

SDS 940 OLDS DIAGNOSTIC SYSTEM

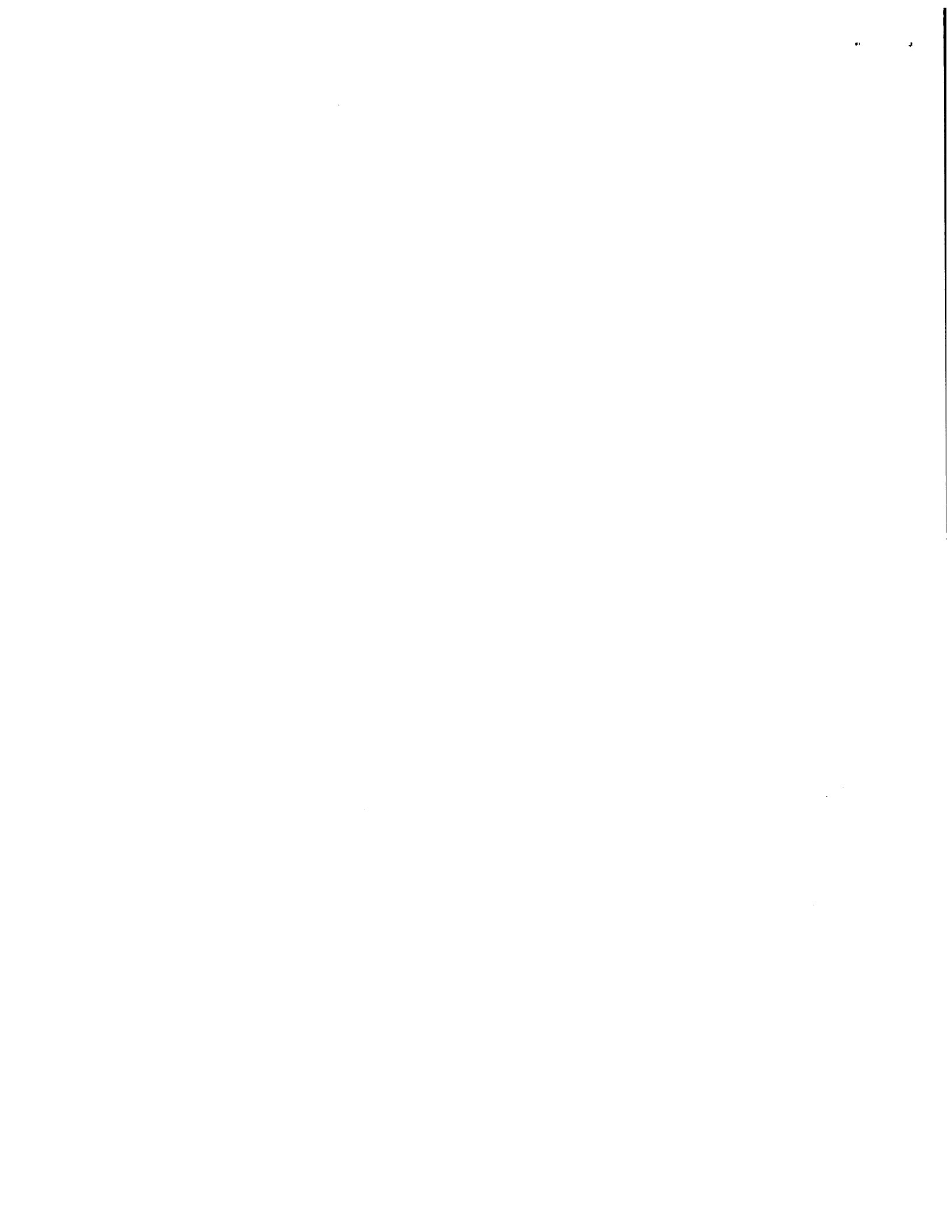
UNIT 15 W RAD TEST LISTING

SDS 870037-51A

February 1969



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



RADW15 TAP-3.C 01/15 06130 PAGE 1

00010	OCTAL		
0 01 0000	*ONE	SPD	0100000,1
0 02 0000	TWO	SPD	0200000,1
0 03 0000	THREE	SPD	0300000,1
0 04 0000	FOUR	SPD	0400000,1
0 05 0000	FIVE	SPD	0500000,1
0 06 0000	SIX	SPD	0600000,1
0 07 0000	SEVEN	SPD	0700000,1
0 10 0000	EIGHT	SPD	01000000,1
	*		
0000400	UAW	EQU	400
0000401	STATUS	EQU	401
0000402	SIX	EQU	402
0000403	RADSIZ	EQU	403
0000404	RSCSIZ	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	*VRFLB	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

RADW15 TAP-3.C 01/15 06130 PAGE 2

0000460	ERRRR	EQU	460
	*		
0 33 0000	PIAN	SPD	03300000,1
0 13 0000	POTT	SPD	01300000,1
0 02 2000	EIRR	SPD	00220002,2
0 02 2004	*IRR	SPD	00220004,2
0000311	I64	EQU	311
0000313	I65	EQU	313
0 46 2005	ABC	SPD	4620005,2
0 46 10012	BAC	SPD	4610012,2
0 46 00014	XAB	SPD	4600014,2
0 02 0000	E0MM	SPD	200000,1
0 40 0000	SKSS	SPD	04000000,1
0 40 14000	CATC	SPD	4014000,2
0 02 0000	DSCC	SPD	200000,2
0 02 14000	T8PC	SPD	214000,2
0 40 21000	BRTC	SPD	4021000,2
0 40 11000	CETC	SPD	4011000,2
0 40 20010	BETC	SPD	4020010,2
0 02 10000	ALCC	SPD	210000,2
0 40 12000	CZTC	SPD	4012000,2
0 02 12000	ASCC	SPD	212000,2
0 02 02045	FEOM	SPD	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	RAD4H0	EQU	7000
00000	04000	BSS	04000
	RADW15 IDENT		

FORCE 920 BITS

26-66 RAD ON W CHANNEL,945

*
*
*
*
*

FUNCTION 1 = TMCC TEST

04000	0 43 00420	BRM	UNIT	UNIT LINK
04001	0 20 21212	NOP	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	NOP	FPT1	FUNCTION PARAMETER TABLES

FUNC1

*
*
*

TEST CAT (NOT ACTIVE CONDITION)

04006	0 43 00430	BRM	OBJECT	
04007	0 43 00440	BRM	RETURN	
04010	0 20 06073	NOP	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	NOP	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	NOP	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	NOP	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
```

```
*
* 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 #14
*

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	XT11	
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	XT11	
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	EBMM	20	SET #10
04170	0	40	14000	CATC		
04171	0	01	04174	BRJ	**3	
04172	0	02	00000	DSCC		
04173	0	43	00460	BRM	ERR0R	CHANNEL NOT ACTIVE
04174	0	20	23460	NOP	F1M11	
04175	0	02	00000	DSCC		
04176	0	43	00434	BRM	END	

*
* 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	P0TARD	
04205	0	02	10000	ALCC*		
04206	0	02	14037	EBMM	14037	
04207	0	13	25573	P0T	P0TARD	
04210	0	76	26060	LDA	#0	
04211	0	35	25573	STA	P0TARD	
04212	0	02	10000	ALCC*		
04213	0	02	14000	EBMM	14000	
04214	0	13	25573	P0T	P0TARD	WC#0
04215	0	40	12000	CZTC		
04216	0	43	00460	BRM	ERR0R	WORD COUNT TESTED NOT ZERO
04217	0	20	23470	NOP	F1M12	
04220	0	43	00434	BRM	END	

*
*
*

TEST WC14

04221	0	43	00430	BRM	OBJECT	
04222	0	43	00440	BRM	RETURN	
04223	0	20	06073	NOP	XTI1	
04224	0	02	20004	DIR		
04225	0	76	26061	LDA	#4B4	
04226	0	35	25573	STA	POTWRD	
04227	0	02	10000	ALCC*		
04230	0	02	14000	EDMM	14000	
04231	0	13	25573	PBT	POTWRD	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	NOP	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	NOP	XTI1	
04244	0	02	20004	DIR		
04245	0	76	26062	LDA	#1B5	
04246	0	35	25573	STA	POTWRD	
04247	0	02	10000	ALCC*		
04250	0	02	14000	EDMM	14000	
04251	0	13	25573	PBT	POTWRD	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	NOP	F1M14	
04257	0	43	06157	BRM	RESET	
04260	0	43	00434	BRM	END	

•
• TEST C12
•

04261	0	43	04430	BRM	REJECT
04262	0	43	04440	BRM	RETURN
04263	0	20	04473	SP	XTI1
04264	0	20	04504	LIR	
04265	0	74	04513	LDA	PR5
04266	0	35	04573	STA	PST RD
04267	0	0P	14000	ALCC	
04270	0	0P	14000	ESM	14000
04271	0	13	04573	PST	PST RD
04272	0	41	14000	GZTC	
04273	0	01	04276	BRU	**3
04274	0	43	04157	BRM	RESET
04275	0	43	04161	BRM	ERRR
04276	0	41	04216	BRP	F115
04277	0	43	04117	BRM	RESET
04300	0	43	04434	BRM	END

RESET WC12

WORD COUNT TESTED ZERO

•
• TEST C11
•

04301	0	43	04430	BRM	REJECT
04302	0	43	04440	BRM	RETURN
04303	0	20	04473	SP	XTI1
04304	0	20	04504	LIR	
04305	0	74	04513	LDA	PR5
04306	0	35	04573	STA	PST RD
04307	0	0P	14000	ALCC	
04310	0	0P	14000	ESM	14000
04311	0	13	04573	PST	PST RD
04312	0	41	14000	GZTC	
04313	0	01	04316	BRU	**3
04314	0	43	04157	BRM	RESET
04315	0	43	04161	BRM	ERRR
04316	0	41	04216	BRP	F116
04317	0	43	04117	BRM	RESET
04320	0	43	04434	BRM	END

RESET WC11

WORD COUNT TESTED ZERO

```

*
*   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   PBTARD
04327 0 02*10000   ALCC*
04330 0 02 14000   EMM   14000
04331 0 13 25573   PBT   PBTARD   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   PBTARD
04347 0 02*10000   ALCC*
04350 0 02 14000   EMM   14000
04351 0 13 25573   PBT   PBTARD   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	06073	NBP	XTI1	
04364	0	02	20004	DIR		
04365	0	76	26067	LDA	**B6	
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	04376	BRU	**3	
04374	0	43	06157	BRM	RESET	
04375	0	43	00460	BRM	ERROR	WORD COUNT TESTED ZERO
04376	0	20	23556	NBP	F1M19	
04377	0	43	06157	BRM	RESET	
04400	0	43	00434	BRM	END	

*
* TEST WCB
*

04401	0	43	00430	BRM	OBJECT	
04402	0	43	00440	BRM	RETURN	
04403	0	20	06073	NBP	XTI1	
04404	0	02	20004	DIR		
04405	0	76	26070	LDA	**B7	
04406	0	35	25573	STA	POTWRD	
04407	0	02	10000	ALCC*		
04410	0	02	14000	EGMM	14000	
04411	0	13	25573	PBT	POTWRD	RESET WCB
04412	0	40	12000	CZTC		
04413	0	01	04416	BRU	**3	
04414	0	43	06157	BRM	RESET	
04415	0	43	00460	BRM	ERROR	WORD COUNT TESTED ZERO
04416	0	20	23566	NBP	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 NOP 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 ERROR
04436 0 20 23476 NOP 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 NOP 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 ERROR
04456 0 20 23406 NOP F1M22
04457 0 43 06157 BRM RESET
04460 0 43 04434 BRM END

```

```

*
*   TEST WC4
*
04461 0 43 00430   BRM   OBJECT
04462 0 43 00440   BRM   RETURN
04463 0 20 06073   NOP   XT11
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   EOMM  14001
04471 0 13 25573   PBT   PBT*RD           RESET WC4
04472 0 40 12000   CZTC
04473 0 01 04476   BRU   **3
04474 0 43 06157   BRM   RESET
04475 0 43 00460   BRM   ERROR           WORD COUNT TESTED ZERO
04476 0 20 23416   NOP   F1M23
04477 0 43 06157   BRM   RESET
04500 0 43 00434   BRM   END

```

```

*
*   TEST WC3
*
04501 0 43 00430   BRM   OBJECT
04502 0 43 00440   BRM   RETURN
04503 0 20 06073   NOP   XT11
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   EOMM  14002
04511 0 13 25573   PBT   PBT*RD           RESET WC3
04512 0 40 12000   CZTC
04513 0 01 04516   BRU   **3
04514 0 43 06157   BRM   RESET
04515 0 43 00460   BRM   ERROR           WORD COUNT TESTED ZERO
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	PSTARD	
04527	0 02	*10000	ALCC*		
04530	0 02	14004	EBMM	14004	
04531	0 13	25573	PBT	PSTARD	RESET WC2
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	PSTARD	
04547	0 02	*10000	ALCC*		
04550	0 02	14010	EBMM	14010	
04551	0 13	25573	PBT	PSTARD	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	XTI1	
04564	0	02	20004	DIR		
04565	0	76	26060	LDA	#0	
04566	0	35	25573	STA	POTWRD	
04567	0	02	*10000	ALCC*		
04570	0	02	14020	EBMM	14020	
04571	0	13	25573	PBT	POTWRD	RESET WCO
04572	0	40	12000	CZTC		
04573	0	01	04576	BRU	**3	
04574	0	43	06157	BRM	RESET	
04575	0	43	00460	BRM	ERR0R	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	XTI1	
04604	0	02	20004	DIR		
04605	0	75	26073	LDB	#1	
04606	0	36	25573	STB	POTWRD	
04607	0	02	*10000	ALCC*		
04610	0	02	14000	EBMM	14000	
04611	0	13	25573	PBT	POTWRD	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	WA14 SET
04616	0	43	00460	BRM	ERR0R	NO
04617	0	20	23673	NBP	F1M28	
04620	0	43	00434	BRM	END	


```

*
*   TEST WA14 = RESET
*
04621 0 43 00430   BRM   OBJECT
04622 0 43 00440   BRM   RETURN
04623 0 20 06073   NBP   XT11
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   ESMY  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 26059   PIN   TEMP1
04640 0 76 26052   LDA   TEMP1
04641 0 70 26060   SKM   #0
04642 0 43 00460   BRM   ERROR
04643 0 20 23710   NBP   F1M29
04644 0 43 00434   BRM   END

```

```

*
*   TEST WA13 = SET
*
04645 0 43 00430   BRM   OBJECT
04646 0 43 00440   BRM   RETURN
04647 0 20 06073   NBP   XT11
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   ESMY  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
04662 0 43 00460   BRM   ERROR
04663 0 20 23723   NBP   F1M30
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 NBP XT11
04670 0 02 20004 DIR
04671 0 75 26074 LDB #2
04672 0 36 25573 STB PBTARD
04673 0 02*10000 ALCC*
04674 0 02 14000 EBMM 14000
04675 0 13 25573 PBT PBTARD SET WA13
04676 0 76 26060 LDA #0
04677 0 35 25573 STA PBTARD
04700 0 02*10000 ALCC*
04701 0 13 25573 PBT PBTARD 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 ERROR NO
04707 0 20 23731 NBP F1M31
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 NBP XT11
04714 0 02 20004 DIR
04715 0 75 26075 LDB #4
04716 0 36 25573 STB PBTARD
04717 0 02*10000 ALCC*
04720 0 02 14000 EBMM 14000
04721 0 13 25573 PBT PBTARD 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 ERROR NO
04727 0 20 23737 NBP F1M32
04730 0 43 00434 BRM END

```

RAD*15 TAP=3*0 01/15 06130 PAGE 33

*
* 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	EBMM	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	ERRR	NO
04753	0	20	23745	NBP	F1M33	
04754	0	43	00434	BRM	END	

RAD*15 TAP=3*0 01/15 06130 PAGE 34

*
* 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	EBMM	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	ERRR	NO
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	25073	STB	PBTWRD	
05003	0	02	10000	ALCC*		
05004	0	02	14000	EQMM	14000	
05005	0	13	25073	PBT	PBTWRD	SET WA11
05006	0	76	26060	LDA	#0	
05007	0	95	25073	STA	PBTWRD	
05010	0	02	10000	ALCC*		
05011	0	13	25073	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	25073	STB	PBTWRD	
05027	0	02	10000	ALCC*		
05030	0	02	14000	EQMM	14000	
05031	0	13	25073	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   SUBJECT
05042 0 43 00440   BRM   RETURN
05043 0 20 06073   NBP   XTII
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
05062 0 43 00460   BRM   ERROR
05063 0 20 23775   NBP   F1M37
05064 0 43 00434   BRM   END

```

```

*
*   TEST WA9 = SET
*
05065 0 43 00430   BRM   SUBJECT
05066 0 43 00440   BRM   RETURN
05067 0 20 06073   NBP   XTII
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
05102 0 43 00460   BRM   ERROR
05103 0 20 24003   NBP   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	NBP	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	26052	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	NBP	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	NBP	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	NBP	F1440	
05150	0	43	00434	BRM	END	

```

*
* TEST WA6 = RESET
*
05151 0 43 00430 BRM 0BJECT
05152 0 43 00440 BRM RETURN
05153 0 20 06773 NBP XTI1
05154 0 02 20004 DJR
05155 0 75 26101 LDB #100
05156 0 36 25573 STB PBTARD
05157 0 02*10000 ALCC*
05160 0 02 14000 EBM 14000
05161 0 13 25573 PBT PBTARD SET WA6
05162 0 76 26760 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 26752 PIN TEMP1
05170 0 76 26752 LDA TEMP1
05171 0 70 26760 SKM #0
05172 0 43 00460 BRM ERROR WA6 RESET
05173 0 20 24727 NBP F1*41 NO
05174 0 43 00434 BRM END

```

```

*
* TEST WA7 = SET
*
05175 0 43 00430 BRM 0BJECT
05176 0 43 00440 BRM RETURN
05177 0 20 06773 NBP XTI1
05200 0 02 20004 DJR
05201 0 75 26102 LDB #200
05202 0 36 25573 STB PBTARD
05203 0 02*10000 ALCC*
05204 0 02 14000 EBM 14000
05205 0 13 25573 PBT PBTARD SET WA7
05206 0 02 12000 ASCC
05207 0 33 26752 PIN TEMP1
05210 0 76 26752 LDA TEMP1
05211 0 70 26102 SKM #200
05212 0 43 00460 BRM ERROR WA7 SET
05213 0 20 24735 NBP F1*42 NO
05214 0 43 00434 BRM END

```

*
* TEST WA7 = RESET
*

05215	0	43	00430	BRM	OBJECT	
05216	0	43	00440	BRM	RETURN	
05217	0	20	06173	NOP	XTI1	
05220	0	02	20004	DIR		
05221	0	75	26102	LDB	#200	
05222	0	36	25573	STB	POTWRD	
05223	0	02	10000	ALCC*		
05224	0	02	14000	EDMM	14000	
05225	0	13	25573	POT	POTWRD	SET WA7
05226	0	76	26160	LDA	#0	
05227	0	35	25573	STA	POTWRD	
05230	0	02	10000	ALCC*		
05231	0	13	25573	POT	POTWRD	RESET WA7
05232	0	02	12000	ASCC		
05233	0	33	26052	PIN	TEMP1	
05234	0	76	26052	LDA	TEMP1	
05235	0	70	26160	SKM	#0	WA7 RESET
05236	0	43	00460	BRM	ERROR	NO
05237	0	20	24743	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	06173	NOP	XTI1	
05244	0	02	20004	DIR		
05245	0	75	26103	LDB	#400	
05246	0	36	25573	STB	POTWRD	
05247	0	02	10000	ALCC*		
05250	0	02	14000	EDMM	14000	
05251	0	13	25573	POT	POTWRD	SET WA6
05252	0	02	12000	ASCC		
05253	0	33	26052	PIN	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	24751	NOP	F1M44	
05260	0	43	00434	BRM	END	

*
* TEST WA6 = RESET
*

05261	0	43	00430	BRM	SUBJECT	
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	PBTARD	
05267	0	02	10000	ALCC*		
05270	0	02	14000	ESMM	14000	SET WA6
05271	0	13	25573	PBT	PBTARD	
05272	0	76	26060	LDA	#0	
05273	0	35	25573	STA	PBTARD	
05274	0	02	10000	ALCC*		RESET WA6
05275	0	13	25573	PBT	PBTARD	
05276	0	02	12000	ASCC		
05277	0	33	26052	PIV	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	04057	NBP	F1M45	
05304	0	43	00434	BRM	END	

*
* TEST WA5 = SET
*

05305	0	43	00430	BRM	SUBJECT	
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	PBTARD	
05313	0	02	10000	ALCC*		
05314	0	02	14000	ESMM	14000	SET WA5
05315	0	13	25573	PBT	PBTARD	
05316	0	02	12000	ASCC		
05317	0	33	26052	PIV	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	04065	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   PBTARD
05333 0 02*10000 ALCC*
05334 0 02 14000 EBMM  14000
05335 0 13 25573 PBT   PBTARD   SET WAS
05336 0 76 26060 LDA   #0
05337 0 35 25573 STA   PBTARD
05340 0 02*10000 ALCC*
05341 0 13 25573 PBT   PBTARD   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   F1M47
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 26105 LDB   #2000
05356 0 36 25573 STB   PBTARD
05357 0 02*10000 ALCC*
05360 0 02 14000 EBMM  14000
05361 0 13 25573 PBT   PBTARD   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   F1M48
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 NOP XTI1
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 NOP 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 NOP XTI1
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 SET WA3
05425 0 13 25573 PBT PBTARD
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 NOP 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	PIR	TEMP1	
05454	0	76	26052	LDA	TEMP1	
05455	0	70	26060	SKM	#0	WA3 RESET
05456	0	43	00460	BRM	ERRRR	NO
05457	0	20	24123	NBP	F1M51	
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	PIR	TEMP1	
05474	0	76	26052	LDA	TEMP1	
05475	0	70	26107	SKM	#10000	WA2 SET
05476	0	43	00460	BRM	ERRRR	NO
05477	0	20	24131	NBP	F1M52	
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   WA2 RESET
05522 0 43 00460   BRM   ERROR   NO
05523 0 20 24137   NOP   F1M53
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   F1M54   NO
05544 0 43 00434   BRM   END

```

```

*
*   TEST WA1 = RESET
*
05545 0 43 00430 BRM 0BJECT
05546 0 43 00440 BRM RETURN
05547 0 20 06073 NBP XTII
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 EMM 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 PIN TEMP1
05564 0 76 26052 LDA TEMP1
05565 0 70 26060 SKM #0 WA1 RESET
05566 0 43 00460 BRM ERRR NO
05567 0 20 24153 NBP F1M55
05570 0 43 00434 BRM END
    
```

```

*
*   TEST WAO = SET
*
05571 0 43 00430 BRM 0BJECT
05572 0 43 00440 BRM RETURN
05573 0 20 06073 NBP XTII
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 EMM 14040 SET WAO
05602 0 13 25573 PBT PBTWRD
05603 0 02 12000 ASCC
05604 0 33 26052 PIN TEMP1
05605 0 76 26052 LDA TEMP1
05606 0 70 26061 SKM #40000 WAO SET
05607 0 43 00460 BRM ERRR 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	00073	NBP	XTI1	
05615	0	02	20004	DIR		
05616	0	75	26061	LDB	#40000	
05617	0	76	26060	LDA	#0	
05620	0	35	25573	STA	PBTARD	
05621	0	02	*10000	ALCC*		
05622	0	02	14040	ESMM	14040	SET WAO
05623	0	13	25573	PBT	PBTARD	
05624	0	02	*10000	ALCC*		
05625	0	02	14000	ESMM	14000	RESET WAO
05626	0	13	25573	PBT	PBTARD	
05627	0	02	12000	ASCC		
05630	0	13	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	24171	NBP	F1M57	
05635	0	43	00434	BRM	END	

•
• TEST WAO = SET
•

05636	0	43	00430	BRM	OBJECT	
05637	0	43	00440	BRM	RETURN	
05640	0	20	00073	NBP	XTI1	
05641	0	02	20004	DIR		
05642	0	75	26062	LDB	#100000	
05643	0	76	26060	LDA	#0	
05644	0	35	25573	STA	PBTARD	
05645	0	02	*10000	ALCC*		
05646	0	02	14100	ESMM	14100	SET WAO
05647	0	13	25573	PBT	PBTARD	
05650	0	02	12000	ASCC		
05651	0	33	26052	FIN	TEMP1	
05652	0	76	26052	LDA	TEMP1	
05653	0	70	26062	SKM	#100000	WAO 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  SUBJECT
05660 0 43 00440 BRM  RETURN
05661 0 20 06073 NBP  XTII
05662 0 02 20004 DJR
05663 0 75 26162 LDB  #100000
05664 0 76 26060 LDA  #0
05665 0 35 25573 STA  PBTARD
05666 0 02*10000 ALCC*
05667 0 02 14100 EBMM 14100 SET WA00
05670 0 13 25573 PBT  PBTARD
05671 0 02*10000 ALCC*
05672 0 02 14000 EBMM 14000 RESET WA00
05673 0 13 25573 PBT  PBTARD
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  PBTARD
05705 0 43 00430 F19E1 BRM  REJECT
05706 0 43 00440 BRM  RETURN
05707 0 20 06073 NBP  XTII
05710 0 02 20004 DJR
05711 0 75 26111 LDB  #177777
05712 0 02*10000 ALCC*
05713 0 02 14000 EBMM 14000
05714 0 13 25573 PBT  PBTARD WC#1
05715 0 02 02045 DEBM INCREMENT ADDRESS REGISTER
05716 0 76 25573 LDA  PBTARD 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  PBTARD
05734 0 76 25573 LDA  PBTARD
05735 0 73 26113 SKG  #77777 LAST PASS
05736 0 01 05705 BRU  F19E1 NO
    
```


TEST INCREMENTING OF WAOO

05737	0	43	00430	BRM	OBJECT		
05740	0	42	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		
05745	0	02	*10000	ALCC*			
05746	0	02	14040	EBMM	14040		
05747	0	13	25573	PBT	PBTWRD		
05750	0	02	02045	DESM		*C=1, *A=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	PIV	TEMP1		
05756	0	70	26052	SKM	TEMP1	*A=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	F1461,2		
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		
05775	0	02	02045	DESM		*C=1, *A=177777	
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	PIV	TEMP1		
06003	0	70	26052	SKM	TEMP1	A=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	F1462,2		
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	\\$BP	XTI2		
06015	0	76	26761	LDA	#40000		
06016	0	35	25573	STA	PST+RD		
06017	0	02	20002	EIR			
06020	0	02	*10000	ALCC*			
06021	0	02	15000	EBMM	15000	ARM 11	
06022	0	13	25573	PBT	PST+RD	COUNT 1, WC=0	
06023	0	02	02045	DEBM		5 DUMMY CYCLES	
06024	0	67	20060	LCY	480	5 DUMMY CYCLES	
06025	0	67	20060	LCY	480		
06026	0	02	00000	DSCC			
06027	0	02	20004	DIR			
06030	0	43	00460	BRM	ERRBR	NO 11 INTERRUPT	
06031	4	20	24272	\\$BP	F1M65,4		
06032	0	20	24301	\\$BP	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	\\$BP	XTI3		
06037	0	76	26761	LDA	#40000		
06040	0	35	25573	STA	PST+RD		
06041	0	02	20002	EIR			
06042	0	02	*10000	ALCC*			
06043	0	02	16000	EBMM	16000	ARM 12	
06044	0	13	25573	PBT	PST+RD		
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	\\$BP	F1M70,4		
06053	0	20	24364	\\$BP	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 NBP XT12
06060 0 02 20002 EIR
06061 0 02 02045 DECM
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 NBP F1M65.4
06067 0 20 24315 NBP 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 NBP **1 SPURIOUS TRAP OR INTERRUPT
06100 0 43 00460 BRM ERROR
06101 0 20 24335 NBP F1M68
06102 0 51 00430 BRR OBJECT
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 SPUR I TO SPURIOUS INTRUPT TESTER
06123 0 20 26120 NBP #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 NBP **1
06130 0 51 00430 BRR OBJECT
    
```

RADN15 TAP=3.C 01/15 06130 PAGE 67

```
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 SPURI
06141 0 20 26121 VSP #31
06142 0 53 25565 SKN JMPTYP
06143 0 11 06145 BRI **2
06144 0 01*06145 BRU* **1
06145 0 20 06146 VSP **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 EBY* 14000
06163 0 13 24760 PBT #0
06164 0 51 06157 BRR RESET
```

RADN15 TAP=3.C 01/15 06130 PAGE 68

*
*
* FUNCTION 02 RAD PRIMARY TESTS
*
*

```
06165 0 43 00424 FUNC2 BRM FUNCTN
06166 0 20 21226 VBP FPT2
06167 0 76 06130 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	0	OBJECT	
06172	0 43 00440	BRM	0	RETURN	
06173	0 20 07651	NBP	0	XTRA1	SPURIOUS INTRUPT HANDLER
06174	0 02 00000	EBMM	0	0	
06175	0 71 26061	LDX	#40000	0	WAIT CONSTANT
06176	0 20 00000	NBP	0	0	
06177	0 40 10026	SKSS	010026	010026	RAD READY TEST
06200	0 41 06176	BRX	**2	0	
06201	0 41 06205	BRX	**4	0	
06202	0 43 00460	BRM	ERR0R	ERR0R	NBP READY ERROR
06203	0 20 24423	NBP	#2001A	#2001B	MESSAGE NOT READY
06204	0 01 06230	BRU	F2001B	0	
06205	0 02 20004	DIR	0	0	
06206	0 02 10026	EBMM	010026	010026	ALERT RAD
06207	0 13 26060	PBT	#0	0	
06210	0 02*10000	EBMM*	010000	010000	ALERT CHANNEL
06211	0 02 14200	EBMM	014200	014200	SET HI BITS
06212	0 13 26123	PBT	#4000000+RL0	0	SET INTERLACE
06213	0 02 02226	EBMM	02226	02226	RAD SHOULD HANG UP
06214	0 40 10026	SKSS	010026	010026	READY TEST
06215	0 01 06220	BRU	F2001A	0	
06216	0 43 00460	BRM	ERR0R	ERR0R	READY ERROR
06217	0 20 24451	NBP	#2001B	#2001B	NOT READY ERROR
06220	0 71 26061	LDX	#40000	#40000	WAIT CONSTANT
06221	0 20 00000	NBP	0	0	
06222	0 40 10026	SKSS	010026	010026	READY TEST
06223	0 41 06221	BRX	**2	0	
06224	0 41 06226	BRX	**2	0	
06225	0 43 00460	BRM	ERR0R	ERR0R	
06226	0 20 24423	NBP	#2001A	#2001A	
06227	0 02 00000	EBMM	0	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	24465	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	24463	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	24471	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	SBJECT	
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	ERR9R	
06303	4	20	24527	VBP	M2008A,4	ERROR MESSAGE FOR BIT
06304	0	20	24464	VBP	M2004B	
06305	0	43	00434	BRM	END	EXIT TEST

*
* F28B09 RAD PIN TEST
*

06306	0	43	00430	BRM	SBJECT	
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	ERR9R	
06314	4	20	24535	VBP	M2009A,4	ERROR MESSAGE FOR BIT
06315	0	20	24464	VBP	M2004B	
06316	0	43	00434	BRM	END	EXIT TEST
06317	0	53	25565	SKV	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	SBJECT	FIND THE ZERO SECTOR
06325	0	43	00440	BRM	RETURN	
06326	0	20	07451	VBP	XTRA1	
06327	0	71	26061	LDX	#040000	TIME 40 MILLISECND
06330	0	02	10226	ZER91	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	ZER91	
06336	0	41	06344	BRX	ZER92	
06337	0	75	26060	LDB	#0	
06340	0	71	00430	LDX	SBJECT	
06341	0	43	00460	BRM	ERR9R	
06342	4	20	24572	VBP	M2013C,4	NO ZERO
06343	2	20	24556	VBP	M2013B,2	HEADING AND REGISTERS
06344	0	43	00434	ZER92	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	26473	LDB	#001	SECTOR 01
06351	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06352	0	43	00460	BRM	ERROR	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	26474	LDB	#002	SECTOR 02
06362	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06363	0	43	00460	BRM	ERROR	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	ERROR	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	ERROR	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	SUBJECT	
06412	0 43 00440	BRM	RETURN	
06413	0 20 07451	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	SUBJECT	
06423	0 43 00440	BRM	RETURN	
06424	0 20 07451	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	SUBJECT	
06434	0 43 00440	BRM	RETURN	
06435	0 20 07451	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	SUBJECT	
06445	0 43 00440	BRM	RETURN	
06446	0 20 07451	NBP	XTRA1	
06447	0 75 26076	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 ERRR OCCURED
06463	4	20	24443	NBP	*2013A,4	LOGIC ERRR MSG
06464	2	20	24454	NBP	*2013B,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 ERRR OCCURED
06474	4	20	24443	NBP	*2013A,4	LOGIC ERRR MSG
06475	2	20	24454	NBP	*2013B,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 ERRR OCCURED
06505	4	20	24443	NBP	*2013A,4	LOGIC ERRR MSG
06506	2	20	24454	NBP	*2013B,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 ERRR OCCURED
06516	4	20	24443	NBP	*2013A,4	LOGIC ERRR MSG
06517	2	20	24454	NBP	*2013B,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	26077	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	24554	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	26135	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	24554	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	24554	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	24554	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	XTRA1	
06634	0	75	26141	LDB	#025	SECTOR 25
06635	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06636	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06637	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06640	2	20	24556	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	XTRA1	
06645	0	75	26142	LDB	#026	SECTOR 26
06646	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06647	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06650	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06651	2	20	24556	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	XTRA1	
06656	0	75	26143	LDB	#027	SECTOR 27
06657	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06660	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06661	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06662	2	20	24556	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	XTRA1	
06667	0	75	26144	LDB	#030	SECTOR 30
06670	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
06671	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06672	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06673	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06674	0	43	00434	BRM	END	

