

# **CONTROL DATA<sup>®</sup> SMM17**

**Program Listings**

**RPT**

**CONTROL DATA**  
CORPORATION

**CUSTOMER ENGINEERING MANUAL**





0039	P0000	180E	RPT009	JMP*	RESTR		00039
0040	P0001	5250		ALF	3,RPT009		***00040
	P0002	5430					
	P0003	3039					
0041	P0004	000B	P PARADR	AOC	PAR+5	PARAMETER AREA FWA.	00041
0042	P0005	0193	P RETURN	AOC	INIT09		00042
0044				*			00044
0045				*	PARAMETER ENTRY ROUTINE		00045
0046				*			00046
0047	P0006	0000	PAR	NUM	0		00047
0048	P0007	C000		LDA	=XRPT009		00048
	P0008	0000	P				
0049	P0009	5402		RTJ-	(STOPX)	PARAMETER STOP	00049
0050	P000A	1CFB		JMP*	(PAR)		00050
0051	P000B	000B	P	ORG	*		00051
0052	P000B	0911		NUM	\$0911	STOP ID	00052
0053	P000C	0007	SECTS	NUM	7	SECTIONS SELECTED	00053
0054	P000D	0000		NUM	0		00054
0056	P000E	5400	RESTR	RTJ+	LGHT	RE-ENTER PARAMS.	00056
	P000F	017F	P				
0057	P0010	1400		JMP+	INIT8		00057
	P0011	01AD	P				
0058	P0012	C042	CNTRL	LDA-	SETMASK	CHECK SETMASK FOR BIT 0	***00058
0059	P0013	A000		AND	=N1		***00059
	P0014	0001					
0060	P0015	0116		SAN	CNTRL1-*--1		***00060
0061	P0016	0A02		ENA	2	ERROR 2 IF BIT NOT SET	***00061
0062	P0017	6800		STA	EC	2 IS THE ERROR CODE FOR THIS	***00062
	P0018	013C					
0063	P0019	5800		RTJ	STOP		***00063
	P001A	0121					
0064	P001B	1829		JMP*	CNT3		***00064
0065	P001C	0A01	CNTRL1	ENA	1		***00065
0066	P001D	5404		RTJ-	(REQINT)	REQUEST INTERRUPT LINE ZERO	00066
0067	P001E	0155	P PRINTB	ADC	PRINT	INTERRUPT ROUTINE ADDRESS	00067
0068	P001F	1808		JMP*	CNT0		00068
0069	P0020	C075	CNT	LDA-	CONST+10	IS RE-ENTER PARAMETER BIT SET	00069
0070	P0021	A043		AND-	STJP		00070
0071	P0022	0104		SAZ	CNT0-*--1		00071
0072	P0023	C068		LDA-	CONST	YES, IS ENTER PARAMETER BIT SET	00072
0073	P0024	A043		AND-	STJP		00073
0074	P0025	0101		SAZ	CNT0-*--1	NO	00074
0075	P0026	58DF		RTJ*	PAR	RE-ENTER PARAMETERS	00075

0076	P0027	C8E4	CNT0	LDA*	SECTS		00076
0077	P0028	A06B		AND-	CONST	IS SECTION ZERO SELECTED	00077
0078	P0029	0106		SAZ	CNT1-*--1	NO, CHECK FOR SECTION 1.	00078
0079	P002A	0844		CLR	A		00079
0080	P002B	5849	CNT01	RTJ*	SECO	RUN SECTION 0	00080
0081	P002C	0844		CLR	A		00081
0082	P002D	582B		RTJ*	SEND	CHECK FOR END OF SECTION STOP	00082
0083	P002E	1802		JMP*	CNT1		00083
0084	P002F	18FB		JMP*	CNT01	REPEAT SECTION	00084
0085	P0030	C8DB	CNT1	LDA*	SECTS		00085
0086	P0031	A06C		AND-	CONST+1	IS SECTION ONE SELECTED	00086
0087	P0032	0107		SAZ	CNT2-*--1	NO, CHECK FOR SECTION 2	00087
0088	P0033	0A01		ENA	1		00088
0089	P0034	5800	CNT11	RTJ	SEC1	RUN SECTION +ONE	00089
	P0035	0093					
0090	P0036	0A01		ENA	1		00090
0091	P0037	5821		RTJ*	SEND	CHECK FOR END OF SECTION STOP	00091
0092	P0038	1802		JMP*	CNT2		00092
0093	P0039	18FA		JMP*	CNT11	REPEAT SECTION	00093
0094	P003A	C8D1	CNT2	LDA*	SECTS		00094
0095	P003B	A06D		AND-	CONST+2	IS SECTION TWO SELECTED	00095
0096	P003C	0107		SAZ	CNT3-*--1	NO, GO TO END OF TEST STOP	00096
0097	P003D	0A02		ENA	2		00097
0098	P003E	5800	CNT21	RTJ	SEC2	RUN SECTION TWO	00098
	P003F	00BE					
0099	P0040	0A02		ENA	2		00099
0100	P0041	5817		RTJ*	SEND	CHECK FOR END OF SECTION STOP	00100
0101	P0042	1802		JMP*	CNT3		00101
0102	P0043	18FA		JMP*	CNT21	REPEAT SECTION	00102
0103	P0044	5800	CNT3	RTJ LGHT	CLR PROT SHT,	SET STOP SWITCH	00103
	P0045	013A					
0104	P0046	0806		RAO*	PASS	UPDATE PASS COUNT	00104
0105	P0047	C000		LDA	=XRPT009		00105
	P0048	0000	P				
0106	P0049	5402		RTJ-	(STOPX)	CHECK FOR END OF TEST STOP	00106
0107	P004A	1803		JMP*	CNT4		00107
0108	P004B	0904		NUM	\$904	ID WORD.	00108
0109	P004C	0000	PASS	NUM	0	PASS NUMBER	00109
0110	P004D	0A40	CNT4	ENA	\$40		00110
0111	P004E	5406		RTJ-	(JUMPX)	CHECK FOR REPEAT TEST	00111
0112	P004F	1805		JMP*	CNT42		00112
0114	P0050	540F		RTJ-	(MONPP)	RESET MONITOR'S PROTECT PATTERN.	00114
0115	P0051	5403		RTJ-	(EXIT)	END OF TEST PASS.	00115
0116	P0052	5400		RTJ+	SET	RESET RPT PROTECT PATTERN.	00116
	P0053	016E	P				
0117	P0054	581A	CNT42	RTJ*	CNTMSG	OPERATOR MESSAGE	00117
0118	P0055	5800		RTJ	INIT8A	WAIT FOR SLS OFF, PROT ON	00118
	P0056	0161					
0119	P0057	18C8		JMP*	CNT	REPEAT TEST (FREQUENCY NOT ZERO)	00119
0120			*				00120
0121			*				00121
0122			*				00122

