

DIAGNOSTIC PROGRAM MANUAL

SIGMA 5 AND 7
STAND ALONE SYSTEM
EXERCISER (SWAP 3.5)

PROGRAM NO. 705680B

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Prepared by
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SECTION I
PROGRAM LISTING

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1			SIGMA		5/7 STD ALONE SYS.EXRCR(SWAP 3.5)		705680-11/51900	
2					TITLE		SIGMA 5/7 STD ALONE SYS.EXRCR(SWAP 3.5) 705680-11/51900	
3							PROGRAM NO. 705680-800, MANUAL NO. 901648B	*R
4								
5							PROGRAM OBJECTIVES:	
6							-----	
7							SWAP 3.5 IS A STAND ALONE SYSTEM EXERCISER THAT PROVIDES THE USER	
8							WITH A TOOL THAT CAN BE USED TO AID IN THE ISOLATION OF SYSTEM	
9							FAILURES THAT ARE ENCOUNTERED UNDER THE OPERATING SYSTEM.	
10							THE PROGRAM IS CAPABLE OF SIMULTANEOUSLY OPERATING ALL OR ANY	
11							COMBINATION OF DEVICES LISTED BELOW AT OR APPROACHING THEIR MAXIMUM	
12							TRANSFER RATES WHILE CHECKING A LARGE PERCENTAGE OF THE DATA	
13							BEING TRANSFERRED. IT PROVIDES A MEANS FOR ALTERING TEST STRATEGY	
14							UNDER OPERATOR CONTROL.	
15								
16							DEVICES	
17							1. TWO RAD CONTROLLERS WITH UP TO EIGHT RAD DEVICES	
18							(7204,7212,7232) ON EACH CONTROLLER.	
19							2. TWO MAG TAPE CONTROLLERS WITH ONE UNIT CONNECTED TO EACH.	
20							3. ONE LINE PRINTER.	
21							4. ONE TELETYPE.	
22							5. ONE CARD READER.	
23							6. ONE CARD PUNCH.	
24							7. ONE PAPER TAPE STATION.	
25							8. ONE CAM GEAR TERMINAL.	
26								
27							PROGRAM MODIFICATIONS:	
28							-----	
29							REVISION 800 (12/01/69) CORRECT ERRORS IN EXIT AND I9HALT ROUTINES	*R
30								
31								
32							OPERATING REQUIREMENTS AND SPECIFICATIONS	
33							-----	
34								
35							REQUIRED EQUIPMENT	SIGMA 5/7 WITH 16K MEMORY, AT LEAST
36								ONE MAG TAPE OR RAD, A CARD READER
37								AND A TELETYPE.
38								
39							PROGRAM PREREQUISITES	OPERABLE SYSTEM
40								
41							RUN TIME	APPROXIMATELY 3 HRS.
42								
43							PROGRAM MEDIA	MAG TAPE OR CARDS
44								
45							SOURCE LANGUAGE	SIGMA 5/7 META-SYMBOL
46								
47								
48							LOADING PROCEDURE:	
49							-----	
50							1. THE SYSTEM EXERCISER CAN BE LOADED DIRECTLY FROM MAG TAPE	
51							OR FROM CARD. A SIGMA 5/7 RELOCATABLE LOADER IS SUPPLIED WITH THE	
52							OBJECT PROGRAM MEDIA. FOLLOW DETAILED INSTRUCTIONS LISTED IN THE	
53							DIAGNOSTIC LOADER MANUAL NO. 900972.	
54								
55							2. AT LOAD TIME OR WHEN THE PROGRAM IS RESET THE INITIAL DEVICE	
56							ADDRESS, SYSTEM PARAMETERS AND DEVICE PARAMETERS ARE DISPLAYED AND	
57							MAY BE ALTERED.	
58							THE CONSOLE INTERRUPT MAY BE DEPRESSED AT ANY TIME. THE TEST	
59							STRATEGY IS DISPLAYED AND MAY BE ALTERED.	
60							WHEN ALL PARAMETERS AND STRATEGY HAVE BEEN ESTABLISHED, THE PROGRAM	
61							PROVIDES THE FOLLOWING MODES OF OPERATION:	
62								
63							2.1 NORMAL MODE - ALL DEVICES ARE RUNNING AND THE CPU SPENDS ALL	
64							OF ITS AVAILABLE TIME CHECKING DATA BUFFERS. DATA SPREADING	
65							IS DELEGATED TO DEVICE AND BUFFER SIZE REMAINS CONSTANT.	
66							(TURN OFF BITS 14 AND 15 OF 'CONT' IN INPUT TEST STRATEGY)	
67								
68							2.2 BOMB MODE - SAME AS NORMAL MODE EXCEPT THE CPU SPENDS ITS	
69							TIME WRITING AND CHECKING A PECULIAR PATTERN CALLED 'BOMB'	
70							IN AN ATTEMPT TO ILL-CONDITION CORE AND CAUSE A PARITY.	
71							(TURN ON BIT 14 OF 'CONT' IN INPUT TEST STRATEGY)	
72								

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL ORIG	LABEL	OPERATION	OPERAND	COMMENTS
73								* 2.3 AUTOMATIC MODE - ALL DEVICES ARE RUNNING AND THE CPU
74								* ALTERNATELY CHECKS BUFFERS AND RUNS BOMB WHILE SOURCE
75								* DEVICE AND BUFFER SIZES ARE PERIODICALLY CHANGED.
76								* (TURN ON BIT 15 OF 'CONT' IN INPUT TEST STRATEGY)
77								*
78								* OPERATING PROCEDURES:
79								* -----
80								*
81								* CONTROL OPTIONS:
82								* -----
83								* WHEN THE PROGRAM DISPLAYS VALUES FOR ALTERATION, THE OPERATOR MAY
84								* CHANGE THESE VALUES BY TYPING THE DESIRED VALUE UNDER THE VALUE TO
85								* BE CHANGED. EACH VALUE ENTERED MUST BE FOLLOWED BY A PERIOD '.',
86								* TO SKIP A VALUE AND GO TO THE NEXT ONE, A COMMA ',' IS TYPED.
87								* WHEN AN INCORRECT CHARACTER IS TYPED, A SLASH '/' WILL RESET THE
88								* TYPED WORD.
89								*
90								* DEVICE ADDRESSES - WHEN THE PROGRAM IS PUT INTO A RUN CONDITION
91								* THE MESSAGE 'TYPE FOR FULL SYNTAX LIST' IS TYPED BUT FOLLOWED
92								* BY 'INPUT DEVICE ADDRESS'. THE OPERATOR MAY AT THIS TIME ALTER
93								* ANY OF THE DEVICE ADDRESSES OR TYPE 'C' FOR CONTINUE OR 'X' FOR
94								* AN EXPLANATION.
95								*
96								* SYSTEM PARAMETERS - THE NEXT MESSAGE TYPED OUT BY THE PROGRAM
97								* IS 'INPUT SYSTEM PARAMETERS'. THE OPERATOR MAY ALTER THE SYSTEM
98								* PARAMETER NOW OR TYPE 'C' FOR CONTINUE ('X' FOR EXPLANATION).
99								*
100								* DEVICE PARAMETER - THE MESSAGE 'INPUT DEVICE PARAMETERS' IS
101								* IS 'INPUT SYSTEM PARAMETERS'. THE OPERATOR MAY ALTER THE SYSTEM
102								* TYPED BUT NEXT. THE OPERATOR MAY THEN ALTER THE DEVICE PARAMETER
103								* OR TYPE 'C' FOR CONTINUE ('X' FOR EXPLANATION).
104								*
105								* TEST STRATEGY:
106								* -----
107								* A MESSAGE 'DEPRESS CONSOLE INTERRUPT TO ALTER TEST STRATEGY' IS
108								* TYPED BUT NEXT. ANY TIME AFTER THIS POINT THE OPERATOR MAY DEPRESS
109								* THE INTERRUPT BUTTON IF HE WISHES TO SET OR CHANGE THE TEST STRATEGY.
110								* AT LOAD TIME THE STRATEGY IS NOT PRESET; THEREFORE, THE FIRST TIME
111								* THIS MESSAGE IS PRINTED AFTER LOAD, THE OPERATOR MUST DEPRESS THE
112								* INTERRUPT BUTTON AND SET THE STRATEGY.
113								*
114								* WHEN THE INTERRUPT BUTTON IS DEPRESSED, A MESSAGE 'INPUT TEST
115								* STRATEGY' IS TYPED OUT. IF THE OPERATOR WISHES TO SET OR CHANGE
116								* THE STRATEGY HE MAY TYPE 'X' FOR EXPLANATION AND THEN MAKE HIS CHANGE,
117								* OR HE MAY TYPE 'C' FOR CONTINUE. IT SHOULD BE NOTED THAT IF THE
118								* RADS TO BE EXERCISED ARE TYPES 7212 OR 7232 THE APPROPRIATE BITS
119								* SHOULD BE SET IN 'CONT' (BITS 0 AND 1 FOR HIGH CAPACITY = 7232,
120								* AND BITS 2 AND 3 FOR HIGH SPEED = 7212).
121								*
122								* AT INPUT TIME THE TYPING OF AN 'L' WILL RESULT IN THE TYPE OUT
123								* OF THE PROGRAMS DEVICE ERROR COUNTERS. AN 'M' WILL RESULT IN THE
124								* TYPE OUT OF THE DEVICES CURRENT BUFFER ADDRESSES.
125								*
126								* TO VIEW THE HEXIDECIMAL CONTENT OF MEMORY, THE OPERATOR MAY DO
127								* SO BY TYPING THE DESIRED STARTING ADDRESS FOLLOWED BY AN '*' AND
128								* THE NUMBER OF WORDS DESIRED FOLLOWED BY 'P'.
129								*
130								* INPUT IS TERMINATED WHEN THE LAST CHARACTER HAS BEEN TYPED OR
131								* WHEN THE OPERATOR TYPES A 'C' TO CONTINUE OR AN 'R' TO RESTART
132								* THE PROGRAM.
133								*
134								* ERROR INDICATIONS:
135								* -----
136								* ANY ERROR THAT OCCURS DURING THE RUNNING OF THE PROGRAM WILL BE
137								* TYPED OUT ON THE CONTROLLING TELETYPE. THERE ARE TWO TYPES OF
138								* ERROR MESSAGES:
139								*
140								* 1. DATA ERRORS - IF THE CPU ENCOUNTERS A DATA ERROR WHILE
141								* CHECKING BUFFERS, A 'DATA ERROR' MESSAGE IS TYPED OUT.
142								* THIS MESSAGE WILL OUTPUT:
143								* BUFFER = STARTING BYTE ADDRESS OF THE BUFFER IN WHICH

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
144				*				THE ERROR OCCURED.
145				*		ERR ADD		BYTE ADDRESS OF ERRONEOUS BYTE.
146				*		RIT BYTE		WHAT THE BYTE SHOULD BE.
147				*		ERR BYTE		WHAT THE BYTE IS.
148				*		MODIFIER		THE VALUE ADDED TO EACH BYTE TO GENERATE THE
149				*				NEXT. THE VALUE DIFFERS FOR EACH BUFFER BUT
150				*				REMAINS CONSTANT WITHIN A BUFFER.
151				*		END BUFF		BYTE ADDRESS OF LAST BYTE IN THE BUFFER.
152				*		LAST DEV		THE SIGNATURE OF THE LAST DEVICE TO READ OR
153				*				WRITE INTO THE BUFFER. THE SIGNATURE IS A DIGIT
154				*				FROM 0 TO 9 WHERE:
155				*				0 = RAD1
156				*				1 = RAD2
157				*				2 = MAG TAPE1
158				*				3 = MAG TAPE2
159				*				4 = LINE PRINTER
160				*				5 = TELETYPE
161				*				6 OR 60 = CARD READER
162				*				7 = CARD PUNCH
163				*				8 = PAPER TAPE
164				*				9 = COM GEAR
165				*				IF THE ERROR IS IN THE FIRST THREE BYTES, A MESSAGE STATING
166				*				THIS CONDITION PRECEEDS THE 'DATA ERROR' MESSAGE. THIS SHOULD
167				*				ALERT THE CE TO CHECK THE POWER ON THE DOOR IN WHICH THE
168				*				ERROR BYTE RESIDES.
169				*				
170				*		2.		I/O ERRORS - WHEN AN I/O INTERRUPT IS ACKNOWLEDGED AND NO
171				*				INTERRUPT IS RECOGNIZED OR IF ERROR STATUS IS RETURNED
172				*				A 'I/O ERROR' MESSAGE IS TYPED OUT. THE AIR AND TDV STATUS
173				*				IS TYPED OUT TOGETHER WITH THE TIO AND COMMAND DOUBLE WORDS.
174				*				
175				*				BY SETTING BREAK POINT 4, THE ERROR MESSAGE IS INHIBITED WHEN
176				*				RECOVERABLE ERRORS OCCUR. THE OPERATOR MAY TYPE 'I' IF HE WISHES
177				*				TO CONTINUE.
178				*				NON-ALLOWED INSTRUCTION - IF A NON-ALLOWED OPERATION TRAP OCCURS
179				*				(TRAP X'40') A MESSAGE 'NON-ALLOWED INSTRUCTION TRAP. DEPRESS RESET'
180				*				IS TYPED OUT.
181				*				COM GEAR RECEIVER OR TRANSMITTER ERROR - IF A COM GEAR RECEIVER
182				*				OR TRANSMITTER IS UNAVAILABLE, A MESSAGE WILL OCCUR. MOST LIKELY
183				*				THE PROBLEM IS ONE OF ADDRESS. CHECK THE COM GEAR ADDRESS ('COC' IN
184				*				DEVICE ADDRESSES), THE RECEIVER LINE ADDRESS ('RLNR' IN DEVICE
185				*				PARAMETERS), THE TRANSMITTER LINE ADDRESS ('XLNR' IN DEVICE
186				*				PARAMETERS), THE COM GEAR CONTROLLER ADDRESS ('COC' IN DEVICE
187				*				PARAMETERS) OR THE SELECTION OF THE COM GEAR (BIT 9 OF 'HERE', 'R/W'
188				*				'STR1', 'TGLF' AND 'SORC' OF TEST STRATEGY).
189				*				
190				*				SUCCESS INDICATIONS:
191				*				-----
192				*				THE ONLY SUCCESS INDICATION IN NORMAL OR BOMB MODE IS THE ABSENCE
193				*				OF ERROR MESSAGES WHILE THE PROGRAM IS RUNNING. IN AUTOMATIC MODE
194				*				THE MESSAGE 'HURRAY YOU MADE IT' IS TYPED OUT AFTER THE COMPLETION
195				*				OF ONE PASS. THIS MESSAGE IS TYPED OUT AFTER APPROXIMATELY 3 HOURS
196				*				OF RUNNING.
197				*				
198				*				
199				*				SYSTEM SIG7FDP
200			00000C00	*				SYSTEM BPM
201			C1 00C70	*				9RG X'70'
			C1 00C70	*				
202				*				APEN PAGE THIS INHIBITS
203			00000C00	*	PAGE			PAGE
204				*	CNAME			DIPECTIVE
205				*	PRAC			TO PERMIT MAX. LINAGE/PAGE
206				*	PEND			
207				*				
208				*				
209				*				CHARACTER SCANNER GATHERS HEX INPUT INTO WORDS AND RESPONDS
210				*				TO THE FOLLOWING CHARACTER IN THE SPECIFIED MANNER:
211				*				
212				*				CHAR MEANING
213				*				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
214				*				TYPE ABSTRACT OF ACCEPTABLE SYNTAX.
215				*				
216				*		X		TYPE EXPLANATION OF CURRENT OUTPUT.
217				*				
218				*		L		OUTPUT ERROR COUNTERS(LOGS).
219				*				
220				*		M		OUTPUT MEMORY BUFFER STARTING BYTE ADDRESSES.
221				*				
222				*	YYYYYP			OUTPUT YYYYY WORDS STARTING AT CURRENT POINTER LOC.
223				*				
224				*	R			EXIT CONTROL AND CLEAR MEMORY.
225				*				
226				*	YYYYY*			SET INTERNAL WORD ADDRESS POINTER TO YYYYY.
227				*				
228				*	*YYYYYYYY.			STORE YYYYYYYY IN POINTER LOC. AND STEP POINTER.
229				*				
230				*	YYYY,			IGNORE YYY AND STEP POINTER.
231				*				
232				*	YYYY/			DELETE PRESENT CHARACTER STRING YYY AND RECEIVE NEW I
233				*				
234				*				IGNORES CARRIAGE RETURNS AND SPACES.
235				*				
236				*	T			TERMINATE INPUT. EXITS CONTROL AND CONTINUE.
237				*				
238				*				ALL OTHER CHARS CAUSE A SYNTAX ERROR MESSAGE TO BE OUTPUTTED
239				*				AND ARE IGNORED.
240				*				PAGE
241				*				
242				*				CALLING SEQUENCE:
243				*				
244				*				XPSD,C INPUT
245				*				DATA ADDRESS WORD ADDRESS TO WHICH POINTER IS SET
246				*				DATA X'ANOFF' NN=NUMBER OF ENTRIES.
247				*				EXIT FOR EXPLAIN MESSAGE. EE=ENTRY TYPE:1=WORD,2=HALF,3=BYTE.
248				*				NORMAL EXIT. CC=NUMBER OF CHAR/WORD TO OUTPUT.
249				*				
250						RBOUND	8	
251	01	00070	00000000	A	INPUT	PZE		
252	01	00071	00000000	A		PZE		
253	01	00072	00000074			PZE	\$+2	
254	01	00073	07000000	A		DATA	X'7000000'	
255	01	00074	28000042			STM,0	REG	SAVE REGISTERS
256	01	00075	6A300110		INSTART	RAL,3	SETUP	
257	01	00076	3070002F			AW,7	STD	X'15CC0000'(STD,12 0,6)
258	01	00077	357000A2			STW,7	STORE	
259	01	00078	22000000	A	SLASH	LI,12	0	CLEAR ASSEMBLY BUFFER.
260	01	00079	22000611		INLUP	LI,0	DA(TTYIN)	
261	01	0007A	22000040	A		LI,13	X'40'	
262	01	0007B	6AF00124			RAL,15	TTYI-1	GET A CHAR
263	01	0007C	68000079			RCR,0	INLUP	
264	01	0007D	1900002A			CLM,13	OTR9	
265	01	0007E	68600082			RCR,6	UNDER10	LESS THAN 10
266	01	0007F	1900002C			CLM,13	ATRF	
267	01	00080	69600085			RCS,6	SCANNER	NOT A DIGIT
268	01	00081	20000039	A		AI,13	X'39'	
269	01	00082	2500001C	A	UNDER10	S,13	28	MOVE DIGIT TO 1ST HEX POSITION.
270	01	00083	25000104	A		S,12	X'104'	MOVE TO LAST POSITION IN ASSEM. BUF.
271	01	00084	68000079			RCR,0	INLUP	GET NEXT CHAR.
272						PAGE		
273	01	00085	21000061	A	SCANNER	CI,13	X'61'	/
274	01	00086	68300078			RCR,3	SLASH	
275	01	00087	21000048	A		CI,13	X'48'	.
276	01	00088	683000A2			RCR,3	STORE	
277	01	00089	21000068	A		CI,13	X'68'	,
278	01	0008A	68300090			RCR,3	COMMAS	
279	01	0008B	210000F3	A		CI,13	X'F3'	T
280	01	0008C	683000A5			RCR,3	TTXIT	
281	01	0008D	2100006F	A		CI,13	X'6F'	
282	01	0008E	683000AD			RCR,3	QUESTION	
283	01	0008F	21000040	A		CI,13	X'40'	SPACE
284	01	00090	68300079			RCR,3	INLUP	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
285	C1	00C91	21D00015	A		CI,13	X'15'	CARRIAGE RETURN
286	C1	00C92	68300079			RCR,3	INLUP	
287	C1	00C93	21D0005C	A		CI,13	X'5C'	*
288	C1	00C94	68300086			RCR,3	ASTRIK	
289	C1	00C95	21D000D4	A		CI,13	X'D4'	M
290	C1	00C96	683000C1			RCR,3	MEMORY	
291	C1	00C97	21D000E7	A		CI,13	X'E7'	X
292	C1	00C98	683000A6			RCR,3	XEXIT	
293	C1	00C99	21D000D9	A		CI,13	X'D9'	R
294	C1	0009A	68300088			RCR,3	RESET	
295	C1	00C9B	21D000D7	A		CI,13	X'D7'	P
296	C1	00C9C	683000CC			RCR,3	PRINT	
297	C1	00C9D	21D000D3	A		CI,13	X'D3'	L
298	C1	00C9E	683000BE			RCR,3	LOG	
299	C1	00C9F	CF0000FE			XPSD,C	MESSAGE	OUTPUT SYNTAX ERROR MESSAGE.
300	C1	00CA0	C0001FEC			DATA	BA(SYNER)	
301	C1	00CA1	68000079			RCR,0	INLUP	
302						PAGE		
303	C1	00CA2	00000000	A	STORE	PZE		(ST,12 0,6)
304	C1	00CA3	20600001	A	COMMA	AI,6	1	STEP POINTER.
305	C1	00CA4	64500078			RDR,5	SLASH	
306	C1	00CA5	33100070		TTXIT	MTW,1	INPUT	
307	C1	00CA6	33200070		XEXIT	MTW,2	INPUT	
308	C1	00CA7	22D00015	A	EXIT	LI,13	X'15'	
309	C1	00CA8	6AF00123			RAL,15	TTY0	
310	C1	00CA9	680000AA			RCR,0	*+1	*B
311	C1	00CAA	C2300000	A		LCFI,2	0	
312	C1	00CAB	2A000042			LM,0	REG	RESTORE REGISTERS
313	C1	00CAC	CE300070			LPSD,3	INPUT	
314								
315	C1	00CAD	0F0000FE		QUESTION	XPSD,0	MESSAGE	OUTPUT ABSTRACT
316	C1	00CAE	0000201C			DATA	BA(ABSTRACT)	
317	C1	00CAF	68000079			RCR,0	INLUP	
318								
319	C1	00CB0	32200004	A	COMMAS	LW,2	4	GET DIGITS/WORD
320	C1	00CB1	22D00040	A	COMALUP	LI,13	X'40'	SPACE
321	C1	00CB2	6AF00123			RAL,15	TTY0	
322	C1	00CB3	680000B4			RCR,0	*+1	
323	C1	00CB4	642000B1			RDR,2	COMALUP	
324	C1	00CB5	680000A3			RCR,0	COMMA	
325								
326	C1	00CB6	35C00006	A	ASTRIK	STW,12	6	SET POINTER
327	C1	00CB7	68000078			RCR,0	SLASH	
328								
329	C1	00CB8	1200008C		RESET	LD,0	MEMCLEAR	
330	C1	00CB9	15000070			STD,0	INPUT	
331	C1	00CBA	680000A7			RCR,0	EXIT	
332						RUND	8	
333	C1	00CB0	0C000164		MEMCLEAR	PZE	CLRMEM	TRANSFER TO CLRMEM WITH
334	C1	00CB0	C7000000	A		DATA	X'7000000'	INTERRUPTS INHIBITED.
335								
336	C1	00CBE	22600007		LOG	LI,6	RAD1LOG	
337	C1	00CBF	22E02E04			LI,14	BA(LOGMSG)	
338	C1	00CC0	680000C8			RCR,0	GETCW	
339								
340	C1	00CC1	2210000B	A	MEMORY	LI,1	11	
341	C1	00CC2	32A20011		MEMLUP	LW,10	CPURL=1,1	PICK UP BUFFER ADDRESS
342	C1	00CC3	6AF0011F			RAL,15	FORMAT	PUT IN MEMORY LOG FORMAT
343	C1	00CC4	35A20051			STW,10	WK=1,1	
344	C1	00CC5	641000C2			RDR,1	MEMLUP	
345	C1	00CC6	22600052			LI,6	WK	
346	C1	00CC7	22E02E64			LI,14	BA(MEMMSG)	
347	C1	00CC8	22CFFE0B	A	GETCW	LI,12	X'FFE0B'	11 WORDS, 6 DIGITS/WORD.
348	C1	00CC9	35E000CB			STW,14	MESSADD	
349	C1	00CCA	CF0000FE			XPSD,0	MESSAGE	
350	C1	00CCB	C0000000	A	MESSADD	PZE		
351	C1	00CCC	25C00010	A	PRINT	S,12	16	
352	C1	00CCD	30C00023			AW,12	TTYIN+1	X'8000001'
353	C1	00CCF	35C000D2			STW,12	MPBCW	
354	C1	00CCF	356000D1			STW,6	MPBADD	
355	C1	00CDD	CF0000D4			XPSD,0	OUTPUT	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
356	01	00001	00000000	A	MPBADD	PZF		
357	01	00002	00000000	A	MPBCW	PZF		
358	01	00003	68000075			PCR,0	INSTART	
359							PAGE	
360					*			
361					*			CONVERTS AND OUTPUTS BYTES IN HEXIDECIMAL.
362					*			
363					*			CALLING SEQUENCE:
364					*			
365					*	XPSD,0	OUTPUT	
366					*	DATA	ADDRESS	WORD ADDRESS OF 1ST BYTE OUTPUTTED.
367					*	DATA	X'CONNOREF'	CC=NUMBER OF CHARS/WORD TO OUTPUT.
368					*		NORMAL EXIT	NN=NUMBER OF WORDS TO OUTPUT.
369					*			EE=OUTPUT TYPE:1=WORD,2=HALF,3=BYTE.
370					*			
371						ROUND	R	
372	01	00004	00000000	A	OUTPUT	PZE		
373	01	00005	00000000	A		PZE		
374	01	00006	00000008	A		PZE	\$+2	
375	01	00007	07000000	A		DATA	X'7000000'	
376	01	00008	2H000032			STM,0	REGISTER	SAVE REGISTERS
377	01	00009	6A300110			RAL,3	SETUP	
378	01	0000A	3070002E			AW,7	LD	X'12CC0000'(LD,12 0,6)
379	01	0000B	357000DE			STW,7	LOAD	
380	01	0000C	20500001	A		AI,5	1	
381	01	0000D	680000F1			PCR,0	STARTAP	
382	01	0000E	00000000	A	LOAD	PZF		(L,12 0,6)
383	01	0000F	22300008	A		LI,3	R	SET CHAR/WORD=8
384	01	00010	22D0000F	A	OUTLUP	LI,13	X'1F'	
385	01	00011	25C00304	A		S,12	X'304'	GET HEX DIGIT 1 FROM R12.
386	01	00012	1900002A			CLM,13	OT09	
387	01	00013	686000E5			PCR,6	\$+2	
388	01	00014	20DFFFC7	A		AI,13	-X'39'	
389	01	00015	31300004	A		CW,3	4	TEST CHAR/WORD>CC
390	01	00016	692000FA			RCS,2	GREATER	
391	01	00017	20E00001	A		AI,14	1	STEP CHAR/LINE
392	01	00018	6AF00123			RAL,15	TTY0	OUTPUT HEX DIGIT
393	01	00019	680000F9			PCR,0	0PXIT	
394	01	0001A	643000F0		GREATER	RDR,3	OUTLUP	
395	01	0001B	22D00040	A		LI,13	X'40'	
396	01	0001C	6AF00123			RAL,15	TTY0	OUTPUT SPACE
397	01	0001D	680000F9			PCR,0	0PXIT	
398	01	0001E	20600001	A		AI,6	1	STEP POINTER
399	01	0001F	21E00040	A		CI,14	64	
400	01	00020	693000F5			RCS,3	NOT64	
401	01	00021	22D00015	A	STARTAP	LI,13	X'15'	
402	01	00022	6AF00123			RAL,15	TTY0	OUTPUT CR
403	01	00023	680000F9			PCR,0	0PXIT	
404	01	00024	22E00000	A		LI,14	0	SET CHAR/LINE=0
405	01	00025	645000F0		NOT64	RDR,5	LOAD	
406	01	00026	22D00015	A		LI,13	X'15'	
407	01	00027	6AF00123			RAL,15	TTY0	
408	01	00028	680000F9			PCR,0	\$+1	
409	01	00029	33200004		0PXIT	MTW,2	OUTPUT	
410	01	0002A	02300000	A		LCFI,2	0	
411	01	0002B	2A000032			LM,0	REGISTER	RESTORE REGISTERS
412	01	0002C	0E000004			LPSD,0	OUTPUT	
413							PAGE	
414					*			
415					*			OUTPUTS EBIDIC CHARACTERS UNTIL A X'7F'() OR BREAK RELEASE.
416					*			
417					*			CALLING SEQUENCE:
418					*			
419					*	XPSD,0	MESSAGE	
420					*	DATA	BA(ADDRESS)	BYTE ADDRESS OF TEXT DIRECTIVE.
421					*		NORMAL EXIT	
422					*			
423						ROUND	R	
424	01	0002E	00000000	A	MESSAGE	PZE		
425	01	0002F	00000000	A		PZE		
426	01	00100	00000102			PZE	\$+2	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
427	C1	00101	C7000000	A		DATA	X'7000000'	
428	C1	00102	28000C32			STM,0	REGISTER	
429	01	00103	6A3C0110			RAL,3	SETUP	
430	01	00104	B22000FE			LW,2	*MESSAGEF	
431	01	00105	72D40000	A	MESLUP	LB,13	0,2	
432	C1	00106	20200001	A		AI,2	1	
433	C1	00107	21D0007F	A		CI,13	X'7F'	
434	01	00108	683C010C			RCR,3	MESXIT	
435	01	00109	6AF00123			RAL,15	TTYB	
436	01	0010A	6800010C			RCR,0	MESXIT	
437	C1	0010B	68000105			RCR,0	MESLUP	
438	01	0010C	331000FE		MESXIT	MTW,1	MESSAGE	
439	01	0010D	02300000	A		LCFI,2	0	
440	C1	0010E	2A000C32			LM,0	REGISTER	
441	01	0010F	0E0000FE			LPSD,C	MESSAGE	
442						PAGE		
443					*			
444					*	SETS UP R4=C, R5=N, R6=ADDRESS AND R7=E.		
445					*			
446	01	00110	3227FFFA	A	SETUP	LW,2	=6,3	
447	01	00111	CD600C06			TI0,6	*MESADD	
448	01	00112	68C00117			RCR,12	N0STEAL	
449	01	00113	CF000C06			UI0,0	*MESADD	STEAL DEVICE
450	01	00114	15600C28			STD,6	RESTRT	SAVE CURRENT COM PAIR ADDRESS.
451	C1	00115	22600020	A		LI,6	X'20'	
452	01	00116	6D601200	A		WD,6	X'1200'	
453	01	00117	02200020	A	N0STEAL	LCI	?	
454	01	00118	AA600002	A		LM,6	*2	
455	01	00119	72400007	A		LB,4	7	C=NUMBER OF CHAR/WORD TO BE TYPED.
456	01	0011A	221C0001	A		LI,1	1	
457	01	0011B	72520007	A		LB,5	7,1	N=NUMBER OF WORDS TO BE MANIPULATED.
458	C1	0011C	256E007F	A		S,6	X'7F',7	LEFT SHIFT,0=WORD, 1=HALF, 2=BYTE.
459	01	0011D	25700C1D	A		S,7	29	POSITION E AT BIT 2.
460	01	0011E	E8000003	A		RCR,0	*3	
461					*			
462					*	FORMATS ADDRESS IN R10 SUCH THAT BITS 9 THRU 27 CONTAIN A		
463					*	WORD ADDRESS AND BITS 30 AND 31 CONTAIN A BYTE POSITION.		
464					*			
465	01	0011F	25AC017E	A	FORMAT	S,10	X'7F'	DOUBLE RIGHT ?
466	C1	00120	25A00002	A		S,10	?	SINGLE LEFT ?
467	01	00121	25A00102	A		S,10	X'102'	DOUBLE LEFT ?
468	01	00122	E800000F	A		RCR,0	*15	
469						PAGE		
470					*			
471					*	MESSAGE INPUT AND OUTPUT DRIVER.		
472					*			
473	01	00123	22000612		TTYB	LI,0	DA(TTYBUT)	
474	01	00124	75D00C26			STB,13	CHAR	
475	C1	00125	CC000C06		TTYI	SI0,0	*MESADD	
476	C1	00126	CD800C06			TI0,8	*MESADD	
477	01	00127	69C0C176			RCS,12	*-1	
478	01	00128	31900C30			CW,9	BRKRLS	X'8000000'
479	C1	00129	6940012B			RCS,4	*+2	TEST FOR BREAK RELEASE
480	01	0012A	20F00001	A		AI,15	1	
481	01	0012B	72D00C26			LB,13	CHAR	
482	C1	0012C	E800000F	A		RCR,0	*15	
483					*			
484					*	RESTARTS MESSAGE DEVICE WHEN IT HAS BEEN STOLEN.		
485					*			
486						ROUND	8	
487	01	0012F	00000000	A	MESDEV	PZF		
488	01	0012F	00000000	A		PZF		
489	01	00130	00000132			PZE	*+2	
490	01	00131	07000000	A		DATA	X'7000000'	
491	01	00132	35000C52			STW,0	WK	
492	01	00133	32000C28			LW,0	RESTRT	
493	01	00134	68300138			RCR,3	MESXIT	
494	01	00135	CC000C06			SI0,0	*MESADD	
495	01	00136	22000000	A		LI,0	0	
496	01	00137	35000C28			STW,0	RESTRT	
497	01	00138	32000C52		MESXIT	LW,0	WK	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
498	C1	00139	CF00012E			LPSD,C	MESDEV	
499						PAGE		
500	C1	0013A	3P0000D7		CLEAR	LW,0	DATAF	
501	C1	0013B	35000026	A		STW,0	X'26'	LINK RESET TO PROGRAM
502	C1	0013C	120000FA			LD,0	RAD1X	
503	C1	0013D	150000FC			STD,0	RAD1ADD	
504	C1	0013E	CF0000FE			XPSD,0	MESSAGE	
505	C1	0013F	00001FF9			DATA	BA(SYNERR)+13	
506	C1	00140	68000143			RCR,0	CAN1MSG	
507	C1	00141	CF0000FE		CAN1XMSG	XPSD,0	MESSAGE	EXPLAIN DEVICE ENTRIES.
508	C1	00142	C00020DR			DATA	BA(XCANMSG1)	
509	C1	00143	CF0000FE		CAN1MSG	XPSD,0	MESSAGE	DEVICE ENTRY.
510	C1	00144	00002884			DATA	BA(CANMSG1)	
511	C1	00145	CF0000D4			XPSD,0	OUTPUT	DEVICE ADDRESSES
512	C1	00146	C00000FC			DATA	RAD1ADD	
513	C1	00147	C40B0001	A		DATA	X'40B0001'	11 WORDS, 4 DIGIT/WORD.
514	C1	00148	CF000070			XPSD,0	INPUT	MODIFY DEVICE ADDRESSES.
515	C1	00149	C00000FC			DATA	RAD1ADD	
516	C1	0014A	C40B0001	A		DATA	X'40B0001'	11 WORDS, 4 DIGIT/WORD.
517	C1	0014B	68000141			RCR,0	CAN1XMSG	
518	C1	0014C	6800014F			RCR,0	CAN2MSG	
519	C1	0014D	CF0000FE		CAN2XMSG	XPSD,0	MESSAGE	EXPLAIN PARAMETER ENTRY.
520	C1	0014E	C0002A54			DATA	BA(XCANMSG2)	
521	C1	0014F	CF0000FE		CAN2MSG	XPSD,0	MESSAGE	PARAMETER ENTRY
522	C1	00150	C0002A24			DATA	BA(CANMSG2)	
523	C1	00151	CF0000D4			XPSD,0	OUTPUT	PARAMETERS
524	C1	00152	C00000E4			DATA	CBSTADD	
525	C1	00153	C5030001	A		DATA	X'5030001'	3 WORDS, 5 DIGIT/WORD.
526	C1	00154	CF000070			XPSD,0	INPUT	MODIFY PARAMETERS.
527	C1	00155	C00000E4			DATA	CBSTADD	
528	C1	00156	C5030001	A		DATA	X'5030001'	3 WORDS, 5 DIGIT/WORD.
529	C1	00157	6800014D			RCR,0	CAN2XMSG	
530	C1	00158	68000158			RCR,0	CAN3MSG	
531	C1	00159	CF0000FE		CAN3XMSG	XPSD,0	MESSAGE	
532	C1	0015A	00002080			DATA	BA(XCANMSG3)	
533	C1	0015B	CF0000FE		CAN3MSG	XPSD,0	MESSAGE	
534	C1	0015C	C0002020			DATA	BA(CANMSG3)	
535	C1	0015D	CF0000D4			XPSD,0	OUTPUT	
536	C1	0015E	C00000E7			DATA	SECT0R	
537	C1	0015F	C40D0001	A		DATA	X'40D0001'	13 WORDS, 4 DIGITS/WORD.
538	C1	00160	CF000070			XPSD,0	INPUT	
539	C1	00161	C00000E7			DATA	SECT0R	
540	C1	00162	C40D0001	A		DATA	X'40D0001'	13 WORDS, 4 DIGITS/WORD.
541	C1	00163	68000159			RCR,0	CAN3XMSG	
542	C1	00164	120000FC		CLRMEM	LD,0	RAD1ADD	
543	C1	00165	150000FA			STD,0	RAD1X	
544	C1	00166	CF00012E			XPSD,0	MESDEV	
545						PAGE		
546	C1	00167	321000E4			LW,1	CBSTADD	
547	C1	00168	32E000E5			LW,14	CBSTADD	
548	C1	00169	20FFFFFF	A		AI,14	X'FFFFFF'	
549	C1	0016A	30E000E6			AW,14	RLSIZE	
550	C1	0016H	22000000	A		LI,0	0	
551	C1	0016C	75020000	A	CMS	STB,0	0,1	
552	C1	0016D	6510016E			RIR,1	8+1	
553	C1	0016E	3110000E	A		CV,1	14	
554	C1	0016F	6820016C			RCR,2	CMS	
555	C1	00170	22000000	A		LI,0	0	
556	C1	00171	350000F8			STW,0	CUTR1	
557	C1	00172	350000F9			STW,0	CUTR2	
558	C1	00173	320000D7			LW,0	DATAF	
559	C1	00174	35000026	A		STW,0	X'26'	
560	C1	00175	68000176			R	INIT	
561	C1	00176	22000639		INIT	LI,0	DA(REWIND)	
562	C1	00177	CC0000FE			SI0,0	*MAG1ADD	
563	C1	00178	CC0000FF			SI0,0	*MAG2ADD	
564	C1	00179	2207FFFF	A		LI,0	X'7FFFF'	
565	C1	0017A	35000012			STW,0	CPUBL	
566	C1	0017B	35000013			STW,0	RAD1BL	
567	C1	0017C	35000014			STW,0	RAD2BL	
568	C1	0017D	35000016			STW,0	MAG2BL	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
569	C1	0017E	35000C15			STW,0	MAG1BL	
570	C1	0017F	35000C17			STW,0	LP1RL	
571	C1	00180	35000C18			STW,0	TY1BL	
572	C1	00181	35000C19			STW,0	TY2BL	
573	C1	00182	35000C1A			STW,0	CR1RL	
574	C1	00183	35000C1B			STW,0	CP1BL	
575	C1	00184	35000C1C			STW,0	PT1RL	
576	C1	00185	35000C1D			STW,0	CC1BL	
577	C1	00186	35000C1E			STW,0	CC2BL	
578	C1	00187	32000CC4			LW,0	TRAP	
579	C1	00188	35000C40 A			STW,0	64	
580	C1	00189	32000CC5			LW,0	I0INTEP	
581	C1	0018A	3500005C A			STW,0	X'5C'	
582	C1	0018B	32000CC6			LW,0	C0INTEP	
583	C1	0018C	3500005D A			STW,0	X'5D'	
584	C1	0018D	32000CC7			LW,0	EXINT	
585	C1	0018E	35000061 A			STW,0	X'61'	
586	C1	0018F	32000CC2			LW,0	RIBINT	
587	C1	00190	35000C5B A			STW,0	X'5B'	
588	C1	00191	32000CC3			LW,0	RTINT	
589	C1	00192	35000C55 A			STW,0	X'55'	
590	C1	00193	220FF000 A			LI,0	X'FF000'	
591	C1	00194	35000C86			STW,0	RT	
592	C1	00195	2200000E A			LI,0	14	
593	C1	00196	35000CB7			STW,0	C1	
594	C1	00197	2000000E A			AI,0	14	
595	C1	00198	35000C88			STW,0	C2	
596	C1	00199	2000000E A			AI,0	14	
597	C1	0019A	35000CB9			STW,0	C3	
598	C1	0019R	2000000E A			AI,0	14	
599	C1	0019C	35000C8B			STW,0	C5	
600	C1	0019D	2000000E A			AI,0	14	
601	C1	0019E	30000C89			AW,0	C3	
602	C1	0019F	35000C8C			STW,0	C6	
603	C1	001A0	2000000E A			AI,0	14	
604	C1	001A1	30000C89			AW,0	C3	
605	C1	001A2	35000C8D			STW,0	C7	
606	C1	001A3	2000000E A			AI,0	14	
607	C1	001A4	30000C89			AW,0	C3	
608	C1	001A5	35000C8A			STW,0	C4	
609	C1	001A6	32000CF3		LW,C	P0FFC		
610	C1	001A7	35000CHE			STW,0	C8	
611	C1	001A8	32000CF2		LW,0	P0NC		
612	C1	001A9	35000CFE			STW,0	C9	
613	C1	001AA	680001AB			R	ARMINT	
614	C1	001AB	22F00C70 A	ARMINT	LI,15	X'70'		
615	C1	001AC	6DF01200 A		WD,15	X'1200'		DEPRESS CONSUL INTERRUPT MESSAGE
616	C1	001AD	CF000CFE		XPSD,C	MESSAGE		
617	C1	001AE	000C2D9C		DATA	RA(CIMSG)		
618	C1	001AF	CF00012E		XPSD,C	MESDEV		
619	C1	001A0	680001B1		R	CKMEM		
620	C1	001B1	CF0001B2	CKMEM	LPSD,C	INHIB		
621					RBOUND 8			
622	C1	001B2	000001B4	INHIB	DATA	\$+2		
623	C1	001B3	07000000 A		DATA	X'70000000'		
624	C1	001B4	32A00C12		LW,6	CPUBL		
625	C1	001B5	220000FF A		LI,0	X'FF'		
626	C1	001B6	6A5001FA		HAL,5	TAG		
627	C1	001B7	0F0002CE		XPSD,0	GETBL		
628	C1	001B8	35600C12		STW,6	CPUBL		
629	C1	001B9	32100006 A		LW,1	6		
630	C1	001BA	30600CF6		AW,6	RLSIZE		
631	C1	001BB	3560000F A		STW,6	15		
632	C1	001BC	20FFFFFF A		AI,15	-1		
633	C1	001BD	0E0001BE		LPSD,0	CLINH		
634					RBOUND 8			
635	C1	001BE	000001C0	CLINH	DATA	\$+2		
636	C1	001BF	00000000 A		DATA	0		
637	C1	001C0	72E20000 A		LB,3	0,1		
638	C1	001C1	20100001 A		AI,1	1		
639	C1	001C2	72E20000 A		LB,14	0,1		

