

CLEAR STORAGE 1 ,008015,022026,030037,044,049,053053N000000N00001026 1  
 CLEAR STORAGE 2 L068116,105106,110117B101/I9I#071029C029056B026/B001/0991,001/001117I0? 2  
 BOOTSTRAP ,008015,022029,036040,047054,061068,072/061039 ,0010011040 3

FORTRAN COMPILER -- PHASES 00-02

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
101			JOB		FORTRAN COMPILER -- PHASES 00-02								
102			CTL		6611								
103			*										
104			*		SNAPSHOT, SYSTEM MONITOR, AND LOADER PHASE.								
105			*										
106			*		READ AND STORE THE SOURCE PROGRAM, IN REVERSE ORDER, STARTING								
107			*		AT THE TOP OF CORE, WITH BLANKS REMOVED EXCEPT WITHIN								
108			*		HOLLERITH FIELDS IN FORMAT STATEMENTS. EACH STATEMENT BEGINS								
109			*		WITH 000. FORMAT STATEMENTS THEN HAVE F, WHILE OTHERS HAVE R.								
110			*		THEN THE LABEL, IF ANY, FOLLOWED BY A COLON. THE END OF EACH								
111			*		STATEMENT IS MARKED BY A GROUP MARK WITH A WORD MARK. AFTER								
112			*		THE LAST CARD, A STOP STATEMENT IS INSERTED.								
113			*										
114				ORG	81					0081			
115	86			DC	@ @			6	0086			4	
116	89	X1		DCW	@000@			3	0089			4	
117		XXXXX1		EQU	X1 FOR USE IN SFX REGIONS				0089				
118	91			DC	@00@			2	0091			4	
119	94	X2		DCW	@000@			3	0094			4	
120		XXXXX2		EQU	X2 FOR USE IN SFX REGIONS				0094				
121	96			DC	@00@			2	0096			4	
122	99	X3		DCW	@000@			3	0099			4	
123		XXXXX3		EQU	X3 FOR USE IN SFX REGIONS				0099				
124	104			DC	@0 @			5	0104			4	
125	110	PHASID		DCW	@LOADER@ PHASE ID, FOR SNAPSHOT			6	0110			4	
126	111			DCW	#1 WM CLEARED IF DO STATEMENT APPEARS			1	0111			5	
127	112			DCW	#1 WM CLEARED IF DO STATEMENT APPEARS			1	0112			5	
128	113			DCW	#1 WM CLEARED IF DO STATEMENT APPEARS			1	0113			5	
129	114			DCW	#1 WM CLEARED WHEN AN I/O LIST OF DO IS PROCESSED			1	0114			5	
130	115			DCW	#1 WM CLEARED IF I/O LIST AND NOT LIMITED FORMAT			1	0115			5	
131	116	SUBSCR		DCW	#1 WM CLEARED IF SUBSCRIPT CODE NEEDED			1	0116			5	
132	117	SERIES		DCW	#1 NEED SERIES ROUTINE IF NO WM			1	0117			5	
133	118	SINCOS		DCW	#1 SAW SINF OR COSF IF NO WM			1	0118			6	
134	119	LOGF		DCW	#1 SAW LOGF IF NO WM			1	0119			6	
135	120	EXPF		DCW	#1 SAW EXPF IF NO WM			1	0120			6	
136	121			DCW	#1 SAW ATANF IF NO WM			1	0121			6	
137	122	SAWABS		DCW	#1 SAW ABSF IF NO WM			1	0122			6	
138	123	SAWNEG		DCW	#1 SAW NEGATION OPERATOR (UNARY MINUS) IF NO WM			1	0123			6	
139	124	XFIXF		DCW	#1 SAW XFIXF IF NO WM			1	0124			6	
140	125	FLOATF		DCW	#1 SAW FLOATF IF NO WM			1	0125			7	
141	126			DCW	#1 SAW SQRTF IF NO WM			1	0126			7	
142	127			DCW	#1 SAW USER FUNCTION R IF NO WM			1	0127			7	
143	128			DCW	#1 SAW USER FUNCTION U IF NO WM			1	0128			7	
144	129			DCW	#1 SAW USER FUNCTION P IF NO WM			1	0129			7	
145	130			DCW	#1 SAW USER FUNCTION W IF NO WM			1	0130			7	
146	131			DCW	#1 SAW USER FUNCTION Y IF NO WM			1	0131			7	
147	132			DCW	#1 SAW USER FUNCTION Z IF NO WM			1	0132			8	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
148	133			DCW	#1 SAW USER FUNCTION J IF NO WM		1	0133			8		
149	134			DCW	#1 SAW USER FUNCTION K IF NO WM		1	0134			8		
150	135			DCW	#1 SAW USER FUNCTION L IF NO WM		1	0135			8		
151	136			DCW	#1 SAW USER FUNCTION M IF NO WM		1	0136			8		
152	137			DCW	#1 SAW USER FUNCTION D IF NO WM		1	0137			8		
153	138			DCW	#1 SAW USER FUNCTION H IF NO WM		1	0138			8		
154	139			DCW	#1 SAW XLINKF IF NO WM		1	0139			9		
155	142	NEGAR2		DCW	#3 LOOKS LIKE NEGARY -- SEE PHASE 20		3	0142			9		
156	145	TBLBOT		DCW	#3 ONE BELOW NUMBERS, FORMATS, I/O LISTS		3	0145			9		
157	148	SEQTAB		DCW	#3 BOTTOM OF SEQUENCE NUMBER TABLE - 2		3	0148			9		
158	151	DOCNT		DCW	#3 COUNT OF DO STATEMENTS		3	0151			9		
159	154	BOTFMT		DCW	#3 BOTTOM OF FORMAT STRINGS OR NUMBER TABLE - 1		3	0154			9		
160	157	NEGAR3		DCW	#3 LOOKS LIKE NEGARY -- SEE PHASE 20		3	0157			9		
161	160	ARYSIZ		DCW	#3 TOTAL ARRAY SIZE & 2		3	0160			10		
162	163	NEGARY		DCW	#3 16000 - ARYSIZ		3	0163			10		
163	180			DC	#17		17	0180			10		
164	183	NSTMTS		DCW	#3 NUMBER OF STATEMENTS, INCLUDING GENERATED STOP		3	0183			10		
165	184	GLOBER		DC	#1 GLOBAL ERROR FLAG -- WM MEANS ERROR		1	0184			10		
166	185	GOTXL		DCW	#1 XLINKF WAS REFERENCED IF NO WM		1	0185			10		
167	188	RELTAB		DCW	#3 RELOCATABLE FUNCTION TABLE ENTRY ADDRESSES		3	0188			10		
168	191	SUBENT		DCW	#3 ENTRY TO SUBSCRIPT ROUTINE		3	0191			10		
169	194	ARYTOP		DCW	#3 TOP OF ARRAYS IN OBJECT CODE		3	0194			10		
170	195			DC	#1		1	0195			10		
171	199			DCW	@V3M0@		4	0199			11		
172				ORG	333					0333			
173				*									
174				*	SNAPSHOT ROUTINE								
175				*									
176				SFX	S								
177	333	SNAPSH		SBR	EXIT&3	S	4	0333	H 567		12	567	
178	337			SBR	SXX&6	S	4	0337	H 408		12	408	
179	341			MCW	KZ3,ADR5-2 START FIVE-DIGIT ADDRESS AT ZERO	S	7	0341	M 661 656		12	661	656
180	348			MCW	XXXXX3,SX3&6	S	7	0348	M 099 415		12	099	415
181	355			MCW	XXXXX1,SX1&6	S	7	0355	M 089 422		12	089	422
182	362			SBR	XXXXX1,1	S	7	0362	H 089 001		12	089	001
183	369			SBR	XXXXX3,202	S	7	0369	H 099 202		13	099	202