0123	P0058	0000	SEND	NUM	0		00123
0124	P0059	680F		STA*	SECN	STORE SECTION NUMBER	00124
0125	P005A	0A02		ENA	2		00125
0126	P005B	5406		RTJ-	(JUMPX)	LOOK FOR STOP END OF SECTION	00126
0127	P005C	1805		JMP*	SEND3	YES	00127
0128	P005D	0A20	SEND2	ENA	\$20	NO-	00128
0129	P005E	5406		RTJ-	(JUMPX)	LOOK FOR REPEAT SECTION	00129
0130	P005F	08F8		RAO*	SEND	YES - RTN +1	00130
0131	P0060	1CF7		JMP*	(SEND)	NO- RTN NORMAL	00131
0132	P0061	5800	SEND3	RTJ	LGHT	CLR PROTECTSMT, SET SLS	00132
	P0062	011D					
0133	P0063	C000		LDA	=XRPT009		00133
	P0064	0000	P				
0134	P0065	5402		RTJ-	(STOPX)		00134
0135	P0066	1803		JMP* SEND1		PTC2	00135
0136	P0067	0902		NUM	\$902		00136
0137	P0068	0000	SECN	NUM	0		00137
0138	P0069	5805	SEND1	RTJ*	CNTMSG	OPERATOR MESSAGE	00138
0139	P006A	5800		RTJ	INIT6A	WAIT FOR SLS OFF, PROT ON	00139
	P006B	014C					
0140	P006C	18F0		JMP*	SEND2		00140
0141	P006D	1CEA		JMP* (SEND)		PTC2	00141
0143	P006E	0000	CNTMSG	NUM	0		00143
0144	P006F	0C19		ENQ	T2E-T2+2		00144
0145	P0070	C000		LDA	=XT2-1		00145
	P0071	01FE	P				
0146	P0072	5408		RTJ-	(TYPEOUT)	MSG TO CLEAR SLS- SET PP	00146
0147	P0073	1CFA		JMP*	(CNTMSG)		00147
0149			*				00149
0150			*				00150
0151			*				00151
0152			*				00152
0153			*				00153
0154	P0074	0000	SECO	NUM	0		00154
0155	P0075	6800		STA	SN	STORE SECTION NUMBER	00155
	P0076	000D					
0156	P0077	0A05		ENA	-\$1A	INSTRUCTION COUNT	00156
0157	P0078	60FF		STA-	I		00157
0158	P0079	E000		LDQ	=XIN		00158
	P007A	008C	P				
0159	P007B	0700		CPB	0	CLEAR PROTECT BIT	00159
0160	P007C	0D01		INQ	1		00160
0161	P007D	0700		CPB	0	CLEAR PROTECT BIT	00161

