STB 020000,4 STORE BIT
13547 4 76 20000 LDA 020000,4 GET BIT
13550 0 72 27,17 M171 SKA #00000001 IS BIT RESET
13551 0 43 00460 BRM ERROR NO
13552 0 20 25576 NOP MM323 YES
13553 0 43 00434 BRM END LOOP IF BP1 SET
13554 0 01 14,00 BRU MEM172
13555 0C223 BSS 01*000***ZERO
```

```

* CHECK THAT BIT 0 IN 4TH 4K CAN BE RESET
14000 0 43 00430 MEM172 BRM SUBJECT
14001 0 43 00440 BRM RETURN SET PARITY RETURN
14002 0 20 14006 NBP M172
14003 0 75 27057 LDB #037777777 B = TEST BIT CLEARED
14004 4 36 30000 STB 030000,4 STORE BIT
14005 4 76 30000 LDA 030000,4 GET BIT
14006 0 72 26757 M172 SKA #040000000 IS BIT RESET
14007 0 43 00460 BRM ERRRR NO
14010 0 20 25415 NBP MM400 YES
14011 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 1 IN 4TH 4K CAN BE RESET
14012 0 43 00430 MEM173 BRM SUBJECT
14013 0 43 00440 BRM RETURN SET PARITY RETURN
14014 0 20 14006 NBP M173
14015 0 75 27060 LDB #057777777 B = TEST BIT CLEARED
14016 4 36 30000 STB 030000,4 STORE BIT
14017 4 76 30000 LDA 030000,4 GET BIT
14020 0 72 27045 M173 SKA #020000000 IS BIT RESET
14021 0 43 00460 BRM ERRRR NO
14022 0 20 25424 NBP MM401 YES
14023 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 2 IN 4TH 4K CAN BE RESET
14024 0 43 00430 MEM174 BRM SUBJECT
14025 0 43 00440 BRM RETURN SET PARITY RETURN
14026 0 20 14032 NBP M174
14027 0 75 27061 LDB #067777777 B = TEST BIT CLEARED
14030 4 36 30000 STB 030000,4 STORE BIT
14031 4 76 30000 LDA 030000,4 GET BIT
14032 0 72 27046 M174 SKA #010000000 IS BIT RESET
14033 0 43 00460 BRM ERRRR NO
14034 0 20 25433 NBP MM402 YES
14035 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 3 IN 4TH 4K CAN BE RESET
14036 0 43 00430 MEM175 BRM SUBJECT
14037 0 43 00440 BRM RETURN SET PARITY RETURN
14040 0 20 14044 NBP M175
14041 0 75 27062 LDB #077777777 B = TEST BIT CLEARED
14042 4 36 30000 STB 030000,4 STORE BIT
14043 4 76 30000 LDA 030000,4 GET BIT
14044 0 72 27047 M175 SKA #040000000 IS BIT RESET
14045 0 43 00460 BRM ERRRR NO
14046 0 20 25442 NBP MM403 YES
14047 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 4 IN 4TH 4K CAN BE RESET
14050 0 43 00430 MEM176 BRM OBJECT
14051 0 43 00440 BRM RETURN SET PARITY RETURN
14052 0 20 14056 NOP M176
14053 0 75 27063 LDB #075777777 B = TEST BIT CLEARED
14054 4 36 30000 STB 030000,4 STORE BIT
14055 4 76 30000 LDA 030000,4 GET BIT
14056 0 72 27050 M176 SKA #02000000 IS BIT RESET
14057 0 43 00460 BRM ERROR NO
14060 0 20 25651 NOP MMA04 YES
14061 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 5 IN 4TH 4K CAN BE RESET
14062 0 43 00430 MEM177 BRM OBJECT
14063 0 43 00440 BRM RETURN SET PARITY RETURN
14064 0 20 14070 NOP M177
14065 0 75 27064 LDB #076777777 B = TEST BIT CLEARED
14066 4 36 30000 STB 030000,4 STORE BIT
14067 4 76 30000 LDA 030000,4 GET BIT
14070 0 72 27051 M177 SKA #01000000 IS BIT RESET
14071 0 43 00460 BRM ERROR NO
14072 0 20 25660 NOP MMA05 YES
14073 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 6 IN 4TH 4K CAN BE RESET
14074 0 43 00430 MEM178 BRM OBJECT
14075 0 43 00440 BRM RETURN SET APRITY RETURN
14076 0 20 14102 NOP M178
14077 0 75 27065 LDB #077377777 B = TEST BIT CLEARED
14100 4 36 30000 STB 030000,4 STORE BIT
14101 4 76 30000 LDA 030000,4 GET BIT
14102 0 72 26760 M178 SKA #00400000 IS BIT RESET
14103 0 43 00460 BRM ERROR NO
14104 0 20 25667 NOP MMA06 YES
14105 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 7 IN 4TH 4K CAN BE RESET
14106 0 43 00430 MEM179 BRM OBJECT
14107 0 43 00440 BRM RETURN SET PARITY RETURN
14110 0 20 14114 NOP M179
14111 0 75 27066 LDB #077577777 B = TEST BIT CLEARED
14112 4 36 30000 STB 030000,4 STORE BIT
14113 4 76 30000 LDA 030000,4 GET BIT
14114 0 72 27052 M179 SKA #00200000 IS BIT RESET
14115 0 43 00460 BRM ERROR NO
14116 0 20 25677 NOP MMA07 YES
14117 0 43 00434 BRM END LOOP IF BP1 SET

```

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```
* CHECK THAT BIT 8 IN 4TH 4K CAN BE RESET
14120 0 43 00430 MEM180 BRM OBJECT
14121 0 43 00440 BRM RETURN SET PARITY RETURN
14122 0 20 14126 NBP M180
14123 0 75 27067 LDB #07767777 B = TEST BIT CLEARED
14124 4 36 30000 STB 030000,4 STORE BIT
14125 4 76 30000 LDA 030000,4 GET BIT
14126 0 72 27053 M180 SKA #00100000 IS BIT RESET
14127 0 43 00460 BRM ERROR NO
14130 0 20 25707 NBP MM408 YES
14131 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 9 IN 4TH 4K CAN BE RESET
14132 0 43 00430 MEM181 BRM OBJECT
14133 0 43 00440 BRM RETURN SET PARITY RETURN
14134 0 20 14140 NBP M181
14135 0 75 27070 LDB #07773777 B = TEST BIT CLEARED
14136 4 36 30000 STB 030000,4 STORE BIT
14137 4 76 30000 LDA 030000,4 GET BIT
14140 0 72 27054 M181 SKA #00040000 IS BIT RESET
14141 0 43 00460 BRM ERROR NO
14142 0 20 25717 NBP MM409 YES
14143 0 43 00434 BRM END LOOP IF BP1 SET
```

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```
* CHECK THAT BIT 10 IN 4TH 4K CAN BE RESET
14144 0 43 00430 MEM182 BRM OBJECT
14145 0 43 00440 BRM RETURN SET PARITY RETURN
14146 0 20 14152 NBP M182
14147 0 75 27071 LDB #07775777 B = TEST BIT CLEARED
14150 4 36 30000 STB 030000,4 STORE BIT
14151 4 76 30000 LDA 030000,4 GET BIT
14152 0 72 27055 M182 SKA #00020000 IS BIT RESET
14153 0 43 00460 BRM ERROR NO
14154 0 20 25727 NBP MM410 YES
14155 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 11 IN 4TH 4K CAN BE RESET
14156 0 43 00430 MEM183 BRM OBJECT
14157 0 43 00440 BRM RETURN SET PARITY RETURN
14160 0 20 14164 NBP M183
14161 0 75 27072 LDB #07776777 B = TEST BIT CLEARED
14162 4 36 30000 STB 030000,4 STORE BIT
14163 4 76 30000 LDA 030000,4 GET BIT
14164 0 72 27056 M183 SKA #00010000 IS BIT RESET
14165 0 43 00460 BRM ERROR NO
14166 0 20 25737 NBP MM411 YES
14167 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK THAT BIT 12 IN 4TH 4K CAN BE RESET
14170 0 43 00430 MEM184 BRM OBJECT
14171 0 43 00440 BRM RETURN SET PARITY RETURN
14172 0 20 14176 NOP M184
14173 0 75 27573 LDB #077773777 B = TEST BIT CLEARED
14174 4 36 30000 STB 030000,4 STORE BIT
14175 4 76 30000 LDA 030000,4 GET BIT
14176 0 72 26761 M184 SKA #00004000 IS BIT RESET
14177 0 43 00460 BRM ERROR NO
14200 0 20 25747 NOP MM412 YES
14201 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 13 IN 4TH 4K CAN BE RESET
14202 0 43 00430 MEM185 BRM OBJECT
14203 0 43 00440 BRM RETURN SET PARITY RETURN
14204 0 20 14210 NOP M185
14205 0 75 27574 LDB #077775777 B = TEST BIT CLEARED
14206 4 36 30000 STB 030000,4 STORE BIT
14207 4 76 30000 LDA 030000,4 GET BIT
14210 0 72 27516 M185 SKA #00002000 IS BIT RESET
14211 0 43 00460 BRM ERROR NO
14212 0 20 25757 NOP MM413 YES
14213 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* CHECK THAT BIT 14 IN 4TH 4K CAN BE RESET
14214 0 43 00430 MEM186 BRM OBJECT
14215 0 43 00440 BRM RETURN SET PARITY RETURN
14216 0 20 14222 NOP M186
14217 0 75 27575 LDB #077776777 B = TEST BIT CLEARED
14220 4 36 30000 STB 030000,4 STORE BIT
14221 4 76 30000 LDA 030000,4 GET BIT
14222 0 72 27515 M186 SKA #00001000 IS BIT RESET
14223 0 43 00460 BRM ERROR NO
14224 0 20 25767 NOP MM414 YES
14225 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 15 IN 4TH 4K CAN BE RESET
14226 0 43 00430 MEM187 BRM OBJECT
14227 0 43 00440 BRM RETURN SET PARITY RETURN
14230 0 20 14234 NOP M187
14231 0 75 27576 LDB #077777377 B = TEST BIT CLEARED
14232 4 36 30000 STB 030000,4 STORE BIT
14233 4 76 30000 LDA 030000,4 GET BIT
14234 0 72 27514 M187 SKA #00000400 IS BIT RESET
14235 0 43 00460 BRM ERROR NO
14236 0 20 25777 NOP MM415 YES
14237 0 43 00434 BRM END LOOP IF BP1 SET
```

```

* CHECK THAT BIT 16 IN 4TH 4K CAN BE RESET
14240 0 43 00430 MEM188 BRM OBJECT
14241 0 43 00440 BRM RETURN SET PARITY RETURN
14242 0 20 14246 NBP M188
14243 0 75 27177 LDB #077777577 B = TEST BIT CLEARED
14244 4 36 30000 STB 030000,4 STORE BIT
14245 4 76 30000 LDA 030000,4 GET BIT
14246 0 72 27113 M188 SKA #00000200 IS BIT RESET
14247 0 43 00460 BRM ERRORR NO
14250 0 20 26007 NBP MM416 YES
14251 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 17 IN 4TH 4K CAN BE RESET
14252 0 43 00430 MEM189 BRM OBJECT
14253 0 43 00440 BRM RETURN SET PARITY RETURN
14254 0 20 14260 NBP M189
14255 0 75 27100 LDB #077777677 B = TEST BIT CLEARED
14256 4 36 30000 STB 030000,4 STORE BIT
14257 4 76 30000 LDA 030000,4 GET BIT
14260 0 72 27112 M189 SKA #00000100 IS BIT RESET
14261 0 43 00460 BRM ERRORR NO
14262 0 20 26017 NBP MM417 YES
14263 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 18 IN 4TH 4K CAN BE RESET
14264 0 43 00430 MEM190 BRM OBJECT
14265 0 43 00440 BRM RETURN SET PARITY RETURN
14266 0 20 14272 NBP M190
14267 0 75 27101 LDB #077777737 B = TEST BIT CLEARED
14270 4 36 30000 STB 030000,4 STORE BIT
14271 4 76 30000 LDA 030000,4 GET BIT
14272 0 72 26762 M190 SKA #00000040 IS BIT RESET
14273 0 43 00460 BRM ERRORR NO
14274 0 20 26027 NBP MM418 YES
14275 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 19 IN 4TH 4K CAN BE RESET
14276 0 43 00430 MEM191 BRM OBJECT
14277 0 43 00440 BRM RETURN SET PARITY RETURN
14300 0 20 14304 NBP M191
14301 0 75 27102 LDB #077777757 B = TEST BIT CLEARED
14302 4 36 30000 STB 030000,4 STORE BIT
14303 4 76 30000 LDA 030000,4 GET BIT
14304 0 72 27222 M191 SKA #00000020 IS BIT RESET
14305 0 43 00460 BRM ERRORR NO
14306 0 20 26037 NBP MM419 YES
14307 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 20 IN 4TH 4K CAN BE RESET
14310 0 43 00430 MEM192 BRM OBJECT
14311 0 43 00440 BRM RETURN SET PARITY RETURN
14312 0 20 14316 NOP M192
14313 0 75 27103 LDB #077777767 B = TEST BIT CLEARED
14314 4 36 30000 STB 030000,4 STORE BIT
14315 4 76 30000 LDA 030000,4 GET BIT
14316 0 72 27221 M192 SKA #00000010 IS BIT RESET
14317 0 43 00460 BRM ERROR NO
14320 0 20 26047 NOP MM420 YES
14321 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 21 IN 4TH 4K CAN BE RESET
14322 0 43 00430 MEM193 BRM OBJECT
14323 0 43 00440 BRM RETURN SET PARITY RETURN
14324 0 20 14330 NOP M193
14325 0 75 27104 LDB #077777773 B = TEST BIT CLEARED
14326 4 36 30000 STB 030000,4 STORE BIT
14327 4 76 30000 LDA 030000,4 GET BIT
14330 0 72 26744 M193 SKA #00000004 IS BIT RESET
14331 0 43 00460 BRM ERROR NO
14332 0 20 26057 NOP MM421 YES
14333 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK THAT BIT 22 IN 4TH 4K CAN BE RESET
14334 0 43 00430 MEM194 BRM OBJECT
14335 0 43 00440 BRM RETURN SET PARITY RETURN
14336 0 20 14342 NOP M194
14337 0 75 27105 LDB #077777775 B = TEST BIT CLEARED
14340 4 36 30000 STB 030000,4 STORE BIT
14341 4 76 30000 LDA 030000,4 GET BIT
14342 0 72 27020 M194 SKA #00000002 IS BIT RESET
14343 0 43 00460 BRM ERROR NO
14344 0 20 26067 NOP MM422 YES
14345 0 43 00434 BRM END LOOP IF BP1 SET

* CHECK THAT BIT 23 IN 4TH 4K CAN BE RESET
14346 0 43 00430 MEM195 BRM OBJECT
14347 0 43 00440 BRM RETURN SET PARITY RETURN
14350 0 20 14354 NOP M195
14351 0 75 27106 LDB #077777776 B = TEST BIT CLEARED
14352 4 36 30000 STB 030000,4 STORE BIT
14353 4 76 30000 LDA 030000,4 GET BIT
14354 0 72 27017 M195 SKA #00000001 IS BIT RESET
14355 0 43 00460 BRM ERROR NO
14356 0 20 26077 NOP MM423 YES
14357 0 43 00434 BRM END LOOP IF BP1 SET

```



```

* THIS CHECKS THAT PARITY BIT IN 1ST 4K CAN BE SET
14360 0 43 00430 MEM200 BRM OBJECT
14361 0 43 00440 BRM RETURN SET PARITY RETURN
14362 0 20 14367 NBP M200
14363 0 75 27017 LDB #01 B * PARITY BIT SET
14364 4 36 00000 STB 000000,4 STORE BIT
14365 4 76 00000 LDA 000000,4 ACCESS BIT
14366 0 01 14370 BRU ##2 NO PARITY ERROR
14367 0 43 00460 M201 BRM ERROR PARITY ERROR
14370 0 20 24740 NBP MM124
14371 0 43 00434 BRM END LOOP IF BP1 SET

* THIS CHECKS THAT PARITY BIT IN 2ED 4K CAN BE SET
14372 0 43 00430 MEM201 BRM OBJECT
14373 0 43 00440 BRM RETURN SET PARITY RETURN
14374 0 20 14401 NBP M201
14375 0 75 27017 LDB #01 B * PARITY BIT SET
14376 4 36 10000 STB 010000,4 STORE BIT
14377 4 76 10000 LDA 010000,4 ACCESS BIT
14400 0 01 14402 BRU ##2 NO PARITY ERROR
14401 0 43 00460 M201 BRM ERROR PARITY ERROR
14402 0 20 25276 NBP MM224
14403 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* THIS CHECKS THAT PARITY BIT IN 3ED 4K CAN BE SET
14404 0 43 00430 MEM202 BRM OBJECT
14405 0 43 00440 BRM RETURN SET PARITY RETURN
14406 0 20 14413 NBP M202
14407 0 75 27017 LDB #01 B * PARITY BIT SET
14410 4 36 20000 STB 020000,4 STORE BIT
14411 4 76 20000 LDA 020000,4 ACCESS BIT
14412 0 01 14414 BRU ##2 NO PARITY ERROR
14413 0 43 00460 M202 BRM ERROR PARITY ERROR
14414 0 20 25606 NBP MM324
14415 0 43 00434 BRM END LOOP IF BP1 SET

* THIS CHECKS THAT PARITY BIT IN 4TH 4K CAN BE SET
14416 0 43 00430 MEM203 BRM OBJECT
14417 0 43 00440 BRM RETURN SET PARITY RETURN
14420 0 20 14425 NBP M203
14421 0 75 27017 LDB #01 B * PARITY BIT SET
14422 4 36 30000 STB 030000,4 STORE BIT
14423 4 76 30000 LDA 030000,4 ACCESS BIT
14424 0 01 14426 BRU ##2 NO PARITY ERROR
14425 0 43 00460 M203 BRM ERROR PARITY ERROR
14426 0 20 26107 NBP MM424
14427 0 43 00434 BRM END LOOP IF BP1 SET

```

MEM1 TAP=3.0

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```
* THIS CHECKS THAT PARITY BIT IN 1ST 4K CAN BE RESET
14430 0 43 00430 MEM204 BRM OBJECT
14431 0 43 00440 BRM RETURN SET PARITY RETURN
14432 0 20 14437 NOP M204
14433 0 46 00002 CLB B = PARITY BIT RESET
14434 4 36 00000 STB STORE BIT
14435 4 76 00000 LDA 000000,4 ACCESS BIT
14436 0 01 14440 BRU **2 NO PARITY ERROR
14437 0 43 00460 M204 BRM ERROR PARITY ERROR
14440 0 20 24740 NOP MM124
14441 0 43 00434 BRM END LOOP IF BP1 SET

* THIS CHECKS THAT PARITY BIT IN 2ED 4K CAN BE RESET
14442 0 43 00430 MEM205 BRM OBJECT
14443 0 43 00440 BRM RETURN SET PARITY RETURN
14444 0 20 14451 NOP M205
14445 0 46 00002 CLB B = PARITY BIT RESET
14446 4 36 10000 STB 010000,4 STORE BIT
14447 4 76 10000 LDA 010000,4 ACCESS BIT
14450 0 01 14452 BRU **2 NO PARITY ERROR
14451 0 43 00460 M205 BRM ERROR PARITY ERROR
14452 0 20 25276 NOP MM224
14453 0 43 00434 BRM END LOOP IF BP1 SET
```

MEM1 TAP=3.0

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```
* THIS CHECKS THAT PARITY BIT IN 3ED 4K CAN BE RESET
14454 0 43 00430 MEM206 BRM OBJECT
14455 0 43 00440 BRM RETURN SET PARITY RETURN
14456 0 20 14463 NOP M206
14457 0 46 00002 CLB B = PARITY BIT RESET
14460 4 36 20000 STB 020000,4 STORE BIT
14461 4 76 20000 LDA 020000,4 ACCESS BIT
14462 0 01 14464 BRU **2 NO PARITY ERROR
14463 0 43 00460 M206 BRM ERROR PARITY ERROR
14464 0 20 25606 NOP MM324
14465 0 43 00434 BRM END LOOP IF BP1 SET

* THIS CHECKS THAT PARITY BIT IN 4TH 4K CAN BE RESET
14466 0 43 00430 MEM207 BRM OBJECT
14467 0 43 00440 BRM RETURN SET PARITY RETURN
14470 0 20 14475 NOP M207
14471 0 46 00002 CLB B = PARITY BIT RESET
14472 4 36 30000 STB 030000,4 STORE BIT
14473 4 76 30000 LDA 030000,4 ACCESS BIT
14474 0 01 14476 BRU **2
14475 0 43 00460 M207 BRM ERROR PARITY ERROR
14476 0 20 26107 NOP MM424
14477 0 43 00434 BRM END LOOP IF BP1 SET
14500 0 02 20004 BRM 020004 DISABLE INTERRUPTS
14501 0 43 00456 BRM F004E
00010 OCTAL
```

```

* FUNCTION 3
* THIS FUNCTION CHECKS ADDRESS LINES IN MEMORY 2ED 16K
14502 0 76 00405   FUNC3 LDA   SYSIZE
14503 0 72 27017   SKA   #1      SKIP IF NOT 2ED 16K
14504 0 01 14506   BRU   #+2
14505 0 01 15430   BRU   FUNC4
14506 0 43 00424   BRM   FUNCTN
14507 0 20 20024   NBP   FPT3
14510 0 02 20002   EBM   020002   ENABLE INTERRUPTS

```

```

* SPREAD ADDRESSES IN 2ED 16K
14511 0 76 27043   LDA   #010111213
14512 0 35 00415   STA   RL1
14513 0 02 20000   EBM   020400
14514 0 13 00415   PBT   RL1      SET RL1
14515 0 76 27044   LDA   #014151617
14516 0 35 00416   STA   RL2
14517 0 02 20000   EBM   021000
14520 0 13 00416   PBT   RL2      SET RL2
14521 0 76 27054   LDA   #040000
14522 0 71 27054   LDX   #040000
14523 6 35 00000   SPRED1 STA  046
14524 0 55 27017   ADD   #01
14525 0 41 14523   BRX   SPRED1

```

```
* SPREAD ADDRESSES IN 3RD 16K
14526 0 76 27107 LDA #020212223
14527 0 35 00415 STA RL1
14530 0 02 20400 EOM 020400
14531 0 13 00415 PBT RL1 SET RL1
14532 0 76 27110 LDA #024252627
14533 0 35 00416 STA RL2
14534 0 02 21000 EOM 021000
14535 0 13 00416 PBT RL2 SET RL2
14536 0 76 27053 LDA #0100000
14537 0 71 27054 LDX #040000
14540 6 35 00000 SPRED2 STA 0,6
14541 0 55 27017 ADD #01
14542 0 41 14540 BRX SPRED2
```

```
* SPREAD ADDRESSES IN 4TH 16K
14543 0 76 27111 LDA #030313233
14544 0 35 00415 STA RL1
14545 0 02 20400 EOM 020400
14546 0 13 00415 PBT RL1 SET RL1
14547 0 76 27112 LDA #034353637
14550 0 35 00416 STA RL2
14551 0 02 21000 EOM 021000
14552 0 13 00416 PBT RL2 SET RL2
14553 0 76 27113 LDA #0140000
14554 0 71 27054 LDX #040000
14555 6 35 00000 SPRED3 STA 0,6
14556 0 55 27017 ADD #01
14557 0 41 14555 BRX SPRED3
```

MEM1 TAP=3.0

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* SET RELABELING

14560	0	76	27043	LDA	#01C111213	
14561	0	35	00415	STA	RL1	
14562	0	02	20400	EBM	020400	
14563	0	13	00415	PBT	RL1	SET RL1
14564	0	76	27044	LDA	#014151617	
14565	0	35	00416	STA	RL2	
14566	0	02	21000	EBM	021000	
14567	0	13	00416	PBT	RL2	SET RL2
14570	2	46	00000	CLX		

MEM1 TAP=3.0

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* CHECK L00 + LO BITS

14571	0	43	00430	LCKO	BRM	SUBJECT	
14572	0	43	00440		BRM	RETURN	
14573	0	20	14401		NOP	LO	
14574	0	75	27054		LDB	#040000	B = CORRECT BITS
14575	0	77	14571		EAX	LCKO	X = TEST LOCATION
14576	4	76	00000		LDA	0074	GET ADDRESS
14577	0	14	27113		ETR	#0140000	EXTRACT TEST BITS
14600	0	50	27054		SKE	#040000	CHECK FOR RED 16K
14601	0	43	00460	LO	BRM	ERRRR	
14602	0	20	26116		NOP	LMO	
14603	0	43	00434		BRM	END	

```

* CHECK XDRIVE DX0
14604 0 43 00430 LCK1 BRM OBJECT
14605 0 43 00440 BRM RETURN SET PARITY RETURN
14606 0 20 14614 NOP L1
14607 0 77 14604 EAX LCK1 X = TEST LOC
14610 0 75 26745 LDB #000000 B = CORRECT BITS
14611 4 76 00000 LDA 0,4 GET ADDRESS
14612 0 14 27114 ETR #010007
14613 0 50 26745 SKE #000000 CHECK BITS
14614 0 43 00460 L1 BRM ERROR
14615 0 20 26130 NOP LM1
14616 0 43 00434 BRM END

* CHECK XDRIVE DX1
14617 0 43 00430 LCK2 BRM OBJECT SET PARITY RETURN
14620 0 43 00440 BRM RETURN
14621 0 20 14627 NOP L2
14622 0 77 14617 EAX LCK2 X = TEST LOCATION
14623 0 75 27117 LDB #000001 B = CORRECT BITS
14624 4 76 00001 LDA 01,4 GET ADDRESS
14625 0 14 27114 ETR #010007 EXTRACT TEST BITS
14626 0 50 27117 SKE #000001 CHECK BITS
14627 0 43 00460 L2 BRM ERROR
14630 0 20 26144 NOP LM2
14631 0 43 00434 BRM END

```