184	376			CS	332	S	4	0376	/ 332		13	332	
185	380			CS		S	1	0380	/		13		
186	381			MCW	PHASID,210	S	7	0381	M 110 210		13	110	210
187	388			BSS	SKIP,F	S	5	0388	B 621 F		13	621	
188				*									
189				*	PRINT A HEADER								
190				*									
191	393			CC	1	S	2	0393	F 1		13		
192	395			MCW	XXXXX2,250	S	7	0395	M 094 250		13	094	250
193	402	SXX		SBR	216,0 RETURN ADDRESS WAS STORED IN B	S	7	0402	H 216 000		14	216	000
194	409	SX3		SBR	256,0 X3 WAS STORED IN B	S	7	0409	H 256 000		14	256	000
195	416	SX1		SBR	244,0 X1 WAS STORED IN B	S	7	0416	H 244 000		14	244	000
196	423			W		S	1	0423	2		14		
197	424			CC	K	S	2	0424	F K		14		

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198	426			ZA	KP2,W2A	S	7	0426	? 662 664		14	662	664
199	433		CLEARH	CS	332	S	4	0433	/ 332		14	332	
200	437			CS		S	1	0437	/		15		
201	438			CC	J	S	2	0438	F J		15		
202	440			MCW	ADR5,306 FIVE-DIGIT ADDRESS	S	7	0440	M 658 306		15	658	306
203	447			MCW		S	1	0447	M		15		
204	448			SBR	LOOP&6	S	4	0448	H 465		15	465	
205	452			MCW	K9,W2B-1	S	7	0452	M 665 668		15	665	668
206	459		LOOP	MCW	W2B-1,000	S	7	0459	M 668 000		15	668	000
207	466			MCW	DOTS	S	4	0466	M 651		16	651	
208	470			SBR	LOOP&6	S	4	0470	H 465		16	465	
209	474			A	KM10,W2B ADD I0 = -10	S	7	0474	A 667 669		16	667	669
210	481			BWZ	LOOP,W2B-1,2 NO ZONE IN COUNTER HIGH DIGIT?	S	8	0481	V 459 668 2		16	459	668
211	489			A	KP1,ADR5-2 BUMP HUNDREDS DIGIT OF ADDRESS	S	7	0489	A 670 656		16	670	656
212	496			W		S	1	0496	2		16		
213	497		GET	SW	0&X3 MOVE DATA AND WM TO PRINT AREA	S	4	0497	, 0?0		16	000+3	
214	501			MCW	0&X1,0&X3	S	7	0501	M 0 0 0?0		17	000+1	000+3
215	508			BW	DOWM,0&X1 SKIP CLEARING PRINT AREA WM	S	8	0508	V 520 0 0 1		17	520	000+1
216	516			CW	0&X3	S	4	0516	) 0?0		17	000+3	
217	520		DOWM	C	XXXXX1, TOPCOR DONE?	S	7	0520	C 089 688		17	089	688
218	527			BU	CONT NO	S	5	0527	B 568 /		17	568	
219	532			W		S	1	0532	2		17		
220	533			WM		S	2	0533	2 )		17		
221	535		RX1	MCW	SX1&6,XXXXX1 RESTORE INDEX REGS	S	7	0535	M 422 089		18	422	089
222	542			MCW	SX3&6,XXXXX3	S	7	0542	M 415 099		18	415	099
223	549			CS	332	S	4	0549	/ 332		18	332	
224	553			CS		S	1	0553	/		18		
225	554			BSS	HALT,G	S	5	0554	B 563 G		18	563	
226	559			B	EXIT	S	4	0559	B 564		18	564	
227	563		HALT	H		S	1	0563	.		18		
228	564		EXIT	B	0-0	S	4	0564	B 000		19	000	
229	568		CONT	SBR	XXXXX1,1&X1	S	7	0568	H 089 0 1		19	089	001+1
230	575			BCE	BUMP3,XXXXX3-2,2	S	8	0575	B 632 097 2		19	632	097
231	583			SBR	XXXXX3,201	S	7	0583	H 099 201		19	099	201
232	590			W		S	1	0590	2		19		
233	591			WM		S	2	0591	2 )		19		
234	593			A	KP1,W2A	S	7	0593	A 670 664		19	670	664
235	600			C	W2A,KP15	S	7	0600	C 664 672		20	664	672
236	607			BU	CLEARH	S	5	0607	B 433 /		20	433	
237	612			S	W2A	S	4	0612	S 664		20	664	
238	616			CCB	CLEARH,1	S	5	0616	F 433 1		20	433	
239	621		SKIP	MCW	XQTD,220	S	7	0621	M 680 220		20	680	220
240	628			W	RX1	S	4	0628	2 535		20	535	
241	632		BUMP3	A	KP1,XXXXX3	S	7	0632	A 670 099		20	670	099
242	639			B	GET	S	4	0639	B 497		21	497	
243	651		DOTS	DCW	@9.....@	S	9	0651			21		
244	653			DCW	@9-@	S	2	0653			21		
245	658		ADR5	DCW	00000 FIVE DIGIT ADDRESS	S	5	0658			21		
246	661		KZ3	DCW	000	S	3	0661			21		
247	662		KP2	DCW	&2	S	1	0662			21		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
248	664		W2A	DCW	#2	S	2	0664			21		
249	665		K9	DCW	9	S	1	0665			22		
250	667		KM10	DCW	@I0@	S	2	0667			22		
251	669		W2B	DCW	#2	S	2	0669			22		
252	670		KP1	DCW	&1	S	1	0670			22		
253	672		KP15	DCW	&15	S	2	0672			22		
254	680		XQTD	DCW	@EXECUTED@	S	8	0680			22		
255			SFX		END OF SNAPSHOT ROUTINE								
256			*										
257			*		STORAGE FOR PARAMETER CARD								
258			*										
259			DA		1X19			0681	0699		22		
260	685		PWORD		5 THE WORD PARAM			0685		SBFLD			
261	688		TOPCOR		8 TOP CORE ADDRESS FROM PARAM CARD			0688		SBFLD			
262	690		IMOD		10 INTEGER MODULUS -- NUMBER OF DIGITS			0690		SBFLD			
263	692		MANTIS		12 FLOATING POINT MANTISSA DIGITS			0692		SBFLD			
264	693		CONDNS		13 P FOR CONDENSED DECK			0693		SBFLD			
265	694		SNAPSW		14 S FOR SNAPSHOT			0694		SBFLD			
266	695		C1410		15 T IF RUN ON 1410 IN 1401 COMPATIBILITY MODE			0695		SBFLD			
267	696		FMTSW		16 X FOR NO FORMAT, L FOR LIMITED FORMAT			0696		SBFLD			
268			*		BLANK FOR ORDINARY, A FOR A CONVERSION								
269	699		PARAM		19 PARAMETER CARD IS STORED HERE			0699		SBFLD			

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
270				JOB	LOAD NEXT OVERLAY								
271			*										
272			*	LOAD NEXT OVERLAY									
273			*										
274				SFX	L								
275			*										
276			*	THE DEFAULT IS TO LOAD A BLOCK AT 201 AND BRANCH TO IT, ASSUMING									
277			*	IT'S AN INTERPHASE CLEAR OR LOAD BLOCK. IF LOADED FROM AN									
278			*	AUTOCODER TAPE, THE ADDRESSES ARE CHANGED TO 1. IF LOADED FROM									
279			*	CARDS THE LOAD AND ENTRY ADDRESSES ARE IRRELEVANT. TO LOAD OTHER									
280			*	PHASE BLOCKS, THE LOAD BLOCK CHANGES THE TPREAD AND LOADEX									
281			*	ADDRESSES, AND THEN CHANGES THEM BACK.									
