

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

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					1401 AUTOCODER-PASS 3-TRANSLATOR-INITIAL -VERSION 3			3731L		PAGE	1
101		003	JOB		1401 AUTOCODER-PASS 3-TRANSLATOR-INITIAL -VERSION 3						
102			CTL		630 1						
103			*								
104			*EQUATES								
105			*								
106			INTAPE	EQU	%U6			%U6			
107			OUTAPE	EQU	%U4			%U4			
108			SYSTAP	EQU	%U1			%U1			
109			INITAP	EQU	%U0			%U0			
110			XXXX	EQU	0000			0000			
111			PRINT	EQU	200			0200			
112			LIBRN	EQU	000			0000			
113			*								
114			*TAPE REDUNDANCY ROUTINE								
115			*								
116			ORG		RTEND&1			2210			
117			TPERR	SBR	XL3	4	2210	H 099			4
118				SBR	REDXT&3	4	2214	H K82			4
119				MZ	&9, XL3	7	2218	Y M60 099			4
120				MCW	4000-10&X3, TPINS&7	7	2225	M I10 K73			4
121				MN	TPINS&3, BSP1&3	7	2232	D K69 K49			4
122				MCW	TPINS&7, INST2&7	7	2239	M K73 L82			4
123			BSP1	BSP	INITAP	5	2246	U %U0 B			5
124				BCE	WRTRD, TPINS&7, W	8	2251	B L55 K73 W			5
125				MCW	&9, RDCT#1	7	2259	M M60 M61			5
126				TPINS	RT INITAP, XXXX	8	2266	M %U0 000 R			5
127				BER	RDERR	5	2274	B K83 L			5
128				REDXT	B XXXX	4	2279	B 000			5
129				RDERR	MN TPINS&3, BSP2&3	7	2283	D K69 K93			6
130				BSP2	BSP INITAP	5	2290	U %U0 B			6
131				S	&1, RDCT	7	2295	S M62 M61			6
132				BWZ	TPINS, RDCT, B	8	2302	V K66 M61 B			6
133				MN	TPINS&3, TPHLT&6	7	2310	D K69 L23			6
134				TPHLT	H XXXX, 390	7	2317	. 000 390			7
135				MCW	TPINS&7, *&8	7	2324	M K73 L38			7
136				RT	INITAP, XXXX	8	2331	M %U0 000 R			7
137				BSS	BSP1, E	5	2339	B K46 E			7
138				H	XXXX, 302	7	2344	. 000 302			7
139				B	REDXT	4	2351	B K79			7
140				WRTRD	SKP SYSTAP	5	2355	U %U1 E			8
141				BCE	SBCTR, WRTRC-1, 5	8	2360	B L92 M63 5			8
142				A	&1, WRTRC#2	7	2368	A M62 M64			8
143				INST2	WT INITAP, XXXX	8	2375	M %U0 000 W			8
144				BER	BSP1	5	2383	B K46 L			8
145				B	REDXT	4	2388	B K79			8
146				SBCTR	S WRTRC	4	2392	S M64			9
147				MN	TPINS&3, *&7	7	2396	D K69 M09			9

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					1401 AUTOCODER-PASS 3-TRANSLATOR-INITIAL -VERSION 3			3731L		PAGE	2
148			H		XXXX, 360	7	2403	. 000 360			9
149			B		INST2	4	2410	B L75			9
150			*								
151			* NOISE RECORD ROUTINE								
152			*								
153			NOISE	SBR	XL3	4	2414	H 099			9
154				SBR	NSXT&3	4	2418	H M52			9
155				MZ	&9, XL3	7	2422	Y M60 099			9
156				N2	BCE 4000-12&X3, XXXX, }	8	2429	B I88 000 }	GMARK		10
157				CHAIN	12				MACRO		
158				BCE		1	2437	B	GEN		10
159				BCE		1	2438	B	GEN		10
160				BCE		1	2439	B	GEN		10
161				BCE		1	2440	B	GEN		10
162				BCE		1	2441	B	GEN		10
163				BCE		1	2442	B	GEN		10
164				BCE		1	2443	B	GEN		11
165				BCE		1	2444	B	GEN		11
166				BCE		1	2445	B	GEN		11
167				BCE		1	2446	B	GEN		11
168				BCE		1	2447	B	GEN		11
169				BCE		1	2448	B	GEN		11
170				NSXT	B 0	4	2449	B 000			11
171				OBJCOR	DCW @3@	1	2453				12
172				HIVAL	DCW @ 999@	5	2458				12
173				MANAM	DCW @#@	1	2459				12
174				LTORG	*			2460			
				DCW	&9	1	2460		LIT		12
				RDCT	DCW #01	1	2461		AREA		12
				DCW	&1	1	2462		LIT		12
				WRTRC	DCW #02	2	2464		AREA		12
175			*								
176			*BEGIN		OF MAIN LINE						
177			*								
178			BEGIN	RWD	INTAPE	5	2465	U %U6 R			13
179				RWD	5	5	2470	U %U5 R			13
180				CS	3999	4	2475	/ 199			13
181				RTW	SYSTAP, 001	8	2479	L %U1 001 R			13
182				NOP	0	4	2487	N 000			13
183				BER	TPERR	5	2491	B K10 L			13
184				SW	GMK1, GMK2	7	2496	, I89 187			13
185				CW	SYSMK2	4	2503	) ?03			14
186				CS	080	4	2507	/ 080			14
187				SW	EQVADD	4	2511	, A69			14
188				RWD	OUTAPE	5	2515	U %U4 R			14
189				MCW	&FREE&13, N2&6	7	2520	M R20 M35			14
190				MCW	@N@, N3	7	2527	M R21 573			14
191				MCW	@N@, N4	7	2534	M R21 558			14
192				RT	5, FREE&1	8	2541	M %U5 101 R			15
193				B	NOISE	4	2549	B M14			15

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
194			BER	TPERR	PASSED IN FROM PASS 2	5		2553	B K10 L		15
195			RWD	5	AND SAVE VALUE	5		2558	U #05 R		15
196			MCW	FREE&3,JOBLBL#3		7		2563	M 103 R24		15
197			ZA	@101@,ALTRNO	RESET ALTER NUMBER	7		2570	? R27 184		15
198			*								
199			*	PROCESS JOB CARD							
200			*								
201			B	GET	GET FIRST RECORD	4		2577	B 524		16
202			BCE	GENJOB,FREE&6,*	Q. COMMENTS CARD	8		2581	B Q53 106 *		16
203			C	FREE&18,@JOB@	Q. JOB CARD	7		2589	C 118 R30		16
204			BU	GENJOB		5		2596	B Q53 /		16
205			CODJOB	MCW	JOBLBL,FREE&8	7		2601	M R24 108		16
206			WT	OUTAPE,FREE&1	PICKUP FACTOOR	8		2608	M #14 101 W		16
207			NOP	0	PUT JOB CARD	4		2616	N 000		17
208			BER	TPERR		5		2620	B K10 L		17
209			A	&1,ALTRNO		7		2625	A R31 184		17
210			B	GET	GET NEXT RECORD	4		2632	B 524		17
211			MCW	@B@,N3	RESET NOISE ROUTINE	7		2636	M R32 573		17
212			MCW	@M@,N4		7		2643	M R33 558		17
213			*								
214			*	PROCESS CONTROL CARD							
215			*								
216			C	FREE&18,@CTL@	Q. CONTROL CARD	7		2650	C 118 R36		18
217			BU	CHNAD		5		2657	B Q85 /		18
218			CS	0		4		2662	/ 000		18
219			SBR	CLEAR&3		4		2666	H O85		18
220			SBR	SVSZ#3		4		2670	H R39		18
221			BWZ	PROSZ,CLEAR&3,2		8		2674	V P02 O85 2		18
222			CLEAR	CS	15999	4		2682	/ I91		18
223			SBR	CLEAR&3	CLEAR ABOVE 4K	4		2686	H O85		19
224			C	CLEAR&3,@I99@	Q. END OF CLEARING	7		2690	C O85 R42		19
225			BU	CLEAR		5		2697	B O82 /		19
226			PROSZ	MCW	@6@,PHOLD#1	7		2702	M R43 R44		19
227			BWZ	CSZ,SVSZ,B		8		2709	V P54 R39 B		19
228			MCW	@5@,PHOLD		7		2717	M R45 R44		19
229			BWZ	CSZ,SVSZ,K		8		2724	V P54 R39 K		20
230			MCW	@4@,PHOLD		7		2732	M R46 R44		20
231			BWZ	CSZ,SVSZ,S		8		2739	V P54 R39 S		20
232			MCW	@3@,PHOLD		7		2747	M R47 R44		20
233			CSZ	C	FREE&21,PHOLD	7		2754	C 121 R44		20
234			BE	INOBJ		5		2761	B P97 S		21
235			*	MESSG@INCORRECT PROCESSOR MACHINE SIZE SPECIFIED@,42							
236			CS	332		4		2766	/ 332		21
237			CS			1		2770	/		21
238			MCW	@INCORRECT PROCESSOR MACHINE SIZE SPECIFIED@,42&200		7		2771	M R89 242		21
239			W			1		2778	2		21
240			BCV	*&5		5		2779	B P88 @		21
241			B	*&3		4		2784	B P90		21
242			CC	1		2		2788	F 1		22
243			MCW	PHOLD,FREE&21		7		2790	M R44 121		22

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
244			INOBJ	MCW	FREE&22,OBJCOR	7		2797	M 122 M53		22
245			ZA	OBJCOR,XL1	SAVE OBJECT MACHINE CODE	7		2804	? M53 089		22
246			S	&30,XL1&1		7		2811	S R91 090		22
247			A	XL1	CODE -HIVAL-	4		2818	A 089		22
248			MCW	OBJTBL&XL1,HIVAL-3		7		2822	M R/1 M55		23
249			C	FREE&22,@3@	Q. OBJECT CORE GT 4K	7		2829	C 122 R47		23
250			BL	GETMN		5		2836	B 419 T		23
251			BCE	SETHI,FREE&24,1	Q. MA HARDWARE	8		2841	B Q99 124 1		23
252			B	IS4K		4		2849	B Q92		23
253			GENJOB	BSP	INTAPE	5		2853	U #06 B		23
254			MCW	FREE&74,FREE&73		7		2858	M 174 173		24
255			MCW	@JOB @,FREE&20	GENERATE JOB CARD	7		2865	M R96 120		24
256			MCW			1		2872	M		24
257			MCW	FREE&74,FREE&15	BLANK AREA	7		2873	M 174 115		24
258			MCW			1		2880	M		24
259			B	CODJOB		4		2881	B 001		24
260			CHNAD	MCW	&SUBXL,INTEXT&3	7		2885	M R99 463		24
261			IS4K	MCW	@A@,MANAM	7		2892	M ?00 M59		25
262			SETHI	MCW	@03@,HIVAL-3	7		2899	M ?02 M55		25
263			B	GETMN		4		2906	B 419		25
264			OBJTBL	DCW	@03@	2		2911			25
265			DCW	@07@		2		2913			25
266			DCW	@11@		2		2915			25
267			DCW	@15@		2		2917			25
268			LTORG	2918 *				2918			
			DCW	&FREE&13		3		2920	113	ADCON	26
			DCW	@N@		1		2921		LIT	26
			JOBLBL	DCW	#03	3		2924		AREA	26
			DCW	@101@		3		2927		LIT	26
			DCW	@JOB@		3		2930		LIT	26
			DCW	&1		1		2931		LIT	26
			DCW	@B@		1		2932		LIT	26
			DCW	@M@		1		2933		LIT	27
			DCW	@CTL@		3		2936		LIT	27
			SVSZ	DCW	#03	3		2939		AREA	27
			DCW	@I99@		3		2942		LIT	27
			DCW	@6@		1		2943		LIT	27
			PHOLD	DCW	#01	1		2944		AREA	27
			DCW	@5@		1		2945		LIT	27
			DCW	@4@		1		2946		LIT	28
			DCW	@3@		1		2947		LIT	28
			DCW	@INCORRECT PROCESSOR MACHINE SIZE SPECIFIED@		42		2989		LIT	30
			DCW	&30		2		2991		LIT	30
			DCW	@JOB @		5		2996		LIT	30
			DCW	&SUBXL		3		2999	634	ADCON	30
			DCW	@A@		1		3000		LIT	30
			DCW	@03@		2		3002		LIT	31
269			SYSMK2	DCW	@j@	1		3003		GMARK	31
270			XFR	000					B 000		32

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
271				JOB	1401 AUTOCODER-PASS 3 LEFT MAIN LINE						
272			*								
273			*		*INITIALIZATION OF INDEX REGISTERS						
274			*								
275			*		XINITXL1,XL2,XL3						
276			XL1	EQU	089			0089			
277			089	DCW	000		3	0089			35
278			091	DC	00		2	0091			35
279			XL2	EQU	094			0094			
280			094	DCW	000		3	0094			35
281			096	DC	00		2	0096			35
282			XL3	EQU	099			0099			
283			099	DCW	000		3	0099			35
284			100	DC	0		1	0100			35
285			*								
286			*		*FREE FORM INPUT AREA						
287			*								
288			ORG		101				0101		
289			FREE	EQU	100			0100			
290				DA	1X86			0101	0186		
291					1,1			0101		FIELD	
292					19,19			0119		FIELD	
293					16,16			0116		FIELD	
294					6,6			0106		FIELD	
295					21,21			0121		FIELD	
296			ALTRNO		81,84			0184		FIELD	
297					85,89			0189		FIELD	
298			GMK2	DC	@]@		1	0187		GMARK	36
299			*								
300			*		*FIXED FORM INPUT AREA						
301			*								
302			ORG		333				0333		
303			INPUT	EQU	*			0332			
304				DA	1X86			0333	0418		
305					40,40			0372		FIELD	
306					17,17			0349		FIELD	
307					28,28			0360		FIELD	
308					39,39			0371		FIELD	
309					76,76			0408		FIELD	
310			*								
311			*		* GET UPPER HALF OF PASS 3						
312			*								
313			GETMN	RTW	SYSTAP,BEGIN		8	0419	L %U1 M65 R		37
314				NOP	0		4	0427	N 000		37
315				BER	TPERR		5	0431	B K10 L		37
316				MCW	MANAM,MASYM-3		7	0436	M M59 B93		37
317				RTW	SYSTAP,OVL2		8	0443	L %U1 626 R		37
318				NOP	0		4	0451	N 000		38
319				BER	TPERR		5	0455	B K10 L		38
320			INTXT	B	NUREC		4	0460	B 626		38

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
321			*								
322			*		* GET FIXED FORM OVERLAY						
323			*								
324			GTFIX	RTW	SYSTAP,OVL2		8	0464	L %U1 626 R		38
325				NOP	0		4	0472	N 000		38
326				BER	TPERR		5	0476	B K10 L		38
327				BSP	SYSTAP		5	0481	U %U1 B		38
328				BSP	SYSTAP		5	0486	U %U1 B		39
329				BW	PROFIX,FREESW		8	0491	V 661 H09 1		39
330				B	RSTMOD		4	0499	B 638		39
331			*								
332			*		* GET FREE FORM OVERLAY						
333			*								
334			GTFRE	RTW	SYSTAP,OVL2		8	0503	L %U1 626 R		39
335				NOP	0		4	0511	N 000		39
336				BER	TPERR		5	0515	B K10 L		39
337				B	PSTNU		4	0520	B 630		39
338			*								
339			*		*GET ROUTINE						
340			*								
341			GET	SBR	GETXT&3		4	0524	H 553		40
342				B	RDTAP		4	0528	B 554		40
343				MCW	INAREA&79,FREE&80		7	0532	M I82 180		40
344					CHAIN 4					MACRO	
345				MCW			1	0539	M	GEN	40
346				MCW			1	0540	M	GEN	40
347				MCW			1	0541	M	GEN	40
348				MCW			1	0542	M	GEN	40
349				MCW	INAREA&85,FREE&86		7	0543	M I88 186		41
350			GETXT	B	XXXX		4	0550	B 000		41
351			RDTAP	SBR	RDXT&3		4	0554	H 585		41
352			N4	MCW	&INAREA&12,N2&6		7	0558	M R43 M35		41
353				RT	INTAPE,INAREA		8	0565	M %U6 I03 R		41
354			N3	B	NOISE		4	0573	B M14		41
355				BER	TPERR		5	0577	B K10 L		41
356			RDXT	B	XXXX		4	0582	B 000		42
357			*								
358			*		*PUT ROUTINE						
359			*								
360			PUT	SBR	PUTXT&3		4	0586	H 625		42
361				CW	FREE&21		4	0590	) 121		42
362				WT	OUTAPE,FREE&1		8	0594	M %U4 101 W		42
363				NOP	0		4	0602	N 000		42
364				BER	TPERR		5	0606	B K10 L		42
365				SW	FREE&21		4	0611	, 121		42
366				A	&L,ALTRNO		7	0615	A R44 184		43
367			PUTXT	B	XXXX		4	0622	B 000		43
368			OVL2	DCW	0		1	0626			43
369				DCW	@]@		1	0627		GMARK	43
370				XFR	0				B 000		44

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
371				JOB	1401 AUTOCODER-PASS 3 PROCESS FREE FORM -VERSION 3						
372			*								
373				*BEGINNING	OF NEW FREE FORM RECORD ANALYSIS						
374			*								
375				ORG	OVL2				0626		
376			NUREC	B	PUT	4	0626	B 586			47
377			PSTNU	B	GET	4	0630	B 524			47
378			SUBXL	SW	MODESW	4	0634	, ?02			47
379				CW	FREESW	4	0638	) H09			47
380				BCE	NUREC, FREE&6, *	8	0642	B 626 106 *			47
381				BCE	REG, FREE&75,	8	0650	B 991 175			47
382				BCE	REG, FREE&75, L	8	0658	B 991 175 L			48
383				BCE	NUREC, FREE&75, S	8	0666	B 626 175 S			48
384				BCE	NUREC, FREE&75, Z	8	0674	B 626 175 Z			48
385				BCE	NUREC, FREE&85, R	8	0682	B 626 185 R			48
386				C	FREE&18, @CHA@	7	0690	C 118 R47			48
387				BCE	CKCHN, FREE&75, C	8	0697	B 722 175 C			49
388				BCE	CKCHN, FREE&75, Y	8	0705	B 722 175 Y			49
389				BU	NUREC	5	0713	B 626 /			49
390				B	PRCHN	4	0718	B 727			49
391			CKCHN	BU	REG	5	0722	B 991 /			49
392				PRCHN	ZA FREE&22, WAREA2	7	0727	? 122 A14			49
393				BCE	*&5, WAREA2, &	8	0734	B 746 A14 &			50
394				B	*&8	4	0742	B 753			50
395				ZA	WAREA2-1, WAREA2	7	0746	? A13 A14			50
396				BCE	*&5, FREE&75, C	8	0753	B 765 175 C			50
397				B	*&8	4	0761	B 772			50
398				MCW	@S@, FREE&75	7	0765	M R48 175			50
399				BCE	*&5, FREE&75, Y	8	0772	B 784 175 Y			51
400				B	*&8	4	0780	B 791			51
401				MCW	@Z@, FREE&75	7	0784	M R49 175			51
402				B	PUT	4	0791	B 586			51
403				C	WAREA2, &00	7	0795	C A14 R51			51
404				BL	*&5	5	0802	B 811 T			51
405				B	PSTNU	4	0807	B 630			51
406				MCW	FREE&75, HLDCCD#1	7	0811	M 175 R52			52
407				MCW	@C@, FREE&75	7	0818	M R53 175			52
408				BCE	BLNKX, HLDCCD, R	8	0825	B 848 R52 R			52
409				BCE	BLNKX, HLDCCD, S	8	0833	B 848 R52 S			52
410				MCW	@Y@, FREE&75	7	0841	M R54 175			52
411			BLNKX	MCW	BLNK2, FREE&74	7	0848	M A55 174			53
412				MCW	FREE&74	4	0855	M 174			53
413				MCW	SAVOP	4	0859	M R88			53
414				MCW		1	0863	M			53
415				MCW		1	0864	M			53
416				MCW	FREE&74, FREE&5	7	0865	M 174 105			53
417			CHNLP	B	PUT	4	0872	B 586			53
418				MCW	FREE&74, FREE&11	7	0876	M 174 111			54
419				S	&1, WAREA2	7	0883	S R44 A14			54
420				C	WAREA2, &00	7	0890	C A14 R51			54

