

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
151			ARITF	EQU	700			0700		GEN			
152			SETFP	EQU	831			0831		GEN			
153			DOSUB	EQU	1206			1206		GEN			
154			QFUNCT	EQU	1327			1327		GEN			
155			ARITI	EQU	1530			1530		GEN			
156			AGMWM	EQU	1696			1696		GEN			
157			*										
158			*		TAKE A SNAPSHOT REGARDLESS OF WHICH OF PHASES 54BCD WERE LOADED								
159			*		BY PHASE 54A, THEN CLEAR IT.								
160			*										
161				ORG	201				0201				
162			CLR54A	CLRA	LOAD54,GMWM54,C,HERE					MACRO			
			*	CLRA	CLRBOT,CLRTOP[,SS,HERE,GWMAD]					GEN			
			*							GEN			
			*		CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS					GEN			
			*							GEN			
			*		CLEAR DOWN TO CLRBOT & X00 THE EASY WAY					GEN			
			*							GEN			
163			CLR54A	EQU	*&1			0201		GEN			
164				BSS	SNAPSH,C		5	0201	B 333 C	GEN	1	333	
165			)0J007	CS	GMWM54 CLEAR FROM CLRTOP		4	0206	/ |70	GEN	1	1070	
166				SBR	)0J007&3		4	0210	H 209	GEN	1	209	
167				SBR	)0L007&6		4	0214	H 255	GEN	1	255	
168				C	)0J007&3,)0M007 DOWN TO CLRBOT & X00?		7	0218	C 209 266	GEN	1	209	266
169				BU	)0J007		5	0225	B 206 /	GEN	1	206	
			*							GEN			
			*		NOW CLEAR DOWN TO CLRBOT THE HARD WAY					GEN			
			*							GEN			
170			)0K007	C	)0L007&6,)0N007		7	0230	C 255 269	GEN	1	255	269
171				BU	)0L007		5	0237	B 249 /	GEN	2	249	
172				CS	LOADNX,)0Q007 LOAD THE NEXT BLOCK AT 1		7	0242	/ 700 276	GEN	2	700	276
173			)0L007	LCA	)0P007,0-0 CLEAR WITH BLANK AND WORD MARK		7	0249	L 270 000	GEN	2	270	000
174				SBR	)0L007&6		4	0256	H 255	GEN	2	255	
175				B	)0K007		4	0260	B 230	GEN	2	230	
176			)0M007	DSA	)0R007 CLRBOT & X00 - 1		3	0266	999	GEN	2	999	
177			)0N007	DSA	LOAD54 CLRBOT		3	0269	934	GEN	2	934	
178			)0P007	DCW	#1		1	0270		GEN	3		
179				DC	@CLRA @ IDENTIFY IN A DECK, TAPE, OR DUMP		5	0275		GEN	3		
180			)0Q007	DCW	@}@		1	0276		GEN	3		
181				ORG	LOAD54&X00				1000				
182			)0R007	EQU	* CLRBOT & X00 - 1			0999		GEN			
183				XFR	CLR54A				B 201		4	201	
184			*										
185			*		LOAD PHASE 55								
186			*										
187			PHAS55	LDPH	REPLACE 2,LOADAD,BEGN55,,55					MACRO			
			*	PHAZ	LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]					GEN			
			*	XFR	PHASZ PROHIBITED IN A MACRO					GEN			
			*							GEN			

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
					* LOAD A BLOCK					GEN			
					*					GEN			
188			)6J008	EQU	110 PHASE ID			0110		GEN			
189			)6K008	EQU	700 LOAD NEXT PHASE			0700		GEN			
190			)6L008	EQU	704 TAPE READ INSTRUCTION			0704		GEN			
191			)6M008	EQU	728 TAPE ERROR HANDLER			0728		GEN			
					*					GEN			
192				ORG	201				0201				
193			PHAS55	BSS	)8J008,G	5		0201	B 257 G	GEN	5	257	
194				NOF	TO PATCH IN TRAPS FOR DEBUGGING	1		0206	N	GEN	5		
195			)0J008	EQU	*&1			0207		GEN			