282			*										
283				ORG	700	L			0700				
284	700		LOADNX	R	40	L	4	0700	1 040		23	040	
285	704		RDAGIN	ZA	ECOUNT	L	4	0704	? 755		23	755	
286	708		TPREAD	RTW	1,201	L	8	0708	L %U1 201 R		23	%U1	201
287	716		BER	TPERR	ERROR?	L	5	0716	B 725 L		23	725	
288	721		LOADEX	B	201	L	4	0721	B 201		23	201	
289	725		TPERR	BSP	1	L	5	0725	U %U1 B		23	%U1	
290	730			A	*-6,ECOUNT	L	7	0730	A 730 755		23	730	755
291	737		BCE	TPREAD,ECOUNT-1,0	NOT TEN YET?	L	8	0737	B 708 754 0		24	708	754
292	745		NOP	3333	TOO MANY TAPE ERRORS	L	4	0745	N C33		24	3333	
293	749			H		L	1	0749	.		24		
294	750			B	RDAGIN	L	4	0750	B 704		24	704	
295	755		ECOUNT	DCW	#2	L	2	0755			24		
296			*										
297			*	START HERE. SET UP THE LOADER AND LOAD PHASE 1.									
298			*										
299	756		BEGIN1	BCE	LOADNX,1,	L	8	0756	B 700 001		24	700	001
300	764			BCE	LOADNX,68,B	L	8	0764	B 700 068 B		24	700	068
301	772			MCW	NO,LOADNX	L	7	0772	M 809 700		25	809	700
302	779			BCE	LOADNX,1,B	L	8	0779	B 700 001 B		25	700	001
303	787			MCW	COMMA,LOADNX	L	7	0787	M 810 700		25	810	700
304	794			SBR	TPREAD&6,1	L	7	0794	H 714 001		25	714	001
305	801			SBR	LOADEX&3	L	4	0801	H 724		25	724	
306	805			B	LOADNX	L	4	0805	B 700		25	700	
307	809			NOP1	NOP	L	1	0809	N		25		
308	810			COMMA	SW	L	1	0810	,		26		
309	811			GMWM1	DCW @}@	L	1	0811		GMARK	26		
310			*	A LOAD ADDRESS FOR COMPILER_GEN IS NOT NEEDED FOR BLOCK 1									
311				XFR	BEGIN1	L			B 756		27	756	
312			*										
313			*	GENERATE A CLEAR BLOCK FROM BEGIN1 TO GMWM									
314			*										
315				CLR1	CLRA					MACRO			
			*							GEN			
			*	CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS									
			*							GEN			
			*							GEN			
316				ORG	BEGIN1&X00	L			0800				

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
317			)OR001	EQU	* CLRBOT & X00 - 1	L		0799		GEN			
318				ORG	201	L			0201	GEN			
			*							GEN			
			*		CLEAR DOWN TO CLRBOT & X00 THE EASY WAY					GEN			
			*							GEN			
319			CLR1	EQU	)0J001	L		0201		GEN			
320			)0J001	CS	GMWM1 CLEAR FROM CLRTOP	L	4	0201	/ 811	GEN	30	811	
321				SBR	)0J001&3	L	4	0205	H 204	GEN	30	204	
322				SBR	)0L001&6	L	4	0209	H 261	GEN	30	261	
323				C	)0J001&3,)0M001 DOWN TO CLRBOT & X00?	L	7	0213	C 204 272	GEN	30	204	272
324				BU	)0J001	L	5	0220	B 201 /	GEN	30	201	
			*							GEN			
			*		NOW CLEAR DOWN TO CLRBOT THE HARD WAY					GEN			
			*							GEN			
325			)0K001	C	)0L001&6,)0N001	L	7	0225	C 261 275	GEN	30	261	275
326				BU	)0L001	L	5	0232	B 255 /	GEN	30	255	
327				SBR	TPREAD&6,1 RESET THE LOADER AFTER BTWN	L	7	0237	H 714 001	GEN	31	714	001
328				SBR	LOADEX&3 CHANGED IT TO LOAD ME	L	4	0244	H 724	GEN	31	724	
329				CS	LOADNX,)0Q001 LOAD THE NEXT BLOCK AT 1	L	7	0248	/ 700 277	GEN	31	700	277
330			)0L001	LCA	)0P001,0-0 CLEAR WITH BLANK AND WORD MARK	L	7	0255	L 276 000	GEN	31	276	000
331				SBR	)0L001&6	L	4	0262	H 261	GEN	31	261	
332				B	)0K001	L	4	0266	B 225	GEN	31	225	
333			)0M001	DSA	)0R001 CLRBOT & X00 - 1	L	3	0272	799	GEN	31	799	
334			)0N001	DSA	BEGIN1 CLRBOT	L	3	0275	756	GEN	32	756	
335			)0P001	DCW	#1	L	1	0276		GEN	32		
336			)0Q001	DCW	@}@	L	1	0277		GEN	32		
337				DC	@CLRA @ IDENTIFY IT A DECK, TAPE, OR DUMP	L	5	0282		GEN	32		
338				ORG	*&1 START NEW CARD FOR COMPILER-GEN	L			0284				
339				DSA	CLR1 CLRA	L	3	0286	201	GEN	33	201	
340				XFR	CLR1 PROHIBITED IN A MACRO	L			B 201		34	201	
341				SFX									
342			*										
343			*		GENERATE THE BLOCK TO LOAD PHASE 1								
344			*										
345			PHAS1	NEWPH	@PHASE 1@,BEGIN2,BEGIN2					MACRO			
			*							GEN			
			*		LOAD A NEW PHASE					GEN			
			*							GEN			
346				ORG	201				0201				
347			PHAS1	LCA	)0N002,PHASID		7	0201	L 266 110	GEN	37	266	110
348				BCE	LOADNX,LOADNX,1 LOADING FROM CARDS?		8	0208	B 700 700 1	GEN	37	700	700
349				BCE	LOADNX,LOADNX,, LOADING FROM AUTOCODER TAPE?		8	0216	B 700 700 ,	GEN	37	700	700
350				SBR	TPREAD&6,BEGIN2 SETUP TO READ BLOCK		7	0224	H 714 756	GEN	37	714	756
351				SBR	LOADEX&3,)0J002&3 SETUP TO COME BACK HERE		7	0231	H 724 245	GEN	37	724	245
352				B	LOADNX LOAD THE NEXT BLOCK		4	0238	B 700	GEN	38	700	
353			)0J002	SBR	TPREAD&6,201 SETUP TO READ NEXT BLOCK AT 201		7	0242	H 714 201	GEN	38	714	201
354				SBR	LOADEX&3 SETUP TO ENTER NEXT BLOCK AT 201		4	0249	H 724	GEN	38	724	
355				CS	BEGIN2,)0P002 ENTER THIS BLOCK		7	0253	/ 756 267	GEN	38	756	267
356			)0N002	DCW	@PHASE 1@ THE PHASE ID FROM PARAMETER 1		7	0266		GEN	38		
357			)0P002	DCW	@}@		1	0267		GEN	38		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
358				DC	@ NEWPH @				IDENTIFY IT A DECK, TAPE, OR DUMP	GEN	38		
359				ORG	*&1				START NEW CARD FOR COMPILER-GEN				