0162	P007E	0D01		INQ	1				00162
0163	P007F	0700		CPB	0				00163
0164	P0080	C042		LDA-	SETHASK				00164
0165	P0081	0821		TRA	M		SET MASK FOR INTERNAL INTERRUPT		00165
0166	P0082	0400		EIN	0				00166
0167	P0083	C080	S1	LDA-	HF000				00167
0168	P0084	6823		STA*	CT		SET COUNTER		00168
0169	P0085	0844		CLR	A				00169
0170	P0086	6822		STA*	ERCT		CLEAR ERROR COUNTER		00170
0171	P0087	C940		LDA*	INSTE,I		LOAD INSTRUCTION TO BE CHECKED.		00171
0172	P0088	6800		STA	FINST		STORE INSTRUCTION IN ERROR ROUTI		00172
	P0089	00C5							
0173	P008A	6802		STA*	IN				00173
0174	P008B	0846		CLR	A,Q				00174
0175	P008C	0000	IN	NUM	0				00175
0176	P008D	0800		NOP	0				00176
0177	P008E	C86E		LDA*	PF		LOAD PROTECT FAULT FLAG.		00177
0178	P008F	0800		NOP	0				00178
0179	P0090	0900		NOP	0				00179
0180	P0091	486B		STQ*	PF		CLEAR FLAG.		00180
0181	P0092	0111		SAN	S2--*-1		YES		00181
0182	P0093	0815		RAO*	ERCT		UPDATE ERROR COUNT		00182
0183	P0094	0813	S2	RAO*	CT		UPDATE COUNTER		00183
0184	P0095	C812		LDA*	CT				00184
0185	P0096	0101		SAZ	S3--*-1				00185
0186	P0097	18F3		JMP*	IN-1		REPEAT INSTRUCTION.		00186
0187	P0098	C810	S3	LDA*	ERCT		DID AN ERROR OCCUR FOR THIS INST		00187
0188	P0099	6800		STA	ERS		STORE NUMBER OF ERRORS		00188
	P009A	00B6							
0189	P009B	0106		SAZ	S3A--*-1		NO, GO TO NEXT INSTRUCTION		00189
0190	P009C	0A0F		ENA	SF		ERROR CODE-PROTECT FAULT DID NOT		00190
0191	P009D	6800		STA	EC				00191
	P009E	00B6							
0192	P009F	5800		RTJ	ERR		ERROR STOP		00192
	P00A0	00D6							
0193	P00A1	18E1		JMP*	S1		REPEAT CONDITIONS		00193
0194	P00A2	C0FF	S3A	LDA-	I		HAS LAST INSTRUCTION BEEN CHECKE		00194
0195	P00A3	0102		SAZ	S4--*-1		YES		00195
0196	P00A4	D8FF		RAO-	I		UPDATE INSTRUCTION COUNTER		00196
0197	P00A5	18DD		JMP*	S1		NO, CHECK NEXT INSTRUCTION		00197
0198	P00A6	1CCD	S4	JMP*	(SFC0)				00198
0199	P00A7	0000	CT	NUM	0				00199
0200	P00A8	0000	ERCT	NUM	0				00200
0201	P00A9	DC00		NUM	\$0C00	RAO*	(TEMP1)		00201
0202	P00AA	7C00		NUM	\$7C00	SPA*	(TEMP1)		00202
0203	P00AB	4C00		NUM	\$4C00	STQ*	(TEMP1)		00203
0204	P00AC	6C00	INST2	NUM	\$6C00	STA*	(TEMP1)		00204
0205	P00AD	0881	INST	NUM	\$881	SET	M		00205
0206	P00AE	0841		NUM	\$841	CLR	M		00206
0207	P00AF	08A1		NUM	\$8A1	TRA	M		00207
0208	P00B0	0889		NUM	\$889	TRM	M		00208
0209	P00B1	0891		NUM	\$891	TRQ	M		00209
0210	P00B2	0899		NUM	\$899	TRB	M		00210

0211	P0083	0861	NUM	\$861	TCA	M	00211
0212	P0084	0849	NUM	\$849	TCH	M	00212
0213	P0085	0851	NUM	\$851	TCQ	M	00213
0214	P0086	0859	NUM	\$859	TCB	M	00214
0215	P0087	0829	NUM	\$829	AAH	M	00215
0216	P0088	0831	NUM	\$831	AAQ	M	00216
0217	P0089	0839	NUM	\$839	AAB	M	00217
0218	P008A	0869	NUM	\$869	EAM	M	00218
0219	P008B	0871	NUM	\$871	EAQ	M	00219
0220	P008C	0879	NUM	\$879	EAB	M	00220
0221	P008D	08A9	NUM	\$8A9	LAM	M	00221
0222	P008E	08B1	NUM	\$8B1	LAQ	M	00222
0223	P008F	08B9	NUM	\$8B9	LAB	M	00223
0224	P00C0	08E9	NUM	\$8E9	CAM	M	00224
0225	P00C1	08F1	NUM	\$8F1	CAQ	M	00225
0226	P00C2	08F9	NUM	\$8F9	CAB	M	00226
0227	P00C3	0400	NUM	\$400	EIN		00227
0228	P00C4	0500	NUM	\$500	IIN		00228
0229	P00C5	0600	NUM	\$600	SPB		00229
0230	P00C6	0700	NUM	\$700	CPB		00230
0231	P00C7	0E00	INSTE NUM	\$E00	EXI		00231

0233	*						00233
0234	*						00234
0235	*						00235
0236	*						00236
0237	*						00237
0238	*						00238
0239	P00C8	0000	SEC1	NUM	0		00239
0240	P00C9	6800		STA	SN	STORE SECTION NUMBER	00240
0241	P00CA	0089					
0241	P00CB	5800		RTJ	SET	SET PROTECT BITS IN ALL OF CORE	00241
	P00CC	00A2					
0242	P00CD	0AE2		ENA	-\$10	INSTRUCTION COUNT	00242
0243	P00CE	60FF		STA-	I		00243
0244	P00CF	E000		LDQ	=XIN1	CLEAR PROTECT BIT OF INSTRUCTION	00244
	P00D0	00DF	P				
0245	P00D1	0700		CPB	0		00245
0246	P00D2	C042		LDA-	SETHASK		00246
0247	P00D3	0821		TRA	M	SET MASK FOR INTERNAL INTERRUPT	00247
0248	P00D4	0400		EIN	0		00248
0249	P00D5	C080	S11A	LDA-	HF000		00249
0250	P00D6	6824		STA*	CT1	SET COUNTER	00250
0251	P00D7	0844		CLR	A		00251
0252	P00D8	6823		STA*	ERCT1		00252
0253	P00D9	C9ED	S11	LDA*	INSTE,I		00253
0254	P00DA	6806		STA*	S12		00254
0255	P00DB	6400		STA+	FINST	STORE INSTRUCTION IN ERROR ROUT.	00255
	P00DC	014E	P				





