

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

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	000	JOB	AUTOCODER-PASS 5-PROCESS LABELS-INITL-VERSION 3						
102	1	02		CTL	63011						
103	1	03		*							
104	1	04		*	EQUATES USED BY PROGRAM						
105	1	05		*							
106	1	06	INITAP	EQU	%U0			%U0			
107	1	07	SVSTPE	EQU	%U1			%U1			
108	1	08	SAVETP	EQU	%U4			%U4			
109	1	09	CINPUP	EQU	%U5			%U5			
110	1	10	COUPTP	EQU	%U6			%U6			
111	1	11	DOUPTP	EQU	%U5			%U5			
112	1	12	DINPUP	EQU	%U6			%U6			
113	1	13	TABLE	EQU	2409			2409			
114	1	14	ADDLO	EQU	TABLE-006&X2			2403 X			
115	1	15	SYMHO	EQU	TABLE-005&X2			2404 X			
116	1	16	ADDHO	EQU	TABLE-009&X2			2400 X			
117	1	17	LBLREF	EQU	TABLE-008&X2			2401 X			
118	1	18	SYMBOL	EQU	TABLE&X2			2409 X			
119	1	19	CARD	EQU	0			0000			
120	1	20	STAOP	EQU	CARD&001			0001			
121	1	21	STLABL	EQU	CARD&002			0002			
122	1	22	STADDR	EQU	CARD&003			0003			
123	1	23	STBOP	EQU	CARD&004			0004			
124	1	24	COUNT	EQU	CARD&007			0007			
125	1	25	LABEL	EQU	CARD&013			0013			
126	1	26	AOPER	EQU	CARD&022			0022			
127	1	27	AOPADJ	EQU	CARD&026			0026			
128	1	28	AINDEX	EQU	CARD&027			0027			
129	1	29	ORGADD	EQU	CARD&032			0032			
130	1	30	CNVLAB	EQU	CARD&056			0056			
131	1	31	LABADD	EQU	CARD&061			0061			
132	1	32	SUPADD	EQU	CARD&066			0066			
133	1	33	AOP	EQU	CARD&070			0070			
134	1	34	TYPE	EQU	CARD&075			0075			
135	1	35	AOPHO	EQU	CARD&017			0017			
136	1	36	LBLHO	EQU	CARD&008			0008			
137	1	37	HOADD	EQU	CARD&057			0057			
138	1	38	TPAREA	EQU	3918			3918			
139	1	39	INPUT	EQU	TPAREA-001&X3			3917 X			
140	1	40	LIMIT	EQU	TPAREA&13			3931			
141	1	41	XXXX	EQU	0			0000			
142	1	42	GPMR3	EQU	3998			3998			
143	1	43	LIBRN	EQU	0			0000			
144	1	44		*							
145	1	45		*							
146	1	46		*	GET, PUT, REDUNDANCY &						
147	1	47		*	CROSSOVER ROUTINES COMMON						

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1	48		*	TO BOTH PASSES						
149	1	49		*							
150	1	50		*							
151	1	51		ORG	ENDOPC&1			1925			
152	1	52		*	GET & PUT						
153	1	53		*							
154	1	54		*							
155	1	55	GET	C	BLKCT,KBLKNG	7		1925 C L30 L26			4
156	1	56		BE	WRITE	5		1932 B X67 S			4
157	1	57	NXTREC	A	%80, BLKCT	7		1937 A L36 L30			4
158	1	58		MCW	BLKCT, XR3	7		1944 M L30 099			4
159	1	59	MOVEIN	MCW	INPUT, CARD&80	7		1951 M IA7 080			4
160	1	60		*	CHAIN 9					MACRO	
161				MCW		1		1958 M		GEN	4
162				MCW		1		1959 M		GEN	4
163				MCW		1		1960 M		GEN	5
164				MCW		1		1961 M		GEN	5
165				MCW		1		1962 M		GEN	5
166				MCW		1		1963 M		GEN	5
167				MCW		1		1964 M		GEN	5
168				MCW		1		1965 M		GEN	5
169				MCW		1		1966 M		GEN	5
170	1	61		S	XR3&001	4		1967 S 100			6
171	1	62		S		1		1971 S			6
172	1	63		S		1		1972 S			6
173	1	64		B	ANAL	4		1973 B 114			6
174	1	65	PUT	MCW	BLKCT, XR3	7		1977 M L30 099			6
175	1	66		MCW	CARD&80, INPUT	7		1984 M 080 IA7			6
176	1	67		*	CHAIN 9					MACRO	
177				MCW		1		1991 M		GEN	6
178				MCW		1		1992 M		GEN	7
179				MCW		1		1993 M		GEN	7
180				MCW		1		1994 M		GEN	7
181				MCW		1		1995 M		GEN	7
182				MCW		1		1996 M		GEN	7
183				MCW		1		1997 M		GEN	7
184				MCW		1		1998 M		GEN	7
185				MCW		1		1999 M		GEN	8
186	1	68		B	GET	4		2000 B Z25			8
187	1	69		*							
188	1	70		*	TAPE REDUNDANCY ROUTINE						
189	1	71		*							
190	1	72	TPERR	SBR	XR1	4		2004 H 089			8
191	1	73		SBR	REDXT&3	4		2008 H 176			8
192	1	74		MZ	%9, XR1	7		2012 Y L37 089			8
193	1	75		MCW	4000-10&X1, TPINST&7	7		2019 M I20 167			8
194	1	76		MN	TPINST&3, BSP1&3	7		2026 D 163 143			8
195	1	77		MCW	TPINST&7, INST2&7	7		2033 M 167 J76			9
196	1	78	BSP1	BSP	INITAP	5		2040 U %U0 B			9
197	1	79		BCE	WRTRED, TPINST&7, W	8		2045 B J49 167 W			9

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	80		MCW	&9_READCT#1	7		2053	M L37 L38		9
199	1	81	TPINST	RT	INITAP,XXXX	8		2060	M &U0 000 R		9
200	1	82		BER	RDRERR	5		2068	B !77 L		10
201	1	83	REDXT	B	XXXX	4		2073	B 000		10
202	1	84	RDRERR	MN	TPINST&3,BSP2&3	7		2077	D !63 !87		10
203	1	85	BSP2	BSP	INITAP	5		2084	U &U0 B		10
204	1	86		S	&1_READCT	7		2089	S L39 L38		10
205	1	87	BWZ		TPINST_READCT,B	8		2096	V !60 L38 B		10
206	1	88		MN	TPINST&3,TPHALT&6	7		2104	D !63 J17		11
207	1	89	TPHALT	H	XXXX,590	7		2111	. 000 590		11
208	1	90		MCW	TPINST&7,*&8	7		2118	M !67 J32		11
209	1	91		RT	INITAP,XXXX	8		2125	M &U0 000 R		11
210	1	92		BSS	BSP1,E	5		2133	B !40 E		11
211	1	93	TPHLT3	H	XXXX,511	7		2138	. 000 511		12
212	1	94		B	REDXT	4		2145	B !73		12
213	1	95	WRTRED	SKP	SYSTPE	5		2149	U &U1 E		12
214	1	96		BCE	SUBCTR,WRTCTR-1,5	8		2154	B J86 I40 5		12
215	1	97		A	&1,WRTCTR#2	7		2162	A L39 I41		12
216	1	98	INST2	WT	INITAP,XXXX	8		2169	M &U0 000 W		12
217	1	99		BER	BSP1	5		2177	B !40 L		13
218	2	00		B	REDXT	4		2182	B !73		13
219	2	01	SUBCTR	S	WRTCTR	4		2186	S L41		13
220	2	02		MN	TPINST&3,*&7	7		2190	D !63 K03		13
221	2	03	TPHLT2	H	XXXX,560	7		2197	. 000 560		13
222	2	04		B	INST2	4		2204	B J69		13
223	2	05		*							
224	2	06		*	CHECK FOR SHORT RECORDS						
225	2	07		*							
226	2	08	CHKLGT	SBR	XR1	4		2208	H 089		13
227	2	09		SBR	LGTXT&3	4		2212	H K46		14
228	2	10		MZ	&9,XR1	7		2216	Y L37 089		14
229	2	11	LGTK	BCE	4000-12&X1,LIMIT,}	8		2223	B IY8 I31 }	GMARK	14
230	2	12		CHAIN	12					MACRO	
231				BCE		1		2231	B	GEN	14
232				BCE		1		2232	B	GEN	14
233				BCE		1		2233	B	GEN	14
234				BCE		1		2234	B	GEN	14
235				BCE		1		2235	B	GEN	15
236				BCE		1		2236	B	GEN	15
237				BCE		1		2237	B	GEN	15
238				BCE		1		2238	B	GEN	15
239				BCE		1		2239	B	GEN	15
240				BCE		1		2240	B	GEN	15
241				BCE		1		2241	B	GEN	15
242				BCE		1		2242	B	GEN	16
243	2	13	LGTXT	B	XXXX	4		2243	B 000		16
244	2	14		*							
245	2	15		*	CROSSOVER, C TO D						
246	2	16		*							
247	2	17	RDPSSD	RTW	SYSTPE,1	8		2247	L &U1 001 R		16

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248	2	18		NOP	XXXX	4		2255	N 000		16
249	2	19		BER	TPERR	5		2259	B !04 L		16
250	2	20		CW	ENDOFD	4		2264	) Y68		16
251	2	21		B	PASSD	4		2268	B S90		16
252	2	22		*							
253	2	23		*	CROSSOVER, D TO C						
254	2	24		*							
255	2	25	RDPSSC	RTW	COUTPT,1	8		2272	L &U6 001 R		17
256	2	26		NOP	XXXX	4		2280	N 000		17
257	2	27		BER	TPERR	5		2284	B !04 L		17
258	2	28		CW	ENDOFD	4		2289	) Z24		17
259	2	29		B	CLRTAB	4		2293	B Y13		17
260	2	30		*							
261	2	31		*	COMMON CONSTANTS						
262	2	32		*							
263	2	33	CLRMAX	DCW	@I97@	3		2299			17
264	2	34	CLRMIN	DSA	TABLE-010	3		2302	L99		17
265	2	35	FNCTN	DCW	@ @	6		2308			18
266	2	36	TABMAX	DCW	@V00@	3		2311			18
267	2	37	MAXADD	DCW	@ @	3		2314			18
268	2	38	TABLSZ	DCW	&0150	4		2318			18
269	2	39	MAXSER	DCW	@ @	4		2322			18
270	2	40	SFXCTR	DCW	@ @	1		2323			18
271	2	41	KBLKNG	DCW	@080@	3		2326			18
272	2	42	BUMPOP	DCW	@#@	1		2327			19
273	2	43	HOLDA	DCW	&0000	4		2331			19
274	2	44	BLKCT	EQU	HOLDA-1			2330			
275	2	45	TPAD	DSA	TPAREA	3		2334	I18		19
276	2	46		LTORG	*			2335			
				DCW	&80	2		2336		LIT	19
				DCW	&9	1		2337		LIT	19
			READCT	DCW	#01	1		2338		AREA	19
				DCW	&1	1		2339		LIT	19
			WRTCTR	DCW	#02	2		2341		AREA	20
277	2	47		*							
278	2	48		*	PROTECTED CONSTANTS						
279	2	49		*							
280	2	50	FACTOR	EQU	TABLE-021			2388			
281	2	51	MACHSZ	EQU	TABLE-020			2389			
282	2	52	TOTLAB	EQU	TABLE-016			2393			
283	2	53	UNPRSW	EQU	TABLE-015			2394			
284	2	54	PROCSW	EQU	TABLE-014			2395			
285	2	55	SERCHS	EQU	TABLE-010			2399			
286	2	56		*							
287	2	57		*	INITIALIZE PASS C ONE TIME						
288	2	58		*							
289	2	59		ORG	TABLE-009			2400			
290	2	60		RWD	SAVETP	5		2400	U &U4 R		21
291	2	61		RWD	CINPUP	5		2405	U &U5 R		21
292	2	62		RWD	COUTPT	5		2410	U &U6 R		21

