

SDS 940 OLDS DIAGNOSTIC SYSTEM

UNIT 15 W RAD TEST LISTING

SDS 870037-51A

February 1969



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

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00010	OCTAL		
0 01 0000	*SNE	0PD	0100000,1
0 02 0000	TNS	0PD	0200000,1
0 03 0000	THREE	0PD	0300000,1
0 04 0000	FOUR	0PD	0400000,1
0 05 0000	FIVE	0PD	0500000,1
0 06 0000	SIX	0PD	0600000,1
0 07 0000	SEVEN	0PD	0700000,1
0 10 0000	FIGHT	0PD	01000000,1
	*		
0000400	UAW	EQU	400
0000401	STATUS	EQU	401
0000402	SIX	EQU	402
0000403	RADSIZ	EQU	403
0000404	DSCSIZ	EQU	404
0000405	SYSIZE	EQU	405
0000406	SEED	EQU	406
0000407	TIME	EQU	407
0000410	AREG	EQU	410
0000411	RREG	EQU	411
0000412	XREG	EQU	412
0000413	*VRFLO	EQU	413
0000414	FRR9RS	EQU	414
0000415	RL1	EQU	415
0000416	RL2	EQU	416
0000417	RL4	EQU	417
0000420	UNIT	EQU	420
0000424	FUNCTION	EQU	424
0000430	SUBJECT	EQU	430
0000434	FND	EQU	434
0000440	RETURN	EQU	440
0000450	DIVERT	EQU	450
0000452	DONE	EQU	452
0000454	REPORT	EQU	454
0000456	FDONE	EQU	456

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0000460	ERRRR	EQU	460
	*		
0 33 0000	PIAN	0PD	03300000,1
0 13 0000	POTT	0PD	01300000,1
0 02 2000	EIRR	0PD	00220002,2
0 02 2000	*IRR	0PD	00220004,2
0000311	I64	EQU	311
0000313	I65	EQU	313
0 46 2000	ABC	0PD	4620005,2
0 46 10012	BAC	0PD	4610012,2
0 46 00014	XAB	0PD	4600014,2
0 02 0000	E0M4	0PD	200000,1
0 40 0000	SKSS	0PD	04000000,1
0 40 14000	CATC	0PD	4014000,2
0 02 0000	DSCC	0PD	200000,2
0 02 14000	T0PC	0PD	214000,2
0 40 21000	BRTC	0PD	4021000,2
0 40 11000	CETC	0PD	4011000,2
0 40 20010	BETC	0PD	4020010,2
0 02 10000	ALCC	0PD	210000,2
0 40 12000	CZTC	0PD	4012000,2
0 02 12000	ASCC	0PD	212000,2
0 02 02045	DE0M	0PD	202045,2
0000243	I31	EQU	243
0000247	I33	EQU	247
0000243	IX1	EQU	131
0000247	IX2	EQU	133
0000242	INTX1	EQU	INT31
0000246	INTX2	EQU	INT33
0000242	INT31	EQU	242
0000246	INT33	EQU	246
00007000	RADW0	EQU	7000
00000	04000	BSS	04000
	RADW15	IDENT	

FORCE 920 BITS

26-66 RAD 0N W CHANNEL,945

*
*
*
*

FUNCTION 1 = TMCC TEST

04000	0 43 00420	BRM	UNIT	UNIT LINK
04001	0 20 21212	NBP	UPT	UNIT PARAMETER TABLES
04002	0 43 14454	BRM	BRITYP	SET INTERRUPT RETURN BRANCH, BRI OR BRU.
04003	0 43 14467	BRM	RADSK	TEST FOR RAD COUNT
04004	0 43 00424	BRM	FUNCTN	FUNCTION LINK
04005	0 20 21220	NBP	FPT1	FUNCTION PARAMETER TABLES

FUNCI

*
*

TEST CAT (NOT ACTIVE CONDITION)

04006	0 43 00430	BRM	OBJECT	
04007	0 43 00440	BRM	RETURN	
04010	0 20 06073	NBP	XTI1	
04011	0 02 00000	DSCC	0	
04012	0 40 14000	CATC	0	
04013	0 43 00460	BRM	ERR0R	CHANNEL TESTS ACTIVE
04014	0 20 23355	NBP	F1M1	
04015	0 43 00434	BRM	END	

*
*

TEST CAT (ACTIVE CONDITION)

04016	0 43 00430	BRM	OBJECT	
04017	0 43 00440	BRM	RETURN	
04020	0 20 06073	NBP	XTI1	
04021	0 02 20004	DIR		DISABLE INTERRUPTS
04022	0 02 00000	DSCC	0	
04023	0 02 14000	T0PC	0	
04024	0 40 14000	CATC	0	
04025	0 01 04030	BRU	**3	
04026	0 02 00000	DSCC	0	CHANNEL TESTED INACTIVE
04027	0 43 00460	BRM	ERR0R	
04030	0 20 23360	NBP	F1M2	
04031	0 02 00000	DSCC	0	
04032	0 43 00434	BRM	END	

```

*
* TEST BRTW (NOT ACTIVE CONDITION)
*
04033 0 43 00430 BRM OBJECT
04034 0 43 00440 BRM RETURN
04035 0 20 06073 NOP XT11
04036 0 02 00000 DSCC 0
04037 0 40 21000 BRTC 0
04040 0 43 00460 BRM ERROR CHANNEL TESTED ACTIVE
04041 0 20 23373 NOP F1M3
04042 0 43 00434 BRM END

```

```

*
* TEST BRTW (ACTIVE CONDITION)
*
04043 0 43 00430 BRM OBJECT
04044 0 43 00440 BRM RETURN
04045 0 20 06073 NOP XT11
04046 0 02 20004 DIR DISABLE INTERRUPTS
04047 0 02 00000 DSCC 0
04050 0 02 14000 TDFC 0
04051 0 40 21000 BRTC 0
04052 0 01 04255 BRU **3
04053 0 02 00000 DSCC 0
04054 0 43 00460 BRM ERROR CHANNEL TESTED NOT ACTIVE
04055 0 20 23376 NOP F1M4
04056 0 02 00000 DSCC 0
04057 0 43 00434 BRM END

```

```

*
* TEST CET (NO ERROR CONDITION)
*
04060 0 43 00430 BRM OBJECT
04061 0 43 00440 BRM RETURN
04062 0 20 06073 NOP XT11
04063 0 02 00000 DSCC
04064 0 40 11000 CETC
04065 0 43 00460 BRM ERROR ERROR TESTED SET
04066 0 20 23401 NOP F1M5
04067 0 43 00434 BRM END

```

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*
* TEST BETW (NO ERROR CONDITION)
*
04070 0 43 00430 BRM OBJECT
04071 0 43 00440 BRM RETURN
04072 0 20 06073 NOP XT11
04073 0 02 00000 DSCC
04074 0 40 20010 BETC
04075 0 43 00460 BRM ERROR ERROR TESTED SET
04076 0 20 23407 NOP F1M6
04077 0 43 00434 BRM END

```

*
*
*

TEST TOP

04100	0	43	00430	BRM	OBJECT	
04101	0	43	00440	BRM	RETURN	
04102	0	20	06073	NOP	XTI1	
04103	0	02	20004	DIR		DISABLE INTERRUPTS
04104	0	02	02045	DESM		SET W9
04105	0	02	14000	TOPC		
04106	0	66	20060	RCY	48D	DUMMY CYCLES WAIT FOR SPURIOUS INT.
04107	0	40	14000	CATC		
04110	0	01	04112	BRU	**2	
04111	0	01	04114	BRU	**3	
04112	0	02	00000	DSCC		
04113	0	43	00460	BRM	ERROR	CHANNEL TESTED ACTIVE
04114	0	20	23412	NOP	F1M7	
04115	0	02	00000	DSCC		
04116	0	43	00434	BRM	END	

*
*
*

TEST W14

04117	0	43	00430	BRM	OBJECT	
04120	0	43	00440	BRM	RETURN	
04121	0	20	06073	NOP	XTI1	
04122	0	02	20004	DIR		DISABLE INTERRUPTS
04123	0	02	00001	ESMM	01	SET W14
04124	0	40	14000	CATC		
04125	0	01	04130	BRU	**3	
04126	0	02	00000	DSCC		
04127	0	43	00460	BRM	ERROR	CHANNEL NOT ACTIVE
04130	0	20	23425	NOP	F1M8	
04131	0	02	00000	DSCC		
04132	0	43	00434	BRM	END	

*
* TEST #13
*

04133	0	43	00430	BRM	OBJECT	
04134	0	43	00440	BRM	RETURN	
04135	0	20	06073	NBP	XTI1	
04136	0	02	20004	DIR		DISABLE INTERRUPTS
04137	0	02	00002	E0MM	02	SET #13
04140	0	40	14000	CATC		
04141	0	01	04144	BRU	**3	
04142	0	02	00000	DSCC		
04143	0	43	00460	BRM	ERROR	CHANNEL NOT ACTIVE
04144	0	20	23440	NBP	F1M9	
04145	0	02	00000	DSCC		
04146	0	43	00434	BRM	END	

*
* TEST #12
*

04147	0	43	00430	BRM	OBJECT	
04150	0	43	00440	BRM	RETURN	
04151	0	20	06073	NBP	XTI1	
04152	0	02	20004	DIR		DISABLE INTERRUPTS
04153	0	02	00003	E0MM	03	SET #12
04154	0	40	14000	CATC		
04155	0	01	04160	BRU	**3	
04156	0	02	00000	DSCC		
04157	0	43	00460	BRM	ERROR	CHANNEL NOT ACTIVE
04160	0	20	23450	NBP	F1M10	
04161	0	02	00000	DSCC		
04162	0	43	00434	BRM	END	

```

*
*
* TEST #10
04163 0 43 00430 BRM OBJECT
04164 0 43 00440 BRM RETURN
04165 0 20 06073 NOP XTI1
04166 0 02 20004 DIR DISABLE INTERRUPTS
04167 0 02 00020 EBMV 20 SET W10
04170 0 40 14000 CATC
04171 0 01 04174 BRJ **3
04172 0 02 00000 DSCC
04173 0 43 00460 BRM ERROR CHANNEL NOT ACTIVE
04174 0 20 23460 NOP FIM11
04175 0 02 00000 DSCC
04176 0 43 00434 BRM END

```

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*
*
* TEST CZT (COUNT = 0 CONDITION)
04177 0 43 00430 BRM OBJECT
04200 0 43 00440 BRM RETURN
04201 0 20 06073 NOP XTI1
04202 0 02 20004 DIR
04203 0 76 26057 LDA #77760000
04204 0 35 25573 STA PBTARD
04205 0 02*10000 ALCC*
04206 0 02 14037 EBMV 14037
04207 0 13 25573 PBT PBTARD
04210 0 76 26060 LDA #0
04211 0 35 25573 STA PBTARD
04212 0 02*10000 ALCC*
04213 0 02 14000 EBMV 14000
04214 0 13 25573 PBT PBTARD WC#0
04215 0 40 12000 CZTC
04216 0 43 00460 BRM ERROR WORD COUNT TESTED NOT ZERO
04217 0 20 23470 NOP FIM12
04220 0 43 00434 BRM END

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*
*
*

TEST WC14

04221	0	43	00430	BRM	OBJECT	
04222	0	43	00440	BRM	RETURN	
04223	0	20	06073	NBP	XTI1	
04224	0	02	20004	DIR		
04225	0	76	26061	LDA	*484	
04226	0	35	25573	STA	PBTWRD	
04227	0	02	*10000	ALCC*		
04230	0	02	14000	EBMM	14000	
04231	0	13	25573	PBT	PBTWRD	RESET WC14
04232	0	40	12000	CZTC		
04233	0	01	04236	BRU	**3	
04234	0	43	06157	BRM	RESET	
04235	0	43	00460	BRM	ERRBR	WORD COUNT TESTED ZERO
04236	0	20	23476	NBP	F1M13	
04237	0	43	06157	BRM	RESET	
04240	0	43	00434	BRM	END	

*
*
*

TEST WC13

04241	0	43	00430	BRM	OBJECT	
04242	0	43	00440	BRM	RETURN	
04243	0	20	06073	NBP	XTI1	
04244	0	02	20004	DIR		
04245	0	76	26062	LDA	*185	
04246	0	35	25573	STA	PBTWRD	
04247	0	02	*10000	ALCC*		
04250	0	02	14000	EBMM	14000	
04251	0	13	25573	PBT	PBTWRD	RESET WC13
04252	0	40	12000	CZTC		
04253	0	01	04256	BRU	**3	
04254	0	43	06157	BRM	RESET	
04255	0	43	00460	BRM	ERRBR	WORD COUNT TESTED ZERO
04256	0	20	23506	NBP	F1M14	
04257	0	43	06157	BRM	RESET	
04260	0	43	00434	BRM	END	

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*
*
* TEST C12
04261 0 43 04430 BRM REJECT
04262 0 43 04440 BRM RETURN
04263 0 21 04473 LSP XT11
04264 0 22 24004 LIR
04265 0 76 24064 LDA *PR5
04266 0 35 24073 STA PBT RD
04267 0 02 *1 000 ALCC*
04270 0 02 14000 ESM 14000
04271 0 13 24073 PBT PBT RD RESET WC12
04272 0 40 12000 CZTC
04273 0 01 04316 BRU **3
04274 0 43 04157 BRM RESET
04275 0 43 04157 BRM ERRPR WORD COUNT TESTED ZERO
04276 0 43 04157 BRM FIM15
04277 0 43 04157 BRM RESET
04300 0 43 04434 BRM END

```

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*
*
* TEST WC11
04301 0 43 04430 BRM REJECT
04302 0 43 04440 BRM RETURN
04303 0 21 04473 LSP XT11
04304 0 22 24004 LIR
04305 0 76 24064 LDA *PR5
04306 0 35 24073 STA PBT RD
04307 0 02 *1 000 ALCC*
04310 0 02 14000 ESM 14000
04311 0 13 24073 PBT PBT RD RESET WC11
04312 0 40 12000 CZTC
04313 0 01 04316 BRU **3
04314 0 43 04157 BRM RESET
04315 0 43 04157 BRM ERRPR WORD COUNT TESTED ZERO
04316 0 43 04157 BRM FIM16
04317 0 43 04157 BRM RESET
04320 0 43 04434 BRM END

```

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*
*
*
TEST WC10
04321 0 43 00430 BRM OBJECT
04322 0 43 00440 BRM RETURN
04323 0 20 06073 NOP XT11
04324 0 02 20004 DIR
04325 0 76 26065 LDA #186
04326 0 35 25573 STA P0TARD
04327 0 02*10000 ALCC*
04330 0 02 14000 EDMM 14000
04331 0 13 25573 PBT P0TARD RESET WC10
04332 0 40 12000 CZTC
04333 0 01 04336 BRU **3
04334 0 43 06157 BRM RESET
04335 0 43 00460 BRM ERROR WORD COUNT TESTED ZERO
04336 0 20 23536 NOP F1M17
04337 0 43 06157 BRM RESET
04340 0 43 00434 BRM END

```

```

*
*
*
TEST WC9
04341 0 43 00430 BRM OBJECT
04342 0 43 00440 BRM RETURN
04343 0 20 06073 NOP XT11
04344 0 02 20004 DIR
04345 0 76 26066 LDA #286
04346 0 35 25573 STA P0TARD
04347 0 02*10000 ALCC*
04350 0 02 14000 EDMM 14000
04351 0 13 25573 PBT P0TARD RESET WC9
04352 0 40 12000 CZTC
04353 0 01 04356 BRU **3
04354 0 43 06157 BRM RESET
04355 0 43 00460 BRM ERROR WORD COUNT TESTED ZERO
04356 0 20 23546 NOP F1M18
04357 0 43 06157 BRM RESET
04360 0 43 00434 BRM END

```

```

*
*
*   TEST WCA
04361 0 43 00430   BRM   OBJECT
04362 0 43 00440   BRM   RETURN
04363 0 20 06173   NOP   XT11
04364 0 02 20004   DIR
04365 0 76 26167   LDA   #4B6
04366 0 35 25573   STA   POTWRD
04367 0 02*10000   ALCC*
04370 0 02 14000   EGMM  14000
04371 0 13 25573   PBT   POTWRD   RESET WCB
04372 0 40 12000   CZTC
04373 0 01 04176   BRU   **3
04374 0 43 06157   BRM   RESET
04375 0 43 00460   BRM   ERROR   WORD COUNT TESTED ZERO
04376 0 20 23566   NOP   F1M19
04377 0 43 06157   BRM   RESET
04400 0 43 00434   BRM   END

```

```

*
*
*   TEST WC7
04401 0 43 00430   BRM   OBJECT
04402 0 43 00440   BRM   RETURN
04403 0 20 06173   NOP   XT11
04404 0 02 20004   DIR
04405 0 76 26167   LDA   #1B7
04406 0 35 25573   STA   POTWRD
04407 0 02*10000   ALCC*
04410 0 02 14000   EGMM  14000
04411 0 13 25573   PBT   POTWRD   RESET WC7
04412 0 40 12000   CZTC
04413 0 01 04116   BRU   **3
04414 0 43 06157   BRM   RESET
04415 0 43 00460   BRM   ERROR   WORD COUNT TESTED ZERO
04416 0 20 23566   NOP   F1M20
04417 0 43 06157   BRM   RESET
04420 0 43 00434   BRM   END

```

```

*
* TEST WC6
*
04421 0 43 00430 BRM OBJECT
04422 0 43 00440 BRM RETURN
04423 0 20 06073 NBP XT11
04424 0 02 20004 DIR
04425 0 76 26071 LDA #2B7
04426 0 35 25573 STA PBTARD
04427 0 02*10000 ALCC*
04430 0 02 14000 EBMM 14000
04431 0 13 25573 PBT PBTARD RESET WC6
04432 0 40 12000 CZTC
04433 0 01 04436 BRU **3
04434 0 43 06157 BRM RESET WORD COUNT TESTED ZERO
04435 0 43 00460 BRM ERRSR
04436 0 20 23576 NBP F1M21
04437 0 43 06157 BRM RESET
04440 0 43 04434 BRM END
    
```

```

*
* TEST WC5
*
04441 0 43 00430 BRM OBJECT
04442 0 43 00440 BRM RETURN
04443 0 20 06073 NBP XT11
04444 0 02 20004 DIR
04445 0 76 26072 LDA #4B7
04446 0 35 25573 STA PBTARD
04447 0 02*10000 ALCC*
04450 0 02 14000 EBMM 14000
04451 0 13 25573 PBT PBTARD RESET WC5
04452 0 40 12000 CZTC
04453 0 01 04456 BRU **3
04454 0 43 06157 BRM RESET WORD COUNT TESTED ZERO
04455 0 43 00460 BRM ERRSR
04456 0 20 23406 NBP F1M22
04457 0 43 06157 BRM RESET
04460 0 43 04434 BRM END
    
```

```

*
* TEST WCA
*
04461 0 43 00430 BRM OBJECT
04462 0 43 00440 BRM RETURN
04463 0 20 06073 NOP XTII
04464 0 02 20004 DIR
04465 0 76 26060 LDA #0
04466 0 35 25573 STA PBT*RD
04467 0 02*10000 ALCC*
04470 0 02 14001 EBMM 14001
04471 0 13 25573 PBT PBT*RD RESET WCA
04472 0 40 12000 CZTC
04473 0 01 04476 BRU **3
04474 0 43 06157 BRM RESET WORD COUNT TESTED ZERO
04475 0 43 00460 BRM ERROR
04476 0 20 23416 NOP F1M23
04477 0 43 06157 BRM RESET
04500 0 43 00434 BRM END

```

```

*
* TEST WCB
*
04501 0 43 00430 BRM OBJECT
04502 0 43 00440 BRM RETURN
04503 0 20 06073 NOP XTII
04504 0 02 20004 DIR
04505 0 76 26060 LDA #0
04506 0 35 25573 STA PBT*RD
04507 0 02*10000 ALCC*
04510 0 02 14002 EBMM 14002
04511 0 13 25573 PBT PBT*RD RESET WCB
04512 0 40 12000 CZTC
04513 0 01 04516 BRU **3
04514 0 43 06157 BRM RESET WORD COUNT TESTED ZERO
04515 0 43 00460 BRM ERROR
04516 0 20 23633 NOP F1M24
04517 0 43 06157 BRM RESET
04520 0 43 00434 BRM END

```

*
* TEST WCP
*

04521	0 43 00430	BRM	OBJECT	
04522	0 43 00440	BRM	RETURN	
04523	0 20 06073	NBP	XTI1	
04524	0 02 20004	DIR		
04525	0 76 26060	LDA	#0	
04526	0 35 25573	STA	PBTARD	
04527	0 02*10000	ALCC*		
04530	0 02 14004	EBMM	14004	
04531	0 13 25573	PBT	PBTARD	RESET WCP
04532	0 40 12000	CZTC		
04533	0 01 04536	BRU	**3	
04534	0 43 06157	BRM	RESET	
04535	0 43 00460	BRM	ERRRR	WORD COUNT TESTED ZERO
04536	0 20 23643	NBP	F1M25	
04537	0 43 06157	BRM	RESET	
04540	0 43 00434	BRM	END	

*
* TEST WC1
*

04541	0 43 00430	BRM	OBJECT	
04542	0 43 00440	BRM	RETURN	
04543	0 20 06073	NBP	XTI1	
04544	0 02 20004	DIR		
04545	0 76 26060	LDA	#0	
04546	0 35 25573	STA	PBTARD	
04547	0 02*10000	ALCC*		
04550	0 02 14010	EBMM	14010	
04551	0 13 25573	PBT	PBTARD	RESET WC1
04552	0 40 12000	CZTC		
04553	0 01 04556	BRU	**3	
04554	0 43 06157	BRM	RESET	
04555	0 43 00460	BRM	ERRRR	WORD COUNT TESTED ZERO
04556	0 20 23653	NBP	F1M26	
04557	0 43 06157	BRM	RESET	
04560	0 43 00434	BRM	END	

```

*
*
*   TEST WCO
*
04561 0 43 00430 BRM   OBJECT
04562 0 43 00440 BRM   RETURN
04563 0 20 06073 NBP   XT11
04564 0 02 20004 DIR
04565 0 76 26060 LDA   #0
04566 0 35 25573 STA   PBTWRD
04567 0 02*10000 ALCC*
04570 0 02 14020 EBMM  14020
04571 0 13 25573 PBT   PBTWRD      RESET WCO
04572 0 40 12000 CZTC
04573 0 01 04576 BRU   **3
04574 0 43 26157 BRM   RESET
04575 0 43 00460 BRM   ERROR      WORD COUNT TESTED ZERO
04576 0 20 23663 NBP   F1M27
04577 0 43 06157 BRM   RESET
04600 0 43 00434 BRM   END

```

```

*
*
*   TEST WA14 = SET
*
04601 0 43 00430 BRM   OBJECT
04602 0 43 00440 BRM   RETURN
04603 0 20 06073 NBP   XT11
04604 0 02 20004 DIR
04605 0 75 26073 LOB   #1
04606 0 36 25573 STB   PBTWRD
04607 0 02*10000 ALCC*
04610 0 02 14000 EBMM  14000
04611 0 13 25573 PBT   PBTWRD      SET WA14
04612 0 02 12000 ASCC
04613 0 33 26052 PIN   TEMP1
04614 0 76 26052 LDA   TEMP1
04615 0 70 26073 SKM   #1
04616 0 43 00460 BRM   ERROR      WA14 SET
04617 0 20 23673 NBP   F1M28      NO
04620 0 43 00434 BRM   END

```



```

*
* TEST WA14 = RESET
*
04621 0 43 00430 BRM SUBJECT
04622 0 43 00440 BRM RETURN
04623 0 20 06073 NBP XTII
04624 0 02 20004 DIR
04625 0 75 26073 LDB #1
04626 0 36 25573 STB PBTARD
04627 0 02*10000 ALCC*
04630 0 02 14000 EQMM 14000
04631 0 13 25573 PBT PBTARD SET WA14
04632 0 76 26060 LDA #0
04633 0 35 25573 STA PBTARD
04634 0 02*10000 ALCC*
04635 0 13 25573 PBT PBTARD RESET WA14
04636 0 02 12000 ASCC
04637 0 33 26052 PIN TEMP1
04640 0 76 26052 LDA TEMP1
04641 0 70 26060 SKM #0 WA14 RESET
04642 0 43 00460 BRM ERROR NO
04643 0 20 23710 NBP FIMR9
04644 0 43 00434 BRM END

```

```

*
* TEST WA13 = SET
*
04645 0 43 00430 BRM SUBJECT
04646 0 43 00440 BRM RETURN
04647 0 20 06073 NBP XTII
04650 0 02 20004 DIR
04651 0 75 26074 LDB #2
04652 0 36 25573 STB PBTARD
04653 0 02*10000 ALCC*
04654 0 02 14000 EQMM 14000
04655 0 13 25573 PBT PBTARD SET WA13
04656 0 02 12000 ASCC
04657 0 33 26052 PIN TEMP1
04660 0 76 26052 LDA TEMP1
04661 0 70 26074 SKM #2 WA13 SET
04662 0 43 00460 BRM ERROR NO
04663 0 20 23723 NBP FIMR9
04664 0 43 00434 BRM END

```

*
* TEST WA13 = RESET
*

04665	0	43	00430	BRM	OBJECT	
04666	0	43	00440	BRM	RETURN	
04667	0	20	06073	\BP	XTI1	
04670	0	02	20004	DIR		
04671	0	75	26074	LDB	#2	
04672	0	36	25573	STB	PSTARD	
04673	0	02	10000	ALCC*		
04674	0	02	14000	ESMM	14000	
04675	0	13	25573	PBT	PSTARD	SET WA13
04676	0	76	26060	LDA	#0	
04677	0	35	25573	STA	PSTARD	
04700	0	02	10000	ALCC*		
04701	0	13	25573	PBT	PSTARD	RESET WA13
04702	0	02	12000	ASCC		
04703	0	33	26052	PIN	TEMP1	
04704	0	76	26052	LDA	TEMP1	
04705	0	70	26060	SKM	#0	WA13 RESET
04706	0	43	00460	BRM	ERRER	NO
04707	0	20	23731	\BP	FIM31	
04710	0	43	00434	BRM	END	

*
* TEST WA12 = SET
*

04711	0	43	00430	BRM	OBJECT	
04712	0	43	00440	BRM	RETURN	
04713	0	20	06073	\BP	XTI1	
04714	0	02	20004	DIR		
04715	0	75	26075	LDB	#4	
04716	0	36	25573	STB	PSTARD	
04717	0	02	10000	ALCC*		
04720	0	02	14000	ESMM	14000	
04721	0	13	25573	PBT	PSTARD	SET WA12
04722	0	02	12000	ASCC		
04723	0	33	26052	PIN	TEMP1	
04724	0	76	26052	LDA	TEMP1	
04725	0	70	26075	SKM	#4	WA12 SET
04726	0	43	00460	BRM	ERRER	NO
04727	0	20	23737	\BP	FIM32	
04730	0	43	00434	BRM	END	

*
* TEST WA12 = RESET
*

04731	0	43	00430	BRM	OBJECT	
04732	0	43	00440	BRM	RETURN	
04733	0	20	06073	NBP	XTI1	
04734	0	02	20004	DIR		
04735	0	75	26075	LDB	#4	
04736	0	36	25573	STB	PSTARD	
04737	0	02*	10000	ALCC*		
04740	0	02	14000	EDMM	14000	
04741	0	13	25573	PBT	PSTARD	SET WA12
04742	0	76	26060	LDA	#0	
04743	0	35	25573	STA	PSTARD	
04744	0	02*	10000	ALCC*		
04745	0	13	25573	PBT	PSTARD	RESET WA12
04746	0	02	12000	ASCC		
04747	0	33	26052	PIN	TEMP1	
04750	0	76	26052	LDA	TEMP1	
04751	0	70	26060	SKM	#0	WA12 RESET
04752	0	43	00460	BRM	ERRRR	NB
04753	0	20	23745	NBP	F1M33	
04754	0	43	00434	BRM	END	

*
* TEST WA11 = SET
*

04755	0	43	00430	BRM	OBJECT	
04756	0	43	00440	BRM	RETURN	
04757	0	20	06073	NBP	XTI1	
04760	0	02	20004	DIR		
04761	0	75	26076	LDB	#10	
04762	0	36	25573	STB	PSTARD	
04763	0	02*	10000	ALCC*		
04764	0	02	14000	EDMM	14000	
04765	0	13	25573	PBT	PSTARD	SET WA11
04766	0	02	12000	ASCC		
04767	0	33	26052	PIN	TEMP1	
04770	0	76	26052	LDA	TEMP1	
04771	0	70	26076	SKM	#10	WA11 SET
04772	0	43	00460	BRM	ERRRR	NB
04773	0	20	23753	NBP	F1M34	
04774	0	43	00434	BRM	END	

*
* TEST WA11 = RESET
*

04775	0	43	00430	BRM	OBJECT	
04776	0	43	00440	BRM	RETURN	
04777	0	20	06073	NBP	XTI1	
05000	0	02	20004	DIR		
05001	0	75	26076	LDB	#10	
05002	0	36	25573	STB	PBTWRD	
05003	0	02	10000	ALCC*		
05004	0	02	14000	EQMM	14000	
05005	0	13	25573	PBT	PBTWRD	SET WA11
05006	0	76	26060	LDA	#0	
05007	0	95	25573	STA	PBTWRD	
05010	0	02	10000	ALCC*		
05011	0	13	25573	PBT	PBTWRD	RESET WA11
05012	0	02	12000	ASCC		
05013	0	33	26052	PIN	TEMP1	
05014	0	76	26052	LDA	TEMP1	
05015	0	70	26060	SKM	#0	WA11 RESET
05016	0	43	00460	BRM	ERROR	NO
05017	0	20	23761	NBP	F1M35	
05020	0	43	00434	BRM	END	

*
* TEST WA10 = SET
*

05021	0	43	00430	BRM	OBJECT	
05022	0	43	00440	BRM	RETURN	
05023	0	20	06073	NBP	XTI1	
05024	0	02	20004	DIR		
05025	0	75	26077	LDB	#20	
05026	0	36	25573	STB	PBTWRD	
05027	0	02	10000	ALCC*		
05030	0	02	14000	EQMM	14000	
05031	0	13	25573	PBT	PBTWRD	SET WA10
05032	0	02	12000	ASCC		
05033	0	33	26052	PIN	TEMP1	
05034	0	76	26052	LDA	TEMP1	
05035	0	70	26077	SKM	#20	WA10 SET
05036	0	43	00460	BRM	ERROR	NO
05037	0	20	23767	NBP	F1M36	
05040	0	43	00434	BRM	END	

```

*
*
*
TEST WA10 = RESET
05041 0 43 00430 BRM 3BJECT
05042 0 43 00440 BRM RETURN
05043 0 20 06073 NOP XTI1
05044 0 02 20004 DIR
05045 0 75 26077 LDB #20
05046 0 36 25073 STB PBTARD
05047 0 02*10000 ALCC*
05050 0 02 14000 EBMM 14000
05051 0 13 25073 PBT PBTARD SET WA10
05052 0 76 26060 LDA #0
05053 0 35 25073 STA PBTARD
05054 0 02*10000 ALCC*
05055 0 13 25073 PBT PBTARD RESET WA10
05056 0 02 12000 ASCC
05057 0 33 26052 PIN TEMP1
05060 0 76 26052 LDA TEMP1
05061 0 70 26060 SKM #0 WA10 RESET
05062 0 43 00460 BRM ERROR NO
05063 0 20 23775 NOP F1M37
05064 0 43 00434 BRM END

```

```

*
*
*
TEST WA9 = SET
05065 0 43 00430 BRM 3BJECT
05066 0 43 00440 BRM RETURN
05067 0 20 06073 NOP XTI1
05070 0 02 20004 DIR
05071 0 75 26100 LDB #40
05072 0 36 25073 STB PBTARD
05073 0 02*10000 ALCC*
05074 0 02 14000 EBMM 14000
05075 0 13 25073 PBT PBTARD SET WA9
05076 0 02 12000 ASCC
05077 0 33 26052 PIN TEMP1
05100 0 76 26052 LDA TEMP1
05101 0 70 26100 SKM #40 WA9 SET
05102 0 43 00460 BRM ERROR NO
05103 0 20 24003 NOP F1M38
05104 0 43 00434 BRM END

```

*
* TEST WAS = RESET
*

05105	0	43	00430	BRM	OBJECT	
05106	0	43	00440	BRM	RETURN	
05107	0	20	06073	NOP	XTI1	
05110	0	02	20004	DIR		
05111	0	75	26100	LDB	=40	
05112	0	36	25573	STB	POTARD	
05113	0	02	10000	ALCC*		
05114	0	02	14000	EDMM	14000	
05115	0	13	25573	POT	POTARD	SET WAS
05116	0	76	26060	LDA	=0	
05117	0	35	25573	STA	POTARD	
05120	0	02	10000	ALCC*		
05121	0	13	25573	POT	POTARD	RESET WAS
05122	0	02	12000	ASCC		
05123	0	33	26052	PIN	TEMP1	
05124	0	76	26052	LDA	TEMP1	
05125	0	70	26060	SKM	=0	WAS RESET
05126	0	43	00460	BRM	ERRBR	NO
05127	0	20	24013	NOP	F1439	
05130	0	43	00434	BRM	END	

*
* TEST WAS = SET
*

05131	0	43	00430	BRM	OBJECT	
05132	0	43	00440	BRM	RETURN	
05133	0	20	06073	NOP	XTI1	
05134	0	02	20004	DIR		
05135	0	75	26101	LDB	=100	
05136	0	36	25573	STB	POTARD	
05137	0	02	10000	ALCC*		
05140	0	02	14000	EDMM	14000	
05141	0	13	25573	POT	POTARD	SET WAS
05142	0	02	12000	ASCC		
05143	0	33	26052	PIN	TEMP1	
05144	0	76	26052	LDA	TEMP1	
05145	0	70	26101	SKM	=100	WAS SET
05146	0	43	00460	BRM	ERRBR	NO
05147	0	20	24021	NOP	F1440	
05150	0	43	00434	BRM	END	

*
* TEST WA6 = RESET
*

05151	0	43	00430	BRM	OBJECT	
05152	0	43	00440	BRM	RETURN	
05153	0	20	0673	NBP	XTI1	
05154	0	02	20004	DIR		
05155	0	75	26101	LDB	#100	
05156	0	36	25573	STB	PBTARD	
05157	0	02	*10000	ALCC*		
05160	0	02	14000	EBMM	14000	
05161	0	13	25573	PBT	PBTARD	SET WA6
05162	0	76	26060	LDA	#0	
05163	0	35	25573	STA	PBTARD	
05164	0	02	*10000	ALCC*		
05165	0	13	25573	PBT	PBTARD	RESET WA6
05166	0	02	12000	ASCC		
05167	0	33	26052	PIN	TEMP1	
05170	0	76	26052	LDA	TEMP1	
05171	0	70	26060	SKM	#0	WA6 RESET
05172	0	43	00460	BRM	ERRR	NO
05173	0	20	06727	NBP	F1W41	
05174	0	43	00434	BRM	END	

*
* TEST WA7 = SET
*

05175	0	43	00430	BRM	OBJECT	
05176	0	43	00440	BRM	RETURN	
05177	0	20	0673	NBP	XTI1	
05200	0	02	20004	DIR		
05201	0	75	26102	LDB	#200	
05202	0	36	25573	STB	PBTARD	
05203	0	02	*10000	ALCC*		
05204	0	02	14000	EBMM	14000	
05205	0	13	25573	PBT	PBTARD	SET WA7
05206	0	02	12000	ASCC		
05207	0	33	26052	PIN	TEMP1	
05210	0	76	26052	LDA	TEMP1	
05211	0	70	26102	SKM	#200	WA7 SET
05212	0	43	00460	BRM	ERRR	NO
05213	0	20	06735	NBP	F1W42	
05214	0	43	00434	BRM	END	

•
• TEST WA7 = RESET
•

05215	0	43	00430	BRM	OBJECT	
05216	0	43	00440	BRM	RETURN	
05217	0	20	06073	NOP	XTI1	
05220	0	02	20004	DIR		
05221	0	75	26102	LDB	#200	
05222	0	36	25573	STB	POTARD	
05223	0	02	10000	ALCC*		
05224	0	02	14000	EBMM	14000	SET WA7
05225	0	13	25573	POT	POTARD	
05226	0	76	26060	LDA	#0	
05227	0	35	25573	STA	POTARD	
05230	0	02	10000	ALCC*		
05231	0	13	25573	POT	POTARD	RESET WA7
05232	0	02	12000	ASCC		
05233	0	33	26052	PIV	TEMP1	
05234	0	76	26052	LDA	TEMP1	
05235	0	70	26060	SKM	#0	WA7 RESET
05236	0	43	00460	BRM	ERROR	NO
05237	0	20	24043	NOP	F1M43	
05240	0	43	00434	BRM	END	

•
• TEST WA6 = SET
•

05241	0	43	00430	BRM	OBJECT	
05242	0	43	00440	BRM	RETURN	
05243	0	20	06073	NOP	XTI1	
05244	0	02	20004	DIR		
05245	0	75	26103	LDB	#400	
05246	0	36	25573	STB	POTARD	
05247	0	02	10000	ALCC*		
05250	0	02	14000	EBMM	14000	SET WA6
05251	0	13	25573	POT	POTARD	
05252	0	02	12000	ASCC		
05253	0	33	26052	PIV	TEMP1	
05254	0	76	26052	LDA	TEMP1	
05255	0	70	26103	SKM	#400	WA6 SET
05256	0	43	00460	BRM	ERROR	NO
05257	0	20	24051	NOP	F1M44	
05260	0	43	00434	BRM	END	

*
* TEST WA6 = RESET
*

05261	0	43	00430	BRM	OBJECT	
05262	0	43	00440	BRM	RETURN	
05263	0	20	06073	NBP	XTI1	
05264	0	02	20004	DIR		
05265	0	75	26103	LDB	#400	
05266	0	36	25573	STB	POTARD	
05267	0	02	10000	ALCC*		
05270	0	02	14000	ESMM	14000	
05271	0	13	25573	PBT	POTARD	SET WA6
05272	0	76	26060	LDA	#0	
05273	0	35	25573	STA	POTARD	
05274	0	02	10000	ALCC*		RESET WA6
05275	0	13	25573	PBT	POTARD	
05276	0	02	12000	ASCC		
05277	0	53	26052	PIN	TEMP1	
05300	0	76	26052	LDA	TEMP1	
05301	0	70	26060	SKM	#0	WA6 RESET
05302	0	43	00460	BRM	ERRR	NO
05303	0	20	24057	NBP	F1M45	
05304	0	43	00434	BRM	END	

*
* TEST WA5 = SET
*

05305	0	43	00430	BRM	OBJECT	
05306	0	43	00440	BRM	RETURN	
05307	0	20	06073	NBP	XTI1	
05310	0	02	20004	DIR		
05311	0	75	26104	LDB	#1000	
05312	0	36	25573	STB	POTARD	
05313	0	02	10000	ALCC*		
05314	0	02	14000	ESMM	14000	
05315	0	13	25573	PBT	POTARD	SET WA5
05316	0	02	12000	ASCC		
05317	0	53	26052	PIN	TEMP1	
05320	0	76	26052	LDA	TEMP1	
05321	0	70	26104	SKM	#1000	WA5 SET
05322	0	43	00460	BRM	ERRR	NO
05323	0	20	24065	NBP	F1M46	
05324	0	43	00434	BRM	END	

```

*
*   TEST WA5 = RESET
*
05325 0 43 00430 BRM  OBJECT
05326 0 43 00440 BRM  RETURN
05327 0 20 06073 NOP  XTII
05330 0 02 20004 DIR
05331 0 75 26104 LDB  #1000
05332 0 36 25573 STB  POTARD
05333 0 02*10000 ALCC*
05334 0 02 14000 EMM  14000
05335 0 13 25573 POT  POTARD SET WAS
05336 0 76 26060 LDA  #0
05337 0 35 25573 STA  POTARD
05340 0 02*10000 ALCC*
05341 0 13 25573 POT  POTARD RESET WAS
05342 0 02 12000 ASCC
05343 0 33 26052 PIN  TEMP1
05344 0 76 26052 LDA  TEMP1
05345 0 70 26060 SKM  #0 WAS RESET
05346 0 43 00460 BRM  ERROR NO
05347 0 20 24073 NOP  F1447
05350 0 43 00434 BRM  END

```

```

*
*   TEST WA4 = SET
*
05351 0 43 00430 BRM  OBJECT
05352 0 43 00440 BRM  RETURN
05353 0 20 06073 NOP  XTII
05354 0 02 20004 DIR
05355 0 75 26104 LDB  #2000
05356 0 36 25573 STB  POTARD
05357 0 02*10000 ALCC*
05360 0 02 14000 EMM  14000
05361 0 13 25573 POT  POTARD SET WA4
05362 0 02 12000 ASCC
05363 0 33 26052 PIN  TEMP1
05364 0 76 26052 LDA  TEMP1
05365 0 70 26105 SKM  #2000 WA4 SET
05366 0 43 00460 BRM  ERROR NO
05367 0 20 24101 NOP  F1448
05370 0 43 00434 BRM  END

```

```

*
* TEST WA4 = RESET
*
05371 0 43 00430 BRM OBJECT
05372 0 43 00440 BRM RETURN
05373 0 20 06073 NBP XT11
05374 0 02 20004 DIR
05375 0 75 26105 LDB #2000
05376 0 36 25573 STB PBTARD
05377 0 02*10000 ALCC*
05400 0 02 14000 EBMM 14000
05401 0 13 25573 PBT PBTARD SET WA4
05402 0 76 26060 LDA #0
05403 0 35 25573 STA PBTARD
05404 0 02*10000 ALCC*
05405 0 13 25573 PBT PBTARD RESET WA4
05406 0 02 12000 ASCC
05407 0 33 26052 PIN TEMP1
05410 0 76 26052 LDA TEMP1
05411 0 70 26060 SKM #0 WA4 RESET
05412 0 43 00460 BRM ERROR NO
05413 0 20 24107 NBP F1M49
05414 0 43 00434 BRM END

```

```

*
* TEST WA3 = SET
*
05415 0 43 00430 BRM OBJECT
05416 0 43 00440 BRM RETURN
05417 0 20 06073 NBP XT11
05420 0 02 20004 DIR
05421 0 75 26106 LDB #4000
05422 0 36 25573 STB PBTARD
05423 0 02*10000 ALCC*
05424 0 02 14000 EBMM 14000
05425 0 13 25573 PBT PBTARD SET WA3
05426 0 02 12000 ASCC
05427 0 33 26052 PIN TEMP1
05430 0 76 26052 LDA TEMP1
05431 0 70 26106 SKM #4000 WA3 SET
05432 0 43 00460 BRM ERROR NO
05433 0 20 24115 NBP F1M50
05434 0 43 00434 BRM END

```

*
* TEST WA3 = RESET
*

05435	0	43	00430	BRM	OBJECT	
05436	0	43	00440	BRM	RETURN	
05437	0	20	06073	NBP	XTI1	
05440	0	02	20004	DIR		
05441	0	75	26106	LDB	#4000	
05442	0	36	25573	STB	PBTWRD	
05443	0	02	10000	ALCC*		
05444	0	02	14000	EBMM	14000	
05445	0	13	25573	PBT	PBTWRD	SET WA3
05446	0	76	26060	LDA	#0	
05447	0	35	25573	STA	PBTWRD	
05450	0	02	10000	ALCC*		
05451	0	13	25573	PBT	PBTWRD	RESET WA3
05452	0	02	12000	ASCC		
05453	0	33	26052	PIA	TEMP1	
05454	0	76	26052	LDA	TEMP1	
05455	0	70	26060	SKM	#0	WA3 RESET
05456	0	43	00460	BRM	ERRR	NO
05457	0	20	24131	NBP	FIM51	
05460	0	43	00434	BRM	END	

*
* TEST WA2 = SET
*

05461	0	43	00430	BRM	OBJECT	
05462	0	43	00440	BRM	RETURN	
05463	0	20	06073	NBP	XTI1	
05464	0	02	20004	DIR		
05465	0	75	26107	LDB	#10000	
05466	0	36	25573	STB	PBTWRD	
05467	0	02	10000	ALCC*		
05470	0	02	14000	EBMM	14000	
05471	0	13	25573	PBT	PBTWRD	SET WA2
05472	0	02	12000	ASCC		
05473	0	33	26052	PIA	TEMP1	
05474	0	76	26052	LDA	TEMP1	
05475	0	70	26107	SKM	#10000	WA2 SET
05476	0	43	00460	BRM	ERRR	NO
05477	0	20	24131	NBP	FIM52	
05500	0	43	00434	BRM	END	

```

*
*   TEST WA2 = RESET
*
05501 0 43 00430   BRM   OBJECT
05502 0 43 00440   BRM   RETURN
05503 0 20 06073   NOP   XTII
05504 0 02 20004   DIR
05505 0 75 26107   LDB   #10000
05506 0 36 25573   STB   POTARD
05507 0 02*10000   ALCC*
05510 0 02 14000   EBMM  14000
05511 0 13 25573   POT   POTARD   SET WA2
05512 0 76 26060   LDA   #0
05513 0 35 25573   STA   POTARD
05514 0 02*10000   ALCC*
05515 0 13 25573   POT   POTARD   RESET WA2
05516 0 02 12000   ASCC
05517 0 33 26052   PIN   TEMP1
05520 0 76 26052   LDA   TEMP1
05521 0 70 26060   SKM   #0
05522 0 43 00460   BRM   ERROR    WA2 RESET
05523 0 20 24137   NOP   FIM53    NO
05524 0 43 00434   BRM   END

```

```

*
*   TEST WA1 = SET
*
05525 0 43 00430   BRM   OBJECT
05526 0 43 00440   BRM   RETURN
05527 0 20 06073   NOP   XTII
05530 0 02 20004   DIR
05531 0 75 26110   LDB   #20000
05532 0 36 25573   STB   POTARD
05533 0 02*10000   ALCC*
05534 0 02 14000   EBMM  14000
05535 0 13 25573   POT   POTARD   SET WA1
05536 0 02 12000   ASCC
05537 0 33 26052   PIN   TEMP1
05540 0 76 26052   LDA   TEMP1
05541 0 70 26110   SKM   #20000
05542 0 43 00460   BRM   ERROR    WA1 SET
05543 0 20 24145   NOP   FIM54    NO
05544 0 43 00434   BRM   END

```

*
* TEST WA1 = RESET
*

05545	0	43	00430	BRM	OBJECT	
05546	0	43	00440	BRM	RETURN	
05547	0	20	06073	NBP	XTI1	
05550	0	02	20004	DIR		
05551	0	75	26110	LDB	#20000	
05552	0	36	25573	STB	PBTWRD	
05553	0	02	*10000	ALCC*		
05554	0	02	14000	EBMM	14000	
05555	0	13	25573	PBT	PBTWRD	SET WA1
05556	0	76	26060	LDA	#0	
05557	0	35	25573	STA	PBTWRD	
05560	0	02	*10000	ALCC*		
05561	0	13	25573	PBT	PBTWRD	RESET WA1
05562	0	02	12000	ASCC		
05563	0	33	26052	PIV	TEMP1	
05564	0	76	26052	LDA	TEMP1	
05565	0	70	26060	SKM	#0	WA1 RESET
05566	0	43	00460	BRM	ERR9R	NO
05567	0	20	24153	NBP	F1M55	
05570	0	43	00434	BRM	END	

*
* TEST WA0 = SET
*

05571	0	43	00430	BRM	OBJECT	
05572	0	43	00440	BRM	RETURN	
05573	0	20	06073	NBP	XTI1	
05574	0	02	20004	DIR		
05575	0	75	26061	LDB	#40000	
05576	0	76	26060	LDA	#0	
05577	0	35	25573	STA	PBTWRD	
05600	0	02	*10000	ALCC*		
05601	0	02	14040	EBMM	14040	SET WA0
05602	0	13	25573	PBT	PBTWRD	
05603	0	02	12000	ASCC		
05604	0	33	26052	PIV	TEMP1	
05605	0	76	26052	LDA	TEMP1	
05606	0	70	26061	SKM	#40000	WA0 SET
05607	0	43	00460	BRM	ERR9R	NO
05610	0	20	24161	NBP	F1M56	
05611	0	43	00434	BRM	END	

•
• TEST WAO = RESET
•

05612	0	43	00430	BRM	OBJECT	
05613	0	43	00440	BRM	RETURN	
05614	0	20	06073	NBP	XTI1	
05615	0	02	20004	DIR		
05616	0	75	26061	LDB	#40000	
05617	0	76	26060	LDA	#0	
05620	0	35	25573	STA	PSTARD	
05621	0	02	*10000	ALCC*		
05622	0	12	14040	EBMM	14040	SET WAO
05623	0	13	25573	PBT	PSTARD	
05624	0	02	*10000	ALCC*		
05625	0	12	14000	EBMM	14000	RESET WAO
05626	0	13	25573	PBT	PSTARD	
05627	0	02	12000	ASCC		
05630	0	33	26052	FIN	TEMP1	
05631	0	76	26052	LDA	TEMP1	
05632	0	70	26060	SKM	#0	WAO RESET
05633	0	43	00460	BRM	ERRRR	NO
05634	0	20	24174	NBP	F1M57	
05635	0	43	00434	BRM	END	

•
• TEST WAOO = SET
•

05636	0	43	00430	BRM	OBJECT	
05637	0	43	00440	BRM	RETURN	
05640	0	20	06073	NBP	XTI1	
05641	0	02	20004	DIR		
05642	0	75	26062	LDB	#100000	
05643	0	76	26060	LDA	#0	
05644	0	35	25573	STA	PSTARD	
05645	0	02	*10000	ALCC*		
05646	0	02	14100	EBMM	14100	SET WAOO
05647	0	13	25573	PBT	PSTARD	
05650	0	02	12000	ASCC		
05651	0	33	26052	FIN	TEMP1	
05652	0	76	26052	LDA	TEMP1	
05653	0	70	26062	SKM	#100000	WAOO SET
05654	0	43	00460	BRM	ERRRR	NO
05655	0	20	24174	NBP	F1M58	
05656	0	43	00434	BRM	END	

```

*
*
*   TEST WA00 = RESET
05657 0 43 00430   BRM   OBJECT
05660 0 43 00440   BRM   RETURN
05661 0 20 06073   NBP   XTII
05662 0 02 20004   DIR
05663 0 75 26062   LDB   #100000
05664 0 76 26060   LDA   #0
05665 0 35 25573   STA   PSTARD
05666 0 02*10000   ALCC*
05667 0 02 14100   EBMM  14100   SET WA00
05670 0 13 25573   PBT   PSTARD
05671 0 02*10000   ALCC*
05672 0 02 14000   EBMM  14000   RESET WA00
05673 0 13 25573   PBT   PSTARD
05674 0 02 12000   ASCC
05675 0 33 26052   PIN   TEMP1
05676 0 76 26052   LDA   TEMP1
05677 0 70 26060   SKM   #0   WA00 RESET
05700 0 43 00460   BRM   ERROR   NO
05701 0 20 24177   NBP   F1M59
05702 0 43 00434   BRM   END
    
```

```

*
*
*   TEST INCREMENTING OF WA1=WA14
05703 0 76 26061   LDA   #40000
05704 0 35 25573   STA   PSTARD
05705 0 43 00430   F1BE1 BRM   REJECT
05706 0 43 00440   BRM   RETURN
05707 0 20 06073   NBP   XTII
05710 0 02 20004   DIR
05711 0 75 26111   LDB   #177777
05712 0 02*10000   ALCC*
05713 0 02 14000   EBMM  14000   WC=1
05714 0 13 25573   PBT   PSTARD   INCREMENT ADDRESS REGISTER
05715 0 02 02045   DEB*
05716 0 76 25573   LDA   PSTARD   EXTRACT ADDRESS FROM PBT WORD
05717 0 14 26112   ETR   #37777
05720 0 55 26073   ADD   #1
05721 0 02 00000   DSCC
05722 0 02 12000   ASCC
05723 0 33 26052   PIN   TEMP1
05724 0 70 26052   SKM   TEMP1   DID ADDRESS REGISTER INCREMENT
05725 0 01 05727   BRU   #2   NO
05726 0 01 05731   BRU   #3
05727 0 75 26052   LDB   TEMP1   A=CORRECT VALUE, B=INCORRECT VALUE
05730 0 43 00460   BRM   ERROR
05731 2 20 24202   NBP   F1M60.2
05732 0 43 00434   BRM   END
05733 0 61 25573   MIN   PSTARD
05734 0 76 25573   LDA   PSTARD
05735 0 73 26113   SKG   #77777   LAST PASS
05736 0 01 05705   BRU   F1BE1   NO
    
```


•
• TEST INCREMENTING OF WAOO
•

05737	0 43 00430	BRM	OBJECT	
05740	0 43 00440	BRM	RETURN	
05741	0 20 06073	NBP	XTI1	
05742	0 02 20004	DIR		
05743	0 76 26113	LDA	=77777	
05744	0 35 25573	STA	PBTWRD	
05748	0 02*10000	ALCC*		
05746	0 02 14040	EBMM	14040	
05747	0 13 25573	PBT	PBTWRD	
05750	0 02 02045	DESM		WC01, WA=77777
05751	0 75 26111	LDB	=177777	INCREMENT ADDRESS REGISTER
05752	0 76 26062	LDA	=100000	
05753	0 02 00000	DSCC		
05754	0 02 12000	ASCC		
05755	0 33 26052	PIN	TEMP1	
05756	0 70 26052	SKM	TEMP1	WA=100000
05757	0 01 05761	BRU	**2	NO
05760	0 01 05763	BRU	**3	
05761	0 75 26052	LDB	TEMP1	A=EXPECTED VALUE, B=INCORRECT VALUE
05762	0 43 00460	BRM	ERROR	
05763	2 20 24222	NBP	F1M61.2	
05764	0 43 00434	BRM	END	

•
• TEST WRAP AROUND INCREMENTING
•

05765	0 43 00430	BRM	OBJECT	
05766	0 43 00440	BRM	RETURN	
05767	0 20 06073	NBP	XTI1	DIR
05770	0 76 26113	LDA	=77777	
05771	0 35 25573	STA	PBTWRD	
05772	0 02*10000	ALCC*		
05773	0 02 14140	EBMM	14140	
05774	0 13 25573	PBT	PBTWRD	WC01, WA=177777
05775	0 02 02045	DESM		
05776	0 75 26111	LDB	=177777	
05777	0 76 26060	LDA	=0	
06000	0 02 00000	DSCC		
06001	0 02 12000	ASCC		
06002	0 33 26052	PIN	TEMP1	
06003	0 70 26052	SKM	TEMP1	WA=0
06004	0 01 06006	BRU	**2	NO
06005	0 01 06010	BRU	**3	
06006	0 75 26052	LDB	TEMP1	A=EXPECTED VALUE, B=INCORRECT VALUE
06007	0 43 00460	BRM	ERROR	
06010	2 20 24242	NBP	F1M62.2	
06011	0 43 00434	BRM	END	

•
• TEST ZERO WORD COUNT INTERRUPT
•

06012	0 43 00430	BRM	OBJECT		
06013	0 43 00440	BRM	RETURN		
06014	0 20 06103	NBP	XTI2		
06015	0 76 26261	LDA	#40000		
06016	0 35 25573	STA	PSTARD		
06017	0 02 20002	EIR			
06020	0 02*10000	ALCC*			
06021	0 02 15000	EBMM	15000	ARM 11	
06022	0 13 25573	PBT	PSTARD		
06023	0 02 02045	DESM			
06024	0 67 20060	LCY	480	COUNT 1, WC=0	
06025	0 67 20060	LCY	480	5 DUMMY CYCLES	
06026	0 02 00000	DSCC		5 DUMMY CYCLES	
06027	0 02 20004	DIR			
06030	0 43 00460	BRM	ERRBR	NO 11 INTERRUPT	
06031	4 20 24372	NBP	F1M65,4		
06032	0 20 24301	NBP	F1M66		
06033	0 43 00434	BRM	END		