0301	P0107	0001		INQ	1		00301
0302	P0108	0700		CPB	0		00302
0303	P0109	C042		LDA-	SETHASK		00303
0304	P010A	0821		TRA	M	SET MASK FOR INTERNAL INTERRUPT	00304
0305	P010B	0400		ETN	0		00305
0306	P010C	C82D	S21	LDA*	LAST	LAST WORD ADDRESS	00306
0307	P010D	682D		STA*	TEMP1		00307
0308	P010E	C806		LDA*	S22		00308
0309	P010F	A881		AND-	H00FF	FORM INSTRUCTION	00309
0310	P0110	B99B		EOR*	INST2,I		00310
0311	P0111	6803		STA*	S22	STORE INSTRUCTION	00311
0312	P0112	683C		STA*	FINST	STORE INSTRUCTION IN ERROR ROUTI	00312
0313	P0113	0846		CLR	A,Q		00313
0314	P0114	6C26	S22	STA*	(TEMP1)		00314
0315	P0115	0800		NOP	0		00315
0316	P0116	C8E5		LDA*	PF	LOAD PROTECT FAULT FLAG.	00316
0317	P0117	0B00		NOP	0		00317
0318	P0118	0800		NOP	0		00318
0319	P0119	48E2		STQ*	PF	CLEAR PROTECT FAULT FLAG.	00319
0320	P011A	0116		SAN	S23-* -1		00320
0321	P011B	0A0F		ENA	IF	ERROR CODE-PROTECT FAULT DID NOT	00321
0322	P011C	6838		STA*	EC		00322
0323	P011D	C81D		LDA*	TEMP1	STORE FAILING ADDRESS IN	00323
0324	P011E	6831		STA*	FADD	FAILING ADDRESS	00324
0325	P011F	5857		RTJ*	ERR	ERROR STOP	00325
0326	P0120	18F3		JMP*	S22	REPEAT CONDITIONS	00326
0327	P0121	C819	S23	LDA*	TEMP1		00327
0328	P0122	0111		SAN	1		00328
0329	P0123	1811		JMP*	S24	CHANGE INSTRUCTION AT ZERO ADDR.	00329
0330	P0124	09FE		INA	-1		00330
0331	P0125	6815		STA*	TEMP1	CHANGE STORAGE ADDRESS.	00331
0332	P0126	0136		SAN	S23A-*		00332
0333	P0127	9047		SUB-	LDLCORE		00333
0334	P0128	0103		SAZ	S23A-* -1		00334
0335	P0129	0132		SAM	S23A-* -1		00335
0336	P012A	C047		LDA-	LDLCORE	APOS = HOLE IN DUAL BANK 1700,	00336
0337	P012B	1807		JMP*	S23B	RESET ADDRESS WITH BANK0 UPPER.	00337
0338	P012C	C80E	S23A	LDA*	TEMP1		00338
0339	P012D	9000		SUB	=XS22+2		00339
	P012E	0116	P				
0340	P012F	0113		SAN	S23C-* -1		00340
0341	P0130	C000		LDA	=XS22-1		00341
	P0131	0113	P				
0342	P0132	6808	S23B	STA*	TEMP1		00342
0343	P0133	18DF	S23C	JMP*	S22-1		00343
0344	P0134	C0FF	S24	LDA-	I	LAST INSTRUCTION	00344
0345	P0135	0102		SAZ	S25-* -1	YES.	00345
0346	P0136	D0FF		RA0-	I		00346
0347	P0137	18D4		JMP*	S21	NO, CHECK NEXT INSTRUCTION	00347
0348	P0138	1CC4	S25	JMP*	(SEC2)		00348
0349	P0139	0000	LAST	NUM	0		00349
0350	P013A	0000	TEMP1	NUM	0		00350
0351			*				00351

0352	*	ERROR STOP ROUTINE			00352
0353	*				00353
0354	*				00354
0355	P013B 0000	STOP	NUM	0	00355
0356	P013C C818		LDA*	EC	00356
0357	P013D 0FC8		ALS	8	00357
0358	P013E 8815		EOR*	SN	00358
0359	P013F 0FC8		ALS	8	00359
0360	P0140 680C		STA*	SECERR	00360
0361	P0141 C8F9		LDA*	STOP	00361
0362	P0142 E043		LDQ-	STJP	00362
0363	P0143 0FA6		QLS	6	00363
0364	P0144 0172		SQM	STP1-*-1	00364
0365	P0145 9000		SUB	=XRPT009	00365
	P0146 0000	P			
0366	P0147 6806	STP1	STA*	RTAD	00366
0367	P0148 0844		CLR	A	00367
0368	P0149 5402		RTJ-	(STOPX)	00368
0369	P014A 1808		JMP*	STP2	00369
0370	P014B 0928	ID	NUM	928	00370
0371	P014C 0000	SECERR	NUM	0	00371
0372	P014D 0000	RTAD	NUM	0	00372
0373	P014E 0000	FINST	NUM	0	00373
0374	P014F 0000	FADD	NUM	0	00374
0375	P0150 0000	ERS	NUM	0	00375
0376	P0151 0000		NUM	0	00376
0377	P0152 1CE8	STP2	JMP*	(STOP)	00377
0378	P0153 0000	SN	NUM	0	00378
0379	P0154 0000	EC	NUM	0	00379
0381	*				00381
0382	*	THIS ROUTINE PROCESSES INTERNAL INTERRUPTS			00382
0383	*				00383
0384	P0155 0000	PRINT	NUM	0	00384
0385	P0156 0102		SNP	PR1-*-1	00385
0386	P0157 0A0F		ENA	\$F	00386
0387	P0158 6806		STA*	PE	00387
0388	P0159 01F2	PR1	SNF	PR2-*-1	00388
0389	P015A 0A0F		ENA	\$F	00389
0390	P015B 68A0		STA*	PF	00390
0391	P015C 1CF8	PR2	JMP*	(PRINT)	00391
0392	P015D 0000	EX	NUM	0	00392
0393	P015E 0000	PF	NUM	0	00393
0394	*				00394
0395	*	THIS ROUTINE CHECKS FOR INTERRUPTS			00395
0396	*				00396
0397	P015F 0000	CHIN	NUM	0	00397
0398	P0160 C8FD		LDA*	PE	00398
0399	P0161 0106		SAZ	CH1-*-1	00399