196				LCA	)9J008,)6J008	7		0207	L 281 110	GEN	5	281	110
197				BCE	)1J008,)6K008,1	8		0214	B 250 700 1	GEN	5	250	700
198				BCE	)1J008,)6L008&4,0	8		0222	B 250 708 0	GEN	5	250	708
199				RTW	1,LOADAD	8		0230	L %U1 934 R	GEN	5	%U1	934
200				BER	)6M008	5		0238	B 728 L	GEN	6	728	
201				CS	BEGN55,)9R008	7		0243	/ 934 285	GEN	6	934	285
202			)1J008	CS	)6K008,)9R008	7		0250	/ 700 285	GEN	6	700	285
203			)8J008	SW	)9R008	4		0257	, 285	GEN	6	285	
204				MU	%T0,)8K008,W	8		0261	M %T0 273 W	GEN	6	%T0	273
205				H	)0J008	4		0269	. 207	GEN	6	207	
206			)8K008	EQU	*&1			0273		GEN			
207			)9J008	DCW	@REPLACE 2@ PHASE ID	9		0281		GEN	7		
208				DCW	#1	1		0282		GEN	7		
209				DC	@55@ PHASE NUMBER	2		0284		GEN	7		
210			)9R008	DCW	@}@	1		0285		GEN	7		
211				XFR	PHAS55				B 201		8	201	
					*								
213				ORG	BEG52A				0934				
214			LOADAD	EQU	*&1			0934					
215	934		BEGN55	SBR	SX3,1&X3	7		0934	H U76 0?1		9	1476	001+3
216	941			SW	1&X3	4		0941	, 0?1		9	001+3	
217	945			SBR	MYSX2,0&X2	7		0945	H U79 0!0		9	1479	000+2
218	952			SBR	SX1,0&X1	7		0952	H U82 0|0		9	1482	000+1
219	959			MCW	TOPCOR,X2	7		0959	M 688 094		9	688	094
220	966			C	0&X2	4		0966	C 0!0		9	000+2	
221	970			C		1		0970	C		9		
222	971			C		1		0971	C		10		
223	972			SBR	RBRACK&6	4		0972	H T56		10	1356	
224	976			MCW	86,X2	7		0976	M 086 094		10	086	094
225	983			MN	0&X2	4		0983	D 0!0		10	000+2	
226	987			SAR	SX2A	4		0987	Q U85		10	1485	
					*								
228					* GO THROUGH THE RELOCATABLE LIBRARY LOOKING FOR CODES								
229					* THAT INDICATE VARIOUS KINDS OF RELOCATION:								
230					* T WITH A WORD MARK MEANS A IS AN ADDRESS IN THE FUNCTION								
231					* TABLE; CONVERT THE T TO A B.								
					*								
233	991		LOOP	C	X3,MYSX2	7		0991	C 099 U79		10	099	1479
234	998		LOOP	BE	LOOPX	5		0998	B /57 S		10	1157	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
235	1	003		C	0&X3	4		1003	C 0?0		11	000+3	
236	1	007		SBR	X2	4		1007	H 094		11	094	
237	1	011		SBR	X3	4		1011	H 099		11	099	
238	1	015		BCE	TRANSF,1&X3,T	8		1015	B |95 0?1 T		11	1095	001+3
239	1	023	CHECKA	MCW	4&X3,W3	7		1023	M 0?4 U88		11	004+3	1488
240	1	030		BCE	SEMUND,W3-2,;	8		1030	B T61 U86 ;		11	1361	1486
241	1	038		BCE	SEMUND,W3-2, _	8		1038	B T61 U86 _		12	1361	1486
242	1	046		BCE	RBRACK,W3-2,]	8		1046	B T50 U86]		12	1350	1486
243	1	054		MCW	W3,4&X3	7		1054	M U88 0?4		12	1488	004+3
244	1	061	CHECKB	MCW	7&X3,W3	7		1061	M 0?7 U88		12	007+3	1488
245	1	068		BCE	SEMUND,W3-2,;	8		1068	B T61 U86 ;		12	1361	1486
246	1	076		BCE	SEMUND,W3-2, _	8		1076	B T61 U86 _		13	1361	1486
247	1	084		MCW	W3,7&X3	7		1084	M U88 0?7		13	1488	007+3
248	1	091		B	LOOP	4		1091	B 991		13	991	
249				*									
250				*	REPLACE T XXX WITH B YYY WHERE YYY IS TAKEN FROM XXX.								