```

* CHECK XDRIVE DX2
14632 0 43 00430 LCK3 BRM OBJECT SET PARITY RETURN
14633 0 43 00440 BRM RETURN
14634 0 20 14642 NOP L3
14635 0 77 14632 EAX LCK3 X = TEST LOCATION
14636 0 75 27020 LDB #000002 B = CORRECT BITS
14637 4 76 00002 LDA 02,4 GET ADDRESS
14640 0 14 27114 ETR #010007 EXTRACT TEST BITS
14641 0 50 27020 SKE #000002 CHECK BITS
14642 0 43 00460 L3 BRM ERROR
14643 0 20 26154 NOP LM3
14644 0 43 00434 BRM END

* CHECK XDRIVE DX3
14645 0 43 00430 LCK4 BRM OBJECT SET PARITY RETURN
14646 0 43 00440 BRM RETURN
14647 0 20 14655 NOP L4
14650 0 77 14645 EAX LCK4 X = TEST LOCATION
14651 0 75 27115 LDB #000003 B = CORRECT BITS
14652 4 76 00003 LDA 03,4 GET ADDRESS
14653 0 14 27114 ETR #010007 EXTRACT TEST BITS
14654 0 50 27115 SKE #000003 CHECK BITS
14655 0 43 00460 L4 BRM ERROR
14656 0 20 26164 NOP LM4
14657 0 43 00434 BRM END

```

```

* CHECK XDRIVE DX4
14660 0 43 00430 LCK5 BRM OBJECT
14661 0 43 00440 BRM RETURN
14662 0 20 14670 NOP L5
14663 0 77 14660 EAX LCK5
14664 0 75 26744 LDB #000004
14665 4 76 00004 LDA 04,4
14666 0 14 27114 ETR #010007
14667 0 50 26744 SKE #000004
14670 0 43 00460 L5 BRM ERROR
14671 0 20 26774 NOP LM5
14672 0 43 00434 BRM END

* CHECK XDRIVE DX5
14673 0 43 00430 LCK6 BRM OBJECT
14674 0 43 00440 BRM RETURN
14675 0 20 14703 NOP L6
14676 0 77 14673 EAX LCK6
14677 0 75 27116 LDB #000005
14700 4 76 00005 LDA 05,4
14701 0 14 27114 ETR #010007
14702 0 50 27116 SKE #000005
14703 0 43 00460 L6 BRM ERROR
14704 0 20 26910 NOP LM6
14705 0 43 00434 BRM END

```

```

SET PARITY RETURN
X = TEST LOCATION
B = CORRECT BITS
GET ADDRESS
EXTRACT TEST BITS
CHECK BITS

```

```

SET PARITY RETURN
X = TEST LOCATION
B = CORRECT BITS
GET ADDRESS
EXTRACT TEST BITS
CHECK BITS

```

```

* CHECK XDRIVE DX6
14706 0 43 00430 LCK7 BRM OBJECT
14707 0 43 00440 BRM RETURN
14710 0 20 14716 NOP L7
14711 0 77 14706 EAX LCK7
14712 4 76 00006 LDA 06,4
14713 0 75 27117 LDB #000006
14714 0 14 27114 ETR #010007
14715 0 50 27117 SKE #000006
14716 0 43 00460 L7 BRM ERROR
14717 0 20 26820 NOP LM7
14720 0 43 00434 BRM END

* CHECK XDRIVE DX7
14721 0 43 00430 LCK8 BRM OBJECT
14722 0 43 00440 BRM RETURN
14723 0 20 14731 NOP L8
14724 0 77 14721 EAX LCK8
14725 0 75 27120 LDB #000007
14726 4 76 00007 LDA 07,4
14727 0 14 27114 ETR #010007
14730 0 50 27120 SKE #000007
14731 0 43 00460 L8 BRM ERROR
14732 0 20 26930 NOP LM8
14733 0 43 00434 BRM END

```

```

SET PARITY RETURN
X = TEST LOCATION
GET ADDRESS
B = CORRECT BITS
EXTRACT TEST BITS
CHECK BITS

```

```

SET PARITY RETURN
X = TEST LOCATION
B = CORRECT BITS
GET ADDRESS
EXTRACT TEST BITS
CHECK BITS

```

```

* CHECK XDRIVE DX10
14734 0 43 00430 LCK9 BRM SUBJECT
14735 0 43 00440 BRM RETURN SET PARITY RETURN
14736 0 20 14744 NOP L9
14737 0 77 14734 EAX LCK9 X = TEST LOCATION
14740 0 75 27056 LDB #010000 B = CORRECT BITS
14741 4 76 10000 LDA 010000,4 GET ADDRESS
14742 0 14 27114 ETR #010007 EXTRACT TEST BITS
14743 0 50 27056 SKE #010000 CHECK BITS
14744 0 43 00460 L9 BRM ERROR
14745 0 20 26240 NOP LM9
14746 0 43 00434 BRM END

* CHECK XDRIVE DX11
14747 0 43 00430 LCK10 BRM SUBJECT SET PARITY RETURN
14750 0 43 00440 BRM RETURN
14751 0 20 14757 NOP L10
14752 0 77 14747 EAX LCK10 X = TEST LOCATION
14753 0 75 27121 LDB #010001 B = CORRECT BITS
14754 4 76 10001 LDA 010001,4 GET ADDRESS
14755 0 14 27114 ETR #010007 EXTRACT TEST BITS
14756 0 50 27121 SKE #010001 CHECK BITS
14757 0 43 00460 L10 BRM ERROR
14760 0 20 26250 NOP LM10
14761 0 43 00434 BRM END

```

```

* CHECK XDRIVE DX12
14762 0 43 00430 LCK11 BRM SUBJECT SET PARITY RETURN
14763 0 43 00440 BRM RETURN
14764 0 20 14772 NOP L11
14765 0 77 14762 EAX LCK11 X = TEST LOCATION
14766 0 75 27122 LDB #010002 B = CORRECT BITS
14767 4 76 10002 LDA 010002,4 GET ADDRESS
14770 0 14 27114 ETR #010007 EXTRACT TEST BITS
14771 0 50 27122 SKE #010002 CHECK BITS
14772 0 43 00460 L11 BRM ERROR
14773 0 20 26260 NOP LM11
14774 0 43 00434 BRM END

* CHECK XDRIVE DX13
14775 0 43 00430 LCK12 BRM SUBJECT SET PARITY RETURN
14776 0 43 00440 BRM RETURN
14777 0 20 15005 NOP L12
15000 0 77 14775 EAX LCK12 X = TEST LOCATION
15001 0 75 27123 LDB #010003 B = CORRECT BITS
15002 4 76 10003 LDA 010003,4 GET ADDRESS
15003 0 14 27114 ETR #010007 EXTRACT TEST BITS
15004 0 50 27123 SKE #010003 CHECK BITS
15005 0 43 00460 L12 BRM ERROR
15006 0 20 26270 NOP LM12
15007 0 43 00434 BRM END

```


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```
15010 0 43 00430 * CHECK XDRIVE DX14
15011 0 43 00440 LCK13 BRM 0BJECT
15012 0 20 15020 BRM RETURN SET PARITY RETURN
15013 0 77 15010 NOP L13
15014 0 75 27124 EAX LCK13 X = TEST LOCATION
15015 4 76 10004 LDB #010004 B = CORRECT BITS
15016 0 14 27114 LDA 010004,4 GET ADDRESS
15017 0 50 27124 ETR #010007 EXTRACT TEST BITS
15020 0 43 00460 L13 BRM #010004 CHECK BITS
15021 0 20 26300 NOP LM13
15022 0 43 00434 BRM END

15023 0 43 00430 * CHECK XDRIVE DX15
15024 0 43 00440 LCK14 BRM 0BJECT
15025 0 20 15030 BRM RETURN SET PARITY RETURN
15026 0 77 15023 NOP L14
15027 0 75 27125 EAX LCK14 X = TEST LOCATION
15030 4 76 10005 LDB #010005 B = CORRECT BITS
15031 0 14 27114 LDA 010005,4 GET ADDRESS
15032 0 50 27125 ETR #010007 EXTRACT TEST BITS
15033 0 43 00460 L14 BRM #010005 CHECK BITS
15034 0 20 26310 NOP LM14
15035 0 43 00434 BRM END LOOP IF BP1 SET
```

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```
15036 0 43 00430 * CHECK XDRIVE DX16
15037 0 43 00440 LCK15 BRM 0BJECT
15040 0 20 15046 BRM RETURN SET PARITY RETURN
15041 0 77 15036 NOP L15
15042 0 75 27126 EAX LCK15 X = TEST LOCATION
15043 4 76 10006 LDB #010006 B = CORRECT BITS
15044 0 14 27114 LDA 010006,4 GET ADDRESS
15045 0 50 27126 ETR #010007 EXTRACT TEST BITS
15046 0 43 00460 L15 BRM #010006 CHECK BITS
15047 0 20 26320 NOP LM15
15050 0 43 00434 BRM END

15051 0 43 00430 * CHECK XDRIVE DX1
15052 0 43 00440 LCK16 BRM 0BJECT
15053 0 20 15061 BRM RETURN SET PARITY RETURN
15054 0 77 15051 NOP L16
15055 0 75 27114 EAX LCK16 X = TEST LOCATION
15056 4 76 10007 LDB #010007 B = CORRECT BITS
15057 0 14 27114 LDA 010007,4 GET ADDRESS
15060 0 50 27114 ETR #010007 EXTRACT TEST BITS
15061 0 43 00460 L16 BRM #010007 CHECK BITS
15062 0 20 26330 NOP LM16
15063 0 43 00434 BRM END
```

```

* CHECK XSINK SX0
15064 0 43 00430 LCK17 BRM OBJECT
15065 0 43 00440 BRM RETURN SET PARITY RETURN
15066 0 20 15074 NBP L17
15067 0 77 15064 EAX LCK17 X = TEST LOCATION
15070 0 75 26745 LDB #00000 B = CORRECT BITS
15071 4 76 00000 LDA 0,4 GET ADDRESS
15072 0 14 27127 ETR #000070 EXTRACT TEST BITS
15073 0 50 26745 SKE #00000 CHECK BITS
15074 0 43 00460 L17 BRM ERROR
15075 0 20 26340 NBP LM17
15076 0 43 00434 BRM END

* CHECK XSINK SX1
15077 0 43 00430 LCK18 BRM OBJECT
15100 0 43 00440 BRM RETURN SET PARITY RETURN
15101 0 20 15107 NBP L18
15102 0 77 15077 EAX LCK18 X = TEST LOCATION
15103 0 75 27021 LDB #000010 B = CORRECT BITS
15104 4 76 00010 LDA 010,4 GET ADDRESS
15105 0 14 27127 ETR #000070 EXTRACT TEST BITS
15106 0 50 27021 SKE #000010 CHECK BITS
15107 0 43 00460 L18 BRM ERROR
15110 0 20 26346 NBP LM18
15111 0 43 00434 BRM END

```

```

* CHECK XSINK SX2
15112 0 43 00430 LCK19 BRM OBJECT
15113 0 43 00440 BRM RETURN SET PARITY RETURN
15114 0 20 15122 NBP L19
15115 0 77 15112 EAX LCK19 X = TEST LOCATION
15116 0 75 27122 LDB #000020 B = CORRECT BITS
15117 4 76 00020 LDA 020,4 GET ADDRESS
15120 0 14 27127 ETR #000070 EXTRACT TEST BITS
15121 0 50 27022 SKE #000020 CHECK BITS
15122 0 43 00460 L19 BRM ERROR
15123 0 20 26354 NBP LM19
15124 0 43 00434 BRM END

* CHECK XSINK SX3
15125 0 43 00430 LCK20 BRM OBJECT
15126 0 43 00440 BRM RETURN SET PARITY RETURN
15127 0 20 15135 NBP L20
15130 0 77 15125 EAX LCK20 X = TEST LOCATION
15131 0 75 27130 LDB #000030 B = CORRECT BITS
15132 4 76 00030 LDA 030,4 GET ADDRESS
15133 0 14 27127 ETR #000070 EXTRACT TEST BITS
15134 0 50 27130 SKE #000030 CHECK BITS
15135 0 43 00460 L20 BRM ERROR
15136 0 20 26362 NBP LM20
15137 0 43 00434 BRM END

```

```

* CHECK XSINK SX4
15140 0 43 00430 LCK21 BRM 0BJECT
15141 0 43 00440 BRM RETURN SET PARITY RETURN
15142 0 20 15150 NOP L21
15143 0 77 15140 EAX LCK21 X = TEST LOCATION
15144 0 75 26762 LDB #000040 B = CORRECT BITS
15145 4 76 00040 LDA 040,4 GET ADDRESS
15146 0 14 27127 ETR #000070 EXTRACT TEST BITS
15147 0 50 26762 SKE #000040 CHECK BITS
15150 0 43 00460 L21 BRM ERROR
15151 0 20 26370 NOP LM21
15152 0 43 00434 BRM END

* CHECK XSINK SX5
15153 0 43 00430 LCK22 BRM 0BJECT
15154 0 43 00440 BRM RETURN SET PARITY RETURN
15155 0 20 15163 NOP L22
15156 0 77 15153 EAX LCK22 X = TEST LOCATION
15157 0 75 27005 LDB #000050 B = CORRECT BITS
15160 4 76 00050 LDA 050,4 GET ADDRESS
15161 0 14 27127 ETR #000070 EXTRACT TEST BITS
15162 0 50 27005 SKE #000050 CHECK BITS
15163 0 43 00460 L22 BRM ERROR
15164 0 20 26376 NOP LM22
15165 0 43 00434 BRM END

```

```

* CHECK XSINK SX6
15166 0 43 00430 LCK23 BRM 0BJECT
15167 0 43 00440 BRM RETURN SET PARITY RETURN
15170 0 20 15176 NOP L23
15171 0 77 15166 EAX LCK23 X = TEST LOCATION
15172 0 75 27006 LDB #000060 B = CORRECT BITS
15173 4 76 00060 LDA 060,4 GET ADDRESS
15174 0 14 27127 ETR #000070 EXTRACT TEST BITS
15175 0 50 27006 SKE #000060 CHECK BITS
15176 0 43 00460 L23 BRM ERROR
15177 0 20 26404 NOP LM23
15200 0 43 00434 BRM END

* CHECK XSINK SX7
15201 0 43 00430 LCK24 BRM 0BJECT
15202 0 43 00440 BRM RETURN SET PARITY RETURN
15203 0 20 15211 NOP L24
15204 0 77 15201 EAX LCK24 X = TEST LOCATION
15205 0 75 27127 LDB #000070 B = CORRECT BITS
15208 4 76 00070 LDA 070,4 GET ADDRESS
15207 0 14 27127 ETR #000070 EXTRACT TEST BITS
15210 0 50 27127 SKE #000070 CHECK BITS
15211 0 43 00460 L24 BRM ERROR
15212 0 20 26412 NOP LM24
15213 0 43 00434 BRM END

```

```

* CHECK YDRIVE DY0
15214 0 43 00430 LCK25 BRM OBJECT
15215 0 43 00440 BRM RETURN SET PARITY RETURN
15216 0 20 15224 NOP L25
15217 0 77 15214 EAX LCK25 X = TEST LOCATION
15220 0 75 26745 LDB #000000 B = CORRECT BITS
15221 * 76 00000 LDA 0,4 GET ADDRESS
15222 0 14 27131 ETR #020700 EXTRACT TEST BITS
15223 0 50 26745 SKE #000000 CHECK BITS
15224 0 43 00460 L25 BRM ERROR
15225 0 20 26420 NOP LM25
15226 0 43 00434 BRM END

* CHECK YDRIVE DY1
15227 0 43 00430 LCK26 BRM OBJECT
15230 0 43 00440 BRM RETURN SET PARITY RETURN
15231 0 20 15237 NOP L26
15232 0 77 15227 EAX LCK26 X = TEST LOCATION
15233 0 75 27012 LDB #000100 B = CORRECT BITS
15234 * 76 00100 LDA 0100,4 GET ADDRESS
15235 0 14 27131 ETR #020700 EXTRACT TEST BITS
15236 0 50 27012 SKE #000100 CHECK BITS
15237 0 43 00460 L26 BRM ERROR
15240 0 20 26433 NOP LM26
15241 0 43 00434 BRM END

```

```

* CHECK YDRIVE DY2
15242 0 43 00430 LCK27 BRM OBJECT
15243 0 43 00440 BRM RETURN SET PARITY RETURN
15244 0 20 15252 NOP L27
15245 0 77 15242 EAX LCK27 X = TEST LOCATION
15246 0 75 27013 LDB #000200 B = CORRECT BITS
15247 * 76 00200 LDA 0200,4 GET ADDRESS
15250 0 14 27131 ETR #020700 EXTRACT TEST BITS
15251 0 50 27013 SKE #000200 CHECK BITS
15252 0 43 00460 L27 BRM ERROR
15253 0 20 26442 NOP LM27
15254 0 43 00434 BRM END

* CHECK YDRIVE DY3
15255 0 43 00430 LCK28 BRM OBJECT
15256 0 43 00440 BRM RETURN SET PARITY RETURN
15257 0 20 15265 NOP L28
15260 0 77 15255 EAX LCK28 X = TEST LOCATION
15261 0 75 27132 LDB #000300 B = CORRECT BITS
15262 * 76 00300 LDA 0300,4 GET ADDRESS
15263 0 14 27131 ETR #020700 EXTRACT TEST BITS
15264 0 50 27132 SKE #000300 CHECK BITS
15265 0 43 00460 L28 BRM ERROR
15266 0 20 26451 NOP LM28
15267 0 43 00434 BRM END

```

```

* CHECK YDRIVE DY4
15270 0 43 00430 LCK29 BRM OBJECT
15271 0 43 00440 BRM RETURN SET PARITY RETURN
15272 0 20 15300 NOP L29
15273 0 77 15270 EAX LCK29 X = TEST LOCATION
15274 0 75 27114 LDB #000400 B = CORRECT BITS
15275 4 76 00400 LDA 0400,4 GET ADDRESS
15276 0 14 27131 ETR #020700 EXTRACT TEST BITS
15277 0 50 27114 SKE #000400 CHECK BITS
15300 0 43 00460 L29 BRM ERROR
15301 0 20 26460 NOP LM29
15302 0 43 00434 BRM END

* CHECK YDRIVE DY5
15303 0 43 00430 LCK30 BRM OBJECT SET PARITY RETURN
15304 0 43 00440 BRM RETURN
15305 0 20 15313 NOP L30
15306 0 75 27133 LDB #000500 B = CORRECT BITS
15307 0 77 15303 EAX LCK30 X = TEST LOCATION
15310 4 76 00500 LDA 0500,4 GET BITS
15311 0 14 27131 ETR #020700
15312 0 50 27133 SKE #000500
15313 0 43 00460 L30 BRM ERROR
15314 0 20 26473 NOP LM30
15315 0 43 00434 BRM END LOOP IF BP1 SET

```

```

* CHECK YDRIVE DY6
15316 0 43 00430 LCK31 BRM OBJECT SET PARITY RETURN
15317 0 43 00440 BRM RETURN
15320 0 20 15326 NOP L31
15321 0 77 15316 EAX LCK31 X = TEST LOCATION
15322 0 75 27134 LDB #000600 B = CORRECT BITS
15323 4 76 00600 LDA 0600,4 GET ADDRESS
15324 0 14 27131 ETR #020700 EXTRACT TEST BITS
15325 0 50 27134 SKE #000600 CHECK BITS
15326 0 43 00460 L31 BRM ERROR
15327 0 20 26502 NOP LM31
15330 0 43 00434 BRM END

* CHECK YDRIVE DY7
15331 0 43 00430 LCK32 BRM OBJECT SET PARITY RETURN
15332 0 43 00440 BRM RETURN
15333 0 20 15341 NOP L32
15334 0 77 15331 EAX LCK32 X = TEST LOCATION
15335 0 75 27135 LDB #000700 B = CORRECT BITS
15336 4 76 00700 LDA 0700,4 GET ADDRESS
15337 0 14 27131 ETR #020700 EXTRACT TEST BITS
15340 0 50 27135 SKE #000700 CHECK BITS
15341 0 43 00460 L32 BRM ERROR
15342 0 20 26511 NOP LM32
15343 0 43 00434 BRM END

```

```

* CHECK YDRIVE DY10
15344 0 43 00430 LCK33 BRM OBJECT
15345 0 43 00440 BRM RETURN SET PARITY RETURN
15346 0 20 15344 NOP L33
15347 0 77 15344 EAX LCK33 X # TEST LOCATION
15350 0 75 27555 LDB #020000 B # CORRECT BITS
15351 4 76 20000 LDA 020000,4 GET ADDRESS
15352 0 14 27131 ETR #020700 EXTRACT TEST BITS
15353 0 50 27555 SKE #020000 CHECK BITS
15354 0 43 00460 L33 BRM ERROR
15355 0 20 26520 NOP LM33
15356 0 43 00434 BRM END

* CHECK YDRIVE DY11
15357 0 43 00430 LCK34 BRM OBJECT
15360 0 43 00440 BRM RETURN SET PARITY RETURN
15361 0 20 15367 NOP L34
15362 0 77 15357 EAX LCK34 X # TEST LOCATION
15363 0 75 27136 LDB #020100 B # CORRECT BITS
15364 4 76 20100 LDA 020100,4 GET ADDRESS
15365 0 14 27131 ETR #020700 EXTRACT TEST BITS
15366 0 50 27136 SKE #020100 CHECK BITS
15367 0 43 00460 L34 BRM ERROR
15370 0 20 26530 NOP LM34
15371 0 43 00434 BRM END

```

```

* CHECK YDRIVE DY12
15372 0 43 00430 LCK35 BRM OBJECT
15373 0 43 00440 BRM RETURN SET PARITY RETURN
15374 0 20 15402 NOP L35
15375 0 77 15372 EAX LCK35 X # TEST LOCATION
15376 0 75 27137 LDB #020200 B # CORRECT BITS
15377 4 76 20200 LDA 020200,4 GET ADDRESS
15400 0 14 27131 ETR #020700 EXTRACT TEST BITS
15401 0 50 27137 SKE #020200 CHECK BITS
15402 0 43 00460 L35 BRM ERROR
15403 0 20 26540 NOP LM35
15404 0 43 00434 BRM END

* CHECK YDRIVE DY13
15405 0 43 00430 LCK36 BRM OBJECT
15406 0 43 00440 BRM RETURN SET PARITY RETURN
15407 0 20 15415 NOP L36
15410 0 77 15405 EAX LCK36 X # TEST LOCATION
15411 0 75 27140 LDB #020300 B # CORRECT BITS
15412 4 76 20300 LDA 020300,4 GET ADDRESS
15413 0 14 27131 ETR #020700 EXTRACT TEST BITS
15414 0 50 27140 SKE #020300 CHECK BITS
15415 0 43 00460 L36 BRM ERROR
15416 0 20 26550 NOP LM36
15417 0 43 00434 BRM END

```

```

* CHECK YDRIVE DY14
15420 0 43 00430 LCK37 BRM 8BJECT
15421 0 43 00440 BRM RETURN
15422 0 20 15430 NOP L37
15423 0 77 15420 EAX LCK37
15424 0 75 27141 LDB #020400
15425 4 76 20400 LDA 020400,4
15426 0 14 27131 ETR #020700
15427 0 50 27141 SKE #020400
15430 0 43 00460 L37 BRM ERROR
15431 0 20 26560 NOP LM37
15432 0 43 00434 BRM END

* CHECK YDRIVE DY15
15433 0 43 00430 LCK38 BRM 8BJECT
15434 0 43 00440 BRM RETURN
15435 0 20 15443 NOP L38
15436 0 77 15433 EAX LCK38
15437 0 75 27142 LDB #020500
15440 4 76 20400 LDA 020500,4
15441 0 14 27131 ETR #020700
15442 0 50 27142 SKE #020500
15443 0 43 00460 L38 BRM ERROR
15444 0 20 26570 NOP LM38
15445 0 43 00434 BRM END

```

SET PARITY RETURN

X # TEST LOCATION
B # CORRECT BITS
GET ADDRESS
EXTRACT TEST BITS
CHECK BITS

SET PARITY RETURN

X # TEST LOCATION
B # CORRECT BITS
GET ADDRESS
EXTRACT TEST BITS
CHECK BITS

```

* CHECK YDRIVE DY16
15446 0 43 00430 LCK39 BRM 8BJECT
15447 0 43 00440 BRM RETURN
15450 0 20 15456 NOP L39
15451 0 77 15446 EAX LCK39
15452 0 75 27143 LDB #020600
15453 4 76 20600 LDA 020600,4
15454 0 14 27131 ETR #020700
15455 0 50 27143 SKE #020600
15456 0 43 00460 L39 BRM ERROR
15457 0 20 26600 NOP LM39
15460 0 43 00434 BRM END

* CHECK YDRIVE DY17
15461 0 43 00430 LCK40 BRM 8BJECT
15462 0 43 00440 BRM RETURN
15463 0 20 15471 NOP L40
15464 0 77 15461 EAX LCK40
15465 0 75 27131 LDB #020700
15466 4 76 20700 LDA 020700,4
15467 0 14 27131 ETR #020700
15470 0 50 27131 SKE #020700
15471 0 43 00460 L40 BRM ERROR
15472 0 20 26610 NOP LM40
15473 0 43 00434 BRM END

```

SET PARITY RETURN

X # TEST LOCATION
B # CORRECT BITS
GET ADDRESS
EXTRACT TEST BITS
CHECK BITS

SET PARITY RETURN

X # TEST LOCATION
B # CORRECT BITS
GET ADDRESS
EXTRACT TEST BITS
CHECK BITS