*
* F20B38 TEST SECTOR ADRS 31
*

06675	0	43	00430	BRM	SUBJECT	
06676	0	43	00440	BRM	RETURN	
06677	0	20	07451	NBP	XTRA1	
06700	0	75	26121	LDB	#031	SECTOR 31
06701	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06702	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06703	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06704	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06705	0	43	00434	BRM	END	

*
* F20B39 TEST SECTOR ADRS 32
*

06706	0	43	00430	BRM	SUBJECT	
06707	0	43	00440	BRM	RETURN	
06710	0	20	07451	NBP	XTRA1	
06711	0	75	26145	LDR	#032	SECTOR 32
06712	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06713	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06714	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06715	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06716	0	43	00434	BRM	END	

*
* F20B40 TEST SECTOR ADRS 33
*

06717	0	43	00430	BRM	SUBJECT	
06720	0	43	00440	BRM	RETURN	
06721	0	20	07451	NBP	XTRA1	
06722	0	75	26120	LDB	#033	SECTOR 33
06723	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06724	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06725	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06726	2	20	24556	NBP	*2013B,2	HEADING AND REGISTERS
06727	0	43	00434	BRM	END	

*
* F20B41 TEST SECTOR ADRS 34
*

06730	0	43	00430	BRM	SUBJECT	
06731	0	43	00440	BRM	RETURN	
06732	0	20	07451	NBP	XTRA1	
06733	0	75	26146	LDB	#034	SECTOR 34
06734	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
06735	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
06736	4	20	24543	NBP	*2013A,4	LOGIC ERROR MSG
06737	2	20	24556	NBP	*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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
06746	0 43 00460	BRM	ERRR	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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
06757	0 43 00460	BRM	ERRR	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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
06770	0 43 00460	BRM	ERRR	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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07001	0 43 00460	BRM	ERRR	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	0BJECT	
07006	0	43	00440	BRM	RETURN	
07007	0	20	07451	NBP	XTRA1	
07010	0	75	26152	LDB	#041	SECTOR 41
07011	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07012	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
07013	4	20	24543	NBP	M2013A,4	LOGIC ERR0R MSG
07014	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
07015	0	43	00434	BRM	END	

*
* F20B47 TEST SECTOR ADRS 42
*

07016	0	43	00430	BRM	0BJECT	
07017	0	43	00440	BRM	RETURN	
07020	0	20	07451	NBP	XTRA1	
07021	0	75	26153	LDB	#042	SECTOR 42
07022	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07023	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
07024	4	20	24543	NBP	M2013A,4	LOGIC ERR0R MSG
07025	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
07026	0	43	00434	BRM	END	

*
* F20B48 TEST SECTOR ADRS 43
*

07027	0	43	00430	BRM	0BJECT	
07030	0	43	00440	BRM	RETURN	
07031	0	20	07451	NBP	XTRA1	
07032	0	75	26154	LDB	#043	SECTOR 43
07033	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07034	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
07035	4	20	24543	NBP	M2013A,4	LOGIC ERR0R MSG
07036	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
07037	0	43	00434	BRM	END	

*
* F20B49 TEST SECTOR ADRS 44
*

07040	0	43	00430	BRM	0BJECT	
07041	0	43	00440	BRM	RETURN	
07042	0	20	07451	NBP	XTRA1	
07043	0	75	26155	LDB	#044	SECTOR 44
07044	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
07045	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
07046	4	20	24543	NBP	M2013A,4	LOGIC ERR0R MSG
07047	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
07050	0	43	00434	BRM	END	

*
* F20850 TEST SECTOR ADRS 45
*

07051	0	43	00430	BRM	OBJECT	
07052	0	43	00440	BRM	RETURN	
07053	0	20	07A51	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	ERROR	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	

*
* F20851 TEST SECTOR ADRS 46
*

07062	0	43	00430	BRM	OBJECT	
07063	0	43	00440	BRM	RETURN	
07064	0	20	07A51	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	ERROR	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	

*
* F20852 TEST SECTOR ADRS 47
*

07073	0	43	00430	BRM	OBJECT	
07074	0	43	00440	BRM	RETURN	
07075	0	20	07A51	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	ERROR	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	

*
* F20853 TEST SECTOR ADRS 50
*

07104	0	43	00430	BRM	OBJECT	
07105	0	43	00440	BRM	RETURN	
07106	0	20	07A51	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	ERROR	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 ADRS 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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07122	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07123	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07124	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07125	0 43 00434	BRM	END	

*
* F20855 TEST SECTOR ADRS 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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07133	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07134	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07135	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07136	0 43 00434	BRM	END	

*
* F20856 TEST SECTOR ADRS 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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07144	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07145	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07146	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07147	0 43 00434	BRM	END	

*
* F20857 TEST SECTOR ADRS 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 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07155	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
07156	4 20 24543	NBP	*2013A,4	LOGIC ERROR MSG
07157	2 20 24556	NBP	*2013B,2	HEADING AND REGISTERS
07160	0 43 00434	BRM	END	

*
* F28358 TEST SECTOR ADRS 55
*

07161	0	43	00430	BRM	SUBJECT	
07162	0	43	00440	BRM	RETURN	
07163	0	20	07451	NBP	XTRA1	
07164	0	75	26166	LDB	#055	SECTOR 55
07165	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07166	0	43	00460	BRM	ERRRR	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	SUBJECT	
07173	0	43	00440	BRM	RETURN	
07174	0	20	07451	NBP	XTRA1	
07175	0	75	26167	LDB	#056	SECTOR 56
07176	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07177	0	43	00460	BRM	ERRRR	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	

*
* F28B60 TEST SECTOR ADRS 57
*

07203	0	43	00430	BRM	SUBJECT	
07204	0	43	00440	BRM	RETURN	
07205	0	20	07451	NBP	XTRA1	
07206	0	75	26170	LDB	#057	SECTOR 57
07207	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07210	0	43	00460	BRM	ERRRR	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	

*
* F28B61 TEST SECTOR ADRS 60
*

07214	0	43	00430	BRM	SUBJECT	
07215	0	43	00440	BRM	RETURN	
07216	0	20	07451	NBP	XTRA1	
07217	0	75	26171	LDB	#060	SECTOR 60
07220	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
07221	0	43	00460	BRM	ERRRR	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	\BP	XTRAI	
07230	0 75 26172	LDB	#061	SECTOR 61
07231	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07232	0 43 00460	BRM	ERRBR	RETURN IF ERROR OCCURED
07233	4 20 24543	\BP	Y2013A,4	LOGIC ERROR MSG
07234	2 20 24556	\BP	Y2013B,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	\BP	XTRAI	
07241	0 75 26173	LDB	#062	SECTOR 62
07242	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07243	0 43 00460	BRM	ERRBR	RETURN IF ERROR OCCURED
07244	4 20 24543	\BP	Y2013A,4	LOGIC ERROR MSG
07245	2 20 24556	\BP	Y2013B,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	\BP	XTRAI	
07252	0 75 26174	LDB	#063	SECTOR 63
07253	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07254	0 43 00460	BRM	ERRBR	RETURN IF ERROR OCCURED
07255	4 20 24543	\BP	Y2013A,4	LOGIC ERROR MSG
07256	2 20 24556	\BP	Y2013B,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	\BP	XTRAI	
07263	0 75 26175	LDB	#064	SECTOR 64
07264	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
07265	0 43 00460	BRM	ERRBR	RETURN IF ERROR OCCURED
07266	4 20 24543	\BP	Y2013A,4	LOGIC ERROR MSG
07267	2 20 24556	\BP	Y2013B,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	07651	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	07651	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	07651	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	07651	NBP	XTRAI	
07327	0	75	26201	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	

*
* F29B70 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	M2013A,4	LOGIC ERROR MSG
07344	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
07345	0	43	00434	BRM	END	

*
* F29B71 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	M2013A,4	LOGIC ERROR MSG
07355	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
07356	0	43	00434	BRM	END	

*
* F29B72 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	M2013A,4	LOGIC ERROR MSG
07366	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
07367	0	43	00434	BRM	END	

*
* F29B73 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	M2013A,4	LOGIC ERROR MSG
07377	2	20	24556	NBP	M2013B,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	XTRA1	
07404	0 75 26206	LDB	#075	SECTOR 75
07405	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07406	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
07407	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
07410	2 20 24556	NBP	M2013B,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	XTRA1	
07415	0 75 26207	LDB	#076	SECTOR 76
07416	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07417	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
07420	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
07421	2 20 24556	NBP	M2013B,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	XTRA1	
07426	0 75 26210	LDB	#077	SECTOR 77
07427	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
07430	0 43 00460	BRM	ERRR	RETURN IF ERROR OCCURED
07431	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
07432	2 20 24556	NBP	M2013B,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	XTRA1	SPURIOUS INTRUPT RETURN
07437	0 76 00401	LDA	STATUS	
07440	0 77 26106	SKA	#4000	BIT 12 SOFTWARE READ ONLY
07441	0 71 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	WRV73	
07450	0 43 20321	BRM	WAIT4	
07451	0 40 10026	SKSS	10026	TEST READY CONDITION
07452	0 43 00460	BRM	ERRR	
07453	0 20 25052	NBP	M2077A	DISCONNECT LOGIC
07454	0 43 00434	F2077A BRM	END	

* F28878 READ DISCONNECT TEST

07455	0	43	00430	BRM	OBJECT	
07456	0	43	00440	BRM	RETURN	
07457	0	20	07451	NBP	XTRA1	
07460	0	43	20321	BRM	WAIT4	
07461	0	76	26760	LDA	#0	
07462	0	35	25773	STA	POTWRD	
07463	0	76	26731	LDA	FCODE1	
07464	0	35	25734	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	ERRR	
07471	0	20	25756	NBP	V2878A	DISCONNECT LOGIC
07472	0	43	00434	BRM	END	

* F28879 RAD 11,12 TEST

07473	0	43	00430	BRM	OBJECT	
07474	0	43	00440	BRM	RETURN	
07475	0	20	07416	NBP	F2879A	
07476	0	43	20321	BRM	WAIT4	IS RAD READY
07477	0	02	10026	EBMM	10026	ALERT RAD
07500	0	13	26760	PBT	#0	
07501	0	02	10000	EBMM	10000	ALERT 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	HEAD
07505	0	71	26761	LDX	#40000	
07506	0	02	20002	EIR		
07507	0	67	20760	LCY	60	
07510	0	41	07407	BRX	**1	WAIT LOOP
07511	0	02	20004	DIR		
07512	0	43	00460	BRM	ERRR	
07513	4	20	25722	NBP	V2879A,4	CHANNEL LOGIC
07514	0	20	25730	NBP	V2879B	RAD LOGIC
07515	0	01	07426	BRU	F2879B	
07516	0	02	20004	F2879A 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	15070	BRM	SPURI	SPURIOUS INTRUPT TESTER
07524	0	20	26121	NBP	#31	CORRECT INTRUPT
07525	0	53	25565	SKV	JMPTYP	
07526	0	11	07430	F2879B BRI	**2	
07527	0	01	07430	BRU	**1	
07530	0	20	07430	NBP	*	
07531	0	43	00440	BRM	RETURN	
07532	0	20	07447	NBP	F2879C	
07533	0	71	26761	LDX	#40000	

RAD:15 TAP:3.C 01/15 06130 PAGE 109

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	M2079C,4	CHANNEL LOGIC
07546	0	20	25042	NBP	M2079D	RAD LOGIC
07547	0	02	20004	F2079C 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	07662	BRU	FUNC3	

RAD:15 TAP:3.C 01/15 06130 PAGE 110

07557	0	00	00000	PININ	ZR0		
07560	0	71	26061	LDX	#40000		LOAD TIMER
07561	0	36	25573	STB	P0TARD		SAVE NEXT SECTOR TO TEST
07562	0	46	10012	BAC			
07563	0	54	26073	SUB	#1		GENERATE PAST SECTOR
07564	0	02	10226	PININ1	E0MM	010226	ALERT TO PIN
07565	0	33	25574	PINX	PINARD		
07566	0	75	26112	LDB	#37777		
07567	0	70	25576	SKM	PINARD		IS LAST SECTOR CHANGED YET
07570	0	41	07564	BRX	PININ1		SECTOR NOT FOUND YET
07571	0	41	07575	BRX	PININ2		SECTOR FOUND
07572	0	43	00460	BRM	ERR9R		
07573	0	20	25113	NBP	Y8GPIN		INCREMENT ERROR
07574	0	51	07557	BRR	PININ		
07575	0	71	26061	PININ2	LDX	#040000	LOAD TIMER
07576	0	76	25573	LCA	P0TARD		GET NEXT SECTOR
07577	0	02	10226	PININ3	E0MM	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	YIN		
07611	0	51	07557	BRR	PININ		
07612	0	00	00000	PINSET	ZR0		
07613	0	75	26061	LDB	#40000		LOAD RAD REV TIME
07614	0	36	25502	STB	TIMOUT		SET SECTOR COUNT FOR 64 SECTORS
07615	0	02	10226	PININ5	E0MM	010226	ALERT TO PIN
07616	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	TIMOUT		COUNT PASSES

RADW15 TAP=3.0 01/15 06130 PAGE 111

07623	0	20	00000	NBP	0	
07624	0	53	25502	SKN	TIMOUT	
07625	0	01	07415	BRU	PINSE1	NOT COUNTED OUT
07626	0	51	07412	BRR	PINSET	
07627	0	36	25502	PINSE2 STB	TIMOUT	SET COUNT TO TEST FOR ZEROS
07630	0	02	10226	PINSE3 EMM	010226	ALERT TO PIN
07631	0	33	25576	PIN	PINKRD	
07632	0	72	25576	SKA	PINKRD	TEST FOR ANY ZERO
07633	0	01	07435	BRU	PINSE4	
07634	0	01	07642	BRU	PINSE5	
07635	0	60	25502	PINSE4 SKR	TIMOUT	
07636	0	20	00000	NBP	0	
07637	0	53	25502	SKN	TIMOUT	
07640	0	01	07430	BRU	PINSE3	
07641	0	51	07412	BRR	PINSET	
07642	0	61	07412	PINSE5 PIN	PINSET	BYPASS ERROR PRINTOUT
07643	0	51	07412	BRR	PINSET	
07644	0	00	00000	CLRCHN ZRB		
07645	0	02	10200	EMM*	010000	ALERT
07646	0	02	14200	EMM*	014200	SET HI ORDER BITS
07647	0	13	26060	PBT	*0	CLEAR LB BITS
07650	0	51	07444	BRR	CLRCHN	
07651	0	43	15070	XTRA1 BRM	SPUR1	
07652	0	20	26121	NBP	*31	
07653	0	01	00431	BRU	OBJECT+1	
07654	0	00	00000	SETPIN ZRB		
07655	0	35	07564	STA	PININ1	
07656	0	35	07577	STA	PININ3	
07657	0	35	07416	STA	PINSE1+1	
07660	0	35	07430	STA	PINSE3	
07661	0	51	07454	BRR	SETPIN	

RADW15 TAP=3.0 01/15 06130 PAGE 112

				*		
				*		
				* FUNCTION 03		
				*		
				*		
07662	0	43	00424	FUNC3 BRM	FUNCTN	
07663	0	20	21234	NBP	FRT3	FUNCTION THREE PARAMETERS
07664	0	43	00430	BRM	OBJECT	
07665	0	43	14467	BRM	RADBX	TEST RAD THREE
07666	0	73	26065	SKG	*1000000	TEST FOR 4 ME RAD
07667	0	01	11071	BRU	FUNC4	SKIP FUNCTION
07670	0	74	07764	LDA	ZER31	
07671	0	43	07654	BRM	SETPIN	

*
*
* 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

*
* F38B08 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 26077	LDA	#000020	
07742	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07743	0 43 00460	BRM	ERRR	
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

*
* F38B09 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 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
07754	0 43 00460	BRM	ERRR	
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
07765	0 33 25576	PINP	PINARD	ALERT TO PIN
07766	0 76 25576	LDA	PINARD	
07767	0 75 26112	LDB	#37777	
07770	0 70 26060	SKM	#0	
07771	0 41 07764	BRX	ZER31	
07772	0 41 10000	BRX	ZFR32	
07773	0 75 26060	LDB	#0	
07774	0 71 00430	LDX	OBJECT	
07775	0 43 00460	BRM	ERRR	
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	XBP	XTRA1	
10004	0	75	26773	LDB	#001	SECTOR 01
10005	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10006	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10007	4	20	24443	XBP	#2013A,4	LOGIC ERROR MSG
10010	2	20	24456	XBP	#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	XBP	XTRA1	
10015	0	75	26774	LDB	#002	SECTOR 02
10016	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10017	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10020	4	20	24443	XBP	#2013A,4	LOGIC ERROR MSG
10021	2	20	24456	XBP	#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	XBP	XTRA1	
10026	0	75	26122	LDB	#003	SECTOR 03
10027	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10030	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10031	4	20	24443	XBP	#2013A,4	LOGIC ERROR MSG
10032	2	20	24456	XBP	#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	XBP	XTRA1	
10037	0	75	26775	LDB	#004	SECTOR 04
10040	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10041	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10042	4	20	24443	XBP	#2013A,4	LOGIC ERROR MSG
10043	2	20	24456	XBP	#2013B,2	HEADING AND REGISTERS
10044	0	43	00434	BRM	END	

*
* F39B18 TEST SECTOR ADRS 05
*

10045	0	43	00430	BRM	OBJECT	
10046	0	43	00440	BRM	RETURN	
10047	0	20	07451	NBP	XTRA1	
10050	0	75	26116	LDB	#005	SECTOR 05
10051	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10052	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
10053	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
10054	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
10055	0	43	00434	BRM	END	

*
* F39B19 TEST SECTOR ADRS 06
*

10056	0	43	00430	BRM	OBJECT	
10057	0	43	00440	BRM	RETURN	
10060	0	20	07451	NBP	XTRA1	
10061	0	75	26124	LDB	#006	SECTOR 06
10062	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10063	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
10064	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
10065	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTERS
10066	0	43	00434	BRM	END	

*
* F39B20 TEST SECTOR ADRS 07
*

10067	0	43	00430	BRM	OBJECT	
10070	0	43	00440	BRM	RETURN	
10071	0	20	07451	NBP	XTRA1	
10072	0	75	26125	LDB	#007	SECTOR 07
10073	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10074	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
10075	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
10076	2	20	24456	NBP	Y2013B,2	HEADING AND REGISTER
10077	0	43	00434	BRM	END	

*
* F39B21 TEST SECTOR ADRS 10
*

10100	0	43	00430	BRM	OBJECT	
10101	0	43	00440	BRM	RETURN	
10102	0	20	07451	NBP	XTRA1	
10103	0	75	26076	LDB	#010	SECTOR 10
10104	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10105	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
10106	4	20	24443	NBP	Y2013A,4	LOGIC ERROR MSG
10107	2	20	24456	NBP	Y2013B,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	07451	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	ERRR	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	07451	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	ERRR	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	07451	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	ERRR	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	07451	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	ERRR	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	

*
* F30B26 TEST SECTOR ADRS 15
*

10155	0	43	00430	BRM	OBJECT	
10156	0	43	00440	BRM	RETURN	
10157	0	20	07451	NBP	XTRA1	
10160	0	75	26132	LDB	#015	SECTOR 15
10161	0	43	07457	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	

*
* F30B27 TEST SECTOR ADRS 16
*

10166	0	43	00430	BRM	OBJECT	
10167	0	43	00440	BRM	RETURN	
10170	0	20	07451	NBP	XTRA1	
10171	0	75	26133	LDB	#016	SECTOR 16
10172	0	43	07457	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	

*
* F30B28 TEST SECTOR ADRS 17
*

10177	0	43	00430	BRM	OBJECT	
10200	0	43	00440	BRM	RETURN	
10201	0	20	07451	NBP	XTRA1	
10202	0	75	26134	LDB	#017	SECTOR 17
10203	0	43	07457	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	

*
* F30B29 TEST SECTOR ADRS 20
*

10210	0	43	00430	BRM	OBJECT	
10211	0	43	00440	BRM	RETURN	
10212	0	20	07451	NBP	XTRA1	
10213	0	75	26177	LDB	#020	SECTOR 20
10214	0	43	07457	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	

*
* F30930 TEST SECTOR ADRS 21
*

10221	0 43 00430	BRM	OBJECT	
10222	0 43 00440	BRM	RETURN	
10223	0 20 07451	NBP	XTRA1	
10224	0 75 26135	LDB	#021	SECTOR 21
10225	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
10226	0 43 00467	BRM	ERROR	RETURN IF ERROR OCCURED
10227	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
10230	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
10231	0 43 00434	BRM	END	

*
* F30931 TEST SECTOR ADRS 22
*

10232	0 43 00430	BRM	OBJECT	
10233	0 43 00440	BRM	RETURN	
10234	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
10240	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
10241	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
10242	0 43 00434	BRM	END	

*
* F30932 TEST SECTOR ADRS 23
*

10243	0 43 00430	BRM	OBJECT	
10244	0 43 00440	BRM	RETURN	
10245	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
10251	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
10252	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
10253	0 43 00434	BRM	END	

*
* F30933 TEST SECTOR ADRS 24
*

10254	0 43 00430	BRM	OBJECT	
10255	0 43 00440	BRM	RETURN	
10256	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
10262	4 20 24543	NBP	"2013A,4	LOGIC ERROR MSG
10263	2 20 24556	NBP	"2013B,2	HEADING AND REGISTERS
10264	0 43 00434	BRM	END	

*
* F39B34 TEST SECTOR ADRS 25
*

10265	0 43 00430	BRM	SBJECT	
10266	0 43 00440	BRM	RETURN	
10267	0 20 07451	NBP	XTRA1	
10270	0 75 26141	LDB	#025	SECTOR 25
10271	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10272	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10273	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
10274	2 20 24556	NBP	%2013B,2	HEADING AND REGISTERS
10275	0 43 00434	BRM	END	

*
* F39B35 TEST SECTOR ADRS 26
*

10276	0 43 00430	BRM	SBJECT	
10277	0 43 00440	BRM	RETURN	
10300	0 20 07451	NBP	XTRA1	
10301	0 75 26142	LDB	#026	SECTOR 26
10302	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10303	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10304	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
10305	2 20 24556	NBP	%2013B,2	HEADING AND REGISTERS
10306	0 43 00434	BRM	END	

*
* F39B36 TEST SECTOR ADRS 27
*

10307	0 43 00430	BRM	SBJECT	
10310	0 43 00440	BRM	RETURN	
10311	0 20 07451	NBP	XTRA1	
10312	0 75 26143	LDB	#027	SECTOR 27
10313	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10314	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10315	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
10316	2 20 24556	NBP	%2013B,2	HEADING AND REGISTERS
10317	0 43 00434	BRM	END	

*
* F39B37 TEST SECTOR ADRS 30
*

10320	0 43 00430	BRM	SBJECT	
10321	0 43 00440	BRM	RETURN	
10322	0 20 07451	NBP	XTRA1	
10323	0 75 26144	LDB	#030	SECTOR 30
10324	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10325	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
10326	4 20 24543	NBP	%2013A,4	LOGIC ERROR MSG
10327	2 20 24556	NBP	%2013B,2	HEADING AND REGISTERS
10330	0 43 00434	BRM	END	

*
* F30B38 TEST SECTOR ADRS 31
*

10331	0 43 00430	BRM	SUBJECT	
10332	0 43 00440	BRM	RETURN	
10333	0 20 07451	NBP	XTRA1	
10334	0 75 26121	LDB	#031	SECTOR 31
10335	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10336	0 43 00460	BRM	ERRR	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	SUBJECT	
10343	0 43 00440	BRM	RETURN	
10344	0 20 07451	NBP	XTRA1	
10345	0 75 26145	LDB	#032	SECTOR 32
10346	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10347	0 43 00460	BRM	ERRR	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	SUBJECT	
10354	0 43 00440	BRM	RETURN	
10355	0 20 07451	NBP	XTRA1	
10356	0 75 26120	LDB	#033	SECTOR 33
10357	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10360	0 43 00460	BRM	ERRR	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	SUBJECT	
10365	0 43 00440	BRM	RETURN	
10366	0 20 07451	NBP	XTRA1	
10367	0 75 26146	LDB	#034	SECTOR 34
10370	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
10371	0 43 00460	BRM	ERRR	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	NSP	XTRA1	
10400	0	75	26147	LDB	#035	SECTOR 35
10401	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10402	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10403	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10404	2	20	24556	NSP	M2013B,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	NSP	XTRA1	
10411	0	75	26150	LDB	#036	SECTOR 36
10412	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10413	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10414	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10415	2	20	24556	NSP	M2013B,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	NSP	XTRA1	
10422	0	75	26151	LDB	#037	SECTOR 37
10423	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10424	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10425	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10426	2	20	24556	NSP	M2013B,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	NSP	XTRA1	
10433	0	75	26100	LDB	#040	SECTOR 40
10434	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10435	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
10436	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10437	2	20	24556	NSP	M2013B,2	HEADING AND REGISTERS
10440	0	43	00434	BRM	END	

*
*
* F3B346 TEST SECTOR ADRS 41
*

10441	0 43 00430	BRM	SUBJECT	
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 07460	BRM	ERRR	RETURN IF ERROR OCCURED
10447	4 20 24443	NBP	"2013A"4	LOGIC ERROR MSG
10450	2 20 24456	NBP	"2013B"2	HEADING AND REGISTERS
10451	0 43 00434	BRM	END	

*
*
* F3B347 TEST SECTOR ADRS 42
*

10452	0 43 00430	BRM	SUBJECT	
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 07460	BRM	ERRR	RETURN IF ERROR OCCURED
10460	4 20 24443	NBP	"2013A"4	LOGIC ERROR MSG
10461	2 20 24456	NBP	"2013B"2	HEADING AND REGISTERS
10462	0 43 00434	BRM	END	

*
*
* F3B348 TEST SECTOR ADRS 43
*

10463	0 43 00430	BRM	SUBJECT	
10464	0 43 00440	BRM	RETURN	
10465	0 20 07451	NBP	XTRA1	
10466	0 75 26150	LDB	#043	SECTOR 43
10467	0 43 07457	BRM	PININ	T8 PIN IN SECTOR ADRS
10470	0 43 07460	BRM	ERRR	RETURN IF ERROR OCCURED
10471	4 20 24443	NBP	"2013A"4	LOGIC ERROR MSG
10472	2 20 24456	NBP	"2013B"2	HEADING AND REGISTERS
10473	0 43 00434	BRM	END	

*
*
* F3B349 TEST SECTOR ADRS 44
*

10474	0 43 00430	BRM	SUBJECT	
10475	0 43 00440	BRM	RETURN	
10476	0 20 07451	NBP	XTRA1	
10477	0 75 26150	LDB	#044	SECTOR 44
10500	0 43 07457	BRM	PININ	T8 PIN IN SECTOR ADRS
10501	0 43 07460	BRM	ERRR	RETURN IF ERROR OCCURED
10502	4 20 24443	NBP	"2013A"4	LOGIC ERROR MSG
10503	2 20 24456	NBP	"2013B"2	HEADING AND REGISTERS
10504	0 43 00434	BRM	END	

*
* F39850 TEST SECTOR ADRS 45
*

10505	0 43 00430	BRM	OBJECT	
10506	0 43 00440	BRM	RETURN	
10507	0 20 07451	NBP	XTRA1	
10510	0 75 2415A	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	NBP	M2013A,4	LOGIC ERROR MSG
10514	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10515	0 43 00434	BRM	END	

*
* F39851 TEST SECTOR ADRS 46
*

10516	0 43 00430	BRM	OBJECT	
10517	0 43 00440	BRM	RETURN	
10520	0 20 07451	NBP	XTRA1	
10521	0 75 24157	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	NBP	M2013A,4	LOGIC ERROR MSG
10525	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10526	0 43 00434	BRM	END	

*
* F39852 TEST SECTOR ADRS 47
*

10527	0 43 00430	BRM	OBJECT	
10530	0 43 00440	BRM	RETURN	
10531	0 20 07451	NBP	XTRA1	
10532	0 75 24160	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	NBP	M2013A,4	LOGIC ERROR MSG
10536	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10537	0 43 00434	BRM	END	

*
* F39853 TEST SECTOR ADRS 50
*

10540	0 43 00430	BRM	OBJECT	
10541	0 43 00440	BRM	RETURN	
10542	0 20 07451	NBP	XTRA1	
10543	0 75 24161	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	NBP	M2013A,4	LOGIC ERROR MSG
10547	2 20 24556	NBP	M2013B,2	HEADING AND REGISTERS
10550	0 43 00434	BRM	END	

*
* F30854 TEST SECTOR ADRS 51
*

10551	0 43 00430	BRM	PROJECT	
10552	0 43 00440	BRM	RETURN	
10553	0 20 07451	NBP	XTRA1	
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	

*
* F30855 TEST SECTOR ADRS 52
*

10562	0 43 00430	BRM	PROJECT	
10563	0 43 00440	BRM	RETURN	
10564	0 20 07451	NBP	XTRA1	
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	

*
* F30856 TEST SECTOR ADRS 53
*

10573	0 43 00430	BRM	PROJECT	
10574	0 43 00440	BRM	RETURN	
10575	0 20 07451	NBP	XTRA1	
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	

*
* F30857 TEST SECTOR ADRS 54
*

10604	0 43 00430	BRM	PROJECT	
10605	0 43 00440	BRM	RETURN	
10606	0 20 07451	NBP	XTRA1	
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
*

10615	0	43	00430	BRM	SUBJECT	
10616	0	43	00440	BRM	RETURN	
10617	0	20	07451	NBP	XTRA1	
10620	0	75	26166	LDB	#055	SECTOR 55
10621	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10622	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10623	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10624	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
10625	0	43	00434	BRM	END	

*
* F38B59 TEST SECTOR ADRS 56
*

10626	0	43	00430	BRM	SUBJECT	
10627	0	43	00440	BRM	RETURN	
10630	0	20	07451	NBP	XTRA1	
10631	0	75	26167	LDB	#056	SECTOR 56
10632	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10633	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10634	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10635	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
10636	0	43	00434	BRM	END	

*
* F38B60 TEST SECTOR ADRS 57
*

10637	0	43	00430	BRM	SUBJECT	
10640	0	43	00440	BRM	RETURN	
10641	0	20	07451	NBP	XTRA1	
10642	0	75	26170	LDB	#057	SECTOR 57
10643	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10644	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10645	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10646	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
10647	0	43	00434	BRM	END	

*
* F38B61 TEST SECTOR ADRS 60
*

10650	0	43	00430	BRM	SUBJECT	
10651	0	43	00440	BRM	RETURN	
10652	0	20	07451	NBP	XTRA1	
10653	0	75	26171	LDB	#060	SECTOR 60
10654	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
10655	0	43	00460	BRM	ERRRR	RETURN IF ERROR OCCURED
10656	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
10657	2	20	24554	NBP	M2013B,2	HEADING AND REGISTERS
10660	0	43	00434	BRM	END	

*
* F39862 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	ERRRR	RETURN IF ERROR OCCURED
1.667	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
1.670	2 20 24456	NBP	Y2013B,2	HEADING AND REGISTERS
1.671	0 43 00434	BRM	END	

*
* F39863 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	ERRRR	RETURN IF ERROR OCCURED
1.700	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
1.701	2 20 24456	NBP	Y2013B,2	HEADING AND REGISTERS
1.702	0 43 00434	BRM	END	