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
293	2	63		CS	3999			4 2415	/ I99		21
294	2	64		SW	GRPMRK			4 2419	, Q66		21
295	2	65		LCA	@00@,PROCSW			7 2423	L Q68 L95		21
296	2	66		LCA	&0150,SERCHS			7 2430	L Q72 L99		21
297	2	67		LCA	@0015@,FACTOR			7 2437	L Q76 L88		22
298	2	68		RTW	SYSTPE,1			8 2444	L \$U1 001 R		22
299	2	69		NOP	XXXX			4 2452	N 000		22
300	2	70		BER	TPERR			5 2456	B !04 L		22
301	2	71		CW	ENDINT			4 2461	) R01		22
302	2	72		*							
303	2	73		*	SET I/O GROUP MARK						
304	2	74		*							
305	2	75		MCW	MACHSZ,KEEP1#001			7 2465	M L89 Q77		22
306	2	76		A	&3,KEEP1			7 2472	A Q78 Q77		23
307	2	77		MN	KEEP1,*&004			7 2479	D Q77 M89		23
308	2	78		MZ	ZONE2,*&007			7 2486	Y 109 M99		23
309	2	79	SETIO	LCA	GRPMRK,GPMRK3			7 2493	L Q66 I98		23
310	2	80		BWZ	SETBMP,SETIO&006,2			8 2500	V P18 M99 2		23
311	2	81		CS	4799			4 2508	/ 79Z		24
312	2	82		CS	4399			4 2512	/ 39Z		24
313	2	83		MCW	@#@,BUMP			7 2516	M Q79 W81		24
314	2	84		BCE	SET\$K,MACHSZ,4			8 2523	B O20 L89 4		24
315	2	85		*							
316	2	86		*	12K CONSTANTS						
317	2	87		*							
318	2	88		MCW	BLKG12,KBLKNG			7 2531	M Q52 L26		24
319	2	89		MCW	TBSZ12,TABLSZ			7 2538	M Q56 L18		24
320	2	90		MCW	TBLM12,TABMAX			7 2545	M Q59 L11		25
321	2	91		MCW	TPAD12,TPAD			7 2552	M Q62 L34		25
322	2	92		MCW	MDTP12,MDTP#003			7 2559	M Q65 Q82		25
323	2	93		A	&72,FACTOR			7 2566	A Q84 L88		25
324	2	94		BCE	SETTP,FACTOR,5			8 2573	B O62 L89 5		25
325	2	95		*							
326	2	96		*	16K CONSTANTS						
327	2	97		*							
328	2	98		A	&400,TABLSZ			7 2581	A Q87 L18		26
329	2	99		A	&40,FACTOR			7 2588	A Q89 L88		26
330	3	00		MZ	ABBIT,TABMAX			7 2595	Y 113 L11		26
331	3	01		MZ	ABBIT,TPAD			7 2602	Y 113 L34		26
332	3	02		MZ	ABBIT,MDTP			7 2609	Y 113 Q82		26
333	3	03		B	SETTP			4 2616	B O62		26
334	3	04		*							
335	3	05		*	8K CONSTANTS						
336	3	06		*							
337	3	07	SET\$K	MCW	BLKG\$K,KBLKNG			7 2620	M Q36 L26		27
338	3	08		MCW	TBSZ\$K,TABLSZ			7 2627	M Q40 L18		27
339	3	09		MCW	TBLM\$K,TABMAX			7 2634	M Q43 L11		27
340	3	10		MCW	TPAD\$K,TPAD			7 2641	M Q46 L34		27
341	3	11		MCW	MDTP\$K,MDTP			7 2648	M Q49 Q82		27
342	3	12		A	&36,FACTOR			7 2655	A Q91 L88		28

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
343	3	13	SETTP	MZ	TPAD,CLRMAX			7 2662	Y L34 K99		28
344	3	14		MCW	MDTP,MOVEIN&003			7 2669	M Q82 Z54		28
345	3	15		MCW	MDTP,PUT&013			7 2676	M Q82 Z90		28
346	3	16		MCW	TPAD,WRITE&006			7 2683	M L34 X73		28
347	3	17		MCW	TPAD,READ&010			7 2690	M L34 X98		29
348	3	18		MCW	TPAD,LIMAD#3			7 2697	M L34 Q94		29
349	3	19		MA	&13,LIMAD			7 2704	# Q96 Q94		29
350	3	20		MCW	LIMAD,LGTCK&6			7 2711	M Q94 K29		29
351	3	21	SETBMP	MCW	BUMP,BUMPOP			7 2718	M W81 L27		29
352	3	22		LCA	GRPMRK,ENDOFPC			7 2725	L Q66 Z24		30
353	3	23		*							
354	3	24		*	WRITE PASS C CHECKPOINT ON 6						
355	3	25		*							
356	3	26		CS	80			4 2732	/ 080		30
357	3	27		SW	CARD&001,CARD&006			7 2736	, 001 006		30
358	3	28		SW	CARD&017,CARD&024			7 2743	, 017 024		30
359	3	29		SW	CARD&028,CARD&035			7 2750	, 028 035		30
360	3	30		SW	CARD&057,CARD&062			7 2757	, 057 062		30
361	3	31		SW	CARD&068,CARD&071			7 2764	, 068 071		31
362	3	32		WTW	COUTPT,1			8 2771	L \$U6 001 W		31
363	3	33		NOP	XXXX			4 2779	N 000		31
364	3	34		BER	TPERR			5 2783	B !04 L		31
365	3	35		CW	ENDOFPC,GRPMRK			7 2788	) Z24 Q66		31
366	3	36		C	TOTLAB,TABLSZ			7 2795	C L93 L18		31
367	3	37		MCW	TABLSZ,SERCHS			7 2802	M L18 L99		32
368	3	38		S	TOTLAB			4 2809	S L93		32
369	3	39		BE	CLRTAB			5 2813	B Y13 S		32
370	3	40		BH	CLRTAB			5 2818	B Y13 U		32
371	3	41		MCW	&0009,SERCHS			7 2823	M R00 L99		32
372	3	42		B	CLRTAB			4 2830	B Y13		32
373	3	43	BLKG\$K	DCW	@400@			3 2836			32
374	3	44	TBSZ\$K	DCW	&0510			4 2840			33
375	3	45	TBLM\$K	DSA	5100			3 2843	/0'		33
376	3	46	TPAD\$K	DSA	7598			3 2846	E9Y		33
377	3	47	MDTP\$K	DSA	7597&X3			3 2849	EIX		33
378	3	48	BLKG12	DCW	@800@			3 2852			33
379	3	49	TBSZ12	DCW	&0870			4 2856			33
380	3	50	TBLM12	DSA	8700			3 2859	70!		33
381	3	51	TPAD12	DSA	11198			3 2862	A9Q		34
382	3	52	MDTP12	DSA	11197&X3			3 2865	AIP		34
383	3	53	GRPMRK	DC	@}\$@			1 2866		GMARK	34
384	3	54		LTORG	*				2867		
				DCW	@00@			2 2868		LIT	34
				DCW	&0150			4 2872		LIT	34
				DCW	@0015@			4 2876		LIT	34
			KEEP1	DCW	#01			1 2877		AREA	34
				DCW	&3			1 2878		LIT	34
				DCW	@#@			1 2879		LIT	35
			MDTP	DCW	#03			3 2882		AREA	35
				DCW	&72			2 2884		LIT	35

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	&400		3	2887		LIT	35
				DCW	&40		2	2889		LIT	35
				DCW	&36		2	2891		LIT	35
			LIMAD	DCW	#03		3	2894		AREA	35
				DCW	&13		2	2896		LIT	36
				DCW	&0009		4	2900		LIT	36
385	3	55	ENDINT	DCW	@}@\		1	2901		GMARK	36
386	3	56	XFR	LIBRN					B 000		37

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
387	3	57		JOB	AUTOCODER-PASS 5 MAIN LINE						
388	3	58		*							
389	3	59		*	PASS C-LOAD SYMBOL TABLE& SET ADDRESSES						
390	3	60		*							
391	3	61	ZONE	EQU	113			0113			
392	3	62	113	DCW	@2SKB@		4	0113			40
393	3	63	ZONE2	EQU	109			0109			
394	3	64	109	DCW	@2SKB@		4	0109			41
395	3	65	ABBIT	EQU	ZONE			0113			
396	3	66	BBIT	EQU	ZONE-001			0112			
397	3	67	ABIT	EQU	ZONE-002			0111			
398	3	68	NOBIT	EQU	ZONE-003			0110			
399	3	69	XR1	EQU	89			0089			
400	3	70	89	DCW	@000@		3	0089			42
401	3	71	XR2	EQU	94			0094			
402	3	72	94	DCW	@000@		3	0094			43
403	3	73	XR3	EQU	99			0099			
404	3	74	99	DCW	@000@		3	0099			44
405	3	75	ORG		ZONE&001				0114		
406	3	76		*							
407	3	77		*	DETERMINE RECORD TYPE						
408	3	78		*							
409	3	79	ANAL	BM	PUT,CARD&005		8	0114	V 277 005 K		45
410	3	80		BCE	PUT,TYPE,%		8	0122	B 277 075 %		45
411	3	81		BCE	INSTR,TYPE,		8	0130	B 219 075		45
412	3	82		MN	TYPE,XR2		7	0138	D 075 094		45
413	3	83		BCE	DA,XR2,0		8	0145	B 871 094 0		45
414	3	84		MCW	@0@,INDFTR		7	0153	M Y92 Y69		46
415	3	85		MCW	@0@,DASW		7	0160	M Y92 Y68		46
416	3	86		A	XR2		4	0167	A 094		46
417	3	87		A	XR2		4	0171	A 094		46
418	3	88		B	*&001&X2		4	0175	B 1P9		46
419	3	89		NOP	XXXX		4	0179	N 000		46
420	3	90		B	CONST		4	0183	B 260		46
421	3	91		B	CONST		4	0187	B 260		47
422	3	92		B	EXEND		4	0191	B 973		47
423	3	93		B	SFX		4	0195	B 992		47
424	3	94		B	PUT		4	0199	B 277		47
425	3	95		B	ORG		4	0203	B 376		47
426	3	96		B	DS		4	0207	B 295		47
427	3	97		B	PUT		4	0211	B 277		47
428	3	98		B	PUT		4	0215	B 277		48
429	3	99		*							
430	4	00		*	PROCESS INSTRUCTIONS						
431	4	01		*							
432	4	02	INSTR	MCW	@0@,INDFTR		7	0219	M Y92 Y69		48
433	4	03		B	PRCADD		4	0226	B '03		48
434	4	04		B	PROCLB		4	0230	B /09		48
435	4	05		BWZ	PUT,STADDR,2		8	0234	V 277 003 2		48
436	4	06		A	COUNT,NOWCTR		7	0242	A 007 Y48		48