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
640	01	00103	21300000	A		CI,3	0	
641	01	00104	68300108			RE	\$+4	
642	01	00105	3130000E	A		CV,3	14	
643	01	00106	69300108			RNE	\$+2	
644	01	00107	6800022F			R	HELP	
645	01	00108	38E00003	A		SW,14	3	
646	01	00109	32100012			LW,1	CPURL	
647	01	0010A	72220000	A		LB,2	0,1	
648	01	0010B	71220000	A	CK	CR,2	0,1	
649	01	0010C	69300211			RNE	DATAHALT	
650	01	0010D	3020000E	A		AW,2	14	
651	01	0010E	651001CF			RIR,1	\$+1	
652	01	0010F	3110000F	A		CV,1	15	
653	01	00100	69300108			RNE	CK	
654	01	00101	321000A6		PRD	LW,1	WS	
655	01	00102	441000F3			AND,1	RBRM	
656	01	00103	21100000	A		CI,1	0	
657	01	00104	683001R1			RE	CKMEM	
658	01	00105	680001D6			R	PATTERN	
659	01	00106	32100012		PATTERN	LW,1	CPURL	
660	01	00107	72220000	A	NXBYTE	LB,2	0,1	
661	01	00108	3520000E	A		STW,2	14	
662	01	00109	4820020F			FBR,2	DATA1	
663	01	0010A	75220000	A		STB,2	0,1	
664	01	0010B	2221FFFF	A		LI,2	X'FFFFFF'	
665	01	0010C	75220000	A		STR,2	0,1	
666	01	0010D	22200000	A		LI,2	0	
667	01	0010E	75220000	A		STB,2	0,1	
668	01	0010F	222FFFFFF	A		LI,2	X'FFFFFF'	
669	01	001E0	75220000	A		STR,2	0,1	
670	01	001E1	22200001	A		LI,2	1	
671	01	001E2	75220000	A	AGAIN	STB,2	0,1	
672	01	001E3	4820020F			FBR,2	DATA1	
673	01	001E4	75220000	A		STB,2	0,1	
674	01	001E5	4820020F			FBR,2	DATA1	
675	01	001E6	75220000	A		STR,2	0,1	
676	01	001E7	71200210			CR,2	DATA2	
677	01	001E8	683001E8			RE	\$+3	
678	01	001E9	25200001	A		S,2	1	
679	01	001EA	680001E2			R	AGAIN	
680	01	001EH	75E20000	A		STB,14	0,1	
681	01	001EC	651001FD			RIR,1	\$+1	
682	01	001ED	3110000F	A		CV,1	15	
683	01	001EE	69300107			RNE	NXBYTE	
684	01	001EF	680001R1			R	CKMEM	
685	01	001F0	316000E5		CLRBL	CV,6	CBENADD	
686	01	001F1	E9200005	A		RG	*5	
687	01	001F2	32700006	A		LW,7	6	
688	01	001F3	307000E6			AW,7	BLSIZE	
689	01	001F4	22000000	A		LI,0	0	
690	01	001F5	750C0000	A		STB,0	0,6	
691	01	001F6	20600001	A		AI,6	1	
692	01	001F7	31600007	A		CV,6	7	
693	01	001F8	691001F5			HL	\$-3	
694	01	001F9	E8000005	A		R	*5	
695	01	001FA	32700006	A	TAG	LW,7	6	
696	01	001FB	317000E5			CV,7	CBENADD	
697	01	001FC	E9200005	A		RG	*5	
698	01	001FD	307000E6			AW,7	BLSIZE	
699	01	001FE	207FFFFFF	A		AI,7	-1	
700	01	001FF	21000006	A		CI,0	6	
701	01	00200	6830020A			RE	NTAG	
702	01	00201	21000005	A		CI,0	5	
703	01	00202	6830020A			RF	NTAG	
704	01	00203	21000009	A		CI,0	9	
705	01	00204	6830020A			RE	NTAG	
706	01	00205	728E0000	A		LB,8	0,7	
707	01	00206	218000C6	A		CI,8	6	
708	01	00207	6830020C			RE	BLDCR	
709	01	00208	218000C6	A		CI,8	X'60'	
710	01	00209	6830020C			RE	BLDCR	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL ORIG	LABEL	OPERATION	OPERAND	COMMENTS
711	C1	0020A	750E0000	A	NTAG	STB,0	0,7	
712	C1	0020B	E8000005	A		R	*5	
713	01	0020C	22000060	A	BLDCR	LI,0	X'60'	
714	01	0020D	750F0000	A		STB,0	0,7	
715	C1	0020E	E8000005	A		R	*5	
716	01	0020F	FFFFFFFF	A	DATA1	DATA	X'FFFFFFFF'	
717	01	00210	00000000	A	DATA2	DATA	0	
718	C1	00211	35200CAD		DATAHALT	STW,2	TEMP3	
719	01	00212	3220000F	A		LW,2	15	
720	01	00213	72240000	A		LB,2	0,2	
721	01	00214	21200006	A		CI,2	6	
722	01	00215	68300218			RE	*+3	
723	C1	00216	21200060	A		CI,2	X'60'	
724	C1	00217	6930021D			RNE	REPART	
725	C1	00218	32200C20			LW,2	ENDCR	
726	C1	00219	30200C12			AW,2	CPURL	
727	C1	0021A	31100002	A		CW,1	2	
728	C1	0021B	681001D1			RGE	PRD	
729	C1	0021C	6800021D			R	REPART	
730	C1	0021D	CE00021E		REPART	LPSD,0	CKMRD	
731						ROUND 8		
732	01	0021E	0000022C		CKMRD	DATA	*+2	
733	01	0021F	07000000	A		DATA	X'7000000'	
734	01	00220	32200CAD			LW,2	TEMP3	
735	01	00221	22500003	A		LI,5	3	
736	C1	00222	22400000	A		LI,4	0	
737	C1	00223	44400001	A		LS,4	1	
738	01	00224	21400002	A		CI,4	2	
739	01	00225	6930022A			RNE	*+5	
740	C1	00226	32400001	A		LW,4	1	
741	C1	00227	2257FFFC	A		LI,5	X'7FFFC'	
742	01	00228	45400C12			CS,4	CPURL	
743	01	00229	68300228			RE	HELP	
744	C1	0022A	CE000232			LPSD,0	HALT	
745	C1	0022B	CF00022C		HELP	LPSD,0	MESSA	
746						ROUND 8		
747	C1	0022C	0000022E		MESSA	DATA	*+2	
748	C1	0022D	07000000	A		DATA	X'7000000'	
749	01	0022E	220005E5			LI,0	DA(HMESS)	
750	01	0022F	CF000C06			HIO,0	*MESADD	
751	01	00230	CC000C06			SIO,0	*MESADD	
752	01	00231	0E000232			LPSD,0	HALT	
753						ROUND 8		
754	01	00232	00000234		HALT	DATA	*+2	
755	C1	00233	07000000	A		DATA	X'7000000'	
756	01	00234	28000C52			STM,0	WK	
757	01	00235	CF000CFE			XPSD,0	MESSAGE	DATA ERROR
758	01	00236	00002734			DATA	BA(ERRMSG)	
759	01	00237	32000C12			LW,0	CPURL	
760	01	00238	72320000	A		LB,3	0,1	
761	01	00239	1240000E	A		LD,4	14	
762	01	0023A	726A0000	A		LB,6	0,5	
763	01	0023B	32A00000	A		LW,10	0	
764	01	0023C	6AF0011F			RAL,15	FORMAT	PUT IN MEMORY LOG FORMAT
765	01	0023D	35A00000	A		STW,10	0	
766	01	0023E	32A00001	A		LW,10	1	
767	01	0023F	6AF0011F			RAL,15	FORMAT	PUT IN MEMORY LOG FORMAT
768	01	00240	35A00001	A		STW,10	1	
769	C1	00241	32A00005	A		LW,10	5	
770	01	00242	6AF0011F			RAL,15	FORMAT	PUT IN MEMORY LOG FORMAT
771	C1	00243	35A00005	A		STW,10	5	
772	01	00244	0F000004			XPSD,0	OUTPUT	ERROR PARAMETERS
773	01	00245	00000C32			DATA	REGISTER	
774	01	00246	C8070001	A		DATA	X'8070001'	7 WORDS, 8 DIGIT/WORD.
775	01	00247	02300000	A		LCFI,2	0	
776	01	00248	2A000C52			LM,0	WK	
777	01	00249	CF000C70		HALT2	XPSD,0	INPUT	
778	C1	0024A	00000C5E			DATA	WK+12	
779	01	0024B	00010003	A		DATA	X'10003'	
780	C1	0024C	6800024F			RCR,0	HALT1	
781	C1	0024D	0F00012E			XPSD,0	MESDEV	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
782	01	0024E	680001B1			R	CKMEM	
783					*			
784	01	0024F	0F0000FE		HALT1	XPSD,0	MESSAGE	OPERATOR INSTRUCTIONS
785	01	00250	000027A8			DATA	BA(XERRMSG)	
786	01	00251	68000249			R	HALT2	
787						ROUND R		
788	01	00252	00000000	A	A10	DATA	0	
789	01	00253	00000000	A	A102	DATA	0	
790	01	00254	00000256			DATA	\$+2	
791	01	00255	07000000	A		DATA	X'7000000'	
792	01	00256	224000FF	A		LI,4	X'FFF'	IN CASE NO ADDRESS IS RECOGNIZED.
793	01	00257	6E400C00	A		A10,4	0	
794	01	00258	32500CC9			LW,5	DATA3	
795	01	00259	45400BFC			CS,4	RAD1ADD	
796	01	0025A	683004AF		EP1	RCR,3	RAD1	
797	01	0025B	45400BFD			CS,4	RAD2ADD	
798	01	0025C	683004F4			RCR,3	RAD2	
799	01	0025D	45400BFE			CS,4	MAG1ADD	
800	01	0025E	68300541			RCR,3	MAG1	
801	01	0025F	45400BFF			CS,4	MAG2ADD	
802	01	00260	68300571			RCR,3	MAG2	
803	01	00261	45400C00			CS,4	LP1ADD	
804	01	00262	68300596			RCR,3	LP1	
805	01	00263	45400C01			CS,4	TY1ADD	
806	01	00264	683005C3			RCR,3	TY1	
807	01	00265	45400C02			CS,4	CR1ADD	
808	01	00266	683005F7			RCR,3	CR1	
809	01	00267	45400C03			CS,4	CP1ADD	
810	01	00268	683005F7			RCR,3	CP1	
811	01	00269	45400C04			CS,4	PT1ADD	
812	01	0026A	68300627			RCR,3	PT1	
813	01	0026B	45400C05			CS,4	CC1ADD	
814	01	0026C	68300662			RCR,3	CC1	
815	01	0026D	60000041	A		WD,0	X'41'	TURN ON ALARM
816	01	0026E	0D700004	A		TI0,7	*4	
817	01	0026F	CE500004	A		TDV,5	*4	
818	01	00270	6C000000	A		RD,0	0	
819	01	00271	691002C9			RCS,1	TI0	
820	01	00272	0F0000FE		I0HALT	XPSD,0	MESSAGE	I/O ERROR
821	01	00273	000026F0			DATA	BA(I0ERRMSG)	
822	01	00274	02200040	A		LCI	4	
823	01	00275	2B600C62			STM,6	WKC	SAVE R6-R9
824	01	00276	0D600004	A		TI0,6	*4	GET TI0 R AND RU1
825	01	00277	69800279			RCS,8	\$+2	
826	01	00278	128C0000	A		LD,8	0,6	GET COMMAND PAIR
827	01	00279	0F0000D4			XPSD,0	OUTPUT	R4 AND R5
828	01	0027A	00000C36			DATA	REGISTER+4	
829	01	0027B	08060001	A		DATA	X'8060001'	6 WORDS, 8 DIGITS/WORD.
830	01	0027C	02200040	A		LCI	4	
831	01	0027D	2A600C62			LM,6	WKC	RESTORE R6-R9
832	01	0027E	0F000070		I0HALT2	XPSD,0	INPUT	
833	01	0027F	00000C5E			DATA	WK+12	
834	01	00280	00010003	A		DATA	X'10003'	
835	01	00281	68000284			RCR,0	I0HALT1	
836	01	00282	0F00012E			XPSD,0	MESDEV	
837	01	00283	68000287			R	ALARM	
838					*			
839	01	00284	0F0000FE		I0HALT1	XPSD,0	MESSAGE	
840	01	00285	00002DD0			DATA	BA(CONTINUE)	
841	01	00286	6800027E			R	I0HALT2	
842	01	00287	6D000040	A	ALARM	WD,0	X'40'	TURN OFF ALARM
843	01	00288	225007FF	A		LI,5	X'7FF'	
844	01	00289	45400BFC			CS,4	RAD1ADD	
845	01	0028A	6830029F		FP2	RCR,3	RAD1ER	
846	01	0028B	45400BFD			CS,4	RAD2ADD	
847	01	0028C	683002A3			RCR,3	RAD2ER	
848	01	0028D	45400BFE			CS,4	MAG1ADD	
849	01	0028E	683002A7			RCR,3	MAG1ER	
850	01	0028F	45400BFF			CS,4	MAG2ADD	
851	01	00290	683002B2			RCR,3	MAG2ER	
852	01	00291	45400C00			CS,4	LP1ADD	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
853	01	00292	683002HD			RCR,3	LP1ER	
854	01	00293	45400C01			CS,4	TY1ADD	
855	01	00294	683002BF			RCR,3	TY1ER	
856	01	00295	45400C02			CS,4	CR1ADD	
857	01	00296	683002C1			RCR,3	CR1ER	
858	01	00297	45400C03			CS,4	CP1ADD	
859	01	00298	683002C3			RCR,3	CP1ER	
860	01	00299	45400C04			CS,4	PT1ADD	
861	01	0029A	683002C5			RCR,3	PT1ER	
862	01	0029B	45400C05			CS,4	CC1ADD	
863	01	0029C	683002C7			RCR,3	CC1ER	
864	01	0029D	33100C11			MTW,1	NOINTL0G	
865	01	0029E	0E300252			LPSD,3	A10	
866	01	0029F	33100C07		RAD1ER	MTW,1	RAD1L0G	
867	01	002A0	32000BF4			LW,0	SSCUTR1	
868	01	002A1	35000BF8			STW,0	CUTR1	
869	01	002A2	680004BF			R	RADX1	
870	01	002A3	33100C08		RAD2ER	MTW,1	RAD2L0G	
871	01	002A4	32000BF5			LW,0	SSCUTR2	
872	01	002A5	35000BF9			STW,0	CUTR2	
873	01	002A6	68000504			R	RADX2	
874	01	002A7	33100C09		MAG1ER	MTW,1	MAG1L0G	
875	01	002A8	3P000CCD			LW,0	DATA7	
876	01	002A9	4H000C7E			AND,0	MCMD1	
877	01	002AA	21000000 A			CI,0	0	
878	01	002AH	68300550			RE	MX1	
879	01	002AC	2P000648			LI,0	DA(READR)	
880	01	002AD	CF000BFE			HI,0	*MAG1ADD	
881	01	002AE	CC000BFE			SI,0	*MAG1ADD	
882	01	002AF	CD000BFE			TI,0	*MAG1ADD	
883	01	002B0	69C002AF			RCS,12	\$=1	
884	01	002B1	68000550			R	MX1	
885	01	002B2	33100C0A		MAG2ER	MTW,1	MAG2L0G	
886	01	002B3	32000CCD			LW,0	DATA7	
887	01	002B4	4H000C80			AND,0	MCMD3	
888	01	002B5	21000000 A			CI,0	0	
889	01	002B6	68300580			RE	MX2	
890	01	002B7	22000648			LI,0	DA(READR)	
891	01	002B8	CF000BFF			HI,0	*MAG2ADD	
892	01	002B9	CC000BFF			SI,0	*MAG2ADD	
893	01	002BA	CD000BFF			TI,0	*MAG2ADD	
894	01	002BB	69C002BA			RCS,12	\$=1	
895	01	002BC	68000580			R	MX2	
896	01	002BD	33100C0B		LP1ER	MTW,1	LP1L0G	
897	01	002BE	680005A0			R	LPX	
898	01	002BF	33100C0C		TY1ER	MTW,1	TY1L0G	
899	01	002C0	680005DC			R	TYX	
900	01	002C1	33100C0D		CR1ER	MTW,1	CR1L0G	
901	01	002C2	680005F4			R	CRX	
902	01	002C3	33100C0E		CP1ER	MTW,1	CP1L0G	
903	01	002C4	68000604			R	CPX	
904	01	002C5	33100C0F		PT1ER	MTW,1	PT1L0G	
905	01	002C6	68000637			R	PTX	
906	01	002C7	33100C10		CC1ER	MTW,1	CC1L0G	
907	01	002C8	6800065F			R	CCX	
908	01	002C9	CE500004 A		TI0	TDV,5	*4	
909	01	002CA	4H500CCA			AND,5	DATA4	
910	01	002CB	31500CCB			CW,5	DATA5	
911	01	002CC	68B00288			RCR,11	ALARM+1	
912	01	002CD	68000272			R	I0HALT	
913								
914	01	002CE	00000000 A		GETBL	BOUND 8	DATA	0
915	01	002CF	00000000 A				DATA	0
916	01	002D0	000002D2				DATA	\$+2
917	01	002D1	C7000000 A				DATA	X170000001
918	01	002D2	306008E6		NXBL	AW,6	BLSIZE	
919	01	002D3	31600C12		CKBLTAR	CW,6	CPUBL	
920	01	002D4	683002D2			RCR,3	NXBL	
921	01	002D5	31600C13			CW,6	RAD1BL	
922	01	002D6	683002D2			RCR,3	NXPL	
923	01	002D7	31600C14			CW,6	RAD2BL	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
924	01	00208	68300202			RCR,3	NXRL	
925	01	00209	31600015			CW,6	MAG1BL	
926	01	0020A	68300202			RCR,3	NXRL	
927	01	0020B	31600016			CW,6	MAG2BL	
928	01	0020C	68300202			RCR,3	NXRL	
929	01	0020D	31600017			CW,6	LP1BL	
930	01	0020E	68300202			RCR,3	NXRL	
931	01	0020F	31600018			CW,6	TY1BL	
932	01	002E0	68300202			RCR,3	NXRL	
933	01	002E1	31600019			CW,6	TY2BL	
934	01	002E2	68300202			RCR,3	NXRL	
935	01	002E3	3160001A			CW,6	CR1BL	
936	01	002E4	68300202			RCR,3	NXRL	
937	01	002E5	3160001B			CW,6	CP1BL	
938	01	002E6	68300202			RCR,3	NXRL	
939	01	002E7	3160001C			CW,6	PT1BL	
940	01	002E8	68300202			RCR,3	NXRL	
941	01	002E9	3160001D			CW,6	CC1BL	
942	01	002EA	68300202			RCR,3	NXBL	
943	01	002EB	3160001E			CW,6	CC2BL	
944	01	002EC	68300202			RCR,3	NXPL	
945	01	002ED	3160001F5			CW,6	C0ENADD	
946	01	002EE	692002F0			RCS,2	SETST	
947	01	002EF	0E0002CF			LPSD,C	GETPL	
948	01	002F0	32600BF4		SETST	LW,6	CASADD	
949	01	002F1	680002D3			R	CKBLTAB	
950						BOUND 8		
951	01	002F2	00000000	A	C0NINT	DATA	0	
952	01	002F3	00000000	A	C0NINT2	DATA	0	
953	01	002F4	000002F6			DATA	\$+2	
954	01	002F5	07000000	A		DATA	X17000000	
955	01	002F6	35100CAC			STW,1	TEMP2	
956	01	002F7	35200CAE			STW,2	TEMP4	
957	01	002F8	0F0000FF		C0NMSG	XPSD,C	MESSAGE	C0NSUL INTERRUPT
958	01	002F9	00002454			DATA	BA(C0NMSG)	
959	01	002FA	0F000004			XPSD,C	OUTPUT	TEST STRATEGY
960	01	002FB	00000CA4			DATA	ORDERS	
961	01	002FC	04060002	A		DATA	X14060002	6 HALF WORDS, 4 DIGITS/HALF WORD.
962	01	002FD	0F000070			XPSD,C	INPUT	MODIFY TEST STRATEGY
963	01	002FE	00000CA4			DATA	ORDERS	
964	01	002FF	04060002	A		DATA	X14060002	6 HALF WORDS, 4 DIGITS/HALF WORD.
965	01	00300	68000302			RCR,0	C0NXMSG	
966	01	00301	68000305			RCR,0	REMOVE-1	
967	01	00302	0F0000FE		C0NXMSG	XPSD,C	MESSAGE	EXPLAIN C0NSUL INTERRUPT.
968	01	00303	0000248C			DATA	BA(XC0NMSG)	
969	01	00304	680002FB			HCR,0	C0NMSG	
970	01	00305	0F00012E			XPSD,C	MESDEV	
971	01	00306	32000CA4		REMOVE	LW,0	ORDERS	
972	01	00307	4H000CCF			AND,0	DATA9	
973	01	00308	21000000	A		CI,0	0	
974	01	00309	69300308			RCS,3	\$+2	
975	01	0030A	0F000BFC			HTB,0	*RAD1ADD	
976	01	0030B	32000CA4			LW,0	ORDERS	
977	01	0030C	25000001	A		S,0	1	
978	01	0030D	48000CCF			AND,0	DATA9	
979	01	0030E	21000000	A		CI,0	0	
980	01	0030F	69300311			RCS,3	\$+2	
981	01	00310	0F000BFD			HTB,0	*RAD2ADD	
982	01	00311	32000CA4			LW,0	ORDERS	
983	01	00312	25000002	A		S,0	2	
984	01	00313	4H000CCF			AND,0	DATA9	
985	01	00314	21000000	A		CI,0	0	
986	01	00315	69300317			RCS,3	\$+2	
987	01	00316	0F000BFE			HTB,0	*MAG1ADD	
988	01	00317	32000CA4			LW,0	ORDERS	
989	01	00318	25000003	A		S,0	3	
990	01	00319	4H000CCF			AND,0	DATA9	
991	01	0031A	21000000	A		CI,0	0	
992	01	0031B	6930031D			RCS,3	\$+2	
993	01	0031C	0F000BFF			HTB,0	*MAG2ADD	
994	01	0031D	32000CA4			LW,0	ORDERS	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
995	01	0031E	25000004	A		S,0	4	
996	01	0031F	480000CF			AND,0	DATA9	
997	01	00320	21000000	A		CI,0	0	
998	01	00321	69300323			BOS,3	\$+2	
999	01	00322	CF000C00			HIB,0	*LP1ADD	
1000	01	00323	32000CA4			LW,0	ORDERS	
1001	01	00324	25000005	A		S,0	5	
1002	01	00325	480000CF			AND,0	DATA9	
1003	01	00326	21000000	A		CI,0	0	
1004	01	00327	69300329			BOS,3	\$+2	
1005	01	00328	CF000C01			HIB,0	*TY1ADD	
1006	01	00329	32000CA4			LW,0	ORDERS	
1007	01	0032A	25000006	A		S,0	6	
1008	01	0032B	480000CF			AND,0	DATA9	
1009	01	0032C	21000000	A		CI,0	0	
1010	01	0032D	6930032F			BOS,3	\$+2	
1011	01	0032E	CF000C02			HIB,0	*CR1ADD	
1012	01	0032F	32000CA4			LW,0	ORDERS	
1013	01	00330	25000007	A		S,0	7	
1014	01	00331	480000CF			AND,0	DATA9	
1015	01	00332	21000000	A		CI,0	0	
1016	01	00333	69300335			BOS,3	\$+2	
1017	01	00334	CF000C03			HIB,0	*CP1ADD	
1018	01	00335	32000CA4			LW,0	ORDERS	
1019	01	00336	25000008	A		S,0	8	
1020	01	00337	480000CF			AND,0	DATA9	
1021	01	00338	21000000	A		CI,0	0	
1022	01	00339	6930033B			BOS,3	\$+2	
1023	01	0033A	CF000C04			HIB,0	*PT1ADD	
1024	01	0033B	32000CA4			LW,0	ORDERS	
1025	01	0033C	25000009	A		S,0	9	
1026	01	0033D	480000CF			AND,0	DATA9	
1027	01	0033F	21000000	A		CI,0	0	
1028	01	0033F	69300343			BOS,3	\$+4	
1029	01	00340	CF000C05			HIB,0	*CC1ADD	
1030	01	00341	22604000	A		LI,6	X'4000'	
1031	01	00342	6D601302	A		WD,6	X'1302'	
1032	01	00343	22006000	A		LI,0	X'6000'	
1033	01	00344	35000CA6			STW,0	RT	
1034	01	00345	32000CA6			LW,0	WS	
1035	01	00346	480000CF			AND,0	DATA9	
1036	01	00347	35000CA7			STW,0	RAD1DEN	
1037	01	00348	32000CA6			LW,0	WS	
1038	01	00349	25000001	A		S,0	1	
1039	01	0034A	480000CF			AND,0	DATA9	
1040	01	0034B	35000CA8			STW,0	RAD2DEN	
1041	01	0034C	32000CA6			LW,0	WS	
1042	01	0034D	25000002	A		S,0	2	
1043	01	0034E	480000CF			AND,0	DATA9	
1044	01	0034F	35000CA9			STW,0	RAD1SP	
1045	01	00350	32000CA6			LW,0	WS	
1046	01	00351	25000003	A		S,0	3	
1047	01	00352	480000CF			AND,0	DATA9	
1048	01	00353	35000CAA			STW,0	RAD2SP	
1049	01	00354	32000CA6			LW,0	WS	
1050	01	00355	480000C1			AND,0	TDATA	
1051	01	00356	21000000	A		CI,0	0	
1052	01	00357	6830035D			RE	WSSTART	
1053	01	00358	48000CA6			FBR,0	WS	
1054	01	00359	35000CA6			STW,0	WS	
1055	01	0035A	22601000	A		LI,6	X'1000'	
1056	01	0035B	6D601200	A		WD,6	X'1200'	
1057	01	0035C	6800069A			R	AUTS	
1058	01	0035D	22001000	A	WSSTART	LI,0	X'1000'	
1059	01	0035E	48000CA6			AND,0	WS	
1060	01	0035F	21000000	A		CI,0	0	
1061	01	00360	68300369			RE	\$+9	
1062	01	00361	CF000CFF			HIB,0	*MAGPADP	
1063	01	00362	32000CFF			LW,0	MAGPADD	
1064	01	00363	35000C9C			STW,0	SADD	
1065	01	00364	22000C0A			LI,0	MAG2LHG	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1066	C1	00365	35000CA3			STW,0	SLAG	
1067	C1	00366	32000BFE			LW,0	BLC2	
1068	C1	00367	35000C9D			STW,0	BLC3	
1069	C1	00368	0F000448			XPSD,0	MAGS	
1070	C1	00369	22002000	A		LI,0	X'2000'	
1071	C1	0036A	4H000CA6			AND,0	WS	
1072	C1	0036H	21000000	A		CI,0	0	
1073	C1	0036C	68300375			RE	\$+9	
1074	C1	0036D	CF000BFE			HI,0	*MAG1ADD	
1075	C1	0036F	32000BFE			LW,0	MAG1ADD	
1076	C1	0036F	35000C9C			STW,0	SADD	
1077	01	00370	22000C09			LI,0	MAG1L0G	
1078	01	00371	35000CA3			STW,0	SLAG	
1079	C1	00372	32000BED			LW,0	BLC1	
1080	01	00373	35000C9D			STW,0	BLC3	
1081	01	00374	CF000448			XPSD,0	MAGS	
1082	01	00375	22004000	A		LI,0	X'4000'	
1083	C1	00376	4H000CA6			AND,0	WS	
1084	01	00377	21000000	A		CI,0	0	
1085	01	00378	68300388			RE	WSRAD1	
1086	01	00379	CF000BFD			HI,0	*RAD2ADD	
1087	C1	0037A	32000BFB			LW,0	RAD2X	
1088	01	0037B	35000C9C			STW,0	SADD	
1089	C1	0037C	22000C08			LI,0	RAD2L0G	
1090	C1	0037D	35000CA3			STW,0	SLAG	
1091	01	0037E	32000BEB			LW,0	STR2	
1092	C1	0037F	35000C9E			STW,0	SSTR	
1093	C1	00380	32000BEC			LW,0	ENTR2	
1094	C1	00381	35000C9F			STW,0	SETTR	
1095	C1	00382	32000BEB			LW,0	SECTOR1	
1096	01	00383	35000CA0			STW,0	SSECTOR	
1097	C1	00384	32000CA8			LW,0	RAD2DEN	
1098	C1	00385	35000CA1			STW,0	SRADDEN	
1099	01	00386	32000CAA			LW,0	RAD2SP	
1100	01	00387	35000CA2			STW,0	SRADHISP	
1101	C1	00388	32000BFB			LW,0	RAD2X	
1102	01	00389	35000BFD			STW,0	RAD2ADD	
1103	C1	0038A	CF0003FE			XPSD,0	RADS	
1104	01	0038B	22008000	A	WSRAD1	LI,0	X'8000'	
1105	C1	0038C	4H000CA6			AND,0	WS	
1106	01	0038D	21000000	A		CI,0	0	
1107	C1	0038E	683003A1			RE	CSDEVS	
1108	C1	0038F	CF000BFC			HI,0	*RAD1ADD	
1109	C1	00390	32000HFA			LW,0	RAD1X	
1110	01	00391	35000C9C			STW,0	SADD	
1111	01	00392	22000C07			LI,0	RAD1L0G	
1112	C1	00393	35000CA3			STW,0	SLAG	
1113	01	00394	32000BE9			LW,0	STR1	
1114	01	00395	35000C9E			STW,0	SSTR	
1115	C1	00396	32000BEA			LW,0	ENTR1	
1116	01	00397	35000C9F			STW,0	SETTR	
1117	01	00398	32000BF7			LW,0	SECTOR	
1118	C1	00399	35000CA0			STW,0	SSECTOR	
1119	C1	0039A	32000CA7			LW,0	RAD1DEN	
1120	C1	0039B	35000CA1			STW,0	SRADDEN	
1121	C1	0039C	32000CA9			LW,0	RAD1SP	
1122	01	0039D	35000CA2			STW,0	SRADHISP	
1123	01	0039E	32000BFA			LW,0	RAD1X	
1124	01	0039F	35000BFC			STW,0	RAD1ADD	
1125	C1	003A0	CF0003FE			XPSD,0	RADS	
1126	C1	003A1	32000255		CSDEVS	LW,0	A102+2	
1127	01	003A2	35000253			STW,0	A102	
1128	C1	003A3	32000CA5			LW,0	CSTUP	
1129	C1	003A4	4H000CCF			AND,0	DATA9	
1130	C1	003A5	21000000	A		CI,0	0	
1131	C1	003A6	683003AA			RE	\$+4	
1132	01	003A7	220003AA			LI,0	\$+3	
1133	C1	003A8	35000252			STW,0	A10	
1134	C1	003A9	6800049E			R	RAD1W	
1135	01	003AA	32000CA5			LW,0	CSTUP	
1136	01	003AB	25000001	A		C,0	1	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1137	01	003AC	48000CCF			AND,C	DATA9	
1138	01	003AD	21000C00	A		CI,0	0	
1139	01	003AE	68300382			RE	\$+4	
1140	01	003AF	22000382			LI,0	\$+3	
1141	01	003B0	35000252			STW,0	AI8	
1142	01	003B1	680004F3			R	RAD2W	
1143	01	003B2	32000CA5			LW,0	CSTUP	
1144	01	003B3	25000002	A		S,0	2	
1145	01	003B4	48000CCF			AND,0	DATA9	
1146	01	003B5	21000C00	A		CI,0	0	
1147	01	003B6	6830038C			BF	\$+6	
1148	01	003B7	2200038C			LI,0	\$+5	
1149	01	003B8	35000252			STW,0	AI8	
1150	01	003B9	00000BFE			T18,0	*MAG1ADD	
1151	01	003BA	69C00389			RCS,12	\$-1	
1152	01	003BB	68000530			R	MAG1W	
1153	01	003BC	32000CA5			LW,0	CSTUP	
1154	01	003BD	25000003	A		S,0	3	
1155	01	003BE	48000CCF			AND,0	DATA9	
1156	01	003BF	21000C00	A		CI,0	0	
1157	01	003C0	683003C6			RF	\$+6	
1158	01	003C1	220003C6			LI,0	\$+5	
1159	01	003C2	00000HFF			T18,0	*MAG2ADD	
1160	01	003C3	69C003C2			RCS,12	\$-1	
1161	01	003C4	35000252			STW,0	AI8	
1162	01	003C5	68000560			R	MAG2W	
1163	01	003C6	32000CA5			LW,0	CSTUP	
1164	01	003C7	25000004	A		S,0	4	
1165	01	003C8	48000CCF			AND,0	DATA9	
1166	01	003C9	21000C00	A		CI,0	0	
1167	01	003CA	683003CE			RE	\$+4	
1168	01	003CB	220003CE			LI,0	\$+3	
1169	01	003CC	35000252			STW,0	AI8	
1170	01	003CD	68000590			R	LPW	
1171	01	003CE	32000CA5			LW,0	CSTUP	
1172	01	003CF	25000C05	A		S,0	5	
1173	01	003D0	48000CCF			AND,0	DATA9	
1174	01	003D1	21000C00	A		CI,0	0	
1175	01	003D2	683003D6			RE	\$+4	
1176	01	003D3	220003D6			LI,0	\$+3	
1177	01	003D4	35000252			STW,0	AI8	
1178	01	003D5	680005A3			R	TYW	
1179	01	003D6	32000CA5			LW,0	CSTUP	
1180	01	003D7	25000C06	A		S,0	6	
1181	01	003D8	48000CCF			AND,0	DATA9	
1182	01	003D9	21000C00	A		CI,0	0	
1183	01	003DA	683003DE			RE	\$+4	
1184	01	003DB	220003DE			LI,0	\$+3	
1185	01	003DC	35000252			STW,0	AI8	
1186	01	003DD	6800050F			R	CR1W	
1187	01	003DE	32000CA5			LW,0	CSTUP	
1188	01	003DF	25000C07	A		S,0	7	
1189	01	003E0	48000CCF			AND,0	DATA9	
1190	01	003E1	21000C00	A		CI,0	0	
1191	01	003E2	683003E6			RE	\$+4	
1192	01	003E3	220003E6			LI,0	\$+3	
1193	01	003E4	35000252			STW,0	AI8	
1194	01	003E5	680005F7			R	CP1	
1195	01	003E6	32000CA5			LW,0	CSTUP	
1196	01	003E7	25000C08	A		S,0	8	
1197	01	003E8	48000CCF			AND,0	DATA9	
1198	01	003E9	21000C00	A		CI,0	0	
1199	01	003EA	683003EE			RE	\$+4	
1200	01	003EB	220003EE			LI,0	\$+3	
1201	01	003EC	35000252			STW,0	AI8	
1202	01	003ED	68000616			R	PT1W	
1203	01	003EF	32000CA5			LW,0	CSTUP	
1204	01	003F0	25000C09	A		S,0	9	
1205	01	003F0	48000CCF			AND,0	DATA9	
1206	01	003F1	21000C00	A		CI,0	0	
1207	01	003F2	683003F6			RE	\$+4	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1208	C1	003F3	220003F6			LI,0	\$+3	
1209	C1	003F4	350002F2			STW,0	A16	
1210	C1	003F5	6800063A			R	CC1W	
1211	C1	003F6	22100020	A		LI,1	X'20'	
1212	C1	003F7	6D101200	A		WD,1	X'1200'	
1213	C1	003F8	32100CAC			LW,1	TEMP2	
1214	C1	003F9	32200CAF			LW,2	TEMP4	
1215	C1	003FA	22006000	A		LI,0	X'6000'	
1216	C1	003FB	35000CB6			STW,0	RT	
1217	C1	003FC	CE3002F2			LPSD,3	CONINT	
1218						BOUND 8		
1219	C1	003FE	00000000	A	RADS	DATA	0	
1220	C1	003FF	00000000	A		DATA	0	
1221	C1	00400	00000402			DATA	\$+2	
1222	C1	00401	07000000	A		DATA	X'7000000'	
1223	C1	00402	3200009E		RADSS	LW,0	SSTR	
1224	C1	00403	35000BF8			STW,0	CUTR1	
1225	C1	00404	32000BF6			LW,0	BLSIZE	
1226	C1	00405	30000000			AW,0	DATA6	
1227	C1	00406	35000C79			STW,0	RCMD2	
1228	C1	00407	32000000			LW,0	DATA7	
1229	C1	00408	30000BF4			AW,0	COSTADD	
1230	C1	00409	35000C78			STW,0	RCMD1	
1231	C1	0040A	CF000488			XPSD,0	BYTEGEN	
1232	C1	0040B	22000638		SSEEK	LI,0	DA(SEEK1)	
1233	C1	0040C	CC00009C			SIB,0	*SADD	
1234	C1	0040D	227FFED0	A	DLAY	LI,7	-X'200'	
1235	C1	0040E	657C040E			RIR,7	*	
1236	C1	0040F	CD70009C			TIR,7	*SADD	
1237	C1	00410	69000412			HCS,12	\$+2	
1238	C1	00411	68000419			R	\$+8	
1239	C1	00412	4B7000CF			AND,7	DATA9	
1240	C1	00413	21700000	A		CI,7	0	
1241	C1	00414	6830040D			RE	DLAY	
1242	C1	00415	CF00009C			HIB,0	*SADD	
1243	C1	00416	B3100CA3			MTW,1	*SL66	
1244	C1	00417	6D000041	A		WD,0	X'41'	
1245	C1	00418	68000408			R	SSEEK	
1246	C1	00419	32000C78			LW,0	RCMD1	
1247	C1	0041A	48000CCE			FBR,0	DATA8	
1248	C1	0041B	35000C78			STW,0	RCMD1	
1249	C1	0041C	32400BF8			LW,4	CUTR1	
1250	C1	0041D	30400CAC		INCST	AW,4	SSECTOR	
1251	C1	0041E	32000CA2		SHISP	LW,0	SRADHISP	
1252	C1	0041F	21000000	A		CI,0	0	
1253	C1	00420	68300427			RE	SDEN	
1254	C1	00421	2270007F	A		LI,7	X'7F'	
1255	C1	00422	22600000	A		LI,6	0	
1256	C1	00423	4A600004	A		LS,6	4	
1257	C1	00424	31600C04			CW,6	DATAHI	
1258	C1	00425	6810041D			RGE	INCST	
1259	C1	00426	6800042F			R	NETR	
1260	C1	00427	32000CA1		SDEN	LW,0	SRADDEN	
1261	C1	00428	21000000	A		CI,0	0	
1262	C1	00429	6830042F			RE	NETR	
1263	C1	0042A	2270000F	A		LI,7	15	
1264	C1	0042B	22600000	A		LI,6	0	
1265	C1	0042C	4A600004	A		LS,6	4	
1266	C1	0042D	31600C03			CW,6	DATAI	
1267	C1	0042E	6810041D			RGE	INCST	
1268	C1	0042F	35400BF8		NETR	STW,4	CUTR1	
1269	C1	00430	3140009F			CW,4	SETTR	
1270	C1	00431	68200445			RCR,2	ENRYTEG	
1271	C1	00432	32700BF4			LW,7	COSTADD	
1272	C1	00433	32400BF5			LW,4	CHENADD	
1273	C1	00434	30400BF6			AW,4	BLSIZE	
1274	C1	00435	22000000	A		LI,0	0	
1275	C1	00436	750E0000	A		STB,0	0,7	
1276	C1	00437	20700001	A		AI,7	1	
1277	C1	00438	31700004	A		CW,7	4	
1278	C1	00439	68200436			RLE	\$=3	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1279	01	0043A	220001B1			LI,0	CKMEM	
1280	01	0043B	350002F2			STW,0	CONINT	
1281	01	0043C	32000C00			LW,0	DATA10	
1282	01	0043D	30000BE6			AW,0	BLSIZE	
1283	01	0043E	35000C79			STW,0	RCMD2	
1284	01	0043F	32000C9C			LW,0	SADD	
1285	01	00440	6A700528			RAL,7	CYCLE	
1286	01	00441	68000443			RCR,0	*+2	
1287	01	00442	0E0003FE			LPSD,0	RADS	
1288	01	00443	35000C9C			STW,0	SADD	
1289	01	00444	68000402			RCR,0	RADSS	
1290	01	00445	0F000488		ENBYTEG	XPSD,0	BYTEGEN	
1291	01	00446	6800040B			R	SSEEK	
1292						RBOUND 8		
1293	01	00448	00000000	A	MAGS	DATA	0	
1294	01	00449	00000000	A		DATA	0	
1295	01	0044A	0000044C			DATA	*+2	
1296	01	0044B	07000000	A		DATA	X17000000'	
1297	01	0044C	22000639			LI,0	DA(REWIND)	
1298	01	0044D	CC000C9C			SI0,0	*SADD	
1299	01	0044E	CD000C9C			TI0,0	*SADD	
1300	01	0044F	69C0044E			RCS,12	*-1	
1301	01	00450	22000000	A		LI,0	0	
1302	01	00451	35000BF6			STW,0	CURLC1	
1303	01	00452	32000BE6			LW,0	BLSIZE	
1304	01	00453	30000CCC			AW,0	DATA6	
1305	01	00454	35000C7F			STW,0	MCMD2	
1306	01	00455	32000CCD			LW,0	DATA7	
1307	01	00456	30000BE4			AW,0	C0STADD	
1308	01	00457	35000C7E			STW,0	MCMD1	
1309	01	00458	0F000488			XPSD,0	BYTEGEN	
1310	01	00459	2200063F		TLS	LI,0	DA(MCMD1)	
1311	01	0045A	CC000C9C			SI0,0	*SADD	
1312	01	0045B	CD700C9C			TI0,7	*SADD	
1313	01	0045C	69C0045E			RCS,12	*+2	
1314	01	0045D	68000469			R	*+12	
1315	01	0045E	4B700CCF			AND,7	DATA9	
1316	01	0045F	21700C00	A		CI,7	0	
1317	01	00460	6830045B			RE	*-5	
1318	01	00461	22000648			LI,0	DA(READR)	
1319	01	00462	B3100CA3			MTW,1	*SLBG	
1320	01	00463	6D000041	A		WD,0	X141'	
1321	01	00464	CF000C9C			HI0,0	*SADD	
1322	01	00465	CC000C9C			SI0,0	*SADD	
1323	01	00466	CD000C9C			TI0,0	*SADD	
1324	01	00467	69C00466			RCS,12	*-1	
1325	01	00468	6800045B			R	*-13	
1326	01	00469	32000BF6			LW,0	CURLC1	
1327	01	0046A	20000001	A		AI,0	1	
1328	01	0046B	35000BF6			STW,0	CURLC1	
1329	01	0046C	31000C9D			CV,0	BLS	
1330	01	0046D	69200473			RCS,2	RWS	
1331	01	0046E	32000C7E			LW,0	MCMD1	
1332	01	0046F	48000CCE			F0R,0	DATAB	
1333	01	00470	35000C7F			STW,0	MCMD1	
1334	01	00471	0F000488			XPSD,0	BYTEGEN	
1335	01	00472	68000459			R	TLS	
1336	01	00473	22000639		RWS	LI,0	DA(REWIND)	
1337	01	00474	CC000C9C			SI0,0	*SADD	
1338	01	00475	220FFF00	A		LI,0	X'FFFF00'	
1339	01	00476	65000476			RIR,0	*	
1340	01	00477	22000000	A		LI,0	0	
1341	01	00478	35000BF6			STW,0	CURLC1	
1342	01	00479	32000C00			LW,0	DATA10	
1343	01	0047A	30000BE6			AW,0	BLSIZE	
1344	01	0047B	35000C7F			STW,0	MCMD2	
1345	01	0047C	32700BE4			LW,7	C0STADD	
1346	01	0047D	32400BE5			LW,4	C0FNADD	
1347	01	0047E	30400BE6			AW,4	BLSIZE	
1348	01	0047F	22000000	A		LI,0	0	
1349	01	00480	750E0000	A		STR,0	0,7	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1350	01	00481	20700C01	A		AI,7	1	
1351	01	00482	31700004	A		CW,7	4	
1352	01	00483	68200480			BLE	\$=3	
1353	01	00484	220001B1			LI,0	CKMEM	
1354	01	00485	350002F2			STW,0	C0NINT	
1355	01	00486	0E000448			LPSD,0	MAGS	
1356						RBOUND	8	
1357	01	00488	00000000	A	BYTEGEN	DATA	0	
1358	01	00489	00000000	A		DATA	0	
1359	01	0048A	0000048C			DATA	\$+2	
1360	01	0048H	07000C00	A		DATA	X'7000000'	
1361	01	0048C	32000005	A		LW,0	5	
1362	01	0048D	32400BE4			LW,4	C0STADD	
1363	01	0048E	2277FFFE	A		LI,7	X'7FFFE'	
1364	01	0048F	4B400007	A		AND,4	7	
1365	01	00490	32700004	A		LW,7	4	
1366	01	00491	30700BE6			AW,7	BLSIZE	
1367	01	00492	30700BE6			AW,7	BLSIZE	
1368	01	00493	75080000	A		STB,0	0,4	
1369	01	00494	30000005	A		AW,0	5	
1370	01	00495	65400496			RIR,4	\$+1	
1371	01	00496	31400C07	A		CW,4	7	
1372	01	00497	69300493			RCS,3	\$=4	
1373	01	00498	31500CB3			CW,5	SAVE5	
1374	01	00499	6830049C			RE	INC5	
1375	01	0049A	35500CB3			STW,5	SAVE5	
1376	01	0049R	680C049D			R	\$+2	
1377	01	0049C	20500001	A	INC5	AI,5	1	
1378	01	0049D	0E000488			LPSD,0	BYTEGEN	
1379	01	0049E	32000CA4		RAD1W	LW,0	BRDFRS	
1380	01	0049F	25000010	A		S,0	16	
1381	01	004A0	48000CCF			AND,0	DATA9	
1382	01	004A1	21000000	A		CI,0	0	
1383	01	004A2	683004A7			RCR,3	SETR1	
1384	01	004A3	32000CCD			LW,0	DATA7	
1385	01	004A4	30000BE4			AW,0	C0STADD	
1386	01	004A5	35000C78			STW,0	RCMD1	
1387	01	004A6	680004AA			R	BC1	
1388	01	004A7	32000CD1		SFTR1	LW,0	DATAA	
1389	01	004A8	30000BF4			AW,0	C0STADD	
1390	01	004A9	35000C78			STW,0	RCMD1	
1391	01	004AA	32000CD0		BC1	LW,0	DATA10	
1392	01	004AB	30000BE6			AW,0	BLSIZE	
1393	01	004AC	35000C79			STW,0	RCMD2	
1394	01	004AD	32000BE9			LW,0	STR1	
1395	01	004AE	35000BF8			STW,0	CUTR1	
1396	01	004AF	32600C13		RAD1	LW,6	RAD1BL	
1397	01	004B0	22000000	A		LI,0	0	
1398	01	004B1	6A5001FA			BAL,5	TAG	
1399	01	004B2	0F0002CE			XPSD,0	GETBL	
1400	01	004B3	32500CD2			LW,5	DATAB	
1401	01	004B4	22400000	A		LI,4	0	
1402	01	004B5	4A400C78			LS,4	RCMD1	
1403	01	004B6	35600C13			STW,6	RAD1BL	
1404	01	004B7	32000CA5			LW,0	CSTUP	
1405	01	004B8	25000010	A		S,0	16	
1406	01	004B9	48000CCF			AND,0	DATA9	
1407	01	004BA	21000000	A		CI,0	0	
1408	01	004BH	683004BD			RCR,3	\$+2	
1409	01	004BC	48400CD5			EBR,4	DATAD	
1410	01	004BD	30600004	A		AW,6	4	
1411	01	004BE	35600C78			STW,6	RCMD1	
1412	01	004BF	2200063B		RADX1	LI,0	DA(SEEK1)	
1413	01	004C0	CC000BFC			SIB,0	*RAD1ADD	
1414	01	004C1	32000BF8			LW,0	CUTR1	
1415	01	004C2	35000BF4			STW,0	SSCUTR1	
1416	01	004C3	32500CA9		RHISP	LW,5	RAD1SP	
1417	01	004C4	21500000	A		CI,5	0	
1418	01	004C5	683004CC			RE	RDEN	
1419	01	004C6	30000BE7		RHISPO	AW,0	SECTOR	
1420	01	004C7	2250007F	A		LI,5	X'7F'	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1421	01	004C8	4A500000	A		LS,5	0	
1422	01	004C9	31500CD4			CW,5	DATAH1	
1423	01	004CA	691004D6			RL	MSR1+1	
1424	01	004CB	680004C6			R	RHISPO	
1425	01	004CC	32500CA7		RDEN	LW,5	RADIDEN	
1426	01	004CD	21500000	A		CI,5	0	
1427	01	004CE	683004D5			BCR,3	MSR1	
1428	01	004CF	30000BE7			AW,0	SECTOR	
1429	01	004D0	2250000F	A		LI,5	15	
1430	01	004D1	4A500000	A		LS,5	0	
1431	01	004D2	31500CD3			CW,5	DATA C	
1432	01	004D3	691004D6			RL	MSR1+1	
1433	01	004D4	680004CF			R	\$=5	
1434	01	004D5	30000BE7		MSR1	AW,0	SECTOR	
1435	01	004D6	31000BFA			CW,0	ENTR1	
1436	01	004D7	692004D9			RCS,2	OUT	
1437	01	004D8	680004E1			R	IN	
1438	01	004D9	32000BE9		OUT	LW,0	STTR1	
1439	01	004DA	35000BF8			STW,0	CUTR1	
1440	01	004DB	32000BFC			LW,0	RADIADD	
1441	01	004DC	6A7C0528			RAL,7	CYCLE	
1442	01	004DD	680004DE			RCR,0	\$+1	
1443	01	004DE	CF000BFC			H10,0	*RADIADD	
1444	01	004DF	35000BFC			STW,0	RADIADD	
1445	01	004E0	680004BF			R	RADX1	
1446					*			
1447	01	004E1	35000BF8		IN	STW,0	CUTR1	
1448	01	004E2	0E300252			LPSD,3	A10	
1449	01	004E3	32000CA4		RAD2W	LW,0	ORDERS	
1450	01	004E4	25000011	A		S,0	17	
1451	01	004E5	48000CCF			AND,0	DATA9	
1452	01	004E6	21000000	A		CI,0	0	
1453	01	004E7	683004FC			RCR,3	SETR2	
1454	01	004E8	32000CCD			LW,0	DATA7	
1455	01	004E9	30000BE4			AW,0	CBSTADD	
1456	01	004EA	35000C7C			STW,0	RCMD3	
1457	01	004EB	680004EF			B	BC2	
1458	01	004EC	32000CD1		SETR2	LW,0	DATAA	
1459	01	004ED	30000BE4			AW,0	CBSTADD	
1460	01	004EE	35000C7C			STW,0	RCMD3	
1461	01	004EF	32000CD0		BC2	LW,0	DATA10	
1462	01	004F0	30000BE6			AW,0	BLSIZE	
1463	01	004F1	35000C7D			STW,0	RCMD4	
1464	01	004F2	32000BEB			LW,0	STTR2	
1465	01	004F3	35000BF9			STW,0	CUTR2	
1466	01	004F4	32600C14		RAD2	LW,6	RAD2BL	
1467	01	004F5	22000001	A		LI,0	1	
1468	01	004F6	6A5001FA			RAL,5	TAG	
1469	01	004F7	0F0002CE			XPSD,0	GETBL	
1470	01	004F8	32500CD2			LW,5	DATAB	
1471	01	004F9	22400000	A		LI,4	0	
1472	01	004FA	4A400C7C			LS,4	RCMD3	
1473	01	004FB	35600C14			STW,6	RAD2BL	
1474	01	004FC	32000CA5			LW,0	CSTUP	
1475	01	004FD	25000011	A		S,0	17	
1476	01	004FE	48000CCF			AND,0	DATA9	
1477	01	004FF	21000000	A		CI,0	0	
1478	01	00500	68300502			RCR,3	\$+2	
1479	01	00501	48400CD5			EOR,4	DATAD	
1480	01	00502	30600C04	A		AW,6	4	
1481	01	00503	35600C7C			STW,6	RCMD3	
1482	01	00504	2200063D		RADX2	LI,0	DA(SEEK2)	
1483	01	00505	CC000BFD			SI0,0	*RAD2ADD	
1484	01	00506	32000BF9			LW,0	CUTR2	
1485	01	00507	35000BF5			STW,0	SSCUTR2	
1486	01	00508	32500CAA		RHISP1	LW,5	RAD2SP	
1487	01	00509	21500000	A		CI,5	0	
1488	01	0050A	68300511			RE	RDEN1	
1489	01	0050B	30000BE8		RHISP10	AW,0	SECTOR1	
1490	01	0050C	2250007F	A		LI,5	X17F'	
1491	01	0050D	4A500C00	A		LS,5	0	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1492	C1	0050F	315000D4			CW,5	DATAH1	
1493	C1	0050F	6910051B			RL	MSR2+1	
1494	C1	00510	68000508			R	RHISP10	
1495	C1	00511	32500CA8		RDEN1	LW,5	RAD2DEN	
1496	C1	00512	21500000	A		CI,5	0	
1497	C1	00513	6830051A			RCR,3	MSR2	
1498	C1	00514	30000BF8			AW,0	SECTOR1	
1499	C1	00515	225000CF	A		LI,5	15	
1500	C1	00516	4A500000	A		LS,5	0	
1501	C1	00517	31500CD3			CW,5	DATA C	
1502	C1	00518	6910051B			RL	MSR2+1	
1503	C1	00519	68000514			R	\$=5	
1504	C1	0051A	30000BF8		MSR2	AW,0	SECTOR1	
1505	C1	0051B	31000BFC			CW,0	ENTR2	
1506	C1	0051C	6920051E			RCS,2	RUT1	
1507	C1	0051D	68000526			R	IN1	
1508	C1	0051E	32000BFB		RUT1	LW,0	STR2	
1509	C1	0051F	35000BF9			STW,0	CUTR2	
1510	C1	00520	32000BFD			LW,0	RAD2ADD	
1511	C1	00521	6A700528			RAL,7	CYCLE	
1512	C1	00522	68000523			RCR,0	*+1	
1513	C1	00523	CF000BFD			HI0,0	*RAD2ADD	
1514	C1	00524	35000BFD			STW,0	RAD2ADD	
1515	C1	00525	68000504			R	RACX2	
1516				*				
1517	C1	00526	35000BF9		IN1	STW,0	CUTR2	
1518	C1	00527	0E300252			LPSD,3	A10	
1519				*				
1520	C1	00528	21001000	A	CYCLE	CI,0	X'1000'	TEST ALL RAD0 ON CONTROLLER
1521	C1	00529	6840052E			RCR,4	CYLXIT	NR
1522	C1	0052A	20000001	A		AI,0	1	GENERATE NEXT RAD ADDRESS
1523	C1	0052B	CD000000	A		TI0,0	*0	SEE IF ITS THERE
1524	C1	0052C	E8800007	A		RCR,8	*7	YES-EXIT
1525	C1	0052D	48000CC8			AND,0	X17F0	STRIP OFF PRIMARY ADDRESS
1526	C1	0052E	20700001	A	CYLXIT	AI,7	1	
1527	C1	0052F	E8000007	A		RCR,0	*7	
1528	C1	00530	32000CA4		MAG1A	LW,0	ORDERS	
1529	C1	00531	25000012	A		S,0	1R	
1530	C1	00532	48000CCF			AND,0	DATA9	
1531	C1	00533	21000000	A		CI,0	0	
1532	C1	00534	68300539			RCR,3	SETM1	
1533	C1	00535	32000CCD			LW,0	DATA7	
1534	C1	00536	30000BE4			AW,0	COSTADD	
1535	C1	00537	35000C7E			STW,0	MCMD1	
1536	C1	00538	6800053C			R	MC1	
1537	C1	00539	32000CD1		SETM1	LW,0	DATAA	
1538	C1	0053A	30000BE4			AW,0	COSTADD	
1539	C1	0053B	35000C7E			STW,0	MCMD1	
1540	C1	0053C	22000000	A	MC1	LI,0	0	
1541	C1	0053D	35000BF6			STW,0	CURLC1	
1542	C1	0053E	32000CD0			LW,0	DATA10	
1543	C1	0053F	30000BE6			AW,0	RLSIZE	
1544	C1	00540	35000C7F			STW,0	MCMD2	
1545	C1	00541	32600C15		MAG1	LW,6	MAG1BL	
1546	C1	00542	22000002	A		LI,0	?	
1547	C1	00543	6A5001FA			RAL,5	TAG	
1548	C1	00544	0F0002CE			XPSD,0	GETBL	
1549	C1	00545	32500CD2			LW,5	DATAB	
1550	C1	00546	22400000	A		LI,4	0	
1551	C1	00547	4A400C7E			LS,4	MCMD1	
1552	C1	00548	35600C15			STW,6	MAG1BL	
1553	C1	00549	30600004	A		AW,6	4	
1554	C1	0054A	35600C7E			STW,6	MCMD1	
1555	C1	0054B	32000BF6			LW,0	CURLC1	
1556	C1	0054C	20000001	A		AI,0	1	
1557	C1	0054D	31000BFD			CW,0	RLC1	
1558	C1	0054E	69200553			RCS,2	*+5	
1559	C1	0054F	35000BF6			STW,0	CURLC1	
1560	C1	00550	2200063F		MX1	LI,0	DA(MCMD1)	
1561	C1	00551	CC000BFE			SI0,0	*MAG1ADD	
1562	C1	00552	0E300252			LPSD,3	A10	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1563	01	00553	32000CA5			LW,0	CSTUP	
1564	01	00554	25000012	A		S,0	18	
1565	01	00555	48000CCF			AND,0	DATA9	
1566	01	00556	21000000	A		CI,0	0	
1567	01	00557	68300558			RCR,3	\$\$4	
1568	01	00558	32000C7E			LW,0	MCMD1	
1569	01	00559	48000C05			FBR,0	DATAD	
1570	01	0055A	35000C7E			STW,0	MCMD1	
1571	01	0055B	22000000	A		LI,0	0	
1572	01	0055C	35000BF6			STW,0	CUBLCL	
1573	01	0055D	2200063A			LI,0	DA(REWINDI)	
1574	01	0055E	CC000BFE			SIB,0	*MAG1ADD	
1575	01	0055F	0E300252			LPSD,3	AIB	
1576	01	00560	32000CA4		MAG2W	LW,0	ORDERS	
1577	01	00561	25000013	A		S,0	19	
1578	01	00562	48000CCF			AND,0	DATA9	
1579	01	00563	21000000	A		CI,0	0	
1580	01	00564	68300569			RCR,3	SETM2	
1581	01	00565	32000CCD			LW,0	DATA7	
1582	01	00566	30000BE4			AW,0	C0STADD	
1583	01	00567	35000C80			STW,0	MCMD3	
1584	01	00568	6800056C			B	MC2	
1585	01	00569	32000CD1		SFTM2	LW,0	DATAA	
1586	01	0056A	30000BE4			AW,0	C0STADD	
1587	01	0056B	35000C80			STW,0	MCMD3	
1588	01	0056C	22000000	A	MC2	LI,0	0	
1589	01	0056D	35000BF7			STW,0	CUBLCL2	
1590	01	0056E	32000CD0			LW,0	DATA10	
1591	01	0056F	30000BE6			AW,0	BLSIZE	
1592	01	00570	35000C81			STW,0	MCMD4	
1593	01	00571	32600C16		MAG2	LW,6	MAG2BL	
1594	01	00572	22000003	A		LI,0	3	
1595	01	00573	6A5001FA			RAL,5	TAG	
1596	01	00574	0F0002CE			XPSD,0	GETBL	
1597	01	00575	32500CD2			LW,5	DATAB	
1598	01	00576	22400000	A		LI,4	0	
1599	01	00577	4A400C80			LS,4	MCMD3	
1600	01	00578	35600C16			STW,6	MAG2BL	
1601	01	00579	30600004	A		AW,6	4	
1602	01	0057A	35600C80			STW,6	MCMD3	
1603	01	0057B	32000BF7			LW,0	CURLC2	
1604	01	0057C	20000001	A		AI,0	1	
1605	01	0057D	31000BEE			CW,0	BLC2	
1606	01	0057E	69200583			RCS,2	\$\$5	
1607	01	0057F	35000BF7			STW,0	CURLC2	
1608	01	00580	22000640		MX2	LI,0	DA(MCMD3)	
1609	01	00581	CC000BFF			SIB,0	*MAG2ADD	
1610	01	00582	0E300252			LPSD,3	AIB	
1611	01	00583	32000CA5			LW,0	CSTUP	
1612	01	00584	25000013	A		S,0	19	
1613	01	00585	48000CCF			AND,0	DATA9	
1614	01	00586	21000000	A		CI,0	0	
1615	01	00587	68300588			RCR,3	\$\$4	
1616	01	00588	32000C80			LW,0	MCMD3	
1617	01	00589	48000C05			FBR,0	DATAD	
1618	01	0058A	35000C80			STW,0	MCMD3	
1619	01	0058B	22000000	A		LI,0	0	
1620	01	0058C	35000BF7			STW,0	CURLC2	
1621	01	0058D	2200063A			LI,0	DA(REWINDI)	
1622	01	0058E	CC000BFF			SIB,0	*MAG2ADD	
1623	01	0058F	0E300252			LPSD,3	AIB	
1624	01	00590	32000CD0		LPW	LW,0	DATA10	
1625	01	00591	30000BF6			AW,0	BLSIZE	
1626	01	00592	35000C83			STW,0	LPCMD2	
1627	01	00593	32000CCD			LW,0	DATA7	
1628	01	00594	30000BE4			AW,0	C0STADD	
1629	01	00595	35000C82			STW,0	LPCMD1	
1630	01	00596	32600C17		LP1	LW,6	LP1BL	
1631	01	00597	22000004	A		LI,0	4	
1632	01	00598	6A5001FA			RAL,5	TAG	
1633	01	00599	0F0002CE			XPSD,C	GETRL	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1634	01	0059A	32500C02			LW,5	DATAB	
1635	01	0059B	22400C00	A		LI,4	0	
1636	01	0059C	4A400C82			LS,4	LPCMD1	
1637	01	0059D	35600C17			STW,6	LP1BL	
1638	01	0059E	30600004	A		AW,6	4	
1639	01	0059F	35600C82			STW,6	LPCMD1	
1640	01	005A0	22000641		LPX	LI,0	DA(LPCMD1)	
1641	01	005A1	CC000C00			SIB,0	*LP1A0D	
1642	01	005A2	CE300252			LPSD,3	AIB	
1643	01	005A3	CF000C01		TYW	HIB,0	*TY1ADD	
1644	01	005A4	32000BE6			LW,0	BLSIZE	
1645	01	005A5	31000C1F			CW,0	TYC	
1646	01	005A6	691005A8			RL	*+2	
1647	01	005A7	32000C1F			LW,0	TYC	
1648	01	005A8	30000C00			AW,0	DATA10	
1649	01	005A9	35000C85			STW,0	TYCMD2	
1650	01	005AA	35000C87			STW,0	TYCMD4	
1651	01	005AB	32000CCD			LW,0	DATA7	
1652	01	005AC	30000BE4			AW,0	C0STADD	
1653	01	005AD	35000C86			STW,0	TYCMD3	
1654	01	005AE	48000CD5			FBR,0	DATAD	
1655	01	005AF	35000C84			STW,0	TYCMD1	
1656	01	005B0	32600C18			LW,6	TY1BL	
1657	01	005B1	6A5001F0			RAL,5	CLRRL	
1658	01	005B2	32600C19			LW,6	TY2BL	
1659	01	005B3	6A5001F0			RAL,5	CLRRL	
1660	01	005B4	32600C18			LW,6	TY1BL	
1661	01	005B5	22000005	A		LI,0	5	
1662	01	005B6	6A5001FA			RAL,5	TAG	
1663	01	005B7	CF0002CE			XPSD,0	GETBL	
1664	01	005B8	32500C02			LW,5	DATAB	
1665	01	005B9	22400000	A		LI,4	0	
1666	01	005BA	4A400C84			LS,4	TYCMD1	
1667	01	005BB	35600C18			STW,6	TY1BL	
1668	01	005BC	30600004	A		AW,6	4	
1669	01	005BD	35600C84			STW,6	TYCMD1	
1670	01	005BE	CD000C01			TIB,0	*TY1ADD	
1671	01	005BF	69C005BE			RCS,1,2	*-1	
1672	01	005C0	22000642			LI,0	DA(TYCMD1)	
1673	01	005C1	CC000C01			SIB,0	*TY1ADD	
1674	01	005C2	CE300252			LPSD,3	AIB	
1675	01	005C3	32600C19		TY1	LW,6	TY2BL	
1676	01	005C4	22000005	A		LI,0	5	
1677	01	005C5	6A5001FA			RAL,5	TAG	
1678	01	005C6	CF0002CE			XPSD,0	GETBL	
1679	01	005C7	32500C02			LW,5	DATAB	
1680	01	005C8	22400000	A		LI,4	0	
1681	01	005C9	4A400C86			LS,4	TYCMD3	
1682	01	005CA	35600C19			STW,6	TY2BL	
1683	01	005CB	30600004	A		AW,6	4	
1684	01	005CC	35600C86			STW,6	TYCMD3	
1685	01	005CD	32600C19			LW,6	TY2BL	
1686	01	005CE	32400C18			LW,4	TY1BL	
1687	01	005CF	35600C18			STW,6	TY1BL	
1688	01	005D0	32700004	A		LW,7	4	
1689	01	005D1	30700BF6			AW,7	BLSIZE	
1690	01	005D2	72080000	A		LB,0	0,4	
1691	01	005D3	750C0000	A		STB,0	0,6	
1692	01	005D4	220C0000	A		LI,0	0	
1693	01	005D5	75080000	A		STB,0	0,4	
1694	01	005D6	654005D7			RIR,4	*+1	
1695	01	005D7	656005D8			RIR,6	*+1	
1696	01	005D8	314C0007	A		CW,4	7	
1697	01	005D9	691005D2			RCS,1	*-7	
1698	01	005DA	32600C19			LW,6	TY2BL	
1699	01	005DB	35600C18			STW,6	TY1BL	
1700	01	005DC	220C0643		TYX	LI,0	DA(TYCMD3)	
1701	01	005DD	CC000C01			SIB,0	*TY1ADD	
1702	01	005DE	CE300252			LPSD,3	AIB	
1703	01	005DF	32600C1A		CR1W	LW,6	CR1BL	
1704	01	005E0	6A5001F0			RAL,5	CLRRL	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1705	01	005E1	32600BF6			LW,6	BLSIZE	
1706	01	005E2	21600078	A		CI,6	X'78'	
1707	01	005E3	682005E5			BLE	*+2	
1708	01	005E4	22600078	A		LI,6	X'78'	
1709	01	005E5	206FFFFFF	A		AI,6	=1	
1710	01	005E6	35600C20			STW,6	ENDCR	
1711	01	005E7	32600C1A		CR1	LW,6	CR1BL	
1712	01	005E8	22000006	A		LI,0	6	
1713	01	005E9	6A5001FA			BAL,5	TAG	
1714	01	005EA	0F0002CE			XPSD,0	GETBL	
1715	01	005EB	32500CD2			LW,5	DATAB	
1716	01	005EC	22400000	A		LI,4	0	
1717	01	005ED	4A400C88			LS,4	CRCMD1	
1718	01	005EE	35600C1A			STW,6	CR1BL	
1719	01	005EF	30600004	A		AW,6	4	
1720	01	005F0	35600C88			STW,6	CRCMD1	
1721	01	005F1	32000CD0			LW,0	DATA10	
1722	01	005F2	30000BE6			AW,0	BLSIZE	
1723	01	005F3	35000C89			STW,0	CRCMD1+1	
1724	01	005F4	22000644		CRX	LI,0	DA(CRCMD1)	
1725	01	005F5	CC000C02			SI,0	*CR1ADD	
1726	01	005F6	0E300252			LPSD,3	AIB	
1727	01	005F7	32600C1B		CP1	LW,6	CP1BL	
1728	01	005F8	22000007	A		LI,0	7	
1729	01	005F9	6A5001FA			BAL,5	TAG	
1730	01	005FA	0F0002CE			XPSD,0	GETBL	
1731	01	005FB	32000BE6			LW,0	BLSIZE	
1732	01	005FC	21000078	A		CI,0	X'78'	
1733	01	005FD	69100606			RL	CPARBRT	
1734	01	005FE	32500CD2			LW,5	DATAB	
1735	01	005FF	22400000	A		LI,4	0	
1736	01	00600	4A400C8A			LS,4	CPCMD1	
1737	01	00601	35600C1B			STW,6	CP1BL	
1738	01	00602	30600004	A		AW,6	4	
1739	01	00603	35600C8A			STW,6	CPCMD1	
1740	01	00604	22000645		CPX	LI,0	DA(CPCMD1)	
1741	01	00605	CC000C03			SI,0	*CP1ADD	
1742	01	00606	0E300252		CPARBRT	LPSD,3	AIB	
1743						RBOUND	8	
1744	01	00608	00000000	A	ENTRAP	DATA	0	
1745	01	00609	00000000	A		DATA	0	
1746	01	0060A	0000060C			DATA	*+2	
1747	01	0060B	07000000	A		DATA	X'7000000'	
1748	01	0060C	CF0000FE			XPSD,0	MESSAGE	
1749	01	0060D	000023AC			DATA	RA(NBAMSG)	
1750	01	0060E	B2100040	A		LW,1	*X'40'	
1751	01	0060F	32220000	A		LW,2	0,1	
1752	01	00610	CF0000D4			XPSD,0	OUTPUT	
1753	01	00611	00000C33			DATA	REGISTER+1	
1754	01	00612	C8020001	A		DATA	X'8020001'	
1755	01	00613	2E000000	A		WAIT		
1756	01	00614	68000613			B	*-1	
1757	01	00615	6800013A			R	CLEAR	
1758	01	00616	32600C1C		PT1W	LW,6	PT1BL	
1759	01	00617	6A5001F0			BAL,5	CLRRL	
1760	01	00618	32000CA4			LW,0	ORDERS	
1761	01	00619	25000018	A		S,0	24	
1762	01	0061A	4B000CCF			AND,0	DATA9	
1763	01	0061B	21000000	A		CI,0	0	
1764	01	0061C	68300621			RCR,3	SETPR1	
1765	01	0061D	32000CCD			LW,0	DATA7	
1766	01	0061E	30000BF4			AW,0	CBSTADD	
1767	01	0061F	35000C96			STW,0	PCMD1	
1768	01	00620	68000624			R	PC1	
1769	01	00621	32000CCD		SETPR1	LW,0	DATA7	
1770	01	00622	30000BF4			AW,0	CBSTADD	
1771	01	00623	35000C96			STW,0	PCMD1	
1772	01	00624	32000CD0		PC1	LW,0	DATA10	
1773	01	00625	30000BF6			AW,0	BLSIZE	
1774	01	00626	35000C97			STW,0	PCMD2	
1775	01	00627	32600C1C		PT1	LW,6	PT1BL	