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
421				BL	CHNLP	5	0897	B 872 T			54
422				B	PSTNU	4	0902	B 630			54
423			GENPS	MCW	@&1 @, FREE&15	7	0906	M R57 115			54
424				B	PUT	4	0913	B 586			55
425				MCW	FREE&73, FREE&72	7	0917	M 173 172			55
426				MCW	@C@, FREE&75	7	0924	M R53 175			55
427				MCW	HIVAL, FREE&25	7	0931	M M58 125			55
428				MCW	@EQU @	4	0938	M R62			55
429				MCW		1	0942	M			55
430				MCW	@\$HIVAL &P @	4	0943	M R72			55
431				MCW	FREE&73	4	0947	M 173			56
432				MCW	&NUREC, GENPS&3	7	0951	M R75 909			56
433				MCW	@B@, ISHIV	7	0958	M R76 969			56
434				B	NUREC	4	0965	B 626			56
435			ISHIV	NOP	PSTNU	4	0969	N 630			56
436				MCW	HIVAL, FREE&25	7	0973	M M58 125			56
437				MCW	@B@, PSSW2	7	0980	M R76 '37			57
438				B	TSTRE	4	0987	B '53			57
439			REG	S	XL3&1	4	0991	S 100			57
440				S		1	0995	S			57
441				S		1	0996	S			57
442				C	FREE&18, @ @	7	0997	C 118 R79			57
443				BU	SVUP3	5	1004	B '17 /			57
444				BCE	TSTRE, FREE&19,	8	1009	B '53 119			58
445			SVUP3	MCW	FREE&20, SAVOP#9	7	1017	M 120 R88			58
446				MCW		1	1024	M			58
447				C	FREE&11, @\$HIVAL@	7	1025	C 111 R94			58
448				BE	ISHIV	5	1032	B 969 S			58
449			PSSW2	NOP	TSTRE	4	1037	N '53			58
450				C	FREE&10, @\$P @	7	1041	C 110 R99			58
451				BE	GENPS	5	1048	B 906 S			59
452			TSTRE	BCE	ISREA, FREE&85, R	8	1053	B '96 185 R			59
453				B	TLUOP	4	1061	B M65			59
454			STFUN	MCW	FREE&15, SAVOP-5	7	1065	M 115 R83			59
455				BW	NUREC, EQVADD	8	1072	V 626 A69 1			59
456				C	FREE&15, @3 @	7	1080	C 115 ?01			59
457				BE	EOJ	5	1087	B Q75 S			60
458				B	NUREC	4	1092	B 626			60
459			ISREA	SW	FREE&12	4	1096	, 112			60
460				LCA	FREE&15, EQVADD	7	1100	L 115 A69			60
461				CW	FREE&12	4	1107	) 112			60
462				BCE	TYPCL, FREE&15, &	8	1111	B /26 115 &			60
463					CHAIN 3					MACRO	
464				BCE		1	1119	B		GEN	60
465				BCE		1	1120	B		GEN	61
466				BCE		1	1121	B		GEN	61
467				B	STFUN	4	1122	B '65			61
468			TYPCL	SW	EQVADD-2	4	1126	, A67			61
469				BCE	STFUN, FREE&12, &	8	1130	B '65 112 &			61
470				SW	EQVADD-1	4	1138	, A68			61

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
471			BCE		STFUN, FREE&13, &		8	1142	B '65 113 &		61
472			SW		EQVADD		4	1150	, A69		62
473			B		STFUN		4	1154	B '65		62
474			DCW		0		1	1158			62
475			DCW		@} @		1	1159		GMARK	62
476			XFR		0				B 000		63

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
477			JOB		1401 AUTOCODER-PASS 3 PROCESS FIX FORM -VERSION 3						
478			ORG		OVL2				0626		
479			*								
480					*BEGINNING OF NEW FIXED FORM RECORD ANALYSIS						
481			*								
482			ENTSPS	B	PUT		4	0626	B 586		66
483			BW		GTFRE, FREESW		8	0630	V 503 H09 1		66
484			RSTMOD	CW	MODESW#1, ABSW		7	0638	) ?02 A10		66
485			B		RDTAP		4	0645	B 554		66
486			MCW		INAREA&79, INPUT&80		7	0649	M 182 412		66
487			CHAIN		5					MACRO	
488			MCW				1	0656	M	GEN	66
489			MCW				1	0657	M	GEN	66
490			MCW				1	0658	M	GEN	67
491			MCW				1	0659	M	GEN	67
492			MCW				1	0660	M	GEN	67
493			PROFIX	MCW	INPUT&80, FREE&80		7	0661	M 412 180		67
494			MCW		BLANK, FREE&75		7	0668	M A54 175		67
495			MCW		FREE&75		4	0675	M 175		67
496			MCW		FREE&75, FREE&20		7	0679	M 175 120		67
497			MCW				1	0686	M		68
498			MCW				1	0687	M		68
499			MCW		INPUT&82, FREE&86		7	0688	M 414 186		68
500			MCW		INPUT&13, FREE&11		7	0695	M 345 111		68
501			MCW		INPUT&5		4	0702	M 337		68
502			BCE		COMCRD, INPUT&8, *		8	0706	B Y71 340 *		68
503			BCE		LBERR, FREE&11, ,		8	0714	B 778 111 ,		68
504			CHAIN		4					MACRO	
505			BCE				1	0722	B	GEN	69
506			BCE				1	0723	B	GEN	69
507			BCE				1	0724	B	GEN	69
508			BCE				1	0725	B	GEN	69
509			BCE		LBERR, FREE&10, -		8	0726	B 778 110 -		69
510			CHAIN		4					MACRO	
511			BCE				1	0734	B	GEN	69
512			BCE				1	0735	B	GEN	69
513			BCE				1	0736	B	GEN	70
514			BCE				1	0737	B	GEN	70
515			BCE		LBERR, FREE&10, #		8	0738	B 778 110 #		70
516			CHAIN		4					MACRO	
517			BCE				1	0746	B	GEN	70
518			BCE				1	0747	B	GEN	70
519			BCE				1	0748	B	GEN	70
520			BCE				1	0749	B	GEN	70
521			BCE		LBERR, FREE&10, &		8	0750	B 778 110 &		71
522			CHAIN		4					MACRO	
523			BCE				1	0758	B	GEN	71
524			BCE				1	0759	B	GEN	71
525			BCE				1	0760	B	GEN	71
526			BCE				1	0761	B	GEN	71

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
527				BCE	LBERR, FREE&10, '		8	0762	B 778 110 '		71
528					CHAIN 4					MACRO	
529				BCE		1	0770	B		GEN	71
530				BCE		1	0771	B		GEN	72
531				BCE		1	0772	B		GEN	72
532				BCE		1	0773	B		GEN	72
533				B	BCK1	4	0774	B 798			72
534			LBERR	CS	332	4	0778	/ 332			72
535				CS		1	0782	/			72
536				MCW	@ILLEGAL LABEL - SEQUENCE NUMBER@, 231	7	0783	M ?33 231			72
537				MCS	ALTRNO, 236	7	0790	Z 184 236			73
538				W		1	0797	Z			73
539				BCK1	C INPUT&15, BLNK2	7	0798	C 347 A55			73
540				BE	ABSFIX Q. ACTUAL OP CODE	5	0805	B 570 S			73
541				MCW	BLNK2, SAVOP PRESENT IN FIXED FORM	7	0810	M A55 R88			73
542				MCW	INPUT&16	4	0817	M 348			73
543				MCW	INPUT&16, FREE&18 MOVE MNEMONIC TO FREE	7	0821	M 348 118			73
544			TLUFI	S	XL3&1 RESET INDEX LOCATIONS	4	0828	S 100			74
545				S		1	0832	S			74
546				S		1	0833	S			74
547				B	TLUOP LOOKUP MNEMONIC	4	0834	B M65			74
548				BW	FIXINS, EQVADD Q. INSTRUCTION	8	0838	V 854 A69 1			74
549				BCE	FOUND, EQVADD, Q. CONTROL OP	8	0846	B T40 A69			74
550				*							
551				*	PROCESS INSTRUCTION						
552				*							
553			FIXINS	BCE	LKNOP, INPUT&17, Q. A OPERAND	8	0854	B 974 349			74
554				BCE	FIXALF, INPUT&17, @ Q. ALPHA LITERAL	8	0862	B /84 349 @			75
555				B	SCAN SCAN A OPERAND	4	0870	B 209			75
556			CKB	BCE	CKMOD, INPUT&28, Q. B OPERAND	8	0874	B 950 360			75
557				A	&1, XL2 MOVE COMMA TO FREE	7	0882	A R44 094			75
558				MCW	@, @, FREE&21&X2 TO SEPARATE OPERANDS	7	0889	M ?34 1K1			75
559				A	&1, XL2	7	0896	A R44 094			76
560				MCW	@011@, XL1	7	0903	M ?37 089			76
561				BCE	FIXALF, INPUT&28, @ Q. ALPHA LITERAL	8	0910	B /84 360 @			76
562				B	SCAN SCAN B OPERAND	4	0918	B 209			76
563			CKOP	C	INPUT&16, @B @ Q. BRANCH INSTRUCTION	7	0922	C 348 ?40			76
564				BE	MAKBCE	5	0929	B '40 S			76
565				C	INPUT&16, @ B@ Q. ACTUAL BRANCH INST	7	0934	C 348 ?43			77
566				BE	MOVMOD	5	0941	B '18 S			77
567				B	LKNOP	4	0946	B 974			77
568			CKMOD	C	INPUT&16, @B @ Q. BRANCH INSTRUCTION	7	0950	C 348 ?40			77
569				BE	ALTROP	5	0957	B '51 S			77
570				C	INPUT&16, @ B@ Q. ACTUAL BRANCH INST	7	0962	C 348 ?43			77
571				BE	ALTROP	5	0969	B '51 S			78
572			LKNOP	C	INPUT&16, @NOP@ Q. NOP INSTRUCTION	7	0974	C 348 ?46			78
573				BE	CKNOP	5	0981	B /46 S			78
574				BW	PICKUP, ABSW Q. ACTUAL OP CODE	8	0986	V '29 A10 1			78
575				BCE	PICKUP, INPUT&39, Q. D CHARACTER	8	0994	B '29 371			78
576			ISMOD	BCE	MOVMOD, FREE&15, Q. ILLEGAL OP	8	1002	B '18 115			79

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
577				BWZ	IOTYP, FREE&15, 2 Q. I/O INSTRUCTION	8	1010	V /54 115 2			79
578			MOVMOD	MCW	INPUT&39, FREE&23&X2 MOVE D CHARACTER TO	7	1018	M 371 1K3			79
579				MCW	@, @ FREE AREA	4	1025	M ?34			79
580			PICKUP	MCW	INPUT&55, FREE&72 PICKUP COMMENTS	7	1029	M 387 172			79
581				B	ENDFIX	4	1036	B 626			79
582			MAKBCE	MCW	@BCE@, FREE&18 MOVE -BCE- MNEMONIC	7	1040	M ?49 118			80
583				B	ISMOD TO OPERATION FIELD	4	1047	B '02			80
584			ALTROP	BCE	PICKUP, INPUT&39, Q. D CHARACTER, I.E.,	8	1051	B '29 371			80
585				MCW	@BIN@, FREE&18 UNCONDITIONAL BRANCH	7	1059	M ?52 118			80
586				MCW	@& B@, FREE&15 SET FIVE CHAR BRANCH	7	1066	M ?55 115			80
587				S	XL1&1	4	1073	S 090			80
588				MCW	BLNK2, FREE&20	7	1077	M A55 120			81
589			TLUBIN	C	BINTBL&X1, INPUT&39 SEARCH 5-CHARACTER	7	1084	C H/4 371			81
590				BE	BINFND BRANCH TABLE FOR	5	1091	B /15 S			81
591				BCE	MOVMOD, BINTBL&5&X1, APPROPRIATE UNIQUE	8	1096	B '18 H/9			81
592				A	&5, XL1 MNEMONIC, IF NOT	7	1104	A ?56 089			81
593				B	TLUBIN PRESENT LEAVE	4	1111	B '84			81
594			BINFND	MCW	BINTBL-1&X1, FREE&19 MNEMONIC -BIN-	7	1115	M H/3 119			82
595				MCW		1	1122	M			82
596				C	FREE&18, @BSS@ Q. BRANCH SENSE SWITCH	7	1123	C 118 ?59			82
597				BE	MOVMOD	5	1130	B '18 S			82
598				MCW	INPUT&39, FREE&14 PICKUP DE CHARACTER	7	1135	M 371 114			82
599				B	PICKUP	4	1142	B '29			82
600			CKNOP	BCE	PICKUP, INPUT&39, 8 1146 B '29 371	8	1146	B '29 371			82
601			IOTYP	MCW	INPUT&39, FREE&14 CODE I/O INSTRUCTION	7	1154	M 371 114			83
602				MCW	@&@ IN ACTUAL IN	4	1161	M ?60			83
603				MCW	INPUT&39, FREE&20 OPERATION FIELD	7	1165	M 371 120			83
604				MCW	FREE&15	4	1172	M 115			83
605				MCW	BLANK3	4	1176	M A56			83
606				B	PICKUP	4	1180	B '29			83
607			FIXALF	BCE	ENDALF, INPUT&27&X1, @ SCAN FOR AT SIGN	8	1184	B S18 3V9 @			83
608					CHAIN 8					MACRO	
609				BCE		1	1192	B		GEN	84
610				BCE		1	1193	B		GEN	84
611				BCE		1	1194	B		GEN	84
612				BCE		1	1195	B		GEN	84
613				BCE		1	1196	B		GEN	84
614				BCE		1	1197	B		GEN	84
615				BCE		1	1198	B		GEN	84
616				BCE		1	1199	B		GEN	85
617			VALUE	A	&1, XL2 PROCESS STATEMENT AS	7	1200	A R44 094			85
618				MCW	@S@, FREE&21&X2 UNPROCESSABLE ALPHA	7	1207	M ?62 1K1			85
619				B	WHCHOP LITERAL ILLEGAL OPND	4	1214	B S54			85
620			ENDALF	SBR	WAREA3 PICKUP LITERAL AND	4	1218	H A15			85
621				S	&VALUE&2, WAREA3 MOVE TO FREE FORM	7	1222	S ?65 A15			85
622				ZS	WAREA3 AREA	4	1229	I A15			85
623				A	WAREA3, XL1	7	1233	A A15 089			86
624				A	WAREA3, XL2	7	1240	A A15 094			86
625				MCW	INPUT&17&X1, FREE&21&X2	7	1247	M 309 1K1			86
626			WHCHOP	C	XL1, @011@ EXIT ON BASIS OF WHICH	7	1254	C 089 ?37			86

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
627			BH		CKB			5 1261	B 874 U		86
628			B		CKOP			4 1266	B 922		86
629			ABSFIX	BCE	SAMFIX, INPUT&16,			8 1270	B T28 348		87
630					INPUT&16, FREE&19			7 1278	M 348 119		87
631					INPUT&39, FREE&20			7 1285	M 371 120		87
632			SW1	NOP	SETABS			4 1292	N T20		87
633					332			4 1296	/ 332		87
634					CS			1 1300	/		87
635					MCW	@ACTUAL OP CODES PRESENT IN		7 1301	M A09 270		87
636					CC	1		2 1308	F 1		88
637					W			1 1310	Z		88
638					CC	1		2 1311	F 1		88
639					MCW	@B@, SW1		7 1313	M R76 S92		88
640			SETABS	SW	ABSW#1			4 1320	, A10		88
641					B	TLUFIK		4 1324	B 828		88
642			SAMFIX	MCW	SAVOP, FREE&20			7 1328	M R88 120		88
643					MCW			1 1335	M		89
644					B	TLUFIK		4 1336	B 828		89
645			*								
646			*		BEGINNING OF PROCESS CONTROL AND DECLARATIVE OPERATION CODES						
647			*								
648			FOUND	BW	FIXINS, EQVADD			8 1340	V 854 A69 1		89
649					S	XL3&1		4 1348	S 100		89
650					MN	EQVADD-1, XL3		7 1352	D A68 099		89
651					A	XL3		4 1359	A 099		89
652					A	XL3		4 1363	A 099		89
653					B	*&1&X3		4 1367	B TG1		90
654					B	BADOP		4 1371	B P28		90
655					B	DCWSTM		4 1375	B U84		90
656					B	ERHLT		4 1379	B U73		90
657					B	ONEOP		4 1383	B X60		90
658					B	ONEOP		4 1387	B X60		90
659					B	ERHLT		4 1391	B U73		90
660					B	CKLOR		4 1395	B Y89		91
661					B	DSTYP		4 1399	B X88		91
662					B	INSPC		4 1403	B U21		91
663					MCW	INPUT&55, FREE&59		7 1407	M 387 159		91
664					MCW			1 1414	M		91
665					MCW			1 1415	M		91
666					MCW			1 1416	M		91
667					B	ENDFIX		4 1417	B 626		92
668			INSPC	BCE	NOPND, INPUT&17,			8 1421	B U62 349		92
669					MCW	@B@, FREE&18		7 1429	M R76 118		92
670					MCW	EQVADD-2, EQVADD		7 1436	M A67 A69		92
671					LCA	BLANK		4 1443	L A54		92
672					MCW	EQVADD, FREE&15		7 1447	M A69 115		92
673					MCW	@ @@		4 1454	M A12		93
674					B	FIXINS		4 1458	B 854		93
675			NOPND	MCW	INPUT&39, FREE&21			7 1462	M 371 121		93
676					B	ENDFIX		4 1469	B 626		93

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
677			ERHLT	H	0, 301			7 1473	. 000 301		93
678					B	ERHLT		4 1480	B U73		93
679			*								
680			*		PROCESS DCW, DC STATEMENTS						
681			*								
682			DCWSTM	BCE	DCWTYP, INPUT&17, *			8 1484	B V51 349 *		93
683					A	BLANK, INPUT&17		7 1492	A A54 349		94
684					MCW	FREE&18, WAREA6#6		7 1499	M 118 A18		94
685					MCW			1 1506	M		94
686					MCW	@EQU@, FREE&18		7 1507	M A21 118		94
687					MCW	@&P @		4 1514	M A24		94
688					MCW	INPUT&21, FREE&25		7 1518	M 353 125		94
689					B	PUT		4 1525	B 586		94
690					MCW	FREE&74, FREE&73		7 1529	M 174 173		95
691					MCW	INPUT&22, FREE&11		7 1536	M 354 111		95
692					MCW	WAREA6, FREE&18		7 1543	M A18 118		95
693					MCW			1 1550	M		95
694			DCWTYP	CW	INPUT&40, INPUT&39			7 1551	) 372 371		95
695					CW	INPUT&28		4 1558	) 360		95
696					BCE	DSARTN, FREE&14, J		8 1562	B X15 114 J		96
697					BCE	KNOWN, INPUT&23, &		8 1570	B W69 355 &		96
698					BCE	KNOWN, INPUT&23, -		8 1578	B W69 355 -		96
699					BCE	KNOWN, INPUT&23, @		8 1586	B W69 355 @		96
700					MN	INPUT&7, XL1		7 1594	D 339 089		96
701					MN			1 1601	D		97
702					A	BLANK, XL1		7 1602	A A54 089		97
703					C	XL1, @032@		7 1609	C 089 A27		97
704					BL	CORERR		5 1616	B W80 T		97
705					C	XL1, @000@		7 1621	C 089 A30		97
706					BE	CORERR		5 1628	B W80 S		97
707			RTNDCW	MCW	INPUT&23&X1, FREE&21&X1			7 1633	M 3V5 1S1		97
708					MCW	@@@, FREE&21		7 1640	M A31 121		98
709					MCW	@@@, FREE&22&X1		7 1647	M A31 1S2		98
710			RSTWM	SW	INPUT&40, INPUT&39			7 1654	, 372 371		98
711					SW	INPUT&28		4 1661	, 360		98
712					B	ENDFIX		4 1665	B 626		98
713			KNOWN	MCW	INPUT&55, FREE&53			7 1669	M 387 153		98
714					B	RSTWM		4 1676	B W54		99
715					S	XL1&1		4 1680	S 090		99
716			LPERR	BCE	RTNDCW, INPUT&24&X1,			8 1684	B W33 3V6		99
717					A	&1, XL1		7 1692	A R44 089		99
718					C	XL1, @52@		7 1699	C 089 A33		99
719					BE	RTNDCW		5 1706	B W33 S		99
720					B	LPERR		4 1711	B W84		99
721			*								
722			*		PROCESS DSA STATEMENTS						
723			*								
724			DSARTN	S	XL2&2			4 1715	S 096		100
725					MCW	@011@, XL1		7 1719	M 337 089		100
726					B	SCAN		4 1726	B 209		100

