

CONTROL DATA[®] SMM17

Program Listings

MEM

CONTROL DATA
CORPORATION

CUSTOMER ENGINEERING MANUAL


```

0001      NAM      MEM014      10154 COPYRIGHT CONTROL DATA CORP 1974 1      MEM00001

0003      *****MEM00003
0004      *      *MEM00004
0005      * * * * * REVISION RECORD * * * * * *MEM00005
0006      *      *MEM00006
0007      * MODAYR VERSION  WHAT DONE , WHY , AND WHO DID IT      *MEM00007
0008      *      *MEM00008
0009      * 032074 V 3.1      SYSTEM RELEASED      *MEM00009
0010      *      *MEM00010
0011      * 051774      ADDED MSG THAT TEST IS LOADED AND WAITING      EJV      *MEM00011
0012      *      *MEM00012
0013      *****MEM00013

0015      *      ERROR CODES (HEXADECEMAL)      *MEM00015

0017      * ERROR 1 - A PARITY ERROR WAS SENSED AFTER THE CELL UNDER      MEM00017
0018      * TEST WAS READ THREE TIMES. IF THE PATTERN      MEM00018
0019      * READ EQUALS THE PATTERN STORED IN THE TEST CELL,      MEM00019
0020      * THE ERROR OCCURRED IN THE SET UP OF THE PATTERN      MEM00020
0021      * AND NOT IN CELL UNDER TEST.      MEM00021
0022      * ERROR 2 - THE PATTERN OF THE THIRD READ DOES NOT EQUAL      MEM00022
0023      * THE PATTERN OF THE SECOND READ.      MEM00023
0024      * ERROR 3 - THE PATTERN OF THE THIRD READ DOES NOT EQUAL THE      MEM00024
0025      * PATTERN OF THE FIRST READ.      MEM00025
0026      * ERROR 4 - THE PATTERN READ FROM THE TEST CELL DOES NOT EQUAL      MEM00026
0027      * THE PATTERN STORED IN THE CELL.      MEM00027
0028      * ERROR 0 - THE PATTERN STORED IN THE TEST CELL OF SECTION 01,      MEM00028
0029      * SINGLE CELL INSPECTION, DOES NOT EQUAL THE PATTERN      MEM00029
0030      * READ OUT.      MEM00030

0032      0001      EQU      CONTROL(1)      MEM00032
0033      0002      EQU      STOPX(CONTROL+1)      MEM00033
0034      0003      EQU      EXIT(STOPX+1)      MEM00034
0035      0006      EQU      JUMPX(EXIT+3)      MEM00035
0036      0008      EQU      TYPEOUT(JUMPX+2)      MEM00036
0037      0009      EQU      TTYBZY(TYPEOUT+1)      WAIT NOT BUSY (OK FOR RUN-ALONE)MEM00037
0038      000A      EQU      HEXASC(TYPEOUT+2)      MEM00038
0039      000C      EQU      RELPOS(HEXASC+2)      MEM00039

```

0040	000F		EQU	MONPP(HEXASC+5)		MEM00040
0041	0023		EQU	SELIN(HEXASC+25)		MEM00041
0042	0042		EQU	SETMASK(SELIN+31)		MEM00042
0043	0043		EQU	STJP(SELIN+32)		MEM00043
0044	0044		EQU	LASTVALUE(STJP+1)	MONITOR LWA+1.	MEM00044
0045	0047		EQU	LDLCORE(STJP+4)		MEM00045
0046	0048		EQU	LDL1COR(LDLCORE+1)		MEM00046
0047	0049		EQU	INFORM(LDL1COR+1)		MEM00047
0048	0056		EQU	SMMCNT(INFORM+13)	SMM PARAMETER WORD.	MEM00048
0049	0078		EQU	H0000(SMMCNT+37)		MEM00049
0050	0081		EQU	H00FF(H0000+6)		MEM00050
0051	0090		EQU	TSINIT(H0000+21)	NUMBER OF ACTIVE TESTS IN CORE.	MEM00051
0052	0092		EQU	TSFREQ(TSINIT+2)	TEST, FREQUENCY TABLE	MEM00052
0053	00A6		EQU	TSIAAD(TSINIT+22)	TEST IA TABLE.	MEM00053
0054	P0000 1809	MEM002	JMP*	MASCN0		MEM00054
0055	P0001 4045		ALF	3, MEM014		MEM00055
	P0002 4030					
	P0003 3134					
0056	P0004 006A	P PARADR	ADC	INP0+4	PARAMETER AREA FWA.	MEM00056
0057	P0005 0007	P RETURN	ADC	INIT02		MEM00057
0058	P0006 0000	EQUIP	NUM	0	DUMMY CELL FOR LOADER USE.	MEM00058
0060	P0007 5800	INIT02	RTJ	INITX		MEM00060
	P0008 0508					
0062	P0009 585D	MASCN0	RTJ* INP0		INPUT PARAMETERS	MEM00062
0063	P000A C861		LDA* CNTRL		IF BIT 9 OR 1 IS SET USE FIXED TEST.	MEM00063
0064	P000B A000		AND =N\$0201		BLOCK ADDRESS PARAMETER	MEM00064
	P000C 0201					
0065	P000D 0102		SAZ MASCN1--1		** NO SKIP	MEM00065
0066	P000E 5C66		RTJ* (C0S0)	YES		MEM00066
0067	P000F 1829		JMP* ENDTEST			MEM00067
0068	P0010 C855	MASCN1	LDA* NUMCORES	FIND OUT THE NUMBER OF STACKES		MEM00068
0069	P0011 0901		INA 1			MEM00069
0070	P0012 6873		STA* LOCATION			MEM00070
0071	P0013 A000		AND =N\$F000			MEM00071
	P0014 F000					
0072	P0015 0FC4		ALS 4			MEM00072
0073	P0016 0864		TCA A			MEM00073
0074	P0017 686F		STA* NUMSTACKES	AND STORE ITS COMPLEMENT IN NUM. OF STACKES		MEM00074
0075	P0018 0901		INA 1			MEM00075
0076	P0019 0111		SAN MASCN3--1	IS THIS A 4K MACHINE		MEM00076
0077	P001A 183E		JMP* MASCN5	YES		MEM00077
0078	P001B C86A	MASCN3	LDA* LOCATION	NO		MEM00078
0079	P001C 6852		STA* LWADRES	SET UP 4K BLOCK PARAMETER STARTING AT THE		MEM00079
0080	P001D 983C		SUB* MASCN5+1	END OF CORE		MEM00080
0081	P001E 684F		STA* ADDRESS			MEM00081

```

0082 P001F 6866 STA* LOCATION MEM00082
0083 P0020 5C55 RTJ* (AORCK0) ADDRESS CHECK AND TEST MOVE MEM00083
0084 P0021 5C53 RTJ* (C0S0) CONTROL SECTIONS TESTS MEM00084
0085 P0022 CC5E LDA* (COTRL) MEM00085
0086 P0023 0FC6 ALS 6 MEM00086
0087 P0024 013F SAM MT1--*-1 MOVE THE MEMORY TEST TO THE LOWER HALF OF MEM00087
0088 * EACH STACK AND TEST THE STACK WITH ALL MEM00088
0089 * SECTIONS SELECTED MEM00089
0090 * DO NOT USE THIS SECTION IF A FIXED TEST MEM00090
0091 * BLOCK IS TO BE TESTED MEM00091
0092 P0025 0FC1 ALS 1 MEM00092
0093 P0026 012D SAP MT1--*-1 MOVE TEST SELECTED MEM00093
0094 P0027 C000 LDA =N$0800 YES MEM00094
    P0028 0B00
0095 P0029 6C52 STA* (J0P71) DO NOT ALLOW THE OPERATE TO RE-ENTRY MEM00095
0096 P002A C843 LDA* ADDRESS PARAMETERS WHEN THIS SECTION IS SELECTED MEM00096
0097 P002B 6C4B STA* (MOVETO) MEM00097
0098 P002C 8838 ADD* SMMLASTAD MEM00098
0099 P002D A000 AND =N$FFC0 CLEAR BITS 0 TO 5 MEM00099
    P002E FFC0
0100 P002F 0940 INA $40 MEM00100
0101 P0030 683D STA* ADDRESS MEM00101
0102 P0031 6851 STA* FISTLOC MEM00102
0103 P0032 5C45 RTJ* (MOVE) MOVE THE MEMORY TEST TO THE LOWER HALF OF MEM00103
0104 P0033 5C41 RTJ* (C0S0) STACK AND RUN ALL SECTIONS SELECTED MEM00104
0105 P0034 0852 MT1 RAO* NUMSTACKES MEM00105
0106 P0035 C851 LDA* NUMSTACKES MEM00106
0107 P0036 0101 SAZ 1 LAST STACK BEEN TESTED MEM00107
0108 P0037 18E3 JMP* MASCN3 NO LOOP BACK MEM00108

0110 P0038 CC3B ENDTST LDA* (TOLCSW) YES MEM00110
0111 P0039 0103 SAZ BNK--*-1 MEM00111
0112 P003A 0A00 ENA 0 YES **NO SKIP MASCN4 MEM00112
0113 P003B 6C3B STA* (MOVETO) MEM00113
0114 P003C 5C3B RTJ* (MOVE) MEM00114
0115 P003D 5C3F BNK RTJ* (BNKADD) MEM00115
0116 P003E 5800 MASCN4 RTJ REPLACE MOVE SMM HAND LOADER TO THE LAST CORE LOC-MEM00116
    P003F 0421
0117 P0040 C844 LDA* SAVEJP71 MEM00117
0118 P0041 6C3A STA* (J0P71) MEM00118
0119 P0042 CC37 LDA* (BOIAS) MEM00119
0120 P0043 0804 RAO* PASSCT MEM00120
0121 P0044 5C2D RTJ* (STOP0) STOP AT END OF TEST MEM00121
0122 P0045 1803 JMP* MASCN6 MEM00122
0123 P0046 1404 NUM $1404 STOP ID MEM00123
0124 P0047 0000 PASSCT NUM $0 MEM00124
0125 P0048 0A40 MASCN5 ENA $40 MEM00125
0126 P0049 5C29 RTJ* (JUMP0) REPEAT TEST MEM00126
0127 P004A 18BF JMP* MASCN0+1 YES MEM00127

```

0128 P004B C815	LDA*	SAVESE	RESTORE ORIG INTERRUPT MASK	MEM00128
0129 P004C 6042	STA-	SETMASK		MEM00129
0131 P004D C815	LDA*	SAVESMNCNT		MEM00131
0132 P004E 6056	STA-	SMMCNT		MEM00132
0133 P004F 540F	RTJ-	(MONPP)	RESET MONITORS PROTECT PATTERN.	MEM00133
0134 P0050 CC29	LDA*	(BOIAS)	EXIT WITH A EQUEAL TO IA	MEM00134
0135 P0051 5403	RTJ-	(EXIT)	END TEST PASS. RETURN TO SMM.	MEM00135
0136 P0052 C811	LDA*	SAVESMNCNT+1	DELETE INTERRUPT LINE ZERO FROM THE SMM	MEM00136
0137 P0053 6056	STA-	SMMCNT	INTO ROUTINE BY CLEARING BIT ZERO IN THE	MEM00137
0138 P0054 C80D	LDA*	SAVESE+1	RESTORE MODIFIED MASK(BIT 0 CLR)	MEM00138
0139 P0055 6042	STA-	SETMASK		MEM00139
0140 P0056 0821	TRA	M		MEM00140
0141 P0057 18B2	JMP*	MASCN0+1	REPEAT TEST FRQ XX	MEM00141
0143 P0058 C000	MASCN5	LDA =N\$1000	4K MACHINE	MEM00143
		P0059 1000		
0144 P005A 6814	STA*	LWA0RES		MEM00144
0145 P005B C809	LDA*	SMMLAST		MEM00145
0146 P005C 6811	STA*	ADDRESS		MEM00146
0147 P005D 5C18	RTJ*	(ADRCK0)		MEM00147
0148 P005E 5C16	RTJ*	(C0S0)		MEM00148
0149 P005F 18D8	JMP*	ENDTEST	DO NOT CHECK LOWER HALF END	MEM00149
0150 P0060 0000	SAVESE	NUM 0,0		MEM00150
		P0061 0000		
0152 P0062 0000	SAVESMM	NUM 0,0		MEM00152
		P0063 0000		
0153 P0064 0000	SMMLAST	NUM 0		MEM00153
0154 P0065 7FFF	NUMCORE	NUM \$7FFF	NUMBER OF CORE	MEM00154
0156 P0066 0000	INPO	NUM \$0	INPUT PARAMETERS	MEM00156
0157 P0067 CC12	LDA*	(BOIAS)		MEM00157
0158 P0068 5C09	RTJ*	(STOP0)	PARAMETER STOP	MEM00158
0159 P0069 1820	JMP*	INP1		MEM00159
0160	ORG	*		MEM00160
0161 P006A 1431	NUM	\$1431	STOP ID	MEM00161

0163	P006B	007E	CNTRL	NUM	\$007E	SECTION SELECTION AND CONTROL	MEM00163
0164	*					SET UP TO RUN SECTIONS 02, 04, 08, 10, 20, AND 40	MEM00164
0165	*					01 SINGLE CELL INSPECTION *** CAN ONLY BE RUN IT SELF	MEM00165
0166	*					02 ALL ONES AND ALL ZEROS	MEM00166
0167	*					04 ADDRESS PATTERN	MEM00167
0168	*					08 WORST PATTERN	MEM00168
0169	*					10 AAAA, 5555 PATTERN	MEM00169
0170	*					20 RANDOM PATTERN	MEM00170
0171	*					40 SPECIAL PATTERN	MEM00171
0172	*					80 NOT USED	MEM00172
0173	*					100 MOVE THE TEST TO THE LOWER HALF OF EACH STACK AND TEST	MEM00173
0174	*					THE REMAINING HALF WITH ALL SECTIONS SELECTED	MEM00174
0175	*					200 USE THE FIXED TEST BLOCK PARAMETERS	MEM00175

0177	P006C	C993	PATTERN	NUM	\$C993	SPECIAL PATTERN FOR SECTION 20 AND	MEM00177
0178	*					PATTERN FOR SECTION 01	MEM00178
0179	P006D	1000	ADDRESS	NUM	\$1000	FRIST WORD ADDRESS OF TEST BLOCK	MEM00179
0180	P006E	2000	LWADRES	NUM	\$2000	LAST WORD ADDRESS OF TEST BLOCK	MEM00180
0181	*****					ADDRESS AND LWADRES MAY NOT HAVE BITS 0 THRU 5 SET	*****MEM00181
0182	*****					IF SET THE MEMORY TEST WILL CLEAR THEM TO ALL ZEROS	*****MEM00182
0183	*****					EXCEPT FOR SINGLE CELL INSPECTION SECTION	*****MEM00183
0184	P006F	000F	NUMREAD	NUM	\$F	NUMBER OF READS TO READ ZERO CELL	MEM00184
0185	*					LOCATION IN THE INHIBIT GROUP FOR WORST PATTERN SECTION	MEM00185
0186	P0070	FFFF		NUM	\$FFFF		PTC2MEM00186

0188	P0071	0000	STOP0	NUM	0	BLOCK 00 *****	MEM00188
0189	P0072	0000	JUMP0	NUM	0		MEM00189
0190	P0073	0381	P	TELOCSW	ADC	TELOCSW	**MEM00190
0191	P0074	00A5	P	COS0	ADC	COS0	**MEM00191
0192	P0075	0382	P	ADRCK0	ADC	ADRCK0	**MEM00192
0193	P0076	03F0	P	MOVETO	ADC	MOVETO	**MEM00193
0194	P0077	0402	P	MOVE	ADC	MOVE	**MEM00194
0195	P0078	050F	P	LOAST	ADC	LAST	**MEM00195
0196	P0079	047E	P	BIAS	ADC	BIAS	**MEM00196
0197	P007A	0000		NUM	0		MEM00197
0198	P007B	009F	P	JP71	ADC	JP71	**MEM00198
0199	P007C	047F	P	BNKADD	ADC	BNK1	HOLDS THE ENTRY ADDRESSES TO
0200	P007D	0000		NUM	\$0		MEM00199
0201	P007E	0000		NUM	\$0		**MEM00200
0202	P007F	0000		NUM	\$0		**MEM00201
0203	P0080	006B	P	COTRL	ADC	CNTRL	**MEM00202
						*****	MEM00203

0205 P0081 0000	SECTION NUM	\$0	SECTION TEST IS NOW WORKING WITH	MEM00205
0206 P0082 0000	FISTLOC NUM	\$0	FIRST LOCATION = ADDRESS WITH BITS 0-5 CLR	MEM00206
0207 P0083 0000	LASTLOC NUM	\$0	LAST LOCATION OF TEST BLOCK	MEM00207
0208 P0084 0000	SAVEJP7 NUM	0		MEM00208
0210 P0085 0000	LOCATIO NUM	0	LOCATIONS	MEM00210
0211 P0086 0000	NUMSTAC NUM	0	NUMBER STACKES	MEM00211
0212 P0087 0000	MORE NUM	0	MORE	MEM00212
0213 P0088 0000	MORE NUM	0	MORE+1	MEM00213
0215 P0009 C8E3	INP1	LDA* ADDRESS		MEM00215
0216 P008A 6810		STA* SAVFHA		MEM00216
0217 P008B 6800		STA SAV6		MEM00217
		P008C 0403		
0218 P008D C8E0		LDA* LWADRES		MEM00218
0219 P008E 6873		STA* SAVLWA		MEM00219
0220 P008F 0A01		ENA \$1		MEM00220
0221 P0090 A80A		AND* CNTRL		MEM00221
0222 P0091 0106		SAZ INP2-* -1	CELL INSPECITION BIT SET **NO SKIP INP2	MEM00222
0223 P0092 68EE		STA* SECTION	YES RESET BITS 1 THRU 7 IN THE CNTRL WORD	MEM00223
0224 P0093 C000		LDA =NSFF01	AND SET THE SECTION NUMBER TO SEC 1 FOR TH	MEM00224
		P0094 FF01		
0225 P0095 A805		AND* CNTRL	RETURN ON A INPUT PARAMETER JUMP (JP70)	MEM00225
0226 P0096 6004		STA* CNTRL		MEM00226
0227 P0097 1802		JMP* INP5	EXIT DO NOT CLEAR BIT 0 THRU 5 OF ADDRESS	MEM00227
0228 P0098 5C0C	INP2	RTJ* (AORCK0)	ADDRESS CHECK	MEM00228
0229 P0099 1CC0	INP5	JMP* (INP0)	EXIT	MEM00229
0231 P009A 0000	SAVFHA NUM	\$0	SAVE FIRST WORD ADDRESS	MEM00231
0233 P009B 0000	JP70	NUM \$0	JUMP SWITCH 7 CHECK INPUT PARAMETER	MEM00233
0234 P009C C000		LDA =N\$400		MEM00234
		P009D 0400		
0235 P009E 5C54		RTJ* (JUMP1)	JMP SWITCH 7 SET	MEM00235
0236 P009F 1802	JP71	JMP* JP72	YES	MEM00236
0237 P00A0 1CFA		JMP* (JP70)	NO RETURN	MEM00237
0238 P00A1 58C4	JP72	RTJ* INP0	INPUT NEW PARAMETERS	MEM00238
0239 P00A2 1806		JMP* SC00		MEM00239