LINE NO.	MEA PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL O R I G	LABEL	OPERATION	OPERAND	COMMENTS
1776	C1	00628	22000008	A		LI,0	8	
1777	C1	00629	6A5001FA			RAL,5	TAG	
1778	C1	0062A	CF0002CE			XPSD,0	GETBL	
1779	C1	0062B	32500CD2			LW,5	DATAB	
1780	C1	0062C	22400000	A		LI,4	0	
1781	C1	0062D	4A400C96			LS,4	PCMD1	
1782	C1	0062E	35600C1C			STW,6	PT1BL	
1783	C1	0062F	32000CA5			LW,0	CSTUP	
1784	C1	00630	25000018	A		S,0	24	
1785	C1	00631	4B000CCF			AND,0	DATA9	
1786	C1	00632	21000000	A		CI,0	0	
1787	C1	00633	68300635			RCR,3	\$+2	
1788	C1	00634	48400CD5			F0R,4	DATAD	
1789	C1	00635	30600004	A		AW,6	4	
1790	C1	00636	35600C96			STW,6	PCMD1	
1791	C1	00637	2200064A		PTX	LI,0	DA(LDPCMD1)	
1792	C1	00638	CC000CC4			SI0,0	*PT1ADD	
1793	C1	00639	0E300252			LPSD,3	AIB	
1794	C1	0063A	CF000C05		CC1W	HI0,0	*CC1ADD	
1795	C1	0063B	32600C1D			LW,6	CC1BL	
1796	C1	0063C	6A5001F0			RAL,5	CLRBL	
1797	C1	0063D	32600C1E			LW,6	CC2BL	
1798	C1	0063E	6A5001F0			RAL,5	CLRBL	
1799	C1	0063F	32400BEF			LW,4	RLINE	
1800	C1	00640	22503001	A		LI,5	X'3001'	
1801	C1	00641	ED4A0BF1			WD,4	*C8C,5	
1802	C1	00642	32400BEF			LW,4	RLINE	
1803	C1	00643	22503000	A		LI,5	X'3000'	
1804	C1	00644	ED4A0BF1			WD,4	*C8C,5	
1805	C1	00645	681006AF			RCR,1	R0FF	
1806	C1	00646	32400BF0			LW,4	TLINE	
1807	C1	00647	22503004	A		LI,5	X'3004'	
1808	C1	00648	ED4A0BF1			WD,4	*C8C,5	
1809	C1	00649	681006B2			RCR,1	T0FF	
1810	C1	0064A	32000BF6			LW,0	RLSIZE	
1811	C1	0064B	31000CAF			CW,0	CYC	
1812	C1	0064C	69100652			RL	LCYC+1	
1813	C1	0064D	69300651			RNF	LCYC	
1814	C1	0064E	32000CAF			LW,0	CYC	
1815	C1	0064F	200FFFFF	A		AI,0	=1	
1816	C1	00650	68000652			R	LCYC+1	
1817	C1	00651	32000CAF		LCYC	LW,0	CYC	
1818	C1	00652	35000C90			STW,0	CYCA	
1819	C1	00653	32600C1E			LW,6	CC2BL	
1820	C1	00654	22000009	A		LI,0	9	
1821	C1	00655	6A5001FA			RAL,5	TAG	
1822	C1	00656	CF0002CE			XPSD,0	GETBL	
1823	C1	00657	35600C1E			STW,6	CC2BL	
1824	C1	00658	32600C1D		GETCC1	LW,6	CC1BL	
1825	C1	00659	22000009	A		LI,0	9	
1826	C1	0065A	6A5001FA			RAL,5	TAG	
1827	C1	0065B	CF0002CE			XPSD,0	GETBL	
1828	C1	0065C	35600C1D			STW,6	CC1BL	
1829	C1	0065D	30600CD1			AW,6	DATAB	
1830	C1	0065E	35600C98			STW,6	CCMD1	
1831	C1	0065F	2200064C		CCX	LI,0	DA(CCMD1)	
1832	C1	00660	CC000C05			SI0,0	*CC1ADD	
1833	C1	00661	0E300252			LPSD,3	AIB	
1834	C1	00662	22604000	A	CC1	LI,6	X'4000'	
1835	C1	00663	6D601302	A		WD,6	X'1302'	
1836	C1	00664	2251FFFF	A		LI,5	X'1FFFF'	
1837	C1	00665	22400000	A		LI,4	0	
1838	C1	00666	4A400C98			LS,4	CCMD1	
1839	C1	00667	32600C1D			LW,6	CC1BL	
1840	C1	00668	30600C90			AW,6	CYCA	
1841	C1	00669	31400006	A		CW,4	6	
1842	C1	0066A	68100672			RGF	MOVEIT	
1843	C1	0066B	7268C000	A		LR,6	0,4	
1844	C1	0066C	25600008	A		S,6	8	
1845	C1	0066D	30600BEF			AW,6	RLINE	
1846	C1	0066E	22503005	A		LI,5	X'3005'	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1847	C1	0066F	ED6A0BF1			WD,6	*C8C,5	
1848	C1	00670	33100C98			MTW,1	CCMD1	
1849	C1	00671	6800065F			R	CCX	
1850	C1	00672	32600C1E		MRVEIT	LW,6	CC2BL	
1851	C1	00673	32400C1D			LW,4	CC1BL	
1852	C1	00674	32700C1D			LW,7	CC1BL	
1853	C1	00675	30700BE6			AW,7	RLSIZE	
1854	C1	00676	72080000	A	CLCC	LB,0	0,4	
1855	C1	00677	750C0000	A		STB,0	0,6	
1856	C1	00678	22000C00	A		LI,0	0	
1857	C1	00679	75080000	A		STB,0	0,4	
1858	C1	0067A	20600001	A		AI,6	1	
1859	C1	0067B	20400001	A		AI,4	1	
1860	C1	0067C	31400007	A		CW,4	7	
1861	C1	0067D	6810067F			RGE	*+2	
1862	C1	0067E	68000676			R	CLCC	
1863	C1	0067F	22604000	A		LI,6	X'4000'	
1864	C1	00680	6D601202	A		WD,6	X'1202'	
1865	C1	00681	22000658			LI,0	GETCC1	
1866	C1	00682	3500068A			STW,0	EIB	
1867	C1	00683	22000000	A		LI,0	0	
1868	C1	00684	35000CB1			STW,0	TPRINT	
1869	C1	00685	32600BEF			LW,6	RLINE	
1870	C1	00686	2250300E	A		LI,5	X'300E'	
1871	C1	00687	ED6A0BF1			WD,6	*C8C,5	
1872	C1	00688	68100687			RCR,1	*-1	
1873	C1	00689	6800068E			R	TSTART	
1874						ROUND R		
1875	C1	0068A	00000000	A	FIB	DATA	0	
1876	C1	0068B	00000000	A		DATA	0	
1877	C1	0068C	0000068E			DATA	TSTART	
1878	C1	0068D	07000000	A		DATA	X'07000000'	
1879	C1	0068E	32600CB1		TSTART	LW,6	TPRINT	
1880	C1	0068F	31600CB0			CW,6	CYCA	
1881	C1	00690	6830069B			RE	CCLT	
1882	C1	00691	30600C1E			AW,6	CC2BL	
1883	C1	00692	724C0000	A		LB,4	0,6	
1884	C1	00693	254C0008	A		S,4	8	
1885	C1	00694	30400BF0			AW,4	TLINE	
1886	C1	00695	22503005	A		LI,5	X'3005'	
1887	C1	00696	ED4A0BF1			WD,4	*C8C,5	
1888	C1	00697	224C4000	A		LI,4	X'4000'	
1889	C1	00698	6D4C1202	A		WD,4	X'1202'	
1890	C1	00699	33100CB1			MTW,1	TPOINT	
1891	C1	0069A	0E00068A			LPSP,0	EIB	
1892	C1	0069B	32600C1E		CCLT	LW,6	CC2BL	
1893	C1	0069C	22000C09	A		LI,0	9	
1894	C1	0069D	6A5001FA			RAL,5	TAG	
1895	C1	0069E	CF0002CE			XPSD,0	GFTBL	
1896	C1	0069F	32400C1E			LW,4	CC2BL	
1897	C1	006A0	32700C1E			LW,7	CC2BL	
1898	C1	006A1	30700BE6			AW,7	RLSIZE	
1899	C1	006A2	35600C1E			STW,6	CC2BL	
1900	C1	006A3	72080000	A	TTCL	LB,0	0,4	
1901	C1	006A4	750C0000	A		STB,0	0,6	
1902	C1	006A5	22000C00	A		LI,0	0	
1903	C1	006A6	75080000	A		STB,0	0,4	
1904	C1	006A7	20400C01	A		AI,4	1	
1905	C1	006A8	20600001	A		AI,6	1	
1906	C1	006A9	31400007	A		CW,4	7	
1907	C1	006AA	681006AC			RGE	TEXIT	
1908	C1	006AB	680006A3			R	TTCL	
1909	C1	006AC	22000C00	A	TEXIT	LI,0	0	
1910	C1	006AD	35000CB1			STW,0	TPOINT	
1911	C1	006AE	6800068E			R	TSTART	
1912	C1	006AF	0F000CFE		R0FF	XPSD,0	MESSAGE	
1913	C1	006B0	000023EC			DATA	BA(R0FFMSG)	
1914	C1	006B1	6800013A			RCR,0	CLEAR	
1915	C1	006B2	0F000CFE		T0FF	XPSD,0	MESSAGE	
1916	C1	006B3	00002420			DATA	BA(X0FFMSG)	
1917	C1	006B4	6800013A			HCR,0	CLEAR	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
1918						BOUND 8		
1919	01	006B6	00000000	A	RIB	DATA	0	
1920	01	006B7	00000000	A		DATA	0	
1921	01	006B8	0000068B			DATA	AUTO+1	
1922	01	006B9	07000000	A		DATA	X'17000000'	
1923	01	006BA	6A7C06EC		AUTO	RAL,7	WSS	
1924	01	006BB	35100CAC			STW,1	TEMP2	
1925	01	006BC	35200CAE			STW,2	TEMP4	
1926	01	006BD	32000CA6			LW,0	WS	
1927	01	006BE	48000BE3			FBR,0	BRMB	
1928	01	006BF	25000070	A		S,0	X'170'	
1929	01	006C0	55000CA6			STH,0	WS	
1930	01	006C1	124006B6		RIBL	LD,4	RIB	
1931	01	006C2	154002F2			STD,4	CONINT	
1932	01	006C3	33F00CB7			MTW,15	C1	
1933	01	006C4	32000CB7			LW,0	C1	
1934	01	006C5	21000000	A		CI,0	0	
1935	01	006C6	683006FC			RE	TAG1	
1936	01	006C7	33F00CB8			MTW,15	C2	
1937	01	006C8	32000CB8			LW,0	C2	
1938	01	006C9	21000000	A		CI,0	0	
1939	01	006CA	68300717			RE	TAG2	
1940	01	006CB	33F00CB9			MTW,15	C3	
1941	01	006CC	32000CB9			LW,0	C3	
1942	01	006CD	21000000	A		CI,0	0	
1943	01	006CE	68300725			RE	TAG3	
1944	01	006CF	33F00CBA			MTW,15	C4	
1945	01	006D0	32000CBA			LW,0	C4	
1946	01	006D1	21000000	A		CI,0	0	
1947	01	006D2	683007D0			RE	FINISH	
1948	01	006D3	33F00CB8			MTW,15	C5	
1949	01	006D4	32000CBB			LW,0	C5	
1950	01	006D5	21000000	A		CI,0	0	
1951	01	006D6	68300749			RE	PASS2	
1952	01	006D7	33F00CBC			MTW,15	C6	
1953	01	006D8	32000CBC			LW,0	C6	
1954	01	006D9	21000000	A		CI,0	0	
1955	01	006DA	68300778			RE	PASS3	
1956	01	006DB	33F00CBD			MTW,15	C7	
1957	01	006DC	32000CBD			LW,0	C7	
1958	01	006DD	21000000	A		CI,0	0	
1959	01	006DE	683007A4			RE	PASS4	
1960	01	006DF	33F00CBE			MTW,15	C8	
1961	01	006E0	32000CBE			LW,0	C8	
1962	01	006E1	21000000	A		CI,0	0	
1963	01	006E2	6830072E			RE	PAN	
1964	01	006E3	33F00CBF			MTW,15	C9	
1965	01	006E4	32000CBF			LW,0	C9	
1966	01	006E5	21000000	A		CI,0	0	
1967	01	006E6	6830073A			RE	P8FF	
1968	01	006E7	22006C00	A		LI,0	X'6000'	
1969	01	006E8	35000CB6			STW,0	RT	
1970	01	006E9	32100CAC			LW,1	TEMP2	
1971	01	006EA	32200CAE			LW,2	TEMP4	
1972	01	006EB	0E3002F2			LPSD,3	CONINT	
1973	01	006EC	22400001	A	WSS	LI,4	1	
1974	01	006ED	35100CAC			STW,1	TEMP2	
1975	01	006EE	35200CAE			STW,2	TEMP4	
1976	01	006EF	32000CA4			LW,0	ORDERS	
1977	01	006F0	35000CC0			STW,0	ORDERS1	
1978	01	006F1	22500000	A		LI,5	0	
1979	01	006F2	22006000	A		LI,0	X'6000'	
1980	01	006F3	35000CB6			STW,0	RT	
1981	01	006F4	32000CA4			LW,0	ORDERS	
1982	01	006F5	25000070	A		S,0	X'170'	
1983	01	006F6	22600000	A		LI,6	0	
1984	01	006F7	55680CA4			STH,6	ORDERS,4	
1985	01	006F8	55680CA5			STH,6	CSTUP,4	
1986	01	006F9	55000CA5			STH,0	CSTUP	
1987	01	006FA	55080CA6			STH,0	WS,4	
1988	01	006FB	68000306			R	RFMBVF	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL O R I G	LABEL	OPERATION	OPERAND	COMMENTS
1989	01	006FC	22400001	A	T0G1	LI,4	1	
1990	01	006FD	22500000	A		LI,5	0	
1991	01	006FE	32000CA4			LW,0	ORDERS	
1992	01	006FF	32600CCF			LW,6	DAT9	
1993	01	00700	48000006	A		AND,0	6	
1994	01	00701	31000006	A		CW,0	6	
1995	01	00702	6830070E			RE	TT1	
1996	01	00703	2560007F	A		S,6	X'7F'	
1997	01	00704	32000CA4			LW,0	ORDERS	
1998	01	00705	48000006	A		AND,0	6	
1999	01	00706	31000006	A		CW,0	6	
2000	01	00707	6830070E			RE	TT1	
2001	01	00708	2560007F	A		S,6	X'7F'	
2002	01	00709	32000CA4			LW,0	ORDERS	
2003	01	0070A	48000006	A		AND,0	6	
2004	01	0070B	31000006	A		CW,0	6	
2005	01	0070C	6830070E			RE	TT1	
2006	01	0070D	2560007F	A		S,6	X'7F'	
2007	01	0070E	32000CA4		TT1	LW,0	ORDERS	
2008	01	0070F	48000006	A		EOR,0	6	
2009	01	00710	48000CA4			AND,0	ORDERS	
2010	01	00711	25000070	A		S,0	X'70'	
2011	01	00712	55000CB4			STH,0	SAVET	
2012	01	00713	55080CA5			STH,0	CSTUP,4	
2013	01	00714	55580CA6			STH,5	WS,4	
2014	01	00715	55500CA5			STH,5	CSTUP	
2015	01	00716	68000306			R	REMOVE	
2016	01	00717	32000CA4		T0G2	LW,0	ORDERS	
2017	01	00718	22400001	A		LI,4	1	
2018	01	00719	48000CB4			AND,0	SAVET	
2019	01	0071A	25000070	A		S,0	X'70'	
2020	01	0071B	22503C00	A		LI,5	X'3000'	
2021	01	0071C	48000005	A		AND,0	5	
2022	01	0071D	55000CA5			STH,0	CSTUP	
2023	01	0071E	55080CA6			STH,0	WS,4	
2024	01	0071F	32000CA4			LW,0	ORDERS	
2025	01	00720	48000CB4			EOR,0	SAVET	
2026	01	00721	25000070	A		S,0	X'70'	
2027	01	00722	35000CB4			STW,0	SAVET	
2028	01	00723	55080CA5			STH,0	CSTUP,4	
2029	01	00724	68000306			R	REMOVE	
2030	01	00725	32000CA5		T0G3	LW,0	CSTUP	
2031	01	00726	22400001	A		LI,4	1	
2032	01	00727	2250C000	A		LI,5	X'0000'	
2033	01	00728	48000005	A		AND,0	5	
2034	01	00729	55000CA5			STH,0	CSTUP	
2035	01	0072A	22000000	A		LI,0	0	
2036	01	0072B	55080CA5			STH,0	CSTUP,4	
2037	01	0072C	55080CA6			STH,0	WS,4	
2038	01	0072D	68000306			R	REMOVE	
2039	01	0072E	32000CC0		P0N	LW,0	ORDERS1	
2040	01	0072F	35000CA4			STW,0	ORDERS	
2041	01	00730	25000070	A		S,0	X'70'	
2042	01	00731	22400FFF	A		LI,4	X'FFF'	
2043	01	00732	48000004	A		AND,0	4	
2044	01	00733	55000CA5			STH,0	CSTUP	
2045	01	00734	22100001	A		LI,1	1	
2046	01	00735	32000BF2			LW,0	P0NC	
2047	01	00736	22400000	A		LI,4	0	
2048	01	00737	55420CA6			STH,4	WS,1	
2049	01	00738	35000CBF			STW,0	C9	
2050	01	00739	68000306			R	REMOVE	
2051	01	0073A	32000CC0		P0FF	LW,0	ORDERS1	
2052	01	0073B	22400FFF	A		LI,4	X'FFF'	
2053	01	0073C	25000070	A		S,0	X'70'	
2054	01	0073D	48000004	A		EOR,0	4	
2055	01	0073E	32400CC0			LW,4	ORDERS1	
2056	01	0073F	25400C70	A		S,4	X'70'	
2057	01	00740	48000004	A		AND,0	4	
2058	01	00741	55000CA4			STH,0	ORDERS	
2059	01	00742	22000000	A		LI,0	0	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2060	C1	00743	22400C01	A		LI,4	1	
2061	C1	00744	55080CA6			STW,0	WS,4	
2062	C1	00745	5500CA5			STW,0	CSTUP	
2063	C1	00746	3200CHF3			LW,0	P8FFC	
2064	01	00747	35000C8E			STW,0	C8	
2065	C1	00748	68000306			R	REMOVE	
2066	C1	00749	32000BE6		PASS2	LW,0	RLSIZE	
2067	C1	0074A	30000BE5			AW,0	CBENADD	
2068	C1	0074B	200FFFFA	A		AI,0	=6	
2069	C1	0074C	35000BE5			STW,0	CBENADD	
2070	C1	0074D	32000BE4			LW,0	CBSTADD	
2071	C1	0074E	200C0001	A		AI,0	1	
2072	C1	0074F	35000BE4			STW,0	CBSTADD	
2073	C1	00750	22000005	A		LI,0	5	
2074	C1	00751	35000BE6			STW,0	RLSIZE	
2075	01	00752	32000BEA			LW,0	ENTR1	
2076	01	00753	30000BE7			AW,0	SECT8R	
2077	01	00754	200FFFFFF	A		AI,0	=1	
2078	01	00755	35000BEA			STW,0	ENTR1	
2079	C1	00756	32000BEC			LW,0	ENTR2	
2080	01	00757	30000BE8			AW,0	SECT8R1	
2081	C1	00758	200FFFFFF	A		AI,0	=1	
2082	C1	00759	35000BEC			STW,0	ENTR2	
2083	01	0075A	22000001	A		LI,0	1	
2084	C1	0075B	35000BE7			STW,0	SECT8R	
2085	C1	0075C	35000BE8			STW,0	SECT8R1	
2086	C1	0075D	22002000	A		LI,0	X'2000'	
2087	C1	0075E	35000BED			STW,0	PLC1	
2088	01	0075F	22001000	A		LI,0	X'1000'	
2089	C1	00760	35000BEE			STW,0	RLC2	
2090	01	00761	2200000E	A		LI,0	14	
2091	01	00762	35000C87			STW,0	C1	
2092	C1	00763	2000000E	A		AI,0	14	
2093	01	00764	35000C88			STW,0	C2	
2094	C1	00765	2000000E	A		AI,0	14	
2095	01	00766	35000CB9			STW,0	C3	
2096	C1	00767	32000CC0			LW,0	8RDERS1	
2097	01	00768	35000CA4			STW,0	8RDERS	
2098	01	00769	2207FFFF	A		LI,0	X'7FFFF'	
2099	01	0076A	35000C12			STW,0	CPUBL	
2100	C1	0076B	35000C13			STW,0	RAD1BL	
2101	01	0076C	35000C14			STW,0	RAD2BL	
2102	C1	0076D	35000C15			STW,0	MAG1BL	
2103	01	0076E	35000C16			STW,0	MAG2BL	
2104	C1	0076F	35000C17			STW,0	LP1BL	
2105	C1	00770	35000C18			STW,0	TY1BL	
2106	01	00771	35000C19			STW,0	TY2BL	
2107	01	00772	35000C1A			STW,0	CR1BL	
2108	C1	00773	35000C1B			STW,0	CP1BL	
2109	C1	00774	35000C1C			STW,0	PT1BL	
2110	01	00775	35000C1D			STW,0	CC1BL	
2111	C1	00776	35000C1E			STW,0	CC2BL	
2112	C1	00777	680006FC			R	WSS	
2113	01	00778	32000BE5		PASS3	LW,0	CBENADD	
2114	C1	00779	20000006	A		AI,0	6	
2115	C1	0077A	200FF3FE	A		AI,0	-X'02'	
2116	C1	0077B	35000BE5			STW,0	CBENADD	
2117	C1	0077C	32000BE4			LW,0	CBSTADD	
2118	C1	0077D	200C0001	A		AI,0	1	
2119	C1	0077E	35000BE4			STW,0	CBSTADD	
2120	C1	0077F	22000C00	A		LI,0	X'000'	
2121	C1	00780	35000BE6			STW,0	RLSIZE	
2122	C1	00781	22000C0C	A		LI,0	12	
2123	C1	00782	35000BE7			STW,0	SECT8R	
2124	C1	00783	35000BE8			STW,0	SECT8R1	
2125	C1	00784	32000BEA			LW,0	ENTR1	
2126	C1	00785	200FFFF5	A		AI,0	=11	
2127	C1	00786	35000BEA			STW,0	ENTR1	
2128	C1	00787	32000BFC			LW,0	ENTR2	
2129	C1	00788	200FFFF5	A		AI,0	=11	
2130	C1	00789	35000BEC			STW,0	ENTR2	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2131	C1	0078A	22000100	A		LI,0	X'100'	
2132	C1	0078B	35000PED			STW,0	PLC1	
2133	C1	0078C	35000REE			STW,0	PLC2	
2134	C1	0078D	2200000E	A		LI,0	14	
2135	C1	0078E	35000CB7			STW,0	C1	
2136	C1	0078F	2000000E	A		AI,0	14	
2137	C1	00790	35000CB8			STW,0	C2	
2138	C1	00791	2000000E	A		AI,0	14	
2139	C1	00792	35000CB9			STW,0	C3	
2140	C1	00793	32000CC0			LW,0	ORDERS1	
2141	C1	00794	35000CA4			STW,0	ORDERS	
2142	C1	00795	2207FFFF	A		LI,0	X'7FFFF'	
2143	C1	00796	35000C12			STW,0	CPUBL	
2144	C1	00797	35000C13			STW,0	RAD1BL	
2145	C1	00798	35000C14			STW,0	RAD2BL	
2146	C1	00799	35000C15			STW,0	MAG1BL	
2147	C1	0079A	35000C16			STW,0	MAG2BL	
2148	C1	0079B	35000C17			STW,0	LP1BL	
2149	C1	0079C	35000C18			STW,0	TY1BL	
2150	C1	0079D	35000C19			STW,0	TY2BL	
2151	C1	0079E	35000C1A			STW,0	CR1BL	
2152	C1	0079F	35000C1B			STW,0	CP1BL	
2153	C1	007A0	35000C1C			STW,0	PT1BL	
2154	C1	007A1	35000C1D			STW,0	CC1BL	
2155	C1	007A2	35000C1E			STW,0	CC2BL	
2156	C1	007A3	680006FC			R	WSS	
2157	C1	007A4	33100BE4		PASS4	MTW,1	CRSTADD	
2158	C1	007A5	32000BE5			LW,0	CRFNADD	
2159	C1	007A6	20000CC2	A		AI,0	X'C02'	
2160	C1	007A7	200FFBFD	A		AI,0	-X'403'	
2161	C1	007A8	35000BE5			STW,0	CRFNADD	
2162	C1	007A9	22000400	A		LI,0	X'400'	
2163	C1	007AA	35000BE6			STW,0	RLSIZF	
2164	C1	007AB	22000004	A		LI,0	4	
2165	C1	007AC	35000BE7			STW,0	SECT8R	
2166	C1	007AD	35000BE8			STW,0	SECT8R1	
2167	C1	007AE	32000BEA			LW,0	ENTR1	
2168	C1	007AF	2000000C	A		AI,0	12	
2169	C1	007B0	200FFFFC	A		AI,0	=4	
2170	C1	007B1	35000BEA			STW,0	ENTR1	
2171	C1	007B2	32000BEC			LW,0	ENTR2	
2172	C1	007B3	2000000C	A		AI,0	12	
2173	C1	007B4	200FFFFC	A		AI,0	=4	
2174	C1	007B5	35000BEC			STW,0	ENTR2	
2175	C1	007B6	22000400	A		LI,0	X'400'	
2176	C1	007B7	35000BED			STW,0	RLC1	
2177	C1	007B8	35000BEE			STW,0	RLC2	
2178	C1	007B9	2200000E	A		LI,0	14	
2179	C1	007BA	35000CB7			STW,0	C1	
2180	C1	007BH	2000000E	A		AI,0	14	
2181	C1	007BC	35000CB8			STW,0	C2	
2182	C1	007BD	2000000E	A		AI,0	14	
2183	C1	007BE	35000CB9			STW,0	C3	
2184	C1	007BF	32000CC0			LW,0	ORDERS1	
2185	C1	007C0	35000CA4			STW,0	ORDERS	
2186	C1	007C1	2207FFFF	A		LI,0	X'7FFFF'	
2187	C1	007C2	35000C12			STW,0	CPUBL	
2188	C1	007C3	35000C13			STW,0	RAD1BL	
2189	C1	007C4	35000C14			STW,0	RAD2BL	
2190	C1	007C5	35000C15			STW,0	MAG1BL	
2191	C1	007C6	35000C16			STW,0	MAG2BL	
2192	C1	007C7	35000C17			STW,0	LP1BL	
2193	C1	007C8	35000C18			STW,0	TY1BL	
2194	C1	007C9	35000C19			STW,0	TY2BL	
2195	C1	007CA	35000C1A			STW,0	CR1BL	
2196	C1	007CB	35000C1B			STW,0	CP1BL	
2197	C1	007CC	35000C1C			STW,0	PT1BL	
2198	C1	007CD	35000C1D			STW,0	CC1BL	
2199	C1	007CE	35000C1E			STW,0	CC2BL	
2200	C1	007CF	680006FC			R	WSS	
2201	C1	007D0	32000BE4		FINISH	LW,0	CRSTADD	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2202	01	007D1	200FFFFD	A		AI,0	#3	
2203	01	007D2	350008E4			STW,0	C0STADD	
2204	01	007D3	320008E5			LW,0	C0ENADD	
2205	01	007D4	20000003	A		AI,0	3	
2206	01	007D5	350008E5			STW,0	C0ENADD	
2207	01	007D6	2200000E	A		LI,0	14	
2208	01	007D7	35000CB7			STW,0	C1	
2209	01	007D8	2000000E	A		AI,0	14	
2210	01	007D9	35000CB8			STW,0	C2	
2211	01	007DA	2000000E	A		AI,0	14	
2212	01	007DB	35000CB9			STW,0	C3	
2213	01	007DC	2000000E	A		AI,0	14	
2214	01	007DD	35000CBB			STW,0	C5	
2215	01	007DE	2000000E	A		AI,0	14	
2216	01	007DF	30000CB9			AW,0	C3	
2217	01	007E0	35000CBC			STW,0	C6	
2218	01	007E1	2000000E	A		AI,0	14	
2219	01	007E2	30000CB9			AW,0	C3	
2220	01	007E3	35000CBD			STW,0	C7	
2221	01	007E4	2000000E	A		AI,0	14	
2222	01	007E5	30000CB9			AW,0	C3	
2223	01	007E6	35000CBA			STW,0	C4	
2224	01	007E7	CF000C06			HI0,0	*MESADD	
2225	01	007E8	220005DF			LI,0	DA(MESS)	
2226	01	007E9	CC000C06			SI0,0	*MESADD	
2227	01	007EA	CD000C06			TI0,0	*MESADD	
2228	01	007EB	69C007EA			RCS,12	*-1	
2229	01	007EC	2207FFFF	A		LI,0	X'7FFFF'	
2230	01	007ED	35000C12			STW,0	CPUBL	
2231	01	007EE	35000C13			STW,0	RAD1BL	
2232	01	007EF	35000C14			STW,0	RAD2BL	
2233	01	007F0	35000C15			STW,0	MAG1BL	
2234	01	007F1	35000C16			STW,0	MAG2BL	
2235	01	007F2	35000C17			STW,0	LP1BL	
2236	01	007F3	35000C18			STW,0	TY1BL	
2237	01	007F4	35000C19			STW,0	TY2BL	
2238	01	007F5	35000C1A			STW,0	CR1BL	
2239	01	007F6	35000C1B			STW,0	CP1BL	
2240	01	007F7	35000C1C			STW,0	PT1BL	
2241	01	007F8	35000C1D			STW,0	CC1BL	
2242	01	007F9	35000C1E			STW,0	CC2BL	
2243	01	007FA	680006EC			R	WSS	
2244						PAGE		
2245					*			
2246					*			MESSAGES
2247					*			
2248	01	007FB	15E2E8D5	A	SYNERR	TEXT	'NSYNTAX ERROR: TYPE FOR FULL SYNTAX LIST.N'	
	01	007FC	E3C1E740	A				
	01	007FD	C5D9D9D6	A				
	01	007FE	D91540E3	A				
	01	007FF	E8D7C540	A				
	01	00800	6F40C6D6	A				
	01	00801	D940C6E4	A				
	01	00802	D3D340E2	A				
	01	00803	E8D5E3C1	A				
	01	00804	E740D3C9	A				
	01	00805	E2E34B15	A				
	01	00806	7F404040	A				
2249					ABSTRACT TEXT			
2250								'IN THE LETTER (H) REPRESENTS HEX DIGITS, UNLESS I'
2251								'STATE OTHERWISE, ALL SYNTAX CHARACTERS PRECEDED I'
2252								'BY UNNECESSARY HEX DIGITS WILL LEAVE THATN I'
2253								'DIGIT STRING INTACT. ALL NON-LISTED NON-HEX CHAR I'
2254								'ACTERS CAUSE A SYNTAX ERROR MESSAGE AND ARE IGNORED I'
2255								'N TYPE ACCEPTABLE SYNTAX LIST, NX=EXPLAIN CURRENT I'
2256								' BUTPUT, NL=OUTPUT ERROR COUNTERS (LOGS), NM=OUTPUT I'
2257								' MEMORY BUFFER STARTING WORD ADDRESSES, BIT 0,1 I'
2258								'INDICATE BYTE BOUNDRY, NR=TERMINATE INPUT, EXIT CON I'
2259								'TR0L AND CLEAR MEMORY, NT=TERMINATE INPUT AND EXIT I'
2260								'CONTROL, NSPACE=IGNORES SPACES, NHHHHH=SET INTERNAL I'
2261								'LOCATION COUNTER (LC) TO HHHHH, NHHHHHP=OUTPUT HHHHH I'
								'WORDS STARTING FROM CURRENT LC I'