AUTOCODER-PASS 5 MAIN LINE				-VERSION 3	3752L	PAGE 9			
SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
437	4	07	S @1@,NOWCTR	7	0249	S	Y93 Y48		49
438	4	08	B PUT	4	0256	B	Z77		49
439	4	09	*						
440	4	10	* PROCESS CONSTANTS & DCW						
441	4	11	*						
442	4	12	CONST BCE PRCAST,AOPHO,*	8	0260	B	283 017 *		49
443	4	13	MCW @1@,ACTSW	7	0268	M	Y93 Y67		49
444	4	14	B PROCLB	4	0275	B	/09		49
445	4	15	B PUT	4	0279	B	Z77		49
446	4	16	*						
447	4	17	* CONSTANTDS WITH ASTERISK ADDRESS						
448	4	18	*						
449	4	19	PRCAST B PRCAADD	4	0283	B	'03		49
450	4	20	B PROCLB	4	0287	B	/09		50
451	4	21	B PUT	4	0291	B	Z77		50
452	4	22	*						
453	4	23	* PROCESS DS & EQUATES						
454	4	24	*						
455	4	25	DS BCE PROCTU,AOPHO,%	8	0295	B	361 017 %		50
456	4	26	A AINDEX,INDPTR	7	0303	A	027 Y69		50
457	4	27	BCE CONST,AOPHO,*	8	0310	B	260 017 *		50
458	4	28	BWZ CONST,AOPHO,2	8	0318	V	260 017 2		50
459	4	29	BWZ *&5,STAOP,2	8	0326	V	338 001 2		51
460	4	30	B CONST	4	0334	B	260		51
461	4	31	*						
462	4	32	* EQUATE						
463	4	33	*						
464	4	34	B SETAOP	4	0338	B	U35		51
465	4	35	MCW DSAPUT,LABRTN&003	7	0342	M	Y72 S97		51
466	4	36	BWZ UNPROC,STAOP,2	8	0349	V	/81 001 2		51
467	4	37	B CONST	4	0357	B	260		51
468	4	38	*						
469	4	39	* DS OF INPUT DEVICE						
470	4	40	*						
471	4	41	PROCTU MCW AOPER-003,LABADD-001	7	0361	M	019 060		52
472	4	42	MCW @0@	4	0368	M	Y92		52
473	4	43	B CONST	4	0372	B	260		52
474	4	44	*						
475	4	45	* PROCESS ORIGIN & LITERAL ORIGIN						
476	4	46	*						
477	4	47	ORG BWZ SETHGH,CARD&033,B	8	0376	V	405 033 B		52
478	4	48	ZA LABADD,ORGADD	7	0384	?	061 032		52
479	4	49	A @1@,ORGADD	7	0391	A	Y93 032		52
480	4	50	MZ ABBIT,CARD&033	7	0398	Y	113 033		53
481	4	51	SETHGH BCE ORGSAV,MAXSW,1	8	0405	B	432 Y60 1		53
482	4	52	C NOWCTR,HGHCTR	7	0413	C	Y48 Y58		53
483	4	53	BH ORGSAV	5	0420	B	432 U		53
484	4	54	ZA NOWCTR,HGHCTR	7	0425	?	Y48 Y58		53
485	4	55	*						
486	4	56	* PROCESS SAVE COUNTER OF ORIGIN						

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SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
487	4	57	*						
488	4	58	ORGSAV BCE AOPOR,LBLHO,	8	0432	B	536 008		54
489	4	59	MCW @005@,XR1	7	0440	M	Y96 089		54
490	4	60	MCW &AOPOR,LABRTN&003	7	0447	M	Y99 S97		54
491	4	61	BWZ *&005,STLABL,2	8	0454	V	466 002 2		54
492	4	62	B AOPOR	4	0462	B	536		54
493	4	63	BCE STRSAV,SUPADD,	8	0466	B	502 066		55
494	4	64	BTOLAB B DOLABL	4	0474	B	T58		55
495	4	65	B SEARCH	4	0478	B	W29		55
496	4	66	BCE STORE,DBLSW,1	8	0482	B	S69 Y64 1		55
497	4	67	BCE STORE,SPCSW,0	8	0490	B	S69 Y63 0		55
498	4	68	B UNPROC	4	0498	B	/81		55
499	4	69	STRSAV BCE UNPROC,ADDRSW,1	8	0502	B	/81 Y59 1		56
500	4	70	BCE UNPROC,LITRSW,1	8	0510	B	/81 Y61 1		56
501	4	71	MCW NOWCTR,SUPADD	7	0518	M	Y48 066		56
502	4	72	A @1@,SUPADD	7	0525	A	Y93 066		56
503	4	73	B BTOLAB	4	0532	B	474		56
504	4	74	*						
505	4	75	* PROCESS A OPERAND OF ORIGIN						
506	4	76	*						
507	4	77	AOPOR BWZ *&005,STAOP,2	8	0536	V	548 001 2		57
508	4	78	B ACTUAL	4	0544	B	761		57
509	4	79	BCE ASTRSK,AOPHO,*	8	0548	B	708 017 *		57
510	4	80	MCW @0@,LITRSW	7	0556	M	Y92 Y61		57
511	4	81	S NOWCTR	4	0563	S	Y48		57
512	4	82	BCE BLKAOP,AOPHO,	8	0567	B	735 017		57
513	4	83	*						
514	4	84	* SYMBOLIC ORIGIN						
515	4	85	*						
516	4	86	MCW @0@,ORGSW	7	0575	M	Y92 Y66		58
517	4	87	S XR1&001	4	0582	S	090		58
518	4	88	B SETAOP	4	0586	B	U35		58
519	4	89	BCE SETORG,ORGSW,1	8	0590	B	609 Y66 1		58
520	4	90	SETSW MCW @11@,MAXSW	7	0598	M	Z01 Y60		58
521	4	91	B SCNTB&7	4	0605	B	813		58
522	4	92	SETORG MCW LABADD,ORGCTR	7	0609	M	061 Y53		59
523	4	93	RSTSWA MCW @0@,ADDRSW	7	0616	M	Y92 Y59		59
524	4	94	BCE *&005,AOPADJ-002,X	8	0623	B	635 024 X		59
525	4	95	B APOPUT	4	0631	B	669		59
526	4	96	*						
527	4	97	* ADJUSTMENT OF X00						
528	4	98	*						
529	4	99	BCE NXTCNT,AOPHO,*	8	0635	B	655 017 *		59
530	5	00	C ORGCTR,&00	7	0643	C	Y53 Z03		60
531	5	01	BE APOPUT	5	0650	B	669 S		60
532	5	02	NXTCNT MCW &00,ORGCTR	7	0655	M	Z03 Y53		60
533	5	03	A @1@,ORGCTR-002	7	0662	A	Y93 Y51		60
534	5	04	AOPOUT A ORGCTR,ORGADD	7	0669	A	Y53 032		60
535	5	05	ZA ORGCTR,LABADD	7	0676	?	Y53 061		61
536	5	06	ZA ORGADD,NOWCTR	7	0683	?	032 Y48		61

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SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
537	5	07	S @1@,NOWCTR	7	0690	S	Y93 Y48		61
538	5	08	MZ ABBIT,STAOP	7	0697	Y	113 001		61
539	5	09	B PUT	4	0704	B	Z77		61
540	5	10	*						
541	5	11	* ORIGIN ASTERISK						
542	5	12	*						
543	5	13	ASTRSK BCE PUT,ADDRSW,1	8	0708	B	Z77 Y59 1		62
544	5	14	BCE SETSWS,LITRSW,1	8	0716	B	598 Y61 1		62
545	5	15	MCW NOWCTR,ORGCTR	7	0724	M	Y48 Y53		62
546	5	16	B RSTSWA	4	0731	B	616		62
547	5	17	*						
548	5	18	* ORIGIN MAXIMUM						
549	5	19	*						
550	5	20	BLKAOP BCE SETSWS,MAXSW,1	8	0735	B	598 Y60 1		62
551	5	21	MCW HGHCTR,ORGCTR	7	0743	M	Y58 Y53		63
552	5	22	A @1@,ORGCTR	7	0750	A	Y93 Y53		63
553	5	23	B RSTSWA	4	0757	B	616		63
554	5	24	*						
555	5	25	* ORIGIN ACTUAL OR PROCESSED						
556	5	26	*						
557	5	27	ACTUAL ZA ORGADD,NOWCTR	7	0761	?	032 Y48		63
558	5	28	S @1@,NOWCTR	7	0768	S	Y93 Y48		63
559	5	29	BCE TSTX00,AOPHO,*	8	0775	B	821 017 *		64
560	5	30	MCW @0@,LITRSW	7	0783	M	Y92 Y61		64
561	5	31	BWZ SCNTB,AOPHO,2	8	0790	V	806 017 2		64
562	5	32	BWZ SETORG,STAOP,K	8	0798	V	609 001 K		64
563	5	33	SCNTB MCW @0@,ADDRSW	7	0806	M	Y92 Y59		64
564	5	34	S ORGCTR	4	0813	S	Y53		65
565	5	35	B PUT	4	0817	B	Z77		65
566	5	36	TSTX00 BCE PUT,AOPADJ-002,X	8	0821	B	Z77 024 X		65
567	5	37	BWZ PUT,CARD&034,B	8	0829	V	Z77 034 B		65
568	5	38	A ORGCTR,ORGADD	7	0837	A	Y53 032		65
569	5	39	BCE PUT,ADDRSW,1	8	0844	B	Z77 Y59 1		65
570	5	40	BCE PUT,LITRSW,1	8	0852	B	Z77 Y61 1		66
571	5	41	MZ ABBIT,CARD&34	7	0860	Y	113 034		66
572	5	42	B ACTUAL	4	0867	B	Z77		66
573	5	43	*						
574	5	44	* PROCESS DA STATEMENTS						
575	5	45	*						
576	5	46	DA BCE ORIGDA,TYPE,0	8	0871	B	926 075 0		66
577	5	47	BCE TSTRPT,ACTSW,1	8	0879	B	910 Y67 1		66
578	5	48	BTOADD C LABADD,SUPADD	7	0887	C	061 066		67
579	5	49	BL *&8	5	0894	B	906 T		67
580	5	50	MCW @005@,XR3	7	0899	M	Y96 099		67
581	5	51	B PRCAD	4	0906	B	'03		67
582	5	52	TSTRPT BCE PUT,TYPE,'	8	0910	B	Z77 075 '		67
583	5	53	B PROCLB	4	0918	B	/09		67
584	5	54	B PUT	4	0922	B	Z77		67
585	5	55	*						
586	5	56	* DA HEADER						