0241	P00A3	0000	SECPASS	NUM	\$0	SECON PASS SWITCH	MEM00241
0242	P00A4	0000	GSEXIT	NUM	\$0	GENERAL SECTION EXIT	MEM00242

0244	P00A5	0000	CS0	NUM	\$0	SECTION CONTROL	MEM00244
0245	P00A6	0844		CLR	A		MEM00245
0246	P00A7	68D9		STA*	SECTION		MEM00246
0247	P00A8	C8C2	SC00	LDA*	CNTRL		MEM00247
0248	P00A9	0FC6		ALS	6		MEM00248
0249	P00AA	0131		SAM	1	FIXED TEST BLOCK BEEN SELECTED	MEM00249
0250	P00AB	1822		JMP*	CS20	NO	MEM00250
0251	P00AC	C8F6		LDA*	SECPASSH	YES SECOND PASS (FIXED TEST BLOCK TO LARGE	MEM00251
0252	P00AD	0118		SAN	SC01-*--1	TO TEST IN ONE PASS)	MEM00252
0253	P00AE	C8E8		LDA*	SAVFHA	NO FIRST PASS	MEM00253
0254	P00AF	68BD		STA*	ADDRESS		MEM00254
0255	P00B0	C851		LDA*	SAVLWA		MEM00255
0256	P00B1	686C		STA*	LWADRES		MEM00256
0257	P00B2	5CC2		RTJ*	(AORCK0)		MEM00257
0258	P00B3	C8D4		LDA*	MORE+1		MEM00258
0259	P00B4	68EE		STA*	SECPASSH		MEM00259
0260	P00B5	1808		JMP*	SC02		MEM00260
0261	P00B6	C8D0	SC01	LDA*	MORE		MEM00261
0262	P00B7	68B5		STA*	ADDRESS		MEM00262
0263	P00B8	C8CF		LDA*	MORE+1		MEM00263
0264	P00B9	6884		STA*	LWADRES		MEM00264
0265	P00BA	0844		CLR	A		MEM00265
0266	P00BB	68E7		STA*	SECPASSH		MEM00266
0267	P00BC	5CB8		RTJ*	(AORCK0)		MEM00267

0269	*	SECTION WAS CLEARED IF THIS IS A NORMAL EXIT BUT IF NOT SECTION	MEM00269
0270	*	CONTAINS THE SECTION INTERRUPT FROM	MEM00270

0272	P00BD	0C00	SC02	ENQ	0	RETURN TO START OF SECTION INTERRUPTED	MEM00272
0273	P00BE	C8C2		LDA*	SECTION	FROM IF BIT IS STILL SET IN CONTROL WORD	MEM00273
0274	P00BF	0901		INA	1	IF NOT GO TO NEXT SECTION	MEM00274

0275	P00C0	0FC1	SC03	ALS 1		MEM00275
0276	P00C1	0D01		INQ 1		MEM00276
0277	P00C2	0131		SAM SC04--*-1		MEM00277
0278	P00C3	18FC		JMP* SC03		MEM00278
0279	P00C4	0F41	SC04	ARS 1		MEM00279
0280	P00C5	0DFE		INQ -1		MEM00280
0281	P00C6	0141		SQZ 1		MEM00281
0282	P00C7	18FC		JMP* SC04		MEM00282
0283	P00C8	A000		AND =N\$FE		MEM00283
	P00C9	00FE				
0284	P00CA	E8A0		LDQ* CNTRL		MEM00284
0285	P00CB	08B2		LAQ Q		MEM00285
0286	P00CC	0141		SQZ 1		MEM00286
0288	P00CD	E89D	CS20	LDQ* CNTRL		MEM00288
0289	P00CE	0A02	CS00	ENA \$2	CHANGE PARAMETERS ENTRY *JUMP SWITCH 7*	MEM00289
0290	P00CF	0884		LAQ A		MEM00290
0291	P00D0	0111		SAN 1	TEST SECTION 02 **ALL ONES ALL ZEROS**	MEM00291
0292	P00D1	1835		JMP* CS40	NO	MEM00292
0293	P00D2	5C21		RTJ* (C1RSW)	YES CLEAR TEST SWITCHS	MEM00293
0294	P00D3	0CF7		ENQ -\$8		MEM00294
0295	P00D4	0804	CS21	SET A	SET ALL ONES IN TEST PATTERN LOCATION	MEM00295
0296	P00D5	6E1F		STA* (T1PATEN),Q		MEM00296
0297	P00D6	0D01		INQ 1		MEM00297
0298	P00D7	0141		SQZ 1		MEM00298
0299	P00D8	18FB		JMP* CS21		MEM00299
0300	P00D9	C821		LDA* C1S40	SET EXIT LOCATION FROM GENERAL SECT TEST	MEM00300
0301	P00DA	68C9	CS01	STA* CSEXIT	*** GENERAL ENTRY FOR LOAD AND CHECK	MEM00301
0302	P00DB	588F	CS02	RTJ* JP70		MEM00302
0303	P00DC	5C19		RTJ* (L1P0)	LOAD ANY PATTERN INTO DATA BLOCK	MEM00303
0304	P00DD	5C19		RTJ* (C1H0)	CHECK DATA BLOCK	MEM00304
0305	P00DE	0CF7		ENQ -\$8		MEM00305
0306	P00DF	CE15	CS03	LDA* (T1PATEN),Q	COMPLEMENT CONTENTS OF TEST PATTERN FOR	MEM00306
0307	P00E0	0864		TCA A	2ND PASS SECTIONS	MEM00307
0308	P00E1	6E13		STA* (T1PATEN),Q		MEM00308
0309	P00E2	0D01		INQ 1		MEM00309
0310	P00E3	0141		SQZ 1		MEM00310
0311	P00E4	18FA		JMP* CS03		MEM00311
0312	P00E5	CC14		LDA* (C1MPSH)	IS THIS A 2ND PASS SECTION	MEM00312
0313	P00E6	0864		TCA A	YES	MEM00313
0314	P00E7	6C12		STA* (C1MPSH)		MEM00314
0315	P00E8	0101		SAZ CS04--*-1		MEM00315
0316	P00E9	18F1		JMP* CS02		MEM00316
0317	P00EA	CC8E	CS04	LDA* (B0IAS)	STOP AT END OF SECTION	MEM00317
0318	P00EB	5C06		RTJ* (STOP1)		MEM00318
0319	P00EC	1803		JMP* CS05+1		MEM00319
0320	P00ED	1402		NUM \$1402	STOP ID	MEM00320
0321	P00EE	0000	CS05	NUM \$0	SECTION NUMBER	MEM00321
0322	P00EF	0A20		ENA \$20		MEM00322

```

0323 P00F0 1812          JMP* OVER01          MEM00323
0324 P00F1 0000          STOP1  NUM 0          BLOCK 01 ***** MEM00324
0325 P00F2 0000          JUMP1  NUM 0          **MEM00325
0326 P00F3 018F P C1RSW ADC CLRSW          **MEM00326
0327 P00F4 0159 P T1PATEN ADC TEPATEN*8     **MEM00327
0328 P00F5 0287 P L1P0  ADC LAPO          **MEM00328
0329 P00F6 0100 P C1H0  ADC CHO          **MEM00329
0330 P00F7 0370 P A1RTESH ADC ADTESW        **MEM00330
0331 P00F8 02E4 P L1A0  ADC LAO          **MEM00331
0332 P00F9 0235 P C1MPSW ADC COMPSW        **MEM00332
0333 P00FA 0106 P C1S40 ADC CS40          **MEM00333
0334 P00F8 0159 P C1S200 ADC CS200        **MEM00334
0335 P00FC 00CD P C1S20  ADC CS20          **MEM00335
0336 P00FD 006B P C1TRL  ADC CNTRL        **MEM00336
0337 P00FE 031E P L1H0  ADC LHO          **MEM00337
0338 P00FF 0314 P W1PA  ADC WPA*8         **MEM00338
0339 P0100 036B P W1RSTW ADC WORSTSH       *****MEM00339
0340 P0101 0000          SAVLWA NUM $0          MEM00340
0341 P0102 5CEF          OVER01 RTJ* (JUMP1)   REPEAT SECTION     MEM00341
0342 P0103 18D7          JMP* CS02             YES                 MEM00342
0343 P0104 ECF8          LDQ* (C1TRL)         NO                  MEM00343
0344 P0105 1C9E          JMP* (CSEXIT)        NEXT SECTION       MEM00344
0345 P0106 0A04          CS40  ENA $4          MEM00345
0346 P0107 08B4          LAQ A                MEM00346
0347 P0108 0111          SAN 1                TEST SECTION 04   ***ADDRESS TEST
0348 P0109 1810          JMP* CS80             NO                  MEM00340
0349 P010A 5CE0          RTJ* (C1RSW)         YES CLEAR SWITCHS ON RETURN A=ALL ONES
0350 P010B 6CEB          STA* (A1RTESH)       SET ADRSS TEST SWITCH FOR CHO ROUTINE
0351 P010C 588E          CS41  RTJ* JP70        GO CHECK JUMP SWITCH 7 CHANGE PARAMETERS
0352 P010D 5CEA          RTJ* (L1A0)         LOAD ADDRESS OF TEST CELL IN DATA BLK
0353 P010E 5CE7          RTJ* (C1H0)         CHECK DATA BLOCK
0354 P010F C800          LDA BIAS             MEM00353
                                MEM00354
                                MEM00355
0355 P0111 5CDF          RTJ* (STOP1)        STOP AT END OF SECTION
0356 P0112 1803          JMP* CS42+1         MEM00356
0357 P0113 1402          NUM $1402           STOP ID           MEM00357
0358 P0114 0004          CS42  NUM $4         SECTION NUMBER 4  MEM00358
0359 P0115 0A20          ENA $20             MEM00359
0360 P0116 5CDB          RTJ* (JUMP1)        REPEAT SECTION    MEM00360
0361 P0117 18F4          JMP* CS41           YES               MEM00361
0362 P0118 ECE4          LDQ* (C1TRL)        NO GO TO NEXT SECTION
                                MEM00362

```

```

0364          *****          WORST PATTERN          MEM00364

```

```

0366 P0119 0A08          CS80  ENA $8          MEM00366

```

0367	P011A	08B4		LAQ	A			MEM00367
0368	P011B	0111		SAN	1	TEST SECTION 08 *HORST PATTERN*		MEM00368
0369	P011C	1822		JMP*	CS100	NO		MEM00369
0370	P011D	5CD5		RTJ*	(C1RSW)	YES CLEAR TEST SWITCHS		MEM00370
0371	P011E	6CE1		STA*	(M1RSTSW)	SET WORST PATTERN SWITCH		MEM00371
0372	P011F	0CF7		ENQ	-S8			MEM00372
0373	P0120	GEDE	CS81	LDA*	(M1PA),Q	MOVE HORST PATTERN TO TEST PATTERN BUFFER		MEM00373
0374	P0121	6ED2		STA*	(T1PATEN),Q			MEM00374
0375	P0122	0D01		INQ	1			MEM00375
0376	P0123	0141		SQZ	1			MEM00376
0377	P0124	18F8		JMP*	CS81			MEM00377
0378	P0125	5C54	CS82	RTJ*	(J2P70)			MEM00378
0379	P0126	5CD7		RTJ*	(L1H0)	LOAD HOST PATTERN DATA TEST BLOCK		MEM00379
0380	P0127	5CCE		RTJ*	(C1H0)	CHECK PATTERN		MEM00380
0381	P0128	0CF7		ENQ	-S8			MEM00381
0382	P0129	CECA	CS83	LDA*	(T1PATEN),Q	COMPLEMENT PATTERN FOR 2ND PASS		MEM00382
0383	P012A	0864		TCA	A			MEM00383
0384	P012B	6EC8		STA*	(T1PATEN),Q			MEM00384
0385	P012C	0D01		INQ	1			MEM00385
0386	P012D	0141		SQZ	1			MEM00386
0387	P012E	18FA		JMP*	CS83			MEM00387
0388	P012F	CCC9		LDA*	(C1MPSW)			MEM00388
0389	P0130	0864		TCA	A			MEM00389
0390	P0131	6CC7		STA*	(C1MPSW)			MEM00390
0391	P0132	0101		SAZ	1	2ND PASS		MEM00391
0392	P0133	18F1		JMP*	CS82	YES LOOP BACK PATTERN HAS BEEN COMPLEMENT		MEM00392
0393	P0134	C800		LDA	BIAS			MEM00393
	P0135	0349						
0394	P0136	5CBA		RTJ*	(STOP1)	STOP AT END OF SECTION		MEM00394
0395	P0137	1803		JMP*	CS84+1			MEM00395
0396	P0138	1402		NUM	\$1402	STOP ID		MEM00396
0397	P0139	0008	CS84	NUM	\$08	SECTION NUMBER 00		MEM00397
0398	P013A	0A20		ENA	\$20			MEM00398
0399	P013B	5C86		RTJ*	(JUMP1)	REPEAT SECTION		MEM00399
0400	P013C	18E8		JMP*	CS82	YES		MEM00400
0401	P013D	ECBF		LDQ*	(C1TRL)	NO NEXT SECTION		MEM00401

0403

AAAA 5555 PATTERN

MEM00403

0405	P013E	0A10	CS100	ENA	\$10			MEM00405
0406	P013F	08B4		LAQ	A			MEM00406
0407	P0140	0111		SAN	1	TEST SECTION 10 **AAAA 5555 PATTERN		MEM00407
0408	P0141	1818		JMP*	CS200	NO		MEM00408
0409	P0142	5CB0		RTJ*	(C1RSW)	YES CLEAR TEST SWITCHS		MEM00409
0410	P0143	C000		LDA	=N\$AAAA	STORE AAAA 5555 PATTERN IN TEPATEN		MEM00410
	P0144	AAAA						

0411 P0145 680C	STA* TEPATEN	MEM00411
0412 P0146 680D	STA* TEPATEN+2	MEM00412
0413 P0147 680F	STA* TEPATEN+5	MEM00413
0414 P0148 6810	STA* TEPATEN+7	MEM00414
0415 P0149 C000	LDA =N\$5555	MEM00415
P014A 5555		
0416 P0148 6807	STA* TEPATEN+1	MEM00416
0417 P014C 6808	STA* TEPATEN+3	MEM00417
0418 P014D 6808	STA* TEPATEN+4	MEM00418
0419 P014E 6809	STA* TEPATEN+6	MEM00419
0420 P014F C8AB	LDA* C1S200	MEM00420
0421 P0150 1C23	JMP* (C2S01)	MEM00421

EXIT ADDRESS FOR NEXT SECTION
GO TO LOAD AND CHECK PATTERN

0423 P0151 0000	TEPATEN NUM \$0	TEMP. TEST PATTERN STORAGE	MEM00423
0424 P0152 0000	NUM \$0		MEM00424
0425 P0153 0000	NUM \$0		MEM00425
0426 P0154 0000	NUM \$0		MEM00426
0427 P0155 0000	NUM \$0		MEM00427
0428 P0156 0000	NUM \$0		MEM00428
0429 P0157 0000	NUM \$0		MEM00429
0430 P0158 0000	NUM \$0		MEM00430

0432	*****	RANDOM PATTERNS	MEM00432
------	-------	-----------------	----------

0434 P0159 0A20	CS200	ENA \$20	MEM00434
0435 P015A 0884		LAQ A	MEM00435
0436 P015B 0111		SAN 1	MEM00436
0437 P015C 1812		JMP* CS400	MEM00437
0438 P015D 5C95		RTJ* (C1RSW)	MEM00438
0439 P015E 0CF7		ENQ -\$8	MEM00439
0440 P015F C80D	CS201	LDA* CS202	MEM00440
0441 P0160 0F41		ARS 1	MEM00441
0442 P0161 880C		ADD* CS203	MEM00442
0443 P0162 680A		STA* CS202	MEM00443
0444 P0163 0FC3		ALS 3	MEM00444
0445 P0164 6809		STA* CS203	MEM00445
0446 P0165 6E8E		STA* (T1PATEN),Q	MEM00446
0447 P0166 0D01		INQ 1	MEM00447
0448 P0167 0141		SQZ 1	MEM00448
0449 P0168 18F6		JMP* CS201	MEM00449
0450 P0169 01A0		SOV 0	MEM00450

TEST SECTION 20 **RANDOM PATTERN**

NO
YES CLEAR TEST SWITCHES

SET UP RANDOM PATTERNS

STORE WORD

CLEAR OVERFLOW FF

0451	P016A	C813		LDA*	C2S400		MEM00451
0452	P016B	1C08		JMP*	(C2S01)	GO TO LOAD AND CHECK PATTERN	MEM00452
0453	P016C	2008	CS202	NUM	\$2008		MEM00453
0454	P016D	9004	CS203	NUM	\$9004		MEM00454
0456		*****				SPECIAL PATTERN	MEM00456
0458	P016E	0A40	CS400	ENA	\$40		MEM00458
0459	P016F	08B4		LAQ	A		MEM00459
0460	P0170	1811		JMP*	OVER02		MEM00460
0461	P0171	0000	STOP2	NUM	0		MEM00461
0462	P0172	0000	JUMP2	NUM	0	BLOCK 02 *****	**MEM00462
0463	P0173	00DA	P	C2S01	ADC	CS01	**MEM00463
0464	P0174	006C	P	P2TTERN	ADC	PATTERN	**MEM00464
0465	P0175	0081	P	S2CTION	ADC	SECTION	**MEM00465
0466	P0176	006D	P	A22RESS	ADC	ADDRESS	**MEM00466
0467	P0177	0000		NUM	0		MEM00467
0468	P0178	0000		NUM	0		MEM00468
0469	P0179	009B	P	J2P70	ADC	JP70	**MEM00469
0470	P017A	006B	P	C2TRL	ADC	CNTRL	**MEM00470
0471	P017B	0235	P	C2MPSW	ADC	COMPSW	**MEM00471
0472	P017C	00EE	P	C2S05	ADC	CS05	**MEM00472
0473	P017D	016E	P	C2S400	ADC	CS400	**MEM00473
0474	P017E	018C	P	C2S800	ADC	CS800	**MEM00474
0475	P017F	0139	P	C2S84	ADC	CS84	**MEM00475
0476	P0180	00CD	P	C2S20	ADC	CS20	*****MEM00476
0477	P0181	0111	OVER02	SAN	1	TEST SECTION 40 ** SPECIAL PATTERNS**	MEM00477
0478	P0182	180A		JMP*	CS800	NO	MEM00478
0479	P0183	503C		RTJ*	CLRSW	YES CLEAR SWITCHS	MEM00479
0480	P0184	0CF7		ENQ	-\$8		MEM00480
0481	P0185	CCEE	CS401	LDA*	(P2TTERN)	LOAD INPUT PATTERN INTO TEPATEN	MEM00481
0482	P0186	6AD2		STA*	TEPATEN+8,Q		MEM00482
0483	P0187	0001		INQ	\$1		MEM00483
0484	P0188	0141		SQZ	1		MEM00484
0485	P0189	18F8		JMP*	CS401		MEM00485
0486	P018A	C8F3		LDA*	C2S800		MEM00486
0487	P018B	1CE7		JMP*	(C2S01)	GO LOAD AND CHECK PATTERN	MEM00487
0488	P018C	C000	CS800	LDA	=N\$80		MEM00488
		P018D	0080				
0489	P018E	08B4		LAQ	A		MEM00489
0490	P018F	0111		SAN	1		MEM00490
0491	P0190	1801		JMP*	CS1000		MEM00491
0493		****				EXTRA LOCATIONS FOR FUTURE TEST SECTION NUMBER 80	MEM00493

