



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1	48	* TEST ADDRESS AGAINST HOME ADDRESS								
149	1	49	* TO DEVELOP INDEX VALUE								
150	1	50	*								
151	1	51	COMP1	MZ	NOBIT,HOLD5	7		0429	Y 106	+99	8
152	1	52		S	XR1+2	4		0436	S 091		8
153	1	53		C	HOLD5,'01500'	7		0440	C +99	/04	8
154	1	54		BE	DOCOR	5		0447	B 538	S	8
155	1	55		BH	SUB1	5		0452	B 527	U	8
156	1	56		S	'01500',HOLD5	7		0457	S /09	+99	8
157	1	57		MCW	'16000',WORK5=5	7		0464	M /14	/19	9
158	1	58	SUB2	S	HOLD5,WORK5	7		0471	S +99	/19	9
159	1	59	*								
160	1	60	* CONVERT INDEX VALUE TO 3 DIGIT MACHINE ADDRESS								
161	1	61	*								
162	1	62	CNVRT	BAV	*+1	5		0478	B 483	Z	9
163	1	63		A	'96',WORK5-3	7		0483	A /21	/16	9
164	1	64		BAV	CNVRT+5	5		0490	B 483	Z	9
165	1	65		MZ	WORK5-4,WORK5	7		0495	Y /15	/19	9
166	1	66		MN	WORK5-3,*+4	7		0502	D /16	512	10
167	1	67		MZ	ZONE,WORK5-2	7		0509	Y 109	/17	10
168	1	68		MCW	WORK5,XR1	7		0516	M /19	089	10
169	1	69		B	DOCOR	4		0523	B 538		10
170	1	70	SUB1	MCW	'01500',WORK5	7		0527	M /26	/19	10
171	1	71		B	SUB2	4		0534	B 471		10
172	1	72	*								
173	1	73	* READ CONDENSED CARDS								
174	1	74	*								
175	1	75	DOCOR	R		1		0538	1		10
176	1	76		MCW	'045',XR3	7		0539	M /29	099	11
177	1	77		MCW	'042',XR2	7		0546	M /32	094	11
178	1	78		BWZ	CKSEQ,CARD+80,2	8		0553	V 726	080 2	11
179	1	79		BCE	WTAPI,CARD+68,B	8		0561	B 675	068 B	11
180	1	80		BCE	SETWM,CARD+40,N	8		0569	B 596	040 N	11
181	1	81		C	CARD+46,'001'	7		0577	C 046	/35	12
182	1	82		BE	SETWM	5		0584	B 596	S	12
183	1	83		MZ	ABIT,CARD+45	7		0589	Y 107	045	12
184	1	84	*								
185	1	85	* SET RETURN ADDRESS								
186	1	86	*								
187	1	87	SETWM	MCW	+DOCOR,CARD+71	7		0596	M /38	071	12
188	1	88		MCW	'B'	4		0603	M /39		12
189	1	89	*								
190	1	90	* INDEX WORD MARK ADDRESSES								
191	1	91	*								
192	1	92	COMP2	C	XR2,'063'	7		0607	C 094	/42	12
193	1	93		BE	CARD+40	5		0614	B 040	S	13
194	1	94		A	+7,XR3	7		0619	A /43	099	13
195	1	95		A	+7,XR2	7		0626	A /43	094	13
196	1	96		C	CARD+1+X2,'040'	7		0633	C 0-1	/46	13
197	1	97		BE	*+8	5		0640	B 652	S	13

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	98		MZ	ABIT,CARD+X2	7		0645	Y 107 0-0		13
199	1	99		C	CARD+1+X3,'040'	7		0652	C 0+1 /46		14
200	2	00		BE	COMP2	5		0659	B 607 S		14
201	2	01		MZ	ABIT,CARD+X3	7		0664	Y 107 0+0		14
202	2	02		B	COMP2	4		0671	B 607		14
203	2	03	*								
204	2	04	* WRITE CORE ON TAPE								
205	2	05	*								
206	2	06	WTAP1	LCA	' ',3998	7		0675	L /47 198		14
207	2	07		WTW	SYSTP,1500	8		0682	L (U1 V00 W		14
208	2	08		BER	WTERR	5		0690	B 973 L		15
209	2	09	*								
210	2	10	* CLEAR INPUT AREA								
211	2	11	*								
212	2	12		MCW	'I99',CLEAR+3	7		0695	M /50 705		15
213	2	13	CLEAR	CS	XXXX	4		0702	/ 000		15
214	2	14		SBR	CLEAR+3	4		0706	H 705		15
215	2	15		C	CLEAR+3,'U99'	7		0710	C 705 /53		15
216	2	16		BU	CLEAR	5		0717	B 702 /		15
217	2	17		B	NXTBK	4		0722	B 362		15
218	2	18	*								
219	2	19	* CHECK CARD SEQUENCE								
220	2	20	*								
221	2	21	CKSEQ	SBR	SEQXT+3	4		0726	H 759		16
222	2	22		A	+1,SEQNO	7		0730	A /54 #87		16
223	2	23		C	CARD+75,SEQNO	7		0737	C 075 #87		16
224	2	24		MCW	CARD+75,SEQNO	7		0744	M 075 #87		16
225	2	25		BU	SEQR	5		0751	B 760 /		16
226	2	26	SEQXT	B	XXXX	4		0756	B 000		16
227	2	27	*								
228	2	28	* CARD SEQUENCE ERROR								
229	2	29	*								
230	2	30	SEQR	MCW	CARD+80,PRINT+80	7		0760	M 080 280		17
231	2	31		CHAIN	6					MACRO	
232				MCW		1		0767	M	GEN	17
233				MCW		1		0768	M	GEN	17
234				MCW		1		0769	M	GEN	17
235				MCW		1		0770	M	GEN	17
236				MCW		1		0771	M	GEN	17
237				MCW		1		0772	M	GEN	17
238	2	32		MCW	'SEQUENCE ERROR',PRINT+98	7		0773	M /68 298		18
239	2	33		W		1		0780	2		18
240	2	34		H	0,176	7		0781	. 000 176		18
241	2	35		B	DOSEQ	4		0788	B 941		18
242	2	36	*								
243	2	37	* PROCESS MACRO LIBRARY								
244	2	38	*								
245	2	39	MACRO	NOP	CRDER	4		0792	N 917		18
246	2	40		C	CARD+20,'HEADR'	7		0796	C 020 /73		18
247	2	41		BU	CRDER	5		0803	B 917 /		18

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
248	2	42		BWZ	CKSEQ,CARD+80,2		8	0808	V 726 080 2		19	
249	2	43		MCW	'B',MACRO		7	0816	M /39 792		19	
250	2	44		LCA	' ',CARD+81		7	0823	L /47 081		19	
251	2	45	*									
252	2	46	* WRITE SKELETON INSTRUCTIONS ON TAPE									
253	2	47	*									
254	2	48	WTAP2	WT	SYSTP,CARD+1		8	0830	M (U1 001 W		19	
255	2	49		BER	WTERR		5	0838	B 973 L		19	
256	2	50		C	CARD+11,'999999'		7	0843	C 011 /79		20	
257	2	51		BE	WTTM		5	0850	B 868 S		20	
258	2	52		R			1	0855	1		20	
259	2	53		BWZ	CKSEQ,CARD+80,2		8	0856	V 726 080 2		20	
260	2	54		B	WTAP2		4	0864	B 830		20	
261	2	55	WTTM	WTM	SYSTP		5	0868	U (U1 M		20	
262	2	56		B	NXTBK		4	0873	B 362		20	
263	2	57	*									
264	2	58	* END OF GENERATION									
265	2	59	*									
266	2	60	EOJOB	WTM	SYSTP		5	0877	U (U1 M		21	
267	2	61		RWD	SYSTP		5	0882	U (U1 R		21	
268	2	62		CW	' '		4	0887	) /47		21	
269	2	63		CS	PRINT+132		4	0891	/ 332		21	
270	2	64		CS			1	0895	/		21	
271	2	65		MCW	'1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1',246		7	0896	M S25 246		21	
272	2	66		W			1	0903	2		21	
273	2	67		CC	1		2	0904	F 1		22	
274	2	68	*									
275	2	69	* FINAL HALT									
276	2	70	*									
277	2	71	HALT	H	0,142		7	0906	. 000 142		22	
278	2	72		B	HALT		4	0913	B 906		22	
279	2	73	*									
280	2	74	* MISSING CONTROL CARD									
281	2	75	*									
282	2	76	CRDER	CS	PRINT+132		4	0917	/ 332		22	
283	2	77		CS			1	0921	/		22	
284	2	78		MCW	'SYSTEM CONTROL CARD MISSING',PRINT+27		7	0922	M S52 227		22	
285	2	79		W			1	0929	2		22	
286	2	80	HALT2	H	0,177		7	0930	. 000 177		23	
287	2	81		B	HALT2		4	0937	B 930		23	
288	2	82	*									
289	2	83	* AFTER SEQUENCE ERROR, CHECK BALANCE OF DECK									
290	2	84	*									
291	2	85	DOSEQ	R			1	0941	1		23	
292	2	86		BWZ	CKSEQ,CARD+80,2		8	0942	V 726 080 2		23	
293	2	87		BCE	ENDSQ,CARD+78,9		8	0950	B 962 078 9		23	
294	2	88		B	DOSEQ		4	0958	B 941		23	
295	2	89	ENDSQ	H	0,152		7	0962	. 000 152		23	
296	2	90		B	ENDSQ		4	0969	B 962		24	
297	2	91	*									



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	2	92	* WRITE REDUNDANCY ROUTINE								
299	2	93	*								
300	2	94	WTERR	SBR	WXTT+3	4		0973	H #36		24
301	2	95		SBR	XR3	4		0977	H 099		24
302	2	96		MZ	+9,XR3	7		0981	Y S53 099		24
303	2	97		MCW	4000-6+X3,RETRY+7	7		0988	M I14 #27		24
304	2	98	BSP	BSP	SYSTP	5		0995	U (U1 B		24
305	2	99		SKP	SYSTP	5		1000	U (U1 E		24
306	3	00		BCE	SUBCT,WTCT-1,1	8		1005	B #37 S54 1		25
307	3	01		A	+1,WTCT=2	7		1013	A /54 S55		25
308	3	02	RETRY	WT	SYSTP,XXXX	8		1020	M (U1 000 W		25
309	3	03		BER	BSP	5		1028	B 995 L		25
310	3	04	WXTT	B	XXXX	4		1033	B 000		25
311	3	05	SUBCT	S	WTCT	4		1037	S S55		25
312	3	06		H	0,161	7		1041	. 000 161		26
313	3	07		B	RETRY	4		1048	B #20		26
		123		DCW	'GENERATING 1401 AUTOCODER SYSTEM'	32		1083		LIT	27
		128	SEQNO		=04	4		1087		AREA	27
		133			'CONTROL'	7		1094		LIT	28
		138	HOLD5		=05	5		1099		AREA	28
		153			'01500'	5		1104		LIT	28
		156			'01500'	5		1109		LIT	28
		157			'16000'	5		1114		LIT	28
		157	WORK5		=05	5		1119		AREA	28
					'96'	2		1121		LIT	28
		170			'01500'	5		1126		LIT	29
					'045'	3		1129		LIT	29
					'042'	3		1132		LIT	29
					'001'	3		1135		LIT	29
		187			+DOCOR	3		1138	538	ADCON	29
					'B'	1		1139		LIT	29
					'063'	3		1142		LIT	29
					+7	1		1143		LIT	30
					'040'	3		1146		LIT	30
					' '	1		1147		LIT	30
					'199'	3		1150		LIT	30
					'U99'	3		1153		LIT	30
					+1	1		1154		LIT	30
		238			'SEQUENCE ERROR'	14		1168		LIT	30
		246			'HEADR'	5		1173		LIT	31
		256			'999999'	6		1179		LIT	31
		271			'1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1'	46		1225		LIT	33
		284			'SYSTEM CONTROL CARD MISSING'	27		1252		LIT	33
					+9	1		1253		LIT	33
		307	WTCT		=02	2		1255		AREA	33
314	3	08		EX	START				B 333		34

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
315	3	09		JOB	1401 AUTOCODER-PASS 1 SELECT PROGRAM						
316	3	10		SFX	B						
317	3	11	PASSA	EQU	1650	B		1650			
318	3	12	DOPSA	EQU	1900	B		1900			
319	3	13	SYSTP	EQU	(U1	B		(U1			
320	3	14	*								
321	3	15	* BRANCH FROM TAPE LOAD BUTTON								
322	3	16	*								
323	3	17		ORG	1	B			0001		
324	3	18		B	333	B	4	0001	B 333		37
325	3	19		H	*-3	B	4	0005	. 005		37
326	3	20	LOADD	DCW	'599'	B	3	0011			37
327	3	21		ORG	87	B			0087		
328	3	22	XR1	DCW	000	B	3	0089			38
329	3	23		DC	00	B	2	0091			38
330	3	24		DCW	000	B	3	0094			38
331	3	25		DC	00	B	2	0096			38
332	3	26		DCW	000	B	3	0099			38
333	3	27		DC	00	B	2	0101			38
334	3	28	*								
335	3	29	* BEGIN PROGRAM								
336	3	30	*								
337	3	31		ORG	333	B			0333		
338	3	32		BER	HALT1	B	5	0333	B 407 L		39
339	3	33		SW	GMRK1	B	4	0338	, 835		39
340	3	34	CLEAR	CS	3999	B	4	0342	/ 199		39
341	3	35		SBR	CLEAR+3	B	4	0346	H 345		39
342	3	36		C	CLEAR+3, 'U99'	B	7	0350	C 345 787		39
343	3	37		BU	CLEAR	B	5	0357	B 342 /		39
344	3	38	*								
345	3	39	* GET PAST LIBRARY								
346	3	40	*								
347	3	41	LOOP1	SW	GMRK1	B	4	0362	, 835		39
348	3	42		RT	SYSTP, GMRK1-21	B	8	0366	M (U1 814 R		40
349	3	43		C	GMRK1-2, '999999 HEADR'	B	7	0374	C 833 802		40
350	3	44		BU	LOOP1	B	5	0381	B 362 /		40
351	3	45		SW	GMRK1	B	4	0386	, 835		40
352	3	46		RT	SYSTP, GMRK1-1	B	8	0390	M (U1 834 R		40
353	3	47		BEF	TSTSS	B	5	0398	B 418 K		40
354	3	48		B	LOOP1	B	4	0403	B 362		41
355	3	49	*								
356	3	50	* REDUNDANCY ON TAPE LOAD								
357	3	51	*								
358	3	52	HALT1	H	0, 199	B	7	0407	. 000 199		41
359	3	53		B	HALT1	B	4	0414	B 407		41
360	3	54	TSTSS	BSS	LIBRN, F	B	5	0418	B 521 F		41
361	3	55	*								
362	3	56	* RETRIEVE PASS 2 FOR ASSEMBLY RUN								
363	3	57	*								
364	3	58		SW	GMRK1	B	4	0423	, 835		41