•
• TEST END OF RECORD INTERRUPT
•

06034	0 43 00430	BRM	OBJECT		
06035	0 43 00440	BRM	RETURN		
06036	0 20 06131	NBP	XTI3		
06037	0 76 26261	LDA	#40000		
06040	0 35 25573	STA	PSTARD		
06041	0 02 20002	EIR			
06042	0 02*10000	ALCC*			
06043	0 02 16000	EBMM	16000	ARM 12	
06044	0 13 25573	PBT	PSTARD		
06045	0 02 00000	DSCC			
06046	0 67 20060	LCY	480	5 DUMMY CYCLES	
06047	0 67 20060	LCY	480	5 DUMMY CYCLES	
06050	0 02 20004	DIR			
06051	0 43 00460	BRM	ERRBR		
06052	4 20 24355	NBP	F1M70,4		
06053	0 20 24364	NBP	F1M71		
06054	0 43 00434	BRM	END		

```

*
*   TEST END OF WORD INTERRUPT
*
06055 0 43 00430   BRM   OBJECT
06056 0 43 00440   BRM   RETURN
06057 0 20 06103   NOP   XT12
06060 0 02 20002   EIR
06061 0 02 20045   OEDM
06062 0 67 20060   LCY   48D           5 DUMMY CYCLES
06063 0 02 00000   DSCC
06064 0 02 20004   DIR
06065 0 43 00460   BRM   ERROR        NO I1 INTERRUPT RECEIVED
06066 4 20 24272   NSP   F1M65.4
06067 0 20 24315   NSP   F1M67
06070 0 43 00434   BRM   END
06071 0 43 00456   BRM   FDBNE
06072 0 01 06165   BRU   FUNC2       EXIT TO NEXT FUNCTION
    
```

```

*
*   INTERRUPT ENTRANCES
*
06073 0 02 20004   XT11  DIR
06074 0 53 25565   SKN   JMPTYP
06075 0 11 06077   BRI   **2
06076 0 01*06077  BRU*   **1
06077 0 20 06100   NSP   **1           SPURIOUS TRAP OR INTERRUPT
06100 0 43 00460   BRM   ERROR
06101 0 20 24335   NOP   F1M68
06102 0 51 00430   BRR   SUBJECT
06103 0 02 20004   XT12  DIR
06104 0 02 00000   DSCC
06105 0 76 00450   LDA   DIVERT
06106 0 14 26112   ETR   #37777
06107 0 75 26114   LDB   #*1
06110 0 70 26115   SKM   #IX1           I1 INTERRUPT RECEIVED
06111 0 01 06120   BRU   XT12A        NO
06112 0 76 00242   LDA   INTX1
06113 0 55 26116   ADD   #5
06114 0 35 00242   STA   INTX1
06115 0 53 25565   SKN   JMPTYP
06116 0 11 00242   BRI   INTX1
06117 0 01*00242  BRU*   INTX1
06120 0 70 26117   XT12A SKM   #IX2           I2 INTERRUPT RECEIVED
06121 0 01 06073  BRU   XT11        NO
06122 0 43 15070   BRM   SPUR1       TO SPURIOUS INTRUPT TESTER
06123 0 20 26120   NSP   #33        CORRECT INTRUPT
06124 0 53 25565   SKN   JMPTYP
06125 0 11 26127   BRI   **2
06126 0 01*26127  BRU*   **1
06127 0 20 06130   NSP   **1
06130 0 51 00430   BRR   SUBJECT
    
```

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```
06131 0 02 20004 XT13 DIR
06132 0 02 00000 DSCC
06133 0 75 00450 LDA DIVERT
06134 0 14 26112 ETR #37777
06135 0 75 26114 LDB #=1
06136 0 70 26115 SKM #IX1
06137 0 01 06147 BRU XT13A
06140 0 43 15070 BRM SPUR1
06141 0 20 26121 YSP #31
06142 0 53 25565 SKN JMPTYP
06143 0 11 06145 BRI **2
06144 0 01*06145 BRU* **1
06145 0 20 06146 YSP **1
06146 0 51 00430 BRR SUBJECT
06147 0 70 26117 XT13A SKM #IX2
06150 0 01 06073 BRU XT11
06151 0 76 00246 LDA INTX2
06152 0 55 26122 ADD #3
06153 0 35 00246 STA INTX2
06154 0 53 25565 SKN JMPTYP
06155 0 11 00246 BRI INTX2
06156 0 01*00246 BRU* INTX2
```

I1 INTERRUPT RECEIVED
NO
TO SPURIOUS INTRUPT TESTER
CORRECT INTRUPT

I2 INTERRUPT RECEIVED
NO

*
* RESET TMCC
*

```
06157 0 00 00000 RESET PZE
06160 0 02 00000 DSCC
06161 0 02*10000 ALCC*
06162 0 02 14000 EBYM 14000
06163 0 13 26160 PBT #0
06164 0 51 06157 BRR RESET
```

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*
* FUNCTION 02 RAD PRIMARY TESTS
*

```
06165 0 43 00424 FUNC2 BRM FUNCTN
06166 0 20 21226 YBP FRT2
06167 0 76 06330 LDA ZERS1
06170 0 43 07454 BRM SETPIN
```

FUNCTION LINK
FUNCTION TWO PARAMETERS
ALERT TO PIN FOR FIRST RAD

*
* F20B01 RAD READY TEST
*

06171	0 43 00430	BRM	OBJECT	
06172	0 43 00440	BRM	RETURN	
06173	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
06174	0 02 00000	EBMM	0	
06175	0 71 26061	LDX	#40000	WAIT CONSTANT
06176	0 20 00000	NBP	0	
06177	0 40 10026	SKSS	010026	RAD READY TEST
06200	0 41 06176	BRX	**2	
06201	0 41 06205	BRX	**4	
06202	0 43 00460	BRM	ERR0R	NBP READY ERR0R
06203	0 20 24423	NBP	#2001A	MESSAGE NOT READY
06204	0 01 06230	BRU	#2001B	
06205	0 02 20004	DIR		
06206	0 02 10026	EBMM	010026	ALERT RAD
06207	0 13 26060	P0TT	#0	
06210	0 02*10000	EBMM*	010000	ALERT CHANNEL
06211	0 02 14200	EBMM	014200	SET HI BITS
06212	0 13 26123	P0T	#4000000+RL0	SET INTERLACE
06213	0 02 02226	EBMM	02226	RAD SHOULD HANG UP
06214	0 40 10026	SKSS	010026	READY TEST
06215	0 01 06220	BRU	#2001A	
06216	0 43 00460	BRM	ERR0R	READY ERR0R
06217	0 20 24451	NBP	#2001B	NOT READY ERR0R
06220	0 71 26061	F2001A LDX	#40000	WAIT CONSTANT
06221	0 20 00000	NBP	0	
06222	0 40 10026	SKSS	010026	READY TEST
06223	0 41 06221	BRX	**2	
06224	0 41 06226	BRX	**2	
06225	0 43 00460	BRM	ERR0R	
06226	0 20 24423	NBP	#2001A	
06227	0 02 00000	EBMM	0	CLEAR CHANNEL

06230 0 43 00434 F2001B BRM END EXIT TEST

*
* F20B04 RAD PIN TEST
*

06231	0	43	00430	BRM	OBJECT	
06232	0	43	00440	BRM	RETURN	
06233	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
06234	0	76	26073	LDA	#000001	
06235	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
06236	0	43	00460	BRM	ERRR	
06237	4	20	24477	NBP	*2004A,4	ERRR MESSAGE FOR BIT
06240	0	20	24464	NBP	*2004B	
06241	0	43	00434	BRM	END	EXIT TEST

*
* F20B05 RAD PIN TEST
*

06242	0	43	00430	BRM	OBJECT	
06243	0	43	00440	BRM	RETURN	
06244	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
06245	0	76	26074	LDA	#000002	
06246	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
06247	0	43	00460	BRM	ERRR	
06250	4	20	24505	NBP	*2005A,4	ERRR MESSAGE FOR BIT
06251	0	20	24464	NBP	*2004B	
06252	0	43	00434	BRM	END	EXIT TEST

*
* F20B06 RAD PIN TEST
*

06253	0	43	00430	BRM	OBJECT	
06254	0	43	00440	BRM	RETURN	
06255	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
06256	0	76	26075	LDA	#000004	
06257	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
06260	0	43	00460	BRM	ERRR	
06261	4	20	24513	NBP	*2006A,4	ERRR MESSAGE FOR BIT
06262	0	20	24464	NBP	*2004B	
06263	0	43	00434	BRM	END	EXIT TEST

*
* F20B07 RAD PIN TEST
*

06264	0	43	00430	BRM	OBJECT	
06265	0	43	00440	BRM	RETURN	
06266	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
06267	0	76	26076	LDA	#000010	
06270	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
06271	0	43	00460	BRM	ERRR	
06272	4	20	24521	NBP	*2007A,4	ERRR MESSAGE FOR BIT
06273	0	20	24464	NBP	*2004B	
06274	0	43	00434	BRM	END	EXIT TEST

*
* F28B08 RAD PIN TEST
*

06275	0	43	00430	BRM	0BJECT	
06276	0	43	00440	BRM	RETURN	
06277	0	20	07451	VBP	XTRA1	SPURIOUS INTRUPT HANDLER
06300	0	76	26077	LDA	#000020	PIN TRANSFER AND TEST ROUTINE
06301	0	43	07412	BRM	PINSET	
06302	0	43	00460	BRM	ERR0R	ERROR MESSAGE FOR BIT
06303	4	20	24527	VBP	M2008A,4	
06304	0	20	24464	VBP	M2004B	EXIT TEST
06305	0	43	00434	BRM	END	

*
* F28B09 RAD PIN TEST
*

06306	0	43	00430	BRM	0BJECT	
06307	0	43	00440	BRM	RETURN	
06310	0	20	07451	VBP	XTRA1	SPURIOUS INTRUPT HANDLER
06311	0	76	26100	LDA	#000040	PIN TRANSFER AND TEST ROUTINE
06312	0	43	07412	BRM	PINSET	
06313	0	43	00460	BRM	ERR0R	ERROR MESSAGE FOR BIT
06314	4	20	24535	VBP	M2009A,4	
06315	0	20	24464	VBP	M2004B	EXIT TEST
06316	0	43	00434	BRM	END	
06317	0	53	25565	SKN	JMPTYP	
06320	0	11	06322	BRI	**2	
06321	0	01	06322	BRU	**1	
06322	0	20	06323	VBP	**1	
06323	0	43	00434	BRM	END	

*
* FUNCTION 02 TEST SECTOR COUNTER
*

06324	0	43	00430	BRM	0BJECT	FIND THE ZERO SECTOR
06325	0	43	00440	BRM	RETURN	
06326	0	20	07451	VBP	XTRA1	
06327	0	71	26061	LDX	#040000	TIME 40 MILLISECND8
06330	0	02	10226	ZER01	ESMM	ALERT TO PIN
06331	0	33	25576	PINA	PINWRD	
06332	0	76	25576	LDA	PINWRD	
06333	0	75	26112	LDB	#37777	
06334	0	70	26060	SKM	#0	
06335	0	41	06330	BRX	ZER01	
06336	0	41	06344	BRX	ZER02	
06337	0	75	26060	LDB	#0	
06340	0	71	00430	LDX	0BJECT	
06341	0	43	00460	BRM	ERR0R	NO ZERO
06342	4	20	24572	VBP	M2013C,4	HEADING AND REGISTERS
06343	2	20	24556	VBP	M2013B,2	
06344	0	43	00434	ZER02	BRM	END

*
* F20B14 TEST SECTOR ADRS 01
*

06345	0 43 00430	BRM	OBJECT	
06346	0 43 00440	BRM	RETURN	
06347	0 20 07451	NBP	XTRA1	
06350	0 75 26073	LDB	#001	SECTOR 01
06351	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06352	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06353	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
06354	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
06355	0 43 00434	BRM	END	

*
* F20B15 TEST SECTOR ADRS 02
*

06356	0 43 00430	BRM	OBJECT	
06357	0 43 00440	BRM	RETURN	
06360	0 20 07451	NBP	XTRA1	
06361	0 75 26074	LDB	#002	SECTOR 02
06362	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06363	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06364	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
06365	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
06366	0 43 00434	BRM	END	

*
* F20B16 TEST SECTOR ADRS 03
*

06367	0 43 00430	BRM	OBJECT	
06370	0 43 00440	BRM	RETURN	
06371	0 20 07451	NBP	XTRA1	
06372	0 75 26122	LDB	#003	SECTOR 03
06373	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06374	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06375	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
06376	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
06377	0 43 00434	BRM	END	

*
* F20B17 TEST SECTOR ADRS 04
*

06400	0 43 00430	BRM	OBJECT	
06401	0 43 00440	BRM	RETURN	
06402	0 20 07451	NBP	XTRA1	
06403	0 75 26075	LDB	#004	SECTOR 04
06404	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06405	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06406	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
06407	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
06410	0 43 00434	BRM	END	

*
* F20B18 TEST SECTOR ADRS 05
*

06411	0 43 00430	BRM	OBJECT	
06412	0 43 00440	BRM	RETURN	
06413	0 20 07651	NBP	XTRA1	
06414	0 75 26116	LDB	#005	SECTOR 05
06415	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06416	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
06417	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
06420	2 20 24556	NBP	%2013B,2	HEADING AND REGISTERS
06421	0 43 00434	BRM	END	

*
* F20B19 TEST SECTOR ADRS 06
*

06422	0 43 00430	BRM	OBJECT	
06423	0 43 00440	BRM	RETURN	
06424	0 20 07651	NBP	XTRA1	
06425	0 75 26124	LDB	#006	SECTOR 06
06426	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06427	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
06430	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
06431	2 20 24556	NBP	%2013B,2	HEADING AND REGISTERS
06432	0 43 00434	BRM	END	

*
* F20B20 TEST SECTOR ADRS 07
*

06433	0 43 00430	BRM	OBJECT	
06434	0 43 00440	BRM	RETURN	
06435	0 20 07651	NBP	XTRA1	
06436	0 75 26125	LDB	#007	SECTOR 07
06437	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06440	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
06441	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
06442	2 20 24556	NBP	%2013B,2	HEADING AND REGISTER
06443	0 43 00434	BRM	END	

*
* F20B21 TEST SECTOR ADRS 10
*

06444	0 43 00430	BRM	OBJECT	
06445	0 43 00440	BRM	RETURN	
06446	0 20 07651	NBP	XTRA1	
06447	0 75 26176	LDB	#010	SECTOR 10
06450	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06451	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
06452	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
06453	2 20 24556	NBP	%2013B,2	HEADING AND REGISTERS
06454	0 43 00434	BRM	END	

*
* F20B22 TEST SECTOR ADRS 11
*

06455	0 43 00430	BRM	OBJECT	
06456	0 43 00440	BRM	RETURN	
06457	0 20 07451	NBP	XTRA1	
06460	0 75 26126	LDB	#011	SECTOR 11
06461	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
06462	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06463	4 20 24443	NBP	M2013A,4	LOGIC ERROR MSG
06464	2 20 24454	NBP	M2013B,2	HEADING AND REGISTERS
06465	0 43 00434	BRM	END	

*
* F20B23 TEST SECTOR ADRS 12
*

06466	0 43 00430	BRM	OBJECT	
06467	0 43 00440	BRM	RETURN	
06470	0 20 07451	NBP	XTRA1	
06471	0 75 26127	LDB	#012	SECTOR 12
06472	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
06473	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06474	4 20 24443	NBP	M2013A,4	LOGIC ERROR MSG
06475	2 20 24454	NBP	M2013B,2	HEADING AND REGISTERS
06476	0 43 00434	BRM	END	

*
* F20B24 TEST SECTOR ADRS 13
*

06477	0 43 00430	BRM	OBJECT	
06500	0 43 00440	BRM	RETURN	
06501	0 20 07451	NBP	XTRA1	
06502	0 75 26130	LDB	#013	SECTOR 13
06503	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
06504	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06505	4 20 24443	NBP	M2013A,4	LOGIC ERROR MSG
06506	2 20 24454	NBP	M2013B,2	HEADING AND REGISTERS
06507	0 43 00434	BRM	END	

*
* F20B25 TEST SECTOR ADRS 14
*

06510	0 43 00430	BRM	OBJECT	
06511	0 43 00440	BRM	RETURN	
06512	0 20 07451	NBP	XTRA1	
06513	0 75 26131	LDB	#014	SECTOR 14
06514	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
06515	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
06516	4 20 24443	NBP	M2013A,4	LOGIC ERROR MSG
06517	2 20 24454	NBP	M2013B,2	HEADING AND REGISTERS
06520	0 43 00434	BRM	END	

*
* F20B26 TEST SECTOR ADRS 15
*

06521	0	43	00430	BRM	OBJECT	
06522	0	43	00440	BRM	RETURN	
06523	0	20	07451	NBP	XTRA1	
06524	0	75	26132	LDB	#015	SECTOR 15
06525	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06526	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06527	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06530	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06531	0	43	00434	BRM	END	

*
* F20B27 TEST SECTOR ADRS 16
*

06532	0	43	00430	BRM	OBJECT	
06533	0	43	00440	BRM	RETURN	
06534	0	20	07451	NBP	XTRA1	
06535	0	75	26133	LDB	#016	SECTOR 16
06536	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06537	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06540	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06541	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06542	0	43	00434	BRM	END	

*
* F20B28 TEST SECTOR ADRS 17
*

06543	0	43	00430	BRM	OBJECT	
06544	0	43	00440	BRM	RETURN	
06545	0	20	07451	NBP	XTRA1	
06546	0	75	26134	LDB	#017	SECTOR 17
06547	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06550	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06551	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06552	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06553	0	43	00434	BRM	END	

*
* F20B29 TEST SECTOR ADRS 20
*

06554	0	43	00430	BRM	OBJECT	
06555	0	43	00440	BRM	RETURN	
06556	0	20	07451	NBP	XTRA1	
06557	0	75	26177	LDB	#020	SECTOR 20
06560	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06561	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06562	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06563	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06564	0	43	00434	BRM	END	

*
* F20B30 TEST SECTOR ADRS 21
*

06565	0	43	00430	BRM	OBJECT	
06566	0	43	00440	BRM	RETURN	
06567	0	20	07451	XBP	XTRA1	
06570	0	75	26135	LDB	#021	SECTOR 21
06571	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06572	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06573	4	20	24543	XBP	#2013A,4	LOGIC ERROR MSG
06574	2	20	24556	XBP	#2013B,2	HEADING AND REGISTERS
06575	0	43	00434	BRM	END	

*
* F20B31 TEST SECTOR ADRS 22
*

06576	0	43	00430	BRM	OBJECT	
06577	0	43	00440	BRM	RETURN	
06600	0	20	07451	XBP	XTRA1	
06601	0	75	26136	LDB	#022	SECTOR 22
06602	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06603	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06604	4	20	24543	XBP	#2013A,4	LOGIC ERROR MSG
06605	2	20	24556	XBP	#2013B,2	HEADING AND REGISTERS
06606	0	43	00434	BRM	END	

*
* F20B32 TEST SECTOR ADRS 23
*

06607	0	43	00430	BRM	OBJECT	
06610	0	43	00440	BRM	RETURN	
06611	0	20	07451	XBP	XTRA1	
06612	0	75	26137	LDB	#023	SECTOR 23
06613	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06614	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06615	4	20	24543	XBP	#2013A,4	LOGIC ERROR MSG
06616	2	20	24556	XBP	#2013B,2	HEADING AND REGISTERS
06617	0	43	00434	BRM	END	

*
* F20B33 TEST SECTOR ADRS 24
*

06620	0	43	00430	BRM	OBJECT	
06621	0	43	00440	BRM	RETURN	
06622	0	20	07451	XBP	XTRA1	
06623	0	75	26140	LDB	#024	SECTOR 24
06624	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06625	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06626	4	20	24543	XBP	#2013A,4	LOGIC ERROR MSG
06627	2	20	24556	XBP	#2013B,2	HEADING AND REGISTERS
06630	0	43	00434	BRM	END	

*
* F28B34 TEST SECTOR ADRS 25
*

06631	0 43 00430	BRM	OBJECT	
06632	0 43 00440	BRM	RETURN	
06633	0 20 07451	NBP	XTRAI	
06634	0 75 26141	LDB	#025	SECTOR 25
06635	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06636	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
06637	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
06640	2 20 24554	NBP	*2013B,2	HEADING AND REGISTERS
06641	0 43 00434	BRM	END	

*
* F28B35 TEST SECTOR ADRS 26
*

06642	0 43 00430	BRM	OBJECT	
06643	0 43 00440	BRM	RETURN	
06644	0 20 07451	NBP	XTRAI	
06645	0 75 26142	LDB	#026	SECTOR 26
06646	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06647	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
06650	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
06651	2 20 24554	NBP	*2013B,2	HEADING AND REGISTERS
06652	0 43 00434	BRM	END	

*
* F28B36 TEST SECTOR ADRS 27
*

06653	0 43 00430	BRM	OBJECT	
06654	0 43 00440	BRM	RETURN	
06655	0 20 07451	NBP	XTRAI	
06656	0 75 26143	LDB	#027	SECTOR 27
06657	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06660	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
06661	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
06662	2 20 24554	NBP	*2013B,2	HEADING AND REGISTERS
06663	0 43 00434	BRM	END	

*
* F28B37 TEST SECTOR ADRS 30
*

06664	0 43 00430	BRM	OBJECT	
06665	0 43 00440	BRM	RETURN	
06666	0 20 07451	NBP	XTRAI	
06667	0 75 26144	LDB	#030	SECTOR 30
06670	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
06671	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
06672	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
06673	2 20 24554	NBP	*2013B,2	HEADING AND REGISTERS
06674	0 43 00434	BRM	END	

*
* F20B38 TEST SECTOR ADRS 31
*

06675	0	43	00430	BRM	OBJECT	
06676	0	43	00440	BRM	RETURN	
06677	0	20	07451	\BP	XTRA1	
06700	0	75	26121	LDB	#031	SECTOR 31
06701	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06702	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06703	4	20	24443	\BP	*2013A,4	LOGIC ERROR MSG
06704	2	20	24556	\BP	*2013B,2	HEADING AND REGISTERS
06705	0	43	00434	BRM	END	

*
* F20B39 TEST SECTOR ADRS 32
*

06706	0	43	00430	BRM	OBJECT	
06707	0	43	00440	BRM	RETURN	
06710	0	20	07451	\BP	XTRA1	
06711	0	75	26145	LDB	#032	SECTOR 32
06712	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06713	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06714	4	20	24443	\BP	*2013A,4	LOGIC ERROR MSG
06715	2	20	24556	\BP	*2013B,2	HEADING AND REGISTERS
06716	0	43	00434	BRM	END	

*
* F20B40 TEST SECTOR ADRS 33
*

06717	0	43	00430	BRM	OBJECT	
06720	0	43	00440	BRM	RETURN	
06721	0	20	07451	\BP	XTRA1	
06722	0	75	26120	LDB	#033	SECTOR 33
06723	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06724	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06725	4	20	24443	\BP	*2013A,4	LOGIC ERROR MSG
06726	2	20	24556	\BP	*2013B,2	HEADING AND REGISTERS
06727	0	43	00434	BRM	END	

*
* F20B41 TEST SECTOR ADRS 34
*

06730	0	43	00430	BRM	OBJECT	
06731	0	43	00440	BRM	RETURN	
06732	0	20	07451	\BP	XTRA1	
06733	0	75	26146	LDB	#034	SECTOR 34
06734	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06735	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06736	4	20	24443	\BP	*2013A,4	LOGIC ERROR MSG
06737	2	20	24556	\BP	*2013B,2	HEADING AND REGISTERS
06740	0	43	00434	BRM	END	

*
* F20B42 TEST SECTOR ADRS 35
*

06741	0	43	00430	BRM	OBJECT	
06742	0	43	00440	BRM	RETURN	
06743	0	20	07451	NBP	XTRA1	
06744	0	75	26147	LDB	#035	SECTOR 35
06745	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06746	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
06747	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06750	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06751	0	43	00434	BRM	END	

*
* F20B43 TEST SECTOR ADRS 36
*

06752	0	43	00430	BRM	OBJECT	
06753	0	43	00440	BRM	RETURN	
06754	0	20	07451	NBP	XTRA1	
06755	0	75	26150	LDB	#036	SECTOR 36
06756	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06757	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
06760	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06761	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06762	0	43	00434	BRM	END	

*
* F20B44 TEST SECTOR ADRS 37
*

06763	0	43	00430	BRM	OBJECT	
06764	0	43	00440	BRM	RETURN	
06765	0	20	07451	NBP	XTRA1	
06766	0	75	26151	LDB	#037	SECTOR 37
06767	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06770	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
06771	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06772	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06773	0	43	00434	BRM	END	

*
* F20B45 TEST SECTOR ADRS 40
*

06774	0	43	00430	BRM	OBJECT	
06775	0	43	00440	BRM	RETURN	
06776	0	20	07451	NBP	XTRA1	
06777	0	75	26100	LDB	#040	SECTOR 40
07000	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07001	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
07002	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
07003	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
07004	0	43	00434	BRM	END	

*
*
*
*
*

* F20B46 TEST SECTOR ADRS 41

07005	0	43	00430	BRM	SUBJECT	
07006	0	43	00440	BRM	RETURN	
07007	0	20	07451	NBP	XTRA1	
07010	0	75	26152	LDB	#041	SECTOR 41
07011	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07012	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07013	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
07014	2	20	24554	NBP	*2013B,2	HEADING AND REGISTERS
07015	0	43	00434	BRM	END	

*
*
*
*
*

* F20B47 TEST SECTOR ADRS 42

07016	0	43	00430	BRM	SUBJECT	
07017	0	43	00440	BRM	RETURN	
07020	0	20	07451	NBP	XTRA1	
07021	0	75	26153	LDB	#042	SECTOR 42
07022	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07023	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07024	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
07025	2	20	24554	NBP	*2013B,2	HEADING AND REGISTERS
07026	0	43	00434	BRM	END	

*
*
*
*
*

* F20B48 TEST SECTOR ADRS 43

07027	0	43	00430	BRM	SUBJECT	
07030	0	43	00440	BRM	RETURN	
07031	0	20	07451	NBP	XTRA1	
07032	0	75	26154	LDB	#043	SECTOR 43
07033	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07034	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07035	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
07036	2	20	24555	NBP	*2013B,2	HEADING AND REGISTERS
07037	0	43	00434	BRM	END	

*
*
*
*
*

* F20B49 TEST SECTOR ADRS 44

07040	0	43	00430	BRM	SUBJECT	
07041	0	43	00440	BRM	RETURN	
07042	0	20	07451	NBP	XTRA1	
07043	0	75	26155	LDB	#044	SECTOR 44
07044	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07045	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07046	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
07047	2	20	24555	NBP	*2013B,2	HEADING AND REGISTERS
07050	0	43	00434	BRM	END	

*
* F20B50 TEST SECTOR ADRS 45
*

07051	0 43 00430	BRM	OBJECT	
07052	0 43 00440	BRM	RETURN	
07053	0 20 07651	NBP	XTRA1	
07054	0 75 26156	LDB	#045	SECTOR 45
07055	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07056	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
07057	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07060	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07061	0 43 00434	BRM	END	

*
* F20B51 TEST SECTOR ADRS 46
*

07062	0 43 00430	BRM	OBJECT	
07063	0 43 00440	BRM	RETURN	
07064	0 20 07651	NBP	XTRA1	
07065	0 75 26157	LDB	#046	SECTOR 46
07066	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07067	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
07070	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07071	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07072	0 43 00434	BRM	END	

*
* F20B52 TEST SECTOR ADRS 47
*

07073	0 43 00430	BRM	OBJECT	
07074	0 43 00440	BRM	RETURN	
07075	0 20 07651	NBP	XTRA1	
07076	0 75 26160	LDB	#047	SECTOR 47
07077	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07100	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
07101	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07102	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07103	0 43 00434	BRM	END	

*
* F20B53 TEST SECTOR ADRS 50
*

07104	0 43 00430	BRM	OBJECT	
07105	0 43 00440	BRM	RETURN	
07106	0 20 07651	NBP	XTRA1	
07107	0 75 26161	LDB	#050	SECTOR 50
07110	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07111	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
07112	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07113	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07114	0 43 00434	BRM	END	

*
* F20854 TEST SECTOR ADR6 51
*

07115	0 43 00430	BRM	OBJECT	
07116	0 43 00440	BRM	RETURN	
07117	0 20 07451	NBP	XTRA1	
07120	0 75 26162	LDB	#051	SECTOR 51
07121	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADR6
07122	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07123	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
07124	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07125	0 43 00434	BRM	END	

*
* F20855 TEST SECTOR ADR6 52
*

07126	0 43 00430	BRM	OBJECT	
07127	0 43 00440	BRM	RETURN	
07130	0 20 07451	NBP	XTRA1	
07131	0 75 26163	LDB	#052	SECTOR 52
07132	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADR6
07133	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07134	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
07135	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07136	0 43 00434	BRM	END	

*
* F20856 TEST SECTOR ADR6 53
*

07137	0 43 00430	BRM	OBJECT	
07140	0 43 00440	BRM	RETURN	
07141	0 20 07451	NBP	XTRA1	
07142	0 75 26164	LDB	#053	SECTOR 53
07143	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADR6
07144	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07145	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
07146	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07147	0 43 00434	BRM	END	

*
* F20857 TEST SECTOR ADR6 54
*

07150	0 43 00430	BRM	OBJECT	
07151	0 43 00440	BRM	RETURN	
07152	0 20 07451	NBP	XTRA1	
07153	0 75 26165	LDB	#054	SECTOR 54
07154	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADR6
07155	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07156	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
07157	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07160	0 43 00434	BRM	END	

*
*
* F28358 TEST SECTOR ADRS 55
*
*

07161	0	43	00430	BRM	OBJECT	
07162	0	43	00440	BRM	RETURN	
07163	0	20	07451	NBP	XTRA1	
07164	0	75	26166	LDB	#085	SECTOR 55
07165	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07166	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07167	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
07170	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
07171	0	43	00434	BRM	END	

*
*
* F28859 TEST SECTOR ADRS 56
*
*

07172	0	43	00430	BRM	OBJECT	
07173	0	43	00440	BRM	RETURN	
07174	0	20	07451	NBP	XTRA1	
07175	0	75	26167	LDB	#08A	SECTOR 56
07176	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07177	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07200	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
07201	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
07202	0	43	00434	BRM	END	

*
*
* F28860 TEST SECTOR ADRS 57
*
*

07203	0	43	00430	BRM	OBJECT	
07204	0	43	00440	BRM	RETURN	
07205	0	20	07451	NBP	XTRA1	
07206	0	75	26170	LDB	#057	SECTOR 57
07207	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07210	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07211	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
07212	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
07213	0	43	00434	BRM	END	

*
*
* F28861 TEST SECTOR ADRS 60
*
*

07214	0	43	00430	BRM	OBJECT	
07215	0	43	00440	BRM	RETURN	
07216	0	20	07451	NBP	XTRA1	
07217	0	75	26171	LDB	#060	SECTOR 60
07220	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07221	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
07222	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
07223	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
07224	0	43	00434	BRM	END	

*
* F20B62 TEST SECTOR ADRS 61
*

07225	0 43 00430	BRM	OBJECT	
07226	0 43 00440	BRM	RETURN	
07227	0 20 07451	NBP	XTRA1	
07230	0 75 26172	LDB	#061	SECTOR 61
07231	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07232	0 43 00460	BRM	ERR0R	RETURN IF ERROR OCCURED
07233	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
07234	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07235	0 43 00434	BRM	END	

*
* F20B63 TEST SECTOR ADRS 62
*

07236	0 43 00430	BRM	OBJECT	
07237	0 43 00440	BRM	RETURN	
07240	0 20 07451	NBP	XTRA1	
07241	0 75 26173	LDB	#062	SECTOR 62
07242	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07243	0 43 00460	BRM	ERR0R	RETURN IF ERROR OCCURED
07244	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
07245	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07246	0 43 00434	BRM	END	

*
* F20B64 TEST SECTOR ADRS 63
*

07247	0 43 00430	BRM	OBJECT	
07250	0 43 00440	BRM	RETURN	
07251	0 20 07451	NBP	XTRA1	
07252	0 75 26174	LDB	#063	SECTOR 63
07253	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07254	0 43 00460	BRM	ERR0R	RETURN IF ERROR OCCURED
07255	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
07256	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07257	0 43 00434	BRM	END	

*
* F20B65 TEST SECTOR ADRS 64
*

07260	0 43 00430	BRM	OBJECT	
07261	0 43 00440	BRM	RETURN	
07262	0 20 07451	NBP	XTRA1	
07263	0 75 26175	LDB	#064	SECTOR 64
07264	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07265	0 43 00460	BRM	ERR0R	RETURN IF ERROR OCCURED
07266	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
07267	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
07270	0 43 00434	BRM	END	

*
* F20866 TEST SECTOR ADRS 65
*

07271	0 43 00430	BRM	OBJECT	
07272	0 43 00440	BRM	RETURN	
07273	0 20 07451	NBP	XTRAI	
07274	0 75 26176	LDB	#065	SECTOR 65
07275	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07276	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07277	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07300	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07301	0 43 00434	BRM	END	

*
* F20867 TEST SECTOR ADRS 66
*

07302	0 43 00430	BRM	OBJECT	
07303	0 43 00440	BRM	RETURN	
07304	0 20 07451	NBP	XTRAI	
07305	0 75 26177	LDB	#066	SECTOR 66
07306	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07307	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07310	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07311	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07312	0 43 00434	BRM	END	

*
* F20868 TEST SECTOR ADRS 67
*

07313	0 43 00430	BRM	OBJECT	
07314	0 43 00440	BRM	RETURN	
07315	0 20 07451	NBP	XTRAI	
07316	0 75 26200	LDB	#067	SECTOR 67
07317	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07320	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07321	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07322	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07323	0 43 00434	BRM	END	

*
* F20869 TEST SECTOR ADRS 70
*

07324	0 43 00430	BRM	OBJECT	
07325	0 43 00440	BRM	RETURN	
07326	0 20 07451	NBP	XTRAI	
07327	0 75 26200	LDB	#070	SECTOR 70
07330	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07331	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07332	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07333	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07334	0 43 00434	BRM	END	

*
* F20B70 TEST SECTOR ADRS 71
*

07335	0	43	00430	BRM	OBJECT	
07336	0	43	00440	BRM	RETURN	
07337	0	20	07451	NBP	XTRA1	
07340	0	75	26202	LDB	#071	SECTOR 71
07341	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07342	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
07343	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
07344	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
07345	0	43	00434	BRM	END	

*
* F20B71 TEST SECTOR ADRS 72
*

07346	0	43	00430	BRM	OBJECT	
07347	0	43	00440	BRM	RETURN	
07350	0	20	07451	NBP	XTRA1	
07351	0	75	26203	LDB	#072	SECTOR 72
07352	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07353	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
07354	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
07355	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
07356	0	43	00434	BRM	END	

*
* F20B72 TEST SECTOR ADRS 73
*

07357	0	43	00430	BRM	OBJECT	
07360	0	43	00440	BRM	RETURN	
07361	0	20	07451	NBP	XTRA1	
07362	0	75	26204	LDB	#073	SECTOR 73
07363	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07364	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
07365	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
07366	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
07367	0	43	00434	BRM	END	

*
* F20B73 TEST SECTOR ADRS 74
*

07370	0	43	00430	BRM	OBJECT	
07371	0	43	00440	BRM	RETURN	
07372	0	20	07451	NBP	XTRA1	
07373	0	75	26205	LDB	#074	SECTOR 74
07374	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07375	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
07376	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
07377	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
07400	0	43	00434	BRM	END	

*
* F20B74 TEST SECTOR ADRS 75
*

07401	0	43	00430	BRM	OBJECT	
07402	0	43	00440	BRM	RETURN	
07403	0	20	07451	NBP	XTR41	
07404	0	75	26206	LDB	#075	SECTOR 75
07405	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07406	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
07407	4	20	24543	NBP	Y2013A,4	LOGIC ERROR MSG
07410	2	20	24556	NBP	Y2013B,2	HEADING AND REGISTERS
07411	0	43	00434	BRM	END	

*
* F20B75 TEST SECTOR ADRS 76
*

07412	0	43	00430	BRM	OBJECT	
07413	0	43	00440	BRM	RETURN	
07414	0	20	07451	NBP	XTR41	
07415	0	75	26207	LDB	#076	SECTOR 76
07416	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07417	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
07420	4	20	24543	NBP	Y2013A,4	LOGIC ERROR MSG
07421	2	20	24556	NBP	Y2013B,2	HEADING AND REGISTERS
07422	0	43	00434	BRM	END	

*
* F20B76 TEST SECTOR ADRS 77
*

07423	0	43	00430	BRM	OBJECT	
07424	0	43	00440	BRM	RETURN	
07425	0	20	07451	NBP	XTR41	
07426	0	75	26210	LDB	#077	SECTOR 77
07427	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07430	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
07431	4	20	24543	NBP	Y2013A,4	LOGIC ERROR MSG
07432	2	20	24556	NBP	Y2013B,2	HEADING AND REGISTERS
07433	0	43	00434	BRM	END	

*
* F20B77 WRITE DISCONNECT TEST
*

07434	0	43	00430	BRM	OBJECT	
07435	0	43	00440	BRM	RETURN	
07436	0	20	07451	NBP	XTR41	SPURIOUS INTRUPT RETURN
07437	0	76	00401	LDA	STATUS	
07440	0	72	26106	SKA	#4000	BIT 12 SOFTWARE READ ONLY
07441	0	41	07454	BRU	F2077A	SKIP TEST
07442	0	76	26114	LDA	#=1	
07443	0	43	15701	BRM	SPREAD	LOAD RLB BUFFER
07444	0	76	26060	LDA	#0	
07445	0	43	20321	BRM	WAIT4	TEST RAD READY
07446	0	76	26031	LDA	RCODE1	
07447	0	43	15466	BRM	ARVT3	
07450	0	43	20321	BRM	WAIT4	
07451	0	40	10026	SKSS	10026	TEST READY CONDITION
07452	0	43	00460	BRM	ERRRR	
07453	0	20	25052	NBP	Y2077A	DISCONNECT LOGIC
07454	0	43	00434	F2077A BRM	END	

* F29B78 READ DISCONNECT TEST *

07455	0	43	00430	BRM	OBJECT	
07456	0	43	00440	BRM	RETURN	
07457	0	20	07651	NBP	XTRA1	
07460	0	43	20321	BRM	WAIT4	
07461	0	76	26760	LDA	#0	
07462	0	35	25773	STA	PETWRD	
07463	0	76	26731	LDA	RCODE1	
07464	0	35	26734	STA	CHANWD	64 WORDS FROM RLB
07465	0	43	10026	BRM	READ7	
07466	0	43	20321	BRM	WAIT4	
07467	0	40	10026	SKSS	10026	TEST READY
07470	0	43	00460	BRM	ERRRR	
07471	0	20	25756	NBP	Y2978A	DISCONNECT LOGIC
07472	0	43	00434	BRM	END	

* F29B79 RAD 11,12 TEST *

07473	0	43	00430	BRM	OBJECT	
07474	0	43	00440	BRM	RETURN	
07475	0	20	07516	NBP	F2979A	
07476	0	43	20321	BRM	WAIT4	IS RAD READY
07477	0	02	10026	EBMM	10026	ALEKT RAD
07500	0	13	26760	PBT	#0	
07501	0	02	*10000	EBMM	10000	ALEKT CHANNEL
07502	4	02	17200	EBMM	17200,4	SET EARLY INTRUPT
07503	0	13	26123	PBT	#4000000*RLB	SEND ONE SECTOR
07504	0	02	02226	EBMM	2226	READ
07505	0	71	26761	LDX	#40000	
07506	0	02	20002	EIR		
07507	0	67	20060	LCY	60	
07510	0	41	07507	BRX	**1	WAIT LOOP
07511	0	02	20004	DIR		
07512	0	43	00460	BRM	ERRRR	
07513	4	20	25722	NBP	Y2979A,4	CHANNEL LOGIC
07514	0	20	25730	NBP	Y2979B	RAD LOGIC
07515	0	01	07526	BRU	F2979B	
07516	0	02	20004	F2979A DIR		
07517	0	76	00450	LDA	DIVERT	
07520	0	75	26112	LDB	#37777	MASK
07521	0	71	26115	LDX	#131	CORRECT INTRUPT LOCATION
07522	0	70	26115	SKM	#131	
07523	0	43	15770	BRM	SPURI	SPURIOUS INTRUPT TESTER
07524	0	20	26121	NBP	#31	CORRECT INTRUPT
07525	0	53	25565	SKN	JMPTYP	
07526	0	11	07530	F2979B BRI	**2	
07527	0	01	*07530	BRU	**1	
07530	0	20	07530	NBP	*	
07531	0	43	00440	BRM	RETURN	
07532	0	20	07547	NBP	F2979C	
07533	0	71	26761	LDX	#40000	

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07534	0	02	20002	EIR		
07535	0	67	20060	LCY	60	
07536	0	41	07535	BRX	**1	
07537	0	02	20004	DIR		
07540	0	53	25565	SKN	JMPTYP	
07541	0	11	07543	BRI	**2	
07542	0	01	07543	BRJ	**1	
07543	0	20	07543	NBP	*	
07544	0	43	00460	BRM	ERR9R	
07545	4	20	25035	NBP	M2879C,4	CHANNEL LOGIC
07546	0	20	25042	NBP	M2879D	RAD LOGIC
07547	0	02	20004	F2879C DIR		
07550	0	53	25565	SKN	JMPTYP	
07551	0	11	07553	BRI	**2	
07552	0	01	07553	BRJ	**1	
07553	0	20	07553	NBP	*	
07554	0	43	00434	BRM	END	
07555	0	43	00456	BRM	FDBNE	
07556	0	01	07462	BRU	FUNCG	

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07557	0	00	00000	PININ	ZR9		LOAD TIMER
07560	0	71	26061	LDX	#40000		SAVE NEXT SECTOR TO TEST
07561	0	36	25573	STB	POTARD		
07562	0	46	10012	BAC			
07563	0	54	26073	SUB	#1		GENERATE PAST SECTOR
07564	0	02	10226	PININ1	E9MM	010226	ALERT TO PIN
07565	0	33	25576	PINX	PINARD		
07566	0	75	26112	LDB	#37777		IS LAST SECTOR CHANGED YET
07567	0	70	25576	SKM	PINARD		SECTOR NOT FOUND YET
07570	0	41	07564	BRX	PININ1		SECTOR FOUND
07571	0	41	07575	BRX	PININ2		
07572	0	43	00460	BRM	ERR9R		
07573	0	20	25113	NBP	M5GPIV		INCREMENT ERROR
07574	0	51	07557	BRR	PININ		
07575	0	71	26061	PININ2	LDX	#040000	LOAD TIMER
07576	0	76	25573	LDA	POTARD		GET NEXT SECTOR
07577	0	02	10226	PININ3	E9MM	010226	ALERT TO PIN RAD
07600	0	33	25576	PINX	PINARD		
07601	0	75	26112	LDB	#37777		
07602	0	70	25576	SKM	PINARD		
07603	0	41	07577	BRX	PININ3		
07604	0	41	07610	BRX	PININ4		EXIT ON SUCCESS
07605	0	75	25576	LDB	PINARD		GET BAD WORD
07606	0	71	00430	LDX	9BJECT		
07607	0	51	07557	BRR	PININ		
07610	0	61	07557	PININ4	PININ		
07611	0	51	07557	BRR	PININ		
07612	0	00	00000	PINSET	ZR9		LOAD RAD REV TIME
07613	0	75	26061	LDB	#40000		SET SECTOR COUNT FOR 64 SECTORS
07614	0	36	25502	STB	TIMBUT		
07615	0	02	00000	PINSE1	E9MM	0	
07616	0	02	10226	E9MM	010226		ALERT TO PIN
07617	0	33	25576	PINX	PINARD		
07620	0	72	25576	SKA	PINARD		TEST FOR ANY ONE BIT
07621	0	01	07627	BRU	PINSE2		
07622	0	60	25502	SKR	TIMBUT		COUNT PASSES

•
• F39B04 RAD PIN TEST
•

07672	0 43 00430	BRM	OBJECT	
07673	0 43 00440	BRM	RETURN	
07674	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
07675	0 76 26073	LDA	#000001	
07676	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07677	0 43 00460	BRM	ERRR	
07700	4 20 24477	NBP	M2004A,4	ERROR MESSAGE FOR BIT
07701	0 20 24464	NBP	M2004B	
07702	0 43 00434	BRM	END	EXIT TEST

•
• F39B05 RAD PIN TEST
•

07703	0 43 00430	BRM	OBJECT	
07704	0 43 00440	BRM	RETURN	
07705	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
07706	0 76 26074	LDA	#000002	
07707	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07710	0 43 00460	BRM	ERRR	
07711	4 20 24505	NBP	M2005A,4	ERROR MESSAGE FOR BIT
07712	0 20 24464	NBP	M2004B	
07713	0 43 00434	BRM	END	EXIT TEST

•
• F39B06 RAD PIN TEST
•

07714	0 43 00430	BRM	OBJECT	
07715	0 43 00440	BRM	RETURN	
07716	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
07717	0 76 26075	LDA	#000004	
07720	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07721	0 43 00460	BRM	ERRR	
07722	4 20 24513	NBP	M2006A,4	ERROR MESSAGE FOR BIT
07723	0 20 24464	NBP	M2004B	
07724	0 43 00434	BRM	END	EXIT TEST

•
• F39B07 RAD PIN TEST
•

07725	0 43 00430	BRM	OBJECT	
07726	0 43 00440	BRM	RETURN	
07727	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
07730	0 76 26076	LDA	#000010	
07731	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07732	0 43 00460	BRM	ERRR	
07733	4 20 24521	NBP	M2007A,4	ERROR MESSAGE FOR BIT
07734	0 20 24464	NBP	M2004B	
07735	0 43 00434	BRM	END	EXIT TEST

*
* F30B08 RAD PIN TEST
*

07736	0 43 00430	BRM	OBJECT	
07737	0 43 00440	BRM	RETURN	
07740	0 20 07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
07741	0 76 26777	LDA	#000020	
07742	0 43 07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07743	0 43 00460	BRM	ERRRR	
07744	4 20 24527	NBP	M2008A,4	ERROR MESSAGE FOR BIT
07745	0 20 24464	NBP	M2004B	
07746	0 43 00434	BRM	END	EXIT TEST

*
* F30B09 RAD PIN TEST
*

07747	0 43 00430	BRM	OBJECT	
07750	0 43 00440	BRM	RETURN	
07751	0 20 07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
07752	0 76 26100	LDA	#000040	
07753	0 43 07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07754	0 43 00460	BRM	ERRRR	
07755	4 20 24535	NBP	M2009A,4	ERROR MESSAGE FOR BIT
07756	0 20 24464	NBP	M2004B	
07757	0 43 00434	BRM	END	EXIT TEST

*
* FUNCTION 03 TEST SECTOR COUNTER
*

07760	0 43 00430	BRM	OBJECT	FIND THE ZERO SECTOR
07761	0 43 00440	BRM	RETURN	
07762	0 20 07451	NBP	XTRA1	
07763	0 71 26061	LDX	#040000	TIME 40 MILLISECONDS
07764	0 02 11226	ZER31	E9MM 11226	ALERT TO PIN
07765	0 33 25576	PINL	PINLRO	
07766	0 76 25576	LDA	PINLRO	
07767	0 75 26112	LDB	#37777	
07770	0 70 26760	SKM	#0	
07771	0 41 07764	BRX	ZER31	
07772	0 41 10000	BRX	ZER32	
07773	0 75 26760	LDB	#0	
07774	0 71 00430	LDX	OBJECT	
07775	0 43 00460	BRM	ERRRR	
07776	4 20 24572	NBP	M2013C,4	NO ZERO
07777	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10000	0 43 00434	ZER32	BRM	END

*
* F39B14 TEST SECTOR ADRS 01
*

10001	0	43	00430	BRM	OBJECT	
10002	0	43	00440	BRM	RETURN	
10003	0	20	07451	NBP	XTRAI	
10004	0	75	26073	LDB	#001	SECTOR 01
10005	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10006	0	43	00460	BRM	ERRAR	RETURN IF ERROR OCCURED
10007	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
10010	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
10011	0	43	00434	BRM	END	

*
* F39B15 TEST SECTOR ADRS 02
*

10012	0	43	00430	BRM	OBJECT	
10013	0	43	00440	BRM	RETURN	
10014	0	20	07451	NBP	XTRAI	
10015	0	75	26074	LDB	#002	SECTOR 02
10016	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10017	0	43	00460	BRM	ERRAR	RETURN IF ERROR OCCURED
10020	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
10021	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
10022	0	43	00434	BRM	END	

*
* F39B16 TEST SECTOR ADRS 03
*

10023	0	43	00430	BRM	OBJECT	
10024	0	43	00440	BRM	RETURN	
10025	0	20	07451	NBP	XTRAI	
10026	0	75	26122	LDB	#003	SECTOR 03
10027	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10030	0	43	00460	BRM	ERRAR	RETURN IF ERROR OCCURED
10031	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
10032	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
10033	0	43	00434	BRM	END	

*
* F39B17 TEST SECTOR ADRS 04
*

10034	0	43	00430	BRM	OBJECT	
10035	0	43	00440	BRM	RETURN	
10036	0	20	07451	NBP	XTRAI	
10037	0	75	26075	LDB	#004	SECTOR 04
10040	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10041	0	43	00460	BRM	ERRAR	RETURN IF ERROR OCCURED
10042	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
10043	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
10044	0	43	00434	BRM	END	

*
* F39B18 TEST SECTOR ADRS 05
*

10045	0	43	00430	BRM	0BJECT	
10046	0	43	00440	BRM	RETURN	
10047	0	20	07451	NBP	XTRAI	
10050	0	75	26116	LDB	#005	SECTOR 05
10051	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10052	0	43	00460	BRM	ERRBR	RETURN IF ERROR OCCURED
10053	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10054	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10055	0	43	00434	BRM	END	

*
* F39B19 TEST SECTOR ADRS 06
*

10056	0	43	00430	BRM	0BJECT	
10057	0	43	00440	BRM	RETURN	
10060	0	20	07451	NBP	XTRAI	
10061	0	75	26124	LDB	#006	SECTOR 06
10062	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10063	0	43	00460	BRM	ERRBR	RETURN IF ERROR OCCURED
10064	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10065	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10066	0	43	00434	BRM	END	

*
* F39B20 TEST SECTOR ADRS 07
*

10067	0	43	00430	BRM	0BJECT	
10070	0	43	00440	BRM	RETURN	
10071	0	20	07451	NBP	XTRAI	
10072	0	75	26125	LDB	#007	SECTOR 07
10073	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10074	0	43	00460	BRM	ERRBR	RETURN IF ERROR OCCURED
10075	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10076	2	20	24556	NBP	M2013B,2	HEADING AND REGISTER
10077	0	43	00434	BRM	END	

*
* F39B21 TEST SECTOR ADRS 10
*

10100	0	43	00430	BRM	0BJECT	
10101	0	43	00440	BRM	RETURN	
10102	0	20	07451	NBP	XTRAI	
10103	0	75	26176	LDB	#010	SECTOR 10
10104	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10105	0	43	00460	BRM	ERRBR	RETURN IF ERROR OCCURED
10106	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10107	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10110	0	43	00434	BRM	END	

*
* F38822 TEST SECTOR ADRS 11
*

10111	0 43 00430	BRM	OBJECT	
10112	0 43 00440	BRM	RETURN	
10113	0 20 07651	NBP	XTRAI	
10114	0 75 26126	LDB	#011	SECTOR 11
10115	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10116	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10117	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10120	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10121	0 43 00434	BRM	END	

*
* F38823 TEST SECTOR ADRS 12
*

10122	0 43 00430	BRM	OBJECT	
10123	0 43 00440	BRM	RETURN	
10124	0 20 07651	NBP	XTRAI	
10125	0 75 26127	LDB	#012	SECTOR 12
10126	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10127	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10130	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10131	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10132	0 43 00434	BRM	END	

*
* F38824 TEST SECTOR ADRS 13
*

10133	0 43 00430	BRM	OBJECT	
10134	0 43 00440	BRM	RETURN	
10135	0 20 07651	NBP	XTRAI	
10136	0 75 26130	LDB	#013	SECTOR 13
10137	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10140	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10141	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10142	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10143	0 43 00434	BRM	END	

*
* F38825 TEST SECTOR ADRS 14
*

10144	0 43 00430	BRM	OBJECT	
10145	0 43 00440	BRM	RETURN	
10146	0 20 07651	NBP	XTRAI	
10147	0 75 26131	LDB	#014	SECTOR 14
10150	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10151	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10152	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10153	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10154	0 43 00434	BRM	END	

*
* F39B26 TEST SECTOR ADRS 15
*

10155	0 43 00430	BRM	OBJECT	
10156	0 43 00440	BRM	RETURN	
10157	0 20 07451	NBP	XTR41	
10160	0 75 26133	LDB	#015	SECTOR 15
10161	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10162	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10163	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
10164	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10165	0 43 00434	BRM	END	

*
* F39B27 TEST SECTOR ADRS 16
*

10166	0 43 00430	BRM	OBJECT	
10167	0 43 00440	BRM	RETURN	
10170	0 20 07451	NBP	XTR41	
10171	0 75 26133	LDB	#016	SECTOR 16
10172	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10173	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10174	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
10175	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10176	0 43 00434	BRM	END	

*
* F39B28 TEST SECTOR ADRS 17
*

10177	0 43 00430	BRM	OBJECT	
10200	0 43 00440	BRM	RETURN	
10201	0 20 07451	NBP	XTR41	
10202	0 75 26134	LDB	#017	SECTOR 17
10203	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10204	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10205	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
10206	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10207	0 43 00434	BRM	END	

*
* F39B29 TEST SECTOR ADRS 20
*

10210	0 43 00430	BRM	OBJECT	
10211	0 43 00440	BRM	RETURN	
10212	0 20 07451	NBP	XTR41	
10213	0 75 26077	LDB	#020	SECTOR 20
10214	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10215	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10216	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
10217	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10220	0 43 00434	BRM	END	

*
* F39930 TEST SECTOR ADRS 21
*

10221	0	43	00430	BRM	OBJECT	
10222	0	43	00440	BRM	RETURN	
10223	0	20	07451	XBP	XTRA1	
10224	0	75	26135	LDB	#021	SECTOR 21
10225	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10226	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10227	4	20	24543	XBP	M2013A,4	LOGIC ERROR MSG
10230	2	20	24556	XBP	M2013B,2	HEADING AND REGISTERS
10231	0	43	00434	BRM	END	

*
* F39931 TEST SECTOR ADRS 22
*

10232	0	43	00430	BRM	OBJECT	
10233	0	43	00440	BRM	RETURN	
10234	0	20	07451	XBP	XTRA1	
10235	0	75	26136	LDB	#022	SECTOR 22
10236	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10237	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10240	4	20	24543	XBP	M2013A,4	LOGIC ERROR MSG
10241	2	20	24556	XBP	M2013B,2	HEADING AND REGISTERS
10242	0	43	00434	BRM	END	

*
* F39932 TEST SECTOR ADRS 23
*

10243	0	43	00430	BRM	OBJECT	
10244	0	43	00440	BRM	RETURN	
10245	0	20	07451	XBP	XTRA1	
10246	0	75	26137	LDB	#023	SECTOR 23
10247	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10250	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10251	4	20	24543	XBP	M2013A,4	LOGIC ERROR MSG
10252	2	20	24556	XBP	M2013B,2	HEADING AND REGISTERS
10253	0	43	00434	BRM	END	

*
* F39933 TEST SECTOR ADRS 24
*

10254	0	43	00430	BRM	OBJECT	
10255	0	43	00440	BRM	RETURN	
10256	0	20	07451	XBP	XTRA1	
10257	0	75	26140	LDB	#024	SECTOR 24
10260	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10261	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10262	4	20	24543	XBP	M2013A,4	LOGIC ERROR MSG
10263	2	20	24556	XBP	M2013B,2	HEADING AND REGISTERS
10264	0	43	00434	BRM	END	

*
* F39B34 TEST SECTOR ADRS 25
*

10265	0	43	00430	BRM	SBJCT	
10266	0	43	00440	BRM	RETURN	
10267	0	20	07451	NBP	XTRAI	
10270	0	75	26141	LDB	#025	SECTOR 25
10271	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10272	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10273	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10274	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10275	0	43	00434	BRM	END	

*
* F39B35 TEST SECTOR ADRS 26
*

10276	0	43	00430	BRM	SBJCT	
10277	0	43	00440	BRM	RETURN	
10300	0	20	07451	NBP	XTRAI	
10301	0	75	26142	LDB	#026	SECTOR 26
10302	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10303	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10304	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10305	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10306	0	43	00434	BRM	END	

*
* F39B36 TEST SECTOR ADRS 27
*

10307	0	43	00430	BRM	SBJCT	
10310	0	43	00440	BRM	RETURN	
10311	0	20	07451	NBP	XTRAI	
10312	0	75	26143	LDB	#027	SECTOR 27
10313	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10314	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10315	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10316	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10317	0	43	00434	BRM	END	

*
* F39B37 TEST SECTOR ADRS 30
*

10320	0	43	00430	BRM	SBJCT	
10321	0	43	00440	BRM	RETURN	
10322	0	20	07451	NBP	XTRAI	
10323	0	75	26144	LDB	#030	SECTOR 30
10324	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10325	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10326	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10327	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10330	0	43	00434	BRM	END	

*
* F30B38 TEST SECTOR ADRS 31
*

10331	0 43 00430	BRM	OBJECT	
10332	0 43 00440	BRM	RETURN	
10333	0 20 07451	NBP	XTRA1	
10334	0 75 24121	LDB	#031	SECTOR 31
10335	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10336	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10337	4 20 24443	NBP	"2013A,"4	LOGIC ERROR MSG
10340	2 20 24456	NBP	"2013B,"2	HEADING AND REGISTERS
10341	0 43 00434	BRM	END	

*
* F30B32 TEST SECTOR ADRS 32
*

10342	0 43 00430	BRM	OBJECT	
10343	0 43 00440	BRM	RETURN	
10344	0 20 07451	NBP	XTRA1	
10345	0 75 24145	LDB	#032	SECTOR 32
10346	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10347	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10350	4 20 24443	NBP	"2013A,"4	LOGIC ERROR MSG
10351	2 20 24456	NBP	"2013B,"2	HEADING AND REGISTERS
10352	0 43 00434	BRM	END	

*
* F30B40 TEST SECTOR ADRS 33
*

10353	0 43 00430	BRM	OBJECT	
10354	0 43 00440	BRM	RETURN	
10355	0 20 07451	NBP	XTRA1	
10356	0 75 24120	LDB	#033	SECTOR 33
10357	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10360	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10361	4 20 24443	NBP	"2013A,"4	LOGIC ERROR MSG
10362	2 20 24456	NBP	"2013B,"2	HEADING AND REGISTERS
10363	0 43 00434	BRM	END	

*
* F30B41 TEST SECTOR ADRS 34
*

10364	0 43 00430	BRM	OBJECT	
10365	0 43 00440	BRM	RETURN	
10366	0 20 07451	NBP	XTRA1	
10367	0 75 24146	LDB	#034	SECTOR 34
10370	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10371	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10372	4 20 24443	NBP	"2013A,"4	LOGIC ERROR MSG
10373	2 20 24456	NBP	"2013B,"2	HEADING AND REGISTERS
10374	0 43 00434	BRM	END	

*
* F30B42 TEST SECTOR ADRS 35
*

10375	0	43	00430	BRM	OBJECT	
10376	0	43	00440	BRM	RETURN	
10377	0	20	07451	\BP	XTRA1	
10400	0	75	26147	LDB	#035	SECTOR 35
10401	0	43	07557	BRM	PININ	T0 PIN IN SECTOR ADRS
10402	0	43	00460	BRM	ERR0R	RETURN IF ERR0R @CCURED
10403	4	20	24543	\BP	^2013A,4	LOGIC ERR0R MSG
10404	2	20	24556	\BP	^2013B,2	HEADING AND REGISTERS
10405	0	43	00434	BRM	END	

*
* F30B43 TEST SECTOR ADRS 36
*

10406	0	43	00430	BRM	OBJECT	
10407	0	43	00440	BRM	RETURN	
10410	0	20	07451	\BP	XTRA1	
10411	0	75	26150	LDB	#036	SECTOR 36
10412	0	43	07557	BRM	PININ	T0 PIN IN SECTOR ADRS
10413	0	43	00460	BRM	ERR0R	RETURN IF ERR0R @CCURED
10414	4	20	24543	\BP	^2013A,4	LOGIC ERR0R MSG
10415	2	20	24556	\BP	^2013B,2	HEADING AND REGISTERS
10416	0	43	00434	BRM	END	

*
* F30B44 TEST SECTOR ADRS 37
*

10417	0	43	00430	BRM	OBJECT	
10420	0	43	00440	BRM	RETURN	
10421	0	20	07451	\BP	XTRA1	
10422	0	75	26151	LDB	#037	SECTOR 37
10423	0	43	07557	BRM	PININ	T0 PIN IN SECTOR ADRS
10424	0	43	00460	BRM	ERR0R	RETURN IF ERR0R @CCURED
10425	4	20	24543	\BP	^2013A,4	LOGIC ERR0R MSG
10426	2	20	24556	\BP	^2013B,2	HEADING AND REGISTERS
10427	0	43	00434	BRM	END	

*
* F30B45 TEST SECTOR ADRS 40
*

10430	0	43	00430	BRM	OBJECT	
10431	0	43	00440	BRM	RETURN	
10432	0	20	07451	\BP	XTRA1	
10433	0	75	26100	LDB	#040	SECTOR 40
10434	0	43	07557	BRM	PININ	T0 PIN IN SECTOR ADRS
10435	0	43	00460	BRM	ERR0R	RETURN IF ERR0R @CCURED
10436	4	20	24543	\BP	^2013A,4	LOGIC ERR0R MSG
10437	2	20	24556	\BP	^2013B,2	HEADING AND REGISTERS
10440	0	43	00434	BRM	END	

*
* F3B346 TEST SECTOR ADRS 41
*

10441	0 43 00430	BRM	OBJECT	
10442	0 43 00440	BRM	RETURN	
10443	0 20 07451	NBP	XTRA1	
10444	0 75 26150	LDB	*041	SECTOR 41
10445	0 43 07457	BRM	PININ	T8 PIN IN SECTOR ADRS
10446	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
10447	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10450	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10451	0 43 00434	BRM	END	

*
* F3B347 TEST SECTOR ADRS 42
*

10452	0 43 00430	BRM	OBJECT	
10453	0 43 00440	BRM	RETURN	
10454	0 20 07451	NBP	XTRA1	
10455	0 75 26150	LDB	*042	SECTOR 42
10456	0 43 07457	BRM	PININ	T8 PIN IN SECTOR ADRS
10457	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
10460	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10461	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10462	0 43 00434	BRM	END	

*
* F3B348 TEST SECTOR ADRS 43
*

10463	0 43 00430	BRM	OBJECT	
10464	0 43 00440	BRM	RETURN	
10465	0 20 07451	NBP	XTRA1	
10466	0 75 26154	LDB	*043	SECTOR 43
10467	0 43 07457	BRM	PININ	T8 PIN IN SECTOR ADRS
10470	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
10471	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10472	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10473	0 43 00434	BRM	END	

*
* F3B349 TEST SECTOR ADRS 44
*

10474	0 43 00430	BRM	OBJECT	
10475	0 43 00440	BRM	RETURN	
10476	0 20 07451	NBP	XTRA1	
10477	0 75 26155	LDB	*044	SECTOR 44
10500	0 43 07457	BRM	PININ	T8 PIN IN SECTOR ADRS
10501	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
10502	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
10503	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
10504	0 43 00434	BRM	END	

*
* F39B50 TEST SECTOR ADRS 45
*

10505	0 43 00430	BRM	OBJECT	
10506	0 43 00440	BRM	RETURN	
10507	0 20 07451	XBP	XTRA1	
10510	0 75 26154	LDB	#045	SECTOR 45
10511	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10512	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10513	4 20 24543	XBP	M2013A,4	LOGIC ERROR MSG
10514	2 20 24554	XBP	M2013B,2	HEADING AND REGISTERS
10515	0 43 00434	BRM	END	

*
* F39B51 TEST SECTOR ADRS 46
*

10516	0 43 00430	BRM	OBJECT	
10517	0 43 00440	BRM	RETURN	
10520	0 20 07451	XBP	XTRA1	
10521	0 75 26157	LDB	#046	SECTOR 46
10522	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10523	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10524	4 20 24543	XBP	M2013A,4	LOGIC ERROR MSG
10525	2 20 24554	XBP	M2013B,2	HEADING AND REGISTERS
10526	0 43 00434	BRM	END	

*
* F39B52 TEST SECTOR ADRS 47
*

10527	0 43 00430	BRM	OBJECT	
10530	0 43 00440	BRM	RETURN	
10531	0 20 07451	XBP	XTRA1	
10532	0 75 26160	LDB	#047	SECTOR 47
10533	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10534	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10535	4 20 24543	XBP	M2013A,4	LOGIC ERROR MSG
10536	2 20 24554	XBP	M2013B,2	HEADING AND REGISTERS
10537	0 43 00434	BRM	END	

*
* F39B53 TEST SECTOR ADRS 50
*

10540	0 43 00430	BRM	OBJECT	
10541	0 43 00440	BRM	RETURN	
10542	0 20 07451	XBP	XTRA1	
10543	0 75 26161	LDB	#050	SECTOR 50
10544	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10545	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10546	4 20 24543	XBP	M2013A,4	LOGIC ERROR MSG
10547	2 20 24554	XBP	M2013B,2	HEADING AND REGISTERS
10550	0 43 00434	BRM	END	

*
* F39854 TEST SECTOR ADRS 51
*

10551	0 43 00430	BRM	PROJECT	
10552	0 43 00440	BRM	RETURN	
10553	0 20 07451	NBP	XTRAI	
10554	0 75 26162	LDB	#051	SECTOR 51
10555	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10556	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10557	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
10560	2 20 24554	NBP	Y2013B,2	HEADING AND REGISTERS
10561	0 43 00434	BRM	END	

*
* F39855 TEST SECTOR ADRS 52
*

10562	0 43 00430	BRM	PROJECT	
10563	0 43 00440	BRM	RETURN	
10564	0 20 07451	NBP	XTRAI	
10565	0 75 26162	LDB	#052	SECTOR 52
10566	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10567	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10570	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
10571	2 20 24554	NBP	Y2013B,2	HEADING AND REGISTERS
10572	0 43 00434	BRM	END	

*
* F39856 TEST SECTOR ADRS 53
*

10573	0 43 00430	BRM	PROJECT	
10574	0 43 00440	BRM	RETURN	
10575	0 20 07451	NBP	XTRAI	
10576	0 75 26164	LDB	#053	SECTOR 53
10577	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10600	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10601	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
10602	2 20 24554	NBP	Y2013B,2	HEADING AND REGISTERS
10603	0 43 00434	BRM	END	

*
* F39857 TEST SECTOR ADRS 54
*

10604	0 43 00430	BRM	PROJECT	
10605	0 43 00440	BRM	RETURN	
10606	0 20 07451	NBP	XTRAI	
10607	0 75 26165	LDB	#054	SECTOR 54
10610	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10611	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10612	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
10613	2 20 24554	NBP	Y2013B,2	HEADING AND REGISTERS
10614	0 43 00434	BRM	END	

*
*
*
*
*

* F38B58 TEST SECTOR ADRS 55

1.615	0 43 00430	BRM	SUBJECT	
1.616	0 43 00440	BRM	RETURN	
1.617	0 20 07451	NBP	XTRAI	
1.620	0 75 26166	LDB	#055	SECTOR 55
1.621	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
1.622	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
1.623	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
1.624	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
1.625	0 43 00434	BRM	END	

*
*
*
*
*

* F38B59 TEST SECTOR ADRS 56

1.626	0 43 00430	BRM	SUBJECT	
1.627	0 43 00440	BRM	RETURN	
1.630	0 20 07451	NBP	XTRAI	
1.631	0 75 26167	LDB	#056	SECTOR 56
1.632	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
1.633	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
1.634	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
1.635	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
1.636	0 43 00434	BRM	END	

*
*
*
*
*

* F38B60 TEST SECTOR ADRS 57

1.637	0 43 00430	BRM	SUBJECT	
1.640	0 43 00440	BRM	RETURN	
1.641	0 20 07451	NBP	XTRAI	
1.642	0 75 26170	LDB	#057	SECTOR 57
1.643	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
1.644	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
1.645	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
1.646	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
1.647	0 43 00434	BRM	END	

*
*
*
*
*

* F38B61 TEST SECTOR ADRS 60

1.650	0 43 00430	BRM	SUBJECT	
1.651	0 43 00440	BRM	RETURN	
1.652	0 20 07451	NBP	XTRAI	
1.653	0 75 26171	LDB	#060	SECTOR 60
1.654	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
1.655	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
1.656	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
1.657	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
1.660	0 43 00434	BRM	END	

*
* F38862 TEST SECTOR ADRS 61
*

1.661	0 43 00430	BRM	OBJECT	
1.662	0 43 00440	BRM	RETURN	
1.663	0 20 07451	NBP	XTRA1	
1.664	0 75 26172	LDB	#061	SECTOR 61
1.665	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
1.666	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
1.667	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
1.670	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
1.671	0 43 00434	BRM	END	

*
* F38863 TEST SECTOR ADRS 62
*

1.672	0 43 00430	BRM	OBJECT	
1.673	0 43 00440	BRM	RETURN	
1.674	0 20 07451	NBP	XTRA1	
1.675	0 75 26173	LDB	#062	SECTOR 62
1.676	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
1.677	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
1.700	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
1.701	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
1.702	0 43 00434	BRM	END	

*
* F38864 TEST SECTOR ADRS 63
*

1.703	0 43 00430	BRM	OBJECT	
1.704	0 43 00440	BRM	RETURN	
1.705	0 20 07451	NBP	XTRA1	
1.706	0 75 26174	LDB	#063	SECTOR 63
1.707	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
1.710	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
1.711	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
1.712	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
1.713	0 43 00434	BRM	END	

*
* F38865 TEST SECTOR ADRS 64
*

1.714	0 43 00430	BRM	OBJECT	
1.715	0 43 00440	BRM	RETURN	
1.716	0 20 07451	NBP	XTRA1	
1.717	0 75 26175	LDB	#064	SECTOR 64
1.720	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
1.721	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
1.722	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
1.723	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
1.724	0 43 00434	BRM	END	

*
*
* F39B66 TEST SECTOR ADRS 65
*

10725	0 43	00430	BRM	OBJECT	
10726	0 43	00440	BRM	RETURN	
10727	0 20	07651	NBP	XTR#1	
10730	0 75	26176	LDB	#065	SECTOR 65
10731	0 43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10732	0 43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10733	4 20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10734	2 20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10735	0 43	00434	BRM	END	

*
*
* F39B67 TEST SECTOR ADRS 66
*

10736	0 43	00430	BRM	OBJECT	
10737	0 43	00440	BRM	RETURN	
10740	0 20	07651	NBP	XTR#1	
10741	0 75	26177	LDB	#066	SECTOR 66
10742	0 43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10743	0 43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10744	4 20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10745	2 20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10746	0 43	00434	BRM	END	

*
*
* F39B68 TEST SECTOR ADRS 67
*

10747	0 43	00430	BRM	OBJECT	
10750	0 43	00440	BRM	RETURN	
10751	0 20	07651	NBP	XTR#1	
10752	0 75	26200	LDB	#067	SECTOR 67
10753	0 43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10754	0 43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10755	4 20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10756	2 20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10757	0 43	00434	BRM	END	

*
*
* F39B69 TEST SECTOR ADRS 70
*

10760	0 43	00430	BRM	OBJECT	
10761	0 43	00440	BRM	RETURN	
10762	0 20	07651	NBP	XTR#1	
10763	0 75	26201	LDB	#070	SECTOR 70
10764	0 43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10765	0 43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
10766	4 20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10767	2 20	24556	NBP	M2013B,2	HEADING AND REGISTERS
10770	0 43	00434	BRM	END	

*
* F39B70 TEST SECTOR ADRS 71
*

10771	0 43 00430	BRM	OBJECT	
10772	0 43 00440	BRM	RETURN	
10773	0 20 07451	NBP	XTRA1	
10774	0 75 26202	LDB	#071	SECTOR 71
10775	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10776	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10777	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
11000	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
11001	0 43 00434	BRM	END	

*
* F39B71 TEST SECTOR ADRS 72
*

11002	0 43 00430	BRM	OBJECT	
11003	0 43 00440	BRM	RETURN	
11004	0 20 07451	NBP	XTRA1	
11005	0 75 26203	LDB	#072	SECTOR 72
11006	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11007	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11010	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
11011	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
11012	0 43 00434	BRM	END	

*
* F39B72 TEST SECTOR ADRS 73
*

11013	0 43 00430	BRM	OBJECT	
11014	0 43 00440	BRM	RETURN	
11015	0 20 07451	NBP	XTRA1	
11016	0 75 26204	LDB	#073	SECTOR 73
11017	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11020	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11021	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
11022	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
11023	0 43 00434	BRM	END	

*
* F39B73 TEST SECTOR ADRS 74
*

11024	0 43 00430	BRM	OBJECT	
11025	0 43 00440	BRM	RETURN	
11026	0 20 07451	NBP	XTRA1	
11027	0 75 26205	LDB	#074	SECTOR 74
11030	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11031	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11032	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
11033	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
11034	0 43 00434	BRM	END	

*
* F39B74 TEST SECTOR ADRS 75
*

11035	0 43 00430	BRM	OBJECT	
11036	0 43 00440	BRM	RETURN	
11037	0 20 07451	NBP	XTRA1	
11040	0 75 26206	LDB	#075	SECTOR 75
11041	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11042	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11043	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11044	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11045	0 43 00434	BRM	END	

*
* F39B75 TEST SECTOR ADRS 76
*

11046	0 43 00430	BRM	OBJECT	
11047	0 43 00440	BRM	RETURN	
11050	0 20 07451	NBP	XTRA1	
11051	0 75 26207	LDB	#076	SECTOR 76
11052	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11053	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11054	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11055	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11056	0 43 00434	BRM	END	

*
* F39B76 TEST SECTOR ADRS 77
*

11057	0 43 00430	BRM	OBJECT	
11060	0 43 00440	BRM	RETURN	
11061	0 20 07451	NBP	XTRA1	
11062	0 75 26210	LDB	#077	SECTOR 77
11063	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11064	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11065	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11066	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11067	0 43 00434	BRM	END	
11070	0 43 00456	BRM	FDBNE	