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
727			MCW		FREE&72,FREE&73			7 1730	M 172 173		100
728			MCW		@&@			4 1737	B ?60		100
729			BCE		RSTWM,INPUT&27,			8 1741	B W54 359		100
730			MCW		INPUT&27,FREE&21			7 1749	M 359 121		101
731			B		RSTWM			4 1756	B W54		101
732			ONEOP	B	*&5,INPUT&17,			8 1760	B X72 349		101
733			B		SCAN			4 1768	B 209		101
734			C		@3 @,EQVADD			7 1772	C ?01 A69		101
735			BE		PROEJ			5 1779	B Q67 S		101
736			B		ENDFIX			4 1784	B 626		101
737			*								
738			*		PROCESS DS, EQU STATEMENTS						
739			*								
740			DSTYP	BCE	DSACT,INPUT&17,*			8 1788	B Y33 349 *		102
741			BCE		*&5,INPUT&17,			8 1796	B Y08 349		102
742			B		*&8			4 1804	B Y15		102
743			NOP		BLANK,INPUT&17			7 1808	N A54 349		102
744			DOEQU	MCW	@EQU@,FREE&18			7 1815	M A21 118		102
745			MCW		@P@,FREE&14			7 1822	M A34 114		103
746			B		ONEOP			4 1829	B X60		103
747			DSACT	SW	INPUT&6			4 1833	, 338		103
748			A		BLANK,INPUT&7			7 1837	A A54 339		103
749			CW		INPUT&6			4 1844	) 338		103
750			C		INPUT&7,@00@			7 1848	C 339 A36		103
751			BE		DOEQU			5 1855	B Y15 S		103
752			MCW		INPUT&7,FREE&22			7 1860	M 339 122		104
753			B		ENDFIX			4 1867	B 626		104
754			*								
755			*		PROCESS COMMENTS CARDS						
756			*								
757			COMCRD	MCW	INPUT&55,FREE&53			7 1871	M 387 153		104
758					CHAIN 7					MACRO	
759			MCW					1 1878	M	GEN	104
760			MCW					1 1879	M	GEN	104
761			MCW					1 1880	M	GEN	104
762			MCW					1 1881	M	GEN	104
763			MCW					1 1882	M	GEN	105
764			MCW					1 1883	M	GEN	105
765			MCW					1 1884	M	GEN	105
766			B		ENTSPS			4 1885	B 626		105
767			*								
768			*		PROCESS ORIGIN, LTORG STATEMENTS						
769			*								
770			CKLOR	BCE	ONEOP,FREE&16,0			8 1889	B X60 116 0		105
771			MCW		@LTORG@,FREE&20			7 1897	M A41 120		105
772			MCW					1 1904	M		105
773			B		ONEOP			4 1905	B X60		106
774			*								
775			*		SCAN ROUTINE WHICH CONVERTS FIXED FORM INTO FREE FORM						
776			*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
777			SCAN	SBR	SCNXT&3			4 1909	H J20		106
778			S		XL3&1			4 1913	S 100		106
779			LOOP1	BCE	CK1BK,INPUT&18&X1,			8 1917	B 262 3V0		106
780			CXLI1	C	XL3,@05@			7 1925	C 099 A43		106
781			BE		NDOPD			5 1932	B 286 S		106
782			A		&1,XL1			7 1937	A R44 089		106
783			A		&1,XL2			7 1944	A R44 094		107
784			A		&1,XL3			7 1951	A R44 099		107
785			B		LOOP1			4 1958	B 217		107
786			CK1BK	C	XL3,@04@			7 1962	C 099 A45		107
787			BE		NDOPD			5 1969	B 286 S		107
788			BCE		*&5,INPUT&19&X1,			8 1974	B 286 3V1		107
789			B		CXLI1			4 1982	B 225		108
790			NDOPD	MCW	INPUT&17&X1,FREE&21&X2			7 1986	M 309 1K1		108
791			C		XL1,@011@			7 1993	C 089 ?37		108
792			S		XL1&2			4 2000	S 091		108
793			BH		*&8			5 2004	B 116 U		108
794			MCW		@011@,XL1			7 2009	M ?37 089		108
795			BCE		CKLIT2,INPUT&23&X1,			8 2016	B J88 3V5		109
796			BWZ		MKMIN,INPUT&23&X1,K			8 2024	V J21 3V5 K		109
797			MCW		@&@,INPUT&23&X1			7 2032	M ?60 3V5		109
798			RTN2	SW	INPUT&24&X1,INPUT&23&X1			7 2039	, 3V6 3V5		109
799			A		BLANK,INPUT&26&X1			7 2046	A A54 3V8		109
800			A		&4,XL2			7 2053	A A46 094		110
801			MCW		INPUT&26&X1,FREE&21&X2			7 2060	M 3V8 1K1		110
802			MCW					1 2067	M		110
803			CW		INPUT&24&X1,INPUT&23&X1			7 2068	) 3V6 3V5		110
804			NOADJ	BCE	FIXLIT,INPUT&17&X1,&			8 2075	B J32 309 &		110
805			BCE		FIXLIT,INPUT&17&X1,-			8 2083	B J32 309 -		110
806			BCE		SCNXT,INPUT&27&X1,			8 2091	B J17 3V9		111
807			A		&3,XL2			7 2099	A A47 094		111
808			MN		INPUT&27&X1,FREE&21&X2			7 2106	D 3V9 1K1		111
809			MCW		@&X@			4 2113	M A49		111
810			SCNXT	B	XXXX			4 2117	B 000		111
811			MKMIN	MCW	@-@,INPUT&23&X1			7 2121	M A50 3V5		111
812			B		RTN2			4 2128	B 139		112
813			FIXLIT	BCE	NOT11,INPUT&27&X1,			8 2132	B J58 3V9		112
814			A		&1,XL2			7 2140	A R44 094		112
815			MN		INPUT&27&X1,FREE&21&X2			7 2147	D 3V9 1K1		112
816			B		SCNXT			4 2154	B J17		112
817			NOT11	BCE	SUBT,INPUT&26&X1,			8 2158	B J70 3V8		112
818			B		SCNXT			4 2166	B J17		113
819			SUBT	A	@I99@,XL1			7 2170	A A53 089		113
820			A		@I99@,XL2			7 2177	A A53 094		113
821			B		NOT11			4 2184	B J58		113
822			CKLIT2	BCE	SCNXT,INPUT&17&X1,&			8 2188	B J17 309 &		113
823			BCE		SCNXT,INPUT&17&X1,-			8 2196	B J17 309 -		113
824			B		NOADJ			4 2204	B 175		114
825			DCW		0			1 2208			114
826			SYSMK1	DCW	@j@			1 2209		GMARK	114

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
827				XPR	0				B 000		115
828			RTEND	EQU	*			2209			

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
829				JOB	1401 AUTOCODER-PASS 3 RIGHT MAIN LINE						
830				*							
831					*TABLE LOOKUP OF MNEMONIC OP CODE						
832				*							
833				ORG	BEGIN				2465		
834			TLUOP	SBR	TLUXT&3	4		2465	H 046		118
835				C	FREE&18, BLANK&3#3	7		2469	C 118 A56		118
836				BE	ABSCOD	5		2476	B P55 S		118
837				MLC	FREE&18, XL2	7		2481	M 118 094		118
838				A	FREE&18, XL2-1	7		2488	A 118 093		118
839				A	FREE&18, XL2-2	7		2495	A 118 092		118
840				A	FREE&16, XL2	7		2502	A 116 094		119
841			SUB1	S	&5500, XL2&1	7		2509	S A60 095		119
842				BWZ	SUB1, XL2&1, B	8		2516	V N09 095 B		119
843				MLCWA	OPND-549&X2, EQVADD#9	7		2524	L EN9 A69		119
844				SAR	GETOP&3	4		2531	Q N42		119
845				S	XL2&2	4		2535	S 096		119
846			GETOP	MLCWA	XXXX, EQVADD	7		2539	L 000 A69		120
847				SAR	GETOP&3	4		2546	Q N42		120
848				BCE	BADOP, EQVADD, @	8		2550	B P28 A69 @		120
849				C	EQVADD, FREE&18	7		2558	C A69 118		120
850				BU	GETOP	5		2565	B N39 /		120
851				LCA	EQVADD-3, EQVADD	7		2570	L A66 A69		120
852				C	@N @, EQVADD	7		2577	C A71 A69		121
853				BE	ENTER	5		2584	B 047 S		121
854				C	EQVADD, @B @	7		2589	C A69 A73		121
855				BE	SPECIN	5		2596	B 083 S		121
856				C	EQVADD, @2 @	7		2601	C A69 A75		121
857				BE	SPECIN	5		2608	B 083 S		121
858			SAVCOD	MCW	EQVADD, FREE&15	7		2613	M A69 115		122
859				SBR	XL3	4		2620	H 099		122
860				C	XL3, &FREE&11	7		2624	C 099 A78		122
861				BE	*&8	5		2631	B 043 S		122
862				MCW	@&@, 000&X3	7		2636	M ?60 070		122
863			TLUXT	B	XXXX	4		2643	B 000		122
864			ENTER	C	FREE&23, @SPS@	7		2647	C 123 A81		123
865				BE	GTFIX	5		2654	B 464 S		123
866				C	INPUT&20, @AUTO@	7		2659	C 352 A85		123
867				BE	GTFRE	5		2666	B 503 S		123
868				BW	PSTNU, MODESW	8		2671	V 630 ?02 1		123
869				B	RSTMOD	4		2679	B 638		123
870			SPECIN	BWZ	MLCTYP, EQVADD-1, B	8		2683	V P17 A68 B		124
871				LCA	EQVADD-2, EQVADD	7		2691	L A67 A69		124
872			CKEL	BCE	SAVCOD, FREE&19,	8		2698	B 013 119		124
873				MCW	@L@, EQVADD	7		2706	M A86 A69		124
874				B	SAVCOD	4		2713	B 013		124
875			MLCTYP	LCA	@M@, EQVADD	7		2717	L A87 A69		125
876				B	CKEL	4		2724	B 098		125
877				*							
878				*	PROCESS ILLEGAL OPERATION CODE						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
879			*								
880			BADOP	LCA	BLANK,EQVADD		7	2728	L A54 A69		125
881				BW	SAVCOD,FREESW		8	2735	V 013 H09 1		125
882				BW	CKFF,MODESW		8	2743	V 001 ?02 1		125
883				B	SAVCOD		4	2751	B 013		125
884			ABSCOD	BCE	SAVCOD,FREE&19,	REW: BCE	8	2755	B 013 119		126
885				LCA	BLANK,EQVADD		7	2763	L A54 A69		126
886				MCW	FREE&19,EQVADD		7	2770	M 119 A69		126
887				BCE	SAVCOD,FREE&20,	PROCESS ACTUAL OF	8	2777	B 013 120		126
888				CW	EQVADD	CODES	4	2785	) A69		126
889				SW			1	2789	,		126
890				MCW	FREE&20,EQVADD-1		7	2790	M 120 A68		127
891				B	SAVCOD		4	2797	B 013		127
892			CKFF	BCE	SAVCOD,FREE&14,	IF RECORD APPEARS TO B	8	2801	B 013 114		127
893				MCW	FREE&80,INPUT&80	BE FIXED FORM RECORD	7	2809	M 180 412		127
894				CHAIN	9					MACRO	
895				MCW			1	2816	M	GEN	127
896				MCW			1	2817	M	GEN	127
897				MCW			1	2818	M	GEN	127
898				MCW			1	2819	M	GEN	128
899				MCW			1	2820	M	GEN	128
900				MCW			1	2821	M	GEN	128
901				MCW			1	2822	M	GEN	128
902				MCW			1	2823	M	GEN	128
903				MCW			1	2824	M	GEN	128
904				CS	332		4	2825	/ 332		128
905				CS			1	2829	/		129
906				MCW	FREE&80,PRINT&80		7	2830	M 180 280		129
907				CHAIN	4					MACRO	
908				MCW			1	2837	M	GEN	129
909				MCW			1	2838	M	GEN	129
910				MCW			1	2839	M	GEN	129
911				MCW			1	2840	M	GEN	129
912				MCW	@PROCESSING AS FIXED FORM RECORD@,332		7	2841	M B18 332		129
913				W			1	2848	2		130
914				SW	FREESW		4	2849	, H09		130
915				BCV	RESTR		5	2853	B Q62 @		130
916				B	GTFIX		4	2858	B 464		130
917			RESTR	CCB	GTFIX,1		5	2862	F 464 1		130
918			*								
919			*	END OF JOB	PROCEDURE						
920			*								
921			PREOJ	RTW	SYSTAP,OVL2	SKIP PAST OVERLAY	8	2867	L #U1 626 R		130
922			EOJ	B	PUT	PUT END CARD	4	2875	B 586		130
923				WTM	OUTAPE	WRITE TAPE MARK	5	2879	U #U4 M		131
924			*		MESSG@PASS 3 COMPLETED@,60,K,1						
925				CC	K		2	2884	F K		131
926				CS	332		4	2886	/ 332		131
927				CS			1	2890	/		131
928				MCW	@PASS 3 COMPLETED@,60&200		7	2891	M B34 260		131

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
929				W			1	2898	2		131
930				CC	1		2	2899	F 1		131
931				CW	SYSMK1	CLEAR GROUP MK W/ WM	4	2901	) K09		132
932				CW	GMK1,GMK2		7	2905	) I89 187		132
933			RTW	SYSTAP,OVL2			8	2912	L #U1 626 R		132
934			RTW	SYSTAP,085	READ IN PASS 4		8	2920	L #U1 085 R		132
935				NOP	0		4	2928	N 000		132
936			BER	TPERR			5	2932	B K10 L		132
937				B	PASSB2	GO TO NEXT PASS	4	2937	B 200		133
938				LTORG					2941		
				DCW	&INAREA&12		3	2943	I15	ADCON	133
				DCW	&I		1	2944		LIT	133
				DCW	@CHA@		3	2947		LIT	133
				DCW	@S@		1	2948		LIT	133
				DCW	@Z@		1	2949		LIT	133
				DCW	&00		2	2951		LIT	133
			HLDCD	DCW	#01		1	2952		AREA	134
				DCW	@C@		1	2953		LIT	134
				DCW	@Y@		1	2954		LIT	134
				DCW	@&1 @		3	2957		LIT	134
				DCW	@EQU @		5	2962		LIT	134
				DCW	@SHIVAL &P @		10	2972		LIT	134
				DCW	&NUREC		3	2975	626	ADCON	134
				DCW	@B@		1	2976		LIT	135
				DCW	@ @		3	2979		LIT	135
			SAVOP	DCW	#09		9	2988		AREA	135
				DCW	@SHIVAL@		6	2994		LIT	135
				DCW	@SP @		5	2999		LIT	135
				DCW	@3 @		2	3001		LIT	135
			MODESW	DCW	#01		1	3002		AREA	135
				DCW	@ILLEGAL LABEL - SEQUENCE NUMBER@		31	3033		LIT	136
				DCW	@,@		1	3034		LIT	136
				DCW	@011@		3	3037		LIT	136
				DCW	@B @		3	3040		LIT	136
				DCW	@ B@		3	3043		LIT	137
				DCW	@NOP@		3	3046		LIT	137
				DCW	@BCE@		3	3049		LIT	137
				DCW	@BIN@		3	3052		LIT	137
				DCW	@& B@		3	3055		LIT	137
				DCW	&5		1	3056		LIT	137
				DCW	@BSS@		3	3059		LIT	137
				DCW	@&@		1	3060		LIT	138
				DCW	@\$\$@		2	3062		LIT	138
				DCW	&VALUE&2		3	3065	S02	ADCON	138
				DCW	@ACTUAL OP CODES PRESENT IN FIXED FORM IMAGES@		44	3109		LIT	140
			ABSW	DCW	#01		1	3110		AREA	140
				DCW	@ &@		2	3112		LIT	140
			WAREA6	DCW	#06		6	3118		AREA	140
				DCW	@EQU@		3	3121		LIT	140
				DCW	@&P @		3	3124		LIT	141

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@032@		3	3127		LIT	141
				DCW	@000@		3	3130		LIT	141
				DCW	@@@		1	3131		LIT	141
				DCW	@52@		2	3133		LIT	141
				DCW	@P@		1	3134		LIT	141
				DCW	@00@		2	3136		LIT	141
				DCW	@LTOrg@		5	3141		LIT	142
				DCW	@05@		2	3143		LIT	142
				DCW	@04@		2	3145		LIT	142
				DCW	&4		1	3146		LIT	142
				DCW	&3		1	3147		LIT	142
				DCW	@&X@		2	3149		LIT	142
				DCW	@-@		1	3150		LIT	142
				DCW	@I99@		3	3153		LIT	143
			BLANK3	DCW	#03		3	3156		AREA	143
				DCW	&5500		4	3160		LIT	143
			EQVADD	DCW	#09		9	3169		AREA	143
				DCW	@N @		2	3171		LIT	143
				DCW	@B @		2	3173		LIT	143
				DCW	@2 @		2	3175		LIT	143
				DCW	&FREE&11		3	3178	111	ADCON	144
				DCW	@SPS@		3	3181		LIT	144
				DCW	@AUTO@		4	3185		LIT	144
				DCW	@L@		1	3186		LIT	144
				DCW	@M@		1	3187		LIT	144
				DCW	@PROCESSING AS FIXED FORM RECORD@		31	3218		LIT	145
				DCW	@PASS 3 COMPLETED@		16	3234		LIT	146
939			*								
940			*TABLE		OF MNEMONIC OPERATION CODES						
941			*								
942				ORG	3253				3253		
943				DCW	@@@		1	3253			147
944				DCW	#4		4	3257			147
945				DCW	#2		2	3259			147
946				DCW	@NOP@		4	3263			147
947				DCW	@C XFR@		5	3268			147
948				DCW	@O LOR@		5	3273			147
949				DCW	@I JOB@		5	3278			147
950				DCW	@/CS @		4	3282			148
951				DCW	@0 DA @		5	3287			148
952				DCW	@S2WSS@		5	3292			148
953			MASYM	DCW	@#MA @		4	3296			148
954				DCW	@3 END@		5	3301			148
955				DCW	@P#CM@		4	3305			148
956				DCW	@N ENT@		5	3310			148
957				DCW	@BRMRTB@		6	3316			149
958				DCW	@ABLLC@		5	3321			149
959				DCW	@ @		1	3322			149
960				DCW	@BMMBC@		5	3327			149
961				DCW	@&D @		4	3331			149