0400	P0162	0844		CLR	A			00400
0401	P0163	68FA		STA*	PE		CLEAR FLAG	00401
0402	P0164	0C01		ENQ	\$1		CODE FOR PARITY ERROR	00402
0403	P0165	48EE		STQ*	EC		STORE ERROR CODE	00403
0404	P0166	5819		RTJ*	LGHT			00404
0405	P0167	58D3		RTJ*	STOP		ERROR STOP	00405
0406	P0168	C893	CH1	LDA*	PF		DID PROTECT FAULT OCCUR	00406
0407	P0169	0103		SAZ	CH2--*-1		NO	00407
0408	P016A	0A00		ENA	0			00408
0409	P016B	6890		STA*	PF		CLEAR FLAG	00409
0410	P016C	0A0F		ENA	\$F			00410
0411	P016D	1CF1	CH2	JMP*	(CHIN)			00411
0412			*					00412
0413			*					00413
0414			*					00414
0415	P016E	0000	SET	NUM	0			00415
0416	P016F	E048		LQ-	LDL1COR			00416
0417	P0170	48C8		STQ*	LAST			00417
0418	P0171	0600	SET1	SPB	0			00418
0419	P0172	0142		SQZ	SET2--*-1			00419
0420	P0173	00FE		INQ	-1			00420
0421	P0174	18FC		JMP*	SET1			00421
0422	P0175	1CF8	SET2	JMP*	(SET)			00422

0424			*					00424
0425			*					00425
0426			*					00426
0427			*					00427
0428	P0176	0000	ERR	NUM	0			00428
0429	P0177	5808	E1	RTJ*	LGHT		FLASH OVERFLOW LIGHT	00429
0430	P0178	58C2	E2	RTJ*	STOP			00430
0431	P0179	C043		LDA-	STJP			00431
0432	P017A	A06F		AND-	CONST+4		CHECK FOR REPEAT CONDITIONS	00432
0433	P017B	0111		SAN	1		YES	00433
0434	P017C	08F9		RAO*	ERR			00434
0435	P017D	1CF8		JMP*	(ERR)			00435
0436	P017E	0000	LS	NUM	0			00436

0438			*					00438
0439			*					00439
0440			*					00440
0441			*					00441
0442			*					00442
0443	P017F	0000	LGHT	NUM	0			00443
0444	P0180	0C03		ENQ	3		PTC2	00444

0445	P0181	0844		CLR	A		00445
0446	P0182	0901	L1	INA	1		00446
0447	P0183	0131		SAM	1		00447
0448	P0184	18FD		JMP*	L1		00448
0449	P0185	00FE		INQ	-1		00449
0450	P0186	0141		SQZ	1	PTC2	00450
0451	P0187	18F9		JMP*	L1-1	PTC2	00451
0452	P0188	C8F5		LOA*	LS		00452
0453	P0189	0864		TCA	A		00453
0454	P018A	68F3		STA*	LS		00454
0455	P018B	0101		SAZ	1		00455
0456	P018C	01A0		SOV	0		00456
0457	P018D	0844		CLR	A		00457
0458	P018E	0802		SET	Q		00458
0459	P018F	0000		SLS	0		00459
0460	P0190	0141		SQZ	L2-* -1		00460
0461	P0191	18EE		JMP*	L1-2	PTC2	00461
0462	P0192	10EC	L2	JMP*	(LGHT)		00462

0464	P0193	C090	INIT09	LDA-	TSINIT	MULTIPLEX UNTIL ALL OTHER ACTIVE	00464
0465	P0194	09FE		INA	-1	TESTS HAVE EXITED.	00465
0466	P0195	010B		SAZ	GORPT-* -1		00466
0467	P0196	C809		LDA*	STARTFLAG	***00467	
0468	P0197	0116		SAN	GORPT0	***00468	
0469	P0198	D807		RAO*	STARTFLAG	***00469	
0470	P0199	C000		LDA	=XMUXMSG	***00470	
	P019A	0217	P				
0471	P019B	E000		LDQ	=XMUXEND-MUXMSG+1	***00471	
	P019C	0026					
0472	P019D	5408		RTJ-	(TYPEOUT)	***00472	
0473	P019E	5401	GORPT0	RTJ-	(CONTROL)	***00473	
0474	P019F	0000		STARTFLAG	NUM	***00474	
					0		
0475	P01A0	5401		RTJ-	(CONTROL)	00475	
0476	P01A1	C000	GORPT	LDA	=XRPT009	(TEST IA)	00476
	P01A2	0000	P				
0477	P01A3	540A		RTJ-	(HEXASC)	00477	
0478	P01A4	4853		STQ*	FREQCNT-3	00478	
0479	P01A5	6853		STA*	FREQCNT-2	00479	
0480	P01A6	C092		LDA-	TSFREQ	(ONLY RPT009 REMAINS IN LIST)	00480
0481	P01A7	540A		RTJ-	(HEXASC)	00481	
0482	P01A8	6855		STA*	HEADE-1	00482	
0483	P01A9	0C25		ENQ	HEADF-HEADING+1	00483	
0484	P01AA	C000		LDA	=XHEADING	00484	
	P01AB	01DA	P				
0485	P01AC	5408		RTJ-	(TYPEOUT)	TYPE HEADING	00485
0486	P01AD	58C0	INIT8	RTJ*	SET	SET ALL PROTECT BITS IN MEMORY.	00486
0487	P01AE	5800		RTJ	PAR	ENTER PARAMETERS	00487
	P01AF	FE56					
0488	P01B0	C000		LDA	=XT2-1	00488	
	P01B1	01FE	P				