360				DSA	PHAS1 NEWP	3		0278	201	GEN	39	201	
361				XFR	PHAS1				B 201		40	201	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
362				JOB	READ AND CHECK PARAMETER CARD								
363			*										
364			*	BEGIN PHASE 1:	READ AND CHECK PARAMETER CARD								
365			*										
366			*										
367			*	READ AND CHECK	PARAMETER CARD								
368			*										
369				ORG	BEGIN1				0756				
370	756		BEGIN2	CS	80	4		0756	/ 080		43	080	
371	760			SW	1,GM	7		0760	, 001 M22		43	001	2422
372	767			SW	81,84	7		0767	, 081 084		43	081	084
373	774			CS	332	4		0774	/ 332		43	332	
374	778			CS		1		0778	/		43		
375	779			R	READ PARAMETER CARD	1		0779	1		43		
376	780		LCA	19,PARAM	SAVE IT	7		0780	L 019 699		43	019	699
377	787		C	PARAM-14,KPARAM	IS IT A PARAMETER CARD?	7		0787	C 685 M47		44	685	2447
378	794		BU	NOPARM	NO, ANNOUNCE ERROR	5		0794	B K17 /		44	2217	
379	799		SW	73	SET WORD MARKS FOR	4		0799	, 073		44	073	
380	803		SW	6,7	FORTTRAN MARGINS	7		0803	, 006 007		44	006	007
381	810		SW	TOPCOR-2		4		0810	, 686		44	686	
382	814		MCW	80,PWORD		7		0814	M 080 685		44	080	685
383			*										
384			*	DETERMINE THIS MACHINE'S	CORE SIZE, COMPARE IT TO								
385			*	SIZE ON	PARAMETER CARD								
386			*										
387	821			CS	0-0	4		0821	/ 000		44	000	
388	825			SBR	CORSIZ	4		0825	H M50		45	2450	
389	829			MCW	TOPCOR,TOCONV	7		0829	M 688 M53		45	688	2453
390	836			B	ADCONV COVERT TOPCOR TO FIVE DIGITS	4		0836	B X79		45	1779	
391	840			MCW	CONVTD, TOP5	7		0840	M M58 N46		45	2458	2546
392	847			MCW	CORSIZ, TOCONV	7		0847	M M50 M53		45	2450	2453
393	854			B	ADCONV CONVERT CORSIZ TO FIVE DIGITS	4		0854	B X79		45	1779	
394	858			MCW	CONVTD, COR5	7		0858	M M58 N41		46	2458	2541
395	865			A	KP1, TOP5 TOP ADDR + 1 = SIZE	7		0865	A M59 N46		46	2459	2546
396	872			A	KP1, COR5 COR ADDR + 1 = SIZE	7		0872	A M59 N41		46	2459	2541
397	879			CS	332	4		0879	/ 332		46	332	
398	883			CS		1		0883	/		46		
399	884			CC	1	2		0884	F 1		46		
400	886			CS	332	4		0886	/ 332		46	332	
401	890			CS		1		0890	/		47		
402	891			MCW	STMSG, 228 START FORTRAN COMPILATION MSG	7		0891	M M87 228		47	2487	228
403	898			W		1		0898	2		47		
404	899			CC	J	2		0899	F J		47		
405	901			MCW	TOP5, 231	7		0901	M N46 231		47	2546	231
406	908			MCW	SPSIZE SPECIFIED SIZE	4		0908	M N13		47	2513	
407	912			W		1		0912	2		47		
408	913			CS	235	4		0913	/ 235		48	235	
409	917			MCW	COR5, 228	7		0917	M N41 228		48	2541	228
410	924			MCW	ACTSIZ ACTUAL SIZE	4		0924	M N36		48	2536	
411	928			BCE	BIGNUF, C1410, T COMPILING FOR 1410 COMPATIBILITY?	8		0928	B 999 695 T		48	999	695



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
412		936		W		1		0936	2		48		
413		937		C	COR5, TOP5	7		0937	C N41 N46		48	2541	2546
414		944		BH	PSGTM PRINT SPEC SIZE GT MACH SIZE	5		0944	B 980 U		48	980	
415		949		C	TOP5, K3900 COMPARE TOP TO 3900	7		0949	C N46 N51		49	2546	2551
416		956		BL	BIGNUF	5		0956	B 999 T		49	999	
417		961		CC	J	2		0961	F J		49		
418		963		CS	332	4		0963	/ 332		49	332	
419		967		CS		1		0967	/		49		
420		968		MCW	SIZERR, 218 MACHINE SIZE ERROR	7		0968	M N69 218		49	2569	218
421		975		W		1		0975	2		49		
422		976		B	USEACT	4		0976	B 992		50	992	
423		980	PSGTM	MCW	SGTM, 267 SPEC. SIZE GT MACH. SIZE MSG	7		0980	M O15 267		50	2615	267
424		987		MCW	SGTM2 REST OF THE MESSAGE	4		0987	M O36		50	2636	
425		991		W		1		0991	2		50		
426		992	USEACT	MCW	CORSIZ, TOPCOR USE ACTUAL SIZE	7		0992	M M50 688		50	2450	688
427		999	BIGNUF	MCW	TOPCOR, CLEAR&3	7		0999	M 688  09		50	688	1009
428				*									
429				*	CLEAR FROM TOP OF THIS MACHINE'S MEMORY DOWN TO DOWNT0								
430				*									
431	1	006	CLEAR	CS	0-0	4		1006	/ 000		50	000	
432	1	010		SBR	CLEAR&3	4		1010	H  09		51	1009	
433	1	014		C	CLEAR&3, DOWNT0	7		1014	C  09 O39		51	1009	2639
434	1	021		BU	CLEAR	5		1021	B  06 /		51	1006	
435				*									
436				*	READ THE PROGRAM INTO HIGH CORE								
437				*									
438	1	026		R		1		1026	1		51		
439	1	027		MZ	*-6, AZONE SET A ZONE AFTER CARD STORAGE AREA	7		1027	Y  27 L94		51	1027	2394
440	1	034		MZ	*-6, INTRST&7 SET A ZONE IN BCE D-MODIFIER	7		1034	Y  34 W10		51	1034	1610
441	1	041		MZ	*-6, BLNKOK&7 , ,	7		1041	Y  41 Y83		51	1041	1883
442	1	048		MZ	*-6, INTCHR-1 ADD A ZONE TO INTERESTING CHARS	7		1048	Y  48 K80		52	1048	2280
443	1	055		MCW	PREFIX, CARD1-1 SET DEFAULT PREFIX	7		1055	M M26 L21		52	2426	2321
444	1	062		MCW	TOPCOR, *&4	7		1062	M 688  72		52	688	1072
445	1	069		CW	0-0	4		1069	) 000		52	000	
446	1	073		SBR	MVCHAR&6	4		1073	H S73		52	1273	
447				*									
448				*	PROCESS NEXT CARD								
449				*									
450	1	077	RDLOOP	BW	MOVECD, FLAG	8		1077	V /14 P21 1		52	1114	2721