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
962				DCW	@F3WM2 WDC@		9	3340			149
963				DCW	@ FCCB@		5	3345			149
964				DCW	@S1DUDCR@		7	3352			150
965				DCW	@YMLZ@		4	3356			150
966				DCW	@@M @		4	3360			150
967				DCW	@UEUSKP@		6	3366			150
968				DCW	@O ORG@		5	3371			150
969				DCW	@HSBR@		4	3375			150
970				DCW	@K8 SS @		6	3381			150
971				DCW	@YMZ @		4	3385			151
972				DCW	@ @		1	3386			151
973				DCW	@)CW @		4	3390			151
974				DCW	@UWLTW@		6	3396			151
975				DCW	@B MLC@		5	3401			151
976				DCW	@ZMCS@		4	3405			151
977				DCW	@UWMT @		6	3411			151
978				DCW	@MCMW@		4	3415			152
979				DCW	@F2WM2 WDT@		9	3424			152
980				DCW	@QSAR@		4	3428			152
981				DCW	@R6WRF@		5	3433			152
982				DCW	@S1EUECR@		7	3440			152
983				DCW	@8SRF@		4	3444			152
984				DCW	@)2WM @		5	3449			152
985				DCW	@1VBW @		5	3454			153
986				DCW	@9BBC9@		5	3459			153
987				DCW	@1R @		4	3463			153
988				DCW	@URLRTW@		6	3469			153
989				DCW	@F1RMRD @		7	3476			153
990				DCW	@F1RLRDW@		7	3483			153
991				DCW	@MMU @		4	3487			153
992				DCW	@VBWZ@		4	3491			154
993				DCW	@,SW @		4	3495			154
994				DCW	@RBBPC@		5	3500			154
995				DCW	@CC @		4	3504			154
996				DCW	@C4PCB@		5	3509			154
997				DCW	@DMLN@		4	3513			154
998				DCW	@UMUWTM@		6	3519			154
999				DCW	@EMCE@		4	3523			155
1000				DCW	@C EX @		5	3528			155
1001				DCW	@ UCU @		5	3533			155
1002				DCW	@ZBBAV@		5	3538			155
1003				DCW	@5RP @		4	3542			155
1004				DCW	@.H @		4	3546			155
1005				DCW	@LLU @		4	3550			155
1006				DCW	@BMMWTB@		6	3556			156
1007				DCW	@ KSB@		5	3561			156
1008				DCW	@KBDF@		5	3566			156
1009				DCW	@P#RC@		4	3570			156
1010				DCW	@UBUSP@		6	3576			156
1011				DCW	@URMRT @		6	3582			156

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1012				DCW	@SBBE @			5 3587			156
1013				DCW	@3WR @			4 3591			157
1014				DCW	@SS @			4 3595			157
1015				DCW	@BB @			4 3599			157
1016				DCW	@1 DCW@			5 3604			157
1017				DCW	@WBBE@			4 3608			157
1018				DCW	@J DSA@			5 3613			157
1019				DCW	@LLCA@			4 3617			157
1020				DCW	@A DC @			5 3622			158
1021				DCW	@F1WLWDW@			7 3629			158
1022				DCW	@7WRP@			4 3633			158
1023				DCW	@BBIN@			5 3638			158
1024				DCW	@K7DM @			5 3643			158
1025				DCW	@BBPB@			5 3648			158
1026				DCW	@9SPF@			4 3652			158
1027				DCW	@M SPX@			5 3657			159
1028				DCW	@4P @			4 3661			159
1029				DCW	@FORMSD @			7 3668			159
1030				DCW	@@BBCV@			5 3673			159
1031				DCW	@1ZS @			4 3677			159
1032				DCW	@O LTO@			5 3682			159
1033				DCW	@P EQU@			5 3687			159
1034				DCW	@ BBSS@			5 3692			160
1035				DCW	@F8 CC @			6 3698			160
1036				DCW	@AA @			4 3702			160
1037				DCW	@LBBE@			5 3707			160
1038				DCW	@/BBU @			5 3712			160
1039				DCW	@BBCE@			4 3716			160
1040				DCW	@UBBH @			5 3721			160
1041				DCW	@TBBL @			5 3726			161
1042				DCW	@X DS @			5 3731			161
1043				DCW	@F2RM2 RDT@			9 3740			161
1044				DCW	@AMMBD@			5 3745			161
1045				DCW	@2W @			4 3749			161
1046				DCW	@FLMWD @			7 3756			161
1047				DCW	@DMN @			4 3760			161
1048				DCW	@CLRCB@			5 3765			162
1049				DCW	@6WP @			4 3769			162
1050				DCW	@XMIZ@			4 3773			162
1051				DCW	#9			9 3782			162
1052				DCW	#3			3 3785			162
1053				DCW	@?ZA @			4 3789			162
1054				DCW	#1			1 3790			162
1055				DCW	@UURWU@			6 3796			163
1056				DCW	@URURWD@			6 3802			163
1057				DCW	@R4RF @			5 3807			163
1058				OPND	DCW			1 3808			163
1059											
1060					* CONSTANTS AND TABLES						
1061					*						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1062			FREESW	DC	0			1 3809			163
1063			BINTBL	DCW	@BAV Z@			5 3814			163
1064				DCW	@BC9 9@			5 3819			163
1065				DCW	@BU /@			5 3824			163
1066				DCW	@BCV @@			5 3829			164
1067				DCW	@BE S@			5 3834			164
1068				DCW	@BEF K@			5 3839			164
1069				DCW	@BER L@			5 3844			164
1070				DCW	@BH U@			5 3849			164
1071				DCW	@BL T@			5 3854			164
1072				DCW	@BLC A@			5 3859			164
1073				DCW	@BFB P@			5 3864			165
1074				*	@BPCBR@			5 3869			165
1075				DCW	@BSS B@			5 3874			165
1076				DCW	@BSS C@			5 3879			165
1077				DCW	@BSS D@			5 3884			165
1078				DCW	@BSS E@			5 3889			165
1079				DCW	@BSS F@			5 3894			165
1080				DCW	@BSS G@			5 3899			166
1081				*							
1082					*TAPE INPUT AREA						
1083				*							
1084				DS	3			3902			
1085			INAREA	DA	1X86,G			3903	3988		
1085				DCW	@"@			1 3989		GMARK	167
1086			GMK1	EQU	*			3989			
1087			*								
1088				* EQUATES							
1089			*								
1090			BLANK	EQU	BLANK3-2			3154			
1091			BLNK2	EQU	BLANK3-1			3155			
1092			ENDFIX	EQU	ENTSPS			0626			
1093			WAREA3	EQU	WAREA6-3			3115			
1094			WAREA2	EQU	WAREA6-4			3114			
1095				EX	LIBRN				B 000		168

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1096			JOB		1401 AUTOCODER-PASS 4-LEFT MAIN LINE						
1097			SFX	Z		Z					
1098			*								
1099			*		INITIALIZATION OF INDEX LOCATIONS						
1100			*								
1101			ORG	#5		Z		0085			
1102			GRPMK1	DC	@}@	Z	1	0085		GMARK	171
1103				DC	0	Z	1	0086			171
1104			XL1	DCW	000	Z	3	0089			171
1105				DC	00	Z	2	0091			171
1106			XL2	DCW	000	Z	3	0094			171
1107				DC	00	Z	2	0096			171
1108			XL3	DCW	000	Z	3	0099			171
1109				DS	1	Z		0100			
1110			*								
1111			*		FIXED FORM IMAGE AREA						
1112			*								
1113			IMAGE	EQU	*	Z		0100			
1114				DS	84	Z		0184			
1115			GRPMK4	DC	@}@	Z	1	0185		GMARK	172
1116			ZONE	DCW	@2SKB@	Z	4	0189			172
1117			EXOVFL	DCW	99	Z	2	0191			172
1118			EXNUMB	DCW	00	Z	2	0193			172
1119			PROCOR	DCW	#1	Z	1	0194			172
1120			TOTLBL	DCW	&0000	Z	4	0198			173
1121			JOBSW	DCW	0	Z	1	0199			173
1122			*								
1123			*		READ IN CONTROL CARD OVERLAY						
1124			*								
1125			PASSB2	RTW	SYSTAP,DOPROG	Z	8	0200	L #U1 N75 R		173
1126				NOP	0	Z	4	0208	N 000		173
1127				BER	TPERR	Z	5	0212	B 221 L		173
1128				B	START	Z	4	0217	B N75		173
1129			*								
1130			*		TAPE REDUNDANCY ROUTINE						
1131			*								
1132			TPERR	SBR	XL3	Z	4	0221	H 099		173
1133				SBR	REDXT&3	Z	4	0225	H 293		174
1134				MZ	&9, XL3	Z	7	0229	Y 464 099		174
1135				MCW	4000-10&X3, TPINS&7	Z	7	0236	M I10 284		174
1136				MN	TPINS&3, BSP1&3	Z	7	0243	D 280 260		174
1137				MCW	TPINS&7, INST2&7	Z	7	0250	M 284 393		174
1138			BSP1	BSP	INITAP	Z	5	0257	U #U0 B		174
1139				BCE	WRTRD, TPINS&7, W	Z	8	0262	B 366 284 W		175
1140				MCW	&9, RDCT#1	Z	7	0270	M 464 465		175
1141			TPINS	RT	INITAP, XXXX	Z	8	0277	M #U0 000 R		175
1142				BER	RDERR	Z	5	0285	B 294 L		175
1143			REDXT	B	XXXX	Z	4	0290	B 000		175
1144			RDERR	MN	TPINS&3, BSP2&3	Z	7	0294	D 280 304		175
1145			BSP2	BSP	INITAP	Z	5	0301	U #U0 B		176

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1146			S		&1, RDCT	Z	7	0306	S 466 465		176
1147			BWZ		TPINS, RDCT, B	Z	8	0313	V 277 465 B		176
1148			MN		TPINS&3, TPHLT&6	Z	7	0321	D 280 334		176
1149			TPHLT	H	XXXX, 490	Z	7	0328	. 000 490		176
1150				MCW	TPINS&7, * &8	Z	7	0335	M 284 349		177
1151				RT	INITAP, XXXX	Z	8	0342	M #U0 000 R		177
1152				BSS	BSP1, E	Z	5	0350	B 257 E		177
1153				H	XXXX, 402	Z	7	0355	. 000 402		177
1154				B	REDXT	Z	4	0362	B 290		177
1155			WRTRD	SKP	SYSTAP	Z	5	0366	U #U1 E		177
1156				BCE	SBCTR, WRTRC-1, 5	Z	8	0371	B 403 467 5		178
1157				A	&1, WRTRC#2	Z	7	0379	A 466 468		178
1158			INST2	WT	INITAP, XXXX	Z	8	0386	M #U0 000 W		178
1159				BER	BSP1	Z	5	0394	B 257 L		178
1160				B	REDXT	Z	4	0399	B 290		178
1161			SBCTR	S	WRTRC	Z	4	0403	S 468		178
1162				MN	TPINS&3, * &7	Z	7	0407	D 280 420		179
1163				H	XXXX, 460	Z	7	0414	. 000 460		179
1164				B	INST2	Z	4	0421	B 386		179
1165			*								
1166			*		NOISE RECORD ROUTINE						
1167			*								
1168			NOISE	SBR	XL3	Z	4	0425	H 099		179
1169				SBR	NSXT&3	Z	4	0429	H 463		179
1170				MZ	&9, XL3	Z	7	0433	Y 464 099		179
1171			N2	BCE	4000-12&X3, XXXX, }	Z	8	0440	B IH8 000 }	GMARK	180
1172				CHAIN	12	Z				MACRO	
1173				BCE		Z	1	0448	B	GEN	180
1174				BCE		Z	1	0449	B	GEN	180
1175				BCE		Z	1	0450	B	GEN	180
1176				BCE		Z	1	0451	B	GEN	180
1177				BCE		Z	1	0452	B	GEN	180
1178				BCE		Z	1	0453	B	GEN	180
1179				BCE		Z	1	0454	B	GEN	181
1180				BCE		Z	1	0455	B	GEN	181
1181				BCE		Z	1	0456	B	GEN	181
1182				BCE		Z	1	0457	B	GEN	181
1183				BCE		Z	1	0458	B	GEN	181
1184				BCE		Z	1	0459	B	GEN	181
1185			NSXT	B	XXXX	Z	4	0460	B 000		181
1186				LTORG	*	Z			0464		
				DCW	&9	Z	1	0464		LIT	182
			RDCTZ	DCW	#01	Z	1	0465		AREA	182
				DCW	&1	Z	1	0466		LIT	182
			WRTRCZ	DCW	#02	Z	2	0468		AREA	182
1187			*								
1188			*		END OF CONTROL CARD ANALYSIS, READ IN MAIN LINE						
1189			*								
1190			CWI98	CW	3998	Z	4	0469	) I98		182
1191				SW	JOBSW	Z	4	0473	, 199		182

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1192			B	PUT		Z	4	0477	B 610		182
1193			RTNJB	CW	JOBSW	Z	4	0481	) 199		183
1194			B	WRTP		Z	4	0485	B 578		183
1195			LDOPTB	RTW	SYSTAP,DOPROG	Z	8	0489	L %U1 N75 R		183
1196				NOP		Z	4	0497	N 000		183
1197			BER	TPERR		Z	5	0501	B 221 L		183
1198			CW	GRPMK5,GRPMK8		Z	7	0506	) N74 H99		183
1199			MLC	@0@,FACTOR-3		Z	7	0513	M M83 H45		183
1200			*								
1201					*BEGINNING OF MAIN LINE						
1202											
1203			BYPASS	B	GET	Z	4	0520	B 538		184
1204			S		XL3&1	Z	4	0524	S 100		184
1205			S			Z	1	0528	S		184
1206			S			Z	1	0529	S		184
1207			B		CKCOM	Z	4	0530	B 706		184
1208			*								
1209					*BEGINNING OF NEW CARD ANALYSIS						
1210			*								
1211			NUREC	B	PUT	Z	4	0534	B 610		184
1212			GET	SBR	GETXT&3	Z	4	0538	H 577		184
1213				CS	INPUT&80	Z	4	0542	/ 080		185
1214				SW	INPUT&21	Z	4	0546	, 021		185
1215				SBR	N2&6,INPUT&13	Z	7	0550	H 446 013		185
1216			RT		INTAP,INPUT&1	Z	8	0557	M %U4 001 R		185
1217			B		NOISE	Z	4	0565	B 425		185
1218			BER		TPERR	Z	5	0569	B 221 L		185
1219			GETXT	B	XXXX	Z	4	0574	B 000		185
1220			*								
1221					*IMAGE TO OUTPUT AREA						
1222			*								
1223			WRTP	SBR	WRTXT&3	Z	4	0578	H 609		186
1224			WT		OUTAP,OUTPUT&1	Z	8	0582	M %U5 I18 W		186
1225				NOP		Z	4	0590	N 000		186
1226			BER		TPERR	Z	5	0594	B 221 L		186
1227			MLC		@000@,HOLDC	Z	7	0599	M M86 M91		186
1228			WRTXT	B	XXXX	Z	4	0606	B 000		186
1229			PUT	SBR	PUTXT&3	Z	4	0610	H 705		186
1230				MLC	HOLDC,XL3	Z	7	0614	M M91 099		187
1231				MLC	IMAGE&80,OUTPUT&80&X3	Z	7	0621	M 180 I17		187
1232				CHAIN	10	Z				MACRO	
1233				MLC		Z	1	0628	M	GEN	187
1234				MLC		Z	1	0629	M	GEN	187
1235				MLC		Z	1	0630	M	GEN	187
1236				MLC		Z	1	0631	M	GEN	187
1237				MLC		Z	1	0632	M	GEN	187
1238				MLC		Z	1	0633	M	GEN	188
1239				MLC		Z	1	0634	M	GEN	188
1240				MLC		Z	1	0635	M	GEN	188
1241				MLC		Z	1	0636	M	GEN	188

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1242				MLC		Z	1	0637	M	GEN	188
1243			TPYET	A	&80,HOLDC#3	Z	7	0638	A M88 M91		188
1244			CKTAP	BCE	WRTP,XL3-2,0	Z	8	0645	B 578 097 0		188
1245			BW		DCWXT,DCWSW2	Z	8	0653	V J85 H92 1		189
1246			BW		SPGLIN,INITSW	Z	8	0661	V 692 H87 1		189
1247			CS		INPUT&80	Z	4	0669	/ 080		189
1248			SW		INPUT&21	Z	4	0673	, 021		189
1249			MRCM		INPUT&1,IMAGE&1	Z	7	0677	P 001 101		189
1250			BW		RTNJB,JOBSW	Z	8	0684	V 481 199 1		189
1251			SPGLIN	S	IMAGE&5	Z	4	0692	S 105		190
1252			S		XL3&1	Z	4	0696	S 100		190
1253			S			Z	1	0700	S		190
1254			S			Z	1	0701	S		190
1255			PUTXT	B	XXXX	Z	4	0702	B 000		190
1256			SAVE2	ORG	*	Z		0706	0706		190
1257			CKCOM	BCE	BYPASS,INPUT&6,*	Z	8	0706	B 520 006 *		190
1258			MN		INPUT&75,CK2&7	Z	7	0714	D 075 735		190
1259			MZ		INPUT&75,CK2&7	Z	7	0721	Y 075 735		191
1260			CK2	BCE	BYPASS,@RSWZ@,0	Z	8	0728	B 520 M95 0		191
1261				CHAIN	3	Z				MACRO	
1262				BCE		Z	1	0736	B	GEN	191
1263				BCE		Z	1	0737	B	GEN	191
1264				BCE		Z	1	0738	B	GEN	191
1265				MLC	INPUT&84,IMAGE&80	Z	7	0739	M 084 180		191
1266			BWZ		*&5,INPUT&6,2	Z	8	0746	V 758 006 2		191
1267			B		PROLBL	Z	4	0754	B V38		192
1268			MCW		INPUT&18,IMAGE&16	Z	7	0758	M 018 116		192
1269			SW		SCANSW	Z	4	0765	, N15		192
1270				MLC	@000@,FREEE#3	Z	7	0769	M M86 M98		192
1271			LCA		BLANK4,EQUADD	Z	7	0776	L H62 N11		192
1272			MCW		@I9I@,XL1	Z	7	0783	M N01 089		192
1273			PLSCAN	BCE	PLUSFD,INPUT&15&X1,&	Z	8	0790	B 817 0/5 &		193
1274			GOBK	C	XL1,@I9G@	Z	7	0798	C 089 N04		193
1275			A		@I99@,XL1	Z	7	0805	A N07 089		193
1276			BL		PLSCAN	Z	5	0812	B 790 T		193
1277			PLUSFD	BCE	GOBK,INPUT&14&X1,&	Z	8	0817	B 798 0/4 &		193
1278			SW		EQUADD&1&X1	Z	4	0825	, N/2		193
1279			MCW		INPUT&15,EQUADD#4	Z	7	0829	M 015 N11		194
1280			S		XL1&2	Z	4	0836	S 091		194
1281			BW		INSTR,EQUADD	Z	8	0840	V N75 N11 1		194
1282			BCE		CTRL0P,EQUADD,	Z	8	0848	B C61 N11		194
1283			B		INSTR	Z	4	0856	B N75		194
1284			*								
1285					*SCAN FOR COMMA OR BLANK						
1286											
1287			COMSCN	SBR	CSCNXT&3	Z	4	0860	H 932		194
1288			S		XL3&1	Z	4	0864	S 100		194
1289			SW		INPUT&21&X2,SCANSW	Z	7	0868	, 0K1 N15		195
1290			TSTCOM	A	&1,XL2	Z	7	0875	A N12 094		195
1291			A		&1,XL3	Z	7	0882	A N12 099		195