0489	P01B2	0C19	ENQ	T2E-T2+2			00489
0490	P01B3	5408	RTJ-	(TYPEOUT)		(MESSAGE = CLR SLS - SET PP)	00490
0491	P01B4	5803	RTJ*	INIT8A		WAIT FOR SLS OFF, PROT ON	00491
0492	P01B5	1800	JMP	CNTRL		DO NOT GIVE UP CONTROL	00492
	P01B6	FE5B					
0494	P01B7	0000	INIT8A	NUM	0		00494
0495	P01B8	C400		LDA+	\$101		00495
	P01B9	0101					
0496	P01BA	681F		STA*	SAV101		00496
0497	P01BB	C000		LDA	=NS0E00		00497
	P01BC	0E00					
0498	P01BD	6400		STA+	\$101		00498
	P01BE	0101					
0499	P01BF	E000		LDQ-	0	TOGGLE OVERFLOW LAMP	00499
0500	P01C0	01C6	P	ADC	INIT10	UNTIL PROTECT SWITCH SET.	00500
0501	P01C1	0700		CPB	0		00501
0502	P01C2	0901	INIT9	INA	1		00502
0503	P01C3	0400		EIN	0		00503
0504	P01C4	0131		SAM	1		00504
0505	P01C5	18FC		JMP*	INIT9		00505
0506	P01C6	0800	INIT10	NOP	0	THIS WORD IS UNPROTECTED	00506
0507	P01C7	0800		NOP	0		00507
0508	P01C8	0500		IIN	0		00508
0509	P01C9	C80F		LDA*	INIT11		00509
0510	P01CA	0864		TCA	A		00510
0511	P01CB	6800		STA*	INIT11		00511
0512	P01CC	0101		SAZ	1		00512
0513	P01CD	01A0		SOV	0		00513
0514	P01CE	0844		CLR	A		00514
0515	P01CF	01E1		SPF	1	PROTECT SW SET	00515
0516	P01D0	18F1		JMP*	INIT9	NO	00516
0517	P01D1	0600		SPB	0	YES	00517
0518	P01D2	01A0		SOV	0	CLEAR OVERFLOW	00518
0519	P01D3	0400		EIN	0		00519
0520	P01D4	C805		LDA*	SAV101		00520
0521	P01D5	6400		STA+	\$101		00521
	P01D6	0101					
0522	P01D7	1C0F		JMP*	(INIT8A)	RTN TO CALLER	00522
0523	P01D8	0000	INIT11	NUM	\$0		00523
0524	P01D9	0000	SAV101	NUM	0		00524
0525	P01DA	8D0A	HEADING	NUM	\$8D0A		00525
0526	P01DB	5250		ALF	X,RPT009	RANDOM PROTECT TEST.X	00526
	P01DC	544F					
	P01DD	3039					
	P01DE	2020					
	P01DF	5241					
	P01E0	4E44					
	P01E1	4F40					
	P01E2	2050					
	P01E3	524F					
	P01E4	5445					

	P01E5	4354					
	P01E6	2054					
	P01E7	4553					
	P01E8	542E					
0527	P01E9	8D0A	NUM	\$800A			00527
0528	P01EA	4350	ALF		X,CP2F, VER. 3.1-1 X		***00528
	P01EB	3246					
	P01EC	2C20					
	P01ED	5645					
	P01EE	522E					
	P01EF	2033					
	P01F0	2E31					
	P01F1	2031					
	P01F2	2020					
0529	P01F3	8D0A	NUM	\$800A			00529
0530	P01F4	2049	ALF		6, IA = ,		00530
	P01F5	4120					
	P01F6	3020					
	P01F7	2020					
	P01F8	2020					
	P01F9	2C20					
0531	P01FA	2046	FREQCNT	ALF	4, FC =		00531
	P01FB	4320					
	P01FC	3020					
	P01FD	2020					
0532	P01FE	8D0A	HEADE	NUM	\$800A		00532
0533	P01FF	434C	T2	ALF	23,CLEAR STOP SWITCH, SET PROGRAM PROTECT SWITCH.		00533
	P0200	4541					
	P0201	5220					
	P0202	5354					
	P0203	4F50					
	P0204	2053					
	P0205	5749					
	P0206	5443					
	P0207	482C					
	P0208	2053					
	P0209	4554					
	P020A	2050					
	P020B	524F					
	P020C	4752					
	P020D	4140					
	P020E	2050					
	P020F	524F					
	P0210	5445					
	P0211	4354					
	P0212	2053					
	P0213	5749					
	P0214	5443					
	P0215	482E					
0534	P0216	8D0A	T2E	NUM	\$800A		00534
0535	P0217	8D0A	MUXMSG	NUM	\$800A		***00535
0536	P0218	5250	ALF		X,RPT009 RANDOM PROTECT TEST LOADED X		***00536
	P0219	5430					
	P021A	3039					