```

* CHECK YSINK SY0
15474 0 43 00430 LCK41 BRM OBJECT
15475 0 43 00440 BRM RETURN SET PARITY RETURN
15476 0 20 15504 NOP L41
15477 0 77 15474 EAX LCK41 X # TEST LOCATION
15500 0 75 26745 LDB #000000 B # CORRECT BITS
15501 4 76 00000 LDA 0,4 GET ADDRESS
15502 0 14 27144 ETR #007000 EXTRACT TEST BITS
15503 0 50 26745 SKE #000000 CHECK BITS
15504 0 43 00460 L41 BRM ERROR
15505 0 20 26620 NOP LM41
15506 0 43 00434 BRM END

* CHECK YSINK SY1
15507 0 43 00430 LCK42 BRM OBJECT
15510 0 43 00440 BRM RETURN SET PARITY RETURN
15511 0 20 15517 NOP L42
15512 0 77 15507 EAX LCK42 X # TEST LOCATION
15513 0 75 27015 LDB #001000 B # CORRECT BITS
15514 4 76 01000 LDA 01000,4 GET ADDRESS
15515 0 14 27144 ETR #007000 EXTRACT TEST BITS
15516 0 50 27015 SKE #001000
15517 0 43 00460 L42 BRM ERROR
15520 0 20 26626 NOP LM42
15521 0 43 00434 BRM END

```

```

* CHECK YSINK SY2
15522 0 43 00430 LCK43 BRM OBJECT
15523 0 43 00440 BRM RETURN SET PARITY RETURN
15524 0 20 15532 NOP L43
15525 0 77 15522 EAX LCK43 X # TEST LOCATION
15526 0 75 27016 LDB #002000 B # CORRECT BITS
15527 4 76 02000 LDA 02000,4 GET ADDRESS
15530 0 14 27144 ETR #007000 EXTRACT TEST BITS
15531 0 50 27016 SKE #002000 CHECK BITS
15532 0 43 00460 L43 BRM ERROR
15533 0 20 26634 NOP LM43
15534 0 43 00434 BRM END

* CHECK YSINK SY3
15535 0 43 00430 LCK44 BRM OBJECT
15536 0 43 00440 BRM RETURN SET PARITY RETURN
15537 0 20 15545 NOP L44
15540 0 77 15535 EAX LCK44 X # TEST LOCATION
15541 0 75 27145 LDB #003000 B # CORRECT BITS
15542 4 76 03000 LDA 03000,4 GET ADDRESS
15543 0 14 27144 ETR #007000 EXTRACT TEST BITS
15544 0 50 27145 SKE #003000 CHECK BITS
15545 0 43 00460 L44 BRM ERROR
15546 0 20 26642 NOP LM44
15547 0 43 00434 BRM END

```



```

* CHECK YSINK SY4
15550 0 43 00430 LCK45 BRM OBJECT
15551 0 43 00440 BRM RETURN
15552 0 20 15560 NBP L45
15553 0 77 15550 EAX LCK45
15554 0 75 26761 LDB #004000
15555 4 76 04000 LDA 04000,4
15556 0 14 27144 ETR #007000
15557 0 50 26761 SKE #004000
15560 0 43 00460 L45 BRM ERROR
15561 0 20 26650 NBP LM45
15562 0 43 00434 BRM END

* CHECK YSINK SY5
15563 0 43 00430 LCK46 BRM OBJECT
15564 0 43 00440 BRM RETURN
15565 0 20 15573 NBP L46
15566 0 77 15563 EAX LCK46
15567 0 75 27000 LDB #005000
15570 4 76 05000 LDA 05000,4
15571 0 14 27144 ETR #007000
15572 0 50 27000 SKE #005000
15573 0 43 00460 L46 BRM ERROR
15574 0 20 26656 NBP LM46
15575 0 43 00434 BRM END

```

SET PARITY RETURN

X = TEST LOCATION
 B = CORRECT BITS
 GET ADDRESS
 EXTRACT TEST BITS
 CHECK BITS

SET PARITY RETURN

X = TEST LOCATION
 B = CORRECT BITS
 GET ADDRESS
 EXTRACT TEST BITS
 CHECK BITS

```

* CHECK YSINK SY6
15576 0 43 00430 LCK47 BRM OBJECT
15577 0 43 00440 BRM RETURN
15600 0 20 15606 NBP L47
15601 0 77 15576 EAX LCK47
15602 0 75 27001 LDB #006000
15603 4 76 06000 LDA 06000,4
15604 0 14 27144 ETR #007000
15605 0 50 27001 SKE #006000
15606 0 43 00460 L47 BRM ERROR
15607 0 20 26664 NBP LM47
15610 0 43 00434 BRM END

* CHECK YSINK SY7
15611 0 43 00430 LCK48 BRM OBJECT
15612 0 43 00440 BRM RETURN
15613 0 20 15621 NBP L48
15614 0 77 15611 EAX LCK48
15615 0 75 27144 LDB #007000
15616 4 76 07000 LDA 07000,4
15617 0 14 27144 ETR #007000
15620 0 50 27144 SKE #007000
15621 0 43 00460 L48 BRM ERROR
15622 0 20 26672 NBP LM48
15623 0 43 00434 BRM END

```

SET PARITY RETURN

X = TEST LOCATION
 B = CORRECT BITS
 GET ADDRESS
 EXTRACT TEST BITS
 CHECK BITS

SET PARITY RETURN

X = TEST LOCATION
 B = CORRECT BITS
 GET ADDRESS
 EXTRACT TEST BITS
 CHECK BITS

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```
15624 0 02 20004 * FUNCTION 3 END  
15625 0 43 00456 EDM 020004 DISABLE INTERRUPTS  
BRM FDBNE
```

MEM1 TAP=3.0

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```
* FUNCTION 4  
* THIS FUNCTION GENERATES A WORST CASE NOISE AND HISTORY  
* PATTERN IN MEMORY 2ED 16K  
15626 0 00 00000 TEMP PZE  
15627 77777777 PATERN DATA 077777777  
15630 0 76 00405 FUNC4 LDA SYSIZE  
15631 0 72 27017 SKA #1 SKIP IF NOT 2ED 16K  
15632 0 01 15634 BRU **2  
15633 0 01 17^62 BRU FUNC5  
15634 0 43 00424 BRM FUNCTN  
15635 0 20 20033 NOP FPT4  
15636 0 43 00440 BRM RETURN  
15637 0 20 16051 NOP PARITY  
15640 0 02 20002 EDM 020002 ENABLE INTERRUPTS
```

MEM1 TAP=3.0

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```

* SETS UP USER RELABELING FOR WC MEMORY
15641 0 76 27146 LDA #Q10110000
15642 0 01 15644 BRU **2
15643 0 55 27147 WCH00 ADD #02020000
15644 0 35 00415 STA RL1
15645 0 66 24714 LRSW 014
15646 0 35 00416 STA RL2
15647 0 02 20400 EOM 020400
15650 0 13 00415 POT RL1
15651 0 02 21000 EOM 021000
15652 0 13 00416 POT RL2
SET RELABELING REGISTER 1
SET RELABELING REGISTER 2
```

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* SPREAD MAXIMUM POSITIVE NOISE PATTERN
15653 0 71 27150 LDX #070000
15654 0 76 15627 WCH0 LDA PATTERN A = PATTERN
15655 0 43 16216 BRM SPREAD STORE DIAGONAL
15656 2 77 00100 EAX 0100,2 SELECT NEXT DIAGONAL
15657 0 46 00001 CLA
15660 0 43 16216 BRM SPREAD STORE DIAGONAL
15661 2 77 00077 EAX 077,2 SELECT NEXT DIAGONAL
15662 0 41 15654 BRX WCH0
* GENERATE WRITE DISTURBED POSITIVE ZEROS AND CHECK
15663 0 71 27150 LDX #070000
15664 0 43 00430 BRM OBJECT
15665 0 46 00002 WCH1 CLB
15666 0 76 15627 LDA PATTERN CHECK FOR PATTERN AND STORE ZEROS
15667 0 43 16423 BRM CHECK SAVE TEST LOCATION
15670 0 37 15626 STX TEMP NEXT POSITIVE DIAGONAL
15671 2 77 00200 EAX 0200,2 WRITE DISTURB QUADRANT
15672 0 43 16320 BRM ACCESS GET TEST LOCATION
15673 0 71 15626 LDX TEMP
15674 0 75 15627 LDB PATTERN
15675 0 46 00001 CLA A = ZEROS
15676 0 43 16423 BRM CHECK CHECK FOR ZEROS AND STORE PATTERN
15677 0 43 00434 BRM END
15700 2 77 00177 EAX 0177,2 NEXT POSITIVE DIAGONAL
15701 0 41 15665 BRX WCH1
```

```

* GENERATE READ DISTURBED NEGATIVE ONES AND CHECK
15702 0 71 27150      LDX      #070000
15703 2 77 00100     WCH2    EAX      0100,2      NEGATIVE DIAGONAL
15704 0 43 00430     BRM      OBJECT
15705 0 46 00001     CLA
15706 0 75 15627     LDB      PATTERN
15707 0 43 16423     BRM      CHECK          CHECK FOR ZEROS AND STORE PATTERN
15710 0 37 15626     STX      TEMP          SAVE TEST LOCATION
15711 0 71 27150      LDX      #070000
15712 2 77 00100     WCH3    EAX      0100,2      NEGATIVE DIAGONAL
15713 0 46 00200     CXA
15714 0 50 15626     SKE      TEMP          IS THIS TEST DIAGONAL
15715 0 43 16320     BRM      ACCESS        READ DISTURB DIAGONAL
15716 2 77 00277     EAX      0277,2
15717 0 41 15712     BRX      ^CH3
15720 0 71 15626     LDX      TEMP          GET TEST LOCATION
15721 0 76 15627     LDA      PATTERN
15722 0 46 00202     CLB
15723 0 43 16423     BRM      CHECK          CHECK FOR PATTERN AND STORE ZEROS
15724 0 43 00434     BRM      END
15725 2 77 00277     EAX      077,2
15726 0 41 15703     BRX      WCH2

```

```

* SPREAD MAXIMUM NEGATIVE NOISE PATTERN
15727 0 71 27150      LDX      #070000
15730 0 46 00001     WCH4    CLA
15731 0 43 16216     BRM      SPREAD        STORE DIAGONAL
15732 0 76 15627     LDA      PATTERN
15733 2 77 00100     EAX      0100,2      SELECT NEXT DIAGONAL
15734 0 43 16216     BRM      SPREAD        STORE DIAGONAL
15735 2 77 00277     EAX      077,2      SELECT NEXT DIAGONAL
15736 0 41 15730     BRX      ^CH4
* GENERATE WRITE DISTURBED NEGATIVE ZEROS AND CHECK
15737 0 71 27150      LDX      #070000
15740 2 77 00100     WCH5    EAX      0100,2      NEGATIVE DIAGONAL
15741 0 43 00430     BRM      OBJECT
15742 0 46 00002     CLB
15743 0 76 15627     LDA      PATTERN
15744 0 43 16423     BRM      CHECK          CHECK FOR PATTERN AND STORE ZEROS
15745 0 37 15626     STX      TEMP          SAVE TEST LOCATION
15746 2 77 00200     EAX      0200,2      NEXT NEGATIVE DIAGONAL
15747 0 43 16320     BRM      ACCESS        WRITE DISTURB QUADRANT
15750 0 71 15626     LDX      TEMP          GET TEST LOCATION
15751 0 46 00001     CLA          A = ZEROS
15752 0 75 15627     LDB      PATTERN
15753 0 43 16423     BRM      CHECK          CHECK FOR ZEROS AND STORE PATTERN
15754 0 43 00434     BRM      END
15755 2 77 00277     EAX      077,2
15756 0 41 15740     BRX      WCH5

```

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```
* GENERATE READ DISTURBED POSITIVE ONES AND CHECK
15757 0 71 27150 LDX #070000
15760 0 43 00430 BRM OBJECT
15761 0 46 00001 WCH6 CLA
15762 0 75 15627 LDB PATTERN
15763 0 43 16423 BRM CHECK CHECK FOR ZEROS AND STORE PATTERN
15764 0 37 15626 STX TEMP SAVE TEST LOCATION
15765 0 71 27150 LDX #070000
15766 0 46 00200 WCH7 CXA
15767 0 50 15626 SKE TEMP TEST DIAGONAL
15770 0 43 16320 BRM ACCESS READ DISTURB DIAGONAL
15771 2 77 00377 EAX 0377,2
15772 0 41 15766 BRX WCH7
15773 0 71 15626 LDX TEMP GET TEST LOCATION
15774 0 76 15627 LDA PATTERN
15775 0 46 00002 CLB
15776 0 43 16423 BRM CHECK CHECK FOR PATTERN AND STORE ZEROS
15777 0 43 00434 BRM END
16000 2 77 00177 EAX 0177,2 SELECT NEXT POSITIVE DIAGONAL
16001 0 41 15761 BRX WCH6
```

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```
* HAS WC HISTORY BEEN COMPLETED
16002 0 76 00415 LDA RL1
16003 0 50 27151 SKE #016170000 IS LAST BLOCK DONE
16004 0 01 15643 BRU WCH00
```

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* BIAS TEST
16005 0 43 00430 BRM OBJECT
16006 0 76 27043 LDA #010111213 START OF OBJECT TEST
16007 0 35 00415 STA RL1
16010 0 02 20400 ESM 020400
16011 0 13 00415 PBT RL1 SET RL1
16012 0 76 27044 LDA #014151617
16013 0 35 00416 STA RL2
16014 0 02 21000 ESM 021000
16015 0 13 00416 PBT RL2 SET RL2
16016 0 43 00440 BRM RETURN SET PARITY AND PIT RETURN
16017 0 20 16430 NOP ENDIT
16020 0 76 27152 LDA #027700000 EAX,2
16021 * 35 00000 STA 0,* BRX 0
16022 0 76 27153 LDA #04100000
16023 * 35 00001 STA 1,*
16024 0 46 00001 CLA
16025 * 35 00002 STA 2,*
16026 0 71 27054 LDX #040000
16027 * 01 00000 BRU 0,*
16030 0 46 00001 CLA
ENDIT
16031 0 62 00450 XMA DIVERT CLEAR DIVERT AND GET TRAP ID
16032 0 14 26746 ETR #037777
16033 0 50 27154 SKE #156 IS IT A PARITY ERROR
16034 0 01 16041 BRU ENDING NO
16035 0 76 00415 LDA RL1
16036 0 75 00416 LDB RL2
16037 0 43 00460 BRM ERROR
16040 2 20 26700 NOP #ERROR,2
16041 0 43 00434 ENDING BRM END LOOP IF BP1 SET

```

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* ARE BOTH PATTERNS DONE
16042 0 76 15627 LDA PATTERN
16043 0 17 26757 EOR #040000000 SWITCH BIT 0 IN PATTERN
16044 0 35 15627 STA PATTERN
16045 0 53 15627 SKN PATTERN
16046 0 01 15630 BRU FUNC4
16047 0 02 20004 ESM 020004 DISABLE INTERRUPTS
16050 0 43 00456 BRM FDBNE

```

```

* THIS ROUTINE HANDLES PARITY INTERRUPT
16051 0 02 20004 PARITY DIR
16052 0 35 16063 STA AAA SAVE A
16053 0 76 00450 LDA DIVERT
16054 0 14 24746 ETR #37777
16055 0 50 27154 SKI #156 IS IT PARITY INTERRUPT
16056 0 43 16064 BRM SPUR1 NO, SPURIOUS INTERRUPT
16057 0 20 27155 NOP #56
16060 0 76 16063 LDA AAA RESTORE A
16061 0 02 20002 EIR
16062 0 11 00974 BRI 156-1 CONTINUE ON WITH TEST
16063 0 00 00000 AAA PZE
*
* PROCESS SPURIOUS POP, INTERRUPT, OR TRAP
16064 0 00 00000 SPUR1 PZE 0
16065 0 73 26756 SKG #77 WAS SPIT LEGAL
16066 0 01 16077 BRU IEXT NO
16067 0 73 27156 SKG #177 WAS IT A POP
16070 0 01 16105 BRU POP YES
16071 0 73 27157 SKG #237 WAS IT LEGAL
16072 0 01 16077 BRU IEXT NO
16073 0 73 27160 SKG #273 WAS IT 130 = 744
16074 0 01 16113 BRU 130744 YES
16075 0 73 27161 SKG #377 WAS IT 156 = 174
16076 0 01 16112 BRU 156174 YES
*
* PROCESS ILLEGAL OR EXTERNAL INTERRUPT
16077 0 76 26751 IEXT LDA #1
16100 0 35 16152 STA ITABLE+1 RECEIVED
16101 0 76 00450 LDA DIVERT MARK
16102 0 43 00454 BRM REPORT
16103 0 20 16155 NOP ILLEXT
16104 0 01 16123 BRU COMMON

```

```

*
* PROCESS SPURIOUS POPS
16105 0 35 16152 POP STA ITABLE+1 RECEIVED
16106 0 76 00000 LDA 0 MARK
16107 0 43 00454 BRM REPORT
16110 0 20 16170 NOP POPED
16111 0 01 16123 BRU COMMON
*
* PROCESS 156 THROUGH 174
16112 0 55 27022 156174 ADD #20
*
* PROCESS 130 THROUGH 744
16113 0 54 27162 130744 SUB #161
16114 0 66 00001 RSH 1
16115 0 35 16152 STA ITABLE+1 RECEIVED
16116 0 77 00450 EAX DIVERT
16117 2 77 37777 EAX #172
16120 2 76 00000 LDA 0,2
16121 0 43 00454 BRM REPORT
16122 0 20 16174 NOP SPRINT

```

```

*
* COMMON INTERRUPT ROUTINE
*
16123 0 35 16153 COMMON STA ITABLE+2 MARK
16124 0 76 16153 LDA ITABLE+2
16125 0 35 16154 STA ITABLE+3 INSTRUCTION
16126 0 61 16154 MIN SPUR1
16127 0 71 16154 LDX SPUR1
16130 2 76 00000 LDA 0,2
16131 0 35 16151 STA ITABLE EXPECTED
16132 0 43 00454 BRM REPORT REPORT ERROR
16133 4 20 16203 NOP MSG,4 MESSAGE
16134 0 04 16151 FOUR ITABLE DATA
16135 0 43 16141 BRM CLEAR CLEAR PRESENT INTERRUPT
16136 0 43 00460 BRM ERROR GO TO CONTROL
16137 0 20 16215 NOP CARRET (NO MESSAGE)
16140 0 01 00424 BRU FUNCTN

```