451	1	085		BCE	DONE, 1, :	8		1085	B Z73 001 :		53	1973	001
452				*									
453				*	NO SYSTEM AFTER END CARD								
454				*									
455	1	093	NOSYS	CC	1	2		1093	F 1		53		
456	1	095		CS	332	4		1095	/ 332		53	332	
457	1	099		CS		1		1099	/		53		
458	1	100		MCW	MSG1, 270	7		1100	M O80 270		53	2680	270
459	1	107		W		1		1107	2		53		
460	1	108		CC	1	2		1108	F 1		53		
461	1	110	HALT1	H	HALT1	4		1110	. /10		54	1110	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
462			*										
463			* MOVE	CARD	TO SAVE AREA								
464			*										
465	1	114	MOVECD	MCW	72,CARD72 MOVE CARD TO SAVE AREA	7		1114	M 072 L93		54	072	2393
466	1	121		MCW		1		1121	M		54		
467	1	122		MCW		1		1122	M		54		
468	1	123		BCE	DONE,CARD1, :	8		1123	B Z73 L22 :		54	1973	2322
469	1	131	C12T	BIN	PRTHDG, UNCONDITIONAL AT FIRST, BECOMES BCV	5		1131	B J60		54	2160	
470	1	136	AFTHDG	CS	300	4		1136	/ 300		54	300	
471	1	140		CS		1		1140	/		55		
472	1	141		MCW	72,283 MOVE CARD TO PRINT AREA	7		1141	M 072 283		55	072	283
473	1	148		MCW	6,215	7		1148	M 006 215		55	006	215
474	1	155		BCE	LSTCMT,CARD1,C PRINT NOW IF COMMENT	8		1155	B K51 L22 C		55	2251	2322
475	1	163	CRD1SW	B	NOTCNT BECOMES NOP AFTER FIRST CARD	4		1163	B U49		55	1449	
476	1	167		BCE	NOTCNT,CARD6,0	8		1167	B U49 L27 0		55	1449	2327
477	1	175		BCE	NOTCNT,CARD6,	8		1175	B U49 L27		56	1449	2327
478			*										
479			* CONTINUATION CARD										
480			*										
481	1	183		A	KP1,CNTCNT BUMP CONTINUATION COUNT	7		1183	A M59 P17		56	2459	2717
482	1	190		BCE	CNTOK,CNTCNT-1,0 NINE OR FEWER?	8		1190	B S05 P16 0		56	1205	2716
483	1	198		MCW	CNTMSG,300 PUT ERROR MSG IN PRINT AREA	7		1198	M 095 300		56	2695	300
484	1	205	CNTOK	W	LIST THE CARD	1		1205	2		56		
485	1	206		MCW	CARD7A,SVCHAR&3 SET SAVE CHAR ADDR TO COL 7	7		1206	M L99 S16		56	2399	1216
486			*										
487			* PROCESS THE CARD (NOTCNT COMES BACK HERE)										
488			*										
489	1	213	SVCHAR	MCW	0-0,CHAR SAVE A CHARACTER	7		1213	M 000 P24		57	000	2724
490	1	220		SW	SVCHAR&1	4		1220	, S14		57	1214	
491	1	224		A	K1,SVCHAR&3 BUMP ADDR OF CHAR TO SAVE	7		1224	A M03 S16		57	2403	1216
492	1	231		CW	SVCHAR&1	4		1231	) S14		57	1214	
493	1	235	CRD2SW	NOP	BLNKOK BRANCH IF COPYING EVERYTHING	4		1235	N Y76		57	1876	
494	1	239		BCE	SVCHAR,CHAR, SKIP BLANKS	8		1239	B S13 P24		57	1213	2724
495	1	247		MCW	CHAR,*&8	7		1247	M P24 S61		58	2724	1261
496	1	254		BCE	INTRST,INTCHR,0	8		1254	B W03 K81 0		58	1603	2281
497				CHAIN	5					MACRO			
498				BCE		1		1262	B	GEN	58		
499				BCE		1		1263	B	GEN	58		
500				BCE		1		1264	B	GEN	58		
501				BCE		1		1265	B	GEN	58		
502				BCE		1		1266	B	GEN	58		
503	1	267	MVCHAR	MCW	CHAR,0	7		1267	M P24 000		59	2724	000
504	1	274		SBR	MVCHAR&6	4		1274	H S73		59	1273	
505	1	278	BUMPNS	A	KP1,NCHAR BUMP CHARACTER COUNTER	7		1278	A M59 P00		59	2459	2700
506	1	285		C	MVCHAR&6,BOTCOR CORE FULL OF SOURCE CODE?	7		1285	C S73 P03		59	1273	2703
507	1	292		BE	BIGSRC	5		1292	B J26 S		59	2126	
508	1	297	CRD3SW	BCE	HOLLER,CHAR,H	8		1297	B W54 P24 H		59	1654	2724
509	1	305	CRD4SW	NOP	BRANCH,CRD3SW	7		1305	N P04 S97		60	2704	1297
510			*										
511	1	312	TEST7	C	SVCHAR&3,CARD7A AT COLUMN 7?	7		1312	C S16 L99		60	1216	2399





SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
612	1	779	ADCONV	SBR	EXIT&3	C	4	1779	H Y75		73	1875	
613	1	783		S	CNVW2A	C	4	1783	S P33		73	2733	
614	1	787		S	CNVW2B	C	4	1787	S P35		73	2735	
615	1	791		MZ	TOCONV,CNVW2A-1	C	7	1791	Y M53 P32		73	2453	2732
616	1	798		MZ	TOCONV-2,CNVW2B-1	C	7	1798	Y M51 P34		73	2451	2734
617	1	805	LOOP1	BWZ	LOOP2,CNVW2B-1,2	C	8	1805	V Y24 P34 2		73	1824	2734
618	1	813		A	CNVKA0,CNVW2B	C	7	1813	A P37 P35		74	2737	2735
619	1	820		B	LOOP1	C	4	1820	B Y05		74	1805	
620	1	824	LOOP2	BWZ	LP2X,CNVW2A-1,2	C	8	1824	V Y43 P32 2		74	1843	2732
621	1	832		A	CNVKQ4,CNVW2A	C	7	1832	A P39 P33		74	2739	2733
622	1	839		B	LOOP2	C	4	1839	B Y24		74	1824	
623	1	843	LP2X	A	CNVW2B-1,CNVW2A	C	7	1843	A P34 P33		74	2734	2733
624	1	850		MCW	TOCONV,CONVTD	C	7	1850	M M53 M58		75	2453	2458
625	1	857		MCW	CNVW2A	C	4	1857	M P33		75	2733	
626	1	861		ZA	CONVTD	C	4	1861	? M58		75	2458	
627	1	865		MZ	*-4,CONVTD CLEAR ZONE IN OUTPUT	C	7	1865	Y Y67 M58		75	1867	2458
628	1	872	EXIT	B	0-0	C	4	1872	B 000		75	000	
629				SFX									
630				*									
631	1	876	BLNKOK	BCE	TESTLC,CHAR, TEST FOR A ZONE		8	1876	B K66 P24		75	2266	2724
632	1	884		S	KP1,HCOUNT		7	1884	S M59 P27		76	2459	2727
633	1	891		C	HCOUNT,PZE HOLLERITH COUNT DOWN TO ZERO?		7	1891	C P27 P42		76	2727	2742
634	1	898		BU	MVCHAR NOPE, JUST MOVE THE CHARACTER		5	1898	B S67 /		76	1267	
635	1	903		MCW	MOVE2,CRD4SW		7	1903	M P43 T05		76	2743	1305