```

*
*
* FUNCTION 04
*

```

11071	0	43	00424	FUNC4	BRM	FUNCTN	
11072	0	20	21242		NBP	FPY4	FUNCTION FOUR PARAMETERS
11073	0	43	00430		BRM	OBJECT	
11074	0	43	14467		BRM	RADSK	TEST RAD FOUR
11075	0	73	26266		SKG	#2000000	TEST FOR 6 MEG RAD
11076	0	01	12300		SKU	FUNC5	SKIP FUNCTION
11077	0	76	11173		LDA	ZER41	
11100	0	43	07654		BRM	SETPIN	

```

*
*
* F48B04 RAD PIN TEST
*

```

11101	0	43	00430		BRM	OBJECT	
11102	0	43	00440		BRM	RETURN	SPURIOUS INTRUPT HANDLER
11103	0	20	07451		NBP	XTRA1	
11104	0	76	26273		LDA	#000001	PIN TRANSFER AND TEST ROUTINE
11105	0	43	07412		BRM	PINSET	
11106	0	43	00460		BRM	ERRR9	ERROR MESSAGE FOR BIT
11107	4	20	24477		NBP	%2004A,4	
11110	0	20	24464		NBP	%2004B	
11111	0	43	00434		BRM	END	EXIT TEST

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*
*
* F48B05 RAD PIN TEST
*

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11112	0	43	00430		BRM	OBJECT	
11113	0	43	00440		BRM	RETURN	SPURIOUS INTRUPT HANDLER
11114	0	20	07451		NBP	XTRA1	
11115	0	76	26274		LDA	#000002	PIN TRANSFER AND TEST ROUTINE
11116	0	43	07412		BRM	PINSET	
11117	0	43	00460		BRM	ERRR9	ERROR MESSAGE FOR BIT
11120	4	20	24405		NBP	%2005A,4	
11121	0	20	24464		NBP	%2004B	
11122	0	43	00434		BRM	END	EXIT TEST

*
* F40B06 RAD PIN TEST
*

11123	0	43	00430	BRM	9BJECT	
11124	0	43	00440	BRM	RETURN	
11125	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
11126	0	76	26075	LDA	#00C004	
11127	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
11130	0	43	07460	BRM	ERR0R	
11131	4	20	24513	NBP	M2006A,4	ERROR MESSAGE FOR BIT
11132	0	20	24464	NBP	M2004B	
11133	0	43	00434	BRM	END	EXIT TEST

*
* F40B07 RAD PIN TEST
*

11134	0	43	00430	BRM	9BJECT	
11135	0	43	00440	BRM	RETURN	
11136	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
11137	0	76	26076	LDA	#00C010	
11140	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
11141	0	43	00460	BRM	ERR0R	
11142	4	20	24521	NBP	M2007A,4	ERROR MESSAGE FOR BIT
11143	0	20	24464	NBP	M2004B	
11144	0	43	00434	BRM	END	EXIT TEST

*
* F40B08 RAD PIN TEST
*

11145	0	43	00430	BRM	9BJECT	
11146	0	43	00440	BRM	RETURN	
11147	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
11150	0	76	26077	LDA	#00C020	
11151	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
11152	0	43	00460	BRM	ERR0R	
11153	4	20	24527	NBP	M2008A,4	ERROR MESSAGE FOR BIT
11154	0	20	24464	NBP	M2004B	
11155	0	43	00434	BRM	END	EXIT TEST

*
* F40B09 RAD PIN TEST
*

11156	0	43	00430	BRM	9BJECT	
11157	0	43	00440	BRM	RETURN	
11160	0	20	07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
11161	0	76	26100	LDA	#00C040	
11162	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
11163	0	43	00460	BRM	ERR0R	
11164	4	20	24535	NBP	M2009A,4	ERROR MESSAGE FOR BIT
11165	0	20	24464	NBP	M2004B	
11166	0	43	00434	BRM	END	EXIT TEST

*
* FUNCTION 04 TEST SECTOR COUNTER
*

11167	0 43 00430	BRM	OBJECT	FIND THE ZERO SECTOR
11170	0 43 00440	BRM	RETURN	
11171	0 20 07451	NBP	XTR41	
11172	0 71 26061	LDX	#040000	TIME 40 MILLISECND
11173	0 02 12226	ZER41	ESMM	12226
11174	0 33 25576	PINK	PINARD	ALERT TO PIN
11175	0 76 25576	LDA	PINARD	
11176	0 75 26112	LDB	#37777	
11177	0 70 26060	SKM	#0	
11200	0 41 11173	BRX	ZER41	
11201	0 41 11207	BRX	ZER42	
11202	0 75 26060	LDB	#0	
11203	0 71 00430	LDX	OBJECT	
11204	0 43 00460	BRM	ERRRR	
11205	4 20 24573	NBP	*2013A,4	NO ZERO
11206	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
11207	0 43 00434	ZER42	BRM	END

*
* F49B14 TEST SECTOR ADRS 01
*

11210	0 43 00430	BRM	OBJECT	
11211	0 43 00440	BRM	RETURN	
11212	0 20 07451	NBP	XTR41	
11213	0 75 26073	LDB	#001	SECTOR 01
11214	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11215	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11216	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
11217	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
11220	0 43 00434	BRM	END	

*
* F49B15 TEST SECTOR ADRS 02
*

11221	0 43 00430	BRM	OBJECT	
11222	0 43 00440	BRM	RETURN	
11223	0 20 07451	NBP	XTR41	
11224	0 75 26074	LDB	#002	SECTOR 02
11225	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11226	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11227	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
11230	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
11231	0 43 00434	BRM	END	

*
* F49B16 TEST SECTOR ADRS 03
*

11232	0	43	00430	BRM	SBJECT	
11233	0	43	00440	BRM	RETURN	
11234	0	20	07451	NBP	XTRA1	
11235	0	75	26122	LDB	#003	SECTOR 03
11236	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11237	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11240	4	20	24543	NBP	Y2013A,4	LOGIC ERROR MSG
11241	2	20	24556	NBP	Y2013B,2	HEADING AND REGISTERS
11242	0	43	00434	BRM	END	

*
* F49B17 TEST SECTOR ADRS 04
*

11243	0	43	00430	BRM	SBJECT	
11244	0	43	00440	BRM	RETURN	
11245	0	20	07451	NBP	XTRA1	
11246	0	75	26122	LDB	#004	SECTOR 04
11247	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11250	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11251	4	20	24543	NBP	Y2013A,4	LOGIC ERROR MSG
11252	2	20	24556	NBP	Y2013B,2	HEADING AND REGISTERS
11253	0	43	00434	BRM	END	

*
* F49B18 TEST SECTOR ADRS 05
*

11254	0	43	00430	BRM	SBJECT	
11255	0	43	00440	BRM	RETURN	
11256	0	20	07451	NBP	XTRA1	
11257	0	75	26116	LDB	#005	SECTOR 05
11260	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11261	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11262	4	20	24543	NBP	Y2013A,4	LOGIC ERROR MSG
11263	2	20	24556	NBP	Y2013B,2	HEADING AND REGISTERS
11264	0	43	00434	BRM	END	

*
* F49B19 TEST SECTOR ADRS 06
*

11265	0	43	00430	BRM	SBJECT	
11266	0	43	00440	BRM	RETURN	
11267	0	20	07451	NBP	XTRA1	
11270	0	75	26124	LDB	#006	SECTOR 06
11271	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11272	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11273	4	20	24543	NBP	Y2013A,4	LOGIC ERROR MSG
11274	2	20	24556	NBP	Y2013B,2	HEADING AND REGISTERS
11275	0	43	00434	BRM	END	

*
* F40B20 TEST SECTOR ADRS 07
*

11276	0	43	00430	BRM	0BJECT	
11277	0	43	00440	BRM	RETURN	
11300	0	20	07451	NBP	XTRAI	
11301	0	75	26125	LDB	*007	SECTOR 07
11302	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11303	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
11304	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
11305	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTER
11306	0	43	00434	BRM	END	

*
* F40B21 TEST SECTOR ADRS 10
*

11307	0	43	00430	BRM	0BJECT	
11310	0	43	00440	BRM	RETURN	
11311	0	20	07451	NBP	XTRAI	
11312	0	75	26076	LDB	*010	SECTOR 10
11313	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11314	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
11315	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
11316	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
11317	0	43	00434	BRM	END	

*
* F40B22 TEST SECTOR ADRS 11
*

11320	0	43	00430	BRM	0BJECT	
11321	0	43	00440	BRM	RETURN	
11322	0	20	07451	NBP	XTRAI	
11323	0	75	26126	LDB	*011	SECTOR 11
11324	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11325	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
11326	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
11327	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
11330	0	43	00434	BRM	END	

*
* F40B23 TEST SECTOR ADRS 12
*

11331	0	43	00430	BRM	0BJECT	
11332	0	43	00440	BRM	RETURN	
11333	0	20	07451	NBP	XTRAI	
11334	0	75	26127	LDB	*012	SECTOR 12
11335	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11336	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
11337	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
11340	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
11341	0	43	00434	BRM	END	

*
* F49B24 TEST SECTOR ADRS 13
*

11342	0	43	00430	BRM	OBJECT	
11343	0	43	00440	BRM	RETURN	
11344	0	20	07451	\BP	XTRA1	
11345	0	75	26130	LDB	#013	SECTOR 13
11346	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11347	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11350	4	20	24543	\BP	M2013A,4	LOGIC ERROR MSG
11351	2	20	24554	\BP	M2013B,2	HEADING AND REGISTERS
11352	0	43	00434	BRM	END	

*
* F49B25 TEST SECTOR ADRS 14
*

11353	0	43	00430	BRM	OBJECT	
11354	0	43	00440	BRM	RETURN	
11355	0	20	07451	\BP	XTRA1	
11356	0	75	26131	LDB	#014	SECTOR 14
11357	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11360	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11361	4	20	24543	\BP	M2013A,4	LOGIC ERROR MSG
11362	2	20	24556	\BP	M2013B,2	HEADING AND REGISTERS
11363	0	43	00434	BRM	END	

*
* F49B26 TEST SECTOR ADRS 15
*

11364	0	43	00430	BRM	OBJECT	
11365	0	43	00440	BRM	RETURN	
11366	0	20	07451	\BP	XTRA1	
11367	0	75	26132	LDB	#015	SECTOR 15
11370	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11371	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11372	4	20	24543	\BP	M2013A,4	LOGIC ERROR MSG
11373	2	20	24556	\BP	M2013B,2	HEADING AND REGISTERS
11374	0	43	00434	BRM	END	

*
* F49B27 TEST SECTOR ADRS 16
*

11375	0	43	00430	BRM	OBJECT	
11376	0	43	00440	BRM	RETURN	
11377	0	20	07451	\BP	XTRA1	
11400	0	75	26133	LDB	#016	SECTOR 16
11401	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11402	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
11403	4	20	24543	\BP	M2013A,4	LOGIC ERROR MSG
11404	2	20	24556	\BP	M2013B,2	HEADING AND REGISTERS
11405	0	43	00434	BRM	END	

*
* F49B28 TEST SECTOR ADRS 17
*

11406	0	43	00430	BRM	0BJECT	
11407	0	43	00440	BRM	RETURN	
11410	0	20	07451	NBP	XTRA1	
11411	0	75	26134	LDB	#017	SECTOR 17
11412	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11413	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11414	4	20	24543	NBP	Y2013A,4	LOGIC ERR0R MSG
11415	2	20	24554	NBP	Y2013B,2	HEADING AND REGISTERS
11416	0	43	00434	BRM	END	

*
* F49B29 TEST SECTOR ADRS 20
*

11417	0	43	00430	BRM	0BJECT	
11420	0	43	00440	BRM	RETURN	
11421	0	20	07451	NBP	XTRA1	
11422	0	75	26177	LDB	#020	SECTOR 20
11423	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11424	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11425	4	20	24543	NBP	Y2013A,4	LOGIC ERR0R MSG
11426	2	20	24554	NBP	Y2013B,2	HEADING AND REGISTERS
11427	0	43	00434	BRM	END	

*
* F49B30 TEST SECTOR ADRS 21
*

11430	0	43	00430	BRM	0BJECT	
11431	0	43	00440	BRM	RETURN	
11432	0	20	07451	NBP	XTRA1	
11433	0	75	26135	LDB	#021	SECTOR 21
11434	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11435	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11436	4	20	24543	NBP	Y2013A,4	LOGIC ERR0R MSG
11437	2	20	24554	NBP	Y2013B,2	HEADING AND REGISTERS
11440	0	43	00434	BRM	END	

*
* F49B31 TEST SECTOR ADRS 22
*

11441	0	43	00430	BRM	0BJECT	
11442	0	43	00440	BRM	RETURN	
11443	0	20	07451	NBP	XTRA1	
11444	0	75	26136	LDB	#022	SECTOR 22
11445	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11446	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11447	4	20	24543	NBP	Y2013A,4	LOGIC ERR0R MSG
11450	2	20	24554	NBP	Y2013B,2	HEADING AND REGISTERS
11451	0	43	00434	BRM	END	

*
* F48B32 TEST SECTOR ADRS 23
*

11452	0 43 00430	BRM	OBJECT	
11453	0 43 00440	BRM	RETURN	
11454	0 20 07451	NBP	XTRA1	
11455	0 75 26137	LDB	#023	SECTOR 23
11456	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11457	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
11460	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11461	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11462	0 43 00434	BRM	END	

*
* F48B33 TEST SECTOR ADRS 24
*

11463	0 43 00430	BRM	OBJECT	
11464	0 43 00440	BRM	RETURN	
11465	0 20 07451	NBP	XTRA1	
11466	0 75 26140	LDB	#024	SECTOR 24
11467	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11470	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
11471	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11472	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11473	0 43 00434	BRM	END	

*
* F48B34 TEST SECTOR ADRS 25
*

11474	0 43 00430	BRM	OBJECT	
11475	0 43 00440	BRM	RETURN	
11476	0 20 07451	NBP	XTRA1	
11477	0 75 26141	LDB	#025	SECTOR 25
11500	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11501	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
11502	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11503	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11504	0 43 00434	BRM	END	

*
* F48B35 TEST SECTOR ADRS 26
*

11505	0 43 00430	BRM	OBJECT	
11506	0 43 00440	BRM	RETURN	
11507	0 20 07451	NBP	XTRA1	
11510	0 75 26142	LDB	#026	SECTOR 26
11511	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11512	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
11513	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11514	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11515	0 43 00434	BRM	END	

*
* F49B36 TEST SECTOR ADRS 27
*

11516	0 43 00430	BRM	OBJECT	
11517	0 43 00440	BRM	RETURN	
11520	0 20 07451	NBP	XTRAI	
11521	0 75 26143	LDB	#027	SECTOR 27
11522	0 43 07457	BRM	PININ	T0 PIN IN SECTOR ADRS
11523	0 43 00460	BRM	ERRAR	RETURN IF ERROR OCCURED
11524	4 20 24543	NBP	*2013A,*4	LOGIC ERROR MSG
11525	2 20 24556	NBP	*2013B,*2	HEADING AND REGISTERS
11526	0 43 00434	BRM	END	

*
* F49B37 TEST SECTOR ADRS 30
*

11527	0 43 00430	BRM	OBJECT	
11530	0 43 00440	BRM	RETURN	
11531	0 20 07451	NBP	XTRAI	
11532	0 75 26144	LDB	#030	SECTOR 30
11533	0 43 07457	BRM	PININ	T0 PIN IN SECTOR ADRS
11534	0 43 00460	BRM	ERRAR	RETURN IF ERROR OCCURED
11535	4 20 24543	NBP	*2013A,*4	LOGIC ERROR MSG
11536	2 20 24556	NBP	*2013B,*2	HEADING AND REGISTERS
11537	0 43 00434	BRM	END	

*
* F49B38 TEST SECTOR ADRS 31
*

11540	0 43 00430	BRM	OBJECT	
11541	0 43 00440	BRM	RETURN	
11542	0 20 07451	NBP	XTRAI	
11543	0 75 26121	LDB	#031	SECTOR 31
11544	0 43 07457	BRM	PININ	T0 PIN IN SECTOR ADRS
11545	0 43 00460	BRM	ERRAR	RETURN IF ERROR OCCURED
11546	4 20 24543	NBP	*2013A,*4	LOGIC ERROR MSG
11547	2 20 24556	NBP	*2013B,*2	HEADING AND REGISTERS
11550	0 43 00434	BRM	END	

*
* F49B39 TEST SECTOR ADRS 32
*

11551	0 43 00430	BRM	OBJECT	
11552	0 43 00440	BRM	RETURN	
11553	0 20 07451	NBP	XTRAI	
11554	0 75 26145	LDB	#032	SECTOR 32
11555	0 43 07457	BRM	PININ	T0 PIN IN SECTOR ADRS
11556	0 43 00460	BRM	ERRAR	RETURN IF ERROR OCCURED
11557	4 20 24543	NBP	*2013A,*4	LOGIC ERROR MSG
11560	2 20 24556	NBP	*2013B,*2	HEADING AND REGISTERS
11561	0 43 00434	BRM	END	

*
* F40B40 TEST SECTOR ADRS 33
*

11562	0 43 00430	BRM	OBJECT	
11563	0 43 00440	BRM	RETURN	
11564	0 20 07451	NBP	XTRA1	
11565	0 75 26120	LDB	#033	SECTOR 33
11566	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11567	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11570	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11571	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11572	0 43 00434	BRM	END	

*
* F40B41 TEST SECTOR ADRS 34
*

11573	0 43 00430	BRM	OBJECT	
11574	0 43 00440	BRM	RETURN	
11575	0 20 07451	NBP	XTRA1	
11576	0 75 26146	LDB	#034	SECTOR 34
11577	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11580	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11601	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11602	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11603	0 43 00434	BRM	END	

*
* F40B42 TEST SECTOR ADRS 35
*

11604	0 43 00430	BRM	OBJECT	
11605	0 43 00440	BRM	RETURN	
11606	0 20 07451	NBP	XTRA1	
11607	0 75 26147	LDB	#035	SECTOR 35
11610	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11611	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11612	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11613	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11614	0 43 00434	BRM	END	

*
* F40B43 TEST SECTOR ADRS 36
*

11615	0 43 00430	BRM	OBJECT	
11616	0 43 00440	BRM	RETURN	
11617	0 20 07451	NBP	XTRA1	
11620	0 75 26150	LDB	#036	SECTOR 36
11621	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11622	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11623	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11624	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11625	0 43 00434	BRM	END	

*
* F49B44 TEST SECTOR ADRS 37
*

11626	0 43 00430	BRM	OBJECT	
11627	0 43 00440	BRM	RETURN	
11630	0 20 07451	NBP	XTRA1	
11631	0 75 26151	LDB	#037	SECTOR 37
11632	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11633	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11634	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
11635	2 20 24554	NBP	%2013B,2	HEADING AND REGISTERS
11636	0 43 00434	BRM	END	

*
* F49B45 TEST SECTOR ADRS 40
*

11637	0 43 00430	BRM	OBJECT	
11640	0 43 00440	BRM	RETURN	
11641	0 20 07451	NBP	XTRA1	
11642	0 75 26100	LDB	#040	SECTOR 40
11643	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11644	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11645	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
11646	2 20 24554	NBP	%2013B,2	HEADING AND REGISTERS
11647	0 43 00434	BRM	END	

*
* F49B46 TEST SECTOR ADRS 41
*

11650	0 43 00430	BRM	OBJECT	
11651	0 43 00440	BRM	RETURN	
11652	0 20 07451	NBP	XTRA1	
11653	0 75 26152	LDB	#041	SECTOR 41
11654	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11655	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11656	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
11657	2 20 24554	NBP	%2013B,2	HEADING AND REGISTERS
11660	0 43 00434	BRM	END	

*
* F49B47 TEST SECTOR ADRS 42
*

11661	0 43 00430	BRM	OBJECT	
11662	0 43 00440	BRM	RETURN	
11663	0 20 07451	NBP	XTRA1	
11664	0 75 26153	LDB	#042	SECTOR 42
11665	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11666	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11667	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
11670	2 20 24554	NBP	%2013B,2	HEADING AND REGISTERS
11671	0 43 00434	BRM	END	

*
* F40B48 TEST SECTOR ADRS 43
*

11672	0 43 00430	BRM	OBJECT	
11673	0 43 00440	BRM	RETURN	
11674	0 20 07451	NBP	XTRA1	
11675	0 75 26154	LDB	#043	SECTOR 43
11676	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11677	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11700	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11701	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11702	0 43 00434	BRM	END	

*
* F40B49 TEST SECTOR ADRS 44
*

11703	0 43 00430	BRM	OBJECT	
11704	0 43 00440	BRM	RETURN	
11705	0 20 07451	NBP	XTRA1	
11706	0 75 26154	LDB	#044	SECTOR 44
11707	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11710	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11711	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11712	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11713	0 43 00434	BRM	END	

*
* F49B50 TEST SECTOR ADRS 45
*

11714	0 43 00430	BRM	OBJECT	
11715	0 43 00440	BRM	RETURN	
11716	0 20 07451	NBP	XTRA1	
11717	0 75 26154	LDB	#045	SECTOR 45
11720	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11721	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11722	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11723	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11724	0 43 00434	BRM	END	

*
* F40B51 TEST SECTOR ADRS 46
*

11725	0 43 00430	BRM	OBJECT	
11726	0 43 00440	BRM	RETURN	
11727	0 20 07451	NBP	XTRA1	
11730	0 75 26154	LDB	#046	SECTOR 46
11731	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11732	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
11733	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11734	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
11735	0 43 00434	BRM	END	

* F49B52 TEST SECTOR ADRS 47

11736	0	43	07430	BRM	OBJECT	
11737	0	43	07440	BRM	RETURN	
11740	0	20	07451	\BP	XTRA1	
11741	0	75	26162	LDB	#047	SECTOR 47
11742	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11743	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
11744	4	20	24543	\BP	Y2013A,4	LOGIC ERROR MSG
11745	2	20	24554	\BP	Y2013B,2	HEADING AND REGISTERS
11746	0	43	07434	BRM	END	

* F49B53 TEST SECTOR ADRS 50

11747	0	43	07430	BRM	OBJECT	
11750	0	43	07440	BRM	RETURN	
11751	0	20	07451	\BP	XTRA1	
11752	0	75	26161	LDB	#050	SECTOR 50
11753	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11754	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
11755	4	20	24543	\BP	Y2013A,4	LOGIC ERROR MSG
11756	2	20	24554	\BP	Y2013B,2	HEADING AND REGISTERS
11757	0	43	07434	BRM	END	

* F49B54 TEST SECTOR ADRS 51

11760	0	43	07430	BRM	OBJECT	
11761	0	43	07440	BRM	RETURN	
11762	0	20	07451	\BP	XTRA1	
11763	0	75	26162	LDB	#051	SECTOR 51
11764	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11765	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
11766	4	20	24543	\BP	Y2013A,4	LOGIC ERROR MSG
11767	2	20	24554	\BP	Y2013B,2	HEADING AND REGISTERS
11770	0	43	07434	BRM	END	

* F49B55 TEST SECTOR ADRS 52

11771	0	43	07430	BRM	OBJECT	
11772	0	43	07440	BRM	RETURN	
11773	0	20	07451	\BP	XTRA1	
11774	0	75	26163	LDB	#052	SECTOR 52
11775	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
11776	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
11777	4	20	24543	\BP	Y2013A,4	LOGIC ERROR MSG
12000	2	20	24554	\BP	Y2013B,2	HEADING AND REGISTERS
12001	0	43	07434	BRM	END	

*
* F49B56 TEST SECTOR ADRS 53
*

12002	0	43	00430	BRM	8BJECT	
12003	0	43	00440	BRM	RETURN	
12004	0	20	07451	NBP	XTRA1	
12005	0	75	26164	LDB	#053	SECTOR 53
12006	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12007	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12010	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12011	2	20	24456	NBP	M2013B,2	HEADING AND REGISTERS
12012	0	43	00434	BRM	END	

*
* F49B57 TEST SECTOR ADRS 54
*

12013	0	43	00430	BRM	8BJECT	
12014	0	43	00440	BRM	RETURN	
12015	0	20	07451	NBP	XTRA1	
12016	0	75	26166	LDB	#054	SECTOR 54
12017	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12020	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12021	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12022	2	20	24456	NBP	M2013B,2	HEADING AND REGISTERS
12023	0	43	00434	BRM	END	

*
* F49B58 TEST SECTOR ADRS 55
*

12024	0	43	00430	BRM	8BJECT	
12025	0	43	00440	BRM	RETURN	
12026	0	20	07451	NBP	XTRA1	
12027	0	75	26166	LDB	#055	SECTOR 55
12030	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12031	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12032	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12033	2	20	24456	NBP	M2013B,2	HEADING AND REGISTERS
12034	0	43	00434	BRM	END	

*
* F49B59 TEST SECTOR ADRS 56
*

12035	0	43	00430	BRM	8BJECT	
12036	0	43	00440	BRM	RETURN	
12037	0	20	07451	NBP	XTRA1	
12040	0	75	26167	LDB	#056	SECTOR 56
12041	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12042	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12043	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12044	2	20	24456	NBP	M2013B,2	HEADING AND REGISTERS
12045	0	43	00434	BRM	END	

*
* F498A0 TEST SECTOR ADRS 57
*

12046	0 43 0430	BRM	OBJECT	
12047	0 43 0440	BRM	RETURN	
12050	0 20 07451	NBP	XTRAI	
12051	0 75 26172	LDB	#057	SECTOR 57
12052	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12053	0 43 07660	BRM	ERRR	RETURN IF ERROR OCCURED
12054	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
12055	2 20 24456	NBP	Y2013B,2	HEADING AND REGISTERS
12056	0 43 04434	BRM	END	

*
* F498A1 TEST SECTOR ADRS 60
*

12057	0 43 0430	BRM	OBJECT	
12060	0 43 0440	BRM	RETURN	
12061	0 20 07451	NBP	XTRAI	
12062	0 75 26171	LDB	#060	SECTOR 60
12063	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12064	0 43 07660	BRM	ERRR	RETURN IF ERROR OCCURED
12065	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
12066	2 20 24456	NBP	Y2013B,2	HEADING AND REGISTERS
12067	0 43 04434	BRM	END	

*
* F498A2 TEST SECTOR ADRS 61
*

12070	0 43 0430	BRM	OBJECT	
12071	0 43 0440	BRM	RETURN	
12072	0 20 07451	NBP	XTRAI	
12073	0 75 26172	LDB	#061	SECTOR 61
12074	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12075	0 43 07660	BRM	ERRR	RETURN IF ERROR OCCURED
12076	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
12077	2 20 24456	NBP	Y2013B,2	HEADING AND REGISTERS
12100	0 43 04434	BRM	END	

*
* F498A3 TEST SECTOR ADRS 62
*

12101	0 43 0430	BRM	OBJECT	
12102	0 43 0440	BRM	RETURN	
12103	0 20 07451	NBP	XTRAI	
12104	0 75 26173	LDB	#062	SECTOR 62
12105	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12106	0 43 07660	BRM	ERRR	RETURN IF ERROR OCCURED
12107	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
12110	2 20 24456	NBP	Y2013B,2	HEADING AND REGISTERS
12111	0 43 04434	BRM	END	

*
* F49B64 TEST SECTOR ADRS 63
*

12112	0 43	00430	BRM	SUBJECT	
12113	0 43	00440	BRM	RETURN	
12114	0 20	07451	NSP	XTRA1	
12115	0 75	26174	LDB	#063	SECTOR 63
12116	0 43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12117	0 43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12120	4 20	24543	NSP	M2013A,4	LOGIC ERROR MSG
12121	2 20	24556	NSP	M2013B,2	HEADING AND REGISTERS
12122	0 43	00434	BRM	END	

*
* F49B65 TEST SECTOR ADRS 64
*

12123	0 43	00430	BRM	SUBJECT	
12124	0 43	00440	BRM	RETURN	
12125	0 20	07451	NSP	XTRA1	
12126	0 75	26175	LDB	#064	SECTOR 64
12127	0 43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12130	0 43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12131	4 20	24543	NSP	M2013A,4	LOGIC ERROR MSG
12132	2 20	24556	NSP	M2013B,2	HEADING AND REGISTERS
12133	0 43	00434	BRM	END	

*
* F49B66 TEST SECTOR ADRS 65
*

12134	0 43	00430	BRM	SUBJECT	
12135	0 43	00440	BRM	RETURN	
12136	0 20	07451	NSP	XTRA1	
12137	0 75	26176	LDB	#065	SECTOR 65
12140	0 43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12141	0 43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12142	4 20	24543	NSP	M2013A,4	LOGIC ERROR MSG
12143	2 20	24556	NSP	M2013B,2	HEADING AND REGISTERS
12144	0 43	00434	BRM	END	

*
* F49B67 TEST SECTOR ADRS 66
*

12145	0 43	00430	BRM	SUBJECT	
12146	0 43	00440	BRM	RETURN	
12147	0 20	07451	NSP	XTRA1	
12150	0 75	26177	LDB	#066	SECTOR 66
12151	0 43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12152	0 43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12153	4 20	24543	NSP	M2013A,4	LOGIC ERROR MSG
12154	2 20	24556	NSP	M2013B,2	HEADING AND REGISTERS
12155	0 43	00434	BRM	END	

*
* F40B68 TEST SECTOR ADRS 67
*

12156	0	43	00430	BRM	OBJECT	
12157	0	43	00440	BRM	RETURN	
12160	0	20	07651	NBP	XTRAI	
12161	0	75	26200	LDB	#067	SECTOR 67
12162	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12163	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12164	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12165	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12166	0	43	00434	BRM	END	

*
* F40B69 TEST SECTOR ADRS 70
*

12167	0	43	00430	BRM	OBJECT	
12170	0	43	00440	BRM	RETURN	
12171	0	20	07651	NBP	XTRAI	
12172	0	75	26201	LDB	#070	SECTOR 70
12173	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12174	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12175	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12176	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12177	0	43	00434	BRM	END	

*
* F40B70 TEST SECTOR ADRS 71
*

12200	0	43	00430	BRM	OBJECT	
12201	0	43	00440	BRM	RETURN	
12202	0	20	07651	NBP	XTRAI	
12203	0	75	26202	LDB	#071	SECTOR 71
12204	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12205	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12206	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12207	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12210	0	43	00434	BRM	END	

*
* F40B71 TEST SECTOR ADRS 72
*

12211	0	43	00430	BRM	OBJECT	
12212	0	43	00440	BRM	RETURN	
12213	0	20	07651	NBP	XTRAI	
12214	0	75	26203	LDB	#072	SECTOR 72
12215	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12216	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12217	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12220	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12221	0	43	00434	BRM	END	

*
* F49B72 TEST SECTOR ADRS 73
*

12222	0 43 00430	BRM	SUBJECT	
12223	0 43 00440	BRM	RETURN	
12224	0 20 07451	NSP	XTRA1	
12225	0 75 26204	LDB	#073	SECTOR 73
12226	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12227	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12230	4 20 24543	NSP	#2013A,4	LOGIC ERROR MSG
12231	2 20 24556	NSP	#2013B,2	HEADING AND REGISTERS
12232	0 43 00434	BRM	END	

*
* F49B73 TEST SECTOR ADRS 74
*

12233	0 43 00430	BRM	SUBJECT	
12234	0 43 00440	BRM	RETURN	
12235	0 20 07451	NSP	XTRA1	
12236	0 75 26204	LDB	#074	SECTOR 74
12237	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12240	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12241	4 20 24543	NSP	#2013A,4	LOGIC ERROR MSG
12242	2 20 24556	NSP	#2013B,2	HEADING AND REGISTERS
12243	0 43 00434	BRM	END	

*
* F49B74 TEST SECTOR ADRS 75
*

12244	0 43 00430	BRM	SUBJECT	
12245	0 43 00440	BRM	RETURN	
12246	0 20 07451	NSP	XTRA1	
12247	0 75 26206	LDB	#075	SECTOR 75
12250	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12251	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12252	4 20 24543	NSP	#2013A,4	LOGIC ERROR MSG
12253	2 20 24556	NSP	#2013B,2	HEADING AND REGISTERS
12254	0 43 00434	BRM	END	

*
* F49B75 TEST SECTOR ADRS 76
*

12255	0 43 00430	BRM	SUBJECT	
12256	0 43 00440	BRM	RETURN	
12257	0 20 07451	NSP	XTRA1	
12260	0 75 26207	LDB	#076	SECTOR 76
12261	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12262	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12263	4 20 24543	NSP	#2013A,4	LOGIC ERROR MSG
12264	2 20 24556	NSP	#2013B,2	HEADING AND REGISTERS
12265	0 43 00434	BRM	END	

*
 * F40B76 TEST SECTOR ADRS 77
 *

12266	0	43	00430	BRM	OBJECT	
12267	0	43	00440	BRM	RETURN	
12270	0	20	07651	NBP	XTRA1	
12271	0	75	26210	LDB	#077	SECTOR 77
12272	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12273	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12274	4	20	24543	NBP	M2013A/4	LOGIC ERROR MSG
12275	2	20	24556	NBP	M2013B/2	HEADING AND REGISTERS
12276	0	43	00434	BRM	END	
12277	0	43	00456	BRM	FDONE	

*
 * FUNCTION 05
 *

12300	0	43	00424	FUNC5	BRM	FUNCTN	
12301	0	20	21250	NBP	FPT5		
12302	0	43	00430	BRM	OBJECT		
12303	0	43	14467	BRM	RAD0K		
12304	0	73	26211	SKG	#3000000	TEST FOR 8 MEG RAD	
12305	0	01	13507	BRU	FUNC6		
12306	0	76	12402	LDA	ZER51		
12307	0	43	07654	BRM	SETPIN		

*
* F59B04 RAD PIN TEST
*

12310	0 43 07430	BRM	OBJECT	
12311	0 43 07440	BRM	RETURN	
12312	0 20 07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12313	0 76 26073	LDA	#000001	
12314	0 43 07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12315	0 43 07460	BRM	ERRRR	
12316	4 20 24477	NBP	M2004A,4	ERROR MESSAGE FOR BIT
12317	0 20 24464	NBP	M2004B	
12320	0 43 07434	BRM	END	EXIT TEST

*
* F59B05 RAD PIN TEST
*

12321	0 43 07430	BRM	OBJECT	
12322	0 43 07440	BRM	RETURN	
12323	0 20 07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12324	0 76 26074	LDA	#000002	
12325	0 43 07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12326	0 43 07460	BRM	ERRRR	
12327	4 20 24505	NBP	M2005A,4	ERROR MESSAGE FOR BIT
12330	0 20 24464	NBP	M2004B	
12331	0 43 07434	BRM	END	EXIT TEST

*
* F59B06 RAD PIN TEST
*

12332	0 43 07430	BRM	OBJECT	
12333	0 43 07440	BRM	RETURN	
12334	0 20 07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12335	0 76 26075	LDA	#000004	
12336	0 43 07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12337	0 43 07460	BRM	ERRRR	
12340	4 20 24513	NBP	M2006A,4	ERROR MESSAGE FOR BIT
12341	0 20 24464	NBP	M2004B	
12342	0 43 07434	BRM	END	EXIT TEST

*
* F59B07 RAD PIN TEST
*

12343	0 43 07430	BRM	OBJECT	
12344	0 43 07440	BRM	RETURN	
12345	0 20 07451	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12346	0 76 26074	LDA	#000010	
12347	0 43 07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12350	0 43 07460	BRM	ERRRR	
12351	4 20 24521	NBP	M2007A,4	ERROR MESSAGE FOR BIT
12352	0 20 24464	NBP	M2004B	
12353	0 43 07434	BRM	END	EXIT TEST

*
*
* F50808 RAD PIN TEST
*

12354	0	43	00430	BRM	OBJECT	
12355	0	43	00440	BRM	RETURN	
12356	0	20	07451	NOP	XTRA1	SPURIOUS INTRUPT HANDLER
12357	0	76	26777	LDA	#000020	
12360	0	43	07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12361	0	43	00460	BRM	ERRR	
12362	4	20	24527	NOP	M2008A,4	ERROR MESSAGE FOR BIT
12363	0	20	24464	NOP	M2004B	
12364	0	43	00434	BRM	END	EXIT TEST

*
*
* F50809 RAD PIN TEST
*

12365	0	43	00430	BRM	OBJECT	
12366	0	43	00440	BRM	RETURN	
12367	0	20	07451	NOP	XTRA1	SPURIOUS INTRUPT HANDLER
12370	0	76	26100	LDA	#000040	
12371	0	43	07412	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12372	0	43	00460	BRM	ERRR	
12373	4	20	24535	NOP	M2009A,4	ERROR MESSAGE FOR BIT
12374	0	20	24464	NOP	M2004B	
12375	0	43	00434	BRM	END	EXIT TEST

*
*
* FUNCTION 05 TEST SECTOR COUNTER
*

12376	0	43	00430	BRM	OBJECT	FIND THE ZERO SECTOR
12377	0	43	00440	BRM	RETURN	
12400	0	20	07451	NOP	XTRA1	
12401	0	71	26761	LDX	#04C000	TIME 40 MILLISECONDS
12402	0	02	13226	ZER51	ESMM	13226
12403	0	33	25476	PINN	PINRD	ALERT TO PIN
12404	0	76	25576	LDA	PINRD	
12405	0	75	26112	LDB	#37777	
12406	0	70	26760	SKM	#0	
12407	0	41	12402	BRX	ZER51	
12410	0	41	12416	BRX	ZER52	
12411	0	75	26760	LDB	#0	
12412	0	71	00430	LDX	OBJECT	
12413	0	43	00460	BRM	ERRR	
12414	4	20	24572	NOP	M2013C,4	NO ZERO
12415	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
12416	0	43	00434	ZER52	BRM	END

*
* F58B14 TEST SECTOR ADRS 01
*

12417	0 43 00430	BRM	SUBJECT	
12420	0 43 00440	BRM	RETURN	
12421	0 20 07451	NBP	XTRAI	
12422	0 75 26173	LDB	*001	SECTOR 01
12423	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
12424	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12425	4 20 24443	NBP	*2013A,4	LOGIC ERROR MSG
12426	2 20 24454	NBP	*2013B,2	HEADING AND REGISTERS
12427	0 43 00434	BRM	END	

*
* F58B15 TEST SECTOR ADRS 02
*

12430	0 43 00430	BRM	SUBJECT	
12431	0 43 00440	BRM	RETURN	
12432	0 20 07451	NBP	XTRAI	
12433	0 75 26174	LDB	*002	SECTOR 02
12434	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
12435	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12436	4 20 24443	NBP	*2013A,4	LOGIC ERROR MSG
12437	2 20 24454	NBP	*2013B,2	HEADING AND REGISTERS
12440	0 43 00434	BRM	END	

*
* F58B16 TEST SECTOR ADRS 03
*

12441	0 43 00430	BRM	SUBJECT	
12442	0 43 00440	BRM	RETURN	
12443	0 20 07451	NBP	XTRAI	
12444	0 75 26177	LDB	*003	SECTOR 03
12445	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
12446	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12447	4 20 24443	NBP	*2013A,4	LOGIC ERROR MSG
12450	2 20 24454	NBP	*2013B,2	HEADING AND REGISTERS
12451	0 43 00434	BRM	END	

*
* F58B17 TEST SECTOR ADRS 04
*

12452	0 43 00430	BRM	SUBJECT	
12453	0 43 00440	BRM	RETURN	
12454	0 20 07451	NBP	XTRAI	
12455	0 75 26175	LDB	*004	SECTOR 04
12456	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
12457	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12460	4 20 24443	NBP	*2013A,4	LOGIC ERROR MSG
12461	2 20 24454	NBP	*2013B,2	HEADING AND REGISTERS
12462	0 43 00434	BRM	END	

*
* F50B18 TEST SECTOR ADRS 05
*

12463	0	43	00430	BRM	OBJECT	
12464	0	43	00440	BRM	RETURN	
12465	0	20	07451	NBP	XTRA1	
12466	0	75	26116	LDB	#005	SECTOR 05
12467	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12470	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12471	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12472	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12473	0	43	00434	BRM	END	

*
* F50B19 TEST SECTOR ADRS 06
*

12474	0	43	00430	BRM	OBJECT	
12475	0	43	00440	BRM	RETURN	
12476	0	20	07451	NBP	XTRA1	
12477	0	75	26124	LDB	#006	SECTOR 06
12500	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12501	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12502	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12503	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12504	0	43	00434	BRM	END	

*
* F50B20 TEST SECTOR ADRS 07
*

12505	0	43	00430	BRM	OBJECT	
12506	0	43	00440	BRM	RETURN	
12507	0	20	07451	NBP	XTRA1	
12510	0	75	26125	LDB	#007	SECTOR 07
12511	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12512	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12513	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12514	2	20	24556	NBP	M2013B,2	HEADING AND REGISTER
12515	0	43	00434	BRM	END	

*
* F50B21 TEST SECTOR ADRS 10
*

12516	0	43	00430	BRM	OBJECT	
12517	0	43	00440	BRM	RETURN	
12520	0	20	07451	NBP	XTRA1	
12521	0	75	26276	LDB	#010	SECTOR 10
12522	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12523	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12524	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12525	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12526	0	43	00434	BRM	END	

*
* F58B2 TEST SECTOR ADRS 11
*

12527	0 43 00430	BRM	OBJECT	
12530	0 43 00440	BRM	RETURN	
12531	0 20 07451	NBP	XTR41	
12532	0 75 26126	LDB	#011	SECTOR 11
12533	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12534	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
12535	4 20 24543	NBP	^2013A,4	LOGIC ERROR MSG
12536	2 20 24556	NBP	^2013B,2	HEADING AND REGISTERS
12537	0 43 00434	BRM	END	

*
* F58B3 TEST SECTOR ADRS 12
*

12540	0 43 00430	BRM	OBJECT	
12541	0 43 00440	BRM	RETURN	
12542	0 20 07451	NBP	XTR41	
12543	0 75 26127	LDB	#012	SECTOR 12
12544	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12545	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
12546	4 20 24543	NBP	^2013A,4	LOGIC ERROR MSG
12547	2 20 24556	NBP	^2013B,2	HEADING AND REGISTERS
12550	0 43 00434	BRM	END	

*
* F58B24 TEST SECTOR ADRS 13
*

12551	0 43 00430	BRM	OBJECT	
12552	0 43 00440	BRM	RETURN	
12553	0 20 07451	NBP	XTR41	
12554	0 75 26130	LDB	#013	SECTOR 13
12555	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12556	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
12557	4 20 24543	NBP	^2013A,4	LOGIC ERROR MSG
12560	2 20 24556	NBP	^2013B,2	HEADING AND REGISTERS
12561	0 43 00434	BRM	END	

*
* F58B25 TEST SECTOR ADRS 14
*

12562	0 43 00430	BRM	OBJECT	
12563	0 43 00440	BRM	RETURN	
12564	0 20 07451	NBP	XTR41	
12565	0 75 26131	LDB	#014	SECTOR 14
12566	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12567	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
12570	4 20 24543	NBP	^2013A,4	LOGIC ERROR MSG
12571	2 20 24556	NBP	^2013B,2	HEADING AND REGISTERS
12572	0 43 00434	BRM	END	

*
* F50B26 TEST SECTOR ADR6 15
*

12573	0	43	00430	BRM	OBJECT	
12574	0	43	00440	BRM	RETURN	
12575	0	20	07651	NOP	XTRA1	
12576	0	75	26132	LDB	#015	SECTOR 15
12577	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADR6
12600	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12601	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
12602	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
12603	0	43	00434	BRM	END	

*
* F50B27 TEST SECTOR ADR6 16
*

12604	0	43	00430	BRM	OBJECT	
12605	0	43	00440	BRM	RETURN	
12606	0	20	07651	NOP	XTRA1	
12607	0	75	26133	LDB	#016	SECTOR 16
12610	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADR6
12611	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12612	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
12613	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
12614	0	43	00434	BRM	END	

*
* F50B28 TEST SECTOR ADR6 17
*

12615	0	43	00430	BRM	OBJECT	
12616	0	43	00440	BRM	RETURN	
12617	0	20	07651	NOP	XTRA1	
12620	0	75	26134	LDB	#017	SECTOR 17
12621	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADR6
12622	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12623	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
12624	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
12625	0	43	00434	BRM	END	

*
* F50B29 TEST SECTOR ADR6 20
*

12626	0	43	00430	BRM	OBJECT	
12627	0	43	00440	BRM	RETURN	
12630	0	20	07651	NOP	XTRA1	
12631	0	75	26177	LDB	#020	SECTOR 20
12632	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADR6
12633	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12634	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
12635	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
12636	0	43	00434	BRM	END	

*
* F59B30 TEST SECTOR ADRS 21
*

12637	0	43	00430	BRM	SUBJECT	
12640	0	43	00440	BRM	RETURN	
12641	0	20	07451	NBP	XTRAI	
12642	0	75	26135	LDB	#021	SECTOR 21
12643	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12644	0	43	00460	BRM	ERR9R	RETURN IF ERROR OCCURED
12645	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
12646	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
12647	0	43	00434	BRM	END	

*
* F59B31 TEST SECTOR ADRS 22
*

12650	0	43	00430	BRM	SUBJECT	
12651	0	43	00440	BRM	RETURN	
12652	0	20	07451	NBP	XTRAI	
12653	0	75	26136	LDB	#022	SECTOR 22
12654	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12655	0	43	00460	BRM	ERR9R	RETURN IF ERROR OCCURED
12656	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
12657	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
12658	0	43	00434	BRM	END	

*
* F59B32 TEST SECTOR ADRS 23
*

12661	0	43	00430	BRM	SUBJECT	
12662	0	43	00440	BRM	RETURN	
12663	0	20	07451	NBP	XTRAI	
12664	0	75	26137	LDB	#023	SECTOR 23
12665	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12666	0	43	00460	BRM	ERR9R	RETURN IF ERROR OCCURED
12667	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
12670	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
12671	0	43	00434	BRM	END	

*
* F59B33 TEST SECTOR ADRS 24
*

12672	0	43	00430	BRM	SUBJECT	
12673	0	43	00440	BRM	RETURN	
12674	0	20	07451	NBP	XTRAI	
12675	0	75	26140	LDB	#024	SECTOR 24
12676	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12677	0	43	00460	BRM	ERR9R	RETURN IF ERROR OCCURED
12700	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
12701	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
12702	0	43	00434	BRM	END	

*
* F50B34 TEST SECTOR ADRS 25
*

12703	0 43 00430	BRM	OBJECT	
12704	0 43 00440	BRM	RETURN	
12705	0 20 07651	NOP	XTRAI	
12706	0 75 26141	LDB	#025	SECTOR 25
12707	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12710	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12711	4 20 24543	NOP	*2013A,4	LOGIC ERROR MSG
12712	2 20 24556	NOP	*2013B,2	HEADING AND REGISTERS
12713	0 43 00434	BRM	END	

*
* F50B35 TEST SECTOR ADRS 26
*

12714	0 43 00430	BRM	OBJECT	
12715	0 43 00440	BRM	RETURN	
12716	0 20 07651	NOP	XTRAI	
12717	0 75 26142	LDB	#026	SECTOR 26
12720	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12721	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12722	4 20 24543	NOP	*2013A,4	LOGIC ERROR MSG
12723	2 20 24556	NOP	*2013B,2	HEADING AND REGISTERS
12724	0 43 00434	BRM	END	

*
* F50B36 TEST SECTOR ADRS 27
*

12725	0 43 00430	BRM	OBJECT	
12726	0 43 00440	BRM	RETURN	
12727	0 20 07651	NOP	XTRAI	
12730	0 75 26143	LDB	#027	SECTOR 27
12731	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12732	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12733	4 20 24543	NOP	*2013A,4	LOGIC ERROR MSG
12734	2 20 24556	NOP	*2013B,2	HEADING AND REGISTERS
12735	0 43 00434	BRM	END	

*
* F50B37 TEST SECTOR ADRS 30
*

12736	0 43 00430	BRM	OBJECT	
12737	0 43 00440	BRM	RETURN	
12740	0 20 07651	NOP	XTRAI	
12741	0 75 26144	LDB	#030	SECTOR 30
12742	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12743	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
12744	4 20 24543	NOP	*2013A,4	LOGIC ERROR MSG
12745	2 20 24556	NOP	*2013B,2	HEADING AND REGISTERS
12746	0 43 00434	BRM	END	

*
* F59398 TEST SECTOR ADRS 31
*

12747	0 43 00430	BRM	REJECT	
12750	0 43 00440	BRM	RETURN	
12751	0 20 07451	NBP	XTRA1	
12752	0 75 26121	LDB	#031	SECTOR 31
12753	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12754	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12755	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
12756	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
12757	0 43 00434	BRM	END	

*
* F59399 TEST SECTOR ADRS 32
*

12760	0 43 00430	BRM	REJECT	
12761	0 43 00440	BRM	RETURN	
12762	0 20 07451	NBP	XTRA1	
12763	0 75 26145	LDB	#032	SECTOR 32
12764	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12765	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12766	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
12767	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
12770	0 43 00434	BRM	END	

*
* F59390 TEST SECTOR ADRS 33
*

12771	0 43 00430	BRM	REJECT	
12772	0 43 00440	BRM	RETURN	
12773	0 20 07451	NBP	XTRA1	
12774	0 75 26120	LDB	#033	SECTOR 33
12775	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12776	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
12777	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
13000	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
13001	0 43 00434	BRM	END	

*
* F59341 TEST SECTOR ADRS 34
*

13002	0 43 00430	BRM	REJECT	
13003	0 43 00440	BRM	RETURN	
13004	0 20 07451	NBP	XTRA1	
13005	0 75 26146	LDB	#034	SECTOR 34
13006	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13007	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13010	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
13011	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
13012	0 43 00434	BRM	END	

*
*
* F50B42 TEST SECTOR ADRS 35
*

13013	0 43 00430	BRM	OBJECT	
13014	0 43 00440	BRM	RETURN	
13015	0 20 07651	NOP	XTRAI	
13016	0 75 26147	LDB	#035	SECTOR 35
13017	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13020	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13021	4 20 24543	NOP	M2013A,4	LOGIC ERROR MSG
13022	2 20 24556	NOP	M2013B,2	HEADING AND REGISTERS
13023	0 43 00434	BRM	END	

*
*
* F50B43 TEST SECTOR ADRS 36
*

13024	0 43 00430	BRM	OBJECT	
13025	0 43 00440	BRM	RETURN	
13026	0 20 07651	NOP	XTRAI	
13027	0 75 26150	LDB	#036	SECTOR 36
13030	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13031	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13032	4 20 24543	NOP	M2013A,4	LOGIC ERROR MSG
13033	2 20 24556	NOP	M2013B,2	HEADING AND REGISTERS
13034	0 43 00434	BRM	END	

*
*
* F50B44 TEST SECTOR ADRS 37
*

13035	0 43 00430	BRM	OBJECT	
13036	0 43 00440	BRM	RETURN	
13037	0 20 07651	NOP	XTRAI	
13040	0 75 26151	LDB	#037	SECTOR 37
13041	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13042	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13043	4 20 24543	NOP	M2013A,4	LOGIC ERROR MSG
13044	2 20 24556	NOP	M2013B,2	HEADING AND REGISTERS
13045	0 43 00434	BRM	END	

*
*
* F50B45 TEST SECTOR ADRS 40
*

13046	0 43 00430	BRM	OBJECT	
13047	0 43 00440	BRM	RETURN	
13050	0 20 07651	NOP	XTRAI	
13051	0 75 26100	LDB	#040	SECTOR 40
13052	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13053	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13054	4 20 24543	NOP	M2013A,4	LOGIC ERROR MSG
13055	2 20 24556	NOP	M2013B,2	HEADING AND REGISTERS
13056	0 43 00434	BRM	END	

*
* F59B46 TEST SECTOR ADRS 41
*

13057	0	43	07430	BRM	OBJECT	
13060	0	43	07440	BRM	RETURN	
13061	0	20	07451	NBP	XTRA1	
13062	0	75	26159	LDB	#041	SECTOR 41
13063	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
13064	0	43	07460	BRM	ERROR	RETURN IF ERROR OCCURED
13065	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
13066	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
13067	0	43	07434	BRM	END	

*
* F59B47 TEST SECTOR ADRS 42
*

13070	0	43	07430	BRM	OBJECT	
13071	0	43	07440	BRM	RETURN	
13072	0	20	07451	NBP	XTRA1	
13073	0	75	26159	LDB	#042	SECTOR 42
13074	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
13075	0	43	07460	BRM	ERROR	RETURN IF ERROR OCCURED
13076	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
13077	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
13078	0	43	07434	BRM	END	

*
* F59B48 TEST SECTOR ADRS 43
*

13101	0	43	07430	BRM	OBJECT	
13102	0	43	07440	BRM	RETURN	
13103	0	20	07451	NBP	XTRA1	
13104	0	75	26159	LDB	#043	SECTOR 43
13105	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
13106	0	43	07460	BRM	ERROR	RETURN IF ERROR OCCURED
13107	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
13110	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
13111	0	43	07434	BRM	END	

*
* F59B49 TEST SECTOR ADRS 44
*

13112	0	43	07430	BRM	OBJECT	
13113	0	43	07440	BRM	RETURN	
13114	0	20	07451	NBP	XTRA1	
13115	0	75	26159	LDB	#044	SECTOR 44
13116	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
13117	0	43	07460	BRM	ERROR	RETURN IF ERROR OCCURED
13120	4	20	24543	NBP	#2013A,4	LOGIC ERROR MSG
13121	2	20	24556	NBP	#2013B,2	HEADING AND REGISTERS
13122	0	43	07434	BRM	END	

*
* F50B50 TEST SECTOR ADRS 45
*

13123	0	43	00430	BRM	OBJECT	
13124	0	43	00440	BRM	RETURN	
13125	0	20	07651	NBP	XTRA1	
13126	0	75	26156	LDB	#045	SECTOR 45