*
* F39864 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	ERRRR	RETURN IF ERROR OCCURED
1.711	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
1.712	2 20 24456	NBP	Y2013B,2	HEADING AND REGISTERS
1.713	0 43 00434	BRM	END	

*
* F39865 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	ERRRR	RETURN IF ERROR OCCURED
1.722	4 20 24443	NBP	Y2013A,4	LOGIC ERROR MSG
1.723	2 20 24456	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	07451	NSP	XTRA1	
10730	0	75	26176	LDB	#065	SECTOR 65
10731	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10732	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
10733	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10734	2	20	24556	NSP	M2013B,2	HEADING AND REGISTERS
10735	0	43	07434	BRM	END	

*
* F39B67 TEST SECTOR ADRS 66
*

10736	0	43	00430	BRM	OBJECT	
10737	0	43	00440	BRM	RETURN	
10740	0	20	07451	NSP	XTRA1	
10741	0	75	26177	LDB	#066	SECTOR 66
10742	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10743	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
10744	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10745	2	20	24556	NSP	M2013B,2	HEADING AND REGISTERS
10746	0	43	07434	BRM	END	

*
* F39B68 TEST SECTOR ADRS 67
*

10747	0	43	00430	BRM	OBJECT	
10750	0	43	00440	BRM	RETURN	
10751	0	20	07451	NSP	XTRA1	
10752	0	75	26200	LDB	#067	SECTOR 67
10753	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10754	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
10755	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10756	2	20	24556	NSP	M2013B,2	HEADING AND REGISTERS
10757	0	43	07434	BRM	END	

*
* F39B69 TEST SECTOR ADRS 70
*

10760	0	43	00430	BRM	OBJECT	
10761	0	43	00440	BRM	RETURN	
10762	0	20	07451	NSP	XTRA1	
10763	0	75	26201	LDB	#070	SECTOR 70
10764	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10765	0	43	07460	BRM	ERRR	RETURN IF ERROR OCCURED
10766	4	20	24543	NSP	M2013A,4	LOGIC ERROR MSG
10767	2	20	24556	NSP	M2013B,2	HEADING AND REGISTERS
10770	0	43	07434	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
10776	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
10777	4	20	24443	NBP	M2013A,4	LOGIC ERR0R MSG
11000	2	20	24456	NBP	M2013B,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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11007	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11010	4	20	24443	NBP	M2013A,4	LOGIC ERR0R MSG
11011	2	20	24456	NBP	M2013B,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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11020	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11021	4	20	24443	NBP	M2013A,4	LOGIC ERR0R MSG
11022	2	20	24456	NBP	M2013B,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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11031	0	43	00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11032	4	20	24443	NBP	M2013A,4	LOGIC ERR0R MSG
11033	2	20	24456	NBP	M2013B,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	XTRAI	
11040	0	75	26206	LDB	#075	SECTOR 75
11041	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11042	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
11043	4	20	24443	NBP	"2013A,4	LOGIC ERROR MSG
11044	2	20	24456	NBP	"2013B,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	XTRAI	
11051	0	75	26207	LDB	#076	SECTOR 76
11052	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11053	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
11054	4	20	24443	NBP	"2013A,4	LOGIC ERROR MSG
11055	2	20	24456	NBP	"2013B,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	XTRAI	
11062	0	75	26210	LDB	#077	SECTOR 77
11063	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11064	0	43	00460	BRM	ERRR	RETURN IF ERROR OCCURED
11065	4	20	24443	NBP	"2013A,4	LOGIC ERROR MSG
11066	2	20	24456	NBP	"2013B,2	HEADING AND REGISTERS
11067	0	43	00434	BRM	END	
11070	0	43	00456	BRM	FDONE	

*
*
* FUNCTION 04
*
*

11071	0 43 00424	FUNC4	BRM	FUNCTN	
11072	0 20 21942		VBP	FPT4	FUNCTION FOUR PARAMETERS
11073	0 43 00430		BRM	SBJECT	
11074	0 43 14467		BRM	RADPK	TEST RAD FOUR
11075	0 73 26766		SKG	#2000000	TEST FOR 6 MEG RAD
11076	0 01 12900		SKJ	FUNCS	SKIP FUNCTION
11077	0 76 11173		LDA	ZER41	
11100	0 43 07654		BRM	SETPIN	

*
*
* F48B04 RAD PIN TEST
*
*

11101	0 43 00430		BRM	SBJECT	
11102	0 43 00440		BRM	RETURN	
11103	0 20 07451		VBP	XTRA1	SPURIOUS INTRUPT HANDLER
11104	0 76 26773		LDA	#000001	
11105	0 43 07412		BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
11106	0 43 00460		BRM	ERRR	
11107	4 20 24477		VBP	#2004A,4	ERROR MESSAGE FOR BIT
11110	0 20 24464		VBP	#2004B	
11111	0 43 00434		BRM	END	EXIT TEST

*
*
* F48B05 RAD PIN TEST
*
*

11112	0 43 00430		BRM	SBJECT	
11113	0 43 00440		BRM	RETURN	
11114	0 20 07451		VBP	XTRA1	SPURIOUS INTRUPT HANDLER
11115	0 76 26774		LDA	#000002	
11116	0 43 07412		BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
11117	0 43 00460		BRM	ERRR	
11120	4 20 24405		VBP	#2005A,4	ERROR MESSAGE FOR BIT
11121	0 20 24464		VBP	#2004B	
11122	0 43 00434		BRM	END	EXIT TEST

*
* F48B06 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 00460	BRM	ERRBR	
11131	4 20 24413	NBP	#2006A,4	ERROR MESSAGE FOR BIT
11132	0 20 24464	NBP	#2004B	
11133	0 43 00434	BRM	END	EXIT TEST

*
* F48B07 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	ERRBR	
11142	4 20 24421	NBP	#2007A,4	ERROR MESSAGE FOR BIT
11143	0 20 24464	NBP	#2004B	
11144	0 43 00434	BRM	END	EXIT TEST

*
* F48B08 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	ERRBR	
11153	4 20 24427	NBP	#2008A,4	ERROR MESSAGE FOR BIT
11154	0 20 24464	NBP	#2004B	
11155	0 43 00434	BRM	END	EXIT TEST

*
* F48B09 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	ERRBR	
11164	4 20 24435	NBP	#2009A,4	ERROR MESSAGE FOR BIT
11165	0 20 24464	NBP	#2004B	
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	XTRA1	
11172	0 71 26761	LDX	#040000	TIME 40 MILLISECONDS
11173	0 02 12226	ZER41	ESMM	12226
11174	0 33 25576	PINX	PINARD	ALERT TO PIN
11175	0 76 25576	LDA	PINARD	
11176	0 75 26112	LDB	#37777	
11177	0 70 26760	SKM	#0	
11200	0 41 11173	BRX	ZER41	
11201	0 41 11207	BRX	ZER42	
11202	0 75 26760	LDB	#0	
11203	0 71 00430	LDX	OBJECT	
11204	0 43 00460	BRM	ERRR	
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	XTRA1	
11213	0 75 26773	LDB	#001	SECTOR 01
11214	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11215	0 43 00460	BRM	ERRR	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	XTRA1	
11224	0 75 26774	LDB	#002	SECTOR 02
11225	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11226	0 43 00460	BRM	ERRR	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	0BJECT	
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	ERRR	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	0BJECT	
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	ERRR	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	0BJECT	
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	ERRR	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	0BJECT	
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	ERRR	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	

*
* F49B20 TEST SECTOR ADRS 07
*

11276	0 43 00430	BRM	SBJECT	
11277	0 43 00440	BRM	RETURN	
11300	0 20 07451	NBP	XTRAI	
11331	0 75 26125	LDB	#007	SECTOR 07
11302	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
11303	0 43 00460	BRM	ERRRR	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	

*
* F49B21 TEST SECTOR ADRS 10
*

11307	0 43 00430	BRM	SBJECT	
11310	0 43 00440	BRM	RETURN	
11311	0 20 07451	NBP	XTRAI	
11312	0 75 26126	LDB	#010	SECTOR 10
11313	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
11314	0 43 00460	BRM	ERRRR	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	

*
* F49B22 TEST SECTOR ADRS 11
*

11320	0 43 00430	BRM	SBJECT	
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	ERRRR	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	

*
* F49B23 TEST SECTOR ADRS 12
*

11331	0 43 00430	BRM	SBJECT	
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	ERRRR	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	

*
* F40B24 TEST SECTOR ADRS 13
*

11342	0 43 00430	BRM	OBJECT	
11343	0 43 00440	BRM	RETURN	
11344	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
11350	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11351	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11352	0 43 00434	BRM	END	

*
* F40B25 TEST SECTOR ADRS 14
*

11353	0 43 00430	BRM	OBJECT	
11354	0 43 00440	BRM	RETURN	
11355	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
11361	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11362	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11363	0 43 00434	BRM	END	

*
* F40B26 TEST SECTOR ADRS 15
*

11364	0 43 00430	BRM	OBJECT	
11365	0 43 00440	BRM	RETURN	
11366	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
11372	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11373	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11374	0 43 00434	BRM	END	

*
* F40B27 TEST SECTOR ADRS 16
*

11375	0 43 00430	BRM	OBJECT	
11376	0 43 00440	BRM	RETURN	
11377	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
11403	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
11404	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11405	0 43 00434	BRM	END	

*
* F49B28 TEST SECTOR ADRS 17
*

11406	0	43	00430	BRM	SBJECT	
11407	0	43	00440	BRM	RETURN	
11410	0	20	07451	NBP	XTRAI	
11411	0	75	26134	LDB	#017	SECTOR 17
11412	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11413	0	43	00460	BRM	ERR0R	RETURN IF ERROR OCCURED
11414	4	20	24443	NBP	Y2013A,4	LOGIC ERR0R MSG
11415	2	20	24454	NBP	Y2013B,2	HEADING AND REGISTERS
11416	0	43	00434	BRM	END	

*
* F49B29 TEST SECTOR ADRS 20
*

11417	0	43	00430	BRM	SBJECT	
11420	0	43	00440	BRM	RETURN	
11421	0	20	07451	NBP	XTRAI	
11422	0	75	26177	LDB	#020	SECTOR 20
11423	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11424	0	43	00460	BRM	ERR0R	RETURN IF ERROR OCCURED
11425	4	20	24443	NBP	Y2013A,4	LOGIC ERR0R MSG
11426	2	20	24454	NBP	Y2013B,2	HEADING AND REGISTERS
11427	0	43	00434	BRM	END	

*
* F49B30 TEST SECTOR ADRS 21
*

11430	0	43	00430	BRM	SBJECT	
11431	0	43	00440	BRM	RETURN	
11432	0	20	07451	NBP	XTRAI	
11433	0	75	26135	LDB	#021	SECTOR 21
11434	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11435	0	43	00460	BRM	ERR0R	RETURN IF ERROR OCCURED
11436	4	20	24443	NBP	Y2013A,4	LOGIC ERR0R MSG
11437	2	20	24454	NBP	Y2013B,2	HEADING AND REGISTERS
11440	0	43	00434	BRM	END	

*
* F49B31 TEST SECTOR ADRS 22
*

11441	0	43	00430	BRM	SBJECT	
11442	0	43	00440	BRM	RETURN	
11443	0	20	07451	NBP	XTRAI	
11444	0	75	26136	LDB	#022	SECTOR 22
11445	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11446	0	43	00460	BRM	ERR0R	RETURN IF ERROR OCCURED
11447	4	20	24443	NBP	Y2013A,4	LOGIC ERR0R MSG
11450	2	20	24454	NBP	Y2013B,2	HEADING AND REGISTERS
11451	0	43	00434	BRM	END	

*
* F40B32 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	

*
* F40B33 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	

*
* F40B34 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	

*
* F40B35 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 07430	BRM	OBJECT	
11517	0 43 07440	BRM	RETURN	
11520	0 20 07451	NBP	XTRAI	
11521	0 75 26143	LDB	#027	SECTOR 27
11522	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11523	0 43 07460	BRM	ERROR	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 07434	BRM	END	

*
* F49B37 TEST SECTOR ADRS 30
*

11527	0 43 07430	BRM	OBJECT	
11530	0 43 07440	BRM	RETURN	
11531	0 20 07451	NBP	XTRAI	
11532	0 75 26144	LDB	#030	SECTOR 30
11533	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11534	0 43 07460	BRM	ERROR	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 07434	BRM	END	

*
* F49B38 TEST SECTOR ADRS 31
*

11540	0 43 07430	BRM	OBJECT	
11541	0 43 07440	BRM	RETURN	
11542	0 20 07451	NBP	XTRAI	
11543	0 75 26121	LDB	#031	SECTOR 31
11544	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11545	0 43 07460	BRM	ERROR	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 07434	BRM	END	

*
* F49B39 TEST SECTOR ADRS 32
*

11551	0 43 07430	BRM	OBJECT	
11552	0 43 07440	BRM	RETURN	
11553	0 20 07451	NBP	XTRAI	
11554	0 75 26145	LDB	#032	SECTOR 32
11555	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11556	0 43 07460	BRM	ERROR	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 07434	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	07457	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
11600	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	07457	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	07457	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	SUBJECT	
11627	0 43 00440	BRM	RETURN	
11630	0 20 07451	NBP	XTR#1	
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 24556	NBP	%2013B,2	HEADING AND REGISTERS
11636	0 43 00434	BRM	END	

*
* F49B45 TEST SECTOR ADRS 40
*

11637	0 43 00430	BRM	SUBJECT	
11640	0 43 00440	BRM	RETURN	
11641	0 20 07451	NBP	XTR#1	
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 24556	NBP	%2013B,2	HEADING AND REGISTERS
11647	0 43 00434	BRM	END	

*
* F49B46 TEST SECTOR ADRS 41
*

11650	0 43 00430	BRM	SUBJECT	
11651	0 43 00440	BRM	RETURN	
11652	0 20 07451	NBP	XTR#1	
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 24556	NBP	%2013B,2	HEADING AND REGISTERS
11660	0 43 00434	BRM	END	

*
* F49B47 TEST SECTOR ADRS 42
*

11661	0 43 00430	BRM	SUBJECT	
11662	0 43 00440	BRM	RETURN	
11663	0 20 07451	NBP	XTR#1	
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 24556	NBP	%2013B,2	HEADING AND REGISTERS
11671	0 43 00434	BRM	END	

* F40B48 TEST SECTOR ADRS 43

11672	0 43 00430	BRM	0BJECT	
11673	0 43 00440	BRM	RETURN	
11674	0 20 07651	NBP	XTR41	
11675	0 75 26154	LDB	#043	SECTOR 43
11676	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11677	0 43 00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11700	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
11701	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11702	0 43 00434	BRM	END	

* F40B49 TEST SECTOR ADRS 44

11703	0 43 00430	BRM	0BJECT	
11704	0 43 00440	BRM	RETURN	
11705	0 20 07651	NBP	XTR41	
11706	0 75 26154	LDB	#044	SECTOR 44
11707	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11710	0 43 00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11711	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
11712	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11713	0 43 00434	BRM	END	

* F40B50 TEST SECTOR ADRS 45

11714	0 43 00430	BRM	0BJECT	
11715	0 43 00440	BRM	RETURN	
11716	0 20 07651	NBP	XTR41	
11717	0 75 26154	LDB	#045	SECTOR 45
11720	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11721	0 43 00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11722	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
11723	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11724	0 43 00434	BRM	END	

* F40B51 TEST SECTOR ADRS 46

11725	0 43 00430	BRM	0BJECT	
11726	0 43 00440	BRM	RETURN	
11727	0 20 07651	NBP	XTR41	
11730	0 75 26157	LDB	#046	SECTOR 46
11731	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
11732	0 43 00460	BRM	ERR0R	RETURN IF ERR0R 0CCURED
11733	4 20 24543	NBP	M2013A,4	LOGIC ERR0R MSG
11734	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
11735	0 43 00434	BRM	END	

* F48B52 TEST SECTOR ADRS 47

11736	0 43 07430	BRM	OBJECT	
11737	0 43 07440	BRM	RETURN	
11740	0 20 07451	NBP	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	ERROR	RETURN IF ERROR OCCURED
11744	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
11745	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
11746	0 43 07434	BRM	END	

* F48B53 TEST SECTOR ADRS 50

11747	0 43 07430	BRM	OBJECT	
11750	0 43 07440	BRM	RETURN	
11751	0 20 07451	NBP	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	ERRRR	RETURN IF ERROR OCCURED
11755	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
11756	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
11757	0 43 07434	BRM	END	

* F48B54 TEST SECTOR ADRS 51

11760	0 43 07430	BRM	OBJECT	
11761	0 43 07440	BRM	RETURN	
11762	0 20 07451	NBP	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	ERRRR	RETURN IF ERROR OCCURED
11766	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
11767	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
11770	0 43 07434	BRM	END	

* F48B55 TEST SECTOR ADRS 52

11771	0 43 07430	BRM	OBJECT	
11772	0 43 07440	BRM	RETURN	
11773	0 20 07451	NBP	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	ERRRR	RETURN IF ERROR OCCURED
11777	4 20 24543	NBP	Y2013A,4	LOGIC ERROR MSG
12000	2 20 24556	NBP	Y2013B,2	HEADING AND REGISTERS
12001	0 43 07434	BRM	END	

*
* F40B56 TEST SECTOR ADRS 53
*

12002	0	43	00430	BRM	OBJECT	
12003	0	43	00440	BRM	RETURN	
12004	0	20	07451	NBP	XTRAI	
12005	0	75	26164	LDB	#053	SECTOR 53
12006	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12007	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12010	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12011	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12012	0	43	00434	BRM	END	

*
* F40B57 TEST SECTOR ADRS 54
*

12013	0	43	00430	BRM	OBJECT	
12014	0	43	00440	BRM	RETURN	
12015	0	20	07451	NBP	XTRAI	
12016	0	75	26165	LDB	#054	SECTOR 54
12017	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12020	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12021	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12022	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12023	0	43	00434	BRM	END	

*
* F40B58 TEST SECTOR ADRS 55
*

12024	0	43	00430	BRM	OBJECT	
12025	0	43	00440	BRM	RETURN	
12026	0	20	07451	NBP	XTRAI	
12027	0	75	26166	LDB	#055	SECTOR 55
12030	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12031	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12032	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12033	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12034	0	43	00434	BRM	END	

*
* F40B59 TEST SECTOR ADRS 56
*

12035	0	43	00430	BRM	OBJECT	
12036	0	43	00440	BRM	RETURN	
12037	0	20	07451	NBP	XTRAI	
12040	0	75	26167	LDB	#056	SECTOR 56
12041	0	43	07557	BRM	PININ	TO PIN IN SECTOR ADRS
12042	0	43	00460	BRM	ERROR	RETURN IF ERROR OCCURED
12043	4	20	24543	NBP	M2013A,4	LOGIC ERROR MSG
12044	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12045	0	43	00434	BRM	END	

*
* F49BA0 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 07600	BRM	ERROR	RETURN IF ERROR OCCURED
12054	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
12055	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
12056	0 43 07434	BRM	END	

*
* F49BA1 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 26172	LDB	#060	SECTOR 60
12063	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12064	0 43 07600	BRM	ERROR	RETURN IF ERROR OCCURED
12065	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
12066	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
12067	0 43 07434	BRM	END	

*
* F49BA2 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 07600	BRM	ERROR	RETURN IF ERROR OCCURED
12076	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
12077	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
12100	0 43 07434	BRM	END	

*
* F49BA3 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 07600	BRM	ERROR	RETURN IF ERROR OCCURED
12107	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
12110	2 20 24556	NBP	#2013B,2	HEADING AND REGISTERS
12111	0 43 07434	BRM	END	

*
 * F48B64 TEST SECTOR ADRS 63
 *

12112	0 43	00430	BRM	SUBJECT	
12113	0 43	00440	BRM	RETURN	
12114	0 20	07451	NBP	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	NBP	M2013A,4	LOGIC ERROR MSG
12121	2 20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12122	0 43	00434	BRM	END	

*
 * F48B65 TEST SECTOR ADRS 64
 *

12123	0 43	00430	BRM	SUBJECT	
12124	0 43	00440	BRM	RETURN	
12125	0 20	07451	NBP	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	NBP	M2013A,4	LOGIC ERROR MSG
12132	2 20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12133	0 43	00434	BRM	END	

*
 * F48B66 TEST SECTOR ADRS 65
 *

12134	0 43	00430	BRM	SUBJECT	
12135	0 43	00440	BRM	RETURN	
12136	0 20	07451	NBP	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	NBP	M2013A,4	LOGIC ERROR MSG
12143	2 20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12144	0 43	00434	BRM	END	

*
 * F48B67 TEST SECTOR ADRS 66
 *

12145	0 43	00430	BRM	SUBJECT	
12146	0 43	00440	BRM	RETURN	
12147	0 20	07451	NBP	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	NBP	M2013A,4	LOGIC ERROR MSG
12154	2 20	24556	NBP	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	XTRA1	
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	XTRA1	
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	XTRA1	
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	XTRA1	
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	XBP	XTRA1	
12225	0 75 26904	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	XBP	#2013A,4	LOGIC ERROR MSG
12231	2 20 24556	XBP	#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	XBP	XTRA1	
12236	0 75 26904	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	XBP	#2013A,4	LOGIC ERROR MSG
12242	2 20 24556	XBP	#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	XBP	XTRA1	
12247	0 75 26904	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	XBP	#2013A,4	LOGIC ERROR MSG
12253	2 20 24556	XBP	#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	XBP	XTRA1	
12260	0 75 26904	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	XBP	#2013A,4	LOGIC ERROR MSG
12264	2 20 24556	XBP	#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	

*
*
*
*
*

* F58304 RAD PIN TEST

12310	0 43 00430	BRM	OBJECT	
12311	0 43 00440	BRM	RETURN	
12312	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12313	0 76 26073	LDA	#000001	
12314	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12315	0 43 00460	BRM	ERRRR	
12316	4 20 24477	NBP	*2004A,*	ERROR MESSAGE FOR BIT
12317	0 20 24464	NBP	*2004B	
12320	0 43 00434	BRM	END	EXIT TEST

*
*
*
*
*

* F58305 RAD PIN TEST

12321	0 43 00430	BRM	OBJECT	
12322	0 43 00440	BRM	RETURN	
12323	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12324	0 76 26074	LDA	#000002	
12325	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12326	0 43 00460	BRM	ERRRR	
12327	4 20 24505	NBP	*2005A,*	ERROR MESSAGE FOR BIT
12330	0 20 24464	NBP	*2004B	
12331	0 43 00434	BRM	END	EXIT TEST

*
*
*
*
*

* F58306 RAD PIN TEST

12332	0 43 00430	BRM	OBJECT	
12333	0 43 00440	BRM	RETURN	
12334	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12335	0 76 26075	LDA	#000004	
12336	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12337	0 43 00460	BRM	ERRRR	
12340	4 20 24513	NBP	*2006A,*	ERROR MESSAGE FOR BIT
12341	0 20 24464	NBP	*2004B	
12342	0 43 00434	BRM	END	EXIT TEST

*
*
*
*
*

* F58307 RAD PIN TEST

12343	0 43 00430	BRM	OBJECT	
12344	0 43 00440	BRM	RETURN	
12345	0 20 07651	NBP	XTRA1	SPURIOUS INTRUPT HANDLER
12346	0 76 26076	LDA	#000010	
12347	0 43 07612	BRM	PINSET	PIN TRANSFER AND TEST ROUTINE
12350	0 43 00460	BRM	ERRRR	
12351	4 20 24521	NBP	*2007A,*	ERROR MESSAGE FOR BIT
12352	0 20 24464	NBP	*2004B	
12353	0 43 00434	BRM	END	EXIT TEST

*
*
* F50808 RAD PIN TEST
*

12354	0	43	00430	BRM	OBJECT	
12355	0	43	00440	BRM	RETURN	
12356	0	20	07451	NBP	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	ERROR	
12362	4	20	24527	NBP	M2008A,4	ERROR MESSAGE FOR BIT
12363	0	20	24464	NBP	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	NBP	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	ERROR	
12373	4	20	24435	NBP	M2009A,4	ERROR MESSAGE FOR BIT
12374	0	20	24464	NBP	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	NBP	XTRA1	
12401	0	71	26261	LDX	#04C000	TIME 40 MILLISECONDS
12402	0	02	13226	ZER51	EQMM	13226
12403	0	33	25576	PINK	PINKRD	ALERT TO PIN
12404	0	76	25576	LDA	PINKRD	
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	ERROR	
12414	4	20	24572	NBP	M2013C,4	NO ZERO
12415	2	20	24556	NBP	M2013B,2	HEADING AND REGISTERS
12416	0	43	00434	ZER52	BRM	END

*
* F58B14 TEST SECTOR ADRS 01
*

12417	0 43 00430	BRM	9BJECT	
12420	0 43 00440	BRM	RETURN	
12421	0 20 07451	NBP	XTRA1	
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 24543	NBP	*2013A,4	LOGIC ERROR MSG
12426	2 20 24554	NBP	*2013B,2	HEADING AND REGISTERS
12427	0 43 00434	BRM	END	

*
* F58B15 TEST SECTOR ADRS 02
*

12430	0 43 00430	BRM	9BJECT	
12431	0 43 00440	BRM	RETURN	
12432	0 20 07451	NBP	XTRA1	
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 24543	NBP	*2013A,4	LOGIC ERROR MSG
12437	2 20 24554	NBP	*2013B,2	HEADING AND REGISTERS
12440	0 43 00434	BRM	END	

*
* F58B16 TEST SECTOR ADRS 03
*

12441	0 43 00430	BRM	9BJECT	
12442	0 43 00440	BRM	RETURN	
12443	0 20 07451	NBP	XTRA1	
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 24543	NBP	*2013A,4	LOGIC ERROR MSG
12450	2 20 24554	NBP	*2013B,2	HEADING AND REGISTERS
12451	0 43 00434	BRM	END	

*
* F58B17 TEST SECTOR ADRS 04
*

12452	0 43 00430	BRM	9BJECT	
12453	0 43 00440	BRM	RETURN	
12454	0 20 07451	NBP	XTRA1	
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 24543	NBP	*2013A,4	LOGIC ERROR MSG
12461	2 20 24554	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12470	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
12471	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12472	2	20	24456	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12501	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
12502	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12503	2	20	24456	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12512	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
12513	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12514	2	20	24456	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12523	0	43	00460	BRM	ERRSR	RETURN IF ERROR OCCURED
12524	4	20	24443	NBP	M2013A,4	LOGIC ERROR MSG
12525	2	20	24456	NBP	M2013B,2	HEADING AND REGISTERS
12526	0	43	00434	BRM	END	

*
* F58B22 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	26124	LDB	#011	SECTOR 11
12533	0	43	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12534	0	43	00460	BRM	ERRR9	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	

*
* F58B23 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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12545	0	43	00460	BRM	ERRR9	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12556	0	43	00460	BRM	ERRR9	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	07457	BRM	PININ	TO PIN IN SECTOR ADRS
12567	0	43	00460	BRM	ERRR9	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 ADRS 15
*

12573	0 43 0C430	BRM	OBJECT	
12574	0 43 0C440	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 ADRS
12600	0 43 0C460	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 0C434	BRM	END	

*
* F50B27 TEST SECTOR ADRS 16
*

12604	0 43 0C430	BRM	OBJECT	
12605	0 43 0C440	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 ADRS
12611	0 43 0C460	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 0C434	BRM	END	

*
* F50B28 TEST SECTOR ADRS 17
*

12615	0 43 0C430	BRM	OBJECT	
12616	0 43 0C440	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 ADRS
12622	0 43 0C460	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 0C434	BRM	END	

*
* F50B29 TEST SECTOR ADRS 20
*

12626	0 43 0C430	BRM	OBJECT	
12627	0 43 0C440	BRM	RETURN	
12630	0 20 07651	NOP	XTRA1	
12631	0 75 26077	LDB	#020	SECTOR 20
12632	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
12633	0 43 0C460	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 0C434	BRM	END	

* F59B30 TEST SECTOR ADRS 21

12637	0	43	00430	BRM	SBJECT	
12640	0	43	00440	BRM	RETURN	
12641	0	20	07451	NBP	XTR41	
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	SBJECT	
12651	0	43	00440	BRM	RETURN	
12652	0	20	07451	NBP	XTR41	
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	SBJECT	
12662	0	43	00440	BRM	RETURN	
12663	0	20	07451	NBP	XTR41	
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	SBJECT	
12673	0	43	00440	BRM	RETURN	
12674	0	20	07451	NBP	XTR41	
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	M2013A,4	LOGIC ERROR MSG
12712	2	20	24556	NOP	M2013B,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	M2013A,4	LOGIC ERROR MSG
12723	2	20	24556	NOP	M2013B,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	M2013A,4	LOGIC ERROR MSG
12734	2	20	24556	NOP	M2013B,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	M2013A,4	LOGIC ERROR MSG
12745	2	20	24556	NOP	M2013B,2	HEADING AND REGISTERS
12746	0	43	00434	BRM	END	

*
* F59338 TEST SECTOR ADRS 31
*

12747	0 43 07430	BRM	SUBJECT	
12750	0 43 07440	BRM	RETURN	
12751	0 20 07451	NBP	XTRA1	
12752	0 75 26121	LDB	#031	SECTOR 31
12753	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
12754	0 43 07460	BRM	ERRR	RETURN IF ERROR OCCURED
12755	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
12756	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
12757	0 43 07434	BRM	END	

*
* F59339 TEST SECTOR ADRS 32
*

12760	0 43 07430	BRM	SUBJECT	
12761	0 43 07440	BRM	RETURN	
12762	0 20 07451	NBP	XTRA1	
12763	0 75 26146	LDB	#032	SECTOR 32
12764	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
12765	0 43 07460	BRM	ERRR	RETURN IF ERROR OCCURED
12766	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
12767	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
12770	0 43 07434	BRM	END	

*
* F59340 TEST SECTOR ADRS 33
*

12771	0 43 07430	BRM	SUBJECT	
12772	0 43 07440	BRM	RETURN	
12773	0 20 07451	NBP	XTRA1	
12774	0 75 26121	LDB	#033	SECTOR 33
12775	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
12776	0 43 07460	BRM	ERRR	RETURN IF ERROR OCCURED
12777	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
13000	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
13001	0 43 07434	BRM	END	

*
* F59341 TEST SECTOR ADRS 34
*

13002	0 43 07430	BRM	SUBJECT	
13003	0 43 07440	BRM	RETURN	
13004	0 20 07451	NBP	XTRA1	
13005	0 75 26146	LDB	#034	SECTOR 34
13006	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13007	0 43 07460	BRM	ERRR	RETURN IF ERROR OCCURED
13010	4 20 24543	NBP	M2013A,4	LOGIC ERROR MSG
13011	2 20 24554	NBP	M2013B,2	HEADING AND REGISTERS
13012	0 43 07434	BRM	END	

*
*
* F50B42 TEST SECTOR ADRS 35
*

13013	0 43 00430	BRM	OBJECT	
13014	0 43 00440	BRM	RETURN	
13015	0 20 07A51	NOP	XTRA1	
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 07A51	NOP	XTRA1	
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 07A51	NOP	XTRA1	
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 07A51	NOP	XTRA1	
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	

*
* F59346 TEST SECTOR ADRS 41
*

13057	0 43 01430	BRM	OBJECT	
13060	0 43 01440	BRM	RETURN	
13061	0 20 07451	NBP	XTRA1	
13062	0 75 26152	LDB	#041	SECTOR 41
13063	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13064	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13065	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13066	2 20 24554	NBP	#2013B,2	HEADING AND REGISTERS
13067	0 43 01434	BRM	END	

*
* F59347 TEST SECTOR ADRS 42
*

13070	0 43 01430	BRM	OBJECT	
13071	0 43 01440	BRM	RETURN	
13072	0 20 07451	NBP	XTRA1	
13073	0 75 26152	LDB	#042	SECTOR 42
13074	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13075	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13076	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13077	2 20 24554	NBP	#2013B,2	HEADING AND REGISTERS
13078	0 43 01434	BRM	END	

*
* F59348 TEST SECTOR ADRS 43
*

13101	0 43 01430	BRM	OBJECT	
13102	0 43 01440	BRM	RETURN	
13103	0 20 07451	NBP	XTRA1	
13104	0 75 26154	LDB	#043	SECTOR 43
13105	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13106	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13107	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13108	2 20 24554	NBP	#2013B,2	HEADING AND REGISTERS
13111	0 43 01434	BRM	END	