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2262								, 'INHHHHHHH, *REPLACE CONTENTS OF LC WITH HHHHHHHH AND',
2263								, ' STEP LC, NHHHHHHH, *STEP LC, IGNORE HHHHHHHH, N',
2264								, 'HHHHHHHH, *IGNORE HHHHHHHH, USED TO CORRECT AN INPUT',
2265								, ' IE 124/24, *24, NNOOPERATING INSTRUCTIONSNNWHEN AN I',
2266								, 'INPUT IS CALLED FOR AND YOU NEED HELP, NTYPE X, ALL',
2267								, ' OTHER OPERATING INSTRUCTIONS WILL BE TYPED. '
	01	00807	1515E3C8	A				
	01	00808	C540D3C5	A				
	01	00809	E3E3C5D9	A				
	01	0080A	404DC85D	A				
	01	0080B	40D9C5D7	A				
	01	0080C	D9C5E2C5	A				
	01	0080D	D5E3E240	A				
	01	0080E	C8C5E740	A				
	01	0080F	C4C9C7C9	A				
	01	00810	E3E24B40	A				
	01	00811	40E4D5D3	A				
	01	00812	C5E2E240	A				
	01	00813	E2E3C1E3	A				
	01	00814	C540D6E3	A				
	01	00815	C8C5D9E6	A				
	01	00816	C9E2C56B	A				
	01	00817	15C1D3D3	A				
	01	00818	40E2E8D5	A				
	01	00819	E3C1E740	A				
	01	0081A	C3C8C1D9	A				
	01	0081B	C1C3E3C5	A				
	01	0081C	D9E240D7	A				
	01	0081D	D9C5C3C5	A				
	01	0081E	C5C4C5C4	A				
	01	0081F	40C2E840	A				
	01	00820	E4D5D5C5	A				
	01	00821	C3C3C5E2	A				
	01	00822	E2C1D9E8	A				
	01	00823	40C8C5E7	A				
	01	00824	40C4C9C7	A				
	01	00825	C9E3E240	A				
	01	00826	E6C9D3D3	A				
	01	00827	40D3C5C1	A				
	01	00828	E5C540E3	A				
	01	00829	C8C1E315	A				
	01	0082A	C4C9C7C9	A				
	01	0082B	E34CE2E3	A				
	01	0082C	D9C9D5C7	A				
	01	0082D	40C9D5E3	A				
	01	0082E	C1C3E34B	A				
	01	0082F	40C1D3D3	A				
	01	00830	40D5D6D5	A				
	01	00831	60D3C9E2	A				
	01	00832	E3C5C440	A				
	01	00833	D5D6D560	A				
	01	00834	C8C5E740	A				
	01	00835	C3C8C1D9	A				
	01	00836	C1C3F3C5	A				
	01	00837	D9E240C3	A				
	01	00838	C1E4E2C5	A				
	01	00839	40C140E2	A				
	01	0083A	ERD5E3C1	A				
	01	0083B	E715C5D9	A				
	01	0083C	D9D6D940	A				
	01	0083D	D4C5E2E2	A				
	01	0083E	C1C7C540	A				
	01	0083F	C1D5C440	A				
	01	00840	C1D9C540	A				
	01	00841	C9C7D5D6	A				
	01	00842	D9C5C44B	A				
	01	00843	156F7EE3	A				
	01	00844	ERD7C540	A				
	01	00845	C1C3C3C5	A				
	01	00846	D7E3C1C2	A				
	01	00847	D3C540E2	A				
	01	00848	ERD5E3C1	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	01	00849	E740D3C9	A				
	01	0084A	E2E34815	A				
	01	0084B	E77EC5F7	A				
	01	0084C	D7D3C1C9	A				
	01	0084D	D540C3F4	A				
	01	0084E	D9D9C5D5	A				
	01	0084F	E340D6F4	A				
	01	00850	E3D7E4E3	A				
	01	00851	4B15D37E	A				
	01	00852	D6E4E3D7	A				
	01	00853	E4E34CC5	A				
	01	00854	D9D9D6D9	A				
	01	00855	40C3D6F4	A				
	01	00856	D5E3C5D9	A				
	01	00857	E24DD3D6	A				
	01	00858	C7E25D4B	A				
	01	00859	15D47ED6	A				
	01	0085A	E4E3D7E4	A				
	01	0085B	E34040D4	A				
	01	0085C	C5D4D6D9	A				
	01	0085D	E840C2E4	A				
	01	0085E	C6C6C5D9	A				
	01	0085F	40E2F3C1	A				
	01	00860	D9E3C9D5	A				
	01	00861	C740E6D6	A				
	01	00862	D9C440C1	A				
	01	00863	C4C4D9C5	A				
	01	00864	E2E2C5E2	A				
	01	00865	4B40C2C9	A				
	01	00866	E340FC6B	A				
	01	00867	F140C9D5	A				
	01	00868	C4C9C3C1	A				
	01	00869	E3C540C2	A				
	01	0086A	E8E3C540	A				
	01	0086B	C2D6E4D5	A				
	01	0086C	C4D9E84B	A				
	01	0086D	4015D97E	A				
	01	0086E	E3C5D9D4	A				
	01	0086F	C9D5C1E3	A				
	01	00870	C540C9D5	A				
	01	00871	D7E4E36B	A				
	01	00872	40C5E7C9	A				
	01	00873	E340C3D6	A				
	01	00874	D5E3D9D6	A				
	01	00875	D340C1D5	A				
	01	00876	C440C3D3	A				
	01	00877	C5C1D940	A				
	01	00878	D4C5D4D6	A				
	01	00879	D9E84B40	A				
	01	0087A	15E37EE3	A				
	01	0087B	C5D9D4C9	A				
	01	0087C	D5C1E3C5	A				
	01	0087D	40C9D5D7	A				
	01	0087E	E4E340C1	A				
	01	0087F	D5C440C5	A				
	01	00880	E7C9E3C3	A				
	01	00881	D6D5E3D9	A				
	01	00882	D6D34B15	A				
	01	00883	E2D7C1C3	A				
	01	00884	C57EC9C7	A				
	01	00885	D5D6D9C5	A				
	01	00886	E24CE2D7	A				
	01	00887	C1C3C5E2	A				
	01	00888	4B15C8C8	A				
	01	00889	C8C8C85C	A				
	01	0088A	7EE2C5E3	A				
	01	0088B	40C9D5E3	A				
	01	0088C	C5D9D5C1	A				
	01	0088D	D3D3D6C3	A				
	01	0088E	C1E3C9D6	A				
	01	0088F	D540C3D6	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
01		00890	E4D5E3C5	A				
01		00891	D94D03C3	A				
01		00892	5D40E3D6	A				
01		00893	40C8C8C8	A				
01		00894	C8C84B15	A				
01		00895	C8C8C8C8	A				
01		00896	C8D77ED6	A				
01		00897	E4E3D7E4	A				
01		00898	E340C8C8	A				
01		00899	C8C8C8E6	A				
01		0089A	D6D9C4E2	A				
01		0089B	40E2E3C1	A				
01		0089C	D9F3C9D5	A				
01		0089D	C740C6D9	A				
01		0089E	D6D440C3	A				
01		0089F	E4D9D9C5	A				
01		008A0	D5E340D3	A				
01		008A1	C315C8C8	A				
01		008A2	C8C8C8C8	A				
01		008A3	C8C84B7E	A				
01		008A4	D9C5D7D3	A				
01		008A5	C1C3C540	A				
01		008A6	C3D6D5E3	A				
01		008A7	C5D5E3E2	A				
01		008A8	40D6C640	A				
01		008A9	D3C340E6	A				
01		008AA	C9E3C840	A				
01		008AB	C8C8C8C8	A				
01		008AC	C8C8C8C8	A				
01		008AD	40C1D5C4	A				
01		008AE	40E2E3C5	A				
01		008AF	D740D3C3	A				
01		008B0	4B15C8C8	A				
01		008B1	C8C8C8C8	A				
01		008B2	C8C86B7E	A				
01		008B3	E2E3C5D7	A				
01		008B4	40D3C34B	A				
01		008B5	40C9C7D5	A				
01		008B6	D6D9C540	A				
01		008B7	C8C8C8C8	A				
01		008B8	C8C8C8C8	A				
01		008B9	4B15C8C8	A				
01		008BA	C8C8C8C8	A				
01		008BB	C8C8617E	A				
01		008BC	C9C7D5D6	A				
01		008BD	D9C540C8	A				
01		008BE	C8C8C8C8	A				
01		008BF	C8C8C84B	A				
01		008C0	40E4E2C5	A				
01		008C1	C440E3D6	A				
01		008C2	40C3D6D9	A				
01		008C3	D9C5C3E3	A				
01		008C4	40C1D540	A				
01		008C5	C9D5D7E4	A				
01		008C6	E36B40C9	A				
01		008C7	C540F1F2	A				
01		008C8	F461F2F4	A				
01		008C9	4B7EF2F4	A				
01		008CA	4B1515D6	A				
01		008CB	D7C5D9C1	A				
01		008CC	E3C9D5C7	A				
01		008CD	40C9D5E2	A				
01		008CE	E3D9E4C3	A				
01		008CF	E3C9D6D5	A				
01		008D0	E21515F6	A				
01		008D1	C8C5D540	A				
01		008D2	C1D540C9	A				
01		008D3	D5D7F4E3	A				
01		008D4	40C9E240	A				
01		008D5	C3C1D3D3	A				
01		008D6	C5C440C6	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	01	008D7	D6D940C1	A				
	01	008D8	D5C440E8	A				
	01	008D9	D6E440D5	A				
	01	008DA	C5C5C440	A				
	01	008DH	C8C5D3D7	A				
	01	008DC	6H15E3E8	A				
	01	008DD	D7C540E7	A				
	01	008DE	4B4040C1	A				
	01	008DF	D3D340D6	A				
	01	008E0	E3C8C5D9	A				
	01	008E1	40D6D7C5	A				
	01	008E2	D9C1E3C9	A				
	01	008E3	D5C740C9	A				
	01	008E4	D5E2E3D9	A				
	01	008E5	E4C3E3C9	A				
	01	008E6	D6D5E240	A				
	01	008E7	E6C9D3D3	A				
	01	008E8	40C2C540	A				
	01	008E9	E3E8D7C5	A				
	01	008EA	C44B7F40	A				
2268								
2269	01	008EB	1505D6D5	A				NOAMSG TEXT 'NON-ALLOWED INSTRUCTION TRAP. DEPRESS RESETN';
	01	008EC	60C1D3D3	A				' PSW1 CONTENTS '
	01	008ED	D6E6C5C4	A				
	01	008EE	40C9D5E2	A				
	01	008EF	E3D9E4C3	A				
	01	008F0	E3C9D6D5	A				
	01	008F1	40E3D9C1	A				
	01	008F2	D74B40C4	A				
	01	008F3	C5D7D9C5	A				
	01	008F4	E2E240D9	A				
	01	008F5	C5E2C5E3	A				
	01	008F6	154040D7	A				
	01	008F7	E2E6F140	A				
	01	008F8	4040C3D6	A				
	01	008F9	D5E3C5D5	A				
	01	008FA	E3E27F40	A				
2270	01	008FB	15D9C5C3	A	R0FFMSG	TEXT		'RECEIVER UNAVAILABLE. DEPRESS CONSUL INTERRUPT. '
	01	008FC	C5C9E5C5	A				
	01	008FD	D940E4D5	A				
	01	008FE	C1E5C1C9	A				
	01	008FF	D3C1C2D3	A				
	01	00900	C54B40C4	A				
	01	00901	C5D7D9C5	A				
	01	00902	E2E240C3	A				
	01	00903	D6D5E2E4	A				
	01	00904	D340C9D5	A				
	01	00905	E3C5D9D9	A				
	01	00906	E4D7E34B	A				
2271	01	00907	7F404040	A	X0FFMSG	TEXT		'TRANSMITTER UNAVAILABLE. DEPRESS CONSUL INTERRUPT. '
	01	00908	15E3D9C1	A				
	01	00909	D5E2D4C9	A				
	01	0090A	E3E3C5D9	A				
	01	0090B	40E4D5C1	A				
	01	0090C	E5C1C9D3	A				
	01	0090D	C1C2D3C5	A				
	01	0090E	4B40C4C5	A				
	01	0090F	D7D9C5E2	A				
	01	00910	E240C3D6	A				
	01	00911	D5E2E4D3	A				
	01	00912	40C9D5E3	A				
	01	00913	C5D9D9E4	A				
	01	00914	D7E34B7F	A				
2272								
2273	01	00915	1515C9D5	A	CONIMSG	TEXT		'NNINPUT TEST STRATEGY';
	01	00916	D7E4E340	A				'WHERE R/W STRT TGLE CONT SORC '
	01	00917	E3C5E2E3	A				
	01	00918	40E2E3D9	A				
	01	00919	C1E3C5C7	A				
	01	0091A	E815C8C5	A				
	01	0091B	D9C54C40	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	01	0091C	D961E640	A				
	01	0091D	E2E3D9E3	A				
	01	0091E	40E3C7D3	A				
	01	0091F	C540C3D6	A				
	01	00920	D5E34CE2	A				
	01	00921	D6D9C340	A				
	01	00922	7F404040	A				
2274					XC8NMSG TEXT			'INFO FOR ALL BUT (CONT) THE 1ST 16 BIT POSITIONS';
2275								;' IN EACH ENTRY REFER TO THESE DEVICES:INBIT 0=RAD 1';
2276								;'INBIT 1=RAD 2= MAG TAPE 1INBIT 3= MAG TAPE 2N';
2277								;'BIT 4=LINE PRINTERBIT 5=TELETYPEBIT 6=CARD READER';
2278								;'INBIT 7=CARD PUNCHBIT 8=PAPER TAPEBIT 9=C8M GEARN';
2279								;'BIT10=MESSAGE DEVICE.NHERE=DEVICES TO BE EXERCISEDN';
2280								;' R/W=DEVICES TO BE READ(0) OR WRITTEN(1).NSTRY=DEVI';
2281								;'ICES TO BE STARTED.NTGLE=DEVICES TO BE ALTERNATFLY';
2282								;' READ AND WRITTEN.NS8RC=DEVICES TO BE USED AS DATA';
2283								;' SOURCE.NCONT=CONTROL WORD.NBIT 0=HI DENSITY RAD1';
2284								;'INBIT 1=HI DENSITY RAD2.NBIT 2=HI SPEED RAD1.NBIT 3=HI SPEED RAD2.0';
2285								;'INBIT14=RUN THE BOMB.NBIT15=AUTOMATIC 8PERATION.1
	01	00923	15C6D6D9	A				
	01	00924	40C1D3D3	A				
	01	00925	40C2E4E3	A				
	01	00926	404DC3D6	A				
	01	00927	D5E35D40	A				
	01	00928	E3C8C540	A				
	01	00929	F1E2E340	A				
	01	0092A	F1F640C2	A				
	01	0092B	C9E340D7	A				
	01	0092C	D6E2C9E3	A				
	01	0092D	C9D6D5E2	A				
	01	0092E	40C9D540	A				
	01	0092F	C5C1C3C8	A				
	01	00930	40C5D5E3	A				
	01	00931	D9E840D9	A				
	01	00932	C5C6C5D9	A				
	01	00933	40E3D640	A				
	01	00934	E3C8C5E2	A				
	01	00935	C540C4C5	A				
	01	00936	E5C9C3C5	A				
	01	00937	E27A15C2	A				
	01	00938	C9E340F0	A				
	01	00939	7ED9C1C4	A				
	01	0093A	40F115C2	A				
	01	0093B	C9E340F1	A				
	01	0093C	7ED9C1C4	A				
	01	0093D	40F215C2	A				
	01	0093E	C9E340F2	A				
	01	0093F	7ED4C1C7	A				
	01	00940	40E3C1D7	A				
	01	00941	C540F115	A				
	01	00942	C2C9E340	A				
	01	00943	F37ED4C1	A				
	01	00944	C740F3C1	A				
	01	00945	D7C540F2	A				
	01	00946	15C2C9E3	A				
	01	00947	40F47ED3	A				
	01	00948	C9D5C540	A				
	01	00949	D7D9C9D5	A				
	01	0094A	E3C5D915	A				
	01	0094B	C2C9E340	A				
	01	0094C	F57EE3C5	A				
	01	0094D	D3C5E3E8	A				
	01	0094E	D7C515C2	A				
	01	0094F	C9E340F6	A				
	01	00950	7EC3C1D9	A				
	01	00951	C440D9C5	A				
	01	00952	C1C4C5D9	A				
	01	00953	15C2C9E3	A				
	01	00954	40F77EC3	A				
	01	00955	C1D9C440	A				
	01	00956	D7E4D5C3	A				
	01	00957	C815C2C9	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	C1	0095R	E340F87E	A				
	C1	00959	D7C1D7C5	A				
	01	0095A	D940E3C1	A				
	01	0095B	D7C515C2	A				
	01	0095C	C9E340F9	A				
	C1	0095D	7EC3D6D4	A				
	C1	0095E	40C7C5C1	A				
	C1	0095F	D915C2C9	A				
	01	00960	E3F1F07E	A				
	01	00961	D4C5E2E2	A				
	C1	00962	C1C7C540	A				
	01	00963	C4C5E5C9	A				
	01	00964	C3C54B15	A				
	C1	00965	C8C5D9C5	A				
	01	00966	7EC4C5E5	A				
	01	00967	C9C3C5E2	A				
	C1	00968	40E3D640	A				
	01	00969	C2C540C5	A				
	C1	0096A	E7C5D9C3	A				
	C1	0096B	C9E2C5C4	A				
	01	0096C	1540D961	A				
	01	0096D	E67FC4C5	A				
	01	0096E	E5C9C3C5	A				
	01	0096F	E240E3D6	A				
	C1	00970	40C2C540	A				
	01	00971	D9C5C1C4	A				
	C1	00972	4DF05D40	A				
	01	00973	D6D940E6	A				
	01	00974	D9C9E3E3	A				
	01	00975	C5D54DF1	A				
	01	00976	5D4B15E2	A				
	01	00977	E3D9E37E	A				
	01	00978	C4C5E5C9	A				
	01	00979	C3C5E240	A				
	01	0097A	E3D640C2	A				
	01	0097B	C540E2E3	A				
	C1	0097C	C1D9E3C5	A				
	01	0097D	C44B15E3	A				
	01	0097E	C7D3C57E	A				
	C1	0097F	C4C5F5C9	A				
	01	00980	C3C5E240	A				
	01	00981	E3D640C2	A				
	C1	00982	C540C1D3	A				
	01	00983	E3C5D9D5	A				
	01	00984	C1E3C5D3	A				
	01	00985	E840D9C5	A				
	01	00986	C1C440C1	A				
	01	00987	D5C440E6	A				
	01	00988	D9C9E3E3	A				
	01	00989	C5D54B15	A				
	C1	0098A	E2D6D9C3	A				
	01	0098B	7EC4C5F5	A				
	C1	0098C	C9C3C5E2	A				
	C1	0098D	40E3D640	A				
	C1	0098E	C2C540E4	A				
	C1	0098F	E2C5C440	A				
	01	00990	C1E240C4	A				
	01	00991	C1E3C140	A				
	01	00992	E2D6E4D9	A				
	01	00993	C3C54B15	A				
	01	00994	C3D6D5F3	A				
	C1	00995	7EC3D6D5	A				
	C1	00996	F3D9D6D3	A				
	01	00997	40E6D6D9	A				
	01	00998	C44B15C2	A				
	01	00999	C9E340F0	A				
	01	0099A	7EC8C940	A				
	C1	0099B	C4C5D5E2	A				
	01	0099C	C9E3E840	A				
	C1	0099D	D9C1C4F1	A				
	C1	0099E	4B15C2C9	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	01	009E3	C9C6C9C5	A				
	01	009E4	D940C5D5	A				
	01	009E5	C440C2E4	A				
	01	009E6	C6C640D3	A				
	01	009E7	C1E2E340	A				
	01	009E8	C4C5E540	A				
	01	009E9	7F40404C	A				
2293					XERRMSG	TEXT		'NNDPRESS I/O RESET AND TYPE T IF YOU ')
2294								, 'WISH TO FIND ALL THENREMAINING DATA ERRORS IN CORE. ')
2295								, ' TYPE T IF YOU WISH TO CONTINUE. ')
2296								, ' TYPE R IF YOU WISH TO CLEAR MEMORY AND CONTINUE. ')
2297								, ' DEPRESS RESET BUTTONNIF YOU WISH TO RESTART. ')
	01	009EA	1515C4C5	A				
	01	009EB	D7D9C5E2	A				
	01	009EC	E240C961	A				
	01	009ED	D640D9C5	A				
	01	009EE	E2C5E340	A				
	01	009EF	C1D5C440	A				
	01	009F0	E3E8D7C5	A				
	01	009F1	40E34C79	A				
	01	009F2	C640E8D6	A				
	01	009F3	E440E6C9	A				
	01	009F4	E2C840E3	A				
	01	009F5	D640C6C9	A				
	01	009F6	D5C440C1	A				
	01	009F7	D3D340E3	A				
	01	009F8	C8C515D9	A				
	01	009F9	C5D4C1C9	A				
	01	009FA	D5C9D5C7	A				
	01	009FB	40C4C1E3	A				
	01	009FC	C140C5D9	A				
	01	009FD	D9D6D9E2	A				
	01	009FE	40C9D540	A				
	01	009FF	C3D6D9C5	A				
	01	00A00	4B4040E3	A				
	01	00A01	E8D7C540	A				
	01	00A02	E340C9C6	A				
	01	00A03	40E8D6E4	A				
	01	00A04	40E6C9E2	A				
	01	00A05	C840E3D6	A				
	01	00A06	40C3D6D5	A				
	01	00A07	E3C9D5E4	A				
	01	00A08	C54B1540	A				
	01	00A09	40E3E8D7	A				
	01	00A0A	C540D940	A				
	01	00A0B	C9C640E8	A				
	01	00A0C	D6E440E6	A				
	01	00A0D	C9E2C840	A				
	01	00A0E	E3D640C3	A				
	01	00A0F	D3C5C1D9	A				
	01	00A10	40D4C5D4	A				
	01	00A11	D6D9E840	A				
	01	00A12	C1D5C440	A				
	01	00A13	C3D6D5E3	A				
	01	00A14	C9D5E4C5	A				
	01	00A15	4B4040C4	A				
	01	00A16	C5D7D9C5	A				
	01	00A17	E2E240D9	A				
	01	00A18	C5E2C5E3	A				
	01	00A19	40C2E4E3	A				
	01	00A1A	E3D6D515	A				
	01	00A1B	C9C640E8	A				
	01	00A1C	D6E440E6	A				
	01	00A1D	C9E2C840	A				
	01	00A1E	E3D640D9	A				
	01	00A1F	C5E2E3C1	A				
	01	00A20	D9E34B7F	A				
2298					CANMSG1	TEXT		'NINPUT DEVICE ADDRESSES. ')
2299								, 'INRAD1 RAD2 MT1 MT2 LP TTY CR CP PT C0C ')
2300								, 'MSG ')
	01	00A21	1515C9D5	A				
	01	00A22	D7E4E340	A				
	01	00A23	C4C5E5C9	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	01	00A24	C3C540C1	A				
	01	00A25	C4C4D9C5	A				
	01	00A26	E2E2C5E2	A				
	01	00A27	4B15D9C1	A				
	01	00A28	C4F140D9	A				
	01	00A29	C1C4F240	A				
	01	00A2A	D4E3F140	A				
	01	00A2B	40D4E3F2	A				
	01	00A2C	404040D3	A				
	01	00A2D	D74040E3	A				
	01	00A2E	E3E84040	A				
	01	00A2F	40C3D940	A				
	01	00A30	4040C3D7	A				
	01	00A31	404040D7	A				
	01	00A32	E34040C3	A				
	01	00A33	D6C34040	A				
	01	00A34	D4E2C740	A				
	01	00A35	7F404040	A				
2301					XC8NMSG1 TEXT			'NNINPUT DEVICE ADDRESSES IN HEX. IE UNDER RAD1 PUT ';
2302								'10FO.NIF ALL THE RADS ON THAT CONTROLLER ARE TO ';
2303								'BE TESTED.NTHIS WORKS FOR RAD1 AND RAD2 ONLY. ';
2304								' IF ONLY ONE DEVICE ON THENCONTROLLER IS TO BE ';
2305								'TESTED, PUT ';
2306								'00FO.NFOLLRW EACH DEVICE WITH A PERIOD. THE DEVICE ';
2307								' SYMBOLS ARENSELF EXPLANIT9R EXCEPT FOR C8C=C8M GE ';
2308								'R AND MSG=MESSAGE DEVICE. ';
	01	00A36	1515C9D5	A				
	01	00A37	D7E4E340	A				
	01	00A38	C4C5E5C9	A				
	01	00A39	C3C540C1	A				
	01	00A3A	C4C4D9C5	A				
	01	00A3B	E2E2C5E2	A				
	01	00A3C	40C9D540	A				
	01	00A3D	C8C5F74B	A				
	01	00A3E	40C9C540	A				
	01	00A3F	E4D5C4C5	A				
	01	00A40	D940D9C1	A				
	01	00A41	C4F140D7	A				
	01	00A42	E4E340F1	A				
	01	00A43	F0C6F04B	A				
	01	00A44	15C9C640	A				
	01	00A45	C1D3D340	A				
	01	00A46	E3C8C540	A				
	01	00A47	D9C1C4E2	A				
	01	00A48	40D6D540	A				
	01	00A49	E3C8C1F3	A				
	01	00A4A	40C3D6D5	A				
	01	00A4B	E3D9D6D3	A				
	01	00A4C	D3C5D940	A				
	01	00A4D	C1D9C540	A				
	01	00A4E	E3D440C2	A				
	01	00A4F	C540F3C5	A				
	01	00A50	E2E3C5C4	A				
	01	00A51	4B15E3C8	A				
	01	00A52	C9E240E6	A				
	01	00A53	D6D9D2F2	A				
	01	00A54	40C6D6D9	A				
	01	00A55	40D9C1C4	A				
	01	00A56	F14CC1D5	A				
	01	00A57	C440D9C1	A				
	01	00A58	C4F240D6	A				
	01	00A59	D5D3E84B	A				
	01	00A5A	4040C9C6	A				
	01	00A5B	40D6D5D3	A				
	01	00A5C	E840D6D5	A				
	01	00A5D	C540C4C5	A				
	01	00A5E	E5C9C3C5	A				
	01	00A5F	40D6D540	A				
	01	00A60	E3C8C515	A				
	01	00A61	C3D6D5E3	A				
	01	00A62	D9D6D3D3	A				
	01	00A63	C5D940C9	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	C1	00A64	E240F3D6	A				
	C1	00A65	40C2C540	A				
	C1	00A66	E3C5E2E3	A				
	C1	00A67	C5C46B40	A				
	C1	00A68	D7F4E340	A				
	C1	00A69	F0F0C6F0	A				
	C1	00A6A	4B15C6D6	A				
	C1	00A6B	C3D3D6E6	A				
	C1	00A6C	40C5C1C3	A				
	C1	00A6D	C840C4C5	A				
	C1	00A6E	E5C9C3C5	A				
	C1	00A6F	40E6C9E3	A				
	C1	00A70	C840C140	A				
	C1	00A71	D7C5D9C9	A				
	C1	00A72	D6C44B40	A				
	C1	00A73	E3C8C540	A				
	C1	00A74	C4C5F5C9	A				
	C1	00A75	C3C540E2	A				
	C1	00A76	E8D4C2D6	A				
	C1	00A77	D3E240C1	A				
	C1	00A78	D9C515E2	A				
	C1	00A79	C5D3C640	A				
	C1	00A7A	C5E7D7D3	A				
	C1	00A7B	C1D5C9E3	A				
	C1	00A7C	C6D940C5	A				
	C1	00A7D	E7C3C5D7	A				
	C1	00A7E	E340C6D6	A				
	C1	00A7F	D940C3D6	A				
	C1	00A80	C37EC3D6	A				
	C1	00A81	C440C7C5	A				
	C1	00A82	C1D940C1	A				
	C1	00A83	D5C440D4	A				
	C1	00A84	F2C77E74	A				
	C1	00A85	C5E2E2C1	A				
	C1	00A86	C7C540C4	A				
	C1	00A87	C5E5C9C3	A				
	C1	00A88	C54B7F40	A				
2309					C0NMSG2	TEXT	'NNINPUT SYSTEM PARAMETERS.')	
2310	01	00A89	1515C9D5	A			, 'FIRST LAST BLOCK '	
	C1	00A8A	D7E4E340	A				
	C1	00A8B	E2E8E2E3	A				
	C1	00A8C	C5D440D7	A				
	C1	00A8D	C1D9C1D4	A				
	C1	00A8E	C5E3C5D9	A				
	C1	00A8F	E24B15C6	A				
	C1	00A90	C9D9E2F3	A				
	C1	00A91	40D3C1E2	A				
	C1	00A92	E34040C2	A				
	C1	00A93	D3D6C3D2	A				
	C1	00A94	7F404040	A				
2311					XC0NMSG2	TEXT	'NNINPUT VALUES IN HEX FOLLOWED BY A PERIOD, 'FIRST=')	
2312							, 'FIRST BYTE ADDRESS AVAILABLE FOR BUFFER STORAGE, 'N')	
2313							, 'LAST=LAST MEMORY BYTE ADDRESS MINUS BLOCK SIZE, 'N')	
2314	01	00A95	1515C9D5	A			, 'BLOCK=BLOCK SIZE OF ALL TRANSFERS. (5, 1024 OR 3072 BYTES) '	
	C1	00A96	D7E4E340	A				
	C1	00A97	E5C1D3E4	A				
	C1	00A98	C5E240C9	A				
	C1	00A99	D540C8C5	A				
	C1	00A9A	E740C6D6	A				
	C1	00A9B	C3D3D6E6	A				
	C1	00A9C	C5C440C2	A				
	C1	00A9D	E840C140	A				
	C1	00A9E	D7C5D9C9	A				
	C1	00A9F	D6C44B15	A				
	C1	00AA0	C6C9D9E2	A				
	C1	00AA1	E37EC6C9	A				
	C1	00AA2	D9E2E340	A				
	C1	00AA3	C2E8E3C5	A				
	C1	00AA4	40C1C4C4	A				
	C1	00AA5	D9C5E2F2	A				
	C1	00AA6	40C1E5C1	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	01	00AA7	C9D3C1C2	A				
	01	00AA8	D3C540C6	A				
	01	00AA9	D6D940C2	A				
	01	00AAA	E4C6C6C5	A				
	01	00AAB	D940E2E3	A				
	01	00AAC	D6D9C1C7	A				
	01	00AAD	C54B15D3	A				
	01	00AAE	C1E2E37E	A				
	01	00AAF	D3C1E2E3	A				
	01	00AB0	40D4C5D4	A				
	01	00AB1	D6D9E840	A				
	01	00AB2	C2E8E3C5	A				
	01	00AB3	40C1C4C4	A				
	01	00AB4	D9C5E2E2	A				
	01	00AB5	40D4C9D5	A				
	01	00AB6	E4E240C2	A				
	01	00AB7	D3D6C3D2	A				
	01	00AB8	40E2C9E9	A				
	01	00AB9	C54B15C2	A				
	01	00ABA	D3D6C3D2	A				
	01	00ABB	7EC2D3D6	A				
	01	00ABC	C3D240E2	A				
	01	00ABD	C9E9C540	A				
	01	00ABE	D6C640C1	A				
	01	00ABF	D3D340E3	A				
	01	00AC0	D9C1D5E2	A				
	01	00AC1	C6C5D9E2	A				
	01	00AC2	4B4DF56B	A				
	01	00AC3	F1F0F2F4	A				
	01	00AC4	40D6D940	A				
	01	00AC5	F3F0F7F2	A				
	01	00AC6	40C2E8E3	A				
	01	00AC7	C5E25D7F	A				
2315					CONMSG3	TEXT	'NNINPUT DEVICE PARAMETERS. '	
2316							, 'NSCT1 SCT2 STK1 ETK1 STK2 ETK2 BLC1 '	
2317							, 'RLC2 RLNR XLNR C8CA P8N P8FF '	
	01	00AC8	1515C9D5	A				
	01	00AC9	D7E4F340	A				
	01	00ACA	C4C5E5C9	A				
	01	00ACB	C3C540D7	A				
	01	00ACC	C1D9C1D4	A				
	01	00ACD	C5E3C5D9	A				
	01	00ACE	E24B15E2	A				
	01	00ACF	C3E3F140	A				
	01	00AD0	E2C3E3F2	A				
	01	00AD1	40E2E3D2	A				
	01	00AD2	F140C5E3	A				
	01	00AD3	D2F140E2	A				
	01	00AD4	E3D2F240	A				
	01	00AD5	C5E3D2F2	A				
	01	00AD6	40C2D3C3	A				
	01	00AD7	F140C2D3	A				
	01	00AD8	C3F240D9	A				
	01	00AD9	D3D5D940	A				
	01	00ADA	E7D3D5D9	A				
	01	00ADB	40C3D6C3	A				
	01	00ADC	C140D7D6	A				
	01	00ADD	D54040D7	A				
	01	00ADE	D6C6C640	A				
	01	00ADF	7F404040	A				
2318					XCONMSG3	TEXT	'NNINPUT VALUES IN HEX FOLLOWED BY A PERIOD. '	
2319							, 'NSCT1=SECTOR INCREMENTER FOR RAD 1. NSCT2=SECTOR '	
2320							, 'INCREMENTER FOR RAD 2. NSTK1=STARTING TRACK FOR RAD1 '	
2321							, '1NETK1=END TRACK ADDRESS FOR RAD 1 NSTK2=STARTING '	
2322							, 'TRACT ADDRESS FOR RAD 2 NETK2=ENDING TRACK FOR RAD 2 '	
2323							, 'NBLK1=NUMBER OF RECORD BLOCKS FOR MAG TAPE 1. NBLK2 '	
2324							, 'NUMBER OF BLOCKS FOR RAD 2. NRLNR=C8M GEAR RECEIVER '	
2325							, 'LINE NUMBER. NXLNR=C8M GEAR TRANSMITTER LINE NUMBER '	
2326							, 'NC8CA=C8M GEAR CONTROLLER ADDRESS. '	
2327							, 'NPN8=NUMBER OF MINUTES THE PERIPHERALS WILL BE '	
2328							, 'RUNNING. '	
2329							, 'NPN8FF=NUMBER OF MINUTES THE PERIPHERALS WILL BE '	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2330	01	00AE0	1515C9D5	A				'IDLE.'
	C1	00AE1	07E4E340	A				
	C1	00AE2	E5C1D3E4	A				
	01	00AE3	C5E240C9	A				
	01	00AE4	D540C8C5	A				
	C1	00AE5	E740C6D6	A				
	01	00AE6	D3D3D6E6	A				
	01	00AE7	C5C440C2	A				
	01	00AE8	E840C140	A				
	01	00AE9	D7C5D9C9	A				
	C1	00AEA	D6C44B15	A				
	01	00AEH	E2C3E3F1	A				
	01	00AEC	7EE2C5C3	A				
	C1	00AED	E3D6D940	A				
	01	00AEE	C9D5C3D9	A				
	01	00AEF	C5D4C5D5	A				
	C1	00AF0	E3C5D940	A				
	01	00AF1	C6D6D940	A				
	C1	00AF2	D9C1C440	A				
	01	00AF3	F14B15E2	A				
	01	00AF4	C3E3F27E	A				
	01	00AF5	E2C5C3E3	A				
	01	00AF6	D6D940C9	A				
	01	00AF7	D5C3D9C5	A				
	C1	00AF8	D4C5D5E3	A				
	01	00AF9	C5D940C6	A				
	01	00AFA	D6D940D9	A				
	01	00AFB	C1C440F2	A				
	C1	00AFC	4B15E2E3	A				
	C1	00AFD	D2F17EE2	A				
	01	00AFE	E3C1D9E3	A				
	01	00AFF	C9D5C740	A				
	01	00B00	E3D9C1C3	A				
	01	00B01	D240C6D6	A				
	01	00B02	D940D9C1	A				
	01	00B03	C440F115	A				
	01	00B04	C5E3D2F1	A				
	01	00B05	7EC5D5C4	A				
	01	00B06	40E3D9C1	A				
	01	00B07	C3D240C1	A				
	01	00B08	C4C4D9C5	A				
	C1	00B09	E2E240C6	A				
	01	00B0A	D6D940D9	A				
	01	00B0B	C1C440F1	A				
	01	00B0C	15E2E3D2	A				
	01	00B0D	F27EE2E3	A				
	01	00B0E	C1D9E3C9	A				
	01	00B0F	D5C740E3	A				
	01	00B10	D9C1C3E3	A				
	01	00B11	40C1C4C4	A				
	01	00B12	D9C5E2E2	A				
	01	00B13	40C6D6D9	A				
	01	00B14	40D9C1C4	A				
	01	00B15	40F215C5	A				
	01	00B16	E3D2F27E	A				
	01	00B17	C5D5C4C9	A				
	01	00B18	D5C740E3	A				
	01	00B19	D9C1C3D2	A				
	01	00B1A	40C6D6D9	A				
	01	00B1B	40D9C1C4	A				
	01	00B1C	40F215C2	A				
	01	00B1D	D3D2F17E	A				
	01	00B1E	D5E4D4C2	A				
	01	00B1F	C5D940D6	A				
	01	00B20	C640D9C5	A				
	01	00B21	C3D6D9C4	A				
	01	00B22	40C2D3D6	A				
	01	00B23	C3D2E240	A				
	01	00B24	C6D6D940	A				
	01	00B25	D4C1C740	A				
	01	00B26	E3C1D7C5	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	C1	00B27	40F14B15	A				
	01	00B28	C2D3D2F2	A				
	01	00B29	7ED5E4D4	A				
	01	00B2A	C2C5D940	A				
	01	00B2B	D6C640C2	A				
	01	00B2C	D3D6C3D2	A				
	01	00B2D	E240C6D6	A				
	C1	00B2E	D940D9C1	A				
	01	00B2F	C440F24B	A				
	01	00B30	15D9D3D5	A				
	01	00B31	D97EC3D6	A				
	01	00B32	D440C7C5	A				
	C1	00B33	C1D940D9	A				
	01	00B34	C5C3C5C9	A				
	01	00B35	E5C5D940	A				
	01	00B36	D3C9D5C5	A				
	C1	00B37	40D5E4D4	A				
	01	00B38	C2C5D94B	A				
	C1	00B39	15E7D3D5	A				
	01	00B3A	D97EC3D6	A				
	C1	00B3B	D440C7C5	A				
	01	00B3C	C1D940E3	A				
	01	00B3D	D9C1D5E2	A				
	01	00B3E	D4C9E3E3	A				
	01	00B3F	C5D940D3	A				
	01	00B40	C9D5C540	A				
	C1	00B41	D5E4D4C2	A				
	01	00B42	C5D94B15	A				
	01	00B43	C3D6C3C1	A				
	01	00B44	7EC3D6D4	A				
	01	00B45	40C7C5C1	A				
	01	00B46	D940C3D6	A				
	01	00B47	D5E3D9D6	A				
	01	00B48	D3D3C5D9	A				
	01	00B49	40C1C4C4	A				
	01	00B4A	D9C5E2E2	A				
	01	00B4B	4B15D7D6	A				
	01	00B4C	D5407E05	A				
	01	00B4D	E4D4C2C5	A				
	01	00B4E	D940D6C6	A				
	01	00B4F	40D4C9D5	A				
	01	00B50	E4E3C5E2	A				
	01	00B51	40E3C8C5	A				
	01	00B52	40D7C5D9	A				
	01	00B53	C9D7C8C5	A				
	01	00B54	D9C1D3E2	A				
	C1	00B55	40E6C9D3	A				
	01	00B56	D340C2C5	A				
	C1	00B57	40D9E4D5	A				
	01	00B58	D5C9D5C7	A				
	01	00B59	4B15D7D6	A				
	01	00B5A	C6C67E05	A				
	C1	00B5B	E4D4C2C5	A				
	01	00B5C	D940D6C6	A				
	01	00B5D	40D4C9D5	A				
	01	00B5E	E4E3C5E2	A				
	01	00B5F	40E3C8C5	A				
	C1	00B60	40D7C5D9	A				
	01	00B61	C9D7C8C5	A				
	C1	00B62	D9C1D3E2	A				
	01	00B63	40E6C9D3	A				
	01	00B64	D340C2C5	A				
	01	00B65	40C9C4D3	A				
	01	00B66	C54B7F40	A				
2331	01	00B67	1515C4C5	A	CIMSG	TEXT	'NNDEPRESS CONSOLE INTERRUPT TO ALTER TEST STRATEGY	
	01	00B68	C7D9C5E2	A				
	01	00B69	E240C3D6	A				
	01	00B6A	D5E2D6D3	A				
	01	00B6B	C540C9D5	A				
	01	00B6C	E3C5D9D9	A				
	01	00B6D	E4D7E340	A				