```

*
* CLEAR PRESENT INTERRUPT
*
16141 0 00 00000 CLEAR PZE 0
16142 0 76 00401 LDA STATUS
16143 0 72 26744 SKA #4 SKIP IF NOT 940
16144 0 11 16146 BRI #2 940
16145 0 01 16146 BRU #+1 985/930
16146 0 20 16146 NOP *
16147 0 02 20002 EIR ENABLE INTERRUPTS
16150 0 51 16141 BRR CLEAR RETURN
*
* MESSAGES
*
16151 0 00 00000 ITABLE PZE 0 INTERRUPTS EXPECTED
16152 0 00 00000 PZE 0 INTERRUPT RECEIVED
16153 0 00 00000 PZE 0 LOCATION AT TIME OF INTERRUPT/TRAP
16154 0 00 00000 PZE 0 INSTRUCTION BEING EXECUTED
16155 52526445 ILLEXT BCD ' UNDEFINED ILLEGAL OR EXTERNAL INTERRUPT!!
16156 24252631
16157 45252412
16160 31434325
16161 27214312
16162 46511225
16163 67632551
16164 45214312
16165 31456325
16166 51516447
16167 63371212
16170 52624764 POPED BCD ' SPURIOUS POP!!
16171 51314664
16172 62124746
16173 47371212
16174 52624764 SPRINT BCD ' SPURIOUS INTERRUPT OR TRAP!!
16175 51314664
16176 62123145

```


16177	63255151		
16200	64476312		
16201	46511263		
16202	51214737		
16203	52254747	IMSG	BCD
16204	25236328		EXPECTED RECEIVED LOCATION CONTENTS
16205	24125125		
16206	23253165		
16207	25241243		
16210	46232163		
16211	31464512		
16212	23464563		
16213	25456362		
16214	52371212		
16215	52371212	CARRET	BCD

* THIS SUBROUTINE STORES A REG ALONG A DIAGONAL SPECIFIED BY X
 * THE REGISTERS ARE NOT CHANGED

	SPREAD	PZE		
16216	0 00	00000		
16217	6 35	00000	STA	0,6
16220	6 35	00101	STA	0101,6
16221	6 35	00202	STA	0202,6
16222	6 35	00303	STA	0303,6
16223	6 35	00404	STA	0404,6
16224	6 35	00505	STA	0505,6
16225	6 35	00606	STA	0606,6
16226	6 35	00707	STA	0707,6
16227	6 35	01010	STA	01010,6
16230	6 35	01111	STA	01111,6
16231	6 35	01212	STA	01212,6
16232	6 35	01313	STA	01313,6
16233	6 35	01414	STA	01414,6
16234	6 35	01515	STA	01515,6
16235	6 35	01616	STA	01616,6
16236	6 35	01717	STA	01717,6
16237	6 35	02020	STA	02020,6
16240	6 35	02121	STA	02121,6
16241	6 35	02222	STA	02222,6
16242	6 35	02323	STA	02323,6
16243	6 35	02424	STA	02424,6
16244	6 35	02525	STA	02525,6
16245	6 35	02626	STA	02626,6
16246	6 35	02727	STA	02727,6
16247	6 35	03030	STA	03030,6
16250	6 35	03131	STA	03131,6
16251	6 35	03232	STA	03232,6
16252	6 35	03333	STA	03333,6
16253	6 35	03434	STA	03434,6
16254	6 35	03535	STA	03535,6
16255	6 35	03636	STA	03636,6
16256	6 35	03737	STA	03737,6
16257	6 35	04040	STA	04040,6

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16260	6 35 04141	STA	04141,6
16261	6 35 04242	STA	04242,6
16262	6 35 04343	STA	04343,6
16263	6 35 04444	STA	04444,6
16264	6 35 04545	STA	04545,6
16265	6 35 04646	STA	04646,6
16266	6 35 04747	STA	04747,6
16267	6 35 05050	STA	05050,6
16270	6 35 05151	STA	05151,6
16271	6 35 05252	STA	05252,6
16272	6 35 05353	STA	05353,6
16273	6 35 05454	STA	05454,6
16274	6 35 05555	STA	05555,6
16275	6 35 05656	STA	05656,6
16276	6 35 05757	STA	05757,6
16277	6 35 06060	STA	06060,6
16300	6 35 06161	STA	06161,6
16301	6 35 06262	STA	06262,6
16302	6 35 06363	STA	06363,6
16303	6 35 06464	STA	06464,6
16304	6 35 06565	STA	06565,6
16305	6 35 06666	STA	06666,6
16306	6 35 06767	STA	06767,6
16307	6 35 07070	STA	07070,6
16310	6 35 07171	STA	07171,6
16311	6 35 07272	STA	07272,6
16312	6 35 07373	STA	07373,6
16313	6 35 07474	STA	07474,6
16314	6 35 07575	STA	07575,6
16315	6 35 07676	STA	07676,6
16316	6 35 07777	STA	07777,6
16317	0 51 16216	BRR	SPREAD

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* THIS SUBROUTINE ACCESSES A DIAGONAL SPECIFIED BY X
* B REGISTER IS ClobberED

16320	0 00 00000	ACCESS PZE	
16321	6 75 00000	LDB	0,6
16322	6 75 00101	LDB	0101,6
16323	6 75 00202	LDB	0202,6
16324	6 75 00303	LDB	0303,6
16325	6 75 00404	LDB	0404,6
16326	6 75 00505	LDB	0505,6
16327	6 75 00606	LDB	0606,6
16330	6 75 00707	LDB	0707,6
16331	6 75 01010	LDB	01010,6
16332	6 75 01111	LDB	01111,6
16333	6 75 01212	LDB	01212,6
16334	6 75 01313	LDB	01313,6
16335	6 75 01414	LDB	01414,6
16336	6 75 01515	LDB	01515,6
16337	6 75 01616	LDB	01616,6
16340	6 75 01717	LDB	01717,6
16341	6 75 02020	LDB	02020,6
16342	6 75 02121	LDB	02121,6
16343	6 75 02222	LDB	02222,6
16344	6 75 02323	LDB	02323,6
16345	6 75 02424	LDB	02424,6
16346	6 75 02525	LDB	02525,6
16347	6 75 02626	LDB	02626,6
16350	6 75 02727	LDB	02727,6
16351	6 75 03030	LDB	03030,6
16352	6 75 03131	LDB	03131,6
16353	6 75 03232	LDB	03232,6
16354	6 75 03333	LDB	03333,6
16355	6 75 03434	LDB	03434,6
16356	6 75 03535	LDB	03535,6
16357	6 75 03636	LDB	03636,6
16360	6 75 03737	LDB	03737,6
16361	6 75 04040	LDB	04040,6

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16362	6 75 04141	LDB	04141,6
16363	6 75 04242	LDB	04242,6
16364	6 75 04343	LDB	04343,6
16365	6 75 04444	LDB	04444,6
16366	6 75 04545	LDB	04545,6
16367	6 75 04646	LDB	04646,6
16370	6 75 04747	LDB	04747,6
16371	6 75 05050	LDB	05050,6
16372	6 75 05151	LDB	05151,6
16373	6 75 05252	LDB	05252,6
16374	6 75 05353	LDB	05353,6
16375	6 75 05454	LDB	05454,6
16376	6 75 05555	LDB	05555,6
16377	6 75 05656	LDB	05656,6
16400	6 75 06757	LDB	06757,6
16401	6 75 06860	LDB	06860,6
16402	6 75 06161	LDB	06161,6
16403	6 75 06262	LDB	06262,6
16404	6 75 06363	LDB	06363,6
16405	6 75 06464	LDB	06464,6
16406	6 75 06565	LDB	06565,6
16407	6 75 06666	LDB	06666,6
16410	6 75 06767	LDB	06767,6
16411	6 75 07070	LDB	07070,6
16412	6 75 07171	LDB	07171,6
16413	6 75 07272	LDB	07272,6
16414	6 75 07373	LDB	07373,6
16415	6 75 07474	LDB	07474,6
16416	6 75 07575	LDB	07575,6
16417	6 75 07676	LDB	07676,6
16420	6 75 07777	LDB	07777,6
16421	0 51 16220	BRR	ACCESS

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* THIS SUBROUTINE CHECKS A DIAGONAL SPECIFIED BY X TO BE EQUAL TO
 * A REG AND REPLACES THE DIAGONAL WITH THE B REG.
 * A REGISTER IS CLOBBERED

16422	0 50 00000	TEST	PZE		
16423	0 00 00000	CHECK	PZE		
16424	0 35 16422		STA	TEST	TEST WORD
16425	0 46 00010		CBA		
16426	6 62 00000		XMA	0,6	
16427	0 50 16422		SKE	TEST	
16430	0 43 17026		BRM	MNE	
16431	0 46 00010		CBA		
16432	6 62 00101		XMA	0101,6	
16433	0 50 16422		SKE	TEST	
16434	0 43 17026		BRM	MNE	
16435	0 46 00010		CBA		
16436	6 62 00202		XMA	0202,6	
16437	0 50 16422		SKE	TEST	
16440	0 43 17026		BRM	MNE	
16441	0 46 00010		CBA		
16442	6 62 00303		XMA	0303,6	
16443	0 50 16422		SKE	TEST	
16444	0 43 17026		BRM	MNE	
16445	0 46 00010		CBA		
16446	6 62 00404		XMA	0404,6	
16447	0 50 16422		SKE	TEST	
16450	0 43 17026		BRM	MNE	
16451	0 46 00010		CBA		
16452	6 62 00505		XMA	0505,6	
16453	0 50 16422		SKE	TEST	
16454	0 43 17026		BRM	MNE	
16455	0 46 00010		CBA		
16456	6 62 00606		XMA	0606,6	
16457	0 50 16422		SKE	TEST	
16460	0 43 17026		BRM	MNE	
16461	0 46 00010		CBA		
16462	6 62 00707		XMA	0707,6	

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16463	0 50 16422	SKE	TEST
16464	0 43 17226	BRM	MNE
16465	0 46 00010	CBA	
16466	6 62 01010	XMA	01010,6
16467	0 50 16422	SKE	TEST
16470	0 43 17226	BRM	MNE
16471	0 46 00010	CBA	
16472	6 62 01111	XMA	01111,6
16473	0 50 16422	SKE	TEST
16474	0 43 17226	BRM	MNE
16475	0 46 00010	CBA	
16476	6 62 01212	XMA	01212,6
16477	0 50 16422	SKE	TEST
16500	0 43 17226	BRM	MNE
16501	0 46 00010	CBA	
16502	6 62 01313	XMA	01313,6
16503	0 50 16422	SKE	TEST
16504	0 43 17226	BRM	MNE
16505	0 46 00010	CBA	
16506	6 62 01414	XMA	01414,6
16507	0 50 16422	SKE	TEST
16510	0 43 17226	BRM	MNE
16511	0 46 00010	CBA	
16512	6 62 01515	XMA	01515,6
16513	0 50 16422	SKE	TEST
16514	0 43 17226	BRM	MNE
16515	0 46 00010	CBA	
16516	6 62 01616	XMA	01616,6
16517	0 50 16422	SKE	TEST
16520	0 43 17226	BRM	MNE
16521	0 46 00010	CBA	
16522	6 62 01717	XMA	01717,6
16523	0 50 16422	SKE	TEST
16524	0 43 17226	BRM	MNE
16525	0 46 00010	CBA	
16526	6 62 02020	XMA	02020,6

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16527	0 50 16422	SKE	TEST
16530	0 43 17226	BRM	MNE
16531	0 46 00010	CBA	
16532	6 62 02121	XMA	02121,6
16533	0 50 16422	SKE	TEST
16534	0 43 17226	BRM	MNE
16535	0 46 00010	CBA	
16536	6 62 02222	XMA	02222,6
16537	0 50 16422	SKE	TEST
16540	0 43 17226	BRM	MNE
16541	0 46 00010	CBA	
16542	6 62 02323	XMA	02323,6
16543	0 50 16422	SKE	TEST
16544	0 43 17226	BRM	MNE
16545	0 46 00010	CBA	
16546	6 62 02424	XMA	02424,6
16547	0 50 16422	SKE	TEST
16550	0 43 17226	BRM	MNE
16551	0 46 00010	CBA	
16552	6 62 02525	XMA	02525,6
16553	0 50 16422	SKE	TEST
16554	0 43 17226	BRM	MNE
16555	0 46 00010	CBA	
16556	6 62 02626	XMA	02626,6
16557	0 50 16422	SKE	TEST
16560	0 43 17226	BRM	MNE
16561	0 46 00010	CBA	
16562	6 62 02727	XMA	02727,6
16563	0 50 16422	SKE	TEST
16564	0 43 17226	BRM	MNE
16565	0 46 00010	CBA	
16566	6 62 03030	XMA	03030,6
16567	0 50 16422	SKE	TEST
16570	0 43 17226	BRM	MNE
16571	0 46 00010	CBA	
16572	6 62 03131	XMA	03131,6

MEM1	TAP#3.C		PAGE 245
16573	0 50 16422	SKE	TEST
16574	0 43 17026	BRM	MNE
16575	0 46 00010	CBA	
16576	6 62 03232	XMA	03232.6
16577	0 50 16422	SKE	TEST
16600	0 43 17026	BRM	MNE
16601	0 46 00010	CBA	
16602	6 62 03333	XMA	03333.6
16603	0 50 16422	SKE	TEST
16604	0 43 17026	BRM	MNE
16605	0 46 00010	CBA	
16606	6 62 03434	XMA	03434.6
16607	0 50 16422	SKE	TEST
16610	0 43 17026	BRM	MNE
16611	0 46 00010	CBA	
16612	6 62 03535	XMA	03535.6
16613	0 50 16422	SKE	TEST
16614	0 43 17026	BRM	MNE
16615	0 46 00010	CBA	
16616	6 62 03636	XMA	03636.6
16617	0 50 16422	SKE	TEST
16620	0 43 17026	BRM	MNE
16621	0 46 00010	CBA	
16622	6 62 03737	XMA	03737.6
16623	0 50 16422	SKE	TEST
16624	0 43 17026	BRM	MNE
16625	0 46 00010	CBA	
16626	6 62 04040	XMA	04040.6
16627	0 50 16422	SKE	TEST
16630	0 43 17026	BRM	MNE
16631	0 46 00010	CBA	
16632	6 62 04141	XMA	04141.6
16633	0 50 16422	SKE	TEST
16634	0 43 17026	BRM	MNE
16635	0 46 00010	CBA	
16636	6 62 04242	XMA	04242.6

MEM1	TAP#3.C		PAGE 246
16637	0 50 16422	SKE	TEST
16640	0 43 17026	BRM	MNE
16641	0 46 00010	CBA	
16642	6 62 04343	XMA	04343.6
16643	0 50 16422	SKE	TEST
16644	0 43 17026	BRM	MNE
16645	0 46 00010	CBA	
16646	6 62 04444	XMA	04444.6
16647	0 50 16422	SKE	TEST
16650	0 43 17026	BRM	MNE
16651	0 46 00010	CBA	
16652	6 62 04545	XMA	04545.6
16653	0 50 16422	SKE	TEST
16654	0 43 17026	BRM	MNE
16655	0 46 00010	CBA	
16656	6 62 04646	XMA	04646.6
16657	0 50 16422	SKE	TEST
16660	0 43 17026	BRM	MNE
16661	0 46 00010	CBA	
16662	6 62 04747	XMA	04747.6
16663	0 50 16422	SKE	TEST
16664	0 43 17026	BRM	MNE
16665	0 46 00010	CBA	
16666	6 62 05050	XMA	05050.6
16667	0 50 16422	SKE	TEST
16670	0 43 17026	BRM	MNE
16671	0 46 00010	CBA	
16672	6 62 05151	XMA	05151.6
16673	0 50 16422	SKE	TEST
16674	0 43 17026	BRM	MNE
16675	0 46 00010	CBA	
16676	6 62 05252	XMA	05252.6
16677	0 50 16422	SKE	TEST
16700	0 43 17026	BRM	MNE
16701	0 46 00010	CBA	
16702	6 62 05353	XMA	05353.6

MEM1	TAP=3.0		PAGE 247
16703	0 50 16422	SKE	TEST
16704	0 43 17026	BRM	MNE
16705	0 46 00010	CBA	
16706	6 62 05454	XMA	05454,6
16707	0 50 16422	SKE	TEST
16710	0 43 17026	BRM	MNE
16711	0 46 00010	CBA	
16712	6 62 05555	XMA	05555,6
16713	0 50 16422	SKE	TEST
16714	0 43 17026	BRM	MNE
16715	0 46 00010	CBA	
16716	6 62 05656	XMA	05656,6
16717	0 50 16422	SKE	TEST
16720	0 43 17026	BRM	MNE
16721	0 46 00010	CBA	
16722	6 62 05757	XMA	05757,6
16723	0 50 16422	SKE	TEST
16724	0 43 17026	BRM	MNE
16725	0 46 00010	CBA	
16726	6 62 06060	XMA	06060,6
16727	0 50 16422	SKE	TEST
16730	0 43 17026	BRM	MNE
16731	0 46 00010	CBA	
16732	6 62 06161	XMA	06161,6
16733	0 50 16422	SKE	TEST
16734	0 43 17026	BRM	MNE
16735	0 46 00010	CBA	
16736	6 62 06262	XMA	06262,6
16737	0 50 16422	SKE	TEST
16740	0 43 17026	BRM	MNE
16741	0 46 00010	CBA	
16742	6 62 06363	XMA	06363,6
16743	0 50 16422	SKE	TEST
16744	0 43 17026	BRM	MNE
16745	0 46 00010	CBA	
16746	6 62 06464	XMA	06464,6

MEM1	TAP=3.0		PAGE 248
16747	0 50 16422	SKE	TEST
16750	0 43 17026	BRM	MNE
16751	0 46 00010	CBA	
16752	6 62 06565	XMA	06565,6
16753	0 50 16422	SKE	TEST
16754	0 43 17026	BRM	MNE
16755	0 46 00010	CBA	
16756	6 62 06666	XMA	06666,6
16757	0 50 16422	SKE	TEST
16760	0 43 17026	BRM	MNE
16761	0 46 00010	CBA	
16762	6 62 06767	XMA	06767,6
16763	0 50 16422	SKE	TEST
16764	0 43 17026	BRM	MNE
16765	0 46 00010	CBA	
16766	6 62 07070	XMA	07070,6
16767	0 50 16422	SKE	TEST
16770	0 43 17026	BRM	MNE
16771	0 46 00010	CBA	
16772	6 62 07171	XMA	07171,6
16773	0 50 16422	SKE	TEST
16774	0 43 17026	BRM	MNE
16775	0 46 00010	CBA	
16776	6 62 07272	XMA	07272,6
16777	0 50 16422	SKE	TEST
17000	0 43 17026	BRM	MNE
17001	0 46 00010	CBA	
17002	6 62 07373	XMA	07373,6
17003	0 50 16422	SKE	TEST
17004	0 43 17026	BRM	MNE
17005	0 46 00010	CBA	
17006	6 62 07474	XMA	07474,6
17007	0 50 16422	SKE	TEST
17010	0 43 17026	BRM	MNE
17011	0 46 00010	CBA	
17012	6 62 07575	XMA	07575,6

MEM1	TAP#3.C		PAGE 249
17013	0 50 16422	SKE	TEST
17014	0 43 17026	BRM	MNE
17015	0 46 00010	CBA	
17016	6 62 07676	XMA	07676,6
17017	0 50 16422	SKE	TEST
17020	0 43 17026	BRM	MNE
17021	0 46 00010	CBA	
17022	6 62 07777	XMA	07777,6
17023	0 50 16422	SKE	TEST
17024	0 43 17026	BRM	MNE
17025	0 51 16423	BRR	CHECK

MEM1	TAP#3.C		PAGE 250
		* MEMORY NOISE ERROR SUBROUTINE	
17026	0 00 00000	MNE PZE	
17027	0 35 17057	STA AA	
17030	0 36 17060	STB BB	
17031	0 37 17061	STX XX	
17032	0 76 27106	LDA #02	GET POINTER TO ACCESS WORD
17033	0 63 17026	ADM MNE	
17034	0 76 00415	LDA RL1	GET TOP 4 BITS
17035	0 14 27163	ETR #036000000	POSITION BITS
17036	0 66 24007	LRSB 7	
17037	0 48 00004	CAB	
17040	0 77*17026	EAX* MNE	
17041	0 46 00200	CXA	
17042	0 14 27164	ETR #07777	GET 4K OF VIRTUAL ADDRESS
17043	0 46 00422	RCH 0422	
17044	0 76 17060	LDA BB	
17045	0 50 15627	SKE PATTERN	
17046	0 75 15627	LDB PATTERN	PUT PATTERN IN B IF CLEAR BEFORE
17047	0 76 17057	LDA AA	
17050	0 43 00460	BRM ERROR	
17051	2 20 26723	NBP WCHM,2	
17052	0 75 17060	LDB BB	RESTORE B
17053	0 71 17061	LDX XX	RESTORE X
17054	0 61 17026	MIN MNE	
17055	0 61 17026	MIN MNE	RESTORE MARK
17056	0 51 17026	BRR MNE	
17057	0 00 00000	AA PZE	
17060	0 00 00000	BB PZE	
17061	0 00 00000	XX PZE	

* FUNCTION 5
 * THIS IS AN AID TO SIGNAL TRACING, IT CAUSES ALL DATA BITS,
 * ADDRESS BITS, RL BITS AND SEL LINES TO CHANGE

17062 0 43 00424
 17063 0 20 20042

FUNCS BRM FUNCTN
 NOP PPT5

* BOUNCE RL FLIP/FLOPS

17064	0 43 00430	BRM	8BJECT	
17065	0 76 26751	LDA	#07777777	A * RL1
17066	0 75 26751	LDB	#07777777	B * RL2
17067	0 71 27165	LDX	#03737	X * RL4
17070	0 35 00415	STA	RL1	
17071	0 36 00416	STB	RL2	
17072	0 37 00417	STX	RL4	
17073	0 02 20400	EBM	020400	CLEAR RL1
17074	0 13 00415	PBT	RL1	SET RL1
17075	0 02 21000	EBM	021000	CLEAR RL2
17076	0 13 00416	PBT	RL2	SET RL2
17077	0 02 21400	EBM	021400	CLEAR RL4
17100	0 13 00417	PBT	RL4	SET RL4
17101	0 43 00434	BRM	END	

* BOUNCE L LINES

17102	0 43 00430	BRM	8BJECT	
17103	0 71 27010	LDX	#037	
17104	0 37 00417	STX	RL4	
17105	0 02 21400	EBM	021400	
17106	0 13 00417	PBT	RL4	
17107	0 76 00000	LDA	0	ALL L LINES = 0
17110	0 76 37777	LDA	037777	ALL L LINES = 1
17111	0 43 00434	BRM	END	

MEM1 TAP=3.C

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* BOUNCE M LINES

17112	0	43	00430	BRM	00BJECT	
17113	0	76	27166	LDA	#00102030	
17114	0	35	00415	STA	RL1	
17115	0	02	20400	EBM	020400	
17116	0	13	00415	PBT	RL1	SET RL1
17117	0	46	00001	CLA		
17120	4	35	00000	STA	0,4	000R 0
17121	4	35	04000	STA	04000,4	2ED 16K
17122	4	35	10000	STA	010000,4	3ED 16K
17123	4	35	14000	STA	014000,4	4TH 16K
17124	0	76	26751	LDA	#07777777	
17125	4	35	00000	STA	0,4	000R 0
17126	4	35	04000	STA	04000,4	2ED 16K
17127	4	35	10000	STA	010000,4	3ED 16K
17130	4	35	14000	STA	014000,4	4TH 16K
17131	0	43	00434	BRM	END	

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* BOUNCE SEL LINES

17132	0	43	00430	BRM	00BJECT	
17133	0	76	27023	LDA	#00010203	
17134	0	35	00415	STA	RL1	
17135	0	76	27037	LDA	#04050607	
17136	0	35	00416	STA	RL2	
17137	0	02	20400	EBM	020400	
17140	0	13	00415	PBT	RL1	
17141	0	02	21000	EBM	021000	
17142	0	13	00416	PBT	RL2	
17143	0	76	27007	LDA	#0607	
17144	0	35	00417	STA	RL4	
17145	0	02	21400	EBM	021400	
17146	0	13	00417	PBT	RL4	
17147	4	76	00000	LDA	0,4	SEL0
17150	4	76	04000	LDA	04000,4	SEL1
17151	4	76	10000	LDA	010000,4	SEL2
17152	4	76	14000	LDA	014000,4	SEL3
17153	4	76	20000	LDA	020000,4	SEL4
17154	4	76	24000	LDA	024000,4	SEL5
17155	4	76	30000	LDA	030000,4	SEL6
17156	4	76	34000	LDA	034000,4	SEL7
17157	0	76	30000	LDA	030000	SEL'6
17160	0	76	34000	LDA	034000	SEL'7
17161	0	43	00434	BRM	END	
17162	0	43	00456	BRM	FDONE	
17163	0	43	00452	BRM	DONE	
17164			00614	BSS	020000***ZERO	

* UNIT PARAMETER TABLE					
MEM1	IDENT	UPT	NOP	UIM	UNIT IDENTIFIER MSG ADDR
20000	0 20 21315		NOP	UAM	UNIT ABSTRACT MSG ADDR
20001	0 20 21331		NOP	UVM	UNIT VARIABLE MSG ADDR
20002	0 20 21312		NOP	UVT	
20003	0 01 20005		ONE	DATA	04000000
20004	04000000		DATA	DATA	03600000
20005	36000000	UVT	DATA		

* FUNCTION PARAMETER TABLES					
MEM1	IDENT	FPT	NOP	FIM	FUNCTION IDENTIFIER MSG ADDR
20006	0 20 20055		NOP	FAM1	FUNCTION ABSTRACT MSG ADDR
20007	0 20 20064		NOP	FVM1	FUNCTION VARIABLE MSG ADDR
20010	0 20 20051		NOP	FVT1	
20011	0 01 20014		ONE	FUNC2	ADDRESS OF NEXT FUNCTION
20012	0 00 10000		PZE	DATA	02000000
20013	00000000		DATA	0	FUNCTION IDENTIFIER BIT
20014	00000000	FVT1	DATA	0	FUNCTION VARIABLE TABLE
20015	0 20 20305	FPT2	NOP	FIM2	FUNCTION IDENTIFIER MSG ADDR
20016	0 20 20322		NOP	FAM2	FUNCTION ABSTRACT MSG ADDR
20017	0 20 20301		NOP	FVM2	FUNCTION VARIABLE MSG ADDR
20020	0 01 20023		ONE	FVT2	
20021	0 00 14002		PZE	FUNC3	ADDRESS OF NEXT FUNCTION
20022	10000000		DATA	01000000	FUNCTION IDENTIFIER BIT
20023	00000000	FVT2	DATA	0	FUNCTION VARIABLE TABLE
20024	0 20 20544	FPT3	NOP	FIM3	FUNCTION IDENTIFIER MSG ADDR
20025	0 20 20562		NOP	FAM3	FUNCTION ABSTRACT MSG ADDR
20026	0 20 20540		NOP	FVM3	FUNCTION VARIABLE MSG ADDR
20027	0 01 20032		ONE	FVT3	
20030	0 00 15430		PZE	FUNC4	ADDRESS OF NEXT FUNCTION
20031	04000000		DATA	00400000	FUNCTION IDENTIFIER BIT
20032	00000000	FVT3	DATA	0	FUNCTION VARIABLE TABLE

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20033	0 20 20772	FPT4	NOP	FIM4	FUNCTION IDENTIFIER MSG ADDR
20034	0 20 21011		NOP	FAM4	FUNCTION ABSTRACT MSG ADDR
20035	0 20 20766		NOP	FVM4	FUNCTION VARIABLE MSG ADDR
20036	0 01 20041		ONE	FVT4	
20037	0 00 17042		PZE	FVNS	ADDRESS OF NEXT FUNCTION
20040	02000000		DATA	002000000	FUNCTION IDENTIFIER BIT
20041	00000000	FVT4	DATA	0	FUNCTION VARIABLE TABLE
20042	0 20 21211	FPT5	NOP	FIM5	FUNCTION IDENTIFIER MSG ADDR
20043	0 20 21221		NOP	FAM5	FUNCTION ABSTRACT MSG ADDR
20044	0 20 21205		NOP	FVM5	FUNCTION VARIABLE MSG ADDR
20045	0 01 20050		ONE	FVT5	
20046	0 00 17163		PZE	FINISH	ADDRESS OF NEXT FUNCTION
20047	01000000		DATA	001000000	FUNCTION IDENTIFIER BIT
20050	00000000	FVT5	DATA	0	FUNCTION VARIABLE TABLE

MEM1 TAP=3.C

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					* MESSAGES
20051	52454612	FVM1	BCD		' NO VARIABLES '
20052	65215131				
20053	21224325				
20054	62523712				
20055	52261200	FIM1	BCD		' F 01 = 940 MAP DIAGNOSTIC '
20056	01124012				
20057	11040012				
20060	44214712				
20061	24312127				
20062	45466263				
20063	31233712				
20064	52321212	FAM1	BCD		' THIS FUNCTION DIAGNOSES FAULTS IN THE 940 USER '
20065	12121263				
20066	30316212				
20067	26644523				
20070	63314445				
20071	12243121				
20072	27454662				
20073	25621226				
20074	21644363				
20075	62123145				
20076	12633025				
20077	12110400				
20100	12646225				
20101	51121212				
20102	52214524	BCD			' AND MONITOR MAPS. '
20103	12444645				
20104	31634451				
20105	12442147				
20106	62331212				
20107	52121212	BCD			' THE DIAGNOSES IS DONE USING THE READ ONLY (ROT) '
20110	12126330				
20111	25122431				
20112	21274546				
20113	62256212				

20114 31621224
 20115 46452512
 20116 64623145
 20117 27126930
 20120 25125125
 20121 21241246
 20122 45437012
 20123 74514463
 20124 34121212
 20125 52214524
 20126 12466463
 20127 12462412
 20130 22466445
 20131 24621274
 20132 46462263
 20133 34124425
 20134 44465170
 20135 12635121
 20136 47623312
 20137 12316312
 20140 31621212
 20141 52314524
 20142 25472545
 20143 24254563
 20144 12462412
 20145 63302512
 20146 46472551
 20147 21633146
 20150 45124426
 20151 12644747
 20152 25511244
 20153 25444451
 20154 70331212
 20155 52121212
 20156 12122346
 20157 51512523

BCD ' AND OUT OF BOUNDS (00BT) MEMORY TRAPS. IT IS:

BCD ' INDEPENDENT OF THE OPERATION OF UPPER MEMORY.'

BCD ' CORRECT OPERATION IS DEPENDENT ON THE MACHINE'

20160 63124447
 20161 25512163
 20162 31464512
 20163 31621224
 20164 25472545
 20165 24254563
 20166 12464512
 20167 63302512
 20170 44212330
 20171 31452512
 20172 52222531
 20173 45271221
 20174 22432512
 20175 63461247
 20176 25512646
 20177 51441263
 20200 30251211
 20201 04001231
 20202 45626351
 20203 64236331
 20204 46451224
 20205 31212745
 20206 46626331
 20207 23121212
 20210 52214524
 20211 12442544
 20212 46517012
 20213 43462321
 20214 63314645
 20215 62120012
 20216 40120307
 20217 07070712
 20220 46472551
 20221 21633145
 20222 27122346
 20223 51512523

BCD ' BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC'

BCD ' AND MEMORY LOCATIONS 0 = 3777 OPERATING CORRECTLY.'