0495	*****	SINGLE CELL INSPECTION	MEM00495
0497 P0191 0A01	CS1000	ENA \$1	MEM00497
0498 P0192 08B4		LAQ A	MEM00498
0499 P0193 0111		SAN 1	MEM00499
0500 P0194 1825		JMP* CS06	MEM00500
0501 P0195 6CDF		STA* (S2CTION)	MEM00501
0502 P0196 6815		STA* CS1002	MEM00502
0503 P0197 CCDC	CS100A	LDA* (P2TTERN)	MEM00503
0504 P0198 6C00		STA (ADDRESS)	MEM00504
P0199 FED3			
0505 P019A CC00		LDA (ADDRESS)	MEM00505
P019B FED1			
0506 P019C 6811		STA* CS1005	MEM00506
0507 P019D 0A20		ENA \$20	MEM00507
0508 P019E 5CD3		RTJ* (JUMP2)	MEM00508
0509 P019F 18F7		JMP* CS100A	MEM00509
0510 P01A0 C800		LDA* CS1005	MEM00510
0511 P01A1 BCD2		EOR* (P2TTERN)	MEM00511
0512 P01A2 0106		SAZ CS1001-*1	MEM00512
0513 P01A3 CC00		LDA* (P2TTERN)	MEM00513
0514 P01A4 6808		STA* CS1004	MEM00514
0515 P01A5 CC00		LDA* (A22RESS)	MEM00515
0516 P01A6 6808		STA* CS1003	MEM00516
0517 P01A7 CC58		LDA* (B3IAS)	MEM00517
0518 P01A8 5CC8		RTJ* (STOP2)	MEM00518
0519 P01A9 1806	CS1001	JMP* CS1006	MEM00519
0520 P01AA 1428		NUM \$1428	MEM00520
0521 P01AB 0000	CS1002	NUM \$0	MEM00521
0522 P01AC 0000	CS1004	NUM \$0	MEM00522
0523 P01AD 0000	CS1005	NUM \$0	MEM00523
0524 P01AE 0000	CS1003	NUM \$0	MEM00524
0525 P01AF 5CC9	CS1006	RTJ* (J2P70)	MEM00525
0526 P01B0 CC4F		LDA* (B3IAS)	MEM00526
0527 P01B1 5CBF		RTJ* (STOP2)	MEM00527
0528 P01B2 1803		JMP* CS1007+1	MEM00528
0529 P01B3 1402		NUM \$1402	MEM00529
0530 P01B4 0001	CS1007	NUM \$01	MEM00530
0531 P01B5 0A20		ENA \$20	MEM00531
0532 P01B6 5CBB		RTJ* (JUMP2)	MEM00532
0533 P01B7 18DF		JMP* CS100A	MEM00533
0534 P01B8 ECC1		LQ* (C2TRL)	MEM00534
0535 P01B9 C000	CS06	LDA =N\$800	MEM00535
P01BA 0800			
0536 P01BB 5C37		RTJ* (JUMP3)	MEM00536
0537 P01BC 1CC3		JMP* (C2S20)	MEM00537

0538	P01B0	1800		LJMP	C2S400CS06B		EXIT- TEST OF BANK DONE	MEM00538
0539	P01BE	0287		JMP*	(C2S01)		GO TO LOAD AND CHECK PATTERN	MEM00539
0540	P01C0	0000	00200	NUM	00000			MEM00540
0541	P01C0	0000	00200	NUM	00000			MEM00541
***** END OF CONTROL SECTION *****								
0542	P01BE	0000		CLRSW	NUM	000	CLEAR TEST SWITCHES	MEM00542
0543	P01C0	6C84		STA*	(S2CTION)		A=THE SECTION NUMBER SAVE	MEM00543
0544	P01C1	0822		TRAF	Q VER 02			MEM00544
0545	P01C2	CC35		STOP2	LDA*	(F3STLOC)	ADD BANK NUMBER TO STOP AT END OF SECTION	MEM00545
0546	P01C3	A000		JUMP2	AND	=N\$7000		MEM00546
0547	P01C4	7000		P 02301	ADD	CS01		MEM00547
0548	P01C5	0834		P PATTERN	AAQ	A PATTERN		MEM00548
0549	P01C6	6C88		P S2CTION	STA*	(C2S84)		MEM00549
0550	P01C7	6800		P A22RESS	STA	CS42.000		MEM00550
0551	P01C8	FF4B			NUM	0		MEM00551
0552	P01C9	6C82		STA*	(C2S05)			MEM00552
0553	P01CA	0844		P J0P70	CLR	A P 0		MEM00553
0554	P01CB	6CAF		P C2TR0	STA*	(C2MPSH)	COMPLEMENT SWITCH	MEM00554
0555	P01CC	6C27		P CUMPSH	STA*	(A3TESH)	ADDRESS TEST SWITCH	MEM00555
0556	P01CD	6C27		P 02305	STA*	(H3RSTSH)	WORST PATTERN TEST SWITCH	MEM00556
0557	P01CE	0804		P 018400	SET	A 0000		MEM00557
0558	P01CF	1CEF		P 023000	JMP*	(CLRSW)	ENTRY TO CHECK DATA BLK	MEM00558
0559	P01D0	0000		P CH000	NUM	\$000		MEM00559
0560	P01D1	0840		P 02300	CLR	A 000		MEM00560
0561	P01D2	6C23		P 02300	STA*	(E3RORSH)		MEM00561
0562	P01D3	6C2D			STA*	(C3UNT)		MEM00562
0563	P01D4	6C22			STA*	(E3COUNT)		MEM00563
0564	P01D5	CC22			LDA*	(F3STLOC)		MEM00564
0565	P01D6	6C22		P 02300	STA*	(F3STADR)	FIRST LOCATION OF TEST BLOCK	MEM00565
0566	P01D7	CC1D		CH1	LDA*	(H3RSTSH)	WORST PATTERN SWITCH	MEM00566
0567	P01D8	0115			SAN	CH2--1	**YES SKIP CH2	MEM00567
0568	P01D9	CC1A			LDA*	(A3TESH)	ADDRESS TEST SWITCH	MEM00568
0569	P01DA	0105			SAZ	CH3--1	**NO SKIP CH3	MEM00569
0570	P01DB	CC1D			LDA*	(F3STADR)	SET UP ADDRESS PATTERN FOR TEST CELL	MEM00570
0571	P01DC	6C1D			STA*	(P3TERN)	GO TO LOAD AND CHECK PATTERN	MEM00571
0572	P01DD	1800		P 02301	JMP*	CH4 00		MEM00572
0573	P01DE	5C10		CH2	RTJ*	(03IS0)	SET PATTERN * SET TEST CELL * DISRUPT CELL	MEM00573
0574	P01DF	1802			JMP*	CH4		MEM00574
0575	P01E0	5C18		CH3	RTJ*	(S3P0)	SET PATTERN	MEM00575
0576	P01E1	EC17		CH4	LDQ*	(F3STADR)	SET UP ADDRESS OF TEST CELL	MEM00576
0577	P01E2	C600		CH5	LDA+	\$0,Q	READ CELL 3 TIMES	MEM00577
0578	P01E3	0000						MEM00578
0579	P01E4	6C18			STA*	(R3CH1)	STORE READS IN LOCATIONS	MEM00579
0580	P01E5	CEFD			LDA*	(CH5+1),Q	RDCH1	MEM00580
0581	P01E6	6C17			STA*	(R3CH2)	RDCH2	MEM00581
0582	P01E7	CEFB			LDA*	(CH5+1),Q	RDCH3 SECTION NUMBER 00	MEM00582
0583	P01E8	6C16			STA*	(R3CH3)		MEM00583

0581	P01E9	01D1	SNP	1	PARITY ERROR FF SET	MEM00581
0582	P01EA	1851	JMP*	ERR1	YES ERROR	MEM00582
0583	P01EB	8C12	EOR*	(R3CH2)		MEM00583
0584	P01EC	0101	SAZ	1	READ 3 = READ 2	MEM00584
0585	P01ED	184D	JMP*	ERR2	NO, ERROR	MEM00585
0586	P01EE	CC0E	LDA*	(R3CH1)	YES	MEM00586
0587	P01EF	8C0F	EOR*	(R3CH3)		MEM00587
0588	P01F0	1811	JMP*	OVER03		MEM00588
0589	P01F1	0000	STOP3	NUM	0	BLOCK 03 *****MEM00589
0590	P01F2	0000	JUMP3	NUM	0	**MEM00590
0591	P01F3	0370	P A3TESW	ADC	ADTESW	**MEM00591
0592	P01F4	0368	P W3RSTSW	ADC	WORSTSW	**MEM00592
0593	P01F5	036F	P E3RORSW	ADC	ERRORSW	**MEM00593
0594	P01F6	0288	P E3COUNT	ADC	ERCOUNT	**MEM00594
0595	P01F7	0082	P F3STLOC	ADC	F1STLOC	**MEM00595
0596	P01F8	036D	P F3STADR	ADC	F1STADR	**MEM00596
0597	P01F9	0285	P P3TERN	ADC	PATERN	**MEM00597
0598	P01FA	0290	P D3ISO	ADC	DISO	**MEM00598
0599	P01FB	02EF	P S3P0	ADC	SP0	**MEM00599
0600	P01FC	0286	P R3CH1	ADC	RDCH1	**MEM00600
0601	P01FD	028B	P R3CH2	ADC	RDCH2	**MEM00601
0602	P01FE	028C	P R3CH3	ADC	RDCH3	**MEM00602
0603	P01FF	047E	P B3IAS	ADC	BIAS	**MEM00603
0604	P0200	036C	P C3UNT	ADC	COUNT	*****MEM00604
0605	P0201	0800	OVER03	NOP	0	MEM00605
0606	P0202	0101	SAZ	1	READ 3=READ 1	MEM00606
0607	P0203	1836	JMP*	ERR3	NO, ERROR	MEM00607
0608	P0204	CCF4	LDA*	(P3TERN)		MEM00608
0609	P0205	BCF6	EOR*	(R3CH1)	DOES PATERN EQUAL RDCH1	MEM00609
0610	P0206	0101	SAZ	1		MEM00610
0611	P0207	1831	JMP*	ERR4	NO, ERROR	MEM00611
0612	P0208	CCEC	LDA*	(E3RORSW)	YES TEST CELL CHECK OK	MEM00612
0613	P0209	0111	SAN	1	WAS THERE AN ERROR BEFORE THIS	MEM00613
0614	P020A	180F	JMP*	CH10	NO	MEM00614
0615	P020B	ECEC	LQ*	(F3STADR)	YES 1ST GOOD CELL AFTER BAD CELL	MEM00615
0616	P020C	0874	EAQ	A		MEM00616
0617	P020D	0111	SAN	1	WAS THERE ONLY ONE ERROR BEFORE THIS	MEM00617
0618	P020E	1809	JMP*	CH9	CLEAR ERROR SWITCH ** YES	MEM00618
0619	P020F	4806	STQ*	CH7	STORE ADDRESS FOR OUTPUT ** NO OUTPUT	MEM00619
0620	P0210	CCEE	LDA*	(B3IAS)		MEM00620
0621	P0211	5CDF	RTJ*	(STOP3)	INFORMATION STOP	MEM00621
0622	P0212	1805	JMP*	CH9		MEM00622
0623	P0213	1418	NUM	\$1418	STOP ID (LAST ERROR OF GROUP)	MEM00623
0624	P0214	0000	CH6	NUM \$0	ERROR SECTIO NUM **STORE BY ERROR ROUT.	MEM00624
0625	P0215	0000	CH7	NUM \$0	GOOD ADDRESS	MEM00625
0626	P0216	FFFF	NUM	\$\$\$\$	ALL ONES TO SET OF STOP	MEM00626
0627	P0217	0844	CH9	CLR	A	MEM00627
0628	P0218	6C0C	STA*	(E3RORSW)	CLEAR ERROR SWITCH	MEM00628
0629	P0219	ECDE	CH10	LQ*	(F3STADR)	***** ERROR RETURN POINT
0630	P021A	CCD9	LDA*	(W3RSTSW)		MEM00630
0631	P021B	0111	SAN	1	WORST PATTERN SWITCH SET	MEM00631
0632	P021C	1805	JMP*	CH11	NO	MEM00632
0633	P021D	C868	LDA*	PATERN	YES	MEM00633

0634	P021E	0864		TCA	A	
0635	P021F	6600		STA+	\$0,Q	
	P0220	0000				
0636	P0221	0A10	CH11	ENA	\$10	
0637	P0222	5CCF		RTJ*	(JUMP3)	
0638	P0223	18B3		JMP*	CH1	
0639	P0224	CCD3		LDA*	(F3STADR)	
0640	P0225	0901		INA	\$1	
0641	P0226	6CD1		STA*	(F3STADR)	
0642	P0227	9C4C		SUB*	(L4STLOC)	
0643	P0228	0121		SAP	1	
0644	P0229	18AD		JMP*	CH1	
0645	P022A	C85E		LDA*	ERCOUNT	
0646	P022B	0103		SAZ	CH16--*1	
0647	P022C	6808		STA*	CH13	
0648	P022D	CCD1		LDA*	(B3IAS)	
0649	P022E	5CC2		RTJ*	(STOP3)	
0650	P022F	1CA0	CH16	JMP*	(CH0)	
0651	P0230	1428		NUM	\$1428	
0652	P0231	0000	CH12	NUM	\$0	
0653	P0232	0000	CH14	NUM	\$0	
0654	P0233	0000	CH15	NUM	\$0	
0655	P0234	0000	CH13	NUM	\$0	
0656	P0235	0000	COMPSW	NUM	\$0	

RESET WORST IN TEST CELL	MEM00634
	MEM00635
	MEM00636
REPEAT CONDITIONS	MEM00637
YES	MEM00638
NO	MEM00639
SET UP NEXT TEST CELL	MEM00640
	MEM00641
	MEM00642
LAST LOCATION OF BLK	MEM00643
NO TEST NEXT CELL	MEM00644
YES BLK CHECKED	MEM00645
WAS THERE ERRORS IN SECTION **NO SKIP CH16	MEM00646
YES OUTPUT COMMON ONES AND ZEROS	MEM00647
	MEM00648
	MEM00649
	MEM00650
EXIT	MEM00651
STOP ID (SECTION ERROR SUMMARY)	MEM00652
ERROR SECTION NUM ** STORED BY ERROR ROUT	MEM00653
COMMON ONES ** STORED BY ERROR ROUT	MEM00654
COMMON ZEROS ** STORED BY ERROR ROUT	MEM00655
ERROR COUNT	MEM00656
COMPLEMENT SWITCH FOR SECOND PASS ON SECT.	MEM00656

0658	P0236	DCC9	ERR6	RAO* (C3UNT)		MEM00658
0659	P0237	DCC8	ERR5	RAO* (C3UNT)		MEM00659
0660	P0238	DCC7	ERR4	RAO* (C3UNT)		MEM00660
0661	P0239	DCC6	ERR3	RAO* (C3UNT)		MEM00661
0662	P023A	DCC5	ERR2	RAO* (C3UNT)		MEM00662
0663	P023B	DCC4	ERR1	RAO* (C3UNT)		MEM00663
0664	P023C	EC8B		LDQ* (F3STADR)		MEM00664
0665	P023D	C84B		LDA* ERCOUNT		MEM00665
0666	P023E	0115		SAN ER1--1	1ST ERROR OF SECTION **NO SKIP ER1	MEM00666
0667	P023F	48F2		STQ* CH14	YES	MEM00667
0668	P0240	4849		STQ* COMONES	SET UP 1ST LOC OF COMMON ONES AND ZEROS	MEM00668
0669	P0241	0854		TCQ A		MEM00669
0670	P0242	68F0		STA* CH15		MEM00670
0671	P0243	6847		STA* CONZERO		MEM00671
0672	P0244	0844	ER1	RAO* ERCOUNT	INCREASE ERROR COUNT BY ONE	MEM00672
0673	P0245	0814		TRQ A		MEM00673
0674	P0246	A8EB		AND* CH14	COMPILE COMMON ONES AND ZEROS	MEM00674
0675	P0247	68EA		STA* CH14		MEM00675
0676	P0248	6841		STA* COMONES		MEM00676
0677	P0249	0854		TCQ A		MEM00677
0678	P024A	A8EB		AND* CH15		MEM00678
0679	P024B	68E7		STA* CH15		MEM00679
0680	P024C	683E		STA* CONZERO		MEM00680
0681	P024D	CC28		LDA* (S4CTION)	SET UP ERROR SECTION NUMBER	MEM00681
0682	P024E	DFC8		ALS 8		MEM00682
0683	P024F	8C80		ADD* (C3UNT)		MEM00683
0684	P0250	68C3		STA* CH6	ERROR SECTION NUMBER FOR STOP 6	MEM00684
0685	P0251	68DF		STA* CH12		MEM00685
0686	P0252	C000		LDA =N\$1000	JUMP SWITCH 8 SET (BIT 12)	MEM00686
	P0253	1000				
0687	P0254	5C1E		RTJ* (JUMP4)	SKIP ERROR OUTPUT * OUTPUT AT END OF SECT	MEM00687
0688	P0255	1838		JMP* ER4	YES CLEAR COUNT RETURN	MEM00688
0689	P0256	CC9E		LDA* (E3RORSW)	NO Q = F1STADR	MEM00689
0690	P0257	0117		SAN ER2--1	WAS THERE ERROR BEFORE THIS **YES SKIP ER2	MEM00690
0691	P0258	0814		TRQ A	NO	MEM00691
0692	P0259	0901		INA \$1	SET ERROR SWITCH TO ADDRESS+1	MEM00692
0693	P025A	6C9A		STA* (E3RORSW)		MEM00693
0694	P025B	482C		STQ* ERADDR	STORE ERROR CELL ADDRESSFIRST TIME ONLY	MEM00694
0695	P025C	C8D4		LDA* CH12		MEM00695
0696	P025D	6827		STA* ERSECT	MOVE ERR SECT NUMBER	MEM00696
0697	P025E	180E		JMP* ER3	OUTPUT ERROR	MEM00697
0699	P025F	C828	ER2	LDA* ERADDR	DOES THE ADDRESS OF THE LAST ERROR +1	MEM00699
0700	P0260	0901		INA \$1	EQUAL NEW ERROR ADDRESS	MEM00700
0701	P0261	0874		EAQ A		MEM00701
0702	P0262	4825		STQ* ERADDR	STORE ERROR CELL ADDRESS IN ERADDR	MEM00702
0703	P0263	0118		SAN ER3--1	NO SKIP TO ER3	MEM00703
0704	P0264	C820		LDA* ERSECT	YES	MEM00704
0705	P0265	E8CB		LDQ* CH12	MOVE ERROR SECTION NUMBERS TO STOP OUTPUT	MEM00705
0706	P0266	481E		STQ* ERSECT	AREA	MEM00706
0707	P0267	A000		AND =N\$00FF		MEM00707
	P0268	00FF				

```

0708 P0269 8C96      EOR* (C3UNT)
0709 P026A 0111      SAN 1
0710 P026B 1822      JMP* ER4
0711 P026C CC92      ER3 LDA* (B3IAS)
0712 P026D 1814      JMP* OVER04
0713 P026E 0000      NUM $0
0714 P026F 0000      NUM $0
0715 P0270 0000      NUM $0
0716 P0271 0000      STOP4 NUM 0
0717 P0272 0000      JUMP4 NUM 0
0718 P0273 0083 P L4STLOC ADC LASTLOC
0719 P0274 006B P C4TRL ADC CNTRL
0720 P0275 0081 P S4CTION ADC SECTION
0721 P0276 0151 P T4PATEN ADC TEPATEN
0722 P0277 0155 P T44ATEN ADC TEPATEN+4
0723 P0278 0159 P T48ATEN ADC TEPATEN+8
0724 P0279 036C P C4UNT ADC COUNT
0725 P027A 006F P N4MREAD ADC NUMREADS
0726 P027B 0000      NUM $0
0727 P027C 0000      NUM $0
0728 P027D 0000      NUM $0
0729 P027E 0000      NUM $0
0730 P027F 0000      NUM $0
0731 P0280 836D P F4STADR ADC (F1STADR)
0732 P0281 5CEF      OVER04 RTJ* (STOP4)
0733 P0282 180B      JMP* ER4
0734 P0283 1438      NUM $1438
0735 P0284 0000      ERSECT NUM $0
0736 P0285 0000      PATERN NUM $0
0737 P0286 0000      RDCH1 NUM $0
0738 P0287 0000      ERADOR NUM $0
0739 P0288 0000      ERCOUNT NUM $0
0740 P0289 0000      COMONES NUM $0
0741 P028A 0000      COMZERO NUM $0

0743 P028B 0000      RDCH2 NUM $0
0744 P028C 0000      RDCH3 NUM $0
0745 P028D 0844      ER4 CLR A
0746 P028E 6CEA      STA* (C4UNT)
0747 P028F 1889      JMP* CH10