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL ORIGIN	LABEL	OPERATION	OPERAND	COMMENTS							
	C1	00B6F	E3D640C1	A											
	C1	00B6F	D3E3C5D9	A											
	C1	00E70	40E3C5F2	A											
	C1	00B71	E340E2E3	A											
	01	00B72	C9C1F3C5	A											
2332	01	00B73	C7E87F40	A											
	01	00B74	1515E3D6	A	CONTINUE TEXT			INNTB CONTINUE TYPE T . TO RESTART DEPRESS RESET. I							
	01	00B75	40C3D6D5	A											
	01	00B76	E3C9D5E4	A											
	01	00B77	C540E3E8	A											
	01	00B78	D7C540E3	A											
	01	00B79	404B40E3	A											
	01	00B7A	D640D9C5	A											
	C1	00B7B	E2E3C1D9	A											
	C1	00B7C	E340C4C5	A											
	01	00B7D	D7D9C5E2	A											
	01	00B7E	E240D9C5	A											
	01	00B7F	E2C5F34B	A											
	01	00B80	7F404040	A											
2333					L0GMSG	TEXT		INNERROR COUNTERSNI							
2334					,I	RAD1	RAD2	MT1	MT2	LP	TY	CR	CP	PT	I
2335	01	00B81	1515C5D9	A	,I	CBC	NOINT								
	01	00B82	D9D6D940	A											
	01	00B83	C3D6E4D5	A											
	01	00B84	E3C5D9E2	A											
	01	00B85	1540D9C1	A											
	01	00B86	C4F14040	A											
	01	00B87	40D9C1C4	A											
	01	00B88	F2404040	A											
	01	00B89	D4E3F140	A											
	01	00B8A	404040D4	A											
	01	00B8B	E3F24040	A											
	01	00B8C	404040D3	A											
	01	00B8D	D7404040	A											
	01	00B8E	4040E3E8	A											
	01	00B8F	40404040	A											
	01	00B90	40C3D940	A											
	01	00B91	40404040	A											
	01	00B92	C3D74040	A											
	01	00B93	404040D7	A											
	01	00B94	E3404040	A											
	01	00B95	40C3D6C3	A											
	01	00B96	404040D5	A											
	01	00B97	D6C9D5E3	A											
	01	00B98	7F404040	A											
2336					MEMMSG	TEXT		INMEMORY BUFFERS(1ST 5 DIGITS=WORD ADD., 6TH DIGIT=)							
2337					,I	BYTE POSITION)NI									
2338					,I	CPU	RAD1	RAD2	MT1	MT2	LP	TY	CR	CP	I
2339	01	00B99	1515D4C5	A	,I	PT	CBC								
	01	00B9A	D4D6D9E8	A											
	01	00B9B	40C2E4C6	A											
	01	00B9C	C6C5D9E2	A											
	01	00B9D	4DF1E2E3	A											
	01	00B9E	40F540C4	A											
	01	00B9F	C9C7C9E3	A											
	01	00BA0	E27EE6D6	A											
	01	00BA1	D9C440C1	A											
	01	00BA2	C4C44E6B	A											
	01	00BA3	40F6E3C8	A											
	01	00BA4	40C4C9C7	A											
	01	00BA5	C9E37EC2	A											
	01	00BA6	E8E3C540	A											
	01	00BA7	D7D6E2C9	A											
	01	00BA8	E3C9D6D5	A											
	01	00BA9	5D1540C3	A											
	01	00BAA	D7E44040	A											
	01	00BAH	4040D9C1	A											
	01	00BAC	C4F14040	A											
	01	00BAD	40D9C1C4	A											
	01	00BAE	F2404040	A											
	01	00BAF	E4E3F140	A											