13127	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13130	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13131	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13132	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13133	0	43	00434	BRM	END	

*
* F50B51 TEST SECTOR ADRS 46
*

13134	0	43	00430	BRM	OBJECT	
13135	0	43	00440	BRM	RETURN	
13136	0	20	07651	NBP	XTRA1	
13137	0	75	26157	LDB	#046	SECTOR 46
13140	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13141	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13142	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13143	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13144	0	43	00434	BRM	END	

*
* F50B52 TEST SECTOR ADRS 47
*

13145	0	43	00430	BRM	OBJECT	
13146	0	43	00440	BRM	RETURN	
13147	0	20	07651	NBP	XTRA1	
13150	0	75	26160	LDB	#047	SECTOR 47
13151	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13152	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13153	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13154	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13155	0	43	00434	BRM	END	

*
* F50B53 TEST SECTOR ADRS 50
*

13156	0	43	00430	BRM	OBJECT	
13157	0	43	00440	BRM	RETURN	
13160	0	20	07651	NBP	XTRA1	
13161	0	75	26161	LDB	#050	SECTOR 50
13162	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13163	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13164	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13165	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13166	0	43	00434	BRM	END	

*
* F50854 TEST SECTOR ADRS 51
*

13167	0 43 00430	BRM	OBJECT	
13170	0 43 00440	BRM	RETURN	
13171	0 20 07451	NBP	XTR41	
13172	0 75 26162	LDB	#051	SECTOR 51
13173	0 43 07557	BRM	PINIX	TO PIN IN SECTOR ADRS
13174	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13175	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
13176	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
13177	0 43 00434	BRM	END	

*
* F50855 TEST SECTOR ADRS 52
*

13200	0 43 00430	BRM	OBJECT	
13201	0 43 00440	BRM	RETURN	
13202	0 20 07451	NBP	XTR41	
13203	0 75 26162	LDB	#052	SECTOR 52
13204	0 43 07557	BRM	PINIX	TO PIN IN SECTOR ADRS
13205	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13206	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
13207	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
13210	0 43 00434	BRM	END	

*
* F50856 TEST SECTOR ADRS 53
*

13211	0 43 00430	BRM	OBJECT	
13212	0 43 00440	BRM	RETURN	
13213	0 20 07451	NBP	XTR41	
13214	0 75 26162	LDB	#053	SECTOR 53
13215	0 43 07557	BRM	PINIX	TO PIN IN SECTOR ADRS
13216	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13217	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
13220	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
13221	0 43 00434	BRM	END	

*
* F50857 TEST SECTOR ADRS 54
*

13222	0 43 00430	BRM	OBJECT	
13223	0 43 00440	BRM	RETURN	
13224	0 20 07451	NBP	XTR41	
13225	0 75 26162	LDB	#054	SECTOR 54
13226	0 43 07557	BRM	PINIX	TO PIN IN SECTOR ADRS
13227	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13230	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
13231	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
13232	0 43 00434	BRM	END	

*
* F50B58 TEST SECTOR ADRS 55
*

13233	0	43	00430	BRM	OBJECT	
13234	0	43	00440	BRM	RETURN	
13235	0	20	07A51	NOP	XTRA1	
13236	0	75	26166	LDB	#055	SECTOR 55
13237	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13240	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
13241	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
13242	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
13243	0	43	00434	BRM	END	

*
* F50B59 TEST SECTOR ADRS 56
*

13244	0	43	00430	BRM	OBJECT	
13245	0	43	00440	BRM	RETURN	
13246	0	20	07A51	NOP	XTRA1	
13247	0	75	26167	LDB	#056	SECTOR 56
13250	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13251	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
13252	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
13253	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
13254	0	43	00434	BRM	END	

*
* F50B60 TEST SECTOR ADRS 57
*

13255	0	43	00430	BRM	OBJECT	
13256	0	43	00440	BRM	RETURN	
13257	0	20	07A51	NOP	XTRA1	
13260	0	75	26170	LDB	#057	SECTOR 57
13261	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13262	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
13263	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
13264	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
13265	0	43	00434	BRM	END	

*
* F50B61 TEST SECTOR ADRS 60
*

13266	0	43	00430	BRM	OBJECT	
13267	0	43	00440	BRM	RETURN	
13270	0	20	07A51	NOP	XTRA1	
13271	0	75	26171	LDB	#060	SECTOR 60
13272	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13273	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
13274	4	20	24543	NOP	M2013A,4	LOGIC ERROR MSG
13275	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
13276	0	43	00434	BRM	END	

*
* F58862 TEST SECTOR ADRS 61
*

13277	0 43 00430	BRM	OBJECT	
13300	0 43 00440	BRM	RETURN	
13301	0 20 07451	NBP	XTRA1	
13302	0 75 26172	LDB	#061	SECTOR 61
13303	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13304	0 43 07467	BRM	ERRR	RETURN IF ERROR OCCURED
13305	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
13306	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
13307	0 43 00434	BRM	END	

*
* F58863 TEST SECTOR ADRS 62
*

13310	0 43 00430	BRM	OBJECT	
13311	0 43 00440	BRM	RETURN	
13312	0 20 07451	NBP	XTRA1	
13313	0 75 26172	LDB	#062	SECTOR 62
13314	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13315	0 43 07467	BRM	ERRR	RETURN IF ERROR OCCURED
13316	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
13317	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
13320	0 43 00434	BRM	END	

*
* F58864 TEST SECTOR ADRS 63
*

13321	0 43 00430	BRM	OBJECT	
13322	0 43 00440	BRM	RETURN	
13323	0 20 07451	NBP	XTRA1	
13324	0 75 26172	LDB	#063	SECTOR 63
13325	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13326	0 43 07467	BRM	ERRR	RETURN IF ERROR OCCURED
13327	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
13330	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
13331	0 43 00434	BRM	END	

*
* F58865 TEST SECTOR ADRS 64
*

13332	0 43 00430	BRM	OBJECT	
13333	0 43 00440	BRM	RETURN	
13334	0 20 07451	NBP	XTRA1	
13335	0 75 26172	LDB	#064	SECTOR 64
13336	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13337	0 43 07467	BRM	ERRR	RETURN IF ERROR OCCURED
13340	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
13341	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
13342	0 43 00434	BRM	END	

*
* F50B66 TEST SECTOR ADRS 65
*

13343	0	43	00430	BRM	OBJECT	
13344	0	43	00440	BRM	RETURN	
13345	0	20	07A51	NBP	XTRAI	
13346	0	75	26176	LDB	#065	SECTOR 65
13347	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13350	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13351	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13352	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13353	0	43	00434	BRM	END	

*
* F50B67 TEST SECTOR ADRS 66
*

13354	0	43	00430	BRM	OBJECT	
13355	0	43	00440	BRM	RETURN	
13356	0	20	07A51	NBP	XTRAI	
13357	0	75	26177	LDB	#066	SECTOR 66
13360	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13361	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13362	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13363	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13364	0	43	00434	BRM	END	

*
* F50B68 TEST SECTOR ADRS 67
*

13365	0	43	00430	BRM	OBJECT	
13366	0	43	00440	BRM	RETURN	
13367	0	20	07A51	NBP	XTRAI	
13370	0	75	26200	LDB	#067	SECTOR 67
13371	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13372	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13373	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13374	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13375	0	43	00434	BRM	END	

*
* F50B69 TEST SECTOR ADRS 70
*

13376	0	43	00430	BRM	OBJECT	
13377	0	43	00440	BRM	RETURN	
13400	0	20	07A51	NBP	XTRAI	
13401	0	75	26201	LDB	#070	SECTOR 70
13402	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13403	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13404	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13405	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13406	0	43	00434	BRM	END	

*
* F50B70 TEST SECTOR ADRS 71
*

13407	0 43 00430	BRM	OBJECT	
13410	0 43 00440	BRM	RETURN	
13411	0 20 07451	NBP	XTRA1	
13412	0 75 26202	LDB	#071	SECTOR 71
13413	0 43 00460	BRM	PININ	TO PIN IN SECTOR ADRS
13414	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13415	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13416	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
13417	0 43 00434	BRM	END	

*
* F50B71 TEST SECTOR ADRS 72
*

13420	0 43 00430	BRM	OBJECT	
13421	0 43 00440	BRM	RETURN	
13422	0 20 07451	NBP	XTRA1	
13423	0 75 26203	LDB	#072	SECTOR 72
13424	0 43 00460	BRM	PININ	TO PIN IN SECTOR ADRS
13425	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13426	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13427	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
13430	0 43 00434	BRM	END	

*
* F50B72 TEST SECTOR ADRS 73
*

13431	0 43 00430	BRM	OBJECT	
13432	0 43 00440	BRM	RETURN	
13433	0 20 07451	NBP	XTRA1	
13434	0 75 26204	LDB	#073	SECTOR 73
13435	0 43 00460	BRM	PININ	TO PIN IN SECTOR ADRS
13436	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13437	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13440	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
13441	0 43 00434	BRM	END	

*
* F50B73 TEST SECTOR ADRS 74
*

13442	0 43 00430	BRM	OBJECT	
13443	0 43 00440	BRM	RETURN	
13444	0 20 07451	NBP	XTRA1	
13445	0 75 26205	LDB	#074	SECTOR 74
13446	0 43 00460	BRM	PININ	TO PIN IN SECTOR ADRS
13447	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13450	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13451	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
13452	0 43 00434	BRM	END	

*
*
* F50B74 TEST SECTOR ADRS 75
*

13453	0	43	00430	BRM	OBJECT	
13454	0	43	00440	BRM	RETURN	
13455	0	20	07451	NBP	XTRA1	
13456	0	75	26206	LDB	#075	SECTOR 75
13457	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13460	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
13461	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13462	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13463	0	43	00434	BRM	END	

*
*
* F50B75 TEST SECTOR ADRS 76
*

13464	0	43	00430	BRM	OBJECT	
13465	0	43	00440	BRM	RETURN	
13466	0	20	07451	NBP	XTRA1	
13467	0	75	26207	LDB	#076	SECTOR 76
13470	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13471	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
13472	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13473	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13474	0	43	00434	BRM	END	

*
*
* F50B76 TEST SECTOR ADRS 77
*

13475	0	43	00430	BRM	OBJECT	
13476	0	43	00440	BRM	RETURN	
13477	0	20	07451	NBP	XTRA1	
13500	0	75	26210	LDB	#077	SECTOR 77
13501	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
13502	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
13503	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
13504	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
13505	0	43	00434	BRM	END	
13506	0	43	00456	BRM	FDONE	

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13507	0 43 01424	BRM	BRM	FUNCTION	CONTROL LINK
13510	0 20 21756	NBP	NBP	FPT6	PARAMETER FOR THIS FUNCTION
13511	0 43 00440	BRM	BRM	RETURN	
13512	0 20 07451	NBP	NBP	XTRAI	
13513	0 76 07401	LDA	LDA	STATUS	
13514	0 72 26104	SKA	SKA	#4000	SOFTWARE RAD READ ONLY
13515	0 01 14907	BRU	BRU	FUNC10	SKIP TEST
13516	0 43 14467	BRM	BRM	RADPK	

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*
* FUNCTION 06 OBJECT TEST 01
*
13517 0 43 01430      BRM  OBJECT
13520 0 76 26112      LDA  #070007000  DATA FOR HEAD
13521 0 43 18701      BRM  SPREAD      FILL OUTPUT BUFFER
13522 0 76 26167      LDA  #00000      STARTING ADRS.
13523 0 43 16123      BRM  YMSG        YDRIVER CONTROL
13524 4 20 24442      NBP  MSG020,4    WRITE LOGIC MESSAGE
13525 0 20 24404      NBP  MSG036
13526 0 43 00434      BRM  END          8 HEADS
*
* FUNCTION 06 OBJECT TEST 02
*
13527 0 43 01430      BRM  OBJECT
13530 0 76 26101      LDA  #00100      STARTING ADRS.
13531 0 43 16123      BRM  YMSG        YDRIVER CONTROL
13532 4 20 24444      NBP  MSG021,4    WRITE LOGIC MESSAGE
13533 0 20 24415      NBP  MSG037
13534 0 43 00434      BRM  END          8 HEADS
*
* FUNCTION 06 OBJECT TEST 03
*
13535 0 43 01430      BRM  OBJECT
13536 0 76 26102      LDA  #00200      STARTING ADRS.
13537 0 43 16123      BRM  YMSG        YDRIVER CONTROL
13540 4 20 24444      NBP  MSG022,4    WRITE LOGIC MESSAGE
13541 0 20 24424      NBP  MSG038
13542 0 43 00434      BRM  END          8 HEADS

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*
*
* FUNCTION 06 OBJECT TEST 04
*

13543	0	43	00430	BRM	OBJECT	
13544	0	76	26213	LDA	#00300	STARTING ADRS,
13545	0	43	16123	BRM	YMSG	YDRIVER CONTROL
13546	4	20	24450	NOP	MSG023,4	WRITE LOGIC MESSAGE
13547	0	20	24433	NOP	MSG039	
13550	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 06 OBJECT TEST 05
*

13551	0	43	00430	BRM	OBJECT	
13552	0	76	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
13553	0	76	26060	LDA	#0000	STARTING SECTOR
13554	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
13555	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
13556	0	76	26215	LDA	#00030001	
13557	0	43	16063	BRM	DECR11	
13560	0	43	00434	BRM	END	

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*
*
* FUNCTION 06 OBJECT TEST 06
*

13561	0	43	00430	BRM	OBJECT	
13562	0	76	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
13563	0	76	26101	LDA	#100	STARTING SECTOR
13564	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
13565	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
13566	0	76	26216	LDA	#20005	SIDE AND TB STRIP
13567	0	43	16063	BRM	DECR11	
13570	0	43	00434	BRM	END	

*
*
* FUNCTION 06 OBJECT TEST 07
*

13571	0	43	00430	BRM	OBJECT	
13572	0	76	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
13573	0	76	26102	LDA	#200	STARTING SECTOR
13574	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
13575	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
13576	0	76	26217	LDA	#10011	SIDE AND TB STRIP 9
13577	0	43	16063	BRM	DECR11	
13600	0	43	00434	BRM	END	

FUNCTION 06 OBJECT TEST 08

13601	0	43	00430	BRM	OBJECT	
13602	0	76	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
13603	0	76	26213	LDA	#300	STARTING SECTOR
13604	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
13605	0	43	16734	BRM	SET RD	INITIALIZE READ CONTROL
13606	0	76	26220	LDA	#40103	SIDE AND TB STRIP
13607	0	43	16763	BRM	DECR11	
13610	0	43	00434	BRM	END	

FUNCTION 06 OBJECT TEST 09

13611	0	43	00430	BRM	OBJECT	
13612	0	76	26221	LDA	#007000700	DATA FOR HEAD
13613	0	43	16701	BRM	SPREAD	FILL OUTPUT BUFFER
13614	0	76	26260	LDA	#00000	STARTING ADRS,
13615	0	43	16123	BRM	YMSG	YDRIVER CONTROL
13616	4	20	24452	NBP	MSG024,4	WRITE LOGIC MESSAGE
13617	0	20	24406	NBP	MSG036	
13620	0	43	00434	BRM	END	8 HEADS

FUNCTION 06 OBJECT TEST 10

13621	0	43	00430	BRM	OBJECT	
13622	0	76	26101	LDA	#00100	STARTING ADRS,
13623	0	43	16123	BRM	YMSG	YDRIVER CONTROL
13624	4	20	24454	NBP	MSG025,4	WRITE LOGIC MESSAGE
13625	0	20	24415	NBP	MSG037	
13626	0	43	00434	BRM	END	8 HEADS

FUNCTION 06 OBJECT TEST 11

13627	0	43	00430	BRM	OBJECT	
13630	0	76	26102	LDA	#00200	STARTING ADRS,
13631	0	43	16123	BRM	YMSG	YDRIVER CONTROL
13632	4	20	24456	NBP	MSG026,4	WRITE LOGIC MESSAGE
13633	0	20	24424	NBP	MSG038	
13634	0	43	00434	BRM	END	8 HEADS

FUNCTION 06 OBJECT TEST 12

13635	0	43	00430	BRM	OBJECT	
13636	0	76	26213	LDA	#00300	STARTING ADRS,
13637	0	43	16123	BRM	YMSG	YDRIVER CONTROL
13640	4	20	24460	NBP	MSG027,4	WRITE LOGIC MESSAGE
13641	0	20	24433	NBP	MSG039	
13642	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 06 OBJECT TEST 13
*

13643	0 43 00430	BRM	OBJECT	
13644	0 75 26222	LDB	#MSG01B	HEAD LOGIC MESSAGE
13645	0 76 26060	LDA	#0	STARTING SECTOR
13646	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
13647	0 43 16036	BRM	SETWRD	INITIALIZE READ CONTROL
13650	0 76 26223	LDA	#30002	
13651	0 43 16053	BRM	INCR11	
13652	0 43 00434	BRM	END	

*
*
* FUNCTION 06 OBJECT TEST 14
*

13653	0 43 00430	BRM	OBJECT	
13654	0 75 26222	LDB	#MSG01B	HEAD LOGIC MESSAGE
13655	0 76 26101	LDA	#0100	STARTING SECTOR
13656	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
13657	0 43 16036	BRM	SETWRD	INITIALIZE READ CONTROL
13660	0 76 26224	LDA	#20006	SIDE AND TB STRIP
13661	0 43 16053	BRM	INCR11	
13662	0 43 00434	BRM	END	

*
*
* FUNCTION 06 OBJECT TEST 15
*

13663	0 43 00430	BRM	OBJECT	
13664	0 75 26222	LDB	#MSG01B	HEAD LOGIC MESSAGE
13665	0 76 26102	LDA	#200	STARTING SECTOR
13666	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
13667	0 43 16036	BRM	SETWRD	INITIALIZE READ CONTROL
13670	0 76 26225	LDA	#10100	SIDE AND TB STRIP
13671	0 43 16053	BRM	INCR11	
13672	0 43 00434	BRM	END	

*
*
* FUNCTION 06 OBJECT TEST 16
*

13673	0 43 00430	BRM	OBJECT	
13674	0 75 26222	LDB	#MSG01B	HEAD LOGIC MESSAGE
13675	0 76 26213	LDA	#300	STARTING SECTOR
13676	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
13677	0 43 16036	BRM	SETWRD	INITIALIZE READ CONTROL
13700	0 76 26226	LDA	#40104	SIDE AND TB STRIP
13701	0 43 16053	BRM	INCR11	
13702	0 43 00434	BRM	END	

*
* FUNCTION 06 SUBJECT TEST 17
*

13703	0 43 00430	BRM	0BJECT	
13704	0 76 26227	LDA	#00C700070	DATA FOR HEAD
13705	0 43 16101	BRM	SPREAD	FILL OUTPUT BUFFER
13706	0 76 26060	LDA	#000000	STARTING ADRS,
13707	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13710	4 20 24662	XBP	MSG028,4	WRITE LOGIC MESSAGE
13711	0 20 24606	XBP	MSG036	
13712	0 43 00434	BRM	END	* HEADS

*
* FUNCTION 06 SUBJECT TEST 18
*

13713	0 43 00430	BRM	0BJECT	
13714	0 76 26101	LDA	#0100	STARTING ADRS,
13715	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13716	4 20 24666	XBP	MSG029,4	WRITE LOGIC MESSAGE
13717	0 20 24615	XBP	MSG037	
13720	0 43 00434	BRM	END	* HEADS

*
* FUNCTION 06 SUBJECT TEST 19
*

13721	0 43 00430	BRM	0BJECT	
13722	0 76 26103	LDA	#00700	STARTING ADRS,
13723	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13724	4 20 24666	XBP	MSG030,4	WRITE LOGIC MESSAGE
13725	0 20 24624	XBP	MSG038	
13726	0 43 00434	BRM	END	* HEADS

*
* FUNCTION 06 SUBJECT TEST 20
*

13727	0 43 00430	BRM	0BJECT	
13730	0 76 26213	LDA	#00700	STARTING ADRS,
13731	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13732	4 20 24670	XBP	MSG031,4	WRITE LOGIC MESSAGE
13733	0 20 24633	XBP	MSG039	
13734	0 43 00434	BRM	END	* HEADS

*
* FUNCTION 06 SUBJECT TEST 21
*

13735	0 43 00430	BRM	0BJECT	
13736	0 76 26230	LDR	#MSG01C	HEAD LOGIC MESSAGE
13737	0 76 26060	LDA	#0	STARTING SECTOR
13740	0 71 26227	LDX	#00C700070	DATA FOR HEAD SETS
13741	0 43 16036	BRM	SETWRD	INITIALIZE READ CONTROL
13742	0 76 26231	LDA	#00C20003	SIDE AND TB STRIP
13743	0 43 16163	BRM	DECR11	
13744	0 43 00434	BRM	END	

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•
• FUNCTION 06 OBJECT TEST 22
•

13745	0	43	00430	BRM	OBJECT	
13746	0	75	26230	LDB	#MSG01C	HEAD LOGIC MESSAGE
13747	0	76	26101	LDA	#10C	STARTING SECTOR
13750	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
13751	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTRBL
13752	0	76	26232	LDA	#10007	SIDE AND TB STRIP
13753	0	43	16063	BRM	DECR11	
13754	0	43	00434	BRM	END	

•
•
• FUNCTION 06 OBJECT TEST 23
•

13755	0	43	00430	BRM	OBJECT	
13756	0	75	26230	LDB	#MSG01C	HEAD LOGIC MESSAGE
13757	0	76	26102	LDA	#0200	STARTING SECTOR
13760	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
13761	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTRBL
13762	0	76	26233	LDA	#40101	SIDE AND TB STRIP
13763	0	43	16063	BRM	DECR11	
13764	0	43	00434	BRM	END	

•
•
• FUNCTION 06 OBJECT TEST 24
•

13765	0	43	00430	BRM	OBJECT	
13766	0	75	26230	LDB	#MSG01C	HEAD LOGIC MESSAGE
13767	0	76	26213	LDA	#300	STARTING SECTOR
13770	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
13771	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTRBL
13772	0	76	26234	LDA	#30105	SIDE AND TB STRIP
13773	0	43	16063	BRM	DECR11	
13774	0	43	00434	BRM	END	

•
•
• FUNCTION 06 OBJECT TEST 25
•

13775	0	43	00430	BRM	OBJECT	
13776	0	76	26235	LDA	#000070007	DATA FOR HEAD
13777	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
14000	0	76	26060	LDA	#00000	STARTING ADRS.
14001	0	43	16123	BRM	YMSG	YDRIVER CONTRBL
14002	4	20	24472	NBP	MSG032,4	WRITE LOGIC MESSAGE
14003	0	20	24406	NBP	MSG036	
14004	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 06 SUBJECT TEST 26
*

14005	0 43 01430	BRM	SUBJECT	
14006	0 76 26101	LDA	#00100	STARTING ADRS.
14007	0 43 16423	BRM	YMSG	YDRIVER CONTROL
14010	4 20 24474	NBP	MSG033,4	WRITE LOGIC MESSAGE
14011	0 20 24415	NBP	MSG037	
14012	0 43 01434	BRM	END	8 HEADS

*
*
* FUNCTION 06 SUBJECT TEST 27
*

14013	0 43 01430	BRM	SUBJECT	
14014	0 76 26102	LDA	#00200	STARTING ADRS.
14015	0 43 16423	BRM	YMSG	YDRIVER CONTROL
14016	4 20 24474	NBP	MSG034,4	WRITE LOGIC MESSAGE
14017	0 20 24424	NBP	MSG038	
14020	0 43 01434	BRM	END	8 HEADS

*
*
* FUNCTION 06 SUBJECT TEST 28
*

14021	0 43 01430	BRM	SUBJECT	
14022	0 76 26103	LDA	#00300	STARTING ADRS.
14023	0 43 16423	BRM	YMSG	YDRIVER CONTROL
14024	4 20 24474	NBP	MSG035,4	WRITE LOGIC MESSAGE
14025	0 20 24433	NBP	MSG039	
14026	0 43 01434	BRM	END	8 HEADS

*
*
* FUNCTION 06 SUBJECT TEST 29
*

14027	0 43 01430	BRM	SUBJECT	
14030	0 75 26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
14031	0 76 26060	LDA	#0	STARTING SECTOR
14032	0 71 26235	LDX	#000070007	DATA FOR HEAD SETS
14033	0 43 16036	BRM	SETARD	INITIALIZE READ CONTROL
14034	0 76 26237	LDA	#20004	SIDE AND TB STRIP
14035	0 43 16053	BRM	INCR11	
14036	0 43 01434	BRM	END	

*
*
* FUNCTION 06 SUBJECT TEST 30
*

14037	0 43 01430	BRM	SUBJECT	
14040	0 75 26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
14041	0 76 26101	LDA	#100	STARTING SECTOR
14042	0 71 26235	LDX	#000070007	DATA FOR HEAD SETS
14043	0 43 16036	BRM	SETARD	INITIALIZE READ CONTROL
14044	0 76 26040	LDA	#10010	SIDE AND TB STRIP 8
14045	0 43 16053	BRM	INCR11	
14046	0 43 01434	BRM	END	

*
* FUNCTION 06 OBJECT TEST 31
*

14047	0	43	00430	BRM	OBJECT	
14050	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
14051	0	76	26102	LDA	#200	STARTING SECTOR
14052	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
14053	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14054	0	76	26241	LDA	#40102	SIDE AND TB STRIP
14055	0	43	16253	BRM	INCR11	
14056	0	43	00434	BRM	END	

*
* FUNCTION 06 OBJECT TEST 32
*

14057	0	43	00430	BRM	OBJECT	
14060	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
14061	0	76	26213	LDA	#0300	STARTING SECTOR
14062	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
14063	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14064	0	76	26242	LDA	#30106	SIDE AND TB STRIP
14065	0	43	16253	BRM	INCR11	
14066	0	43	00434	BRM	END	
14067	0	43	00456	BRM	FDONE	

14070	0	43	00424	FUNC7	BRM	FUNCTN	CONTROL LINK
14071	0	20	21264		NOP	FPT7	PARAMETER FOR THIS FUNCTION
14072	0	43	00440		BRM	RETURN	
14073	0	20	07651		NOP	XTRA1	
14074	0	43	14467		BRM	RADSK	
14075	0	73	26265		SKG	#1000000	TEST FOR TWO RAD
14076	0	01	16207		BRU	FUNC10	LAST RAD
14077	0	76	00401		LDA	STATUS	
14100	0	72	26106		SKA	#4000	SOFTWARE RAD READ ONLY
14101	0	01	16207		BRU	FUNC10	

•
•
• FUNCTION 07 SUBJECT TEST 01
•

14102	0 43 00430	BRM	0BJECT	
14103	0 76 26212	LDA	#070007000	DATA FOR HEAD
14104	0 43 15701	BRM	SPREAD	FILL OUTPUT BUFFER
14105	0 76 26106	LDA	#4000	STARTING ADRS.
14106	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14107	4 20 24442	NBP	MSG020,4	WRITE LOGIC MESSAGE
14110	0 20 24406	NBP	MSG036	
14111	0 43 00434	BRM	END	8 HEADS

•
•
• FUNCTION 07 SUBJECT TEST 02
•

14112	0 43 00430	BRM	0BJECT	
14113	0 76 26243	LDA	#4100	STARTING ADRS.
14114	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14115	4 20 24444	NBP	MSG021,4	WRITE LOGIC MESSAGE
14116	0 20 24415	NBP	MSG037	
14117	0 43 00434	BRM	END	8 HEADS

•
•
• FUNCTION 07 SUBJECT TEST 03
•

14120	0 43 00430	BRM	0BJECT	
14121	0 76 26244	LDA	#4200	STARTING ADRS.
14122	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14123	4 20 24446	NBP	MSG022,4	WRITE LOGIC MESSAGE
14124	0 20 24428	NBP	MSG038	
14125	0 43 00434	BRM	END	8 HEADS

•
•
• FUNCTION 07 SUBJECT TEST 04
•

14126	0 43 00430	BRM	0BJECT	
14127	0 76 26245	LDA	#4300	STARTING ADRS.
14130	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14131	4 20 24450	NBP	MSG023,4	WRITE LOGIC MESSAGE
14132	0 20 24433	NBP	MSG039	
14133	0 43 00434	BRM	END	8 HEADS

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• FUNCTION 07 SUBJECT TEST 05
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14134	0 43 00430	BRM	0BJECT	
14135	0 75 26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
14136	0 76 26106	LDA	#4000	STARTING SECTOR
14137	0 71 26212	LDX	#070007000	DATA FOR HEAD SETS
14140	0 43 16034	BRM	SET, RD	INITIALIZE READ CONTROL
14141	0 76 26215	LDA	#00030001	
14142	0 43 16107	BRM	DECR12	
14143	0 43 00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 06
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14144	0	43	00430	BRM	OBJECT	
14145	0	75	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
14146	0	76	26243	LDA	#4100	STARTING SECTOR
14147	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
14150	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14151	0	76	26216	LDA	#20005	SIDE AND TB STRIP
14152	0	43	16103	BRM	DECR12	
14153	0	43	00434	BRM	END	

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*
* FUNCTION 07 OBJECT TEST 07
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14154	0	43	00430	BRM	OBJECT	
14155	0	75	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
14156	0	76	26244	LDA	#4200	STARTING SECTOR
14157	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
14160	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14161	0	76	26217	LDA	#10011	SIDE AND TB STRIP 9
14162	0	43	16103	BRM	DECR12	
14163	0	43	00434	BRM	END	

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*
* FUNCTION 07 OBJECT TEST 08
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*

14164	0	43	00430	BRM	OBJECT	
14165	0	75	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
14166	0	76	26245	LDA	#4300	STARTING SECTOR
14167	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
14170	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14171	0	76	26220	LDA	#40103	SIDE AND TB STRIP
14172	0	43	16103	BRM	DECR12	
14173	0	43	00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 09
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*

14174	0	43	00430	BRM	OBJECT	
14175	0	76	26221	LDA	#007000700	DATA FOR HEAD
14176	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
14177	0	76	26106	LDA	#4000	STARTING ADRS.
14200	0	43	16140	BRM	YMSG7	DRIVER CONTROL
14201	4	20	24652	NOP	#SG024,4	WRITE LOGIC MESSAGE
14202	0	20	24A06	NOP	#SG036	
14203	0	43	00434	BRM	END	# HEADS

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* FUNCTION 07 OBJECT TEST 10
*

14204	0 43 00430	BRM	OBJECT	
14205	0 76 26243	LDA	#4100	STARTING ADRS.
14206	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14207	4 20 24654	NBP	MSG025,4	WRITE LOGIC MESSAGE
14210	0 20 24615	NBP	MSG037	
14211	0 43 00434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 11
*

14212	0 43 00430	BRM	OBJECT	
14213	0 76 26244	LDA	#4200	STARTING ADRS.
14214	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14215	4 20 24654	NBP	MSG026,4	WRITE LOGIC MESSAGE
14216	0 20 24624	NBP	MSG038	
14217	0 43 00434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 12
*

14220	0 43 00430	BRM	OBJECT	
14221	0 76 26245	LDA	#4300	STARTING ADRS.
14222	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14223	4 20 24654	NBP	MSG027,4	WRITE LOGIC MESSAGE
14224	0 20 24633	NBP	MSG039	
14225	0 43 00434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 13
*

14226	0 43 00430	BRM	OBJECT	
14227	0 75 26222	LDB	MSG01B	READ LOGIC MESSAGE
14230	0 76 26104	LDA	#4000	STARTING SECTOR
14231	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
14232	0 43 16036	BRM	SETARD	INITIALIZE READ CONTROL
14233	0 76 26223	LDA	#30002	
14234	0 43 16073	BRM	INCR12	
14235	0 43 00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 14
*

14236	0 43 00430	BRM	OBJECT	
14237	0 75 26222	LDB	MSG01B	READ LOGIC MESSAGE
14240	0 76 26243	LDA	#4100	STARTING SECTOR
14241	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
14242	0 43 16036	BRM	SETARD	INITIALIZE READ CONTROL
14243	0 76 26224	LDA	#20006	
14244	0 43 16073	BRM	INCR12	SIDE AND TB STRIP
14245	0 43 00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 15
*

14246	0 43 00430	BRM	OBJECT	
14247	0 75 26222	LDB	#MSG01B	READ LOGIC MESSAGE
14250	0 76 26244	LDA	#4200	STARTING SECTOR
14251	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
14252	0 43 16036	BRM	SETWRD	INITIALIZE READ CONTROL
14253	0 76 26225	LDA	#10100	SIDE AND TB STRIP
14254	0 43 16073	BRM	INCR12	
14255	0 43 00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 16
*

14256	0 43 00430	BRM	OBJECT	
14257	0 75 26222	LDB	#MSG01B	READ LOGIC MESSAGE
14260	0 76 26245	LDA	#4300	STARTING SECTOR
14261	0 71 26221	LDX	#007000700	DATA FOR HEAD SETS
14262	0 43 16036	BRM	SETWRD	INITIALIZE READ CONTROL
14263	0 76 26226	LDA	#40104	SIDE AND TB STRIP
14264	0 43 16073	BRM	INCR12	
14265	0 43 00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 17
*

14266	0 43 00430	BRM	OBJECT	
14267	0 76 26227	LDA	#000700070	DATA FOR HEAD
14270	0 43 15701	BRM	SPREAD	FILL OUTPUT BUFFER
14271	0 76 26106	LDA	#4000	STARTING ADRS.
14272	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14273	4 20 24662	NOP	MSG029,4	WRITE LOGIC MESSAGE
14274	0 20 24606	NOP	MSG036	
14275	0 43 00434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 18
*

14276	0 43 00430	BRM	OBJECT	
14277	0 76 26243	LDA	#4100	STARTING ADRS.
14300	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14301	4 20 24664	NOP	MSG029,4	WRITE LOGIC MESSAGE
14302	0 20 24615	NOP	MSG037	
14303	0 43 00434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 19
*

14304	0 43 00430	BRM	OBJECT	
14305	0 76 26244	LDA	#4200	STARTING ADRS.
14306	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14307	4 20 24666	NOP	MSG030,4	WRITE LOGIC MESSAGE
14310	0 20 24424	NOP	MSG038	
14311	0 43 00434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 20

14312	0 43 00430	BRM	OBJECT	
14313	0 76 26245	LDA	#4300	STARTING ADRS:
14314	0 43 16140	BRM	YMSG7	VDRIVER CONTROL
14315	4 20 24470	BRM	MSG031,4	WRITE LOGIC MESSAGE
14316	0 20 24433	BRM	MSG039	
14317	0 43 01434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 21

14320	0 43 01437	BRM	OBJECT	
14321	0 75 26230	LDB	MSG01C	HEAD LOGIC MESSAGE
14322	0 74 26184	LDA	#4000	STARTING SECTOR
14323	0 71 26227	LDX	#000700070	DATA FOR HEAD SETS
14324	0 43 16136	BRM	SETARD	INITIALIZE READ CONTROL
14325	0 74 26231	LDA	#00020003	SIDE AND TB STRIP
14326	0 43 16103	BRM	DECR12	
14327	0 43 01434	BRM	END	

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* FUNCTION 07 OBJECT TEST 22

14330	0 43 01430	BRM	OBJECT	
14331	0 75 26230	LDB	MSG01C	HEAD LOGIC MESSAGE
14332	0 76 26243	LDA	#4100	STARTING SECTOR
14333	0 71 26227	LDX	#000700070	DATA FOR HEAD SETS
14334	0 43 16136	BRM	SETARD	INITIALIZE READ CONTROL
14335	0 76 26232	LDA	#10007	SIDE AND TB STRIP
14336	0 43 16103	BRM	DECR12	
14337	0 43 00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 23

14340	0 43 00430	BRM	OBJECT	
14341	0 75 26230	LDB	MSG01C	HEAD LOGIC MESSAGE
14342	0 76 26244	LDA	#4200	STARTING SECTOR
14343	0 71 26227	LDX	#000700070	DATA FOR HEAD SETS
14344	0 43 16136	BRM	SETARD	INITIALIZE READ CONTROL
14345	0 76 26233	LDA	#40101	SIDE AND TB STRIP
14346	0 43 16103	BRM	DECR12	
14347	0 43 01434	BRM	END	

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* FUNCTION 07 OBJECT TEST 24
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14350	0	43	00430	BRM	OBJECT	
14351	0	75	26230	LDB	#MSG01C	HEAD LOGIC MESSAGE
14352	0	76	26245	LDA	#4300	STARTING SECTOR
14353	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
14354	0	43	16136	BRM	SETWRD	INITIALIZE READ CONTROL
14355	0	76	26234	LDA	#30105	SIDE AND TB STRIP
14356	0	43	16103	BRM	DECR12	
14357	0	43	00434	BRM	END	

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* FUNCTION 07 OBJECT TEST 25
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14360	0	43	00430	BRM	OBJECT	
14361	0	76	26235	LDA	#000070007	DATA FOR HEAD
14362	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
14363	0	76	26106	LDA	#4000	STARTING ADRS,
14364	0	43	16140	BRM	YMSG7	YDRIVER CONTROL
14365	4	20	24672	NBP	MSG032,4	WRITE LOGIC MESSAGE
14366	0	20	24406	NBP	MSG036	
14367	0	43	00434	BRM	END	8 HEADS

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* FUNCTION 07 OBJECT TEST 26
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14370	0	43	00430	BRM	OBJECT	
14371	0	76	26243	LDA	#4100	STARTING ADRS,
14372	0	43	16140	BRM	YMSG7	YDRIVER CONTROL
14373	4	20	24674	NBP	MSG033,4	WRITE LOGIC MESSAGE
14374	0	20	24615	NBP	MSG037	
14375	0	43	00434	BRM	END	8 HEADS

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*
* FUNCTION 07 OBJECT TEST 27
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14376	0	43	00430	BRM	OBJECT	
14377	0	76	26244	LDA	#4200	STARTING ADRS,
14400	0	43	16140	BRM	YMSG7	YDRIVER CONTROL
14401	4	20	24676	NBP	MSG034,4	WRITE LOGIC MESSAGE
14402	0	20	24624	NBP	MSG038	
14403	0	43	00434	BRM	END	8 HEADS

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*
* FUNCTION 07 OBJECT TEST 28
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14404	0	43	00430	BRM	OBJECT	
14405	0	76	26245	LDA	#4300	STARTING ADRS,
14406	0	43	16140	BRM	YMSG7	YDRIVER CONTROL
14407	4	20	24700	NBP	MSG035,4	WRITE LOGIC MESSAGE
14410	0	20	24433	NBP	MSG039	
14411	0	43	00434	BRM	END	8 HEADS

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*
* FUNCTION 07 SUBJECT TEST 29
*

14412	0	43	00430	BRM	0BJECT	
14413	0	75	26236	LDB	#MSG010	HEAD LOGIC MESSAGE
14414	0	76	26106	LDA	#4000	STARTING SECTOR
14415	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
14416	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14417	0	76	26237	LDA	#20004	SIDE AND TB STRIP
14420	0	43	16273	BRM	INCR12	
14421	0	43	00434	BRM	END	

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*
* FUNCTION 07 SUBJECT TEST 30
*

14422	0	43	00430	BRM	0BJECT	
14423	0	75	26236	LDB	#MSG010	HEAD LOGIC MESSAGE
14424	0	76	26242	LDA	#4100	STARTING SECTOR
14425	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
14426	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14427	0	76	26240	LDA	#10010	SIDE AND TB STRIP 8
14430	0	43	16273	BRM	INCR12	
14431	0	43	00434	BRM	END	

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*
* FUNCTION 07 SUBJECT TEST 31
*

14432	0	43	00430	BRM	0BJECT	
14433	0	75	26236	LDB	#MSG010	HEAD LOGIC MESSAGE
14434	0	76	26244	LDA	#4200	STARTING SECTOR
14435	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
14436	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14437	0	76	26241	LDA	#40102	SIDE AND TB STRIP
14440	0	43	16273	BRM	INCR12	
14441	0	43	00434	BRM	END	

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*
* FUNCTION 07 SUBJECT TEST 32
*

14442	0	43	00430	BRM	0BJECT	
14443	0	75	26236	LDB	#MSG010	HEAD LOGIC MESSAGE
14444	0	76	26245	LDA	#4300	STARTING SECTOR
14445	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
14446	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14447	0	76	26242	LDA	#30106	SIDE AND TB STRIP
14450	0	43	16273	BRM	INCR12	
14451	0	43	00434	BRM	END	
14452	0	43	00456	BRM	FDBNE	
14453	0	01	14504	BRU	FUNCB	
14454	0	00	00000	BRITYP	ZRB	
14455	0	36	25563		STB	HOLD3
14456	0	35	25562		STA	HOLD2
14457	0	75	26114		LDB	#=1
14460	0	76	00401		LDA	STATUS
14461	0	72	26275		SKA	#4
14462	0	75	26260		LDB	#0

TEST FOR 940
YES

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14463	0 36	25365	STB	JMPTYP
14464	0 76	25362	LDA	HOLD2
14465	0 75	25363	LDB	HOLD3
14466	0 51	14454	BRR	BRITYP

14467	0 00	00000	ZR0	
14470	0 43	00430	BRM	OBJECT
14471	0 76	00403	LDA	RADSIZ
14472	0 72	26246	SKA	#RADWH0
14473	0 01	14475	BRU	#42
14474	0 43	00456	BRM	FDBNE
14475	0 14	26246	ETR	#RAD4H0
14476	0 46	20005	ABC	
14477	0 76	26246	LDA	#RAD4H0
14500	0 67	10054	N00	54
14501	0 66	00002	RSH	2
14502	0 46	10012	BAC	
14503	0 51	14467	BRR	RAD0K

BREAKPOINT TEST
ANY RADS ON THIS CHANNEL
NO

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14504	0 43	00424	BRM	FUNCTN
14505	0 20	21272	N0P	FPT8
14506	0 43	00440	BRM	RETURN
14507	0 20	07451	N0P	XTR41
14510	0 43	00430	BRM	OBJECT
14511	0 43	14447	BRM	RAD0K
14512	0 73	26166	SKG	#2000000
14513	0 01	16207	BRU	FUNCT0
14514	0 76	00401	LDA	STATUS
14515	0 72	26106	SKA	#4000
14516	0 01	16207	BRU	FUNCT0

CONTROL LINK
PARAMETER FOR THIS FUNCTION

TEST FOR THREE RADS
LAST RAD
SOFTWARE RAD READ ONLY

FUNCTION 08 OBJECT TEST 01

14517	0 43 00430	BRM	OBJECT	
14520	0 76 26212	LDA	#070007000	DATA FOR HEAD
14521	0 43 15701	BRM	SPREAD	FILL OUTPUT BUFFER
14522	0 76 26107	LDA	#10000	STARTING ADRS.
14523	0 43 16155	BRM	YMSG8	YDRIVER CONTROL
14524	4 20 24442	NBP	MSG020,4	WRITE LOGIC MESSAGE
14525	0 20 24606	NBP	MSG036	
14526	0 43 00434	BRM	END	8 HEADS

FUNCTION 08 OBJECT TEST 02

14527	0 43 00430	BRM	OBJECT	
14530	0 76 26225	LDA	#10100	STARTING ADRS.
14531	0 43 16155	BRM	YMSG8	YDRIVER CONTROL
14532	4 20 24444	NBP	MSG021,4	WRITE LOGIC MESSAGE
14533	0 20 24415	NBP	MSG037	
14534	0 43 00434	BRM	END	8 HEADS

FUNCTION 08 OBJECT TEST 03

14535	0 43 00430	BRM	OBJECT	
14536	0 76 26247	LDA	#10200	STARTING ADRS.
14537	0 43 16155	BRM	YMSG8	YDRIVER CONTROL
14540	4 20 24446	NBP	MSG022,4	WRITE LOGIC MESSAGE
14541	0 20 24638	NBP	MSG038	
14542	0 43 00434	BRM	END	8 HEADS

FUNCTION 08 OBJECT TEST 04

14543	0 43 00430	BRM	OBJECT	
14544	0 76 26250	LDA	#10300	STARTING ADRS.
14545	0 43 16155	BRM	YMSG8	YDRIVER CONTROL
14546	4 20 24450	NBP	MSG023,4	WRITE LOGIC MESSAGE
14547	0 20 24633	NBP	MSG039	
14550	0 43 00434	BRM	END	8 HEADS

FUNCTION 08 OBJECT TEST 05

14551	0 43 00430	BRM	OBJECT	
14552	0 76 26214	LDB	#MSG01A	READ LOGIC MESSAGE
14553	0 76 26107	LDA	#10000	STARTING SECTOR
14554	0 71 26212	LDX	#070007000	DATA FOR HEAD SETS
14555	0 43 1613A	BRM	SETWARD	INITIALIZE READ CONTROL
14556	0 76 26251	LDA	#30107	
14557	0 43 16103	BRM	DECR12	
14560	0 43 00434	BRM	END	

*
* FUNCTION 08 OBJECT TEST 06
*

14561	0	43	00430	BRM	OBJECT	
14562	0	75	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
14563	0	76	26225	LDA	#10100	STARTING SECTOR
14564	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
14565	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14566	0	76	26252	LDA	#20201	SIDE AND TB STRIP
14567	0	43	16103	BRM	DECR12	
14570	0	43	00434	BRM	END	

*
* FUNCTION 08 OBJECT TEST 07
*

14571	0	43	00430	BRM	OBJECT	
14572	0	75	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
14573	0	76	26247	LDA	#10200	STARTING SECTOR
14574	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
14575	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14576	0	76	26253	LDA	#10205	SIDE AND TB STRIP 9
14577	0	43	16103	BRM	DECR12	
14600	0	43	00434	BRM	END	

*
* FUNCTION 08 OBJECT TEST 08
*

14601	0	43	00430	BRM	OBJECT	
14602	0	75	26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
14603	0	76	26250	LDA	#10300	STARTING SECTOR
14604	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
14605	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14606	0	76	26254	LDA	#40201	SIDE AND TB STRIP
14607	0	43	16103	BRM	DECR12	
14610	0	43	00434	BRM	END	

*
* FUNCTION 08 OBJECT TEST 09
*

14611	0	43	00430	BRM	OBJECT	
14612	0	76	26221	LDA	#007000700	DATA FOR HEAD
14613	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
14614	0	76	26107	LDA	#10000	STARTING ADRS.
14615	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
14616	4	20	24452	NOP	MSG024,4	WRITE LOGIC MESSAGE
14617	0	20	24406	NOP	MSG036	
14620	0	43	00434	BRM	END	8 HEADS

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*
* FUNCTION 08 OBJECT TEST 10
*

14621 0 43 00430 BRM OBJECT
14622 0 76 26225 LDA #10100 STARTING ADRS.
14623 0 43 16155 BRM YMSG8 YDRIVER CONTROL
14624 4 20 24654 NOP MSG025,4 WRITE LOGIC MESSAGE
14625 0 20 24615 NOP MSG037
14626 0 43 00434 BRM END 8 HEADS

*
* FUNCTION 08 OBJECT TEST 11
*

14627 0 43 00430 BRM OBJECT
14630 0 76 26247 LDA #10200 STARTING ADRS.
14631 0 43 16155 BRM YMSG8 YDRIVER CONTROL
14632 4 20 24656 NOP MSG026,4 WRITE LOGIC MESSAGE
14633 0 20 24624 NOP MSG038
14634 0 43 00434 BRM END 8 HEADS

*
* FUNCTION 08 OBJECT TEST 12
*

14635 0 43 00430 BRM OBJECT
14636 0 76 26250 LDA #10300 STARTING ADRS.
14637 0 43 16155 BRM YMSG8 YDRIVER CONTROL
14640 4 20 24660 NOP MSG027,4 WRITE LOGIC MESSAGE
14641 0 20 24633 NOP MSG039
14642 0 43 00434 BRM END 8 HEADS

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*
* FUNCTION 08 OBJECT TEST 13
*

14643 0 43 00430 BRM OBJECT
14644 0 75 26222 LDB #MSG01B HEAD LOGIC MESSAGE
14645 0 76 26107 LDA #10000 STARTING SECTOR
14646 0 71 26221 LDX #007000700 DATA FOR HEAD SETS
14647 0 43 16136 BRM SETWRD INITIALIZE READ CONTROL
14650 0 76 26255 LDA #30110
14651 0 43 16173 BRM INCR12
14652 0 43 00434 BRM END

*
* FUNCTION 08 OBJECT TEST 14
*

14653 0 43 00430 BRM OBJECT
14654 0 75 26222 LDB #MSG01B HEAD LOGIC MESSAGE
14655 0 76 26225 LDA #10100 STARTING SECTOR
14656 0 71 26221 LDX #007000700 DATA FOR HEAD SETS
14657 0 43 16136 BRM SETWRD INITIALIZE READ CONTROL
14660 0 76 26256 LDA #20202 SIDE AND TB STRIP
14661 0 43 16173 BRM INCR12
14662 0 43 00434 BRM END

*
* FUNCTION 08 OBJECT TEST 15
*

14663	0	43	00430	BRM	OBJECT	
14664	0	75	26222	LDB	#MSG01B	HEAD LOGIC MESSAGE
14665	0	76	26247	LDA	#10200	STARTING SECTOR
14666	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
14667	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14670	0	76	26257	LDA	#10206	SIDE AND TB STRIP
14671	0	43	16273	BRM	INCR12	
14672	0	43	00434	BRM	END	

*
* FUNCTION 08 OBJECT TEST 16
*

14673	0	43	00430	BRM	OBJECT	
14674	0	75	26222	LDB	#MSG01B	HEAD LOGIC MESSAGE
14675	0	76	26250	LDA	#10300	STARTING SECTOR
14676	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
14677	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
14700	0	76	26260	LDA	#40300	IDE AND TB STRIP
14701	0	43	16273	BRM	INCR12	
14702	0	43	00434	BRM	END	

*
* FUNCTION 08 OBJECT TEST 17
*

14703	0	43	00430	BRM	OBJECT	
14704	0	76	26227	LDA	#000700070	DATA FOR HEAD
14705	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
14706	0	76	26107	LDA	#10000	STARTING ADRS.
14707	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
14710	4	20	24462	NOP	#MSG028,4	WRITE LOGIC MESSAGE
14711	0	20	24406	NOP	MSG036	
14712	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 08 OBJECT TEST 18
*

14713	0	43	00430	BRM	OBJECT	
14714	0	76	26225	LDA	#10100	STARTING ADRS.
14715	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
14716	4	20	24464	NOP	#MSG029,4	WRITE LOGIC MESSAGE
14717	0	20	24415	NOP	MSG037	
14720	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 08 OBJECT TEST 19
*

14721	0	43	00430	BRM	OBJECT	
14722	0	76	26247	LDA	#10200	STARTING ADRS.
14723	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
14724	4	20	24466	NOP	#MSG030,4	WRITE LOGIC MESSAGE
14725	0	20	24424	NOP	MSG038	
14726	0	43	00434	BRM	END	8 HEADS

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*
* FUNCTION 08 OBJECT TEST 20
*

14727 0 43 00430 BRM OBJECT
14730 0 76 26250 LDA #10300 STARTING ADRS,
14731 0 43 14155 BRM YMSG8 YDRIVER CONTROL
14732 4 20 24470 NBP #MSG031,4 WRITE LOGIC MESSAGE
14733 0 20 24433 NBP YMSG039
14734 0 43 00434 BRM END 8 HEADS

*
* FUNCTION 08 OBJECT TEST 21
*

14735 0 43 00430 BRM OBJECT
14736 0 75 26230 LDB #MSG01C HEAD LOGIC MESSAGE
14737 0 76 26107 LDA #10000 STARTING SECTOR
14740 0 71 26227 LDX #000700070 DATA FOR HEAD SETS
14741 0 43 16236 BRM SETWRD INITIALIZE READ CONTROL
14742 0 76 26261 LDA #10111 SIDE AND TB STRIP
14743 0 43 16103 BRM DECR12
14744 0 43 00434 BRM END

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*
* FUNCTION 08 OBJECT TEST 22
*

14745 0 43 00430 BRM OBJECT
14746 0 75 26230 LDB #MSG01C HEAD LOGIC MESSAGE
14747 0 76 26225 LDA #10100 STARTING SECTOR
14750 0 71 26227 LDX #000700070 DATA FOR HEAD SETS
14751 0 43 16236 BRM SETWRD INITIALIZE READ CONTROL
14752 0 76 26262 LDA #10203 SIDE AND TB STRIP
14753 0 43 16103 BRM DECR12
14754 0 43 00434 BRM END

*
* FUNCTION 08 OBJECT TEST 23
*

14755 0 43 00430 BRM OBJECT
14756 0 75 26230 LDB #MSG01C HEAD LOGIC MESSAGE
14757 0 76 26247 LDA #10200 STARTING SECTOR
14760 0 71 26227 LDX #000700070 DATA FOR HEAD SETS
14761 0 43 16236 BRM SETWRD INITIALIZE READ CONTROL
14762 0 76 26263 LDA #40207 SIDE AND TB STRIP
14763 0 43 16103 BRM DECR12
14764 0 43 00434 BRM END

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*
* FUNCTION 08 OBJECT TEST 24
*

14765	0	43	00430	BRM	OBJECT	
14766	0	75	26230	LDB	MSG01C	READ LOGIC MESSAGE
14767	0	76	26250	LDA	#10300	STARTING SECTOR
14770	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
14771	0	43	16136	BRM	SETWRD	INITIALIZE READ CONTROL
14772	0	76	26264	LDA	#30301	SIDE AND TB STRIP
14773	0	43	16103	BRM	DECR12	
14774	0	43	00434	BRM	END	

*
* FUNCTION 08 OBJECT TEST 25
*

14775	0	43	00430	BRM	OBJECT	
14776	0	76	26235	LDA	#000070007	DATA FOR HEAD
14777	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
15000	0	76	26107	LDA	#10000	STARTING ADRS.
15001	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
15002	4	20	24672	NOP	MSG032,4	WRITE LOGIC MESSAGE
15003	0	20	24406	NOP	MSG034	
15004	0	43	00434	BRM	END	8 HEADS

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*
* FUNCTION 08 OBJECT TEST 26
*

15005	0	43	00430	BRM	OBJECT	
15006	0	76	26225	LDA	#10100	STARTING ADRS.
15007	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
15010	4	20	24474	NOP	MSG033,4	WRITE LOGIC MESSAGE
15011	0	20	24415	NOP	MSG037	
15012	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 08 OBJECT TEST 27
*

15013	0	43	00430	BRM	OBJECT	
15014	0	76	26247	LDA	#10200	STARTING ADRS.
15015	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
15016	4	20	24676	NOP	MSG034,4	WRITE LOGIC MESSAGE
15017	0	20	24624	NOP	MSG038	
15020	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 08 OBJECT TEST 28
*

15021	0	43	00430	BRM	OBJECT	
15022	0	76	26250	LDA	#10300	STARTING ADRS.
15023	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
15024	4	20	24700	NOP	MSG035,4	WRITE LOGIC MESSAGE
15025	0	20	24433	NOP	MSG039	
15026	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 08 OBJECT TEST 29
*

15027	0	43	00430	BRM	OBJECT	
15030	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15031	0	76	26107	LDA	#10000	STARTING SECTOR
15032	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15033	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
15034	0	76	26265	LDA	#20200	SIDE AND TB STRIP
15035	0	43	16273	BRM	INCR12	
15036	0	43	00434	BRM	END	

*
*
* FUNCTION 08 OBJECT TEST 30
*

15037	0	43	00430	BRM	OBJECT	
15040	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15041	0	76	26225	LDA	#10100	STARTING SECTOR
15042	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15043	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
15044	0	76	26266	LDA	#10204	SIDE AND TB STRIP 8
15045	0	43	16273	BRM	INCR12	
15046	0	43	00434	BRM	END	

*
*
* FUNCTION 08 OBJECT TEST 31
*

15047	0	43	00430	BRM	OBJECT	
15050	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15051	0	76	26247	LDA	#10200	STARTING SECTOR
15052	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15053	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
15054	0	76	26267	LDA	#40210	SIDE AND TB STRIP
15055	0	43	16273	BRM	INCR12	
15056	0	43	00434	BRM	END	

*
*
* FUNCTION 08 OBJECT TEST 32
*

15057	0	43	00430	BRM	OBJECT	
15060	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15061	0	76	26250	LDA	#10300	STARTING SECTOR
15062	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15063	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
15064	0	76	26270	LDA	#30302	SIDE AND TB STRIP
15065	0	43	16273	BRM	INCR12	
15066	0	43	00434	BRM	END	
15067	0	43	00456	BRM	FDONE	