```

```

IS THIS ERROR NUM EQUAL THE LAST NUM
YES **00 NOT STOP CLEAR COUNT RETURN

```

```

BLANKS NOT USED
BLANKS NOT USED
BLANKS NOT USED

```

```
BLOCK 04 *****MEM00716
```

```

*****MEM00731
ERROR STOP
STOP ID (FIRST ERROR OF GROUP) MEM00734
ERROR SECTION NUMBERS MEM00735
EXPECTED PATTERN MEM00736
ACTUAL PATTERN READ 1 MEM00737
ADDRESS OF ERROR CELL MEM00738
NUMBER OF ERRORS IN SECTION MEM00739
COMMON ONES OF EVERY ERROR MEM00740
COMMON ZEROS OF EVERY ERROR MEM00741

```

```

MEM00708
MEM00709
MEM00710
MEM00711
MEM00712
MEM00713
MEM00714
MEM00715
MEM00716
MEM00717
**MEM00718
**MEM00719
**MEM00720
**MEM00721
**MEM00722
**MEM00723
**MEM00724
**MEM00725
**MEM00726
**MEM00727
**MEM00728
**MEM00729
**MEM00730
MEM00731
MEM00732
MEM00733
MEM00734
MEM00735
MEM00736
MEM00737
MEM00738
MEM00739
MEM00740
MEM00741

MEM00743
MEM00744
MEM00745
MEM00746
MEM00747

```

0749	P0290	0000	DIS0	NUM \$0		MEM00749
0750	P0291	EC64		LDQ* (F5STADR)	DECODE ADDRESS BITS 0, 1, 6, AND 7	MEM00750
0751	P0292	0A03		ENA 3	TO FIND TEST CELL PATTERN	MEM00751
0752	P0293	08B4		LAQ A		MEM00752
0753	P0294	6805		STA* DIS1+1	BIT 6	MEM00753
0754	P0295	0A40		ENA \$40	DECODES WHICH SET OF FOUR PATTERNS	MEM00754
0755	P0296	08B2		LAQ Q		MEM00755
0756	P0297	0F24		QRS 4	BIT 7	MEM00756
0757	P0298	F000	DIS1	ADQ =N0	DECODES PATTERN OR COMPLEMENT PATTERN	MEM00757
	P0299	0000				
0758	P029A	CC5B		LDA* (F5STADR)		MEM00758
0759	P029B	A000		AND =N\$80	BITS 0 AND 2	MEM00759
	P029C	0080				
0760	P029D	0103		SAZ DIS2-* -1	DECODES WHICH PATTERN OF A SET OF FOUR	MEM00760
0761	P029E	CE07		LDA* (T4PATEN),Q		MEM00761
0762	P029F	0864		TCA A		MEM00762
0763	P02A0	1802		JMP* DIS3		MEM00763
0764	P02A1	CE04	DIS2	LDA* (T4PATEN),Q		MEM00764
0765	P02A2	0864	DIS3	TCA A	SET CELL FOR WORST PATTERN TEST	MEM00765
0766	P02A3	6C00		STA (F1STADR)	BY COMPLEMENTING THE CONTENTS	MEM00766
	P02A4	00C9				
0767	P02A5	68DF		STA* PATERN		MEM00767
0768	P02A6	EC4F		LDQ* (F5STADR)	FIND A CELL WITHIN THE INHIBIT GROUP	MEM00768
0769	P02A7	0AF8		ENA -7	WHICH IS ALL ZEROS AND DISTURB	MEM00769
0770	P02A8	08B2		LAQ Q	READING IT X TIMES SPECITVE BY NUMREADS	MEM00770
0771	P02A9	0D07		INQ 7		MEM00771
0772	P02AA	C600	DIS4	LDA+ \$0,Q		MEM00772
	P02AB	0000				
0773	P02AC	0102		SAZ DIS5-* -1	IS THIS CELL ALL ZEROS	MEM00773
0774	P02AD	0DFE		INQ -\$1	NO	MEM00774
0775	P02AE	18FB		JMP* DIS4		MEM00775
0776	P02AF	4803	DIS5	STQ* DIS6+1	YES STORE ADDRESS OF CELL	MEM00776
0777	P02B0	ECC9		LDQ* (N4MREADS)	NUMBER OF READS	MEM00777
0778	P02B1	C400	DIS6	LDA+ \$0	READ CELL	MEM00778
	P02B2	0000				
0779	P02B3	0142		SQZ DIS7-* -1	LAST READ	MEM00779
0780	P02B4	0DFE		INQ -\$1	NO LOOP BACK AND READ AGAIN	MEM00780
0781	P02B5	18FB		JMP* DIS6		MEM00781
0782	P02B6	1CD9	DIS7	JMP* (DIS0)	EXIT READS COMPLETE	MEM00782

0784	P02B7	0000	LAP0	NUM \$0	LOAD ANY PATTERN STORED IN TEPATEN	MEM00784
0785	P02B8	CC48		LDA* (F5STLOC)		MEM00785
0786	P02B9	6863		STA* ADRES1		MEM00786
0787	P02BA	A000		AND =NS40		MEM00787
	P02BB	0040				
0788	P02BC	0101		SAZ LAP1*-1	DECODE ADDRESS TO FIND WHERE TO ENTER	MEM00788
0789	P02BD	1813		JMP* LAP4	RING LAP1 FOR XX0,XXX,XXX OR	MEM00789
0790	P02BE	C85E	LAP1	LDA* ADRES1	LAP4 FOR XX1,XXX,XXX	MEM00790
0791	P02BF	0940		INA 64		MEM00791
0792	P02C0	685D		STA* ADRES2		MEM00792
0793	P02C1	0CF8	LAP2	ENQ -\$4		MEM00793
0794	P02C2	CEB4	LAP3	LDA* (T44ATEN),Q		MEM00794
0795	P02C3	6C59		STA* (ADRES1)		MEM00795
0796	P02C4	D858		RAO* ADRES1		MEM00796
0797	P02C5	0D01		INQ 1		MEM00797
0798	P02C6	0141		SQZ 1	LAST LOCATION OF 4 WORD BLOCK	MEM00798
0799	P02C7	18FA		JMP* LAP3	NO	MEM00799
0800	P02C8	C855		LDA* ADRES2	YES	MEM00800
0801	P02C9	9853		SUB* ADRES1		MEM00801
0802	P02CA	0101		SAZ 1	LAST LOCATION OF 64 WORD BLOCK	MEM00802
0803	P02CB	18F5		JMP* LAP2	NO	MEM00803
0804	P02CC	CC28		LDA* (L5STLOC)	YES	MEM00804
0805	P02CD	984F		SUB* ADRES1		MEM00805
0806	P02CE	0111		SAN 1	LAST LOCATION OF DATA BLOCK	MEM00806
0807	P02CF	1813		JMP* LAP7	YES EXIT PATTERN STORED	MEM00807
0808	P02D0	C84C	LAP4	LDA* ADRES1	NO	MEM00808
0809	P02D1	0940		INA 64		MEM00809
0810	P02D2	6048		STA* ADRES2		MEM00810
0811	P02D3	0CF8	LAP5	ENQ -\$4		MEM00811
0812	P02D4	CEA3	LAP6	LDA* (T48ATEN),Q		MEM00812
0813	P02D5	6C47		STA* (ADRES1)		MEM00813
0814	P02D6	D846		RAO* ADRES1		MEM00814
0815	P02D7	0D01		INQ 1		MEM00815
0816	P02D8	0141		SQZ 1	LAST LOCATION OF 4 WORD BLOCK	MEM00816
0817	P02D9	18FA		JMP* LAP6	NO	MEM00817
0818	P02DA	C843		LDA* ADRES2	YES	MEM00818
0819	P02DB	9841		SUB* ADRES1		MEM00819
0820	P02DC	0101		SAZ 1	LAST LOCATION OF 64 WORD BLOCK	MEM00820
0821	P02DD	18F5		JMP* LAP5	NO	MEM00821
0822	P02DE	CC16		LDA* (L5STLOC)	YES	MEM00822
0823	P02DF	983D		SUB* ADRES1		MEM00823
0824	P02E0	0101		SAZ 1	LAST LOCATION DATA BLOCK	MEM00824
0825	P02E1	18DC		JMP* LAP1	NO LOOP BACK NEXT 64 WORD BLOCK	MEM00825
0826	P02E2	5C15	LAP7	RTJ* (S5TPPB)	SET PROTGET BITS	MEM00826
0827	P02E3	1CD3		JMP* (LAP0)	YES EXIT PATTEN STORED	MEM00827

0829	P02E4	0000	LA0	NUM	\$0	SET ADDRESS OF CELL AND STORE IN CELL	MEM00829
0830	P02E5	CC1B		LDA*	(F5STLOC)		MEM00830
0831	P02E6	6836		STA*	ADRES1		MEM00831
0832	P02E7	C835	LA1	LDA*	ADRES1		MEM00832
0833	P02E8	6C34		STA*	(ADRES1)		MEM00833
0834	P02E9	0901		INA	1		MEM00834
0835	P02EA	9C0A		SUB*	(L5STLOC)		MEM00835
0836	P02EB	0102		SAZ	LA2-* -1		MEM00836
0837	P02EC	D830		RAO*	ADRES1		MEM00837
0838	P02ED	18F9		JMP*	LA1		MEM00838
0839	P02EE	1CF5	LA2	JMP*	(LA0)		MEM00839

0841	P02EF	0000	SP0	NUM	\$0	FIND PATTERN BY ADDRESS DECODING OF	MEM00841
0842	P02F0	1811		JMP*	OVER05		MEM00842
0843	P02F1	0000	STOP5	NUM	0	BLOCK 05 *****	MEM00843
0844	P02F2	0000	JUMP5	NUM	0		**MEM00844
0845	P02F3	0285	P	P5TERN	ADC	PATERN	**MEM00845
0846	P02F4	0083	P	L5STLOC	ADC	LASTLOC	**MEM00846
0847	P02F5	036D	P	F5STADR	ADC	FISTAOR	**MEM00847
0848	P02F6	0151	P	T5PATEN	ADC	TEPATEN	**MEM00848
0849	P02F7	0453	P	S5TPPB	ADC	SETPPB	**MEM00849
0850	P02F8	0000		NUM	\$0		**MEM00850
0851	P02F9	0000		NUM	\$0		**MEM00851
0852	P02FA	0000		NUM	\$0		**MEM00852
0853	P02FB	0000		NUM	\$0		**MEM00853
0854	P02FC	0000		NUM	\$0		**MEM00854
0855	P02FD	0000		NUM	\$0		**MEM00855
0856	P02FE	0000		NUM	\$0		**MEM00856
0857	P02FF	0000		NUM	\$0		**MEM00857
0858	P0300	0082	P	F5STLOC	ADC	FISTLOC	*****MEM00858
0859	P0301	0000	OVER05	NOP	0		MEM00859
0860	P0302	CCF2		LDA*	(F5STADR)	PATTERN STORE IN PATTERN LOCATION	MEM00860
0861	P0303	0C03		ENQ	3		MEM00861
0862	P0304	0802		LAQ	Q		MEM00862
0863	P0305	A000		AND	=N\$40		MEM00863
	P0306	0040					
0864	P0307	0F44		ARS	4		MEM00864
0865	P0308	0832		AAQ	Q		MEM00865
0866	P0309	CEEC		LDA*	(T5PATEN),Q		MEM00866
0867	P030A	6CE8		STA*	(P5TERN)		MEM00867
0868	P030B	1CE3		JMP*	(SP0)		MEM00868

0870	P030C	AAAA	WPA	NUM	\$AAAA	WPA TO WPD WORST PATTERN FOR LOCATIONS X00,XXX,XXX AND COMPLEMENT PATTERN IN X10,XXX,XXX	MEM00070
0871	P030D	0000	WPB	NUM	\$0000		MEM00071
0872	P030E	5555	WPC	NUM	\$5555		MEM00072
0873	P030F	FFFF	WPD	NUM	\$FFFF		MEM00073
0874	P0310	FFFF	WPE	NUM	\$FFFF		MEM00074
0875	P0311	5555	WPF	NUM	\$5555		MEM00075
0876	P0312	0000	WPG	NUM	\$0000		MEM00076
0877	P0313	AAAA	WPH	NUM	\$AAAA	MEM00077	
0879	P0314	0000	AA	NUM	\$0	MEM00079	
0880	P0315	0000	BB	NUM	\$0	MEM00080	
0881	P0316	0000	CC	NUM	\$0	MEM00081	
0882	P0317	0000	DD	NUM	\$0	MEM00082	
0883	P0318	0000	EE	NUM	\$0	MEM00083	
0884	P0319	0000	FF	NUM	\$0	MEM00084	
0885	P031A	0000	GG	NUM	\$0	MEM00085	
0886	P031B	0000	HH	NUM	\$0	MEM00086	
0887	P031C	0000	ADRES1	NUM	\$0	MEM00087	
0888	P031D	0000	ADRES2	NUM	\$0	MEM00088	
0890	P031E	0000	LW0	NUM	\$0	ENTRY TO LOAD WORST PATTERN	MEM00090
0891	P031F	0CF7		ENQ	-\$8		MEM00091
0892	P0320	CAF3	LW1	LDA*	WPA+8,Q	SET UP PATTERN IN WORKING STORAGE	MEM00092
0893	P0321	6AFA		STA*	AA+8,Q		MEM00093
0894	P0322	0001		INQ	1		MEM00094
0895	P0323	0141		SQZ	1		MEM00095
0896	P0324	18FB		JMP*	LW1		MEM00096
0897	P0325	CCDA		LDA*	(F5STLOC)	CHECK FIRST ADDRESS TO FIND WHERE TO JUMP INTO STORE ROUTINE RING	MEM00097
0898	P0326	68F5		STA*	ADRES1		MEM00098
0899	P0327	A000		AND	=N\$80		MEM00099
	P0328	0080					
0900	P0329	0107		SAZ	LW2A*-1	SHOULD THIS BE THE COMPLEMENT PATTERNS YES **NO SKIP LW3 GO	MEM00900
0901	P032A	0CF7		ENQ	-\$8		MEM00901
0902	P032B	CAF0	LW2	LDA*	AA+8,Q	COMPLEMENT ALL 8 LOCATION OF BUFFER	MEM00902
0903	P032C	0864		TCA	A		MEM00903
0904	P032D	6AEE		STA*	AA+8,Q		MEM00904
0905	P032E	0001		INQ	1		MEM00905
0906	P032F	0141		SQZ	1		MEM00906
0907	P0330	18FA		JMP*	LW2		MEM00907
0908	P0331	CCCE	LW2A	LDA*	(F5STLOC)	PATTERN SET	MEM00908
0909	P0332	A000		AND	=N\$40		MEM00909
	P0333	0040					
0910	P0334	0101		SAZ	LW3*-1	WHERE SHOULD I JUMP INTO THE RING LW3 OR LW4A	MEM00910
0911	P0335	1813		JMP*	LW4A		MEM00911
0912	P0336	C8E5	LW3	LDA*	ADRES1	SET ADDRESS OF 64 WORD BLOCK	MEM00912

0913	P0337	0940		INA	64		MEM00913
0914	P0338	68E4		STA*	ADRES2		MEM00914
0915	P0339	0CFB	LW3A	ENQ	-\$4	STORE IN LOCATIONS X00,XXX,XXX AND	MEM00915
0916	P033A	CADD	LW4	LDA*	AA+4,Q	ITS COMPLEMENT IN X10,XXX,XXX	MEM00916
0917	P033B	6CE0		STA*	(ADRES1)	STORE IN 4 LOCATIONS	MEM00917
0918	P033C	08DF		RAO*	ADRES1		MEM00918
0919	P033D	0D01		INQ	1		MEM00919
0920	P033E	0141		SQZ	1	LAST OF 4 LOCATION	MEM00920
0921	P033F	18FA		JMP*	LW4	NO LOOP BACK	MEM00921
0922	P0340	C8DC		LDA*	ADRES2	YES	MEM00922
0923	P0341	98DA		SUB*	ADRES1		MEM00923
0924	P0342	0101		SAZ	1	LAST LOCATION OF 64 WORD BLK	MEM00924
0925	P0343	18F5		JMP*	LW3A	NO LOOP BACK REPEAT 4 STORES	MEM00925
0926	P0344	CCAF		LDA*	(L5STLOC)		MEM00926
0927	P0345	98D6		SUB*	ADRES1		MEM00927
0928	P0346	0111		SAN	1	LAST LOCATION OF DATA BLOCK	MEM00928
0929	P0347	1822		JMP*	LW10	YES	MEM00929
0930	P0348	C8D3	LW4A	LDA*	ADRES1	NO SET UP NEXT ADDRESSES OF 64 WORD BLK.	MEM00930
0931	P0349	0940		INA	64		MEM00931
0932	P034A	68D2		STA*	ADRES2		MEM00932
0933	P034B	0CFB	LW5	ENQ	-\$4	RING ENTRY FOR PATTERNS STORED IN LOC	MEM00933
0934	P034C	CACB	LW6	LDA*	AA+4,Q	X01 AND X11	MEM00934
0935	P034D	0864		TCA	A		MEM00935
0936	P034E	6AC9		STA*	AA+4,Q	COMPLEMENT PATTERN FOR LOC X00 OR X10	MEM00936
0937	P034F	0D01		INQ	1		MEM00937
0938	P0350	0141		SQZ	1		MEM00938
0939	P0351	18FA		JMP*	LW6		MEM00939
0940	P0352	0CFB	LW7	ENQ	-\$4		MEM00940
0941	P0353	CACB	LW8	LDA*	EE+4,Q		MEM00941
0942	P0354	6CC7		STA*	(ADRES1)		MEM00942
0943	P0355	D8C6		RAO*	ADRES1		MEM00943
0944	P0356	0D01		INQ	1		MEM00944
0945	P0357	0141		SQZ	1	LAST LOC OF 4 WORD BLK	MEM00945
0946	P0358	18FA		JMP*	LW8	NO LOOP BACK	MEM00946
0947	P0359	C8C3		LDA*	ADRES2	YES	MEM00947
0948	P035A	98C1		SUB*	ADRES1		MEM00948
0949	P035B	0101		SAZ	1	LAST LOC OF 64 BLK	MEM00949
0950	P035C	18F5		JMP*	LW7	NO	MEM00950
0951	P035D	CC96		LDA*	(L5STLOC)		MEM00951
0952	P035E	98BD		SUB*	ADRES1		MEM00952
0953	P035F	0111		SAN	1	LAST LOCATION OF DATA BLOCK	MEM00953
0954	P0360	1809		JMP*	LW10	YES	MEM00954
0955	P0361	0CFB		ENQ	-\$4	NO	MEM00955
0956	P0362	CAB9	LW9	LDA*	EE+4,Q		MEM00956
0957	P0363	0864		TCA	A		MEM00957
0958	P0364	6AB7		STA*	EE+4,Q		MEM00958
0959	P0365	0D01		INQ	1		MEM00959
0960	P0366	0141		SQZ	1		MEM00960
0961	P0367	18FA		JMP*	LW9	YES	MEM00961
0962	P0368	18CD		JMP*	LW3	NO	MEM00962
0963	P0369	5C8D	LW10	RTJ*	(S5TPPB)	SET PRTECT BITS	MEM00963
0964	P036A	1CB3		JMP*	(LW0)	EXIT WORST PATTERN LOADED	MEM00964