*
* F59349 TEST SECTOR ADRS 44
*

13112	0 43 01430	BRM	OBJECT	
13113	0 43 01440	BRM	RETURN	
13114	0 20 07451	NBP	XTRA1	
13115	0 75 26155	LDB	#044	SECTOR 44
13116	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13117	0 43 00460	BRM	ERROR	RETURN IF ERROR OCCURED
13120	4 20 24543	NBP	#2013A,4	LOGIC ERROR MSG
13121	2 20 24554	NBP	#2013B,2	HEADING AND REGISTERS
13122	0 43 01434	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	ERROR	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	ERROR	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	ERROR	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	ERROR	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	

*
* F50B54 TEST SECTOR ADRS 51
*

13167	0 43 07430	BRM	OBJECT	
13170	0 43 07440	BRM	RETURN	
13171	0 20 07451	NSP	XTR41	
13172	0 75 26162	LDB	#051	SECTOR 51
13173	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13174	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13175	4 20 24543	NSP	M2013A,4	LOGIC ERROR MSG
13176	2 20 24556	NSP	M2013B,2	HEADING AND REGISTERS
13177	0 43 07434	BRM	END	

*
* F50B55 TEST SECTOR ADRS 52
*

13200	0 43 07430	BRM	OBJECT	
13201	0 43 07440	BRM	RETURN	
13202	0 20 07451	NSP	XTR41	
13203	0 75 26163	LDB	#052	SECTOR 52
13204	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13205	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13206	4 20 24543	NSP	M2013A,4	LOGIC ERROR MSG
13207	2 20 24556	NSP	M2013B,2	HEADING AND REGISTERS
13210	0 43 07434	BRM	END	

*
* F50B56 TEST SECTOR ADRS 53
*

13211	0 43 07430	BRM	OBJECT	
13212	0 43 07440	BRM	RETURN	
13213	0 20 07451	NSP	XTR41	
13214	0 75 26164	LDB	#053	SECTOR 53
13215	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13216	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13217	4 20 24543	NSP	M2013A,4	LOGIC ERROR MSG
13220	2 20 24556	NSP	M2013B,2	HEADING AND REGISTERS
13221	0 43 07434	BRM	END	

*
* F50B57 TEST SECTOR ADRS 54
*

13222	0 43 07430	BRM	OBJECT	
13223	0 43 07440	BRM	RETURN	
13224	0 20 07451	NSP	XTR41	
13225	0 75 26165	LDB	#054	SECTOR 54
13226	0 43 07557	BRM	PININ	TO PIN IN SECTOR ADRS
13227	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13230	4 20 24543	NSP	M2013A,4	LOGIC ERROR MSG
13231	2 20 24556	NSP	M2013B,2	HEADING AND REGISTERS
13232	0 43 07434	BRM	END	

* F50B58 TEST SECTOR ADRS 55

13233	0 43 00430	BRM	OBJECT	
13234	0 43 00440	BRM	RETURN	
13235	0 20 07651	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 07651	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 07651	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 07651	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	

* F59862 TEST SECTOR ADRS 61

13277	0 43 00430	BRM	OBJECT	
13300	0 43 01440	BRM	RETURN	
13301	0 20 07451	NBP	XTRA1	
13302	0 75 26172	LDB	#061	SECTOR 61
13303	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13304	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13305	4 20 24543	NBP	"2013A,"	LOGIC ERROR MSG
13306	2 20 24556	NBP	"2013B,"	HEADING AND REGISTERS
13307	0 43 01434	BRM	END	

* F59863 TEST SECTOR ADRS 62

13310	0 43 00430	BRM	OBJECT	
13311	0 43 01440	BRM	RETURN	
13312	0 20 07451	NBP	XTRA1	
13313	0 75 26172	LDB	#062	SECTOR 62
13314	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13315	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13316	4 20 24543	NBP	"2013A,"	LOGIC ERROR MSG
13317	2 20 24556	NBP	"2013B,"	HEADING AND REGISTERS
13320	0 43 01434	BRM	END	

* F59864 TEST SECTOR ADRS 63

13321	0 43 00430	BRM	OBJECT	
13322	0 43 01440	BRM	RETURN	
13323	0 20 07451	NBP	XTRA1	
13324	0 75 26172	LDB	#063	SECTOR 63
13325	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13326	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13327	4 20 24543	NBP	"2013A,"	LOGIC ERROR MSG
13330	2 20 24556	NBP	"2013B,"	HEADING AND REGISTERS
13331	0 43 01434	BRM	END	

* F59865 TEST SECTOR ADRS 64

13332	0 43 00430	BRM	OBJECT	
13333	0 43 01440	BRM	RETURN	
13334	0 20 07451	NBP	XTRA1	
13335	0 75 26172	LDB	#064	SECTOR 64
13336	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13337	0 43 07460	BRM	ERROR	RETURN IF ERROR OCCURED
13340	4 20 24543	NBP	"2013A,"	LOGIC ERROR MSG
13341	2 20 24556	NBP	"2013B,"	HEADING AND REGISTERS
13342	0 43 01434	BRM	END	

*
* F50B66 TEST SECTOR ADRS 65
*

13343	0 43 00430	BRM	OBJECT	
13344	0 43 00440	BRM	RETURN	
13345	0 20 07A51	NBP	XTRA1	
13346	0 75 26176	LDB	#065	SECTOR 65
13347	0 43 07F57	BRM	PININ	TO PIN IN SECTOR ADRS
13350	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13351	4 20 24F43	NBP	M2013A,4	LOGIC ERROR MSG
13352	2 20 24F56	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	XTRA1	
13357	0 75 26177	LDB	#066	SECTOR 66
13360	0 43 07F57	BRM	PININ	TO PIN IN SECTOR ADRS
13361	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13362	4 20 24F43	NBP	M2013A,4	LOGIC ERROR MSG
13363	2 20 24F56	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	XTRA1	
13370	0 75 26200	LDB	#067	SECTOR 67
13371	0 43 07F57	BRM	PININ	TO PIN IN SECTOR ADRS
13372	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13373	4 20 24F43	NBP	M2013A,4	LOGIC ERROR MSG
13374	2 20 24F56	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	XTRA1	
13401	0 75 26201	LDB	#070	SECTOR 70
13402	0 43 07F57	BRM	PININ	TO PIN IN SECTOR ADRS
13403	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13404	4 20 24F43	NBP	M2013A,4	LOGIC ERROR MSG
13405	2 20 24F56	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	XTRAI	
13412	0 75 26202	LDB	#071	SECTOR 71
13413	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13414	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13415	4 20 24443	NBP	#2013A,4	LOGIC ERROR MSG
13416	2 20 24454	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	XTRAI	
13423	0 75 26203	LDB	#072	SECTOR 72
13424	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13425	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13426	4 20 24443	NBP	#2013A,4	LOGIC ERROR MSG
13427	2 20 24454	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	XTRAI	
13434	0 75 26204	LDB	#073	SECTOR 73
13435	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13436	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13437	4 20 24443	NBP	#2013A,4	LOGIC ERROR MSG
13440	2 20 24456	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	XTRAI	
13445	0 75 26205	LDB	#074	SECTOR 74
13446	0 43 07457	BRM	PININ	TO PIN IN SECTOR ADRS
13447	0 43 00460	BRM	ERRRR	RETURN IF ERROR OCCURED
13450	4 20 24443	NBP	#2013A,4	LOGIC ERROR MSG
13451	2 20 24456	NBP	#2013B,2	HEADING AND REGISTERS
13452	0 43 00434	BRM	END	

*
*
* F50874 TEST SECTOR ADRS 75
*
*

13453	0	43	00430	BRM	OBJECT	
13454	0	43	00440	BRM	RETURN	
13455	0	20	07451	NBP	XTRAI	
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	

*
*
* F50875 TEST SECTOR ADRS 76
*
*

13464	0	43	00430	BRM	OBJECT	
13465	0	43	00440	BRM	RETURN	
13466	0	20	07451	NBP	XTRAI	
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	

*
*
* F50876 TEST SECTOR ADRS 77
*
*

13475	0	43	00430	BRM	OBJECT	
13476	0	43	00440	BRM	RETURN	
13477	0	20	07451	NBP	XTRAI	
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	FDBNE	

RAD*15 TAP*3.0 01/15 06:30 PAGE 223

13507	0 43 01424	BRM	FUNCTN	CONTROL LINK
13510	0 20 21256	NBP	FPT6	PARAMETER FOR THIS FUNCTION
13511	0 43 00440	BRM	RETURN	
13512	0 20 07451	NBP	XTRAI	
13513	0 76 01401	LDA	STATUS	
13514	0 72 24104	SKA	#4000	SOFTWARE RAD READ ONLY
13515	0 01 14207	BRU	FUNCTO	SKIP TEST
13516	0 43 14467	BRM	RADPK	

RAD*15 TAP*3.0 01/15 06:30 PAGE 224

```
*
* FUNCTION 06 OBJECT TEST 01
*
13517 0 43 01430 BRM OBJECT
13520 0 76 26212 LDA #070007000 DATA FOR HEAD
13521 0 43 15701 BRM SPREAD FILL OUTPUT BUFFER
13522 0 76 26267 LDA #00000 STARTING ADRS.
13523 0 43 16123 BRM YMSG YDRIVER CONTROL
13524 4 20 24442 NBP *SG020,4 WRITE LOGIC MESSAGE
13525 0 20 24404 NBP *SG036
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 *SG021,4 WRITE LOGIC MESSAGE
13533 0 20 24415 NBP *SG037
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 *SG022,4 WRITE LOGIC MESSAGE
13541 0 20 24424 NBP *SG038
13542 0 43 00434 BRM END 8 HEADS
```

•
• 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	NBP	MSG023,4	WRITE LOGIC MESSAGE
13547	0 20 24433	NBP	MSG039	
13550	0 43 00434	BRM	END	8 HEADS

•
• FUNCTION 06 OBJECT TEST 05
•

13551	0 43 00430	BRM	OBJECT	
13552	0 75 26214	LDB	#MSG01A	HEAD LOGIC MESSAGE
13553	0 76 26260	LDA	#0000	STARTING SECTOR
13554	0 71 26212	LDX	#070007000	DATA FOR HEAD SETS
13555	0 43 16236	BRM	SETWRD	INITIALIZE READ CONTROL
13556	0 76 26215	LDA	#00030001	
13557	0 43 16263	BRM	DECR11	
13560	0 43 00434	BRM	END	

•
• FUNCTION 06 OBJECT TEST 06
•

13561	0 43 00430	BRM	OBJECT	
13562	0 75 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 16236	BRM	SETWRD	INITIALIZE READ CONTROL
13566	0 76 26216	LDA	#20005	SIDE AND TB STRIP
13567	0 43 16263	BRM	DECR11	
13570	0 43 00434	BRM	END	

•
• FUNCTION 06 OBJECT TEST 07
•

13571	0 43 00430	BRM	OBJECT	
13572	0 75 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 16236	BRM	SETWRD	INITIALIZE READ CONTROL
13576	0 76 26217	LDA	#10011	SIDE AND TB STRIP 9
13577	0 43 16263	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 16236	BRM	SET RD	INITIALIZE READ CONTROL
13606	0 76 26220	LDA	#40103	SIDE AND TB STRIP
13607	0 43 16263	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 16201	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	#SG024,4	WRITE LOGIC MESSAGE
13617	0 20 24406	NBP	#SG036	
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	#SG025,4	WRITE LOGIC MESSAGE
13625	0 20 24415	NBP	#SG037	
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	#SG026,4	WRITE LOGIC MESSAGE
13633	0 20 24424	NBP	#SG038	
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	#SG027,4	WRITE LOGIC MESSAGE
13641	0 20 24433	NBP	#SG039	
13642	0 43 00434	BRM	END	8 HEADS

*
*
* FUNCTION 06 OBJECT TEST 13
*

13643	0	43	00430	BRM	OBJECT	
13644	0	75	26222	LDB	#MSG018	HEAD LOGIC MESSAGE
13645	0	76	26260	LDA	#0	STARTING SECTOR
13646	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
13647	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
13650	0	76	26223	LDA	#30002	
13651	0	43	16253	BRM	INCR11	
13652	0	43	00434	BRM	END	

*
*
* FUNCTION 06 OBJECT TEST 14
*

13653	0	43	00430	BRM	OBJECT	
13654	0	75	26222	LDB	#MSG018	HEAD LOGIC MESSAGE
13655	0	76	26101	LDA	#0100	STARTING SECTOR
13656	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
13657	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
13660	0	76	26224	LDA	#20006	SIDE AND TB STRIP
13661	0	43	16253	BRM	INCR11	
13662	0	43	00434	BRM	END	

*
*
* FUNCTION 06 OBJECT TEST 15
*

13663	0	43	00430	BRM	OBJECT	
13664	0	75	26222	LDB	#MSG018	HEAD LOGIC MESSAGE
13665	0	76	26102	LDA	#200	STARTING SECTOR
13666	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
13667	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
13670	0	76	26225	LDA	#10100	SIDE AND TB STRIP
13671	0	43	16253	BRM	INCR11	
13672	0	43	00434	BRM	END	

*
*
* FUNCTION 06 OBJECT TEST 16
*

13673	0	43	00430	BRM	OBJECT	
13674	0	75	26222	LDB	#MSG018	HEAD LOGIC MESSAGE
13675	0	76	26213	LDA	#300	STARTING SECTOR
13676	0	71	26221	LDX	#007000700	DATA FOR HEAD SETS
13677	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
13700	0	76	26226	LDA	#40104	SIDE AND TB STRIP
13701	0	43	16253	BRM	INCR11	
13702	0	43	00434	BRM	END	

*
* FUNCTION 06 OBJECT TEST 17
*

13703	0 43 00430	BRM	OBJECT	
13704	0 76 26227	LDA	#00C700070	DATA FOR HEAD
13705	0 43 15701	BRM	SPREAD	FILL OUTPUT BUFFER
13706	0 76 26260	LDA	#00000	STARTING ADRS.
13707	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13710	4 20 24462	NBP	MSG028,4	WRITE LOGIC MESSAGE
13711	0 20 24406	NBP	MSG036	
13712	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 06 OBJECT TEST 18
*

13713	0 43 00430	BRM	OBJECT	
13714	0 76 26101	LDA	#0107	STARTING ADRS.
13715	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13716	4 20 24464	NBP	MSG029,4	WRITE LOGIC MESSAGE
13717	0 20 24415	NBP	MSG037	
13720	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 06 OBJECT TEST 19
*

13721	0 43 00430	BRM	OBJECT	
13722	0 76 26102	LDA	#00200	STARTING ADRS.
13723	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13724	4 20 24464	NBP	MSG030,4	WRITE LOGIC MESSAGE
13725	0 20 24424	NBP	MSG038	
13726	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 06 OBJECT TEST 20
*

13727	0 43 00430	BRM	OBJECT	
13730	0 76 26213	LDA	#00300	STARTING ADRS.
13731	0 43 16123	BRM	YMSG	YDRIVER CONTROL
13732	4 20 24470	NBP	MSG031,4	WRITE LOGIC MESSAGE
13733	0 20 24433	NBP	MSG039	
13734	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 06 OBJECT TEST 21
*

13735	0 43 00430	BRM	OBJECT	
13736	0 75 26230	LDB	#MSG01C	HEAD LOGIC MESSAGE
13737	0 76 26260	LDA	#0	STARTING SECTOR
13740	0 71 26227	LDB	#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	

•
• 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 CONTROL
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 CONTROL
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 CONTROL
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 CONTROL
14002	4 20 24672	NBP	MSG032,4	WRITE LOGIC MESSAGE
14003	0 20 24606	NBP	MSG036	
14004	0 43 00434	BRM	END	8 HEADS

RAD415 TAP=3.0 01/15 06130 PAGE 235

*
* FUNCTION 06 SUBJECT TEST 26
*

14005	0 43 00430	BRM	SUBJECT	
14006	0 76 26101	LDA	#00100	STARTING ADRS.
14007	0 43 16123	BRM	YMSG	YDRIVER CONTROL
14010	4 20 24474	NBP	MSG033,4	WRITE LOGIC MESSAGE
14011	0 20 24475	NBP	MSG037	
14012	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 06 SUBJECT TEST 27
*

14013	0 43 00430	BRM	SUBJECT	
14014	0 76 26102	LDA	#00200	STARTING ADRS.
14015	0 43 16123	BRM	YMSG	YDRIVER CONTROL
14016	4 20 24474	NBP	MSG034,4	WRITE LOGIC MESSAGE
14017	0 20 24474	NBP	MSG038	
14020	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 06 SUBJECT TEST 28
*

14021	0 43 00430	BRM	SUBJECT	
14022	0 76 26103	LDA	#00300	STARTING ADRS.
14023	0 43 16123	BRM	YMSG	YDRIVER CONTROL
14024	4 20 24474	NBP	MSG035,4	WRITE LOGIC MESSAGE
14025	0 20 24433	NBP	MSG039	
14026	0 43 00434	BRM	END	8 HEADS

RAD415 TAP=3.0 01/15 06130 PAGE 236

*
* FUNCTION 06 SUBJECT TEST 29
*

14027	0 43 00430	BRM	SUBJECT	
14030	0 75 26236	LDB	#MSG010	HEAD LOGIC MESSAGE
14031	0 76 26160	LDA	#0	STARTING SECTOR
14032	0 71 26235	LDX	#000070007	DATA FOR HEAD SETS
14033	0 43 16136	BRM	SETARD	INITIALIZE READ CONTROL
14034	0 76 26237	LDA	#20004	SIDE AND TB STRIP
14035	0 43 16153	BRM	INCR11	
14036	0 43 00434	BRM	END	

*
* FUNCTION 06 SUBJECT TEST 30
*

14037	0 43 00430	BRM	SUBJECT	
14040	0 75 26236	LDB	#MSG010	HEAD LOGIC MESSAGE
14041	0 76 26101	LDA	#100	STARTING SECTOR
14042	0 71 26235	LDX	#000070007	DATA FOR HEAD SETS
14043	0 43 16136	BRM	SETARD	INITIALIZE READ CONTROL
14044	0 76 26240	LDA	#10010	SIDE AND TB STRIP 8
14045	0 43 16153	BRM	INCR11	
14046	0 43 00434	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	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14054	0	76	26241	LDA	#40102	SIDE AND TB STRIP
14055	0	43	16053	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	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14064	0	76	26242	LDA	#30106	SIDE AND TB STRIP
14065	0	43	16053	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		NBP	FPT7	PARAMETER FOR THIS FUNCTION
14072	0	43	00440		BRM	RETURN	
14073	0	20	07651		NBP	XTRA1	
14074	0	43	14467		BRM	RADOK	
14075	0	73	26065		SKG	#1000000	TEST FOR TWO RADS
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	8BJECT	
14103	0	76	26212	LDA	#070007000	DATA FOR HEAD
14104	0	43	16101	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	8BJECT	
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	8BJECT	
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	24424	NBP	MSG038	
14125	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 07 SUBJECT TEST 04
*

14126	0	43	00430	BRM	8BJECT	
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

*
*
* FUNCTION 07 SUBJECT TEST 05
*

14134	0	43	00430	BRM	8BJECT	
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	16036	BRM	SET,RD	INITIALIZE READ CONTROL
14141	0	76	26215	LDA	#00030001	
14142	0	43	16107	BRM	DECR12	
14143	0	43	00434	BRM	END	

*
*
* FUNCTION 07 OBJECT TEST 06
*
*

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	

*
*
* FUNCTION 07 OBJECT TEST 07
*
*

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	

*
*
* FUNCTION 07 OBJECT TEST 08
*
*

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	

*
*
* FUNCTION 07 OBJECT TEST 09
*
*

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	24452	NOP	MSG02444	WRITE LOGIC MESSAGE
14202	0	20	24406	NOP	MSG036	
14203	0	43	00434	BRM	END	# HEADS

*
* FUNCTION 07 OBJECT TEST 10
*

14204	0 43 00430	BRM	OBJECT	
14205	0 76 26243	LDA	#4100	STARTING ADDR.
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

*
* FUNCTION 07 OBJECT TEST 11
*

14212	0 43 00430	BRM	OBJECT	
14213	0 76 26244	LDA	#4200	STARTING ADDR.
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

*
* FUNCTION 07 OBJECT TEST 12
*

14220	0 43 00430	BRM	OBJECT	
14221	0 76 26245	LDA	#4300	STARTING ADDR.
14222	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14223	4 20 24660	NBP	MSG027,4	WRITE LOGIC MESSAGE
14224	0 20 24633	NBP	MSG039	
14225	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 07 OBJECT TEST 13
*

14226	0 43 00430	BRM	OBJECT	
14227	0 76 26222	LDB	#MSG01B	HEAD LOGIC MESSAGE
14230	0 76 26106	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	

*
* FUNCTION 07 OBJECT TEST 14
*

14236	0 43 00430	BRM	OBJECT	
14237	0 76 26222	LDB	#MSG01B	HEAD 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	SIDE AND TB STRIP
14244	0 43 16073	BRM	INCR12	
14245	0 43 00434	BRM	END	

*
*
* 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	

*
*
* 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	

*
*
* 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 ADDR.
14272	0 43 16140	BRM	YMSG7	YDRIVER CONTROL
14273	4 20 24662	NOP	MSG028,4	WRITE LOGIC MESSAGE
14274	0 20 24606	NOP	MSG036	
14275	0 43 00434	BRM	END	8 HEADS

*
*
* FUNCTION 07 OBJECT TEST 18
*

14276	0 43 00430	BRM	OBJECT	
14277	0 76 26243	LDA	#4100	STARTING ADDR.
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

*
*
* FUNCTION 07 OBJECT TEST 19
*

14304	0 43 00430	BRM	OBJECT	
14305	0 76 26244	LDA	#4200	STARTING ADDR.
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

*
*
* 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	YDRIVER CONTROL
14315	* 20 24470	ADP	YMSG31,*	WRITE LOGIC MESSAGE
14316	0 20 24430	ADP	YMSG39	
14317	0 43 00434	BRM	END	8 HEADS

*
*
* FUNCTION 07 OBJECT TEST 21
*
*

14320	0 43 00430	BRM	OBJECT	
14321	0 76 26230	LDB	YMSG01C	HEAD LOGIC MESSAGE
14322	0 76 26236	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 76 26231	LDA	#00020003	SIDE AND TB STRIP
14326	0 43 16103	BRM	DECR12	
14327	0 43 00434	BRM	END	

*
*
* FUNCTION 07 OBJECT TEST 22
*
*

14330	0 43 00430	BRM	OBJECT	
14331	0 76 26230	LDB	YMSG01C	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	

*
*
* FUNCTION 07 OBJECT TEST 23
*
*

14340	0 43 00430	BRM	OBJECT	
14341	0 76 26230	LDB	YMSG01C	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 00434	BRM	END	

*
*
* FUNCTION 07 OBJECT TEST 24
*

14350	0	43	00430	BRM	OBJECT	
14351	0	76	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	

*
*
* FUNCTION 07 OBJECT TEST 25
*

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	24472	NBP	MSG032,4	WRITE LOGIC MESSAGE
14366	0	20	24406	NBP	MSG036	
14367	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 07 OBJECT TEST 26
*

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	24474	NBP	MSG033,4	WRITE LOGIC MESSAGE
14374	0	20	24415	NBP	MSG037	
14375	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 07 OBJECT TEST 27
*

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	24476	NBP	MSG034,4	WRITE LOGIC MESSAGE
14402	0	20	24424	NBP	MSG038	
14403	0	43	00434	BRM	END	8 HEADS

*
*
* FUNCTION 07 OBJECT TEST 28
*

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

*
*
* 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 SEYS
14416	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTRBL
14417	0	76	26237	LDA	#20004	SIDE AND TB STRIP
14420	0	43	16273	BRM	INCR12	
14421	0	43	00434	BRM	END	

*
*
* FUNCTION 07 SUBJECT TEST 30
*

14422	0	43	00430	BRM	0BJECT	
14423	0	75	26236	LDB	#MSG010	HEAD LOGIC MESSAGE
14424	0	76	26243	LDA	#4100	STARTING SECTOR
14425	0	71	26235	LDX	#000070007	DATA FOR HEAD SEYS
14426	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTRBL
14427	0	76	26240	LDA	#10010	SIDE AND TB STRIP 8
14430	0	43	16273	BRM	INCR12	
14431	0	43	00434	BRM	END	

*
*
* 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 SEYS
14436	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTRBL
14437	0	76	26241	LDA	#40102	SIDE AND TB STRIP
14440	0	43	16273	BRM	INCR12	
14441	0	43	00434	BRM	END	

*
*
* 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 SEYS
14446	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTRBL
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	ZR0	
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	TEST FOR 940
14462	0	75	26260	LDB	#0	YES

RADN15 TAP=3.C 01/15 06130 PAGE 253

14463	0 36	25565	STB	JMPTYP
14464	0 76	25562	LDA	HOLD2
14465	0 75	25563	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	**2
14474	0 43	00456	BRM	FDBNE
14475	0 14	26246	ETR	#RADWH0
14476	0 46	20005	ABC	
14477	0 76	26246	LDA	#RADWH0
14500	0 67	10054	N0D	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
N0

RADN15 TAP=3.C 01/15 06130 PAGE 254

14504	0 43	00424	BRM	FUNCTN
14505	0 20	21272	N0P	FPT8
14506	0 43	00440	BRM	RETURN
14507	0 20	07651	N0P	XTRAI
14510	0 43	00430	BRM	OBJECT
14511	0 43	14467	BRM	RAD0K
14512	0 73	20066	SKG	#2000000
14513	0 01	16207	BRU	FUNCI0
14514	0 76	00401	LDA	STATUS
14515	0 72	26106	SKA	#4000
14516	0 01	16207	BRU	FUNCI0

CONTROL LINK
PARAMETER FOR THIS FUNCTION

TEST FOR THREE RADS
LAST RAD
SOFTWARE RAD READ ONLY

RADW15 TAP=3.0 01/15 06130 PAGE 255

*
* 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 ADDR.
14523	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
14524	4	20	24442	NBP	MSG020,4	WRITE LOGIC MESSAGE
14525	0	20	24406	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 ADDR.
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 ADDR.
14537	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
14540	4	20	24446	NBP	MSG022,4	WRITE LOGIC MESSAGE
14541	0	20	24424	NBP	MSG038	
14542	0	43	00434	BRM	END	8 HEADS

RADW15 TAP=3.0 01/15 06130 PAGE 256

*
* FUNCTION 08 OBJECT TEST 04
*

14543	0	43	00430	BRM	OBJECT	
14544	0	76	26250	LDA	#10300	STARTING ADDR.
14545	0	43	16155	BRM	YMSG8	YDRIVER CONTROL
14546	4	20	24450	NBP	MSG023,4	WRITE LOGIC MESSAGE
14547	0	20	24433	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	HEAD LOGIC MESSAGE
14553	0	76	26107	LDA	#10000	STARTING SECTOR
14554	0	71	26212	LDX	#070007000	DATA FOR HEAD SETS
14555	0	43	16136	BRM	SETARD	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	24606	NOP	MSG036	
14620	0	43	00434	BRM	END	8 HEADS

RADW15 TAP=3.0 01/15 06130 PAGE 259

*
* 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	24454	NOP	MSG025,4	WRITE LOGIC MESSAGE
14625	0	20	24415	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	24454	NOP	MSG026,4	WRITE LOGIC MESSAGE
14633	0	20	24424	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	24460	NOP	MSG027,4	WRITE LOGIC MESSAGE
14641	0	20	24433	NOP	MSG039	
14642	0	43	00434	BRM	END	8 HEADS

RADW15 TAP=3.0 01/15 06130 PAGE 260

*
* FUNCTION 08 OBJECT TEST 13
*

14643	0	43	00430	BRM	OBJECT	
14644	0	75	26222	LDB	#MSG018	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	#MSG018	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 ADDR.
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 ADDR.
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 ADDR.
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

*
* 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	MSG039	
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	26027	LDX	#000700070	DATA FOR HEAD SETS
14741	0	43	16036	BRM	SETWRD	INITIALIZE READ CONTROL
14742	0	76	26061	LDA	#10111	SIDE AND TB STRIP
14743	0	43	16103	BRM	DECR12	
14744	0	43	00434	BRM	END	

*
* 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	16036	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	16036	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	

RADW15 TAP=3.0 01/15 06130 PAGE 265

*
* 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	SETHRD	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

RADW15 TAP=3.0 01/15 06130 PAGE 266

*
* 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 26407	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 SPUR1 PZE 0
15071 0 14 26112 ETR #37777
15072 0 73 26210 SKG #77 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 #=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

```

RADW15 TAP=3.C 01/15 06130 PAGE 271

```
*
* 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 MIN SPUR1
15133 0 61 15070 EAX+ SPUR1
15134 0 77 15070 LDA+ 0,2
15135 2 76 00000 STA ITABLE EXPECTED
15136 0 35 15156 BRM REPORT REPORT ERROR
15137 0 43 00454 NOP IMSG,4 MESSAGE
15140 4 20 15210 FBR ITABLE DATA
15141 0 04 15156 BRM CLEAR CLEAR PRESENT INTERRUPT
15142 0 43 15146 BRM ERROR GO TO CONTROL
15143 0 43 00460 NOP ENDIT (NO MESSAGE)
15144 0 20 25272 BRR SPUR1 RETURN
15145 0 51 15070
```

RADW15 TAP=3.C 01/15 06130 PAGE 272

```
*
* CLEAR PRESENT INTERRUPT
*
15146 0 00 00000 CLEAR PZE 0
15147 0 76 00401 LDA STATUS
15150 0 72 26075 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 NOP *
15154 0 02 20002 EIR *
15155 0 51 15146 BRR CLEAR ENABLE INTERRUPTS
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 52526445 ILLEX 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 51314664
15177 62124746
15200 47371212
15201 52624764 SPRINT BCD ' SPURIOUS INTERRUPT OR TRAP!!
15202 51314664
15203 62123145
```

RADK15 TAP=3.C 01/15 06130 PAGE 273

15204	63255151			
15205	64476312			
15206	46511263			
15207	51214737			
15210	52236747	MSG	BCD	EXPECTED RECEIVED LOCATION CONTENTS :
15211	25236325			
15212	24125125			
15213	23253165			
15214	25241243			
15215	46232163			
15216	31464512			
15217	23464563			
15220	25456362			
15221	52371212			

RADK15 TAP=3.C 01/15 06130 PAGE 274

15222	0 43 00424	FUNC9	BRM	FUNCTN	CONTROL LINK
15223	0 20 21300		NBP	FPT9	PARAMETER FOR THIS FUNCTION
15224	0 43 00440		BRM	RETURN	
15225	0 20 07650		NBP	XTRA1	
15226	0 43 00430		BRM	OBJECT	
15227	0 43 14467		BRM	RADSK	
15230	0 73 26211		SKG	#3000000	TEST FOR FOUR RADS
15231	0 01 16207		BRU	FUNC10	
15232	0 76 00401		LDA	STATUS	
15233	0 72 26106		SKA	#4000	SOFTWARE RAD READ ONLY
15234	0 01 16207		BRU	FUNC10	

*
* FUNCTION 09 OBJECT TEST 01
*

15235	0 43 00430	BRM	OBJECT	
15236	0 76 26212	LDA	#070007000	DATA FOR HEAD
15237	0 43 16170	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 24404	NBP	MSG036	
15244	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT 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 OBJECT 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 OBJECT 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 OBJECT TEST 05
*

15267	0 43 00430	BRM	OBJECT	
15270	0 75 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	SET-IRD	INITIALIZE READ CONTROL
15274	0 76 26251	LDA	#30107	
15275	0 43 16103	BRM	DECR12	
15276	0 43 00434	BRM	END	

RADW15 TAP=3.C 01/15 06130 PAGE 277

*
* 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	

RADW15 TAP=3.C 01/15 06130 PAGE 278

*
* 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 ADDR.
15333	0	43	16172	BRM	YMSG9	DRIVER 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 26200	LDA	#14200	STARTING ADRS,
15347	0 43 16172	BRM	YMSG9	YDRIVER CONTROL
15350	4 20 24454	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 26201	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 75 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 16036	BRM	SETWRD	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 75 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 16036	BRM	SETWRD	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	NBP	MSG028,4	WRITE LOGIC MESSAGE
15427	0 20 24606	NBP	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	TARTING ADRS.
15433	0 43 16172	BRM	YMSG9	YDRIVER CONTROL
15434	4 20 24664	NBP	MSG029,4	WRITE LOGIC MESSAGE
15435	0 20 24615	NBP	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	NBP	MSG030,4	WRITE LOGIC MESSAGE
15443	0 20 24624	NBP	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 ADDR.
15447	0 43 16172	BRM	YMSG9	YDRIVER CONTROL
15450	4 20 24470	NBP	YMSG31,4	WRITE LOGIC MESSAGE
15451	0 20 24433	NBP	YMSG39	
15452	0 43 00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT TEST 21
*

15453	0 43 00430	BRM	OBJECT	
15454	0 75 26230	LDB	#MSG01C	HEAD LOGIC MESSAGE
15455	0 76 26274	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 75 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 75 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	READ LOGIC MESSAGE
15505	0	76	26301	LDA	#14300	STARTING SECTOR
15506	0	71	26227	LDX	#000700070	DATA FOR HEAD SETS
15507	0	43	16236	BRM	SETWRD	INITIALIZE READ CONTROL
15510	0	76	26264	LDA	#30301	SIDE AND TB STRIP
15511	0	43	16103	BRM	DECR12	
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	24633	NOP	MSG039	
15544	0	43	00434	BRM	END	8 HEADS

*
* FUNCTION 09 OBJECT 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 OBJECT 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 8
15563	0	43	16273	BRM	INCR12	
15564	0	43	00434	BRM	END	

*
* FUNCTION 09 OBJECT TEST 31
*

15565	0	43	00430	BRM	OBJECT	
15566	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15567	0	76	26200	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 OBJECT TEST 32
*

15575	0	43	00430	BRM	OBJECT	
15576	0	75	26236	LDB	#MSG01D	HEAD LOGIC MESSAGE
15577	0	76	26201	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	ZR9	
15610	0	01	15407	WYN	WYN	SET ADRS TO MESSAGE
15611	0	71	26202	LDX	###	SET CYCLE COUNTER FOR FOUR CYCLES

RADW15	TAP=3.C	01/15	06130	PAGE 289	
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 20321		BRM	WAIT4	
15622	0 76 26123		LDA	#4000000+RL0	WRITE LAST SECTOR
15623	0 43 15666		BRM	WRYT3	
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 61 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	NBP	*	Y DRIVE MESSAGE
15646	0 20 15446	WRYT7	NBP	*	WRITER MESSAGE
15647	0 20 15447	WRYT8	NBP	*	SELECT LOGIC MESSAGE
15650	0 01 15434		BRU	WRYT10	
15651	0 76 26123	WRYT5	LDA	#4000000+RL0	64 WORDS FROM RL0
15652	0 71 26061	WRYT2	LDX	#40000	ONE SECTOR TIME DELAY
15653	0 40 10226		SKSS	10026	HAD READY TEST
15654	0 41 15453		BRX	#+1	
15655	0 41 15661		BRX	#+4	

RADW15	TAP=3.C	01/15	06130	PAGE 290	
15656	0 43 00460		BRM	ERROR	
15657	0 20 25153		NBP	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	ZR0		
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 INTERRUPTS
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	ZR0		
15702	0 71 26030		LDX	#=100	SET FOR 64 WORDS
15703	2 35 25720		STA	RL0#100,2	FILL BUFFER
15704	0 41 15703		BRX	#+1	
15705	0 51 15701		BRR	SPREAD	