```

*
* PROCESS SPURIOUS POP, INTERRUPT, OR TRAP
*
15070 0 00 00000 SPUR! PZE 0
15071 0 14 24112 STR 237777
15072 0 73 26210 SKG 277 WAS SPIT LEGAL
15073 0 01 15104 BRU IEXT NO
15074 0 73 26271 SKG 177 WAS IT A POP
15075 0 01 15112 BRU POP YES
15076 0 73 26272 SKG 237 WAS IT LEGAL
15077 0 01 15104 BRU IEXT NO
15100 0 73 26273 SKG 273 WAS IT 130 = T44
15101 0 01 15120 BRU 130T44 YES
15102 0 73 26274 SKG 377 WAS IT 156 = 174
15103 0 01 15117 BRU 156174 YES

```

```

*
* PROCESS ILLEGAL OR EXTERNAL INTERRUPT
*
15104 0 76 26114 IEXT LDA 2=1
15105 0 35 15157 STA ITABLE+1 RECEIVED
15106 0 76 00450 LDA DIVERT MARK
15107 0 43 00454 BRM REPORT
15110 0 20 15162 NOP ILLEXT
15111 0 01 15130 BRU COMMON

```

```

*
* PROCESS SPURIOUS POPs
*
15112 0 35 15157 POP STA ITABLE+1 RECEIVED
15113 0 76 00000 LDA 0 MARK
15114 0 43 00454 BRM REPORT
15115 0 20 15175 NOP POPED
15116 0 01 15130 BRU COMMON

```

```

*
* PROCESS 156 THROUGH 174
*
15117 0 55 26077 156174 ADD 20

```

```

*
* PROCESS 130 THROUGH T44
*
15120 0 54 26275 130T44 SUB 161
15121 0 66 00001 RSH 1
15122 0 35 15157 STA ITABLE+1 RECEIVED
15123 0 77 00450 EAX+ DIVERT
15124 2 77 37777 EAX -1/2
15125 2 76 00000 LDA 0/2
15126 0 43 00454 BRM REPORT
15127 0 20 15201 NOP SPRINT

```

```

*
* COMMON INTERRUPT ROUTINE
*
COMMON STA ITABLE*2 MARK
15130 0 35 15160 LDA* ITABLE*2
15131 0 76*15160 STA ITABLE*3 INSTRUCTION
15132 0 35 15161 *IN SPURI
15133 0 61 15*70 EAX* SPURI
15134 0 77*15*70 LDA* 0,2
15135 2 76*00000 STA ITABLE EXPECTED
15136 0 35 15156 BRM REPORT REPORT ERROR
15137 0 *3 0*454 *OP IM8,4 MESSAGE
15140 4 20 15*10 FBUR ITABLE DATA
15141 0 04 15156 BRM CLEAR CLEAR PRESENT INTERRUPT
15142 0 *3 15146 BRM ERROR GO TO CONTROL
15143 0 *3 0*460 *OP ENDIT (NO MESSAGE)
15144 0 02 25*72 BRR SPURI RETURN
15145 0 51 15*70

```

```

*
* CLEAR PRESENT INTERRUPT
*
15146 0 00 00000 CLEAR PZE 0
15147 0 76 00401 LDA STATUS
15150 0 72 26*75 SKA *4 SKIP IF NOT 940
15151 0 11 15153 BRI **2 940
15152 0 01*15153 BRU **1 925/930
15153 0 20 15153 *OP *
15154 0 02 20*02 EIR ENABLE INTERRUPTS
15155 0 51 15146 BRR CLEAR RETURN
*
* MESSAGES
*
15156 0 00 00000 ITABLE PZE 0 INTERRUPTS EXPECTED
15157 0 00 00000 PZE 0 INTERRUPT RECEIVED
15160 0 00 00000 PZE 0 LOCATION AT TIME OF INTERRUPT/TRAP
15161 0 00 00000 PZE 0 INSTRUCTION BEING EXECUTED
15162 5252445 ILLEXT BCD ' UNDEFINED ILLEGAL OR EXTERNAL INTERRUPT!!
15163 24252431
15164 45252412
15165 31434325
15166 27214312
15167 46511225
15170 67632551
15171 45214312
15172 31456325
15173 51516447
15174 63371212
15175 52624764 POPED BCD ' SPURIOUS POP!!
15176 51314464
15177 62124746
15200 47371212
15201 52624764 SPRINT BCD ' SPURIOUS INTERRUPT OR TRAP!!
15202 51314464
15203 62123145

```

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15204 63255151
15205 64476312
15206 46511263
15207 51214737
15210 52256747
15211 25236325
15212 24125125
15213 23253165
15214 25241243
15215 46232163
15216 31464512
15217 23464563
15220 25456362
15221 52371212

MSG BCD EXPECTED RECEIVED LOCATION CONTENTS :

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15222 0 43 00424
15223 0 20 21300
15224 0 43 00440
15225 0 20 07651
15226 0 43 00430
15227 0 43 14467
15230 0 73 26211
15231 0 01 16207
15232 0 76 00401
15233 0 72 26106
15234 0 01 16207

FUNC9 BRM
NOP
BRM
NOP
BRM
BRM
SKG
BRU
LDA
SKA
BRU

FUNCTN
FPT9
RETURN
XTRAI
OBJECT
RADBK
#3000000
FUNC10
STATUS
#4000
FUNC10

CONTROL LINK
PARAMETER FOR THIS FUNCTION

TEST FOR FOUR RADS

SOFTWARE RAD READ ONLY

FUNCTION 09 SUBJECT TEST 01

15235	0 43 00430	BRM	OBJECT	
15236	0 76 26212	LDA	#070007000	DATA FOR HEAD
15237	0 43 16172	BRM	SPREAD	FILL OUTPUT BUFFER
15240	0 76 26276	LDA	#14000	STARTING ADRS.
15241	0 43 16172	BRM	YMSG9	YDRIVER CONTROL
15242	4 20 24442	NBP	MSG020,4	WRITE LOGIC MESSAGE
15243	0 20 24406	NBP	MSG036	
15244	0 43 00434	BRM	END	8 HEADS

FUNCTION 09 SUBJECT TEST 02

15245	0 43 00430	BRM	OBJECT	
15246	0 76 26277	LDA	#14100	STARTING ADRS.
15247	0 43 16172	BRM	YMSG9	YDRIVER CONTROL
15250	4 20 24444	NBP	MSG021,4	WRITE LOGIC MESSAGE
15251	0 20 24415	NBP	MSG037	
15252	0 43 00434	BRM	END	8 HEADS

FUNCTION 09 SUBJECT TEST 03

15253	0 43 00430	BRM	OBJECT	
15254	0 76 26200	LDA	#14200	STARTING ADRS.
15255	0 43 16172	BRM	YMSG9	YDRIVER CONTROL
15256	4 20 24446	NBP	MSG022,4	WRITE LOGIC MESSAGE
15257	0 20 24424	NBP	MSG038	
15260	0 43 00434	BRM	END	8 HEADS

FUNCTION 09 SUBJECT TEST 04

15261	0 43 00430	BRM	OBJECT	
15262	0 76 26201	LDA	#14300	STARTING ADRS.
15263	0 43 16172	BRM	YMSG9	YDRIVER CONTROL
15264	4 20 24450	NBP	MSG023,4	WRITE LOGIC MESSAGE
15265	0 20 24433	NBP	MSG039	
15266	0 43 00434	BRM	END	8 HEADS

FUNCTION 09 SUBJECT TEST 05

15267	0 43 00430	BRM	OBJECT	
15270	0 76 26214	LDB	#MSG01A	READ LOGIC MESSAGE
15271	0 76 26276	LDA	#14000	STARTING SECTOR
15272	0 71 26212	LDX	#070007000	DATA FOR HEAD SETS
15273	0 43 16236	BRM	SETWRD	INITIALIZE READ CONTROL
15274	0 76 26251	LDA	#30107	
15275	0 43 16103	BRM	DECR12	
15276	0 43 00434	BRM	END	

*
*
* FUNCTION 09 OBJECT TEST 06
*

15277	0	43	00430	BRM	OBJECT	
15300	0	75	26214	LDB	#MSG01A	READ LOGIC MESSAGE
15301	0	76	26277	LDA	#14100	STARTING SECTOR
15302	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
15303	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
15304	0	76	26252	LDA	#20201	SIDE AND TB STRIP
15305	0	43	16103	BRM	DECR12	
15306	0	43	00434	BRM	END	

*
*
* FUNCTION 09 OBJECT TEST 07
*

15307	0	43	00430	BRM	OBJECT	
15310	0	75	26214	LDB	#MSG01A	READ LOGIC MESSAGE
15311	0	76	26300	LDA	#14200	STARTING SECTOR
15312	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
15313	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
15314	0	76	26253	LDA	#10205	SIDE AND TB STRIP 9
15315	0	43	16103	BRM	DECR12	
15316	0	43	00434	BRM	END	

*
*
* FUNCTION 09 OBJECT TEST 08
*

15317	0	43	00430	BRM	OBJECT	
15320	0	75	26214	LDB	#MSG01A	READ LOGIC MESSAGE
15321	0	76	26301	LDA	#14300	STARTING SECTOR
15322	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
15323	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
15324	0	76	26254	LDA	#40201	SIDE AND TB STRIP
15325	0	43	16103	BRM	DECR12	
15326	0	43	00434	BRM	END	

*
*
* FUNCTION 09 OBJECT TEST 09
*

15327	0	43	00430	BRM	OBJECT	
15330	0	76	26221	LDA	#007000700	DATA FOR HEAD
15331	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
15332	0	76	26276	LDA	#14000	STARTING ADR6.
15333	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15334	4	20	24652	NOP	MSG024,4	WRITE LOGIC MESSAGE
15335	0	20	24606	NOP	MSG036	
15336	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 10
*

15337	0	43	00430	BRM	OBJECT	
15340	0	76	26277	LDA	#14100	STARTING ADRS,
15341	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15342	4	20	24454	NBP	MSG025,4	WRITE LOGIC MESSAGE
15343	0	20	24415	NBP	MSG037	
15344	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 11
*

15345	0	43	00430	BRM	OBJECT	
15346	0	76	26300	LDA	#14200	STARTING ADRS,
15347	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15350	4	20	24456	NBP	MSG026,4	WRITE LOGIC MESSAGE
15351	0	20	24424	NBP	MSG038	
15352	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 12
*

15353	0	43	00430	BRM	OBJECT	
15354	0	76	26301	LDA	#14300	STARTING ADRS,
15355	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15356	4	20	24460	NBP	MSG027,4	WRITE LOGIC MESSAGE
15357	0	20	24433	NBP	MSG039	
15360	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 13
*

15361	0	43	00430	BRM	OBJECT	
15362	0	76	26222	LDB	MSG01B	HEAD LOGIC MESSAGE
15363	0	76	26276	LDA	#14000	STARTING SECTOR
15364	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
15365	0	43	16136	BRM	SETARD	INITIALIZE READ CONTROL
15366	0	76	26255	LDA	#30110	
15367	0	43	16073	BRM	INCR12	
15370	0	43	00434	BRM	END	

*
* FUNCTION 09 OBJECT TEST 14
*

15371	0	43	00430	BRM	OBJECT	
15372	0	76	26222	LDB	MSG01B	HEAD LOGIC MESSAGE
15373	0	76	26277	LDA	#14100	STARTING SECTOR
15374	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
15375	0	43	16136	BRM	SETARD	INITIALIZE READ CONTROL
15376	0	76	26256	LDA	#20202	SIDE AND TB STRIP
15377	0	43	16073	BRM	INCR12	
15400	0	43	00434	BRM	END	

*
* FUNCTION 09 OBJECT TEST 15
*

15401	0	43	00430	BRM	OBJECT	
15402	0	75	26222	LDB	#MSG018	HEAD LOGIC MESSAGE
15403	0	76	26300	LDA	#14200	STARTING SECTOR
15404	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
15405	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
15406	0	76	26257	LDA	#10206	SIDE AND TB STRIP
15407	0	43	16073	BRM	INCR12	
15410	0	43	00434	BRM	END	

*
* FUNCTION 09 OBJECT TEST 16
*

15411	0	43	00430	BRM	OBJECT	
15412	0	75	26222	LDB	#MSG018	READ LOGIC MESSAGE
15413	0	76	26301	LDA	#14300	STARTING SECTOR
15414	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
15415	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
15416	0	76	26260	LDA	#40300	IDE AND TB STRIP
15417	0	43	16073	BRM	INCR12	
15420	0	43	00434	BRM	END	

*
* FUNCTION 09 OBJECT TEST 17
*

15421	0	43	00430	BRM	OBJECT	
15422	0	76	26227	LDA	#000700070	DATA FOR HEAD
15423	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
15424	0	76	26276	LDA	#14000	STARTING ADRS.
15425	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15426	4	20	24662	NOP	MSG028,4	WRITE LOGIC MESSAGE
15427	0	20	24606	NOP	MSG036	
15430	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 18
*

15431	0	43	00430	BRM	OBJECT	
15432	0	76	26277	LDA	#14100	STARTING ADRS.
15433	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15434	4	20	24664	NOP	MSG029,4	WRITE LOGIC MESSAGE
15435	0	20	24615	NOP	MSG037	
15436	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 19
*

15437	0	43	00430	BRM	OBJECT	
15440	0	76	26300	LDA	#14200	STARTING ADRS.
15441	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15442	4	20	24666	NOP	MSG030,4	WRITE LOGIC MESSAGE
15443	0	20	24624	NOP	MSG038	
15444	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 20
*

15445	0	43	00430	BRM	OBJECT	
15446	0	76	26201	LDA	#14300	STARTING ADRS.
15447	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15450	4	20	24470	ABP	MSG031,4	WRITE LOGIC MESSAGE
15451	0	20	24433	ABP	MSG039	
15452	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 21
*

15453	0	43	00430	BRM	OBJECT	
15454	0	76	26230	LDB	MSG01C	HEAD LOGIC MESSAGE
15455	0	76	26276	LDA	#14000	STARTING SECTOR
15456	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
15457	0	43	16136	BRM	SETWRD	INITIALIZE READ CONTROL
15460	0	76	26261	LDA	#10111	SIDE AND TB STRIP
15461	0	43	16103	BRM	DECR12	
15462	0	43	00434	BRM	END	

*
* FUNCTION 09 OBJECT TEST 22
*

15463	0	43	00430	BRM	OBJECT	
15464	0	76	26230	LDB	MSG01C	HEAD LOGIC MESSAGE
15465	0	76	26277	LDA	#14100	STARTING SECTOR
15466	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
15467	0	43	16136	BRM	SETWRD	INITIALIZE READ CONTROL
15470	0	76	26262	LDA	#10203	SIDE AND TB STRIP
15471	0	43	16103	BRM	DECR12	
15472	0	43	00434	BRM	END	

*
* FUNCTION 09 OBJECT TEST 23
*

15473	0	43	00430	BRM	OBJECT	
15474	0	76	26230	LDB	MSG01C	HEAD LOGIC MESSAGE
15475	0	76	26200	LDA	#14200	STARTING SECTOR
15476	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
15477	0	43	16136	BRM	SETWRD	INITIALIZE READ CONTROL
15500	0	76	26263	LDA	#40207	SIDE AND TB STRIP
15501	0	43	16103	BRM	DECR12	
15502	0	43	00434	BRM	END	

*
*
* FUNCTION 09 OBJECT TEST 24
*

15503	0	43	00430	BRM	OBJECT	
15504	0	76	26230	LDB	#MSG01C	HEAD LOGIC MESSAGE
15505	0	76	26301	LDA	#14300	STARTING SECTOR
15506	0	71	26227	LDX	#000700070	DATA FOR HEAD SEYS
15507	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
15510	0	76	26264	LDA	#30301	SIDE AND TB STRIP
15511	0	43	16103	BRM	DECRI2	
15512	0	43	00434	BRM	END	

*
*
* FUNCTION 09 OBJECT TEST 25
*

15513	0	43	00430	BRM	OBJECT	
15514	0	76	26235	LDA	#000070007	DATA FOR HEAD
15515	0	43	15701	BRM	SPREAD	FILL OUTPUT BUFFER
15516	0	76	26276	LDA	#14000	STARTING ADRS.
15517	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15520	4	20	24472	NOP	MSG032,4	WRITE LOGIC MESSAGE
15521	0	20	24406	NOP	MSG036	
15522	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 09 OBJECT TEST 26
*

15523	0	43	00430	BRM	OBJECT	
15524	0	76	26277	LDA	#14100	STARTING ADRS.
15525	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15526	4	20	24474	NOP	MSG033,4	WRITE LOGIC MESSAGE
15527	0	20	24615	NOP	MSG037	
15530	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 09 OBJECT TEST 27
*

15531	0	43	00430	BRM	OBJECT	
15532	0	76	26300	LDA	#14200	STARTING ADRS.
15533	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15534	4	20	24476	NOP	MSG034,4	WRITE LOGIC MESSAGE
15535	0	20	24624	NOP	MSG038	
15536	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 09 OBJECT TEST 28
*

15537	0	43	00430	BRM	OBJECT	
15540	0	76	26301	LDA	#14300	STARTING ADRS.
15541	0	43	16172	BRM	YMSG9	YDRIVER CONTROL
15542	4	20	24700	NOP	MSG035,4	WRITE LOGIC MESSAGE
15543	0	20	24433	NOP	MSG039	
15544	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 SUBJECT TEST 29
*

15545	0	43	00430	BRM	OBJECT	
15546	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15547	0	76	26276	LDA	#14000	STARTING SECTOR
15550	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15551	0	43	16236	BRM	SETARD	INITIALIZE READ CONTROL
15552	0	76	26265	LDA	#20200	SIDE AND TB STRIP
15553	0	43	16273	BRM	INCR12	
15554	0	43	00434	BRM	END	

*
* FUNCTION 09 SUBJECT TEST 30
*

15555	0	43	00430	BRM	OBJECT	
15556	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15557	0	76	26277	LDA	#14100	STARTING SECTOR
15560	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15561	0	43	16236	BRM	SETARD	INITIALIZE READ CONTROL
15562	0	76	26266	LDA	#10204	SIDE AND TB STRIP B
15563	0	43	16273	BRM	INCR12	
15564	0	43	00434	BRM	END	

*
* FUNCTION 09 SUBJECT TEST 31
*

15565	0	43	00430	BRM	OBJECT	
15566	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15567	0	76	26300	LDA	#14200	STARTING SECTOR
15570	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15571	0	43	16236	BRM	SETARD	INITIALIZE READ CONTROL
15572	0	76	26267	LDA	#40210	SIDE AND TB STRIP
15573	0	43	16273	BRM	INCR12	
15574	0	43	00434	BRM	END	

*
* FUNCTION 09 SUBJECT TEST 32
*

15575	0	43	00430	BRM	OBJECT	
15576	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15577	0	76	26301	LDA	#14300	STARTING SECTOR
15600	0	71	26235	LDX	#000070007	DATA FOR HEAD SETS
15601	0	43	16236	BRM	SETARD	INITIALIZE READ CONTROL
15602	0	76	26270	LDA	#30302	SIDE AND TB STRIP
15603	0	43	16273	BRM	INCR12	
15604	0	43	00434	BRM	END	
15605	0	43	00456	BRM	FDONE	
15606	0	01	16207	BRU	FUNC10	

*
* SECTOR WRITE AND MESSAGE GENERATOR
*

15607	0	00	00000	WRYT	ZR0	
15610	0	61	15407	MIN	ARYT	SET ADRS TO MESSAGE
15611	0	71	26302	LDX	***	SET CYCLE COUNTER FOR FOUR CYCLES

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15612	0 37 26036		STX	INCR1	CLEAR COUNTER
15613	2 46 00000	WRYT1	CLX		
15614	0 37 26030		STX	ERRIR	
15615	0 75 26210		LDB	#077	COUNT FOR 64 SECTORS
15616	0 76 25573	WRYT9	LDA	POTWRD	
15617	0 70 26210		SKM	#077	
15620	0 01 15451		BRU	WRYT5	
15621	0 43 20721		BRM	WAIT4	
15622	0 76 26123		LDA	#4000000+RLD	
15623	0 43 15666		BRM	WRYT3	WRITE LAST SECTOR
15624	0 76 25573		LDA	POTWRD	
15625	0 14 26303		ETR	#077777700	RESET SECTOR TO ZERO
15626	0 55 26103		ADD	#400	UPDATE Y ADRS
15627	0 35 25573		STA	POTWRD	
15630	0 76 26030		LDA	ERRIR	
15631	0 73 26060		SKG	#0	CELL ZERO ON NO ERRORS
15632	0 01 15434		BRU	#+2	
15633	0 01 15440		BRU	WRYT4	LAST BAND
15634	0 41 26036	WRYT10	MIN	INCR1	TEST FOR FOUR CYCLES
15635	0 53 26036		SKN	INCR1	
15636	0 51 15407		BRR	WRYT	
15637	0 01 15413		BRU	WRYT1	
15640	0 76*15407	WRYT4	LDA*	WRYT	
15641	0 35 15445		STA	WRYT6	
15642	0 75 26060		LDB	#0	
15643	0 36 26030		STB	ERRIR	
15644	0 43 00460		BRM	ERROR	
15645	0 20 15445	WRYT6	NOP	*	Y DRIVE MESSAGE
15646	0 20 15446	WRYT7	NOP	*	WRITER MESSAGE
15647	0 20 15447	WRYT8	NOP	*	SELECT LOGIC MESSAGE
15650	0 01 15434		BRU	WRYT10	
15651	0 76 26123	WRYT5	LDA	#4000000+RLD	64 WORDS FROM RLD
15652	0 71 26061	WRYT2	LDX	#40000	ONE SECTOR TIME DELAY
15653	0 40 10026		SKSS	10026	HAD READY TEST
15654	0 41 15453		BRX	#+1	
15655	0 41 15661		BRX	#+4	

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15656	0 43 00460		BRM	ERROR	
15657	0 20 25153		NOP	SKSERR	NOT READY ERROR
15660	0 51 15407		BRR	WRYT	
15661	0 43 15666		BRM	WRYT3	SEND DATA
15662	0 76 25573		LDA	POTWRD	
15663	0 55 26073		ADD	#1	UPDATE SECTOR
15664	0 35 25573		STA	POTWRD	
15665	0 01 15416		BRU	WRYT9	
15666	0 00 00000	WRYT3	ZRO		
15667	0 35 26034		STA	CHANWD	SAVE CHANNEL POT WORD
15670	0 40 11026		SKSS	11026	HAD ERROR TEST
15671	0 61 26030		MIN	ERRIR	
15672	0 02 10026		EGMM	010026	ALERT RAD
15673	0 13 25573		POTT	POTWRD	
15674	0 02*10000		EGMM*	10000	ALERT CHANNEL
15675	0 02 14200		EGMM	14200	10SD WITH NO INTRUPTS
15676	0 13 26034		POT	CHANWD	CHANNEL COUNT AND ADRS
15677	0 02 02266		EGMM	02266	HAD DRIVE CODE
15700	0 51 15466		BRR	WRYT3	
15701	0 00 00000	SPREAD	ZRO		
15702	0 71 26303		LDX	#=100	SET FOR 64 WORDS
15703	2 35 25720		STA	RLD#100,2	FILL BUFFER
15704	0 41 15703		BRX	#+1	
15705	0 51 15701		BRR	SPREAD	

```

*
* READ AND CHECK SECTOR
*
15706 0 00 26000 READ ZR0
15707 0 35 24710 STA HD
15710 0 36 24850 STB COUNT1
15711 0 46 26005 READ0 ABC
15712 0 35 26030 STA ERRR1
15713 0 35 25620 STA RL0 DISTURB READ BUFFER
15714 0 35 25660 STA RL0+40
15715 0 35 25715 STA RL0+75
15716 0 43 16015 BRM READ7 READ FIRST SECTOR
15717 0 75 26010 READ1 LDR #077
15720 0 76 25673 LDA PSTARD
15721 0 70 26010 SKM #077
15722 0 01 15761 BRU READ4
15723 0 14 26303 ETR #07777700 MASK SECTOR ADRS
15724 0 55 26103 ADD #0400
15725 0 35 25573 STA PSTARD UPDATE V. ADRS
15726 0 76 26304 LDA #27600166+RL0 TEST LAST SECTOR
15727 0 35 16007 STA READ6
15730 0 42 20321 BRM WAIT4 DELAY TO GET LAST BLOCK
15731 0 43 16005 BRM READ5
15732 0 76 26030 LDA ERRR1
15733 0 73 26060 SKG #0 TEST IF ANY ERROR OCCURED
15734 0 01 15747 BRU READ2
15735 0 76 16007 LDA READ6
15736 0 54 26177 SJB #66
15737 0 14 26112 ETR #37777 GET BUFFER ADRS
15740 0 46 26005 ABC
15741 0 76 26030 LDA ERRR1
15742 0 71 25573 LDX PSTARD
15743 0 43 20460 BRM ERRR1
15744 4 20 24702 NOP #5080A,4 PRINT SIDE TO STRIP HEAD LOCATION
    
```

```

15745 0 20 24710 READ3 NOP #5001A HEAD LOGIC AND REGISTERS
15746 2 20 25466 NOP #EDER,2 REGISTER HEADING
15747 0 01 25550 READ2 MIN COUNT1
15750 0 53 25550 SKN COUNT1 COUNT EIGHT CYCLES
15751 0 51 15706 BRR HEAD
15752 0 53 26037 SKN INCRSA
15753 0 01 15757 BRU #44
15754 0 60 24710 SKR HD
15755 0 40 20000 NOP 0
15756 0 01 15711 BRU READ0
15757 0 61 24710 MIN HD
15760 0 01 15711 BRU READ0
15761 0 55 26073 READ4 ADD #1
15762 0 35 25573 STA PSTARD
15763 0 76 26033 LDA FLAG1 TOGGLE FLAG
15764 0 75 26031 LDB RC0DE1 FIRST BUFFER
15765 0 73 26060 SKG #0 TEST TOGGLE FLAG
15766 0 75 26032 LDB RC0DE2 SECOND BUFFER
15767 0 36 26034 STB CHAN AD SET CHANNEL COUNT AND ADRS
15770 0 71 26034 LDX CHAN AD
15771 0 75 26304 LDB #27600166+RL0
15772 0 73 26060 SKG #0
15773 0 75 26305 LDB #027600066+RL0
15774 0 36 16007 STB READ6
15775 0 17 26073 BRU #1 TOGGLE FLAG
15776 0 35 26033 STA FLAG1 FLAG STARTS EQUAL TO ZERO
15777 2 35 20000 STA 0,2
16000 2 35 20040 STA 40,2
16001 2 35 20066 STA 66,2 DISTURB NEXT READ BUFFER
16002 0 43 16015 BRM READ7
16003 0 43 16005 BRM READ5
16004 0 01 15717 BRU READ1
16005 0 00 20000 READ5 ZR0
16006 0 71 26306 LDX #066 SET TO TEST 50 WORDS
16007 0 76 26307 READ6 LDA #RL0 +166,2 BUFFER BEING TESTED
16010 0 75 26114 LDB #1
    
```

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16011	0 70 26035	SKM	TSTWRD	
16012	0 61 26030	MIN	ERRIR	
16013	0 41 16007	BRX	READ6	
16014	0 51 16005	BRR	READ5	
16015	0 00 00000	READ7	ZR0	
16016	0 40 11026	SKSS	11026	
16017	0 61 26030	MIN	ERRIR	
16020	0 71 26061	LDX	#40000	ONE SECTOR TIME DELAY
16021	0 40 10026	SKSS	10026	HAD READY TEST
16022	0 41 16021	BRX	**1	
16023	0 41 16027	BRX	READ8	ASSURE CORRECT RESPONSE
16024	0 43 00460	BRM	ERRR	
16025	0 20 25153	N0P	SKSERR	HEADY ERROR MESSAGE
16026	0 51 15706	BRR	READ	RESTART OBJECT TEST
16027	0 02 10026	READ8	E0MM	ALERT RAD
16030	0 13 25573	P0TT	P0TWRD	
16031	0 02 10000	E0MM	10000	ALERT CHANNEL
16032	0 02 14900	E0MM	14200	1860 WITH NO INTRUPTS
16033	0 13 26034	READ9	P0T	64 WORDS TO RLO
16034	0 02 02226	E0MM	CHANWD	HAD DRIVE CODE
16035	0 51 16015	BRR	02226	
16036	0 00 00000	SETWRD	ZR0	
16037	0 35 25073	STA	P0TWRD	ADDRESS FOR RAD
16040	0 46 10012	BAC		
16041	0 16 26010	MR0	#42000000	SET LINK
16042	0 35 15745	STA	READ3	SET ERROR MESSAGE
16043	0 37 26035	STX	TSTWRD	HEAD DATA
16044	0 46 00001	CLA		
16045	0 35 26033	STA	FLAG1	
16046	0 76 26031	LDA	R00DE1	FIRST READ BUFFER
16047	0 35 26034	STA	CHANWD	SET CHANNEL COUNT AND ADRS
16050	0 76 26005	LDA	#27600066+RLO	TEST BUFFER ONE
16051	0 35 16007	STA	READ6	
16052	0 51 16036	BRR	SETWRD	

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*
* COUNTUP AND COUNTDN ROUTINES
*

16053	0 00 00000	INCR11	ZR0	
16054	0 43 16113	BRM	SSIDE	SET PARAMETERS
16055	0 76 26060	LDA	#0	
16056	0 35 26037	STA	INCRSW	FORCE INCREMENT MODE
16057	0 76 26073	LDA	#01	STARTING ADRS AT HEAD 01
16060	0 75 26311	LDB	#10	COUNT EIGHT CYCLES
16061	0 43 15706	BRM	READ	HEAD 64 SECTORS
16062	0 51 16053	BRR	INCR11	
16063	0 00 00000	DECR11	ZR0	
16064	0 43 16113	BRM	SSIDE	SET PARAMETERS
16065	0 76 26114	LDA	#1	
16066	0 35 26037	STA	INCRSW	FORCE DECREMENT MODE
16067	0 76 26312	LDA	#0110	STARTING ADRS AT HEAD 10
16070	0 75 26311	LDB	#10	
16071	0 43 15706	BRM	READ	HEAD DATA
16072	0 51 16063	BRR	DECR11	
16073	0 00 00000	INCR12	ZR0	
16074	0 43 16113	BRM	SSIDE	SET PARAMETERS
16075	0 76 26060	LDA	#0	
16076	0 35 26037	STA	INCRSW	FORCE INCREMENT MODE
16077	0 76 26313	LDA	#0101	STARTING ADRS AT HEAD 11
16100	0 75 26311	LDB	#10	COUNT EIGHT CYCLES
16101	0 43 15706	BRM	READ	HEAD 64 SECTORS
16102	0 51 16073	BRR	INCR12	
16103	0 00 00000	DECR12	ZR0	
16104	0 43 16113	BRM	SSIDE	SET PARAMETERS
16105	0 76 26114	LDA	#1	
16106	0 35 26037	STA	INCRSW	FORCE DECREMENT MODE
16107	0 76 26076	LDA	#10	STARTING ADRS AT HEAD 8
16110	0 75 26311	LDB	#10	
16111	0 43 15706	BRM	READ	HEAD DATA

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16112	0	51	16103	BRR	DECR12
16113	0	30	00000	SSIDE	ZR8
16114	0	46	20005		ABC
16115	0	67	00014	LSH	14
16116	0	35	24704	STA	SIDE
16117	0	46	1001P	BAC	
16120	0	66	01014	RSM	14
16121	0	35	24706	STA	TB
16122	0	51	16113	BRR	SSIDE

SPLIT SIDE FROM TB STRIP

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```

*
* Y MESSAGE ERROR DRIVER
*
YMSG7 ZR8
16123 0 30 00000
16124 0 35 25673 STA PBTARD
16125 0 61 16123 MIN YMSG7
16126 0 76*16123 LDA* YMSG7
16127 0 35 15446 STA ARYT7
16130 0 61 16123 MIN YMSG7
16131 0 76*16123 LDA* YMSG7
16132 0 35 15447 STA ARYT8
16133 0 43 15407 BRM ARYT
16134 * 20 24752 NOP MSG05A,*
16135 0 43 15407 BRM ARYT
16136 * 20 24755 NOP MSG05B,*
16137 0 51 16123 BRR YMSG7

```

GET REST OF MESSAGES

TEST FOUR HEADS
Y DRIVE MESSAGE

```

*
* Y MESSAGE ERROR DRIVER
*
YMSG7 ZR8
16140 0 30 00000
16141 0 35 25673 STA PBTARD
16142 0 61 16140 MIN YMSG7
16143 0 76*16140 LDA* YMSG7
16144 0 35 15446 STA ARYT7
16145 0 61 16140 MIN YMSG7
16146 0 76*16140 LDA* YMSG7
16147 0 35 15447 STA ARYT8
16150 0 43 15407 BRM ARYT
16151 * 20 24760 NOP MSG05C,*
16152 0 43 15407 BRM ARYT
16153 * 20 24763 NOP MSG05D,*
16154 0 51 16140 BRR YMSG7

```

GET REST OF MESSAGES

TEST FOUR HEADS
Y DRIVE MESSAGE

*
* Y MESSAGE ERROR DRIVER
*

16155	0	00	00000	YMSG8	ZR0			
16156	0	35	25573		STA	PBTARD		
16157	0	61	16155		MIN	YMSG8		GET REST OF MESSAGES
16160	0	76	*16155		LDA*	YMSG8		
16161	0	35	15446		STA	WRYT7		
16162	0	61	16155		MIN	YMSG8		
16163	0	76	*16155		LDA*	YMSG8		
16164	0	35	15447		STA	WRYT8		
16165	0	43	15407		BRM	WRYT		TEST FOUR HEADS
16166	4	20	24766		NOP	MSG05E,4		Y DRIVE MESSAGE
16167	0	43	15407		BRM	WRYT		
16170	4	20	24771		NOP	MSG05F,4		
16171	0	51	16155		BRR	YMSG8		

*
* Y MESSAGE ERROR DRIVER
*

16172	0	00	00000	YMSG9	ZR0			
16173	0	35	25573		STA	PBTARD		
16174	0	61	16172		MIN	YMSG9		GET REST OF MESSAGES
16175	0	76	*16172		LDA*	YMSG9		
16176	0	35	15446		STA	WRYT7		
16177	0	61	16172		MIN	YMSG9		
16200	0	76	*16172		LDA*	YMSG9		
16201	0	35	15447		STA	WRYT8		
16202	0	43	15407		BRM	WRYT		TEST FOUR HEADS
16203	4	20	24774		NOP	MSG05G,4		Y DRIVE MESSAGE
16204	0	43	15407		BRM	WRYT		
16205	4	20	24777		NOP	MSG05H,4		
16206	0	51	16172		BRR	YMSG9		

16207	0	76	26314	FUNC10	LDA	#11103300		
16210	0	35	25505		STA	MODES		
16211	0	76	26114		LDA	#=1		
16212	0	35	25513		STA	FIXBLK		
16213	0	43	14467		BRM	RAD9K		
16214	0	73	26060		SKG	#0		
16215	0	01	21052		BRU	ALLDUN		
16216	0	75	26315		LDB	#17777		ONE RAD
16217	0	73	26065		SKG	#1000000		
16220	0	01	16230		BRU	FUN10A		TWO RADS
16221	0	75	26112		LDB	#37777		
16222	0	73	26066		SKG	#2000000		
16223	0	01	16230		BRU	FUN10A		THREE RADS
16224	0	75	26316		LDB	#57777		
16225	0	73	26211		SKG	#3000000		
16226	0	01	16230		BRU	FUN10A		FOUR RADS
16227	0	75	26113		LDB	#77777		
16230	0	36	25511	FUNC10A	STB	RAD4I		
16231	0	76	25505		LDA	MODES		
16232	0	14	26317		ETR	#77773377		REMOVE POSSIBLE READ ONLY BITS
16233	0	35	25505		STA	MODES		READ ONLY TEST WILL RESET
16234	0	76	20405		LDA	SYSIZE		
16235	0	75	26111		LDB	#177777		64K
16236	0	72	26075		SKA	#4		
16237	0	01	16244		BRU	FUN10B		
16240	0	75	26320		LDB	#137777		48K
16241	0	72	26074		SKA	#2		
16242	0	01	16246		BRU	FUN10B		
16243	0	75	26113		LDB	#77777		32K
16244	0	72	26073		SKA	#1		
16245	0	75	26112		LDB	#37777		16K
16246	0	36	25507	FUNC10B	STB	CORR1		
16247	0	74	20401		LDA	STATUS		
16250	0	75	26060		LDB	#0		
16251	0	72	26075		SKA	#4		IS THIS A 940
16252	0	75	26114		LDB	#=1		

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16253	0 34 26743	STB	SKP940	
16254	0 76 26721	LDA	#1100000*INTR1E 940	RETURN
16255	0 53 26743	SKN	SKP940	
16256	0 76 26722	LDA	#140000*INTR1E 925	RETURN
16257	0 35 26734	STA	INTRE2	
16260	0 76 26723	LDA	#1100000*INTRE6 940	RETURN
16261	0 53 26743	SKN	SKP940	
16262	0 76 26724	LDA	#140000*INTRE6 925	RETURN
16263	0 35 26735	STA	INTRE3	
16264	0 46 26705	ABC		
16265	0 35 25567	STA	KEYSW	
16266	0 76 25512	LDA	PATERN	
16267	0 35 25517	STA	PADERN	
16270	0 43 26724	BRM	FUNCTN	
16271	0 21 21706	NBP	FPT10	
16272	0 43 26740	BRM	RETURN	SET UP INTRUPT RETURNS
16273	0 20 26747	NBP	INTR2	
16274	0 43 26730	BRM	9BJECT	
16275	0 76 26766	LDA	#2000000	NBP 0
16276	0 35 17750	STA	TRAIL4	CLEAR LINK TO DATA CHAIN
16277	0 35 26705	STA	TRAIL24	
16300	0 76 25514	LDA	CYCLE	
16301	0 35 25553	STA	CYCLE1	
16302	0 76 26725	LDA	#04300000*INTR1E	
16303	0 20 26731	STA	031	SET EARLY INTRUPT RETURN
16304	0 76 26734	LDA	INTRE2	
16305	0 35 26733	STA	INTRE1	SET INTRUPT TO A BRI RETURN
16306	0 76 25526	LDA	CORL6	
16307	0 70 25572	SKG	LAST	LAST PROGRAM LOCATION
16310	0 01 16730	BRU	INIT7	
16311	0 35 25547	STA	CORINK	LOAD SEQUENCE INCREMENT VALUE
16312	0 76 25507	LDA	CORHI	HIGHEST INPUT CORE ADRS
16313	0 54 25506	SUB	CORL0	
16314	0 35 25550	STA	CORMAX	
16315	0 70 26726	SKG	#067776	TEST FOR MORE THAN 28K
16316	0 01 16720	BRU	INIT1	

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16317	0 76 26726	LDA	#067776	
16320	0 46 26705	INIT1	ABC	
16321	0 66 26707	RSN	7	HALVE AND SET RELATIVE TO RAD ADRS
16322	0 46 16712	BAC		
16323	0 75 26114	LDB	#1	
16324	0 36 25560	STB	HEADSW	SET TO PRINT HEADING
16325	0 71 26700	SKM	#0	
16326	0 01 16730	BRU	INIT3	
16327	0 76 26724	LDA	#02	SMALLEST BUFFER INCREMENT
16330	0 35 25534	INIT3	BLKMAX	
16331	0 76 25511	LDA	RADHI	HIGHEST INPUT RAD ADRS
16332	0 54 25510	SUB	RADL0	
16333	0 35 25577	STA	RADMAX	
16334	0 43 26742	BRM	MASKER	GENERATE BIT MASK
16335	0 35 25500	STA	RADMSK	
16336	0 76 25577	LDA	RADMAX	
16337	0 70 25534	SKG	BLKMAX	
16340	0 01 16742	BRU	INIT2	
16341	0 76 25534	LDA	BLKMAX	
16342	0 55 26773	INIT2	ADD	FORCE GREATER IN CASE OF EQUAL
16343	0 70 25513	SKG	FIXBLK	
16344	0 01 16722	BRU	INIT4	FIXED BLOCK TO LARGE
16345	0 54 26773	SUB	#1	
16346	0 46 26705	ABC		
16347	0 67 26706	LSH	6	SET BLKMAX RELATIVE TO CORE ADRS
16350	0 46 16712	BAC		
16351	0 35 25534	STA	BLKMAX	BLKMAX EQUALS CORE/2 OR 16K OR RADMAX
16352	0 43 26742	BRM	MASKER	GENERATE BIT MASK
16353	0 35 25535	STA	BLKMSK	MASK # 00003777 (TYP)
16354	0 43 14467	BRM	RADSK	
16355	0 75 26114	LDB	#1	
16356	0 36 25574	STB	PRINTD	SET PRINT SWITCH AND HEADING SW
16357	0 36 26742	STB	SEKSTT	SET SECTOR COMPARE
16360	0 70 26760	SKM	#0	TEST FOR ANY RADS
16361	0 01 16763	BRU	#*2	
16362	0 01 16725	BRU	INIT6	TO ERROR MESSAGE

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```
16363 C 14 26927 ETR #7000000
16364 C 46 20005 ABC
16365 C 66 00005 RSH 5
16366 C 46 10012 BAC
16367 C 54 26107 SUB #010000
16370 C 16 26930 MRG #07777
16371 C 55 26773 ADD #1
16372 C 73 25511 SKG RADHI
16373 C 31 16433 BRU INITS
16374 C 54 26773 SUB #1
16375 C 17 25511 EBR RADHI
16376 C 72 26114 SKA ##1
16377 C 01 16403 BRU INITS
16400 C 76 25711 LDA RADHI
16401 C 54 26773 SUB #1
16402 C 35 25511 STA RADHI
16403 C 76 25510 INITS LDA RADL0
16404 C 35 25401 STA RADINK
16405 C 76 25505 LDA M0DES
16406 C 72 26731 SKA #3300
16407 C 01 16411 BRU **2
16410 C 01 16436 BRU INITS
16411 C 75 26114 LDB ##1
16412 C 76 25513 LDA FIXBLK
16413 C 70 26760 SKM #0
16414 C 01 16416 BRU **2
16415 C 01 16441 BRU INITS
16416 C 76 00401 LDA STATJS
16417 C 72 26106 SKA #4000
16420 C 01 16444 BRU INITS
16421 C 01 16455 BRU KEYRAD
16422 C 43 00460 INITS BRM ERRRR
16423 C 20 25366 N0P FIXBIG
16424 C 01 16207 BRU FUNCIO
16425 C 43 00460 INITS BRM ERRRR
16426 C 20 25344 N0P N0RAD
```

GET MAX RAD AVAILABLE

RADSIZ IS IN MULTIPLES OF TWO
SET HIGHEST ADRS
FORCE GREATER WHEN ACTUAL EQUALITY
ASSURE RAD ADRS IN LIMITS OF RADSIZ

REDUCE ADRS BY ONE TO STOP HANGUP

SET RAD ADRS INCREMENT TABLE

ANY BUFFERS IN

SOFTWARE READ ONLY

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```
16427 C 01 16207 BRU FUNCIO
16430 C 43 00460 INITS BRM ERRRR
16431 C 20 25433 N0P C0RERR
16432 C 01 16207 BRU FUNCIO
16433 C 43 00460 INITS BRM ERRRR
16434 C 20 25410 N0P RADBIG
16435 C 01 16207 BRU FUNCIO
16436 C 43 00460 INITS BRM ERRRR
16437 C 20 25352 N0P N0BLFR
16440 C 01 16207 BRU FUNCIO
16441 C 43 00460 INITS BRM ERRRR
16442 C 20 25402 N0P FIXZRS
16443 C 01 16207 BRU FUNCIO
16444 C 76 26205 INITS LDA #600
16445 C 35 25513 STA FIXBLK
16446 C 76 25505 LDA M0DES
16447 C 14 26932 ETR #77000077
16450 C 16 26333 MRG #475500
16451 C 35 25505 STA M0DFS
16452 C 76 26114 LDA ##1
16453 C 35 25567 STA KEYS=
16454 C 01 16535 BRU PR0GEN
```

