



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
147				ORG	201				0201				
			*							GEN			
			*	CLEAR DOWN TO CLRBOT & X00 THE EASY WAY						GEN			
			*							GEN			
148			CLR58	EQU	*&1			0201		GEN			
149			)0J006	CS	GMWM58 CLEAR FROM CLRTOP	4		0201	/ U29	GEN	1	1429	
150				SBR	)0J006&3	4		0205	H 204	GEN	1	204	
151				SBR	)0L006&6	4		0209	H 250	GEN	1	250	
152				C	)0J006&3,)0M006 DOWN TO CLRBOT & X00?	7		0213	C 204 261	GEN	1	204	261
153				BU	)0J006	5		0220	B 201 /	GEN	1	201	
			*							GEN			
			*	NOW CLEAR DOWN TO CLRBOT THE HARD WAY						GEN			
			*							GEN			
154			)0K006	C	)0L006&6,)0N006	7		0225	C 250 264	GEN	1	250	264
155				BU	)0L006	5		0232	B 244 /	GEN	1	244	
156				CS	LOADNX,)0Q006 LOAD THE NEXT BLOCK AT 1	7		0237	/ 700 271	GEN	2	700	271
157			)0L006	LCA	)0P006,0-0 CLEAR WITH BLANK AND WORD MARK	7		0244	L 265 000	GEN	2	265	000
158				SBR	)0L006&6	4		0251	H 250	GEN	2	250	
159				B	)0K006	4		0255	B 225	GEN	2	225	
160			)0M006	DSA	)0R006 CLRBOT & X00 - 1	3		0261	899	GEN	2	899	
161			)0N006	DSA	BEGIN3 CLRBOT	3		0264	838	GEN	2	838	
162			)0P006	DCW	#1	1		0265		GEN	2		
163				DC	@CLRA @ IDENTIFY IN A DECK, TAPE, OR DUMP	5		0270		GEN	2		
164			)0Q006	DCW	@}@	1		0271		GEN	3		
165				ORG	BEGIN3&X00				0900				
166			)0R006	EQU	* CLRBOT & X00 - 1			0899		GEN			
167				XFR	CLR58				B 201		4	201	
168			*										
169			PHAS60	LDPH	CONDECK3,LOADAD,BEGN60,,,60					MACRO			
			*	PHAZ	LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]					GEN			
			*	XFR	PHASZ PROHIBITED IN A MACRO					GEN			
			*							GEN			
			*	LOAD A BLOCK						GEN			
			*							GEN			
170			)6J007	EQU	110 PHASE ID			0110		GEN			
171			)6K007	EQU	700 LOAD NEXT PHASE			0700		GEN			
172			)6L007	EQU	704 TAPE READ INSTRUCTION			0704		GEN			
173			)6M007	EQU	728 TAPE ERROR HANDLER			0728		GEN			
			*							GEN			
174				ORG	201				0201				
175			PHAS60	EQU	*&1			0201		GEN			
176				LCA	)9J007,)6J007	7		0201	L 251 110	GEN	5	251	110
177				BCE	)6K007,)6K007,1 Q: LOADING FROM CARDS?	8		0208	B 700 700 1	GEN	5	700	700
178				BCE	)6K007,)6L007&4,0 Q: LOADING FROM AUTOCODER TAPE?	8		0216	B 700 708 0	GEN	5	700	708
179				RTW	1,LOADAD READ THE BLOCK	8		0224	L %U1 838 R	GEN	5	%U1	838
180				BER	)6M007 Q: TAPE ERROR?	5		0232	B 728 L	GEN	5	728	
181				CS	BEGN60,)9R007 ENTER THE BLOCK	7		0237	/ 838 255	GEN	6	838	255
182			)9J007	DCW	@CONDECK3@ PHASE ID	8		0251		GEN	6		
183				DC	#1	1		0252		GEN	6		
184				DC	@60@ PHASE NUMBER	2		0254		GEN	6		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
185			)9R007	DCW	@}@		1	0255		GEN	6		
186				XFR	PHAS60				B 201		7	201	
187			*										
188				ORG	BEGIN3				0838				
189			LOADAD	EQU	*&1			0838					
190	838		BEGN60	MCW	NSTMTS,X1 BEGINING OF GENERATED CODE		7	0838	M 183 089		8	183	089
191	845			BCE	*&5,CONDNS,P		8	0845	B 857 693 P		8	857	693
192	853			B	DONE		4	0853	B U74		8	1474	