251				*									
252	1	095	TRANSF	BCE	LOOP,4&X3,\$	8		1095	B 991 0?4 \$		13	991	004+3
253	1	103		C	0&X3,BARITF&3	7		1103	C 0?0 U92		13	000+3	1492
254	1	110		BE	LOOP	5		1110	B 991 S		13	991	
255	1	115		BW	CHECKA,4&X2	8		1115	V |23 0!4 1		14	1023	004+2
256	1	123		BWZ		1		1123	V		14		
257	1	124		BWZ		1		1124	V		14		
258	1	125		MCW	BRANCH,1&X3	7		1125	M U93 0?1		14	1493	001+3
259	1	132		MCW	4&X2,X1	7		1132	M 0!4 089		14	004+2	089
260	1	139		MCW	0&X1,X1	7		1139	M 0|0 089		14	000+1	089
261	1	146		MCW	X1,4&X2	7		1146	M 089 0!4		14	089	004+2
262	1	153		B	CHECKA	4		1153	B |23		15	1023	
263				*									
264				*	REPEAT THE LOOP FOR THE FORMAT CODE								
265				*									
266	1	157	LOOPX	MCW	APASS3,LOOPT&3	7		1157	M U96 |01		15	1496	1001
267	1	164		MCW	SX1,X3	7		1164	M U82 099		15	1482	099
268	1	171		MCW	AFMT,MYSX2	7		1171	M U99 U79		15	1499	1479
269	1	178		B	LOOP	4		1178	B 991		15	991	
270				*									
271				*	CLEAR UNUSED CORE								
272				*									
273	1	182	PASS3	MCW	SX3,X3	7		1182	M U76 099		15	1476	099
274	1	189		SBR	X3,1&X3	7		1189	H 099 0?1		16	099	001+3
275	1	196		MZ	X3,K999A	7		1196	Y 099 U70		16	099	1470
276	1	203		MZ		1		1203	Y		16		
277	1	204		MCW		1		1204	M		16		
278	1	205		MZ	83,K999B	7		1205	Y 083 U73		16	083	1473
279	1	212		MZ		1		1212	Y		16		
280	1	213		MCW		1		1213	M		16		
281	1	214		C	K999A,K999B	7		1214	C U70 U73		17	1470	1473
282	1	221		BE	EQUAL	5		1221	B S84 S		17	1284	
283	1	226		MCW	83,X3	7		1226	M 083 099		17	083	099
284	1	233	CLRHLF	CS	0&X3 CLEAR HUNDRED AT A TIME	4		1233	/ 0?0		17	000+3	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
285	1	237		SBR	X3	4		1237	H 099		17	099	
286	1	241		C	X3,K999A	7		1241	C 099 U70		17	099	1470
287	1	248		BU	CLRHLF	5		1248	B S33 /		17	1233	
288	1	253	CLR1LP	C	X3,SX3	7		1253	C 099 U76		18	099	1476
289	1	260		BE	CLRL1X	5		1260	B S95 S		18	1295	
290	1	265		LCA	KB1,0&X3 CLEAR	7		1265	L V00 0?0		18	1500	000+3
291	1	272		SBR	X3 ONE AT	4		1272	H 099		18	099	
292	1	276		CW	1&X3 A TIME	4		1276	) 0?1		18	001+3	
293	1	280		B	CLR1LP	4		1280	B S53		18	1253	
294				*									
295				*	X3 AND 83 IN SAME HUNDREDS								
296				*									
297	1	284	EQUAL	MCW	83,X3	7		1284	M 083 099		18	083	099
298	1	291		B	CLR1LP	4		1291	B S53		19	1253	
299				*									
300				*	FILL EMPTY CORE WITH RIGHT BRACKETS, EXCEPT FOR THE								
301				*	LAST CHARACTER, WHICH GETS A RECORD MARK.								