MAXIMUM BLK SIZE IS 60 SECTORS

*
*
* KEY THE RAD WITH RANDOM DATA THROUGHOUT
*

16455	0	53	25567	KEYRAD	SKN	KEYSA	IS KEY COMPLETED
16456	0	01	16475		BRU	KEYRA2	NO
16457	0	76	25512		LDA	PATERN	
16460	0	17	25517		E6R	PADERN	
16461	0	72	25514		SKA	==1	
16462	0	01	16475		BRU	KEYRA2	
16463	0	76	25505		LDA	MODES	
16464	0	75	25534		LDB	*700000	
16465	0	70	25571		SKM	KEYSAV	
16466	0	01	16475		BRU	KEYRA2	
16467	0	76	25511		LDA	RADHI	
16470	0	75	25514		LDB	==1	
16471	0	70	25570		SKM	KEYADR	TEST IF RAD ADRS CHANGED
16472	0	01	16474		BRU	**2	
16473	0	01	16535		BRU	PROGEN	SKIP KEY IF DATA AND RAD ADR ARE SAME
16474	0	35	25570		STA	KEYADR	
16475	0	76	25512	KEYRA2	LDA	PATERN	
16476	0	35	25517		STA	PADERN	
16477	0	76	25511		LDA	RADHI	
16500	0	35	25570		STA	KEYADR	
16501	0	76	25505		LDA	MODES	
16502	0	35	25571		STA	KEYSAV	SAVE OLD DATA TYPE
16503	0	14	26334		ETR	*0700000	SAVE DATA MODE
16504	0	16	26335		YRG	*22066600	SET SEQUENTIAL AND WRITE BUFFERS
16505	0	35	25526		STA	MODE	MODE TEMP FOR PROCESS GENERATOR
16506	0	44	26005		ABC		
16507	0	35	25567		STA	KEYSA	SET KEY RETURN
16510	0	76	25526	KEYRA1	LDA	MODE	
16511	0	01	16567		BRU	FR*KEY	GO TO GENERATOR
16512	0	76	25526	KEYEND	LDA	MODE	GET CONTROL WORD
16513	0	72	26334		SKA	*3000	IS ONE BEING USED

16514	0	01	16516		BRU	**2	YES
16515	0	01	16532		BRU	KEYEN1	NO
16516	0	72	26213		SKA	*300	IS TWO BEING USED
16517	0	01	16521		BRU	**2	YES
16520	0	01	16532		BRU	KEYEN1	
16521	0	76	25531		LDA	BUFSAV	GET BUFFER IN USE
16522	0	72	26073		SKA	*1	IS IT TWO
16523	0	01	16532		BRU	KEYEN1	YES SEND BOTH
16524	0	76	26114		LDA	==1	
16525	0	35	25544		STA	BUFSKP	FORCE ONE BUFFER
16526	0	35	25567		STA	KEYSA	NO SEND ONLY ONE
16527	0	76	25526		LDA	MODE	
16530	0	71	25531		LDX	BUFSAV	
16531	0	01	16407		BRU	PROGER	
16532	0	76	26114	KEYEN1	LDA	==1	
16533	0	35	25567		STA	KEYSA	
16534	0	01	17254		BRU	RADADF	

*
*
* PROCESS GENERATOR
*
* THE GENERATOR CONTROLS THE METHOD OF USE DETERMINED BY THE
* MODE WORD.
*

16535	0	76	25505	PROGEN	LDA	M0DES	
16536	0	72	26061	GENER3	SKA	#040000	FIXED MODE
16537	0	01	16566		BRU	GENER1	
16540	0	72	26117		SKA	#20000	IS IT RANDOM ALL
16541	0	01	16553		BRU	GENER2	
16542	0	76	00406		LDA	SEED	YES
16543	0	43	17102		BRM	RANDOM	
16544	0	14	26337		ETR	#00070000	GET TRANSMISSION MODE
16545	0	35	25561		STA	H0LD	
16546	0	76	25505		LDA	M0DES	
16547	0	14	26340		ETR	#77707777	CLEAR MODE WORD
16550	0	16	25561		MRG	H0LD	
16551	0	35	25526		STA	M0DE	
16552	0	01	16536		BRU	GENER3	
16553	0	76	01406	GENER2	LDA	SEED	
16554	0	43	17102		BRM	RANDOM	
16555	0	72	26341		SKA	#030000	EARLY 3 OF 4
16556	0	01	16560		BRU	**2	
16557	0	01	16563		BRU	GENER4	
16560	0	76	25505		LDA	M0DES	
16561	0	16	26342		MRG	#060000	MERGE FINAL FIXED MODE
16562	0	01	16566		BRU	GENER1	
16563	0	76	25505	GENER4	LDA	M0DES	
16564	0	14	26343		ETR	#77757777	REMOVE EARLY BIT
16565	0	16	26061		MRG	#40000	FIX FINAL MODE
16566	0	35	25526	GENER1	STA	M0DE	PREPARE FOR POSSIBLE RANDOM MODES
16567	0	02	20002	PRMKEY	EIR		
16570	0	72	26336		SKA	#03000	IS BUFFER ONE IN

16571	0	01	16601		BRU	PROGE1	
16572	0	75	26114		LDB	#*1	
16573	0	36	25544		STB	BUFSKP	
16574	0	72	26213		SKA	#0300	IS BUFFER TWO IN
16575	0	01	16645		BRU	PROGE5	
16576	0	43	00460		BRM	ERRSR	NO BUFFERS SELECTED
16577	0	20	25352		NBP	N0BWR	
16600	0	01	16207		BRU	FUNCI0	
16601	0	71	26060	PROGE1	LDB	#0	
16602	0	43	17126		BRM	RADADR	
16603	0	72	26213		SKA	#0300	IS TWO IN
16604	0	01	16714		BRU	PROGE8	
16605	0	75	26114		LDB	#*1	
16606	0	36	25544		STB	BUFSKP	FORCE SINGLE BUFFER CONTROL
16607	0	43	17114	PROGE2	BRM	CONADR	
16610	0	43	17154		BRM	SETUP	
16611	0	75	26246		LDB	#07000	MASK FOR DRIVE CODE ONE
16612	0	43	17313		BRM	RADDRV	
16613	0	43	17421		BRM	DATA	
16614	0	72	26107		SKA	#010000	IS IT INTRUPT
16615	0	01	16705		BRU	PROG4A	
16616	0	43	20021		BRM	WAIT4	
16617	0	43	01430		BRM	OBJECT	ALLOW RAD TO FINISH BEFORE CONTROL
16620	0	76	26344		LDA	#*1	GET RETURN ADRS
16621	0	01	20263		BRU	WAIT1	SEND BUFFER ONE, NO INTRUPT
16622	0	43	20021	PROGE3	BRM	WAIT4	
16623	0	43	16770		BRM	ERRTST	
16624	0	71	26060		LDB	#0	
16625	0	43	17406		BRM	CHECK	TEST READ DATA
16626	0	43	00434		BRM	END	
16627	0	53	25544		SKN	BUFSKP	
16630	0	01	16645		BRU	PROGE5	
16631	0	53	25567	PROGE4	SKN	KEYS4	
16632	0	01	16517		BRU	KEYRA1	
16633	0	53	25553		SKN	CYCLE1	
16634	0	01	16636		BRU	**2	

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16635	0 01 16635	BRU	PRGGEN	
16636	0 60 25653	SKR	CYCLE1	
16637	0 20 07000	NBP	0	
16640	0 53 25653	SKN	CYCLE1	
16641	0 01 16635	BRU	PRGGEN	
16642	0 43 20321	BRM	WAIT4	LET RAD FINISH
16643	0 43 00456	BRM	FDONE	
16644	0 01 25653	BRU	FUNC11	
16645	0 74 25626	PRGGE5	MODE	
16646	0 71 26073	LDX	#1	
16647	0 43 16777	BRM	STATST	
16650	0 43 17126	BRM	RADADR	
16651	0 43 17114	BRM	CORADR	
16652	0 43 17154	BRM	SETUP	
16653	0 75 26245	LDB	#0700	MASK DRIVE CODE FOR TWO
16654	0 43 17113	BRM	RADDRV	
16655	0 43 17421	BRM	DATA	
16656	0 72 26107	SKA	#010000	IS INTRUPT IN
16657	0 01 16677	BRU	PRGGE7	
16660	0 43 20321	BRM	WAIT4	
16661	0 43 00430	BRM	OBJECT	ALLOW RAD TO FINISH BEFORE CONTROL
16662	0 74 26246	LDA	***1	
16663	0 01 20302	BRU	WAIT2	NO INTRUPT SEND BUFFER
16664	0 43 20321	PRGGE6	BRM	WAIT4
16665	0 43 16770	BRM	ERRTST	
16666	0 71 26073	LDX	#1	
16667	0 43 17406	BRM	CHECK	
16670	0 43 00434	BRM	END	
16671	0 01 16431	BRU	PRGGE4	
16672	0 43 20321	PRGGE7	BRM	WAIT4
16673	0 43 00430	BRM	OBJECT	ALLOW RAD TO FINISH BEFORE CONTROL
16674	0 72 26100	SKA	#040	DATA CHAIN SELECTED
16675	0 43 20326	BRM	CHAIN2	YES
16676	0 74 20336	LDA	INTRE4	NO SEND VIA INTRUPT
16677	0 43 17772	BRM	TRANS2	
16700	0 53 25665	SKN	JMPTYP	

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16701	0 11 16703	BRU	**2	
16702	0 01 16703	BRU*	**1	
16703	0 20 16704	NBP	**1	RESET INTRUPT
16704	0 01 16664	BRU	PRGGE6	
16705	0 43 20321	PRGGE4A	BRM	WAIT4
16706	0 43 00430	BRM	OBJECT	ALLOW RAD TO FINISH BEFORE CONTROL
16707	0 72 26100	SKA	#040	IS DATA CHAIN ON
16710	0 43 20154	BRM	CHAIN1	
16711	0 74 20335	LDA	INTRE3	
16712	0 43 17335	BRM	TRANS1	
16713	0 01 16422	BRU	PRGGE3	
16714	0 75 26240	PRGGE8	LDB	#0
16715	0 36 25644	STB	BUFSKP	
16716	0 72 26110	SKA	#020000	IS EARLY SELECTED
16717	0 01 16721	BRU	**2	YES
16720	0 01 16607	BRU	PRGGE2	NO
16721	0 71 26073	LDX	#1	
16722	0 43 16777	BRM	STATST	
16723	0 43 17126	BRM	RADADR	
16724	0 71 26060	LDX	#0	
16725	0 43 17114	BRM	CORADR	
16726	0 43 17154	BRM	SETUP	
16727	0 75 26246	LDB	#0700	MASK FOR DRIVE CODE ONE
16730	0 43 17113	BRM	RADDRV	
16731	0 43 17421	BRM	DATA	
16732	0 71 26073	LDX	#1	
16733	0 43 17154	BRM	SETUP	
16734	0 75 26245	LDB	#0700	MASK FOR DRIVE CODE TWO
16735	0 43 17113	BRM	RADDRV	
16736	0 43 17421	BRM	DATA	
16737	0 72 26107	SKA	#010000	IS INTRUPT ON
16740	0 01 16753	BRU	PRGGE9	YES
16741	0 43 20321	BRM	WAIT4	
16742	0 43 00430	BRM	OBJECT	ALLOW RAD TO FINISH BEFORE CONTROL
16743	0 74 26247	LDA	***1	SET RETURN FOR TRANS1
16744	0 01 20263	BRU	WAIT1	

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16745	0 43 16770	BRM	ERRST	
16746	0 76 26350	PRGG11 LDA	***1	SET RETURN FOR TRANS2
16747	0 01 20302	BRU	WAIT2	
16750	0 71 26060	PRGG12 LDX	#0	
16751	0 43 17606	BRM	CHECK	
16752	0 01 16664	BRU	PRGGE6	
16753	0 43 20321	PRGGE9 BRM	WAIT4	ALLOW RAD TO FINISH BEFORE CONTRL
16754	0 43 00430	BRM	OBJECT	USE INTRUPT
16755	0 76 20035	LDA	INTRE3	
16756	0 43 17735	BRM	TRANS1	
16757	0 76 20036	LDA	INTRE4	
16760	0 43 17772	BRM	TRANS2	
16761	0 53 25565	SKN	JMPTYP	
16762	0 11 16764	BRI	**2	
16763	0 01 16764	BRU*	**1	CLEAR RECOGNIZED INTRUPT
16764	0 20 16764	NOP	*	
16765	0 71 26060	LDX	#0	
16766	0 43 17606	BRM	CHECK	
16767	0 01 16664	BRU	PRGGE6	
*				
16770	0 00 00000	ERRST ZR0		HAD ERROR TEST
16771	0 40 11026	SKS	11026	
16772	0 43 00454	BRM	REPORT	
16773	0 20 25211	NBP	RADER	
16774	0 40 11000	SKS	11000	CHANNEL ERROR TEST
16775	0 43 20367	BRM	CHANER	
16776	0 51 16770	BRR	ERRST	
*				
16777	0 00 00000	STATST ZR0		
17000	0 35 26045	STA	STAHL0	
17001	0 76 00401	LDA	STATUS	
17002	0 72 26106	SKA	#4000	HAD READ LOCK IN BIT
17003	0 01 17006	BRU	**3	
17004	0 76 26045	STATS1 LDA	STAHL0	
17005	0 51 16777	BRR	STATST	
17006	0 76 25542	LDA	BUF1RA	

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17007	0 35 25543	STA	BUF2RA	FORCE IDENTICAL RAD ADDRESSES
17010	0 76 25532	LDA	BUF1BL	
17011	0 35 25533	STA	BUF2BL	FORCE IDENTICAL RAD BLOCK LENGTHS
17012	0 61 16777	MIN	STATST	SKIP RADADR SUBROUTINE
17013	0 01 17004	BRU	STATS1	

*
*
* CORE ADDRESS AND BLOCK LENGTH FIT GENERATOR
*
*

17014	0	00	25000	CORADR	ZR0			
17015	0	37	25031		STX	BUFSAV		
17016	0	76	25026		LDA	Y0R0		RANDOM CORE ADRS
17017	0	72	25065		SKA	#01000000		
17020	0	01	17030		BRU	CORAD1		
17021	0	72	25066		SKA	#02000000		SEQUENCE MODE
17022	0	01	17070		BRU	CORAD4		
17023	0	72	25067		SKA	#04000000		FIXED MODE
17024	0	01	17056		BRU	CORAD3		
17025	0	43	25060		BRM	ERRR0		
17026	0	20	25061		NBP	NBCORE		
17027	0	01	16007		BRU	FUNC10		
17030	0	76	25007	CORAD1	LDA	CORHI		MAXIMUM UPPER CORE LIMIT
17031	2	54	25032		SUB	BUF1BL,2		
17032	0	53	25044		SKN	BUFSKP		TEST TO DS TWO BUFFERS
17033	0	54	25033		SUB	BUF2BL		BUFFER 2 BLOCK LENGTH
17034	0	54	25004		SUB	CORL0		FIND RELATIVE SPAN
17035	0	35	25064		STA	H0LD03B		
17036	0	43	25042		BRM	MASKER		GENERATE BIT MASK
17037	0	35	25041		STA	SAVARD		
17040	0	76	25006		LDA	SEED		
17041	0	43	17002		BRM	RAND0M		
17042	0	14	25041		ETR	SAVARD		
17043	0	72	25064		SKG	H0LD03B		
17044	0	01	17046		BRU	**2		
17045	0	54	25064		SUB	H0LD03B		
17046	0	54	25074		SUB	#2		
17047	0	55	25006		ADD	CORL0		
17050	0	71	25031		LDX	BUFSAV		
17051	2	34	25040	CORAD6	STA	BUF1CA,2		
17052	2	55	25030		ADD	BUF1RL,2		

17053	0	53	25044		SKN	BUFSKP		TEST TO SET BOTH BUFFERS
17054	0	35	25041	CORAD8	STA	BUF2CA		
17055	0	01	17023		BRU	CORADA		
17056	0	76	25026	CORAD3	LDA	MODE		
17057	0	72	25010		SKA	#20000		TEST FOR EARLY MODE
17060	0	01	17062		BRU	**2		
17061	0	01	17065		BRU	CORAD9		
17062	0	43	25060		BRM	ERRR0		DISALLOW EARLY ON FIXED CORE ADR
17063	0	20	25061		NBP	RADBIT		
17064	0	01	16007		BRU	FUNC10		
17065	0	76	25006	CORAD9	LDA	CORL0		CORL0 ADDRESS = FIXED
17066	0	35	25040		STA	BUF1CA		
17067	0	01	17054		BRU	CORAD8		
17070	0	76	25047	CORAD4	LDA	CORINK		INCREMENT CELL
17071	0	75	25047		LDB	CORINK		
17072	2	55	25032		ADD	BUF1BL,2		ADD BLOCK LENGTH ONE
17073	0	73	25007		SKG	CORHI		
17074	0	01	17100		BRU	CORAD5		
17075	0	76	25006		LDA	CORL0		
17076	0	35	25047		STA	CORINK		RESET IF ABOVE CORHI
17077	0	01	17051		BRU	CORAD6		
17100	2	36	25040	CORAD5	STB	BUF1CA,2		
17101	0	35	25047		STA	CORINK		
17102	0	53	25044		SKN	BUFSKP		
17103	0	01	17105		BRU	**2		
17104	0	01	17123		BRU	CORADA		
17105	0	55	25033		ADD	BUF2BL		UPDATE SECOND BUFFER ADRS
17106	0	73	25027		SKG	CORHI		
17107	0	01	17120		BRU	CORAD7		
17110	0	76	25006		LDA	CORL0		RESET IF ABOVE CORHI
17111	0	35	25047		STA	CORINK		
17112	0	76	25027		LDA	CORHI		AVOID OVERLAP
17113	0	54	25032		SUB	BUF2BL		
17114	0	35	25041		STA	BUF2CA		
17115	0	54	25032		SUB	BUF1BL		
17116	0	35	25040		STA	BUF1CA		

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17117	0	01	17123	BRU	CORADA	
17120	0	75	25547	CORAD7	LDB	CORINK
17121	0	35	25547		STA	CORINK
17122	0	36	25541		STB	BUF2CA
17123	0	76	25526	CORADA	LDA	MODE
17124	0	71	25531		LDX	BUFSAV
17125	0	51	17114	BRR	CORADR	

SET SECOND CORE ADRS
RESET AND RETURN

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*
* RANDOM RAD STARTING ADDRESS AND BLOCK LENGTH GENERATOR.
*
* BLKMAX IS THE SMALLER OF 14K, WHICH IS THE GREATEST
* RELABEL COUNT OR CORMAX/2, WHICH IS THE GREATEST
* CORE SIZE SPECIFIED, OR RADMAX/2 WHICH IS THE RAD SIZE SPECIFIED.
*
RADADR ZRO
17126 0 00 00000 STX BUFSAV
17127 0 37 25531 STX BUFSAV
17130 0 72 26070 SKA #10000000 TEST RANDOM
17131 0 01 17141 BRU RADAD1
17132 0 72 26071 SKA #20000000 TEST SEQUENTIAL
17133 0 01 17223 BRU RADAD2
17134 0 72 26072 SKA #40000000
17135 0 01 17257 BRU RADAD3 FIXED ADDRESS
17136 0 43 00460 BRM ERROR
17137 0 20 25344 NBP NBRAD
17140 0 01 16907 BRU FUNCIO
17141 0 76 00406 RADAD1 LDA SEED
17142 0 43 17302 BRM RANDOM
17143 0 14 25600 ETR ASSURE CORRECT BIT SCALING
17144 0 73 25577 SKG RADMAX
17145 0 01 17147 BRU **2
17146 0 54 25577 SUB RADMAX
17147 0 55 25510 ADD RADL9
17150 0 35 26023 STA SAVADR
17151 0 75 25534 LDB BLKMAX
17152 0 53 25567 SKN KEYSW
17153 0 01 17162 BRU RADAD4
17154 0 53 25513 SKN FIXBLK
17155 0 01 17160 BRU RADAD9
17156 0 43 17266 BRM GETBLK GENERATE RANDOM BLK LENGTH
17157 0 01 17162 BRU RADAD4
17160 0 75 25513 RADAD9 LDB FIXBLK
17161 0 67 00006 LDM 6
FIXBLK IS IN SECTORS

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17162	0 76 26122	RADAD4	LDA	SAVADR
17163	0 43 17172	RADAD5	BRM	RADADA
17164	2 35 25542		STA	BUF1RA,2
17165	0 67 00006		LSH	6
17166	2 36 25532		STB	BUF1BL,2
17167	0 76 25526		LDA	MODE
17170	0 71 25531		LDX	BUFSAV
17171	0 51 17126		BRR	RADADR
17172	0 00 00000	RADADA	ZR0	
17173	0 35 26023		STA	SAVADR
17174	0 76 26060		LDA	#0
17175	0 66 00006		RS4	6
17176	0 36 26126		STB	SAVBLK
17177	0 76 25511		LDA	RADHI
17200	0 54 26023		SUB	SAVADR
17201	0 55 26073		ADD	#1
17202	0 73 26026		SKG	SAVRLK
17203	0 35 26026		STA	SAVBLK
17204	0 76 26126		LDA	SAVBLK
17205	0 55 26123		ADD	SAVADR
17206	0 75 26137		LDB	#070000
17207	0 70 26123		SKM	SAVADR
17210	0 01 17213		BRU	RADADD
17211	0 75 26126		LDB	SAVBLK
17212	0 01 17221		BRU	RADADC
17213	0 76 26023	RADAD0	LDA	SAVADR
17214	0 14 26137		ETR	#070000
17215	0 55 26130		ADD	#07777
17216	0 54 26023		SUB	SAVADR
17217	0 55 26073		ADD	#1
17220	0 46 26006		ABC	
17221	0 76 26023	RADADC	LDA	SAVADR
17222	0 51 17172		BRR	RADADA
17223	0 75 25534	RADAD2	LDB	BLKMAX
17224	0 53 25567		SKN	KEYSA
17225	0 01 17234		BRU	RADADG

SET BUFFER CONSTANTS

TEST OVER BOUND BLOCK LENGTH

PICK SAVADR LESS THAN RADHI

RECOVER IF NO CHANGE

TEST FOR NO RAD UNIT CHANGE

SET ADRS AT BOUNDRY
GENERATE NEW BLK LENGTH

TEST FOR KEY CONDITION

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17226	0 53 25513		SKN	FIXBLK
17227	0 01 17232		BRU	RADADH
17230	0 43 17264		BRM	GETBLK
17231	0 01 17234		BRU	RADADG
17232	0 75 25513	RADADH	LDB	FIXBLK
17233	0 67 00006		LSH	6
17234	0 76 25401	RADADG	LDA	RADINK
17235	0 43 17172		BRM	RADADA
17236	2 35 25542		STA	BUF1RA,2
17237	2 36 25532		STB	BUF1BL,2
17240	2 55 25532		ADD	BUF1BL,2
17241	0 35 25401		STA	RADINK
17242	0 67 00006		LSH	6
17243	2 36 25532		STB	BUF1BL,2
17244	0 76 25401		LDA	RADINK
17245	0 75 25400		LDB	RADMSK
17246	0 73 25511		SKG	RADHI
17247	0 01 17254		BRU	RADADF
17250	0 76 25510		LDA	RADLB
17251	0 35 25401		STA	RADINK
17252	0 53 25567		SKN	KEYSA
17253	0 01 17212		BRU	KEYEND
17254	0 76 25526	RADADF	LDA	MODE
17255	0 71 25531		LDX	BUFSAV
17256	0 51 17126		BRR	RADADR
17257	0 75 25513	RADAD3	LDB	FIXBLK
17260	0 67 00006		LSH	6
17261	0 53 25513		SKN	FIXBLK
17262	0 01 17264		BRU	**2
17263	0 43 17266		BRM	GETBLK
17264	0 76 25510		LDA	RADLA
17265	0 01 17163		BRU	RADAD5

SEQUENCE INCREMENT STORAGE

UPDATE INCRMENT VALUE

TRUE BUFFER BLOCK LENGTH

*
*
* RANDOM BLOCK LENGTH GENERATOR
*

17266	0	00	00000	GETBLK	ZR0				
17267	0	76	00406		LDA	SEED			
17270	0	43	17302		BRM	RANDOM			
17271	0	14	25535		ETR	BLKMSK			ASSURE CORECT BIT SCALING
17272	0	73	25534		SKG	BLKMAX			
17273	0	01	17275		BRU	**2			
17274	0	54	25534		SUB	BLKMAX			
17275	0	72	26303		SKA	#77777700			
17276	0	01	17300		BRU	**2			FORCE AT LEAST ONE SECTOR
17277	0	76	26101		LDA	#100			
17300	0	46	20005		ABC				
17301	0	51	17266		BRR	GETBLK			

*
*
* RANDOM NUMBER GENERATOR
*

17302	0	00	00000	RANDOM	ZR0	0			
17303	0	37	25603		STX	RAN4X			REGISTER SAVER
17304	0	46	20005		ABC				
17305	0	67	00013		LSH	013			
17306	0	55	00406		ADD	SEED			
17307	0	55	26351		ADD	#53577045			RANDOM CONSTANT
17310	0	35	00406		STA	SEED			SAVE NEW NUMBER
17311	0	71	25603		LDX	RAN4X			
17312	0	51	17302		BRR	RANDOM			RETURN

*
*
* RAD DRIVE CODE GENERATOR
*

17313	0	00	00000	RADDRV	ZR0				
17314	0	37	25531		STX	BUFSAV			
17315	0	36	25561		STB	HOLD			
17316	0	14	25561		ETR	HOLD			GET DRIVE CODE
17317	0	72	26352		SKA	#04400			IS IT FIXED
17320	0	01	17345		BRU	RADDR2			YES
17321	0	76	25561		LDA	HOLD			
17322	0	17	26114		EBR	#=1			INVERT MASK
17323	0	14	25526		ETR	MODE			CLEAR DRIVE SLOT
17324	0	35	25526		STA	MODE			
17325	0	76	00406		LDA	SEED			
17326	0	43	17302		BRM	RANDOM			
17327	0	72	26107		SKA	#10000			TEST BIT 10
17330	0	01	17341		BRU	RADDR4			
17331	0	76	26053		LDA	WRITE			
17332	2	35	26050		STA*	TRE0M,2			
17333	0	76	26353		LDA	#02200			GET WRITE CODE
17334	0	14	25561	RADDR3	ETR	HOLD			
17335	0	16	25526		MRG	MODE			FORCE CODE TO MODE
17336	0	35	25526		STA	MODE			
17337	0	71	25531		LDX	BUFSAV			
17340	0	51	17313		BRR	RADDRV			
17341	0	76	25604	RADDR4	LDA	READA			
17342	2	35	26050		STA*	TRE0M,2			
17343	0	76	26354		LDA	#01100			FORCE READ CODE
17344	0	01	17334		BRU	RADDR3			
17345	0	75	26053	RADDR2	LDB	WRITE			
17346	0	72	26354		SKA	#01100			SKIP IF WRITE
17347	0	75	25604		LDB	READA			NO
17350	2	36	26050		STB*	TRE0M,2			
17351	0	76	25526	RADDR1	LDA	MODE			

17352 0 71 25531 LDX BUFSAV
 17353 0 51 17313 BRR RADDRV

*
 * CALCULATE AND PLACE NEW EBM AND PBT VALUES FOR THE TRANSMIT TABLE
 *

17354	0	00	00000	SETUP	ZR0	0		
17355	0	37	25531		STX	BUFSAV		
17356	0	46	20005		ABC		CLEAR AREG	
17357	2	75	25532		LDB	BUF1CA,2	GET BLOCK LENGTH	
17360	0	67	00016		LSH	016	ISOLATE 5 HI ORDER BITS FOR EBM	
17361	0	16	25557		YRG	EBM BIT	EBM = 0617200	
17362	0	35	25562		STA	HOLD2	SAVE EBM FOR HI ADRS	
17363	0	36	25563		STB	HOLD3	SAVE L0 WORD COUNT FOR ADRS BITS	
17364	0	46	17012		BAC		CLEAR BREG	
17365	2	76	25540		LDA	BUF1CA,2	CESS ADRS WORD	
17366	0	14	26355		ETR	#0140000	ISOLATE HI BITS	
17367	0	66	00011		RSH	011	ALIGN HI BITS FOR EBM WORD	
17370	0	16	25562		YRG	HOLD2	FINAL EBM	
17371	0	35	25562		STA	HOLD2		
17372	0	76	25526		LDA	Y8DF		
17373	0	72	26107	SETUP4	SKA	#010000	IS IT INTRUPT	
17374	0	01	17376		BRU	**2	NO	
17375	0	01	17405		BRU	SETJ3B	TEST FOR EARLY BIT	
17376	0	72	26110		SKA	#20000		
17377	0	01	17401		BRU	**2		
17400	0	01	17410		BRU	SETJ3A		
17401	0	76	25562	SETUP8	LDA	HOLD2	YES	
17402	0	16	26072		YRG	#40000000	EARLY INTERRUPT BIT	
17403	0	35	25562		STA	HOLD2		
17404	0	01	17410		BRU	SETJ3A	YES	
17405	0	76	25562	SETJ3B	LDA	HOLD2		
17406	0	14	26356		ETR	#37774777	REMOVE I1, I2 ARMING+ EARLY BIT	
17407	0	35	25562		STA	HOLD2		
17410	0	75	25562	SETJ3A	LDB	HOLD2	FINAL EBM TO BREG	
17411	2	76	25540		LDA	BUF1CA,2	GET ADRS WORD	
17412	0	14	26112		ETR	#037777	ISOLATE L0 ORDER ADRS BITS	

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17413	0	16	25563	MRG	HOLD3	CHANNEL PBT WORD
17414	2	35	25536	STA	BUF1KA,2	
17415	2	36	26046	STB	TCE0M,2	SET CHANNEL EOM
17416	0	76	25586	LDA	MODE	
17417	0	71	25531	LDX	BUFSAV	
17420	0	51	17354	BRR	SETUP	RETURN

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*
* DATA GENERATOR
* EITHER RANDOM FIXED OR SEQUENTIAL DATA IS SPREAD
*
*

17421	0	00	00000	DATA	ZR0	
17422	0	37	25531		STX	
17423	2	76	26050		LDA	BUFSAV
17424	0	72	26100		SKA	TRE0M,2
17425	0	01	17427		BRU	#040
17426	0	01	17472		BRU	#02
17427	2	76	25542		LDA	DATA15
17430	0	35	25564		STA	BUF1RA,2
17431	2	76	25540		LDA	HOLD3B
17432	2	75	25532		LDB	BUF1CA,2
17433	0	43	17512		BRM	RELBL
17434	0	55	25605		ADD	RELBL
17435	0	16	26054		MRG	WRDSTA
17436	0	46	20005		ABC	
17437	0	54	25605		SUB	RELBL
17440	0	35	25561		STA	HOLD
17441	0	71	25561		LDX	HOLD
17442	0	76	25526		LDA	MODE
17443	0	72	26062		SKA	#0100000
17444	0	01	17454		BRU	DATA9
17445	0	72	26063		SKA	#0200000
17446	0	01	17502		BRU	DATA13
17447	0	72	26064		SKA	#0400000
17450	0	01	17475		BRU	DATA12
17451	0	43	00460		BRM	ERROR
17452	0	20	25337		NBP	NBDATA
17453	0	01	16207		BRU	FUNC10
17454	0	46	10012	DATA9	BAC	
17455	0	35	17465		STA	DATA10

GET RAD EOM WORD
TEST WRITE

TO SET RELABELLING REGISTERS
CREATE HI CORE ADRS

GET CORRECT BLOCK LENGTH
NEGATIVE BLOCK LENGTH TO XREG

RANDOM
SEQUENTIAL
FIXED DATA

RANDOM WRITE SECTION

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17456	0 17	26757	EOR	#06000000	GENERATE AN ADD, 035 EOR 60 = 55
17457	0 35	17470	STA	DATA11	
17460	0 76	00406	LDA	SEED	
17461	0 46	20005	ABC		
17462	0 67	00013	LSH	013	
17463	0 55	00406	ADD	SEED	
17464	0 55	26751	DATA9A	ADD	#53577045
17465	6 39	00000	DATA10	STA	0,6
17466	0 46	20005	ABC		
17467	0 67	00013	LSH	013	
17470	6 55	00000	DATA11	ADD	0,6
17471	0 41	17464	BRX	DATA9A	
17472	0 76	25526	DATA15	LDA	MODE
17473	0 71	25531	LDX	BUFSAV	
17474	0 51	17421	BRR	DATA	
17475	0 76	25512	DATA12	LDA	PATERN
17476	0 36	17477	DATA14	STB	DATA19
17477	6 38	00000	DATA19	STA	0,6
17500	0 41	17477	BRX	DATA19	
17501	0 01	17477	BRJ	DATA15	
17502	0 36	17506	DATA13	STB	DATA16
17503	0 75	25564	LDB	H0L03B	
17504	0 67	00004	LSH	6	
17505	0 46	10012	BAC		
17506	6 35	00000	DATA16	STA	0,6
17507	0 55	26073	ADD	#1	STONE RELABELLED DATA
17510	0 41	17506	BRX	DATA16	
17511	0 01	17477	BRU	DATA15	

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*
* RELABELLING ROUTINE FOR 940 MODE
* AREG = STARTING CORE ADRS. BREG = BLOCK LENGTH.
*
*
RELABL ZR0
17512 0 00 00000 STA RELCA CORE ADRS
17513 0 35 25606 STB RELRL BLOCK LENGTH
17514 0 36 25605 BAC
17515 0 46 10012 ADD RELCA CALCULATE ENDING ADRS
17516 0 55 25606 ABC
17517 0 46 20005 RSH 13 GET BITS 8,9,10,11,12 FROM HI ADRS
17520 0 66 00013 BAC
17521 0 46 10012 STA RHIADR
17522 0 35 25617 BAC CLEAR BREG
17523 0 46 10012 LDB RELCA
17524 0 75 25606 RSH 13 ISOLATE LO ADRS BITS
17525 0 66 00013 BAC
17526 0 46 10012 STA RLADR
17527 0 35 26020 STB H0L0
17530 0 36 25561 BAC CLEAR AREG, BREG, HOLD
17531 0 46 10012 LDX #=10 SET FOR 8 RL LOOPS
17532 0 71 26011 RELADR LOW RAD ADRS BITS FOR RELABL
17533 0 76 26020 EOR RHIADR
17534 0 17 25617 SKA #=1
17535 0 72 26114 BRU RELAB6
17536 0 71 17574 LDA RLADR
17537 0 76 26020 YRG #400000040 ADD INTRUPT AN FORCE NEGATIVE BIT
17540 0 16 26100 STA RFIELD+10,2
17541 2 35 25617 LDA H0L0
17542 0 76 25561 LCG 6
17543 0 67 20006 YRG RLADR
17544 0 16 26020 YRG #=2
17545 0 41 17547 BRX
17546 0 01 17556 BRU RELAB7
17547 0 35 25561 STA H0L0

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17550	0 76 26060	LDA	#0	
17551	2 35 25617	STA	RFIELD+10,2	END CHAIN FIELD
17552	0 76 25561	LDA	HOLD	
17553	0 67 20006	RELAB8	LCY	6
17554	0 16 26100	MRG	#040	FORCE READ ONLY TRAP IF ACCESS IS WRONT
17555	0 41 17553	BRX	RELAB8	
17556	0 36 00415	RELAB7	STB	RL1
17557	0 35 00416	STA	RL2	
17560	0 53 26043	SKN	SKP940	
17561	0 01 17566	BRU	RELAB8	
17562	0 02 20400	EOM	020400	
17563	0 13 00415	PBT	RL1	
17564	0 02 21000	EOM	021000	
17565	0 13 00416	PBT	RL2	
17566	0 76 25606	RELAB5	LDA	RELCA
17567	0 53 26043	SKN	SKP940	
17570	0 01 17572	BRU	#+2	
17571	0 14 26940	ETR	#03777	
17572	0 75 25405	LDB	RELBL	
17573	0 51 17512	BRR	RELABL	
17574	0 76 26020	RELAB6	RLBADR	
17575	0 16 26100	MRG	#400000040	ADD INTRUPT AND FORCE NEGATIVE BIT
17576	2 35 25617	STA	RFIELD+10,2	LOAD DATA CHAIN TABLE
17577	0 76 25561	LDA	HOLD	
17600	0 67 20006	LCY	6	
17601	0 16 26020	MRG	RLBADR	
17602	0 35 25561	STA	HOLD	LOAD RL PBT WRDS IN AREG, BREG
17603	0 61 26020	MIN	RLBADR	
17604	0 41 17533	BRX	RELAB4	
17605	0 01 17556	BRU	RELAB7	

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*
* DATA CHECKING ROUTINE
*
*
CHECK ZRB

17606	0 00 00000	STX	BUFSAV	
17607	0 37 25531	LDA	TREOM,2	GET RAD EOM WORD
17610	2 76 26050	SKA	#040	
17611	0 72 26100	BRU	CHECK8	
17612	0 01 17704	LDA	BUF1RA,2	
17613	2 76 25542	STA	HOLD3B	
17614	0 35 25564	LDA	STATUS	
17615	0 76 00401	LDB	BUF1BL,2	
17616	2 75 25532	SKA	#4000	SOFTWARE RAD READ ONLY
17617	0 72 26106	BRU	CHECK9	
17620	0 01 17707	LDA	BUF1CA,2	
17621	2 76 25540	BRM	RELABL	TO RELABELLING ROUTINE
17622	0 43 17512	ADD	RELBL	
17623	0 55 25605	MRG	WRDSKM	TEST WORD
17624	0 16 26055	ABC		
17625	0 46 20005	SUB	RELBL	
17626	0 54 25605	STA	HOLD	
17627	0 35 25561	LDB	HOLD	PUT NEGATIVE BLK IN XREG
17630	0 71 25561	LDX	MODE	
17631	0 76 25526	LDA	#0100000	RANDOM
17632	0 72 26062	SKA	CHECK7	
17633	0 01 17455	BRU	#0200000	SEQUENTIAL
17634	0 72 26063	SKA	CHEC12	
17635	0 01 17443	BRU	#0400000	FIXED
17636	0 72 26064	SKA	CHECK4	
17637	0 01 17476	BRU	ERRR	
17640	0 43 00460	BRM	NODATA	
17641	0 20 25337	NBP	FUNC10	
17642	0 01 16207	BRU	CHEC13	
17643	0 36 17650	CHEC12	STB	
17644	0 75 25564	LDB	HOLD3B	SEQUENTIAL DATA TEST LOOP

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17645	0 67 00006	LSH	6	
17646	0 46 10012	BAC		
17647	0 75 26114	LDB	**1	
17650	6 70 00000	CHECK13 SKM	0,6	
17651	0 43 20420	BRM	ERRBUT	
17652	0 55 26173	ADD	#1	
17653	0 41 17650	BRX	CHEC13	
17654	0 01 17704	BRU	CHECK8	
17655	0 36 17673	CHECK7 STB	CHEC22	
17656	0 46 10012	BAC		
17657	0 17 26361	EER	#500000	MAKE A LDB, 70 EER 05 = 75
17660	0 35 17664	STA	CHEC21	
17661	0 17 26166	EER	#2000000	MAKE AN ADD, 75 EER 20 = 55
17662	0 35 17667	STA	CHEC71	
17663	0 44 20005	CHEC72 ABC		
17664	6 75 00000	CHEC21 LDB	0,6	
17665	0 67 00013	LSH	013	
17666	0 75 26114	LDB	**1	
17667	6 55 00000	CHEC71 ADD	0,6	
17670	0 55 26351	ADD	#53577045	RAND8M CONSTANT
17671	0 41 17673	BRX	**2	
17672	0 01 17704	BRU	CHECK8	
17673	6 70 00000	CHEC22 SKM	0,6	RAND8M DATA TEST LOOP
17674	0 43 20420	BRM	ERRBUT	
17675	0 01 17663	BRU	CHEC72	
17676	0 36 17701	CHECK4 STB	CHECK6	
17677	0 76 25812	LDA	PATERN	
17700	0 75 26114	LDB	**1	
17701	6 70 00000	CHECK6 SKM	0,6	CONSTANT DATA TEST LOOP
17702	0 43 20420	BRM	ERRBUT	
17703	0 41 17701	BRX	CHECK6	
17704	0 71 25831	CHECK8 LDX	BUFSAV	
17705	0 76 25826	LDA	MODE	
17706	0 51 17406	BRR	CHECK	
17707	0 43 20321	CHECK9 BRM	WAIT4	
17710	0 76 25832	LDA	BUF13L	GET BOTH SECTOR COUNTS

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17711	0 55 25833	ADD	BUF2BL	
17712	0 46 20005	ABC		
17713	0 76 25840	LDA	BUF1CA	
17714	0 43 17512	BRM	RELABL	
17715	0 55 25832	ADD	BUF1BL	SET LDA FOR FIRST BUFFER
17716	0 16 26362	MRG	#67600000	
17717	0 35 17730	STA	CHECK3	
17720	0 55 25833	ADD	BUF2BL	SET SECOND BUFFER
17721	0 17 26363	EER	#60000	MAKE A SKM
17722	0 35 17731	STA	CHEC45	
17723	0 44 20005	ABC		
17724	0 54 25832	SUB	BUF1BL	
17725	0 35 25861	STA	H9LD	
17726	0 71 25861	LDX	H9LD	
17727	0 75 26114	LDB	**1	
17730	6 76 00000	CHECK3 LDA	0,6	
17731	6 70 00000	CHECK5 SKM	0,6	
17732	0 43 20420	BRM	ERRBUT	
17733	0 41 17730	BRX	CHECK3	
17734	0 01 17704	BRU	CHECK3	

*
*
* TRANSMIT TABLE ONE
* CALCULATED ADDRESSES AND BLOCK LENGTH CODES ARE INSERTED IN
* TABLE FOR TRANSMISSION TO THE RAD CONTROLLER
*

17735	0	00	00000	TRANS1	ZR0	0		
17736	0	35	20033		STA	INTRE1	CUE TRANS1, BRU TRAN12	
17737	0	40	14000		SKSS	14000	CHANNEL ACTIVE TEST	
17740	0	01	20247		BRU	RADTIM	TIME OUT FOR RAD INTRUPT WAIT	
17741	0	02	10026	TRAN12	E0MM	0010026	ALERT RAD. ERRORS ARE NOT CLEARED	
17742	0	13	25542		P0T	BUF1RA	STARTING RAD ADDRESS	
17743	0	40	11000		SKSS	011000	TEST CHANNEL ERROR	
17744	0	43	20367		BRM	CHANER	ANALYZE CHANNEL ERROR	
17745	0	02	10000		E0MM*	010000	ALERT CHANNEL	
17746	0	02	17200	TCE0M1	E0MM	0017200	ARM 11, 12, I0SD, AND M1 BITS	
17747	0	13	25536		P0T	BUF1KA	CHANNEL LD BITS	
17750	0	20	00000	TRAN14	N0P	0	LINK TO DATA CHAIN	
17751	0	40	11026	TRAN11	SKSS	011026	RAD ERROR TEST	
17752	0	43	20407		BRM	P0TERR	ONLY A P0T ERROR CAN OCCUR HERE	
17753	0	02	00000	TRE0M1	E0MM	0000000	RAD DRIVE CODE INSERTED HERE	
17754	0	02	12000		E0MM	012000	ALERT TO PIN INTERLACE	
17755	0	33	25576		PIN	PINWRD		
17756	0	76	20034		L0A	INTRE2		
17757	0	35	20033		STA	INTRE1	RESET FOR FAST RETURN	
17760	0	75	26060		L0B	*0		
17761	0	36	25575		STB	L0DABL		
17762	0	43	20343		BRM	PINTST		
17763	0	53	17753		SKN	TRE0M1		
17764	0	01	17771		BRU	TRAN13	TEST FOR EARLY INTRUPT	
17765	0	40	10026		SKSS	010026	TEST RAD READY	
17766	0	01	17770		BRU	**2		
17767	0	43	00460		BRM	ERR0R		
17770	0	20	25143		N0P	ERRIERR		

17771 0 51 17735 TRAN13 BRR TRANS1 RETURN TO MAIN LOOP

* TRANSMIT TABLE TWO
 * CALCULATED ADDRESSES AND BLOCK LENGTH CODES ARE INSERTED IN
 * TABLE FOR TRANSMISSION TO THE RAD CONTROLLER

17772	0 00 00000	TRANS2 ZR0	0		
17773	0 35 20033	STA	INTRE1	CUE TRANS2, BRU TRAN12	
17774	0 40 14000	SKSS	14000	CHANNEL ACTIVE TEST	
17775	0 01 20047	BRU	RADTIM	TIME OUT FOR RAD INTRUPT WAIT	
17776	0 02 10026	TRAN22 EBMM	0010026	ALERT RAD, ERRORS ARE NOT CLEARED	
17777	0 13 25543	PBT	BUF2RA	STARTING RAD ADDRESS	
20000	0 40 11000	SKSS	011000	TEST CHANNEL ERROR	
20001	0 43 20067	BRM	CHANER	ANALYZE CHANNEL ERROR	
20002	0 02*10000	EBMM*	010000	ALERT CHANNEL	
20003	0 42 17000	TCLRM2 EBMM	0017200	ARM I1, I2, I0SD, AND HI BITS	
20004	0 13 25537	PBT	BUF2KA	CHANNEL LB BITS	
20005	0 20 00000	TRAN24 NOP	0	LINK TO DATA CHAIN	
20006	0 40 11026	TRAN21 SKSS	011026	RAD ERROR TEST	
20007	0 43 20407	BRM	PBTERR	ONLY A PBT ERROR CAN OCCUR HERE	
20010	0 02 00000	TREPM2 EBMM	0000000	RAD DRIVE CODE INSERTED HERE	
20011	0 02 10000	EBMM	012000	ALERT TO PIN INTERLACE	
20012	0 33 20076	PIN	PINARD		
20013	0 75 26073	LDB	*1		
20014	0 36 25575	STB	LRDABL		
20015	0 43 20043	BRM	PINTST	CHECK FOR CORRECT PIN WRD	
20016	0 76 20034	TRAN25 LDA	INTREP		
20017	0 35 20033	STA	INTRE1	RESET FOR FAST RETURN	
20020	0 61 17772	MIN	TRANS2	INCREMENT RETURN FOR BR1	
20021	0 53 20010	SKN	TRE9YP		
20022	0 01 20027	BRU	TRAN23	TEST FOR EARLY INTRUPT	
20023	0 40 10026	SKSS	010026	TEST RAD READY	
20024	0 01 20026	BRU	**2		
20025	0 43 20060	BRM	ERR0R		
20026	0 20 25143	NOP	ERRIERR		
20027	0 53 25565	TRAN23 SKN	JMPTYP		

20030	0 11 17772	BR1	TRANS2	RETURN
20031	0 01*17772	BRU*	TRANS2	925 RETURN


```

*
* INTRUPT ROUTINE ONE AND TWO
*
* THIS IS THE ENTRY FOR INTRUPT ONE
*
20032 0 00 00000 INTR1E ZR0
20033 0 11 20032 INTR1E1 BRI INTR1E
20034 0 11 20032 INTR2E BRI INTR1E BUFFER NOT SET YET RETURN
20035 0 11 20046 INTR2E3 BRI INTR2E LINK TO FIRST BUFFER
20036 0 01 20040 INTR2E4 BRU WAIT5 LINK TO SECOND BUFFER
20037 0 01 20176 INTR2E5 BRU DCHAIN LINK TO DATA CHAIN CONTROL
20040 0 40 10026 WAIT5 SKSS 10026
20041 0 41 20040 BRX **1
20042 0 41 17776 BRX TRAN22 TO SECOND BUFFER
20043 0 43 00460 BRM ERROR
20044 0 20 25153 N0P SKSERR
20045 0 01 20016 BRU TRAN25 CLEAR BUFFER BEFORE END
20046 0 20 17741 INTR2E6 N0P TRAN12
*
* ENTRY WHEN ERROR INTRUPT OCCURS
*
20047 0 40 11026 INTR2 SKSS 011026 RAD ERROR SKS
20050 0 01 20076 BRU INTR2B YES RAD ERROR
20051 0 40 11000 SKSS 011000 NO, TEST CHANNEL ERROR
20052 0 01 20070 BRU INTR2A YES CHANNEL ERROR
20053 0 43 20142 BRM RESREG SAVE REGISTERS
20054 0 76 00450 INTR21 LDA DIVERT
20055 0 75 26112 LDB #37777
20056 0 70 26117 SKM #133
20057 0 01 20061 BRU **2

```

```

20060 0 01 20064 BRU INTR22
20061 0 43 15070 BRM SPUR1
20062 0 20 26120 N0P **33
20063 0 01 16207 BRU FUNC10
20064 0 43 20147 INTR22 BRM REST9R
20065 0 53 25565 SKN JMPTYP
20066 0 11 00246 BRI 246
20067 0 01 00246 BRU* 246
20070 0 43 00460 INTR2A BRM ERROR
20071 0 20 25162 N0P ERCHAN
20072 0 76 25526 LDA M0DE
20073 0 53 25565 SKN JMPTYP
20074 0 11 00246 BRI 246
20075 0 01 00246 BRU* 246
20076 0 43 20142 INTR2B BRM RESREG
20077 0 71 25575 LDX L0DABL
20100 0 02 10026 EDMM 010026
20101 2 13 25542 P0T BUF1RA,2
20102 0 76 26061 LDA #040000
20103 0 35 25552 STA COUNT1
20104 0 60 25552 INTR2C SKR COUNT1
20105 0 20 00000 N0P
20106 0 53 25552 SKN COUNT1
20107 0 01 20104 BRU INTR2C
20110 0 40 13026 SKSS 013026
20111 0 01 20125 BRU ARTPR0
20112 0 02 20004 DIR
20113 0 53 25565 SKN JMPTYP
20114 0 11 20116 BRI **2
20115 0 01 20116 BRU* **1
20116 0 20 20117 N0P **1
20117 2 76 25542 LDA BUF1RA,2
20120 0 71 00430 LDX 000000
20121 0 43 00460 BRM ERROR
20122 4 20 25274 N0P ADRERR,4
20123 0 03 00410 THREE AREG

```

SPURIOUS INTRUPT TESTER
CORRECT INTRUPT
RESTART
GET REGISTERS
I33 RETURN LINK
I33 RETURN LINK
ALERT RAD TO P0T ADRESS
DELAY FOR P0T
TIME OUT AND SKS FILE PROTECT
ADRS OVRFL0 ERROR
DUMP REGISTERS

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```
20124 0 01 20140 BRU *RTPR1
20125 2 76 25542 WRTPR0 LDA BUF1RA,2
20126 0 71 00430 LDX SUBJECT
20127 2 75 25542 LDB BUF1RA,2
20130 0 02 20004 DIR
20131 0 53 25565 SKN JMPTYP
20132 0 11 20134 BRI **2
20133 0 01*20134 BRU* **1
20134 0 20 20135 NOP **1
20135 0 43 00460 BRM ERRPR
20136 4 20 25167 NOP FILPR0,4
20137 0 03 00410 THREE AREG
20140 0 43 20147 WRTPR1 BRM REST0R
20141 0 01 00425 BRU FUNCTN*1
20142 0 00 00000 RESREG ZR0
20143 0 35 26022 STA SAVA4I
20144 0 36 26025 STB SAVB4I
20145 0 37 26040 STX SAVX4I
20146 0 51 20142 BRM RESREG
20147 0 00 00000 REST0R ZR0
20150 0 76 26022 LDA SAVA4I
20151 0 75 26025 LDB SAVB4I
20152 0 71 26040 LDX SAVX4I
20153 0 51 20147 BRM REST0R
```

FILE PROTECT MESSAGE
DUMP REGISTERS

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```
*
* DATA CHAIN CONTROL ROUTINE
*
20154 0 00 00000 CHAIN1 ZR0
20155 0 76 20364 LDA #100000+DCHA3
20156 0 35 17750 STA TRAN14
20157 0 71 26065 LDX #7
20160 0 37 25546 STX CHAINC
20161 0 75 20037 LDA INTRE5
20162 0 43 17735 BRM TRANS1
20163 0 01 20173 BRU DCHA1
20164 2 53 25417 DCHA3 SKN RFIELD+10,2
20165 0 01 17751 BRU TRAN11
20166 0 02 11000 ESMV 11000
20167 2 13 25417 PBT RFIELD+10,2
20170 2 77 00001 EAX 1,2
20171 0 37 25546 STX CHAINC
20172 0 01 17751 BRU TRAN11
20173 0 76 20037 DCHA1 LDA INTRE5
20174 0 35 20033 STA INTRE1
20175 0 01 20047 BRU RADTIM
20176 0 71 25546 DCHAIN LDX CHAINC
20177 2 53 25417 SKN RFIELD+10,2
20180 0 01 20214 BRU DCHA2
20181 0 02 11000 ESMV 011000
20182 2 13 25417 PBT RFIELD+10,2
20183 0 76 20037 LDA INTRE5
20184 0 35 20033 STA INTRE1
20185 2 77 00001 EAX 1,2
20186 0 37 25546 STX CHAINC
20187 0 53 25565 SKN JMPTYP
20190 0 11 20212 BRI **2
20191 0 01*20212 BRU* **1
20192 0 20 20212 NOP *
```

ALERT CHAIN REG

BACK TO TRANSMIT BLOCK
FORCE INTERRUPT RETURN

WAIT FOR THE INTERRUPT
RETURN ON INTERRUPT
TEST FOR LAST SET

ALERT DATA CHAIN
GET NEXT CHAIN SET

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20213	0 01	20247	BRU	RADTIM	WAIT FOR INTRUPT
20214	0 61	20154	DCHA2 MIN	CHAIN1	
20215	0 61	20154	MIN	CHAIN1	
20216	0 76	26066	LDA	#2000000	NOP 0
20217	0 35	17750	STA	TRAN14	
20220	0 35	20005	STA	TRAN24	RESET CHAIN LINK
20221	0 53	25565	SKN	JMPTYP	
20222	0 11	20224	BRI	**2	
20223	0 01	20224	BRU	**1	
20224	0 20	20224	NOP	*	
20225	0 51	20154	BRR	CHAIN1	
20226	0 00	00000	CHAIN2 ZR0	0	RETURN FOR ALL INTRUPTS
20227	0 71	26365	LDX	**7	
20230	0 37	25546	STX	CHAINC	
20231	0 76	26366	LDA	#100000*DCHA4	
20232	0 35	20005	STA	TRAN24	
20233	0 76	20226	LDA	CHAIN2	
20234	0 35	20154	STA	CHAIN1	
20235	0 76	20037	LDA	INTRS5	
20236	0 43	17772	BRM	TRANS2	
20237	0 01	20173	BRU	DCHA1	
20240	2 53	25417	DCHA4 SKN	RFIELD+10,2	
20241	0 01	20004	BRU	TRAN21	
20242	0 02	11000	EBM	11000	ALERT CHAIN REG
20243	2 13	25417	PBT	RFIELD+10,2	
20244	2 77	00001	EAX	1,2	
20245	0 37	25546	STX	CHAINC	
20246	0 01	20006	BRU	TRAN21	

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*
*
* RAD TIME OUT CALCULATOR
*
*
20247 0 71 26367 RADTIM LDX #77752014 170 MS TIME OUT
20250 0 20 00000 RADTI1 NOP 0
20251 0 20 00000 NOP 0 SINGLE CYCLE TIME OUT LOOP
20252 0 20 00000 NOP 0
20253 0 20 00000 NOP 0
20254 0 20 00000 NOP 0
20255 0 20 00000 NOP 0
20256 0 20 00000 NOP 0
20257 0 41 20250 BRX RADTI1
20260 0 43 00460 BRM ERRR
20261 0 20 25203 NOP TIMERR
20262 0 01 00431 BRU SUBJECT+1
20263 0 35 17735 WAIT1 STA TRANS1 SET RETURN
20264 0 71 26370 LDX #77740000 SET DELAY
20265 0 40 14000 WAIT11 SKSS 14000 CHANNEL ACTIVE TEST
20266 0 01 20272 BRU WAIT13
20267 0 40 10026 WAIT12 SKSS 10026 RAD READY TEST
20270 0 41 20265 BRX WAIT11
20271 0 01 20275 BRU WAIT14
20272 0 40 14000 WAIT13 SKSS 14000
20273 0 41 20265 BRX WAIT11
20274 0 01 20267 BRU WAIT12
20275 0 02 20004 WAIT14 DIR
20276 0 41 17741 BRX TRAN12
20277 0 43 00460 BRM ERRR
20300 0 20 25153 NOP SKSERR
20301 0 01 00431 BRU SUBJECT+1
20302 0 35 17772 WAIT2 STA TRANS2 SET RETURN
20303 0 71 26370 LDX #77740000 SET DELAY
20304 0 40 14000 WAIT21 SKSS 14000 CHANNEL ACTIVE TEST
20305 0 01 20311 BRU WAIT23