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
365	3	59		LCA	GMRK1,3998	B	7	0427	L 835 198		41
366	3	60		MCW	+PASSA+13,NOIS2+6	B	7	0434	M 805 658		41
367	3	61	*								
368	3	62	*	GET PAST	LIBRARIAN						
369	3	63	*								
370	3	64	LOOP2	BCE	LDPSA,BYCT,4	B	8	0441	B 476 807 4		42
371	3	65		SW	3998	B	4	0449	, 198		42
372	3	66		RTW	SYSTP,PASSA	B	8	0453	L (U1 W50 R		42
373	3	67		B	NOISE	B	4	0461	B 637		42
374	3	68		A	+1,BYCT=1	B	7	0465	A 806 807		42
375	3	69		B	LOOP2	B	4	0472	B 441		42
376	3	70	*								
377	3	71	*	PASS 2	FOUND						
378	3	72	*								
379	3	73	LDPSA	RTW	SYSTP,PASSA	B	8	0476	L (U1 W50 R		43
380	3	74		B	NOISE	B	4	0484	B 637		43
381	3	75		BER	RDERR	B	5	0488	B 676 L		43
382	3	76		CW	GMRK1	B	4	0493	) 835		43
383	3	77	CLR	CS	PASSA-1	B	4	0497	/ W49		43
384	3	78		SBR	CLR+3	B	4	0501	H 500		43
385	3	79		C	CLR+3,LOADD	B	7	0505	C 500 011		43
386	3	80		BU	CLR	B	5	0512	B 497 /		44
387	3	81		B	DOPSA	B	4	0517	B 200		44
388	3	82	*								
389	3	83	*	LIBRARY	RUN						
390	3	84	*								
391	3	85	LIBRN	MCW	'-13',NOIS2+6	B	7	0521	M 810 658		44
392	3	86		CW	GMRK1	B	4	0528	) 835		44
393	3	87		BSS	OUTPT,B	B	5	0532	B 558 B		44
394	3	88	*								
395	3	89	*	RETRIEVE	UPDATE PROGRAM						
396	3	90	*								
397	3	91		RTW	SYSTP,2000	B	8	0537	L (U1 -00 R		44
398	3	92		B	NOISE	B	4	0545	B 637		44
399	3	93		BER	RDERR	B	5	0549	B 676 L		45
400	3	94		B	2000	B	4	0554	B -00		45
401	3	95	*								
402	3	96	*	RETRIEVE	OUTPUT PROGRAM						
403	3	97	*								
404	3	98	OUTPT	RTW	SYSTP,2000	B	8	0558	L (U1 -00 R		45
405	3	99		B	NOISE	B	4	0566	B 637		45
406	4	00		SW	GMRK1	B	4	0570	, 835		45
407	4	01		LCA	GMRK1,3998	B	7	0574	L 835 198		45
408	4	02		RTW	SYSTP,2000	B	8	0581	L (U1 -00 R		46
409	4	03		B	NOISE	B	4	0589	B 637		46
410	4	04		RTW	SYSTP,2000	B	8	0593	L (U1 -00 R		46
411	4	05		B	NOISE	B	4	0601	B 637		46
412	4	06		SW	3998	B	4	0605	, 198		46
413	4	07		RTW	SYSTP,2000	B	8	0609	L (U1 -00 R		46
414	4	08		B	NOISE	B	4	0617	B 637		47

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
415	4	09		BER	RDERR	B	5	0621	B 676 L		47
416	4	10		CW	GMRK1,3998	B	7	0626	I 835 I98		47
417	4	11		B	2000	B	4	0633	B -00		47
418	4	12	*								
419	4	13	* TEST		FOR NOISE RECORDS						
420	4	14	*								
421	4	15	NOISE	SBR	NOSXT+3	B	4	0637	H 675		47
422	4	16		SBR	XR1	B	4	0641	H 089		47
423	4	17		MZ	+9,XR1	B	7	0645	Y 811 089		47
424	4	18	NOIS2	BCE	4000-12+X1,0,	B	8	0652	B IY8 000		48
425	4	19		CHAIN	12					MACRO	
426				BCE		B	1	0660	B	GEN	48
427				BCE		B	1	0661	B	GEN	48
428				BCE		B	1	0662	B	GEN	48
429				BCE		B	1	0663	B	GEN	48
430				BCE		B	1	0664	B	GEN	48
431				BCE		B	1	0665	B	GEN	48
432				BCE		B	1	0666	B	GEN	49
433				BCE		B	1	0667	B	GEN	49
434				BCE		B	1	0668	B	GEN	49
435				BCE		B	1	0669	B	GEN	49
436				BCE		B	1	0670	B	GEN	49
437				BCE		B	1	0671	B	GEN	49
438	4	20	NOSXT	B	0	B	4	0672	B 000		49
439	4	21	*								
440	4	22	* READ		REDUNDANCY ROUTINE						
441	4	23	*								
442	4	24	RDERR	SBR	XR1	B	4	0676	H 089		50
443	4	25		SBR	RDXT+3	B	4	0680	H 726		50
444	4	26		MZ	+9,XR1	B	7	0684	Y 811 089		50
445	4	27		MCW	4000-10+X1,RDTRY+7	B	7	0691	M 120 717		50
446	4	28	BSP	BSP	SYSTP	B	5	0698	U (U1 B		50
447	4	29		MCW	+9,RDCT=1	B	7	0703	M 811 812		50
448	4	30	RDTRY	RTW	SYSTP,0	B	8	0710	L (U1 000 R		51
449	4	31		BER	*+5	B	5	0718	B 727 L		51
450	4	32	RDXT	B	0	B	4	0723	B 000		51
451	4	33		BSP	SYSTP	B	5	0727	U (U1 B		51
452	4	34		S	+1,RDCT	B	7	0732	S 806 812		51
453	4	35		BWZ	RDTRY,RDCT,B	B	8	0739	V 710 812 B		51
454	4	36		H	0,191	B	7	0747	. 000 191		52
455	4	37		MCW	RDTRY+7,*+8	B	7	0754	M 717 768		52
456	4	38		RTW	SYSTP,0	B	8	0761	L (U1 000 R		52
457	4	39		BSS	BSP,E	B	5	0769	B 698 E		52
458	4	40		H	0,111	B	7	0774	. 000 111		52
459	4	41		B	RDXT	B	4	0781	B 723		52
460	4	42		LTORG	*	B			0785		
				DCW	'U99'	B	3	0787		LIT	53
	349				'999999 HEADR'	B	15	0802		LIT	53
	366				+PASSA+13	B	3	0805	W63	ADCON	53
					+1	B	1	0806		LIT	53

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		374	BYCT		=01	B	1	0807		AREA	53
					'-13'	B	3	0810		LIT	53
					+9	B	1	0811		LIT	53
		447	RDCT		=01	B	1	0812		AREA	54
461	4	43		DCW	=22	B	22	0834			54
462	4	44	GMRK1	DCW	' '	B	1	0835			54
463	4	45		EX	0	B			B 000		55

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
464	4	46		JOB	1401 AUTOCODER-PASS 1 RETRIEVE UPDATE						
465	4	47		SFX	R						
466	4	48	SYSTP	EQU	(U1	R		(U1			
467	4	49	LTAPSW	EQU	2725	R		2725			
468	4	50		ORG	2000	R			2000		
469	4	51		BSS	LIST,G	R	5	2000	B J26 G		58
470	4	52		CW	ENDRT	R	4	2005	) K12		58
471	4	53	START	RTW	SYSTP,1	R	8	2009	L (U1 001 R		58
472	4	54		BCE	START,013,	R	8	2017	B -09 013		58
473	4	55		CHAIN	12					MACRO	
474				BCE		R	1	2025	B	GEN	58
475				BCE		R	1	2026	B	GEN	58
476				BCE		R	1	2027	B	GEN	58
477				BCE		R	1	2028	B	GEN	59
478				BCE		R	1	2029	B	GEN	59
479				BCE		R	1	2030	B	GEN	59
480				BCE		R	1	2031	B	GEN	59
481				BCE		R	1	2032	B	GEN	59
482				BCE		R	1	2033	B	GEN	59
483				BCE		R	1	2034	B	GEN	59
484				BCE		R	1	2035	B	GEN	60
485				BCE		R	1	2036	B	GEN	60
486	4	56		BER	RDERR	R	5	2037	B -46 L		60
487	4	57		B	333	R	4	2042	B 333		60
488	4	58	RDERR	BSP	SYSTP	R	5	2046	U (U1 B		60
489	4	59		MCW	+9,RDCT=1	R	7	2051	M K06 K07		60
490	4	60	RDTRY	RTW	SYSTP,1	R	8	2058	L (U1 001 R		60
491	4	61		BER	**5	R	5	2066	B -75 L		61
492	4	62		B	333	R	4	2071	B 333		61
493	4	63		BSP	SYSTP	R	5	2075	U (U1 B		61
494	4	64		S	+1,RDCT	R	7	2080	S K08 K07		61
495	4	65		BWZ	RDTRY,RDCT,B	R	8	2087	V -58 K07 B		61
496	4	66		H	0,191	R	7	2095	. 000 191		61
497	4	67	AGAIN	RTW	SYSTP,1	R	8	2102	L (U1 001 R		62
498	4	68		BSS	RDERR,E	R	5	2110	B -46 E		62
499	4	69		H	0,111	R	7	2115	. 000 111		62
500	4	70		B	333	R	4	2122	B 333		62
501	4	71	LIST	SW	ENDRT	R	4	2126	, K12		62
502	4	72		LCA	ENDRT,1998	R	7	2130	L K12 Z98		62
503	4	73		RTW	SYSTP,333	R	8	2137	L (U1 333 R		63
504	4	74		BEF	GET	R	5	2145	B J54 K		63
505	4	75		B	LIST	R	4	2150	B J26		63
506	4	76	GET	BSP	SYSTP	R	5	2154	U (U1 B		63
507	4	77		BSP	SYSTP	R	5	2159	U (U1 B		63
508	4	78		CW	ENDRT,1998	R	7	2164	) K12 Z98		63
509	4	79		SW	LTAPSW	R	4	2171	, P25		63
510	4	80		MCW	'333',RDTRY+6	R	7	2175	M K11 -64		64
511	4	81		MCW	'333',AGAIN+6	R	7	2182	M K11 J08		64
512	4	82		RTW	SYSTP,333	R	8	2189	L (U1 333 R		64
513	4	83		BER	RDERR	R	5	2197	B -46 L		64

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
514	4	84		B	333	R	4	2202	B 333		64
515	4	85		LTORG	*	R			2206		
				DCW	+9	R	1	2206		LIT	64
		489	RDCT		=01	R	1	2207		AREA	64
					+1	R	1	2208		LIT	65
					'333'	R	3	2211		LIT	65
516	4	86	ENDRT	DCW	' '	R	1	2212			65
517	4	87		EX	0	R			B 000		66

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
518	4	88		JOB	1401 AUTOCODER-PASS 1 COPY SYSTEM TAPE						
519	4	89		SFX	U						
520	4	90		ORG	87	U			0087		
521	4	91	XR1	DCW	000	U	3	0089			69
522	4	92		DC	00	U	2	0091			69
523	4	93	XR2	DCW	000	U	3	0094			69
524	4	94		DC	00	U	2	0096			69
525	4	95	XR3	DCW	000	U	3	0099			69
526	4	96		DC	00	U	2	0101			69
527	4	97	SYSTP	EQU	(U1	U		(U1			
528	4	98	OUTAP	EQU	(U6	U		(U6			
529	4	99	INPUT	EQU	1500	U		1500			
530	5	00	*								
531	5	01	* BEGIN PROGRAM								
532	5	02	*								
533	5	03		ORG	333	U			0333		
534	5	04		SW	ENDUP	U	4	0333	, /39		70
535	5	05		RWD	SYSTP	U	5	0337	U (U1 R		70
536	5	06		RWD	OUTAP	U	5	0342	U (U6 R		70
537	5	07		CC	1	U	2	0347	F 1		70
538	5	08		CS	332	U	4	0349	/ 332		70
539	5	09		CS		U	1	0353	/		70
540	5	10		B	CLEAR	U	4	0354	B #21		70
541	5	11		BSS	COPY,C	U	5	0358	B 525 C		71
542	5	12	*								
543	5	13	* RETRIEVE UPDATE PROGRAM								
544	5	14	*								
545	5	15		RTW	SYSTP,INPUT	U	8	0363	L (U1 V00 R		71
546	5	16		SBR	XR1	U	4	0371	H 089		71
547	5	17		MN	0+X1	U	4	0375	D 0#0		71
548	5	18		SW		U	1	0379	,		71
549	5	19		DCW	'N0000'	U	5	0384			71
550	5	20		B	NOISE	U	4	0385	B 759		71
551	5	21		BER	RDERR	U	5	0389	B 798 L		72
552	5	22		WTW	OUTAP,INPUT	U	8	0394	L (U6 V00 W		72
553	5	23		BER	WTERR	U	5	0402	B 928 L		72
554	5	24		B	CLEAR	U	4	0407	B #21		72
555	5	25	BYPSS	RTW	SYSTP,INPUT	U	8	0411	L (U1 V00 R		72
556	5	26		C	INPUT+19,'999999	U	7	0419	C V19 #70		72
557	5	27		BU	BYPSS	U	5	0426	B 411 /		73
558	5	28		RTW	SYSTP,INPUT	U	8	0431	L (U1 V00 R		73
559	5	29		BEF	GETUP	U	5	0439	B 448 K		73
560	5	30		B	BYPSS	U	4	0444	B 411		73
561	5	31	GETUP	BCE	LDUPD,BYCT,3	U	8	0448	B 498 #72 3		73
562	5	32		RTW	SYSTP,INPUT	U	8	0456	L (U1 V00 R		73
563	5	33		DCW	'N00000000000000'	U	14	0477			74
564	5	34		B	NOISE	U	4	0478	B 759		74
565	5	35		BER	RDERR	U	5	0482	B 798 L		74
566	5	36		A	+1,BYCT=1	U	7	0487	A #71 #72		74
567	5	37		B	GETUP	U	4	0494	B 448		74



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
568	5	38	LDUPD	CS	199	U	4	0498	/ 199		74
569	5	39		CS	80	U	4	0502	/ 080		75
570	5	40		SW	6,16	U	7	0506	, 006 016		75
571	5	41		SW	21	U	4	0513	, 021		75
572	5	42		B	HEAD	U	4	0517	B N32		75
573	5	43		B	BEGIN	U	4	0521	B V00		75
574	5	44	*								
575	5	45	* COPY SYSTEM								
576	5	46	*								
577	5	47	COPY	RTW	SYSTP,INPUT	U	8	0525	L (U1 V00 R		75
578	5	48		SBR	XR1	U	4	0533	H 089		75
579	5	49		MN	0+X1	U	4	0537	D 0+0		76
580	5	50		SW		U	1	0541	,		76
581	5	51		BEF	EOF	U	5	0542	B 601 K		76
582	5	52		B	NOISE	U	4	0547	B 759		76
583	5	53		BER	RDERR	U	5	0551	B 798 L		76
584	5	54	*								
585	5	55	* TEST END OF LIBRARY								
586	5	56	*								
587	5	57	SWICH	NOP	WTAP1	U	4	0556	N 580		76
588	5	58		SW	LIBSW	U	4	0560	, #79		76
589	5	59		C	INPUT+10,'999999'	U	7	0564	C V10 #78		77
590	5	60		BU	WTAP1	U	5	0571	B 580 /		77
591	5	61		CW	LIBSW=1	U	4	0576	) #79		77
592	5	62	*								
593	5	63	* WRITE TAPE								
594	5	64	*								
595	5	65	WTAP1	WTW	OUTAP,INPUT	U	8	0580	L (U6 V00 W		77
596	5	66		BER	WTERR	U	5	0588	B 928 L		77
597	5	67	*								
598	5	68	* DO NEXT BLOCK								
599	5	69	*								
600	5	70	REOUT	B	CLEAR	U	4	0593	B #21		77
601	5	71		B	COPY	U	4	0597	B 525		77
602	5	72	*								
603	5	73	* END OF FILE								
604	5	74	*								
605	5	75	EOF	WTM	OUTAP	U	5	0601	U (U6 M		78
606	5	76		BW	ISMOR,EOFSW=1	U	8	0606	V 727 #80 1		78
607	5	77		B	CLEAR	U	4	0614	B #21		78
608	5	78		LCA	ENDUP,3998	U	7	0618	L /39 198		78
609	5	79		BW	ERASE,UPDSW	U	8	0625	V 637 /26 1		78
610	5	80		B	HALT1	U	4	0633	B 669		78
611	5	81	*								
612	5	82	* ERASE TAPE								
613	5	83	*								
614	5	84	ERASE	SKP	OUTAP	U	5	0637	U (U6 E		79
615	5	85		WT	OUTAP,INPUT	U	8	0642	M (U6 V00 W		79
616	5	86		BCE	HALT1,SKPCT-1,2	U	8	0650	B 669 #81 2		79
617	5	87		A	+1,SKPCT=2	U	7	0658	A #71 #82		79