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SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
587	5	57	*						
588	5	58	ORIGDA MCW @0@,INDFTR	7	0926	M	Y92 Y69		68
589	5	59	A AINDEX,INDFTR	7	0933	A	027 Y69		68
590	5	60	MCW @1@,DASW	7	0940	M	Y93 Y68		68
591	5	61	MCW @0@,ACTSW	7	0947	M	Y92 Y67		68
592	5	62	BCE BTOADD,AOPHO,*	8	0954	B	887 017 *		68
593	5	63	MCW @1@,ACTSW	7	0962	M	Y93 Y67		69
594	5	64	B TSTRPT	4	0969	B	910		69
595	5	65	*						
596	5	66	* ??? MISSING FROM LISTING IN CE MANUAL ***						
597	5	67	* ??? MISSING FROM LISTING IN CE MANUAL ***						
598	5	68	EXEND BWZ PUT,TYPE,B	8	0973	V	Z77 075 B		69
599	5	69	MCW @B@,BRANCH	7	0981	M	Z04 X84		69
600	5	70	B WRITE	4	0988	B	X67		69
601	5	71	*						
602	5	72	* PROCESS SUFFIX						
603	5	73	*						
604	5	74	SFX MCW AOPHO,SFXCTR	7	0992	M	017 L23		69
605	5	75	B PUT	4	0999	B	Z77		70
606	5	76	*						
607	5	77	* PROCESS ADDRESSES						
608	5	78	*						
609	5	79	PRCAD SBR ADDR TN&003	4	1003	H	'89		70
610	5	80	MCW @0@,ACTSW	7	1007	M	Y92 Y67		70
611	5	81	BWZ LITTST,STLABL,K	8	1014	V	'90 002 K		70
612	5	82	TSTADD BWZ ADDR TN,STADDR,B	8	1022	V	'86 003 B		70
613	5	83	BCE ADDR TN,ADDRSW,1	8	1030	B	'86 Y59 1		70
614	5	84	A ORGCTR,LABADD	7	1038	A	Y53 061		71
615	5	85	A ORGCTR,SUPADD	7	1045	A	Y53 066		71
616	5	86	C NOWCTR,LABADD&X3	7	1052	C	Y48 0F1		71
617	5	87	BL *&008	5	1059	B	'71 T		71
618	5	88	ZA LABADD&X3,NOWCTR	7	1064	?	0F1 Y48		71
619	5	89	BCE ADDR TN,LITRSW,1	8	1071	B	'86 Y61 1		72
620	5	90	MZ ABBIT,STADDR	7	1079	Y	113 003		72
621	5	91	ADDR TN B XXXX	4	1086	B	000		72
622	5	92	LITTST MCW DSAPUT,LABRTN&003	7	1090	M	Y72 S97		72
623	5	93	BCE LITRAL,TYPE,/'	8	1097	B	T25 075 /		72
624	5	94	B TSTADD	4	1105	B	'22		72
625	5	95	*						
626	5	96	* PROCESS LABEL						
627	5	97	*						
628	5	98	PROCLB SBR LABRTN&003	4	1109	H	S97		73
629	5	99	BWZ *&005,STLABL,2	8	1113	V	/25 002 2		73
630	6	00	B LABRTN	4	1121	B	S94		73
631	6	01	BCE MRKPRC,LBLHO,	8	1125	B	S80 008		73
632	6	02	BCE BTOLBL,ACTSW,1	8	1133	B	/57 Y67 1		73
633	6	03	BCE TSTDBL,LITRSW,1	8	1141	B	S07 Y61 1		74
634	6	04	BCE TSTDBL,ADDRSW,1	8	1149	B	S07 Y59 1		74
635	6	05	BTOLBL B DOLABL	4	1157	B	T58		74
636	6	06	B SEARCH	4	1161	B	W29		74

AUTOCODER-PASS 5 MAIN LINE				-VERSION 3	3752L	PAGE 13			
SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
637	6	07	BCE DBLDEF,DBLSW,1		8	1165	B S98 Y64 1		74
638	6	08	BCE STORE,SPCSW,0		8	1173	B S69 Y63 0		75
639	6	09	* UNPROCESSED LABEL						
640	6	10							
641	6	11	* UNPROC MCW @1@,UNPRSW		7	1181	M Y93 L94		75
642	6	12	A @1@,TOTLAB		7	1188	A Y93 L93		75
643	6	13	BCE SETSWL,TYPE, /		8	1195	B S50 075 /		75
644	6	14	B LABRTN		4	1203	B S94		75
645	6	15	* SEARCH TABLE FOR DBL DEF LITERAL						
646	6	16							
647	6	17	TSTDBL BCE UNPROC,LBLHO,\$		8	1207	B /81 008 \$		76
648	6	18	DOLABL B		4	1215	B T58		76
649	6	19	B SEARCH		4	1219	B W29		76
650	6	20	BCE UNPROC,DBLSW,0		8	1223	B /81 Y64 0		76
651	6	21	BCE UNPROC,ADDHO,		8	1231	B /81 M10		76
652	6	22	MZ BBIT,STLABL		7	1239	Y 112 002		76
653	6	23	B LABRTN		4	1246	B S94		77
654	6	24	* UNPROCESSED LABEL OF LITERAL						
655	6	25							
656	6	26	* SETSWL BCE LABRTN,LBLHO,\$		8	1250	B S94 008 \$		77
657	6	27	MCW @11@,LITRSW		7	1258	M Z01 Y61		77
658	6	28	B LABRTN		4	1265	B S94		77
659	6	29	* STORE LABEL IN TABLE						
660	6	30							
661	6	31	STORE LCA FNCTN,SYMBOL		7	1269	L L08 M19		77
662	6	32	LCA HOLDAD		4	1276	L Z12		77
663	6	33	MRKPRC MZ ABBIT,STLABL		7	1280	Y 113 002		78
664	6	34	MCW @1@,PROCSW		7	1287	M Y93 L95		78
665	6	35	LABRTN B XXXX		4	1294	B 000		78
666	6	36	* DOUBLY DEFINED LABEL						
667	6	37							
668	6	38	DBLDEF BCE STORE,ADDHO,		8	1298	B S69 M10		78
669	6	39	MZ BBIT,STLABL		7	1306	Y 112 002		78
670	6	40	BCE LITRAL,TYPE, /		8	1313	B T25 075 /		79
671	6	41	B LABRTN		4	1321	B S94		79
672	6	42	* DOUBLE DEFINED LITERAL						
673	6	43							
674	6	44	LITRAL BWZ LABRTN,STBOP,B		8	1325	V S94 004 B		79
675	6	45	MCW @*@,TYPE		7	1333	M Z05 075		79
676	6	46	S COUNT,ORGCTR		7	1340	S 007 Y53		79
677	6	47	S COUNT,NOWCTR		7	1347	S 007 Y48		80
678	6	48	B LABRTN		4	1354	B S94		80
679	6	49	* SET UP LABEL & ADDRESS						
680	6	50							

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SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
687	6	57	* FOR TABLE SEARCH						
688	6	58							
689	6	59	DOLABL SBR DOLABR&003		4	1358	H U34		80
690	6	60	MCW LABEL, FNCTN		7	1362	M 013 L08		80
691	6	61	MCW CNVLAB, ARGUMTH#3		7	1369	M 056 Z08		80
692	6	62	SETFUN BCE * &5, FNCTN,		8	1376	B T88 L08		80
693	6	63	B * &8		4	1384	B T95		81
694	6	64	MCW SFXCTR, FNCTN		7	1388	M L23 L08		81
695	6	65	MCW LABAD&X1, HOLDAD#004		7	1395	M 0W1 Z12		81
696	6	66	BCE DOINDX, HOADD&X1, 0		8	1402	B U17 0V7 0		81
697	6	67	MZ ABIT, HOLDAD-003		7	1410	Y 111 Z09		81
698	6	68	DOINDX MN INDFTR, * &004		7	1417	D Y69 U27		82
699	6	69	MZ ZONE, HOLDAD-001		7	1424	Y 113 Z11		82
700	6	70	DOLABR B XXXX		4	1431	B 000		82
701	6	71	* PROCESS A OPERAND OF ORIGIN & EQUATE						
702	6	72							
703	6	73							
704	6	74	SETAOP SBR AOPRTN&003		4	1435	H U87		82
705	6	75	MCW &BRSRH, DOLABR&003		7	1439	M Z15 U34		82
706	6	76	MCW AOPER, FNCTN		7	1446	M 022 L08		82
707	6	77	MCW AOP, ARGUMT		7	1453	M 070 Z08		83
708	6	78	B SETFUN		4	1460	B T76		83
709	6	79	BRSRH B SEARCH		4	1464	B W29		83
710	6	80	BCE ADDBNK, DBLSW, 1		8	1468	B V03 Y64 1		83
711	6	81	BCE STREBNK, SPCSW, 0		8	1476	B U88 Y63 0		83
712	6	82	AOPRTN B XXXX		4	1484	B 000		83
713	6	83	* LABEL NOT IN TABLE, STORE						
714	6	84	* WITH BLANK ADDRESS						
715	6	85							
716	6	86							
717	6	87	STREBNK LCA FNCTN, SYMBOL		7	1488	L L08 M19		84
718	6	88	LCA @ @		4	1495	L Z19		84
719	6	89	B AOPRTN		4	1499	B U84		84
720	6	90	* RETRIEVE VALUE FROM TABLE						
721	6	91							
722	6	92							
723	6	93	ADDBNK BCE AOPRTN, ADDHO,		8	1503	B U84 M10		84
724	6	94	MCW @1@, ORGSW		7	1511	M Y93 Y66		84
725	6	95	BWZ * &5, LBLREF, 2		8	1518	V V30 M11 2		84
726	6	96	B * &8		4	1526	B V37		85
727	6	97	MZ ABIT, LBLREF		7	1530	Y 111 M11		85
728	6	98	MCW ADDLO, LABADD		7	1537	M M13 061		85
729	6	99	BCE AOPROC, LABADD-3, %		8	1544	B W18 058 %		85
730	7	00	BWZ * &008, LABADD-003, 2		8	1552	V V67 058 2		85
731	7	01	MCW @1@, HOADD		7	1560	M Y93 057		86
732	7	02	BCE AOPRTN, TYPE, 0		8	1567	B U84 075 0		86
733	7	03	* ADD CHARACTER ADJUSTMENT FOR EQUATE						
734	7	04							
735	7	05							
736	7	06	MZ LABADD-001, SAVEZN#001		7	1575	Y 060 Z20		86