P021B 2052  
P021C 414E  
P021D 444F  
P021E 4020  
P021F 5052  
P0220 4F54  
P0221 4543  
P0222 5420  
P0223 5445  
P0224 5354  
P0225 204C  
P0226 4F41  
P0227 4445  
P0228 4420  
0537 P0229 800A  
0538 P022A 5741  
P022B 4954  
P022C 494E  
P022D 4720  
P022E 464F  
P022F 5220  
P0230 4F54  
P0231 4845  
P0232 5220  
P0233 5445  
P0234 5354  
P0235 5320  
P0236 544F  
P0237 2043  
P0238 4F40  
P0239 504C  
P023A 4554  
P023B 4520

NUM \$800A  
ALF X, WAITING FOR OTHER TESTS TO COMPLETE X

\*\*\*00537  
\*\*\*00538

0539 P023C 800A MUXEND NUM \$800A  
0540 P023D 023D P END ADC \*  
0541 END

\*\*\*00539  
00540  
00541



L

RPT009

PAGE 15

DATE: 10/20/74

PGM= 023E ( 574) COM = 0000 ( 0) DAT = 0000 ( 0)

ME Q U I V A L E N C E S

M	DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(000255)	, 0157, 0194, 0196, 0243, 0278, 0280 , 0296, 0344, 0346
0016	CONTR0	0001	(000001)	, 0017, 0473, 0475
0017	STOPX	0002	(000002)	, 0018, 0049, 0106, 0134, 0368
0018	EXIT	0003	(000003)	, 0019, 0115
0019	REQINT	0004	(000004)	, 0020, 0066
0020	JUMPX	0006	(000006)	, 0021, 0022, 0111, 0126, 0129
0021	GENRAN	0007	(000007)	
0022	TYPEOU	0008	(000008)	, 0023, 0146, 0472, 0485, 0490
0023	HEXASC	000A	(000010)	, 0024, 0025, 0477, 0481
0024	NONPP	000F	(000015)	, 0114
0025	SELIN	0023	(000035)	, 0026
0026	SETHAS	0042	(000066)	, 0027, 0058, 0164, 0246, 0303
0027	STJP	0043	(000067)	, 0028, 0029, 0070, 0073, 0362, 0431
0028	LASTVA	0044	(000068)	
0029	LDLCO	0047	(000071)	, 0030, 0333, 0336
0030	LDL1CO	0048	(000072)	, 0031, 0416
0031	CONST	006B	(000107)	, 0032, 0069, 0072, 0077, 0086, 0095 , 0432
0032	H0000	007B	(000123)	, 0033, 0036
0033	HF000	0080	(000128)	, 0034, 0167, 0249
0034	H00FF	0081	(000129)	, 0035, 0309
0035	H7FFF	0087	(000135)	
0036	TSINIT	0090	(000144)	, 0037, 0464
0037	TSFREQ	0092	(000146)	, 0480

M S Y M B O L S

---

M	DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
	0039	RPT009	0000	, 0048, 0105, 0133, 0365, 0476
	0041	PARADR	0004	
	0042	RETURN	0005	
	0047	PAR	0006	, 0041, 0050, 0075, 0487
	0053	SECTS	000C	, 0076, 0085, 0094
	0056	RESTR1	000E	, 0039
	0058	CNTRL	0012	, 0492
	0065	CNTRL1	001C	, 0060
	0067	PRINTB	001E	
	0069	CNT	0020	, 0119
	0076	CNT0	0027	, 0068, 0071, 0074
	0080	CNT01	0029	, 0084
	0085	CNT1	003D	, 0078, 0083
	0089	CNT11	0034	, 0093
	0094	CNT2	003A	, 0087, 0092
	0098	CNT21	003E	, 0102
	0103	CNT3	0044	, 0064, 0096, 0101
	0109	PASS	004C	, 0104
	0110	CNT4	004D	, 0107
	0117	CNT42	0054	, 0112
	0123	SEND	0058	, 0082, 0091, 0100, 0130, 0131, 0141
	0128	SEND2	005D	, 0140
	0132	SEND3	0061	, 0127
	0137	SECN	0068	, 0124
	0138	SEND1	0069	, 0135
	0143	CNTMSG	006E	, 0117, 0138, 0147
	0154	SECO	0074	, 0080, 0198
	0167	S1	0083	, 0193, 0197
	0175	IN	008C	, 0158, 0173, 0186
	0183	S2	0094	, 0181
	0187	S3	0098	, 0185
	0194	S3A	00A2	, 0189
	0198	S4	00A6	, 0195
	0199	CT	00A7	, 0168, 0183, 0184
	0200	ERCT	00A8	, 0170, 0182, 0187
	0204	INST2	00AC	, 0310
	0205	INST	00AD	
	0231	INSTE	00C7	, 0171, 0253, 0274
	0239	SEC1	00C8	, 0089, 0282
	0249	S11A	00D5	, 0281
	0253	S11	00D9	, 0269
	0258	IN1	00DF	, 0244, 0277
	0259	S12	00E0	, 0254
	0266	S13	00E8	, 0264