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
	01	00B80	404040D4	A				
	01	00B81	E3F24040	A				
	01	00B82	404040D3	A				
	01	00B83	D7404040	A				
	01	00B84	4040E3E8	A				
	01	00B85	40404040	A				
	01	00B86	40C3D940	A				
	01	00B87	40404040	A				
	01	00B88	C3D74040	A				
	01	00B89	404040D7	A				
	01	00B8A	E3404040	A				
	01	00B8H	40C3D6C3	A				
	01	00B8C	7F404040	A				
2340						ROUND 8		
2341	01	00B8E	05002F01	N	MESS	DATA	BA(TEXT)+X'0500CC01'	
2342	01	00B8F	00000024	A		DATA	36	
2343	01	00B90	2515C8E4	A	TEXT	TEXTC	'NHURRAY YOU MADE IT LETS TRY AGAIN '	
	01	00BC1	D9D9C1E8	A				
	01	00BC2	40E8D6E4	A				
	01	00BC3	40D4C1C4	A				
	01	00BC4	C540C9E3	A				
	01	00BC5	404040D3	A				
	01	00BC6	C5E3E240	A				
	01	00BC7	E3D9E840	A				
	01	00BC8	C1C7C1C9	A				
	01	00BC9	D5404040	A				
2344						ROUND 8		
2345	01	00BCA	05002F31	N	HMESS	DATA	BA(HTEXT)+X'0500CC01'	
2346	01	00BCB	C0000057	A		DATA	87	
2347	01	00BCC	3215C5C9	A	HTEXT	TEXTC	'NEITHER ONE OF THE FIRST THREE BYTES OF THE BLOCK '	
	01	00BCD	E3C8C5D9	A				
	01	00BCE	40D6D5C5	A				
	01	00BCF	40D6C640	A				
	01	00BD0	E3C8C540	A				
	01	00BD1	C6C9D9E2	A				
	01	00BD2	E340E3C8	A				
	01	00BD3	D9C5C540	A				
	01	00BD4	C2E8E3C5	A				
	01	00BD5	E240D6C6	A				
	01	00BD6	40E3C8C5	A				
	01	00BD7	40C2D3D6	A				
	01	00BD8	C3D24040	A				
2348	01	00BD9	15C9E240	A	TEXT		'NIS WRONG BR THE MEMORY POWER IS OFF.'	
	01	00BDA	E6D9D6D5	A				
	01	00BDB	C740D6D9	A				
	01	00BDC	40E3C8C5	A				
	01	00BDD	40D4C5D4	A				
	01	00BDE	D6D9E840	A				
	01	00BDF	D7D6E6C5	A				
	01	00BE0	D940C9E2	A				
	01	00BE1	40D6C6C6	A				
	01	00BE2	4B404040	A				
2349	01	00BE3	00020000	A	BOMB	DATA	X'200001'	
2350						ROUND 8		
2351						PAGE		
2352	01	00BE4	00003360	A	CBSTADD	DATA	BA(LASTONE)	
2353	01	00BE5	0000FBFF	A	CBENADD	DATA	X'FBFF'	
2354	01	00BE6	00000400	A	BLSIZE	DATA	X'400'	
2355	01	00BE7	00000004	A	SECTOR	DATA	4	
2356	01	00BE8	00000004	A	SECTOR1	DATA	4	
2357	01	00BE9	00000000	A	STTR1	DATA	0	
2358	01	00BEA	000007FB	A	ENTR1	DATA	X'7FB'	
2359	01	00BEB	00000000	A	STTR2	DATA	0	
2360	01	00BEC	000007FB	A	ENTR2	DATA	X'7FB'	
2361	01	00BED	00000400	A	BLC1	DATA	X'400'	
2362	01	00BEE	00000400	A	BLC2	DATA	X'400'	
2363	01	00BEF	00000000	A	RLINE	DATA	0	
2364	01	00BF0	00000000	A	TLINE	DATA	0	
2365	01	00BF1	00000000	A	CRC	DATA	0	
2366	01	00BF2	00000001	A	PRNC	DATA	1	
2367	01	00BF3	00000005	A	PRFFC	DATA	5	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2368	01	00BF4	00000000	A	SSCUTR1	DATA	0	
2369	01	00BF5	00000000	A	SSCUTR2	DATA	0	
2370	01	00BF6	00000000	A	CUBLC1	DATA	0	
2371	01	00BF7	00000002	A	CUBLC2	DATA	2	
2372	01	00BF8	00000000	A	CUTR1	DATA	0	
2373	01	00BF9	00000000	A	CUTR2	DATA	0	
2374						BOUND	8	
2375	01	00BFA	000010F0	A	RAD1X	DATA	X'10F0'	
2376	01	00BFB	000011F0	A	RAD2X	DATA	X'11F0'	
2377	01	00BFC	000010F0	A	RAD1ADD	DATA	X'10F0'	
2378	01	00BFD	000011F0	A	RAD2ADD	DATA	X'11F0'	
2379	01	00BFE	00000080	A	MAG1ADD	DATA	X'80'	
2380	01	00BFF	00000180	A	MAG2ADD	DATA	X'180'	
2381	01	00C00	00000002	A	LP1ADD	DATA	2	
2382	01	00C01	00000001	A	TY1ADD	DATA	1	
2383	01	00C02	00000003	A	CR1ADD	DATA	3	
2384	01	00C03	00000004	A	CP1ADD	DATA	4	
2385	01	00C04	00000005	A	PT1ADD	DATA	5	
2386	01	00C05	00000006	A	CC1ADD	DATA	6	
2387	01	00C06	00000001	A	MESADD	DATA	1	
2388	01	00C07	00000000	A	RAD1L0G	DATA	0	
2389	01	00C08	00000000	A	RAD2L0G	DATA	0	
2390	01	00C09	00000000	A	MAG1L0G	DATA	0	
2391	01	00C0A	00000000	A	MAG2L0G	DATA	0	
2392	01	00C0B	00000000	A	LP1L0G	DATA	0	
2393	01	00C0C	00000000	A	TY1L0G	DATA	0	
2394	01	00C0D	00000000	A	CR1L0G	DATA	0	
2395	01	00C0E	00000000	A	CP1L0G	DATA	0	
2396	01	00C0F	00000000	A	PT1L0G	DATA	0	
2397	01	00C10	00000000	A	CC1L0G	DATA	0	
2398	01	00C11	00000000	A	NOINTL0G	DATA	0	
2399	01	00C12	000FFFFFF	A	CPUBL	DATA	X'FFFFFF'	
2400	01	00C13	000FFFFFF	A	RAD1BL	DATA	X'FFFFFF'	
2401	01	00C14	000FFFFFF	A	RAD2BL	DATA	X'FFFFFF'	
2402	01	00C15	000FFFFFF	A	MAG1BL	DATA	X'FFFFFF'	
2403	01	00C16	000FFFFFF	A	MAG2BL	DATA	X'FFFFFF'	
2404	01	00C17	000FFFFFF	A	LP1BL	DATA	X'FFFFFF'	
2405	01	00C18	000FFFFFF	A	TY1BL	DATA	X'FFFFFF'	
2406	01	00C19	000FFFFFF	A	TY2BL	DATA	X'FFFFFF'	
2407	01	00C1A	0003FFFF	A	CR1BL	DATA	X'3FFFF'	
2408	01	00C1B	0003FFFF	A	CP1BL	DATA	X'3FFFF'	
2409	01	00C1C	0003FFFF	A	PT1BL	DATA	X'3FFFF'	
2410	01	00C1D	0003FFFF	A	CC1BL	DATA	X'3FFFF'	
2411	01	00C1E	0003FFFF	A	CC2BL	DATA	X'3FFFF'	
2412	01	00C1F	00000050	A	TYC	DATA	80	
2413	01	00C20	00000000	A	ENDCR	DATA	0	
2414						PAGE		
2415						BOUND	8	
2416	01	00C22	06003098	N	TTYIN	DATA	X'6000000'+RA(CHAR)	
2417	01	00C23	08000001	A		DATA	X'80000001'	
2418						BOUND	8	
2419	01	00C24	05003098	N	TTYOUT	DATA	X'5000000'+BA(CHAR)	
2420	01	00C25	08000001	A		DATA	X'80000001'	
2421	01	00C26	00000000	A	CHAR	PZE		
2422						BOUND	8	
2423	01	00C28	00000000	A	RESTRT	PZE		
2424	01	00C29	00000000	A		PZE		
2425						BOUND	8	
2426	01	00C2A	000000F9	A	OT09	DATA	X'F9'	
2427	01	00C2B	000000F0	A		DATA	X'F0'	
2428						BOUND	8	
2429	01	00C2C	000000C6	A	AT0F	DATA	X'C6'	
2430	01	00C2D	000000C1	A		DATA	X'C1'	
2431	01	00C2E	12CC0000	A	LD	DATA	X'12CC0000'	
2432	01	00C2F	15CC0000	A	STD	DATA	X'15CC0000'	
2433	01	00C30	08000000	A	BRKRLS	DATA	X'80000000'	
2434						BOUND	8	
2435	01	00C32			REGISTER	RES	16	
2436	01	00C42			REG	RES	16	
2437	01	00C52			WK	RES	16	
2438	01	00C62			WKO	RES	16	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2439						BOUND	8	
2440	01	00C72	33000000	A	REWIND	DATA	X'33000000'	
2441	01	00C73	00000000	A		DATA	0	
2442						BOUND	8	
2443	01	00C74	13000000	A	REWINDI	DATA	X'13000000'	
2444	01	00C75	00000000	A		DATA	0	
2445						BOUND	8	
2446	01	00C76	03002FE2	N	SEEK1	DATA	BA(CUTR1)+X'3000002'	
2447	01	00C77	2E000002	A		DATA	X'2E000002'	
2448	01	00C78	00000000	A	RCMD1	DATA	0	
2449	01	00C79	1E000400	A	RCMD2	DATA	X'1E000400'	
2450						BOUND	8	
2451	01	00C7A	03002FE6	N	SEEK2	DATA	BA(CUTR2)+X'3000002'	
2452	01	00C7B	2E000002	A		DATA	X'2E000002'	
2453	01	00C7C	00000000	A	RCMD3	DATA	0	
2454	01	00C7D	1E000400	A	RCMD4	DATA	X'1E000400'	
2455						BOUND	8	
2456	01	00C7E	00000000	A	MCMD1	DATA	0	
2457	01	00C7F	1E000400	A	MCMD2	DATA	X'1E000400'	
2458						BOUND	8	
2459	01	00C80	00000000	A	MCMD3	DATA	0	
2460	01	00C81	1E000400	A	MCMD4	DATA	X'1E000400'	
2461						BOUND	8	
2462	01	00C82	01000000	A	LPCMD1	DATA	X'10000000'	
2463	01	00C83	1E000400	A	LPCMD2	DATA	X'1E000400'	
2464						BOUND	8	
2465	01	00C84	00000000	A	TYCMD1	DATA	0	
2466	01	00C85	1E000400	A	TYCMD2	DATA	X'1E000400'	
2467						BOUND	8	
2468	01	00C86	00000000	A	TYCMD3	DATA	0	
2469	01	00C87	1E000400	A	TYCMD4	DATA	X'1E000400'	
2470						BOUND	8	
2471	01	00C88	0A000000	A	CRCMD1	DATA	X'A0000000'	
2472	01	00C89	3E000078	A		DATA	X'3E000078'	
2473						BOUND	8	
2474	01	00C8A	09000000	A	CPCMD1	DATA	X'90000000'	
2475	01	00C8B	2E000078	A		DATA	X'2E000078'	
2476	01	00C8C	08000645	N		DATA	DA(CPCMD1)+X'8000000'	
2477	01	00C8D	00000000	A		DATA	0	
2478	01	00C8E	00000000	A		DATA	0	
2479	01	00C8F	10000000	A		DATA	X'10000000'	
2480						BOUND	8	
2481	01	00C90	4B000000	A	READR	DATA	X'4B000000'	
2482	01	00C91	21000000	A		DATA	X'21000000'	
2483	01	00C92	63000000	A		DATA	X'63000000'	
2484	01	00C93	00000000	A		DATA	0	
2485						BOUND	8	
2486	01	00C94	01000000	A	LDPCMD1	DATA	X'10000000'	
2487	01	00C95	21000010	A		DATA	X'21000010'	
2488	01	00C96	00000000	A	PCMD1	DATA	0	
2489	01	00C97	00000000	A	PCMD2	DATA	0	
2490						BOUND	8	
2491	01	00C98	00000000	A	CCMD1	DATA	0	
2492	01	00C99	80000001	A	CCMD2	DATA	X'80000001'	
2493	01	00C9A	00003204	A		DATA	BA(CDATA)	
2494	01	00C9B	10000001	A		DATA	X'10000001'	
2495	01	00C9C	00000000	A	SADD	DATA	0	
2496	01	00C9D	00000000	A	BLCS	DATA	0	
2497	01	00C9E	00000000	A	SSTR	DATA	0	
2498	01	00C9F	00000000	A	SETTR	DATA	0	
2499	01	00CA0	00000000	A	SSECTOR	DATA	0	
2500	01	00CA1	00000000	A	SRADDEN	DATA	0	
2501	01	00CA2	00000000	A	SRADHIS	DATA	0	
2502	01	00CA3	00000000	A	SLBG	DATA	0	
2503	01	00CA4	00000000	A	PRDERS	DATA	0	
2504	01	00CA5	00000000	A	CSTUP	DATA	0	
2505	01	00CA6	00000000	A	WS	DATA	0	
2506	01	00CA7	00000000	A	RAD1DEN	DATA	0	
2507	01	00CA8	00000000	A	RAD2DEN	DATA	0	
2508	01	00CA9	00000000	A	RAD1SP	DATA	0	
2509	01	00CAA	00000000	A	RAD2SP	DATA	0	