MEM1 TAP=3.0

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20224	63437733			
20225	52121212	BCD	'	AT ERROR HALTS!!
20226	12122163			
20227	12255151			
20230	46511230			
20231	21436762			
20232	15121212			
20233	52211213	BCD	'	A = ACTUAL TRAP ID!
20234	12212363			
20235	64214312			
20236	63512147			
20237	12312412			
20240	52221213	BCD	'	B = CORRECT TRAP ID!
20241	12234451			
20242	51252763			
20243	12635421			
20244	47123124			
20245	52671213	BCD	'	X = TEST LOCATION!
20246	12632762			
20247	63124746			
20250	23216731			
20251	46451212			
20252	52121212	BCD	'	ERROR MESSAGES WILL STATE SIGNAL NAMES AND!
20253	12122551			
20254	51465112			
20255	44256762			
20256	21277762			
20257	12663143			
20260	43126263			
20261	21632712			
20262	62312745			
20263	21431245			
20264	21442762			
20265	12214524			
20266	52444424	BCD	'	MODULE LOCATIONS OF THE PROBABLE FAULT!
20267	64432512			

MEM1 TAP=3.0

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20270	43462721			
20271	63314645			
20272	62124626			
20273	12633025			
20274	12475146			
20275	22212243			
20276	25122621			
20277	64436733			
20300	52121237	BCD	'	II
20301	52454412	FVM2 BCD	'	NO VARIABLES !!
20302	65215131			
20303	21224325			
20304	62523712			
20305	52261200	FIM2 BCD	'	F 02 = 940 MEMORY REGISTER DIAGNOSTIC FOR 2ED 16K!!
20306	02124012			
20307	11040012			
20310	44254446			
20311	51701251			
20312	25273162			
20313	63255112			
20314	24312127			
20315	45466263			
20316	31231226			
20317	46511202			
20320	25241201			
20321	06423712			
20322	52321212	FAM2 BCD	'	THIS FUNCTION DIAGNOSES FAULTS IN 2ED 16K (LOC)
20323	12121263			
20324	30316212			
20325	26644223			
20326	63314645			
20327	12243121			
20330	27454462			
20331	25621226			
20332	21644363			
20333	62123145			

MEM1 TAP=3.0

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20334 12022524
20335 12010642
20336 12744346
20337 23121212
20340 52040000
20341 00001263
20342 46120707
20343 07077712
20344 46236321
20345 43341246
20346 26124425
20347 44465170
20350 12121212
20351 52121212
20352 12122346
20353 51512523
20354 63124447
20355 25512163
20356 31464512
20357 31621224
20360 25472545
20361 24254563
20362 12464512
20363 63302512
20364 44212330
20365 31452512
20366 52222531
20367 45271221
20370 22432512
20371 63461247
20372 25512446
20373 51441263
20374 30251211
20375 04001231
20376 45626351
20377 64236331

BCD | 40000 TO 77777 (OCTAL) OF MEMORY

BCD | CORRECT OPERATION IS DEPENDENT ON THE MACHINE |

BCD | BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC |

MEM1 TAP=3.0

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20400 46451224
20401 31212745
20402 46626331
20403 23121212
20404 52214524
20405 12442544
20406 46517012
20407 43462321
20410 63314645
20411 62120012
20412 40120307
20413 07070712
20414 46472551
20415 21633145
20416 27122346
20417 51512523
20420 63437012
20421 52214362
20422 46126330
20423 25124425
20424 44465170
20425 12314563
20426 25514325
20427 21653145
20430 27126266
20431 31632330
20432 25621244
20433 64626312
20434 22251262
20435 25631212
20436 52634612
20437 45464540
20440 31456325
20441 51432521
20442 65314527
20443 33127462

BCD | AND MEMORY LOCATIONS 0 - 37777 OPERATING CORRECTLY |

BCD | ALSO THE MEMORY INTERLEAVING SWITCHES MUST BE SET |

BCD | TO NON-INTERLEAVING. (SET ALL SWITCHES IN LOC 33F, |

MEM1 TAP=3.C

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20444	25631221		
20445	43431262		
20446	66316323		
20447	30256212		
20450	31451243		
20451	46231203		
20452	02267312		
20453	52030426	BCD	' 34F, 35F AND 36F IN THE CPU TO UP!'
20454	73123205		
20455	26122145		
20456	24120706		
20457	26123145		
20460	12633225		
20461	12234764		
20462	12634412		
20463	64473412		
20464	52121212	BCD	' AT ERROR HALTS!'
20465	12122163		
20466	12255151		
20467	46511230		
20470	21436362		
20471	15121212		
20472	52211213	BCD	' A = BITS AS READ'
20473	12223163		
20474	62122162		
20475	12512521		
20476	24121212		
20477	52221213	BCD	' B = CORRECT BITS'
20500	12234451		
20501	51252363		
20502	12223163		
20503	62121212		
20504	52671213	BCD	' X = TEST LOCATION'
20505	12632362		
20506	63124346		
20507	23216331		

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20510	46451212		
20511	52121212	BCD	' ERROR MESSAGES WILL STATE SIGNAL NAMES AND'
20512	12122251		
20513	51465112		
20514	44256262		
20515	21272562		
20516	12663143		
20517	43126263		
20520	21632512		
20521	62312745		
20522	21431245		
20523	21442562		
20524	12214524	BCD	' MODULE LOCATIONS OF THE PROBABLE FAULT.'
20525	52444624		
20526	64432512		
20527	43462321		
20530	63314445		
20531	62124626		
20532	12633225		
20533	12475146		
20534	22212243		
20535	25122621		
20536	64436333		
20537	52121237	BCD	' !!'
20540	52454412	FVM3 BCD	' NO VARIABLES !!'
20541	65215131		
20542	21224325		
20543	62523712		
20544	52261200	FIM3 BCD	' F 03 = 940 ADDRESS DRIVER DIAGNOSTIC FOR MEM. 2ED 16K!'
20545	03124012		
20546	11040012		
20547	21242451		
20550	25626212		
20551	24513165		
20552	25511224		
20553	31212745		

20554	46626331		
20555	23122646		
20556	51124425		
20557	44331202		
20560	25241201		
20561	06423712		
20562	52322124	FAMS BCD	' ADDRESS DIAGNOSTIC FOR LOC 40000 TO 77777 OCTAL.'
20563	24512562		
20564	62122431		
20565	21274546		
20566	62633123		
20567	12244451		
20570	12434623		
20571	12040200		
20572	00001263		
20573	46120707		
20574	07070712		
20575	46236321		
20576	43331212		
20577	52121212	BCD	' CORRECT OPERATION IS DEPENDENT ON THE MACHINE.'
20600	12122346		
20601	51512523		
20602	63124447		
20603	25512163		
20604	31464512		
20605	31621224		
20606	25472545		
20607	24234563		
20610	12464512		
20611	63302512		
20612	44212330		
20613	31452512		
20614	52222531	BCD	' BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC'
20615	45271221		
20616	22432512		
20617	63461247		

20620	25512446		
20621	51441263		
20622	30251211		
20623	04001231		
20624	45626351		
20625	64236331		
20626	46451224		
20627	31212745		
20630	46626331		
20631	23121212		
20632	52214524	BCD	' AND MEMORY LOCATIONS 0 - 37777 OPERATING CORRECTLY.'
20633	12442544		
20634	46517012		
20635	43462321		
20636	63314445		
20637	62120712		
20640	40120307		
20641	07070712		
20642	46472551		
20643	21633145		
20644	27122346		
20645	51512523		
20646	63437033		
20647	52214362	BCD	' ALSO THE MEMORY INTERLEAVING SWITCHES MUST BE SET'
20650	46126330		
20651	25124425		
20652	44465170		
20653	12314563		
20654	25514325		
20655	21653145		
20656	27126366		
20657	31632330		
20660	25621244		
20661	64626312		
20662	22251262		
20663	25631012		

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20664	52634612	BCD	' TO NON-INTERLEAVING. (SET ALL SWITCHES IN LOC 33F.)
20665	45464540		
20666	31456325		
20667	51432521		
20670	65314527		
20671	33127462		
20672	25631221		
20673	43431262		
20674	66316323		
20675	30256212		
20676	31451243		
20677	46231203		
20700	63267312		
20701	52030426	BCD	' 34F, 35F, AND 36F IN THE CPU TO UP!'
20702	73030526		
20703	73122145		
20704	24120306		
20705	26123145		
20706	12633025		
20707	12234764		
20710	12634612		
20711	64473412		
20712	52121212	BCD	' AT ERROR HALTS!'
20713	12122163		
20714	12255151		
20715	46511230		
20716	21436162		
20717	15121212		
20720	52211213	BCD	' A = BITS AS READ!'
20721	12223163		
20722	62122162		
20723	12512521		
20724	24121212		
20725	52221213	BCD	' B = CORRECT BITS!'
20726	12234651		
20727	51252363		

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20730	12223163		
20731	62121212		
20732	52671213	BCD	' X = TEST LOCATION!'
20733	12632562		
20734	63124346		
20735	23216331		
20736	46451212		
20737	52121212	BCD	' ERROR MESSAGES WILL STATE SIGNAL NAMES AND!'
20740	12122551		
20741	51465112		
20742	44256262		
20743	21272562		
20744	12663143		
20745	43126263		
20746	21632512		
20747	62312745		
20750	21431245		
20751	21442562		
20752	12214524		
20753	52444624	BCD	' MODULE LOCATIONS OF THE PROBABLE FAULT!'
20754	64432512		
20755	43462321		
20756	63314645		
20757	62124626		
20760	12633025		
20761	12475146		
20762	22212243		
20763	25122621		
20764	64436333		
20765	52121237	BCD	' !!'
20766	52454412	FVM4 BCD	' NO VARIABLES !!'
20767	65215131		
20770	21224325		
20771	62523712		
20772	52261200	FIM4 BCD	' F 04 = 940 WORST CASE NOISE AND HISTORY MEMORY EXERCISER!'
20773	04124212		

20774	11040012		
20775	66465162		
20776	63122321		
20777	62251245		
21000	46316225		
21001	12214524		
21002	12303162		
21003	63465170		
21004	12442544		
21005	46517012		
21006	25672551		
21007	23316225		
21010	51371012		
21011	52321212	FAM4	BCD
21012	12121263		
21013	30316012		
21014	26644523		
21015	63314445		
21016	12272545		
21017	25512163		
21020	25621266		
21021	46516263		
21022	12232162		
21023	25123031		
21024	62634451		
21025	70122145		
21026	24121212		
21027	52454431	BCD	
21030	62251247		
21031	21636325		
21032	51456212		
21033	31451244		
21034	25444651		
21035	70120225		
21036	24120106		
21037	42337443		

THIS FUNCTION GENERATES WORST CASE HISTORY AND!

NOISE PATTERNS IN MEMORY 2ED 16K*(LBC 40000 TO 77777)

21040	46231204		
21041	00000000		
21042	12634412		
21043	07070707		
21044	07121212		
21045	52462363	BCD	(OCTAL)!
21046	21433412		
21047	52121212	BCD	
21050	12122346		
21051	51512523		
21052	63124447		
21053	25512163		
21054	31464512		
21055	31621224		
21056	25472545		
21057	24254563		
21060	12464512		
21061	63302512		
21062	44212330		
21063	31452512		
21064	52222531	BCD	
21065	45271221		
21066	22432512		
21067	63461247		
21070	25512646		
21071	51441263		
21072	30251211		
21073	04001231		
21074	45626351		
21075	64236331		
21076	46451224		
21077	31212745		
21100	46626331		
21101	23121212		
21102	52214524	BCD	
21103	12442544		

CORRECT OPERATION IS DEPENDENT ON THE MACHINE!

BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC!

AND MEMORY LOCATIONS 0 - 37777 OPERATING CORRECTLY.

21214	44254446		
21215	51701262		
21216	23464725		
21217	12213124		
21220	37121212		
21221	52321212	FAMS	BCD
21222	12121263		
21223	30316212		
21224	26644523		
21225	63314445		
21226	12316212		
21227	45466312		
21230	21126325		
21231	62637312		
21232	31631231		
21233	62121212		
21234	52214512	BCD	' AN AID TO TROUBLE SHOOTING ONLY.'
21235	21312412		
21236	63461263		
21237	51466472		
21240	43251262		
21241	30464463		
21242	31452712		
21243	46454370		
21244	33121212		
21245	52121212	BCD	' IT CAUSES ALL RL FLIP-FLOPS, ALL M'
21246	12123163		
21247	12232164		
21250	62256212		
21251	21434312		
21252	51431226		
21253	43314740		
21254	26434647		
21255	62731221		
21256	43431244		
21257	52264331	BCD	' FLIP-FLOPS, ALL L LINES, AND ALL SEL LINES'

21260	47402443		
21261	46476273		
21262	12214343		
21263	12431243		
21264	31452562		
21265	73122145		
21266	24122143		
21267	43120225		
21270	43124331		
21271	45256212		
21272	52634612	BCD	' TO BOUNCE. THESE SIGNALS MAY THEN BE TRACED'
21273	22466445		
21274	23253312		
21275	12633025		
21276	62251262		
21277	31274521		
21300	43621244		
21301	21701263		
21302	30254512		
21303	22251263		
21304	51212325		
21305	24121212		
21306	52663163	BCD	' WITH A SCOPE.!!'
21307	30122112		
21310	62234447		
21311	25333712		
21312	52121212	UVM	BCD
21313	26216652		
21314	37121212		
21315	52641200	UIM	BCD
21316	03124712		
21317	11040012		
21320	44254446		
21321	51701224		
21322	31212745		
21323	46626331		

21324	23122646		
21325	51120225		
21326	24120106		
21327	42120233		
21327	00371212		
21330	52324425	UAM	BCD
21331	44465170		MEMORY DIAGNOSTIC FOR LOC 40000 TO 77777 OCTAL.
21332	12243121		
21333	27454462		
21334	63312312		
21335	26465112		
21336	43462312		
21337	04000000		
21340	00126346		
21341	12070707		
21342	07071246		
21343	23632143		
21344	33121212		
21345	52121212	BCD	
21346	12122664		FUNCTION 1 IS A TRAP AND MAP DIAGNOSTIC THAT
21347	45236331		
21350	46451201		
21351	12316212		
21352	21126351		
21353	21471221		
21354	45241244		
21355	21471224		
21356	41212745		
21357	46626331		
21360	23126330		
21361	21631212		
21362	52316212	BCD	
21363	31452425		IS INDEPENDENT OF THE OPERATION OF UPPER MEMORY.
21364	47254524		
21365	25456312		
21366	46261263		
21367			

21370	30251246		
21371	47255121		
21372	63314445		
21373	12462612		
21374	64474725		
21375	51124425		
21376	44465170		
21377	33121212		
21400	52316312	BCD	
21401	66314743		IT WILL DIAGNOSE FAILURES IN THE TWO MEMORY TRAPS
21402	12243121		
21403	27454462		
21404	25122421		
21405	31436451		
21406	25621231		
21407	45126330		
21410	25126366		
21411	46124425		
21412	44465170		
21413	12635121		
21414	47621212		
21415	52214524	BCD	
21416	12224663		AND BOTH THE USER AND MONITOR MAPS.
21417	30126330		
21420	25126462		
21421	25511221		
21422	45241244		
21423	46453163		
21424	46511244		
21425	21476233		
21426	52121212	BCD	
21427	12122664		FUNCTION 2 IS A MEMORY BIT TEST FOR
21428	45236331		
21430	46451202		
21431	12316212		
21432	21124425		
21433			

21434 44465170
 21435 12223163
 21436 12632562
 21437 63122646
 21440 51121212
 21441 52442544
 21442 46517112
 21443 12252412
 21444 01064233
 21445 12123163
 21446 12663143
 21447 43126325
 21450 62631263
 21451 30216312
 21452 21434312
 21453 22316362
 21454 52314512
 21455 25212330
 21456 12506421
 21457 24512145
 21460 63122321
 21461 45122225
 21462 12622563
 21463 12214524
 21464 12512562
 21465 25633312
 21466 52121212
 21467 12122664
 21470 45236331
 21471 46451203
 21472 12316212
 21473 21124425
 21474 44465170
 21475 12212424
 21476 51256262
 21477 12245131

BCD ' MEMORY 2ED 16K. IT WILL TEST THAT ALL BITS'

BCD ' IN EACH QUADRANT CAN BE SET AND RESET.'

BCD ' FUNCTION 3 IS A MEMORY ADDRESS DRIVER'

21500 65255112
 21501 52243121
 21502 27454462
 21503 63312333
 21504 12123163
 21505 12663143
 21506 43122330
 21507 25234212
 21510 25212330
 21511 12212424
 21512 51256262
 21513 12245131
 21514 65251212
 21515 52214524
 21516 12623145
 21517 42123145
 21520 12022524
 21521 12010642
 21522 33121212
 21523 52121212
 21524 12122664
 21525 45236331
 21526 46451204
 21527 12316212
 21530 21126646
 21531 51626312
 21532 23216225
 21533 12454631
 21534 62251221
 21535 45241212
 21536 52303162
 21537 63465170
 21540 12256725
 21541 51233162
 21542 25511262
 21543 64316321

BCD ' DIAGNOSTIC. IT WILL CHECK EACH ADDRESS DRIVE'

BCD ' AND SINK IN 2ED 16K.'

BCD ' FUNCTION 4 IS A WORST CASE NOISE AND'

BCD ' HISTORY EXERCISER SUITABLE FOR SCHEDULING'

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21544	22432512		
21545	26465112		
21546	62233044		
21547	46314527		
21550	52442544	BCD	' MEMORIES: '
21551	46513125		
21552	62331212		
21553	52121212	BCD	' FUNCTION 5 IS A SCOPE AID: '
21554	12122664		
21555	45236331		
21556	46451205		
21557	12316212		
21560	21126223		
21561	46472512		
21562	21312412		
21563	52242562	BCD	' DESIGNED TO BOUNCE MEMORY AND MAP: '
21564	31274525		
21565	24126346		
21566	12224664		
21567	45232512		
21570	44254446		
21571	51701221		
21572	45241244		
21573	21471212		
21574	52623127	BCD	' SIGNALS: '
21575	45214362		
21576	33121212	BCD	' ''
21577	52371212		

MEM1 TAP=3.C

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			* ERROR MESSAGES
21600	52462240	TM1A BCD	' 0B=58F,58C,49F,52C,44C SFM=59F,58F '
21601	05102A73		
21602	05102373		
21603	04112673		
21604	05022373		
21605	04042312		
21606	62264440		
21607	05112673		
21610	05102612		
21611	51514301	BCD	' RRL1=17F,16F,29D,25D TRAP=58B RLOF=49A! '
21612	40010726		
21613	73010626		
21614	73021124		
21615	73020524		
21616	12635121		
21617	47400510		
21620	22125143		
21621	00264004		
21622	11213712		
21623	52002240	TM1B BCD	' 0B=58F,58C,49F,52C,44C SFM=59F,58F '
21624	05102A73		
21625	05102373		
21626	04112673		
21627	05022373		
21630	04042312		
21631	62264440		
21632	05112473		
21633	05102612		
21634	52515143	BCD	' RRL1=17F,16F,29D,25D TRAP=58B P1=53F STV=27F,51F! '
21635	01400107		
21636	26730106		
21637	26730211		
21640	24730205		
21641	24126351		
21642	21474005		

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21643	10221747			
21644	31400503			
21645	26126263			
21646	65400207			
21647	26730501			
21650	26371212			
21651	52462240	TM2A	BCD	' 58=58F,58C,49F,52C,44C PI=53F STV=27F,51F''
21652	05102673			
21653	05102173			
21654	04112473			
21655	05022173			
21656	04042112			
21657	47314405			
21660	03261762			
21661	63654002			
21662	07267305			
21663	01263712			
21664	52462240	TM2B	BCD	' 58=58F,58C,49F,52C,44C SFM=59F,58F ''
21665	05102673			
21666	05102673			
21667	04112473			
21670	05022173			
21671	04042112			
21672	62264440			
21673	05112473			
21674	05102612			
21675	51430026	BCD		' RLOP=49A REL=53F,52F RLS1=53E,55F''
21676	40041121			
21677	12512543			
21700	40050326			
21701	73050226			
21702	12514362			
21703	01400603			
21704	25730505			
21705	26371212			
21706	52462240	TM3A	BCD	' 08=48F''

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21707	04102637			
21710	52462221	TM3B	BCD	' 05A=48F,58F,58C,49F,52C,49F RLOH=46A ''
21711	40041026			
21712	73051026			
21713	73051023			
21714	73041126			
21715	73050223			
21716	73041126			
21717	12514300			
21720	30400406			
21721	21121212			
21722	51430000	BCD		' RLOO=50A RLO1=50A RLO2=50A RLO3=49A RRL1=19F,1''
21723	40050021			
21724	12514300			
21725	01400500			
21726	21125143			
21727	00024005			
21730	00211251			
21731	43000340			
21732	04112112			
21733	51514301			
21734	40010726			
21735	73121212			
21736	01062673	BCD		' 16F,29D,25D''
21737	02112473			
21740	02052437			
21741	52622543	TM4	BCD	' SEL0=46F RLOP=49A SFM=59F,48F''
21742	00400406			
21743	26125143			
21744	00264004			
21745	11211262			
21746	26444005			
21747	11267304			
21750	10263712			
21751	52622543	TM5	BCD	' SEL1=46F RL1P=49A SFM=59F,48F''
21752	01400406			

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21753	26125143			
21754	01264004			
21755	11211262			
21756	26444005			
21757	11267304			
21760	10263712			
21761	52622543	TM6	BCD	' SEL2=46F RL2F=46A SFM=59F,48F''
21762	02400406			
21763	26125143			
21764	02264004			
21765	06211262			
21766	26444005			
21767	11267304			
21770	10263712			
21771	52622543	TM7	BCD	' SEL3=46F RL3F=46A SFM=59F,48F''
21772	03400406			
21773	26125143			
21774	03264004			
21775	06211262			
21776	26444005			
21777	11267304			
22000	10263712			
22001	52622543	TM8	BCD	' SEL4=47F RL4F=48A SFM=59F,48F''
22002	04400407			
22003	26125143			
22004	04264004			
22005	10211262			
22006	26444005			
22007	11267304			
22010	10261212			
22011	51430502	BCD		' RL52=55F,48F''
22012	40050526			
22013	73041026			
22014	37121212			
22015	52622543	TM9	BCD	' SEL5=47F RL5F=58A SFM=59F,48F''
22016	05400407			

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22017	26125143			
22020	05264005			
22021	10211262			
22022	26444005			
22023	11267304			
22024	10263712			
22025	52622543	TM10	BCD	' SEL6=47F RL6F=47A SFM=59F,48F''
22026	06400407			
22027	26125143			
22030	06264004			
22031	07211262			
22032	26444005			
22033	11267304			
22034	10263712			
22035	52622543	TM11	BCD	' SEL7=47F RL7F=47A SFM=59F,48F''
22036	07400407			
22037	26125143			
22040	07264004			
22041	07211262			
22042	26444005			
22043	11267304			
22044	10263712			
22045	52514300	TM12	BCD	' RL0H=46A RL00=50A RL01=50A''
22046	30400406			
22047	21125143			
22050	00004005			
22051	00211251			
22052	43000140			
22053	05002112			
22054	51430002	BCD		' RL02=50A RL03=49A''
22055	40050021			
22056	12514300			
22057	03400411			
22060	21371212			
22061	52514301	TM13	BCD	' RL1H=53A RL10=18F RL11=18F''
22062	30400503			

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22063	21125143		
22064	01004001		
22065	10261251		
22066	43010140		
22067	01102612		
22070	51430102	BCD	'RL12=18F RL19=20F''
22071	40011026		
22072	12514301		
22073	03400200		
22074	26371212		
22075	52514302	TM14 BCD	' RL24=53A RL20=20F RL21=20F '
22076	30400503		
22077	21125143		
22100	02004002		
22101	00261251		
22102	43020140		
22103	02002412		
22104	51430202	BCD	'RL22=22F RL23=22F''
22105	40020226		
22106	12514302		
22107	03400202		
22110	26371212		
22111	52510302	TM15 BCD	' R32H=53A RL30=22F RL31=24F '
22112	30400403		
22113	21125143		
22114	03004002		
22115	02261251		
22116	43030140		
22117	02042612		
22120	51430302	BCD	'RL32=24F RL33=24F''
22121	40020426		
22122	12514303		
22123	03400204		
22124	26371212		
22125	52510304	TM16 BCD	' R34H=47A RL40=51A RL41=51A '
22126	30400407		

MEM1 TAP=3.0

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22127	21125143		
22130	04004005		
22131	01211051		
22132	43040140		
22133	05012112		
22134	51430402	BCD	'RL42=51A RL43=48A''
22135	40050121		
22136	12514304		
22137	03400410		
22140	21371212		
22141	52510305	TM17 BCD	' R35H=52A RL50=19F RL51=19F '
22142	30400502		
22143	21125143		
22144	05004001		
22145	11261251		