AUTOCODER-PASS 5 MAIN LINE				-VERSION 3	3752L	PAGE 15			
SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
737	7	07	A AOPADJ,LABADD	7	1582	A 026 061			86
738	7	08	MZ SAVEZN,LABADD-001	7	1589	Y 220 060			86
739	7	09	BCE AOPROC,AINDEX,	8	1596	B W18 027			87
740	7	10	MN INDFTR,*&004	7	1604	D Y69 W14			87
741	7	11	MZ ZONE,LABADD-001	7	1611	Y 113 060			87
742	7	12	AOPROC MZ ABBIT,STAOP	7	1618	Y 113 001			87
743	7	13	B AOPRTN	4	1625	B U84			87
744	7	14	*						
745	7	15	* TABLE SEARCH						
746	7	16	*						
747	7	17	SEARCH SBR RETURN&003	4	1629	H X66			87
748	7	18	MCW DBLSW&001,DBLSW	7	1633	M Y65 Y64			88
749	7	19	MCW TABMAX,MAXADD	7	1640	M L11 L14			88
750	7	20	MCW ARGUMT,XR2	7	1647	M Z08 094			88
751	7	21	MCW SERCHS,MAXSER	7	1654	M L99 L22			88
752	7	22	TBLSRH C FNCTN,SYMBOL	7	1661	C L08 M19			88
753	7	23	BE SETDBL	5	1668	B X45 S			89
754	7	24	BCE RETURN,SYMHO,	8	1673	B X63 M14			89
755	7	25	BUMP A @010@,XR2	7	1681	A Z23 094			89
756	7	26	S @1@,MAXSER	7	1688	S Y93 L22			89
757	7	27	BM SETSPC,MAXSER	8	1695	V X56 L22 K			89
758	7	28	C XR2,MAXADD	7	1703	C 094 L14			90
759	7	29	BU TBLSRH	5	1710	B W61 /			90
760	7	30	BCE SETSPC,WRAPSW,1	8	1715	B X56 Y62 1			90
761	7	31	MCW @1@,WRAPSW	7	1723	M Y93 Y62			90
762	7	32	MCW ARGUMT,MAXADD	7	1730	M Z08 L14			90
763	7	33	S XR2&001	4	1737	S 095			90
764	7	34	B TBLSRH	4	1741	B W61			91
765	7	35	*						
766	7	36	* LABEL IN TABLE						
767	7	37	*						
768	7	38	SETDBL MCW @1@,DBLSW	7	1745	M Y93 Y64			91
769	7	39	B RETURN	4	1752	B X63			91
770	7	40	*						
771	7	41	* SPACE AVAILABLE						
772	7	42	*						
773	7	43	SETSPC MCW @1@,SPCSW	7	1756	M Y93 Y63			91
774	7	44	RETURN B XXXX	4	1763	B 000			91
775	7	45	*						
776	7	46	* INPUT/OUTPUT - PASS C						
777	7	47	*						
778	7	48	WRITE WT COUTPT,TPAREA	8	1767	M &U6 I18 W			91
779	7	49	NOP XXXX	4	1775	N 000			91
780	7	50	BER TPERR	5	1779	B 104 L			92
781	7	51	BRANCH NOP FINAL	4	1784	N Y73			92
782	7	52	READ S HOLDA	4	1788	S L31			92
783	7	53	RT CINPUT,TPAREA	8	1792	M &U5 I18 R			92
784	7	54	B CHKLIST	4	1800	B K08			92
785	7	55	BER TPERR	5	1804	B 104 L			92
786	7	56	B NYXTREC	4	1809	B Z37			92

AUTOCODER-PASS 5 MAIN LINE				-VERSION 3	3752L	PAGE 16			
SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
787	7	57	*						
788	7	58	* CLEAR TABLE AREA						
789	7	59	*						
790	7	60	CLRTAB MCW CLRMAX,CLEAR&003	7	1813	M K99 Y23			93
791	7	61	CLEAR CS XXXX	4	1820	/ 000			93
792	7	62	SBR CLEAR&003	4	1824	H Y23			93
793	7	63	C CLEAR&003,CLRMIN	7	1828	C Y23 L02			93
794	7	64	BU CLEAR	5	1835	B Y20 /			93
795	7	65	B READ	4	1840	B X88			93
796	7	66	NOWCTR DCW &00000	5	1848				93
797	7	67	ORGCTR DCW &00000	5	1853				94
798	7	68	HGHCTR DCW &00000	5	1858				94
799	7	69	ADRSW DCW @0@	1	1859				94
800	7	70	MAXSW DC @0@	1	1860				94
801	7	71	LITRSW DC @0@	1	1861				94
802	7	72	WRAPSW DCW @0@	1	1862				94
803	7	73	SPCSW DC @0@	1	1863				94
804	7	74	DBLSW DC @0@	1	1864				94
805	7	75	DC @0@	1	1865				94
806	7	76	ORGSW DCW @0@	1	1866				94
807	7	77	ACTSW DCW @0@	1	1867				94
808	7	78	DASW DCW @0@	1	1868				94
809	7	79	INDFTR DCW @0@	1	1869				95
810	7	80	DSAPUT DSA PUT	3	1872	Z77			95
811	7	81	*						
812	7	82	* END OF PASS C, GET PASS D						
813	7	83	*						
814	7	84	FINAL WTM COUTPT	5	1873	U &U6 M			95
815	7	85	RWD CINPUT	5	1878	U &U5 R			95
816	7	86	RWD COUTPT	5	1883	U &U6 R			95
817	7	87	B RDPSSD	4	1888	B K47			95
818	7	88	LTORG *			1892			
			DCW @0@	1	1892			LIT	95
			DCW @1@	1	1893			LIT	96
			DCW @005@	3	1896			LIT	96
			DCW &AOPOR	3	1899	536		ADCON	96
			DCW @11@	2	1901			LIT	96
			DCW &00	2	1903			LIT	96
			DCW @B@	1	1904			LIT	96
			DCW @%@	1	1905			LIT	96
			ARGUMT DCW #03	3	1908			AREA	97
			HOLDAD DCW #04	4	1912			AREA	97
			DCW &BRSRH	3	1915	U64		ADCON	97
			DCW @ @	4	1919			LIT	97
			SAVEZN DCW #01	1	1920			AREA	97
			DCW @010@	3	1923			LIT	97
819	7	89	ENDOPC DCW @)@	1	1924			GMARK	97
820	7	90	XFR LIBRN			B 000			98



				AUTOCODER-PASS 6-PROCESS OPERANDS	-VERSION 3	3761L			PAGE 17		
SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
821	7	91		JOB	AUTOCODER-PASS 6-PROCESS OPERANDS						
822	7	92	*								
823	7	93	91	DCW	@00000@	5		0091			101
824	7	94	96	DCW	@00000@	5		0096			101
825	7	95	101	DCW	@00000@	5		0101			101
826	7	96	109	DCW	@2SKB@	4		0109			102
827	7	97	113	DCW	@2SKB@	4		0113			102
828	7	98		ORG	ZONE&001				0114		
829	7	99	*								
830	8	00		* DETERMINE	RECORD TYPE						
831	8	01	*								
832	8	02		MCW	@0@,ASTRSW	7		0114	M U32	U18	102
833	8	03		BM	PUT,CARD&005	8		0121	V 277	005 K	102
834	8	04		BCE	PUT,TYPE,%	8		0129	B 277	075 %	102
835	8	05		MN	TYPE,TYPEA#001	7		0137	D 075	U33	102
836	8	06		BCE	PRINST,TYPEA,	8		0144	B 196	U33	103
837	8	07		BCE	PRDSA,TYPEA,2	8		0152	B 318	U33 2	103
838	8	08		BCE	PROEND,TYPEA,3	8		0160	B 446	U33 3	103
839	8	09		BCE	PROSFX,TYPEA,4	8		0168	B 579	U33 4	103
840	8	10		BCE	ORGEQU,TYPEA,6	8		0176	B 489	U33 6	104
841	8	11		BCE	ORGEQU,TYPEA,7	8		0184	B 489	U33 7	104
842	8	12		B	PUT	4		0192	B 277		104
843	8	13	*								
844	8	14		* PROCESS	INSTRUCTIONS						
845	8	15	*								
846	8	16		PRINST	BWZ SETAST,STADDR,2	8		0196	V 208	003 2	104
847	8	17		B	LOADDR	4		0204	B 215		104
848	8	18		SETAST	MCW @1@,ASTRSW	7		0208	M U34	U18	104
849	8	19	*								
850	8	20		* SET	ASTERISK ADDRESS						
851	8	21	*								
852	8	22		LOADDR	ZA LABADD,ASTADD#005	7		0215	? 061	U39	105
853	8	23		A	COUNT,ASTADD	7		0222	A 007	U39	105
854	8	24		S	@1@,ASTADD	7		0229	S U34	U39	105
855	8	25	*								
856	8	26		* TEST	FOR A OPERAND						
857	8	27	*								
858	8	28		BCE	PUT,COUNT,1	8		0236	B 277	007 1	105
859	8	29		BCE	PUT,COUNT,2	8		0244	B 277	007 2	105
860	8	30		BWZ	*&005,STAOP,2	8		0252	V 264	001 2	106
861	8	31		B	SEEBOP	4		0260	B 268		106
862	8	32		B	PROCOP	4		0264	B 578		106
863	8	33	*								
864	8	34		* TEST	FOR B OPERAND						
865	8	35	*								
866	8	36		SEEBOP	BCE PUT,COUNT,4	8		0268	B 277	007 4	106
867	8	37		BCE	PUT,COUNT,5	8		0276	B 277	007 5	106
868	8	38		BWZ	*&005,STBOP,2	8		0284	V 296	004 2	107
869	8	39		B	PUT	4		0292	B 277		107
870	8	40		MCW	@003@,XR3	7		0296	M U42	099	107

				AUTOCODER-PASS 6-PROCESS OPERANDS	-VERSION 3	3761L			PAGE 18		
SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
871	8	41		MCW	@011@,XR1	7		0303	M U45	089	107
872	8	42		B	PROCOP	4		0310	B 578		107
873	8	43		B	PUT	4		0314	B 277		107
874	8	44	*								
875	8	45		* PROCESS	DSA AND ADCON						
876	8	46	*								
877	8	47		PRDSA	BWZ *&005,STADDR,2	8		0318	V 330	003 2	108
878	8	48		B	TSTPRC	4		0326	B 434		108
879	8	49		MCW	@1@,ASTRSW	7		0330	M U34	U18	108
880	8	50		SETDSA	ZA LABADD,ASTADD	7		0337	? 061	U39	108
881	8	51		MCW	@003@,XR3	7		0344	M U42	099	108
882	8	52		MCW	@011@,XR1	7		0351	M U45	089	109
883	8	53		BWZ	*&005,STBOP,2	8		0358	V 370	004 2	109
884	8	54		B	PUT	4		0366	B 277		109
885	8	55		B	PROCOP	4		0370	B 578		109
886	8	56		BWZ	PUT,STBOP,2	8		0374	V 277	004 2	109
887	8	57		BCE	CMP16K,AINDEX,-	8		0382	B 409	027 -	109
888	8	58		COMPRS	MCW &PUT,OPRTN&3	7		0390	M U48	/78	110
889	8	59		BCE	PUT,AOP&1,%	8		0397	B 277	071 %	110
890	8	60		B	CNVTO3	4		0405	B '94		110
891	8	61	*								
892	8	62		* GET	16000 COMPLEMENT						
893	8	63	*								
894	8	64		CMP16K	MCW &16000,FUNCTN-001	7		0409	M U53	L07	110
895	8	65		S	HOLDAR,FUNCTN-001	7		0416	S U58	L07	110
896	8	66		ZA	FUNCTN-001,HOLDAR#005	7		0423	? L07	U58	111
897	8	67		B	COMPRS	4		0430	B 390		111
898	8	68		TSTPRC	BWZ SETDSA,STBOP,2	8		0434	V 337	004 2	111
899	8	69		B	PUT	4		0442	B 277		111
900	8	70	*								
901	8	71		* PROCESS	EX & END						
902	8	72	*								
903	8	73		PROEND	S ASTADD	4		0446	S U39		111
904	8	74		BWZ	*&005,STAOP,2	8		0450	V 462	001 2	111
905	8	75		B	*&005	4		0458	B 466		111
906	8	76		B	PROCOP	4		0462	B 578		112
907	8	77		BCE	ENDOPN,TYPE,3	8		0466	B 478	075 3	112
908	8	78		B	PUT	4		0474	B 277		112
909	8	79		ENDOPN	MCW @B@,BRNCH2	7		0478	M U59	X84	112
910	8	80		B	PUT	4		0485	B 277		112
911	8	81	*								
912	8	82		* PROCESS	ORIGIN & EQUATE						
913	8	83	*								
914	8	84		ORGEQU	BWZ *&005,STAOP,2	8		0489	V 501	001 2	112
915	8	85		B	ORGOUT	4		0497	B 574		112
916	8	86		BCE	ORGOUT,AOPHO,	8		0501	B 574	017	113
917	8	87		BWZ	ORGOUT,AOPHO,2	8		0509	V 574	017 2	113
918	8	88		BCE	ORGOUT,AOPHO,*	8		0517	B 574	017 *	113
919	8	89		BCE	ORGOUT,AOPHO,%	8		0525	B 574	017 %	113
920	8	90		B	PROCOP	4		0533	B 578		113