0278	S15	00F5	, 0272
0282	S14	00F9	, 0279
0283	GT1	00FA	, 0250, 0266, 0267
0284	ERCT1	00FB	, 0252, 0265, 0270
0286	PF	00FC	, 0177, 0180, 0316, 0319, 0390, 0406
			, 0409
0292	SEC2	00FD	, 0098, 0348
0306	S21	010C	, 0347
0314	S22	0114	, 0297, 0308, 0311, 0326, 0339, 0341
			, 0343
0327	S23	0121	, 0320
0338	S23A	012C	, 0332, 0334, 0335
0342	S23B	0132	, 0337
0343	S23C	0133	, 0340
0344	S24	0134	, 0329
0348	S25	0138	, 0345
0349	LAST	0139	, 0306, 0417
0350	TEMP1	013A	, 0307, 0314, 0323, 0327, 0331, 0338
			, 0342
0355	STOP	013B	, 0063, 0361, 0377, 0405, 0430
0366	STP1	0147	, 0364
0370	ID	014B	
0371	SECERR	014C	, 0360
0372	RTAD	014D	, 0366
0373	FINST	014E	, 0172, 0255, 0275, 0312
0374	FADD	014F	, 0324
0375	ERS	0150	, 0188, 0271
0377	STP2	0152	, 0369
0378	SN	0153	, 0155, 0240, 0293, 0358
0379	EC	0154	, 0062, 0191, 0322, 0356, 0403
0384	PRINT	0155	, 0067, 0391
0388	PR1	0159	, 0385
0391	PR2	015C	, 0388
0392	EX	015D	
0393	PE	015F	, 0387, 0398, 0401
0397	GHIN	015F	, 0263, 0411
0406	CH1	0168	, 0399
0411	CH2	016D	, 0407
0415	SET	016E	, 0116, 0241, 0294, 0422, 0486
0418	SET1	0171	, 0421
0422	SET2	0175	, 0419
0428	ERR	0176	, 0192, 0276, 0325, 0434, 0435
0429	E1	0177	
0430	E2	0178	
0436	LS	017E	, 0452, 0454
0443	LGHT	017F	, 0056, 0103, 0132, 0404, 0429, 0462
0446	L1	0182	, 0448, 0451, 0461
0462	L2	0192	, 0460
0464	INIT09	0193	, 0042
0473	GORPT0	019E	, 0468
0474	STARTF	019F	, 0467, 0469
0476	GORPT	01A1	, 0466

0486	INIT8	01AD	, 0057
0494	INIT8A	01B7	, 0118, 0139, 0491, 0522
0502	INIT9	01C2	, 0505, 0516
0506	INIT10	01C6	, 0500
0523	INIT11	01D8	, 0509, 0511
0524	SAV101	01D9	, 0496, 0520
0525	HEADIN	01DA	, 0483, 0484
0531	FREQCN	01FA	, 0478, 0479
0532	HEADE	01FE	, 0482, 0483
0533	T2	01FF	, 0144, 0145, 0488, 0489
0534	T2E	0216	, 0144, 0489
0535	MUXMSG	0217	, 0470, 0471
0539	MUXEND	023C	, 0471
0540	END	023D	

## \*\*\* ALPHABETICAL SORT OF SYMBOLS \*\*\* MMM

CH1	0406	CH2	0411	CHIN	0397	CNT	0069	CNT0	0076
CNT01	0080	CNT1	0085	CNT11	0089	CNT2	0094	CNT21	0098
CNT3	0103	CNT4	0110	CNT42	0117	CNTMSG	0143	CNTRL	0058
CNTRL1	0065	CONST	0031	CONTR0	0016	CT	0199	CT1	0283
E1	0429	E2	0430	EC	0379	END	0540	ERCT	0200
ERCT1	0284	ERR	0428	ERS	0375	EX	0392	EXIT	0018
FADD	0374	FINST	0373	FREQCN	0531	GENRAN	0021	GORPT	0476
GORPT0	0473	H0000	0032	H00FF	0034	H7FFF	0035	HEADE	0532
HEADIN	0525	HEXASC	0023	HF000	0033	I	0000	ID	0370
IN	0175	IN1	0258	INIT09	0464	INIT10	0506	INIT11	0523
INIT8	0486	INIT8A	0494	INIT9	0502	INST	0205	INST2	0204
INSTE	0231	JUMPX	0020	L1	0446	L2	0462	LAST	0349
LASTVA	0028	LDL1C0	0030	LDL00R	0029	LGHT	0443	LS	0436
HONPP	0024	MUXEND	0539	MUXMSG	0535	PAR	0047	PARADR	0041
PASS	0109	PE	0393	PF	0286	PR1	0388	PR2	0391
PRINT	0384	PRINTB	0067	REQINT	0019	RESTRT	0056	RETURN	0042
RPT009	0039	RTAO	0372	S1	0167	S11	0253	S11A	0249
S12	0259	S13	0266	S14	0282	S15	0278	S2	0183
S21	0306	S22	0314	S23	0327	S23A	0338	S23B	0342
S23C	0343	S24	0344	S25	0348	S3	0187	S3A	0194
S4	0198	SAV101	0524	SEC0	0154	SEC1	0239	SEC2	0292
SECERR	0371	SECN	0137	SECTS	0053	SELIN	0025	SEND	0123
SEND1	0138	SEND2	0128	SEND3	0132	SET	0415	SET1	0418
SET2	0422	SETHAS	0026	SN	0378	STARTF	0474	STJP	0027
STOP	0355	STOPX	0017	STP1	0366	STP2	0377	T2	0533
T2E	0534	TEMP1	0350	TSREQ	0037	TSINIT	0036	TYPEOU	0022

# COMMENT SHEET

MANUAL TITLE CONTROL DATA® SMM17 PROGRAM LISTINGS RPT  
Customer Engineering Manual

PUBLICATION NO. 60220900 REVISION F

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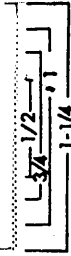


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