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1292			BCE	PRSCXT	INPUT&20&X2,,	Z	8	0889	B 925 0K0		195
1293			C	INPUT&21&X2	BLANK2	Z	7	0897	C 0K1 H60		195
1294			BE	CSCNXT		Z	5	0904	B 929 S		196
1295			C	XL2,@54@		Z	7	0909	C 094 N14		196
1296			BE	SCNERR		Z	5	0916	B 933 S		196
1297			B	TSVCOM		Z	4	0921	B 875		196
1298			PRSCXT	CW	SCANSW#1	Z	4	0925	) N15		196
1299			CSCNXT	B	XXXX	Z	4	0929	B 000		196
1300			SCNERR	MZ	BBIT,IMAGE&5	Z	7	0933	Y 188 105		196
1301			BCE	CSCNXT	IMAGE&75,3	Z	8	0940	B 929 175 3		197
1302			B	NUREC		Z	4	0948	B 534		197
1303			*		*** NUREC IS BROKEN	Z	4	0948	B 534		197
1304			*		CONVERT FREE TO FIXED						
1305			*								
1306			FR2FIX	SBR	FR2FXT&3	Z	4	0952	H 832		197
1307			MCW	BLANK	W6AREA	Z	7	0956	M H59 H77		197
1308			MCW	XL2&1, XL3&1		Z	7	0963	M 095 100		197
1309			SCNDEX	C	XL3,@04@	Z	7	0970	C 099 N17		197
1310			BH	DOADRS		Z	5	0977	B /50 U		198
1311			BE	CKADJ		Z	5	0982	B '17 S		198
1312			C	INPUT&18&X3,@&X@		Z	7	0987	C 0A8 N19		198
1313			BU	CKADJ		Z	5	0994	B '17 /		198
1314			MN	INPUT&19&X3,IMAGE&27&X1		Z	7	0999	D 0A9 157		198
1315			A	&K4K-3, XL3		Z	7	1006	A N22 099		198
1316			B	SCNDEX		Z	4	1013	B 970		199
1317			CKADJ	BCE	CKMIN,INPUT&18&X3,&	Z	8	1017	B /34 0A8 &		199
1318			SCANB	EQU	*-1	Z		1023			
1319			BCE		CHARACTER ADJUSTMENT	Z	1	1025	B		199
1320			BCE		OR AREA DEFINITION	Z	1	1026	B		199
1321			DOMIN	BCE	ISADJ,INPUT&18&X3,-	Z	8	1027	B '51 0A8 -		199
1322			BCE		LITERAL CODE	Z	1	1035	B		199
1323			BCE			Z	1	1036	B		199
1324			BCE		ISADJ,INPUT&18&X3,#	Z	8	1037	B '51 0A8 #		200
1325			BCE			Z	1	1045	B		200
1326			BCE			Z	1	1046	B		200
1327			B	DOADRS		Z	4	1047	B /50		200
1328			ISADJ	SBR	W3AREA	Z	4	1051	H H74		200
1329			PROADJ	S	&SCANB,W3AREA	Z	7	1055	S N25 H74		200
1330			MLC		XL2,HOLD3	Z	7	1062	M 094 H65		200
1331			MLNS		W3AREA, XL2	Z	7	1069	D H74 094		201
1332			MLC		@00@	Z	4	1076	M N27		201
1333			MLC		INPUT&19&X3,W3AREA-4&X2	Z	7	1080	M 0A9 HPO		201
1334			S		XL2&1, XL3&1	Z	7	1087	S 095 100		201
1335			MZ		INPUT&20&X3,W3AREA-4&X2	Z	7	1094	Y 0B0 HPO		201
1336			MN		INPUT&20&X3,W6AREA	Z	7	1101	D 0B0 H77		201
1337			SW		IMAGE&24&X1	Z	4	1108	, 154		202
1338			A		W3AREA-4&X2,IMAGE&26&X1	Z	7	1112	A HPO 186		202
1339			CW		IMAGE&24&X1	Z	4	1119	) 154		202
1340			MLC		HOLD3, XL2	Z	7	1123	M H65 094		202
1341			B		SCNDEX	Z	4	1130	B 970		202

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1342			CKMIN	SBR	W3AREA	Z	4	1134	H H74		202
1343			BCE		DOMIN,INPUT&18&X3,-	Z	8	1138	B '27 0A8 -		202
1344			B	PROADJ		Z	4	1146	B '55		203
1345			DOADRS	S	FREEA, XL3	Z	7	1150	S M98 099		203
1346			C		XL3,&007	Z	7	1157	C 099 N30		203
1347			BL		FIXER	Z	5	1164	B S33 T		203
1348			A		FREEA, XL3	Z	7	1169	A M98 099		203
1349			MZ		BLANK, XL3	Z	7	1176	Y H59 099		203
1350			MCW		@'@, INPUT&20&X3	Z	7	1183	M N31 0B0		204
1351			MLC		FREEA, XL3	Z	7	1190	M M98 099		204
1352			MRCM		INPUT&21&X3,IMAGE&17&X1	Z	7	1197	P 0B1 1/7		204
1353			SBR		XL3	Z	4	1204	H 099		204
1354			MZ		ABBIT, XL3	Z	7	1208	Y 189 099		204
1355			MCW		BLANK, 4000-1&X3	Z	7	1215	M H59 I19		204
1356			MN		W6AREA, IMAGE&23&X1	Z	7	1222	D H77 183		205
1357			FR2FXT	B	XXXX	Z	4	1229	B 000		205
1358			FIXER	SW	FIXSW#1	Z	4	1233	, N32		205
1359			OPDER	MCW	@000@, XL3	Z	7	1237	M M86 099		205
1360			MZ		ABIT, IMAGE&5	Z	7	1244	Y 187 105		205
1361			BCE		*&8, XL1, 0	Z	8	1251	B S66 089 0		205
1362			MCW		@003@, XL3	Z	7	1259	M N35 099		206
1363			MCW		@###@, IMAGE&70&X3	Z	7	1266	M N38 100		206
1364			MZ		ABBIT, IMAGE&1&X3	Z	7	1273	Y 189 171		206
1365			BW		FR2FXT, FIXSW	Z	8	1280	V S29 N32 1		206
1366			B		LTER2	Z	4	1288	B U09		206
1367			*								
1368			*		SCAN FOR SIGN						
1369			*								
1370			SCANAT	SBR	SCNATX&3	Z	4	1292	H T85		206
1371			SW		INPUT&21&X2, SCANSW	Z	7	1296	, 0K1 N15		207
1372			ZA		@510@, XL3&1	Z	7	1303	? N41 100		207
1373			A1ALF	BCE	NDASCN, INPUT&21&X3,@	Z	8	1310	B T29 0B1 @		207
1374			S		&10, XL3&1	Z	7	1318	S N43 100		207
1375			B		A1ALF	Z	4	1325	B T10		207
1376			NDASCN	C	XL2, XL3	Z	7	1329	C 094 099		208
1377			BE		LTER	Z	5	1336	B T94 S		208
1378			BCE		SETSW, INPUT&22&X3,,	Z	8	1341	B T86 0B2 ,		208
1379			C		INPUT&23&X3, BLANK2	Z	7	1349	C 0B3 H60		208
1380			BU		LTER	Z	5	1356	B T94 /		208
1381			SXL	S	XL2&1, XL3&1	Z	7	1361	S 095 100		208
1382			A		&2, XL3	Z	7	1368	A N44 099		209
1383			A		XL3, XL2	Z	7	1375	A 099 094		209
1384			SCNATX	B	XXXX	Z	4	1382	B 000		209
1385			SETSW	CW	SCANSW	Z	4	1386	) N15		209
1386			B		SXL	Z	4	1390	B T61		209
1387			*								
1388			*		IMPROPERLY CODED STATEMENT ROUTINE						
1389			*								
1390			LTER	MLZS	ABIT, IMAGE&5	Z	7	1394	Y 187 105		209
1391			CW		FIXSW	Z	4	1401	) N32		209

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1392				B	OPDER	Z	4	1405	B S37		210
1393			LTER2	B	COMSCN	Z	4	1409	B 860		210
1394			MCW	@@@,	INPUT&20&X3	Z	7	1413	M N45 0B0		210
1395			A	&1,	XL3	Z	7	1420	A N12 099		210
1396			B	SCNATX		Z	4	1427	B T82		210
1397			*								
1398				*PLACE	LITERALS ON MASTER TAPE						
1399			*								
1400			CALL	BW	CKLOR,LITSW#1	Q.	8	1431	V U85 N46 1		210
1401			RT		SYSTAP,INPUT&1	READ	8	1439	M #U1 001 R		211
1402			RTW		SYSTAP,DOPROG	LITERALS	8	1447	L #U1 N75 R		211
1403			NOP		0		4	1455	N 000		211
1404			BER		TPERR		5	1459	B 221 L		211
1405			B		OULLIT	GO	4	1464	B N75		211
1406			RECALL	RTW	SYSTAP,DOPROG	RECALL	8	1468	L #U1 N75 R		211
1407			NOP		0	OVERLAP	4	1476	N 000		212
1408			BER		TPERR		5	1480	B 221 L		212
1409			CKLOR	BCE	BYPASS,IMAGE&75,	Q.	8	1485	B 520 175		212
1410			BCE		NUREC,IMAGE&75,C	Q.	8	1493	B 534 175 C		212
1411			RT		SYSTAP,INPUT&1	SKIP	8	1501	M #U1 001 R		212
1412			RT		SYSTAP,INPUT&1	AND	8	1509	M #U1 001 R		213
1413			RTW		SYSTAP,EOJRT	JOB	8	1517	L #U1 706 R		213
1414			NOP		0		4	1525	N 000		213
1415			BER		TPERR		5	1529	B 221 L		213
1416			B		EOJRT		4	1534	B 706		213
1417			*								
1418				*GENERATE	ENTRY ADDRESS FOR LABELS						
1419			*								
1420			PROLBL	SBR	XTLABEL&3		4	1538	H V77		213
1421			MLC		INPUT&11,IMAGE&13		7	1542	M 011 113		214
1422			MLC		IMAGE&13,W6AREA		7	1549	M 113 H77		214
1423			B		PROLAB		4	1556	B W47		214
1424			MLC		W3AREA,IMAGE&56		7	1560	M H74 156		214
1425			A		&1,TOTLBL		7	1567	A N12 198		214
1426			XTLABEL	B	XXXX		4	1574	B 000		214
1427			*								
1428				*CONVERT	FREE FORM NUMBER TO FIVE CHARACTERS						
1429			*								
1430			CVRT5	SBR	CVT5XT&3		4	1578	H V93		215
1431			BCE		*&5,W5AREA,&		8	1582	B V94 H76 &		215
1432			CVT5XT	B	XXXX		4	1590	B 000		215
1433			ZA		W5AREA-1,W5AREA		7	1594	? H75 H76		215
1434			B		CVRT5&4		4	1601	B V82		215
1435			*								
1436				*CHECK	FOR FINAL OPERAND						
1437			*								
1438			FNLOP	SBR	FNLXT&3	Q.	4	1605	H W27		215
1439			BW		FNLXT,SCANSW	FOLLOWED	8	1609	V W24 N15 1		215
1440			MZ		ABIT,IMAGE&5	BLANKS	7	1617	Y 187 105		216
1441			FNLXT	B	XXXX		4	1624	B 000		216

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1442			*								
1443				*CONVERT	FLOATING A OPERAND ACTUAL ADDRESS TO FIVE CHARACTERS						
1444			*								
1445			CVTFLA	SBR	FLAXT&3		4	1628	H W46		216
1446			ZA		IMAGE&21,W5AREA		7	1632	? 121 H76		216
1447			B		CVRT5	LINK	4	1639	B V78		216
1448			FLAXT	B	XXXX		4	1643	B 000		216
1449			*								
1450				*CONVERT	SYMBOLS TO THREE CHARACTER ENTRY ADDRESS						
1451			*								
1452			PROLAB	SBR	LBLXT&3		4	1647	H Y10		216
1453			ZA		&2,HOLD2		7	1651	? N44 H64		217
1454			BCE		*&5,W6AREA,	ADD	8	1658	B W70 H77		217
1455			B		*&@	LABELS	4	1666	B W77		217
1456			MCW		SFXHLD,W6AREA	OR	7	1670	M H86 H77		217
1457			ZA		W6AREA-2,HOLD4		7	1677	? H75 H71		217
1458			A		W6AREA,HOLD4	FOLD	7	1684	A H77 H71		218
1459			A		W6AREA,HOLD4-2	FOUR	7	1691	A H77 H69		218
1460			MLZS		BLANK,HOLD4	CHARACTERS	7	1698	Y H59 H71		218
1461			ZA		FACTOR,HOLD7	MULTIPLY	7	1705	? H48 H84		218
1462			MPYLP	MLNS	HOLD7,HOLD1		7	1712	D H84 H85		218
1463			ZA		ZA		1	1719	?		218
1464			MULT	BCE	NXTDGT,HOLD1,?	???	8	1720	B X46 H85 ?		219
1465			A		HOLD4,HOLD7-2		7	1728	A H71 H82		219
1466			S		&1,HOLD1		7	1735	S N12 H85		219
1467			B		MULT		4	1742	B X20		219
1468			NXTDGT	S	&1,HOLD2		7	1746	S N12 H64		219
1469			BWZ		MPYLP,HOLD2,B		8	1753	V X12 H64 B		220
1470			S		W5AREA		4	1761	S H76		220
1471			BAV		*&1		5	1765	B X70 Z		220
1472			LOOP1	A	&96,HOLD7-5	FOLD	7	1770	A N48 H79		220
1473			BAV		LOOP1	RESULT	5	1777	B X70 Z		220
1474			MLZS		HOLD7-6,W3AREA	CHARACTER	7	1782	Y H78 H74		220
1475			MLC		HOLD7-3	ADDRESS	4	1789	M H81		221
1476			MLNS		HOLD7-5,*&4		7	1793	D H79 Y03		221
1477			MLZS		ZONE,W3AREA-2		7	1800	Y 189 H72		221
1478			LBLXT	B	XXXX		4	1807	B 000		221
1479			*								
1480				*PROCESS	DCW, DC, DSA CARDS						
1481			*								
1482			DCWCD	BCE	DCWALF,INPUT&21,@	Q.	8	1811	B K44 021 @		221
1483			BCE		ARDEF,INPUT&21,#	Q.	8	1819	B L01 021 #		221
1484			BCE		CKDCW,INPUT&21,&	Q.	8	1827	B Y58 021 &		222
1485			BCE		CKDCW,INPUT&21,-		8	1835	B Y58 021 -		222
1486			MLC		INPUT&72,INPUT&73	SHIFT	7	1843	M 072 073		222
1487			MLC		@&@		4	1850	M N49		222
1488			SW		DCWSW	SET	4	1854	B H89		222
1489			B		COMSCN	SCAN	4	1858	B 860		222
1490			BCE		ISDSA,INPUT&22,@	Q.	8	1862	B Y90 022 @		223
1491			B		FNLOP	CHECK	4	1870	B W05		223

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1492			BCE		ISDSA, IMAGE&75, J	Q. DSA STATEMENT	Z	8	1874	B Y90 175 J	223
1493			BWZ		ISDCW, INPUT&22, 2	Q. DC, DCW STATEMENT	Z	8	1882	V K71 022 2	223
1494			*								
1495					*PROCESS DSA CARDS, SUBSET OF DCW						
1496			*								
1497			ISDSA	MLC	@011@, XL1		Z	7	1890	M N52 089	223
1498				MLNS	&2, IMAGE&75	CODE RECORD	Z	7	1897	D N44 175	224
1499				MZ	INPUT&21, IMAGE&27		Z	7	1904	Y 021 127	224
1500				MCW	BLANK, INPUT&21		Z	7	1911	M H59 021	224
1501				BWZ	*&5, IMAGE&75, K		Z	8	1918	V 230 175 K	224
1502				B	*&8		Z	4	1926	B 237	224
1503				MZ	BLANK, IMAGE&75		Z	7	1930	Y H59 175	225
1504				SW	DSASW2	SET DSA SWITCH	Z	4	1937	H91	225
1505				MLC	@001@, FREEA		Z	7	1941	M N55 M98	225
1506				MCW	INPUT&34, IMAGE&53		Z	7	1948	M 034 153	225
1507				BCE	DSADC, INPUT&22, @		Z	8	1955	B 154 022 @	225
1508				BCE	DSADC, INPUT&22, &		Z	8	1963	B 154 022 &	226
1509				BCE	DSADC, INPUT&22, -		Z	8	1971	B 154 022 -	226
1510				B	FR2FIX	CONVERT FREE TO FIXED	Z	4	1979	B 952	226
1511				MZ	IMAGE&27, INPUT&21		Z	7	1983	Y 127 021	226
1512			DSAX1	MZ	IMAGE&27, IMAGE&40		Z	7	1990	Y 127 140	226
1513				MLC	@03@, IMAGE&7	INSERT COUNT	Z	7	1997	M N57 107	227
1514				MLC	@03@, XL2		Z	7	2004	M N57 094	227
1515				BCE	DCWAST, INPUT&6, &	Q. ANY LABEL	Z	8	2011	B 168 006	227
1516				BWZ	DCWAST, IMAGE&75, S	Q. LITERAL	Z	8	2019	V 168 175 S	227
1517				BWZ	*&5, INPUT&6, 2	Q. ACTUAL ADDRESS	Z	8	2027	V 139 006 2	227
1518				B	DCWAST		Z	4	2035	B 168	228
1519				MLC	INPUT&10, IMAGE&21	PROCESS ACTUAL	Z	7	2039	M 010 121	228
1520				B	CVTFLA	ADDRESS	Z	4	2046	B W28	228
1521				DCWACT	MLC W5AREA, IMAGE&21	ADDRESS TO FIXED	Z	7	2050	M H76 121	228
1522				MLC	W5AREA, IMAGE&61	FORM	Z	7	2057	M H76 161	228
1523				B	CKMACR		Z	4	2064	B 189	228
1524				DCWAST	A XL2, ORGCTR	BUMP ORIGIN COUNTER	Z	7	2068	A 094 H58	229
1525				BMPCTR	MCW @*@, IMAGE&17	SET TO DCW *	Z	7	2075	M N58 117	229
1526				DSETAD	A ORGCTR, IMAGE&61	ASSIGN ADDRESS	Z	7	2082	A H58 161	229
1527				CKMACR	BCE NUREC, IMAGE&75, P	Q. EQU STATEMENT	Z	8	2089	B 534 175 P	229
1528				BCE	NUREC, IMAGE&75, X	Q. DS STATEMENT	Z	8	2097	B 534 175 X	229
1529				BW	DCWACT, DSASW2	Q. DSA STATEMENT	Z	8	2105	V J85 H91 1	230
1530				MLC	INPUT&51, IMAGE&53	MOVE CONSTANT TO	Z	7	2113	M 051 153	230
1531				MLC		FIXED FORM	Z	1	2120	M	230
1532				MLC			Z	1	2121	M	230
1533				MLC	XL2, IMAGE&7	COUNT TO FIXED FORM	Z	7	2122	M 094 107	230
1534				C	XL2, @030@	Q. COUNT GREATER THAN	Z	7	2129	C 094 N61	230
1535				BH	DCWXT	30	Z	5	2136	B J85 U	230
1536				MN	@8@, INPUT&75	WRITE FREE FORM RECORD	Z	7	2141	D N62 075	231
1537				BWZ	*&8, IMAGE&75, B	ON TAPE	Z	8	2148	V J63 175 B	231
1538				MZ	IMAGE&75, INPUT&75		Z	7	2156	Y 175 075	231
1539				MCW	HOLDC, XL3		Z	7	2163	M H91 099	231
1540				MCW	INPUT&80, OUTPUT&80&X3		Z	7	2170	M 080 I17	231
1541				SW	DCWSW2		Z	4	2177	, H92	232