22146	43050140		
22147	01112612		
22150	51430502	BCD	'RL52=19F RL53=21F''
22151	40011126		
22152	12514305		
22153	03400201		
22154	26371212		
22155	52510306	TM18 BCD	' R36H=52A RL60=21F RL61=21F '
22156	30400502		
22157	21125143		
22160	06004002		
22161	01261251		
22162	43060140		
22163	02012612		
22164	51430602	BCD	'RL62=23F RL63=23F''
22165	40020326		
22166	12514306		
22167	03400203		
22170	26371212		
22171	52510307	TM19 BCD	' R37H=52A RL70=23F RL71=26F '
22172	30400502		

MEM1 TAP=3.C

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22173	21125143				
22174	07004002				
22175	03261251				
22176	43070140				
22177	02062612				
22200	51430702	BCD		! RL72=86F RL73=86F!!	
22201	40020626				
22202	12514307				
22203	03400206				
22204	26371212				
22205	52514300	TM20	BCD	! RL03=49A GATE=55F!!	
22206	03400411				
22207	21122721				
22210	63254005				
22211	05263712				
22212	52514300	TM21	BCD	! RL02=50A GATE=55F!!	
22213	02400500				
22214	21122721				
22215	63254005				
22216	05263712				
22217	52514300	TM22	BCD	! RL01=50A GATE=55F!!	
22220	01400500				
22221	21122721				
22222	63254005				
22223	05263712				
22224	52514300	TM23	BCD	! RL00=50A GATE=55F!!	
22225	00400500				
22226	21122721				
22227	63254005				
22230	05263712				
22231	52514300	TM24	BCD	! RL04=46A GATE=56F!!	
22232	30400406				
22233	21122721				
22234	63254005				
22235	05263712				
22236	52514301	TM25	BCD	! RL13=20F GATE=31F RL01=17F!!	

MEM1 TAP=3.C

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22237	03400200				
22240	26122721				
22241	63254003				
22242	01261251				
22243	43620154				
22244	40010726				
22245	37121212				
22246	52514301	TM26	BCD	! RL12=18F GATE=27F!!	
22247	02400110				
22250	26122721				
22251	63254002				
22252	07263712				
22253	52514301	TM27	BCD	! RL11=18F GATE=31F!!	
22254	01400110				
22255	26122721				
22256	63254003				
22257	01263712				
22260	52514301	TM28	BCD	! RL10=18F GATE=27F!!	
22261	00400110				
22262	26122721				
22263	63254002				
22264	07263712				
22265	52514301	TM29	BCD	! RL14=23A GATE=56F!!	
22266	30400503				
22267	21122721				
22270	63254005				
22271	06263712				
22272	52514302	TM30	BCD	! RL23=22F GATE=31F!!	
22273	03400202				
22274	26122721				
22275	63254003				
22276	01263712				
22277	52514302	TM31	BCD	! RL22=22F GATE=27F!!	
22300	02400202				
22301	26122721				
22302	63254002				

MEM1	TAP=3.0			PAGE 291
22303	07263712			
22304	52514302	TM32	BCD	' RL21=20F GATE=31F''
22305	01400200			
22306	26122721			
22307	63254003			
22310	01263712			
22311	52514302	TM33	BCD	' RL20=20F GATE=27F''
22312	00400200			
22313	26122721			
22314	63254002			
22315	07263712			
22316	52514302	TM34	BCD	' RL2H=53A GATE=58F''
22317	30400503			
22320	21122721			
22321	63254005			
22322	10263712			
22323	52514303	TM35	BCD	' RL33=24F GATE=31F''
22324	03400204			
22325	26122721			
22326	63254003			
22327	01263712			
22330	52514303	TM36	BCD	' RL32=24F GATE=27F''
22331	02400204			
22332	26122721			
22333	63254002			
22334	07263712			
22335	52514303	TM37	BCD	' RL31=24F GATE=31F''
22336	01400204			
22337	26122721			
22340	63254003			
22341	01263712			
22342	52514303	TM38	BCD	' RL30=22F GATE=27F''
22343	00400202			
22344	26122721			
22345	63254002			
22346	07263712			

MEM1	TAP=3.0			PAGE 292
22347	52514303	TM39	BCD	' RL3H=53A GATE=58F''
22350	30400503			
22351	21122721			
22352	63254005			
22353	10263712			
22354	52514304	TM40	BCD	' RL43=48A GATE=58F''
22355	03400410			
22356	21122721			
22357	63254005			
22360	05263712			
22361	52514304	TM41	BCD	' RL42=51A GATE=58F''
22362	02400501			
22363	21122721			
22364	63254005			
22365	05263712			
22366	52514304	TM42	BCD	' RL41=51A GATE=58F''
22367	01400501			
22370	21122721			
22371	63254005			
22372	05263712			
22373	52514304	TM43	BCD	' RL40=51A GATE=58F''
22374	00400501			
22375	21122721			
22376	63254005			
22377	10263712			
22400	52514304	TM44	BCD	' RL4H=47A GATE=58F''
22401	30400407			
22402	21122721			
22403	63254005			
22404	10263712			
22405	52514301	TM45	BCD	' RL13=21F GATE=31F RL51=17F''
22406	03400201			
22407	26122721			
22410	63254003			
22411	01261251			
22412	43620154			

MEM1 TAP=3.0

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22413	40010726			
22414	37121212			
22415	52514305	TM46	BCD	I RL52=19F GATE=27F!!
22416	02400111			
22417	26122721			
22420	63254002			
22421	07263712			
22422	52514305	TM47	BCD	I RL51=19F GATE=31F!!
22423	01400111			
22424	26122721			
22425	63254003			
22426	01263712			
22427	52514305	TM48	BCD	I RL50=19F GATE=27F!!
22430	00400111			
22431	26122721			
22432	63254002			
22433	07263712			
22434	52514305	TM49	BCD	I RL5H=52A GATE=56F!!
22435	30400502			
22436	21122721			
22437	63254005			
22440	06263712			
22441	52514306	TM50	BCD	I RL63=23F GATE=31F!!
22442	03400203			
22443	26122721			
22444	63254003			
22445	01263712			
22446	52514306	TM51	BCD	I RL62=23F GATE=27F!!
22447	02400203			
22450	26122721			
22451	63254002			
22452	07263712			
22453	52514306	TM52	BCD	I RL61=21F GATE=31F!!
22454	01400201			
22455	26122721			
22456	63254003			

MEM1 TAP=3.0

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22457	01263712			
22460	52514306	TM53	BCD	I RL60=21F GATE=27F!!
22461	00400201			
22462	26122721			
22463	63254002			
22464	07263712			
22465	52514306	TM54	BCD	I RL6H=52A GATE=56F!!
22466	30400502			
22467	21122721			
22470	63254005			
22471	06263712			
22472	52514307	TM55	BCD	I RL73=26F GATE=31F!!
22473	03400206			
22474	26122721			
22475	63254003			
22476	01263712			
22477	52514307	TM56	BCD	I RL72=26F GATE=27F!!
22500	02400206			
22501	26122721			
22502	63254002			
22503	07263712			
22504	52514307	TM57	BCD	I RL71=26F GATE=31F!!
22505	01400206			
22506	26122721			
22507	63254003			
22510	01263712			
22511	52514307	TM58	BCD	I RL70=23F GATE=27F!!
22512	00400203			
22513	26122721			
22514	63254002			
22515	07263712			
22516	52514307	TM59	BCD	I RL7H=52A GATE=56F!!
22517	30400502			
22520	21122721			
22521	63254005			
22522	06263712			

MEM1	TAP=3.C		PAGE 295	
22523	52514362	TM60	BCD	' RLS4=57F,58F''
22524	04400507			
22525	26730510			
22526	26371212			
22527	52515143	TM61	BCD	' RRL4=16F M6H=54A M60=54A M61=54A '
22530	04400106			
22531	26124406			
22532	30400504			
22533	21124406			
22534	00400504			
22535	21124406			
22536	01400504			
22537	21121212			
22540	44060240	BCD		' M62=55A M63=55A GATE=56F,57F,58F''
22541	05052112			
22542	44060340			
22543	05052112			
22544	27216325			
22545	40050626			
22546	73050726			
22547	73051026			
22550	37121212			
22551	52622543	TM62	BCD	3, SEL17=57F''
22552	14074005			
22553	07263712			
22554	52622543	TM63	BCD	9, SEL16=57E M7H=55A M70=56A M71=56A
22555	14064005			
22556	07251244			
22557	07304005			
22560	05211244			
22561	07004005			
22562	06211244			
22563	07014005			
22564	06211212			
22565	44070240	BCD		' M72=56A M73=57A''
22566	05062112			

MEM1	TAP=3.C		PAGE 296	
22567	44070340			
22570	05072137			
22571	52440603	TM64	BCD	' M63=55A GATE=58F''
22572	40050521			
22573	12272163			
22574	25400510			
22575	26371212			
22576	52440602	TM65	BCD	' M62=55A GATE=58F''
22577	40050521			
22600	12272163			
22601	25400510			
22602	26371212			
22603	52440601	TM66	BCD	' M61=54A GATE=56F''
22604	40050421			
22605	12272163			
22606	25400506			
22607	26371212			
22610	52440600	TM67	BCD	' M60=54A GATE=56F''
22611	40050421			
22612	12272163			
22613	25400506			
22614	26371212			
22615	52440630	TM68	BCD	' M6H=54A GATE=57F''
22616	40050421			
22617	12272163			
22620	25400507			
22621	26371212			
22622	52440703	TM69	BCD	' M73=57A GATE=56F''
22623	40050721			
22624	12272163			
22625	25400506			
22626	26371212			
22627	52440702	TM70	BCD	' M72=56A GATE=56F''
22630	40050621			
22631	12272163			
22632	25400506			

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22633	26371212				
22634	52440701	TM71	BCD	M71=56A GATE=56F!!	
22635	40050621				
22636	12272163				
22637	25400506				
22640	26371212				
22641	52440700	TM72	BCD	M70=56A GATE=56F!!	
22642	40050421				
22643	12272163				
22644	25400506				
22645	26371212				
22646	52440730	TM73	BCD	M74=55A GATE=57F!!	
22647	40050621				
22650	12272163				
22651	25400507				
22652	26371212				
22653	52512543	TM74A	BCD	REL=52F!!	
22654	40050226				
22655	37121212				
22656	52442440	TM74B	BCD	MD=51F!!	
22657	05012637				
22660	52512543	TM75A	BCD	REL=32E!!	
22661	54400402				
22662	26371212				
22663	52442440	TM75B	BCD	MD=51F!!	
22664	05012637				
22665	52512543	TM76A	BCD	REL=53F!!	
22666	04544005				
22667	03263712				
22670	52442440	TM76B	BCD	MD=51F!!	
22671	05012637				
22672	52462221	TM77	BCD	5B=48F!!	
22673	40041026				
22674	37121212				
22675	52512540	TM78	BCD	RB=52F!!	
22676	05022637				

MEM1 TAP=3,0

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22677	52462221	TM79	BCD	5BA=58C!!	
22700	40051023				
22701	37121212				
22702	52626365	TM80	BCD	STV BAR=17F EAX READ ONLY TRAP CHANGE=EB 12617J!!	
22703	12222151				
22704	40010726				
22705	12252167				
22706	12512521				
22707	24124645				
22710	43701263				
22711	51214712				
22712	23302145				
22713	27254025				
22714	46120102				
22715	06010707				
22716	41371212				
22717	52462221	TM81A	BCD	5BA=49F!!	
22720	40041126				
22721	37121212				
22722	52462221	TM81B	BCD	5BR=49F,41E CR3=54B 06=53B,54B!!	
22723	40041126				
22724	73040125				
22725	12235103				
22726	40050422				
22727	12460640				
22730	05032273				
22731	05042237				
22732	52635121	TM82	BCD	TRAP BAR=63D 0F=44D E0=126177N!!	
22733	47122221				
22734	51400603				
22735	24124626				
22736	40040424				
22737	12254640				
22740	01020601				
22741	07074537				
22742	52462221	TM83A	BCD	5BA=49F!!	

MEM1 TAP=3.0

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22743	40041126			
22744	37121212			
22745	52462221	TM84	BCD	' 8BA=49F!'
22746	40041126			
22747	37121212			
22750	52462221	TM85A	BCD	' 8BA=49F!'
22751	40041126			
22752	37121212			
22753	52462221	TM86A	BCD	' 8BA=49F!'
22754	40041126			
22755	37121212			
22756	524622563	TM86B	BCD	' SET 06=53B,54B!'
22757	12460440			
22760	05032273			
22761	05042237			
22762	01-16			
24000	52233025	MM00	BCD	024000=++ZERS ' CHECK RED 16K POWER AND CABLES!'
24001	23421202			
24002	25241201			
24003	06421247			
24004	46662551			
24005	12214424			
24006	12232122			
24007	43256212			
24010	52712206	BCD		' Z365=5F DU1=31E,20E DU2=20E DU3=21E DU4=21E!'
24011	05400826			
24012	12246401			
24013	40030125			
24014	73020025			
24015	12246402			
24016	40020025			
24017	12246403			
24020	40020125			
24021	12246404			
24022	40020125			
24023	52246700	BCD		' DX0=30B SX0=26B DY0=6B SY0=32B!'

MEM1 TAP=3.0

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24024	40030022			
24025	12626700			
24026	40020622			
24027	12247000			
24030	40062212			
24031	62700040			
24032	03022212			
24033	12316700	BCD		' IX0=27A IX1=27A!'
24034	40020721			
24035	12316701			
24036	40020721			
24037	52512540	BCD		' RE=3D,4E WE=3D DUS=21E!'
24040	03247304			
24041	25126625			
24042	40032412			
24043	24641040			
24044	02012512			
24045	52672644	BCD		' XPMR=9A,11A,13A,15A,18A,19A,20A,21A,23A,24A!'
24046	51401121			
24047	73010121			
24050	73010321			
24051	73010521			
24052	73011021			
24053	73011121			
24054	73020021			
24055	73020121			
24056	73020321			
24057	73020421			
24060	37121212			
24061	52314530	MM100	BCD	' INHIBIT=3BC,31C,30C,28C M0=22E M00=5D,6D V2=38A 27E,29E(CPU) IaE,I8F!'
24062	31223163			
24063	40030223			
24064	73030123			
24065	73030023			
24066	73021123			
24067	12440040			

MEM1 TAP=3.0

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24070 02022512
24071 4424040
24072 05247306
24073 24126571
24074 40030221
24075 12020725
24076 73021125
24077 74234764
24100 34120110
24101 25730105
24102 26371212
24103 52314530
24104 31223163
24105 40030223
24106 73021123
24107 73030123
24110 73030023
24111 12440140
24112 02022512
24113 44240140
24114 05247306
24115 24126571
24116 40030221
24117 12020725
24120 73021125
24121 74234764
24122 34120110
24123 25730105
24124 26371212
24125 52314530
24126 31223163
24127 40030223
24130 73030123
24131 73030023
24132 73021123
24133 12440240

MM101 BCD

INHIBIT=32C,39C,31C,30C M1=22E MD1=5D,6D VZ=32A 27E,29E(CPU) 18E,18F

MM102 BCD

INHIBIT=32C,31C,30C,29C M2=22E MD2=7D,8D VZ=32A 27E,29E(CPU) 18E,18F

MEM1 TAP=3.0

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24134 02022512
24135 44240240
24136 07247310
24137 24126571
24140 40030221
24141 12020725
24142 73021125
24143 74234764
24144 34120110
24145 25730105
24146 26371212
24147 52314530
24150 31223163
24151 40030223
24152 73030123
24153 73030023
24154 73021123
24155 12440340
24156 02032512
24157 44240340
24160 07247310
24161 24126571
24162 40030121
24163 12020725
24164 73021125
24165 74234764
24166 34120110
24167 25730105
24170 26371212
24171 52314530
24172 31223163
24173 40030223
24174 73030123
24175 73030023
24176 73021123
24177 12440440

MM103 BCD

INHIBIT=32C,31C,30C,29C M3=23E MD3=7D,8D VZ=31A 27E,29E(CPU) 18E,18F

MM104 BCD

INHIBIT=32C,31C,30C,29C M4=23E MD4=9D,10D VZ=31A 27E,29E(CPU) 18E,18F

MEM1 TAP=3.0

PAGE 303

24200	02032512		
24201	44240440		
24202	11247301		
24203	00241265		
24204	71400301		
24205	21120207		
24206	25730211		
24207	25742347		
24210	64341201		
24211	10257301		
24212	05263712		
24213	52314430	MM105	BCD
24214	31223163		
24215	40021023		
24216	73020523		
24217	73020623		
24220	73020723		
24221	12440540		
24222	02032512		
24223	44240540		
24224	11247301		
24225	00241265		
24226	71400301		
24227	21120207		
24230	25730211		
24231	25742347		
24232	64341201		
24233	10257301		
24234	05263712		
24235	52314430	MM106	BCD
24236	31223163		
24237	40021023		
24240	73020523		
24241	73020623		
24242	73020723		
24243	12440440		

MEM1 TAP=3.0

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24244	02042512		
24245	44240640		
24246	01012473		
24247	01022412		
24250	65714003		
24251	00211202		
24252	04257302		
24253	11257423		
24254	47643412		
24255	01102573		
24256	01062637		
24257	52314430	MM107	BCD
24260	31223163		
24261	40021023		
24262	73020523		
24263	73020623		
24264	73020723		
24265	12440740		
24266	02042512		
24267	44240740		
24270	01012473		
24271	01022412		
24272	65714003		
24273	00211202		
24274	04257302		
24275	11257423		
24276	47643412		
24277	01102573		
24300	01062637		
24301	52314430	MM108	BCD
24302	31223163		
24303	40021023		
24304	73020523		
24305	73020623		
24306	73020723		
24307	12441040		

MEM1 TAP=3.0

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24310	02042512		
24311	44241040		
24312	01032473		
24313	01042412		
24314	65714002		
24315	00211202		
24316	04257302		
24317	11257423		
24320	47643412		
24321	01102573		
24322	01062637		
24323	52314530	MM109	BCD I INHIBIT=28C,25C,26C,27C M9=25E MD9=13D,14D VZ=29A 24E,29E(CPU) 18E,16F
24324	31223163		
24325	40021023		
24326	73020623		
24327	73020623		
24330	73020723		
24331	12441140		
24332	02052412		
24333	44241140		
24334	01032473		
24335	01042412		
24336	65714002		
24337	11211202		
24340	04257302		
24341	11257423		
24342	47643412		
24343	01102573		
24344	01062637		
24345	52314530	MM110	BCD I INHIBIT=32,1D,2D,31DD M10=25E MD10=15D,16D VZ=29A 24E,29E(CPU) 18E,16F
24346	31223163		
24347	40030273		
24350	01247302		
24351	24730301		
24352	24241244		
24353	01004002		

MEM1 TAP=3.0

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24354	05251244		
24355	24010040		
24356	01032473		
24357	01042412		
24360	65714002		
24361	11211202		
24362	04257302		
24363	11257423		
24364	47643412		
24365	01102573		
24366	01062637		
24367	52314530	MM111	BCD I INHIBIT=32,1D,2D,31DD M11=25E MD11=15D,16D VZ=29A 24E,29E(CPU) 18E,16F
24370	31223163		
24371	40030273		
24372	01247302		
24373	24730301		
24374	24241244		
24375	01014002		
24376	05251244		
24377	24010040		
24400	01032473		
24401	01042412		
24402	65714002		
24403	11211202		
24404	04257302		
24405	11257423		
24406	47643412		
24407	01102573		
24410	01062637		
24411	52314530	MM112	BCD I INHIBIT=32,1D,2D,31DD M12=26E MD12=17D,18D VZ=28A 26E,29E(CPU) 18E,19F
24412	31223163		
24413	40030273		
24414	01247302		
24415	24730301		
24416	24241244		
24417	01024002		

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24420 06251244
24421 24010240
24422 01072473
24423 01102412
24424 65714002
24425 10211202
24426 06257302
24427 11257423
24430 47643412
24431 01102473
24432 01112637
24433 52314530
24434 31223163
24435 40030273
24436 01247302
24437 24730301
24440 24241244
24441 01034002
24442 06251244
24443 24010240
24444 01072473
24445 01102412
24446 65714002
24447 10211202
24450 06257303
24451 00257423
24452 47643412
24453 01112573
24454 01112637
24455 52314530
24456 31223163
24457 40030273
24460 01247302
24461 24730301
24462 24241244
24463 01044002

MM113 BCD ' INHIBIT=32,1D,2D,31DD M13=26E MD13=17D,18D VZ=28A 26E,30E(CPU) 19E,19F''

MM114 BCD ' INHIBIT=32,1D,2D,31DD M14=26E MD14=19D,20D VZ=28A 25E,30E(CPU) 19E,19F''

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24464 06251244
24465 24010240
24466 01112473
24467 02072412
24470 65714002
24471 10211202
24472 05257303
24473 00257423
24474 47643412
24475 01112573
24476 01112637
24477 52314530
24500 31223163
24501 40102373
24502 05237306
24503 23730723
24504 12440105
24505 40020725
24506 12442401
24507 05400111
24510 24730200
24511 24126571
24512 40052112
24513 02052573
24514 03002574
24515 23476434
24516 12011125
24517 73011126
24520 37121212
24521 52314530
24522 31223163
24523 40102373
24524 05237306
24525 23730723
24526 12440106
24527 40020725

MM115 BCD ' INHIBIT=8C,5C,6C,7C M15=27E MD15=19D,20D VZ=5A 25E,30E(CPU) 19E,19F''

MM116 BCD ' INHIBIT=8C,5C,6C,7C M16=27E MD16=21D,22D VZ=5A 25E,30E(CPU) 19E,19F''

MEM1 TAP=3.0

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24530	12442401		
24531	06400201		
24532	24730202		
24533	24126571		
24534	40052112		
24535	02052573		
24536	03002574		
24537	23476434		
24540	12011125		
24541	73011126		
24542	37121212		
24543	52314530	MM117 BCD	INHIBIT=8C,8C,6C,7C M17=27E MD17=21D,22D VZ=5A 25E,30E(CPU) 19E,19F!!
24544	31223163		
24545	40102373		
24546	05237306		
24547	23730723		
24550	12440107		
24551	40020725		
24552	12442401		
24553	07400201		
24554	24730202		
24555	24126571		
24556	40052112		
24557	02052573		
24560	03002574		
24561	23476434		
24562	12011125		
24563	73011126		
24564	37121212		
24565	52314530	MM118 BCD	INHIBIT=8C,8C,6C,7C M18=28E MD18=23D,24D VZ=4A 26E,30E(CPU) 19E,20F!!
24566	31223163		
24567	40102373		
24570	05237306		
24571	23730723		
24572	12440110		
24573	40021025		

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24574	12442401		
24575	10400203		
24576	24730204		
24577	24126571		
24600	40042112		
24601	02062573		
24602	03002574		
24603	23476434		
24604	12011125		
24605	73020026		
24606	37121212		
24607	52314530	MM119 BCD	INHIBIT=8C,8C,6C,7C M19=28E MD19=23D,24D VZ=4A 28E,30E(CPU) 19E,20F!!
24610	31223163		
24611	40102373		
24612	05237306		
24613	23730723		
24614	12440111		
24615	40021025		
24616	12442401		
24617	11400203		
24620	24730204		
24621	24126571		
24622	40042112		
24623	02102573		
24624	03002574		
24625	23476434		
24626	12011125		
24627	73020026		
24630	37121212		
24631	52314530	MM120 BCD	INHIBIT=4C,1C,2C,3C M20=28E MD20=25D,26D VZ=4A 28E,30E(CPU) 19E,20F!!
24632	31223163		
24633	40042373		
24634	01237302		
24635	23730723		
24636	12440200		
24637	40021025		

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24640	12442402		
24641	00400205		
24642	24730206		
24643	24126571		
24644	40042112		
24645	02102573		
24646	03002574		
24647	23476434		
24650	12011125		
24651	73020026		
24652	37121212		
24653	52314530	MM121	BCD INHIBIT=4C,1C,2C,3C M21=29E MD21=25D,26D VZ=3A 28E,30E(CPU) 19E,20F11
24654	31223163		
24655	40042373		
24656	01237302		
24657	23730323		
24660	12440201		
24661	40021125		
24662	12442402		
24663	01400205		
24664	24730206		
24665	24126571		
24666	40032112		
24667	02102573		
24670	03002574		
24671	23476434		
24672	12011125		
24673	73020026		
24674	37121212		
24675	52314530	MM122	BCD INHIBIT=4C,1C,2C,3C M22=29E MD22=27D,28D VZ=3A 28E,30E(CPU) 19E,20F11
24676	31223163		
24677	40042373		
24700	01237302		
24701	23730323		
24702	12440202		
24703	40021125		

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24704	12442402		
24705	02400207		
24706	24730210		
24707	24126571		
24710	40032112		
24711	02102573		
24712	03002574		
24713	23476434		
24714	12011125		
24715	73020026		
24716	37121212		
24717	52314530	MM123	BCD INHIBIT=4C,1C,2C,3C M23=29E MD23=27D,28D VZ=3A 26E,30E(CPU) 19E,20F11
24720	31223163		
24721	40042373		
24722	01237302		
24723	23730323		
24724	12440203		
24725	40021125		
24726	12442402		
24727	03400207		
24730	24730210		