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
668	6	26	* READ REDUNDANCY ROUTINE								
669	6	27	*								
670	6	28	RDERR	SBR	RDXT+3	U	4	0798	H 855		84
671	6	29		SBR	XR3	U	4	0802	H 099		85
672	6	30		MZ	+9,XR3	U	7	0806	Y /29	099	85
673	6	31		MCW	4000-24+X3,RDTRY+7	U	7	0813	M 166	846	85
674	6	32		MN	RDTRY+3,BSP1+3	U	7	0820	D 842	830	85
675	6	33	BSP1	BSP	SYSTP	U	5	0827	U (U1	B	85
676	6	34		MCW	+9,RDCT=1	U	7	0832	M /29	/30	85
677	6	35	RDTRY	RT	SYSTP,0	U	8	0839	M (U1	000 R	86
678	6	36		BER	**5	U	5	0847	B 856	L	86
679	6	37	RDXT	B	0	U	4	0852	B 000		86
680	6	38		MN	RDTRY+3,BSP2+3	U	7	0856	D 842	866	86
681	6	39	BSP2	BSP	SYSTP	U	5	0863	U (U1	B	86
682	6	40		S	+1,RDCT	U	7	0868	S #71	/30	86
683	6	41		BWZ	RDTRY,RDCT,B	U	8	0875	V 839	/30 B	87
684	6	42		MN	RDTRY+3,**7	U	7	0883	D 842	896	87
685	6	43		H	0,190	U	7	0890	. 000	190	87
686	6	44		MCW	RDTRY+7,**8	U	7	0897	M 846	911	87
687	6	45		RT	SYSTP,0	U	8	0904	M (U1	000 R	87
688	6	46		BSS	BSP1,E	U	5	0912	B 827	E	88
689	6	47		H	0,111	U	7	0917	. 000	111	88
690	6	48		B	RDXT	U	4	0924	B 852		88
691	6	49	*								
692	6	50	* WRITE REDUNDANCY ROUTINE								
693	6	51	*								
694	6	52	WTERR	SBR	WTXT+3	U	4	0928	H 998		88
695	6	53		SBR	XR3	U	4	0932	H 099		88
696	6	54		MZ	+9,XR3	U	7	0936	Y /29	099	88
697	6	55		MCW	4000-6+X3,WTTRY+7	U	7	0943	M 114	989	88
698	6	56		MN	WTTRY+3,BSP3+3	U	7	0950	D 985	960	89
699	6	57	BSP3	BSP	OUTAP	U	5	0957	U (U6	B	89
700	6	58		SKP	SYSTP	U	5	0962	U (U1	E	89
701	6	59		BCE	SUBCT,WTCT-1,1	U	8	0967	B 999	/31 1	89
702	6	60		A	+1,WTCT=2	U	7	0975	A #71	/32	89
703	6	61	WTTRY	WT	OUTAP,0	U	8	0982	M (U6	000 W	90
704	6	62		BER	BSP3	U	5	0990	B 957	L	90
705	6	63	WTXT	B	0	U	4	0995	B 000		90
706	6	64	SUBCT	S	WTCT	U	4	0999	S /32		90
707	6	65		MN	WTTRY+3,**7	U	7	1003	D 985	#16	90
708	6	66		H	0,160	U	7	1010	. 000	160	90
709	6	67		B	WTTRY	U	4	1017	B 982		90
710	6	68	*								
711	6	69	* CLEAR OUTPUT AREA								
712	6	70	*								
713	6	71	CLEAR	SBR	CLRXT+3	U	4	1021	H #55		91
714	6	72		MCW	'I99',CLR+3	U	7	1025	M /35	#35	91
715	6	73	CLR	CS	3999	U	4	1032	/ 199		91
716	6	74		SBR	CLR+3	U	4	1036	H #35		91
717	6	75		C	CLR+3,+INPUT-1	U	7	1040	C #35	/38	91

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
718	6	76		BU	CLR	U	5	1047	B +32 /		91
719	6	77	CLRXT	B	0	U	4	1052	B 000		91
720	6	78		LTORG	*	U			1056		
		556		DCW	'999999 HEADR'	U	15	1070		LIT	92
					+1	U	1	1071		LIT	92
		566	BYCT		=01	U	1	1072		AREA	92
		589			'999999'	U	6	1078		LIT	92
		591	LIBSW		=01	U	1	1079		AREA	92
		606	EOFSW		=01	U	1	1080		AREA	92
		617	SKPCT		=02	U	2	1082		AREA	92
		622			'1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6'	U	43	1125		LIT	94
		625	UPDSW		=01	U	1	1126		AREA	94
					'N'	U	1	1127		LIT	94
					'B'	U	1	1128		LIT	94
					+9	U	1	1129		LIT	94
		676	RDCT		=01	U	1	1130		AREA	95
		702	WTCT		=02	U	2	1132		AREA	95
					'I99'	U	3	1135		LIT	95
		717			+INPUT-1	U	3	1138	U99	ADCON	95
721	6	79	ENDUP	DCW	' '	U	1	1139			95
722	6	80		EX	0	U			B 000		96

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
723	6	81		JOB	1401 AUTOCODER-PASS 1 UPDATE LIBRARY						
724	6	82	IMAGE	EQU	101	U		0101			
725	6	83	*								
726	6	84	*	BEGIN	UPDATE						
727	6	85	*								
728	6	86		ORG	INPUT	U			1500		
729	6	87	BEGIN	RWD	SYSTP	U	5	1500	U (U1 R		99
730	6	88		CW	HEDSW,ENDSW	U	7	1505	) +91 +98		99
731	6	89		MCW	+IMAGE+13,NOIS2+6	U	7	1512	M +30 780		99
732	6	90		LCA	ENDUP,IMAGE+80	U	7	1519	L /39 181		99
733	6	91		RT	SYSTP,IMAGE	U	8	1526	M (U1 101 R		99
734	6	92		DCW	'N00000000000000'	U	14	1547			100
735	6	93		B	NOISE	U	4	1548	B 759		100
736	6	94		CS	IMAGE+79	U	4	1552	/ 180		100
737	6	95		B	RDTP	U	4	1556	B M17		100
738	6	96	REBEG	B	READ	U	4	1560	B L24		100
739	6	97		BW	SERCH,INSW	U	8	1564	V V84 +73 1		100
740	6	98		BW	SERCH,DELSW	U	8	1572	V V84 +79 1		101
741	6	99		B	REBEG	U	4	1580	B V60		101
742	7	00	*								
743	7	01	*	SEARCH	FOR CORRECT SUBROUTINE						
744	7	02	*								
745	7	03	SERCH	B	DOCTL	U	4	1584	B N94		101
746	7	04		C	11,'999999'	U	7	1588	C 011 +36		101
747	7	05		BE	CLNUP	U	5	1595	B K40 S		101
748	7	06		C	8,NAME=3	U	7	1600	C 008 +39		101
749	7	07		BE	FOUND	U	5	1607	B X30 S		102
750	7	08		BH	QUIT	U	5	1612	B P75 U		102
751	7	09		MCW	8,NAME	U	7	1617	M 008 +39		102
752	7	10		S	SEQNO	U	4	1624	S A67		102
753	7	11	LOOP1	BW	HEADR,HEDSW	U	8	1628	V W56 +91 1		102
754	7	12		B	RDTP	U	4	1636	B M17		102
755	7	13		BW	HEADR,HEDSW	U	8	1640	V W56 +91 1		103
756	7	14	MORE	B	WTAP2	U	4	1648	B M95		103
757	7	15		B	LOOP1	U	4	1652	B W28		103
758	7	16	*								
759	7	17	*	HEADER	LOCATED ON TAPE						
760	7	18	*								
761	7	19	HEADR	BW	PAST,ENDSW	U	8	1656	V W89 +98 1		103
762	7	20		C	IMAGE+7,NAME	U	7	1664	C 108 +39		103
763	7	21		BE	FOUND	U	5	1671	B X30 S		103
764	7	22		CW	HEDSW	U	4	1676	) +91		104
765	7	23		BL	PAST	U	5	1680	B W89 T		104
766	7	24		B	MORE	U	4	1685	B W48		104
767	7	25	*								
768	7	26	*	SUBROUTINE	NOT ON TAPE						
769	7	27	*								
770	7	28	PAST	BSP	SYSTP	U	5	1689	U (U1 B		104
771	7	29		CS	IMAGE+79	U	4	1694	/ 180		104
772	7	30		CW	HEDSW	U	4	1698	) +91		104

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
773	7	31		BW	UNKWN,DELSW	U	8	1702	V Q01 +79	1	104
774	7	32		C	22,' '	U	7	1710	C 022 +41		105
775	7	33		BU	UNKWN	U	5	1717	B Q01 /		105
776	7	34	BACK	B	PTCTL	U	4	1722	B 037		105
777	7	35		B	INSER	U	4	1726	B Y06		105
778	7	36	*								
779	7	37	* SUBROUTINE FOUND								
780	7	38	*								
781	7	39	FOUND	C	22,' '	U	7	1730	C 022 +41		105
782	7	40		BU	PARTL	U	5	1737	B Y46 /		105
783	7	41	*								
784	7	42	* DELETE AND/OR INSERT WHOLE SUBROUTINES								
785	7	43	*								
786	7	44	ALL	MCW	'DELET',218	U	7	1742	M +46	218	105
787	7	45		B	PTCTL	U	4	1749	B 037		106
788	7	46		S	SEQNO	U	4	1753	S A67		106
789	7	47	LOOP2	B	PRINT	U	4	1757	B 072		106
790	7	48		B	RDTP	U	4	1761	B M17		106
791	7	49		BW	EXIT,HEDSW	U	8	1765	V X77 +91	1	106
792	7	50		B	LOOP2	U	4	1773	B X57		106
793	7	51	EXIT	BSP	SYSTP	U	5	1777	U (U1 B		106
794	7	52		CS	IMAGE+79	U	4	1782	/ 180		107
795	7	53		CW	HEDSW	U	4	1786	) +91		107
796	7	54		BW	REBEG,DELSW	U	8	1790	V V60 +79	1	107
797	7	55	*								
798	7	56	* INSERTION OF WHOLE SUBROUTINE								
799	7	57	*								
800	7	58		B	DOCTL	U	4	1798	B N94		107
801	7	59		B	PTCTL	U	4	1802	B 037		107
802	7	60	INSER	S	SEQNO	U	4	1806	S A67		107
803	7	61	LOCP3	B	READ	U	4	1810	B L24		107
804	7	62		BW	SERCH,INSW	U	8	1814	V V84 +73	1	108
805	7	63		BW	SERCH,DELSW	U	8	1822	V V84 +79	1	108
806	7	64		B	DOOUT	U	4	1830	B L07		108
807	7	65		B	PRINT	U	4	1834	B 072		108
808	7	66		B	WTAP2	U	4	1838	B M95		108
809	7	67		B	LOOP3	U	4	1842	B Y10		108
810	7	68	*								
811	7	69	* DELETE AND/OR INSERT PARTS								
812	7	70	*								
813	7	71	PARTL	S	XR3+2	U	4	1846	S 101		108
814	7	72		BWZ	SOME,21,2	U	8	1850	V Y81 021	2	109
815	7	73		C	24,' '	U	7	1858	C 024 +41		109
816	7	74		BE	ALL	U	5	1865	B X42 S		109
817	7	75		A	+2,XR3	U	7	1870	A +47 099		109
818	7	76		SW	23	U	4	1877	, 023		109
819	7	77	*								
820	7	78	* SCAN FOR VALUES OF OPERANDS								
821	7	79	*								
822	7	80	SOME	SW	OPSW=1	U	4	1881	, +48		109

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
823	7	81	TEST1	BCE	TWOOP,21+X3,,	U	8	1885	B Z16 0B1 ,		110	
824	7	82		C	22+X3,' '	U	7	1893	C 0B2 +41		110	
825	7	83		BE	TWOOP	U	5	1900	B Z16 S		110	
826	7	84		A	+1,XR3	U	7	1905	A +49 099		110	
827	7	85		B	TEST1	U	4	1912	B Y85		110	
828	7	86	TWOOP	ZA	20+X3,WK1=4	U	7	1916	+ 0B0 +53		110	
829	7	87		A	'0',WK1	U	7	1923	A +54 +53		111	
830	7	88		BCE	NXTOP,21+X3,,	U	8	1930	B Z42 0B1 ,		111	
831	7	89		B	OUT	U	4	1938	B -08		111	
832	7	90	NXTOP	SW	22+X3	U	4	1942	, 0B2		111	
833	7	91		SBR	XR2	U	4	1946	H 094		111	
834	7	92	ADD	A	+1,XR3	U	7	1950	A +49 099		111	
835	7	93		C	22+X3,' '	U	7	1957	C 0B2 +41		112	
836	7	94		BU	ADD	U	5	1964	B Z50 /		112	
837	7	95		ZA	20+X3,WK2=4	U	7	1969	+ 0B0 +58		112	
838	7	96		A	'0',WK2	U	7	1976	A +54 +58		112	
839	7	97		C	WK1,WK2	U	7	1983	C +53 +58		112	
840	7	98		BL	BADST	U	5	1990	B Q59 T		112	
841	7	99		BE	ONOP	U	5	1995	B K20 S		113	
842	8	00	IS2OP	CW	OPSW	U	4	2000	J +48		113	
843	8	01	CLRWM	CW	1+X2	U	4	2004	J 0-1		113	
844	8	02	OUT	CW	23	U	4	2008	J 023		113	
845	8	03		BW	*+8,OPSW	U	8	2012	V -27 +48 1		113	
846	8	04		MCW	'DELET',218	U	7	2020	M +63 218		113	
847	8	05		B	PTCTL	U	4	2027	B 037		113	
848	8	06	*									
849	8	07	* SEARCH FOR FIRST STATEMENT									
850	8	08	*									
851	8	09	COMP	C	WK1,SEQNO	U	7	2031	C +53 A67		114	
852	8	10		BE	GOTIT	U	5	2038	B -70 S		114	
853	8	11		A	+1,SEQNO	U	7	2043	A +49 A67		114	
854	8	12		B	WTAP2	U	4	2050	B M95		114	
855	8	13		B	RDTP	U	4	2054	B M17		114	
856	8	14		BW	NTFND,HEDSW	U	8	2058	V Q84 +91 1		114	
857	8	15		B	COMP	U	4	2066	B -31		114	
858	8	16	*									
859	8	17	* FIRST STATEMENT FOUND									
860	8	18	*									
861	8	19	GOTIT	BW	QINSR,OPSW	U	8	2070	V J46 +48 1		115	
862	8	20	*									
863	8	21	* SEARCH FOR SECOND STATEMENT									
864	8	22	*									
865	8	23	COMP2	B	PRINT	U	4	2078	B 072		115	
866	8	24		B	RDTP	U	4	2082	B M17		115	
867	8	25		C	WK2,SEQNO	U	7	2086	C +58 A67		115	
868	8	26		BH	BSPC	U	5	2093	B J10 U		115	
869	8	27		BW	NTFND,HEDSW	U	8	2098	V Q84 +91 1		115	
870	8	28		B	COMP2	U	4	2106	B -78		116	
871	8	29	*									
872	8	30	* SECOND STATEMENT FOUND									