302				*									
303	1	295	CLRL1X	MCW	83,X3	7		1295	M 083 099		19	083	099
304	1	302		MCW	RM,0&X3	7		1302	M V01 0?0		19	1501	000+3
305	1	309		SBR	X3	4		1309	H 099		19	099	
306	1	313		MCW	KRBRAK,0&X3	7		1313	M V02 0?0		19	1502	000+3
307	1	320		MCW	0&X3	4		1320	M 0?0		19	000+3	
308	1	324		SBR	X3	4		1324	H 099		19	099	
309	1	328		LCA	KB1,2&X3	7		1328	L V00 0?2		20	1500	002+3
310	1	335		LCA	KB1	4		1335	L V00		20	1500	
311	1	339		MCW	SUBSC,SUBENT	7		1339	M 909 191		20	909	191
312	1	383		B	LOADNX	4		1346	B 700		20	700	
313				*									
314				*	A FIELD BEGINS WITH RIGHT BRACKET								
315				*									
316	1	387	RBRACK	SBR	4&X3,0	7		1350	H 0?4 000		20	004+3	000
317	1	394		B	CHECKB	4		1357	B |61		20	1061	
318				*									
319				*	A OR B FIELD BEGINS WITH SEMICOLON OR UNDERSCORE								
320				*	SEMICOLON ADDS OR SUBTRACTS NEXT TWO DIGITS TO ARUBOT.								
321				*	UNDERSCORE ADDS OR SUBTRACTS NEXT TWO DIGITS FROM CONBOT.								
322				*	AB ZONE MEANS ADD, ELSE SUBTRACT.								
323				*									
324	1	398	SEMUND	SBR	EXIT&3	4		1361	H U48		20	1448	
325	1	402		MCW	CONBOT,X2	7		1365	M 930 094		21	930	094
326	1	409		BCE	*&8,W3-2, _ UNDERSCORE?	8		1372	B T87 U86 _		21	1387	1486
327	1	417		MCW	ARYBOT,X2	7		1380	M 933 094		21	933	094
328	1	424		BCE	NOOFF,W3,0 NO OFFSET IF LOW ORDER DIGIT ZERO	8		1387	B U38 U88 0		21	1438	1488
329	1	432		BWZ	ADD,W3,B ADD UNZONED OFFSET	8		1395	V U49 U88 B		21	1449	1488
330	1	440		SW	W3-1	4		1403	, U87		22	1487	
331	1	444	DECR	A	KP1,W3 SUBTRACT	7		1407	A V03 U88		22	1503	1488
332	1	451		BWZ	DECRX,W3,B UNZONED W3	8		1414	V U34 U88 B		22	1434	1488
333	1	459		MN	0&X2 FROM	4		1422	D 0!0		22	000+2	
334	1	463		SAR	X2 X2	4		1426	Q 094		22	094	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
335	1	467		B	DECR	4		1430	B U07		22	1407	
336	1	471	DECRX	CW	W3-1	4		1434	) U87		22	1487	
337	1	475	NOOFF	MCW	X2,W3	7		1438	M 094 U88		23	094	1488
338	1	482	EXIT	B	0	4		1445	B 000		23	000	
339	1	486	ADD	MN	W3,REW3&6	7		1449	D U88 U63		23	1488	1463
340	1	493		MN		1		1456	D		23		
341	1	494	REW3	SBR	W3,0&X2 X2 PLUS UNZONED OFFSET TO W3	7		1457	H U88 0!0		23	1488	000+2
342	1	501		B	EXIT	4		1464	B U45		23	1445	
343			*										
344			* DATA										