LINE NO.	MEM PROT KEY	MEMORY ADDRESS	MEMORY CONTENTS	ABS OR REL OR I G	LABEL	OPERATION	OPERAND	COMMENTS
2510	01	00CAB	00000000	A	TEMP1	DATA	0	
2511	01	00CAC	00000000	A	TEMP2	DATA	0	
2512	01	00CAD	00000000	A	TEMP3	DATA	0	
2513	01	00CAE	00000000	A	TEMP4	DATA	0	
2514	01	00CAF	00000050	A	CYC	DATA	80	
2515	01	00CB0	00000000	A	CYCA	DATA	0	
2516	01	00CB1	00000000	A	TPBINT	DATA	0	
2517	01	00CB2	30000000	A	TDATA1	DATA	X'30000000'	
2518	01	00CB3	0000009C	A	SAVE5	DATA	156	
2519	01	00CB4	00000000	A	SAVET	DATA	0	
2520	01	00CB5	00000000	A	CDATA	DATA	0	
2521	01	00CB6	00000000	A	RT	DATA	0	
2522	01	00CB7	00000000	A	C1	DATA	0	
2523	01	00CB8	00000000	A	C2	DATA	0	
2524	01	00CB9	00000000	A	C3	DATA	0	
2525	01	00CBA	00000000	A	C4	DATA	0	
2526	01	00CBB	00000000	A	C5	DATA	0	
2527	01	00CBC	00000000	A	C6	DATA	0	
2528	01	00CBD	00000000	A	C7	DATA	0	
2529	01	00CBE	00000000	A	C8	DATA	0	
2530	01	00CBF	00000000	A	C9	DATA	0	
2531	01	00CC0	00000000	A	ORDERS1	DATA	0	
2532	01	00CC1	00010000	A	TDATA	DATA	X'10000'	
2533	01	00CC2	CF000686		RIBINT	XPSD,C	RIB	
2534	01	00CC3	33F00CB6		RTINT	MTW,15	RT	
2535	01	00CC4	0F000608		TRAP	XPSD,0	ENTRAP	
2536	01	00CC5	0F000252		I0INTEP	XPSD,0	AIB	
2537	01	00CC6	0F0002F2		C0INTEP	XPSD,0	C0NINT	
2538	01	00CC7	0F00068A		EXINT	XPSD,0	EIB	
2539	01	00CC8	000017F0	A	X17F0	DATA	X'17F0'	
2540	01	00CC9	BF6F07FF	A	DATA3	DATA	X'BF6F07FF'	
2541	01	00CCA	003C0000	A	DATA4	DATA	X'3C0000'	
2542	01	00CCB	00000000	A	DATA5	DATA	0	
2543	01	00CCC	0E000000	A	DATA6	DATA	X'E000000'	
2544	01	00CCD	01000000	A	DATA7	DATA	X'1000000'	
2545	01	00CCF	00000001	A	DATA8	DATA	1	
2546	01	00CCF	80000000	A	DATA9	DATA	X'80000000'	
2547	01	00CD0	1F000000	A	DATA10	DATA	X'1F000000'	
2548	01	00CD1	02000000	A	DATAA	DATA	X'2000000'	
2549	01	00CD2	FF000000	A	DATAB	DATA	X'FF000000'	
2550	01	00CD3	00000008	A	DATAC	DATA	8	
2551	01	00CD4	00000046	A	DATAHI	DATA	70	
2552	01	00CD5	03000000	A	DATAD	DATA	X'3000000'	
2553	01	00CD6	03000002	A	DATAE	DATA	X'3000002'	
2554	01	00CD7	6800013A		DATAF	R	CLEAR	
2555		01 00CD8			LASTONE	FQU	\$	
2556		01 0013A			FND		CLEAR	

CONTROL SECTION SUMMARY: 01 00CD8 PT 0 02 00CD0 PT 0

XDS 901648

SECTION II
CONCORDANCE LISTING

SIGMA 5/7 STD ALONE SYS.EXRCR(SWAP 3.5) 705680=11/81000
 ABSTRACT

	316/DATA	2249=TEXT					
AGAIN	671=STB	679/B					
AIO	788=DATA	865/LPSD	1133/STW	1141/STW	1149/STW	1161/STW	1169/STW
	1177/STW	1185/STW	1193/STW	1201/STW	1209/STW	1448/LPSD	1518/LPSD
	1562/LPSD	1575/LPSD	1610/LPSD	1623/LPSD	1642/LPSD	1674/LPSD	1702/LPSD
	1726/LPSD	1742/LPSD	1793/LPSD	1833/LPSD	2536/XPBD		
AIO?	789=DATA	1126/LW	1127/STW				
ALARM	837/B	842=WD	911/BCR				
ARMINT	613/B	614=LI					
ASTRIK	288/BCR	326=STW					
ATOF	266/CLM	2429=DATA					
AUTO	1057/B	1921/DATA	1923=8AL				
BA	300/DATA	316/DATA	337/LI	346/LI	505/DATA	508/DATA	510/DATA
	520/DATA	522/DATA	532/DATA	534/DATA	617/DATA	758/DATA	785/DATA
	821/DATA	840/DATA	958/DATA	968/DATA	1749/DATA	1913/DATA	1916/DATA
	2341/DATA	2345/DATA	2352/DATA	2416/DATA	2419/DATA	2446/DATA	2451/DATA
	2493/DATA						
BC1	1387/B	1391=LW					
BC2	1457/B	1461=LW					
BLCS	1068/STW	1080/STW	1329/CW	2496=DATA			
BLC1	1079/LW	1557/CW	2087/STW	2132/STW	2176/STW	2361=DATA	
BLC2	1067/LW	1605/CW	2089/STW	2133/STW	2177/STW	2362=DATA	
BLSIZE	549/AW	630/AW	688/AW	698/AW	918/AW	1225/LW	1273/AW
	1282/AW	1303/LW	1343/AW	1347/AW	1366/AW	1367/AW	1392/AW
	1462/AW	1543/AW	1591/AW	1625/AW	1644/LW	1689/AW	1705/LW
	1722/AW	1731/LW	1773/AW	1810/LW	1853/AW	1898/AW	2066/LW
	2074/STW	2121/STW	2163/STW	2354=DATA			
BOMB	655/AND	1927/EOR	2349=DATA				
BRKRLS	478/CW	2433=DATA					
BYTEGEN	1231/XPBD	1290/XPBD	1309/XPBD	1334/XPBD	1357=DATA	1378/LPSD	
CCLT	1881/BE	1892=LW					
CCMD1	1830/STW	1831/LI	1838/LS	1848/MTW	2491=DATA		
CCMD2	2492=DATA						
CCX	907/B	1831=LI	1849/B				
CC1	814/BCR	1834=LI					
CC1ADD	813/CS	862/CS	1029/HI0*	1794/HI0*	1832/8I0*	2386=DATA	
CC1BL	576/STW	941/CW	1795/LW	1824/LW	1828/STW	1839/LW	1851/LW
	1852/LW	2110/STW	2154/STW	2198/STW	2241/STW	2410=DATA	
CC1ER	863/BCR	906=MTW					
CC1L0G	906/MTW	2397=DATA					
CC1W	1210/B	1794=HI0					
CC2BL							

	577/STW 1892/LW 2242/STW	943/CW 1896/LW 2411-DATA	1797/LW 1897/LW	1819/LW 1899/STW	1823/STW 2111/STW	1850/LW 2155/STW	1882/AW 2199/STW
CDATA	2492/DATA	2520-DATA					
CLAR	474/STW	481/LR	2416/DATA	2419/DATA	2421-PZF		
CLINSE	617/DATA	2331-TEXT					
CK	642-CR	653/RNE					
CKBLTAR	819-CW	840/R					
CKMEM	612/R	620-LPSD	657/RP	684/R	782/R	1279/LI	1353/LI
CKMID	730/LPSD	732-DATA					
CLCC	1854-LR	1862/R					
CLFAR	500-LW	1757/R	1914/RCP	1917/RCP	2554/R	2556/END	
CLINH	632/LPSD	635-DATA					
CLRML	685-CW	1657/RAL	1659/RAL	1704/RAL	1759/RAL	1796/RAL	1798/RAL
CLMEM	333/PZF	542-LD					
CMS	551-STW	554/RCP					
CSC	1801/XD*	1804/XD*	1808/XD*	1847/XD*	1871/XD*	1887/XD*	2365-DATA
CPFAADD	547/LW 2069/STW 2353-DATA	685/CW 2113/LW	696/CW 2116/STW	945/CW 2158/LW	1272/LW 2161/STW	1346/LW 2204/LW	2067/AW 2206/STW
CBINTEP	582/LW	2537-XPSD					
CBMALUF	320-LI	323/RDR					
COMMA	304-AI	324/RCP					
CBMHAS	278/RCP	319-LW					
CBNTMSG	958/DATA	2272-TEXT					
CBNINT	951-DATA	1217/LPSD	1280/STW	1354/STW	1931/STD	1972/LPSD	2537/XPSD
CBNINT2	952-DATA						
CBNMSG	957-XPSD	969/RCP					
CBNMSG1	510/DATA	2298-TEXT					
CBNMSG2	522/DATA	2309-TEXT					
CBNMSG3	534/DATA	2315-TEXT					
CBNTINUF	840/DATA	2332-TEXT					
CBNXMSG	965/RCP	967-XPSD					
CBN1MSG	506/RCP	509-XPSD					
CBN1XMSG	507-XPSD	517/RCP					
CBN2MSG	518/RCP	521-XPSD					
CBN2XMSG	519-XPSD	529/RCP					
CBN3MSG	530/RCP	533-XPSD					

CON3XMSG	531=XPSD	541/BCR					
COSTADD	524/DATA 1345/LW 1538/AW 2070/LW 2352=DATA	527/DATA 1362/LW 1582/AW 2072/STW	546/LW 1385/AW 1586/AW 2117/LW	948/LW 1389/AW 1628/AW 2119/STW	1229/AW 1455/AW 1652/AW 2157/MTW	1271/LW 1459/AW 1766/AW 2201/LW	1307/AW 1534/AW 1770/AW 2203/STW
CPABORT	1733/BL	1742=LPSD					
CPCMD1	1736/LS	1739/STW	1740/LI	2474=DATA	2476/DATA		
CPUHL	341/LW 742/CS 2399=DATA	565/STW 759/LW	624/LW 919/CW	628/STW 2099/STW	646/LW 2143/STW	659/LW 2187/STW	726/AW 2230/STW
CPX	903/B	1740=LI					
CP1	810/BCR	1194/B	1727=LW				
CP1ADD	809/CS	858/CS	1017/H10*	1741/S10*	2384=DATA		
CP1BL	574/STW 2239/STW	937/CW 2408=DATA	1727/LW	1737/STW	2108/STW	2152/STW	2196/STW
CP1ER	859/BCR	902=MTW					
CP1L0G	902/MTW	2395=DATA					
CRCMD1	1717/LS	1720/STW	1723/STW	1724/LI	2471=DATA		
CRX	901/B	1724=LI					
CR1	808/BCR	1711=LW					
CR1ADD	807/CS	856/CS	1011/H10*	1725/S10*	2383=DATA		
CR1BL	573/STW 2195/STW	935/CW 2238/STW	1703/LW 2407=DATA	1711/LW	1718/STW	2107/STW	2151/STW
CR1ER	857/BCR	900=MTW					
CR1L0G	900/MTW	2394=DATA					
CR1W	1186/B	1703=LW					
CSDEVS	1107/BE	1126=LW					
CSTUP	1128/LW 1187/LW 1783/LW 2030/LW	1135/LW 1195/LW 1985/STH 2034/STH	1143/LW 1203/LW 1986/STH 2036/STH	1153/LW 1404/LW 2012/STH 2044/STH	1163/LW 1474/LW 2014/STH 2062/STH	1171/LW 1563/LW 2022/STH 2504=DATA	1179/LW 1611/LW 2028/STH
CUBLC1	1302/STW 1572/STW	1326/LW 2370=DATA	1328/STW	1341/STW	1541/STW	1555/LW	1559/STW
CURLC2	1589/STW	1603/LW	1607/STW	1620/STW	2371=DATA		
CUTR1	556/STW 1439/STW	868/STW 1447/STW	1224/STW 2372=DATA	1249/LW 2446/DATA	1268/STW	1395/STW	1414/LW
CUTR2	557/STW 2451/DATA	872/STW	1465/STW	1484/LW	1509/STW	1517/STW	2373=DATA
CYC	1811/CW	1814/LW	1817/LW	2514=DATA			
CYCA	1818/STW	1840/AW	1880/CW	2515=DATA			
CYCLE	1285/BAL	1441/BAL	1511/BAL	1520=CI			
CYLXIT							

C1	1521/HCR 593/STW 2522-DATA	1526-AI 1932/MTW	1933/LW	2091/STW	2135/STW	2179/STW	2208/STW
C2	595/STW 2523-DATA	1936/MTW	1937/LW	2093/STW	2137/STW	2181/STW	2210/STW
C3	597/STW 2139/STW	601/AW 2183/STW	604/AW 2212/STW	607/AW 2216/AW	1940/MTW 2219/AW	1941/LW 2222/AW	2095/STW 2524-DATA
C4	602/STW	1944/MTW	1945/LW	2223/STW	2525-DATA		
C5	599/STW	1948/MTW	1949/LW	2214/STW	2526-DATA		
C6	602/STW	1952/MTW	1953/LW	2217/STW	2527-DATA		
C7	605/STW	1956/MTW	1957/LW	2220/STW	2528-DATA		
C8	610/STW	1960/MTW	1961/LW	2064/STW	2529-DATA		
C9	612/STW	1964/MTW	1965/LW	2049/STW	2530-DATA		
DA	260/LI 1297/LI 1573/LI 1740/LI	473/LI 1310/LI 1608/LI 1791/LI	561/LI 1318/LI 1621/LI 1831/LI	749/LI 1336/LI 1640/LI 2225/LI	879/LI 1412/LI 1672/LI 2476/DATA	890/LI 1482/LI 1700/LI	1232/LI 1560/LI 1724/LI
DATAA	1388/LW	1458/LW	1537/LW	1585/LW	1829/AW	2548-DATA	
DATAB	1400/LW 1715/LW	1470/LW 1734/LW	1549/LW 1779/LW	1597/LW 2549-DATA	1634/LW	1664/LW	1679/LW
DATAC	1266/CW	1431/CW	1501/CW	2550-DATA			
DATAD	1409/EER	1479/EER	1569/EER	1617/EER	1654/EER	1788/EER	2552-DATA
DATAE	2553-DATA						
DATAF	500/LW	558/LW	2554-H				
DATAHALT	648/BNE	718-STW					
DATAHI	1257/CW	1422/CW	1492/CW	2551-DATA			
DATAI	662/EER	672/EER	674/EER	716-DATA			
DATA10	1281/LW 1648/AW	1342/LW 1721/LW	1391/LW 1772/LW	1461/LW 2547-DATA	1542/LW	1590/LW	1624/LW
DATA2	676/CB	717-DATA					
DATA3	794/LW	2540-DATA					
DATA4	909/AND	2541-DATA					
DATA5	910/CW	2542-DATA					
DATA6	1226/AW	1304/AW	2543-DATA				
DATA7	875/LW 1581/LW	886/LW 1627/LW	1228/LW 1651/LW	1306/LW 1765/LW	1384/LW 1769/LW	1454/LW 2544-DATA	1533/LW
DATA8	1247/EER	1332/EER	2545-DATA				
DATA9	972/AND 1014/AND 1129/AND 1189/AND 1451/AND 1785/AND	978/AND 1020/AND 1137/AND 1197/AND 1476/AND 1992/LW	984/AND 1026/AND 1145/AND 1205/AND 1530/AND 2546-DATA	990/AND 1035/AND 1155/AND 1239/AND 1565/AND	996/AND 1039/AND 1165/AND 1315/AND 1578/AND	1002/AND 1043/AND 1173/AND 1381/AND 1613/AND	1008/AND 1047/AND 1181/AND 1406/AND 1762/AND

DLAY	1234=LI	1241/BE						
E10	1866/STW	1875=DATA	1891/LPSD	2538/XPSD				
ENBYTEG	1270/BCR	1290=XPSD						
ENDCR	725/LW	1710/STW	2413=DATA					
ENTRAP	1744=DATA	2535/XPSD						
ENTR1	1115/LW 2170/STW	1435/CW 2358=DATA	2075/LW	2078/STW	2125/LW	2127/STW	2167/LW	
ENTR2	1093/LW 2174/STW	1505/CW 2360=DATA	2079/LW	2082/STW	2128/LW	2130/STW	2171/LW	
EP1	796=BCR							
EP2	845=BCR							
ERRMSG	758=DATA	2290=TEXT						
EXINT	584/LW	2538=XPSD						
EXIT	308=LI	331/BCR						
FINISH	1947/BE	2201=LW						
FORMAT	342/BAL	465=S	764/BAL	767/BAL	770/BAL			
GETHL	627/XPSD 1633/XPSD 1827/XPSD	914=DATA 1663/XPSD 1895/XPSD	947/LPSD 1678/XPSD	1399/XPSD 1714/XPSD	1469/XPSD 1730/XPSD	1548/XPSD 1778/XPSD	1596/XPSD 1822/XPSD	
GETCC1	1824=LW	1865/LI						
GETCW	338/BCR	347=LI						
GREATER	390/BCS	394=BDR						
HALT	744/LPSD	752/LPSD	754=DATA					
HALT1	780/BCR	784=XPSD						
HALT2	777=XPSD	786/B						
HELP	644/B	743/BE	745=LPSD					
HMESS	749/LI	2345=DATA						
HTEXT	2345=DATA	2347=TEXTC						
IN	1437/B	1447=STW						
INCST	1250=AW	1258/BGE	1267/BGE					
INC5	1374/BE	1377=AI						
INHIB	620/LPSD	622=DATA						
INIT	560/B	561=LI						
INLUP	260=LI	263/BCR	271/BCR	284/BCR	286/BCR	301/PCR	317/BCR	
INPUT	251=PZE 538/XPSD	306/MTW 777/XPSD	307/MTW 832/XPSD	313/LPSD 962/XPSD	330/STD	514/XPSD	526/XPSD	
INSTART	256=BAL	358/BCR						
IN1	1507/B	1517=STW						