0966 P0368 0000 WORSTSW NUM \$0
 0967 P036C 0000 COUNT NUM \$0
 0968 P036D 0000 FISTADR NUM \$0
 0969 P036E 0000 LASTADR NUM \$0
 0970 P036F 0000 ERRORSW NUM \$0
 0971 P0370 0000 ADTESW NUM \$0

WORST PATTERN SWITCH
 COUNTS ERROR NUMBER
 FIRST ADDRESS
 LAST ADDRESS
 ERROR SWITCH
 ADDRESS TEST SWITCH

MEM00966
 MEM00967
 MEM00968
 MEM00969
 MEM00970
 MEM00971

0973 P0371 0000 STOP6 NUM 0
 0974 P0372 0000 JUMP6 NUM 0
 0975 P0373 0060 P A6DRESS ADC ADDRESS
 0976 P0374 006E P L6ADRES ADC LWADRES
 0977 P0375 0065 P L6STCOR ADC NUHCORES
 0978 P0376 0087 P M6RE ADC MORE
 0979 P0377 0088 P M61E ADC MORE+1
 0980 P0378 0082 P F6STLOC ADC FISTLOC
 0981 P0379 0083 P L6STLOC ADC LASTLOC
 0982 P037A 0000 NUM \$0
 0983 P037B 0000 NUM \$0
 0984 P037C 0000 NUM \$0
 0985 P037D 0000 NUM \$0
 0986 P037E 0000 NUM \$0
 0987 P037F 0000 NUM \$0
 0988 P0380 0000 P F6RST ADC MEM002

BLOCK 06 *****MEM00973
 **MEM00974
 **MEM00975
 **MEM00976
 **MEM00977
 **MEM00978
 **MEM00979
 **MEM00980
 **MEM00981
 **MEM00982
 **MEM00983
 **MEM00984
 **MEM00985
 **MEM00986
 **MEM00987
 MEM00988

0990	P0381	0000	TELOCSW	NUM	0				MEM00990
0991	P0382	0000	ADRCK0	NUM	0	ADDRESS CHECK			MEM00991
0992	P0383	CCEF	LDA*	(A6DRESS)		CLEAR BITS 0 THRU 5 OF TEST			MEM00992
0993	P0384	A000	ADRCK9	AND	=N\$FFC0	BLOCK ADDRESSES			MEM00993
	P0385	FFC0							
0994	P0386	6CEC	STA*	(A6DRESS)					MEM00994
0995	P0387	CCEC	LDA*	(L6ADRES)					MEM00995
0996	P0388	A8FC	AND*	ADRCK9+1					MEM00996
0997	P0389	6CEA	STA*	(L6ADRES)					MEM00997
0998	P038A	0844	CLR	A					MEM00998
0999	P038B	6CEA	STA*	(M6RE)					MEM00999
1000	P038C	6CEA	STA*	(M61E)					MEM01000
1001	P038D	CCE7	LDA*	(L6STCORE)					MEM01001
1002	P038E	9CE5	SUB*	(L6ADRES)					MEM01002
1004	P038F	0123	SAP	3		LAST WORD ADDRESS OUTSIDE CORE **NO SKIP	3MEM01004		
1005	P0390	CCE4	LDA*	(L6STCORE)		YES SET TO LAST LOCATION OF CORE +1	MEM01005		
1006	P0391	0901	INA	1			MEM01006		
1007	P0392	6CE1	STA*	(L6ADRES)			MEM01007		
1009	P0393	CCED	LDA*	(L6ADRES)		NO	MEM01009		
1010			*****				MEM01010		
1011			*			CHECK TO SEE IF ADDRESSES IN QUESTION ARE IN CONTINUOUS AND	MEM01011		
1012			*			EXISTING MEMORY	MEM01012		
1013	P0394	ECDE	LDQ*	(A6DRESS)			MEM01013		
1014	P0395	5800	RTJ	SGNCK			MEM01014		
	P0396	00B3							
1015	P0397	1804	JMP*	**+4			MEM01015		
1016	P0398	180F	JMP*	ADRCK2			MEM01016		
1017	P0399	0106	SAZ	ADRCK1--*-1			MEM01017		
1018			*****				MEM01018		
1019	P039A	012C	SAP	ADRCK2--*-1		DOES HE WANT TO TESTED END AROUND	MEM01019		
1020	P039B	C8E5	LDA*	TELOCSW		YES DONT ALLOW IT **NO SKIP	ADRCK2MEM01020		
1021	P039C	0103	SAZ	ADRCK1--*-1		SET LAST WORD ADDRESS AS END OF CORE +1	MEM01021		
1022	P039D	C84C	LDA*	FIRSTA		FIRST WORD ADDRESS ADDRESS LEAVE THE	MEM01022		
1023	P039E	6852	STA*	MOVETO		SAME AND MOVE TEST TO LOWER CORE	MEM01023		
1024	P039F	5863	RTJ*	MOVE			MEM01024		
1025	P03A0	C800	ADRCK1	LDA	SAV6		MEM01025		
	P03A1	00EE							
1026	P03A2	0122	SAP	ADRCK11--*-1			MEM01026		
1027	P03A3	1800	JMP	ENDTEST			MEM01027		
	P03A4	FC93							
1028	P03A5	CCCC	ADRCK1	LDA*	(L6STCORE)		MEM01028		
1029	P03A6	6CCD	STA*	(L6ADRES)			MEM01029		
1030	P03A7	C8D9	ADRCK2	LDA*	TELOCSW		MEM01030		
1031	P03A8	A000	AND	=N\$7FFF			MEM01031		
	P03A9	7FFF							
1032	P03AA	0101	SAZ	1		IS TEST IN LOWER CORE	MEM01032		
1033	P03AB	1817	JMP*	ADRCK4		NO*ITS IN HIGHER CORE*	MEM01033		

1035	P03AC	CGC6	LDA* (A6DRESS)	YES	MEM01035
1036			*****	*****	MEM01036
1037			* CHECK TO SEE IF ADDRESSES IN QUESTION ARE IN CONTINUOUS AND		MEM01037
1038			* EXISTING MEMORY		MEM01038
1039	P03AD	E830	LQ* LASTA		MEM01039
1040	P03AE	5800	RTJ SGNCK		MEM01040
	P03AF	009A			
1041	P03B0	1804	JMP* **4		MEM01041
1042	P03B1	1802	JMP* **2		MEM01042
1043			*****	*****	MEM01043
1044	P03B2	0131	SAM 1	IS TEST BLK WITHIN THE MEMORY TEST	MEM01044
1045	P03B3	1820	JMP* ADRCK6	NO EXIT AND TEST BLOCK	MEM01045
1046	P03B4	CGC0	LDA* (L6STCORE)	YES	MEM01046
1047	P03B5	9833	SUB* LENGTH	CAN I TEST BLK IN ONE PASS-IF I MOVE	MEM01047
1048	P03B6	683A	STA* MOVETO	TEST TO THE END OF CORE	MEM01048
1049	P03B7	9CBC	SUB* (L6ADRES)		MEM01049
1050	P03B8	0132	SAM ADRCK3*-1	SHOULD TEST BE MOVED **NO SKIP ADRCK3	MEM01050
1051	P03B9	5849	RTJ* MOVE	YES	MEM01051
1052	P03BA	1819	JMP* ADRCK6	EXIT AND TESTED BLK IN ONE PASS	MEM01052
1053	P03BB	CC87	ADRCK3 LDA* (A6DRESS)	NO MUST TEST BLK IN TWO PASSES	MEM01053
1054	P03BC	6CB9	STA* (M6RE)		MEM01054
1055	P03BD	C82D	LDA* LASTA		MEM01055
1056	P03BE	0940	INA 64		MEM01056
1057	P03BF	6CB3	STA* (A6DRESS)	SET UP FOR BOTH PASSES	MEM01057
1058	P03C0	6C86	STA* (M61E)		MEM01058
1059	P03C1	1812	JMP* ADRCK6	EXIT AND TEST BLK PASSES ONE	MEM01059
1060	P03C2	C827	ADRCK4 LDA* FIRSA	***** MEMORY TEST AT THE END OF CORE *****	MEM01060
1062	P03C3	9CB0	SUB* (L6ADRES)		MEM01062
1063	P03C4	0131	SAM 1	IS TEST BLK WITHIN THE MEMORY TEST	MEM01063
1064	P03C5	180E	JMP* ADRCK6	NO	MEM01064
1065	P03C6	CCAC	LDA* (A6DRESS)	YES	MEM01065
1066	P03C7	9821	SUB* LENGTH	CAN THE TEST BLK BE TESTED IN ONE PASS	MEM01066
1067	P03C8	0134	SAM ADRCK5*-1	IF I MOVE IT TO LOWER CORE *NO SKIP,ADRCK5	MEM01067
1068	P03C9	0A00	ENA 0	YES	MEM01068
1069	P03CA	6826	STA* MOVETO		MEM01069
1070	P03CB	5837	RTJ* MOVE	MOVE TEST TO LOWER CORE	MEM01070
1071	P03CC	1807	JMP* ADRCK6	GO STORE ADDRESSES AND EXIT	MEM01071
1072	P03CD	CCA6	ADRCK5 LDA* (L6ADRES)	NO MUST BE TESTED IN TWO PASSES	MEM01072
1073	P03CE	6CA8	STA* (M61E)		MEM01073
1074	P03CF	C81A	LDA* FIRSA		MEM01074
1075	P03D0	09BF	INA -64		MEM01075
1076	P03D1	6CA4	STA* (M6RE)	SET UP FOR BOTH PASSES	MEM01076
1077	P03D2	6CA1	STA* (L6ADRES)		MEM01077

1079	P03D3	CC9F	ADRCK6	LDA* (A6DRESS)	CLEAR BITS 0 THRU 5 OF TEST BLOCK	MEM01079
1080	P03D4	A8B0		AND* ADRCK9+1		MEM01080
1081	P03D5	6C9D		STA* (A6DRESS)		MEM01081
1082	P03D6	6CA1		STA* (F6STLOC)		MEM01082
1083	P03D7	CC9C		LDA* (L6ADRES)		MEM01083
1084	P03D8	A8AC		AND* ADRCK9+1		MEM01084
1085	P03D9	6C9A		STA* (L6ADRES)		MEM01085
1086	P03DA	6C9E		STA* (L6STLOC)		MEM01086
1087	P03DB	9C97		SUB* (A6DRESS)	IF ADDRESSES HAVE A BLOCK LENGTH OF ZERO	MEM01087
1088	P03DC	0101		SAZ ADRCK7-*+1	SET UP A 64 WORD BLK AND LOOP BACK	MEM01088
1089	P03DD	1CA4		JMP* (ADRCK0)	BLK LENGTH NOT ZERO EXIT	MEM01089
1091	P03DE	0A00	ADRCK7	ENA 0		MEM01091
1092	P03DF	9C93		SUB* (A6DRESS)		MEM01092
1093	P03E0	0133		SAM ADRCK8-*+1	IS 1ST WORD OF TEST BLK. 0 *NO SKIP ADRCK8	MEM01093
1094	P03E1	0A40		ENA 64	YES	MEM01094
1095	P03E2	6C91		STA* (L6ADRES)	SET LAST WORD ADDRESS TO 64 DEC	MEM01095
1096	P03E3	189F		JMP* ADRCK0+1	RETURN TO CHECK ADDRESS NOT IN MEMORY TEST	MEM01096
1097	P03E4	CC8E	ADRCK8	LDA* (A6DRESS)	NO	MEM01097
1098	P03E5	09BF		INA -64	SUB 64 DEC FROM FIRST ADDRESS	MEM01098
1099	P03E6	6C8C		STA* (A6DRESS)		MEM01099
1100	P03E7	1898		JMP* ADRCK0+1	RETURN TO CHECK ADDRESS ARE NOT IN TEST	MEM01100

1102	P03E8	050F	P	LENGTH	ADC	LAST		LENGTH OF MEMORY TEST AND SMH17	MEM01102
1103	P03E9	0000	P	FIRSTA	ADC		MEM002		MEM01103
1104	P03EA	050F	P	LASTA	ADC	LAST		LAST LOCATION OF MEMORY TEST	MEM01104
1105	P03EB	0008		NUMBLK	NUM	8		NUMBER OF BLOCKS FOR RELATIVE JUMPS	MEM01105

1107	P03EC	0000		FIRSTB	NUM	\$0		FIRST LOCATION OF SMH1700	MEM01107
1108	P03ED	0000		NUMBL1	NUM	0			MEM01108
1109	P03EE	0000		BLKADR	NUM	0			MEM01109
1110	P03EF	0000		RELOC	NUM	0		RELOCATION VALUE TO BE ADDED TO BLOCKS	MEM01110
1111	P03F0	0000		MOVETO	NUM	0		FIRST LOCATION OF DESTINATION	MEM01111

1113	P03F1	0000		BLOCK7	NUM	\$0		BLOCK 07 *****	MEM01113
1114	P03F2	0000			NUM	0			MEM01114
1115	P03F3	0000			NUM	0			MEM01115
1116	P03F4	0066	P	I7NP0	ADC	INP0			**MEM01116
1117	P03F5	0382	P	A7RCK9	ADC	ADRCK0			**MEM01117
1118	P03F6	0082	P	F7STLOC	ADC	FISTLOC			**MEM01118
1119	P03F7	0083	P	L7STLOC	ADC	LASTLOC			**MEM01119
1120	P03F8	0043		S7J	ADC	STJP			MEM01120
1121	P03F9	0000			NUM	\$0			**MEM01121
1122	P03FA	0000			NUM	\$0			**MEM01122
1123	P03FB	0000			NUM	\$0			**MEM01123
1124	P03FC	0000			NUM	\$0			**MEM01124
1125	P03FD	0000			NUM	\$0			**MEM01125
1126	P03FE	0000			NUM	\$0			**MEM01126
1127	P03FF	0000			NUM	\$0			**MEM01127
1128	P0400	0000			NUM	\$0		*****	MEM01128
1129	P0401	0B00		OVER07	NOP	0			MEM01129
1130	P0402	0000		MOVE	NUM	0		MOVE ROUTINE WILL RELOCATE AND	MEM01130
1131				*				MEMORY TEST TO ITS NEW DESTINATION	MEM01131
1132	P0403	C8E5		LDA*	FIRSTA			IN LOCATION MOVETO	MEM01132
1133	P0404	0901		INA	STOP0-MEM002-\$70				MEM01133
1134	P0405	68E8		STA*	BLKADR				MEM01134
1135	P0406	C8E9		LDA*	MOVETO				MEM01135
1136	P0407	6800		STA	TELOCSW			TEST LOCATION SWITCH	MEM01136
	P0408	FF78							
1137	P0409	98E2		SUB*	FIRSTB			FIND RELOCATION	MEM01137
1138	P040A	68E4		STA*	RELOC			STORE IN RELOC	MEM01138
1139	P040B	CCE9		LDA*	(A7RCK0)			RELOCATED ADRCK0 ENTRY	MEM01139
1140	P040C	88E2		ADD*	RELOC				MEM01140
1141	P040D	6CE7		STA*	(A7RCK9)				MEM01141
1142	P040E	CCE5		LDA*	(I7NP0)				MEM01142
1143	P040F	88DF		ADD*	RELOC				MEM01143
1144	P0410	6CE3		STA*	(I7NP0)				MEM01144
1145	P0411	C8D9		LDA*	NUMBLK				MEM01145

1146	P0412	0864	TCA	A			MEM01146
1147	P0413	68D9	STA*	NUMBL1	SET UP NUMBER OF BLOCKS TO BE RELOCATED		MEM01147
1148	P0414	0CEF	MOVE1	ENQ	-16		MEM01148
1149	P0415	C8D8	LDA*	BLKADR	SET UP BLOCK ADDRESS FOR RELOCATION		MEM01149
1150	P0416	0970	INA	\$70			MEM01150
1151	P0417	68D6	STA*	BLKADR			MEM01151
1152	P0418	CCD5	MOVE2	LDA*	(BLKADR)	LOAD ONE WORD	MEM01152
1153	P0419	88D5	ADD*	RELOC	ADD RELOCATION VALUE		MEM01153
1154	P041A	6CD3	STA*	(BLKADR)	STORE BACK WITH RELOCATION ADDED		MEM01154
1155	P041B	D8D2	RAO*	BLKADR			MEM01155
1156	P041C	0D01	INQ	1			MEM01156
1157	P041D	0141	SQZ	1	LAST WORD OF 16 WORD BLOCK		MEM01157
1158	P041E	18F9	JMP*	MOVE2	NO LOOP BACK		MEM01158
1159	P041F	D8CD	RAO*	NUMBL1	YES		MEM01159
1160	P0420	C8CC	LDA*	NUMBL1			MEM01160
1161	P0421	0101	SAZ	1	LAST BLOCK		MEM01161
1162	P0422	18F1	JMP*	MOVE1	NO LOOP BACK AND SET UP FOR NEXT BLOCK		MEM01162
1163	P0423	C8CB	LDA*	RELOC	*		MEM01163
1164	P0424	EC23	LDQ*	(LASTV)	*		MEM01164
1165	P0425	0832	AAQ	Q	*		MEM01165
1166	P0426	4C21	STQ*	(LASTV)	*		MEM01166
1167	P0427	EC21	LDQ*	(RELAQ)	*		MEM01167
1168	P0428	0832	AAQ	Q	* THIS CODE CAN BE REMOVED		MEM01168
1169	P0429	4C1F	STQ*	(RELAQ)	* WHEN STOPX AND JUMPX IN		MEM01169
1170	P042A	E81D	LDQ*	LASTV	* THE MONITOR DO NOT USE		MEM01170
1171	P042B	0832	AAQ	Q	* ANY ABSOLUTE ADDRESSING		MEM01171
1172	P042C	481B	STQ*	LASTV	* INSTRUCTIONS. LASTV AND		MEM01172
1173	P042D	881B	ADD*	RELAQ	* RELAQ CAN ALSO BE REMOVED.		MEM01173
1174	P042E	681A	STA*	RELAQ	*		MEM01174
1175	P042F	C888	LDA*	LENGTH	SET THE COMPLEMENT AMOUNT OF LOCATIONS IN		MEM01175
1176	P0430	0862	TCA	Q	THE MEMORY TEST IN Q		MEM01176
1177	P0431	0DFE	INQ	-\$1			MEM01177
1178	P0432	C886	LDA*	FIRSTA	RELOCATE FIRSTA AND SET UP FOR MOVE		MEM01178
1179	P0433	888B	ADD*	RELOC			MEM01179
1180	P0434	6884	STA*	FIRSTA			MEM01180
1181	P0435	C886	LDA*	FIRSTB	RELOCATE FIRSTB		MEM01181
1182	P0436	6886	STA*	NUMBL1			MEM01182
1183	P0437	8887	ADD*	RELOC			MEM01183
1184	P0438	6883	STA*	FIRSTB			MEM01184
1185	P0439	C880	LDA*	LASTA	RELOCATE LASTA		MEM01185
1186	P043A	8884	ADD*	RELOC			MEM01186
1187	P043B	68AE	STA*	LASTA			MEM01187
1188	P043C	CC80	MOVE3	LDA*	(NUMBL1)	MOVE MEMORY TEST	MEM01188
1189	P043D	6C82	STA*	(MOVETO)			MEM01189
1190	P043E	D8AE	RAO*	NUMBL1			MEM01190
1191	P043F	D880	RAO*	MOVETO			MEM01191
1192	P0440	0D01	INQ	1			MEM01192
1193	P0441	0141	SQZ	1	LAST WORD MOVED		MEM01193
1194	P0442	18F9	JMP*	MOVE3	NO LOOP BACK MOVE ONE MORE WORD		MEM01194
1195	P0443	C8BE	LDA*	MOVE	RELOCATE THE RETURN ADDRESS IN MOVE		MEM01195
1196	P0444	88AA	ADD*	RELOC			MEM01196
1197	P0445	68BC	STA*	MOVE			MEM01197
1198	P0446	1C8B	JMP*	(MOVE)	JUMP TO DESTINATION BY RETURN ADDRESS		MEM01198