193	857			BW	DONE,GLOBER		8	0857	V U74 184 1		8	1474	184
194	865		LOOP	SBR	PUEXIT&3,SETUP		7	0865	H /55 893		8	1155	893
195	872			MCW	SETWMS-11,W7 ,040040		7	0872	M U96 V24		9	1496	1524
196	879			MCW	A146,X3		7	0879	M V11 099		9	1511	099
197	886			MCW	LCA,140		7	0886	M V12 140		9	1512	140
198	893		SETUP	CS	139		4	0893	/ 139		9	139	
199	897			BCV	*&5		5	0897	B 906 @		9	906	
200	902			B	*&3		4	0902	B 908		9	908	
201	906			CC	1		2	0906	F 1		9		
202	908			MCW	SETWMS,171		7	0908	M V07 171		10	1507	171
203	915			SW	140		4	0915	, 140		10	140	
204	919			CS	332		4	0919	/ 332		10	332	
205	923			CS			1	0923	/		10		
206	924			SW	101		4	0924	, 101		10	101	
207	928			MCW	A001,X2		7	0928	M V15 094		10	1515	094
208	935			MCW	K1,W1		7	0935	M V16 V17		10	1516	1517
209	942			MCW	W7,153		7	0942	M V24 153		11	1524	153
210	949			BW	CWLOAD,FLAG		8	0949	V S91 V08 1		11	1291	1508
211	957		MORE	MN	0&X1,100&X2 MOVE A CHARACTER		7	0957	D 0 0 1!0		11	000+1	100+2
212	964			MZ	0&X1,100&X2 TO THE PUNCH AREA		7	0964	Y 0 0 1!0		11	000+1	100+2
213	971		CHKTOP	C	ARYTOP,X1		7	0971	C 194 089		11	194	089
214	978			BE	TOP		5	0978	B S04 S		12	1204	
215	983			SBR	X1,1&X1		7	0983	H 089 0 1		12	089	001+1
216	990			SBR	X2,1&X2		7	0990	H 094 0!1		12	094	001+2
217	997			BCE	ENDCOD,0&X1,] RIGHT BRACKET MEANS END OF CODE		8	0997	B S83 0 0 ]		12	1283	000+1
218	1 005			BW	WM,0&X1		8	1005	V S15 0 0 1		12	1215	000+1
219	1 013			C	A040,X2		7	1013	C V27 094		13	1527	094
220	1 020			BL	MORE		5	1020	B 957 T		13	957	
221	1 025			C	A160,X3		7	1025	C V30 099		13	1530	099
222	1 032			BL	SETCW		5	1032	B /75 T		13	1175	
223	1 037			MCW	A040,167		7	1037	M V27 167		13	1527	167
224	1 044			BH	*&8		5	1044	B  56 U		13	1056	
225	1 049			MCW	A040,164		7	1049	M V27 164		14	1527	164
226	1 056			CW	140		4	1056	) 140		14	140	
227	1 060		SW	SW	0		4	1060	, 000		14	000	
228	1 064			SBR	X2		4	1064	H 094		14	094	
229	1 068			A	KM990,X2&1		7	1068	A V33 095		14	1533	095
230	1 075			MCW	239,139 CLEAR PART OF CARD ABOVE LOADED CHARS		7	1075	M 239 139		14	239	139
231	1 082		SX1	SBR	X1,0		7	1082	H 089 000		15	089	000
232	1 089		PUNCHO	MCW	SETWMS-11,W7 ,040040		7	1089	M U96 V24		15	1496	1524
233	1 096			MCW	A146,X3		7	1096	M V11 099		15	1511	099
234	1 103		PUNCH	A	K1,175 BUMP SEQUENCE NUMBER		7	1103	A V16 175		15	1516	175



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
285	1	291	CWLOAD	CW	FLAG	4		1291	) V08		21	1508	
286	1	295		MCM	0&X1	4		1295	P 0 0		21	000+1	
287	1	299		SBR	X1	4		1299	H 089		21	089	
288	1	303		BW	MORE,0&X1	8		1303	V 957 0 0 1		21	957	000+1
289	1	311		MCW	X1,153	7		1311	M 089 153		21	089	153
290	1	318		MCW	X1	4		1318	M 089		21	089	
291	1	322		MCW	CW	4		1322	M V37		21	1537	
292	1	326		MCW	A153,X3	7		1326	M V40 099		22	1540	099
293	1	333		B	MORE	4		1333	B 957		22	957	
294				*									
295	1	337	BUMPX3	SBR	X3,1&X3	7		1337	H 099 0?1		22	099	001+3