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
873	8	31	*								
874	8	32	BSPC	BSP	SYSTP	U	5	2110	U (U1 B		116
875	8	33		CS	IMAGE+79	U	4	2115	/ 180		116
876	8	34		S	+1,SEQNO	U	7	2119	S +49 A67		116
877	8	35	THRU	BW	LOOP3,DELSW	U	8	2126	V Y10 +79 1		116
878	8	36		B	DOCTL	U	4	2134	B N94		116
879	8	37		B	PTCTL	U	4	2138	B 037		116
880	8	38		B	INSR+4	U	4	2142	B J77		117
881	8	39	*								
882	8	40	* TEST		INSERT OR DELETE						
883	8	41	*								
884	8	42	QINSR	BW	INSR,INSW	U	8	2146	V J73 +73 1		117
885	8	43		B	PRINT	U	4	2154	B 072		117
886	8	44		S	+1,SEQNO	U	7	2158	S +49 A67		117
887	8	45		CS	IMAGE+79	U	4	2165	/ 180		117
888	8	46		B	THRU	U	4	2169	B J26		117
889	8	47	*								
890	8	48	* INSERT		STATEMENTS						
891	8	49	*								
892	8	50	INSR	B	WTAP2	U	4	2173	B M95		117
893	8	51		B	READ	U	4	2177	B L24		118
894	8	52		BW	SERCH,INSW	U	8	2181	V V84 +73 1		118
895	8	53		BW	SERCH,DELSW	U	8	2189	V V84 +79 1		118
896	8	54		B	DOOUT	U	4	2197	B L07		118
897	8	55		CW	SEQSW=1	U	4	2201	) +64		118
898	8	56		B	PRINT	U	4	2205	B 072		118
899	8	57		S	+1,SEQNO	U	7	2209	S +49 A67		118
900	8	58		B	INSR	U	4	2216	B J73		119
901	8	59	ONOP	BW	IS2OP,INSW	U	8	2220	V -00 +73 1		119
902	8	60		SW	OPSW	U	4	2228	, +48		119
903	8	61		B	CLRWM	U	4	2232	B -04		119
904	8	62	*								
905	8	63	* REPLICATE		LIBRARY						
906	8	64	*								
907	8	65	REPET	B	WTAP2	U	4	2236	B M95		119
908	8	66	CLNUP	B	RDTP	U	4	2240	B M17		119
909	8	67		B	WTAP2	U	4	2244	B M95		119
910	8	68		BW	FINAL,ENDSW	U	8	2248	V K60 +98 1		120
911	8	69		B	CLNUP	U	4	2256	B K40		120
912	8	70	*								
913	8	71	* END OF UPDATE		- GO TO COPY ROUTINE						
914	8	72	*								
915	8	73	FINAL	WTM	OUTAP	U	5	2260	U (U6 M		120
916	8	74		MCW	+INPUT+13,NCIS2+6	U	7	2265	M +67 780		120
917	8	75		CW	LIBSW,EOFSW	U	7	2272	) +79 +80		120
918	8	76		CW	UPDSW	U	4	2279	) /26		120
919	8	77		CS	332	U	4	2283	/ 332		120
920	8	78		CS		U	1	2287	/		121
921	8	79		CC	1	U	2	2288	F 1		121
922	8	80	BYPI	RT	SYSTP,IMAGE	U	8	2290	M (U1 101 R		121



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
923	8	81		BEF	REOUT	U	5	2298	B 593 K		121
924	8	82		B	BYPI	U	4	2303	B K90		121
925	8	83	*								
926	8	84	* SET UP	INSERT	CARD						
927	8	85	*								
928	8	86	DOOUT	SBR	OUTXT+3	U	4	2307	H L23		121
929	8	87		MCW	80,IMAGE+79	U	7	2311	M 080 180		121
930	8	88		MCW		U	1	2318	M		122
931	8	89		MCW		U	1	2319	M		122
932	8	90	OUTXT	B	0	U	4	2320	B 000		122
933	8	91	*								
934	8	92	* READ	CARD	SUBROUTINE						
935	8	93	*								
936	8	94	READ	SBR	CDXT+3	U	4	2324	H M08		122
937	8	95		BW	RDCD,LSTSW	U	8	2328	V L40 +85 1		122
938	8	96		B	CLNUP	U	4	2336	B K40		122
939	8	97	RDCD	R		U	1	2340	1		122
940	8	98		CW	INSW,DELSW	U	7	2341	J +73 +79		123
941	8	99		C	20,'INSER'	U	7	2348	C 020 +72		123
942	9	00		BU	CKDEL	U	5	2355	B L68 /		123
943	9	01		SW	INSW=1	U	4	2360	, +73		123
944	9	02		B	CDXT-5	U	4	2364	B M00		123
945	9	03	CKDEL	C	20,'DELET'	U	7	2368	C 020 +78		123
946	9	04		BU	CKREP	U	5	2375	B L88 /		123
947	9	05		SW	DELSW=1	U	4	2380	, +79		124
948	9	06		B	CDXT-5	U	4	2384	B M00		124
949	9	07	CKREP	C	20,'REPET'	U	7	2388	C 020 +84		124
950	9	08		BE	REPET	U	5	2395	B K36 S		124
951	9	09		BLC	LSTCD	U	5	2400	B M09 A		124
952	9	10	CDXT	B	0	U	4	2405	B 000		124
953	9	11	LSTCD	CW	LSTSW=1	U	4	2409	J +85		124
954	9	12		B	CDXT	U	4	2413	B M05		125
955	9	13	*								
956	9	14	* READ	TAPE	SUBROUTINE						
957	9	15	*								
958	9	16	RDTP	SBR	RTXT+3	U	4	2417	H M94		125
959	9	17		RT	SYSTP,IMAGE	U	8	2421	M (U1 101 R		125
960	9	18		SW	IMAGE+80	U	4	2429	, 181		125
961	9	19		DCW	'N0000000000'	U	10	2442			125
962	9	20		B	NOISE	U	4	2443	B 759		125
963	9	21		BER	RDERR	U	5	2447	B 798 L		125
964	9	22		CW	HEDSW,ENDSW	U	7	2452	J +91 +98		126
965	9	23		C	IMAGE+19,'HEADR'	U	7	2459	C 120 +90		126
966	9	24		BU	RTXT	U	5	2466	B M91 /		126
967	9	25		SW	HEDSW=1	U	4	2471	, +91		126
968	9	26		C	IMAGE+10,'999999'	U	7	2475	C 111 +97		126
969	9	27		BU	RTXT	U	5	2482	B M91 /		126
970	9	28		SW	ENDSW=1	U	4	2487	, +98		126
971	9	29	RTXT	B	0	U	4	2491	B 000		127
972	9	30	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
973	9	31	* WRITE TAPE SUBROUTINE								
974	9	32	*								
975	9	33	WTAP2	SBR	WT2XT+3	U	4	2495	H N31		127
976	9	34	.	C	IMAGE+79,BLANK	U	7	2499	C 180 +27		127
977	9	35		BE	WT2XT	U	5	2506	B N28 S		127
978	9	36		WT	OUTAP,IMAGE	U	8	2511	M (U6 101 W		127
979	9	37		BER	WTERR	U	5	2519	B 928 L		127
980	9	38		CS	IMAGE+79	U	4	2524	/ 180		127
981	9	39	WT2XT	B	0	U	4	2528	B 000		128
982	9	40	*								
983	9	41	* PRINT HEADING								
984	9	42	*								
985	9	43	HEAD	SBR	HDXT+3	U	4	2532	H N93		128
986	9	44		CS	332	U	4	2536	/ 332		128
987	9	45		CS		U	1	2540	/		128
988	9	46		MCW	'1401 AUTOCODER - LIBRARY CHANGES',251	U	7	2541	M A30 251		128
989	9	47		MCW	'PAGE',275	U	7	2548	M A34 275		128
990	9	48		A	+1,PGNO=3	U	7	2555	A +49 A37		128
991	9	49		MCS	PGNO,279	U	7	2562	Z A37 279		129
992	9	50		W		U	1	2569	2		129
993	9	51		CC	K	U	2	2570	F K		129
994	9	52		CS	279	U	4	2572	/ 279		129
995	9	53		MCW	'SEQ LABEL OP OPERANDS',227	U	7	2576	M A63 227		129
996	9	54		W		U	1	2583	2		129
997	9	55		CC	K	U	2	2584	F K		129
998	9	56		CS	228	U	4	2586	/ 228		130
999	9	57	HDXT	B	0	U	4	2590	B 000		130
1000	9	58	*								
1001	9	59	* SET UP CONTROL CARD FOR PRINTING								
1002	9	60	*								
1003	9	61	DOCTL	SBR	CTLXT+3	U	4	2594	H 036		130
1004	9	62		CC	K	U	2	2598	F K		130
1005	9	63		CS	332	U	4	2600	/ 332		130
1006	9	64		CS		U	1	2604	/		130
1007	9	65		MCW	72,271	U	7	2605	M 072 271		130
1008	9	66		MCW	22,221	U	7	2612	M 022 221		131
1009	9	67		MCW	20,218	U	7	2619	M 020 218		131
1010	9	68		MCW	11,212	U	7	2626	M 011 212		131
1011	9	69	CTLXT	B	0	U	4	2633	B 000		131
1012	9	70	*								
1013	9	71	* PRINT CONTROL CARD								
1014	9	72	*								
1015	9	73	PTCTL	SBR	PTCXT+3	U	4	2637	H 057		131
1016	9	74		W		U	1	2641	2		131
1017	9	75		CC	J	U	2	2642	F J		131
1018	9	76		CS	332	U	4	2644	/ 332		132
1019	9	77		CS		U	1	2648	/		132
1020	9	78		BCV	NEWPG	U	5	2649	B 058		132
1021	9	79	PTCXT	B	0	U	4	2654	B 000		132
1022	9	80	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1023	9	81	* NEW PAGE								
1024	9	82	*								
1025	9	83	NEWPG	SBR	NEWXT+3	U	4	2658	H 071		132
1026	9	84		CC	1	U	2	2662	F 1		132
1027	9	85		B	HEAD	U	4	2664	B N32		132
1028	9	86	NEWXT	B	0	U	4	2668	B 000		133
1029	9	87	*								
1030	9	88	* PRINT STATEMENTS								
1031	9	89	*								
1032	9	90	PRINT	SBR	PTXT+3	U	4	2672	H P74		133
1033	9	91		SW	220,214	U	7	2676	, 220 214		133
1034	9	92		SW	207	U	4	2683	, 207		133
1035	9	93		BCE	COMNT,IMAGE+5,*	U	8	2687	B P32 106 *		133
1036	9	94		MCW	IMAGE+71,271	U	7	2695	M 172 271		133
1037	9	95		MCW	IMAGE+19,218	U	7	2702	M 120 218		134
1038	9	96		MCW	IMAGE+10,212	U	7	2709	M 111 212		134
1039	9	97	TSTSQ	BW	SEQNC,SEQSW	U	8	2716	V P45 +64 1		134
1040	9	98		SW	SEQSW	U	4	2724	, +64		134
1041	9	99		B	BUMP	U	4	2728	B P53		134
1042	10	00	COMNT	MCW	IMAGE+71,273	U	7	2732	M 172 273		134
1043	10	01		MCW		U	1	2739	M		134
1044	10	02		MCW		U	1	2740	M		135
1045	10	03		B	TSTSQ	U	4	2741	B P16		135
1046	10	04	SEQNC	MN	SEQNO,204	U	7	2745	D A67 204		135
1047	10	05		MCS		U	1	2752	Z		135
1048	10	06	BUMP	A	+1,SEQNO=4	U	7	2753	A +49 A67		135
1049	10	07		W		U	1	2760	2		135
1050	10	08		CS	332	U	4	2761	/ 332		135
1051	10	09		CS		U	1	2765	/		136
1052	10	10		BCV	NEWPG	U	5	2766	B 058		136
1053	10	11	PTXT	B	0	U	4	2771	B 000		136
1054	10	12	*								
1055	10	13	* SEQUENCE ERROR								
1056	10	14	*								
1057	10	15	QUIT	CS	332	U	4	2775	/ 332		136
1058	10	16		CS		U	1	2779	/		136
1059	10	17		MCW	'INPUT CARDS OUT OF SEQUENCE - START OVER',240	U	7	2780	M B07 240		136
1060	10	18		W		U	1	2787	2		136
1061	10	19		CC	1	U	2	2788	F 1		137
1062	10	20	HALT2	H	0,133	U	7	2790	. 000 133		137
1063	10	21		B	HALT2	U	4	2797	B P90		137
1064	10	22	*								
1065	10	23	* SUBROUTINE UNKNOWN								
1066	10	24	*								
1067	10	25	UNKWN	BWZ	ISUNK,21,2	U	8	2801	V Q21 021 2		137
1068	10	26		C	24,' '	U	7	2809	C 024 +41		137
1069	10	27		BE	BACK	U	5	2816	B X22 S		137
1070	10	28	ISUNK	MCW	'SUBROUTINE UNKNOWN',299	U	7	2821	M B25 299		138
1071	10	29		W		U	1	2828	2		138
1072	10	30		CC	L	U	2	2829	F L		138

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1073	10	31		CS	299	U	4	2831	/ 299		138
1074	10	32	LOOP4	B	READ	U	4	2835	B L24		138
1075	10	33		BW	SERCH,INSW	U	8	2839	V V84 +73 1		138
1076	10	34		BW	SERCH,DELSW	U	8	2847	V V84 +79 1		138
1077	10	35		B	LOOP4	U	4	2855	B Q35		139
1078	10	36	*								
1079	10	37	* BAD CONTROL CARD								
1080	10	38	*								
1081	10	39	BADST	MCW	'BAD STATEMENT',299	U	7	2859	M B38 299		139
1082	10	40		W		U	1	2866	2		139
1083	10	41		CC	L	U	2	2867	F L		139
1084	10	42		CS	299	U	4	2869	/ 299		139
1085	10	43		CW	1+X2,23	U	7	2873	) 0-1 023		139
1086	10	44		B	LOOP4	U	4	2880	B Q35		139
1087	10	45	*								
1088	10	46	* STATEMENT DOES NOT EXIST IN SUBROUTINE								
1089	10	47	*								
1090	10	48	NTFND	MCW	'STATEMENT DOES NOT EXIST',299	U	7	2884	M B62 299		140
1091	10	49		W		U	1	2891	2		140
1092	10	50		CC	L	U	2	2892	F L		140
1093	10	51		CS	299	U	4	2894	/ 299		140
1094	10	52		BW	END99,ENDSW	U	8	2898	V R10 +98 1		140
1095	10	53		B	LOOP4	U	4	2906	B Q35		140
1096	10	54	*								
1097	10	55	* END OF LIBRARY REACHED BEFORE ROUTINE FOUND								
1098	10	56	*								
1099	10	57	END99	MCW	'SUBROUTINE UNKNOWN',299	U	7	2910	M B80 299		140
1100	10	58		W		U	1	2917	2		141
1101	10	59		CC	L	U	2	2918	F L		141
1102	10	60		CS	299	U	4	2920	/ 299		141
1103	10	61		MCW	'END OF LIBRARY REACHED',222	U	7	2924	M C02 222		141
1104	10	62		W		U	1	2931	2		141
1105	10	63		BSP	SYSTP	U	5	2932	U {U1 B		141
1106	10	64		CS	IMAGE+79	U	4	2937	/ 180		141
1107	10	65	LOOP6	B	READ	U	4	2941	B L24		142
1108	10	66		B	LOOP6	U	4	2945	B R41		142
1109	10	67		DCW	=50	U	50	2998			144
1110	10	68	BLANK	DC	=29	U	29	3027			145
1111	10	69		LTORG	*	U			3028		
		731		DCW	+IMAGE+13	U	3	3030	114	ADCON	145
		746			'999999'	U	6	3036		LIT	145
		748	NAME		=03	U	3	3039		AREA	146
					' '	U	2	3041		LIT	146
		786			'DELET'	U	5	3046		LIT	146
					+2	U	1	3047		LIT	146
		822	OPSW		=01	U	1	3048		AREA	146
					+1	U	1	3049		LIT	146
		828	WK1		=04	U	4	3053		AREA	146
					'0'	U	1	3054		LIT	147
		837	WK2		=04	U	4	3058		AREA	147