1200	P0447	0044	LASTV	ADC	LASTVALUE		MEM01200
1201	P0448	000C	RELAQ	ADC	RELPOS		MEM01201
1203	P0449	0800	SGNCK	NOP			MEM01203
1204	P044A	0132		SAM	2		MEM01204
1205	P044B	0176		SQM	SGN3--*-1		MEM01205
1206	P044C	1802		JMP*	SGN1		MEM01206
1207	P044D	0163		SQP	SGN2--*-1		MEM01207
1208	P044E	483D	SGN1	STQ*	SAV3		MEM01208
1209	P044F	983C		SUB*	SAV3		MEM01209
1210	P0450	D8F8		RAO*	SGNCK		MEM01210
1211	P0451	08F7	SGN2	RAO*	SGNCK		MEM01211
1212	P0452	1CF6	SGN3	JMP*	(SGNCK)		MEM01212
1213	P0453	0000	SETPPB	NUM \$0		SET PROGRAM PROTECT BITS	MEM01213
1214	P0454	ECA1		LDQ* (F7STLOC)			MEM01214
1215	P0455	C600	SETPP1	LDA+ \$0,Q		LOAD TEST CELL	MEM01215
		P0456					
1216	P0457	0700		CPB 0		CLEAR PROTECT BIT	MEM01216
1217	P0458	0131		SAM 1		BIT 15 SET	MEM01217
1218	P0459	0600		SPB 0		NO SET PROTECT BIT	MEM01218
1219	P045A	0D01		INQ 1		YES LEAVE CLEARED	MEM01219
1220	P045B	0814		TRQ A			MEM01220
1221	P045C	9C9A		SUB* (L7STLOC)			MEM01221
1222	P045D	0121		SAP 1			MEM01222
1223	P045E	18F6		JMP* SETPP1			MEM01223
1224	P045F	1CF3		JMP* (SETPPB)		EXIT	MEM01224
1226	P0460	0000	REPLACE	NUM 0		RESTORE BOOTSTRAP	MEM01226
1227	P0461	E813		LDQ*	SAVLAS		MEM01227
1228	P0462	4044		STQ-	LASTVALUE		MEM01228
1229	P0463	E048		LDQ-	LDL1COR	TO AUTOLOAD AREA	MEM01229
1230	P0464	0151		SQN	NOBK1+1		MEM01230
1231	P0465	E047	NOBK1	LDQ-	LDLCORE		MEM01231
1232	P0466	00E0		INQ	-\$1F		MEM01232
1233	P0467	C800		LDA	SMMLASTAD		MEM01233
		P0468					
1234	P0469	090F		INA	-\$20		MEM01234
1235	P046A	60FF		STA-	I		MEM01235
1236	P046B	C4FF	BOOTBAK	LDA-	(I)		MEM01236
1237	P046C	D0FF		RAO-	I		MEM01237
1238	P046D	667B		STA-	(H0000),Q		MEM01238
1239	P046E	0D01		INQ	1		MEM01239
1240	P046F	0814		TRQ	A		MEM01240
1241	P0470	A047		AND-	LDLCORE	(STRIP OFF UPPER BIT)	MEM01241
1242	P0471	0101		SAZ	FINREP--*-1		MEM01242
1243	P0472	18F8		JMP*	BOOTBAK		MEM01243

MEM014

PAGE 31

DATE: 01/04/75

1244 P0473 1CEC	FINREP	JMP*	(REPLACE)
1245 P0474 0000	SAVLAS	NUM	0

MEM01244
MEM01245

1247	P0475 CC00	CS06B	LDA	(CTRL)	EXIT- TEST OF BANK DONE	MEM01247
	P0476 FC09					
1248	P0477 A000		AND	=NS201	CHECK FOR BITS 9 AND 1 SET	MEM01248
	P0478 0201					
1249	P0479 0102		SAZ	CS06A-*--1	BIT 9 OR 1 SET	MEM01249
1250	P047A 1800		JMP	ENDTEST		MEM01250
	P047B FBBC					
1251	P047C 1C00	CS06A	JMP	(CS0)	EXIT	MEM01251
	P047D FC27					

1253 P047E 0000 BIAS NUM \$0

MEM01253

1303		*	CHECK FOR MAXIMUM MEMORY BANK1	MEM01303
1304	P04AD 0129		SAP BNK41--1	MEM01304
1305	P04AE 6800		STA LOCATION	MEM01305
	P04AF FB05			
1306	P0480 A000		AND =NS7FFF	MEM01306
	P0481 7FFF			
1307	P0482 0FC4		ALS 4	MEM01307
1308	P0483 0864		TCA A	MEM01308
1309	P0484 6800		STA NUMSTACKES	MEM01309
	P0485 FB00			
1310	P0486 1805		JMP* BNK42	MEM01310
1311	P0487 68D9	BNK41	STA* SAV8	MEM01311
1312	P0488 0AF7		ENA -8	MEM01312
1313	P0489 6800		STA NUMSTACKES	MEM01313
	P048A FB0B			
1314		*	*****	*MEM01314
1315		*	DETERMINE IF FIXED BLOCK OR	MEM01315
1316		*	ENTIRE MEMORY IS TO BE TESTED	MEM01316
1317	P048B 0800	BNK42	NOP	MEM01317
1318	P048C C800		LDA CNTRL	MEM01318
	P048D FBAD			
1319	P048E A000		AND =NS0201	MEM01319
	P048F 0201			
1320	P04C0 0111		SAN 1	MEM01320
1321	P04C1 1818		JMP* BNK4D	MEM01321
1322	P04C2 C8CC	BNK4A	LDA* SAV6	MEM01322
1323	P04C3 0121		SAP 1	MEM01323
1324	P04C4 180C		JMP* BNK4B	MEM01324
1325	P04C5 C800		LDA SAVLWA	MEM01325
	P04C6 FC3A			
1326	P04C7 0134		SAM 4	MEM01326
1327		*	*****	*MEM01327
1328		*	FIXED TEST BLOCK	MEM01328
1329		*	*****	*MEM01329
1330		*	ENTIRE TEST BLK IN BNK 0	MEM01330
1331	P04C8 C806		LDA* BNK1	MEM01331
1332	P04C9 09FE		INA -1	MEM01332
1333	P04CA 68B4		STA* BNK1	MEM01333
1334	P04CB 1CB3		JMP* (BNK1)	MEM01334
1335		*	*****	*MEM01335
1336		*	TEST BLK IN BNK0 AND BNK1	MEM01336
1337	P04CC C8BD		LDA* MOVCON	MEM01337
1338	P04CD 6800		STA ADDRESS	MEM01338
	P04CE FB9E			
1339	P04CF 1805		JMP* BNK4C	MEM01339
1340		*	*****	*MEM01340
1341		*	THE ENTIRE TEST BLK IN BNK1	MEM01341
1342	P04D0 C800	BNK4B	LDA SAVFMA	MEM01342
	P04D1 FBC8			
1343	P04D2 6800		STA ADDRESS	MEM01343
	P04D3 FB99			
1344	P04D4 C800	BNK4C	LDA SAVLWA	MEM01344
	P04D5 FC2B			

1345	P04D6 6800		STA	LWADRES		MEM01345
	P04D7 FB96					
1346	P04D8 5800		RTJ	ADRCK0		MEM01346
	P04D9 FEA8					
1347	P04DA 1800		JMP	MASCNO+1		MEM01347
	P04DB FB2E					
1348		*	*****			*MEM01348
1349		*	*****			*MEM01349
1350		*	*****			*MEM01350
1351	P04DC C800	BNK4D	LDA	NUMSTACKS	ENTIRE MEMORY IS TO BE TESTED	MEM01351
	P04DD FBA8					
1352	P04DE 0901		INA	1		MEM01352
1353	P04DF 0111		SAN	1		MEM01353
1354	P04E0 1813		JMP*	BNK5		MEM01354
1355	P04E1 C8A8		LDA*	MOVCON		MEM01355
1356	P04E2 6800		STA	MOVETO		MEM01356
	P04E3 FFOC					
1357	P04E4 C8AC		LDA*	SAV8		MEM01357
1358	P04E5 0139		SAM	BNK4E--1		MEM01358
1359	P04E6 C800		LDA	MEMC3N		MEM01359
	P04E7 FFA0					
1360	P04E8 6800		STA	LWADRES		MEM01360
	P04E9 FB84					
1361	P04EA 5800		RTJ	MOVE		MEM01361
	P04EB FF16					
1362	P04EC C899		LDA*	MEMC1N		MEM01362
1363	P04ED 1800		JMP	MASCN3+3		MEM01363
	P04EE FB2F					
1364	P04EF 5800	BNK4E	RTJ	MOVE		MEM01364
	P04F0 FF11					
1365	P04F1 1800		JMP	MASCN3		MEM01365
	P04F2 FB28					
1366		*	*****			*MEM01366
1367		*	*****			*MEM01367
1368	P04F3 C896	BNK5	LDA*	MOVCON	ONE STACK IN BANK 1 MEMORY	MEM01368
1369	P04F4 6800		STA	ADDRESS		MEM01369
	P04F5 FB77					
1370	P04F6 888E		ADD*	MEMCON		MEM01370
1371	P04F7 6800		STA	LWADRES		MEM01371
	P04F8 FB75					
1372	P04F9 5C00		RTJ	(C0S0)		MEM01372
	P04FA FB79					
1373	P04FB 1800		JMP	ENDTEST		MEM01373
	P04FC FB38					
1374		*	*****			*MEM01374
1375		*	*****			*MEM01375
1376	P04FD 5896	BNK7	RTJ*	BNK4		MEM01376
1377		*	*****			*MEM01377
1378		*	*****			*MEM01378
1379	P04FE FFFF	BNK8	NUM	-0		MEM01379
1380		*	RESTORE BANK 0 TEST INFORMATION			MEM01380
1381	P04FF 0AFF		ENA	-0		MEM01381
1382	P0500 6890		STA*	SAV8		MEM01382

1383	P0501	C800		LDA*	BNK9		MEM01383
1384	P0502	6800		STA	BNKA0D		MEM01384
	P0503	FB78					
1385	P0504	C889		LDA*	SAV5		MEM01385
1386	P0505	6800		STA	LOCATION		MEM01386
	P0506	FB7E					
1387	P0507	C885		LDA*	SAV4		MEM01387
1388	P0508	6800		STA	NUMCORES		MEM01388
	P0509	FB5B					
1389	P050A	C800		LDA	SAV1		MEM01389
	P050B	FF7D					
1390	P050C	6049		STA-	INFORM		MEM01390
1391	P050D	1CF0		JMP*	(BNK8)	EXIT	MEM01391
1392	P050E	FFFF	BNK9	NUM	-0		MEM01392
1393	P050F	052E	P LAST	ADC	*+ \$1F	(INCLUDE BOOTSTRAP SAVE AREA)	MEM01393
1395	P0510	0B00	INITX	NOP	0		MEM01395
1396	P0511	C090		LDA-	TSINIT	MULTIPLEX UNTIL ALL OTHER ACTIVE	MEM01396
1397	P0512	09FE		INA	-1	TESTS HAVE EXITED.	MEM01397
1398	P0513	010E		SAZ	GOMEM*-1		MEM01398
1399	P0514	C80C		LDA*	STARTFLAG		MEM01399
1400	P0515	0119		SAN	GOMUX0		MEM01400
1401	P0516	D80A		SAO*	STARTFLAG	OUTPUT MSG ONLY ONCE	MEM01401
1402	P0517	C000		LDA	=XMUXMSG		MEM01402
	P0518	05E7	P				
1403	P0519	E8F6		LDQ*	INITX		MEM01403
1404	P051A	0DF6		INQ	-9		MEM01404
1405	P051B	0834		AAQ	A	RELOCATE BFR FWA	MEM01405
1406	P051C	E000		LDQ	=XMUXEND-MUXMSG+1		MEM01406
	P051D	0022					
1407	P051E	5408		RTJ-	(TYPEOUT)	OUTPUT WAITING MSG	MEM01407
1408	P051F	5401	GOMUX0	RTJ-	(CONTROL)		MEM01408
1409	P0520	0000		STARTFLAG	NUM		MEM01409
1410	P0521	5401		RTJ-	(CONTROL)		MEM01410
1411	P0522	C044	GOMEM	LDA-	LASTVALUE	MONITOR LWA+1 WILL BECOME IA.	MEM01411
1412	P0523	6800		STA	SAVLAS		MEM01412
	P0524	FF4F					
1413	P0525	6800		STA	BIAS		MEM01413
	P0526	FF57					
1414	P0527	540A		RTJ-	(HEXASC)		MEM01414
1415	P0528	4800		STQ	FREQCNT-3		MEM01415
	P0529	0094					
1416	P052A	6800		STA	FREQCNT-2		MEM01416
	P052B	0093					
1417	P052C	C092		LDA-	TSFREQ	(ONLY MEM002 REMAINS IN LIST)	MEM01417
1418	P052D	540A		RTJ-	(HEXASC)		MEM01418
1419	P052E	6800		STA	FREQCNT+3		MEM01419
	P052F	0094					
1420	P0530	5409		RTJ-	(TTYBZY)	(ENSURE TTY BUSY SWITCH CLEAR)	MEM01420
1421	P0531	C049		LDA-	INFORM	MEM/02 SAVES, RESTORES, INFORM.	MEM01421

1422	P0532 6800	STA	SAV1		MEM01422
	P0533 FF55				
1423	P0534 C056	LDA-	SMMCNT		MEM01423
1424	P0535 6800	STA	SAVESMMCNT	SAVE SHM PARAMETER WORD.	MEM01424
	P0536 FB2B				
1425	P0537 A000	AND	=N-\$20		MEM01425
	P0538 FFDF				
1426	P0539 0920	INA	\$20	SET NON-INTERRUPT TYPEOUT MODE.	MEM01426
1427	P053A 6056	STA-	SMMCNT		MEM01427
1428	P053B 6800	STA	SAVESMMCNT+1		MEM01428
	P053C FB26				
1429	P053D C042	LDA-	SETHASK	SAVE ORIGNAL INTERRUPT MASK	MEM01429
1430	P053E 6800	STA	SAVESE		MEM01430
	P053F FB20				
1431	P0540 A000	AND	=N\$FFFE	CLEAR INT. LINE 0 FROM MASK	MEM01431
	P0541 FFFE				
1432	P0542 6800	STA	SAVESE+1	SAVE MODIFIED MASK	MEM01432
	P0543 FB1D				
1433	P0544 0821	TRA	M		MEM01433
1434	P0545 0C1F	ENQ	HEADC-HEADING+1		MEM01434
1435	P0546 G000	LDA	=XHEADING		MEM01435
	P0547 05AE P				
1436	P0548 80A6	ADD-	TSIAAD		MEM01436
1437	P0549 5408	RTJ-	(TYPEOUT)	TYPE HEADING	MEM01437
1438	P054A C800	LDA	BIAS	PERFORM	MEM01438
	P054B FF32				
1439	P054C 6800	STA	FIRSTA	INITIAL	MEM01439
	P054D FE98				
1440	P054E E8C0	LDQ*	LAST	BIASING.	MEM01440
1441	P054F 0832	AAQ	Q		MEM01441
1442	P0550 4800	STQ	LASTA		MEM01442
	P0551 FE98				
1443	P0552 4800	STQ	LENGTH		MEM01443
	P0553 FE94				
1444	P0554 485A	STQ*	HEADING	(USED IN -MEMMOVE-, BELOW)	MEM01444
1445	P0555 0D01	INQ	1		MEM01445
1446	P0556 4800	STQ	SMMLASTAD	(FINAL TEST LWA+1)	MEM01446
	P0557 FB0C				
1447	P0558 C0A6	LDA-	TSIAAD	(TEST LOAD FWA)	MEM01447
1448	P0559 0901	INA	STOPO-MEM002-\$70		MEM01448
1449	P055A 6852	STA*	INIT2		MEM01449
1450	P055B C800	LDA NUMBLK			MEM01450
	P055C FE8E				
1451	P055D 0864	TCA A			MEM01451
1452	P055E 684F	STA* INIT3			MEM01452
1453	P055F 0CEF	ENQ -16		RELOCATE THE RELATIVE JMP BLOCKS	MEM01453
1454	P0560 C84C	LDA* INIT2			MEM01454
1455	P0561 0970	INA \$70			MEM01455
1456	P0562 684A	STA* INIT2			MEM01456
1457	P0563 90A6	SUB-	TSIAAD		MEM01457
1458	P0564 9000	SUB	=X9LOCK7		MEM01458
	P0565 03F1 P				
1459	P0566 0107	SAZ	INIT5-*--1		MEM01459