24731	24126571		
24732	40032112		
24733	02062573		
24734	03002574		
24735	23476434		
24736	01112573		
24737	02002637		
24740	52314530	MM124	BCD INHIBIT 30E,1C,2C,3C MD24=29D 284D0=4C VZ=2A 26E,30E(CPU) 19E,21F11
24741	31223163		
24742	12030025		
24743	73012373		
24744	02237303		
24745	23124424		
24746	02044002		
24747	11241271		

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!4750	02042400		
!4751	40042312		
!4752	65714002		
!4753	21120206		
!4754	25730300		
!4755	25742347		
!4756	64341201		
!4757	11257302		
!4760	01263712		
!4761	52710024	MM200	BCD ' Z0D1=29C M0=22E MD0=5D,6D DX10=29B XPMR=14A,16A,17A,19A!!
!4762	01400211		
!4763	23124400		
!4764	40020225		
!4765	12442400		
!4766	40052473		
!4767	06241224		
!4770	67010040		
!4771	02112212		
!4772	67264451		
!4773	40010421		
!4774	73010621		
!4775	73010721		
!4776	73011121		
!4777	37121212		
!5000	52710024	MM201	BCD ' Z1D1=29C M1=22E MD1=5D,6D!!
!5001	01400211		
!5002	23124401		
!5003	40020225		
!5004	12442401		
!5005	40052473		
!5006	06243712		
!5007	52710024	MM202	BCD ' Z2D1=29C M2=22E MD2=7D,8D!!
!5010	01400211		
!5011	23124402		
!5012	40020225		
!5013	12442402		

MEM1 TAP=3.0

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!5014	40072473		
!5015	10243712		
!5016	52710024	MM203	BCD ' Z3D1=29C M3=23E MD3=7D,8D!!
!5017	01400211		
!5020	23124403		
!5021	40020325		
!5022	12442403		
!5023	40072473		
!5024	10243712		
!5025	52710024	MM204	BCD ' Z4D1=29C M4=23E MD4=9D,10D!!
!5026	01400211		
!5027	23124404		
!5030	40020325		
!5031	12442404		
!5032	40112473		
!5033	01002437		
!5034	52710024	MM205	BCD ' Z5D1=29C M5=23E MD5=9 D,10D!!
!5035	01400205		
!5036	23124405		
!5037	40020325		
!5040	12442405		
!5041	40111224		
!5042	73010024		
!5043	37121212		
!5044	52710024	MM206	BCD ' Z6D1=29C M6=24E MD6=11D,12D!!
!5045	01400205		
!5046	23124406		
!5047	40020425		
!5050	12442406		
!5051	40010124		
!5052	73010024		
!5053	37121212		
!5054	52710024	MM207	BCD ' Z7D1=29C M7=24E MD7=11D,12D!!
!5055	01400205		
!5056	23124407		
!5057	40020425		

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!5060	124424C7		
!5061	40010124		
!5062	73010224		
!5063	37121212		
!5064	527101024	MM208	BCD ' Z8D1=25C M8=24E MD8=13D,14D''
!5065	01400205		
!5066	23124410		
!5067	40020425		
!5070	12442410		
!5071	40010324		
!5072	73010424		
!5073	37121212		
!5074	52711124	MM209	BCD ' Z9D1=25C M9=25E MD9=13D,14D''
!5075	01400205		
!5076	23124411		
!5077	40020525		
!5100	12442411		
!5101	40010324		
!5102	73010424		
!5103	37121212		
!5104	52710100	MM210	BCD ' Z10D1=1D M10=25E MD10=15D,16D VZ=2A''
!5105	24014001		
!5106	24124401		
!5107	00400205		
!5110	25124424		
!5111	01004001		
!5112	05247301		
!5113	06241265		
!5114	71400221		
!5115	37121212		
!5116	52710101	MM211	BCD ' Z11D1=1D M11=25E MD11=15D,16D VZ=2A''
!5117	24014001		
!5120	24124401		
!5121	01400205		
!5122	25124424		
!5123	01014001		

MEM1 TAP=3.0

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25124	05247301		
25125	06241265		
25126	71400221		
25127	37121212		
25130	52710102	MM212	BCD ' Z12D1=1D M12=26E MD12=17D,18D VZ=1A''
25131	24014001		
25132	24124401		
25133	02400206		
25134	25124424		
25135	01024001		
25136	07247301		
25137	10241265		
25140	71400121		
25141	37121212		
25142	52710103	MM213	BCD ' Z13D1=1D M13=26E MD13=17D,18D VZ=1A''
25143	24014001		
25144	24124401		
25145	03400206		
25146	25124424		
25147	01034001		
25150	07247301		
25151	10241265		
25152	71400121		
25153	37121212		
25154	52710104	MM214	BCD ' Z14D1=1D M14=26E MD14=19D,20D VZ=1A''
25155	24014001		
25156	24124401		
25157	04400206		
25160	25124424		
25161	01044001		
25162	11247302		
25163	00241265		
25164	71400121		
25165	37121212		
25166	52710105	MM215	BCD ' Z15D1=5C M15=27E MD15=19D,20D''
25167	24014005		

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25170	23124401		
25171	05400207		
25172	25124424		
25173	01054001		
25174	11247302		
25175	00243712		
25176	52710106	MM216	BCD ' Z16D1=5C M16=27E MD16=21D,22D''
25177	24014005		
25200	23124401		
25201	06400207		
25202	25124424		
25203	01064002		
25204	01247302		
25205	02243712		
25206	52710107	MM217	BCD ' Z17D1=5C M17=27E MD17=21D,22D''
25207	24014005		
25210	23124401		
25211	07400207		
25212	25124424		
25213	01074002		
25214	01247302		
25215	02243712		
25216	52710110	MM218	BCD ' Z18D1=5C M18=28E MD18=23D,24D''
25217	24014005		
25220	23124401		
25221	10400210		
25222	25124424		
25223	01104002		
25224	03247302		
25225	04243712		
25226	52710111	MM219	BCD ' Z19D1=5C M19=28E MD19=23D,24D''
25227	24014005		
25230	23124401		
25231	11400210		
25232	25124424		
25233	01114002		

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25234	03247302		
25235	04243712		
25236	52710200	MM220	BCD ' Z20D1=1C M20=28E MD20=25D,26D''
25237	24014001		
25240	23124402		
25241	00400210		
25242	25124424		
25243	02004002		
25244	05247302		
25245	06243712		
25246	52710201	MM221	BCD ' Z21D1=1C M21=29E MD21=25D,26D''
25247	24014001		
25250	23124402		
25251	01400211		
25252	25124424		
25253	02014002		
25254	05247302		
25255	06243712		
25256	52710202	MM222	BCD ' Z22D1=1C M22=29E MD22=27D,28D''
25257	24014001		
25260	23124402		
25261	02400211		
25262	25124424		
25263	02024002		
25264	07247302		
25265	10243712		
25266	52710203	MM223	BCD ' Z23D1=1C M23=29E MD23=27D,28D''
25267	24014001		
25270	23124402		
25271	03400211		
25272	25124424		
25273	02034002		
25274	07247302		
25275	10243712		
25276	52440204	MM224	BCD ' M24=30E MD24=29D Z24D1=1C''
25277	40030025		

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25300	12442402			
25301	04400211			
25302	24127102			
25303	04240140			
25304	01233712			
25305	52710024	MM300	BCD	' Z0D2=31C M0=22E M00=5D,6D DY10=5B XFMR=10A,12A,22A,24A!!
25306	02400301			
25307	23124400			
25310	40020225			
25311	12442400			
25312	40052473			
25313	06241224			
25314	70010040			
25315	05221267			
25316	26445140			
25317	01002173			
25320	01022173			
25321	02022173			
25322	02042137			
25323	52710124	MM301	BCD	' Z1D2=31C M1=22E M01=5D,6D!!
25324	02400301			
25325	23124401			
25326	40020225			
25327	12442401			
25330	40052473			
25331	06243712			
25332	52710224	MM302	BCD	' Z2D2=31C M2=22E M02=7D,8D!!
25333	02400301			
25334	23124402			
25335	40020225			
25336	12442402			
25337	40072473			
25340	10243712			
25341	52710324	MM303	BCD	' Z3D2=31C M3=23E M03=7D,8D!!
25342	02400301			
25343	23124403			

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25344	40020325			
25345	12442403			
25346	40072473			
25347	10243712			
25350	52710424	MM304	BCD	' Z4D2=31C M4=23E M04=9D,10D!!
25351	02400301			
25352	23124404			
25353	40020325			
25354	12442404			
25355	40112473			
25356	01002437			
25357	52710524	MM305	BCD	' Z5D2=27C M5=23E M05=9D,10D!!
25360	02400301			
25361	23124405			
25362	40020325			
25363	12442405			
25364	40112473			
25365	01002437			
25366	52710624	MM306	BCD	' Z6D2=27C M6=24E M06=11D,12D!!
25367	02400301			
25370	23124406			
25371	40020425			
25372	12442406			
25373	40010124			
25374	73010224			
25375	37121212			
25376	52710724	MM307	BCD	' Z7D2=27C M7=24E M07=11D,12D!!
25377	02400301			
25400	23124407			
25401	40020425			
25402	12442407			
25403	40010124			
25404	73010224			
25405	37121212			
25406	52710824	MM308	BCD	' Z8D2=27C M8=24E M08=13D,14D!!
25407	02400301			

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25410	23124410		
25411	40020425		
25412	12442410		
25413	40010324		
25414	73010424		
25415	37121212		
25416	52711124	MM309	BCD ' Z9D2=27C M9=28E MD9=13D,14D''
25417	02400207		
25420	23124411		
25421	40020425		
25422	12442411		
25423	40010324		
25424	73010424		
25425	37121212		
25426	52710100	MM310	BCD ' Z10D2=31D M10=28E MD10=15D,16D''
25427	24024003		
25430	01241244		
25431	01004002		
25432	05251244		
25433	24010440		
25434	01052473		
25435	01062437		
25436	52710101	MM311	BCD ' Z11D2=31D M11=28E MD11=15D,16D''
25437	24024003		
25440	01241244		
25441	01014002		
25442	05251244		
25443	24010440		
25444	01052473		
25445	01062437		
25446	52710102	MM312	BCD ' Z12D2=31D M12=26E MD12=17D,18D''
25447	24024003		
25450	01241244		
25451	01024002		
25452	05251244		
25453	24010440		

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25454	01072473		
25455	01102437		
25456	52710103	MM313	BCD ' Z13D2=31D M13=26E MD13=17D,18D''
25457	24024003		
25460	01241244		
25461	01034002		
25462	05251244		
25463	24010440		
25464	01072473		
25465	01102437		
25466	52710104	MM314	BCD ' Z14D2=31D M14=26E MD14=19D,20D''
25467	24024003		
25470	01241244		
25471	01044002		
25472	05251244		
25473	24010440		
25474	01112473		
25475	02002437		
25476	52710105	MM315	BCD ' Z15D2=7C M15=27E MD15=19D,20D''
25477	24024007		
25500	23124401		
25501	05400207		
25502	25124424		
25503	01054001		
25504	11247302		
25505	00243712		
25506	52710106	MM316	BCD ' Z16D2=7C M16=27E MD16=21D,22D''
25507	24024007		
25510	23124401		
25511	06400207		
25512	25124424		
25513	01064002		
25514	01247302		
25515	02243712		
25516	52710107	MM317	BCD ' Z17D2=7C M17=27E MD17=21D,22D''
25517	24024007		

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25520	23124401		
25521	07400207		
25522	25124424		
25523	01074002		
25524	01247302		
25525	02243712		
25526	52710110	MM318	BCD ' Z18D2=7C M18=28E MD18=23D,26D''
25527	24024007		
25530	23124401		
25531	10400210		
25532	25124424		
25533	01104002		
25534	03247302		
25535	04243712		
25536	52710111	MM319	BCD ' Z19D2=7C M19=28E MD19=23D,26D''
25537	24024007		
25540	23124401		
25541	11400210		
25542	25124424		
25543	01114002		
25544	03247302		
25545	04243712		
25546	52710200	MM320	BCD ' Z20D2=3C M20=28E MD20=25D,26D''
25547	24024003		
25550	23124402		
25551	00400210		
25552	25124424		
25553	02004002		
25554	05247302		
25555	06243712		
25556	52710201	MM321	BCD ' Z21D2=3C M21=29E MD21=25D,26D''
25557	24024003		
25560	23124402		
25561	01400211		
25562	25124424		
25563	02014002		

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25564	05247302		
25565	06243712		
25566	52710202	MM322	BCD ' Z22D2=3C M22=29E MD22=27D,28D''
25567	24024003		
25570	23124402		
25571	02400211		
25572	25124424		
25573	02024002		
25574	07247302		
25575	10243712		
25576	52710203	MM323	BCD ' Z23D2=3C M23=29E MD23=27D,28D''
25577	24024003		
25600	23124402		
25601	03400211		
25602	25124424		
25603	02034002		
25604	07247302		
25605	10243712		
25606	52440204	MM324	BCD ' M24=30E MD24=29D Z24D2=3C''
25607	40030225		
25610	12442402		
25611	04400211		
25612	24127102		
25613	04240240		
25614	03233712		
25615	52710024	MM400	BCD ' Z0D3=30C M0=22E MD0=5D,6D''
25616	03400300		
25617	23124400		
25620	40020225		
25621	12442400		
25622	40052473		
25623	06243712		
25624	52710124	MM401	BCD ' Z1D3=30C M1=22E MD1=5D,6D''
25625	03400300		
25626	23124401		
25627	40020225		

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25630	12442401		
25631	40052473		
25632	06243712		
25633	52710224	MM402	BCD ' 28D3=30C M8=28E MD8=7D,8D''
25634	03400300		
25635	23124402		
25636	40020225		
25637	12442402		
25640	40072473		
25641	10243712		
25642	52710324	MM403	BCD ' 23D3=30C M3=23E MD3=7D,8D''
25643	03400300		
25644	23124403		
25645	40020325		
25646	12442403		
25647	40072473		
25650	10243712		
25651	52710424	MM404	BCD ' 24D3=30C M4=24E MD4=9D,10D''
25652	03400300		
25653	23124404		
25654	40020325		
25655	12442404		
25656	40112473		
25657	01002437		
25660	52710524	MM405	BCD ' 25D3=26C M5=25E MD5=9D,10D''
25661	03400206		
25662	23124405		
25663	40020325		
25664	12442405		
25665	40112473		
25666	01002437		
25667	52710624	MM406	BCD ' 26D3=26C M6=26E MD6=11D,12D''
25670	03400206		
25671	23124406		
25672	40020425		
25673	12442406		

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25674	40010124		
25675	73010224		
25676	37121212		
25677	52710724	MM407	BCD ' 27D3=26C M7=24E MD7=11D,12D''
25700	03400206		
25701	23124407		
25702	40020425		
25703	12442407		
25704	40010124		
25705	73010224		
25706	37121212		
25707	52711024	MM408	BCD ' 28D3=26C M8=24E MD8=13D,14D''
25710	03400206		
25711	23124410		
25712	40020425		
25713	12442410		
25714	40010324		
25715	73010424		
25716	37121212		
25717	52711124	MM409	BCD ' 29D3=26C M9=25E MD9=13D,14D''
25720	03400206		
25721	23124411		
25722	40020525		
25723	12442411		
25724	40010324		
25725	73010424		
25726	37121212		
25727	52710100	MM410	BCD ' 210D3=2D M10=25E MD10=15D,16D''
25730	24034002		
25731	24124401		
25732	00400205		
25733	25124424		
25734	01004001		
25735	05247301		
25736	06243712		
25737	52710101	MM411	BCD ' 211D3=2D M11=25E MD11=15D,16D''

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25740	24034002			
25741	24124401			
25742	01400205			
25743	25124424			
25744	01014001			
25745	05247301			
25746	06243712			
25747	52710102	MM412	BCD	' Z1203=2D M12=26E MD12=17D,18D''
25750	24034002			
25751	24124401			
25752	02400206			
25753	25124424			
25754	01024001			
25755	07247301			
25756	10243712			
25757	52710103	MM413	BCD	' Z1303=2D M13=26E MD13=17D,18D''
25760	24034002			
25761	24124401			
25762	03400206			
25763	25124424			
25764	01034001			
25765	07247301			
25766	10243712			
25767	52710104	MM414	BCD	' Z1403=2D M14=26E MD14=19D,20D''
25770	24034002			
25771	24124401			
25772	04400206			
25773	25124424			
25774	01044001			
25775	11247302			
25776	00243712			
25777	52710105	MM415	BCD	' Z1503=6C M15=27E MD15=19D,20D''
26000	24034006			
26001	23124401			
26002	05400207			
26003	25124424			

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26004	01054001			
26005	11247302			
26006	00243712			
26007	52710106	MM416	BCD	' Z1603=6C M16=27E MD16=21D,22D''
26010	24034006			
26011	23124401			
26012	06400207			
26013	25124424			
26014	01064002			
26015	01247302			
26016	02243712			
26017	52710107	MM417	BCD	' Z1703=6C M17=27E MD17=21D,22D''
26020	24034006			
26021	23124401			
26022	07400207			
26023	25124424			
26024	01074002			
26025	01247302			
26026	02243712			
26027	52710110	MM418	BCD	' Z1803=6C M18=28E MD18=23D,24D''
26030	24034006			
26031	23124401			
26032	10400210			
26033	25124424			
26034	01104002			
26035	03247302			
26036	04243712			
26037	52710111	MM419	BCD	' Z1903=6C M19=28E MD19=23D,24D''
26040	24034006			
26041	23124401			
26042	11400210			
26043	25124424			
26044	01114002			
26045	03247302			
26046	04243712			
26047	52710200	MM420	BCD	' Z2003=6C M20=28E MD20=25D,26D''

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26050	24034006			
26051	23124402			
26052	00400210			
26053	25124424			
26054	02004002			
26055	05247302			
26056	06243712			
26057	52710201	MM421	BCD	I Z2103=6C M21=29E MD21=28D,26D11
26060	24034006			
26061	23124402			
26062	01400211			
26063	25124424			
26064	02014002			
26065	05247302			
26066	06243712			
26067	52710202	MM422	BCD	I Z2203=6C M22=29E MD22=27D,28D11
26070	24034006			
26071	23124402			
26072	02400211			
26073	25124424			
26074	02024002			
26075	07247302			
26076	10243712			
26077	52710203	MM423	BCD	I Z2303=6C M23=29E MD23=27D,28D11
26100	24034006			
26101	23124402			
26102	03400211			
26103	25124424			
26104	02034002			
26105	07247302			
26106	10243712			
26107	52440204	MM424	BCD	I M24=30E MD24=29D Z2403=2C11
26110	40030025			
26111	12442402			
26112	04400211			
26113	24127102			

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26114	04240340			
26115	02233712			
26116	52022524	LMO	BCD	I 2ED 16K NOT SELECTED=4D,3E,5E,6E,7E,8F11
26117	12010642			
26120	12454643			
26121	12622543			
26122	25236325			
26123	24400424			
26124	73032573			
26125	05257306			
26126	25730725			
26127	73102637			
26130	52246700	LM1	BCD	I DX0=30B XFMR=13A,15A,18A,20A IX0=27A IX1=27A11
26131	40030022			
26132	12672644			
26133	51400103			
26134	21730105			
26135	21730110			
26136	21730200			
26137	21123167			
26140	00400207			
26141	21123167			
26142	01400207			
26143	21371212			
26144	52246701	LM2	BCD	I DX1=30B XFMR=13A,15A,18A,20A11
26145	40030022			
26146	12672644			
26147	51400103			
26150	21730105			
26151	21730110			
26152	21730200			
26153	21371212			
26154	52246702	LM3	BCD	I DX2=30B XFMR=13A,15A,18A,20A11
26155	40030022			
26156	12672644			
26157	51400103			

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26160	21730105			
26161	21730110			
26162	21730200			
26163	21371212			
26164	52246703	LM4	BCD	' DX3=308 XFMR=13A,15A,18A,20A''
26165	40030022			
26166	12672644			
26167	51400103			
26170	21730105			
26171	21730110			
26172	21730200			
26173	21371212			
26174	52246704	LM5	BCD	' DX4=288 XFMR=13A,15A,18A,20A 13=27A 14=27A''
26175	40021022			
26176	12672644			
26177	51400103			
26200	21730105			
26201	21730110			
26202	21730200			
26203	21123167			
26204	03400207			
26205	21123167			
26206	04400207			
26207	21371212			
26210	52246705	LM6	BCD	' DX5=288 XFMR=13A,15A,18A,20A''
26211	40021022			
26212	12672644			
26213	51400103			
26214	21730105			
26215	21730110			
26216	21730200			
26217	21371212			
26220	52246706	LM7	BCD	' DX6=288 XFMR=13A,15A,18A,20A''
26221	40021022			
26222	12672644			
26223	51400103			

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26224	21730105			
26225	21730110			
26226	21730200			
26227	21371212			
26230	52246707	LM8	BCD	' DX7=288 XFMR=13A,15A,18A,20A''
26231	40021022			
26232	12672644			
26233	51400103			
26234	21730105			
26235	21730110			
26236	21730200			
26237	21371212			
26240	52246701	LM9	BCD	' DX10=298 XFMR=14A,16A,17A,19A''
26241	00400211			
26242	22126726			
26243	44514001			
26244	04217301			
26245	06217301			
26246	07217301			
26247	11213712			
26250	52246701	LM10	BCD	' DX11=298 XFMR=14A,16A,17A,19A''
26251	01400211			
26252	22126726			
26253	44514001			
26254	04217301			
26255	06217301			
26256	07217301			
26257	11213712			
26260	52246701	LM11	BCD	' DX12=298 XFMR=14A,16A,17A,19A''
26261	02400211			
26262	22126726			
26263	44514001			
26264	04217301			
26265	06217301			
26266	07217301			
26267	11213712			

MEM1	TAP=3.0			PAGE 333
26270	52246701	LM12	BCD	' DX13=278 XPMR=16A,16A,17A,19A''
26271	03400211			
26272	22126726			
26273	44514001			
26274	04217301			
26275	06217301			
26276	07217301			
26277	11213712			
26300	52246701	LM13	BCD	' DX14=278 XPMR=16A,16A,17A,19A''
26301	04400207			
26302	22126726			
26303	44514001			
26304	04217301			
26305	06217301			
26306	07217301			
26307	11213712			
26310	52246701	LM14	BCD	' DX15=278 XPMR=16A,16A,17A,19A''
26311	05400207			
26312	22126726			
26313	44514001			
26314	04217301			
26315	06217301			
26316	07217301			
26317	11213712			
26320	52246701	LM15	BCD	' DX16=278 XPMR=16A,16A,17A,19A''
26321	06400207			
26322	22126726			
26323	44514001			
26324	04217301			
26325	06217301			
26326	07217301			
26327	11213712			
26330	52246701	LM16	BCD	' DX17=278 XPMR=16A,16A,17A,19A''
26331	07400207			
26332	22126726			
26333	44514001			

MEM1	TAP=3.0			PAGE 334
26334	04217301			
26335	06217301			
26336	07217301			
26337	11213712			
26340	52226700	LM17	BCD	' SX0=268 XPMR=20A,19A''
26341	40020622			
26342	12672644			
26343	51400200			
26344	21730111			
26345	21371212			
26346	52226701	LM18	BCD	' SX1=78 XPMR=13A,14A''
26347	40072212			
26350	67264451			
26351	40010321			
26352	73010421			
26353	37121212			
26354	52226702	LM19	BCD	' SX2=268 XPMR=20A,19A''
26355	40020622			
26356	12672644			
26357	51400200			
26360	21730111			
26361	21371212			
26362	52226703	LM20	BCD	' SX3=78 XPMR=13A,14A''
26363	40072212			
26364	67264451			
26365	40010321			
26366	73010421			
26367	37121212			
26370	52226704	LM21	BCD	' SX4=258 XPMR=17A,18A''
26371	40020622			
26372	12672644			
26373	51400107			
26374	21730110			
26375	21371212			
26376	52226705	LM22	BCD	' SX5=88 XPMR=15A,16A''
26377	40102212			

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26400	67264451			
26401	40010521			
26402	73010621			
26403	37121212			
26404	52626706	LM23	BCD	' 8x6=258 XFMR=17A,18A''
26405	40020522			
26406	12672644			
26407	51400107			
26410	21730110			
26411	21371212			
26412	52626707	LM24	BCD	' 8x7=88 XFMR=15A,16A''
26413	40102212			
26414	67264451			
26415	40010521			
26416	73010621			
26417	37121212			
26420	52247000	LM25	BCD	' DY0=68 XFMR=9A,11A,21A,23A IY0=6A IY1=6A''
26421	40062212			
26422	67264451			
26423	40112173			
26424	01012173			
26425	02012173			
26426	02032112			
26427	31700340			
26430	06211231			
26431	70014006			
26432	21371212			
26433	52247001	LM26	BCD	' DY1=68 XFMR=9A,11A,21A,23A''
26434	40062212			
26435	67264451			
26436	40112173			
26437	01012173			
26440	02012173			
26441	02032137			
26442	52247002	LM27	BCD	' DY2=68 XFMR=9A,11A,21A,23A''
26443	40062212			

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26444	67264451			
26445	40112173			
26446	01012173			
26447	02012173			
26450	02032137			
26451	52247003	LM28	BCD	' DY3=68 XFMR=9A,11A,21A,23A''