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20306	0 40	10026	WAIT22	SKSS	10026	HAD READY TEST
20307	0 41	20304		BRX	WAIT21	
20310	0 01	20314		BRU	WAIT24	
20311	0 40	14000	WAIT23	SKSS	14000	
20312	0 41	20304		BRX	WAIT21	
20313	0 01	20306		BRU	WAIT22	
20314	0 07	20304	WAIT24	DIR		
20315	0 41	17776		BRX	TRAN22	
20316	0 43	00460		BRM	ERRR	
20317	0 20	25159		NSP	SKSFRR	
20320	0 01	00431		BRU	OBJECT*1	
20321	0 00	00000	WAIT4	ZR0		
20322	0 37	24054		STX	NSAVE	
20323	0 71	26970		LDX	#77740000	SET DELAY
20324	0 40	14000	WAIT41	SKSS	14000	CHANNEL ACTIVE TEST
20325	0 01	20331		BRU	WAIT43	
20326	0 40	10026	WAIT42	SKSS	10026	HAD READY TEST
20327	0 41	20324		BRX	WAIT41	
20330	0 01	20334		BRU	WAIT44	
20331	0 40	14000	WAIT43	SKSS	14000	
20332	0 41	20324		BRX	WAIT41	
20333	0 01	20326		BRU	WAIT42	
20334	0 76	25526	WAIT44	LDA	MODE	
20335	0 41	20341		BRX	WAIT45	
20336	0 43	00460		BRM	ERRR	
20337	0 20	25159		NSP	SKSFRR	
20340	0 01	00431		BRU	OBJECT*1	
20341	0 71	26954	WAIT45	LDX	NSAVE	
20342	0 51	20321		BRR	WAIT4	
20343	0 00	00000	PINTST	ZR0		
20344	0 71	25575		LDX	LRDABL	
20345	0 76	26971		LDA	#-6	COUNT DOWN CONSTANT
20346	0 35	25552		STA	COUNT1	
20347	0 76	25576		LDA	PINWRD	
20350	0 75	20114		LDB	#-1	
20351	2 70	25540	PINTS1	SKM	BUFICA,2	TEST FOR ADDRESS ACCURACY

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20352	0 01	20354		BRU	**2	
20353	0 51	20343		BRR	PINTST	
20354	0 54	20073		SUB	#1	
20355	0 61	25552		MIN	COUNT1	
20356	0 53	25552		SKN	COUNT1	
20357	0 01	20361		BRU	**2	
20360	0 01	20351		BRU	PINTS1	
20361	0 76	25576		LDA	PINWRD	
20362	2 75	25540		LDB	BUFICA,2	
20363	0 71	00430		LDX	OBJECT	
20364	0 43	00460		BRM	ERRR	
20365	2 20	25127		NSP	PINERR,2	
20366	0 51	20343		BRR	PINTST	

*
* CHANNEL ERROR REPORT ROUTINE
*

20367	0 00 00000	CHANER	ZRO			
20370	0 71 25575		LDX	LODABL		
20371	2 75 25542		LDB	BUF1RA,2		
20372	2 76 26050		LDA	TREBM,2		
20373	0 72 26100		SKA	*04C	TEST FOR WRITE INSTRUCTION	
20374	0 01 20402		BRU	CHANE1		
20375	0 76 25575		LDA	LODABL		
20376	0 71 00430		LDX	OBJECT		
20377	0 43 00460		BRM	ERRR9		
20400	2 20 25217		NBP	READP,2	HEAD PARITY	
20401	0 51 20367		BRR	CHANER		
20402	0 76 25575	CHANE1	LDA	LODABL		
20403	0 71 00430		LDX	OBJECT		
20404	0 43 00460		BRM	ERRR9		
20405	2 20 25237		NBP	RITER,2		
20406	0 51 20367		BRR	CHANER		

*
* PBT ERROR ROUTINE
*

20407	0 00 00000	PBTERR	PZE			
20410	0 40 10026		SKSS	010026	HAD READY SKS	
20411	0 01 20415		BRU	POTER1		
20412	0 43 00460		BRM	ERRR9		
20413	0 20 25307		NBP	XTRAPT	SPURIOUS PBT ERROR	
20414	0 51 20407		BRR	PBTERR		
20415	0 43 00460	POTER1	BRM	ERRR9		
20416	0 20 25257		NBP	SADPBT	PBT ERR AND POSSIBLE READY CKT ERROR	
20417	0 51 20407		BRR	PBTERR	RETRY	

*
* COMPARE ERROR REPORT ROUTINE
*

20420	0 00 00000	ERRR02	ZRO			
20421	0 35 26021		STA	ERRSVA		
20422	0 36 26024		STB	ERRSVB		
20423	0 46 10012		BAC			
20424	0 37 26027		STX	ERRSVX		
20425	0 76 00406		LDA	SEED		
20426	0 35 26044		STA	SVSEED		
20427	0 71 25531		LDX	BUFSAV		
20430	2 76 25532		LDA	BUF1BL,2	GET BLOCK SIZE	
20431	0 55 26027		ADD	ERRSVX	BLK LGNTH * WDS OUT * ERROR WORD COUNT	
20432	0 14 26372		ETR	*37777777	RID NEGATIVE SIGN	
20433	0 35 25563		STA	HOLD3		
20434	2 76 25542		LDA	BUF1RA,2		
20435	0 35 25562		STA	HOLD2		
20436	0 67 00006		LSH	6		
20437	0 55 25563		ADD	HOLD3	FIND PRESENT RAD ADRS	
20440	0 35 25561		STA	HOLD		
20441	0 75 26373		LDB	*7700		
20442	0 70 26042		SKM	SEKSTT	GENERATE AND TEST RAD ADRS	
20443	0 01 20445		BRU	ERRR02	NEW SECTOR	
20444	0 01 20455		BRU	ERRR08		
20445	0 53 25574	ERRR02	SKN	PRINTED	PRINT OLD RESULT	
20446	0 43 20571		BRM	ERRR06		
20447	0 76 25561		LDA	HOLD		
20450	0 35 25524		STA	ADDRESS	PRINTED	
20451	0 35 26042		STA	SEKSTT		
20452	0 76 25527		LDA	ERRCNT		
20453	0 14 26374		ETR	*70000000	SAVE BUFFER CODE	
20454	0 35 25527		STA	ERRCNT	ZERO ERRCNT	
20455	0 61 25527	ERRR08	MIN	ERRCNT		
20456	0 76 25527		LDA	ERRCNT		

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20457	0	14	26175	ETR	#7777777	CLIP OFF BUFFER CODE
20460	0	73	26122	SKG	#3	
20461	0	01	20470	BRU	ERRR99	SKIP ALL ERRORS AFTER THREE
20462	0	76	25524	LDA	MODE	
20463	0	72	26175	SKA	#4	TEST TO PRINT ALL
20464	0	01	20470	BRU	ERRR99	
20465	0	76	26160	LDA	#0	
20466	0	35	25574	STA	PRNTD	SET PRINTED TO GO AT SECTOR CHANGE
20467	0	01	21537	BRU	ERRR94	
20470	0	76	25562	LDA	HOLD2	
20471	0	35	25523	STA	RADSTT	INITIAL RAD ADDRESS
20472	0	76	26420	LDA	ERRR9T	
20473	0	54	26173	SUB	#1	
20474	0	35	25561	STA	HOLD	
20475	0	71	26127	LDX	ERRSVX	GET DATA BLOCK POINTER
20476	0	76	25561	LDA	HOLD	
20477	0	17	26363	EOR	#600000	MAKE A LDA, 70 EBR 06 = 76
20500	0	35	25501	STA	**1	GET ERROR WORD
20501	6	76	01000	LDA	076	
20502	0	35	25522	STA	BADARD	
20503	0	76	26121	LDA	ERRSVA	
20504	0	35	25521	STA	GDWRD	
20505	0	76	25527	LDA	ERRCNT	
20506	0	14	26175	ETR	#07777777	CLR BUFFER CODE
20507	0	35	25527	STA	ERRCNT	
20510	0	76	25531	LDA	BUFSAV	RESTORE BUFFER POINTER
20511	0	71	25531	LDX	BUFSAV	
20512	0	55	26173	ADD	#1	
20513	0	44	20105	ABC		
20514	0	66	20103	RCY	3	
20515	0	16	25527	MRS	ERRCNT	
20516	0	35	25527	STA	ERRCNT	SET BUFFER CODE IN ERR COUNT WORD
20517	2	76	25532	LDA	BUFBL*2	
20520	0	35	25530	STA	BLKSIZ	TO ERROR TABLE
20521	0	76	25563	LDA	HOLD3	WORDS TESTED
20522	0	75	26160	LDB	#0	CLEAR BREG

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20523	2	55	25540	ADD	BUFICA*2	GENERATE CORE ADPS
20524	0	35	25525	STA	KBRADR	
20525	0	76	25524	LDA	MODE	
20526	0	72	26162	SKA	#0100000	RANDOM MODE
20527	0	01	20417	BRU	ERRR37	
20530	0	72	26163	SKA	#200000	SEQUENCE MODE
20531	0	01	20560	BRU	ERRR42	
20532	0	72	26164	SKA	#400000	FIXED MODE
20533	0	01	20543	BRU	ERRR91	
20534	0	43	00460	BRM	ERRR9	
20535	0	20	25137	NBP	NBDATA	
20536	0	01	16007	BRU	FUNC10	
20537	0	71	26127	LDX	ERRSVX	
20540	0	75	26124	LDB	ERRSVB	
20541	0	76	25521	LDA	GDWRD	
20542	0	51	20470	BRU	ERRR9T	RESET AND GO BACK TO TEST
20543	0	76	25521	LDA	GDWRD	
20544	0	75	26130	LDB	#00007777	TEST FOR HALF WRD SHIFT
20545	0	70	25522	SKM	BADARD	
20546	0	01	21554	BRU	ERRR32	
20547	0	75	25522	LDB	BADARD	
20550	0	43	00454	BRM	REPERT	
20551	0	20	25417	NBP	SYNC	
20552	0	43	20171	BRM	ERRR96	
20553	0	01	21537	BRU	ERRR94	
20554	0	75	26176	LDB	#77770000	CHECK HALF WORD
20555	0	70	25522	SKM	BADARD	
20556	0	01	20410	BRU	ERRR36	
20557	0	01	20547	BRU	ERRR33	
20560	0	76	25521	LDA	GDWRD	
20561	0	75	26177	LDB	#07777700	
20562	0	70	25522	SKM	BADARD	
20563	0	01	20565	BRU	ERRR41	
20564	0	01	20414	BRU	ERRR43	
20565	0	75	26400	LDB	#07770000	TEST FOR CORRECT RAD UNIT
20566	0	70	25522	SKM	BADARD	

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20567	0	01	20610	BRU	ERR036	
20570	0	01	20614	BRU	ERR043	
20571	0	00	00000	ERR006 ZR0		
20572	0	43	20321	BRM	WAIT4	
20573	0	76	26114	LDA	==1	
20574	0	35	25574	STA	PRINTD	CLEAR PRINTED SWITCH
20575	0	53	25560	SKN	HEADSW	TEST TO PRINT HEADING
20576	0	01	20603	BRU	ERR060	
20577	0	76	26060	LDA	#0	
20600	0	35	25560	STA	HEADSW	CLEAR HEADING SWITCH
20601	0	43	00454	BRM	REPORT	
20602	0	20	25314	NBP	TITLE	
20603	0	43	00454	ERR060 BRM	REPORT	
20604	0	10	25521	EIGHT	GDWRD	
20605	0	43	00460	BRM	ERR0R	
20606	0	20	25273	NBP	NDIT	
20607	0	51	20571	BRR	ERR006	
20610	0	76	26044	ERR036 LDA	SVSEED	
20611	0	35	00406	STA	SEED	REPLACE SEED
20612	0	43	20571	BRM	ERR006	
20613	0	01	20537	BRU	ERR004	
20614	0	43	00454	ERR043 BRM	REPORT	
20615	0	20	25443	NBP	ADALRT	
20616	0	01	20610	BRU	ERR036	
20617	0	76	00406	ERR037 LDA	SEED	
20620	0	35	26044	STA	SVSEED	
20621	0	76	17473	LDA	CHEC22	
20622	0	35	20432	STA	ERR038	
20623	0	71	26027	LDX	ERRSVX	
20624	2	77	00001	EAX	1,2	
20625	0	46	10012	BAC		
20626	0	76	25522	LDA	BADWRD	
20627	0	35	00406	STA	SEED	TRY NEW BEGINNING SEQUENCE
20630	0	43	17302	BRM	RANDOM	
20631	0	75	26114	LDB	==1	
20632	6	70	00000	ERR038 SKM	0,6	

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20633	0	01	20610	BRU	ERR036	
20634	0	76	26044	LDA	SVSEED	
20635	0	35	00406	STA	SEED	
20636	0	76	25527	LDA	ERRCNT	
20637	0	54	26073	SUB	#1	DELETE ERROR COUNT
20640	0	35	25527	STA	ERRCNT	
20641	0	51	20420	BRR	ERR00T	RETURN ALL IS WELL
20642	0	00	00000	MASKER ZR0		
20643	0	75	26114	LDB	==1	LDA MASK CONSTANT
20644	0	67	10054	NBP	054	NORMALIZE COUNT
20645	0	46	10012	BAC		MASK # 77770000 (TYP)
20646	0	17	26114	EBR	==1	FLIP TO LOW ORDER DIGITS
20647	0	75	26060	LDB	#0	
20650	0	67	10054	NBP	54	
20651	0	17	26372	EBR	#037777777	FINAL RESULT
20652	0	51	20642	BRR	MASKER	

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20653	0	43	00424	FUNC11	BRM	FUNCTION	
20654	0	20	21214		NSP	FPT11	
20655	0	43	00440		BRM	RETURN	
20656	0	20	07451		XBP	XTRAI	
20657	0	43	14467		BRM	RADRX	
20660	0	76	26101		LDA	STATUS	
20661	0	7P	26106		SKA	##000	SOFTWARE RAD READ ONLY
20662	0	1	21051		BRU	ALLDUN=1	

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* F119B01 INHIBIT INCREMENT TEST

20663	0	43	00430		BRM	SUBJECT	
20664	0	43	00440		BRM	RETURN	
20665	0	20	07451		NSP	XTRAI	
20666	0	76	26100		LDA	#0	
20667	0	43	15701		BRM	SPREAD	LOAD RLE BUFFER
20670	0	76	26210		LDA	#77	
20671	0	35	25573		STA	PBT RD	SET RAD ADRS
20672	0	43	20321		BRM	WAIT4	
20673	0	76	26131		LDA	RCODE1	64 WORDS FROM RLE
20674	0	43	15466		BRM	ARYT3	
20675	0	76	26160		LDA	#0	
20676	0	35	25573		STA	PBT RD	
20677	0	43	20321		BRM	WAIT4	
20700	0	76	26131		LDA	RCODE1	
20701	0	43	15466		BRM	ARYT3	CLEAR ADRS 77 AND 00
20702	0	76	26101		LDA	#100	
20703	0	35	25573		STA	PBT RD	
20704	0	43	20321		BRM	WAIT4	
20705	0	76	26131		LDA	RCODE1	
20706	0	43	15466		BRM	ARYT3	
20707	0	76	26114		LDA	##1	
20710	0	43	15701		BRM	SPREAD	
20711	0	71	26303		LDX	##100	
20712	2	35	26020		STA	RLE+200,2	CLEAR SECOND BUFFER
20713	0	41	20712		BRX	##1	
20714	0	76	26210		LDA	#77	
20715	0	35	25573		STA	PBT RD	
20716	0	43	20321		BRM	WAIT4	
20717	0	0P	11126		ESM	11026	INHIBIT INCREMENT
20720	0	13	25573		PBT	PBT RD	
20721	0	0P	11000		ESM	10000	
20722	0	02	14200		ESM	14200	10SD WITH NO INTERRUPTS
20723	0	13	26401		PBT	##10000000+RLE	SEND TWO SECTORS


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20724 0 02 02266      EBMM  2266      WRITE RECORD
20725 0 76 26060      LDA   #0
20726 0 43 15701      BRM   SPREAD   CLEAR RLB BUFFER
20727 0 76 26210      LDA   #77
20730 0 35 25573      STA  POTWRD
20731 0 76 26031      LDA  RCDE1
20732 0 35 26034      STA  CHANWD
20733 0 43 20321      BRM  WAIT4
20734 0 43 16015      BRM  READ7
20735 0 43 20321      BRM  WAIT4
20736 0 76 25620      LDA  RLB
20737 0 75 26114      LDB  #=1
20740 0 70 26114      SKM  #=1      TEST FOR WRITTEN DATA
20741 0 01 20764      BRU  F1101A   BAD DATA
20742 0 76 26060      LDA  #0
20743 0 43 15701      BRM  SPREAD
20744 0 76 26060      LDA  #000
20745 0 35 25573      STA  POTWRD
20746 0 43 16015      BRM  READ7
20747 0 43 20321      BRM  WAIT4   DELAY TO CHECK
20750 0 76 25620      LDA  RLB
20751 0 75 26114      LDB  #=1
20752 0 70 26114      SKM  #=1
20753 0 01 20764      BRU  F1101A
20754 0 76 26101      LDA  #100
20755 0 35 25573      STA  POTWRD
20756 0 43 16015      BRM  READ7
20757 0 43 20321      BRM  WAIT4
20760 0 76 25620      LDA  RLB
20761 0 75 26114      LDB  #=1
20762 0 70 26114      SKM  #=1
20763 0 01 20766      BRU  F1101B
20764 0 43 00460      F1101A BRM   ERROR
20765 0 20 25062      NOP   M1101A   INHIBIT LOGIC
20766 0 43 00434      F1101B BRM   END

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* F110B02 PARTIAL SECTOR WRITE
*
20767 0 43 00430      BRM  SUBJECT
20770 0 43 00440      BRM  RETURN
20771 0 20 07651      NOP  XTRAI
20772 0 76 25520      LDA  PATTRN
20773 0 43 15701      BRM  SPREAD   LOAD RLB WITH PATTRN
20774 0 76 25515      LDA  RADRS
20775 0 35 25573      STA  POTWRD   SET ADDRESS
20776 0 75 25516      LDB  WDKB4N   SET ADDRESS
20777 0 14 26210      ETR  #077    FORCE ONE SECTOR OR LESS
21000 0 67 00016      LSH  16      ORIENT FOR ADRS
21001 0 46 10012      BAC
21002 0 16 26307      YRG
21003 0 35 26034      STA  CHANWD
21004 0 43 20321      BRM  WAIT4
21005 0 76 26034      LDA  CHANWD
21006 0 43 15666      BRM  WRYT3   WRITE FROM RLB
21007 0 43 20321      BRM  WAIT4   DELAY FOR CONTROL LINK
21010 0 40 11026      SKSS 11026   EST FOR ERROR
21011 0 01 21013      BRU  #=2
21012 0 01 21020      BRU  F1102A
21013 0 76 26060      LDA  #0
21014 0 75 25515      LDB  RADRS
21015 0 71 00430      LDX  SUBJECT
21016 0 43 00460      BRM  ERROR
21017 2 20 25297      NOP  RITEP,2  BUFFER RAD ADRS OBJECT TEST OVRFLD ERRORS
21020 0 43 00434      F1102A BRM   END

* F110B03 PARTIAL SECTOR READ
*
21021 0 43 00430      BRM  SUBJECT
21022 0 43 00440      BRM  RETURN
21023 0 20 07651      NOP  XTRAI
21024 0 76 25515      LDA  RADRS
21025 0 35 25573      STA  POTWRD

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21026 0 76 26731 LDA RCODE1 64 WORDS
21027 0 35 26734 STA CHANWD
21030 0 43 16715 BRM READ7
21031 0 43 20721 BRM WAIT4
21032 0 71 26703 LDX **100 SET X FOR 64 WORDS
21033 0 76 25720 LDA PATTRN
21034 0 75 26114 LDB **1
21035 2 70 25720 F1103A SKM RLB*100,2
21036 0 01 21740 BRU **2
21037 0 41 21735 BRX F1103A
21040 0 76 26760 LDA *0
21041 2 70 25720 F1103B SKM RLB*100,2
21042 0 01 21745 BRU F1103C TEST FOR ZEROS
21043 0 41 21741 BRX F1103B
21044 0 01 21750 BRU F1103D
21045 2 75 25720 F1103C LDB RLB*100,2
21046 0 43 00460 BRM ERROR
21047 2 20 25772 NBP ZRRRAD,2 GOOD WD BAD WD INDEX OVRFLD ERRORS
21050 0 43 00434 F1103D BRM END
21051 0 43 00456 BRM DONE
21052 0 43 00452 ALLDUN BRM DONE
*
* F12 SINGLE SECTOR READ WITH PRINT OPTION
*
21053 0 43 00424 FUNC12 BRM FUNCTN
21054 0 20 21117 NBP FPT12
21055 0 43 00440 BRM RETURN
21056 0 20 07451 NBP XTR41
21057 0 43 00460 BRM ERROR
21060 0 20 21777 NBP MS12
21061 0 76 25715 LDA RADRS
21062 0 35 25773 STA POSTARD
21063 0 76 26731 LDA RCODE1 64 WORDS
21064 0 35 26734 STA CHANWD
21065 0 43 16715 BRM READ7
21066 0 43 20721 BRM WAIT4

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21067 0 43 00454 BRM REPORT
21070 4 20 21111 NBP MS12A,4
21071 4 01 21114 ONE PLACE,4
21072 0 20 21115 NBP MS12B
21073 0 43 00460 BRM ERROR
21074 0 20 25772 NBP ENDIT
21075 0 43 00456 BRM DONE
21076 0 01 21751 BRU FUNC12
21077 52464525 MS12 BCD ' ONE SECTOR READ ONLY. TYPE #FV THEN #T!!
21100 12622523
21101 63465112
21102 51252124
21103 12464543
21104 70331263
21105 70472512
21106 40266512
21107 63302545
21110 12406737
21111 52242163 MS12A BCD ' DATA AT !!
21112 21122163
21113 12523712
21114 0 00 25620 PLACE ZRR RLB
21115 64622512 MS12B BCD 'USE #P!!
21116 40473712
21117 0 20 21125 FPT12 NBP FIM12
21120 0 20 21144 NBP FAM12 ABSTRACT
21121 0 20 21207 NBP FVM12 VARIABLE HEADING
21122 0 01 25715 ONE RADRS VARIABLE
21123 0 00 21752 ZRR ALLDUN LAST FUNCTION
21124 00004000 DATA 400C IDENTIFIER BIT 12
21125 52122612 FIM12 BCD ' F 12 = READ ANY SECTOR ON THE RAD. TYPE #FV FOR VARIABLE.!!
21126 01021740
21127 12512521
21130 24122145
21131 70126225
21132 23634451

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21133 12464512
21134 63302512
21135 51212433
21136 12637047
21137 25124024
21140 65122646
21141 51126521
21142 51312122
21143 43253337
21144 52126330
21145 25126225
21146 23634651
21147 12512521
21150 24123162
21151 12264651
21152 23252412
21153 22701262
21154 25634731
21155 45271263
21156 30251265
21157 21513121
21160 22432533
21161 12124751
21162 31456331
21163 45271263
21164 30251212
21165 52622523
21166 63465112
21167 31621224
21170 46452512
21171 22701264
21172 62314527
21173 12633025
21174 12475131
21175 45631226
21176 64452363

FAM12 BCD THE SECTOR READ IS FORCED BY SETTING THE VARIABLE. PRINTING THE

BCD SECTOR IS DONE BY USING THE PRINT FUNCTION FROM THE ADDRESS OUTPUTTED.

21177 31464512
21200 26514444
21201 12633025
21202 12212424
21203 51256262
21204 12466463
21205 47646363
21206 25243337
21207 52512124
21210 12212451
21211 62523712

FVM12 BCD RAD ADRS !!

UNIT AND FUNCTION PARAMETERS AND MESSAGES

21212	0	20	21325	NBP	UPT	UNIT ID MSG ADRS
21213	0	20	21340	NBP	UAM	UNIT ABSTRACT MSG ADR
21214	0	20	21322	NBP	UVM	UNIT VARIABLES MSG ADRS
21215	0	01	21217	ONE	UVT	UNIT VARIABLE COUNT
21216	0	00	0000400	DATA	400	UNIT FIFTEEN ID WORD BIT 15
21217	0	37030000	UVT	DATA	37030000	F1,2,3,4,5,6,7,8,9,10,11 ACCESS WORD
21220	0	20	21510	NBP	FIM1	IDENTIFIER MESSAGE
21221	0	20	21527	NBP	FAM1	ABSTRACT MESSAGE
21222	0	20	21507	NBP	FVM1	VARIABLE MESSAGE
21223	0	01	21225	ONE	FVT1	DISPLAYABLE VARIABLES
21224	0	00	06165	PZE	FUNC2	FUNCTION LINK
21225	0	20000000	FVT1	DATA	020000000	FUNCTION IDENTIFIER BIT 1
21226	0	20	21472	NBP	FIM2	IDENTIFIER MESSAGE
21227	0	20	21457	NBP	FAM2	ABSTRACT MESSAGE
21230	0	20	21454	NBP	FVM2	VARIABLE MESSAGE
21231	0	01	21033	ONE	FVT2	DISPLAYABLE VARIABLES
21232	0	00	07462	PZE	FUNC3	NEXT FUNCTION
21233	0	10000000	FVT2	DATA	010000000	FUNCTION IDENTIFIER BIT 2
21234	0	20	21710	NBP	FIM3	IDENTIFIER FOR FUNCTION THREE
21235	0	20	21724	NBP	FAM3	ABSTRACT MESSAGE FOR THREE
21236	0	20	21705	NBP	FVM3	VARIABLE HEADING
21237	0	01	21241	ONE	FVT3	VARIABLE CONSTANT
21240	0	00	11071	ZR9	FUNC4	NEXT FUNCTION
21241	0	04000000	FVT3	DATA	040000000	IDENTIFIER FOR FUNCTION FOUR
21242	0	20	21751	NBP	FIM4	ABSTRACT MSG FOR FOUR
21243	0	20	21765	NBP	FAM4	VARIABLE HEADING
21244	0	20	21744	NBP	FVM4	VARIABLE CONSTANT
21245	0	01	21247	ONE	FVT4	VARIABLE CONSTANT
21246	0	00	12000	ZR9	FUNC5	NEXT FUNCTION
21247	0	00000000	FVT4	DATA	000000000	IDENTIFIER FOR FUNCTION FOUR
21250	0	20	22012	NBP	FIM5	ABSTRACT MSG FOR FOUR

21251	0	20	22024	NBP	FAM5	ABSTRACT MSG FOR FOUR
21252	0	20	22007	NBP	FVM5	VARIABLE HEADING
21253	0	01	21255	ONE	FVT5	VARIABLE COUNT
21254	0	00	13507	ZR9	FUNC6	NEXT FUNCTION
21255	0	01000000	FVT5	DATA	010000000	IDENTIFIER FOR FUNCTION FOUR
21256	0	20	22050	NBP	FIM6	IDENTIFIER MESSAGE
21257	0	20	22065	NBP	FAM6	ABSTRACT MESSAGE
21260	0	20	22063	NBP	FVM6	VARIABLE HEADING
21261	0	01	21263	ONE	FVT6	AMOUNT OF VARIABLES
21262	0	00	14070	ZR9	FUNC7	LINK TO NEXT FUNCTION
21263	0	00400000	FVT6	DATA	4000000	BIT 6 FOR FUNCTION 6
21264	0	20	22266	NBP	FIM7	IDENT MSG
21265	0	20	22303	NBP	FAM7	ABSTRACT MSG
21266	0	20	22315	NBP	FVM7	VARIABLE HEADING
21267	0	01	21271	ONE	FVT7	VARIABLE COUNT
21270	0	00	14504	ZR9	FUNC8	LINK TO NEXT FUNCTION
21271	0	00200000	FVT7	DATA	2000000	BIT 7 FOR FUNCTION 7
21272	0	20	22320	NBP	FIM8	IDENT MSG
21273	0	20	22335	NBP	FAM8	ABSTRACT MSG
21274	0	20	22347	NBP	FVM8	VARIABLE HEADING
21275	0	01	21277	ONE	FVT8	VARIABLE COUNT
21276	0	00	15222	ZR9	FUNC9	LINK TO NEXT FUNCTION
21277	0	00100000	FVT8	DATA	1000000	BIT 8 FOR FUNCTION 8
21300	0	20	22352	NBP	FIM9	IDENT MSG
21301	0	20	22367	NBP	FAM9	ABSTRACT MSG
21302	0	20	22401	NBP	FVM9	VARIABLE HEADING
21303	0	01	21305	ONE	FVT9	VARIABLE COUNT
21304	0	00	16207	ZR9	FUNC10	LINK TO NEXT FUNCTION
21305	0	00040000	FVT9	DATA	4000000	BIT 9 FOR FUNCTION 9
21306	0	20	22404	NBP	FIM10	IDENTIFIER MESSAGE
21307	0	20	22417	NBP	FAM10	ABSTRACT MESSAGE
21310	0	20	22225	NBP	FVM10	VARIABLE HEADING
21311	0	10	25505	EIGHT	MODES	
21312	0	00	20653	ZR9	FUNC11	NEXT FUNCTION
21313	0	00020000	FVT10	DATA	0200000	FUNCTION IDENTIFIER BIT 10
21314	0	20	22350	NBP	FIM11	IDENTIFIER MSG

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21315	0 20 23270	NBP	FAM11	ABSTRACT MSG
21316	0 20 23345	NBP	FVM11	VARIABLE HEADING
21317	0 03 25815	THREE	RADRS	DISPLAYABLE VARIABLES
21320	0 00 21053	ZR0	FUNC12	NEXT FUNCTION
21321	00010000	DATA	10000	FUNCTION IDENTIFIER BIT 11
21322	52121212	UVM	BCD	' FAW 11
21323	26214452			
21324	37121212			
21325	52641201	UIM	BCD	' U 15 = W CHANNEL AND 9367 (26=66) RAD TESTS 3.011
21326	05124012			
21327	66122330			
21330	21454525			
21331	43122145			
21332	24121103			
21333	06071274			
21334	02064006			
21335	06341251			
21336	21241263			
21337	25626362			
21340	12033300			
21341	37121212			
21342	52322664	UAM	BCD	' FUNC11 CHANNEL LOGIC TESTS. NO I/O REQUIRED.1
21343	45230115			
21344	12233021			
21345	45452543			
21346	12434427			
21347	31231263			
21350	25626362			
21351	33124346			
21352	12316146			
21353	12512550			
21354	64315125			
21355	24331212			
21356	52266445	BCD		' FUNC21 RAD SKS AND PRIMARY TRANSFER TESTS.1
21357	23021512			
21360	51212412			

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21361	62426212			
21362	21452412			
21363	47513144			
21364	21517012			
21365	63512145			
21366	62252551			
21367	12632562			
21370	63623312			
21371	52266445	BCD		' FUNC31 RAD TWO PIN TESTS.1
21372	23031512			
21373	51212412			
21374	63664612			
21375	47314512			
21376	63256263			
21377	62331212			
21400	52266445	BCD		' FUNC41 RAD THREE PIN TESTS.1
21401	23041512			
21402	51212412			
21403	63305125			
21404	25124731			
21405	45126325			
21406	62636233			
21407	52266445	BCD		' FUNC51 RAD FOUR PIN TESTS.1
21410	23051512			
21411	51212412			
21412	26466451			
21413	12473145			
21414	12632562			
21415	63623312			
21416	52266445	BCD		' FUNC61 RAD ONE HEAD TEST.1
21417	23061512			
21420	51212412			
21421	46452512			
21422	30252124			
21423	12632562			
21424	63331212			

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21425	52266445	BCD	1 FUNC7: RAD TWO HEAD TEST.1
21426	23071512		
21427	51212412		
21430	63664412		
21431	30252124		
21432	12632562		
21433	63331212		
21434	52266445	BCD	1 FUNC8: RAD THREE HEAD TEST.1
21435	23101512		
21436	51212412		
21437	63325125		
21440	25123225		
21441	21241263		
21442	25626333		
21443	52266445	BCD	1 FUNC9: RAD FOUR HEAD TEST.1
21444	23111512		
21445	51212412		
21446	26466451		
21447	12302421		
21450	24126225		
21451	62633212		
21452	52266445	BCD	1 FUNC10: RANDOM RAD EXERCISER.1
21453	23010215		
21454	12512145		
21455	24464412		
21456	51212412		
21457	25672551		
21460	23216225		
21461	51331212		
21462	52266445	BCD	1 FUNC11: PARTIAL BLOCK AND INHIBIT INCREMENT TEST.1
21463	23010115		
21464	12472151		
21465	63312143		
21466	12224246		
21467	23421221		
21470	45241231		

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21471	45303122		
21472	31631231		
21473	45235125		
21474	44254563		
21475	12632562		
21476	63331212		
21477	52266445	BCD	1 FUNC12: ONE SECTION READ ONLY.11
21500	23010215		
21501	12464525		
21502	12622523		
21503	63465112		
21504	51252124		
21505	12464543		
21506	70333712		
21507	52121212	FVM1 BCD	1 FAX 11
21510	12262166		
21511	52371212		
21512	52122612	FIM1 BCD	1 F 01 = CHANNEL ACCESS TEST FOR 9367 RAD CHANNEL.11
21513	00011240		
21514	12233221		
21515	45452543		
21516	12212225		
21517	62621263		
21520	25626312		
21521	26465112		
21522	11030407		
21523	12512124		
21524	12233221		
21525	45452543		
21526	37121212		
21527	52322464	FAM1 BCD	11 FUNCTION ONE DIAGNOSES FAULTS IN THE 940 CHANNEL CONNECTED TO THE RAD.11
21530	45236331		
21531	46451246		
21532	45251224		
21533	31212745		
21534	46622562		

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21535 12262164
21536 43636212
21537 31451263
21540 30251211
21541 04001223
21542 30214445
21543 25431223
21544 46454425
21545 23632424
21546 12634412
21547 63302412
21550 51212433
21551 52214343
21552 12110400
21553 12243121
21554 27454662
21555 63312362
21556 12446462
21557 63125164
21560 45122346
21561 51512423
21562 63437133
21563 12123126
21564 12214512
21565 25515146
21566 51123021
21567 43631246
21570 23236451
21571 62151212
21572 52215125
21573 27121312
21574 25515146
21575 51126646
21576 51241212
21577 22512527
21600 12131263

BCD ! ALL 940 DIAGNOSTICS MUST RUN CORRECTLY. IF AN ERROR HALT OCCURS!

BCD ! AREG = ERROR WORD BREG = TEST WORD XREG = OBJECT TEST.!

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21601 25626312
21602 66465124
21603 12126751
21604 25271213
21605 12462241
21606 25236312
21607 63256263
21610 33121212
21611 52633025
21612 12212323
21613 46444721
21614 45703145
21615 27124751
21616 31456346
21617 64631224
21620 25263145
21621 25621262
21622 31274521
21623 43124521
21624 44236212
21625 21452412
21626 44462464
21627 43256212
21630 51254321
21631 63252412
21632 63461263
21633 30251226
21634 21314764
21635 51251212
21636 52255151
21637 46511251
21640 25626443
21641 63621221
21642 51251223
21643 46452325
21644 51452424

BCD ! THE ACCOMPANYING PRINTOUT DEFINES SIGNAL NAMES AND MODULES RELATED TO THE FAILURE!

BCD ! ERROR RESULTS ARE CONCERNED WITH CHANNEL LOGIC ONLY.!!

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21645	12663163			
21646	30122330			
21647	21454525			
21650	43124346			
21651	27312312			
21652	46454170			
21653	33371012			
21654	52121012	FVM2	BCD	' FAW 11
21655	26216452			
21656	37121012			
21657	52322464	FAM2	BCD	' FUNC2 DIAGNOSES THE 9367 RAD CONTROLLER.11
21660	45230012			
21661	24312127			
21662	45466225			
21663	62126330			
21664	25121103			
21665	06071251			
21666	21241223			
21667	46454351			
21670	44434225			
21671	51333712			
21672	52122412	FVM2	BCD	' F 02 = RAD ACCESS TEST FOR THE 9367 RAD11
21673	00031240			
21674	12512124			
21675	12212223			
21676	25626312			
21677	63256263			
21700	12264451			
21701	12633225			
21702	12110206			
21703	07125121			
21704	24371012			
21705	52121012	FVM3	BCD	' FAW 11
21706	26216452			
21707	37121012			
21710	52122412	FIM3	BCD	' F 03 = SECTOR COUNTER TEST FOR 9367 RAD 0211

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21711	00031240			
21712	12626523			
21713	63465112			
21714	23466445			
21715	63255112			
21716	63256263			
21717	12264451			
21720	12110206			
21721	07125121			
21722	24120002			
21723	37121212			
21724	52322464	FAM3	BCD	' FUNC3 TESTS FOR SELECTOR LOGIC ON RAD 02, ADDRESSES 20000 TO 3777711
21725	45230012			
21726	63256263			
21727	62122446			
21730	51126225			
21731	43252263			
21732	46511243			
21733	46273123			
21734	12464512			
21735	51212412			
21736	00027412			
21737	21242451			
21740	25626225			
21741	62120200			
21742	00000012			
21743	63461203			
21744	07070707			
21745	37121212			
21746	52121212	FVM4	BCD	' FAW 11
21747	26216452			
21750	37121212			
21751	52122412	FIM4	BCD	' F 04 = SECTOR COUNTER TEST FOR 9367 RAD 0311
21752	00041240			
21753	12622523			
21754	63465112			

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21755	23466445		
21756	63255112		
21757	63256263		
21760	12264651		
21761	12110306		
21762	07125121		
21763	24120003		
21764	37121212		
21765	52322664	FAM4	BCD FUNC4 TESTS FOR SELECTOR LOGIC ON RAD 03, ADDRESSES 40000 TO 5777711
21766	45230412		
21767	63256263		
21770	62122446		
21771	51126225		
21772	43252363		
21773	46511243		
21774	46273123		
21775	12464512		
21776	51212412		
21777	00037312		
22000	21242451		
22001	25626225		
22002	62120400		
22003	00000012		
22004	63461205		
22005	07070707		
22006	37121212		
22007	52121212	FAM5	BCD FAW 11
22010	26216452		
22011	37121212		
22012	52122612	FAM5	BCD F 05 = SECTOR COUNTER TEST FOR 9367 RAD 0411
22013	00051240		
22014	12622223		
22015	63465112		
22016	23466445		
22017	63255112		
22020	63256263		

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22021	12264651		
22022	12110306		
22023	07125121		
22024	24120004		
22025	37121212		
22026	52322664	FAM5	BCD FUNC5 TESTS FOR SELECTOR LOGIC ON RAD 04, ADDRESSES 60000 TO 7777711
22027	45230512		
22030	63256263		
22031	62122446		
22032	51126225		
22033	43252363		
22034	46511243		
22035	46273123		
22036	12464512		
22037	51212412		
22040	00047312		
22041	21242451		
22042	25626225		
22043	62120400		
22044	00000012		
22045	63461207		
22046	07070707		
22047	37121212		
22050	52122600	FAM6	BCD F06 = SELECTOR UNIT 01 HEAD CHECK FOR 9367 RAD11
22051	06124012		
22052	62254225		
22053	23634651		
22054	12644531		
22055	63120001		
22056	12302521		
22057	24122330		
22060	25234212		
22061	26465112		
22062	11030607		
22063	12512124		
22064	37121212		

22065 52322464 FAN6 BCD FUNCTION 6 TESTS ALL HEADS FROM ADDRESS 0000 TO 17777 FOR CORRECT OPERATION
 22066 45236331
 22067 46451206
 22070 12632562
 22071 63621221
 22072 43431231
 22073 25212462
 22074 12265446
 22075 44122124
 22076 24512562
 22077 62121200
 22100 00001263
 22101 46121207
 22102 07070712
 22103 26465112
 22104 23465151
 22105 25236312
 22106 46472551
 22107 21633146
 22110 45121212
 22111 52314512 BCD IN BOTH READ AND WRITE MODES. DATA USED IS ALL ONES. EACH HEAD
 22112 22466330
 22113 12512521
 22114 24122145
 22115 24126451
 22116 31632112
 22117 44462475
 22120 62331212
 22121 24214221
 22122 12646225
 22123 24123162
 22124 12214243
 22125 12464525
 22126 62331212
 22127 25212330
 22130 12302521

22131 24121212
 22132 52316212 BCD IS CHECKED ON ALL SECTORS OF ITS BAND ADDRESS. THE READ ERROR MESSAGE
 22133 23302523
 22134 42252412
 22135 46451221
 22136 43431262
 22137 25236346
 22140 51621246
 22141 26123163
 22142 62122221
 22143 45241221
 22144 24512562
 22145 62331212
 22146 63302512
 22147 51252124
 22150 12255151
 22151 46511244
 22152 25626221
 22153 27251212
 22154 52475131 BCD PRINTS: SIDExxxx TB=xxxx HD=xxxx. THESE ARE THE SIDE OF THE RAD
 22155 45636215
 22156 12121231
 22157 24256767
 22160 67671263
 22161 22406767
 22162 67671230
 22163 24406767
 22164 67673312
 22165 12633125
 22166 62251221
 22167 51251263
 22170 30251262
 22171 31242512
 22172 46261263
 22173 30251251
 22174 21241212

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22175	52663031	BCD	' WHICH IS OPENED TO ACCESS THE HEAD, THE TB STRIP CONCERNED AND THE '
22176	23301231		
22177	62124647		
22200	25452524		
22201	12474612		
22202	21232562		
22203	62126330		
22204	25123025		
22205	21247312		
22206	63302512		
22207	63221262		
22210	63513147		
22211	12234445		
22212	23255145		
22213	25241221		
22214	45241263		
22215	30251212		
22216	52456444	BCD	' NUMBER OF THE JACK WHERE THE HEAD WOULD BE NORMALLY PLUGGED. SIDE'
22217	22255112		
22220	46251263		
22221	30251241		
22222	21234212		
22223	66302551		
22224	25126330		
22225	25123025		
22226	21241266		
22227	46644324		
22230	12222512		
22231	45445144		
22232	21434370		
22233	12474364		
22234	27272524		
22235	33121262		
22236	31242512		
22237	52464525	BCD	' ONE OF THE RAD UNIT IS THE FRONT DOOR. THE OTHER SIDES ARE COUNTED'
22240	12462612		

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22241	63302512		
22242	51212412		
22243	64453163		
22244	12316212		
22245	63302512		
22246	26514445		
22247	63122444		
22250	46513312		
22251	12633025		
22252	12466330		
22253	25511262		
22254	31242562		
22255	12215125		
22256	12234664		
22257	45632524		
22260	52234346	BCD	' CLOCKWISE.!!'
22261	23426631		
22262	62253337		
22263	52121212	FVM6 BCD	' FAV !!'
22264	26216652		
22265	37121212		
22266	52122612	FIM7 BCD	' F 07 = SELECTOR UNIT 02 HEAD CHECK FOR 9367 RAD!!'
22267	00071240		
22270	12622543		
22271	25276344		
22272	51126445		
22273	31631200		
22274	02123025		
22275	21241223		
22276	30252342		
22277	12264651		
22300	12110306		
22301	7125121		
22302	24371212		
22303	52322664	FAM7 BCD	' FUNC7 PRINT F 6 ABSTRACT FOR DETAILS!!'
22304	45230712		

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22305	47513145			
22306	63122412			
22307	06122122			
22310	62635121			
22311	23631226			
22312	46511224			
22313	25632131			
22314	43623712			
22315	52121212	FVM7	BCD	' FAW !!
22316	12262166			
22317	52371212			
22320	52261200	FIM8	BCD	' F 08 = SELECTOR UNIT 03 HEAD CHECK FOR 9367 RAD!!
22321	10121712			
22322	62254225			
22323	23634451			
22324	12644531			
22325	63120003			
22326	12302521			
22327	24122930			
22330	25234712			
22331	26465112			
22332	11030407			
22333	12512124			
22334	37121212			
22335	52322664	FAM8	BCD	' FUNC8 PRINT F 6 ABSTRACT FOR DETAILS!!
22336	45231012			
22337	47513145			
22340	63122412			
22341	06122122			
22342	62635121			
22343	23631226			
22344	46511224			
22345	25632131			
22346	43623712			
22347	52121212	FVM8	BCD	' FAW !!
22350	12262166			

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22351	52371212			
22352	52122612	FIM9	BCD	' F 09 = SELECTOR UNIT 04 HEAD CHECK FOR 9367 RAD!!
22353	00111240			
22354	12622543			
22355	25236746			
22356	51126445			
22357	31631200			
22360	04123025			
22361	21241223			
22362	30252342			
22363	12264451			
22364	12110306			
22365	07125121			
22366	24371212			
22367	52322664	FAM9	BCD	' FUNC9 PRINT F 6 ABSTRACT FOR DETAILS!!
22370	45231112			
22371	47513145			
22372	63122412			
22373	06122122			
22374	62635121			
22375	23631226			
22376	46511224			
22377	25632131			
22400	43623712			
22401	52121212	FVM9	BCD	' FAW !!
22402	12262166			
22403	52371212			
22404	52122612	FIM10	BCD	' F 10 = 9367 RAD EXERCISER FOR W CHANNEL!!
22405	01001240			
22406	12110306			
22407	07125121			
22410	24122567			
22411	25512731			
22412	62255112			
22413	26465112			
22414	66122330			

22415	21454525		
22416	43371212		
22417	52323145	FAM10	BCD
22420	12266445		
22421	23633144		
22422	45120100		
22423	17637047		
22424	25621246		
22425	26122346		
22426	45635146		
22427	43433145		
22430	27124444		
22431	63312662		
22432	12264451		
22433	12633025		
22434	12512124		
22435	12215125		
22436	12622563		
22437	12227012		
22440	23302145		
22441	27314527		
22442	12633025		
22443	52266445	BCD	
22444	23633146		
22445	45126521		
22446	51312122		
22447	43251212		
22450	44462425		
22451	62121221		
22452	23234651		
22453	24314527		
22454	12634612		
22455	63302512		
22456	23302151		
22457	63122225		
22460	43466633		

IN FUNCTION 10 TYPES OF CONTROLLING MOTIFS FOR THE RAD ARE SET BY CHANGING THE
 FUNCTION VARIABLE MODES ACCORDING TO THE CHART BELOW.

22461	52525454	BCD	
22462	31261221		
22463	12464525		
22464	12223163		
22465	12316212		
22466	31451515		
22467	54545212		
22470	52223163	BCD	
22471	12001226		
22472	31677312		
22473	01126225		
22474	50642545		
22475	23257312		
22476	02125121		
22477	45244644		
22500	73125121		
22501	24122124		
22502	24512562		
22503	62256233		
22504	52223163	BCD	
22505	12031226		
22506	31677312		
22507	04126225		
22510	50642545		
22511	23257312		
22512	05125121		
22513	45244444		
22514	73122346		
22515	51251221		
22516	24245125		
22517	62622562		
22520	33121212		
22521	52223163	BCD	
22522	12061226		
22523	31677312		
22524	07126225		

**IF A ONE BIT IS INITIATED
 BIT 0 FIX, 1 SEQUENCE, 2 RANDOM, RAD ADDRESSES.
 BIT 3 FIX, 4 SEQUENCE, 5 RANDOM, CORE ADDRESSES.
 BIT 6 FIX, 7 SEQUENCE, 8 RANDOM, DATA.

22525	50640545		
22526	23257312		
22527	10125121		
22530	45244444		
22531	73122421		
22532	63213312		
22533	52223163	BCD	' BIT 9 FIX, 10 EARLY, 11 INTRUPT, TRANSMISSION MODE.'
22534	12111224		
22535	31677312		
22536	01001225		
22537	21514370		
22540	73121101		
22541	12314563		
22542	51644763		
22543	73123751		
22544	21456244		
22545	31626231		
22546	46451244		
22547	46442533		
22550	52223163	BCD	' BIT 12 FIX, 13 WRITE, 14 READ, FOR BUFFER ONE.'
22551	12011212		
22552	26314773		
22553	12011212		
22554	06513163		
22555	25731201		
22556	04121125		
22557	21247312		
22560	26465112		
22561	22647426		
22562	25511244		
22563	46453312		
22564	52223163	BCD	' BIT 15 FIX, 16 WRITE, 17 READ, FOR BUFFER TWO.'
22565	12011212		
22566	26314773		
22567	12011212		
22570	66513163		

22571	25731201		
22572	07125125		
22573	21247312		
22574	26465112		
22575	22647426		
22576	25511244		
22577	66463312		
22600	52223163	BCD	' BIT 18 SET DATA CHAINING MODE.'
22601	12011212		
22602	62256312		
22603	24216221		
22604	12233221		
22605	31453145		
22606	27124444		
22607	24253312		
22610	52223163	BCD	' BIT 21 PRINT ALL ERRORS, IF ZERO THE FIRST THREE ERRORS ARE PRINTED.'
22611	12021112		
22612	47513145		
22613	63122143		
22614	43122551		
22615	51465162		
22616	73123126		
22617	12712551		
22620	46126330		
22621	25122631		
22622	51624312		
22623	63305125		
22624	25122551		
22625	51465162		
22626	12215125		
22627	12475131		
22630	45632524		
22631	33121212		
22632	52312412	BCD	' IF THE MODE IS FIX=ZERO FOR TRANSMISSION MODE AND BUFFER'
22633	63302512		
22634	44462425		

22635 12316212
 22636 26316713
 22637 71255146
 22640 12264651
 22641 12635121
 22642 45624431
 22643 62623146
 22644 45124446
 22645 24251221
 22646 45241222
 22647 64262625
 22650 51121212
 22651 52444624
 22652 25731221
 22653 12512145
 22654 24464412
 22655 62254325
 22656 23633146
 22657 45123162
 22660 12442124
 22661 25122646
 22662 51126730
 22663 25124721
 22664 51214425
 22665 63255133
 22666 12126630
 22667 25451245
 22670 46121212
 22671 52512521
 22672 24124451
 22673 12665131
 22674 63251231
 22675 62126225
 22676 63122446
 22677 51122112
 22700 22642626

BCD ' MODE, A RANDOM SELECTION IS MADE FOR THE PARAMETER. WHEN NO

BCD ' READ OR WRITE IS SET FOR A BUFFER, THE BUFFER IS NOT USED.'

22701 25517312
 22702 63302512
 22703 22642626
 22704 25511231
 22705 62124546
 22706 63126462
 22707 25243312
 22710 52312612
 22711 24216321
 22712 12233721
 22713 31451226
 22714 31671346
 22715 45251231
 22716 62124421
 22717 24257712
 22720 23302131
 22721 45314527
 22722 12663143
 22723 43122225
 22724 12214343
 22725 46662524
 22726 12663725
 22727 45121212
 22730 52633725
 22731 12314563
 22732 51644763
 22733 12444624
 22734 25123162
 22735 12454663
 22736 12252151
 22737 43701266
 22740 46512433
 22741 52256721
 22742 44474725
 22743 15124446
 22744 24256213

BCD ' IF DATA CHAIN FIXONE IS MADE, CHAINING WILL BE ALLOWED WHEN'

BCD ' THE INTERRUPT MODE IS NOT EARLY WORD.'

BCD ' EXAMPLE: MODES: 14263600 SELECTS RANDOM RAD AND FIXED CORE ADDRESSES.'

22745 12010402
 22746 06030400
 22747 00126225
 22750 43222763
 22751 62125121
 22752 45244444
 22753 12512124
 22754 12214524
 22755 12263167
 22756 25241223
 22757 46512512
 22760 21242451
 22761 25622225
 22762 62731212
 22763 52622550
 22764 64254563
 22765 31214312
 22766 24210321
 22767 73122521
 22770 51437112
 22771 43216325
 22772 45237112
 22773 66310320
 22774 46646312
 22775 31456751
 22776 64474773
 22777 52512145
 23000 24444412
 23001 51252124
 23002 12455112
 23003 66513163
 23004 25122446
 23005 51122764
 23006 26262551
 23007 12464525
 23010 72731226

BCD ' SEQUENTIAL DATA, EARLY LATENCY WITHOUT INTERRUPT.'

BCD ' RANDOM READ OR WRITE FOR BUFFER ONE,, FIXED WRITE ONLY FOR'

23011 31672524
 23012 12665131
 23013 63251246
 23014 45437112
 23015 26465112
 23016 52226426
 23017 26255112
 23020 63664673
 23021 12214524
 23022 12454412
 23023 24210321
 23024 12233221
 23025 31453145
 23026 27331212
 23027 52633231
 23030 62124446
 23031 24251266
 23032 46644324
 23033 12516445
 23034 12264451
 23035 12635225
 23036 12512547
 23037 25633163
 23040 31464562
 23041 12242526
 23042 31452524
 23043 12314612
 23044 23702243
 23045 25622312
 23046 12312412
 23047 23702243
 23050 25621212
 23051 52234445
 23052 63213145
 23053 62122112
 23054 45252221

BCD ' BUFFER TWO, AND NO DATA CHAINING.'

BCD ' THIS MODE WOULD RUN FOR THE REPETITIONS DEFINED IN CYCLES. IF CYCLES'

BCD ' CONTAINS A NEGATIVE NUMBER THE MODE WILL RUN INDEFINITELY.'

23055 63316525
23056 12456444
23057 22255112
23060 63302512
23061 44462425
23062 12663149
23063 43125164
23064 45123145
23065 24252631
23066 45316325
23067 43703312
23070 52633025
23071 12512124
23072 12215125
23073 21126225
23074 43252363
23075 25241266
23076 31434312
23077 22251242
23100 25702524
23101 12663163
23102 30126330
23103 25126225
23104 43252363
23105 25241224
23106 21632112
23107 22252446
23110 51251212
23111 52633025
23112 12444624
23113 25122746
23114 45635146
23115 43123162
23116 12314563
23117 25514751
23120 25632424

BCD THE RAD AREA SELECTED WILL BE KEYED WITH THE SELECTED DATA BEFORE!

BCD THE MODE CONTROL IS INTERPRETED. SEQUENTIAL DATA CONTAINS THE !

23121 33121262
23122 25506425
23123 45633121
23124 43122421
23125 63211223
23126 46456321
23127 31456212
23130 63302512
23131 52512124
23132 12644531
23133 63127467
23134 34731263
23135 30251251
23136 21241221
23137 24245125
23140 62621274
23141 70707070
23142 34731221
23143 45241263
23144 30251262
23145 25236346
23146 51126646
23147 51241274
23150 71713412

BCD RAD UNIT (X), THE RAD ADDRESS (YYYY), AND THE SECTOR WORD (ZZ)!

23151 52216212
 23152 06677170
 23153 70707171
 23154 33121231
 23155 26122631
 23156 67224742
 23157 12316212
 23160 21124431
 23161 45646212
 23162 46452512
 23163 46511221
 23164 43431262
 23165 25652545
 23166 62731221
 23167 12512145
 23170 24464412
 23171 52224746
 23172 23421243
 23173 25452763
 23174 51123162
 23175 12722545
 23176 25512163
 23177 25242312
 23200 12312412
 23201 45466273
 23202 12631225
 23203 12234464
 23204 45631231
 23205 62122746
 23206 45623124
 23207 25512124
 23210 52634412
 23211 22251231
 23212 45122225
 23213 23634451
 23214 62151212

BCD ' AS OXYYYYZZ. IF FIXBLK IS A MINUS ONE OR ALL SEVENS, A RANDOM

BCD ' BLOCK LENGTH IS GENERATED. IF NOT, THE COUNT IS CONSIDERED!

BCD ' TO BE IN SECTORS: FIXBLK=30 IS 3000 WORDS LONG.!!

23215 26316722
 23216 43421203
 23217 52123162
 23220 12031200
 23221 50126646
 23222 51246212
 23223 43464527
 23224 3331212
 23225 52121244
 23226 46242562
 23227 12121212
 23230 23465143
 23231 46121212
 23232 12234451
 23233 30311212
 23234 12125121
 23235 24434412
 23236 12121251
 23237 21242231
 23240 12121247
 23241 21632551
 23242 45121212
 23243 26316722
 23244 43421212
 23245 12237223
 23246 43251252
 23247 37121212
 23250 52122412
 23251 31011240
 23252 12472151
 23253 63312143
 23254 12622423
 23255 63465112
 23256 51252124
 23257 12214524
 23260 12665131

FV=10 BCD ' UNDES CORL0 CORHI RADL0 RADHI PATERN FIXBLK CYCLES !!

FV=11 BCD ' F 11 = PARTIAL SECTOR READ AND WRITE, TYPE =FV FOR VARIABLES!!