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		846			'DELET'	U	5	3063		LIT	147
		897	SEQSW		=01	U	1	3064		AREA	147
		916			+INPUT+13	U	3	3067	V13	ADCON	147
		941			'INSERT'	U	5	3072		LIT	147
		943	INSW		=01	U	1	3073		AREA	147
		945			'DELET'	U	5	3078		LIT	148
		947	DELSW		=01	U	1	3079		AREA	148
		949			'REPET'	U	5	3084		LIT	148
		953	LSTSW		=01	U	1	3085		AREA	148
		965			'HEADR'	U	5	3090		LIT	148
		967	HEDSW		=01	U	1	3091		AREA	148
		968			'999999'	U	6	3097		LIT	148
		970	ENDSW		=01	U	1	3098		AREA	149
		988			'1401 AUTOCODER - LIBRARY CHANGES'	U	32	3130		LIT	149
					'PAGE'	U	4	3134		LIT	149
		990	PGNO		=03	U	3	3137		AREA	150
		995			'SEQ LABEL OP OPERANDS'	U	26	3163		LIT	150
		1048	SEQNO		=04	U	4	3167		AREA	150
		1059			'INPUT CARDS OUT OF SEQUENCE - START OVER'	U	40	3207		LIT	152
		1070			'SUBROUTINE UNKNOWN'	U	18	3225		LIT	152
		1081			'BAD STATEMENT'	U	13	3238		LIT	152
		1090			'STATEMENT DOES NOT EXIST'	U	24	3262		LIT	153
		1099			'SUBROUTINE UNKNOWN'	U	18	3280		LIT	154
		1103			'END OF LIBRARY REACHED'	U	22	3302		LIT	155
1112	10	70	3998	DCW	' '	U	1	3998			156
1113	10	71		EX	0	U			B 000		157

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1114	10	72		JOB	1401 AUTOCODER-PASS 1 OUTPUT LIBRARY						
1115	10	73		SFX	P						
1116	10	74	SYSTP	EQU	(U1	P		(U1			
1117	10	75	XR1	EQU	89	P		0089			
1118	10	76	*								
1119	10	77	*	BEGIN PROGRAM							
1120	10	78	*								
1121	10	79		ORG	2000	P		2000			
1122	10	80		SW	ENDOT	P	4	2000	, +44		160
1123	10	81		LCA	ENDOT,181	P	7	2004	L +44 181		160
1124	10	82		CS		P	1	2011	/		160
1125	10	83		CS	80	P	4	2012	/ 080		160
1126	10	84		SW	6,16	P	7	2016	, 006 016		160
1127	10	85		CS	332	P	4	2023	/ 332		160
1128	10	86		CS		P	1	2027	/		160
1129	10	87		CC	1	P	2	2028	F 1		161
1130	10	88		RWD	SYSTP	P	5	2030	U (U1 R		161
1131	10	89		RT	SYSTP,101	P	8	2035	M (U1 101 R		161
1132	10	90		CS	180	P	4	2043	/ 180		161
1133	10	91		SW	106,116	P	7	2047	, 106 116		161
1134	10	92		SW	121	P	4	2054	, 121		161
1135	10	93		BSS	DOALL,E	P	5	2058	B L28 E		161
1136	10	94	*								
1137	10	95	*	PRINT AND/OR PUNCH SELECTED MACROS							
1138	10	96	*								
1139	10	97		CW	HDRSW	P	4	2063	) R32		162
1140	10	98	READ	CC	1	P	2	2067	F 1		162
1141	10	99		B	PRTHD	P	4	2069	B N59		162
1142	11	00		R		P	1	2073	1		162
1143	11	01		MCW	'2',OPCOD	P	7	2074	M Q90 069		162
1144	11	02		C	20,'PRINT'	P	7	2081	C 020 Q95		162
1145	11	03		BE	SELMC	P	5	2088	B J19 S		162
1146	11	04		C	20,'PUNCH'	P	7	2093	C 020 R00		163
1147	11	05		BU	ERROR	P	5	2100	B N06 /		163
1148	11	06	*								
1149	11	07	*	PUNCH OPTION							
1150	11	08	*								
1151	11	09		A	+4,OPCOD	P	7	2105	A R01 069		163
1152	11	10		MN	+4,OPSAV=1	P	7	2112	D R01 R02		163
1153	11	11	*								
1154	11	12	*	SEARCH FOR MACRO							
1155	11	13	*								
1156	11	14	SELMC	C	8,NAME=3	P	7	2119	C 008 R05		163
1157	11	15		BE	TSTLC	P	5	2126	B K96 S		163
1158	11	16		MCW	20,218	P	7	2131	M 020 218		164
1159	11	17		MCW	11,212	P	7	2138	M 011 212		164
1160	11	18		BL	RDTP2	P	5	2145	B J85 T		164
1161	11	19		RWD	SYSTP	P	5	2150	U (U1 R		164
1162	11	20		LCA	ENDOT,181	P	7	2155	L +44 181		164
1163	11	21		RT	SYSTP,101	P	8	2162	M (U1 101 R		164

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
1164	11	22		CS	180	P	4	2170	/ 180		165	
1165	11	23		SW	106,116	P	7	2174	, 106 116		165	
1166	11	24		SW	121	P	4	2181	, 121		165	
1167	11	25	RDTP2	RT	SYSTP,101	P	8	2185	M (U1 101 R		165	
1168	11	26		B	NOISE	P	4	2193	B P67		165	
1169	11	27		BER	RDERR	P	5	2197	B Q06 L		165	
1170	11	28		C	111,'999999'	P	7	2202	C 111 R11		165	
1171	11	29		BE	UNKN	P	5	2209	B L05 S		166	
1172	11	30		C	120,'HEADR'	P	7	2214	C 120 R16		166	
1173	11	31		BU	RDTP2	P	5	2221	B J85 /		166	
1174	11	32		C	8,108	P	7	2226	C 008 108		166	
1175	11	33		BU	RDTP2	P	5	2233	B J85 /		166	
1176	11	34	*									
1177	11	35	* DESIRED MACRO FOUND									
1178	11	36	*									
1179	11	37		MCW	8,NAME	P	7	2238	M 008 R05		166	
1180	11	38		CC	K	P	2	2245	F K		166	
1181	11	39		W		P	1	2247	2		167	
1182	11	40		S	SEQNO	P	4	2248	S R48		167	
1183	11	41		B	INSER	P	4	2252	B N17		167	
1184	11	42		CC	K	P	2	2256	F K		167	
1185	11	43	PTAGN	B	PRINT	P	4	2258	B N81		167	
1186	11	44		RT	SYSTP,101	P	8	2262	M (U1 101 R		167	
1187	11	45		B	NOISE	P	4	2270	B P67		167	
1188	11	46		BER	RDERR	P	5	2274	B Q06 L		168	
1189	11	47		C	120,'HEADR'	P	7	2279	C 120 R21		168	
1190	11	48		BU	PTAGN	P	5	2286	B K58 /		168	
1191	11	49		BSP	SYSTP	P	5	2291	U (U1 B		168	
1192	11	50	*									
1193	11	51	* TEST END OF RUN									
1194	11	52	*									
1195	11	53	TSTLC	BLC	EOJOB	P	5	2296	B M54 A		168	
1196	11	54		B	READ	P	4	2301	B -67		168	
1197	11	55	*									
1198	11	56	* MACRO NOT ON TAPE									
1199	11	57	*									
1200	11	58	UNKN	MCW	'UNKNOWN',299	P	7	2305	M R28 299		168	
1201	11	59		W		P	1	2312	2		169	
1202	11	60		CS	299	P	4	2313	/ 299		169	
1203	11	61		MCW	'999',NAME	P	7	2317	M R31 R05		169	
1204	11	62		B	TSTLC	P	4	2324	B K96		169	
1205	11	63	*									
1206	11	64	* PRINT AND/OR PUNCH ALL OR PRINT HEADERS ONLY									
1207	11	65	*									
1208	11	66	DOALL	BSS	SETUP,D	P	5	2328	B L60 D		169	
1209	11	67		CW	HDRSW=1	P	4	2333	I R32		169	
1210	11	68		BSS	*+5,G	P	5	2337	B L46 G		169	
1211	11	69		B	SETUP	P	4	2342	B L60		170	
1212	11	70	*									
1213	11	71	* PUNCH ALL									

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1214	11	72	*								
1215	11	73		A	+4,OPCOD	P	7	2346	A R01 069		170
1216	11	74		MN	+4,OPSAV	P	7	2353	D R01 R02		170
1217	11	75	SETUP	B	HEAD1	P	4	2360	B P19		170
1218	11	76		CW	HDSW1=1	P	4	2364	J R33		170
1219	11	77		B	PRTHD	P	4	2368	B N59		170
1220	11	78	RDTP	RT	SYSTP,101	P	8	2372	M (U1 101 R		170
1221	11	79		B	NOISE	P	4	2380	B P67		171
1222	11	80		BER	RDERR	P	5	2384	B Q06 L		171
1223	11	81		C	111,'999999'	P	7	2389	C 111 R39		171
1224	11	82		BE	EOJOB	P	5	2396	B M54 S		171
1225	11	83		C	120,'HEADR'	P	7	2401	C 120 R44		171
1226	11	84		BU	DOPNT	P	5	2408	B M35 /		171
1227	11	85		B	INSER	P	4	2413	B N17		171
1228	11	86		CC	K	P	2	2417	F K		172
1229	11	87		SBR	PRTXT+3,++6	P	7	2419	H 083 M31		172
1230	11	88		BCV	NEWPG	P	5	2426	B 097 '		172
1231	11	89		S	SEQNO=4	P	4	2431	S R48		172
1232	11	90	DOPNT	B	PRINT	P	4	2435	B N81		172
1233	11	91		SW	106,116	P	7	2439	, 106 116		172
1234	11	92		SW	121	P	4	2446	, 121		172
1235	11	93		B	RDTP	P	4	2450	B L72		173
1236	11	94	*								
1237	11	95	* END OF JOB								
1238	11	96	*								
1239	11	97	EOJOB	CS	332	P	4	2454	/ 332		173
1240	11	98		CS		P	1	2458	/		173
1241	11	99		CC	K	P	2	2459	F K		173
1242	12	00		MCW	'END OF LIBRARY',214	P	7	2461	M R62 214		173
1243	12	01		W		P	1	2468	2		173
1244	12	02		CC	1	P	2	2469	F 1		173
1245	12	03		CS	180	P	4	2471	/ 180		174
1246	12	04		BCE	CLRPH,OPSAV,4	P	8	2475	B M99 R02 4		174
1247	12	05	RWD	RWD	SYSTP	P	5	2483	U (U1 R		174
1248	12	06	HALT	H	0,155	P	7	2488	. 000 155		174
1249	12	07		B	HALT	P	4	2495	B M88		174
1250	12	08	CLRPH	P		P	1	2499	4		174
1251	12	09		SS	8	P	2	2500	K 8		174
1252	12	10		B	RWD	P	4	2502	B M83		175
1253	12	11	*								
1254	12	12	* INCORRECT INPUT CARD								
1255	12	13	*								
1256	12	14	ERROR	H	0,144	P	7	2506	. 000 144		175
1257	12	15		B	TSTLC	P	4	2513	B K96		175
1258	12	16	INSER	SBR	INSXT+3	P	4	2517	H N58		175
1259	12	17		MCW	' ,105	P	7	2521	M R67 105		175
1260	12	18		MCW	'INSER',120	P	7	2528	M R72 120		175
1261	12	19		BCE	++5,OPSAV,4	P	8	2535	B N47 R02 4		176
1262	12	20		B	++2	P	4	2543	B N48		176
1263	12	21		P		P	1	2547	4		176