345			*										
346	1	507	K999A	DSA	999	3		1470	999		23	999	
347	1	510	K999B	DSA	999	3		1473	999		24	999	
348	1	513	SX3	DCW	#3	3		1476			24		
349	1	516	MYSX2	DCW	#3	3		1479			24		
350	1	519	SX1	DCW	#3	3		1482			24		
351	1	522	SX2A	DCW	#3	3		1485			24		
352	1	525	W3	DCW	#3	3		1488			24		
353	1	526	BARITF	B	ARITF	4		1489	B 700		24	700	
354	1	530	BRANCH	B		1		1493	B		25		
355	1	533	APASS3	DSA	PASS3	3		1496	/82		25	1182	
356	1	536	AFMT	DSA	FMTBAS-1 ONE BEFORE FORMAT	3		1499	W96		25	1696	
357	1	537	KB1	DCW	#1	1		1500			25		
358	1	538	RM	DCW	@|@	1		1501			25		
359	1	539	KRBRAK	DCW	@]@	1		1502			25		
360	1	548	KP1	DCW	&1	1		1503			25		
361	1	549	GMWM	DCW	@}@	1		1504		GMARK	26		
362			XFR		BEGN55				B 934		27	934	
363			CLRME	CLRA	BEGIN3,GMWM,C					MACRO			
			*	CLRA	CLRBOT,CLRTOP[,SS,HERE,GWMAD]					GEN			
			*							GEN			
			* CLEAR CORE		AFTER A PHASE USING THE CLRTOP ADDRESS					GEN			
			*							GEN			
364			ORG		201				0201				
			*							GEN			
			* CLEAR DOWN		TO CLRBOT & X00 THE EASY WAY					GEN			
			*							GEN			
365			CLRME	EQU	*&1			0201					
366			BSS		SNAPSH,C	5		0201	B 333 C		28	333	
367			)0J009	CS	GMWM CLEAR FROM CLRTOP	4		0206	/ V04		28	1504	
368			SBR		)0J009&3	4		0210	H 209		28	209	
369			SBR		)0L009&6	4		0214	H 255		28	255	
370			C		)0J009&3,)0M009 DOWN TO CLRBOT & X00?	7		0218	C 209 266		28	209	266
371			BU		)0J009	5		0225	B 206 /		28	206	
			*							GEN			
			* NOW CLEAR		DOWN TO CLRBOT THE HARD WAY					GEN			
			*							GEN			
372			)0K009	C	)0L009&6,)0N009	7		0230	C 255 269		28	255	269
373			BU		)0L009	5		0237	B 249 /		29	249	
374			CS		LOADNX,)0Q009 LOAD THE NEXT BLOCK AT 1	7		0242	/ 700 276		29	700	276

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
375			)0L009	LCA	)0P009,0-0			7	0249	L 270 000	GEN	29	270 000
376				SBR	)0L009&6			4	0256	H 255	GEN	29	255
377				B	)0K009			4	0260	B 230	GEN	29	230
378			)0M009	DSA	)0R009			3	0266	899	GEN	29	899
379			)0N009	DSA	BEGIN3			3	0269	838	GEN	29	838
380			)0P009	DCW	#1			1	0270		GEN	30	
381				DC	@CLRA @			5	0275	IDENTIFY IN A DECK, TAPE, OR DUMP	GEN	30	
382			)0Q009	DCW	@}@			1	0276		GEN	30	
383				ORG	BEGIN3&X00					0900			
384			)0R009	EQU	*				0899		GEN		
385				XFR	CLRME					B 201		31	201