```

*
* READ AND CHECK SECTOR
*
15706 0 00 00000 READ ZR0
15707 0 35 24710 STA HD
15710 0 36 24552 STB COUNT1
15711 0 46 24005 READ0 ABC
15712 0 35 26030 STA ERRIR
15713 0 35 25620 STA RLB DISTURB READ BUFFER
15714 0 35 25660 STA RLB+40
15715 0 35 25715 STA RLB+75
15716 0 43 16015 BRM READ7 HEAD FIRST SECTOR
15717 0 75 26010 READ1 LDR #077
15720 0 76 25573 LDA PBTARD
15721 0 70 26210 SKM #077
15722 0 01 15761 BRU READ4
15723 0 14 26303 ETR #077777700 MASK SECTOR ADRS
15724 0 55 26103 ADD #0400
15725 0 35 25573 STA PBTARD UPDATE V ADRS
15726 0 76 26004 LDA #27600166+RLB TEST LAST SECTOR
15727 0 36 16007 STA READ6
15730 0 43 26005 BRM WAIT4 DELAY TO GET LAST BLOCK
15731 0 43 16005 BRM READ5
15732 0 76 26030 LDA ERRIR
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 ERRIR
15742 0 71 25573 LDX PBTARD
15743 0 43 00460 BRM ERRBR
15744 4 20 24702 NOP YS080A,4 PRINT SIDE TO STRIP HEAD LOCATION

```

```

15745 0 20 24712 READ3 NBP YS001A HEAD LOGIC AND REGISTERS
15746 2 20 25466 NBP YEDER,2 REGISTER HEADING
15747 0 01 25552 READ2 MIN COUNT1
15750 0 53 25552 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 20 00000 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 PBTARD
15763 0 76 26033 LDA FLAG1 TOGGLE FLAG
15764 0 75 26031 LDB RCODE1 FIRST BUFFER
15765 0 73 26060 SKG #0 TEST TOGGLE FLAG
15766 0 75 26032 LDB RCODE2 SECOND BUFFER
15767 0 36 26034 STB CHANNEL SET CHANNEL COUNT AND ADRS
15770 0 71 26034 LDX CHANNEL
15771 0 75 26004 LDB #27600166+RLB
15772 0 73 26060 SKG #0
15773 0 75 26305 LDB #027600066+RLB
15774 0 26 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 00000 STA 40,2
16000 2 35 00040 STA 40,2
16001 2 35 00066 STA 66,2 DISTURB NEXT READ BUFFER
16002 0 43 16015 BRU READ7
16003 0 43 16005 BRM READ5
16004 0 01 15717 BRU READ1
16005 0 00 00000 READ5 ZR0
16006 0 71 26306 LDX #066 SET TO TEST 50 WORDS
16007 0 76 26307 READ6 LDA #RLB +166,2 BUFFER BEING TESTED
16010 0 75 26114 LDB #1

```

RADN15 TAP=3.0 01/15 06130 PAGE 293

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	RAD READY TEST
16022	0 41 16021		BRX	**1	
16023	0 41 16027		BRX	READ8	ASSURE CORRECT RESPONSE
16024	0 43 00460		BRM	ERRAR	
16025	0 20 25153		N0P	SKSERR	READY ERROR MESSAGE
16026	0 51 15706		BRR	READ	RESTART OBJECT TEST
16027	0 02 10026	READ8	EOHM	010026	ALERT RAD
16030	0 13 25573		P0TT	P0TWRD	
16031	0 02 10000		EOHM	10000	ALERT CHANNEL
16032	0 02 14000		EOHM	14200	ISSD WITH NO INTERRUPTS
16033	0 13 26034	READ9	P0T	CHAN4D	64 WORDS TO RLD
16034	0 02 02226		EOHM	02226	RAD DRIVE CODE
16035	0 51 16015		BRR	READ7	
16036	0 00 00000	SETWRD	ZR0		
16037	0 35 25573		STA	P0TWRD	ADDRESS FOR RAD
16040	0 46 10012		BAC		
16041	0 16 26010		MRG	#42000000	SET LINK
16042	0 35 15745		STA	READ3	SET ERROR MESSAGE
16043	0 37 26035		STX	TSTAR0	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	CHAN4D	SET CHANNEL COUNT AND ADRS
16050	0 76 26005		LDA	#276000666*RL0	TEST BUFFER ONE
16051	0 35 16007		STA	READ6	
16052	0 51 16036		BRR	SETWRD	

RADN15 TAP=3.0 01/15 06130 PAGE 294

*
* 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 26011		LDB	#10	COUNT EIGHT CYCLES
16061	0 43 15706		BRM	READ	READ 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 26012		LDA	#0110	STARTING ADRS AT HEAD 10
16070	0 75 26011		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 26013		LDA	#0101	STARTING ADRS AT HEAD 11
16100	0 75 26011		LDB	#10	COUNT EIGHT CYCLES
16101	0 43 15706		BRM	READ	READ 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 26011		LDB	#10	
16111	0 43 15706		BRM	READ	HEAD DATA

RADW15 TAP=3.0 01/15 06130 PAGE 295

16112	0 51 16103	BRR	DECR12
16113	0 00 00000	SSIDE	ZR8
16114	0 46 20005		ABC
16115	0 67 00014	LSH	14
16116	0 35 24704	STA	SIDE
16117	0 46 11012	BAC	
16120	0 66 00014	RSH	14
16121	0 35 24706	STA	TB
16122	0 51 16113	BRR	SSIDE

SPLIT SIDE FROM TB STRIP

RADW15 TAP=3.0 01/15 06130 PAGE 296

```

*
* Y MESSAGE ERROR DRIVER
*
16123 0 00 00000 YMSG ZR8
16124 0 35 25473 STA PBTARD
16125 0 61 16123 MIN YMSG
16126 0 76*16123 LDA* YMSG
16127 0 35 15444 STA ARYT7
16130 0 61 16123 MIN YMSG
16131 0 76*16123 LDA* YMSG
16132 0 35 15447 STA ARYTR
16133 0 43 15407 BRM ARYT
16134 4 20 24752 NBP MSG05A,4
16135 0 43 15407 BRM ARYT
16136 4 20 24755 NBP MSG05B,4
16137 0 51 16123 BRR YMSG

```

GET REST OF MESSAGES

TEST FOUR HEADS
Y DRIVE MESSAGE

```

*
* Y MESSAGE ERROR DRIVER
*
16140 0 00 00000 YMSG7 ZR8
16141 0 35 25473 STA PBTARD
16142 0 61 16140 MIN YMSG7
16143 0 76*16140 LDA* YMSG7
16144 0 35 15444 STA ARYT7
16145 0 61 16140 MIN YMSG7
16146 0 76*16140 LDA* YMSG7
16147 0 35 15447 STA ARYTR
16150 0 43 15407 BRM ARYT
16151 4 20 24760 NBP MSG05C,4
16152 0 43 15407 BRM ARYT
16153 4 20 24763 NBP MSG05D,4
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	PBTWRD	
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		NBP	MSG05E,4	Y DRIVE MESSAGE
16167	0 43 15407		BRM	WRYT	
16170	4 20 24771		NBP	MSG05F,4	
16171	0 51 16155		BRR	YMSG8	

*
* Y MESSAGE ERROR DRIVER
*

16172	0 00 00000	YMSG9	ZR0		
16173	0 35 25573		STA	PBTWRD	
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		NBP	MSG05G,4	Y DRIVE MESSAGE
16204	0 43 15407		BRM	WRYT	
16205	4 20 24777		NBP	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	RADSK	
16214	0 73 26060		SKG	#0	
16215	0 61 21052		BRU	ALLDUN	
16216	0 75 26315		LDB	#17777	ONE RAD
16217	0 73 26065		SKG	#1000000	
16220	0 61 16230		BRU	FUN10A	
16221	0 75 26112		LDB	#37777	TWO RADS
16222	0 73 26066		SKG	#2000000	
16223	0 61 16230		BRU	FUN10A	
16224	0 75 26316		LDB	#57777	THREE RADS
16225	0 73 26211		SKG	#3000000	
16226	0 61 16230		BRU	FUN10A	
16227	0 75 26113		LDB	#77777	FOUR RADS
16230	0 36 25511	FUN10A	STB	RADHI	
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 00405		LDA	SYSIZE	
16235	0 75 26111		LDB	#177777	64K
16236	0 72 26075		SKA	#4	
16237	0 61 16246		BRU	FUN10B	
16240	0 75 26320		LDB	#137777	48K
16241	0 72 26074		SKA	#2	
16242	0 61 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	FUN10B	STB	CORHI	
16247	0 76 00401		LDA	STATUS	
16250	0 75 26060		LDB	#0	
16251	0 72 26075		SKA	#4	IS THIS A 940
16252	0 75 26114		LDB	#=1	

RAD-15 TAP-3: 01/15 06130 PAGE 299

16253	0 54 26043	STB	SKP940	
16254	0 76 26021	LDA	#1100000*INTR1E 940 RETURN	
16255	0 53 26043	SKN	SKP940	
16256	0 76 26022	LDA	#1400000*INTR1E 925 RETURN	
16257	0 35 26034	STA	INTRE2	
16260	0 76 26023	LDA	#1100000*INTRE6 940 RETURN	
16261	0 53 26043	SKN	SKP940	
16262	0 76 26024	LDA	#1400000*INTRE6 925 RETURN	
16263	0 35 26035	STA	INTRE3	
16264	0 46 26005	ABC		
16265	0 35 25567	STA	KEYS*	
16266	0 76 25512	LDA	PATERN	
16267	0 35 25517	STA	PADERN	
16270	0 43 26024	BRM	FUNCTN	
16271	0 27 26026	NBP	FPT10	
16272	0 43 26040	BRM	RETURN	SET UP INTRUPT RETURNS
16273	0 20 26047	NBP	INTR2	
16274	0 43 26030	BRM	BBJECT	
16275	0 76 26066	LDA	#2000000	NBP 0
16276	0 35 17750	STA	TRM14	
16277	0 35 26005	STA	TRM24	CLEAR LINK TO DATA CHAIN
16300	0 76 25514	LDA	CYCLE	
16301	0 35 25553	STA	CYCLE1	
16302	0 76 26025	LDA	#04300000*INTR1E	
16303	0 20 26031	STA	031	SET EARLY INTRUPT RETURN
16304	0 76 26034	LDA	INTRE2	
16305	0 35 26037	STA	INTRE1	SET INTRUPT TO A BRI RETURN
16306	0 76 25526	LDA	CARL*	
16307	0 70 25572	SKG	LAST	LAST PROGRAM LOCATION
16310	0 01 16030	BRU	INIT7	
16311	0 35 25547	STA	CRRNK	LOAD SEQUENCE INCREMENT VALUE
16312	0 76 25507	LDA	CRRHI	HIGHEST INPUT CORE ADRS
16313	0 54 25526	SUB	CRRLO	
16314	0 35 25550	STA	CRRMAX	
16315	0 70 26026	SKG	#067776	TEST FOR MORE THAN 28K
16316	0 01 16020	BRU	INIT1	

RAD-15 TAP-3: 01/15 06130 PAGE 300

16317	0 76 26026	LDA	#067776	
16320	0 46 26005	INIT1	ABC	
16321	0 66 26007	RSB	7	HALVE AND SET RELATIVE TO RAD ADRS
16322	0 46 16012	BAC		
16323	0 75 26114	LDB	**1	
16324	0 36 25560	STB	HEADSW	SET TO PRINT HEADING
16325	0 70 26060	SKY	#0	
16326	0 01 16030	BRU	INIT3	
16327	0 76 26074	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	RADLO	
16333	0 35 25577	STA	RADMAX	
16334	0 43 26042	BRM	MASKER	GENERATE BIT MASK
16335	0 35 25500	STA	RAD*SK	
16336	0 76 25577	LDA	RADMAX	
16337	0 70 25534	SKG	BLKMAX	
16340	0 01 16042	BRU	INIT2	
16341	0 76 25534	LDA	BLKMAX	
16342	0 55 26073	INIT2	ADD	FORCE GREATER IN CASE OF EQUAL
16343	0 70 25513	SKG	FIXBLK	
16344	0 01 16022	BRU	INIT4	FIXED BLOCK TO LARGE
16345	0 54 26073	SUB	#1	
16346	0 46 26005	ABC		
16347	0 67 26026	LSH	6	SET BLKMAX RELATIVE TO CORE ADRS
16350	0 46 16012	BAC		
16351	0 35 25534	STA	BLKMAX	BLKMAX EQUALS CORE/2 OR 14K OR RADMAX
16352	0 43 26042	BRM	MASKER	GENERATE BIT MASK
16353	0 35 25535	STA	BLK*SK	MASK # 00003777 (TYP)
16354	0 43 14467	BRM	RAD*SK	
16355	0 75 26114	LDB	**1	
16356	0 36 25574	STB	PRINTD	SET PRINT SWITCH AND HEADING SW
16357	0 36 26042	STB	SEKSTT	SET SECTOR COMPARE
16360	0 70 26060	SKY	#0	TEST FOR ANY RADS
16361	0 01 16063	BRU	**2	
16362	0 01 16025	BRU	INIT6	TO ERROR MESSAGE

RADW15 TAP-3.0 01/15 06130 PAGE 301

16363	C	14	26327		ETR	#7000000
16364	C	46	20005		ABC	
16365	C	66	00005		RSB	5
16366	C	46	10012		BAC	
16367	C	54	26107		SUB	#010000
16370	C	16	26330		VRG	#07777
16371	C	55	26073		ADD	#1
16372	C	73	25511		SKG	RADHI
16373	C	01	16433		BRU	INIT5
16374	C	54	26073		SUB	#1
16375	C	17	25511		EBR	RADHI
16376	C	72	26114		SKA	##1
16377	C	01	16403		BRU	INIT5
16400	C	76	25511		LDA	RADHI
16401	C	54	26073		SUB	#1
16402	C	35	25511		STA	RADHI
16403	C	76	25510	INIT5	LDA	RADLO
16404	C	35	25401		STA	RADINK
16405	C	76	25505		LDA	MODES
16406	C	72	26331		SKA	#3300
16407	C	01	16411		BRU	##2
16410	C	01	16436		BRU	INIT9
16411	C	75	26114		LDB	##1
16412	C	76	25513		LDA	FIXBLK
16413	C	70	26060		SKM	#0
16414	C	01	16416		BRU	##2
16415	C	01	16441		BRU	INIT10
16416	C	76	00401		LDA	STATJS
16417	C	72	26106		SKA	#4000
16420	C	01	16444		BRU	INIT11
16421	C	01	16455		BRU	KEYRAD
16422	C	43	00460	INIT4	BRM	ERRRR
16423	C	20	25366		NOP	FIXBIG
16424	C	01	16207		BRU	FUNC10
16425	C	43	00460	INIT6	BRM	ERRRR
16426	C	20	25344		NOP	NORAD

GET MAX RAD AVAILABLE

RADSI2 IS IN MULTIPLES OF TWO
SET HIGHEST ADRS
FORCE GREATER WHEN ACTUAL EQUALITY
ASSURE RAD ADRS IN LIMITS OF RADSI2

REDUCE ADRS BY ONE TO STOP HANGUP

SET RAD ADRS INCREMENT TABLE

ANY BUFFERS IN

SOFTWARE READ ONLY

RADW15 TAP-3.0 01/15 06130 PAGE 302

16427	C	01	16207		BRU	FUNC10
16430	C	43	00460	INIT7	BRM	ERRRR
16431	C	20	25433		NOP	CORERR
16432	C	01	16207		BRU	FUNC10
16433	C	43	00460	INIT8	BRM	ERRRR
16434	C	20	25410		NOP	RADBIG
16435	C	01	16207		BRU	FUNC10
16436	C	43	00460	INIT9	BRM	ERRRR
16437	C	20	25352		NOP	N0BLFR
16440	C	01	16207		BRU	FUNC10
16441	C	43	00460	INIT10	BRM	ERRRR
16442	C	20	25402		NOP	FIXZRB
16443	C	01	16207		BRU	FUNC10
16444	C	76	26205	INIT11	LDA	#600
16445	C	35	25513		STA	FIXBLK
16446	C	76	25505		LDA	MODES
16447	C	14	26332		ETR	#77000077
16450	C	16	26333		VRG	#475500
16451	C	35	25505		STA	MODES
16452	C	76	26114		LDA	##1
16453	C	35	25567		STA	KEYSW
16454	C	01	16535		BRU	PROGEN

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	EOR	PADERN	
16461	0 72 26114	SKA	**1	
16462	0 01 16475	BRU	KEYRA2	
16463	0 76 25505	LDA	MODES	
16464	0 75 26134	LDB	*700000	
16465	0 70 25571	SKM	KEYSAV	
16466	0 01 16475	BRU	KEYRA2	
16467	0 76 25511	LDA	RAD-1	
16470	0 75 26114	LDB	**1	
16471	0 70 25570	SKM	KEYADR	TEST IF RAD ADRS CHANGED
16472	0 01 16474	BRU	**2	
16473	0 01 16435	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 75 25511	LDA	RAD-1	
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 26134	ETR	*0700000	SAVE DATA MODE
16504	0 16 26135	YRG	*22066600	SET SEQUENTIAL AND WRITE BUFFERS
16505	0 35 25526	STA	MODE	MODE TEMP FOR PROCESS GENERATOR
16506	0 46 25505	ABC		
16507	0 35 25567	STA	KEYSA	SET KEY RETURN
16510	0 76 25526	KEYRA1 LDA	MODE	
16511	0 01 16567	BRU	FRYKEY	GO TO GENERATOR
16512	0 76 25526	KEYEND LDA	MODE	GET CONTROL WORD
16513	0 72 26134	SKA	*3000	IS ONE BEING USED

16514	0 01 16516	BRU	**2	YES
16515	0 01 16532	BRU	KEYEN1	NO
16516	0 72 26113	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	PROBER	
16532	0 76 26114	KEYEN1 LDA	**1	
16533	0 35 25567	STA	KEYSA	
16534	0 01 17254	BRU	RAD-1	

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

16535	0 76 25505	PROGEN	LDA	MODES	
16536	0 72 26061	GENER3	SKA	#040000	FIXED MODE
16537	0 01 16566		BRU	GENER1	
16540	0 72 26114		SKA	#20000	IS IT RANDOM ALL
16541	0 01 16553		BRU	GENER2	
16542	0 76 00406		LDA	SEED	YES
16543	0 43 17302		BRM	RANDOM	
16544	0 14 26337		ETR	#00070000	GET TRANSMISSION MODE
16545	0 35 25561		STA	HOLD	
16546	0 76 25505		LDA	MODES	
16547	0 14 26340		ETR	#77707777	CLEAR MODE WORD
16550	0 16 25561		MRG	HOLD	
16551	0 35 25526		STA	MODE	
16552	0 01 16536		BRU	GENER3	
16553	0 76 00406	GENER2	LDA	SEED	
16554	0 43 17302		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	MODES	
16561	0 16 26342		MRG	#060000	MERGE FINAL FIXED MODE
16562	0 01 16566		BRU	GENER1	
16563	0 76 25505	GENER4	LDA	MODES	
16564	0 14 26343		ETR	#77757777	REMOVE EARLY BIT
16565	0 16 26061		MRG	#40000	FIX FINAL MODE
16566	0 35 25526	GENER1	STA	MODE	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	PRGGE1	
16572	0 75 26114		LDB	**1	
16573	0 36 25544		STB	BUFSKIP	
16574	0 72 26213		SKA	#0300	IS BUFFER TWO IN
16575	0 01 16645		BRU	PRGGE5	
16576	0 43 00460		BRM	ERRSR	NO BUFFERS SELECTED
16577	0 20 25352		MRP	NOBUFR	
16600	0 01 16207		BRU	FUNC10	
16601	0 71 26060	PRGGE1	LDX	#0	
16602	0 43 17126		BRM	RADADR	
16603	0 72 26213		SKA	#0300	IS TWO IN
16604	0 01 16714		BRU	PRGGER	
16605	0 75 26114		LDB	**1	
16606	0 36 25544		STB	BUFSKIP	FORCE SINGLE BUFFER CONTROL
16607	0 43 17014	PRGGE2	BRM	CORADR	
16610	0 43 17354		BRM	SETUP	
16611	0 75 26246		LDB	#07000	MASK FOR DRIVE CODE ONE
16612	0 43 17313		BRM	PADDRV	
16613	0 43 17421		BRM	DATA	
16614	0 72 26107		SKA	#010000	IS IT INTRUPT
16615	0 01 16705		BRU	PRGGE4A	
16616	0 43 20321		BRM	WAIT4	
16617	0 43 00430		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 20321	PRGGE3	BRM	WAIT4	
16623	0 43 16775		BRM	ERRTST	
16624	0 71 26060		LDX	#0	
16625	0 43 17406		BRM	CHECK	TEST READ DATA
16626	0 43 00434		BRM	END	
16627	0 53 25544		SKN	BUFSKIP	
16630	0 01 16645		BRU	PRGGE5	
16631	0 53 25567	PRGGE4	SKN	KEYS4	
16632	0 01 16510		BRU	KEYRA1	
16633	0 53 25553		SKN	CYCLE1	
16634	0 01 16636		BRU	**2	

RAD:15 TAP:3.0 01/15 06130 PAGE 307

16635	0 01 16635	BRU	PRGGEN	
16636	0 60 25653	SKR	CYCLE1	
16637	0 20 00000	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 17313	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 26036	LDA	INTRE4	NO SEND VIA INTRUPT
16677	0 43 17772	BRM	TRANS2	
16700	0 53 25665	SKN	JMPTYP	

RAD:15 TAP:3.0 01/15 06130 PAGE 308

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	PRGGE4	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 26035	LDA	INTRE3	
16712	0 43 17735	BRM	TRANS1	
16713	0 01 16422	BRU	PRGGE3	
16714	0 75 26060	PRGGE8	LDB	#0
16715	0 36 25544	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 17014	BRM	CORADR	
16726	0 43 17154	BRM	SETUP	
16727	0 75 26246	LDB	#0700	MASK FOR DRIVE CODE ONE
16730	0 43 17313	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 17313	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 76 26247	LDA	***1	SET RETURN FOR TRANS1
16744	0 01 26267	BRU	WAIT1	

RADW15 TAP=3.C 01/15 06130 PAGE 309

16745	O 43	16770	BRM	ERRTST	
16746	O 76	26350	PRBG11	LDA	***1
16747	O 01	20302		BRU	WAIT2
16750	O 71	26060	PRBG12	LDA	#0
16751	O 43	17606		BRM	CHECK
16752	O 01	16664		BRU	PRBG6
16753	O 43	20321	PRBG9	BRM	WAIT4
16754	O 43	00430		BRM	OBJECT
16755	O 76	20035		LDA	INTRE3
16756	O 43	17735		BRM	TRANS1
16757	O 76	20036		LDA	INTRE4
16760	O 43	17772		BRM	TRANS2
16761	O 53	25565		SKN	JMPTYP
16762	O 11	16764		BRU	**2
16763	O 01	16764		BRU*	**1
16764	O 20	16764		NOP	*
16765	O 71	26060		LDA	#0
16766	O 43	17606		BRM	CHECK
16767	O 01	16664		BRU	PRBG6
*					
16770	O 00	00000	ERRTST	ZR0	
16771	O 40	11026		SKS	11026
16772	O 43	00454		BRM	REPORT
16773	O 20	25211		NOP	RADER
16774	O 40	11000		SKS	11000
16775	O 43	20367		BRM	CHANER
16776	O 51	16770		BRR	ERRTST
*					
16777	O 00	00000	STATST	ZR0	
17000	O 35	26045		STA	STAHLD
17001	O 76	00401		LDA	STATJ5
17002	O 72	26106		SKA	#4000
17003	O 01	17006		BRU	**3
17004	O 76	26045	STATS1	LDA	STAHLD
17005	O 51	16777		BRR	STATST
17006	O 76	25542		LDA	BUF1RA

SET RETURN FOR TRANS2

ALLOW RAD TO FINISH BEFORE CONTROL
USE INTRUPT

CLEAR RECOGNIZED INTRUPT

HAD ERROR TEST

CHANNEL ERROR TEST

HAD READ LOCK IN BIT

RADW15 TAP=3.C 01/15 06130 PAGE 310

17007	O 35	25543	STA	BUF2RA	FORCE IDENTICAL RAD ADDRESSES
17010	O 76	25432	LDA	BUF1BL	
17011	O 35	25533	STA	BUF2BL	FORCE IDENTICAL RAD BLOCK LENGTHS
17012	O 61	16777	MIN	STATST	SKIP RADADR SUBROUTINE
17013	O 01	17004	BRU	STATS1	

*
* CORE ADDRESS AND BLOCK LENGTH FIT GENERATOR
*

17014	0	00	25400	CORADR	ZR0			
17015	0	07	25431		STX	BUFSAV		
17016	0	74	25426		LDA	*80E		HAND0M CORE ADRS
17017	0	72	25465		SKA	#01000000		
17020	0	01	17430		BRU	CORAD1		
17021	0	72	25466		SKA	#02000000		SEQUENCE MODE
17022	0	01	17470		BRU	CORAD4		
17023	0	72	25467		SKA	#04000000		FIXED MODE
17024	0	01	17456		BRU	CORAD3		
17025	0	43	25460		BRM	ERR0R		
17026	0	00	25461		NBP	NBCPRE		
17027	0	01	16207		BRU	FUNC10		
17030	0	76	25407	CORAD1	LDA	CORHI		MAXIMUM UPPER CORE LIMIT
17031	2	56	25432		SUB	BUF1BL,2		
17032	0	53	25444		SKN	BUFSKP		TEST TO DB TWO BUFFERS
17033	0	54	25433		SUB	BUF2BL		BUFFER 2 BLOCK LENGH
17034	0	54	25404		SUB	CORL0		FIND RELATIVE SPAN
17035	0	35	25464		STA	H0LD3B		
17036	0	43	25442		BRM	MASKER		GENERATE BIT MASK
17037	0	25	25441		STA	SAVARD		
17040	0	76	01406		LDA	SEED		
17041	0	43	17202		BRM	RAND0M		
17042	0	14	25444		ETR	SAVARD		
17043	0	73	25464		SKG	H0LD3B		
17044	0	01	17446		BRU	**2		
17045	0	54	25464		SUB	H0LD3B		
17046	0	54	25474		SUB	#2		
17047	0	55	25506		ADD	CORL0		
17050	0	71	25431		LDX	BUFSAV		
17051	2	34	25442	CORAD6	STA	BUF1CA,2		
17052	2	55	25432		ADD	BUF1RL,2		

17053	0	53	25444		SKN	BUFSKP		TEST TO SET BOTH BUFFERS
17054	0	35	25441	CORAD8	STA	BUF2CA		
17055	0	01	17423		BRU	CORADA		
17056	0	76	25426	CORAD3	LDA	*80E		
17057	0	72	25410		SKA	#20000		TEST FOR EARLY MODE
17060	0	01	17462		BRU	**2		
17061	0	01	17465		BRU	CORAD9		
17062	0	43	25460		BRM	ERR0R		DISALLOW EARLY ON FIXED CORE ADR
17063	0	20	25451		NBP	RADBIT		
17064	0	01	16207		BRU	FUNC10		
17065	0	76	25406	CORAD9	LDA	CORL0		CORL0 ADDRESS = FIXED
17066	0	35	25442		STA	BUF1CA		
17067	0	01	17454		BRU	CORAD8		
17070	0	76	25447	CORAD4	LDA	COR1X		INCREMENT CELL
17071	0	75	25447		LDB	COR1X		
17072	2	55	25432		ADD	BUF1BL,2		ADD BLOCK LENGTH ONE
17073	0	73	25407		SKG	CORHI		
17074	0	01	17100		BRU	CORAD5		
17075	0	76	25406		LDA	CORL0		
17076	0	35	25447		STA	COR1X		RESET IF ABOVE CORHI
17077	0	01	17451		BRU	CORAD6		
17100	2	34	25442	CORAD5	STB	BUF1CA,2		
17101	0	35	25447		STA	COR1X		
17102	0	53	25444		SKN	BUFSKP		
17103	0	01	17105		BRU	**2		
17104	0	01	17123		BRU	CORADA		
17105	0	55	25433		ADD	BUF2BL		UPDATE SECOND BUFFER ADRS
17106	0	73	25407		SKG	CORHI		
17107	0	01	17120		BRU	CORAD7		
17110	0	76	25406		LDA	CORL0		RESET IF ABOVE CORHI
17111	0	34	25447		STA	COR1X		
17112	0	76	25407		LDA	CORHI		AVOID OVERLAP
17113	0	54	25432		SUB	BUF2BL		
17114	0	35	25441		STA	BUF2CA		
17115	0	54	25432		SUB	BUF1BL		
17116	0	35	25440		STA	BUF1CA		

RADW15 TAP-3.0 01/15 06130 PAGE 313

17117	0	01	17123	BRU	CORADA	
17120	0	75	25547	CORAD7	LDB	CBRINK
17121	0	35	25547		STA	CBRINK
17122	0	36	25541		STB	BUF2CA
17123	0	76	25526	CORADA	LDA	R8DE
17124	0	71	25531		LDX	BUFSAV
17125	0	51	17014	BRR	CORADR	

SET SECOND CORE ADR6
RESET AND RETURN

RADW15 TAP-3.0 01/15 06130 PAGE 314

*
* 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 ZR0
17126 0 00 00000 STX BUFSAV
17127 0 37 25531 SKA #10000000 TEST RANDOM
17130 0 72 26070 BRU RADAD1
17131 0 01 17141 SKA #20000000 TEST SEQUENTIAL
17132 0 72 26071 BRU RADAD2
17133 0 01 17223 SKA #40000000
17134 0 72 26072 BRU RADAD3 FIXED ADDRESS
17135 0 01 17257 BRM ERROR
17136 0 43 00460 NOP NBRAD
17137 0 20 25344 BRU FUNC10
17140 0 01 16507 RADAD1 LDA SEED
17141 0 76 00406 BRM RANDBM
17142 0 43 17302 ETR RADMSK ASSURE CORRECT BIT SCALING
17143 0 14 25600 SKG RADMAX
17144 0 73 25577 BRU **2
17145 0 01 17147 SUB RADMAX
17146 0 54 25577 ADD RADL3
17147 0 55 25510 STA SAVADR
17150 0 35 26023 LDB BLKMAX
17151 0 75 25534 SKN KEYS#
17152 0 53 25567 BRU RADAD4
17153 0 01 17162 SKN FIXBLK
17154 0 53 25513 BRU RADAD9
17155 0 01 17160 BRM GETBLK GENERATE RANDOM BLK LENTGH
17156 0 43 17266 BRU RADAD4
17157 0 01 17162 RADAD9 LDB FIXBLK
17160 0 75 25513 LSH 6
17161 0 67 00006