636	1	910		MCW	NOP2,CRD2SW		7	1910	M M21 S35		76	2421	1235
637	1	917		MCW	SVCHAR&3,X1		7	1917	M S16 089		77	1216	089
638	1	924		C	0&X1,COMMA		7	1924	C 0 0 P44		77	000+1	2744
639	1	931		BE	MVCHAR		5	1931	B S67 S		77	1267	
640	1	936		MCW	MVCHAR&6,*&7		7	1936	M S73 Z49		77	1273	1949
641	1	943		MCW	0,0		7	1943	M 000 000		77	000	000
642	1	950		MCW	COMMA		4	1950	M P44		77	2744	
643	1	954		SBR	MVCHAR&6		4	1954	H S73		78	1273	
644	1	958		A	KP1,NCHAR		7	1958	A M59 P00		78	2459	2700
645	1	965		B	BUMPNS		4	1965	B S78		78	1278	
646	1	969		B	MVCHAR		4	1969	B S67		78	1267	
647				*									
648				*	FINISHED READING THE SOURCE DECK								
649				*									
650	1	973	DONE	MCW	MVCHAR&6,X1		7	1973	M S73 089		78	1273	089
651	1	980		LCA	GM,0&X1		7	1980	L M22 0 0		78	2422	000+1
652	1	987		SBR	X1		4	1987	H 089		78	089	
653	1	991		CC	1		2	1991	F 1		79		
654	1	993		CS	332		4	1993	/ 332		79	332	
655	1	997		CS			1	1997	/		79		
656	1	998		MCS	NCHAR,205		7	1998	Z P00 205		79	2700	205
657	2	005		MCW	MSGCHR,222		7	2005	M P60 222		79	2760	222
658	2	012		W			1	2012	2		79		
659	2	013		CC	J		2	2013	F J		79		
660	2	015		MCW	NSTMT,NSTMTS		7	2015	M P15 183		80	2715	183
661	2	022		LCA	STOP,0&X1		7	2022	L P71 0 0		80	2771	000+1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
662	2	029		SBR	X1	4		2029	H 089		80	089	
663	2	033		SW	2&X1	4		2033	, 0 2		80	002+1	
664	2	037		A	KP1,NSTMTS	7		2037	A M59 183		80	2459	183
665	2	044		BCE	NOTBIG,3000,	8		2044	B !56 ?00		80	2056	3000
666	2	052		B	BIGSRC	4		2052	B J26		81	2126	
667	2	056	NOTBIG	CS	80 GET	4		2056	/ 080		81	080	
668	2	060		SW	1,40 READY	7		2060	, 001 040		81	001	040
669	2	067		SW	47,54 FOR	7		2067	, 047 054		81	047	054
670	2	074		SW	61,68 CARD	7		2074	, 061 068		81	061	068
671	2	081		SW	72 OVERLAY	4		2081	, 072		81	072	
672	2	085		BSS	SNAPSH,C	5		2085	B 333 C		81	333	
673	2	090		BCE	CARDS,LOADNX,1 LOADED FROM CARDS?	8		2090	B J02 700 1		82	2102	700
674	2	098		B	LOADNX	4		2098	B 700		82	700	
675	2	102	CARDS	R		1		2102	1		82		
676	2	103		C	7,SCANR2	7		2103	C 007 J25		82	007	2125
677	2	110		BE	LOADNX	5		2110	B 700 S		82	700	
678	2	115		B	NOSYS	4		2115	B  93		82	1093	
679	2	125	SCANR2	DCW	@SCANNER@	7		2125			82		
680				*									
681				*	SOURCE PROGRAM TOO BIG								
682				*									
683	2	126	BIGSRC	CS	332	4		2126	/ 332		83	332	
684	2	130		CS		1		2130	/		83		
685	2	131		CC	1	2		2131	F 1		83		
686	2	133		MCW	MSG2,270	7		2133	M Q14 270		83	2814	270
687	2	140		W		1		2140	2		83		
688	2	141		CC	1	2		2141	F 1		83		
689	2	143		BCE	HALT2,LOADNX,1 RUNNING FROM CARDS?	8		2143	B J56 700 1		83	2156	700
690	2	151		RWD	1 NO, REWIND THE TAPE	5		2151	U %U1 R		84	%U1	
691	2	156	HALT2	H	HALT2	4		2156	. J56		84	2156	
692				*									
693				*	PRINT LISTING PAGE HEADING								
694				*									
695	2	160	PRTHDG	CC	1	2		2160	F 1		84		
696	2	162		MCW	KAT,C12T&4 CHANGE TO BCV	7		2162	M P12 /35		84	2712	1135
697	2	169		CS	299	4		2169	/ 299		84	299	
698	2	173		A	K1,PAGNUM	7		2173	A M03 Q17		84	2403	2817
699	2	180		MCS	PAGNUM,299	7		2180	Z Q17 299		84	2817	299
700	2	187		MCW	KPAGE,295	7		2187	M Q25 295		85	2825	295
701	2	194		MCW	80	4		2194	M 080		85	080	
702	2	198		W		1		2198	2		85		
703	2	199		CS	299	4		2199	/ 299		85	299	
704	2	203		MCW	PAGHDG,234	7		2203	M L16 234		85	2316	234
705	2	210		W		1		2210	2		85		
706	2	211		CC	J	2		2211	F J		85		
707	2	213		B	AFTHDG	4		2213	B /36		86	1136	
708				*									
709				*	NO PARAMETER CARD								
710				*									
711	2	217	NOPARM	CC	1	2		2217	F 1		86		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
712	2	219		CS	332	4		2219	/ 332		86	332	
713	2	223		CS		1		2223	/		86		
714	2	224		MCW	MSG3,270	7		2224	M Q54 270		86	2854	270
715	2	231		W		1		2231	2		86		
716	2	232		CC	1	2		2232	F 1		86		
717	2	234		BCE	HALT3,LOADNX,1	8		2234	B K47 700 1		87	2247	700
718	2	242		RWD	1	5		2242	U %U1 R		87	%U1	
719	2	247	HALT3	H	HALT3	4		2247	. K47		87	2247	
720				*									
721				*	LIST COMMENT CARD								
722				*									
723	2	251	LSTCMT	MCW	FINAL,203	7		2251	M Q57 203		87	2857	203
724	2	258		MCW	5,211	7		2258	M 005 211		87	005	211
725	2	265		W		1		2265	2		87		
726	2	266	TESTLC	BLC	DONE	5		2266	B Z73 A		87	1973	
727	2	271		R		1		2271	1		88		
728	2	272		B	RDLOOP	4		2272	B  77		88	1077	
729				*									
730	2	281	INTCHR	DCW	@\$/  @ INTERESTING CHARACTERS	6		2281			88		
731	2	316	PAGHDG	DCW	@ SEQ STMT FORTRAN STATEMENT@	35		2316			89		
732				*									
733				*	CARD SAVE AREA								
734				*									
735	2	317		DA	1X78			2317	2394		89		
736	2	318	SAVE2		2			2318		SBFLD			
737	2	322	CARD1		6			2322		SBFLD			
738	2	327	CARD6		11			2327		SBFLD			
739	2	328	CARD7		12			2328		SBFLD			