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1264	12	22		MCW	'HEADR',120	P	7	2548	M R77 120		176
1265	12	23	INSXT	B	0	P	4	2555	B 000		176
1266	12	24	*								
1267	12	25	* PRINT		HEADING						
1268	12	26	*								
1269	12	27	PRTHD	SBR	HDXT+3	P	4	2559	H N80		176
1270	12	28		MCW	'SEQ LABEL OP OPERANDS',227	P	7	2563	M +03 227		176
1271	12	29		W		P	1	2570	2		177
1272	12	30		CC	K	P	2	2571	F K		177
1273	12	31		CS	228	P	4	2573	/ 228		177
1274	12	32	HDXT	B	0	P	4	2577	B 000		177
1275	12	33	*								
1276	12	34	* PRINT		STATEMENT						
1277	12	35	*								
1278	12	36	PRINT	SBR	PRTXT+3	P	4	2581	H 083		177
1279	12	37		C	120,'HEADR'	P	7	2585	C 120 +08		177
1280	12	38		BE	DOHDR	P	5	2592	B 005 S		177
1281	12	39		BW	CLR,HDRSW	P	8	2597	V 070 R32 1		178
1282	12	40	DOHDR	CS	332	P	4	2605	/ 332		178
1283	12	41		CS		P	1	2609	/		178
1284	12	42		BCE	COMNT,106,*	P	8	2610	B 084 106 *		178
1285	12	43		MCW	172,271	P	7	2618	M 172 271		178
1286	12	44		MCW	120,218	P	7	2625	M 120 218		178
1287	12	45		MCW	111,212	P	7	2632	M 111 212		179
1288	12	46	DOSEQ	MN	SEQNO,204	P	7	2639	D R48 204		179
1289	12	47		MCS		P	1	2646	Z		179
1290	12	48		MN	SEQNO,104	P	7	2647	D R48 104		179
1291	12	49		MCW		P	1	2654	M		179
1292	12	50		A	+1,SEQNO	P	7	2655	A +09 R48		179
1293	12	51		MCW	' ',105	P	7	2662	M +10 105		179
1294	12	52	OPCOD	W		P	1	2669	2		180
1295	12	53	CLR	CS	332	P	4	2670	/ 332		180
1296	12	54		CS		P	1	2674	/		180
1297	12	55		BCV	NEWPG	P	5	2675	B 097 '		180
1298	12	56	PRTXT	B	0	P	4	2680	B 000		180
1299	12	57	COMNT	MCW	172,273	P	7	2684	M 172 273		180
1300	12	58		MCW		P	1	2691	M		180
1301	12	59		MCW		P	1	2692	M		181
1302	12	60		B	DOSEQ	P	4	2693	B 039		181
1303	12	61	*								
1304	12	62	* START		NEW PAGE						
1305	12	63	*								
1306	12	64	NEWPG	CC	1	P	2	2697	F 1		181
1307	12	65		BW	*+5,HDSW1	P	8	2699	V P11 R33 1		181
1308	12	66		B	HEAD1	P	4	2707	B P19		181
1309	12	67		B	PRTHD	P	4	2711	B N59		181
1310	12	68		B	PRTXT	P	4	2715	B 080		181
1311	12	69	*								
1312	12	70	* PRINT		MAIN HEADING						
1313	12	71	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1314	12	72	HEAD1	SBR	HD2XT+3	P	4	2719	H P66		182
1315	12	73		CS	332	P	4	2723	/ 332		182
1316	12	74		CS		P	1	2727	/		182
1317	12	75		MCW	'1401 AUTOCODER - LIBRARY',243	P	7	2728	M +34 243		182
1318	12	76		MCW	'PAGE',275	P	7	2735	M +38 275		182
1319	12	77		A	+1,PGNO=3	P	7	2742	A +09 +41		182
1320	12	78		MCS	PGNO,279	P	7	2749	Z +41 279		182
1321	12	79		W		P	1	2756	2		183
1322	12	80		CC	L	P	2	2757	F L		183
1323	12	81		CS	299	P	4	2759	/ 299		183
1324	12	82	HD2XT	B	0	P	4	2763	B 000		183
1325	12	83	*								
1326	12	84	* TEST		FOR NOISE RECORDS						
1327	12	85	*								
1328	12	86	NOISE	SBR	NOSXT+3	P	4	2767	H Q05		183
1329	12	87		SBR	XR1	P	4	2771	H 089		183
1330	12	88		MZ	+9,XR1	P	7	2775	Y +42 089		183
1331	12	89		BCE	4000-12+X1,113,	P	8	2782	B IY8 113		184
1332	12	90		CHAIN	12					MACRO	
1333				BCE		P	1	2790	B	GEN	184
1334				BCE		P	1	2791	B	GEN	184
1335				BCE		P	1	2792	B	GEN	184
1336				BCE		P	1	2793	B	GEN	184
1337				BCE		P	1	2794	B	GEN	184
1338				BCE		P	1	2795	B	GEN	184
1339				BCE		P	1	2796	B	GEN	185
1340				BCE		P	1	2797	B	GEN	185
1341				BCE		P	1	2798	B	GEN	185
1342				BCE		P	1	2799	B	GEN	185
1343				BCE		P	1	2800	B	GEN	185
1344				BCE		P	1	2801	B	GEN	185
1345	12	91	NOSXT	B	0	P	4	2802	B 000		185
1346	12	92	*								
1347	12	93	* READ		REDUNDANCY ROUTINE						
1348	12	94	*								
1349	12	95	RDERR	SBR	RDXT+3	P	4	2806	H Q38		186
1350	12	96	BSP	BSP	SYSTP	P	5	2810	U (U1 B		186
1351	12	97		MCW	+9,RDCT=1	P	7	2815	M +42 +43		186
1352	12	98	RDTRY	RT	SYSTP,101	P	8	2822	M (U1 101 R		186
1353	12	99		BER	*+5	P	5	2830	B Q39 L		186
1354	13	00	RDXT	B	0	P	4	2835	B 000		186
1355	13	01		BSP	SYSTP	P	5	2839	U (U1 B		186
1356	13	02		S	+1,RDCT	P	7	2844	S +09 +43		187
1357	13	03		BWZ	RDTRY,RDCT,B	P	8	2851	V Q22 +43 B		187
1358	13	04		H	0,191	P	7	2859	. 000 191		187
1359	13	05		RT	SYSTP,101	P	8	2866	M (U1 101 R		187
1360	13	06		BSS	BSP,E	P	5	2874	B Q10 E		187
1361	13	07		H	0,111	P	7	2879	. 000 111		188
1362	13	08		B	RDXT	P	4	2886	B Q35		188
1363	13	09		LTORG	*	P			2890		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	'2'	P	1	2890		LIT	188
		1144			'PRINT'	P	5	2895		LIT	188
		1146			'PUNCH'	P	5	2900		LIT	188
					+4	P	1	2901		LIT	188
		1152	OPSAV		=01	P	1	2902		AREA	188
		1156	NAME		=03	P	3	2905		AREA	189
		1170			'999999'	P	6	2911		LIT	189
		1172			'HEADR'	P	5	2916		LIT	189
		1189			'HEADR'	P	5	2921		LIT	189
		1200			'UNKNOWN'	P	7	2928		LIT	189
					'999'	P	3	2931		LIT	189
		1209	HDRSW		=01	P	1	2932		AREA	189
		1218	HDSW1		=01	P	1	2933		AREA	190
		1223			'999999'	P	6	2939		LIT	190
		1225			'HEADR'	P	5	2944		LIT	190
		1231	SEQNO		=04	P	4	2948		AREA	190
		1242			'END OF LIBRARY'	P	14	2962		LIT	190
		1259			' '	P	5	2967		LIT	190
		1260			'INSERT'	P	5	2972		LIT	191
		1264			'HEADR'	P	5	2977		LIT	191
		1270			'SEQ LABEL OP OPERANDS'	P	26	3003		LIT	191
		1279			'HEADR'	P	5	3008		LIT	192
					+1	P	1	3009		LIT	192
					' '	P	1	3010		LIT	192
		1317			'1401 AUTCCODER - LIBRARY'	P	24	3034		LIT	192
					'PAGE'	P	4	3038		LIT	192
		1319	PGNO		=03	P	3	3041		AREA	192
					+9	P	1	3042		LIT	192
		1351	RDCT		=01	P	1	3043		AREA	193
1364	13	10	ENDOT	DCW	' '	P	1	3044			193
1365	13	11		EX	0	P			B 000		194
1366	13	12		END	0	P			/ 000 080		197

### 3 ERRORS

CLEAR STORAGE 1	,008015,019026,030,034041,045,053,0570571026	1
CLEAR STORAGE 2	L068112,102106,113/101099/199,027A070028)027B001027080261,001/00111310	2
BOOTSTRAP	,008015,022029,036040,047054,061068,072/061039,0010011040	3

1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 2 -VERSION 3 3722L PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	001	JOB	1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 2 -VERSION 3						
102	1	02		CTL	630 1						
103	1	03		SFX	I						
104	1	04	OTHER	EQU	START	I		0101			
105	1	05	MINUS2	EQU	2	I		0002			
106	1	06	MINUS3	EQU	3	I		0003			
107	1	07	DIOCSB	EQU	LABDIO-4	I		0576			
108	1	08		ORG	1	I			0001		
109	1	09	MAINX	DA	1X86	I		0001	0086		4
110	1	10	LMAINX	EQU	*	I		0086			
111	1	11		XINIT	INDEX1,INDEX2,INDEX3					MACRO	
112		01	INDEX1	EQU	089	I		0089		GEN	
113		02	089	DCW	000	I	3	0089		GEN	4
114		04	091	DC	00	I	2	0091		GEN	4
115		05	INDEX2	EQU	094	I		0094		GEN	
116		06	094	DCW	000	I	3	0094		GEN	4
117		08	096	DC	00	I	2	0096		GEN	4
118		09	INDEX3	EQU	099	I		0099		GEN	
119		10	099	DCW	000	I	3	0099		GEN	4
120		12	100	DC	0	I	1	0100		GEN	4
121	1	12	*								
122	1	13	*		START OF MAIN LINE						
123	1	14	*								
124	1	15		ORG	101	I			0101		
125	1	16	START	RWD	4	I	5	0101	U (U4 R		4
126	1	17		RWD	5	I	5	0106	U (U5 R		4
127	1	18		RWD	6	I	5	0111	U (U6 R		4
128	1	19		BSS	OVLAY2,B	I	5	0116	B P32 B		5
129	1	20		B	REDREC	I	4	0121	B 774		5
130	1	21		C	MAINX+17, 'JOB'	I	7	0125	C 018 W05		5
131	1	22		BU	CMCTL	I	5	0132	B 157 /		5
132	1	23		CC	1	I	2	0137	F 1		5
133	1	24		MCW	80,280	I	7	0139	M 080 280		5
134	1	25		W		I	1	0146	2		5
135	1	26		CC	1	I	2	0147	F 1		6
136	1	27		B	WRTREC	I	4	0149	B 721		6
137	1	28		B	REDREC	I	4	0153	B 774		6
138	1	29	CMCTL	C	MAINX+17, 'CTL'	I	7	0157	C 018 W08		6
139	1	30		BU	FIND	I	5	0164	B 642 /		6
140	1	31		BCE	ROBIN,MAINX+23,1	I	8	0169	B 623 024 1		6
141	1	32		MN	MAINX+21,*+8	I	7	0177	D 022 191		6
142	1	33		BCE	ROBIN,'456',	I	8	0184	B 623 W11		7
143	1	34		CHAIN	2					MACRO	
144				BCE		I	1	0192	B	GEN	7
145				BCE		I	1	0193	B	GEN	7
146	1	350		B	BLUE	I	4	0194	B 627		7
147	1	36		ORG	201	I			0201		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1	37		DA	1X132	I		0201	0332		7
149	1	38			6,6	I		0206		FIELD	7
150	1	39	DTFTAB	EQU	LABDTF-1	I		0349			
151	1	40		ORG	333	I			0333		
152	1	41	EITHER	B	NEXREC	I	4	0333	B 681		8
153	1	42	*								
154	1	43	*		CONTROL CARD INFORMATION						
155	1	44	*								
156	1	45	SPECL	DCW	'*'	I	1	0337			8
157	1	46	SYNMN	DCW	=3	I	3	0340			8
158	1	47	*								
159	1	48	*		DTF MAJOR TABLE						
160	1	49	*								
161	1	50		DCW	' , '	I	1	0341			8
162	1	51		DCW	' ' ' COBOL YES	I	1	0342			8
163	1	52		DCW	' ' ' EXITS YES	I	1	0343			8
164	1	53	FILENM	DCW	=6	I	6	0349			8
165	1	54	LABDTF	DCW	' ' ' 1 INPUT 1 FILETYPE	I	1	0350			9
166	1	55		DCW	' ' ' 2 OUTPUT 2	I	1	0351			9
167	1	56		DCW	' ' ' 3 TAPE 3	I	1	0352			9
168	1	57		DCW	' ' ' 4 READER 4	I	1	0353			9
169	1	58		DCW	' ' ' 5 PUNCH 5	I	1	0354			9
170	1	59		DCW	' ' ' 6 PRINTER 6	I	1	0355			9
171	1	60		DCW	' ' ' 7 LOAD 7 MODEPAR	I	1	0356			9
172	1	61		DCW	' ' ' 8 CHECKPOINT 8 FEATURES	I	1	0357			10
173	1	62		DCW	' ' ' 9 NUMBER 9 CHANDRIVE	I	1	0358			10
174	1	63		DCW	' ' ' 10 NUMBER 10 CARDPOC	I	1	0359			10
175	1	64		DCW	' ' ' 11 NUMBER 11 ALTTAPE	I	1	0360			10
176	1	65		DCW	' ' ' 12 BLOCKED 12 RECFORM	I	1	0361			10
177	1	66		DCW	' ' ' 13 UNBLOCKED 13	I	1	0362			10
178	1	67		DCW	' ' ' 14 MIXED 14	I	1	0363			10
179	1	68		DCW	' ' ' 15 VARIABLE 15	I	1	0364			11
180	1	69		DCW	' ' ' 16-19 NUMBER 16 SIZEREC	I	4	0368			11
181	1	70		DCW	' ' ' 20 NUMBER 17 PADDING	I	1	0369			11
182	1	71		DCW	' ' ' 21-24 NUMBER 18 BLOCKSIZE	I	4	0373			11
183	1	72		DCW	' ' ' 25-34 LABELS 19 IOAREAS	I	10	0383			11
184	1	73		DCW	' ' ' 35-44 20	I	10	0393			11
185	1	74		DCW	' ' ' 45-54 LABEL 21 WORKAREA	I	10	0403			12
186	1	75		DCW	' ' ' 55 NUMBER 22 INDEXREG	I	1	0404			12
187	1	76		DCW	' ' ' 56-65 LABEL 23 EORADDR	I	10	0414			12
188	1	77		DCW	' ' ' 66-75 LABEL 24 WLRADDR	I	10	0424			12
189	1	78		DCW	' ' ' 76 RECORD 25 TOTALS	I	1	0425			12
190	1	79		DCW	' ' ' 77-80 HASH 26	I	4	0429			12
191	1	80		DCW	' ' ' 81 STANDARD 27 TYPELABEL	I	1	0430			12
192	1	81		DCW	' ' ' 82 NONSTANDARD 28	I	1	0431			13
193	1	82		DCW	' ' ' 83 TM 29	I	1	0432			13
194	1	83		DCW	' ' ' 84 ALL 30 CHECKLABEL	I	1	0433			13
195	1	84		DCW	' ' ' 85 IDENT 31	I	1	0434			13
196	1	85		DCW	' ' ' ' 3	I	3	0437			13
197	1	86		DCW	' ' ' ' 5	I	5	0442			13

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	87		DCW	'	I	10	0452			13
199	1	88		DCW	' ' 104-108 NUMBER	I	5	0457	SERIALNUM		14
200	1	89		DCW	' ' 109-118	I	10	0467	EX1ADDR		14
201	1	90		DCW	' ' 119-128	I	10	0477	EX2ADDR		14
202	1	91		DCW	' ' 129-138	I	10	0487	EX3ADDR		14
203	1	92		DCW	' ' 139-148	I	10	0497	EX4ADDR		15
204	1	93		DCW	' ' 149-158	I	10	0507	EX5ADDR		15
205	1	94		DCW	' ' 159-168	I	10	0517	EX6ADDR		15
206	1	95		DCW	' ' 169-178	I	10	0527	EX7ADDR		16
207	1	96		DCW	' ' 179-188	I	10	0537	EX8ADDR		16
208	1	97		DCW	' ' 189-198	I	10	0547	VARBUILD		16
209	1	98		DCW	' ' 199 UNLOAD	I	1	0548	REWIND		16
210	1	99		DCW	' ' 200 NOREW	I	1	0549			16
211	2	00		DCW	' ' 9 201	I	1	0550	OVERFLOW		16
212	2	01		DCW	' ' 12 202	I	1	0551			16
213	2	02		DCW	' ' 203-205 NUMBER	I	3	0554	REELSEQP		17
214	2	03		DCW	' ' 206	I	1	0555	FORMCNTL		17
215	2	04		DCW	=9	I	9	0564			17
216	2	05		DCW	' ' 216 ADDRESS	I	1	0565	OVERFLOW		17
217	2	06		DCW	' '	I	1	0566			17
218	2	07	ENDDTF	DCW	' '	I	1	0567			17
219	2	08	*								
220	2	09	*		DIOCS MAJOR TABLE						
221	2	10	*								
222	2	11		DCW	' ,'	I	1	0568			17
223	2	12	DIVIDE	EQU	*	I		0568			
224	2	13		DCW	' ' 40 PAR OUT TAPEUSE	I	1	0569			18
225	2	14		DCW	' ' 39 PAR INP TAPEUSE	I	1	0570			18
226	2	15		DCW	' ' 38 PAR YES EXITS	I	1	0571			18
227	2	16	LABDIO	DCW	=9 DIOCSORG	I	9	0580			18
228	2	17		DCW	' ' 5	I	1	0581			18
229	2	18		DCW	' ' 6 OVERLAP FEATURES	I	1	0582			18
230	2	19		DCW	' ' 7 TAPE IODEVICES	I	1	0583			18
231	2	20		DCW	' ' 8 READER	I	1	0584			19
232	2	21		DCW	' ' 9 PUNCH	I	1	0585			19
233	2	22		DCW	' ' 10 PRINTER	I	1	0586			19
234	2	23		DCW	' ' 11 STANDARD LABELDEF	I	1	0587			19
235	2	24		DCW	' ' 12 NONSTANDARD	I	1	0588			19
236	2	25		DCW	' ' 13 MIXED	I	1	0589			19
237	2	26		DCW	' ' 14 CHECK	I	1	0590			19
238	2	27		DCW	' ' 15 IDENT	I	1	0591			20
239	2	28		DCW	' ' 16 TM	I	1	0592			20
240	2	29		DCW	' ' 17 YES ALTDRIIVE	I	1	0593			20
241	2	30		DCW	' ' 18 1 EXITS	I	1	0594			20
242	2	31		DCW	' ' 19 2	I	1	0595			20
243	2	32		DCW	' ' 20 3	I	1	0596			20
244	2	33		DCW	' ' 21 4	I	1	0597			20
245	2	34		DCW	' ' 22 5	I	1	0598			21
246	2	35		DCW	' ' 23 6	I	1	0599			21
247	2	36		DCW	' ' 24 7	I	1	0600			21