RAD-15 TAP-3.0 01/15 06130 PAGE 315

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	SET BUFFER CONSTANTS
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 00004		WSH	6	
17176	0 36 26026		STB	SAVBLK	
17177	0 76 25511		LDA	RADHI	
17200	0 54 26023		SUB	SAVADR	TEST OVER BOUND BLOCK LENGTH
17201	0 55 26073		ADD	#1	
17202	0 73 26026		SKG	SAVBLK	PICK SAVADR LESS THAN RADHI
17203	0 35 26026		STA	SAVBLK	
17204	0 76 26026		LDA	SAVBLK	RECOVER IF NO CHANGE
17205	0 55 26023		ADD	SAVADR	
17206	0 75 26037		LDB	#070000	
17207	0 70 26023		SKM	SAVADR	TEST FOR NO RAD UNIT CHANGE
17210	0 01 17213		BRU	RADADD	
17211	0 75 26026		LDB	SAVBLK	
17212	0 01 17221		BRU	RADADC	
17213	0 76 26023	RADADD	LDA	SAVADR	
17214	0 14 26037		ETR	#070000	
17215	0 55 26030		ADD	#07777	SET ADRS AT BOUNDARY
17216	0 54 26023		SUB	SAVADR	GENERATE NEW BLK LENGTH
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	KEYS	TEST FOR KEY CONDITION
17225	0 01 17234		BRU	RADADG	

RAD-15 TAP-3.0 01/15 06130 PAGE 316

17226	0 50 25513		SKN	FIXBLK	
17227	0 01 17232		BRU	RADADH	
17230	0 43 17266		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	SEQUENCE INCREMENT STORAGE
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	UPDATE INCRMENT VALUE
17242	0 67 00006		LSH	6	
17243	2 36 25532		STB	BUF1BL,2	TRUE BUFFER BLOCK LENGTH
17244	0 76 25401		LDA	RADINK	
17245	0 75 25400		LDB	RADNSK	
17246	0 73 25511		SKG	RADHI	
17247	0 01 17254		BRU	RADADF	
17250	0 76 25410		LDA	RADLB	
17251	0 35 25401		STA	RADINK	
17252	0 53 25567		SKN	KEYS	
17253	0 01 17252		BRU	KEYEND	
17254	0 76 25576	RADADF	LDA	MODE	
17255	0 71 25531		LDX	BUFSAV	
17256	0 51 17124		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	

*
* 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	EOR		#=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 17413 BRR RADDRV

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

17354	0 00 00000	SETUP	ZR0	0	
17355	0 37 25431		STX	BUFSAV	
17356	0 46 20005		ABC		CLEAR AREG
17357	2 75 25532		LDB	BUF1RL,2	GET BLOCK LENGTH
17360	0 47 00016		LSH	C16	ISOLATE 5 HI ORDER BITS FOR EDM
17361	0 16 25557		MRG	EDM3BIT	EDM = 0617200
17362	0 35 25562		STA	H0LD2	SAVE EDM FOR HI ADRS
17363	0 36 25563		STB	H0LD3	SAVE L0 WORD COUNT FOR ADRS BITS
17364	0 46 17412		BAC		CLEAR BREG
17365	2 76 25540		LDA	BUF1CA,2	CESS ADRS WORD
17366	0 14 26755		ETR	#0140000	ISOLATE HI BITS
17367	0 66 00011		RSW	C11	ALIGN HI BITS FOR EDM WORD
17370	0 16 25562		MRG	H0LD2	FINAL EDM
17371	0 35 25562		STA	H0LD2	
17372	0 76 25524		LDA	Y0DF	
17373	0 72 26107	SETUP4	SKA	#010000	IS IT INTRUPT
17374	0 01 17476		BRU	**2	
17375	0 01 17405		BRU	SETJ3B	NO
17376	0 72 26110		SKA	#20000	TEST FOR EARLY BIT
17377	0 01 17401		BRU	**2	
17400	0 01 17410		BRU	SETJ3A	
17401	0 76 25562	SETUP8	LDA	H0LD2	YES
17402	0 16 26472		MRG	#40000000	EARLY INTERRUPT BIT
17403	0 35 25562		STA	H0LD2	
17404	0 01 17410		BRU	SETJ3A	YES
17405	0 76 25562	SETJ3B	LDA	H0LD2	
17406	0 14 26756		ETR	#37774777	REMOVE I1, I2 ARMING+ EARLY BIT
17407	0 35 25562		STA	H0LD2	
17410	0 75 25562	SETJ3A	LDB	H0LD2	FINAL EDM TO BREG
17411	2 76 25540		LDA	BUF1CA,2	GET ADRS WORD
17412	0 14 26112		ETR	#03777	ISOLATE L0 ORDER ADRS BITS

RADW15 TAP=3.0 01/15 06130 PAGE 321

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 EDM
17416	0	76	25526	LDA	MODE	
17417	0	71	25531	LDX	BUFSAV	
17420	0	51	17354	BRR	SETUP	RETURN

RADW15 TAP=3.0 01/15 06130 PAGE 322

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

17421	0	00	00000	DATA	ZRB	
17422	0	37	25531		STX	BUFSAV
17423	2	76	26030		LDA	TRE0M,2
17424	0	72	26100		SKA	#040
17425	0	01	17427		BRU	**2
17426	0	01	17472		BRU	DATA15
17427	2	76	25542		LDA	BUF1RA,2
17430	0	35	25564		STA	HOLD3B
17431	2	76	25540		LDA	BUF1CA,2
17432	2	75	25532		LDB	BUF1BL,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	ERRQR
17452	0	20	25337		NOP	%DATA
17453	0	01	16207		BRU	FUNC10
17454	0	46	10012	DATA9	BAC	
17455	0	35	17465		STA	DATA10

GET RAD EDM 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

RADK15 TAP=3.0 01/15 06130 PAGE 323

```
17456 0 17 26957 EBR #06000000 GENERATE AN ADD, 035 EBR 60 = 55
17457 0 35 17470 STA DATA11
17460 0 76 02406 LDA SEED
17461 0 46 20405 ABC
17462 0 67 00413 LSH 013
17463 0 55 00406 ADD SEED
17464 0 55 26951 DATA9A ADD #53577045 RANDOM DATA LOOP
17465 6 35 00400 DATA10 STA 0,6
17466 0 46 20405 ABC
17467 0 67 00413 LSH 013
17470 6 55 00400 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 CONSTANT DATA LOOP
17476 0 36 17477 DATA14 STB DATA19 BLOCK LENGTH PLUS STORE WORD
17477 6 35 00400 DATA19 STA 0,6
17500 0 +1 17477 BRX DATA19
17501 0 01 17472 BRJ DATA15
17502 0 36 17506 DATA13 STB DATA16 SEQUENTIAL DATA LOOP
17503 0 75 25564 LDS #9L03B
17504 0 67 00404 LSH 6
17505 0 46 10012 BAC
17506 6 35 00400 DATA16 STA 0,6 STORE RELABELLED DATA
17507 0 55 26973 ADD #1
17510 0 41 17506 BRX DATA16
17511 0 01 17472 BRJ DATA15
```

RADK15 TAP=3.0 01/15 06130 PAGE 324

```
*
*
* RELABELLING ROUTINE FOR 940 MODE
* AREG = STARTING CORE ADRS. BREG = BLOCK LENGTH.
*
17512 0 00 00000 RELABL ZR0
17513 0 35 25606 STA RELCA CORE ADRS
17514 0 36 25605 STB RELBL BLOCK LENGTH
17515 0 46 10012 BAC
17516 0 55 25606 ADD RELCA CALCULATE ENDING ADRS
17517 0 46 20405 ABC
17520 0 66 00413 RSH 13 GET BITS 8,9,10,11,12 FROM HI ADRS
17521 0 46 10012 BAC
17522 0 35 25617 STA RHIAOR
17523 0 46 10012 BAC CLEAR BREG
17524 0 75 25606 LDB RELCA
17525 0 66 00413 RSH 13 ISOLATE LO ADRS BITS
17526 0 46 10012 BAC
17527 0 35 26020 STA RLADR
17530 0 36 25561 STB #HOLD
17531 0 46 10012 BAC CLEAR AREG, BREG, HOLD
17532 0 71 26711 LDX #=10 SET FOR 8 RL LOOPS
17533 0 76 26020 RELAB4 LDA RLADR LOW RAD ADRS BITS FOR RELABL
17534 0 17 25617 EBR RHIAOR
17535 0 72 26114 SKA #=1
17536 0 01 17574 BRU RELAB6
17537 0 76 26020 LDA RLADR
17540 0 16 26100 YRG #400000040 ADD INTRUPT AN FORCE NEGATIVE BIT
17541 2 35 25617 STA #RFIELD+10,2
17542 0 76 25561 LDA #HOLD
17543 0 67 20406 LCY 6
17544 0 16 26020 YRG RLADR
17545 0 41 17567 BRX #+2
17546 0 01 17556 BRU RELAB7
17547 0 35 25561 STA #HOLD
```

RADW15 TAP=3.0 01/15 06130 PAGE 325

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	POT	RL1	
17564	0 02 21000	EOM	021000	
17565	0 13 00416	POT	RL2	
17566	0 76 25606	RELAB5 LDA	RELCA	
17567	0 53 26043	SKN	SKP940	
17570	0 01 17572	BRU	**2	
17571	0 14 26760	ETR	#03777	
17572	0 75 25605	LDB	RELBL	
17573	0 51 17512	BRR	RELABL	
17574	0 76 26020	RELAB6 LDA	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	LOAD RL POT WRDS IN AREG, BREG
17602	0 35 25561	STA	HOLD	
17603	0 61 26020	MIN	RLBADR	
17604	0 41 17533	BRX	RELAB4	
17605	0 01 17556	BRU	RELAB7	

RADW15 TAP=3.0 01/15 06130 PAGE 326

*
* DATA CHECKING ROUTINE
*
*
*
CHECK ZRG

17606	0 00 00000	STX	BUFSAV	
17607	0 37 25831	LDA	TREOM,2	GET RAD EOM WORD
17610	2 76 26050	SKA	#040	
17611	0 72 26100	BRU	CHECK8	
17612	0 01 17704	LDA	BUF1A,2	
17613	2 76 25542	STA	HOLD3B	
17614	0 35 25564	LDA	STATUS	
17615	0 76 00401	LDB	BUF1B,2	
17616	2 75 25832	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	LDA	HOLD	PUT NEGATIVE BLK IN XREG
17630	0 71 25561	LDX	MODE	
17631	0 76 25526	SKA	#0100000	HANDOM
17632	0 72 26062	BRU	CHECK7	
17633	0 01 17455	SKA	#0200000	SEQUENTIAL
17634	0 72 26063	BRU	CHECK12	
17635	0 01 17443	SKA	#0400000	FIXED
17636	0 72 26064	BRU	CHECK4	
17637	0 01 17476	BRM	ERROR	
17640	0 43 00460	NOP	NODATA	
17641	0 20 25337	BRU	FUNC10	
17642	0 01 16207	STB	CHECK13	
17643	0 36 17680	LDB	HOLD3B	SEQUENTIAL DATA TEST LOOP
17644	0 75 25564			

RAD-15 TAP-3.0 01/15 06:30 PAGE 327

```
17645 0 67 00006 LSH 6
17646 0 46 10012 SAC
17647 0 75 20114 LDB **1
17650 6 70 00000 CHECK13 SKM 0,6
17651 0 43 20420 BRM ERRBUT
17652 0 55 20773 ADD *1
17653 0 41 17450 BRX CHECK13
17654 0 01 17704 BRJ CHECK8
17655 0 36 17473 CHECK7 STB CHECK22
17656 0 46 10012 SAC
17657 0 17 20361 EBR #500000 MAKE A LDB, 70 EBR 05 = 75
17660 0 35 17464 STA CHECK21
17661 0 17 20766 EBR #2000000 MAKE AN ADD, 75 EBR 20 = 55
17662 0 35 17467 STA CHECK71
17663 0 44 20005 CHECK72 ABC
17664 6 75 00000 CHECK21 LDB 0,6
17665 0 67 00013 LSH 013
17666 0 75 20114 LDB **1
17667 6 55 00000 CHECK71 ADD 0,6
17670 0 55 20751 ADD #53577045 RANDOM CONSTANT
17671 0 41 17473 BRX **2
17672 0 01 17704 BRJ CHECK8
17673 6 70 00000 CHECK22 SKM 0,6 RANDOM DATA TEST LOOP
17674 0 43 20120 BRM ERRBUT
17675 0 01 17463 BRJ CHECK72
17676 0 36 17701 CHECK4 STB CHECK6
17677 0 76 20512 LDA PATTERN
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 20531 CHECK8 LDX BUFSAV
17705 0 76 20526 LDA MODE
17706 0 51 17406 BRM CHECK
17707 0 43 20321 CHECK9 BRM WAIT4
17710 0 76 20532 LDA BUF13L GET BOTH SECTOR COUNTS
```

RAD-15 TAP-3.0 01/15 06:30 PAGE 328

```
17711 0 55 20533 ADD BUF2BL
17712 0 46 20005 ABC
17713 0 76 20540 LDA BUF1CA
17714 0 43 17512 BRM RELABL
17715 0 55 20532 ADD BUF1BL SET LDA FOR FIRST BUFFER
17716 0 16 20362 MRG #67600000
17717 0 35 17730 STA CHECK3
17720 0 55 20533 ADD BUF2BL SET SECOND BUFFER
17721 0 17 20363 EBR #60000 MAKE A SKM
17722 0 35 17731 STA CHECK5
17723 0 46 20005 ABC
17724 0 54 20532 SUB BUF1BL
17725 0 35 20561 STA H9LD
17726 0 71 20561 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 BRJ CHECK4
```

*
 * 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 L0 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		LDA	INTRE2		
17757	0 35 20033		STA	INTRE1	RESET FOR FAST RETURN	
17760	0 75 26060		LDB	*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 10024	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 07000	TRAN24 NBP	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 20074	PIN	PINARD		
20013	0 75 26073	LDB	*1		
20014	0 36 25575	STB	L0DABL		
20015	0 43 20043	BRM	PINTST	CHECK FOR CORRECT PIN WORD	
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	TRE94P		
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	NBP	ERRIERR		
20027	0 53 25565	TRAN23 SKN	JMPTYP		

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

RADN15 TAP-3.0 01/15 06130 PAGE 335

```
20124 0 01 20140 BRU -RTPR1
20125 2 76 25540 WRTPR8 LDA BUF1RA,2
20126 0 71 20430 LDX OBJECT
20127 2 75 25540 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 ERROR
20136 4 20 25167 NOP FILPR8,4
20137 0 03 00410 THREE AREG
20140 0 43 20147 WRTPR1 BRM RESTOR
20141 0 01 00425 BRU FUNCTN*1
20142 0 00 00000 RESREG ZR8
20143 0 35 26022 STA SAVA4I
20144 0 36 26025 STB SAVB4I
20145 0 37 26040 STX SAVX4I
20146 0 51 20140 BRR RESREG
20147 0 00 00000 RESTOR ZR8
20150 0 76 26022 LDA SAVA4I
20151 0 75 26025 LDB SAVB4I
20152 0 71 26040 LDX SAVX4I
20153 0 51 20147 BRR RESTOR
```

FILE PROTECT MESSAGE
DUMP REGISTERS

RADN15 TAP-3.0 01/15 06130 PAGE 336

```
*
* DATA CHAIN CONTROL ROUTINE
*
20154 0 00 00000 CHAIN1 ZR8
20155 0 76 20364 LDA #100000+DCHA3
20156 0 35 17750 STA TRAN14
20157 0 71 26365 LDX #*7
20160 0 37 25546 STX CHAINC
20161 0 76 20037 LDA INTRES
20162 0 43 17735 BRM TRAN51
20163 0 01 20173 BRU DCHA1
20164 2 53 25417 DCHA3 SKN RFIELD*10,2
20165 0 51 17751 BRU TRAN11
20166 0 07 11000 ESYW 11000 ALERT CHAIN REQ
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 BACK TO TRANSMIT BLOCK
20173 0 76 20037 DCHA1 LDA INTRES FORCE INTRUPT RETURN
20174 0 35 20033 STA INTRE1
20175 0 01 20247 BRU RADTIM WAIT FOR THE INTRUPT
20176 0 71 25546 DCHAIN LDX CHAINC RETURN ON INTRUPT
20177 2 53 25417 SKN RFIELD*10,2 TEST FOR LAST SET
20200 0 01 20214 BRU DCHA2
20201 0 07 11000 ESYW 011000 ALERT DATA CHAIN
20202 2 13 25417 PBT RFIELD*10,2 GET NEXT CHAIN SET
20203 0 76 20037 LDA INTRES
20204 0 35 20033 STA INTRE1
20205 2 77 00001 EAX 1,2
20206 0 37 25546 STX CHAINC
20207 0 53 25565 SKN JMPTYP
20210 0 11 20212 BRI **2
20211 0 01*20212 BRU* **1
20212 0 20 20212 NOP *
```

RADW15 TAP=3.0 01/15 06:30 PAGE 337

```
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 NBP 0
20217 0 35 17730 STA TRAN14
20220 0 35 20005 STA TRAN24 RESET CHAIN LINK
20221 0 53 25565 SKN JMPTYP
20222 0 11 20224 BRU **2
20223 0 01 20224 BRU **1
20224 0 20 20224 NBP *
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 INTRES
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
```

RADW15 TAP=3.0 01/15 06:30 PAGE 338

```
*
*
* RAD TIME OUT CALCULATOR
*
20247 0 71 26367 RADTIM LDX #77752014 170 MS TIME OUT
20250 0 20 00000 RADT11 NBP 0
20251 0 20 00000 NBP 0 SINGLE CYCLE TIME OUT LOOP
20252 0 20 00000 NBP 0
20253 0 20 00000 NBP 0
20254 0 20 00000 NBP 0
20255 0 20 00000 NBP 0
20256 0 20 00000 NBP 0
20257 0 41 20250 BRX RADT11
20260 0 43 00460 BRM ERROR
20261 0 20 25203 NBP TIMERR
20262 0 01 00431 BRU OBJECT+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 10226 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 NBP SKSERR
20301 0 01 00431 BRU OBJECT+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
```

RADW15 TAP=3.0 01/15 06130 PAGE 339

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 0P	20304	WAIT24	DIR		
20315	0 41	17776		BRX	TRAN22	
20316	0 43	00460		BRM	ERRRR	
20317	0 20	25153		ABP	SKSFRR	
20320	0 01	00431		BRU	OBJECT*1	
20321	0 00	00000	WAIT4	ZRS		
20322	0 37	24054		STX	ASAVE	
20323	0 71	26370		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	ERRRR	
20337	0 20	25153		ABP	SKSFRR	
20340	0 01	00431		BRU	OBJECT*1	
20341	0 71	26354	WAIT45	LDX	ASAVE	
20342	0 51	20321		BRR	WAIT4	
20343	0 00	00000	PINTST	ZRS		
20344	0 71	25575		LDX	LRDABL	
20345	0 76	26371		LDA	#-6	COUNT DOWN CONSTANT
20346	0 35	25552		STA	COUNT1	
20347	0 76	25576		LDA	PINWRD	
20350	0 75	26114		LDB	#-1	
20351	2 70	26340	PINTS1	SKM	BUF1CA,2	TEST FOR ADDRESS ACCURACY

RADW15 TAP=3.0 01/15 06130 PAGE 340

20352	0 01	20354		BRU	**2	
20353	0 51	20343		BRR	PINTST	
20354	0 54	26073		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	BUF1CA,2	
20363	0 71	00430		LDX	OBJECT	
20364	0 43	00460		BRM	ERRRR	
20365	2 20	25127		ABP	PINERR,2	
20366	0 51	20343		BRR	PINTST	

*
*
* CHANNEL ERROR REPORT ROUTINE
*
*

20367	0 00 00000	CHANER	ZR0		
20370	0 71 25575		LDB	LODABL	
20371	2 75 25542		LDB	BUF1RA,2	
20372	2 76 26050		LDA*	TRE0M,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		LDB	OBJECT	
20377	0 43 00460		BRM	ERR0R	
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		LDB	OBJECT	
20404	0 43 00460		BRM	ERR0R	
20405	2 20 25237		NBP	RITEP,2	
20406	0 51 20367		BRR	CHANER	

*
*
* POT ERROR ROUTINE
*
*

20407	0 00 00000	P0TERR	PZE		
20410	0 40 10026		SKSS	010026	HAD READY SKS
20411	0 01 20415		BRU	P0TER1	
20412	0 43 00460		BRM	ERR0R	
20413	0 20 25307		NBP	XTRAPT	SPURIOUS P0T ERR0R
20414	0 51 20407		BRR	P0TERR	
20415	0 43 00460	P0TER1	BRM	ERR0R	
20416	0 20 25257		NBP	BADP0T	P0T ERR AND POSSIBLE READY CKT ERR0R
20417	0 51 20407		BRR	P0TERR	RETRY

*
*
* COMPARE ERROR REPORT ROUTINE
*
*

20420	0 00 00000	ERR0UT	ZR0		
20421	0 35 26721		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		LDB	BUFSAV	
20430	2 76 25532		LDA	BUF1BL,2	GET BLOCK SIZE
20431	0 55 26727		ADD	ERRSVX	BLK LGNTH = WDS 0UT = ERROR WORD COUNT
20432	0 14 26372		ETR	#37777777	RID NEGATIVE SIGN
20433	0 35 25563		STA	H0LD3	
20434	2 76 25542		LDA	BUF1RA,2	
20435	0 35 25562		STA	H0LD2	
20436	0 67 00006		LSH	6	
20437	0 55 25563		ADD	H0LD3	FIND PRESENT RAD ADRS
20440	0 35 25561		STA	H0LD	
20441	0 75 26373		LDB	#7700	
20442	0 70 26042		SKM	SEKSTT	GENERATE AND TEST RAD ADRS
20443	0 01 20445		BRU	ERR0U2	NEW SECTOR
20444	0 01 20455		BRU	ERR0U8	
20445	0 53 25574	ERR0U2	SKN	PRNTED	
20446	0 43 20371		BRM	ERR0U6	PRINT OLD RESULT
20447	0 76 25561		LDA	H0LD	
20450	0 35 25524		STA	ADDRS	
20451	0 35 26742		STA	SEKSTT	PRINTED
20452	0 76 25527		LDA	ERRCNT	
20453	0 14 26374		ETR	#70000000	SAVE BUFFER CODE
20454	0 35 25527		STA	ERRCNT	ZERO ERRCOUT
20455	0 61 25527	ERR0U8	MIN	ERRCNT	
20456	0 76 25527		LDA	ERRCNT	

RADW15	TAP=3.0	01/15	06130	PAGE 343		
20457	0 14 26775			ETR	#7777777	CLIP OFF BUFFER CODE
20460	0 73 26122			SKG	#3	
20461	0 01 20470			BRU	ERR0J9	SKIP ALL ERRORS AFTER THREE
20462	0 76 25824			LDA	MODE	
20463	0 72 26775			SKA	#4	TEST TO PRINT ALL
20464	0 01 20470			BRU	ERR0J9	
20465	0 76 26760			LDA	#0	
20466	0 35 25874			STA	PRINTD	SET PRINTED TO GO AT SECTOR CHANGE
20467	0 01 20537			BRU	ERR0J4	
20470	0 76 25862	FRR0J9		LDA	HOLD2	
20471	0 35 25823			STA	RADSTT	INITIAL RAD ADDRESS
20472	0 76 26420			LDA	ERR0J1	
20473	0 54 26773			SUB	#1	
20474	0 35 25861			STA	HOLD	
20475	0 71 26027			LDX	ERRSVX	GET DATA BLOCK PRINTER
20476	0 76 25861			LDA	HOLD	
20477	0 17 26863			EBR	#600000	MAKE A LDA, 70 EBR 06 = 76
20500	0 35 20501			STA	**1	GET ERROR WORD
20501	6 76 01000			LDA	076	
20502	0 35 25822			STA	BADARD	
20503	0 76 26721			LDA	ERRSVA	
20504	0 35 25821			STA	GDWRD	
20505	0 76 25827			LDA	ERRCNT	
20506	0 14 26775			ETR	#07777777	CLR BUFFER CODE
20507	0 35 25827			STA	ERRCNT	
20510	0 76 25831			LDA	BUFSAV	
20511	0 71 25831			LDX	BUFSAV	RESTORE BUFFER PRINTER
20512	0 55 26773			ADD	#1	
20513	0 44 20505			ABC		
20514	0 64 20503			RCY	3	
20515	0 16 25827			MRG	ERRCNT	
20516	0 35 25827			STA	ERRCNT	SET BUFFER CODE IN ERR COUNT WORD
20517	2 76 25832			LDA	BUF1BL#2	
20520	0 35 25830			STA	BLKSIZ	TO ERROR TABLE
20521	0 76 25863			LDA	HOLD3	WORDS TESTED
20522	0 75 26760			LDB	#0	CLEAR BREG

RADW15	TAP=3.0	01/15	06130	PAGE 344		
20523	2 55 25840			ADD	BUF1CA#2	GENERATE CORE ADRS
20524	0 35 25825			STA	KBRADR	
20525	0 76 25824			LDA	MODE	
20526	0 72 26062			SKA	#0100000	RANDOM MODE
20527	0 01 20417			BRU	ERR037	
20530	0 72 26063			SKA	#200000	SEQUENCE MODE
20531	0 01 20560			BRU	ERR042	
20532	0 72 26064			SKA	#400000	FIXED MODE
20533	0 01 20543			BRU	ERR0J1	
20534	0 43 00460			BRM	ERR0R	
20535	0 20 25837			\BP	\BDATA	
20536	0 01 16007			BRU	FUNC10	
20537	0 71 26027	FRR0J4		LDX	ERRSVX	
20540	0 75 26024			LDB	ERRSVB	
20541	0 76 25821			LDA	GDWRD	
20542	0 51 20420			BRR	ERR0J1	
20543	0 76 25821	FRR0J1		LDA	GDWRD	RESET AND GO BACK TO TEST
20544	0 75 26330			LDB	#00007777	TEST FOR HALF WRD SHIFT
20545	0 70 25822			SKM	BADARD	
20546	0 01 20554			BRU	ERR032	
20547	0 75 25822	FRR033		LDB	BADARD	
20550	0 43 00454			BRM	REP0RT	
20551	0 20 25417			\BP	SYNC	
20552	0 43 20571			BRM	ERR0J6	
20553	0 01 20537			BRU	ERR0J4	
20554	0 75 26376	ERR032		LDB	#77770000	CHECK HALF WORD
20555	0 70 25822			SKM	BADARD	
20556	0 01 20410			BRU	ERR036	
20557	0 01 20547			BRU	ERR033	
20560	0 76 25821	FRR042		LDA	GDWRD	
20561	0 75 26377			LDB	#07777700	
20562	0 70 25822			SKM	BADARD	
20563	0 01 20565			BRU	ERR041	
20564	0 01 20414			BRU	ERR043	
20565	0 75 26400	FRR041		LDB	#07770000	TEST FOR CORRECT RAD UNIT
20566	0 70 25822			SKM	BADARD	

RADW15 TAP=3.0 01/15 06130 PAGE 345

20567	0 01 20610	BRU	ERR036	
20570	0 01 20614	BRU	ERR043	
20571	0 00 00000	ERR0J6 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	\$KN	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	ERROR	
20606	0 20 25273	NBP	NDIT	
20607	0 51 20571	BRR	ERR0J6	
20610	0 76 26044	ERR036 LDA	SVSEED	
20611	0 35 00406	STA	SEED	REPLACE SEED
20612	0 43 20571	BRM	ERR0J6	
20613	0 01 20537	BRU	ERR0J4	
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 17673	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	BAD-RD	
20627	0 35 00406	STA	SEED	TRY NEW BEGINNING SEQUENCE
20630	0 43 17702	BRM	RAND0M	
20631	0 75 26114	LDB	#=1	
20632	6 70 00100	ERR038 SKM	0,6	

RADW15 TAP=3.0 01/15 06130 PAGE 346

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	ERR0UT	RETURN ALL IS WELL
20642	0 00 00000	MASKER ZR0		
20643	0 75 26114	LDB	#=1	LDA MASK CONSTANT
20644	0 67 10054	NBD	054	NORMALIZE COUNTT
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	NBD	54	
20651	0 17 26372	EBR	#037777777	FINAL RESULT
20652	0 51 20642	BRR	MASKER	

RAD15 TAP=3.0 01/15 06:30 PAGE 347

20653	0 43 00424	FUNC11	BRM	FUNCTION	
20654	0 20 21314		NSP	FPT11	
20655	0 43 00440		BRM	RETURN	
20656	0 20 07451		NSP	XTRAI	
20657	0 43 14467		BRM	RADBK	
20660	0 76 26101		LDA	STATUS	
20661	0 77 26106		SKA	#4000	SOFTWARE RAD READ ONLY
20662	0 01 21051		BRU	ALLDUN#1	

RAD15 TAP=3.0 01/15 06:30 PAGE 348

* F11901 INHIBIT INCREMENT TEST

20663	0 43 00430		BRM	SUBJECT	
20664	0 43 00440		BRM	RETURN	
20665	0 20 07451		NSP	XTRAI	
20666	0 76 26060		LDA	#0	
20667	0 43 15701		BRM	SPREAD	LOAD RLB BUFFER
20670	0 76 26210		LDA	#77	
20671	0 35 25573		STA	PBTARD	SET RAD ADRS
20672	0 43 20321		BRM	WAIT4	
20673	0 76 26031		LDA	RCODE1	64 WORDS FROM RLB
20674	0 43 15666		BRM	RYT3	
20675	0 76 26060		LDA	#0	
20676	0 35 25573		STA	PBTARD	
20677	0 43 20321		BRM	WAIT4	
20700	0 76 26031		LDA	RCODE1	
20701	0 43 15666		BRM	RYT3	CLEAR ADRS 77 AND 00
20702	0 76 26101		LDA	#100	
20703	0 35 25573		STA	PBTARD	
20704	0 43 20321		BRM	WAIT4	
20705	0 76 26031		LDA	RCODE1	
20706	0 43 15666		BRM	RYT3	
20707	0 77 26114		LDA	#1	
20710	0 43 15701		BRM	SPREAD	
20711	0 71 26303		LDX	#100	
20712	0 35 26020		STA	RLB#200,2	CLEAR SECOND BUFFER
20713	0 41 20712		BRX	#1	
20714	0 76 26210		LDA	#77	
20715	0 35 25573		STA	PBTARD	
20716	0 43 20321		BRM	WAIT4	
20717	0 0P 11026		EBM*	11026	INHIBIT INCREMENT
20720	0 13 25573		PBT	PBTARD	
20721	0 0P 10000		EBM*	10000	
20722	0 02 14200		EBM*	14200	10SD WITH NO INTRUPTS
20723	0 13 26401		PBT	#10000000#RLB	SEND TWO SECTORS

RADW15 TAP=3.C 01/15 06:30 PAGE 349

```
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 PBTWRD
20731 0 76 26031 LDA RCBDE1
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 PBTWRD
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 PBTWRD
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
```

RADW15 TAP=3.C 01/15 06:30 PAGE 350

```
* F110B02 PARTIAL SECTOR WRITE
20767 0 43 00430 BRM OBJECT
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 HADRS
20775 0 35 25573 STA PBTWRD 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 #RLS
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 HADRS
21015 0 71 00430 LDX OBJECT
21016 0 43 00460 BRM ERROR
21017 2 20 25237 NOP RITER,2 BUFFER RAD ADRS OBJECT TEST OVRFLD ERRORS
21020 0 43 00434 F1102A BRM END

* F110B03 PARTIAL SECTOR READ
21021 0 43 00430 BRM OBJECT
21022 0 43 00440 BRM RETURN
21023 0 20 07651 NOP XTRAI
21024 0 76 25515 LDA HADRS
21025 0 35 25573 STA PBTWRD
```

```

RAD*15 TAP=3.0      01/15 06130  PAGE 351

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  ZRRAD,2      GOOD WD BAD WD INDEX BYRFLB 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  FRT12
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  PRTARD
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

```

```

RAD*15 TAP=3.0      01/15 06130  PAGE 352

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 21753      BRU  FUNC12
21077 52464525      MS12  BCD  ' ONE SECTOR READ ONLY. TYPE #FV THEN #T11
21100 12622523
21101 63465112
21102 51252124
21103 12464543
21104 70331263
21105 70472512
21106 40266512
21107 63302545
21110 12406737
21111 52242163      MS12A  BCD  ' DATA AT '1'
21112 21122163
21113 12523712
21114 0 00 25420      PLACE  ZRB  RLB
21115 64622512      MS12B  BCD  'USE #P11'
21116 40473712
21117 0 20 21125      FRT12  NBP  FIM12
21120 0 20 21144      NBP  FAM12
21121 0 20 21207      NBP  FVM12
21122 0 01 25715      ONE  RADRS
21123 0 00 21752      ZRB  ALLDUN
21124 00004000      DATA 4000
21125 52122412      FIM12  BCD  ' F 12 = READ ANY SECTOR ON THE RAD. TYPE #FV FOR VARIABLE.11
21126 01021240
21127 12512521
21130 24122145
21131 72126225
21132 23634451

```

ABSTRACT
VARIABLE HEADING
VARIABLE
LAST FUNCTION
IDENTIFIER BIT 12

21133 12464512
21134 63302512
21135 51212433
21136 12637547
21137 25124724
21140 65122646
21141 51126521
21142 51312122
21143 43253337
21144 52126330
21145 25126225
21146 23634451
21147 12512521
21150 24123162
21151 12264651
21152 23252412
21153 22701262
21154 25636731
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 12633725
21202 12212424
21203 51256262
21204 12466463
21205 47646363
21206 28243337
21207 52512124
21210 12212451
21211 62523712

FVM12 BCD ! RAD ADRES !!