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1542				B	TPYET		Z	4	2181	B 638	232
1543				DCWXT	CW DSASW2, DCWSW2	RESET SWITCHES	Z	7	2185	V H91 H92	232
1544				BW	*&5, LITSW2		Z	8	2192	V K04 H90 1	232
1545				B	NUREC		Z	4	2200	B 534	232
1546				BCE	LITRTN, INPUT&21, @		Z	8	2204	B P31 021 @	232
1547				BCE	LTGEN, INPUT&22, &	Q. ADCON OF LITERAL	Z	8	2212	B M00 022 &	233
1548				BCE	LTGEN, INPUT&22, -		Z	8	2220	B M00 022 -	233
1549				BCE	LTGEN, INPUT&22, @		Z	8	2228	B M00 022 @	233
1550				B	LITRTN		Z	4	2236	B P31	233
1551				PDCWLF	S XL2&2		Z	4	2240	S 096	233
1552				DCWALF	B SCANAT	SCAN FOR ENDING AT SIGN	Z	4	2244	B S92	233
1553				B	FNLOP	CHECK LAST OPERAND	Z	4	2248	B W05	234
1554				BW	ACNRT, DSASW2	Q. ADCON OF LITERAL	Z	8	2252	V L62 H91 1	234
1555				S	&30, XL2&1		Z	7	2260	S N64 095	234
1556				B	CKAOP		Z	4	2267	B 111	234
1557				ISDCW	S &20, XL2&1		Z	7	2271	S N66 095	234
1558				BW	NOZONE, DCWSW	Q. CONSTANT ZONED	Z	8	2278	V K93 H89 1	234
1559				MLZS	INPUT&21, INPUT&21&X2	ZONE CONSTANT	Z	7	2286	Y 021 0K1	235
1560				NOZONE	CW DCWSW		Z	4	2293	) H89	235
1561				B	CKAOP		Z	4	2297	B 111	235
1562				ARDEF	SW INPUT&22	PROCESS AREA	Z	4	2301	, 022	235
1563				ZA	INPUT&24, W5AREA		Z	7	2305	? 024 H76	235
1564				B	CVRT5		Z	4	2312	B V78	235
1565				MLZS	ABBIT, IMAGE&4	CODE RECORD	Z	7	2316	Y 189 104	235
1566				MLNS	W5AREA, XL2		Z	7	2323	D H76 094	236
1567				MLC			Z	1	2330	M	236
1568				C	XL2, @053@	Q. ILLEGAL LENGTH	Z	7	2331	C 094 N69	236
1569				BH	CKAOP		Z	5	2338	B 111 U	236
1570				MZ	BBIT, IMAGE&5	MARK BAD STATEMENT	Z	7	2343	Y 188 105	236
1571				B	CKAOP		Z	4	2350	B 111	236
1572				DSADC	BCE PDCWLF, INPUT&22, @	Q. ADCON OF ALPHA LIT	Z	8	2354	B K40 022 @	236
1573				ACNRT	S &10, XL3&1		Z	7	2362	S N43 100	237
1574				MCW	XL3, W3AREA		Z	7	2369	M 099 H74	237
1575				C	XL3, @006@	Q. LARGE LITERAL	Z	7	2376	C 099 N72	237
1576				BL	DOBIG		Z	5	2383	B A57 T	237
1577				BCE	XALF1, INPUT&22, @	Q. ALPHA LITERAL	Z	8	2388	B ?93 022 @	237
1578				B	XLIT1		Z	4	2396	B B82	237
1579				LTGEN	B PUT	PUT ADCON	Z	4	2400	B 610	238
1580				MCW	@/, IMAGE&75	SET UP LITERAL	Z	7	2404	M N73 175	238
1581				MCW	LAREA&72, INPUT&72	TO BE PROCESSED	Z	7	2411	M H31 072	238
1582				MCW		NOTE, ADDRESS CONSTANT	Z	1	2418	M	238
1583				MCW		LOGIC MAKES IT	Z	1	2419	M	238
1584				MCW		RECURSIVE	Z	1	2420	M	238
1585				MCW	LAREA&74, LAREA&73		Z	7	2421	M H33 H32	238
1586				B	PROLBLE		Z	4	2428	B V38	239
1587				S	XL2&2		Z	4	2432	S 096	239
1588				S			Z	1	2436	S	239
1589				B	DCWCD		Z	4	2437	B Y11	239
1590				*							
1591					*CALL IN DA ROUTINE						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1592			*								
1593			DARTN	RTW	SYSTAP,DOPROG				CALL DA ROUTINE		
1594				NOP	0	Z	8	2441	L %U1 N75 R		239
1594				BER	TPERR	Z	4	2449	N 000		239
1595				BER	TPERR	Z	5	2453	B 221 L		239
1596				B	DASTMT	Z	4	2458	B N75		240
1596			FINDA	RTW	SYSTAP,DOPROG				GO TO DA ROUTINE		
1597				NOP	0	Z	8	2462	L %U1 N75 R		240
1598				NOP	0	Z	4	2470	N 000		240
1599				BER	TPERR	Z	5	2474	B 221 L		240
1600				B	CKCOM	Z	4	2479	B 706		240
1601				LTORG	*	Z			2483		
				DCW	@0@	Z	1	2483		LIT	240
				DCW	@000@	Z	3	2486		LIT	240
				DCW	&60	Z	2	2488		LIT	241
			HOLD C2	DCW	#03	Z	3	2491		AREA	241
				DCW	@RSWZ@	Z	4	2495		LIT	241
			FREEAZ	DCW	#03	Z	3	2498		AREA	241
				DCW	@I9I@	Z	3	2501		LIT	241
				DCW	@I9G@	Z	3	2504		LIT	241
				DCW	@I99@	Z	3	2507		LIT	241
			EQUADD	DCW	#04	Z	4	2511		AREA	242
				DCW	&1	Z	1	2512		LIT	242
				DCW	@54@	Z	2	2514		LIT	242
			SCANSW	DCW	#01	Z	1	2515		AREA	242
				DCW	@04@	Z	2	2517		LIT	242
				DCW	@&X@	Z	2	2519		LIT	242
				DCW	&K4KZ-3	Z	3	2522	I97	ADCON	242
				DCW	&SCANBZ	Z	3	2525	'23	ADCON	243
				DCW	@00@	Z	2	2527		LIT	243
				DCW	&007	Z	3	2530		LIT	243
				DCW	@ '@	Z	1	2531		LIT	243
			FIXSWZ	DCW	#01	Z	1	2532		AREA	243
				DCW	@003@	Z	3	2535		LIT	243
				DCW	@###@	Z	3	2538		LIT	243
				DCW	@510@	Z	3	2541		LIT	244
				DCW	&10	Z	2	2543		LIT	244
				DCW	&2	Z	1	2544		LIT	244
				DCW	@@@	Z	1	2545		LIT	244
			LITSWZ	DCW	#01	Z	1	2546		AREA	244
				DCW	&96	Z	2	2548		LIT	244
				DCW	@&@	Z	1	2549		LIT	244
				DCW	@011@	Z	3	2552		LIT	245
				DCW	@001@	Z	3	2555		LIT	245
				DCW	@03@	Z	2	2557		LIT	245
				DCW	@*@	Z	1	2558		LIT	245
				DCW	@030@	Z	3	2561		LIT	245
				DCW	@8@	Z	1	2562		LIT	245
				DCW	&30	Z	2	2564		LIT	245
				DCW	&20	Z	2	2566		LIT	246
				DCW	@053@	Z	3	2569		LIT	246
				DCW	@006@	Z	3	2572		LIT	246

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1602				DCW	@/@	Z	1	2573		LIT	246
1602			GRPMK5	DCW	@}@	Z	1	2574		GMARK	246
1603				EX	DOZERO	Z			B 000		247

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1604			JOB		1401 AUTOCODER-PASS 4 PROCESS JOB/CTL -VERSION 3 Z						
1605			*								
1606					*PROCESS CONTROL CARD						
1607			*								
1608			DOPROG	ORG	*	Z		2575	2575		
1609			START	CS	INPUT&84	Z	4	2575	/ 084		250
1610				CS	3999	Z	4	2579	/ 199		250
1611				SW	INPUT&21, INPUT&81	Z	7	2583	, 021 081		250
1612				SW	IMAGE&1, IMAGE&6	Z	7	2590	, 101 106		250
1613				SW	IMAGE&8, IMAGE&14	Z	7	2597	, 108 114		250
1614				SW	IMAGE&17, IMAGE&28	Z	7	2604	, 117 128		250
1615				SW	IMAGE&39, IMAGE&57	Z	7	2611	, 139 157		251
1616				SW	IMAGE&62, IMAGE&67	Z	7	2618	, 162 167		251
1617				SW	IMAGE&23	Z	4	2625	, 123		251
1618				SW	GRPMK1, GRPMK8	Z	7	2629	, 085 H99		251
1619				SW	GRPMK3, GRPMK4	Z	7	2636	, H44 185		251
1620				CW	INITSW	Z	4	2643	) H87		251
1621				RWD	INTAP	Z	5	2647	U Ì R		252
1622				RWD	OUTAP	Z	5	2652	U Í R		252
1623				RWD	LITAPE	Z	5	2657	U Î R		252
1624				MLC	@000@, HOLDC	Z	7	2662	M R16 M91		252
1625				B	GET	Z	4	2669	B 538		252
1626				MCW	INPUT&80, IMAGE&21	Z	7	2673	M 080 121		252
1627				MCW	@I@, IMAGE&75	Z	7	2680	M R17 175		253
1628				SW	3998	Z	4	2687	, 198		253
1629				B	GET	Z	4	2691	B 538		253
1630				BCE	NOCTL, INPUT&6, *	Z	8	2695	B Q71 006 *		253
1631				C	INPUT&18, @CTL@	Z	7	2703	C 018 R20		253
1632				BU	NOCTL	Z	5	2710	B Q71 /		253
1633				MLNS	INPUT&21, CTL3&7	Z	7	2715	D 021 P29		254
1634			CTL3	BCE	CTL2, CKPRO,	Z	8	2722	B P37 R13		254
1635				BCE		Z	1	2730	B		254
1636				BCE		Z	1	2731	B		254
1637				BCE		Z	1	2732	B		254
1638				B	NOCTL	Z	4	2733	B Q71		254
1639			CTL2	MLC	INPUT&21, PROCOR	Z	7	2737	M 021 194		254
1640				ZA	INPUT&21, XL1	Z	7	2744	? 021 089		255
1641				S	, XL1&1	Z	7	2751	S R22 090		255
1642				A	XL1	Z	4	2758	A 089		255
1643				A	XL1	Z	4	2762	A 089		255
1644				MLC	FCTBL&X1, FACTOR	Z	7	2766	M Q27 H48		255
1645				MLC	@0@, FACTOR-3	Z	7	2773	M R23 H45		255
1646				MLC	FCTBL-3&X1, CKTAP&7	Z	7	2780	M Q24 652		256
1647				BCE	IS16K, INPUT&21, 6	Z	8	2787	B Q52 021 6		256
1648				BCE	IS16K, INPUT&21, 5	Z	8	2795	B Q52 021 5		256
1649				BCE	IS8K, INPUT&21, 4	Z	8	2803	B Q33 021 4		256
1650				MLC	@3@, PROCOR	Z	7	2811	M R24 194		256
1651			*								
1652			*		* INITIALIZE OUTPUT AREA AND SET UP BLOCKING SIZE						
1653			*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1654			IS4K	LCA	GRPMK8, 3998	Z	7	2818	L H99 I98		257
1655				B	PUT	Z	4	2825	B 610		257
1656				B	LDOPTB	Z	4	2829	B 489		257
1657			IS8K	LCA	GRPMK8, 4318	Z	7	2833	L H99 31Y		257
1658				MCW	@%@	Z	4	2840	M R25		257
1659				MCW	4317	Z	4	2844	M 31X		257
1660				B	CWI98	Z	4	2848	B 469		257
1661			IS16K	LCA	GRPMK8, 4718	Z	7	2852	L H99 71Y		258
1662				MCW	@%@	Z	4	2859	M R25		258
1663				MCW	4717	Z	4	2863	M 71X		258
1664				B	CWI98	Z	4	2867	B 469		258
1665				NOCTL	MLC FCTBL, FACTOR	Z	7	2871	M Q97 H48		258
1666				MLC	@3@, PROCOR	Z	7	2878	M R24 194		258
1667				BSP	INTAP	Z	5	2885	U Ì B		258
1668				B	IS4K	Z	4	2890	B Q18		259
1669				FCTBL	DCW 0015	Z	4	2897			259
1670					DCW 3051	Z	4	2901			259
1671					DCW 7087	Z	4	2905			259
1672					DCW 7127	Z	4	2909			259
1673				CKPRO	DCW 3456	Z	4	2913			259
1674					LITORG *	Z			2914		
				DCW	@000@	Z	3	2916		LIT	259
				DCW	@I@	Z	1	2917		LIT	260
				DCW	@CTL@	Z	3	2920		LIT	260
				DCW		Z	2	2922		LIT	260
				DCW	@0@	Z	1	2923		LIT	260
				DCW	@3@	Z	1	2924		LIT	260
				DCW	@%@	Z	1	2925		LIT	260
1675			*								
1676			*		* M A I N L I N E C O N S T A N T S A N D W O R K A R E A S						
1677			*								
1678			*		* L I T E R A L H O L D A R E A						
1679			*								
1680				ORG	SAVE	Z			3760		
1681				LAREA	EQU *	Z					
1682				DCW	�	Z	5	3764			261
1683				DCW	#10	Z	10	3774			261
1684				DCW	@DCW @	Z	5	3779			261
1685				DCW	#1	Z	1	3780			261
1686				DS	53	Z					
1687				DCW	@/@	Z	1	3834			262
1688				DS	9	Z					
1689				GRPMK3	DC @}	Z	1	3844		GMARK	263
1690				HLLDIT	EQU LAREA&1	Z					
1691			*								
1692			*		*CONSTANTS AND WORK AREAS						
1693			*								
1694				FACTOR	DCW @0000@	Z	4	3848			263
1695				BIGCTR	DCW @00000@	Z	5	3853			263
1696				ORGCTR	DCW @00332@	Z	5	3858			263

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD			
1697			BLANK4	DCW	#4				BLANKS	Z	4	3862		263
1698			B2CNTR	DCW	#5				WORK AREA	Z	5	3867		264
1699			HOLD4	DCW	#4				WORK AREA	Z	4	3871		264
1700			W6AREA	DCW	#6				WORK AREA	Z	6	3877		264
1701			HOLD7	DCW	#7				USED FOR LABEL	Z	7	3884		264
1702			HOLD1	DCW	&0				CONVERSION ONLY	Z	1	3885		264
1703			SFXHLD	DCW	0				SUFFIX CHARACTER	Z	1	3886		264
1704			INITSW	DCW	0				DA SWITCH	Z	1	3887		264
1705			MARKSW	DC	0				DA SWITCH	Z	1	3888		264
1706			DCWSW	DC	0				DCW SWITCH	Z	1	3889		264
1707			LITSW2	DC	0				LITERAL SWITCH	Z	1	3890		264
1708			DSASW2	DC	0				DSA SWITCH	Z	1	3891		264
1709			DCWSW2	DC	0				DCW SWITCH	Z	1	3892		264
1710			GRMK8	EQU	3899					Z				3899
1711			3899	DCW	@j@				SYSTEM GROUP MARK	Z	1	3899		GMARK 265
1712				EX	DOZERO					Z			B 000	266

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
1713				JOB	1401 AUTOCODER-PASS 4 MAIN LINE OVERLAY -VERSION 3 Z							
1714			*									
1715			*PROCESS INSTRUCTION STATEMENTS									
1716			*									
1717			ORG	DOPROG					2575			
1718			INSTR	MCW	EQUADD, IMAGE&67			Z	7	2575	M N11 167	269
1719			CW	LENSW#1				Z	4	2582	) G34	269
1720			MLC	@01@, IMAGE&7				Z	7	2586	M G36 107	269
1721			BW	*&5, EQUADD				Z	8	2593	V O05 N11 1	269
1722			B	AUGMNT				Z	4	2601	B R06	269
1723			DOCNT	BCE	DONE, INPUT&21&X2,			Z	8	2605	B P31 0K1	269
1724			BCE	XISALF, INPUT&21&X2,@				Z	8	2613	B ?77 0K1 @	270
1725			LCA	BLANK2&1, INPUT&20&X2				Z	7	2621	L H61 0K0	270
1726			B	COMSCN				Z	4	2628	B 860	270
1727			MLC	XL3, W3AREA				Z	7	2632	M 099 H74	270
1728			MLC	FREEA, XL3				Z	7	2639	M M98 099	270
1729			BCE	XISLIT, INPUT&21&X3, &				Z	8	2646	B B51 0B1 &	271
1730			BCE	XISLIT, INPUT&21&X3, -				Z	8	2654	B B51 0B1 -	271
1731			B	FR2FIX				Z	4	2662	B 952	271
1732			BCE	SMTYP, IMAGE&23&X1, #				Z	8	2666	B ?40 1S3 #	271
1733			CKDONE	A	&3, IMAGE&7			Z	7	2674	A G37 107	271
1734			BW	FREMOD, LENS				Z	8	2681	V P39 G34 1	272
1735			C	XL1, @010@				Z	7	2689	C 089 G40	272
1736			BL	DONE				Z	5	2696	B P31 T	272
1737			MLC	@011@, XL1				Z	7	2701	M G43 089	272
1738			BW	*&5, SCANSW				Z	8	2708	V P20 N15 1	272
1739			B	ELMBLK				Z	4	2716	B Q83	272
1740			INTXL1	MCW	XL2, FREEA			Z	7	2720	M 094 M98	273
1741			B	DCONT				Z	4	2727	B O05	273
1742			DONE	BW	CKMOD1, SCANSW			Z	8	2731	V Q03 N15 1	273
1743			FREMOD	MLC	INPUT&21&X2, IMAGE&39			Z	7	2739	M 0K1 139	273
1744			BCE	C1	IMAGE&39,			Z	8	2746	B P58 139	273
1745			B	C1				Z	4	2754	B P80	273
1746			BCE	C1, INPUT&22&X2,				Z	8	2758	B P80 0K2	274
1747			MCW	INPUT&22&X2, IMAGE&39				Z	7	2766	M 0K2 139	274
1748			A	&1, XL2				Z	7	2773	A G44 094	274
1749			C1	C	INPUT&23&X2, BLANK2			Z	7	2780	C 0K3 H60	274
1750			BE	ISMOD				Z	5	2787	B Q11 S	274
1751			MZ	ABIT, IMAGE&5				Z	7	2792	Y 187 105	275
1752			B	ISMOD				Z	4	2799	B Q11	275
1753			CKMOD1	BCE	DOIADD, IMAGE&39,			Z	8	2803	B Q32 139	275
1754			ISMOD	A	&1, IMAGE&7			Z	7	2811	A G44 107	275
1755			MLC	IMAGE&7, XL2				Z	7	2818	M 107 094	275
1756			MLC	IMAGE&39, IMAGE&66&X2				Z	7	2825	M 139 106	276
1757			DOIADD	MLC	ORCCTR, IMAGE&61			Z	7	2832	M H58 161	276
1758			A	&1, IMAGE&61				Z	7	2839	A G44 161	276
1759			A	IMAGE&7, ORGCTR				Z	7	2846	A 107 H58	276
1760			MLC	B	BLANK, IMAGE&75			Z	7	2853	M H59 175	276
1761			B	NUREC				Z	4	2860	B 534	276
1762			LOOPBL	A	&1, XL2			Z	7	2864	A G44 094	277