23261	63253912		
23262	63704725		
23263	12402665		
23264	12264651		
23265	12652151		
23266	31212243		
23267	25623712		
23270	52323145	FAM11 BCD	IN FUNC11 PARTIAL BLOCK TRANSFERS CAN BE SET WHICH ARE LESS THAN ONE SECTOR.
23271	12266445		
23272	23010112		
23273	47215163		
23274	31214312		
23275	22434623		
23276	42126751		
23277	21456226		
23300	25516212		
23301	23214512		
23302	22251262		
23303	25631266		
23304	30312330		
23305	12215125		
23306	12432562		
23307	62126330		
23310	21451746		
23311	45251262		
23312	25236346		
23313	51331712		
23314	52637467	BCD	TYPE F 11T, FV FOR VARIABLES CONCERNING THE TRANSFERS, INHIBIT
23315	25122612		
23316	01016773		
23317	12266512		
23320	26465112		
23321	65215131		
23322	21224325		
23323	62122746		
23324	45232551		

23325	45314527		
23326	12633025		
23327	12635121		
23330	45622425		
23331	51623312		
23332	12314530		
23333	31223163		
23334	12121212		
23335	52314823	BCD	INCREMENT TESTS ON BAND ZERO
23336	51254425		
23337	45631263		
23340	25626362		
23341	12464512		
23342	22214524		
23343	12712551		
23344	46371212		
23345	52512124	FVM11 BCD	RAD ADDR WD COUNT PATTERN
23346	12212451		
23347	62126624		
23350	12234664		
23351	45631212		
23352	47216363		
23353	25514532		
23354	37121212		

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*
* ERRORS MESSAGES
*

23355	52020524	F1*1	BCD	' 25D02(44)!!
23356	00027404			
23357	04343712			
23360	52011024	F1*2	BCD	' 12D08(44),14D10(44),25D02(44),03C14(31)!!
23361	00107404			
23362	04347301			
23363	04240100			
23364	74C40434			
23365	73C21024			
23366	00027404			
23367	04347300			
23370	03230104			
23371	74030134			
23372	37121012			
23373	52020524	F1*3	BCD	' 25D27(44)!!
23374	02077404			
23375	04343712			
23376	52020524	F1*4	BCD	' 25D27(44)!!
23377	02077404			
23400	04343712			
23401	52020524	F1*5	BCD	' 25D34(44),22D37(35)!!
23402	03047404			
23403	04347302			
23404	02241007			
23405	74030534			
23406	37121012			
23407	52020524	F1*6	BCD	' 22D09(44)!!
23410	00117404			
23411	04343712			
23412	52011023	F1*7	BCD	' 12C17(31),10C37(34),18C26(34),12C31(34)!!
23413	01077403			
23414	01347301			

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23415	00230307			
23416	74030434			
23417	73C11023			
23420	02067403			
23421	04347301			
23422	02230301			
23423	74C30434			
23424	37121012			
23425	52000223	F1*8	BCD	' 02C03(31),25E42(55),16C02(31),12D08(44)!!
23426	00037403			
23427	01347302			
23430	05251402			
23431	74050534			
23432	73C10423			
23433	00027403			
23434	01347301			
23435	02240010			
23436	74C40434			
23437	37121012			
23440	52000223	F1*9	BCD	' 02C28(31),25E27(55),12D08(44)!!
23441	00107403			
23442	01347302			
23443	05250307			
23444	74050534			
23445	73C10224			
23446	00107404			
23447	04343712			
23450	52000223	F1*10	BCD	' 02C14(31),29E37(55),12D08(44)!!
23451	01047403			
23452	01347302			
23453	11251007			
23454	74050534			
23455	73C11024			
23456	00107404			
23457	04343712			
23460	52000223	F1*11	BCD	' 03C14(31),29E27(55),12D08(44)!!

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23461	01047403			
23462	01347302			
23463	11250207			
23464	74050534			
23465	73010224			
23466	00107404			
23467	04343712			
23470	52020524	F1M12	BCD	' 25015(44),17C35(40)''
23471	01057404			
23472	04347301			
23473	07230305			
23474	74040034			
23475	37121212			
23476	52010723	F1M13	BCD	' 17C02(40),21C12(41),29E04(55)''
23477	00027404			
23500	00347302			
23501	01230102			
23502	74040134			
23503	73021125			
23504	00047405			
23505	05343712			
23506	52010723	F1M14	BCD	' 17C02(40),22C12(41),26E30(55)''
23507	00027404			
23510	00347302			
23511	02230102			
23512	74040134			
23513	73020625			
23514	03007405			
23515	05343712			
23516	52010723	F1M15	BCD	' 17C08(40),22C28(41),26E31(55)''
23517	00107404			
23520	00347302			
23521	02230210			
23522	74040134			
23523	73020425			
23524	03017405			

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23525	05343712			
23526	52010723	F1M16	BCD	' 17C08(40),22C26(41),26E29(55)''
23527	00107404			
23530	00347302			
23531	02230206			
23532	74040134			
23533	73020625			
23534	02117405			
23535	05343712			
23536	52010723	F1M17	BCD	' 17C36(40),23C12(41),26E23(55)''
23537	03067404			
23540	00347302			
23541	02230102			
23542	74040134			
23543	73020625			
23544	02037405			
23545	05343712			
23546	52010723	F1M18	BCD	' 17C36(40),23C41(41),26E10(55)''
23547	03067404			
23550	00347302			
23551	03230401			
23552	74040134			
23553	73020625			
23554	01007405			
23555	05343712			
23556	52010723	F1M19	BCD	' 17C36(40),23C26(41),26E11(55)''
23557	03067404			
23560	00347302			
23561	03230206			
23562	74040134			
23563	73020625			
23564	01017405			
23565	05343712			
23566	52010723	F1M20	BCD	' 17C36(40),24C12(42),26E07(55)''
23567	03067404			
23570	00347302			

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23571	04230402			
23572	74040034			
23573	73020425			
23574	00077405			
23575	05343712			
23576	52010723	F1*21	BCD	' 17C36(40),24C41(42),26E08(55) !!
23577	03057404			
23600	00347302			
23601	04230401			
23602	74040034			
23603	73020425			
23604	00117405			
23605	05343712			
23606	52010723	F1*22	BCD	' 17C35(40),24C26(42),26E06(55) !!
23607	03057404			
23610	00347302			
23611	04230206			
23612	74040034			
23613	73020425			
23614	00067405			
23615	05343712			
23616	52010723	F1*23	BCD	' 17C35(40),17C20(40),18C27(40),25C12(42),25E42(55) !!
23617	03057404			
23620	00347301			
23621	17230200			
23622	74040034			
23623	73011023			
23624	02077404			
23625	00347302			
23626	05230102			
23627	74040034			
23630	73020425			
23631	04027405			
23632	05343712			
23633	52010723	F1*24	BCD	' 17C35(40),25C41(42),25E27(55) !!
23634	03057404			

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23635	00347302			
23636	05230401			
23637	74040034			
23640	73020425			
23641	02077405			
23642	05343712			
23643	52010723	F1*25	BCD	' 17C35(40),25C26(42),29E37(55) !!
23644	03057404			
23645	00347302			
23646	05230206			
23647	74040034			
23650	73021125			
23651	00077405			
23652	05343712			
23653	52010723	F1*26	BCD	' 17C35(40),26C12(42),29E34(55) !!
23654	03057404			
23655	00347302			
23656	06230102			
23657	74040034			
23660	73021125			
23661	03047405			
23662	05343712			
23663	52010723	F1*27	BCD	' 17C35(40),26C41(42),29E27(55) !!
23664	03057404			
23665	00347302			
23666	06230401			
23667	74040034			
23670	73021125			
23671	02077405			
23672	05343712			
23673	52020123	F1*28	BCD	' 21C28(41),15C12(40),18C37(40),19C03(40),25E43(55) !!
23674	02107404			
23675	01347301			
23676	05230102			
23677	74040034			
23700	73011023			

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23701	03077404			
23702	00347301			
23703	11230003			
23704	74040034			
23705	73020525			
23706	04037405			
23707	05343712			
23710	52020123	F1M29	BCD	' 21C41(41),25E43(55),15C37(40),17C28(40)''
23711	04017404			
23712	01347302			
23713	05250403			
23714	74050534			
23715	73010523			
23716	03077404			
23717	00347301			
23720	07230210			
23721	74040034			
23722	37121212			
23723	52020123	F1M30	BCD	' 21C14(41),25E10(55)''
23724	01047404			
23725	01347302			
23726	05250100			
23727	74050534			
23730	37121212			
23731	52020123	F1M31	BCD	' 21C26(41),25E10(55)''
23732	02067404			
23733	01347302			
23734	05250100			
23735	74050534			
23736	37121212			
23737	52020723	F1M32	BCD	' 27C03(42),29E36(55)''
23740	00037404			
23741	02347302			
23742	11250306			
23743	74050534			
23744	37121212			

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23745	52020223	F1M33	BCD	' 22C12(42),29E36(55)''
23746	01027404			
23747	02347302			
23750	11250306			
23751	74050534			
23752	37121212			
23753	52020723	F1M34	BCD	' 27C28(42),29E35(55)''
23754	02107404			
23755	02347302			
23756	11250305			
23757	74050534			
23760	37121212			
23761	52020723	F1M35	BCD	' 27C41(42),29E35(55)''
23762	04017404			
23763	02347302			
23764	11250305			
23765	74050534			
23766	37121212			
23767	52020723	F1M36	BCD	' 27C14(42),29E26(55)''
23770	01047404			
23771	02347302			
23772	11250206			
23773	74050534			
23774	37121212			
23775	52020723	F1M37	BCD	' 27C26(42),29E26(55)''
23776	02067404			
23777	02347302			
24000	11250206			
24001	74050534			
24002	37121212			
24003	52021023	F1M38	BCD	' 28C03(43),15C10(40),24E29(55)''
24004	00037404			
24005	03347301			
24006	05230100			
24007	74040034			
24010	73020425			

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24011	02117405			
24012	03347112			
24013	52021123	F1439	BCD	' 28C12(43),24E29(55)''
24014	01027404			
24015	03347102			
24016	04250211			
24017	74051534			
24020	37121212			
24021	52021123	F1440	BCD	' 28C28(42),29E20(55)''
24022	02107404			
24023	03347102			
24024	11251200			
24025	74051534			
24026	37121212			
24027	52021123	F1441	BCD	' 28C41(42),29E20(55)''
24030	04017404			
24031	03347102			
24032	11251200			
24033	74051534			
24034	37121212			
24035	52021123	F1442	BCD	' 28C14(43),29E42(55)''
24036	01047404			
24037	03347102			
24040	11251402			
24041	74051534			
24042	37121212			
24043	52021123	F1443	BCD	' 28C26(43),29E42(55)''
24044	02067404			
24045	03347102			
24046	11251402			
24047	74051534			
24050	37121212			
24051	52021123	F1444	BCD	' 29C03(43),26E42(55)''
24052	00037404			
24053	03347102			
24054	06251402			

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24055	74051534			
24056	37121212			
24057	52021123	F1445	BCD	' 29C12(43),26E42(55)''
24060	01027404			
24061	03347102			
24062	06251402			
24063	74051534			
24064	37121212			
24065	52021123	F1446	BCD	' 29C28(43),26E35(55)''
24066	02107404			
24067	03347102			
24070	06251205			
24071	74051534			
24072	37121212			
24073	52021123	F1447	BCD	' 29C41(43),26E35(55)''
24074	04017404			
24075	03347102			
24076	06250305			
24077	74051534			
24100	37121212			
24101	52021123	F1448	BCD	' 29C14(43),26E33(55)''
24102	01047404			
24103	03347102			
24104	06251203			
24105	74051534			
24106	37121212			
24107	52021123	F1449	BCD	' 29C26(43),26E33(55)''
24110	02067404			
24111	03347102			
24112	06251203			
24113	74051534			
24114	37121212			
24115	52021123	F1450	BCD	' 30C03(43),26E34(55)''
24116	00037404			
24117	03347102			
24120	06251704			

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24121	74050534			
24122	37121212			
24123	52030023	F1M51	BCD	' 30C12(43),26E34(55) ''
24124	01027404			
24125	03347302			
24126	06250304			
24127	74050534			
24130	37121212			
24131	52030023	F1M52	BCD	' 30C28(43),29E14(44) ''
24132	02107404			
24133	03347302			
24134	11250104			
24135	74040434			
24136	37121212			
24137	52030023	F1M53	BCD	' 30C41(43),29E14(55) ''
24140	04017404			
24141	03347302			
24142	11250104			
24143	74050534			
24144	37121212			
24145	52030023	F1M54	BCD	' 30C14(43),29E08(55) ''
24146	01047404			
24147	03347302			
24150	11250010			
24151	74050634			
24152	37121212			
24153	52030023	F1M55	BCD	' 30C26(43),29E08(55) ''
24154	02067404			
24155	03347302			
24156	11250010			
24157	74050534			
24160	37121212			
24161	52030123	F1M56	BCD	' 31C03(43),18C27(40),17C20(40) ''
24162	00037404			
24163	03347301			
24164	10230207			

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24165	74040034			
24166	73010723			
24167	02007404			
24170	00343712			
24171	52030123	F1M57	BCD	' 31C12(43) ''
24172	01027404			
24173	03343712			
24174	52030123	F1M58	BCD	' 31C28(43) ''
24175	02107404			
24176	03343712			
24177	52030123	F1M59	BCD	' 31C41(43) ''
24200	04017404			
24201	03343712			
24202	52212424	F1M60	BCD	' ADDRESS INCREMENTING ERROR
24203	51256262			
24204	12314523			
24205	51254425			
24206	45633145			
24207	27122551			
24210	51465112			
24211	52212424	BCD		' ADDR SB ADDR IS NOT MEANINGFUL ''
24212	51126227			
24213	12122124			
24214	24511231			
24215	62121245			
24216	46631244			
24217	25214531			
24220	45272664			
24221	43523712			
24222	52212424	F1M61	BCD	' ADDRESS INCREMENTING ERROR
24223	51256262			
24224	12314523			
24225	51254425			
24226	45633145			
24227	27122551			
24230	51465112			

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24231	52217424			
24232	51126222			
24233	12122124			
24234	24511231			
24235	62121245			
24236	46631244			
24237	25214531			
24240	45272464			
24241	43522712			
24242	52217424	F1*62	BCD	' ADDRESS INCREMENTING ERROR'
24243	51256262			
24244	12314523			
24245	51254425			
24246	45633144			
24247	27122551			
24250	51465112			
24251	52217424		BCD	' ADDR SB ADDR IS NOT MEANINGFUL ''
24252	51126222			
24253	12122124			
24254	24511231			
24255	62121245			
24256	46631244			
24257	25214531			
24260	45272464			
24261	43522712			
24262	52217464			
24263	45631262		BCD	' COUNT SB NOT MEANINGFUL ''
24264	22121212			
24265	12454463			
24266	12447201			
24267	45314527			
24270	26644252			
24271	37121212			
24272	52311112	F1*65	BCD	' I1 INTERRUPT NOT RECEIVED''
24273	31456225			
24274	51516447			

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24275	63124444			
24276	63125125			
24277	23253165			
24300	25243712			
24301	52217423	F1*66	BCD	' 1AC06(33),20Cxx(41),31Hxx(BASIC INT),23D11(33)''
24302	00067403			
24303	03347202			
24304	00236767			
24305	74040134			
24306	73030130			
24307	67677422			
24310	21623123			
24311	12314563			
24312	34731203			
24313	24011174			
24314	03033437			
24315	52011123	F1*67	BCD	' 1AC11(33),09C31(33),10C31(34),12C31(34),24E34(55)''
24316	01017403			
24317	03347202			
24320	11230301			
24321	74030334			
24322	73010123			
24323	03017403			
24324	04347201			
24325	02230301			
24326	74030434			
24327	73020425			
24330	03047405			
24331	05341212			
24332	02032401		BCD	' 23D11(33)''
24333	11740303			
24334	34371212			
24335	52624744	F1*68	BCD	' SPURIOUS TRAP OR INTERRUPT''
24336	51314464			
24337	02126251			
24340	21471246			

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24341	51123145		
24342	63255151		
24343	64476337		
24344	52255151	F1M69 BCD	' ERRONIBUS I2 INTERRUPT RECEIVED''
24345	46453146		
24346	64621231		
24347	02123145		
24350	63255151		
24351	64476312		
24352	51252325		
24353	31652524		
24354	37121212		
24355	52312212	F1M70 BCD	' I2 INTERRUPT NOT RECEIVED''
24356	31456325		
24357	51516447		
24360	63124544		
24361	63125125		
24362	23253165		
24363	25243712		
24364	52030230	F1M71 BCD	' 32HXX(BASIC INT),23D04(33),11C25(33),18C43(40),'
24365	67677422		
24366	21623123		
24367	12314563		
24370	34730203		
24371	24000474		
24372	03033473		
24373	01012302		
24374	05740303		
24375	34730110		
24376	23040374		
24377	04003473		
24400	02022301	BCD	' 20C14(41),20C28(41),11C31(34),08C16(34),'
24401	04740401		
24402	34730200		
24403	23021074		
24404	04013473		

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24405	01012303		
24406	01740304		
24407	34730010		
24410	23010674		
24411	03043437		
24412	52255151	F1M72 BCD	' ERRONIBUS I1 INTERRUPT RECEIVED''
24413	46453146		
24414	64621231		
24415	01123145		
24416	63255151		
24417	64476312		
24420	51252325		
24421	31652524		
24422	37121212		
24423	52454612	M2001A BCD	' N8 RAD CONNECTED BR!'
24424	51212412		
24425	23464545		
24426	25236325		
24427	24124651		
24430	15121212		
24431	52476426	BCD	' PUF=39C PAR=39B,40C S16=29A,31D,37A C13=33B C14=34B X03=C37''
24432	40031123		
24433	12476651		
24434	40031122		
24435	73040223		
24436	17623146		
24437	40021121		
24440	73030124		
24441	73030721		
24442	12230103		
24443	40030322		
24444	12230104		
24445	40030422		
24446	12670203		
24447	40230307		
24450	37121212		

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24451	52672003	*2001B BCD	' X03=37C DMA=33D JX03=D37 00F=38B BUC=33B''
24452	40032723		
24453	12244421		
24454	4003C324		
24455	12416746		
24456	03402403		
24457	07121000		
24460	26400310		
24461	22122264		
24462	23401303		
24463	22371212		
24464	52642040	*2004B BCD	' D0=23C,28A G0=35C GS4=28B,30B IDN=32D,31D''
24465	02032373		
24466	02102112		
24467	27024003		
24470	06231227		
24471	02044002		
24472	10227303		
24473	02211231		
24474	24454003		
24475	02247303		
24476	01243712		
24477	52622543	*2004A BCD	' SEL UNIT D06=A03,A04''
24500	12644531		
24501	63122400		
24502	04402100		
24503	03732100		
24504	04371212		
24505	52622543	*2005A BCD	' SEL UNIT D05=A03,A04''
24506	12644531		
24507	63122400		
24510	05402100		
24511	03732100		
24512	04371212		
24513	52622543	*2006A BCD	' SEL UNIT D04=A03,A04''
24514	12644531		

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24515	63122400		
24516	04402100		
24517	03732100		
24520	04371212		
24521	52622543	*2007A BCD	' SEL UNIT D03=A02,A04''
24522	12644531		
24523	63122400		
24524	03402100		
24525	02732100		
24526	04371212		
24527	52622543	*2008A BCD	' SEL UNIT D02=A02,A04''
24530	12644531		
24531	63122400		
24532	02402100		
24533	02732100		
24534	04371212		
24535	52622543	*2009A BCD	' SEL UNIT D01=A02,A04''
24536	12644531		
24537	63122400		
24540	01402100		
24541	02732100		
24542	04371212		
24543	52622543	*2013A BCD	' SEL UNIT D06,D04=A03,A04 D03,D01=A02,A04''
24544	12644531		
24545	63122400		
24546	04732400		
24547	04402100		
24550	03732100		
24551	04122400		
24552	03732400		
24553	01402100		
24554	02732100		
24555	04523712		
24556	52122221	*2013B BCD	' BAD WRD S/B 0BJ TEST OVRFLD ERRORS''
24557	24122451		
24560	24121212		

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24561	12626122		
24562	12121212		
24563	46224112		
24564	63256263		
24565	12466551		
24566	26434412		
24567	12122551		
24570	51465162		
24571	52371212		
24572	52454412	MSG013C BCD	' M9 SECTOR ZERO IDX=A10,B03,B02 D0=A03,A02,A04''
24573	62252263		
24574	46511271		
24575	25514412		
24576	31246740		
24577	21010073		
24600	22000273		
24601	22000212		
24602	24004021		
24603	00037321		
24604	00027321		
24605	00043712		
24606	12662425	MSG036 BCD	' WDE=31A WD1=27B,C42,B41''
24607	40030121		
24610	12662401		
24611	40020722		
24612	73230402		
24613	73220401		
24614	37121212		
24615	12662425	MSG037 BCD	' WDE=31A WD2=27B,C42,B42''
24616	40030121		
24617	12662402		
24620	40020722		
24621	73230402		
24622	73220402		
24623	37121212		
24624	12662425	MSG038 BCD	' WDE=31A WD3=27B,C42,B43''

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24625	40030121		
24626	12662403		
24627	40020722		
24630	73230402		
24631	73220403		
24632	37121212		
24633	12662425	MSG039 BCD	' WDE=31A WD4=27B,C42,B42''
24634	40030121		
24635	12662404		
24636	40020722		
24637	73230402		
24640	73220402		
24641	37121212		
24642	12660001	MSG020 BCD	' W01=04B'
24643	40000422		
24644	12660101	MSG021 BCD	' W11=05B'
24645	40000522		
24646	12660201	MSG022 BCD	' W21=06B'
24647	40000622		
24650	12660301	MSG023 BCD	' W31=07B'
24651	40000722		
24652	12660403	MSG024 BCD	' W03=08B'
24653	40001022		
24654	12660103	MSG025 BCD	' W13=09B'
24655	40001122		
24656	12660203	MSG026 BCD	' W23=10B'
24657	40010222		
24660	12660303	MSG027 BCD	' W33=11B'
24661	40010122		
24662	12660003	MSG028 BCD	' W05=14A'
24663	40010421		
24664	12660105	MSG029 BCD	' W15=15A'
24665	40010521		
24666	12660205	MSG030 BCD	' W25=16A'
24667	40010621		
24670	12660305	MSG031 BCD	' W35=17A'

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24671	40010721		
24672	12660007	MSG032 BCD	' W07=18A'
24673	40011121		
24674	12660007	MSG033 BCD	' W17=19A'
24675	40011121		
24676	12660007	MSG034 BCD	' W27=22A'
24677	40020221		
24700	12660007	MSG035 BCD	' W37=25A'
24701	40020521		
24702	52121062	MSG05A BCD	' SIDE'
24703	31242512		
24704	00020004	SIDE BCD	'0004 TB='
24705	12632240		
24706	00020101	TR BCD	'0211 HD='
24707	12302440		
24710	00010100	HD BCD	'0110''
24711	37121212		
24712	52512421	MSG01A BCD	' RDA=22B RCL=21B RCC=20A,21A''
24713	40020222		
24714	12512343		
24715	40020122		
24716	12512323		
24717	40020021		
24720	73020421		
24721	37121212		
24722	52512421	MSG01B BCD	' RDA=25B RCL=24B RCC=23A,24A''
24723	40020522		
24724	12512343		
24725	40020422		
24726	12512323		
24727	40020321		
24730	73020421		
24731	37121212		
24732	52512421	MSG01C BCD	' RDA=28B RCL=27B RCC=26A,27A''
24733	40020222		
24734	12512343		

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24735	40020722		
24736	12512323		
24737	40020621		
24740	73020721		
24741	37121212		
24742	52512421	MSG01D BCD	' RDA=31B RCL=30B RCC=28A,29A''
24743	40030122		
24744	12512343		
24745	40030022		
24746	12512323		
24747	40020021		
24750	73020121		
24751	37121212		
24752	52702124	MSG05A BCD	' YADR=12B''
24753	51400102		
24754	22371212		
24755	52702124	MSG05B BCD	' YADR=13B''
24756	51400103		
24757	22371212		
24760	52702124	MSG05C BCD	' YADR=14B''
24761	51400104		
24762	22371212		
24763	52702124	MSG05D BCD	' YADR=15B''
24764	51400105		
24765	22371212		
24766	52702124	MSG05E BCD	' YADR=16B''
24767	51400106		
24770	22371212		
24771	52702124	MSG05F BCD	' YADR=17B''
24772	51400107		
24773	22371212		
24774	52702124	MSG05G BCD	' YADR=18B''
24775	51400108		
24776	22371212		
24777	52702124	MSG05H BCD	' YADR=19B''
25000	51400111		

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25001	22371212						
25002	52624764	M1859B BCD	SPURIOUS INTRUPT DIVERT	MASK	S/B	OVRFL0	ERRORS !!
25003	51314464						
25004	62123145						
25005	63516447						
25006	63521224						
25007	31652551						
25010	63121712						
25011	12442162						
25012	42121212						
25013	12121262						
25014	61221212						
25015	12124465						
25016	51264346						
25017	12122551						
25020	51465162						
25021	62371212						
25022	62253125	M2879A BCD	EIE=27D I1Z=218,158				
25023	40020724						
25024	12310171						
25025	40020122						
25026	73010522						
25027	12121212						
25030	52103145	M2879B BCD	RINTA=B28,B29,B30				
25031	63214022						
25032	02107322						
25033	02117322						
25034	03003712						
25035	52252462	M2879C BCD	EDG=18D I2Z=158,218				
25036	40011024						
25037	12310271						
25040	40010522						
25041	73020122						
25042	11252462	M2879D BCD	9EDSW=D33 1X03=C37 9WMSA=A29				
25043	66402403						
25044	03120167						

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25045	00034023						
25046	03071211						
25047	66306221						
25050	40210211						
25051	37121212						
25052	52116630	M2877A BCD	9WMSA=A29,B30				
25053	62214021						
25054	02117322						
25055	03003712						
25056	52116430	M2878A BCD	9WMSA=A29,B30				
25057	62214021						
25060	02117322						
25061	03003712						
25062	52016746	M1101A BCD	1X95=A45 6AFCA=C42 6TNTA=A37				
25063	05402104						
25064	05120421						
25065	26232140						
25066	23040212						
25067	06634531						
25070	21402103						
25071	07371212						
25072	62472151	TR8BAD BCD	PARTIAL SECTOR ERROR GOOD WD BAD WD	XREG	OVRFL0	ERRORS !!	
25073	63312143						
25074	12622523						
25075	63465112						
25076	25515146						
25077	51521227						
25100	46462412						
25101	66241212						
25102	22212412						
25103	66241212						
25104	12126751						
25105	25271212						
25106	12124465						
25107	51264346						
25110	12121225						

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25111	51514451		
25112	62523712		
25113	52622543	MSGPIN BCD	' SEL UNIT YSC=0A02 SEC=A01,B02,B03 WCK=A02,B01''
25114	12644531		
25115	63127162		
25116	23420221		
25117	00021242		
25120	25234121		
25121	00017322		
25122	00027422		
25123	00031266		
25124	23424121		
25125	00027422		
25126	00013712		
25127	52122221	PINERR BCD	' BAD PIN S/B OBJ TEST OVRFLD ERRORS ''
25130	24124731		
25131	45121112		
25132	62612212		
25133	12121246		
25134	22411163		
25135	25622312		
25136	12466551		
25137	26434412		
25140	12122551		
25141	51465162		
25142	12522712		
25143	52252151	FRERR BCD	' EARLY INTERRUPT NOT PROCESSED ''
25144	45701231		
25145	45635164		
25146	47631245		
25147	46631247		
25150	51462325		
25151	62622524		
25152	52371212		
25153	52512124	SKSERR BCD	' RAD NOT READY IN 170 MS.''
25154	12454463		

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25155	12512521		
25156	24721231		
25157	45120127		
25160	00124442		
25161	33371212		
25162	52233121	FRCHAN BCD	' CHANNEL RATE ERROR''
25163	45452543		
25164	12512163		
25165	25122551		
25166	51465137		
25167	52263143	FILPR0 BCD	' FILE PROTECT ON BAND NOTHING OBJ TEST ''
25170	25124751		
25171	46631523		
25172	63124445		
25173	52121222		
25174	21452412		
25175	12124546		
25176	63303145		
25177	27121246		
25200	22411263		
25201	25625352		
25202	37121212		
25203	52454412	TIMERR BCD	' NS INTERRUPT IN 170 MS.''
25204	31456351		
25205	64476312		
25206	31451201		
25207	07001244		
25210	62333712		
25211	52512124	RADER BCD	' RAD ERROR, SKS MODE''
25212	12255151		
25213	46517312		
25214	62426712		
25215	44462125		
25216	37121212		
25217	52512521	READP BCD	' READ PARITY ERROR BUFFER RAD ADRS OBJ TEST OVRFLD IGNORE ''
25220	24124721		

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25221	51316370		
25222	12255151		
25223	46515212		
25224	22642626		
25225	25511212		
25226	51212412		
25227	21245162		
25230	12462241		
25231	12637562		
25232	63124665		
25233	51264246		
25234	12123127		
25235	45465125		
25236	52371212		
25237	52665131	RITFP BCD	' WRITE PARITY ERROR BUFFER RAD ADRS OBJ TEST OVRFLO IGNORE ''
25240	63251247		
25241	21513163		
25242	70122551		
25243	51465152		
25244	12226426		
25245	26255112		
25246	12512124		
25247	12212451		
25250	62124422		
25251	41126225		
25252	62631246		
25253	65512443		
25254	46121231		
25255	27454451		
25256	25523712	RADPOT BCD	' UNIT READY BUT POT ERROR DURING PROCESS''
25257	52644431		
25260	63125125		
25261	21247012		
25262	22646412		
25263	47466412		
25264	25515146		

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25265	51122464		
25266	51314527		
25267	12475146		
25270	23256262		
25271	37121212		
25272	52371212	FNDIT BCD	' '' END MESSAGE CONTROL
25273	37121212	NDIT BCD	' ''
25274	52212451	ADRERR BCD	' ADRS OVRFLO ADRS NOTHING OBJ TEST ''
25275	62124665		
25276	25512643		
25277	46521212		
25300	21245162		
25301	12121245		
25302	46633031		
25303	45271212		
25304	46224112		
25305	63256263		
25306	52371212		
25307	52624764	XTRAPT BCD	' SPURIOUS POT ERROR''
25310	51314464		
25311	62124746		
25312	63122551		
25313	51465137		
25314	52274446	TITLE BCD	' GOOD WRD BAD WRD RAD STT RADRS/WD CDR ADRS MODE BUF/ERRS BLK81ZC ''
25315	24126651		
25316	24122221		
25317	24126446		
25320	51241251		
25321	21241262		
25322	63631212		
25323	51212451		
25324	62616424		
25325	12234451		
25326	12212451		
25327	62121212		
25330	44462425		

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25331	12121222		
25332	64266125		
25333	51516212		
25334	12224742		
25335	62317125		
25336	52371212		
25337	52454412	'NO DATA BCD	' NO DATA SELECTED''
25340	24216221		
25341	12622543		
25342	25236225		
25343	24371212		
25344	52454412	'NRAD BCD	' NR RAD ADRS SELECTED''
25345	51212412		
25346	21245162		
25347	12622543		
25350	25236225		
25351	24371212		
25352	52224462	'NBUFFER BCD	' BOTH BUFFERS LOCKED BUT''
25353	3122264		
25354	26262551		
25355	42124746		
25356	23422224		
25357	12466462		
25360	37121212		
25361	51454412	'NCORE BCD	' NS CORE SPECIFIED''
25362	23445125		
25363	12624725		
25364	23312631		
25365	25247712		
25366	52263167	'FIXBIG BCD	' FIXED BLOCK, IN SECTORS, TOO BIG FOR CORE SIZE''
25367	25241222		
25370	43462342		
25371	73123145		
25372	12622522		
25373	63465162		
25374	73126746		

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25375	46122231		
25376	27122746		
25377	51122346		
25400	21251262		
25401	31712537		
25402	52263167	'FIXZER BCD	' FIXBLK CAN NOT BE ZERO''
25403	22474212		
25404	23214512		
25405	45464212		
25406	22251271		
25407	25514637		
25410	22512124	'RADBIG BCD	' RADHI TOO BIG FOR RAD SIZE''
25411	30211263		
25412	46461222		
25413	31271226		
25414	46511251		
25415	21241262		
25416	31712537		
25417	52244664	'SYNC BCD	' DOUBLE ECW OR MISSING ECW, HALF WORD CHECKS''
25420	22432512		
25421	25236612		
25422	46511244		
25423	31626231		
25424	45271225		
25425	23667212		
25426	30214726		
25427	12664651		
25430	24122332		
25431	25234262		
25432	37121212		
25433	52234651	'CORERR BCD	' CORLO LESS THAN 24000 OCTAL''
25434	43461243		
25435	25626212		
25436	63302145		
25437	12020400		
25440	00001246		

25441	23632143		
25442	37121212		
25443	52512124	ADALRT BCD	! RAD ADDRESS CONFLICT !!
25444	12212424		
25445	51256262		
25446	12234445		
25447	26433123		
25450	63523712		
25451	52252151	RADBIT BCD	! EARLY BIT CAN NOT BE SET WITH CONSTANT CORE ADRS.!!
25452	43711222		
25453	31631223		
25454	21451245		
25455	46631222		
25456	25126225		
25457	63126431		
25460	63301223		
25461	46456263		
25462	21456312		
25463	23465125		
25464	12212451		
25465	62333712		
25466	52662412	HEDEF BCD	! WD ERRS BUF ADR RAD ADRS OVRFLD IGNORE !!
25467	25515162		
25470	12122264		
25471	26122124		
25472	51121251		
25473	21241221		
25474	24516212		
25475	12466551		
25476	26434612		
25477	12123127		
25500	45465125		
25501	52371212		

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*
*
* CONSTANTS
*
25502 0 00 00000 TIMOUT ZR0
25503 0 02 14200 F0MMA EBMM 014200 RESTORING E0M
25504 0 02 14220 F0MMB EBMM 014220 FORCING E0M
25505 11103300 M0DES DATA 11103300 RANDOM CODE WORD
25506 00027000 C0RL0 DATA 27000
25507 00137777 C0RHI DATA 137777
25510 0 00 00000 RADL0 ZR0
25511 00077777 RADHI DATA 77777
25512 12345670 PATERN DATA 12345670
25513 77777777 FIXBLK DATA *1
25514 00000200 CYCLE DATA 200
25515 0 00 00000 RADRS ZR0
25516 00000440 WDK0WN DATA 40 40 WORDS PER SECTOR
25517 0 00 00000 PADERN ZR0
25520 12345670 PATTRN DATA 12345670
25521 0 00 00000 GDWRD ZR0
25522 0 00 00000 RADWRD ZR0
25523 0 00 00000 RADSTT ZR0
25524 0 00 00000 ADDR0S ZR0
25525 0 00 00000 K0RADR ZR0
25526 0 00 00000 M0DE ZR0
25527 0 00 00000 FRRCNT ZR0
25530 0 00 00000 RLKSIZ ZR0
25531 0 00 00000 RUFSAV ZR0
25532 0 00 00000 RUF1BL ZR0
25533 0 00 00000 RUF2BL ZR0
25534 0 00 00000 RLKMAX ZR0
25535 0 00 00000 RLKMSK ZR0
25536 0 00 00000 RUF1KA ZR0
25537 0 00 00000 RUF2KA ZR0
25540 0 00 00000 RUF1CA ZR0

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25541	0	00	00000	BUF2CA	ZR0	
25542	0	00	00000	BUF1RA	ZR0	
25543	0	00	00000	BUF2RA	ZR0	
25544	0	00	00000	BUFSKP	ZR0	
25545	7	7777777		CHAIN	DATA	*1
25546	0	00	00000	CHAINC	ZR0	
25547	0	00	00000	CRRINK	ZR0	
25550	0	00	00000	CRRMAX	ZR0	
25551	0	00	00000	C9JNT	ZR0	
25552	0	00	00000	C9JNT1	ZR0	
25553	0	00	00000	CYCLE1	ZR0	
25554	0	00	00000	DATBL	ZR0	
25555	0	00	00000	DATSAV	ZR0	
25556	0	*3	00050	DPLUG	ARM	DIVERT
25557	0	00	17000	EMBIT	EBMM	017000
25560	0	00	00000	HEADSW	ZR0	
25561	0	00	00000	HOLD	ZR0	
25562	0	00	00000	HOLD2	ZR0	
25563	0	00	00000	HOLD3	ZR0	
25564	0	00	00000	HOLD3B	ZR0	
25565	0	00	00000	JMPYTP	ZR0	
25566	0	00	00000	KEYFIX	ZR0	
25567	0	00	00000	KEYSW	ZR0	
25570	0	00	00000	KEYADR	ZR0	
25571	0	00	00000	KEYSAV	ZR0	
25572	0	00	00000	LAST	DATA	26777
25573	0	00	00000	PSTVRD	ZR0	
25574	0	00	00000	PRKTED	ZR0	
25575	0	00	00000	LRDABL	ZR0	
25576	0	00	00000	PLNVRD	ZR0	
25577	0	00	00000	RADMAX	ZR0	
25600	0	00	00000	RADYSK	ZR0	
25601	0	00	00000	RADINX	ZR0	
25602	0	00	00000	RADT9P	ZR0	
25603	0	00	00000	RAN4X	ZR0	
25604	0	00	00000	READA	EBMM	02226

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25605	0	00	00000	RELBL	ZR0	
25606	0	00	00000	RELCA	ZR0	
25607	0	00	00010	RFIELD	BSS	010
25617	0	00	00000	RMIADR	ZR0	
25620	0	00	00000	RL0	BSS	200
26020	0	00	00000	RL0ADR	ZR0	
26021	0	00	00000	FRRSVA	ZR0	
26022	0	00	00000	SAVA41	ZR0	
26023	0	00	00000	SAVADR	ZR0	
26024	0	00	00000	FRRSVB	ZR0	
26025	0	00	00000	SAVB41	ZR0	
26026	0	00	00000	SAVBLK	ZR0	
26027	0	00	00000	FRRSVX	ZR0	
26030	0	00	00000	FRRIR	ZR0	
26031	0	00	04025420	PCODE1	DATA	4000000+RL0
26032	0	00	04025720	PCODE2	DATA	4000100+RL0
26033	0	00	00000	FLAG1	ZR0	
26034	0	00	00000	CHANWD	ZR0	
26035	0	00	00000	TSTVRD	ZR0	
26036	0	00	00000	INCR1	ZR0	
26037	0	00	00000	INCRSW	ZR0	
26040	0	00	00000	SAVX41	ZR0	
26041	0	00	00000	SAVVRD	ZR0	
26042	0	00	00000	SEKSTT	ZR0	
26043	0	00	00000	SKP940	ZR0	
26044	0	00	00000	SVSFED	ZR0	
26045	0	00	00000	STAHL0	ZR0	
26046	0	00	17746	TCE9M	ZR0	TCE9M1
26047	0	00	20003	TCE9M	ZR0	TCE9M2
26050	0	00	17753	TRE9M	ZR0	TRE9M1
26051	0	00	20010	TRE9M	ZR0	TRE9M2
26052	0	00	00000	TEMP1	ZR0	
26053	0	00	02266	WRITE	EBMM	02266
26054	6	35	00000	WRDSTA	STA	0,6
26055	6	70	00000	WRDSKM	SKM	0,6
26056	0	00	00000	WSAVE	ZR0	

END

LITERALS USED:

26057 77760000
26060 00000000
26061 00040000
26062 00100000
26063 00200000
26064 00400000
26065 01000000
26066 02000000
26067 04000000
26070 10000000
26071 20000000
26072 40000000
26073 00000001
26074 00000002
26075 00000004
26076 00000010
26077 00000020
26100 00000040
26101 00000100
26102 00000200
26103 00000400
26104 00001000
26105 00002000
26106 00004000
26107 00010000
26110 00200000
26111 00177777
26112 00037777
26113 00077777
26114 77777777
26115 00000243
26116 00000205
26117 00000247
26120 00000033

26121 00000031
26122 00000003
26123 04025420
26124 00000006
26125 00000007
26126 00000011
26127 00000012
26130 00000013
26131 00000014
26132 00000015
26133 00000016
26134 00000017
26135 00000021
26136 00000022
26137 00000023
26140 00000024
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26142 00000026
26143 00000027
26144 00000030
26145 00000032
26146 00000034
26147 00000035
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26153 00000042
26154 00000043
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26156 00000045
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26160 00000047
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26162 00000051
26163 00000052
26164 00000053

26165 0000054
 26166 0000055
 26167 0000056
 26170 0000057
 26171 0000060
 26172 0000061
 26173 0000062
 26174 0000063
 26175 0000064
 26176 0000065
 26177 0000066
 26200 0000067
 26201 0000070
 26202 0000071
 26203 0000072
 26204 0000073
 26205 0000074
 26206 0000075
 26207 0000076
 26210 0000077
 26211 0000080
 26212 7000700
 26213 0000080
 26214 0002472
 26215 0000081
 26216 0002005
 26217 0000081
 26220 0004003
 26221 07000700
 26222 0002472
 26223 0000082
 26224 0002006
 26225 0000083
 26226 0004004
 26227 0000084
 26230 0002473

26231 0002003
 26232 0000087
 26233 0004001
 26234 0003005
 26235 0000087
 26236 0002472
 26237 0002004
 26240 0000089
 26241 0004002
 26242 0003006
 26243 0000090
 26244 0000090
 26245 0000090
 26246 0000090
 26247 0000090
 26250 0000090
 26251 0003007
 26252 0002001
 26253 0000095
 26254 0004001
 26255 0003010
 26256 0002002
 26257 0000096
 26260 0004000
 26261 0000091
 26262 0000093
 26263 0004007
 26264 0003001
 26265 0002002
 26266 0000094
 26267 0004010
 26270 0003002
 26271 0000097
 26272 0000097
 26273 0000097
 26274 0000097

26275 0000161
 26276 00014000
 26277 00014100
 26300 00014200
 26301 00014300
 26302 77777774
 26303 77777700
 26304 27626006
 26305 27625706
 26306 77777712
 26307 00025420
 26310 42000000
 26311 77777770
 26312 00000110
 26313 00000101
 26314 11103300
 26315 00017777
 26316 00057777
 26317 77773377
 26320 00137777
 26321 01120032
 26322 00160032
 26323 01120046
 26324 00160046
 26325 04320032
 26326 00067776
 26327 07000001
 26330 00007777
 26331 00003300
 26332 77000077
 26333 00475500
 26334 00700000
 26335 22066400
 26336 00003000
 26337 00070000
 26340 77707777

26341 00030000
 26342 00060000
 26343 77757777
 26344 00016621
 26345 00000700
 26346 00016A63
 26347 00016744
 26350 00016747
 26351 53577445
 26352 00004400
 26353 00002200
 26354 00001100
 26355 00140000
 26356 37774777
 26357 06000000
 26360 00003777
 26361 00500000
 26362 67400000
 26363 00600000
 26364 00120164
 26365 77777771
 26366 00120040
 26367 77752014
 26370 77740000
 26371 77777772
 26372 37777777
 26373 00007700
 26374 70000000
 26375 07777777
 26376 77770000
 26377 07777700
 26400 07770000
 26401 10025420

26402 CELLS USED BY PROGRAM

LOCAL SYMBOLS USED *

ADALRT	25443+	ADDRESS	25524+	ADRERR	25274+
ALLDJA	21052+	AREG	410	BADBIT	25451+
BADPOT	25257+	BADRD	25522+	BLKMSK	25535+
BLKMAX	25534+	BLKSIZ	25530+	BREG	N 411
BRITYP	14454+	BUF1RA	25542+	BUF1BL	N 25532+
BUF1CA	25540+	BUF1KA	25536+	BUF2RA	25543+
BUF2BL	25533+	BUF2CA	25541+	BUF2KA	25537+
BUFSAV	25531+	BUFSKP	25544+	CHAIN	N 25545+
CHAIN1	20154+	CHAIN2	20226+	CHAINC	25546+
CHAIN0	20034+	CHANF1	20402+	CHANER	20367+
CIEC12	17643+	CHEC13	17650+	CHEC21	17664+
CHEC22	17673+	CHEC71	17667+	CHEC72	17663+
CHECK	17606+	CHECK3	17730+	CHECK4	17676+
CHECK5	17731+	CHECK6	17701+	CHECK7	17655+
CHECK8	17704+	CHECK9	17707+	CLEAR	15146+
CLRCHN	7644+	COMMON	15130+	CRAD1	17030+
CRAD03	17056+	CRAD4	17070+	CRAD5	17100+
CRAD6	17051+	CRAD7	17120+	CRAD8	17054+
CRAD9	17065+	CRADA	17123+	CRADR	17014+
CRERR	25433+	CRHI	25507+	CRINK	25547+
CRRL9	25506+	CRMAX	25550+	COUNT	N 25551+
CBUNT1	25552+	CYCLE	25514+	CYCLE1	25553+
DATA	17421+	DATA10	17465+	DATA11	17470+
DATA12	17475+	DATA13	17502+	DATA14	N 17476+
DATA15	17472+	DATA16	17506+	DATA19	17477+
DATA9	17454+	DATA9A	17464+	DATBL	N 25554+
DATSAV	25555+	DCHA1	20173+	DCHA2	20214+
DCHA3	20164+	DCHA4	20240+	DCHAIN	20176+
DECRI1	14063+	DECRI2	16103+	DIVERT	450
DENE	482	DPLUG	N 25556+	DSCSIZ	N 404
END	434	ENDIT	25272+	EMB1T	25557+

EMMA	25503+	EMMR	N 25504+	EMCHAN	25162+
ERRERR	25143+	ERRCNT	25527+	ERRR	26030+
ERROR	460	ERRORS	N 414	ERR0U1	20543+
ERR0U2	20445+	ERR0U4	20537+	ERR0U6	20571+
ERR0U8	20455+	ERR0U9	20470+	ERR0U7	20420+
ERR032	20554+	ERR033	20547+	ERR036	20610+
ERR037	20617+	ERR038	20632+	ERR041	20565+
ERR042	20560+	ERR043	20614+	ERR060	20603+
ERRSVA	26021+	ERRSV3	26024+	ERRSVX	26027+
ERRTST	14770+	F1101A	20764+	F1101B	20766+
F1102A	21020+	F1103A	21035+	F1103B	21041+
F1103C	21045+	F1103D	21050+	F1M1	23355+
F1M10	23450+	F1M11	23460+	F1M12	23470+
F1M13	23476+	F1M14	23506+	F1M15	23516+
F1M16	23526+	F1M17	23536+	F1M18	23546+
F1M19	23556+	F1M2	23360+	F1M20	23566+
F1M21	23576+	F1M22	23606+	F1M23	23616+
F1M24	23633+	F1M25	23643+	F1M26	23653+
F1M27	23663+	F1M28	23673+	F1M29	23710+
F1M3	23373+	F1M30	23723+	F1M31	23731+
F1M32	23737+	F1M33	23745+	F1M34	23753+
F1M35	23761+	F1M36	23767+	F1M37	23775+
F1M38	24003+	F1M39	24013+	F1M4	23376+
F1M40	24021+	F1M41	24027+	F1M42	24035+
F1M43	24043+	F1M44	24051+	F1M45	24057+
F1M46	24065+	F1M47	24073+	F1M48	24101+
F1M49	24107+	F1M6	23401+	F1M50	24115+
F1M51	24123+	F1M52	24131+	F1M53	24137+
F1M54	24145+	F1M55	24153+	F1M56	24161+
F1M57	24171+	F1M58	24174+	F1M59	24177+
F1M6	23407+	F1M60	24202+	F1M61	24222+
F1M62	24242+	F1M65	24272+	F1M66	24301+
F1M67	24315+	F1M68	24335+	F1M69	N 24344+
F1M7	23412+	F1M70	24355+	F1M71	24364+
F1M72	N 24412+	F1M8	23425+	F1M9	23440+
F19E1	4705+	F2001A	6220+	F2001B	6230+

F2077A	7454+	F2079A	7516+	F2079B	7526+
F2079C	7547+	FAM1	21527+	FAM10	22417+
FAM11	23270+	FAM12	21146+	FAM2	21657+
FAM3	21724+	FAM4	21768+	FAM5	22020+
FAM6	22065+	FAM7	22303+	FAM8	22335+
FAM9	22367+	FDONE	456	FILPR0	25167+
FIM1	21512+	FIM10	22404+	FIM11	23250+
FIM12	21125+	FIM2	21672+	FIM3	21710+
FIM4	21781+	FIM5	22012+	FIM6	22050+
FIM7	22266+	FIM8	22320+	FIM9	22352+
FIXBIG	25366+	FIXBLK	25513+	FIXZRB	25402+
FLAG1	24033+	FPT1	21220+	FPT10	21306+
FPT11	21314+	FPT12	21117+	FPT2	21226+
FPT3	21234+	FPT4	21242+	FPT5	21250+
FPT6	21256+	FPT7	21264+	FPT8	21272+
FPT9	21300+	FRMKEY	16567+	FUN10A	16230+
FUN10B	14244+	FUNCTN	424	FUNC1	4003
FUNC10	14207+	FUNC11	20653+	FUNC12	21053+
FUNC2	6165+	FUNC3	7662+	FUNC4	11071+
FUNC5	12390+	FUNC6	13507+	FUNC7	14070+
FUNC8	14574+	FUNC9	15222+	FVM1	21507+
FVM10	23225+	FVM11	23345+	FVM12	21207+
FVM2	21654+	FVM3	21705+	FVM4	21746+
FVM5	22007+	FVM6	22263+	FVM7	22315+
FVM8	22347+	FVM9	22401+	FVT1	21225+
FVT2	21233+	FVT3	21241+	FVT4	21247+
FVT5	21255+	FVT6	21263+	FVT7	21271+
FVT8	21277+	FVT9	21305+	GDWRD	25521+
GENER1	14566+	GENER2	16553+	GENER3	16536+
GENER4	14563+	GETBLK	17266+	HD	24710+
HEADS	25560+	HEADER	25466+	HOLD	25561+
HOLD2	25562+	HOLD3	25563+	HOLD3B	25564+
I30T44	15120+	I31	243	I33	247
I56174	15117+	I64	311	I65	313
IEXT	18174+	ILLEXT	15162+	IMSG	16210+
INCRS	26037+	INCR1	26036+	INCR11	16053+

INCR12	16073+	INIT1	16320+	INIT10	16441+
INIT11	16444+	INIT2	16342+	INIT3	16330+
INIT4	16422+	INIT5	16403+	INIT6	16425+
INIT7	16430+	INIT8	16433+	INIT9	16436+
INT31	242	INT33	246	INTR1E	20032+
INTR2	20047+	INTR21	20054+	INTR22	20064+
INTR2A	20070+	INTR2B	20076+	INTR2C	20104+
INTR2E	20033+	INTR2E	20034+	INTR2E3	20035+
INTR4	20076+	INTR2E5	20037+	INTR2E6	20046+
INTX1	242	INTX2	246	ITABLE	15156+
IX1	243	IX2	247	JMPTYP	25565+
KEYADR	25570+	KEYEN1	16532+	KEYEND	16512+
KEYFIX	25566+	KEYRA1	16510+	KEYRA2	16475+
KEYRAD	14455+	KEYSW	25567+	KEYSAV	25571+
KVRADR	25525+	LAST	25572+	L0DABL	25575+
M1101A	25062+	M1059B	25002+	M2001A	24423+
M2001B	24451+	M2004A	24477+	M2004B	24464+
M2005A	24505+	M2006A	24513+	M2007A	24521+
M2008A	24527+	M2009A	24535+	M2013A	24543+
M2013B	24556+	M2013C	24572+	M2077A	25052+
M2078A	25056+	M2079A	25022+	M2079B	25030+
M2079C	25035+	M2079D	25042+	MASKER	20642+
M0DES	25505+	M0DE	25526+	MS12	21077+
MS12A	21111+	MS12B	21115+	MSG01A	24712+
MSG01B	24722+	MSG01C	24732+	MSG01D	24742+
MSG020	24642+	MSG021	24644+	MSG022	24646+
MSG023	24650+	MSG024	24652+	MSG025	24654+
MSG026	24656+	MSG027	24660+	MSG028	24662+
MSG029	24664+	MSG030	24666+	MSG031	24670+
MSG032	24672+	MSG033	24674+	MSG034	24676+
MSG035	24700+	MSG036	24606+	MSG037	24615+
MSG038	24624+	MSG039	24633+	MSG05A	24752+
MSG05B	24755+	MSG05C	24760+	MSG05D	24763+
MSG05E	24766+	MSG05F	24771+	MSG05G	24774+
MSG05H	24777+	MSG08A	24702+	MSGPIN	25113+
NDIT	25273+	N0BUFR	25352+	N0CORE	25361+

NCDATA	24337*	NBRAD	25344*	OBJECT	430
BVRFLE	413	FADER	25517*	PATERN	25512*
PATRN	25520*	PINERR	25127*	PININ	7557*
PININ1	7564*	PININ2	7575*	PININ3	7577*
PININ4	7610*	PINSE1	7615*	PINSE2	7627*
PINSE3	7630*	PINSE4	7635*	PINSE5	7642*
PINSET	7612*	PINTS1	20351*	PINTST	20343*
PINARD	25576*	PLACE	21114*	POP	15112*
PEPED	15175*	PSTER1	20415*	POTERR	20407*
POTRD	25573*	PRNTEC	25574*	PRGG11	16746*
PRGG12	16753*	PRGG4A	16705*	PRGG1	16601*
PRGG2	16607*	PRGG3	16622*	PRGG4	16631*
PRGG3	16640*	PRGG6	16664*	PRGG7	16672*
PRGG8	16714*	PRGG9	16753*	PRGGEN	16535*
RADA01	17141*	RADA02	17223*	RADAD3	17257*
RADA4	17162*	RADAD5	17163*	RADAD9	17160*
RADAD2	17172*	RADADC	17221*	RADADD	17213*
RADAD6	17254*	RADADG	17234*	RADADH	17232*
RADAD7	17172*	RADBI6	25410*	RADDR1	17351*
RADDR2	17345*	RADDR3	17334*	RADDR*	17341*
RADDRV	17313*	RADER	25211*	RADWI	25511*
RADINX	25621*	RADL0	25510*	RADMSK	25600*
RADMAX	25577*	RADRY	14467*	RADRS	25515*
RADSTT	25523*	RADSTZ	403	RADY11	20250*
RADTIM	25247*	RADTSP	25602*	RADWH0	7000
RA4X	25603*	RANDOM	17302*	RCODE1	26031*
RCODE2	24032*	READ	15706*	READ0	15711*
READ1	15717*	READ2	15747*	READ3	15745*
READ4	15761*	READ5	16005*	READ6	16007*
READ7	16015*	READ8	16027*	READ9	16033*
READA	25604*	READP	25217*	RELAB*	17533*
RELAB6	17566*	RELAB6	17574*	RELAB7	17556*
RELAB8	17553*	RELABL	17512*	RELBL	25605*
RELCA	25606*	REPORT	454	RESET	6157*
RESREG	25142*	RESTSR	20147*	RETURN	440
RFIELD	25607*	RMIADR	25617*	RITP	25237*

RL1	415	RL2	416	RL4	417
RL8	25620*	RLSADR	26020*	SAVA41	26022*
SAVADR	24023*	SAVB41	26025*	SAVBL*	26026*
SAVARD	24041*	SAVX41	26040*	SEED	406
SEKSTT	24042*	SETPIN	7654*	SETU3A	17410*
SETU3B	17405*	SETUP	17354*	SETUP*	17373*
SETUP8	17401*	SETARD	16036*	SIDE	24704*
SIX	402	SKP943	26043*	SKSERR	25153*
SPREAD	15701*	SPRINT	15201*	SPURI	15070*
SSIDE	16113*	STAHL0	26045*	STATS1	17004*
STATST	14777*	STATUS	401	SVSEED	26044*
SYNC	25417*	SYSIZE	405	T8	24706*
TCE0M	24044*	TCE0M1	17746*	TCE0M2	20003*
TEMP1	24052*	TIMERR	25203*	TIME	407
TIMBUT	25502*	TITLE	25314*	THANS1	17735*
TRANS2	17772*	TRAN11	17751*	THAN12	17741*
TRAN13	17771*	TRAN14	17750*	TRAN21	20006*
TRAN22	17774*	TRAN23	20027*	TRAN2*	20005*
TRAN25	20016*	TRE0M	26050*	TRE0M1	17753*
TRE0M2	20010*	TSTARD	26035*	UAM	21342*
UAX	400	UIM	21325*	UNIT	420
UPT	21212*	UVM	21322*	UVT	21217*
WAIT1	20263*	WAIT11	20265*	WAIT12	20267*
WAIT13	20272*	WAIT14	20275*	WAIT2	20302*
WAIT21	20304*	WAIT22	20306*	WAIT23	20311*
WAIT24	20314*	WAIT*	20321*	WAIT41	20324*
WAIT42	20326*	WAIT43	20331*	WAIT4*	20334*
WAIT45	20341*	WAITS	20040*	WOKOHV	25516*
WRDSTA	24054*	WRDSKM	26055*	WRITE	26053*
WRTPR1	20140*	WRTPR8	20125*	WRYT	15607*
WRYT1	15613*	WRYT10	15634*	WRYT2	15682*
WRYT3	15664*	WRYT4	15640*	WRYT5	15651*
WRYT6	15645*	WRYT7	15646*	WRYT8	15647*
WRYT9	15616*	WSAVE	26056*	XREG	412
XTI1	61073*	XTI2	6103*	XTI2A	6120*
XTI3	6131*	XTI3A	6147*	XTRA1	7651*

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XTRAPT	25307*	YMSG	16123*	YMSG7	16140*
YMSG8	14166*	YMSG9	16172*	ZER31	7764*
ZER32	10000*	ZER41	11173*	ZER42	11207*
ZER51	12422*	ZER52	12416*	ZER01	6330*
ZER02	7344*	ZR0BAD	25072*		