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
921	8	91		BWZ	ORGOUT, STAOP, 2		8	0537	V 574 001 2		114
922	8	92		MCW	@0@, ITERSW		7	0545	M U32 U28		114
923	8	93		BCE	*&008, TYPEA, 7		8	0552	B 567 U33 7		114
924	8	94		MZ	BBIT, STAOP		7	0560	Y 112 001		114
925	8	95		MCW	HOLDAR, LABADD		7	0567	M U58 061		114
926	8	96		ORGOUT B	PUT		4	0574	B 277		115
927	8	97		*							
928	8	98		*	PROCESS OPERAND SUB-ROUTINE						
929	8	99		*							
930	9	00		PROCOP SBR	OPRTN&003		4	0578	H /78		115
931	9	01		BWZ	*&005, STAOP&X3, 2		8	0582	V 594 071 2		115
932	9	02		B	OPRTN		4	0590	B /75		115
933	9	03		BCE	SETZRO, AOPHO&X1,		8	0594	B 942 0/7		115
934	9	04		BCE	PERCNT, AOPHO&X1, %		8	0602	B 950 0/7 %		115
935	9	05		BWZ	FLOAT, AOPHO&X1, 2		8	0610	V S21 0/7 2		116
936	9	06		BCE	PROAST, AOPHO&X1, *		8	0618	B /90 0/7 *		116
937	9	07		*							
938	9	08		*	CONVERT SYMBOL TO TABLE ADDRESS						
939	9	09		*							
940	9	10		CNVSYM BCE	*&005, AOP-002&X3,		8	0626	B 638 0F8		116
941	9	11		B	SETSYM		4	0634	B 804		116
942	9	12		MCW	AOPER&X1, W6AREA#006		7	0638	M 0S2 U65		116
943	9	13		BCE	*&5, W6AREA,		8	0645	B 657 U65		117
944	9	14		B	*&8		4	0653	B 664		117
945	9	15		MCW	SFXCTR, W6AREA		7	0657	M L23 U65		117
946	9	16		ZA	&2, HOLD2#002		7	0664	? U66 U68		117
947	9	17		ZA	W6AREA-2, HOLD4#004		7	0671	? U63 U72		117
948	9	18		A	W6AREA, HOLD4		7	0678	A U65 U72		118
949	9	19		A	W6AREA, HOLD4-002		7	0685	A U65 U70		118
950	9	20		MZ	NOBIT, HOLD4		7	0692	Y 110 U72		118
951	9	21		ZA	FACTOR, HOLD7		7	0699	? L88 U26		118
952	9	22		MPYLP MN	HOLD7, HOLD1		7	0706	D U26 U27		118
953	9	23		ZA			1	0713	?		118
954	9	24		MULT BCE	NXTDGT, HOLD1, ?		8	0714	B 740 U27 ?		119
955	9	25		A	HOLD4, HOLD7-002		7	0722	A U72 U24		119
956	9	26		S	&1, HOLD1		7	0729	S U73 U27		119
957	9	27		B	MULT		4	0736	B 714		119
958	9	28		NXTDGT S	&1, HOLD2		7	0740	S U73 U68		119
959	9	29		BWZ	MPYLP, HOLD2, B		8	0747	V 706 U68 B		120
960	9	30		MCW	@000@, AOP&X3		7	0755	M U76 0G0		120
961	9	31		BAV	*&001		5	0762	B 767 Z		120
962	9	32		LOOP1 A	&96, HOLD7-005		7	0767	A U78 U21		120
963	9	33		BAV	LOOP1		5	0774	B 767 Z		120
964	9	34		MZ	HOLD7-006, AOP&X3		7	0779	Y U20 0G0		120
965	9	35		MCW	HOLD7-003		4	0786	M U23		121
966	9	36		MN	HOLD7-005, *&004		7	0790	D U21 800		121
967	9	37		MZ	ZONE2, AOP-002&X3		7	0797	Y 109 0F8		121
968	9	38		*							
969	9	39		*	SYMBOLIC OPERAND						
970	9	40		*							

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
971	9	41		SETSYM MCW	AOPER&X1, FNCTN		7	0804	M 0S2 L08		121
972	9	42		BCE	*&005, FNCTN,		8	0811	B 823 L08		121
973	9	43		B	*&008		4	0819	B 830		121
974	9	44		MCW	SFXCTR, FNCTN		7	0823	M L23 L08		122
975	9	45		MCW	TABMAX, MAXADD		7	0830	M L11 L14		122
976	9	46		MCW	@0@, SWICH1		7	0837	M U32 U19		122
977	9	47		MCW	AOP&X3, XR2		7	0844	M 0G0 094		122
978	9	48		MCW	SERCHS, MAXSER		7	0851	M L99 L22		122
979	9	49		*							
980	9	50		*	TABLE SEARCH						
981	9	51		*							
982	9	52		SRHLOP C	FNCTN, SYMBOL		7	0858	C L08 M19		123
983	9	53		BE	RECALL		5	0865	B 980 S		123
984	9	54		BCE	UNDEF, SYMHO,		8	0870	B 961 M14		123
985	9	55		BUMPER A	@010@, XR2		7	0878	A U81 094		123
986	9	56		S	@1@, MAXSER		7	0885	S U34 L22		123
987	9	57		BM	UNDEF, MAXSER		8	0892	V 961 L22 K		124
988	9	58		C	XR2, MAXADD		7	0900	C 094 L14		124
989	9	59		BU	SRHLOP		5	0907	B 858 /		124
990	9	60		BCE	UNDEF, SWICH1, 1		8	0912	B 961 U19 1		124
991	9	61		MCW	@1@, SWICH1		7	0920	M U34 U19		124
992	9	62		MCW	AOP&X3, MAXADD		7	0927	M 0G0 L14		125
993	9	63		S	XR2&001		4	0934	S 095		125
994	9	64		B	SRHLOP		4	0938	B 858		125
995	9	65		*							
996	9	66		*	BLANK OPERAND						
997	9	67		*							
998	9	68		SETZRO S	HOLDAR		4	0942	S U58		125
999	9	69		B	CHRADJ		4	0946	B '49		125
1000	9	70		*							
1001	9	71		*	PERCENT OPERAND						
1002	9	72		*							
1003	9	73		PERCNT MCW	AOPER-003&X1, AOP&X3		7	0950	M 0/9 0G0		125
1004	9	74		B	MARK		4	0957	B /68		125
1005	9	75		*							
1006	9	76		*	UNDEFINED OPERAND						
1007	9	77		*							
1008	9	78		UNDEF BCE	OPRTN, ITERSW, 0		8	0961	B /75 U28 0		126
1009	9	79		MCW	@###@, AOP&X3		7	0969	M U84 0G0		126
1010	9	80		B	OPRTN		4	0976	B /75		126
1011	9	81		*							
1012	9	82		*	RETRIEVE VALUE FROM TABLE						
1013	9	83		*							
1014	9	84		RECALL BCE	UNDEF, ADDHO,		8	0980	B 961 M10		126
1015	9	85		BWZ	*&5, LBLREF, 2		8	0988	V '00 M11 2		126
1016	9	86		B	*&8		4	0996	B '07		126
1017	9	87		MZ	ABIT, LBLREF		7	1000	Y 111 M11		127
1018	9	88		MCW	ADDLO, HOLDAR		7	1007	M M13 U58		127
1019	9	89		MCW	@0@		4	1014	M U32		127
1020	9	90		BCE	IOADD, HOLDAR-003, %		8	1018	B /79 U55 %		127

AUTOCODER-PASS 6-PROCESS OPERANDS				-VERSION 3	3761L	PAGE 21			
SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1021	9	91	BWZ *008,HOLDAR-003,2	8		1026	V '41 U55 2		127
1022	9	92	MCW @1@,HOLDAR-4	7		1034	M U34 U54		128
1023	9	93	BCE TSTCNV,TYPEA,6	8		1041	B '78 U33 6		128
1024	9	94	*						
1025	9	95	* ADD CHARACTER ADJUSTMENT						
1026	9	96	*						
1027	9	97	CHRADJ MZ HOLDAR-001,HOLDZN#001	7		1049	Y U57 U85		128
1028	9	98	BCE TSTCNV,AOPADJ--002&X1,X	8		1056	B '78 054 X		128
1029	9	99	A AOPADJ&X1,HOLDAR	7		1064	A 056 U58		128
1030	10	00	MZ HOLDZN,HOLDAR-001	7		1071	Y U85 U57		129
1031	10	01	TSTCNV BM MARK,TYPE	8		1078	V /68 075 K		129
1032	10	02	BCE MARK,TYPEA,2	8		1086	B /68 U33 2		129
1033	10	03	*						
1034	10	04	* CONVERT FIVE DIGIT ADDRESS TO THREE DIGIT ADDR						
1035	10	05	*						
1036	10	06	CNVTO3 BAV *001	5		1094	B '99 Z		129
1037	10	07	A @9@,HOLDAR-003	7		1099	A U87 U55		129
1038	10	08	BAV CNVTO3&005	5		1106	B '99 Z		130
1039	10	09	MZ HOLDAR-004,HOLDAR	7		1111	Y U54 U58		130
1040	10	10	MN HOLDAR-003,*004	7		1118	D U55 /28		130
1041	10	11	MZ ZONE2,HOLDAR-002	7		1125	Y 109 U56		130
1042	10	12	MZ HOLDZN,HOLDAR-001	7		1132	Y U85 U57		130
1043	10	13	BCE STRADD,AINDEX&X1,	8		1139	B /61 057		131
1044	10	14	MN AINDEX&X1,*004	7		1147	D 057 /57		131
1045	10	15	MZ ZONE,HOLDAR-001	7		1154	Y 113 U57		131
1046	10	16	STRADD MCW HOLDAR,AOP&X3	7		1161	M U58 060		131
1047	10	17	*						
1048	10	18	* MARK OPERAND PROCESSING						
1049	10	19	*						
1050	10	20	MARK MZ ABBIT,STAOP&X3	7		1168	Y 113 071		131
1051	10	21	OPRTN B XXXX	4		1175	B 000		132
1052	10	22	*						
1053	10	23	* I/O ADDRESS IN TABLE						
1054	10	24	*						
1055	10	25	IOADD MCW HOLDAR-001,AOP&X3	7		1179	M U57 060		132
1056	10	26	B MARK	4		1186	B /68		132
1057	10	27	*						
1058	10	28	* ASTERISK OPERAND						
1059	10	29	*						
1060	10	30	PROAST BCE *05,AOPER&X1,	8		1190	B S02 052		132
1061	10	31	B CNVSYM	4		1198	B 626		132
1062	10	32	BCE OPRTN,ASTRSW,1	8		1202	B /75 U18 1		132
1063	10	33	MCW ASTADD,HOLDAR	7		1210	M U39 U58		133
1064	10	34	B CHRADJ	4		1217	B '49		133
1065	10	35	*						
1066	10	36	* ACTUAL OPERAND - FLOAT TO 5 DIGITS						
1067	10	37	*						
1068	10	38	FLOAT BCE CNVSYM,AOPHO&X1,#	8		1221	B 626 0/7 #		133
1069	10	39	BCE CNVSYM,AOPHO&X1,@	8		1229	B 626 0/7 @		133
1070	10	40	BWZ *005,AOPER-004&X1,2	8		1237	V S49 0/8 2		133