296	1	344		B	WM2	4		1344	B S72		22	1272	
297				*									
298				*	AFTER THE ARRAYS								
299				*									
300	1	348	AFTARY	SBR	X1,FMTBAS	7		1348	H 089 W97		22	089	1697
301	1	355		BCE	XFMT,FMTSW,X NO FORMAT ROUTINE	8		1355	B U26 696 X		22	1426	696
302	1	363		BCE	LFMT,FMTSW,L LIMITED FORMAT ROUTINE	8		1363	B U04 696 L		23	1404	696
303	1	371		BCE	AFMT,FMTSW,A A-CONVERSION FORMAT	8		1371	B U15 696 A		23	1415	696
304	1	379	SETCHK	SBR	CHKTOP&3,USRBAS NORMAL FORMAT	7		1379	H 974 U89		23	974	1489
305	1	386		SBR	PUEX1&3,XFMT	7		1386	H /28 U26		23	1128	1426
306	1	393		SBR	TOP&6,XFMT	7		1393	H S10 U26		23	1210	1426
307	1	400		B	LOOP	4		1400	B 865		24	865	
308	1	404	LFMT	SBR	USRBAS,LGM&1 AFTER LIMITED FORMAT	7		1404	H U89 !23		24	1489	2023
309	1	411		B	SETCHK	4		1411	B T79		24	1379	
310	1	415	AFMT	SBR	USRBAS,AGM&1 AFTER A CONVERSION	7		1415	H U89 61X		24	1489	4617
311	1	422		B	SETCHK	4		1422	B T79		24	1379	
312	1	426	XFMT	CS	171	4		1426	/ 171		24	171	
313	1	430		MCW	A080,146	7		1430	M V46 146		24	1546	146
314	1	437		MCW	NSTMIS	4		1437	M 183		25	183	
315	1	441		LCA	CS	4		1441	L V47		25	1547	
316	1	445		A	K1,175	7		1445	A V16 175		25	1516	175
317	1	452		LCA	180,280	7		1452	L 180 280		25	180	280
318	1	459		LCA		1		1459	L		25		
319	1	460		CS		1		1460	/		25		
320	1	461		BSS	PRINT,B	5		1461	B U83 B		25	1483	
321	1	466		P		1		1466	4		26		
322	1	467	LASTCD	CS	180	4		1467	/ 180		26	180	
323	1	471		P		1		1471	4		26		
324	1	472		SS	8	2		1472	K 8		26		
325	1	474	DONE	BSS	SNAPSH,C	5		1474	B 333 C		26	333	
326	1	493		B	LOADNX	4		1479	B 700		26	700	
327	1	497	PRINT	WP	LASTCD	4		1483	6 U67		26	1467	
328				*									
329				*	DATA								
330				*									
331	1	503	USRBAS	DSA	AFMT1 BASE ADDRESS OF USER CODE	3		1489	28		27	4280	
332	1	521	SETWMS	DCW	@,040040,0400401040@	18		1507			27		
333	1	522	FLAG	DC	#1	1		1508			27		
334	1	525	A146	DSA	146	3		1511	146		27	146	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
335	1	526	LCA	LCA		1		1512	L		27		
336	1	529	A001	DSA	1	3		1515	001		27	001	
337	1	530	K1	DCW	1	1		1516			27		
338	1	531	W1	DCW	#1	1		1517			27		
339	1	538	W7	DCW	#7	7		1524			28		
340	1	541	A040	DSA	40	3		1527	040		28	040	
341	1	544	A160	DSA	160	3		1530	160		28	160	
342	1	547	KM990	DCW	-990	3		1533			28		
343	1	550	A000	DSA	0	3		1536	000		28	000	
344	1	551	CW	CW		1		1537	)		28		
345	1	554	A153	DSA	153	3		1540	153		28	153	
346	1	557	A167	DSA	167	3		1543	167		29	167	
347	1	560	A080	DSA	80	3		1546	080		29	080	
348	1	561	CS	CS		1		1547	/		29		
349	1	572		DSA	3999 WHAT IS THIS FOR ???	3		1550	I99		29	3999	
350	1	573	GMWM	DCW	@}@	1		1551		GMARK	29		
351			XFR	XFR	BEGN60						30	838	
352			CLRME	CLRA	LOADAD,GMWM					MACRO			
			*	CLRA	CLRBOT,CLRTOP[,ORG,GMWMAD]					GEN			
			*							GEN			
			*	CLEAR CORE	AFTER A PHASE USING THE CLRTOP ADDRESS					GEN			
			*							GEN			