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1863					*GENERATE LABEL ENTRY ADDRESS FOR SYMBOLIC OPERANDS						
1864					*						
1865			PROPNB	SBR	BOPT&3	Z	4	3328	H C60		289
1866				B	BOPT, IMAGE&17	Z	7	3332	B C57 117		290
1867			MCW		IMAGE&22, W6AREA	Z	7	3339	M 122 H77		290
1868				B	PROLAB	Z	4	3346	B W47		290
1869			MLC		W3AREA, IMAGE&70	Z	7	3350	M H74 170		290
1870			BOPT	B	XXXX	Z	4	3357	B 000		290
1871					*						
1872					*DETERMINE TYPE OF CONTROL OP						
1873					*						
1874			CTRLP	MCW	EQUADD-1, IMAGE&75	Z	7	3361	M N10 175		290
1875				S	XL3&1	Z	4	3368	S 100		291
1876				MN	EQUADD-1, XL3	Z	7	3372	D N10 099		291
1877				A	XL3	Z	4	3379	A 099		291
1878				A	XL3	Z	4	3383	A 099		291
1879				B	*&l&x3	Z	4	3387	B C11		291
1880				B	DARTN	Z	4	3391	B M41		291
1881				B	DCWCD	Z	4	3395	B Y11		291
1882				B	ERRHLT	Z	4	3399	B D63		292
1883				B	EXEND	Z	4	3403	B G10		292
1884				B	DOSFX	Z	4	3407	B F92		292
1885				B	ERRHLT	Z	4	3411	B D63		292
1886				B	ORSTMT	Z	4	3415	B D74		292
1887				B	DSSTMT	Z	4	3419	B F00		292
1888				B	INSPC	Z	4	3423	B D38		292
1889			MCW		INPUT&80, IMAGE&21	Z	7	3427	M 080 121		293
1890				B	NUREC	Z	4	3434	B 534		293
1891			INSPC	MCW	EQUADD-2, IMAGE&67	Z	7	3438	M N09 167		293
1892				MCW	BLANK2, IMAGE&75	Z	7	3445	M H60 175		293
1893				MLC	@01@, IMAGE&7	Z	7	3452	M G36 107		293
1894				B	FRMOD	Z	4	3459	B P39		293
1895			ERRHLT	H	0, 0402	Z	7	3463	. 000 402		294
1896				B	ERRHLT	Z	4	3470	B D63		294
1897					*						
1898					*PROCESS LITERAL ORIGIN AND ORIGIN CARDS						
1899					*						
1900			ORSTMT	B	COMSCN	Z	4	3474	B 860		294
1901				B	FNLOP	Z	4	3478	B W05		294
1902				B	FR2FIX	Z	4	3482	B 952		294
1903				BCE	SUBORG, IMAGE&24, X	Z	8	3486	B E63 124 X		294
1904				BCE	ORSPRO, IMAGE&17, *	Z	8	3494	B E89 117 *		294
1905				ZS	&l1, ORGCTR	Z	7	3502	! G44 H58		295
1906				BCE	ORGADJ, IMAGE&17, *	Z	8	3509	B E33 117		295
1907				BWZ	ORCVT, IMAGE&17, 2	Z	8	3517	V E78 117 2		295
1908				S	XL2&1	Z	4	3525	S 095		295
1909				B	PROPNB	Z	4	3529	B C28		295
1910			ORGADJ	A	IMAGE&26, ORGCTR	Z	7	3533	A 126 H58		295
1911			TYPPRG	MLC	ORCVT, IMAGE&61	Z	7	3540	M H58 161		296
1912				BCE	NUREC, INPUT&16, 0	Z	8	3547	B 534 016 0		296

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1913				B	PUT	Z	4	3555	B 610		296
1914				B	CALL	Z	4	3559	B U31		296
1915			SUBORG	ZS	&l1, ORGCTR	Z	7	3563	! G44 H58		296
1916				B	PROPNB	Z	4	3570	B C28		296
1917				B	TYPPRG	Z	4	3574	B E40		296
1918			ORCVT	B	CVTFLA	Z	4	3578	B W28		297
1919				A	W5AREA, ORGCTR	Z	7	3582	A H76 H58		297
1920			ORSPRO	MZ	ABBIT, IMAGE&1	Z	7	3589	Y 189 101		297
1921				B	ORGADJ	Z	4	3596	B E33		297
1922					*						
1923					*PROCESS DS STATEMENTS						
1924					*						
1925			DSSTMT	B	COMSCN	Z	4	3600	B 860		297
1926				B	FNLOP	Z	4	3604	B W05		297
1927				B	FR2FIX	Z	4	3608	B 952		297
1928				BWZ	CKEQU, INPUT&21, 2	Z	8	3612	V P55 021 2		298
1929				BCE	CK4ADJ, IMAGE&17, *	Z	8	3620	B F44 117 *		298
1930				BCE	NUREC, IMAGE&17, %	Z	8	3628	B 534 117 %		298
1931				B	PROPNB	Z	4	3636	B C28		298
1932				B	NUREC	Z	4	3640	B 534		298
1933			CK4ADJ	ZA	IMAGE&26, IMAGE&61	Z	7	3644	? 126 161		298
1934				B	DSSTAD	Z	4	3651	B 182		299
1935			CKEQU	ZA	IMAGE&21, W5AREA	Z	7	3655	? 121 H76		299
1936				B	CVRT5	Z	4	3662	B V78		299
1937				A	IMAGE&26, W5AREA	Z	7	3666	A 126 H76		299
1938				BCE	DCWACT, IMAGE&75, P	Z	8	3673	B 150 175 P		299
1939				A	W5AREA, ORGCTR	Z	7	3681	A H76 H58		299
1940				B	BMPCTR	Z	4	3688	B 175		300
1941					*						
1942					*PROCESS SUFFIX STATEMENTS						
1943					*						
1944			DOSFX	MLC	INPUT&21, IMAGE&17	Z	7	3692	M 021 117		300
1945				MCW	INPUT&21, SFXHLD	Z	7	3699	M 021 H86		300
1946				B	NUREC	Z	4	3706	B 534		300
1947					*						
1948					*PROCESS EXECUTE, END STATEMENTS						
1949					*						
1950			EXEND	B	COMSCN	Z	4	3710	B 860		300
1951				B	FNLOP	Z	4	3714	B W05		300
1952				B	FR2FIX	Z	4	3718	B 952		300
1953				BCE	NUREC, INPUT&16, X	Z	8	3722	B 534 016 X		301
1954				B	CALL	Z	4	3730	B U31		301
1955					LTORG	Z			3734		
			LENSWZ	DCW	#01	Z	1	3734		AREA	301
				DCW	@01@	Z	2	3736		LIT	301
				DCW	&3	Z	1	3737		LIT	301
				DCW	@010@	Z	3	3740		LIT	301
				DCW	@011@	Z	3	3743		LIT	301
				DCW	&1	Z	1	3744		LIT	302
				DCW	@51@	Z	2	3746		LIT	302

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@%@	Z	1	3747		LIT	302
				DCW	@0@	Z	1	3748		LIT	302
				DCW	@###@	Z	3	3751		LIT	302
				DCW	@002@	Z	3	3754		LIT	302
				DCW	@#@	Z	1	3755		LIT	302
				DCW	@07@	Z	2	3757		LIT	303
				DCW	@\$@	Z	1	3758		LIT	303
1956			GRPMK2	DCW	@}@	Z	1	3759		GMARK	303
1957			SAVE	EQU	*&l	Z		3760			
1958			EX	DOZERO		Z			B 000		304

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1959			JOB		1401 AUTOCODER-PASS 4 PROCESS DA				-VERSION 3 Z		
1960			*								
1961			*PROCESS DA		STATEMENTS						
1962			*								
1963			ORG		DOPROG	Z			2575		
1964			DASTMT	BSP	SYSTAP	Z	5	2575	U %U1 B		307
1965			BSP		SYSTAP	Z	5	2580	U %U1 B		307
1966			SW		NUMSW, DACSW	Z	7	2585	, F31 F55		307
1967			SW		FRMKS, DGMKS	Z	7	2592	, F58 F57		307
1968			BCE		DAERR, INPUT&21, X	Z	8	2599	B C14 021 X		307
1969			EXSCAN	BCE	NDXSCN, INPUT&22&X2, X	Z	8	2607	B 034 0K2 X		308
1970			BCE		DAERR, XL2, 4	Z	8	2615	B C14 094 4		308
1971			A		&l, XL2	Z	7	2623	A F18 094		308
1972			B		EXSCAN	Z	4	2630	B 007		308
1973			NDXSCN	A	INPUT&21&X2, BLKCTR	Z	7	2634	A 0K1 F17		308
1974			A		&2, XL2	Z	7	2641	A F19 094		309
1975			B		COMSCN	Z	4	2648	B 860		309
1976			ZA		INPUT&19&X2, RECNR#5	Z	7	2652	? 0J9 F24		309
1977			FINHED	BCE	DAINDX, INPUT&21&X2, X	Z	8	2659	B C73 0K1 X		309
1978			BCE		DAGMRK, INPUT&21&X2, G	Z	8	2667	B C91 0K1 G		309
1979			BCE		DAPMRK, INPUT&21&X2, '	Z	8	2675	B D06 0K1 '		310
1980			BCE		DACLR, INPUT&21&X2, C	Z	8	2683	B C65 0K1 C		310
1981			BCE		CMPSZ, INPUT&20&X2, '	Z	8	2691	B P06 0K0		310
1982			MZ		ABIT, IMAGE&5	Z	7	2699	Y 187 105		310
1983			CMPSZ	S	W5AREA	Z	4	2706	S H76		310
1984			MCW		BLKCTR, B2CNTR	Z	7	2710	M F17 H67		311
1985			DAREP	S	&l, B2CNTR	Z	7	2717	S F18 H67		311
1986			BM		SFANS, B2CNTR	Z	8	2724	V P43 H67 K		311
1987			A		RECNR, W5AREA	Z	7	2732	A F24 H76		311
1988			B		DAREP	Z	4	2739	B P17		311
1989			SFANS	MCW	W5AREA, B2CNTR	Z	7	2743	M H76 H67		312
1990			MLC		@*%, IMAGE&17	Z	7	2750	M F25 117		312
1991			BCE		DASTR, INPUT&6, '	Z	8	2757	B P73 006		312
1992			BWZ		DANUM, INPUT&6, 2	Z	8	2765	V P98 006 2		312
1993			DASTR	MLC	ORGCTR, DALOC#5	Z	7	2773	M H58 F30		312
1994			A		&l, DALOC	Z	7	2780	A F18 F30		313
1995			A		W5AREA, ORGCTR	Z	7	2787	A H76 H58		313
1996			B		ENDDA	Z	4	2794	B Q20		313
1997			DANUM	MLC	INPUT&10, IMAGE&21	Z	7	2798	M 010 121		313
1998			CW		NUMSW#1	Z	4	2805	) F31		313
1999			B		CVTFLA	Z	4	2809	B W28		313
2000			MLC		W5AREA, DALOC	Z	7	2813	M H76 F30		314
2001			ENDDA	MLC	DALOC, IMAGE&66	Z	7	2820	M F30 166		314
2002			MLC		DALOC	Z	4	2827	M F30		314
2003			A		RECNR, IMAGE&66	Z	7	2831	A F24 166		314
2004			S		&l, IMAGE&66	Z	7	2838	S F18 166		314
2005			S		&l, DALOC	Z	7	2845	S F18 F30		314
2006			CW		HEDSWH1	Z	4	2852	) F32		315
2007			BW		DALOOP, DACSW	Z	8	2856	V P37 F55 1		315
2008			MCW		IMAGE&80, DAHLD	Z	7	2864	M 180 G54		315

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2009				CHAIN	10	Z				MACRO	
2010				MCW		Z	1	2871	M	GEN	315
2011				MCW		Z	1	2872	M	GEN	315
2012				MCW		Z	1	2873	M	GEN	315
2013				MCW		Z	1	2874	M	GEN	315
2014				MCW		Z	1	2875	M	GEN	316
2015				MCW		Z	1	2876	M	GEN	316
2016				MCW		Z	1	2877	M	GEN	316
2017				MCW		Z	1	2878	M	GEN	316
2018				MCW		Z	1	2879	M	GEN	316
2019				MCW		Z	1	2880	M	GEN	316
2020				MCW	@A@, IMAGE&75		7	2881	M F33 175		316
2021				MCW	BLANK4, IMAGE&80		7	2888	M H62 180		317
2022				MCW	BLANK4, IMAGE&55		7	2895	M H62 155		317
2023				MCW	BLANK4, IMAGE&27		7	2902	M H62 127		317
2024				SW	INITSW		4	2909	H87		317
2025				MCW	BLANK4, IMAGE&11		7	2913	M H62 111		317
2026				MCW	@DC @, IMAGE&16		7	2920	M F36 116		317
2027				MCW	@19@, IMAGE&7		7	2927	M F38 107		318
2028				MCW	DALOC, IMAGE&61		7	2934	M F30 161		318
2029			CKNDQ	C	B2CNTR, &0020		7	2941	C H67 F42		318
2030			BH		DOLST		5	2948	B R82 U		318
2031			A		&19, IMAGE&16		7	2953	A F44 116		318
2032			MZ		ABBIT, IMAGE&1		7	2960	Y 189 101		319
2033			B		PUT		4	2967	B 610		319
2034			S		&19, B2CNTR		7	2971	S F44 H67		319
2035			B		CKNDQ		4	2978	B R41		319
2036			DOLST	C	B2CNTR, &0000		7	2982	C H67 F48		319
2037			BE		RTMGE		5	2989	B ?20 S		319
2038			MN		B2CNTR, IMAGE&7		7	2994	D H67 107		320
2039			MN				1	3001	D		320
2040			A		B2CNTR, IMAGE&61		7	3002	A H67 161		320
2041			MZ		ABBIT, IMAGE&1		7	3009	Y 189 101		320
2042			B		PUT		4	3016	B 610		320
2043			RTMGE	MCW	DAHLD, IMAGE&80		7	3020	M G54 180		320
2044				CHAIN	10	Z				MACRO	
2045				MCW		Z	1	3027	M	GEN	320
2046				MCW		Z	1	3028	M	GEN	321
2047				MCW		Z	1	3029	M	GEN	321
2048				MCW		Z	1	3030	M	GEN	321
2049				MCW		Z	1	3031	M	GEN	321
2050				MCW		Z	1	3032	M	GEN	321
2051				MCW		Z	1	3033	M	GEN	321
2052				MCW		Z	1	3034	M	GEN	321
2053				MCW		Z	1	3035	M	GEN	322
2054				MCW		Z	1	3036	M	GEN	322
2055			DALoop	SW	INITSW		4	3037	, H87		322
2056			ZA		&1, B2CNTR		7	3041	? F18 H67		322
2057			DAPUT	C	B2CNTR, BLKCTR		7	3048	C H67 F17		322
2058			BH		PUTIT		5	3055	B B70 U		322

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2059			DAGET	CW	INITSW		4	3060	) H87		322
2060			BW		DAPUT2, HEDSW		8	3064	V ?90 F32 1		323
2061			MCW		IMAGE&66, GMKADD#5		7	3072	M 166 F53		323
2062			A		&1, GMKADD		7	3079	A F18 F53		323
2063			SW		HEDSW		4	3086	, F32		323
2064			DAPUT2	B	PUT		4	3090	B 610		323
2065			BW		CKFNLG, MARKSW		8	3094	V E02 H88 1		323
2066			GET1	B	GET		4	3102	B 538		324
2067			BCE		GET1, INPUT&6, *		8	3106	B A02 006 *		324
2068			C		INPUT&19, BLANK4		7	3114	C 019 H62		324
2069			BU		CKFMRK		5	3121	B D21 /		324
2070			MCW		INPUT&84, IMAGE&80		7	3126	M 084 180		324
2071			BCE		*%5, INPUT&6,		8	3133	B A45 006		324
2072			B		PROBL		4	3141	B V38		325
2073			MLC		&0, IMAGE&75		7	3145	M F54 175		325
2074			S		XL&1		4	3152	S 095		325
2075			B		COMSCN		4	3156	B 860		325
2076			ZA		INPUT&19&X2, IMAGE&66		7	3160	? 079 166		325
2077			C		RECNR, IMAGE&66		7	3167	C F24 166		325
2078			BH		TFERR		5	3174	B C39 U		325
2079			BCE		SUBFLD, INPUT&20&X2,		8	3179	B B52 0K0		326
2080			B		COMSCN		4	3187	B 860		326
2081			B		FNLOP		4	3191	B W05		326
2082			ZA		INPUT&19&X2, IMAGE&61		7	3195	? 079 161		326
2083			C		RECNR, IMAGE&61		7	3202	C F24 161		326
2084			BH		TFERR		5	3209	B C39 U		326
2085			C		IMAGE&61, IMAGE&66		7	3214	C 161 166		327
2086			BH		FLDERR		5	3221	B C54 U		327
2087			ADDR	A	DALOC, IMAGE&61		7	3226	A F30 161		327
2088			A		DALOC, IMAGE&66		7	3233	A F30 166		327
2089			BM		DAGET, IMAGE&75		8	3240	V ?60 175 K		327
2090			B		DALoop		4	3248	B ?37		327
2091			SUBFLD	MLZS	BBIT, IMAGE&75		7	3252	Y 188 175		328
2092			MLC		IMAGE&66, IMAGE&61		7	3259	M 166 161		328
2093			B		ADDR		4	3266	B B26		328
2094			PUTIT	B	PUT		4	3270	B 610		328
2095			BW		*&8, MARKSW		8	3274	V B89 H88 1		328
2096			MZ		ABIT, IMAGE&75		7	3282	Y 187 175		328
2097			A		&1, B2CNTR		7	3289	A F18 H67		329
2098			A		RECNR, IMAGE&61		7	3296	A F24 161		329
2099			A		RECNR, IMAGE&66		7	3303	A F24 166		329
2100			B		DAPUT		4	3310	B ?48		329
2101			DAERR	MLZS	ABBIT, IMAGE&4		7	3314	Y 189 104		329
2102			ZA		&1, BLKCTR		7	3321	? F18 F17		329
2103			ZA		&1, RECNR		7	3328	? F18 F24		330
2104			B		CMPsz		4	3335	B P06		330
2105			TFERR	SBR	*&11		4	3339	H C53		330
2106			MZ		ABIT, IMAGE&5		7	3343	Y 187 105		330
2107			B		XXXX		4	3350	B 000		330
2108			FLDERR	MZ	BBIT, IMAGE&5		7	3354	Y 188 105		330

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2109				B	DAPUT2			Z 4 3361	B ?90		330
2110			DACLR	CW	DACSW#1			Z 4 3365	) F55		331
2111				B	DATWO			Z 4 3369	B C95		331
2112			DAINDX	MLNS	INPUT&22&X2, IMAGE&27			Z 7 3373	D OK2 127		331
2113				A	&3, XL2			Z 7 3380	A F56 094		331
2114				B	FINHED			Z 4 3387	B O59		331
2115			DAGMRK	CW	DGMKSW#1			Z 4 3391	) F57		331
2116			DATWO	A	&2, XL2			Z 7 3395	A F19 094		331
2117				B	FINHED			Z 4 3402	B O59		332
2118			DAFMRK	A	&1, RECINTR			Z 7 3406	A F18 F24		332
2119				CW	FRMKS#1			Z 4 3413	) F58		332
2120				B	DATWO			Z 4 3417	B C95		332
2121			CKFMRK	SW	MARKSW			Z 4 3421	, H88		332
2122				BW	CKFNLG, FRMKS			Z 8 3425	V E02 F58 1		332
2123				MLC	@@'@@, IMAGE&25			Z 7 3433	M F61 125		332
2124				MLC	@DC *@, IMAGE&17			Z 7 3440	M F65 117		333
2125				MLC				Z 1 3447	M		333
2126				MLC	&1, IMAGE&75			Z 7 3448	M F18 175		333
2127				MLC	@01@, IMAGE&7			Z 7 3455	M F67 107		333
2128				MLC	DALOC, IMAGE&61			Z 7 3462	M F30 161		333
2129				A	RECINTR, IMAGE&61			Z 7 3469	A F24 161		333
2130				BW	DALoop, NUMSW			Z 8 3476	V ?37 F31 1		334
2131				MCW	BLANK, IMAGE&17			Z 7 3484	M H59 117		334
2132				MZ	ABBIT, IMAGE&3			Z 7 3491	Y 189 103		334
2133				B	DALoop			Z 4 3498	B ?37		334
2134			CKFNLG	BW	CALLOP, DGMKSW			Z 8 3502	V E93 F57 1		334
2135				MLC	@DCW@, IMAGE&16			Z 7 3510	M F70 116		335
2136				MLC	@1@, IMAGE&75			Z 7 3517	M F71 175		335
2137				MLC	@01@, IMAGE&7			Z 7 3524	M F67 107		335
2138				MCW	GMKADD, IMAGE&61			Z 7 3531	M F53 161		335
2139				MLC	@@}@@, IMAGE&25			Z 7 3538	M F74 125		335
2140				BW	GMKAST, NUMSW			Z 8 3545	V E75 F31 1		336
2141				MCW	BLANK, IMAGE&17			Z 7 3553	M H59 117		336
2142				MZ	ABBIT, IMAGE&3			Z 7 3560	Y 189 103		336
2143			PUTGMK	B	PUT			Z 4 3567	B 610		336
2144				B	CALLOP			Z 4 3571	B E93		336
2145			GMKAST	A	&1, ORGCTR			Z 7 3575	A F18 H58		336
2146				MCW	@*@, IMAGE&17			Z 7 3582	M F25 117		337
2147				B	PUTGMK			Z 4 3589	B E67		337
2148			CALLOP	BSP	INTAP			Z 5 3593	U %U4 B		337
2149				B	GET			Z 4 3598	B 538		337
2150				CW	MARKSW, GRPMK6			Z 7 3602	) H88 G55		337
2151				B	FINDA			Z 4 3609	B M62		337
2152			BLKCTR	DCW	&0000			Z 5 3617			337
2153				ITORG	*				3618		
				DCW	&1			Z 1 3618		LIT	338
				DCW	&2			Z 1 3619		LIT	338
			RECINTR	DCW	#05			Z 5 3624		AREA	338
				DCW	@*@			Z 1 3625		LIT	338
			DALOCZ	DCW	#05			Z 5 3630		AREA	338