26452	40062212			
26453	67264451			
26454	40112173			
26455	01012173			
26456	02012173			
26457	02032137			
26460	52247004	LM29	BCD	' DY4=48 XFMR=9A,11A,21A,23A IY3=6A IY4=6A''
26461	40042212			
26462	67264451			
26463	40112173			
26464	01012173			
26465	02012173			
26466	02032112			
26467	31700340			
26470	06211231			
26471	70044006			
26472	21371212			
26473	52247005	LM30	BCD	' DY5=48 XFMR=9A,11A,21A,23A''
26474	40042212			
26475	67264451			
26476	40112173			
26477	01012173			
26500	02012173			
26501	02032137			
26502	52247006	LM31	BCD	' DY6=48 XFMR=9A,11A,21A,23A''
26503	40042212			
26504	67264451			
26505	40112173			
26506	01012173			
26507	02012173			

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26510	02032137			
26511	52247007	LM32	BCD	' DY7=4B XFMR=9A,11A,21A,23A!!
26512	40042212			
26513	67264451			
26514	*0112173			
26515	01012173			
26516	02012173			
26517	02032137			
26520	52247001	LM33	BCD	' DY10=5B XFMR=10A,12A,22A,24A!!
26521	00400522			
26522	12672644			
26523	51400100			
26524	21730102			
26525	21730202			
26526	21730204			
26527	21371212			
26530	52247001	LM34	BCD	' DY11=5B XFMR=10A,12A,22A,24A!!
26531	01400522			
26532	12672644			
26533	51400100			
26534	21730102			
26535	21730202			
26536	21730204			
26537	21371212			
26540	52247001	LM35	BCD	' DY12=5B XFMR=10A,12A,22A,24A!!
26541	02400522			
26542	12672644			
26543	51400100			
26544	21730102			
26545	21730202			
26546	21730204			
26547	21371212			
26550	52247001	LM36	BCD	' DY13=5B XFMR=10A,12A,22A,24A!!
26551	03400522			
26552	12672644			
26553	51400100			

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26554	21730102			
26555	21730202			
26556	21730204			
26557	21371212			
26560	52247001	LM37	BCD	' DY14=3B XFMR=10A,12A,22A,24A!!
26561	04400322			
26562	12672644			
26563	51400100			
26564	21730102			
26565	21730202			
26566	21730204			
26567	21371212			
26570	52247001	LM38	BCD	' DY15=3B XFMR=10A,12A,22A,24A!!
26571	05400322			
26572	12672644			
26573	51400100			
26574	21730102			
26575	21730202			
26576	21730204			
26577	21371212			
26600	52247001	LM39	BCD	' DY16=3B XFMR=10A,12A,22A,24A!!
26601	06400322			
26602	12672644			
26603	51400100			
26604	21730102			
26605	21730202			
26606	21730204			
26607	21371212			
26610	52247001	LM40	BCD	' DY17=3B XFMR=10A,12A,22A,24A!!
26611	07400322			
26612	12672644			
26613	51400100			
26614	21730102			
26615	21730202			
26616	21730204			
26617	21371212			

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26620	52627000	LM41	BCD	SY0=32B XFMR=23A,24A
26621	40030222			
26622	12672644			
26623	51400203			
26624	21730204			
26625	21371212			
26626	52627001	LM42	BCD	SY1=31B XFMR=29A,10A
26627	40030122			
26630	12672644			
26631	51400211			
26632	21730100			
26633	21371212			
26634	52627002	LM43	BCD	SY2=32B XFMR=23A,24A
26635	40030222			
26636	12672644			
26637	51400203			
26640	21730204			
26641	21371212			
26642	52627003	LM44	BCD	SY3=31B XFMR=29A,10A
26643	40030122			
26644	12672644			
26645	51400211			
26646	21730100			
26647	21371212			
26650	52627004	LM45	BCD	SY4=31B XFMR=21A,22A
26651	40030122			
26652	12672644			
26653	51400201			
26654	21730202			
26655	21371212			
26656	52627005	LM46	BCD	SY5=32B XFMR=11A,12A
26657	40030222			
26660	12672644			
26661	51400101			
26662	21730102			
26663	21371212			

MEM1	TAP=3.C		PAGE 340	
26664	52627006	LM47	BCD	SY6=31B XFMR=21A,22A
26665	40030122			
26666	12672644			
26667	51400201			
26670	21730202			
26671	21371212			
26672	52627007	LM48	BCD	SY7=32B XFMR=11A,12A
26673	40030222			
26674	12672644			
26675	51400101			
26676	21730102			
26677	21371212			
26700	52121212	PERROR	BCD	RL1 RL2 ADDRESS OVERFLOW ERRORS
26701	51430112			
26702	12121212			
26703	12514302			
26704	12121221			
26705	24245125			
26706	62621212			
26707	46652551			
26710	26434666			
26711	12122551			
26712	51465162			
26713	52371212			
26714	52624764	SPIT	BCD	SPURIOUS INTERRUPT OR TRAP
26715	51314664			
26716	62123145			
26717	63255151			
26720	64476312			
26721	46511263			
26722	51214737			
26723	52442544	WCHH	BCD	MEMORY NOISE ERROR
26724	46517012			
26725	45463142			
26726	25122551			
26727	51465112			

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BCD 1 BAD WORD=GOOD WORD=ADDRESS-OVERFLOW=ERRORS 11

26730	52222124
26731	12664651
26732	24402746
26733	46241266
26734	46512440
26735	21242451
26736	25626240
26737	46652551
26740	26434466
26741	40255151
26742	46516252
26743	37121212

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END START

LITERALS	USED:
26744	00000004
26745	00000000
26746	00037777
26747	00000267
26750	00000263
26751	77777777
26752	40404040
26753	77000000
26754	00770000
26755	00007700
26756	00000077
26757	40000000
26760	00400000
26761	00004000
26762	00000040
26763	41000000
26764	42000000
26765	44000000
26766	50000000
26767	60000000
26770	00410000
26771	00420000
26772	00440000
26773	00500000
26774	00600000
26775	00004100
26776	00004200
26777	00004400
27000	00005000
27001	00006000
27002	00000041
27003	00000042
27004	00000044
27005	00000050

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27006 0000060
27007 0000067
27010 0000037
27011 00003700
27012 00000100
27013 00000200
27014 00000400
27015 00001000
27016 00002000
27017 00000001
27020 00000002
27021 00000010
27022 00000020
27023 00010203
27024 04770000
27025 04050464
27026 04050453
27027 04054040
27030 40414243
27031 44455447
27032 52252452
27033 04050440
27034 00007360
27035 00007377
27036 77010203
27037 04050407
27040 40010203
27041 00047475
27042 00007437
27043 10111213
27044 14151417
27045 20000000
27046 10000000
27047 04000000
27050 02000000
27051 01000000

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27052 00200000
27053 00100000
27054 00040000
27055 00020000
27056 00010000
27057 37777777
27060 57777777
27061 67777777
27062 73777777
27063 75777777
27064 76777777
27065 77377777
27066 77577777
27067 77677777
27070 77737777
27071 77757777
27072 77767777
27073 77773777
27074 77775777
27075 77776777
27076 77777377
27077 77777577
27100 77777677
27101 77777737
27102 77777757
27103 77777767
27104 77777773
27105 77777775
27106 77777776
27107 20212223
27110 24252427
27111 30313233
27112 34353637
27113 00140000
27114 00010007
27115 00000003

27116 00000005
 27117 00000006
 27120 00000007
 27121 00010001
 27122 00010002
 27123 00010003
 27124 00010004
 27125 00010005
 27126 00010006
 27127 00000070
 27130 00000030
 27131 00020700
 27132 00000300
 27133 00000000
 27134 00000400
 27135 00000700
 27136 00020100
 27137 00020200
 27140 00020300
 27141 00020400
 27142 00020500
 27143 00020600
 27144 00007000
 27145 00003000
 27146 10110000
 27147 02020000
 27150 00070000
 27151 16170000
 27152 07700000
 27153 04100000
 27154 00000275
 27155 00000056
 27156 00000177
 27157 00000037
 27160 00000273
 27161 00000377

27162 00000161
 27163 36000000
 27164 00007777
 27165 00003737
 27166 00102030

27167 CELLS USED BY PROGRAM

LOCAL SYMBOLS USED *

AAA		16063+	AA		17057+	ACCESS		16320+
AREG	N	410	BB		17060+	BREG	N	411
BRUB1		7556+	BRUB3		7557+	BRUB4		7560+
BRUB5		7561+	CARRET		16215+	CHECK		16423+
CLEAR		16141+	COMMON		16123+	DIVERT		480
DBNE		452	DSC61Z	N	404	END		434
ENDIT		16030+	ENDING		16041+	ERROR		460
ERRRS	N	414	FAM1		20064+	FAM2		20322+
FAM3		20562+	FAM4		21011+	FAM5		21221+
FCONE		456	FIM1		20055+	FIM2		20305+
FIM3		20544+	FIM4		20772+	FIM5		21211+
FINISH		17163+	FLAG8	N	332	FPT1		20008+
FPT2		20015+	FPT3		20024+	FPT6		20033+
FPT5		20042+	FUNCTN		424	FUNC1	N	4006+
FUNC2		10000+	FUNCT3		14802+	FUNC4		15630+
FUNC5		17062+	FVM1		20051+	FVM2		20301+
FVM3		20540+	FVM4		20766+	FVM5		21205+
FVT1		20014+	FVT2		20023+	FVT3		20032+
FVT4		20041+	FVT5		20050+	ISOT44		16113+
I31	N	243	I33	N	247	IS6		275
IS6174		16112+	IEXT		16077+	IILEXT		16155+
IS69		16203+	INT31	N	248	INT33	N	246

ITABLE	16151*	L0	14601*	L10	14757*
L11	14772*	L12	15008*	L13	15020*
L14	15033*	L15	15046*	L16	15061*
L17	15074*	L18	15107*	L19	15122*
L1	14614*	L20	15135*	L21	15150*
L22	15163*	L23	15176*	L24	15211*
L25	15224*	L26	15237*	L27	15252*
L28	15265*	L29	15300*	L2	14627*
L30	15313*	L31	15326*	L32	15341*
L33	15354*	L34	15367*	L35	15402*
L36	15415*	L37	15430*	L38	15443*
L39	15456*	L3	14642*	L40	15471*
L41	15504*	L42	15517*	L43	15532*
L44	15545*	L45	15560*	L46	15573*
L47	15606*	L48	15621*	L4	14655*
L5	14670*	L6	14703*	L7	14716*
L8	14731*	L9	14744*	LCK0	14571*
LCK1	14604*	LCK10	14747*	LCK11	14762*
LCK12	14775*	LCK13	15010*	LCK14	15023*
LCK15	15036*	LCK16	15051*	LCK17	15064*
LCK18	15077*	LCK19	15112*	LCK2	14617*
LCK20	15125*	LCK21	15140*	LCK22	15153*
LCK23	15166*	LCK24	15201*	LCK25	15214*
LCK26	15227*	LCK27	15242*	LCK28	15255*
LCK29	15270*	LCK3	14632*	LCK30	15303*
LCK31	15316*	LCK32	15331*	LCK33	15344*
LCK34	15357*	LCK35	15372*	LCK36	15405*
LCK37	15420*	LCK38	15433*	LCK39	15446*
LCK4	14645*	LCK40	15461*	LCK41	15474*
LCK42	15507*	LCK43	15522*	LCK44	15535*
LCK45	15550*	LCK46	15563*	LCK47	15576*
LCK48	15611*	LCK5	14660*	LCK6	14673*
LCK7	14706*	LCK8	14721*	LCK9	14734*
LM0	26116*	LM1	26130*	LM10	26250*
LM11	26260*	LM12	26270*	LM13	26300*
LM14	26310*	LM15	26320*	LM16	26330*

LM17	26340*	LM18	26346*	LM19	26354*
LM2	26144*	LM20	26362*	LM21	26370*
LM22	26376*	LM23	26404*	LM24	26412*
LM25	26420*	LM26	26433*	LM27	26442*
LM28	26451*	LM29	26460*	LM3	26154*
LM30	26473*	LM31	26502*	LM32	26511*
LM33	26520*	LM34	26530*	LM35	26540*
LM36	26550*	LM37	26560*	LM38	26570*
LM39	26600*	LM4	26164*	LM40	26610*
LM41	26620*	LM42	26626*	LM43	26634*
LM44	26642*	LM45	26650*	LM46	26656*
LM47	26664*	LM48	26672*	LM5	26174*
LM6	26210*	LM7	26220*	LM6	26230*
LM9	26240*	LOCKS	402	LM10	10203*
M100	12242*	M101	12254*	M102	12266*
M103	12300*	M104	12312*	M105	12324*
M106	12336*	M107	12350*	M108	12362*
M109	12374*	M11	10217*	M110	12406*
M111	12420*	M112	12432*	M113	12444*
M114	12456*	M115	12470*	M116	12502*
M117	12514*	M118	12526*	M119	12540*
M12	10233*	M120	12552*	M121	12564*
M122	12576*	M123	12610*	M124	12622*
M125	12634*	M126	12646*	M127	12660*
M128	12672*	M129	12704*	M13	10247*
M130	12716*	M131	12730*	M132	12742*
M133	12754*	M134	12766*	M135	13000*
M136	13012*	M137	13024*	M138	13038*
M139	13050*	M14	10263*	M140	13062*
M141	13074*	M142	13106*	M143	13120*
M144	13132*	M145	13144*	M146	13156*
M147	13170*	M148	13202*	M149	13214*
M15	10277*	M150	13226*	M151	13240*
M152	13282*	M153	13264*	M154	13276*
M155	13310*	M156	13322*	M157	13334*
M158	13346*	M159	13360*	M16	10313*

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M160	13372+	M161	13404+	M162	13416+
M163	13430+	M164	13442+	M165	13454+
M166	13466+	M167	13500+	M168	13512+
M169	13524+	M17	10327+	M170	13536+
M171	13550+	M172	14006+	M173	14020+
M174	14038+	M175	14044+	M176	14056+
M177	14070+	M178	14102+	M179	14114+
M18	14343+	M180	14126+	M181	14140+
M182	14152+	M183	14164+	M184	14176+
M185	14210+	M186	14222+	M187	14234+
M188	14246+	M189	14260+	M19	10357+
M190	14272+	M191	14304+	M192	14316+
M193	14330+	M194	14342+	M195	14354+
M1	10027+	M20	10373+	M200	14367+
M201	14401+	M202	14413+	M203	14425+
M204	14437+	M205	14451+	M206	14463+
M207	14475+	M21	10407+	M22	10423+
M23	10437+	M24	10453+	M25	10467+
M26	10503+	M27	10517+	M28	10533+
M29	10547+	M2	10043+	M30	10569+
M31	10577+	M32	10613+	M33	10627+
M34	10643+	M35	10657+	M36	10673+
M37	10707+	M38	10723+	M39	10737+
M3	10057+	M40	10753+	M41	10767+
M42	11003+	M43	11017+	M44	11033+
M45	11047+	M46	11063+	M47	11077+
M48	11113+	M49	11127+	M4	10073+
M50	11143+	M51	11157+	M52	11173+
M53	11207+	M54	11223+	M55	11237+
M56	11253+	M57	11267+	M58	11303+
M59	11317+	M58	10107+	M60	11333+
M61	11347+	M62	11363+	M63	11377+
M64	11413+	M65	11427+	M66	11443+
M67	11457+	M68	11473+	M69	11507+
M6	10123+	M70	11523+	M71	11537+
M72	11553+	M73	11567+	M74	11603+

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M75	11617+	M76	11633+	M77	11647+
M78	11663+	M79	11677+	M7	10137+
M80	11713+	M81	11727+	M82	11743+
M83	11757+	M84	11773+	M85	12007+
M86	12023+	M87	12037+	M88	12053+
M89	12067+	M8	10153+	M90	12103+
M91	12117+	M92	12133+	M93	12147+
M94	12163+	M95	12177+	M96	12213+
M97	12226+	M9	10167+	MEM1	10020+
MEM10	10174+	MEM100	12234+	MEM101	12246+
MEM102	N	MEM103	12278+	MEM104	N
MEM108	N	MEM106	12330+	MEM107	N
MEM108	N	MEM109	12366+	MEM11	10210+
MEM110	N	MEM111	12412+	MEM112	N
MEM113	N	MEM114	12450+	MEM115	N
MEM114	N	MEM117	12506+	MEM118	N
MEM119	N	MEM12	10224+	MEM120	N
MEM121	N	MEM122	12570+	MEM123	N
MEM124	N	MEM125	12626+	MEM126	N
MEM127	N	MEM128	12664+	MEM129	N
MEM13	N	MEM130	12710+	MEM131	N
MEM132	N	MEM133	12746+	MEM134	N
MEM135	N	MEM136	13004+	MEM137	N
MEM138	N	MEM139	13042+	MEM14	10254+
MEM140	N	MEM141	13066+	MEM142	N
MEM143	N	MEM144	13124+	MEM145	N
MEM146	N	MEM147	13162+	MEM148	N
MEM149	N	MEM15	10270+	MEM150	N
MEM151	N	MEM152	13244+	MEM153	N
MEM154	N	MEM155	13302+	MEM156	N
MEM157	N	MEM158	13340+	MEM159	N
MEM16	N	MEM160	13364+	MEM161	N
MEM162	N	MEM163	13422+	MEM164	N
MEM165	N	MEM166	13460+	MEM167	N
MEM168	N	MEM169	13516+	MEM17	10380+
MEM170	N	MEM171	13542+	MEM172	14000+

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MEM173	N	14012+	MEM174	N	14024+	MEM175	N	14036+
MEM176	N	14050+	MEM177	N	14062+	MEM178	N	14074+
MEM179	N	14106+	MEM18	N	10334+	MEM180	N	14120+
MEM181	N	14132+	MEM182	N	14144+	MEM183	N	14156+
MEM184	N	14170+	MEM185	N	14202+	MEM186	N	14214+
MEM187	N	14226+	MEM188	N	14240+	MEM189	N	14252+
MEM19	N	14350+	MEM190	N	14266+	MEM191	N	14276+
MEM192	N	14310+	MEM193	N	14322+	MEM194	N	14334+
MEM195	N	14346+	MEM2	N	10034+	MEM20	N	10364+
MEM200	N	14360+	MEM201	N	14372+	MEM202	N	14404+
MEM203	N	14416+	MEM204	N	14430+	MEM205	N	14442+
MEM206	N	14454+	MEM207	N	14466+	MEM21	N	10400+
MEM22	N	10414+	MEM23	N	10430+	MEM24	N	10444+
MEM25	N	10460+	MEM26	N	10474+	MEM27	N	10510+
MEM28	N	10524+	MEM29	N	10540+	MEM3	N	10050+
MEM30	N	10554+	MEM31	N	10570+	MEM32	N	10604+
MEM33	N	10620+	MEM34	N	10634+	MEM35	N	10650+
MEM36	N	10664+	MEM37	N	10700+	MEM38	N	10714+
MEM39	N	10730+	MEM4	N	10064+	MEM40	N	10744+
MEM41	N	10760+	MEM42	N	10774+	MEM43	N	11010+
MEM44	N	11024+	MEM45	N	11040+	MEM46	N	11054+
MEM47	N	11070+	MEM48	N	11104+	MEM49	N	11120+
MEM5	N	10100+	MEM50	N	11134+	MEM51	N	11150+
MEM52	N	11164+	MEM53	N	11200+	MEM54	N	11214+
MEM55	N	11230+	MEM56	N	11244+	MEM57	N	11260+
MEM58	N	11274+	MEM59	N	11310+	MEM6	N	10114+
MEM60	N	11324+	MEM61	N	11340+	MEM62	N	11354+
MEM63	N	11370+	MEM64	N	11404+	MEM65	N	11420+
MEM66	N	11434+	MEM67	N	11450+	MEM68	N	11464+
MEM69	N	11500+	MEM7	N	10130+	MEM70	N	11514+
MEM71	N	11530+	MEM72	N	11544+	MEM73	N	11560+
MEM74	N	11574+	MEM75	N	11610+	MEM76	N	11624+
MEM77	N	11640+	MEM78	N	11654+	MEM79	N	11670+
MEM8	N	10144+	MEM80	N	11704+	MEM81	N	11720+
MEM82	N	11734+	MEM83	N	11750+	MEM84	N	11764+
MEM85	N	12000+	MEM86	N	12014+	MEM87	N	12030+

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MEM88	N	12044+	MEM89	N	12060+	MEM9	N	10160+
MEM90	N	12074+	MEM91	N	12110+	MEM92	N	12124+
MEM93	N	12140+	MEM94	N	12154+	MEM95	N	12170+
MEM96	N	12204+	MEM97	N	12220+	MEM00	N	20000+
MEM100	N	24061+	MEM101	N	24103+	MEM102	N	24125+
MEM103	N	24147+	MEM104	N	24171+	MEM105	N	24213+
MEM106	N	24235+	MEM107	N	24257+	MEM108	N	24301+
MEM109	N	24323+	MEM110	N	24345+	MEM111	N	24367+
MEM112	N	24411+	MEM113	N	24433+	MEM114	N	24455+
MEM115	N	24477+	MEM116	N	24521+	MEM117	N	24543+
MEM118	N	24565+	MEM119	N	24607+	MEM120	N	24631+
MEM121	N	24653+	MEM122	N	24675+	MEM123	N	24717+
MEM124	N	24740+	MEM200	N	24761+	MEM201	N	25000+
MEM202	N	25007+	MEM203	N	25016+	MEM204	N	25025+
MEM205	N	25034+	MEM206	N	25044+	MEM207	N	25054+
MEM208	N	25064+	MEM209	N	25074+	MEM210	N	25104+
MEM211	N	25116+	MEM212	N	25130+	MEM213	N	25142+
MEM214	N	25154+	MEM215	N	25166+	MEM216	N	25176+
MEM217	N	25206+	MEM218	N	25216+	MEM219	N	25226+
MEM220	N	25236+	MEM221	N	25246+	MEM222	N	25256+
MEM223	N	25266+	MEM224	N	25276+	MEM300	N	25305+
MEM301	N	25323+	MEM302	N	25332+	MEM303	N	25341+
MEM304	N	25350+	MEM305	N	25357+	MEM306	N	25366+
MEM307	N	25376+	MEM308	N	25406+	MEM309	N	25416+
MEM310	N	25426+	MEM311	N	25436+	MEM312	N	25446+
MEM313	N	25456+	MEM314	N	25466+	MEM315	N	25476+
MEM316	N	25506+	MEM317	N	25516+	MEM318	N	25526+
MEM319	N	25536+	MEM320	N	25546+	MEM321	N	25556+
MEM322	N	25566+	MEM323	N	25576+	MEM324	N	25606+
MEM400	N	25615+	MEM401	N	25624+	MEM402	N	25633+
MEM403	N	25642+	MEM404	N	25651+	MEM405	N	25660+
MEM406	N	25667+	MEM407	N	25677+	MEM408	N	25707+
MEM409	N	25717+	MEM410	N	25727+	MEM411	N	25737+
MEM412	N	25747+	MEM413	N	25757+	MEM414	N	25767+
MEM415	N	25777+	MEM416	N	26007+	MEM417	N	26017+
MEM418	N	26027+	MEM419	N	26037+	MEM420	N	26047+

MM421	26057*	MM422	26067*	MM423	26077*
MM424	26107*	MNE	17086*	OBJECT	430
IVRFLD	N 413	PARITY	16081*	PATERN	15627*
ERROR	26700*	POP	16108*	POPED	16170*
ADDRIZ	N 403	REPORT	484	RETURN	440
ILLI	415	RL2	416	RL4	417
SEED	N 406	SPIT	N 26714*	SPREAD	16216*
SPRED1	14523*	SPRED2	14840*	SPRED3	14558*
SPRINT	16174*	SPURI	16064*	STATUS	401
YSIZE	405	T10	4388*	T11	4403*
F12	4431*	T13	4487*	T14	4505*
F15	4539*	T16	4561*	T17	4607*
F18	4638*	T19	4663*	T1	4030*
F20	4711*	T21	4737*	T22	4765*
F23	5013*	T24	5041*	T25	5067*
F26	5115*	T27	5143*	T28	5171*
F29	5217*	T2	4063*	T30	5245*
F31	5273*	T32	5321*	T33	5347*
F34	5375*	T35	5423*	T36	5481*
F37	5477*	T38	5525*	T39	5553*
T3	4116*	T40A	5601*	T41	263
T41A	5627*	T42A	5688*	T42	267
T43A	5703*	T44A	5731*	T43	5757*
T46	6005*	T47	6033*	T48	6061*
T49	6107*	T4	4151*	T50	6135*
T51	6163*	T82	6211*	T53	6237*
T54	6265*	T55	6313*	T56	6341*
T57	6367*	T58	6415*	T59	6443*
T5	4177*	T60	6466*	T61	6507*
T62	6531*	T63	6553*	T64	6575*
T65	6617*	T66	6641*	T67	6663*
T68	6705*	T69	6727*	T6	4225*
T70	6751*	T71	6773*	T72	7015*
T73	7037*	T74A	7066*	T74B	7100*
T75A	7126*	T75B	7140*	T76A	7167*
T76B	7201*	T77	7226*	T78	7263*

T79	7310*	T7	4253*	T80	7335*
T81A	7360*	T81B	7364*	T81C	7374*
T82	7416*	T83A	7444*	T83B	7446*
T84	7466*	T85A	7515*	T85B	7520*
T84A	7537*	T86B	7540*	T8	4301*
T9	4327*	TEMP	15626*	TEST	16422*
TIME	N 407	TM10	22025*	TM11	22035*
TM12	22045*	TM13	22061*	TM14	22075*
TM15	22111*	TM16	22125*	TM17	22141*
TM18	22155*	TM19	22171*	TM1A	22160*
TM1B	22183*	TM20	22205*	TM21	22212*
TM22	22217*	TM23	22224*	TM24	22231*
TM25	22234*	TM26	22246*	TM27	22253*
TM28	22260*	TM29	22265*	TM2A	22251*
TM2B	22264*	TM30	22273*	TM31	22277*
TM32	22304*	TM33	22311*	TM34	22316*
TM35	22323*	TM36	22330*	TM37	22335*
TM38	22348*	TM39	22347*	TM3A	22306*
TM3B	22370*	TM4	21741*	TM40	22354*
TM41	22361*	TM42	22366*	TM43	22373*
TM44	22400*	TM45	22405*	TM46	22415*
TM47	22422*	TM48	22427*	TM49	22434*
TM5	21751*	TM50	22441*	TM51	22446*
TM52	22453*	TM53	22460*	TM54	22465*
TM55	22472*	TM56	22477*	TM57	22504*
TM58	22511*	TM59	22516*	TM6	21761*
TM60	22523*	TM61	22527*	TM62	22531*
TM63	22554*	TM64	22571*	TM65	22574*
TM66	22603*	TM67	22610*	TM68	22615*
TM69	22622*	TM7	21771*	TM70	22627*
TM71	22634*	TM72	22641*	TM73	22646*
TM74A	22653*	TM74B	22656*	TM75A	22660*
TM75B	22663*	TM76A	22665*	TM76B	22670*
TM77	22673*	TM78	22675*	TM79	22677*
TM8	22001*	TM80	22708*	TM81A	22717*
TM81B	22728*	TM82	22738*	TM83A	22742*

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TM84		22745*	TM85A		22750*	TM86A		22753*
TM86B		22756*	TM9		22015*	TRAP1	N	4010*
TRAP10	N	4335*	TRAP11	N	4363*	TRAP12	N	4411*
TRAP13	N	4437*	TRAP14	N	4465*	TRAP15	N	4513*
TRAP16	N	4541*	TRAP17	N	4567*	TRAP18	N	4615*
TRAP19	N	4643*	TRAP2	N	4043*	TRAP20	N	4671*
TRAP21	N	4717*	TRAP22	N	4745*	TRAP23	N	4773*
TRAP24	N	4821*	TRAP25	N	5047*	TRAP26	N	5075*
TRAP27	N	5123*	TRAP28	N	5151*	TRAP29	N	5177*
TRAP3	N	4076*	TRAP30	N	5225*	TRAP31	N	5253*
TRAP32	N	5301*	TRAP33	N	5327*	TRAP34	N	5355*
TRAP35	N	5403*	TRAP36	N	5431*	TRAP37	N	5457*
TRAP38	N	5505*	TRAP39	N	5533*	TRAP4	N	4131*
TRAP40	N	5561*	TRAP41	N	5607*	TRAP42	N	5635*
TRAP43	N	5663*	TRAP44	N	5711*	TRAP45	N	5737*
TRAP46	N	5745*	TRAP47	N	6013*	TRAP48	N	6041*
TRAP49	N	6067*	TRAP5	N	4157*	TRAP50	N	6115*
TRAP51	N	6143*	TRAP52	N	6171*	TRAP53	N	6217*
TRAP54	N	6245*	TRAP55	N	6273*	TRAP56	N	6321*
TRAP57	N	6347*	TRAP58	N	6375*	TRAP59	N	6423*
TRAP6	N	4205*	TRAP60	N	6451*	TRAP61	N	6473*
TRAP62	N	4515*	TRAP63	N	6537*	TRAP64	N	6561*
TRAP65	N	4603*	TRAP66	N	6625*	TRAP67	N	6647*
TRAP68	N	4671*	TRAP69	N	6713*	TRAP7	N	4233*
TRAP70	N	4735*	TRAP71	N	6757*	TRAP72	N	7001*
TRAP73	N	7023*	TRAP74	N	7045*	TRAP75	N	7105*
TRAP76	N	7146*	TRAP77	N	7206*	TRAP78	N	7234*
TRAP79	N	7271*	TRAP8	N	4261*	TRAP80	N	7316*
TRAP81	N	7341*	TRAP82	N	7377*	TRAP83	N	7424*
TRAP84	N	7451*	TRAP85	N	7475*	TRAP86	N	7521*
TRAP9	N	4307*	JAM		21331*	JAM	N	400
UIM		21315*	UNIT		*20	UPT		20000*
UVM		21312*	JVT		20005*	WCH0		15654*
WCH00		15643*	WCH1		15665*	WCH2		15703*
WCH3		15712*	WCH4		15730*	WCH5		15740*
WCH6		15761*	WCH7		15766*	WCHM		26723*

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XREG	N	412	XX	17061*	ZERO	0*
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