AUTOCODER-PASS 6-PROCESS OPERANDS				-VERSION 3	3761L	PAGE 22			
SEQ	PG	LIN	LABEL OP OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1071	10	41	B CNVSYM	4		1245	B 626		133
1072	10	42	ZA AOPER-001&X1,HOLDAR	7		1249	? 051 U58		134
1073	10	43	REFLOT BCE *005,HOLDAR,&	8		1256	B S68 U58 &		134
1074	10	44	B CHRADJ	4		1264	B '49		134
1075	10	45	ZA HOLDAR-001,HOLDAR	7		1268	? U57 U58		134
1076	10	46	B REFLOT	4		1275	B S56		134
1077	10	47	*						
1078	10	48	* PROCESS SUFFIX						
1079	10	49	*						
1080	10	50	PROSFY MCW AOPHO,SFXCTR	7		1279	M 017 L23		134
1081	10	51	B PUT	4		1286	B 277		135
1082	10	52	*						
1083	10	53	* INITIALIZE PASS D						
1084	10	54	*						
1085	10	55	PASSD SW GRPMK2-1	4		1290	, U30		135
1086	10	56	RTW DINFUT,BYPRD	8		1294	L 006 U29 R		135
1087	10	57	CW GRPMK2-1	4		1302	) U30		135
1088	10	58	CS CARD&80	4		1306	/ 080		135
1089	10	59	SW CARD&001,CARD&006	7		1310	, 001 006		135
1090	10	60	SW CARD&017,CARD&024	7		1317	, 017 024		135
1091	10	61	SW CARD&028,CARD&035	7		1324	, 028 035		136
1092	10	62	SW CARD&057,CARD&062	7		1331	, 057 062		136
1093	10	63	SW CARD&068,CARD&071	7		1338	, 068 071		136
1094	10	64	MCW BUMPOP,BUMPER	7		1345	M L27 878		136
1095	10	65	MCW @6@,TPHLT&4	7		1352	M U88 J15		136
1096	10	66	MCW @6@,TPHLT&4	7		1359	M U88 K01		137
1097	10	67	MCW @6@,TPHLT&4	7		1366	M U88 J42		137
1098	10	68	MCW TPAD,WRITE2&006	7		1373	M L34 X73		137
1099	10	69	MCW TPAD,READ2&010	7		1380	M L34 X98		137
1100	10	70	MCW @ @,SFXCTR	7		1387	M U89 L23		137
1101	10	71	*						
1102	10	72	* TEST LAST ITERATION						
1103	10	73	*						
1104	10	74	BCE LSTITR,PROCSW,0	8		1394	B U07 L95 0		138
1105	10	75	BCE	1		1402	B		138
1106	10	76	B READ2	4		1403	B X88		138
1107	10	77	LSTITR MCW @1@,ITERSW	7		1407	M U34 U28		138
1108	10	78	B READ2	4		1414	B X88		138
1109	10	79	ASTRSW DCW 0	1		1418			138
1110	10	80	SWICH1 DCW @0@	1		1419			138
1111	10	81	HOLD7 DCW @ @	7		1426			139
1112	10	82	HOLD1 DCW &0	1		1427			139
1113	10	83	ITERSW DCW @0@	1		1428			139
1114	10	84	BYPRD DCW @ @	1		1429			139
1115	10	85	GRPMK2 DC @}	2		1431			139
1116	10	86	SSOP EQU 1900			1900			
1117	10	87	LTORG *				1432		
			DCW @0@	1		1432		LIT	139
			TYPEA DCW #01	1		1433		AREA	139
			DCW @1@	1		1434		LIT	139



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1195	11	65	*		PRINT SUBROUTINE FOR UNREFERENCED LABELS & SYMBOL TABLE						
1196	11	66	*								
1197	11	67	PRINT	SBR	PRTXT&3	4	0538	H 634			155
1198	11	68		MCW	SYMBOL, 206&X1	7	0542	M M19 2'6			155
1199	11	69		BCE	DOIO, ADDHO, %	8	0549	B 635 M10 %			155
1200	11	70		MN	ADDLO, 212&X1	7	0557	D M13 2/2			155
1201	11	71		MN		1	0564	D			156
1202	11	72		MN		1	0565	D			156
1203	11	73		MN		1	0566	D			156
1204	11	74		BWZ	*%8, ADDHO, 2	8	0567	V 582 M10 2			156
1205	11	75		MCW	@1@, 208&X1	7	0575	M S05 2'8			156
1206	11	76		BWZ	PRTXT, ADDLO-1, 2	8	0582	V 631 M12 2			156
1207	11	77		MN	@1@, 215&X1	7	0590	D S05 2/5			156
1208	11	78		MCW	@%X@	4	0597	M S07			157
1209	11	79		BWZ	PRTXT, ADDLO-1, S	8	0601	V 631 M12 S			157
1210	11	80		MN	@2@, 215&X1	7	0609	D S08 2/5			157
1211	11	81		BWZ	PRTXT, ADDLO-1, K	8	0616	V 631 M12 K			157
1212	11	82		MN	@3@, 215&X1	7	0624	D S09 2/5			157
1213	11	83	PRTXT	B	XXXX	4	0631	B 000			157
1214	11	84	DOIO	MCW	ADDLO, 212&X1	7	0635	M M13 2/2			158
1215	11	85		B	PRTXT	4	0642	B 631			158
1216	11	86	*								
1217	11	87	*		PRINT SYMBOL TABLE						
1218	11	88	*								
1219	11	89	DUMP	B	NXTPGE	4	0646	B 859			158
1220	11	90		S	XR3&1	4	0650	S 100			158
1221	11	91		S		1	0654	S			158
1222	11	92		S		1	0655	S			158
1223	11	93	NXTCTR	SW	ENDSW#1	4	0656	, S10			158
1224	11	94		BW	SCAN, SORTAB&1&X3	8	0660	V 687 /D9 1			159
1225	11	95	BMPXR3	BCE	TSTEOJ, SORTAB&1&X3, @	8	0668	B 888 /D9 @			159
1226	11	96		A	&1, XR3	7	0676	A S11 099			159
1227	11	97		B	NXTCTR	4	0683	B 656			159
1228	11	98	SCAN	BCE	BMPXR3, SORTAB&1&X3, !	8	0687	B 668 /D9 !			159
1229	11	99		BCE	BMPXR3, SORTAB&1&X3, '	8	0695	B 668 /D9 '			160
1230	12	00		BCE	BMPXR3, SORTAB&1&X3, /	8	0703	B 668 /D9 /			160
1231	12	01		MCW	SORTAB&1&X3, TSTLBL&7	7	0711	M /D9 725			160
1232	12	02	TSTLBL	BCE	DOPNT, SYMHO, X	8	0718	B 777 M14 X			160
1233	12	03	NOT	A	@010@, XR2	7	0726	A /85 094			160
1234	12	04		C	XR2, TABMAX	7	0733	C 094 L11			161
1235	12	05		BU	TSTLBL	5	0740	B 718 /			161
1236	12	06		S	XR2&1	4	0745	S 095			161
1237	12	07		S		1	0749	S			161
1238	12	08		A	&1, XR3	7	0750	A S11 099			161
1239	12	09		CW	ENDSW	4	0757	) S10			161
1240	12	10		BW	PNTSYM, PNTSW	8	0761	V 812 S18 1			161
1241	12	11		SW	PNTSW	4	0769	, S18			162
1242	12	12		B	TSTESW	4	0773	B 847			162
1243	12	13	DOPNT	BCE	NOT, ADDHO,	8	0777	B 726 M10			162
1244	12	14		B	PRINT	4	0785	B 538			162

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1245	12	15		SW	PNTSW	4	0789	, S18			162
1246	12	16		A	@016@, XR1	7	0793	A S14 089			162
1247	12	17		C	XR1, @128@	7	0800	C 089 S17			162
1248	12	18		BU	NOT	5	0807	B 726 /			163
1249	12	19		PNTSYM	W	1	0812	2			163
1250	12	20		CW	PNTSW#1	4	0813	) S18			163
1251	12	21		CS	332	4	0817	/ 332			163
1252	12	22		CS		1	0821	/			163
1253	12	23		S	XR1&1	4	0822	S 090			163
1254	12	24		BW	*%9, ENDSW	8	0826	V 842 S10 1			163
1255	12	25		BCE	TSTEOJ, SORTAB&1&X3, @	8	0834	B 888 /D9 @			164
1256	12	26		BCV	NXTPGE	5	0842	B 859 @			164
1257	12	27		TSTESW	BW	8	0847	V 726 S10 1			164
1258	12	28		B	NXTCTR	4	0855	B 656			164
1259	12	29		NXTPGE	SBR	4	0859	H 887			164
1260	12	30		CS	332	4	0863	/ 332			164
1261	12	31		CS		1	0867	/			164
1262	12	32		CC	1	2	0868	F 1			165
1263	12	33		MCW	@SYMBOL TABLE@, 212	7	0870	M S30 212			165
1264	12	34		W		1	0877	2			165
1265	12	35		CC	K	2	0878	F K			165
1266	12	36		CS	212	4	0880	/ 212			165
1267	12	37		PGXT	B	4	0884	B 000			165
1268	12	38		TSTEOJ	BW	8	0888	V 898 /80 1			165
1269	12	39		CC	1	2	0896	F 1			166
1270	12	391		CS	332	4	0898	/ 332			166
1271	12	392		CHAIN	3					MACRO	
1272				CS		1	0902	/		GEN	166
1273				CS		1	0903	/		GEN	166
1274				CS		1	0904	/		GEN	166
1275	12	40		BCE	EOJOB, ITERS, 1	8	0905	B 997 U28 1			166
1276	12	41	*								
1277	12	42	*		GET PASS C						
1278	12	43	*								
1279	12	44		BSP	SYSTPE	5	0913	U %U1 B			166
1280	12	45		BSP	SYSTPE	5	0918	U %U1 B			167
1281	12	46		MCW	@5@, TPHALT&4	7	0923	M S31 J15			167
1282	12	47		MCW	@5@, TPHALT2&4	7	0930	M S31 K01			167
1283	12	48		MCW	@5@, TPHALT3&4	7	0937	M S31 J42			167
1284	12	49		MCW	@00@, PROCSW	7	0944	M S33 L95			167
1285	12	50		MCW	@ @, SFXCTR	7	0951	M S34 L23			168
1286	12	51	*								
1287	12	52	*		SET NUMBER OF SEEKS FOR TABLE SEARCH						
1288	12	53	*								
1289	12	54		C	TOTLAB, TABLSZ	7	0958	C L93 L18			168
1290	12	55		MCW	TABLSZ, SERCHS	7	0965	M L18 L99			168
1291	12	56		S	TOTLAB	4	0972	S L93			168
1292	12	57		BE	RDPSSC	5	0976	B K72 S			168
1293	12	58		BH	RDPSSC	5	0981	B K72 U			168
1294	12	59		MCW	@0009, SERCHS	7	0986	M S38 L99			169