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD		
248	2	37		DCW	' '	25	8		I	1	0601	21	
249	2	38		DCW	' '	RDLIN	LABELDEF		I	1	0602	21	
250	2	39		DCW	' '	27	729	DRIVETYPE	I	1	0603	21	
251	2	40		DCW	' '	28	7330		I	1	0604	21	
252	2	41		DCW	' '	29	NORWD	RWDOPTION	I	1	0605	22	
253	2	42		DCW	' '	30	UNLOAD		I	1	0606	22	
254	2	43		DCW	' '	31	TAPE,=	READERROR	I	1	0607	22	
255	2	44		DCW	' '	32	SCAN		I	1	0608	22	
256	2	45		DCW	' '	33	PROCESS		I	1	0609	22	
257	2	46		DCW	' '	CLEAN	READERROR		I	1	0610	22	
258	2	47		DCW	' '	35	YES	INPVAR	I	1	0611	22	
259	2	48		DCW	' '	36	YES	INPFNO	I	1	0612	23	
260	2	49		DCW	' '	37	RECORD	COUNTS	I	1	0613	23	
261	2	50		DCW	' '	38	HASH		I	1	0614	23	
262	2	51		DCW	=5				I	5	0619	23	
263	2	52		DCW	' '	39-44	CHECKPOINT		I	1	0620	23	
264	2	53		DCW	' '	45	RELEASE	FEATURES	I	1	0621	23	
265	2	54	ENDDIO	DCW	' '	46	STORAGE		I	1	0622	23	
266	2	55	*										
267	2	56	*										
268	2	57	ROBIN	S	SPECL				I	4	0623	S 337	24
269	5	575	BLUE	MCW	MAINX+25,NORDRL=1				I	7	0627	M 026 W12	24
270	2	58	THRU	B	WRTREC				I	4	0634	B 721	24
271	2	59		B	REDREC				I	4	0638	B 774	24
272	2	60	FIND	C	MAINX+19,KDIOCS				I	7	0642	C 020 V71	24
273	2	61		BE	GOTIT				I	5	0649	B 670 S	24
274	2	62	*										
275	2	63	*										
276	2	64	*		READ IN PHASE 2								
277	2	65	*										
278	2	66	*										
279	2	67		BCE	THRU,MAINX+5,*				I	8	0654	B 634 006 *	24
280	2	68	PREPS2	B	SAVCD				I	4	0662	B 098	25
281	2	69		B	PASS2				I	4	0666	B V06	25
282	2	70	GOTIT	MCW	'M',LENGTH				I	7	0670	M W13 743	25
283	2	72	WHOM	B	WRTREC				I	4	0677	B 721	25
284	2	73	NEXREC	B	REDREC				I	4	0681	B 774	25
285	2	74	GAMMA	BCE	WHOM,MAINX+5,*				I	8	0685	B 677 006 *	25
286	2	75		C	MAINX+17,'DTF'				I	7	0693	C 018 W16	25
287	2	76		BE	DTFND				I	5	0700	B 713 S	26
288	2	77		B	WRTREC				I	4	0705	B 721	26
289	2	78		B	UPPER				I	4	0709	B 821	26
290	2	79	DTFND	B	SAVCD				I	4	0713	B 098	26
291	2	80		B	CRDOUT				I	4	0717	B J68	26
292	2	81	*										
293	2	82	*		WRITE ROUTINE								
294	2	83	*										
295	2	84	WRTREC	SBR	WRTEXT+3				I	4	0721	H 761	26
296	2	85		MCW	LMAINX,LOPUT-1				I	7	0725	M 086 197	26
297	2	86		SW	LOPUT				I	4	0732	, 198	27



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	2	87		MCW	GMWMRK,LOPUT	I	7	0736	M 773 198		27
299	2	88	LENGTH	NOP	'W',OUTPT+74	I	7	0743	N W17 186		27
300	2	89	SHORT	B	CTAPE	I	4	0750	B S22		27
301	2	90		NOP	TDF6	I	4	0754	N 764		27
302	2	91	WRTEXT	B	0	I	4	0758	B 000		27
303	2	92	TDF6	DCW	000	I	3	0764			27
304	2	93		WT	6,OUTPT	I	8	0765	M (U6 112 W		28
305	2	94	GMWMRK	DC	' '	I	1	0773			28
306	2	95	*								
307	2	96	*		READ ROUTINE						
308	2	97	*								
309	2	98	REDREC	SBR	REDEXT+3	I	4	0774	H 809		28
310	2	99		CS	LMAINX	I	4	0778	/ 086		28
311	3	00		BSS	RTWED,C	I	5	0782	B 798 C		28
312	3	01		BLC	DTFOUT	I	5	0787	B M46 A		28
313	3	02		R		I	1	0792	1		28
314	3	03		SSB	REDEXT,1	I	5	0793	K 806 1		28
315	3	04	RTWED	B	CTAPE	I	4	0798	B S22		29
316	3	05		NOP	TDF4	I	4	0802	N 812		29
317	3	06	REDEXT	B	0	I	4	0806	B 000		29
318	3	07	TDF4	DCW	+DTFOUT	I	3	0812	M46		29
319	3	08		RT	4,MAINX	I	8	0813	M (U4 001 R		29
320	3	09	*								
321	3	10	*		LOOK UP LABEL						
322	3	11	*								
323	3	12	UPPER	CW	SCNSW=1	I	4	0821	) W18		29
324	3	13		BCE	NEXREC,MAINX+20,	I	8	0825	B 681 021		29
325	3	14		SBR	CHAIR+3,LSTPAR	I	7	0833	H 066 075		30
326	3	15		S	INDEX2+1	I	4	0840	S 095		30
327	3	16		SBR	INDEX3,LBLTBL	I	7	0844	H 099 H46		30
328	3	17	COMPR	C	MAINX+7,0+X3	I	7	0851	C 008 0+0		30
329	3	18		SBR	INDEX3	I	4	0858	H 099		30
330	3	19		BE	COMEQ	I	5	0862	B 984 S		30
331	3	20		BCE	NEXREC,0+X3,'	I	8	0867	B 681 0+0		31
332	3	21		A	'7',INDEX2	I	7	0875	A W19 094		31
333	3	22		B	COMPR	I	4	0882	B 851		31
334	3	23	BRTBL	B	ACTSCN	I	4	0886	B /13		31
335	3	24		DCW	+DIOCSB+36	I	3	0892	612		31
336	3	25		B	REASB	I	4	0893	B /73		31
337	3	26		DCW	=3	I	3	0899			31
338	3	27		B	OPDSCN	I	4	0900	B 014		32
339	3	28		DCW	+RWDTB	I	3	0906	F95		32
340	3	29		B	OPDSCN	I	4	0907	B 014		32
341	3	30		DCW	+DRITB	I	3	0913	F82		32
342	3	31		B	OPDSCN	I	4	0914	B 014		32
343	3	32		DCW	+COUTB	I	3	0920	G08		32
344	3	33		B	ACTSCN	I	4	0921	B /13		32
345	3	34		DCW	+DIOCSB+35	I	3	0927	611		33
346	3	35		B	EXISB	I	4	0928	B 992		33
347	3	36		DCW	=3	I	3	0934			33

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
348	3	37		B	ACTSCN	I	4	0935	B /13		33
349	3	38		DCW	+DIOCSB+17	I	3	0941	593		33
350	3	39		B	OPDSCN	I	4	0942	B 014		33
351	3	40		DCW	+LABTB	I	3	0948	F20		33
352	3	41		B	OPDSCN	I	4	0949	B 014		34
353	3	42		DCW	+IODTB	I	3	0955	E77		34
354	3	43		B	OPDSCN	I	4	0956	B 014		34
355	3	44		DCW	+FEATB	I	3	0962	E52		34
356	3	45		B	DIOSB	I	4	0963	B /47		34
357	3	46		DCW	+DIOCSB+5	I	3	0969	581		34
358	3	47		B	DIOSB	I	4	0970	B /47		34
359	3	48		DCW	DIOCSB+44	I	3	0976	620		35
360	3	49		B	OPDSCN	I	4	0977	B 014		35
361	3	50		DCW	+TAPT B	I	3	0983	E33		35
362	3	51	COMEQ	S	INDEX3+1	I	4	0984	S 100		35
363	3	52		B	BRTBL+X2	I	4	0988	B 8Q6		35
364	3	53	*								
365	3	54	EXISB	LCA	'\$',DIVIDE+3	I	7	0992	L W20 571		35
366	3	55		B	OPDSCN	I	4	0999	B 014		35
367	3	56		DCW	+EXITB	I	3	1005	F69		36
368	3	57	*								
369	3	58	NEWSCN	SBR	NWEXT+3	I	4	1006	H /04		36
370	3	59		MCW	' ',OPDAR=3	I	7	1010	M W23 W26		36
371	3	60		S	INDEX2+1	I	4	1017	S 095		36
372	3	61	NWSCNL	C	MAINX+21+X3,' '	I	7	1021	C 082 W28		36
373	3	62		SW	MAINX+20	I	4	1028	, 021		36
374	3	63		BE	FDBLK	I	5	1032	B #90 S		36
375	3	64		BCE	FOUND,MAINX+20+X3,,	I	8	1037	B /05 081 ,		37
376	3	65		C	INDEX3,'52'	I	7	1045	C 099 W30		37
377	3	66		BE	BLKFD	I	5	1052	B #97 S		37
378	3	67		MCW	MAINX+20+X3,OPDAR-2+X2	I	7	1057	M 081 WK4		37
379	3	68		A	'1',INDEX2	I	7	1064	A W31 094		37
380	3	69		BCE	FOUND,INDEX2,3	I	8	1071	B /05 094 3		38
381	3	70		A	'1',INDEX3	I	7	1079	A W31 099		38
382	3	71		B	NWSCNL	I	4	1086	B #21		38
383	3	72	FDBLK	A	'1',INDEX3	I	7	1090	A W31 099		38
384	3	73	BLKFD	SW	SCNSW	I	4	1097	, W18		38
385	3	74	NWEXT	B	0	I	4	1101	B 000		38
386	3	75	FOUND	B	SCANX	I	4	1105	B N55		38
387	3	76		B	NWEXT	I	4	1109	B /01		39
388	3	77	*								
389	3	78	*		ACTUAL SCAN FOR YES						
390	3	79	*								
391	3	80	ACTSCN	SBR	INDEX1	I	4	1113	H 089		39
392	3	81		MCW	2+X1,INDEX1	I	7	1117	M 0#2 089		39
393	3	82		C	MAINX+22,'YES'	I	7	1124	C 023 W34		39
394	3	83		BU	ACTOUT	I	5	1131	B /43 /		39
395	3	84		LCA	'\$',0+X1	I	7	1136	L W20 0#0		39
396	3	85	ACTOUT	B	EITHER	I	4	1143	B 333		39
397	3	86	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
398	3	87	*		DIOCSORG						
399	3	88	*								
400	3	89	DIOCSB	SBR	INDEX1	I	4	1147	H 089		40
401	3	90		MCW	2+X1,INDEX1	I	7	1151	M 0+2 089		40
402	3	91		B	SCANX	I	4	1158	B N55		40
403	3	92		LCA	MAINX+18+X3,0+X1	I	7	1162	L 0A9 0+0		40
404	3	93		B	NEXREC	I	4	1169	B 681		40
405	3	94	*								
406	3	95	*		READERROR						
407	3	96	*								
408	3	97	REASB	SBR	CHAIR+3,CHTAP	I	7	1173	H 066 /87		40
409	3	98		B	OPDSCN	I	4	1180	B 014		40
410	3	99		DCW	+REATB	I	3	1186	G27		41
411	4	00	CHTAP	C	OPDAR,'TAP'	I	7	1187	C W26 W37		41
412	4	01		BU	LSTPAR	I	5	1194	B 075 /		41
413	4	02		B	SCANX	I	4	1199	B N55		41
414	4	03		BCE	LSTPAR,MAINX+18+X3,	I	8	1203	B 075 0A9		41
415	4	04		MCW	MAINX+18+X3,DIOCSB+31	I	7	1211	M 0A9 607		41
416	4	05		B	LSTPAR	I	4	1218	B 075		41
417	4	06	*								
418	4	07	*		COMBINATION READ/ WRITE ROUTINE						
419	4	08	*								
420	4	09	CTAPE	SBR	INDEX2	I	4	1222	H 094		42
421	4	10		SBR	ICONPR+3	I	4	1226	H T43		42
422	4	11		MCW	3+X2,INDEX2	I	7	1230	M 0-3 094		42
423	4	12		MCW	8+X2,ITAPEC+7	I	7	1237	M 0-8 T01		42
424	4	13		MCW	0+X2,IEORC+3	I	7	1244	M 0-0 T13		42
425	4	14		SW	ICOMPR+4	I	4	1251	, T19		42
426	4	15		MCW	7+X2,ICOMPR+6	I	7	1255	M 0-7 T21		43
427	4	16		A	'12',ICOMPR+6	I	7	1262	A W39 T21		43
428	4	17		CW	ICOMPR+4	I	4	1269	) T19		43
429	4	18		MN	ITAPEC+3,IHALT+6	I	7	1273	D S97 U28		43
430	4	19		MN	ITAPEC+7,IHALT+6	I	7	1280	D T01 U28		43
431	4	20		MCW	'9',IERRCT=1	I	7	1287	M W40 W41		43
432	4	21	ITAPEC	RT	0,0	I	8	1294	M (U0 000 R		44
433	4	22		BCE	ICMETS,ITAPEC+7,W	I	8	1302	B T35 T01 W		44
434	4	23	IEORC	BEF	0	I	5	1310	B 000 K		44
435	4	24	ICOMPR	BCE	ITAPEC,0,	I	8	1315	B S94 000		44
436	4	25		CHAIN	12					MACRO	
437				BCE		I	1	1323	B	GEN	44
438				BCE		I	1	1324	B	GEN	44
439				BCE		I	1	1325	B	GEN	44
440				BCE		I	1	1326	B	GEN	45
441				BCE		I	1	1327	B	GEN	45
442				BCE		I	1	1328	B	GEN	45
443				BCE		I	1	1329	B	GEN	45
444				BCE		I	1	1330	B	GEN	45
445				BCE		I	1	1331	B	GEN	45
446				BCE		I	1	1332	B	GEN	45
447				BCE		I	1	1333	B	GEN	46