*
* UNIT AND FUNCTION PARAMETERS AND MESSAGES
*

21212	0 20 21325	UPT	NBP	UIM	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	00001400			DATA	400
21217	37030000	UVT	DATA	37030000	UNIT FIFTEEN ID WRD BIT 15
21220	0 20 21512	FPT1	NBP	FIM1	F1,2,3,4,5,6,7,8,9,10,11 ACCESS WORD
21221	0 20 21527		NBP	FAM1	IDENTIFIER MESSAGE
21222	0 20 21507		NBP	FVM1	ABSTRACT MESSAGE
21223	0 01 21225		ONE	FVT1	VARIABLE MESSAGE
21224	0 00 06165		PZE	FUNC2	DISPLAYABLE VARIABLES
21225	20000000	FVT1	DATA	020000000	FUNCTION LINK
21226	0 20 21472	FPT2	NBP	FIM2	FUNCTION IDENTIFIER BIT 1
21227	0 20 21457		NBP	FAM2	IDENTIFIER MESSAGE
21230	0 20 21454		NBP	FVM2	ABSTRACT MESSAGE
21231	0 01 21033		ONE	FVT2	VARIABLE MESSAGE
21232	0 00 07462		PZE	FUNC3	DISPLAYABLE VARIABLES
21233	10000000	FVT2	DATA	010000000	NEXT FUNCTION
21234	0 20 21710	FPT3	NBP	FIM3	FUNCTION IDENTIFIER BIT2
21235	0 20 21724		NBP	FAM3	IDENTIFIER FOR FUNCTION THREE
21236	0 20 21705		NBP	FVM3	ABSTRACT MESSAGE FOR THREE
21237	0 01 21241		ONE	FVT3	VARIABLE HEADING
21240	0 00 11071		ZR9	FUNC4	VARIABLE CONSTANT
21241	04000000	FVT3	DATA	040000000	NEXT FUNCTION
21242	0 20 21751	FPT4	NBP	FIM4	IDENTIFIER FOR FUNCTION FOUR
21243	0 20 21765		NBP	FAM4	ABSTRACT MSG FOR FOUR
21244	0 20 21744		NBP	FVM4	VARIABLE HEADING
21245	0 01 21247		ONE	FVT4	VARIABLE CONSTANT
21246	0 00 12200		ZR9	FUNC5	NEXT FUNCTION
21247	02000000	FVT4	DATA	200000000	
21250	0 20 22012	FPT5	NBP	FIM5	

21251	0 20 22024		NBP	FAM5	
21252	0 20 22007		NBP	FVM5	
21253	0 01 21255		ONE	FVT5	
21254	0 00 13507		ZR9	FUNC6	NEXT FUNCTION
21255	01000000	FVT5	DATA	010000000	
21256	0 20 22050	FPT6	NBP	FIM6	IDENTIFIER MESSAGE
21257	0 20 22065		NBP	FAM6	ABSTRACT MESSAGE
21260	0 20 22263		NBP	FVM6	VARIABLE HEADINGS
21261	0 01 21263		ONE	FVT6	AMOUNT OF VARIABLES
21262	0 00 14270		ZR9	FUNC7	LINK TO NEXT FUNCTION
21263	00400000	FVT6	DATA	400000000	BIT 6 FOR FUNCTION 6
21264	0 20 22266	FPT7	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	00200000	FVT7	DATA	200000000	BIT 7 FOR FUNCTION 7
21272	0 20 22320	FPT8	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	00100000	FVT8	DATA	100000000	BIT 8 FOR FUNCTION 8
21300	0 20 22352	FPT9	NBP	FIM9	IDENT MSG
21301	0 20 22347		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	00040000	FVT9	DATA	400000000	BIT 9 FOR FUNCTION 9
21306	0 20 22404	FPT10	NBP	FIM10	IDENTIFIER MESSAGE
21307	0 20 22417		NBP	FAM10	ABSTRACT MESSAGE
21310	0 20 23225		NBP	FVM10	VARIABLE HEADING
21311	0 10 25505		EIGHT	MODES	
21312	0 00 20453		ZR9	FUNC11	NEXT FUNCTION
21313	00020000	FPT11	DATA	020000000	FUNCTION IDENTIFIER BIT 10
21314	0 20 23250		NBP	FIM11	IDENTIFIER MSG

RADW15 TAP=3.0 01/15 06:30 PAGE 357

21315	0 20 23270	NBP	FAM11	ABSTRACT MSG
21316	0 20 23345	NBP	FVM11	VARIABLE HEADING
21317	0 03 25515	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	33124544			
21352	12316146			
21353	12512550			
21354	64315125			
21355	24331212			
21356	52266445	BCD		' FUNC21 RAD SKS AND PRIMARY TRANSFER TESTS.1
21357	23021512			
21360	51212412			

RADW15 TAP=3.0 01/15 06:30 PAGE 358

21361	62426212			
21362	21452412			
21363	47513144			
21364	21517012			
21365	63512145			
21366	62262551			
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	46457512			
21422	30252124			
21423	12632562			
21424	63331212			

RAD#15 TAP#3.0 01/15 06130 PAGE 359

21425	52266445			
21426	23071512	BCD		FUNC7: RAD TWO HEAD TEST.1
21427	51212412			
21430	63644412			
21431	30252124			
21432	12632562			
21433	63331212			
21434	52266445	BCD		FUNC8: RAD THREE HEAD TEST.1
21435	23121512			
21436	51212412			
21437	63331225			
21440	25122225			
21441	21241263			
21442	25626333			
21443	52266445	BCD		FUNC9: RAD FOUR HEAD TEST.1
21444	23111512			
21445	51212412			
21446	26466451			
21447	12302521			
21450	24126225			
21451	62633212			
21452	52266445	BCD		FUNC10: RANDOM RAD EXERCISER.1
21453	23011215			
21454	12512445			
21455	24464412			
21456	51212412			
21457	25672551			
21460	23216225			
21461	51331212			
21462	52266445	BCD		FUNC11: PARTIAL BLOCK AND INHIBIT INCREMENT TEST.1
21463	23010115			
21464	12472151			
21465	63312443			
21466	12224746			
21467	23421221			
21470	45241231			

RAD#15 TAP#3.0 01/15 06130 PAGE 360

21471	45303122			
21472	31431231			
21473	45235125			
21474	44254563			
21475	12632562			
21476	63331212			
21477	52266445	BCD		FUNC12: ONE SECTION READ ONLY.11
21500	23010215			
21501	12464525			
21502	12622523			
21503	63465112			
21504	51252124			
21505	12464543			
21506	70333712			
21507	52121212	FVM1	BCD	FA# 11
21510	12262166			
21511	52371212			
21512	52122412	FIM1	BCD	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	11031407			
21523	12512124			
21524	12233221			
21525	45452543			
21526	37121212			
21527	52322464	FAM1	BCD	FUNCTION ONE DIAGNOSES FAULTS IN THE 940 CHANNEL CONNECTED TO THE RAD.1
21530	45236331			
21531	46451244			
21532	45251224			
21533	31212745			
21534	46622562			

21535 12262164
21536 43636212
21537 31451263
21540 30251211
21541 34001223
21542 30214545
21543 25431223
21544 46454525
21545 23632524
21546 12634412
21547 63302512
21550 51212433
21551 52214343
21552 12110400
21553 12243121
21554 27454662
21555 63312362
21556 12446462
21557 63125164
21560 45122346
21561 51512523
21562 63437333
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.!

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 44256212
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 51452224

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

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

RAD*15 TAP=3.C 01/15 06130 PAGE 363

21645	12663163				
21646	30122230				
21647	21454525				
21650	43124246				
21651	27312312				
21652	46454270				
21653	33371212				
21654	52121212	FVM2	BCD	'	FAW 11
21655	26216652				
21656	37121212				
21657	52322464	FAM2	BCD	'	FUNC2 DIAGNOSES THE 9367 RAD CONTROLLER.11
21660	45230212				
21661	24312127				
21662	45466225				
21663	62126330				
21664	25121103				
21665	06071251				
21666	21241223				
21667	46456351				
21670	46434225				
21671	51333712				
21672	52122412	FI*2	BCD	'	F 02 = RAD ACCESS TEST FOR THE 9367 RAD.11
21673	00021240				
21674	12512124				
21675	12212123				
21676	25626212				
21677	63256263				
21700	12244451				
21701	12633225				
21702	12111106				
21703	07125121				
21704	24371212				
21705	52121212	FVM3	BCD	'	FAW 11
21706	26216652				
21707	37121212				
21710	52122412	FI*3	BCD	'	F 03 = SECTOR COUNTER TEST FOR 9367 RAD 02.11

RAD*15 TAP=3.C 01/15 06130 PAGE 364

21711	00031240				
21712	12622523				
21713	63465112				
21714	23466445				
21715	63255112				
21716	63256263				
21717	12264451				
21720	12110306				
21721	07125121				
21722	24120002				
21723	37121212				
21724	52322464	FAM3	BCD	'	FUNC3 TESTS FOR SELECTOR LOGIC ON RAD 02, ADDRESSES 20000 TO 37777.11
21725	45230212				
21726	63256263				
21727	62122446				
21730	51126225				
21731	43252263				
21732	46511243				
21733	46273123				
21734	12464512				
21735	51212412				
21736	00027312				
21737	21242451				
21740	25626225				
21741	62120200				
21742	00000212				
21743	63461203				
21744	07070707				
21745	37121212				
21746	52121212	FVM4	BCD	'	FAW 11
21747	26216652				
21750	37121212				
21751	52122412	FI*4	BCD	'	F 04 = SECTOR COUNTER TEST FOR 9367 RAD 03.11
21752	00041240				
21753	12622523				
21754	63465112				

RAD*15 TAP=3.C 01/15 06130 PAGE 365

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 57777!!
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 !!
22010	26216452		
22011	37121212		
22012	52122612	FAM5	BCD F 05 = SECTOR COUNTER TEST FOR 9367 RAD 04!!
22013	00051240		
22014	12622523		
22015	63465112		
22016	23466445		
22017	63255112		
22020	63256263		

RAD*15 TAP=3.C 01/15 06130 PAGE 366

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 77777!!
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 RAD!!
22051	06124012		
22052	62254725		
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	43431037			
22073	25212462			
22074	12265146			
22075	44122124			
22076	24512562			
22077	62121000			
22100	00001263			
22101	46121007			
22102	07070712			
22103	26465112			
22104	23465151			
22105	25236312			
22106	46472551			
22107	21633146			
22110	45121012			
22111	52314512	BCD		IN BOTH READ AND WRITE MODES. DATA USED IS ALL ONES. EACH HEAD
22112	22466230			
22113	12512521			
22114	24122145			
22115	24126451			
22116	31632012			
22117	44462425			
22120	62331012			
22121	24214321			
22122	12646225			
22123	24123162			
22124	12214343			
22125	12464525			
22126	62331012			
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	62331012			
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	45636015			
22156	12121031			
22157	24256767			
22160	67671263			
22161	22406767			
22162	67671230			
22163	24406767			
22164	67673312			
22165	12633125			
22166	62251221			
22167	51251263			
22170	30251762			
22171	31242512			
22172	46261263			
22173	30251251			
22174	21241212			

RADW15 TAP=3.0 01/15 06130 PAGE 369

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	45465144		
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		

RADW15 TAP=3.0 01/15 06130 PAGE 370

22241	63302512		
22242	51212412		
22243	64453163		
22244	12316212		
22245	63302512		
22246	26514445		
22247	63122446		
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	' FVM !!'
22264	26216652		
22265	37121212		
22266	52122612	FIM7 BCD	' F 07 = SELECTOR UNIT 02 HEAD CHECK FOR 9367 RAD!!'
22267	00071240		
22270	12622543		
22271	25276346		
22272	51126445		
22273	31631200		
22274	02123025		
22275	21241223		
22276	30252342		
22277	12264651		
22300	12110306		
22301	07125121		
22302	24371212		
22303	52322664	FAM7 BCD	' FUNC7 PRINT F 6 ABSTRACT FOR DETAILS!!'
22304	45230712		

RADW15 TAP-3.0 01/15 06130 PAGE 371

22305	47513145			
22306	63122412			
22307	06122122			
22310	62635121			
22311	23631226			
22312	46511224			
22313	25637131			
22314	43623712			
22315	52121212	FVM7	BCD	' FAW 11
22316	12262166			
22317	52371212			
22320	52261200	FIM8	BCD	' F 08 = SELECTOR UNIT 03 HEAD CHECK FOR 9367 RAD11
22321	10121212			
22322	62254225			
22323	23634451			
22324	12644431			
22325	63122003			
22326	12302521			
22327	24122330			
22330	25234212			
22331	26465112			
22332	11030407			
22333	12512124			
22334	37121212			
22335	52322664	FAM8	BCD	' FUNC8 PRINT F 6 ABSTRACT FOR DETAILS11
22336	45231112			
22337	47513145			
22340	63122412			
22341	06122122			
22342	62635121			
22343	23631226			
22344	46511224			
22345	25637131			
22346	43623712			
22347	52121212	FVM8	BCD	' FAW 11
22350	12262166			

RADW15 TAP-3.0 01/15 06130 PAGE 372

22351	52371212			
22352	52122412	FIM9	BCD	' F 09 = SELECTOR UNIT 04 HEAD CHECK FOR 9367 RAD11
22353	00111240			
22354	12622543			
22355	25236746			
22356	51126445			
22357	31631200			
22360	04123125			
22361	21241223			
22362	30252342			
22363	12264451			
22364	12110306			
22365	07125121			
22366	24371212			
22367	52322664	FAM9	BCD	' FUNC9 PRINT F 6 ABSTRACT FOR DETAILS11
22370	45231112			
22371	47513145			
22372	63122412			
22373	06122122			
22374	62635121			
22375	23631226			
22376	46511224			
22377	25637131			
22400	43623712			
22401	52121212	FVM9	BCD	' FAW 11
22402	12262166			
22403	52371212			
22404	52122412	FIM10	BCD	' F 10 = 9367 RAD EXERCISER FOR W CHANNEL11
22405	01001240			
22406	12110306			
22407	07125121			
22410	24122567			
22411	25512931			
22412	62255112			
22413	26465112			
22414	66122330			

22415	21454525		
22416	43371212		
22417	52323145	FAM10	BCD
22420	12266445		
22421	23633144		
22422	45120100		
22423	12637047		
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	27314027		
22442	12633025		
22443	52266445	BCD	
22444	23633146		
22445	45126421		
22446	51312122		
22447	43251212		
22450	44462425		
22451	62121221		
22452	23234651		
22453	24314027		
22454	12634612		
22455	63302012		
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	' **IF A ONE BIT IS INITI** '
22462	31261221		
22463	12464525		
22464	12223163		
22465	12316212		
22466	31451015		
22467	54545012		
22470	52223163	BCD	' BIT 0 FIX, 1 SEQUENCE, 2 RANDOM, RAD ADDRESSES.'
22471	12001226		
22472	31677312		
22473	01126225		
22474	50642545		
22475	23257312		
22476	07125121		
22477	45244644		
22500	73125121		
22501	24122124		
22502	24512062		
22503	62256233		
22504	52223163	BCD	' BIT 3 FIX, 4 SEQUENCE, 5 RANDOM, CORE ADDRESSES.'
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	' BIT 6 FIX, 7 SEQUENCE, 8 RANDOM, DATA.'
22522	12061226		
22523	31677312		
22524	07126225		

22525	57642545		
22526	23257212		
22527	10125121		
22530	45244444		
22531	73122421		
22532	63213212		
22533	52222163	BCD	' BIT 9 FIX, 10 EARLY, 11 INTRUPT, TRANSMISSION MODE.'
22534	12111224		
22535	31677212		
22536	01001225		
22537	21514272		
22540	73122101		
22541	12314562		
22542	51644763		
22543	73122751		
22544	21456244		
22545	31626231		
22546	46451244		
22547	46242533		
22550	52222163	BCD	' BIT 12 FIX, 13 WRITE, 14 READ, FOR BUFFER ONE.'
22551	12012212		
22552	26312773		
22553	12012212		
22554	64513163		
22555	24731201		
22556	04122125		
22557	21247212		
22560	26465112		
22561	22642226		
22562	22511246		
22563	46253212		
22564	52222163	BCD	' BIT 15 FIX, 16 WRITE, 17 READ, FOR BUFFER TWO.'
22565	12012212		
22566	26312773		
22567	12012212		
22570	64513163		

22571	25731201		
22572	07125125		
22573	21247212		
22574	26465112		
22575	22642226		
22576	25511262		
22577	66463212		
22600	52222163	BCD	' BIT 18 SET DATA CHAINING MODE.'
22601	12012212		
22602	62256312		
22603	24216221		
22604	12223221		
22605	31453145		
22606	27124446		
22607	24253212		
22610	52222163	BCD	' BIT 21 PRINT ALL ERRORS, IF ZERO THE FIRST THREE ERRORS ARE PRINTED.'
22611	12022112		
22612	47513145		
22613	63122143		
22614	43122551		
22615	51465162		
22616	73122126		
22617	12712551		
22620	46126230		
22621	25122431		
22622	51622312		
22623	63225125		
22624	25122551		
22625	51465162		
22626	12215125		
22627	12475131		
22630	45622224		
22631	33121212		
22632	52312212	BCD	' IF THE MODE IS FIX+ZERO FOR TRANSMISSION MODE AND BUFFER'
22633	63222512		
22634	44462425		

22635 12316212
 22636 26316713
 22637 71255146
 22640 12264651
 22641 12435121
 22642 45624431
 22643 62623146
 22644 45124446
 22645 24251221
 22646 45241222
 22647 64262625
 22650 51121212
 22651 52444424
 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 12233221
 22713 31451226
 22714 31671246
 22715 45251231
 22716 62124421
 22717 24257212
 22720 23302131
 22721 45314527
 22722 12663143
 22723 43122225
 22724 12214343
 22725 46662524
 22726 12663225
 22727 45121212
 22730 52633225
 22731 12314563
 22732 51644763
 22733 12444624
 22734 25123162
 22735 12454663
 22736 12252151
 22737 43701266
 22740 46512433
 22741 52256721
 22742 44474325
 22743 15124446
 22744 24256213

BCD ! IF DATA CHAIN FIX ONE 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 19017402
 22746 06030600
 22747 00126225
 22750 43282763
 22751 62125121
 22752 45244444
 22753 12512124
 22754 12214524
 22755 12263167
 22756 25241223
 22757 46512512
 22760 21242451
 22761 25626225
 22762 62731212
 22763 52622550
 22764 64254563
 22765 31214312
 22766 24216321
 22767 73122521
 22770 51437112
 22771 43216325
 22772 45237112
 22773 66316320
 22774 46646312
 22775 31456351
 22776 64476373
 22777 52512145
 23000 24464412
 23001 51252124
 23002 12465112
 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 63664473
 23021 12214524
 23022 12454412
 23023 24216321
 23024 12233121
 23025 31453145
 23026 27331212
 23027 52633131
 23030 62124446
 23031 24251266
 23032 46644324
 23033 12516445
 23034 12264451
 23035 12633125
 23036 12512547
 23037 25633163
 23040 31464562
 23041 12242526
 23042 31452524
 23043 12314512
 23044 23702343
 23045 25623312
 23046 12312412
 23047 23702343
 23050 25621212
 23051 52234445
 23052 63213145
 23053 62122112
 23054 45252721

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 12663143
23063 43125164
23064 45123145
23065 24252431
23066 45316725
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 25122346
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 51126446
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 43431762
 23165 25652545
 23166 22731221
 23167 12512145
 23170 24464412
 23171 52224746
 23172 23421243
 23173 23452763
 23174 51123162
 23175 12272545
 23176 25512163
 23177 25242312
 23200 12312412
 23201 45466273
 23202 12632225
 23203 12274464
 23204 45431231
 23205 22122346
 23206 45623124
 23207 25512224
 23210 522634412
 23211 22251231
 23212 45122225
 23213 23634451
 23214 22151212

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 24316722
 23216 43421303
 23217 00123162
 23220 12037000
 23221 00126646
 23222 51244212
 23223 43464527
 23224 33371212
 23225 52121244
 23226 42242562
 23227 12121712
 23230 23465143
 23231 44121212
 23232 12234451
 23233 30311212
 23234 12125121
 23235 24434412
 23236 12121251
 23237 21242231
 23240 12121247
 23241 21632551
 23242 45121212
 23243 26316722
 23244 43421212
 23245 12237123
 23246 43251252
 23247 37121212
 23250 52122612
 23251 01011240
 23252 12472151
 23253 63312143
 23254 12622523
 23255 63465112
 23256 31257124
 23257 12214524
 23260 12665131

FV10 BCD ' MSDES CORL0 CORHI RADL0 RADHI PATERN FIXBLK CYCLES !!

FV11 BCD ' F 11 = PARTIAL SECTOR READ AND WRITE, TYPE #FV FOR VARIABLES!!

23261 63253312
 23262 63704725
 23263 12402665
 23264 12264651
 23265 12652151
 23266 31212243
 23267 25623712
 23270 52323145
 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 52637047
 23315 25122612
 23316 01016473
 23317 12266512
 23320 26465112
 23321 65215131
 23322 21224325
 23323 62122346
 23324 45232551

FAM11 BCD IN FUNC11 PARTIAL BLOCK TRANSFERS CAN BE SET WHICH ARE LESS THAN ONE SECTOR.

BCD TYPE F 11T, FV FOR VARIABLES CONCERNING THE TRANSFERS, INHIBIT

23325 45314527
 23326 12633025
 23327 12635121
 23330 45622425
 23331 51623312
 23332 12314530
 23333 31223163
 23334 12121212
 23335 52314523
 23336 51254425
 23337 45631263
 23340 25626362
 23341 12464512
 23342 22214524
 23343 12712551
 23344 46371212
 23345 52512124
 23346 12212451
 23347 62126624
 23350 12234664
 23351 45631212
 23352 47216363
 23353 25514552
 23354 37121212

BCD INCREMENT TESTS ON BAND ZERO

FVM11 BCD RAD ADRS WD COUNT PATTERN

RAD415 TAP=3.0 01/15 06130 PAGE 387

*
* ERRORS MESSAGES
*

23355	52020524	F1*1	BCD	' 25002(44)!!
23356	00027404			
23357	04343712			
23360	52010224	F1*2	BCD	' 12008(44),14010(44),25002(44),03C14(31)!!
23361	00107404			
23362	04347301			
23363	04240100			
23364	74040434			
23365	73020524			
23366	00027404			
23367	04347300			
23370	03230104			
23371	74030134			
23372	37121212			
23373	52020524	F1*3	BCD	' 25027(44)!!
23374	02077404			
23375	04343712			
23376	52020524	F1*4	BCD	' 25027(44)!!
23377	02077404			
23400	04343712			
23401	52020524	F1*5	BCD	' 25034(44),22D37(35)!!
23402	03047404			
23403	04347302			
23404	02240207			
23405	74030534			
23406	37121212			
23407	52020524	F1*6	BCD	' 22009(44)!!
23410	00117404			
23411	04343712			
23412	52010223	F1*7	BCD	' 12C17(31),10C37(34),18C26(34),12C31(34)!!
23413	01077403			
23414	01347301			

RAD415 TAP=3.0 01/15 06130 PAGE 388

23415	00230207			
23416	74030434			
23417	73011223			
23420	02067403			
23421	04347301			
23422	02230301			
23423	74030434			
23424	37121212			
23425	52000223	F1*8	BCD	' 02C03(31),25E42(55),16C02(31),12008(44)!!
23426	00037403			
23427	01347302			
23430	05250402			
23431	74050534			
23432	73010423			
23433	00027403			
23434	01347301			
23435	02240100			
23436	74040434			
23437	37121212			
23440	52000223	F1*9	BCD	' 02C28(31),25E27(55),12008(44)!!
23441	00107403			
23442	01347302			
23443	05250207			
23444	74050534			
23445	73010224			
23446	00107404			
23447	04343712			
23450	52000223	F1*10	BCD	' 02C14(31),29E37(55),12008(44)!!
23451	01047403			
23452	01347302			
23453	11250207			
23454	74050534			
23455	73010224			
23456	00107404			
23457	04343712			
23460	52000223	F1*11	BCD	' 03C14(31),29E27(55),12008(44)!!

RADW15 TAP=3.0 01/15 06130 PAGE 389

23461	01047403			
23462	01347302			
23463	11250207			
23464	74050534			
23465	73010224			
23466	00107404			
23467	04343712			
23470	52020524	F1M12	BCD	' 25D15(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			

RADW15 TAP=3.0 01/15 06130 PAGE 390

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	03230102			
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			

RAD*15 TAP*3.0 01/15 06130 PAGE 391

23571	04231402			
23572	74040034			
23573	73021425			
23574	00077405			
23575	05343712			
23576	52010723	F1*21	BCD	' 17C36(40),24C41(42),26E08(55) !!
23577	03057404			
23600	00347302			
23601	04231401			
23602	74040034			
23603	73021425			
23604	00117405			
23605	05343712			
23606	52010723	F1*22	BCD	' 17C35(40),24C26(42),26E06(55) !!
23607	03057404			
23610	00347302			
23611	04231406			
23612	74040034			
23613	73021425			
23614	00067405			
23615	05343712			
23616	52010723	F1*23	BCD	' 17C35(40),17C20(40),18C27(40),25C12(42),25E42(55) !!
23617	03057404			
23620	00347301			
23621	17231400			
23622	74040034			
23623	73011023			
23624	02077404			
23625	00347302			
23626	05230102			
23627	74040034			
23630	73021425			
23631	04027405			
23632	05343712			
23633	52010723	F1*24	BCD	' 17C35(40),25C41(42),25E27(55) !!
23634	03057404			

RAD*15 TAP*3.0 01/15 06130 PAGE 392

23635	00347302			
23636	05231401			
23637	74040034			
23640	73021425			
23641	02077405			
23642	05343712			
23643	52010723	F1*25	BCD	' 17C35(40),25C26(42),29E37(55) !!
23644	03057404			
23645	00347302			
23646	05230006			
23647	74040034			
23650	73021425			
23651	00077405			
23652	05343712			
23653	52010723	F1*26	BCD	' 17C35(40),26C12(42),29E34(55) !!
23654	03057404			
23655	00347302			
23656	05230102			
23657	74040034			
23660	73021425			
23661	00047405			
23662	05343712			
23663	52010723	F1*27	BCD	' 17C35(40),26C41(42),29E27(55) !!
23664	03057404			
23665	00347302			
23666	05231401			
23667	74040034			
23670	73021425			
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			

RADW15 TAP=3.0 01/15 06130 PAGE 393

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			

RADW15 TAP=3.0 01/15 06130 PAGE 394

23745	52020723	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			

RADK15 TAP=3.0 01/15 06130 PAGE 395

24011	02117405			
24012	03347302			
24013	52021123	F1439	BCD	' 28C12(43),24E29(55)''
24014	01027404			
24015	03347302			
24016	06250305			
24017	74050534			
24020	37121212			
24021	52021123	F1440	BCD	' 28C28(42),29E20(55)''
24022	02107404			
24023	03347302			
24024	11250300			
24025	74050534			
24026	37121212			
24027	52021123	F1441	BCD	' 28C41(42),29E20(55)''
24030	04017404			
24031	02347302			
24032	11250300			
24033	74050534			
24034	37121212			
24035	52021123	F1442	BCD	' 28C14(43),29E42(55)''
24036	01047404			
24037	03347302			
24040	11250300			
24041	74050534			
24042	37121212			
24043	52021123	F1443	BCD	' 28C26(43),29E42(55)''
24044	02067404			
24045	03347302			
24046	11250300			
24047	74050534			
24050	37121212			
24051	52021123	F1444	BCD	' 29C03(43),26E42(55)''
24052	00037404			
24053	03347302			
24054	06250305			

RADK15 TAP=3.0 01/15 06130 PAGE 396

24055	74050534			
24056	37121212			
24057	52021123	F1445	BCD	' 29C12(43),26E42(55)''
24060	01027404			
24061	03347302			
24062	06250305			
24063	74050534			
24064	37121212			
24065	52021123	F1446	BCD	' 29C28(43),26E35(55)''
24066	02107404			
24067	03347302			
24070	06250305			
24071	74050534			
24072	37121212			
24073	52021123	F1447	BCD	' 29C41(43),26E35(55)''
24074	04017404			
24075	03347302			
24076	06250305			
24077	74050534			
24100	37121212			
24101	52021123	F1448	BCD	' 29C14(43),26E33(55)''
24102	01047404			
24103	03347302			
24104	06250305			
24105	74050534			
24106	37121212			
24107	52021123	F1449	BCD	' 29C26(43),26E33(55)''
24110	02067404			
24111	03347302			
24112	06250305			
24113	74050534			
24114	37121212			
24115	52021123	F1450	BCD	' 30C03(43),26E34(55)''
24116	00037404			
24117	03347302			
24120	06250305			

RADW15 TAP=3.C 01/15 06130 PAGE 397

24121	74050534			
24122	37121212			
24123	52030023	F1451	BCD	' 30C12(43),26E34(55) ''
24124	01027404			
24125	03347302			
24126	06250304			
24127	74050534			
24130	37121212			
24131	52030023	F1452	BCD	' 30C28(43),29E14(44) ''
24132	02107404			
24133	03347302			
24134	11250104			
24135	74040434			
24136	37121212			
24137	52030023	F1453	BCD	' 30C41(43),29E14(55) ''
24140	04017404			
24141	03347302			
24142	11250104			
24143	74050534			
24144	37121212			
24145	52030023	F1454	BCD	' 30C14(43),29E08(55) ''
24146	01047404			
24147	03347302			
24150	11250010			
24151	74050534			
24152	37121212			
24153	52030023	F1455	BCD	' 30C26(43),29E08(55) ''
24154	02067404			
24155	03347302			
24156	11250010			
24157	74050534			
24160	37121212			
24161	52030123	F1456	BCD	' 31C03(43),18C27(40),17C20(40) ''
24162	00037404			
24163	03347301			
24164	10230207			

RADW15 TAP=3.C 01/15 06130 PAGE 398

24165	74040034			
24166	73010723			
24167	02007404			
24170	00343712			
24171	52030123	F1457	BCD	' 31C12(43) ''
24172	01027404			
24173	03343712			
24174	52030123	F1458	BCD	' 31C28(43) ''
24175	02107404			
24176	03343712			
24177	52030123	F1459	BCD	' 31C41(43) ''
24200	04017404			
24201	03343712			
24202	52212424	F1460	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	51126222			
24213	12122124			
24214	24511231			
24215	62121245			
24216	46631244			
24217	25214531			
24220	45272664			
24221	43523712			
24222	52212424	F1461	BCD	' ADDRESS INCREMENTING ERROR'
24223	51256262			
24224	12314523			
24225	51254425			
24226	45633145			
24227	27122551			
24230	51465112			