1460	P0567	C002	LDA-	STOPX	STORE STOPX	MEM01460
1461	P0568	6C44	STA*	(INIT2)		MEM01461
1462	P0569	0843	RAO*	INIT2	AND JUMPX	MEM01462
1463	P056A	C006	LDA-	JUMPX		MEM01463
1464	P056B	6C41	STA*	(INIT2)	ROUTINE ADDRESSES	MEM01464
1465	P056C	0840	RAO*	INIT2		MEM01465
1466	P056D	0D02	INQ	2	IN FIRST	MEM01466
1467	P056E	CC3E	INIT5	LDA* (INIT2)		MEM01467
1468	P056F	8800	ADD	BIAS		MEM01468
	P0570	FF0D				
1469	P0571	6C3B	STA*	(INIT2)		MEM01469
1470	P0572	D83A	RAO*	INIT2		MEM01470
1471	P0573	0D01	INQ	1		MEM01471
1472	P0574	0141	SQZ	1		MEM01472
1473	P0575	18F8	JMP*	INIT5		MEM01473
1474	P0576	D837	RAO*	INIT3		MEM01474
1475	P0577	C836	LDA*	INIT3		MEM01475
1476	P0578	0101	SAZ	1		MEM01476
1477	P0579	18E5	JMP*	INIT4		MEM01477
1478	P057A	C800	FINSJ	LDA	JP71	MEM01478
	P057B	F823				
1479	P057C	6800	STA	SAVEJP71	PREPARE JP71 RESET VALUE.	MEM01479
	P057D	FB06				
1480	P057E	C047	LDA-	LDLCORE		MEM01480
1481	P057F	6800	STA	NUMCORE	(LAST ADDRESS OF BANK 0)	MEM01481
	P0580	FAE4				
1482	P0581	E048	BOOTAD	LDQ-	LDL1COR	MEM01482
1483	P0582	0DE0	INQ	-\$1F	(AUTOLOAD FWA)	MEM01483
1484	P0583	0500	IIN	0		MEM01484
1485	P0584	C67B	LDA-	(H0000),Q		MEM01485
1486	P0585	667B	STA-	(H0000),Q	CHECK SC AUTOLOAD PROTECTION.	MEM01486
1487	P0586	01FB	SNF	NOFAULT-*--1	(IF PROTECT FAULT GENERATED,	MEM01487
1488	P0587	0C1B	ENQ	HEADE-HEADC+1	INFORM OPERATOR OF NEED	MEM01488
1489	P0588	0A04	ENA	4	TO DISABLE MANUAL CONTROLS)	MEM01489
1490	P0589	A056	AND-	SMMCNT		MEM01490
1491	P058A	0111	SAN	1	SC1700-	MEM01491
1492	P058B	0C0D	ENQ	HEADD-HEADC+1	AZERO = NO.	MEM01492
1493	P058C	C0A6	LDA-	TSIAAD	(BIAS HEADING ADDRESS)	MEM01493
1494	P058D	8000	ADD	=XHEADC		MEM01494
	P058E	05CC	P			
1495	P058F	5408	RTJ-	(TYPEOUT)		MEM01495
1496	P0590	0000	SLS	0		MEM01496
1497	P0591	18EF	JMP*	BOOTAD		MEM01497
1498	P0592	C000	NOFAULT	LDA	=XLAST	MEM01498
	P0593	050F	P			
1499	P0594	80A6	ADD-	TSIAAD	TO END OF TEST.	MEM01499
1500	P0595	60FF	STA-	I		MEM01500
1501	P0596	C67B	MOVBOOT	LDA-	(H0000),Q	MEM01501
1502	P0597	64FF	STA-	(I)	(BOOTSTRAP ASSUMED	MEM01502
1503	P0598	D0FF	RAO-	I	TO BE AT END OF CORE)	MEM01503
1504	P0599	0D01	INQ	1		MEM01504
1505	P059A	0814	TRQ	A		MEM01505
1506	P059B	A081	AND-	H00FF	STRIP OFF UPPER BITS.	MEM01506

1507	P059C	0101	SAZ	MOVEMEM*-1		MEM01507
1508	P059D	18F8	JMP*	NOVBOOT		MEM01508
1509	P059E	C8A6	NOVEMEM	LDA-	TSIAAD	MEM01509
1510	P059F	60FF	STA-	I	MOVE MEMORY TEST	MEM01510
1511	P05A0	E044	LOQ-	LASTVALUE	TO END OF MONITOR.	MEM01511
1512	P05A1	0DF0	INQ	-2		MEM01512
1513	P05A2	0D01	MEMMOVE	INQ	1	MEM01513
1514	P05A3	C4FF	LDA-	(I)		MEM01514
1515	P05A4	6201	STA-	1vQ		MEM01515
1516	P05A5	D0FF	RAO-	I		MEM01516
1517	P05A6	C808	LDA*	HEADING	(HEADING NOW = (LASTVALU)+(LAST)	MEM01517
1518	P05A7	0874	EAQ	A		MEM01518
1519	P05A8	0101	SAZ	ENDINIT*-1		MEM01519
1520	P05A9	18F8	JMP*	MEMMOVE		MEM01520
1521	P05AA	0500	ENDINIT	IIN	0	MEM01521
1522	P05AB	1444	JMP-	((LASTVALUE)	BEGIN TEST.	MEM01522
1524	P05AC	0000	INIT2	NUM	0	MEM01524
1525	P05AD	0000	INIT3	NUM	0	MEM01525
1527	P05AE	8D0A	HEADING	NUM	\$8D0A	MEM01527
1528	P05AF	4D45	ALF		X, MEM014 MEMORY TEST.X	MEM01528
	P05B0	4D30				
	P05B1	3134				
	P05B2	2020				
	P05B3	4B45				
	P05B4	4D4F				
	P05B5	5259				
	P05B6	2054				
	P05B7	4553				
	P05B8	542E				
1529	P05B9	8B8A	HEADB	NUM	\$8D0A	MEM01529
1530	P05BA	2049	ALF		6, IA =	MEM01530
	P05BB	4120				
	P05BC	3D20				
	P05BD	2020				
	P05BE	2020				
	P05BF	2C20				
1531	P05C0	2046	FREQNT	ALF	4, FC =	MEM01531
	P05C1	4320				
	P05C2	3D20				
	P05C3	2020				
1532	P05C4	2043	ALF		X, CP23, VER. 3.1X	MEM01532
	P05C5	5032				
	P05C6	332C				
	P05C7	2056				
	P05C8	4552				
	P05C9	2E20				
	P05CA	332E				
	P05CB	3120				
1533	P05CC	8D0A	HEADC	NUM	\$8D0A	MEM01533
1534	P05CD	434C	ALF		X, CLEAR PROTECT SWITCH.X	MEM01534
	P05CE	4541				

P05CF	5220					
P0500	5052					
P0501	4F54					
P0502	4543					
P0503	5420					
P0504	5357					
P0505	4954					
P0506	4348					
P0507	2E20					
1535	P0508	8D0A	HEADD	NUM	\$800A	MEM01535
1536	P0509	4449		ALF	X,DISABLE AUTOLOAD PROTECT.X	MEM01536
	P050A	5341				
	P050B	424C				
	P050C	4520				
	P050D	4155				
	P050E	544F				
	P050F	4C4F				
	P05E0	4144				
	P05E1	2050				
	P05E2	524F				
	P05E3	5445				
	P05E4	4354				
	P05E5	2E20				
1537	P05E6	8D0A	HEADE	NUM	\$800A	MEM01537
1538	P05E7	8D0A	MUXMSG	NUM	\$800A	MEM01538
1539	P05E8	4045		ALF	X,MEM014 MEMORY TEST LOADED X	MEM01539
	P05E9	4030				
	P05EA	3134				
	P05EB	2040				
	P05EC	4540				
	P05ED	4F52				
	P05EE	5920				
	P05EF	5445				
	P05F0	5354				
	P05F1	204C				
	P05F2	4F41				
	P05F3	4445				
	P05F4	4420				
1540	P05F5	8D0A		NUM	\$800A	MEM01540
1541	P05F6	5741		ALF	X,WAITING FOR OTHER TESTS TO COMPLETE X	MEM01541
	P05F7	4954				
	P05F8	494E				
	P05F9	4720				
	P05FA	464F				
	P05FB	5220				
	P05FC	4F54				
	P05FD	4845				
	P05FE	5220				
	P05FF	5445				
	P0600	5354				
	P0601	5320				
	P0602	544F				
	P0603	2043				
	P0604	4F40				

MEM014

PAGE 41

DATE: 01/04/75

P0605 504C
P0606 4554
P0607 4520

1542 P0608 800A MUXEND NUM 800A
1543 END

MEM01542
MEM01543

PGM= 0609 (1545) COH = 0000 (0) DAT = 0000 (0)

EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(000255) , 1235, 1236, 1237, 1500, 1502, 1503 , 1510, 1514, 1516
0032	CONTR0	0001	(000001) , 0033, 1408, 1410
0033	STOPX	0002	(000002) , 0034, 1460
0034	EXIT	0003	(000003) , 0035, 0135
0035	JUMPX	0006	(000006) , 0036, 1463
0036	TYPE0U	0008	(000008) , 0037, 0038, 1407, 1437, 1495
0037	TTYBZY	0009	(000009) , 1420
0038	HEXASC	000A	(000010) , 0039, 0040, 0041, 1414, 1418
0039	RELPOS	000C	(000012) , 1201
0040	MONPP	000F	(000015) , 0133
0041	SELIN	0023	(000035) , 0042, 0043
0042	SETHAS	0042	(000066) , 0129, 0139, 1429
0043	STJP	0043	(000067) , 0044, 0045, 1120
0044	LASTVA	0044	(000068) , 1200, 1228, 1411, 1511, 1522
0045	LDLCOR	0047	(000071) , 0046, 1231, 1241, 1480
0046	LDL1CO	0048	(000072) , 0047, 1229, 1262, 1482
0047	INFORM	0049	(000073) , 0048, 1390, 1421
0048	SHMCNT	0056	(000086) , 0049, 0132, 0137, 1423, 1427, 1490
0049	H0000	007B	(000123) , 0050, 0051, 1238, 1485, 1486, 1501
0050	H00FF	0081	(000129) , 1506
0051	TSINIT	0090	(000144) , 0052, 0053, 1396
0052	TSFREQ	0092	(000146) , 1417
0053	TSIAAD	00A6	(000166) , 1436, 1447, 1457, 1493, 1499, 1509

SYMBOLS

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0054	HEM002	0000	, 0988, 1103, 1133, 1448
0056	PARADR	0004	
0057	RETURN	0005	
0058	EQUIP	0006	
0060	INIT02	0007	, 0057
0062	MASCNO	0009	, 0054, 0127, 0141, 1347
0068	MASCN1	0010	, 0065
0078	MASCN3	0018	, 0076, 0108, 1363, 1365
0105	MT1	0034	, 0087, 0093
0110	ENDTES	0038	, 0067, 0149, 1027, 1250, 1373
0115	BNK	0030	, 0111
0116	MASCN4	003E	
0124	PASSCT	0047	, 0120
0125	MASCN6	0048	, 0122
0143	MASCN5	0058	, 0077, 0080
0150	SAVESE	0060	, 0128, 0138, 1430, 1432
0152	SAVESM	0062	, 0131, 0136, 1424, 1428
0153	SHMLAS	0064	, 0098, 0145, 1233, 1446
0154	NUMCOR	0065	, 0068, 0977, 1289, 1301, 1388, 1481
0156	INPO	0066	, 0056, 0062, 0229, 0238, 1116
0163	CNTRL	0068	, 0063, 0203, 0221, 0225, 0226, 0247 , 0284, 0288, 0336, 0470, 0719, 1318
0177	PATTER	006C	, 0464
0179	ADDRES	006D	, 0081, 0096, 0101, 0146, 0215, 0254 , 0262, 0466, 0504, 0505, 0975, 1338 , 1343, 1369
0180	LWADRE	006E	, 0079, 0144, 0218, 0256, 0264, 0976 , 1345, 1360, 1371
0184	NUMREA	006F	, 0725
0188	STOPO	0071	, 0121, 0158, 1133, 1448
0189	JUMPO	0072	, 0126
0190	TOLOCS	0073	, 0110
0191	COSO	0074	, 0066, 0084, 0104, 0148, 1372
0192	AORCKO	0075	, 0083, 0147, 0228, 0257, 0267
0193	MOVEYO	0076	, 0097, 0113
0194	MOVE	0077	, 0103, 0114
0195	LOAST	0078	
0196	BOIAS	0079	, 0119, 0134, 0157, 0317
0198	JOP71	007B	, 0095, 0118

0199	BNKADD	007C	, 0115, 1283, 1286, 1384
0203	C0TRL	0080	, 0085, 1247
0205	SECTIO	0081	, 0223, 0246, 0273, 0465, 0720
0206	FISTLO	0082	, 0102, 0595, 0858, 0980, 1118
0207	LASTLO	0083	, 0718, 0846, 0981, 1119
0208	SAVEJP	0084	, 0117, 1479
0210	LOCATI	0085	, 0070, 0078, 0082, 1291, 1305, 1386
0211	NUMSTA	0086	, 0074, 0105, 0106, 1309, 1313, 1351
0212	MORE	0087	, 0258, 0261, 0263, 0978, 0979
0215	INP1	0089	, 0159
0228	INP2	0098	, 0222
0229	INP5	0099	, 0227
0231	SAVFWA	009A	, 0216, 0253, 1342
0233	JP70	009B	, 0237, 0302, 0351, 0469
0236	JP71	009F	, 0198, 1478
0238	JP72	00A1	, 0236
0241	SECPAS	00A3	, 0251, 0259, 0266
0242	CSEXIT	00A4	, 0301, 0344
0244	CS0	00A5	, 0191, 1251
0247	SC00	00A8	, 0239
0261	SC01	00B6	, 0252
0272	SC02	00B0	, 0260
0275	SC03	00C0	, 0278
0279	SC04	00C4	, 0277, 0282
0288	CS20	00C0	, 0250, 0335, 0476
0289	CS00	00CE	
0295	CS21	00D4	, 0299
0301	CS01	00DA	, 0463
0302	CS02	00DB	, 0316, 0342
0306	CS03	00DF	, 0311
0317	CS04	00EA	, 0315
0321	CS05	00EE	, 0319, 0472
0324	STOP1	00F1	, 0318, 0355, 0394
0325	JUMP1	00F2	, 0235, 0341, 0360, 0399
0326	C1RSW	00F3	, 0293, 0349, 0370, 0409, 0438
0327	T1PATE	00F4	, 0296, 0306, 0308, 0374, 0382, 0384
			, 0446
0328	L1P0	00F5	, 0303
0329	C1H0	00F6	, 0304, 0353, 0380
0330	A1RTES	00F7	, 0350
0331	L1A0	00F8	, 0352
0332	C1MP5H	00F9	, 0312, 0314, 0388, 0390
0333	C1S40	00FA	, 0300
0334	C1S200	00FB	, 0420
0335	C1S20	00FC	
0336	C1TRL	00FD	, 0343, 0362, 0401
0337	L1W0	00FE	, 0379
0338	W1PA	00FF	, 0373
0339	W1RSTS	0100	, 0371
0340	SAVLWA	0101	, 0219, 0255, 1325, 1344
0341	OVER01	0102	, 0323

0345	CS40	0106	, 0292, 0333
0351	CS41	0100	, 0361
0358	CS42	0114	, 0356, 0549
0366	CS80	0119	, 0348
0373	CS81	0120	, 0377
0378	CS82	0125	, 0392, 0400
0382	CS83	0124	, 0387
0397	CS84	0130	, 0395, 0475
0405	CS100	0138	, 0369
0423	TEPATE	0151	, 0327, 0411, 0412, 0413, 0414, 0416
			, 0417, 0418, 0419, 0482, 0721, 0722
			, 0723, 0848
0434	CS200	0159	, 0334, 0408
0440	CS201	015F	, 0449
0453	CS202	0160	, 0440, 0443
0454	CS203	0160	, 0442, 0445
0458	CS400	016E	, 0437, 0473
0461	STOP2	0171	, 0518, 0527
0462	JUMP2	0172	, 0508, 0532
0463	C2S01	0173	, 0421, 0452, 0487
0464	P2TTER	0174	, 0481, 0503, 0511, 0513
0465	S2CTIO	0175	, 0501, 0543
0466	A22RES	0176	, 0515
0469	J2P70	0179	, 0378, 0525
0470	C2TRL	017A	, 0534
0471	C2MPSW	0170	, 0552
0472	C2S05	017C	, 0550
0473	C2S400	0170	, 0451
0474	C2S800	017E	, 0486
0475	C2S84	017F	, 0548
0476	C2S20	0180	, 0537
0477	OVER02	0181	, 0460
0481	CS401	0185	, 0485
0488	CS800	018C	, 0474, 0478
0497	CS1000	0191	, 0491
0503	CS100A	0197	, 0509, 0533
0519	CS1001	01A9	, 0512
0521	CS1002	01AB	, 0502
0522	CS1004	01AC	, 0514
0523	CS1005	01AD	, 0506, 0510
0524	CS1003	01AE	, 0516
0525	CS1006	01AF	, 0519
0530	CS1007	01B4	, 0528
0535	CS06	0189	, 0500
0542	CLPSW	01BF	, 0326, 0479, 0556
0557	CH0	0103	, 0329, 0650
0564	CH1	01D7	, 0638, 0644
0571	CH2	01DE	, 0565
0573	CH3	01E6	, 0567
0574	CH4	01E1	, 0570, 0572
0575	CH5	01F2	, 0577, 0579
0589	STOP3	01F1	, 0621, 0649
0590	JUMP3	01F2	, 0536, 0637

0591	A3TESM	01F3	, 0553, 0566
0592	W3RSTS	01F4	, 0554, 0564, 0630
0593	E3RORS	01F5	, 0559, 0612, 0628, 0689, 0693
0594	E3COUN	01F6	, 0561
0595	F3STLO	01F7	, 0545, 0562
0596	F3STAD	01F8	, 0563, 0568, 0574, 0615, 0629, 0639
			, 0641, 0664
			, 0569, 0608
0597	P3TERN	01F9	, 0571
0598	D3ISO	01FA	, 0573
0599	S3P0	01FB	, 0576, 0586, 0609
0600	R3CH1	01FC	, 0578, 0583
0601	R3CH2	01FD	, 0580, 0587
0602	R3CH3	01FE	, 0517, 0526, 0620, 0648, 0711
0603	B3IAS	01FF	, 0560, 0658, 0659, 0660, 0661, 0662
0604	C3UNT	0200	, 0663, 0683, 0708
			, 0588
0605	OVER03	0201	, 0684
0624	CH6	0214	, 0619
0625	CH7	0215	, 0618, 0622
0627	CH9	0217	, 0614, 0747
0629	CH10	0219	, 0632
0636	CH11	0221	, 0646
0650	CH16	022F	, 0685, 0695, 0705
0652	CH12	0231	, 0667, 0674, 0675
0653	CH14	0232	, 0670, 0678, 0679
0654	CH15	0233	, 0647
0655	CH13	0234	, 0332, 0471
0656	COMPSW	0235	
0658	ERR6	0236	
0659	ERR5	0237	
0660	ERR4	0238	, 0611
0661	ERR3	0239	, 0607
0662	ERR2	023A	, 0585
0663	ERR1	023B	, 0582
0672	ER1	0244	, 0666
0699	ER2	025F	, 0690
0711	ER3	026C	, 0697, 0703
0716	STOP4	0271	, 0732
0717	JUMP4	0272	, 0687
0718	L4STLO	0273	, 0642
0719	C4TRL	0274	
0720	S4CTIO	0275	, 0681
0721	T4PATE	0276	, 0761, 0764
0722	T44ATE	0277	, 0794
0723	T48ATE	0278	, 0812
0724	C4UNT	0279	, 0746
0725	N4MREA	027A	, 0777
0731	F4STAD	0280	
0732	OVER04	0281	, 0712
0735	ERSECT	0284	, 0696, 0704, 0706
0736	PATERN	0285	, 0597, 0633, 0767, 0845
0737	RDCH1	0286	, 0600
0738	ERADDR	0287	, 0694, 0699, 0702