740	2	393	CARD72		77			2393		SBFLD			
741	2	394	AZONE		78			2394		SBFLD			
742				*									
743				*	CONSTANTS AND WORK AREAS								
744				*									
745	2	396	COLCNT	DCW	#2	2		2396			90		
746	2	399	CARD7A	DSA	CARD7 ADDRESS OF COLUMN 7 IN SAVE AREA	3		2399	L28		90	2328	
747	2	402	SAVE2A	DSA	SAVE2	3		2402	L18		90	2318	
748	2	403	K1	DCW	1	1		2403			90		
749	2	404	BRNCH2	DC	@B@	1		2404			90		
750	2	406	K20	DC	20	2		2406			90		
751	2	413	WORK7	DCW	#7	7		2413			90		
752	2	420	KFMT	DCW	@%TAMROF@ 'FORMAT%' SPELLED BACKWARD	7		2420			90		
753	2	421	NOP2	DC	@N@	1		2421			90		
754	2	422	GM	DC	@}@	1		2422		GMARK	90		
755	2	426	PREFIX	DCW	@000R@ DEFAULT STATEMENT PREFIX -- ARITHMETIC	4		2426			90		
756	2	427	COLON	DCW	@:@	1		2427			91		
757	2	429	K10	DCW	10	2		2429			91		
758	2	430	MOVE	DC	@M@	1		2430			91		
759	2	441	PROCD	DCW	@ PROCESSED @	11		2441			91		
760	2	442	NOP	NOP		1		2442	N		91		
761	2	447	KPARAM	DCW	@PARAM@	5		2447			91		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
762	2	450	CORSIZ	DCW	#3 ACTUAL MACHINE SIZE (TOP ADDR)	3		2450				91	
763	2	453	TOCONV	DCW	#3 ADDRESS TO BE CONVERTED TO FIVE DIGITS	3		2453				91	
764	2	458	CONVTD	DCW	#5 ADDRESS CONVERTED TO FIVE DIGITS	5		2458				92	
765	2	459	KP1	DCW	&1	1		2459				92	
766	2	487	STMSG	DCW	@START OF FORTRAN COMPILATION@	28		2487				92	
767	2	513	SPSIZE	DCW	@MACHINE SIZE SPECIFIED IS @	26		2513				93	
768	2	536	ACTSIZ	DCW	@ACTUAL MACHINE SIZE IS @	23		2536				94	
769	2	541	COR5	DCW	#5 CORSIZ AS FIVE DIGITS	5		2541				94	
770	2	546	TOP5	DCW	#5 TOPCOR AS FIVE DIGITS	5		2546				94	
771	2	551	K3900	DCW	03900	5		2551				94	
772	2	569	SIZERR	DCW	@MACHINE SIZE ERROR@	18		2569				95	
773	2	615	SGTM	DCW	@SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@	46		2615				97	
774	2	636	SGTM2	DCW	@ERROR - MACHINE SIZE @	21		2636				97	
775	2	639	DOWNTD	DSA	2999 DCW @R99@	3		2639	R99			97	2999
776	2	680	MSG1	DCW	@MESSAGE 1--SYSTEM DOES NOT FOLLOW END CARD@	41		2680				99	
777	2	695	CNTMSG	DCW	@CONTINUE CD ERR@	15		2695				99	
778	2	700	NCHAR	DCW	#5 NUMBER OF CHARACTERS	5		2700				99	
779	2	703	BOTCOR	DSA	3000 BOTTOM OF SPACE TO STORE PROGRAM	3		2703	?00			99	3000
780	2	704	BRANCH	DCW	@B@	1		2704				99	
781	2	710	WORK6	DCW	#6	6		2710				100	
782	2	711	KF	DCW	@F@	1		2711				100	
783	2	712	KAT	DCW	@@@	1		2712				100	
784	2	715	NSTMT	DCW	#3 NUMBER OF STATEMENTS	3		2715				100	
785	2	717	CNTCNT	DCW	#2 COUNT OF CONTINUATION CARDS	2		2717				100	
786	2	720	KEND	DCW	@DNE@	3		2720				100	
787	2	721	FLAG	DCW	#1 WORD MARK IS A FLAG	1		2721				100	
788	2	722	KMINUS	DCW	@-@	1		2722				101	
789	2	723	KSTAR	DCW	@*@	1		2723				101	
790	2	724	CHAR	DCW	#1 CHARACTER FROM INPUT	1		2724				101	
791	2	727	HCOUNT	DCW	#3 HOLLERITH COUNT	3		2727				101	
792	2	729	KZ2	DCW	00 TWO ZEROS	2		2729				101	
793	2	730	KZ1	DCW	0	1		2730				101	
794	2	731	WORKH1	DCW	#1 WORK SPACE FOR HOLLERITH COUNT	1		2731				101	
795	2	733	CNVW2A	DCW	#2 WORK SPACE FOR ADDRESS CONVERSION	2		2733				102	
796	2	735	CNVW2B	DCW	#2 WORK SPACE FOR ADDRESS CONVERSION	2		2735				102	
797	2	737	CNVKA0	DCW	@A0@	2		2737				102	
798	2	739	CNVKQ4	DCW	@?4@	2		2739				102	
799	2	742	PZE	DCW	&000 PLUS ZERO	3		2742				102	
800	2	743	MOVE2	MCW		1		2743	M			102	
801	2	744	COMMA	DCW	@,@	1		2744				102	
802	2	760	MSGCHR	DCW	@INPUT CHARACTERS@	16		2760				103	
803	2	771	STOP	DCW	@ }POTS:R000@ STOP SPELLED BACKWARD, ETC.	11		2771				103	
804	2	778	SCANR1	DCW	@SCANNER@	7		2778				103	
805	2	814	MSG2	DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	36		2814				104	
806	2	817	PAGNUM	DCW	#3	3		2817				104	
807	2	825	KPAGE	DCW	@ PAGE @	8		2825				105	
808	2	854	MSG3	DCW	@MESSAGE 3 - NO PARAMETER CARD@	29		2854				105	
809	2	857	FINAL	DCW	#3	3		2857				106	
810			ORG		*X00						2900		
811			ORG		*-1						2899		



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
812	2	999	GMWM	DCW	@}@								
813				XFR	BEGIN2								
						1		2899		GMARK	107		
									B 756		108	756	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
814				JOB	CLEAR PHASES 1 AND 2, LEAVE SNAPSH AND LDNEXT								
815			CLRME	CLRA	BEGIN2,GMWM					MACRO			
			*							GEN			
			*	CLEAR CORE	AFTER A PHASE USING THE CLRTOP ADDRESS					GEN			
			*							GEN			
816				ORG	BEGIN2&X00				0800				
817			)OR003	EQU	* CLRBOT & X00 - 1			0799		GEN			
818				ORG	201				0201				
			*							GEN			
			*	CLEAR DOWN	TO CLRBOT & X00 THE EASY WAY					GEN			
			*							GEN			
819			CLRME	EQU	)0J003				0201	GEN			
820			)0J003	CS	GMWM CLEAR FROM CLRTOP	4		0201	/ Q99	GEN	111	2899	
821				SBR	)0J003&3	4		0205	H 204	GEN	111	204	
822				SBR	)0L003&6	4		0209	H 261	GEN	111	261	