IBERRMSG								
IBHALT	821/DATA	2287-TEXT						
IBHALT1	820-XPSD	912/H						
IBHALT2	835/HCR	839-XPSD						
IBINTEP	832-XPSD	841/H						
LASTONE	580/LW	2536-XPSD						
LCYC	2352/DATA	2555-EQU						
LD	1812/BL	1813/BNE	1816/R	1817-LW				
LDPCMD1	378/AW	2431-DATA						
LOAD	1791/LI	2486-DATA						
LOG	379/STW	382-PZE	405/HDR					
LOGMSG	298/HCR	336-LI						
LPCMD1	337/LI	2333-TEXT						
LPCMD2	1629/STW	1636/LS	1639/STW	1640/LI	2462-DATA			
LPW	1626/STW	2463-DATA						
LPX	1170/H	1624-LW						
LP1	897/H	1640-LI						
LP1ADD	804/HCR	1630-LW						
LP1HL	803/CS	852/CS	999/HI0*	1641/SI0*	2381-DATA			
LP1ER	570/STW	929/CW	1630/LW	1637/STW	2104/STW	2148/STW	2192/STW	
LP1LHG	2235/STW	2404-DATA						
MAGS	853/HCR	896-MTW						
MAG1	896/MTW	2392-DATA						
MAG1ADD	1069/XPSD	1081/XPSD	1293-DATA	1355/LPSD				
MAG1HL	800/HCR	1545-LW						
MAG1ER	562/SI0*	799/CS	848/CS	880/HI0*	881/SI0*	882/TI0*	987/HI0*	
MAG1LHG	1074/HI0*	1075/LW	1150/TI0*	1561/SI0*	1574/SI0*	2379-DATA		
MAG2	569/STW	925/CW	1545/LW	1552/STW	2102/STW	2146/STW	2190/STW	
MAG2ADD	2233/STW	2402-DATA						
MAG2ER	840/HCR	874-MTW						
MAG2LHG	874/MTW	1077/LI	2390-DATA					
MAG2HL	1152/H	1528-LW						
MAG2ER	802/HCR	1593-LW						
MAG2LHG	563/SI0*	801/CS	850/CS	891/HI0*	892/SI0*	893/TI0*	993/HI0*	
MAG2HL	1062/HI0*	1063/LW	1159/TI0*	1609/SI0*	1622/SI0*	2380-DATA		
MAG2ER	568/STW	927/CW	1593/LW	1600/STW	2103/STW	2147/STW	2191/STW	
MAG2LHG	2234/STW	2403-DATA						
MAG2ER	851/HCR	885-MTW						
MAG2LHG	885/MTW	1065/LI	2391-DATA					

MAG2W	1162/B	1576=LW					
MCMD1	876/AND 1551/LS	1308/STW 1554/STW	1310/LI 1560/LI	1331/LW 1568/LW	1333/STW 1570/STW	1535/STW 2456=DATA	1539/STW
MCMD2	1305/STW	1344/STW	1544/STW	2457=DATA			
MCMD3	887/AND 1618/STW	1583/STW 2459=DATA	1587/STW	1599/LS	1602/STW	1608/LI	1616/LW
MCMD4	1592/STW	2460=DATA					
MC1	1536/B	1540=LI					
MC2	1584/B	1588=LI					
MEMCLEAR	329/LD	333=PZE					
MEMLUP	341=LW	344/BDR					
MEMMSG	346/LI	2336=TEXT					
MEMBRY	290/BCR	340=LI					
MESADD	447/TI0* 2224/HI0*	449/HI0* 2226/SI0*	475/SI0* 2227/TI0*	476/TI0* 2327=DATA	494/SI0*	750/HI0*	751/SI0*
MESDEV	487=PZE	498/LPSD	544/XPSD	618/XPSD	781/XPSD	836/XPSD	970/XPSD
MESLUP	431=LB	437/BCR					
MESS	2225/LI	2341=DATA					
MESSA	745/LPSD	747=DATA					
MESSADD	348/STW	350=PZE					
MESSAGE	299/XPSD 504/XPSD 616/XPSD 1748/XPSD	315/XPSD 507/XPSD 757/XPSD 1912/XPSD	349/XPSD 509/XPSD 784/XPSD 1915/XPSD	424=PZF 519/XPSD 820/XPSD	430/LW* 521/XPSD 839/XPSD	438/MTW 531/XPSD 957/XPSD	441/LPSD 533/XPSD 967/XPSD
MESSXIT	493/BCR	497=LW					
MESXIT	434/BCR	436/BCR	438=MTW				
MOVEIT	1842/BGE	1850=LW					
MPBADD	354/STW	356=PZE					
MPBCW	353/STW	357=PZE					
MSR1	1423/BL	1427/BCR	1432/BL	1434=AW			
MSR2	1493/BL	1497/BCR	1502/BL	1504=AW			
MX1	878/BE	884/B	1560=LI				
MX2	889/BE	895/B	1608=LI				
NETR	1259/B	1262/BE	1268=STW				
NOAMSG	1749/DATA	2268=TEXT					
NOINTL0G	864/MTW	2398=DATA					
NOSTEAL	448/BCR	453=LCI					
NOBT64	400/BCS	405=BDR					
NTAG							

AXBL	701/BE	703/BE	705/BE	711-STR				
	918-AK 932/HCR	920/BCR 934/BCR	922/BCR 936/BCR	924/BCR 938/BCR	926/BCR 940/BCR	928/BCR 942/BCR	930/BCR 944/BCR	
AXBYTE	660-LB	683/RNE						
BLDCR	708/BE	710/BE	713-LI					
BPXIT	393/HCR	397/BCR	403/BCR	409-MTW				
BRDERS	960/DATA 1000/LW 1528/LW 1997/LW 2058/STW	963/DATA 1006/LW 1576/LW 2002/LW 2097/STW	971/LW 1012/LW 1760/LW 2007/LW 2141/STW	976/LW 1018/LW 1976/LW 2009/AND 2185/STW	982/LW 1024/LW 1981/LW 2016/LW 2503-DATA	988/LW 1379/LW 1984/STW 2024/LW	994/LW 1449/LW 1991/LW 2040/STW	
BRDERS1	1977/STW 2531-DATA	2039/LW	2051/LW	2055/LW	2096/LW	2140/LW	2184/LW	
BUT	1436/HCS	1438-LW						
BUTLUP	384-LI	394/RDR						
OUTPUT	355/XPSD 772/XPSD	372-PZE 827/XPSD	409/MTW 959/XPSD	412/LPSD 1752/XPSD	511/XPSD	523/XPSD	535/XPSD	
BUT1	1506/HCS	1508-LW						
PAGE	202/OPEN							
PAGE	202/OPEN	203-CNAME						
PASS2	1951/BE	2066-LW						
PASS3	1955/BE	2113-LW						
PASS4	1959/BE	2157-MTW						
PATTERN	658/BE	659-LW						
PCMD1	1767/STW	1771/STW	1781/LS	1790/STW	2488-DATA			
PCMD2	1774/STW	2489-DATA						
PC1	1768/H	1772-LW						
P8FF	1967/BE	2051-LW						
P8FFC	609/LW	2063/LW	2367-DATA					
P8N	1963/BE	2039-LW						
P8NC	611/LW	2046/LW	2366-DATA					
PRC	654-LW	728/RGF						
PRINT	296/BCR	351-S						
PTX	905/BE	1791-LI						
PT1	812/HCR	1775-LW						
PT1ADD	811/CS	860/CS	1023/HIP*	1792/SIA*	2385-DATA			
PT1HL	575/STW 2197/STW	939/CW 2240/STW	1758/LW 2409-DATA	1775/LW	1782/STW	2109/STW	2153/STW	
PT1ER	861/BCR	904-MTW						
PT1LRG	904/MTW	2396-DATA						

PT1W		1758=LW					
QUESTION	1202/R						
	282/BCR	315=XPSD					
RADS							
	1103/XPSD	1125/XPSD	1219=DATA	1287/LPSD			
RADSS	1223=LW	1289/BCR					
RADX1	869/R	1412=LI	1445/B				
RADX2	873/B	1482=LI	1515/B				
RAD1	796/BCR	1396=LW					
RAD1ADD							
	503/STD	512=DATA	515=DATA	542/LD	795/CS	844/CS	975/HI0*
	1108/HI0*	1124/STW	1413/SI0*	1440/LW	1443/HI0*	1444/STW	2377=DATA
RAD1BL	566/STW	921/CW	1396/LW	1403/STW	2100/STW	2144/STW	2188/STW
	2231/STW	2400=DATA					
RAD1DEN	1036/STW	1119/LW	1425/LW	2506=DATA			
RAD1ER	845/HCR	866=MTW					
RAD1LOG	336/LI	866/MTW	1111/LI	2388=DATA			
RAD1SP	1044/STW	1121/LW	1416/LW	2508=DATA			
RAD1W	1134/B	1379=LW					
RAD1X	502/LD	543/STD	1109/LW	1123/LW	2375=DATA		
RAD2	798/BCR	1466=LW					
RAD2ADD							
	797/CS	846/CS	981/HI0*	1086/HI0*	1102/STW	1483/SI0*	1510/LW
	1513/HI0*	1514/STW	2378=DATA				
RAD2BL	567/STW	923/CW	1466/LW	1473/STW	2101/STW	2145/STW	2189/STW
	2232/STW	2401=DATA					
RAD2DEN	1040/STW	1097/LW	1495/LW	2507=DATA			
RAD2ER	847/BCR	870=MTW					
RAD2LOG	870/MTW	1089/LI	2389=DATA				
RAD2SP	1048/STW	1099/LW	1486/LW	2509=DATA			
RAD2W	1142/B	1449=LW					
RAD2X	1087/LW	1101/LW	2376=DATA				
RCMD1	1230/STW	1246/LW	1248/STW	1386/STW	1390/STW	1402/LS	1411/STW
	2448=DATA						
RCMD2	1227/STW	1283/STW	1393/STW	2449=DATA			
RCMD3	1456/STW	1460/STW	1472/LS	1481/STW	2453=DATA		
RCMD4	1463/STW	2454=DATA					
RDFN	1418/PE	1425=LW					
RDFN1	1488/BE	1495=LW					
READR	879/LI	890/LI	1318/LI	2481=DATA			
REG	255/STM	312/LM	2436=RES				
REGISTER	376/STM	411/LM	428/STM	440/LM	773=DATA	828=DATA	1753=DATA

REMOVE	2435=RES 966/HCR 2065/H	971-LW	1988/R	2015/B	2029/R	2038/P	2050/B
REPBRT	724/HMF	729/R	730=LPSD				
RESET	294/HCV	322-LD					
RESTRT	450/STD	492/LW	496/STW	2423=PZF			
RFWIND	561/LI	1297/LI	1336/LI	2440=DATA			
RFWINDI	1573/LI	1621/LI	2443=DATA				
RHISP	1416=LW						
RHISPO	1419=AW	1424/R					
RHISP1	1486=LW						
RHISP10	1488=AW	1484/R					
RIP	1919=DATA	1930/LD	2533/XPSD				
RIBINT	586/LW	2533=XPSD					
RIBL	1930=LD						
RLINE	1799/LW	1802/LW	1845/AW	1869/LW	2363=DATA		
RREF	1805/HCR	1912=XPSD					
RREFMSF	1913=DATA	2270=TEXT					
RT	591/STW	1033/STW	1216/STW	1969/STW	1980/STW	2521=DATA	2534/MTW
RTINT	588/LW	2534=MTW					
RWS	1330/HCS	1336=LI					
SADD	1064/STW 1284/LW 1322/SI0*	1076/STW 1288/STW 1323/TI0*	1088/STW 1298/SI0* 1337/SI0*	1110/STW 1299/TI0* 2495=DATA	1233/SI0* 1311/SI0*	1236/TI0* 1312/TI0*	1242/HI0* 1321/HI0*
SAVET	2011/STW	2018/AND	2025/ERR	2027/STW	2519=DATA		
SAVE5	1373/CW	1375/STW	2518=DATA				
SCANNER	267/HCS	273=CI					
SDFN	1253/RF	1260=LW					
SECTOR	536/DATA 2084/STW	539/DATA 2123/STW	1117/LW 2165/STW	1419/AW 2355=DATA	1428/AW	1434/AW	2076/AW
SECTOR1	1095/LW 2166/STW	1489/AW 2356=DATA	1498/AW	1504/AW	2080/AW	2085/STW	2124/STW
SEEK1	1232/LI	1412/LI	2446=DATA				
SEEK2	1482/LI	2451=DATA					
SETM1	1532/HCR	1537=LW					
SETM2	1580/HCR	1585=LW					
SETPR1	1764/HCR	1769=LW					
SETR1	1383/HCR	1388=LW					
SETR2							

SETST	1453/BCR	1458-LW					
SETTR	946/BCS	948-LW					
SETUP	1094/STW	1116/STW	1269/CW	2498-DATA			
SHISP	256/BAL	377/BAL	429/PAL	446-LW			
SLASH	1251-LW						
SLBG	259-LI	274/BCR	305/BDR	327/BCR			
SRADDEN	1066/STW	1078/STW	1090/STW	1112/STW	1243/MTW*	1319/MTW*	2502-DATA
SRADHISP	1098/STW	1120/STW	1260/LW	2500-DATA			
SSCUTR1	1100/STW	1122/STW	1251/LW	2501-DATA			
SSCUTR2	867/LW	1415/STW	2368-DATA				
SSECTOR	871/LW	1485/STW	2369-DATA				
SSEK	1096/STW	1118/STW	1250/AW	2499-DATA			
SSTTR	1232-LI	1245/B	1291/B				
STARTBP	1092/STW	1114/STW	1223/LW	2497-DATA			
STD	381/BCR	401-LI					
STDRF	257/AW	2432-DATA					
STTR1	258/STW	276/BCR	303-PZE				
STTR2	1113/LW	1394/LW	1438/LW	2357-DATA			
SYNERR	1091/LW	1464/LW	1508/LW	2359-DATA			
TAG	300/DATA	505/DATA	2248-TEXT				
	626/BAL	695-LW	1398/BAL	1468/BAL	1547/BAL	1595/PAL	1632/BAL
	1662/HAL	1677/BAL	1713/BAL	1729/BAL	1777/BAL	1821/PAL	1826/BAL
	1894/BAL						
TDATA	1050/AND	2532-DATA					
TDATA1	2517-DATA						
TEMP1	2510-DATA						
TEMP2	955/STW	1213/LW	1924/STW	1970/LW	1974/STW	2511-DATA	
TEMP3	718/STW	734/LW	2512-DATA				
TEMP4	956/STW	1214/LW	1925/STW	1971/LW	1975/STW	2513-DATA	
TEXT	1907/BGE	1909-LI					
TEXT	2341/DATA	2343-TEXTC					
TIB	819/BCS	908-TDV					
TLINE	1806/LW	1885/AW	2364-DATA				
TLS	1310-LI	1335/B					
T0FF	1809/BCR	1915-XPSD					
T0G1	1935/RE	1989-LI					
T0G2	1939/RE	2016-LW					

T0G3		2030=LW						
TP0INT	1943/RE							
TRAP	1868/STW	1879/LW	1890/MTW	1910/STW	2516=DATA			
TSTART	578/LW	2535=XPSD						
TTCL	1873/R	1877=DATA	1879=LW	1911/B				
TTXIT	1900=LB	1908/R						
TTYI	280/RCR	306=MTW						
TTYIN	262/HAL	475=SI0						
TTY0	260/LI	352/AW	2416=DATA					
TTY0UT	309/BAL 473=LI	321/BAL	392/BAL	396/BAL	402/BAL	407/BAL	435/BAL	
TTI	473/LI	2419=DATA						
TYC	1995/BE	2000/BE	2005/RF	2007=LW				
TYCMD1	1645/CW	1647/LW	2412=DATA					
TYCMD2	1655/STW	1666/LS	1669/STW	1672/LI	2465=DATA			
TYCMD3	1649/STW	2466=DATA						
TYCMD4	1653/STW	1681/LS	1684/STW	1700/LI	2468=DATA			
TYW	1650/STW	2469=DATA						
TYX	1178/B	1643=HIR						
TY1	899/R	1700=LI						
TY1ADD	806/RCR	1675=LW						
TY1BL	805/CS 2382=DATA	854/CS	1005/HIR*	1643/HIR*	1670/TIR*	1673/SIR*	1701/SIR*	
TY1ER	571/STW 1699/STW	931/CW 2105/STW	1656/LW 2149/STW	1660/LW 2193/STW	1667/STW 2236/STW	1686/LW 2405=DATA	1687/STW	
TY1L0G	855/RCR	898=MTW						
TY2BL	898/MTW	2393=DATA						
UNDER10	572/STW 2106/STW	933/CW 2150/STW	1658/LW 2194/STW	1675/LW 2237/STW	1682/STW 2406=DATA	1685/LW	1698/LW	
WK	265/RCR	269=S						
WKC	343/STW 833=DATA	345/LI 2437=RES	491/STW	497/LW	756/STM	776/LM	778=DATA	
WS	823/STM	831/LM	2438=RES					
WSRAD1	654/LW 1054/STW 1987/STH	1034/LW 1059/AND 2013/STH	1037/LW 1071/AND 2023/STH	1041/LW 1083/AND 2037/STH	1045/LW 1105/AND 2048/STH	1049/LW 1926/LW 2061/STH	1053/E0R 1929/STH 2505=DATA	
WSS	1085/BE	1104=LI						
WSSTART	1923/BAL	1973=LI	2112/B	2156/B	2200/B	2243/R		
XC0NMSG	1052/RE	1058=LI						
	968=DATA	2274=TEXT						

XCONMSG1	508/DATA	2301-TEXT					
XCONMSG3	532/DATA	2318-TEXT					
XCONMSG2	520/DATA	2311-TEXT					
XFRHMSG	785/DATA	2293-TEXT					
XEXIT	292/BCR	307-MTW					
XOFFMSG	1916/DATA	2271-TEXT					
X17FC	1525/AND	2539-DATA					
CT09	264/CLM	386/CLM	2426-DATA				
*							
	253/PZE	310/PCR	322/BCR	374/PZF	387/BCR	408/PCR	426/PZE
	477/HCS	479/HCS	489/PZE	552/BIR	622/DATA	635/DATA	641/BE
	643/HNF	651/HIR	677/BF	681/BIR	693/BL	722/BE	732/DATA
	739/HNE	747/DATA	754/DATA	790/DATA	825/BCS	883/PCS	894/BCS
	916/DATA	953/DATA	974/BCS	980/BCS	986/BCS	992/PCS	998/BCS
	1004/BCS	1010/BCS	1016/BCS	1022/PCS	1028/BCS	1061/PE	1073/BE
	1131/BE	1132/LI	1139/BE	1140/LI	1147/BE	1148/LI	1151/BCS
	1157/BE	1158/LI	1160/BCS	1167/BE	1168/LI	1175/BE	1176/LI
	1183/BE	1184/LI	1191/BE	1192/LI	1199/BE	1200/LI	1207/BE
	1208/LI	1221/DATA	1235/BIR	1237/BCS	1238/B	1278/PLE	1286/BCR
	1295/DATA	1300/PCS	1313/BCS	1314/B	1317/BE	1324/PCS	1325/B
	1339/HIR	1352/PLF	1359/DATA	1370/BIR	1372/PCS	1376/R	1408/BCR
	1433/R	1442/PCR	1478/BCR	1503/R	1512/PCR	1558/PCS	1567/BCR
	1606/HCS	1615/RCR	1646/BL	1671/PCS	1694/BIR	1695/BIR	1697/BCS
	1707/BLE	1746/DATA	1756/B	1787/BCR	1861/BGE	1872/PCR	2228/BCS
	2555/EGU						

* SYMBOL VALUES

ABSTRACT/01 00807	AGAIN/01 001E2	AIR/01 00252	AIR2/01 00253
ALARM/01 00287	ARMINT/01 001A9	ASTRIK/01 000F6	AT9F/01 00C2C
AUTO/01 0068A	BC1/01 004AA	BC2/01 004EF	PLCS/01 00C9D
BLC1/01 008E8	BLC2/01 008FE	RLSIZE/01 008F6	R9MB/01 008E3
BFKRLS/01 00C3C	BYTEGEN/01 00488	CCLT/01 00698	CCMD1/01 00C98
CCMD2/01 00C99	CCX/01 0065F	CC1/01 00662	CC1ADD/01 00C05
CC1BL/01 00C1D	CC1ER/01 00C07	CC1L8G/01 00C10	CC1W/01 0063A
CC2BL/01 00C1F	CDATA/01 00C85	CHAR/01 00C26	CCMSG/01 00867
CK/01 0010H	CKBLTAB/01 002D3	CKMEM/01 001B1	CKMBD/01 0021E
CLCC/01 00676	CLEAR/01 0013A	CLINH/01 0018F	CLRBL/01 001F0
CLRMEM/01 00164	CMS/01 0016C	CRC/01 008F1	C8ENADD/01 008E5
COINTER/01 00CC6	COMALUP/01 000R1	COMMA/01 00CA3	COMMAS/01 000B0
CONMSG/01 00915	CONINT/01 002F2	CONINT2/01 002F3	CONMSG/01 002F8
CONMSG1/01 00A21	CONMSG2/01 00A89	CONMSG3/01 00AC8	CONTINUE/01 00874
CONXMSG/01 003C2	CON1MSG/01 00143	CON1XMSG/01 00141	CON2MSG/01 0014F
CON2XMSG/01 0014D	CON3MSG/01 00158	CON3XMSG/01 00159	CRSTADD/01 008E4
CPABRT/01 006C6	CPCMD1/01 00C8A	CPUBL/01 00C12	CPX/01 00604
CP1/01 005F7	CP1ADD/01 00C03	CP1BL/01 00C1B	CP1ER/01 002C3
CP1L8G/01 00C0E	CRCMD1/01 00C88	CRX/01 005F4	CR1/01 005E7
CR1ADD/01 00C02	CR1BL/01 00C1A	CR1ER/01 002C1	CR1L8G/01 00C0D
CR1W/01 005DF	CSDEVS/01 003A1	CSTUP/01 00CA5	CUBLC1/01 008F6
CUBLC2/01 008F7	CUTR1/01 008F8	CUTR2/01 008F9	CYC/01 00CAF
CYCA/01 00C8C	CYCLE/01 00528	CYLXIT/01 0052E	C1/01 00C87
C2/01 00C88	C3/01 00C89	C4/01 00C8A	C5/01 00C8F
C6/01 00C8C	C7/01 00C8D	C8/01 00C8E	C9/01 00C8F
DATAA/01 00CD1	DATAB/01 00CD2	DATAAC/01 00CD3	DATAD/01 00CD5
DATAE/01 00CD6	DATAF/01 00CD7	DATAHALT/01 00211	DATAH/01 00CD4
DATA1/01 0020F	DATA10/01 00C00	DATA2/01 00210	DATA3/01 00CC9
DATA4/01 00CCA	DATA5/01 00CCB	DATA6/01 00CCC	DATA7/01 00CCD
DATAB/01 00CCE	DATA9/01 00CCF	DLAY/01 004CD	FIB/01 0068A
ENBYTEG/01 00445	ENDCR/01 00C20	ENTRAP/01 00608	ENTR1/01 008EA
ENTR2/01 008EC	EP1/01 0025A	EP2/01 0028A	FRRMSG/01 009CD
EXINT/01 00CC7	EXIT/01 000A7	FINISH/01 007D0	F8RMAT/01 0011F
GETBL/01 002CE	GETCC1/01 00658	GETCW/01 00CC8	GREATER/01 000EA
HALT/01 00232	HALT1/01 0024F	HALT2/01 00249	HELP/01 0022F
HMESS/01 008CA	HTEXT/01 008CC	IN/01 004F1	INCST/01 0041D
INC5/01 0049C	INHIB/01 00182	INIT/01 00176	INLUP/01 00079
INPUT/01 00C70	INSTART/01 00075	IN1/01 00526	INERRMSG/01 009BC
IPHALT/01 00272	IPHALT1/01 00284	IPHALT2/01 0027E	IPINTER/01 00CC5
LASTPNE/01 00C8R	LCYC/01 00651	LD/01 00C2F	LDPCMD1/01 00C94
L8AD/01 000DE	L8G/01 000BF	L8MSG/01 00CB1	LPCMD1/01 00C82
LPCMD2/01 00C83	LPW/01 00590	LPX/01 005AC	LP1/01 00596
LP1ADD/01 00C0C	LP1BL/01 00C17	LP1ER/01 002BD	LP1L8G/01 00C0B
MAGS/01 00448	MAG1/01 00541	MAG1ADD/01 008FE	MAG1BL/01 00C15
MAG1ER/01 002A7	MAG1L8G/01 00C09	MAG1W/01 00530	MAG2/01 00571
MAG2ADD/01 008FF	MAG2BL/01 00C16	MAG2ER/01 002B2	MAG2L8G/01 00C0A
MAG2W/01 00560	MCMD1/01 00C7E	MCMD2/01 00C7F	MCMD3/01 00C80
MCMD4/01 00C81	MC1/01 0053C	MC2/01 0056C	MEMCLFAR/01 000BC
MEMLUP/01 000C2	MEMMSG/01 00899	MEMORY/01 00C01	MESADD/01 00C06
MESREV/01 0012E	MESLUP/01 00105	MESS/01 0088E	MESSA/01 0022C
MESSADD/01 000CH	MESSAGE/01 000FF	MESSXIT/01 00138	MESSXIT/01 0010C
M8VFIT/01 00672	M8RADD/01 000D1	M8RCW/01 00C02	M8R1/01 004D5
M8R2/01 0061A	MX1/01 00550	MX2/01 00580	NETR/01 0042F
N8AMSG/01 008FB	N8INTL8G/01 00C11	N8STEAL/01 00117	N8T64/01 000F5
NTAG/01 0020A	NXBL/01 002D2	NXBYTE/01 001D7	8LDCR/01 0020C
8PXIT/01 000F9	8RDERS/01 00CA4	8RDERS1/01 00CC0	8UT/01 004D9
8UTLUP/01 000EC	8UTPUT/01 000D4	8UT1/01 0051F	PASS2/01 00749
PASS3/01 00778	PASS4/01 007A4	PATTERN/01 001D6	PCMD1/01 00C96
PCMD2/01 00C97	PC1/01 00624	P8FF/01 0073A	P8FFC/01 008F3
PRN/01 0072E	PRNC/01 008F2	PRD/01 001D1	PRINT/01 000CC
PTX/01 00A37	PT1/01 00627	PT1ADD/01 00C04	PT1BL/01 00C1C
PT1ER/01 002C5	PT1L8G/01 00C0F	PT1W/01 00616	QUESTI8N/01 000AD
RADS/01 003FE	RADSS/01 00402	RADX1/01 0048F	RADX2/01 00504
RAD1/01 004AF	RAD1ADD/01 008FC	RAD1BL/01 00C13	RAD1DEN/01 00CA7
RAD1ER/01 0029F	RAD1L8G/01 00C07	RAD1SP/01 00CA9	RAD1W/01 0049E
RAD1X/01 008FA	RAD2/01 004F4	RAD2ADD/01 008FD	RAD2BL/01 00C14
RAD2DEN/01 00CA8	RAD2ER/01 002A3	RAD2L8G/01 00C08	RAD2SP/01 00CAA
RAD2W/01 004E3	RAD2X/01 008FB	RCMD1/01 00C78	RCMD2/01 00C79
RCMD3/01 00C7C	RCMD4/01 00C7D	RDFN/01 004CC	R8EN1/01 00511
R8ADR/01 00C90	REG/01 00C42	REGISTER/01 00C32	REMOVE/01 00306

RFPRT/01 0021C	RESET/01 00088	RESTR/01 00C28	REWIND/01 00C72
REWIND/01 00C74	RHISP/01 004C3	RHISPC/01 004C6	RHISP1/01 00508
RHISP1C/01 005CH	RIP/01 00686	RIBINT/01 00CC2	RIBL/01 006C1
RLINE/01 008EF	REFF/01 006AF	RFFMSG/01 008FB	RY/01 00CB6
RTINT/01 00CC3	RWS/01 00473	SADD/01 00C9C	SAVET/01 00CB4
SAVES/01 00CB3	SCANNER/01 00085	SDEN/01 00427	SECTBR/01 00E7
SECTBR1/01 00BE8	SEEK1/01 00C76	SEEK2/01 00C7A	SECTBR/01 00E7
SETM2/01 00569	SETPR1/01 00621	SETR1/01 004A7	SETM1/01 00539
SETST/01 002F0	SETTR/01 00C9F	SETUP/01 00110	SETR2/01 004EC
SLASH/01 00078	SLBG/01 00CA3	SRADDEN/01 00CA1	SHISP/01 0041E
SSCUTR1/01 00BF4	SSCUTR2/01 00BF5	SSFCTBR/01 00CA0	SRADHISP/01 00CA2
SSTTR/01 00C9E	STARTBP/01 000F1	STD/01 00C2F	SSFCK/01 0040B
STTR1/01 00BE9	STTR2/01 00BE8	SYNERR/01 007FB	STORE/01 000A2
TDATA/01 00CC1	TDATA1/01 00CB2	TEMP1/01 00CAB	TAG/01 001FA
TEMP3/01 00CAD	TEMP4/01 00CAE	TEXT/01 006AC	TEMP2/01 00CAC
TIB/01 002C9	TLINE/01 00BF0	TEXT/01 00BC0	TFF/01 006B2
TGG1/01 006FC	TGG2/01 00717	TLS/01 00459	TPBINT/01 00CB1
TRAP/01 00CC4	TSTART/01 0068E	TGG3/01 00725	TTXIT/01 000A5
TTYI/01 00125	TTYIN/01 00C22	TTCL/01 006A3	TTYBUT/01 00C24
TT1/01 0070E	TYC/01 00C1F	TTY9/01 00123	TYCMD2/01 00C85
TYCMD3/01 00C86	TYCMD4/01 00C87	TYCMD1/01 00C84	TYX/01 005DC
TY1/01 005C3	TY1ADD/01 00C01	TYW/01 005A3	TY1ER/01 002BF
TY1LGG/01 00C0C	TY2BL/01 00C19	TY1BL/01 00C18	VALUES/LIST
WK/01 00C52	WKO/01 00C62	UNDER10/01 00082	WSRAD1/01 0038B
WSS/01 006EC	WSSTART/01 0035D	WS/01 00CA6	XCBNMSG1/01 00A36
XCBNMSG3/01 00AE0	XCBNMSG2/01 00A9E	XCBNMSG/01 00923	XEXIT/01 000A6
XOFFMSG/01 009C8	X17FC/01 00CC8	XERRMSG/01 009FA	
		OTB9/01 00C2A	

- * NB EXTERNAL DEFINITIONS
- * NB PRIMARY REFERENCES
- * NB SECONDARY REFERENCES

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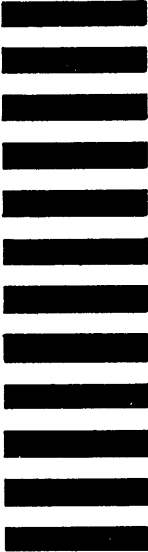
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