353			ORG	ORG	201				0201				
			*							GEN			
			*	CLEAR DOWN	TO CLRBOT & X00 THE EASY WAY					GEN			
			*							GEN			
354			CLRME	EQU	*&1			0201		GEN			
355			)0J008	CS	GMWM CLEAR FROM CLRTOP	4		0201	/ V51	GEN	31	1551	
356			SBR	SBR	)0J008&3	4		0205	H 204	GEN	31	204	
357			SBR	SBR	)0L008&6	4		0209	H 250	GEN	31	250	
358			C	C	)0J008&3,)0M008 DOWN TO CLRBOT & X00?	7		0213	C 204 261	GEN	31	204	261
359			BU	BU	)0J008	5		0220	B 201 /	GEN	31	201	
			*							GEN			
			*	NOW CLEAR	DOWN TO CLRBOT THE HARD WAY					GEN			
			*							GEN			
360			)0K008	C	)0L008&6,)0N008	7		0225	C 250 264	GEN	31	250	264
361			BU	BU	)0L008	5		0232	B 244 /	GEN	31	244	
362			CS	CS	LOADNX,)0Q008 LOAD THE NEXT BLOCK AT 1	7		0237	/ 700 271	GEN	32	700	271
363			)0L008	LCA	)0P008,0-0 CLEAR WITH BLANK AND WORD MARK	7		0244	L 265 000	GEN	32	265	000
364			SBR	SBR	)0L008&6	4		0251	H 250	GEN	32	250	
365			B	B	)0K008	4		0255	B 225	GEN	32	225	
366			)0M008	DSA	)0R008 CLRBOT & X00 - 1	3		0261	899	GEN	32	899	
367			)0N008	DSA	LOADAD CLRBOT	3		0264	838	GEN	32	838	
368			)0P008	DCW	#1	1		0265		GEN	32		
369			DC	DC	@CLRA @ IDENTIFY IN A DECK, TAPE, OR DUMP	5		0270		GEN	32		
370			)0Q008	DCW	@}@	1		0271		GEN	33		
371			ORG	ORG	LOADAD&X00				0900				
372			)0R008	EQU	* CLRBOT & X00 - 1			0899		GEN			
373			XFR	XFR	CLRME				B 201		34	201	

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J006	0201: 0	)0J008	0201: 0	)0K006	0225: 0	)0K008	0225: 0	)0L006	0244: 0	)0L008	0244: 0
)0M006	0261: 0	)0M008	0261: 0	)0N006	0264: 0	)0N008	0264: 0	)0P006	0265: 0	)0P008	0265: 0
)0Q006	0271: 0	)0Q008	0271: 0	)0R006	0899: 0	)0R008	0899: 0	)6J007	0110: 0	)6K007	0700: 0
)6L007	0704: 0	)6M007	0728: 0	)9J007	0251: 0	)9R007	0255: 0	A000	1536: 0	A001	1515: 0
A040	1527: 0	A080	1546: 0	A146	1511: 0	A153	1540: 0	A160	1530: 0	A167	1543: 0
AFMT	1415: 0	AFMT1	4280: 0	AFTARY	1348: 0	AGM	4616: 0	ARYTOP	0194: 0	BEGIN3	0838: 0
BEGN60	0838: 0	BUMPX3	1337: 0	CDOVLY	0700: 0	CHKTOP	0971: 0	CLR58	0201: 0	CLRME	0201: 0
CONDNS	0693: 0	CS	1547: 0	CW	1537: 0	CWLOAD	1291: 0	DONE	1474: 0	ENDCOD	1283: 0
FLAG	1508: 0	FMTBAS	1697: 0	FMTSW	0696: 0	GLOBER	0184: 0	GMWM	1551: 0	GMWM58	1429: 0
K1	1516: 0	KM990	1533: 0	LASTCD	1467: 0	LCA	1512: 0	LFMT	1404: 0	LGM	2022: 0
LIMADR	2015: 0	LOADAD	0838: 0	LOADNX	0700: 0	LOOP	0865: 0	MORE	0957: 0	NGM	4279: 0
NOOVFL	3138: 0	NSTMTS	0183: 0	PHAS60	0201: 0	PHASID	0110: 0	PHASLD	0381: 0	PREXIT	1171: 0
PRINT	1483: 0	PUEX1	1125: 0	PUEXIT	1152: 0	PUNCH	1103: 0	PUNCH0	1089: 0	RELENT	2132: 0
SETCHK	1379: 0	SETCW	1175: 0	SETUP	0893: 0	SETWMS	1507: 0	SNAPEX	0564: 0	SNAPSH	0333: 0
SW	1060: 0	SX1	1082: 0	TOP	1204: 0	TOP3	2600: 0	TPERR	0728: 0	TPREAD	0704: 0
USRBAS	1489: 0	W1	1517: 0	W7	1524: 0	WM	1215: 0	WM2	1272: 0	X1	0089: 0
X2	0094: 0	X3	0099: 0	XFMT	1426: 0						

## UNREFERENCED SYMBOLS

CDOVLY LIMADR NGM NOOVFL PHASID PHASLD RELENT SNAPEX TOP3 TPERR TPREAD