823				C	)0J003&3,)0M003 DOWN TO CLRBOT & X00?	7		0213	C 204 272	GEN	111	204	272
824				BU	)0J003	5		0220	B 201 /	GEN	111	201	
			*							GEN			
			*	NOW CLEAR DOWN	TO CLRBOT THE HARD WAY					GEN			
			*							GEN			
825			)0K003	C	)0L003&6,)0N003	7		0225	C 261 275	GEN	111	261	275
826				BU	)0L003	5		0232	B 255 /	GEN	111	255	
827				SBR	TPREAD&6,1 RESET THE LOADER AFTER BTWN	7		0237	H 714 001	GEN	112	714	001
828				SBR	LOADEX&3 CHANGED IT TO LOAD ME	4		0244	H 724	GEN	112	724	
829				CS	LOADNX,)0Q003 LOAD THE NEXT BLOCK AT 1	7		0248	/ 700 277	GEN	112	700	277
830			)0L003	LCA	)0P003,0-0 CLEAR WITH BLANK AND WORD MARK	7		0255	L 276 000	GEN	112	276	000
831				SBR	)0L003&6	4		0262	H 261	GEN	112	261	
832				B	)0K003	4		0266	B 225	GEN	112	225	
833			)0M003	DSA	)0R003 CLRBOT & X00 - 1	3		0272	799	GEN	112	799	
834			)0N003	DSA	BEGIN2 CLRBOT	3		0275	756	GEN	113	756	
835			)0P003	DCW	#1	1		0276		GEN	113		
836			)0Q003	DCW	@}@	1		0277		GEN	113		
837				DC	@CLRA @ IDENTIFY IT A DECK, TAPE, OR DUMP	5		0282		GEN	113		
838				ORG	*&1 START NEW CARD FOR COMPILER-GEN				0284				
839				DSA	CLRME CLRA	3		0286	201	GEN	114	201	
840				XFR	CLRME				B 201		115	201	
841				END					/ 201 080			201	

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)OJ001	0201: 0	)OJ002	0242: 0	)OJ003	0201: 0	)OK001	0225: 0	)OK003	0225: 0	)OL001	0255: 0
)OL003	0255: 0	)OM001	0272: 0	)OM003	0272: 0	)ON001	0275: 0	)ON002	0266: 0	)ON003	0275: 0
)OP001	0276: 0	)OP002	0267: 0	)OP003	0276: 0	)OQ001	0277: 0	)OQ003	0277: 0	)OR001	0799: 0
)OR003	0799: 0	ACTSIZ	2536: 0	ADCONV	1779: 0	ADR5 S	0658: 0	AFTHDG	1136: 0	ARYSIZ	0160: 0
ARYTOP	0194: 0	AT	1592: 0	AT2	1705: 0	AT3	1736: 0	AZONE	2394: 0	BEGIN1	0756: 0
BEGIN2	0756: 0	BIGNUF	0999: 0	BIGSRC	2126: 0	BLNKOK	1876: 0	BOTCOR	2703: 0	BOTFMT	0154: 0
BRANCH	2704: 0	BRNCH2	2404: 0	BUMP3S	0632: 0	BUMPNS	1278: 0	C12T	1131: 0	C1410	0695: 0
CARD1	2322: 0	CARD6	2327: 0	CARD7	2328: 0	CARD72	2393: 0	CARD7A	2399: 0	CARDS	2102: 0
CHAR	2724: 0	CLEAR	1006: 0	CLEARH	0433: 0	CLR1 L	0201: 0	CLRME	0201: 0	CNTCNT	2717: 0
CNTMSG	2695: 0	CNTOK	1205: 0	CNVKA0	2737: 0	CNVKQ4	2739: 0	CNVW2A	2733: 0	CNVW2B	2735: 0
COL3	1572: 0	COLCNT	2396: 0	COLON	2427: 0	COMMA	2744: 0	COMMAL	0810: 0	CONDNS	0693: 0
CONT S	0568: 0	CONVTD	2458: 0	COR5	2541: 0	CORSIZ	2450: 0	CRD1SW	1163: 0	CRD2SW	1235: 0
CRD3SW	1297: 0	CRD4SW	1305: 0	CRD5SW	1319: 0	CRD6SW	1328: 0	DOCNT	0151: 0	DONE	1973: 0
DOTS S	0651: 0	DOWM S	0520: 0	DOWNT0	2639: 0	ECOUNT	0755: 0	EXIT C	1872: 0	EXIT S	0564: 0
EXPF	0120: 0	FINAL	2857: 0	FLAG	2721: 0	FLOATF	0125: 0	FMTSW	0696: 0	GET S	0497: 0
GLOBER	0184: 0	GM	2422: 0	GMWM	2899: 0	GMWM1L	0811: 0	GOTXL	0185: 0	HALT S	0563: 0
HALT1	1110: 0	HALT2	2156: 0	HALT3	2247: 0	HCOUNT	2727: 0	HOLLER	1654: 0	IMOD	0690: 0
INTCHR	2281: 0	INTRST	1603: 0	K1	2403: 0	K10	2429: 0	K20	2406: 0	K3900	2551: 0
K9 S	0665: 0	KAT	2712: 0	KEND	2720: 0	KF	2711: 0	KFMT	2420: 0	KM10 S	0667: 0
KMINUS	2722: 0	KP1	2459: 0	KP1 S	0670: 0	KP15 S	0672: 0	KP2 S	0662: 0	KPAGE	2825: 0
KPARAM	2447: 0	KSTAR	2723: 0	KZ1	2730: 0	KZ2	2729: 0	KZ3 S	0661: 0	LOADEX	0721: 0
LOADNX	0700: 0	LOGF	0119: 0	LOOP S	0459: 0	LOOP1C	1805: 0	LOOP2C	1824: 0	LP2X C	1843: 0
LSTCMT	2251: 0	MANTIS	0692: 0	MOVE	2430: 0	MOVE2	2743: 0	MOVECD	1114: 0	MSG1	2680: 0
MSG2	2814: 0	MSG3	2854: 0	MSGCHR	2760: 0	MVCHAR	1267: 0	MVCHR2	1525: 0	NCHAR	2700: 0
NEGAR2	0142: 0	NEGAR3	0157: 0	NEGARY	0163: 0	NOP	2442: 0	NOP1 L	0809: 0	NOP2	2421: 0
NOPARM	2217: 0	NOSYS	1093: 0	NOTBIG	2056: 0	NOTCNT	1449: 0	NSTMT	2715: 0	NSTMTS	0183: 0
NZH	1754: 0	NZHML	1720: 0	PAGHDG	2316: 0	PAGNUM	2817: 0	PARAM	0699: 0	PHAS1	0201: 0
PHASID	0110: 0	PREFIX	2426: 0	PROCD	2441: 0	PRTHDG	2160: 0	PSGTM	0980: 0	PWORD	0685: 0
PZE	2742: 0	RDAGIN	0704: 0	RDLOOP	1077: 0	RELTAB	0188: 0	RX1 S	0535: 0	SAVE2	2318: 0
SAVE2A	2402: 0	SAWABS	0122: 0	SAWNEG	0123: 0	SCANR1	2778: 0	SCANR2	2125: 0	SEQTAB	0148: 0
SERIES	0117: 0	SGTM	2615: 0	SGTM2	2636: 0	SINCOS	0118: 0	SIZERR	2569: 0	SKIP S	0621: 0
SLASH	1438: 0	SNAPSH	0333: 0	SNAPSW	0694: 0	SPSIZE	2513: 0	STMSG	2487: 0	STOP	2771: 0
SUBENT	0191: 0	SUBSCR	0116: 0	SVCHAR	1213: 0	SX1 S	0416: 0	SX3 S	0409: 0	SXX S	0402: 0
TBLBOT	0145: 0	TEST7	1312: 0	TESTLC	2266: 0	TOCONV	2453: 0	TOP5	2546: 0	TOPCOR	0688: 0
TPERRL	0725: 0	TPREAD	0708: 0	USEACT	0992: 0	W2A S	0664: 0	W2B S	0669: 0	WORK6	2710: 0
WORK7	2413: 0	WORKH1	2731: 0	X1	0089: 0	X2	0094: 0	X3	0099: 0	XFIXF	0124: 0
XQTD S	0680: 0	XXXXX1	0089: 0	XXXXX2	0094: 0	XXXXX3	0099: 0				

## UNREFERENCED SYMBOLS

ARYSIZ ARYTOP BOTFMT CONDNS DOCNT EXPF FLOATF FMTSW GLOBER GOTXL IMOD LOGF MANTIS NEGAR2 NEGAR3 NEGARY RELTAB  
SAWABS SAWNEG SCANR1 SEQTAB SERIES SINCOS SNAPSW SUBENT SUBSCR TBLBOT XFIXF