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1295	12	60		B	RDPSCC		4	0993	B K72		169
1296	12	61	*								
1297	12	62		*	LAST ITERATION, GET PASS C						
1298	12	63	*								
1299	12	64	EOJOB	CW	GRPMK2-1		4	0997	) U30		169
1300	12	65		CS	3999		4	1001	/ I99		169
1301	12	66		BCE	READE,MACHSZ,3		8	1005	B '44 L89 3		169
1302	12	67		CS	4799		4	1013	/ 79Z		169
1303	12	68		CHAIN	7					MACRO	
1304				CS			1	1017	/	GEN	169
1305				CS			1	1018	/	GEN	170
1306				CS			1	1019	/	GEN	170
1307				CS			1	1020	/	GEN	170
1308				CS			1	1021	/	GEN	170
1309				CS			1	1022	/	GEN	170
1310				CS			1	1023	/	GEN	170
1311	12	681	CLR	CS	3999		4	1024	/ I99		170
1312	12	682		SBR	CLR&3		4	1028	H '27		171
1313	12	683		C	CLR&3,&SSOP-1		7	1032	C '27 S41		171
1314	12	684		BU	CLR		5	1039	B '24 /		171
1315	12	69	READE	RTW	SYSTPE,SSOP		8	1044	L %U1 Z00 R		171
1316	12	70		BER	SYSERR		5	1052	B '68 L		171
1317	12	71	GOTOE	MCW	@N@,SSOP		7	1057	M S42 Z00		171
1318	12	72		B	SSOP&1		4	1064	B Z01		172
1319	12	73	SYSERR	MCW	&9,RDCT#1		7	1068	M S43 S44		172
1320	12	74		BSP	SYSTPE		5	1075	U %U1 B		172
1321	12	75	RETRY	RTW	SYSTPE,SSOP		8	1080	L %U1 Z00 R		172
1322	12	76		BER	AGAIN		5	1088	B '97 L		172
1323	12	77		B	GOTOE		4	1093	B '57		172
1324	12	78	AGAIN	BSP	SYSTPE		5	1097	U %U1 B		172
1325	12	79		S	@1@,RDCT		7	1102	S S05 S44		173
1326	12	80		BWZ	RETRY,RDCT,B		8	1109	V '80 S44 B		173
1327	12	81		H	XXXX,691		7	1117	. 000 691		173
1328	12	82		RTW	SYSTPE,SSOP		8	1124	L %U1 Z00 R		173
1329	12	83		BSS	SYSERR,E		5	1132	B '68 E		173
1330	12	84		H	XXXX,612		7	1137	. 000 612		174
1331	12	85		B	GOTOE		4	1144	B '57		174
1332	12	86	LIST	DCW	@ ABCDEFGHIJKLMNOPQR / STUVWXYZ)@@		32	1179			175
1333	12	87	SORTAB	EQU	LIST-31			1148			
1334	12	88		LITORG	*				1180		
			HEADSW	DCW	#01		1	1180		AREA	175
				DCW	@A@		1	1181		LIT	175
				DCW	@Z@		1	1182		LIT	175
				DCW	@010@		3	1185		LIT	175
				DCW	@UNREFERENCED LABELS@		19	1204		LIT	176
				DCW	@1@		1	1205		LIT	176
				DCW	@&X@		2	1207		LIT	176
				DCW	@2@		1	1208		LIT	176
				DCW	@3@		1	1209		LIT	176
			ENDSW	DCW	#01		1	1210		AREA	176

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	&1		1	1211		LIT	176
				DCW	@016@		3	1214		LIT	177
				DCW	@128@		3	1217		LIT	177
			PNTSW	DCW	#01		1	1218		AREA	177
				DCW	@SYMBOL TABLE@		12	1230		LIT	177
				DCW	@5@		1	1231		LIT	177
				DCW	@00@		2	1233		LIT	177
				DCW	@ @		1	1234		LIT	177
				DCW	&0009		4	1238		LIT	178
				DCW	&SSOP-1		3	1241	Y99	ADCON	178
				DCW	@N@		1	1242		LIT	178
				DCW	&9		1	1243		LIT	178
1335	12	89	RDCT	DCW	#01		1	1244		AREA	178
1336	12	90	ENDOV	DCW	@j@		1	1245		GMARK	178
1337	12	91		EX	LIBRN				B 000		179
				END	LIBRN				/ 000 080		

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ABBIT	113	ABIT	111	ACTSW	1867	ACTUAL	761	ADDBNK	1503	ADDHO	2400+X2	ADDLO	2403+X2
ADDRSW	1859	ADDRTN	1086	AGAIN	1097	AINDEX	27	ANAL	114	AOP	70	AOPADJ	26
AOPER	22	AOPHO	17	AOPOR	536	AOPOUT	669	AOPROC	1618	AOPRTN	1484	ARGUMT	1908
ASTADD	1439	ASTRSK	708	ASTRSW	1418	BBIT	112	BLKAOP	735	BLKCT	2330	BLKG12	2852
BLKG8K	2836	BMPXR3	668	BRANCH	1784	BRNCH2	1784	BRSRH	1464	BSP1	2040	BSP2	2084
BTOADD	887	BTOLAB	474	BTOLBL	1157	BUMP	1681	BUMPER	878	BUMPOP	2327	BYPRD	1429
CARD	0	CHKLGT	2208	CHRADJ	1049	CINPUT	%U5	CLEAR	1820	CLR	1024	CLRMAS	2299
CLRMIN	2302	CLRTAB	1813	CMP16K	409	CNVLAB	56	CNVSYM	626	CNVTO3	1094	COMPRS	390
CONST	260	COUNT	7	COUTPT	%U6	DA	871	DASW	1868	DBLDEF	1298	DBLSW	1864
DINPUT	%U6	DOINDX	1417	DOIO	635	DOLABL	1358	DOLABR	1431	DONEXT	461	DOPNT	777
DOREF	441	DOUPTT	%U5	DS	295	DSAPUT	1872	DUMP	646	ENDINT	2901	ENDOFD	1924
ENDOFD	1868	ENDOPN	478	ENDOVL	1245	ENDSW	1210	EOJOB	997	EXEND	973	FACTOR	2388
FINAL	1873	FINALD	1813	FLOAT	1221	FNCTN	2308	GET	1925	GOTOE	1057	GPBRK3	3998
GRPMK2	1431	GRPMRK	2866	HEADSW	1180	HGKCTR	1858	HOADD	57	HOLD1	1427	HOLD2	1468
HOLD4	1472	HOLD7	1426	HOLDA	2331	HOLDAD	1912	HOLDAR	1458	HOLDZN	1485	INDFTR	1869
INITAP	%U0	INPUT	3917+X3	INST2	2169	INSTR	219	IOADD	1179	ITERSW	1428	KBLKNG	2326
KEEP1	2877	LABADD	61	LABEL	13	LABRTN	1294	LBLHO	8	LBLREF	2401+X2	LGCK	2223
LGTXT	2243	LIBRN	0	LIMAD	2894	LIMIT	3931	LIST	1179	LITRAL	1325	LITRSW	1861
LITPST	1090	LOADDR	215	LOOP1	767	LOZNG	530	LSTITR	1407	MACHSZ	2389	MARK	1168
MAXADD	2314	MAXSER	2322	MAXSW	1860	MDTF	2882	MDTP12	2865	MDTP8K	2849	MOVEIN	1951
MPYLP	706	MRKPRC	1280	MULT	714	NEWPGE	502	NOBIT	110	NOT	726	NOWCTR	1848
NXTCNT	655	NXTCTR	656	NXTDGT	740	NXTLBL	348	NXTPGE	859	NXTREC	1937	OPRTN	1175
ORG	376	ORGADD	32	ORGCTR	1853	ORGEQU	489	ORGOUT	574	ORGSV	432	ORGSW	1866
ORIGDA	926	PASSD	1290	PERCNT	950	PGXT	884	PNTSW	1218	PNTSYM	812	PRCADD	1003
PRCAST	283	PRDSA	318	PRINST	196	PRINT	538	PROAST	1190	PROCLB	1109	PROCCP	578
PROCSW	2395	PROCTU	361	PROEND	446	PROSPX	1279	PRTXT	631	PUT	1977	RDCY	1244
RDPSSC	2272	RDPSSD	2247	RDRERR	2077	READ	1788	READ2	1788	READCT	2338	READE	1044
RECALL	980	REDXT	2073	REPLOT	1256	RETRY	1080	RETURN	1763	RSTSWA	616	SAVEPT	%U4
SAVEZN	1920	SCAN	687	SCNTB	806	SEARCH	1629	SEEBOP	268	SERCHS	2399	SETHK	2620
SETAOP	1435	SETAST	208	SETBMP	2718	SETDBL	1745	SETDSA	337	SETFUN	1376	SETHGH	405
SETIO	2493	SETORG	609	SETSPC	1756	SETSWL	1250	SETSYS	598	SETSYM	804	SETTP	2662
SETZRO	942	SFX	992	SFXCTR	2323	SORTAB	1148	SPCSW	1863	SRHLOP	858	SSOP	1900
STADDR	3	STAOP	1	STBOP	4	STLABL	2	STORE	1269	STRADD	1161	STRBNK	1488
STRSAV	502	SUBCTR	2186	SUPADD	66	SWICH1	1419	SWTAB	433	SYMBOL	2409+X2	SYMHO	2404+X2
SYSERR	1068	SYSTPE	%U1	TABLE	2409	TABLSZ	2318	TABMAX	2311	TBLM12	2859	TBLM8K	2843
TBLSRH	1661	TBSZ12	2856	TBSZ8K	2840	TOTLAB	2393	TPAD	2334	TPAD12	2862	TPAD8K	2846
TPAREA	3918	TPERR	2004	TPHALT	2111	TPHLT2	2197	TPHLT3	2138	TPINST	2060	TSTADD	1022
TSTCNV	1078	TSTDBL	1207	TSTEOJ	888	TSTESW	847	TSTLBL	718	TSTLST	474	TSTPRC	434
TSTREF	333	TSTRPT	910	TSTX00	821	TYPE	75	TYPEA	1433	UNDEF	961	UNPROC	1181
UNPRSW	2394	W6AREA	1465	WRAPSW	1862	WRITE	1767	WRITE2	1767	WRTCTR	2341	WRTRED	2149
XR1	89	XR2	94	XR3	99	XXXX	0	ZONE	113	ZONE2	109		