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				NUMSWZ	DCW	#01		Z 1 3631		AREA	338
				HEDSWZ	DCW	#01		Z 1 3632		AREA	338
					DCW	@A@		Z 1 3633		LIT	339
					DCW	@DC @		Z 3 3636		LIT	339
					DCW	@19@		Z 2 3638		LIT	339
					DCW	&0020		Z 4 3642		LIT	339
					DCW	&19		Z 2 3644		LIT	339
					DCW	&0000		Z 4 3648		LIT	339
			GMKADD	DCW	#05			Z 5 3653		AREA	339
				DCW	&0			Z 1 3654		LIT	340
			DACSWZ	DCW	#01			Z 1 3655		AREA	340
				DCW	&3			Z 1 3656		LIT	340
			DGMKSW	DCW	#01			Z 1 3657		AREA	340
			FRMKS	DCW	#01			Z 1 3658		AREA	340
				DCW	@@'@@			Z 3 3661		LIT	340
				DCW	@DC *@			Z 4 3665		LIT	340
				DCW	@01@			Z 2 3667		LIT	341
				DCW	@DCW@			Z 3 3670		LIT	341
				DCW	@1@			Z 1 3671		LIT	341
				DCW	@@}@@			Z 3 3674		LIT	341
2154				DA	1X80			Z	3675	3754	
2155			DAHLD		80			Z	3754		SBFLD
2156			GRPMK6	DCW	@}@			Z 1 3755		GMARK	342
2157				EX	DOZERO			Z	B 000		343

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2158				JOB	1401 AUTOCODER-PASS 4 PROCESS LITERALS	-VERSION	3	Z			
2159				ORG	DOPROG			Z	2575		
2160			OVLLIT	WTM	LITAPE			Z	5 2575	U %06 M	346
2161				WTW	LITAPE,IMAGE&1	SAVE IMAGE AREA		Z	8 2580	L %06 101 W	346
2162				NOP	0			Z	4 2588	N 000	346
2163				BER	TPERR			Z	5 2592	B 221 L	346
2164				BEF	*%1	RESET EOF TRIGGER		Z	5 2597	B 002 K	346
2165				WTW	LITAPE,IMAGE&1	NOTE - MUST WRITE OUT		Z	8 2602	L %06 101 W	346
2166				NOP	0	IMAGE AREA TWICE		Z	4 2610	N 000	346
2167				BER	TPERR	BECAUSE EOF TREATED		Z	5 2614	B 221 L	347
2168			*			AS NOISE RECORD					
2169				RWD	LITAPE			Z	5 2619	U %06 R	347
2170				BSP	SYSTAP	POSITION SYSTEM TAPE		Z	5 2624	U %01 B	347
2171				BSP	SYSTAP	TO BRING BACK		Z	5 2629	U %01 B	347
2172				BSP	SYSTAP	MAIN LINE		Z	5 2634	U %01 B	347
2173				CW	GRPMK7			Z	4 2639	) Q27	347
2174				CS	INPUT&80	BLANK INPUT AND FIXED		Z	4 2643	/ 080	347
2175				SW	INPUT&16,LITSW2	FORM AREA		Z	7 2647	, 016 H90	348
2176				MRCM	INPUT&1,IMAGE&1			Z	7 2654	P 001 101	348
2177				MLC	BLANK4,IMAGE&80			Z	7 2661	M H62 180	348
2178				S	XL2&2			Z	4 2668	S 096	348
2179				S				Z	1 2672	S	348
2180				MLC	@DCW@,IMAGE&16			Z	7 2673	M Q15 116	348
2181			LITGB	MCW	&INPUT&13,N2&6			Z	7 2680	M Q18 446	349
2182				RT	LITAPE,INPUT&1	READ IN LITERAL		Z	8 2687	M %06 001 R	349
2183				B	NOISE			Z	4 2695	B 425	349
2184				BER	TPERR			Z	5 2699	B 221 L	349
2185				BEF	RTNLIT	Q. ANY MORE LITERALS		Z	5 2704	B P39 K	349
2186				MCW	INPUT&4,IMAGE&70	CODE MOTHER RECD NUMBER		Z	7 2709	M 004 170	349
2187				MLC	@/@,IMAGE&75	CODE RECORD		Z	7 2716	M Q19 175	350
2188				B	PROLBL	PROCESS LABEL		Z	4 2723	B V38	350
2189				B	DCWCD	PROCESS STATEMENT		Z	4 2727	B Y11	350
2190			LITRTN	B	PUT	PUT RECORD		Z	4 2731	B 610	350
2191				B	LITGB			Z	4 2735	B O80	350
2192			RTNLIT	MCW	&IMAGE&13,N2&6			Z	7 2739	M Q22 446	350
2193				RTW	LITAPE,IMAGE&1	REGENERATE IMAGE AREA		Z	8 2746	L %06 101 R	350
2194				B	NOISE			Z	4 2754	B 425	351
2195				BER	TPERR			Z	5 2758	B 221 L	351
2196				RWD	LITAPE			Z	5 2763	U %06 R	351
2197				SW	LITSW	RESET LITERAL SWITCH		Z	4 2768	, N46	351
2198				CW	LITSW2			Z	4 2772	) H90	351
2199				A	&10,EXNUMB	SECTION TO GUARANTEE		Z	7 2776	A Q24 193	351
2200				BCE	*%5,EXNUMB-1,0	UNIQUENESS OF		Z	8 2783	B P95 192 0	351
2201				B	RECALL	LITERAL LABELS UP TO		Z	4 2791	B U68	352
2202				A	&96,EXOVFL	80 LTORG OR EX CARDS		Z	7 2795	A Q26 191	352
2203				A	&96,EXOVFL			Z	7 2802	A Q26 191	352
2204				B	RECALL			Z	4 2809	B U68	352
2205			LTORG	*				Z		2813	
				DCW	@DCW@			Z	3 2815		LIT 352
				DCW	&INPUTZ&13			Z	3 2818	013	ADCON 352

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@/@			Z	1 2819		LIT 352
				DCW	&IMAGEZ&13			Z	3 2822	113	ADCON 353
				DCW	&10			Z	2 2824		LIT 353
				DCW	&96			Z	2 2826		LIT 353
2206			GRPMK7	DCW	@}@	SYSTEM GROUP MARK		Z	1 2827		GMARK 353
2207				EX	DOZERO			Z		B 000	354

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2208				JOB	1401 AUTOCODER-PASS 4 END OF PASS OVERLAY -VERSION 3	Z					
2209				ORG	SAVE2	Z			0706		
2210			EOJRT	RWD	LITAPE	Z	5	0706	U %06 R		357
2211				B	PUT	Z	4	0711	B 610		357
2212				WT	OUTAP,OUTPUT&1	Z	8	0715	M %05 I18 W		357
2213				NOP	0	Z	4	0723	N 000		357
2214				BER	TPERR	Z	5	0727	B 221 L		357
2215				WTM	OUTAP	Z	5	0732	U %05 M		357
2216				RWD	OUTAP	Z	5	0737	U %05 R		357
2217				CS	INPUT&85	Z	4	0742	/ 085		358
2218				CW	GRPMK2,GRPMK3	Z	7	0746	) G59 H44		358
2219				CW	GRPMK4	Z	4	0753	) 185		358
2220				RTW	SYSTAP,PASSC1	Z	8	0757	L %01 Z25 R		358
2221				NOP	0	Z	4	0765	N 000		358
2222				BER	TPERR	Z	5	0769	B 221 L		358
2223				LCA	TOTLBL,2393	Z	7	0774	L 198 L93		358
2224				LCA	PROCOR,2389	Z	7	0781	L 194 L89		359
2225				B	PASSC2	Z	4	0788	B M00		359
2226				DCW	0	Z	1	0792			359
2227				DCW	@}@	Z	1	0793		GMARK	359
2228				EX	0	Z			B 000		360
2229			*								
2230			* EQUATES								
2231			*								
2232			INTAP	EQU	%U4	Z		%U4			
2233			OUTAP	EQU	%U5	Z		%U5			
2234			LITAPE	EQU	%U6	Z		%U6			
2235			K4K	EQU	4000	Z		4000			
2236			W3AREA	EQU	W6AREA-3	Z		3874			
2237			W5AREA	EQU	W6AREA-1	Z		3876			
2238			BLANK	EQU	BLANK4-3	Z		3859			
2239			BLANK2	EQU	BLANK4-2	Z		3860			
2240			HOLD2	EQU	B2CNTR-3	Z		3864			
2241			HOLD3	EQU	B2CNTR-2	Z		3865			
2242			ABIT	EQU	ZONE-2	Z		0187			
2243			BBIT	EQU	ZONE-1	Z		0188			
2244			ABBIT	EQU	ZONE	Z		0189			
2245			XXXX	EQU	000	Z		0000			
2246			INPUT	EQU	000	Z		0000			
2247			OUTPUT	EQU	3917	Z		3917			
2248			PASSC1	EQU	1925	Z		1925			
2249			PASSC2	EQU	2400	Z		2400			
2250			DOZERO	EQU	000	Z		0000			
2251			FREE	EQU	INPUT	Z		0000			
2252			END	START		Z			/ N75 080		

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
AIALFZ	1310	ABBITZ	189	ABITZ	187	ABSCOD	2755	ABSFIX	1270	ABSW	3110	ACNRTZ	2362
ADDREC	3226	ADDZ	3118	ALTRNO	184	ALTROP	1051	ARDEFZ	2301	AUGMNT	2906	B2CNTR	3867
BADOP	2728	BBITZ	188	BCK1	798	BEGIN	2465	BIGCTR	3853	BINFND	1115	BINTBL	3814
BLANK	3154	BLANK2	3860	BLANK3	3156	BLANK4	3862	BLANKZ	3859	BLKCTR	3617	BLNK2	3155
BLNKX	848	BMPCTR	2075	BOPXTZ	3357	BSP1	2246	BSP1Z	257	BSP2	2290	BSP2Z	301
BYPASS	520	CLZ	2780	CALLOP	3593	CALLZ	1431	CHNAD	2885	CHNLP	872	CK1BK	1962
CK2Z	728	CK4ADJ	3644	CKADJZ	1017	CKAOPZ	2011	CKB	874	CKCHN	722	CKCOMZ	706
CKDCWZ	1858	CKDONE	2674	CKEL	2698	CKEQZ	3655	CKPF	2801	CKPMRK	3421	CKFNLG	3502
CKLITZ	2188	CKLOR	1889	CKLORZ	1485	CKMACR	2089	CKMINZ	1134	CKMOD	950	CKMOD1	2803
CKNDQZ	2941	CKNOP	1146	CKOP	922	CKPROZ	2913	CKREGZ	2921	CKTAPZ	645	CLEAR	2682
CMPSZZ	2706	CODJOB	2601	COMCRD	1871	COMSCN	860	CORERR	1680	CSCNXT	929	CSZ	2754
CTL2Z	2737	CTL3Z	2722	CTRL0P	3361	CVT5Z	1578	CVT5XT	1590	CVTFLA	1628	CWI98Z	469
CXL1	1925	DACLIZ	3365	DACSWZ	3655	DAERZ	3314	DAPMK	3406	DAGETZ	3060	DAGMRK	3391
DHLDZ	3754	DINDEX	3373	DALOCZ	3630	DAL0OP	3037	DANUMZ	2798	DAPUTZ	3090	DAPUTZ	3048
DAREPZ	2717	DARTNZ	2441	DASTMT	2575	DASTRZ	2773	DATWOZ	3395	DCWACT	2050	DCWALF	2244
DCWAST	2068	DCWCZDZ	1811	DCWSTM	1484	DCWSW2	3892	DCWSWZ	3889	DCWYTP	1551	DCWXTZ	2185
DGMKSW	3657	DOADRS	1150	DOBIGZ	3157	DOCNTZ	2605	DOEQU	1815	DOIADD	2832	DOLSTZ	2982
DOMINZ	1027	DONEZ	2731	DOPROG	2575	DOSFKZ	3692	DOZERO	0	DSACT	1833	DSADCZ	2354
DSARTN	1715	DSASW2	3891	DSAX1Z	1990	DSETAD	2082	DSSTMT	3600	DSTYP	1788	ELMBLK	2883
ENDALF	1218	ENDDADZ	2820	ENDFIX	626	ENTER	2647	ENTSPS	626	EOJ	2875	EOJRTZ	706
EQUADD	2511	EQVADD	3169	ERHLT	1473	ERRBLK	2895	ERRHLT	3463	EXENDZ	3710	EXNUMB	193
EXOVFL	191	EXSCAN	2607	FACTOR	3848	FCTBLZ	2897	FINDAZ	2462	FINHED	2659	FIXALF	1184
FIXERZ	1233	FIXINS	854	FIXLIT	2132	FIXSWZ	2532	FLAXTZ	1643	FLDERR	3354	FNLOPZ	1605
FNLXTZ	1624	FOUND	1340	FR2FIX	952	FR2FXT	1229	FREE	100	FREEAZ	2498	FRESW	3809
FREEZ	0	FREMOD	2739	FRMKSW	3658	GENJOB	2853	GENPS	906	GET	524	GET1Z	3102
GETMN	419	GETOP	2539	GETPOP	2999	GETXT	550	GETXTZ	574	GETZ	538	GM1Z	3143
GMK1	3989	GMK2	187	GMKADD	3653	GMKAST	3575	GOBKZ	798	GRPMK1	85	GRPMK2	3759
GRPMK3	3844	GRPMK4	185	GRPMK5	2574	GRPMK6	3755	GRPMK7	2827	GRPMK8	3899	GTFFIX	464
GTFRE	503	HEDSWZ	3632	HIVAL	2458	HLDCZ	2952	HLDLIT	3760	HOLD1Z	3885	HOLD2Z	3864
HOLD3Z	3865	HOLD4Z	3871	HOLD7Z	3884	HOLDCZ	2491	IMAGEZ	100	INAREA	3903	INITAP	%U0
INITSW	3887	INOBJZ	2797	INPUT	332	INPUTZ	0	INSPC	1421	INSPCZ	3438	INSTZ	2375
INST2Z	386	INSTRZ	2575	INTAPE	%U6	INTAPZ	%U4	INTXLL	2720	INTXT	460	IOTYP	1154
IS16KZ	2852	IS4K	2892	IS4KZ	2818	IS8KZ	2833	ISADZ	1051	ISDCWZ	2271	ISDSAZ	1890
ISFIVE	3032	ISHIV	969	ISMOD	1002	ISMODZ	2811	ISREA	1096	JOBLBL	2924	JOBSWZ	199
K4KZ	4000	KNOWN	1669	LAREAZ	3759	LBERR	778	LBLXTZ	1807	LDOPTB	489	LENSWZ	3734
LIBRN	0	LITAPE	%U6	LITGBZ	2680	LITRTRN	2731	LITSWZ	3890	LITSWZ	2546	LKNOP	974
LOOP1	1917	LOOP1Z	1770	LOOPBL	2864	LPERR	1684	LTERZ2	1409	LTERRZ	1394	LTGENZ	2400
MAKBEZ	1040	MANAN	2459	MARKSW	3888	MASYM	3296	MKMIN	2121	MLCTYP	2717	MODESW	3002
MOVMOD	1018	MPYLPZ	1712	MSCSWZ	2995	MULTZ	1720	N2	2429	N2Z	440	N3	573
N4	558	NDAASCN	1329	NDOPD	1986	NDXSCN	2634	NOADJ	2075	NOCTLZ	2871	NOISE	2414
NOISEZ	425	NOPNZ	1462	NOT11	2158	NOZONE	2293	NSXT	2449	NSXTZ	460	NUMSWZ	3631
NUREC	626	NURECZ	534	NXTDGT	1746	OBJCOR	2453	OBJTBL	2911	ONEOP	1760	OPDERZ	1237
OPDONE	3021	OPND	3808	ORGADJ	3533	ORGCTR	3858	ORGCVT	3578	ORGPRO	3589	ORGSTM	3474
OUTAPE	%U4	OUTAPZ	%U5	OUTPUT	3917	OVLZ	626	OVLLIT	2575	PASSB2	200	PASSC1	1925
PASSC2	2400	PDCWLF	2240	PHOLD	2944	PICKUP	1029	PLSCAN	790	PLUSFD	817	PRCHN	727
PREOJ	2867	PRINT	200	PROADJ	1055	PROCOR	194	PROFIX	661	PROLAB	1647	PROLBL	1538
PROLIT	3182	PROFND	3328	PROSZ	2702	PRSCXT	925	FSSWZ	1037	PSTNU	630	PUT	586
PUTGMK	3567	PUTITZ	3270	PUTXT	622	PUTXTZ	702	FUTZ	610	RCT	2461	RDCYZ	465
RDBRZ	2283	RDBERRZ	294	RDTAP	554	RDMT	582	RECALL	1468	RECNTR	3624	REDXTZ	2279
RBDXTZ	290	REG	991	RESTR	2862	RSTM0D	638	RSTWN	1654	RTEND	2209	RTMBEZ	3020
RTN2	2039	RTNDCW	1633	RTNJBZ	481	RTNLIT	2739	SAMFIX	1328	SAV0CD	2613	SAVE2Z	706
SAVEZ	3760	SAVOP	2988	SBCTRZ	403	SCAN	1909	SCANAT	1292	SCANBZ	1292	SCANBZ	1023
SCANSW	2515	SCNATX	1382	SCNDEX	970	SCNERR	933	SCNXT	2117	SETABS	1320	SETEXZ	3132
SETHI	2899	SETSWZ	1386	SFANZ	2743	SFXHLD	3886	SMLTYP	3040	SPECIN	2683	SPGLIN	692
STARTZ	2575	STFVN	1065	SUB1	2509	SUBFLD	3252	SUBORG	3563	SUBT	2170	SUBXL	634
SVSZ	2939	SVUP3	1017	SW1	1292	SXLZ	1361	SYSMK1	2209	SYSMK2	3003	SYSTAP	%U1
TAPAUG	2952	TPERRZ	3339	TLUBIN	1084	TLUFIX	828	TLUOP	2465	TLUXT	2643	TOTBLZ	198
TPERR	2210	TPERRZ	221	TPHIT	2317	TPHLTZ	328	TPINSZ	2266	TPINZ	277	TPYETZ	638

W6AREA	3877	WAREA2	3114	WAREA3	3115	WAREA6	3118	WHCHOP	1254	WRTCR	2464	WRTCRZ	468
WRTLIT	3189	WRTFZ	578	WTRD	2355	WTRDZ	366	WRTXZ	606	XALF1Z	3093	XISALF	3077
XISLIT	3251	XL1	89	XL1Z	89	XL2	94	XL2Z	94	XL3	99	XL3Z	99
XLIT1Z	3282	XTLABL	1574	XXXX	0	XXXXZ	0	ZONEZ	189				