0739	ERCOUN	0288	, 0594, 0645, 0665, 0672
0740	COMONE	0289	, 0668, 0676
0741	COMZER	028A	, 0671, 0680
0743	ROCH2	028B	, 0601
0744	ROCH3	028C	, 0602
0745	ER4	028D	, 0688, 0710, 0733
0749	DIS0	0290	, 0598, 0782
0757	DIS1	0298	, 0753
0764	DIS2	02A1	, 0760
0765	DIS3	02A2	, 0763
0772	DIS4	02AA	, 0775
0776	DIS5	02AF	, 0773
0778	DIS6	02B1	, 0776, 0781
0782	DIS7	02B6	, 0779
0784	LAP0	02B7	, 0328, 0827
0790	LAP1	02BE	, 0788, 0825
0793	LAP2	02C1	, 0803
0794	LAP3	02C2	, 0799
0808	LAP4	02D0	, 0789
0811	LAP5	02D3	, 0821
0812	LAP6	02D4	, 0817
0826	LAP7	02E2	, 0807
0829	LA0	02E4	, 0331, 0839
0832	LA1	02E7	, 0838
0839	LA2	02EE	, 0836
0841	SP0	02EF	, 0599, 0868
0843	STOP5	02F1	
0844	JUMP5	02F2	
0845	PSTERN	02F3	, 0867
0846	LSSTLO	02F4	, 0804, 0822, 0835, 0926, 0951
0847	FSSTAD	02F5	, 0750, 0758, 0768, 0860
0848	TSPATE	02F6	, 0866
0849	SSTPPB	02F7	, 0826, 0963
0858	F5STLO	0300	, 0785, 0830, 0897, 0908
0859	OVER05	0301	, 0842
0870	WPA	030C	, 0338, 0892
0871	WPB	030D	
0872	WPC	030E	
0873	WPD	030F	
0874	WPE	0310	
0875	WPF	0311	
0876	WPG	0312	
0877	WPH	0313	
0879	AA	0314	, 0893, 0902, 0904, 0916, 0934, 0936
0880	BB	0315	
0881	CC	0316	
0882	DD	0317	
0883	EE	0318	, 0941, 0956, 0958
0884	FF	0319	
0885	GG	031A	
0886	HH	031B	
0887	ADRES1	031C	, 0786, 0790, 0795, 0796, 0801, 0805

			, 0808, 0813, 0814, 0819, 0823, 0831
			, 0832, 0833, 0837, 0898, 0912, 0917
			, 0918, 0923, 0927, 0930, 0942, 0943
			, 0948, 0952
0888	ADRES2	0310	, 0792, 0800, 0810, 0818, 0914, 0922
			, 0932, 0947
0890	LW0	031E	, 0337, 0964
0892	LW1	0320	, 0896
0902	LW2	032B	, 0907
0908	LW2A	0331	, 0900
0912	LW3	0336	, 0910, 0962
0915	LW3A	0339	, 0925
0916	LW4	033A	, 0921
0930	LW4A	0348	, 0911
0933	LW5	0348	
0934	LW6	034C	, 0939
0940	LW7	0352	, 0950
0941	LW8	0353	, 0946
0956	LW9	0362	, 0961
0963	LW10	0369	, 0929, 0954
0966	WORSTS	0368	, 0339, 0592
0967	COUNT	036C	, 0604, 0724
0968	FISTAD	036D	, 0596, 0731, 0766, 0847
0969	LASTAD	036E	
0970	ERRORS	036F	, 0593
0971	ADTESM	0370	, 0330, 0591
0973	STOP6	0371	
0974	JUMP6	0372	
0975	A6DRES	0373	, 0992, 0994, 1013, 1035, 1053, 1057
			, 1065, 1079, 1081, 1087, 1092, 1097
			, 1099
0976	L6ADRE	0374	, 0995, 0997, 1002, 1007, 1009, 1029
			, 1049, 1062, 1072, 1077, 1083, 1085
			, 1095
0977	L6STCO	0375	, 1001, 1005, 1028, 1046
0978	M6RE	0376	, 0999, 1054, 1076
0979	M61E	0377	, 1000, 1058, 1073
0980	F6STLO	0378	, 1082
0981	L6STLO	0379	, 1086
0988	F6RST	0380	
0990	TELOCS	0381	, 0190, 1020, 1030, 1136
0991	ADRCK0	0382	, 0192, 1089, 1096, 1100, 1117, 1346
0993	ADRCK9	0384	, 0996, 1080, 1084
1025	ADRCK1	03A0	, 1017, 1021
1028	ADRCK11	03A5	, 1026
1030	ADRCK2	03A7	, 1016, 1019
1053	ADRCK3	03BB	, 1050
1060	ADRCK4	03C2	, 1033
1072	ADRCK5	03CD	, 1067
1079	ADRCK6	03D3	, 1045, 1052, 1059, 1064, 1071
1091	ADRCK7	03DE	, 1088
1097	ADRCK8	03E4	, 1093

1102	LENGTH	03E8	, 1047, 1066, 1175, 1443
1103	FIRSTA	03E9	, 1022, 1060, 1074, 1132, 1178, 1180
			, 1439
1104	LASTA	03EA	, 1039, 1055, 1185, 1187, 1442
1105	NUMBLK	03EB	, 1145, 1450
1107	FIRSTB	03EC	, 1137, 1181, 1184
1108	NUMBL1	03ED	, 1147, 1159, 1160, 1182, 1188, 1190
1109	BLKADR	03EE	, 1134, 1149, 1151, 1152, 1154, 1155
1110	RELOC	03EF	, 1138, 1140, 1143, 1153, 1163, 1179
			, 1183, 1186, 1196
1111	MOVETO	03F0	, 0193, 1023, 1048, 1069, 1135, 1189
			, 1191, 1356
1113	BLOCK7	03F1	, 1458
1116	I7NPD	03F4	, 1142, 1144
1117	A7RCK0	03F5	, 1139, 1141
1118	F7STLO	03F6	, 1214
1119	L7STLO	03F7	, 1221
1120	S7J	03F8	
1129	OVER07	0401	
1130	MOVE	0402	, 0194, 1024, 1051, 1070, 1195, 1197
			, 1198, 1361, 1364
1148	MOVE1	0414	, 1162
1152	MOVE2	0418	, 1158
1188	MOVE3	043C	, 1194
1200	LASTV	0447	, 1164, 1166, 1170, 1172
1201	RELAQ	0448	, 1167, 1169, 1173, 1174
1203	SGNCK	0449	, 1014, 1040, 1210, 1211, 1212
1208	SGN1	044E	, 1206
1211	SGN2	0451	, 1207
1212	SGN3	0452	, 1205
1213	SETPPB	0453	, 0849, 1224
1215	SETPP1	0455	, 1223
1226	REPLAC	0460	, 0116, 1244
1231	NOBK1	0465	, 1230
1236	BOOTBA	046B	, 1243
1244	FINREP	0473	, 1242
1245	SAVLAS	0474	, 1227, 1412
1247	CS06B	0475	, 0538
1251	CS06A	047C	, 1249
1253	BIAS	047E	, 0196, 0354, 0393, 0603, 1413, 1438
			, 1468
1261	BNK1	047F	, 0199, 1266, 1331, 1333, 1334
1266	BNK2	0484	, 1264
1267	MEMCON	0485	, 1295, 1299, 1370
1268	MEMC1N	0486	, 1263, 1362
1269	MEMC2N	0487	
1270	MEMC3N	0488	, 1359
1271	SAV1	0489	, 1294, 1389, 1422
1272	MOVCON	048A	, 1337, 1355, 1368
1273	SAV3	048B	, 1208, 1209
1274	SAV2	048C	, 1280, 1296, 1297

1275	SAV4	048D	, 1290, 1387
1276	SAV5	048E	, 1292, 1385
1277	SAV6	048F	, 0217, 1025, 1322
1278	SAV7	0490	
1279	SAV8	0491	, 1311, 1357, 1382
1280	BNK3	0492	, 1265
1282	BNK4	0494	, 1285, 1376
1311	BNK41	0487	, 1304
1317	BNK42	0488	, 1310
1322	BNK4A	04C2	
1342	BNK4B	04D0	, 1324
1344	BNK4C	04D4	, 1339
1351	BNK4D	04DC	, 1321
1364	BNK4E	04EF	, 1358
1368	BNK5	04F3	, 1354
1376	BNK7	04FD	, 1281
1379	BNK8	04FE	, 1391
1392	BNK9	050E	, 1284, 1383
1393	LAST	050F	, 0195, 1102, 1104, 1440, 1498
1395	INITX	0510	, 0060, 1403
1408	GOMUX0	051F	, 1400
1409	STARTF	0520	, 1399, 1401
1411	GOMEM	0522	, 1398
1453	INIT4	055F	, 1477
1467	INIT5	056E	, 1459, 1473
1478	FINSJ	057A	
1482	BOOTAD	0581	, 1497
1498	NOFAUL	0592	, 1487
1501	MOVBOO	0596	, 1508
1509	MOVEME	059E	, 1507
1513	MEMMOV	05A2	, 1520
1521	ENDINI	05AA	, 1519
1524	INIT2	05AC	, 1449, 1454, 1456, 1461, 1462, 1464
			, 1465, 1467, 1469, 1470
1525	INIT3	05AD	, 1452, 1474, 1475
1527	HEADIN	05AE	, 1434, 1435, 1444, 1517
1529	HEADB	0589	
1531	FREQCN	05C0	, 1415, 1416, 1419
1533	HEADC	05CC	, 1434, 1488, 1492, 1494
1535	HEADD	05D8	, 1492
1537	HEADE	05E6	, 1488
1538	MUXMSG	05E7	, 1402, 1406
1542	MUXEND	0608	, 1406

*** ALPHABETICAL SORT OF SYMBOLS ***

ADRCK0	0192	A1RTES	0330	A22RES	0466	A3TESW	0591	A6ORES	0975
A7RCK0	1117	AA	0879	ADDRS	0179	ADRC11	1028	ADRCK0	0991
ADRCK1	1025	ADRCK2	1030	ADRCK3	1053	ADRCK4	1060	ADRCK5	1072
ADRCK6	1079	ADRCK7	1091	ADRCK8	1097	ADRCK9	0993	ADRES1	0887
ADRES2	0888	ADTESW	0971	B0IAS	0196	B3IAS	0603	BB	0880
B1AS	1253	BLKADR	1109	BLOCK7	1113	BNK	0115	BNK1	1261
BNK2	1266	BNK3	1280	BNK4	1282	BNK41	1311	BNK42	1317
BNK4A	1322	BNK4B	1342	BNK4C	1344	BNK4D	1351	BNK4E	1364
BNK5	1368	BNK7	1376	BNK8	1379	BNK9	1392	BNKADD	0199
BOOTAD	1482	BOOTBA	1236	C0S0	0191	C0TRL	0203	C1H0	0329
C1NPSW	0332	C1RSW	0326	C1S20	0335	C1S200	0334	C1S40	0333
C1TRL	0336	C2MPSW	0471	C2S01	0463	C2S05	0472	C2S20	0476
C2S400	0473	C2S800	0474	C2S84	0475	C2TRL	0470	C3UNT	0604
C4TRL	0719	C4UNT	0724	CC	0881	CH0	0557	CH1	0564
CH10	0629	CH11	0636	CH12	0652	CH13	0655	CH14	0653
CH15	0654	CH16	0650	CH2	0571	CH3	0573	CH4	0574
CH5	0575	CH6	0624	CH7	0625	CH9	0627	CLRSW	0542
CNTRL	0163	COMONE	0740	COMP SW	0656	COMZER	0741	CONTR0	0032
COUNT	0967	CS0	0244	CS00	0289	CS01	0301	CS02	0302
CS03	0306	CS04	0317	CS05	0321	CS06	0535	CS06A	1251
CS06B	1247	CS100	0405	CS1000	0497	CS1001	0519	CS1002	0521
CS1003	0524	CS1004	0522	CS1005	0523	CS1006	0525	CS1007	0530
CS100A	0503	CS20	0288	CS200	0434	CS201	0440	CS202	0453
CS203	0454	CS21	0295	CS40	0345	CS400	0458	CS401	0481
CS41	0351	CS42	0358	CS80	0366	CS800	0488	CS81	0373
CS82	0378	CS83	0382	CS84	0397	CSEXIT	0242	D3ISO	0598
DD	0882	DIS0	0749	DIS1	0757	DIS2	0764	DIS3	0765
DIS4	0772	DIS5	0776	DIS6	0778	DIS7	0782	E3COUN	0594
E3RORS	0593	EE	0883	ENDINI	1521	ENDTES	0110	EQUIP	0058
ER1	0672	ER2	0699	ER3	0711	ER4	0745	ERADDR	0738
ERCOUN	0739	ERR1	0663	ERR2	0662	ERR3	0661	ERR4	0660
ERR5	0659	ERR6	0658	ERRORS	0970	ERSECT	0735	EXIT	0034
F3STAD	0596	F3STLO	0595	F4STAD	0731	F5STAD	0847	F5STLO	0858
F6RST	0988	F6STLO	0980	F7STLO	1118	FF	0884	FINREP	1244
FINSJ	1478	FIRSTA	1103	FIRSTB	1107	FISTAD	0968	FISTLO	0206
FREQCN	1531	GG	0885	GOMEM	1411	GOMUX0	1408	H0000	0049
H0OFF	0050	HEADB	1529	HEADC	1533	HEADD	1535	HEADE	1537
HEADIN	1527	HEXASC	0038	HH	0886	I	0000	I7NPO	1116
INFORM	0047	INIT02	0060	INIT2	1524	INIT3	1525	INIT4	1453
INIT5	1467	INITX	1395	INP0	0156	INP1	0215	INP2	0228
INP5	0229	J0P71	0198	J2P70	0469	JP70	0233	JP71	0236
JP72	0238	JUMP0	0189	JUMP1	0325	JUMP2	0462	JUMP3	0590
JUMP4	0717	JUMP5	0844	JUMP6	0974	JUMPX	0035	LOAST	0195
L1A0	0331	L1P0	0328	L1W0	0337	L4STLO	0718	L5STLO	0846
L6ADRE	0976	L6STCO	0977	L6STLO	0981	L7STLO	1119	LA0	0829
LA1	0832	LA2	0839	LAP0	0784	LAP1	0790	LAP2	0793
LAP3	0794	LAP4	0808	LAP5	0811	LAP6	0812	LAP7	0826
LAST	1393	LASTA	1104	LASTAD	0969	LASTLO	0207	LASTV	1200
LASTVA	0044	L0L1C0	0046	L0L0OR	0045	LENGTH	1102	LOCATI	0210

LW0	0890	LW1	0892	LW10	0963	LW2	0902	LW2A	0908
LW3	0912	LW3A	0915	LW4	0916	LW4A	0930	LW5	0933
LW6	0934	LW7	0940	LW8	0941	LW9	0956	LWADRE	0180
MOVE	0194	MOVETO	0193	M61E	0979	M6RE	0978	MASCN0	0062
MASCN1	0068	MASCN3	0078	MASCN4	0116	MASCN5	0143	MASCN6	0125
MEMCON	1267	MEMC1N	1268	MEMC2N	1269	MEMC3N	1270	MEMMOV	1513
MEM002	0054	MONPP	0040	MORE	0212	MOVBOO	1501	MOVCON	1272
MOVE	1130	MOVE1	1148	MOVE2	1152	MOVE3	1188	MOVEHE	1509
MOVETO	1111	MT1	0105	MUXEND	1542	MUXMSG	1538	N4MREA	0725
NOBK1	1231	NOFAUL	1498	NUNBL1	1108	NUMBLK	1105	NUMCOR	0154
NUMREA	0184	NUMSTA	0211	OVER01	0341	OVER02	0477	OVER03	0605
OVER04	0732	OVER05	0859	OVER07	1129	P2TTER	0464	P3TERN	0597
P5TERN	0845	PARADR	0056	PASSCT	0124	PATERN	0736	PATTER	0177
R3CH1	0600	R3CH2	0601	R3CH3	0602	RDCH1	0737	RDCH2	0743
RDCH3	0744	RELAQ	1201	RELOC	1110	RELPOS	0039	REPLAC	1226
RETURN	0057	S2CTIO	0465	S3P0	0599	S4CTIO	0720	S5TPPB	0849
S7J	1120	SAV1	1271	SAV2	1274	SAV3	1273	SAV4	1275
SAV5	1276	SAV6	1277	SAV7	1278	SAV8	1279	SAVEJP	0208
SAVESE	0150	SAVESH	0152	SAVFWA	0231	SAVLAS	1245	SAVLWA	0340
SC00	0247	SC01	0261	SC02	0272	SC03	0275	SC04	0279
SECPAS	0241	SECTIO	0205	SELIN	0041	SETHAS	0042	SETPP1	1215
SETPPB	1213	SGN1	1208	SGN2	1211	SGN3	1212	SGNCK	1203
SHMCNT	0048	SMMLAS	0153	SP0	0841	STARTF	1409	STJP	0043
STOP0	0188	STOP1	0324	STOP2	0461	STOP3	0589	STOP4	0716
STOP5	0843	STOP6	0973	STOPX	0033	TOLOCS	0190	T1PATE	0327
T44ATE	0722	T48ATE	0723	T4PATE	0721	T5PATE	0848	TELOCS	0990
TEPATE	0423	TSFREQ	0052	TSIAAD	0053	TSINIT	0051	TTYBZY	0037
TYPEOU	0036	W1PA	0338	W1RSTS	0339	W3RSTS	0592	WORSTS	0966
WPA	0870	WPB	0871	WPC	0872	WPD	0873	WPE	0874
WPF	0875	WPG	0876	WPH	0877				

COMMENT SHEET

MANUAL TITLE CONTROL DATA® SMM17 PROGRAM LISTINGS MEM

Customer Engineering Manual

PUBLICATION NO. 60220100 REVISION F

FROM: NAME: _____

BUSINESS ADDRESS: _____

COMMENTS:

This form is not intended to be used as an order blank. Your evaluation of this manual will be welcomed by Control Data Corporation. Any errors, suggested additions or deletions, or general comments may be made below. Please include page number references and fill in publication revision level as shown by the last entry on the Record of Revision page at the front of the manual. Customer engineers are urged to use the TAR.

CUT ALONG LINE

PRINTED IN U.S.A.

AA3419 REV. 11/69

NO POSTAGE STAMP NECESSARY IF MAILED IN U. S. A.

FOLD ON DOTTED LINES AND STAPLE

STAPLE

STAPLE

FOLD

FOLD

FIRST CLASS
PERMIT NO. 8241

MINNEAPOLIS, MINN.

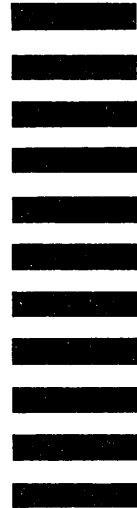
BUSINESS REPLY MAIL

NO POSTAGE STAMP NECESSARY IF MAILED IN U.S.A.

POSTAGE WILL BE PAID BY

CONTROL DATA CORPORATION

Technical Publications Department
4201 North Lexington Avenue
Arden Hills, Minnesota 55112



CUT ALONG LINE

FOLD

FOLD



▶▶ CUT OUT FOR USE AS LOOSE-LEAF BINDER TITLE TAB

CONTROL DATA
CORPORATION

8100 34th AVE. SO., MINNEAPOLIS, MINN. 55440

PRINTED IN U.S.A.