RAD:15 TAP:3.0 01/15 06:30 PAGE 399

24231	52217424		
24232	51126222		
24233	12122124		
24234	24511231		
24235	62121245		
24236	46631244		
24237	25214531		
24240	45272664		
24241	43523712		
24242	52217424	F1*62	BCD ' ADDRESS INCREMENTING ERROR'
24243	51256262		
24244	12314523		
24245	51254225		
24246	45633145		
24247	27123551		
24250	51455112		
24251	52217424		
24252	51126222	BCD	' ADDR SB ADDR IS NOT MEANINGFUL ''
24253	12122124		
24254	24511231		
24255	62121245		
24256	46631244		
24257	25214531		
24260	45272664		
24261	43523712		
24262	52217424		
24263	45631262	BCD	' COUNT SB NOT MEANINGFUL ''
24264	22121212		
24265	12454663		
24266	12447221		
24267	45314527		
24270	26644252		
24271	37121212		
24272	52311112	F1*65	BCD ' I1 INTERRUPT NOT RECEIVED''
24273	31456225		
24274	51516447		

RAD:15 TAP:3.0 01/15 06:30 PAGE 400

24275	63124446		
24276	63125125		
24277	23253165		
24300	25243712		
24301	52217423	F1*66	BCD ' 14C06(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	24010174		
24314	03033437		
24315	52011123	F1*67	BCD ' 14C11(33),09C31(33),10C31(34),12C31(34),24E34(55)''
24316	01017403		
24317	03347202		
24320	11230201		
24321	74030234		
24322	73010223		
24323	03017403		
24324	04347201		
24325	02230301		
24326	74030434		
24327	73020425		
24330	03047405		
24331	05341212		
24332	02032401	BCD	' 23D11(33)''
24333	11742203		
24334	34371212		
24335	52624764	F1*68	BCD ' SPURIOUS TRAP OR INTERRUPT''
24336	51314464		
24337	62126251		
24340	21471246		

RADW15 TAP=3.0 01/15 06130 PAGE 401

24341	51123145		
24342	63255151		
24343	64476337		
24344	52255151	F1M69 BCD	' ERRONIOUS I2 INTERRUPT RECEIVED''
24345	46453146		
24346	64621231		
24347	02123145		
24350	63255151		
24351	64476312		
24352	51252325		
24353	31652524		
24354	37121212		
24355	52310212	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),2300*(33),11C25(33),18C43(40),'
24365	67677422		
24366	21623123		
24367	12314563		
24370	34730203		
24371	24000474		
24372	03033473		
24373	01012302		
24374	05740303		
24375	34730410		
24376	23040374		
24377	04003473		
24400	02002301	BCD	' 20C14(41),20C28(41),11C31(34),08C16(34),'
24401	04740401		
24402	34730200		
24403	23021074		
24404	04013473		

RADW15 TAP=3.0 01/15 06130 PAGE 402

24405	01012303		
24406	01740304		
24407	34730210		
24410	23010674		
24411	03043437		
24412	52255151	F1M72 BCD	' ERRONIOUS I1 INTERRUPT RECEIVED''
24413	46453146		
24414	64621231		
24415	01123145		
24416	63255151		
24417	64476312		
24420	51252325		
24421	31652524		
24422	37121212		
24423	52454612	M2001A BCD	' NS 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	12623146		
24437	40021121		
24440	73030124		
24441	73030721		
24442	12230103		
24443	40030322		
24444	12230104		
24448	40030422		
24446	12670003		
24447	40230307		
24450	37121212		

RAD*15 TAP=3.0 01/15 06130 PAGE 403

24451	52672003	M2001B BCD	' X03=37C DMA=33D JX03=D37 QOF=38B BUC=33B''
24452	40030723		
24453	12244421		
24454	40030324		
24455	12416746		
24456	03402403		
24457	07120000		
24460	26400310		
24461	22122264		
24462	23400303		
24463	22371212		
24464	52622543	M2004B BCD	' D0=23C,28A G0=35C G54=28B,30B IDN=32D,31D''
24465	02032373		
24466	02102112		
24467	27004003		
24470	05231227		
24471	02044002		
24472	10227303		
24473	00221231		
24474	24454003		
24475	02247303		
24476	01243712		
24477	52622543	M2004A BCD	' SEL UNIT D06=A03,A04''
24500	12644531		
24501	63122400		
24502	04402100		
24503	03732100		
24504	04371212		
24505	52622543	M2005A BCD	' SEL UNIT D05=A03,A04''
24506	12644531		
24507	63122400		
24510	05402100		
24511	03732100		
24512	04371212		
24513	52622543	M2006A BCD	' SEL UNIT D04=A03,A04''
24514	12644531		

RAD*15 TAP=3.0 01/15 06130 PAGE 404

24515	63122400		
24516	04402100		
24517	03732100		
24520	04371212		
24521	52622543	M2007A BCD	' SEL UNIT D03=A02,A04''
24522	12644531		
24523	63122400		
24524	03402100		
24525	02732100		
24526	04371212		
24527	52622543	M2008A BCD	' SEL UNIT D02=A02,A04''
24530	12644531		
24531	63122400		
24532	02402100		
24533	02732100		
24534	04371212		
24535	52622543	M2009A BCD	' SEL UNIT D01=A02,A04''
24536	12644531		
24537	63122400		
24540	01402100		
24541	02732100		
24542	04371212		
24543	52622543	M2013A BCD	' SEL UNIT D06,D04=A03,A04 D03,D01=A02,A04''
24544	12644531		
24545	63122400		
24546	04732100		
24547	04402100		
24550	03732100		
24551	04122400		
24552	03732400		
24553	01402100		
24554	02732100		
24555	04523712		
24556	52122221	M2013B BCD	' BAD WRD S/B 08J TEST OVRFLD ERRORS''
24557	24126651		
24560	24121212		

RADW15 TAP=3.0 01/15 06130 PAGE 405

24561	12626122		
24562	12121212		
24563	46224112		
24564	63256263		
24565	12466551		
24566	26434612		
24567	12122551		
24570	51465162		
24571	52371212		
24572	52454612	MSG013C BCD	' M9 SECTOR ZERO IDx=A10,B03,B02 DO=A03,A02,A04!'
24573	62252363		
24574	46511271		
24575	25514612		
24576	31246743		
24577	21010073		
24600	22000773		
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!'

RADW15 TAP=3.0 01/15 06130 PAGE 406

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	40000422		
24646	12660201	MSG022 BCD	' W21=06B!'
24647	40000422		
24650	12660301	MSG023 BCD	' W31=07B!'
24651	40000722		
24652	12660003	MSG024 BCD	' W03=08B!'
24653	40001022		
24654	12660103	MSG025 BCD	' W13=09B!'
24655	40001122		
24656	12660203	MSG026 BCD	' W23=10B!'
24657	40010422		
24660	12660303	MSG027 BCD	' W33=11B!'
24661	40010122		
24662	12660005	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!'

RAD-15 TAP-3.0 01/15 06:30 PAGE 407

24671	40010721		
24672	12660007	MSG032 BCD	'W07=18A'
24673	40011021		
24674	12660107	MSG033 BCD	'W17=19A'
24675	40011121		
24676	12660207	MSG034 BCD	'W27=22A'
24677	40020221		
24700	12660307	MSG035 BCD	'W37=25A'
24701	40020521		
24702	52121062	MSG09A BCD	'SIDE'
24703	31242512		
24704	00000004	SIDE BCD	'0004 TB='
24705	12630240		
24706	40020101	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	40020121		
24720	73020121		
24721	37121212		
24722	52512421	MSG01B BCD	'RDA=25B RCL=24B RCC=23A,24A''
24723	40020522		
24724	12512343		
24725	40020422		
24726	12512323		
24727	40020221		
24730	73020421		
24731	37121212		
24732	52512421	MSG01C BCD	'RDA=28B RCL=27B RCC=26A,27A''
24733	40021022		
24734	12512343		

RAD-15 TAP-3.0 01/15 06:30 PAGE 408

24735	40020722		
24736	12512323		
24737	40020721		
24740	73020721		
24741	37121212		
24742	52512421	MSG01D BCD	'RDA=31B RCL=30B RCC=28A,29A''
24743	40020422		
24744	12512343		
24745	40030222		
24746	12512323		
24747	40021021		
24750	73021121		
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	51400110		
24776	22371212		
24777	52702124	MSG05H BCD	'YADR=19B''
25000	51400111		

RADW15 TAP=3.0 01/15 06130 PAGE 409

25001	22371212							
25002	52624764	M1059B BCD	SPURIOUS INTRUPT DIVERT	MASK	S/B	0VRFL0	ERRORS !!	
25003	51314464							
25004	62123145							
25005	63516447							
25006	63521224							
25007	31652551							
25010	63121712							
25011	12442162							
25012	42121212							
25013	12121262							
25014	61221212							
25015	12124665							
25016	51264346							
25017	12122551							
25020	51465162							
25021	52371212							
25022	52253125	M2879A BCD	EIE=27D I1Z=21B,15B					
25023	40021224							
25024	12312171							
25025	40021222							
25026	73012522							
25027	12121212							
25030	52123145	M2879B BCD	R1NTA=B28,B29,B30					
25031	63214222							
25032	02107322							
25033	02117322							
25034	03003712							
25035	52252462	M2879C BCD	EDG=18D I2Z=15B,21B					
25036	40011224							
25037	12312271							
25040	40012522							
25041	73020122							
25042	11252462	M2679D BCD	9EDSW=D33 I1X03=C37 9WMSA=A29					
25043	66422403							
25044	03120167							

RADW15 TAP=3.0 01/15 06130 PAGE 410

25045	00034222							
25046	03071211							
25047	66306221							
25050	40210211							
25051	37121212							
25052	52116630	M2877A BCD	9WMSA=A29,B30					
25053	62214221							
25054	02117322							
25055	03003712							
25056	52116430	M2878A BCD	9WMSA=A29,B30					
25057	62214221							
25060	02117322							
25061	03003712							
25062	52016746	M1101A BCD	1X55=A45 6AFCA=C42 6TNIA=A37					
25063	05402104							
25064	05120421							
25065	26232140							
25066	23040212							
25067	06634531							
25070	21402103							
25071	07371212							
25072	52472151	ZR8BAD BCD	PARTIAL SECTOR ERROR GOOD WD BAD WD XREG 0VRFL0 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							

RAD-15 TAP-3-C 01/15 06130 PAGE 411

25111	51514451		
25112	42523712		
25113	52622543	MSGPIN BCD	' SEL UNIT YSC=0A02 SEC=A01,B02,B03 WCK=A02,B01''
25114	126444531		
25115	63127162		
25116	23420021		
25117	00021262		
25120	25234121		
25121	00017322		
25122	00027322		
25123	00031266		
25124	23424121		
25125	00027322		
25126	00013712		
25127	52122221	PINERR BCD	' BAD PIN S/B OBJ TEST OVRFLD ERRORS ''
25130	24124731		
25131	45121212		
25132	62612212		
25133	12121246		
25134	22411263		
25135	25626312		
25136	12444751		
25137	26434412		
25140	12122551		
25141	01462162		
25142	12522712		
25143	52252151	ERIERR BCD	' EARLY INTERRUPT NOT PROCESSED ''
25144	45701231		
25145	45633164		
25146	47631245		
25147	46631247		
25150	51462325		
25151	62622524		
25152	52371212		
25153	52512124	SKSFRR BCD	' RAD NOT READY IN 170 MS.''
25154	12454463		

RAD-15 TAP-3-C 01/15 06130 PAGE 412

25155	12512521		
25156	24701231		
25157	45120127		
25160	00124462		
25161	33371212		
25162	52233221	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	46631223		
25172	63124445		
25173	52121222		
25174	21452412		
25175	12124546		
25176	63203145		
25177	27121246		
25200	22411263		
25201	25626752		
25202	37121212		
25203	52454412	TIVERR BCD	' NO INTERRUPT IN 170 MS.''
25204	31456351		
25205	64476312		
25206	31451221		
25207	07001244		
25210	62333712		
25211	52512124	RADER BCD	' RAD ERROR, SKS MODE''
25212	12255151		
25213	46517312		
25214	62426212		
25215	44462125		
25216	37121212		
25217	52512521	READP BCD	' READ PARITY ERROR BUFFER RAD ADRS OBJ TEST OVRFLD IGNORE ''
25220	24124721		

RADW15 TAP=3.0 01/15 06130 PAGE 413

25221	51316370		
25222	12255151		
25223	46515712		
25224	22642626		
25225	25511212		
25226	51212412		
25227	21245162		
25230	12462241		
25231	12632562		
25232	63124665		
25233	51264246		
25234	12123127		
25235	45465125		
25236	52371212		
25237	52665131	RITFP BCD	' WRITE PARITY ERROR BUFFER RAD ADRS OBJ TEST OVRFLD IGNORE ''
25240	63251247		
25241	21513163		
25242	70122551		
25243	51465152		
25244	12226426		
25245	26255112		
25246	12512124		
25247	12212451		
25250	62124622		
25251	41126325		
25252	62631246		
25253	65512443		
25254	46121231		
25255	27454651		
25256	25523712		
25257	52644631	RADPOT BCD	' UNIT READY BUT POT ERROR DURING PROCESS''
25260	63125125		
25261	21247112		
25262	22646112		
25263	47466712		
25264	25515146		

RADW15 TAP=3.0 01/15 06130 PAGE 414

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 OVRFLD ADRS NOTHING OBJ TEST ''
25275	62124665		
25276	25512643		
25277	46521212		
25300	21245162		
25301	12121245		
25302	46633231		
25303	45271212		
25304	46224112		
25305	63256263		
25306	52371212		
25307	52624764	XTRAPT BCD	' SPURIOUS POT ERROR''
25310	51314664		
25311	62124746		
25312	63122551		
25313	51465137		
25314	52274646	TITLE BCD	' GOOD WRD BAD WORD RAD STT RADRS/WD CBR ADRS MODE BUF/ERRS BLKSIZE ''
25315	24126651		
25316	24122221		
25317	24126446		
25320	51241251		
25321	21241262		
25322	63631212		
25323	51212451		
25324	62616424		
25325	12234651		
25326	12212451		
25327	62121212		
25330	44462425		

RAD*15 TAP*3.0 01/15 06130 PAGE 415

25331	12121222		
25332	64266125		
25333	51516212		
25334	12224342		
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	52224463	'NBUFFER BCD	' BOTH BUFFERS LOCKED BUT''
25353	3122264		
25354	26267551		
25355	42124346		
25356	23422224		
25357	12466463		
25360	37121212		
25361	52454412	'NCORE BCD	' NO CORE SPECIFIED''
25362	23465125		
25363	12624725		
25364	23312631		
25365	25243712		
25366	52253167	'FIXBIG BCD	' FIXED BLOCK, IN SECTORS, TOO BIG FOR CORE SIZE''
25367	25241222		
25370	43462342		
25371	73123145		
25372	12622522		
25373	63465162		
25374	73126346		

RAD*15 TAP*3.0 01/15 06130 PAGE 416

25375	46122231		
25376	27122746		
25377	51122346		
25400	21251262		
25401	31712537		
25402	52253167	'FIXZER BCD	' FIXBLK CAN NOT BE ZERO''
25403	22434212		
25404	23214512		
25405	45464212		
25406	22251271		
25407	25514637		
25410	22512124	'RADBIG BCD	' RADMI TOO BIG FOR RAD SIZE''
25411	30211263		
25412	46461222		
25413	31271226		
25414	46511251		
25415	21241262		
25416	31712537		
25417	52244464	'SYNC BCD	' DOUBLE EC* OR MISSING EC*, HALF WORD CHECKS''
25420	22432512		
25421	25235612		
25422	46511244		
25423	31624231		
25424	45271225		
25425	23667212		
25426	30214326		
25427	12664451		
25430	24122332		
25431	25234262		
25432	37121212		
25433	52234451	'CORERR BCD	' CORLO LESS THAN 24000 OCTAL''
25434	43461243		
25435	25622212		
25436	63302145		
25437	12020400		
25440	00001246		

RAD*15 TAP*3.C 01/15 06130 PAGE 417

25441	23632143		
25442	37121212		
25443	52512124	ADALRT BCD	' RAD ADDRESS CONFLICT !!
25444	12212124		
25445	51256262		
25446	12234445		
25447	26433123		
25450	63523712		
25451	52252151	RADBIT BCD	' EARLY BIT CAN NOT BE SET WITH CONSTANT CORE ADRS.!!
25452	43712222		
25453	31631223		
25454	21451245		
25455	46631222		
25456	25126225		
25457	63126431		
25460	63301223		
25461	46456263		
25462	21456312		
25463	23465125		
25464	12212451		
25465	62333712		
25466	52662412	HEDEB 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		

RAD*15 TAP*3.C 01/15 06130 PAGE 418

*
*
* CONSTANTS
*
*
25502 0 00 00000 TIMOUT ZR0
25503 0 02 14200 F0MMA EBMM 014200 RESTORING EBM
25504 0 02 14200 F0MMB EBMM 014220 FORCING EBM
25505 11103300 MODES DATA 11103300 RANDOM CODE WORD
25506 00027000 C0RL0 DATA 27000
25507 00137777 C0RH1 DATA 137777
25510 0 00 00000 RADL0 ZR0
25511 00077777 RADH1 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 W0K0WN 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 ADDRES ZR0
25525 0 00 00000 K0RADR ZR0
25526 0 00 00000 M0DE ZR0
25527 0 00 00000 FRRCNT ZR0
25530 0 00 00000 BLKSIZ ZR0
25531 0 00 00000 BUFSAV ZR0
25532 0 00 00000 BUF1BL ZR0
25533 0 00 00000 BUF2BL ZR0
25534 0 00 00000 BLKMAX ZR0
25535 0 00 00000 BLKMSK ZR0
25536 0 00 00000 BUF1KA ZR0
25537 0 00 00000 BUF2KA ZR0
25540 0 00 00000 BUF1CA ZR0

25541	0 00 00000	BUF2CA ZR9	
25542	0 00 00000	BUF1RA ZR9	
25543	0 00 00000	BUF2RA ZR9	
25544	0 00 00000	BUFSKP ZR9	
25545	77777777	CHAIN DATA	-1
25546	0 00 00000	CHAINC ZR9	
25547	0 00 00000	C9RINK ZR9	
25550	0 00 00000	C9RMAX ZR9	
25551	0 00 00000	C9JNT ZR9	
25552	0 00 00000	C9JNT1 ZR9	
25553	0 00 00000	CYCLE1 ZR9	
25554	0 00 00000	DATBL ZR9	
25555	0 00 00000	DATSAV ZR9	
25556	0 43 00450	DPLUG BRM	DIVERT
25557	0 02 17200	EMBIT EBM	017200
25560	0 00 00000	HEADSW ZR9	
25561	0 00 00000	HOLD ZR9	
25562	0 00 00000	HOLD2 ZR9	
25563	0 00 00000	HOLD3 ZR9	
25564	0 00 00000	HOLD3B ZR9	
25565	0 00 00000	JMPTYP ZR9	
25566	0 00 00000	KEYFIX ZR9	
25567	0 00 00000	KEYSA ZR9	
25570	0 00 00000	KEYADR ZR9	
25571	0 00 00000	KEYSAV ZR9	
25572	00029777	LAGT DATA	26777
25573	0 00 00000	PSTWRD ZR9	
25574	0 00 00000	PRXTED ZR9	
25575	0 00 00000	LRDABL ZR9	
25576	0 00 00000	PIKWRD ZR9	
25577	0 00 00000	RADMAX ZR9	
25600	0 00 00000	RADYSK ZR9	
25601	0 00 00000	RADINX ZR9	
25602	0 00 00000	RADT9P ZR9	
25603	0 00 00000	RAN4X ZR9	
25604	0 02 00226	READA EBM	02226

25605	0 00 00000	RELBL ZR9	
25606	0 00 00000	RELCA ZR9	
25607	0 00 00010	RFIELD BSS	010
25617	0 00 00000	RMIADR ZR9	
25620	00000	RLA BSS	200
26020	0 00 00000	RLBADR ZR9	
26021	0 00 00000	FRRSVA ZR9	
26022	0 00 00000	SAVA4I ZR9	
26023	0 00 00000	SAVADR ZR9	
26024	0 00 00000	FRRSVB ZR9	
26025	0 00 00000	SAVB4I ZR9	
26026	0 00 00000	SAVBLK ZR9	
26027	0 00 00000	FRRSVX ZR9	
26030	0 00 00000	FRRIR ZR9	
26031	04025420	RCODE1 DATA	4000000+RLB
26032	04025720	RCODE2 DATA	4000100+RLB
26033	0 00 00000	FLAG1 ZR9	
26034	0 00 00000	CHANWD ZR9	
26035	0 00 00000	TSTWRD ZR9	
26036	0 00 00000	INCR1 ZR9	
26037	0 00 00000	INCRSA ZR9	
26040	0 00 00000	SAVX4I ZR9	
26041	0 00 00000	SAVWRD ZR9	
26042	0 00 00000	SEKSTT ZR9	
26043	0 00 00000	SKP940 ZR9	
26044	0 00 00000	SVSFED ZR9	
26045	0 00 00000	STAHLD ZR9	
26046	0 00 17746	TCE9M ZR9	TCE9M1
26047	0 00 20003	ZR9	TCE9M2
26050	0 00 17759	TRE9M ZR9	TRE9M1
26051	0 00 20010	ZR9	TRE9M2
26052	0 00 00000	TEMP1 ZR9	
26053	0 02 02266	WRITE EBM	02266
26054	6 35 00000	WRDSTA STA	0.6
26055	6 70 00000	WRDSK1 SKM	0.6
26056	0 00 00000	WSAVE ZR9	

RADW15 TAP=3.0 01/15 06130 PAGE 421

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 00000105
26117 00000247
26120 00000033

RADW15 TAP=3.0 01/15 06130 PAGE 422

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
26141 00000025
26142 00000026
26143 00000027
26144 00000030
26145 00000032
26146 00000034
26147 00000035
26150 00000036
26151 00000037
26152 00000041
26153 00000042
26154 00000043
26155 00000044
26156 00000045
26157 00000046
26160 00000047
26161 00000050
26162 00000051
26163 00000052
26164 00000053

RAD*15 TAP*3.0 01/15 06130 PAGE 423

26165	00000554
26166	00000555
26167	00000556
26170	00000557
26171	00000560
26172	00000561
26173	00000562
26174	00000563
26175	00000564
26176	00000565
26177	00000566
26200	00000567
26201	00000570
26202	00000571
26203	00000572
26204	00000573
26205	00000574
26206	00000575
26207	00000576
26210	00000577
26211	00000580
26212	70007100
26213	00000580
26214	00024710
26215	00031001
26216	00020005
26217	00010011
26220	00040103
26221	07000700
26222	00024722
26223	00030002
26224	00020004
26225	00010100
26226	00040104
26227	00700070
26230	00024730

RAD*15 TAP*3.0 01/15 06130 PAGE 424

26231	00020003
26232	00010007
26233	00040101
26234	00030105
26235	00070007
26236	00024742
26237	00020004
26240	00010010
26241	00040102
26242	00030106
26243	00024100
26244	00024000
26245	00024000
26246	00007000
26247	00010000
26250	00010000
26251	00030107
26252	00020001
26253	00010005
26254	00040001
26255	00030110
26256	00020002
26257	00010006
26260	00040000
26261	00010111
26262	00010003
26263	00040007
26264	00030001
26265	00020000
26266	00010004
26267	00040010
26270	00030002
26271	00000177
26272	00000237
26273	00000273
26274	00000177

26275 00000161
26276 00014000
26277 00014100
26300 00014200
26301 00014300
26302 77777774
26303 77777700
26304 27625006
26305 27625706
26306 77777712
26307 00025420
26310 48000000
26311 77777770
26312 00000110
26313 00000101
26314 11103300
26315 00017777
26316 00057777
26317 77773377
26320 00137777
26321 01120032
26322 00160032
26323 01120044
26324 00160046
26325 04320032
26326 00067776
26327 07000000
26330 00007777
26331 00003300
26332 77000077
26333 00475000
26334 00700000
26335 22066000
26336 00003000
26337 00070000
26340 77707777

26341 00030000
26342 00060000
26343 77757777
26344 00016621
26345 00000700
26346 00016463
26347 00016744
26350 00016747
26351 53577745
26352 00004400
26353 00002000
26354 00001100
26355 00140000
26356 37774777
26357 06000000
26360 00003777
26361 00500000
26362 67600000
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+	ADDRFS	25524+	ADRERR	25274+
ALLDUN	21082+	AREG	410	BAO8BIT	25451+
BAUPBT	25257+	BAONRD	25522+	BLKMSK	25535+
BLKMAX	25534+	BLKSIZ	25530+	BHEG	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	21154+	CHAIN2	20226+	CHAINC	25546+
CHAIN2	21034+	CHANF1	20402+	CHANER	20367+
CEC12	17643+	CHEC13	17650+	CHEC21	17664+
CHEC22	17673+	CHEC71	17667+	CHEC72	17663+
CHECK	17604+	CHECK3	17730+	CHECK4	17676+
CHECK5	17731+	CHECK6	17701+	CHECK7	17655+
CHECKR	17704+	CHECK9	17707+	CLEAR	15146+
CLRCHA	7644+	COMMEN	15130+	CORAD1	17030+
CORAD3	17056+	CORAD4	17070+	CORAD5	17100+
CORAD6	17051+	CORAD7	17120+	CORAD8	17054+
CORAD9	17065+	CORADA	17123+	CORADR	17014+
CORERR	25433+	CORH1	25507+	CORINX	25547+
CORL9	25506+	CORMAX	25550+	COUNT	N 25551+
COUNT1	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	N 25555+	DCHA11	20173+	DCHA2	20214+
DCHA3	21644+	DCHA4	20240+	DCHAIN	20176+
DECRI1	14063+	DECRI2	16103+	DIVERT	450
DBNE	482	DPLUG	N 25556+	DSCSIZ	N 404
END	434	ENDIT	25272+	E8MBIT	25557+

E8MMA	N 25503+	E8MMR	N 25504+	EXCHAN	25162+
ERRIERR	21143+	ERRCNT	25527+	EKRIR	26030+
ERRR9	460	ERRR9S	N 414	ERRR01	20543+
ERRR9J2	21445+	ERRR9J4	20537+	ERRR06	20571+
ERRR9J8	21455+	ERRR9J9	20470+	ERRR0T	20420+
ERRR932	21554+	ERRR933	20547+	ERRR036	20610+
ERRR937	21617+	ERRR938	20632+	ERRR041	20565+
ERRR042	21560+	ERRR943	20614+	ERRR060	20603+
ERRR9VA	24021+	ERRR9VB	26024+	ERRR9VX	26027+
ERRR9ST	14770+	F1101A	20764+	F1101B	20766+
F1102A	21022+	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+	F1M5	23401+	F1M50	24115+
F1M51	24123+	F1M52	24131+	F1M53	24137+
F1M54	24145+	F1M55	24153+	F1M56	24161+
F1M57	24171+	F1M58	24174+	F1M59	24177+
F1M6	24407+	F1M60	24202+	F1M61	24222+
F1M62	24242+	F1M65	24272+	F1M66	24301+
F1M67	24315+	F1M68	24335+	F1M69	N 24344+
F1M7	24412+	F1M70	24355+	F1M71	24364+
F1M72	N 24412+	F1M8	23425+	F1M9	23440+
F19E1	4705+	F2001A	6220+	F2001B	6230+

F2877A	7454+	F2879A	7516+	F2879B	7526+
F2879C	7547+	FAM1	21527+	FAM10	22417+
FAM11	21270+	FAM12	21148+	FAM2	21657+
FAM3	21724+	FAM4	21768+	FAM5	22026+
FAM6	22065+	FAM7	22303+	FAM8	22335+
FAM9	22367+	FDONE	456	FILPR8	25167+
FIM1	21512+	FIM10	22404+	FIM11	23250+
FIM12	21125+	FIM2	21672+	FIM3	21710+
FIM4	21751+	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	42+	FUNC1	4003+
FUNC10	14207+	FUNC11	20653+	FUNC12	21053+
FUNC2	4165+	FUNC3	7662+	FUNC4	11071+
FUNC5	12300+	FUNC6	13507+	FUNC7	14070+
FUNC8	14504+	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+
HEADSA	25560+	HEADER	25466+	HOLD	25561+
HOLD2	25562+	HOLD3	25563+	HOLD3B	25564+
I30T4	15120+	I31	243	I33	247
I56174	15117+	I64	311	I65	313
IEXT	15134+	ILLEXT	15162+	IMSG	15210+
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+
INTRE1	20033+	INTRE2	20034+	INTRE3	20035+
INTRE4	20076+	INTRE5	20037+	INTRE6	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+
KHRADR	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	24442+	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+	MSG00A	24702+	MSGPIN	25113+
NDIT	25273+	N0BUFR	25352+	N0CORE	25361+

NBCDATA	25337*	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*	POTER1	20415*	POTERR	20407*
PUPROD	25573*	PRNTEC	25574*	PRBG11	16746*
PRBG12	16753*	PRBG4A	16705*	PRBG1	16601*
PRBG2	16607*	PRBG3	16622*	PRBG4	16631*
PRBG3	16640*	PRBG6	16664*	PRBG7	16672*
PRBG4	16714*	PRBG9	16753*	PRBGEN	16535*
RADA01	17141*	RADA02	17223*	RADAD3	17257*
RADA4	17162*	RADA05	17163*	RADAD9	17160*
RADADA	17172*	RADADC	17221*	RADADD	17213*
RADADF	17254*	RADADG	17234*	RADADH	17232*
RADADR	17124*	RADBI5	25410*	RADDR1	17351*
RADDR2	17345*	RADDR3	17334*	RADDR4	17341*
RADDRV	17313*	RADER	25211*	RADHI	25511*
RADIX	25621*	RADL8	25510*	RADMSK	25600*
RADMAX	25577*	RADRY	14467*	RADRS	25515*
RADSTT	25523*	RADSTZ	403	RADT11	20250*
RADTIM	25247*	RADT9P	25602*	RADWH0	7000
RA4X	25603*	RANDOM	17302*	RCODE1	26031*
RCODE0	24032*	READ	15706*	READ0	15711*
READ1	15717*	READ2	15747*	READ3	15745*
READ4	15761*	READ5	16005*	READ6	16007*
READ7	16015*	READR	16027*	READ9	16033*
READA	16604*	READP	25217*	RELAB4	17533*
RELAB5	17566*	RELAB6	17574*	RELAB7	17556*
RELAB8	17553*	RELABL	17512*	RELBL	25605*
RELCA	25606*	REPORT	454	RESET	6157*
RESREG	25142*	RESTBR	20147*	RETURN	440
RFIELD	25607*	RMIADR	25617*	RITP	25237*

RL1	415	RL2	416	RL4	417
RL5	25620*	RLSADR	26020*	SAVA41	26022*
SAVADR	24023*	SAVB41	26025*	SAVBL4	26026*
SAVARD	24041*	SAVX41	26040*	SEED	406
SEKSTT	24042*	SETPIN	7634*	SETU3A	17410*
SETJ3B	17405*	SETUP	17354*	SETUP4	17373*
SETJP8	17401*	SETARD	16036*	SIDE	24704*
SIX	402	SKP94J	26043*	SKSERR	25153*
SPREAD	15701*	SPRI4T	15201*	SPURI	15070*
SSIDE	16113*	STAHL0	26045*	STATS1	17004*
STATST	14777*	STATUS	401	SVSEED	26044*
SYNC	25417*	SYSIZE	405	T8	24706*
TCE0M	24046*	TCE0M1	17746*	TCE0M2	20003*
TEMP1	24052*	TIMERR	25203*	TIME	407
TIMBUT	25502*	TITLE	25314*	THANS1	17735*
TRANS2	17772*	TRAN11	17751*	TRAN12	17741*
TRAN13	17771*	TRAN14	17750*	TRAN21	20006*
TRAN22	17774*	TRAN23	20027*	TRAN24	20005*
TRAN25	20016*	TRE0M	26050*	TRE0M1	17753*
TRE0M2	20010*	TSTARD	26035*	UAM	21342*
UAX	400	UJM	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*	WAIT4	20321*	WAIT41	20324*
WAIT42	20326*	WAIT43	20331*	WAIT44	20334*
WAIT45	20341*	WAITS	20040*	WOK0M	25516*
WRDSTA	24054*	WRDSKM	26055*	WRITE	26053*
WRTPR1	20140*	WRTPR3	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*

RADW15 TAP-3.1 01/15 06130 PAGE 433

XTRAPT	25307*	YMSG	16123*	YMSG7	16140*
YMSG8	16155*	YMSG9	16172*	ZER31	7764*
ZER32	12000*	ZER41	11173*	ZER42	11207*
ZER51	12402*	ZER52	12416*	ZER81	6330*
ZER92	7344*	ZR05AD	25072*		