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
448				BCE		I	1	1334	B	GEN	46
449	4	26	ICMETS	BER	IRWRED	I	5	1335	B T44 L		46
450	4	27	ICONPR	B	0	I	4	1340	B 000		46
451	4	28	IRWRED	S	'1',IERRCT	I	7	1344	S W31 W41		46
452	4	29		MN	ITAPEC+3,*+4	I	7	1351	D S97 T61		46
453	4	30		BSP	0	I	5	1358	U (U0 B		46
454	4	31		BCE	ITROW,ITAPEC+7,W	I	8	1363	B T83 T01 W		47
455	4	32		BM	IHALT,IERRCT	I	8	1371	V U22 W41 K		47
456	4	33		B	ITAPEC	I	4	1379	B S94		47
457	4	34	ITROW	A	'1',IERASC=2	I	7	1383	A W31 W43		47
458	4	35		SKP	6	I	5	1390	U (U6 E		47
459	4	36		BCE	ICHALT,IERASC-1,5	I	8	1395	B U07 W42 5		48
460	4	37		B	ITAPEC-7	I	4	1403	B S87		48
461	4	38	ICHALT	S	IERASC	I	4	1407	S W43		48
462	4	39		H	0,202	I	7	1411	. 000 202		48
463	4	40		B	ITAPEC-7	I	4	1418	B S87		48
464	4	41	IHALT	H	0,200	I	7	1422	. 000 200		48
465	4	42		BSS	ITAPEC-7,E	I	5	1429	B S87 E		48
466	4	43		MCW	ITAPEC+7,*+8	I	7	1434	M T01 U48		49
467	4	44		RT	0,0	I	8	1441	M (U0 000 R		49
468	4	45		H	0,201	I	7	1449	. 000 201		49
469	4	46		B	ICONPR	I	4	1456	B T40		49
470	4	47	PASSI	LCA	ENDDIO,ENDDTF	I	7	1460	L 622 567		49
471	4	48		LCA		I	1	1467	L		49
472	4	49		SBR	EITHER+3,DIFREC	I	7	1468	H 336 M06		50
473	4	50		MCW	+DTFTAB+X1,OPDFND+6	I	7	1475	M W46 093		50
474	4	51		LCA	186,LMAINX	I	7	1482	L 186 086		50
475	4	52		B	WRTREC	I	4	1489	B 721		50
476	4	53		B	DTFNM	I	4	1493	B L91		50
477	4	54	ALTBY	B	BYPSS	I	4	1497	B C49		50
478	4	55		BSP	4	I	5	1501	U (U4 B		50
479	4	56	PASS2	RT	1,3997	I	8	1506	M (U1 I97 R		51
480	4	57		RT	1,3997	I	8	1514	M (U1 I97 R		51
481	4	58		SBR	TDF1+7,341	I	7	1522	H P30 341		51
482	4	59		B	CTAPE	I	4	1529	B S22		51
483	4	60		NCP	TDF1	I	4	1533	N P23		51
484	4	61		B	OVLY3	I	4	1537	B 341		51
485	4	62	*								
486	4	63	NUMERC	SBR	INDEX1	I	4	1541	H 089		51
487	4	64		MCW	2+X1,INDEX1	I	7	1545	M 0+2 089		52
488	4	65		SW	MAINX+20	I	4	1552	, 021		52
489	4	66		MCW	MAINX+20,DTFTAB+X1	I	7	1556	M 021 3U9		52
490	4	67		B	DIFREC	I	4	1563	B M06		52
491	4	68	KDIOCS	DCW	'DIOCS'	I	5	1571			52
492	4	69	BLCRB	B	SCANX	I	4	1572	B N55		52
493	4	70		A	MAINX+18+X3,BLOWA-1	I	7	1576	A 0A9 W01		52
494	4	71		LCA	BLOWA-1,DTFTAB+24	I	7	1583	L W01 373		53
495	4	72		S	BLOWA	I	4	1590	S W02		53
496	4	73		B	EITHER	I	4	1594	B 333		53
497	4	74	BLCWA	DCW	+00000	I	5	1602			53

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
498	4	75		LTORG	*	I			1603		
				DCW	'JOB'	I	3	1605		LIT	53
					'CTL'	I	3	1608		LIT	53
					'456'	I	3	1611		LIT	53
		269	NORDRL		=01	I	1	1612		AREA	54
					'M'	I	1	1613		LIT	54
					'DTF'	I	3	1616		LIT	54
					'W'	I	1	1617		LIT	54
		323	SCNSW		=01	I	1	1618		AREA	54
					'7'	I	1	1619		LIT	54
					'\$'	I	1	1620		LIT	54
					' '	I	3	1623		LIT	55
		370	OPDAR		=03	I	3	1626		AREA	55
					' '	I	2	1628		LIT	55
					'52'	I	2	1630		LIT	55
					'1'	I	1	1631		LIT	55
					'YES'	I	3	1634		LIT	55
					'TAP'	I	3	1637		LIT	55
					'12'	I	2	1639		LIT	56
					'9'	I	1	1640		LIT	56
		431	IERRCT		=01	I	1	1641		AREA	56
		457	IERASC		=02	I	2	1643		AREA	56
		473			+DTFTAB+X1	I	3	1646	309	ADCON	56
499	4	76		ORG	1649	I			1649		
500	4	77	OVER	DCW	' '	I	1	1649			57
501	4	78		EX		I			8 000		58

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
502	4	79		JOB	1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 1 -VERSION 3						
503	4	80		ORG	1650	I			1650		
504	4	81		SFX	I						
505	4	82	*								
506	4	83	*		DTF TABLE OF BRANCHES						
507	4	84	*								
508	4	85	DTFINT	SBR	INDEX3,DTFLAB	I	7	1650	H 099	H03	61
509	4	86		SBR	CHAIR+3,LSTPAR	I	7	1657	H 066	075	61
510	4	87		BCE	DIFREC,MAINX+20,	I	8	1664	B M06	021	61
511	4	88		CW	SCNSW	I	4	1672	J W18		61
512	4	89		C	MAINX+6,'EX'	I	7	1676	C 007	H48	61
513	4	90		BE	EXIRB	I	5	1683	B -31	S	61
514	4	91		S	INDEX2+1	I	4	1688	S 095		62
515	4	92	SEEK	C	MAINX+7,0+X3	I	7	1692	C 008	0+0	62
516	4	93		SBR	INDEX3	I	4	1699	H 099		62
517	4	94		BE	AGREE	I	5	1703	B Z35	S	62
518	4	95		BCE	DIFREC,0+X3,'	I	8	1708	B M06	0+0	62
519	4	96		A	'7',INDEX2	I	7	1716	A H49	094	62
520	4	97		B	SEEK	I	4	1723	B W92		62
521	4	98	DTFBR	B	OPDSCN	I	4	1727	B 014		63
522	4	99		DCW	REWIND	I	3	1733	E00		63
523	5	00		B	ACTUAL	I	4	1734	B -89		63
524	5	01		DCW	+DTFTAB+205	I	3	1740	554		63
525	5	02		B	ACTUAL	I	4	1741	B -89		63
526	5	03		DCW	+DTFTAB+108	I	3	1747	457		63
527	5	04		B	HEARB	I	4	1748	B N37		63
528	5	05		DCW	+DTFTAB+103	I	3	1754	452		64
529	5	06		B	OPDSCN	I	4	1755	B 014		64
530	5	07		DCW	+CHEXZ	I	3	1761	D87		64
531	5	08		B	OPDSCN	I	4	1762	B 014		64
532	5	09		DCW	+TYPXZ	I	3	1768	D74		64
533	5	10		B	TOTRB	I	4	1769	B Z81		64
534	5	11		DCW	=3	I	3	1775			64
535	5	12		B	ACTUAL	I	4	1776	B -89		65
536	5	13		DCW	+DTFTAB+75	I	3	1782	424		65
537	5	14		B	ACTUAL	I	4	1783	B -89		65
538	5	15		DCW	+DTFTAB+65	I	3	1789	414		65
539	5	16		B	INDRB	I	4	1790	B -71		65
540	5	17		DCW	=3	I	3	1796			65
541	5	18		B	ACTUAL	I	4	1797	B -89		65
542	5	19		DCW	+DTFTAB+54	I	3	1803	403		66
543	5	20		B	IOARB	I	4	1804	B Z47		66
544	5	21		DCW	+DTFTAB+44	I	3	1810	393		66
545	5	22		B	BLORB	I	4	1811	B V72		66
546	5	23		DCW	+DTFTAB+24	I	3	1817	373		66
547	5	24		B	NUMERC	I	4	1818	B V41		66
548	5	25		DCW	'020'	I	3	1824			66
549	5	26		B	ACTUAL	I	4	1825	B -89		67
550	5	27		DCW	+DTFTAB+19	I	3	1831	368		67
551	5	28		B	OPDSCN	I	4	1832	B 014		67

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
552	5	29		DCW	+RECXZ				RECFORM		
553	5	30		B	NUMERC	I	3	1838	D55		67
554	5	31		DCW	'011'	I	4	1839	B V41		67
555	5	32		B	NUMERC	I	3	1845			67
556	5	33		DCW	'010'	I	4	1846	B V41		67
557	5	34		B	OPDSCN	I	3	1852			68
558	5	35		DCW	+MODXZ	I	4	1853	B 014		68
559	5	36		B	OPDSCN	I	3	1859	D30		68
560	5	37		DCW	+FILXZ	I	4	1860	B 014		68
561	5	38		B	NUMERC	I	3	1866	D23		68
562	5	39		DCW	'009'	I	4	1867	B V41		68
563	5	40		B	ACTUAL	I	3	1873			68
564	5	41		DCW	DTFTAB+198	I	4	1874	B -89		69
565	5	42		B	ACTSCN	I	3	1880	547		69
566	5	43		DCW	+DTFTAB-7	I	4	1881	B /13		69
567	5	44		B	NUMERC	I	3	1887	342		69
568	5	45		DCW	'206'	I	4	1888	B V41		69
569	5	46		B	OVERB	I	3	1894			69
570	5	47		DCW	=1	I	4	1895	B -06		69
571	5	48		ORG	1900	I	1	1899			70
572	5	49		RTW	1,1	I	8	1900	1900		
573	5	50		BER	HALT	I	5	1900	L (U1 001 R		70
574	5	51		CW	OVER	I	4	1908	B Z21 L		70
575	5	52		B	OTHER	I	4	1913	) W49		70
576	5	53	HALT	BSP	1	I	4	1917	B 101		70
577	5	54		NOP	288	I	5	1921	U (U1 B		70
578	5	55		H		I	4	1926	N 288		70
579	5	56		B	1900	I	1	1930	.		71
580	5	57	*			I	4	1931	B Z00		71
581	5	58	AGREE	S	INDEX3+1	I	4	1935	S 100		71
582	5	59		SW	MAINX+20	I	4	1939	, 021		71
583	5	60		B	DTFBR+X2	I	4	1943	B XK7		71
584	5	61	*		IOAREAS						
585	5	62	*								
586	5	63	IOARB	B	SCANX	I	4	1947	B N55		71
587	5	64		LCA	MAINX+18+X3,DTFTAB+44	I	7	1951	L 0A9 393		71
588	5	65		BW	EITHER,SCNSW	I	8	1958	V 333 W18 1		72
589	5	66		B	SCANX	I	4	1966	B N55		72
590	5	67		LCA	MAINX+18+X3,DTFTAB+34	I	7	1970	L 0A9 383		72
591	5	68		B	EITHER	I	4	1977	B 333		72
592	5	69	*								
593	5	70	*		TOTALS						
594	5	71	*								
595	5	72	TOTRB	SBR	CHAIR+3,TCTJK	I	7	1981	H 066 Z95		72
596	5	73		B	OPDSCN	I	4	1988	B 014		72
597	5	74		DCW	+TOTXZ	I	3	1994	E20		72
598	5	75	TOTJK	LCA	MAINX+18+X3,DTFTAB+80	I	7	1995	L 0A9 429		73
599	5	76		B	LSTPAR	I	4	2002	B 075		73
600	5	77	OVERB	SBR	CHAIR+3,OVEJK	I	7	2006	H 066 -20		73
601	5	78		B	OPDSCN	I	4	2013	B 014		73

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
602	5	79		DCW	+OVEXZ	I	3	2019	E13		73
603	5	80	OVEJK	LCA	MAINX+18+X3,DTFTAB+216	I	7	2020	L 0A9	565	73
604	5	81		B	LSTPAR	I	4	2027	B 075		73
605	5	82	*								
606	5	83	*		EXITS ROUTINE						
607	5	84	*								
608	5	85	EXIRB	MCW	'1 8',INDEX2	I	7	2031	M H52	094	74
609	5	86		MN	MAINX+7,INDEX2-1	I	7	2038	D 008	093	74
610	5	87		S	INDEX3+1	I	4	2045	S 100		74
611	5	88		B	SCANX	I	4	2049	B N55		74
612	5	89		LCA	MAINX+18+X3,DTFTAB+X2	I	7	2053	L 0A9	3M9	74
613	5	90		LCA	'\$',DTFTAB-6	I	7	2060	L H53	343	74
614	5	91		B	DIFREC	I	4	2067	B M06		75
615	5	92	*								
616	5	93	*		INDEX REGISTER						
617	5	94	*								
618	5	95	INDRB	MN	MAINX+21,DTFTAB+55	I	7	2071	D 022	404	75
619	5	96		MZ	' ',DTFTAB+55	I	7	2078	Y H54	404	75
620	5	97		B	DIFREC	I	4	2085	B M06		75
621	5	98	*								
622	5	99	*		LOAD PARAMETERS - ACTUAL						
623	6	00	*								
624	6	01	ACTUAL	SBR	INDEX1	I	4	2089	H 089		75
625	6	015		BW	EITHER,SCNSW	I	8	2093	V 333	W18 1	75
626	6	02		MCW	2+X1,INDEX1	I	7	2101	M 0+2	089	76
627	6	03	SEARCH	B	SCANX	I	4	2108	B N55		76
628	6	04		LCA	MAINX+18+X3,0+X1	I	7	2112	L 0A9	0+0	76
629	6	05		SBR	INDEX1	I	4	2119	H 089		76
630	6	06		BW	DIFREC,SCNSW	I	8	2123	V M06	W18 1	76
631	6	07		B	SEARCH	I	4	2131	B J08		76
632	6	08	NEWWRT	SBR	WRTEXT+3	I	4	2135	H 761		76
633	6	09		MCW	LMAINX,LOPUT-1	I	7	2139	M 086	I97	77
634	6	10		SW	OUTPT+80	I	4	2146	, I92		77
635	6	11		MCW	GMWMRK,OUTPT+80	I	7	2150	M 773	I92	77
636	6	12	LONG	MCW	'*',OUTPT+73	I	7	2157	M H55	I85	77
637	6	13		B	SHORT	I	4	2164	B 750		77
638	6	14	*								
639	6	15	*		OUTPUT MACRO STATEMENT FOR DIOC						
640	6	16	*								
641	6	17	CRDOUT	MN	'5',TDF6+4	I	7	2168	D H56	768	77
642	6	18		CS	LMAINX	I	4	2175	/ 086		78
643	6	19		MCW	'55555',MAINX+19	I	7	2179	M H61	020	78
644	6	20		SBR	INDEX3,ENCDIO	I	7	2186	H 099	622	78
645	6	21		B	GOOD+4	I	4	2193	B K01		78
646	6	22	GOOD	CS	LMAINX	I	4	2197	/ 086		78
647	6	23		SW	1	I	4	2201	, 001		78
648	6	24		SBR	INDEX1,MAINX+20	I	7	2205	H 089	021	78
649	6	25		MCW	'\$',MAINX+72	I	7	2212	M H62	073	79
650	6	26	LODPAR	MCW	0+X3,WKAREA-1	I	7	2219	M 0+0	L89	79
651	6	27		SBR	INDEX2	I	4	2226	H 094		79



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
652	6	28		MCW	INDEX1,SAVXL1=3	I	7	2230	M 089 H65		79
653	6	29		MCM	1+X2,0+X1	I	7	2237	P 0-1 0+0		79
654	6	30		SBR	INDEX1	I	4	2244	H 089		79
655	6	31		MCW	', ',0+X1	I	7	2248	M H67 0+0		80
656	6	32		BCE	CONTIN,MAINX+72,+	I	8	2255	B L01 073 +		80
657	6	33		MCW	SAVXL1,INDEX1	I	7	2263	M H65 089		80
658	6	34		SW	0+X1	I	4	2270	, 0+0		80
659	6	35		MCW	' ',MAINX+79	I	7	2274	M H69 080		80
660	6	36		MCW	MAINX+78	I	4	2281	M 079		80
661	6	37		CW	0+X1	I	4	2285	) 0+0		81
662	6	38		B	NEWVRT	I	4	2289	B J35		81
663	6	39		CW	OUTPT+80	I	4	2293	) I92		81
664	6	40		B	GOOD	I	4	2297	B J97		81
665	6	41	CONTIN	MCW	0+X3,0+X3	I	7	2301	M 0+0 0+0		81
666	6	42		SBR	INDEX3	I	4	2308	H 099		81
667	6	43	CCMBLK	C	0+X3,' '	I	7	2312	C 0+0 H54		81
668	6	44		SAR	INDEX3	I	4	2319	Q 099		82
669	6	45		BE	COMBLK	I	5	2323	B L12 S		82
670	6	46		A	'1',INDEX3	I	7	2328	A H70 099		82
671	6	47		B	ALLDIO,0+X3,,	I	8	2335	B L47 0+0 ,		82
672	6	48		B	LODPAR	I	4	2343	B K19		82
673	6	49	ALLDIO	MCW	' ',0+X1	I	7	2347	M H69 0+0		82
674	6	50		MCW	' ',MAINX+72	I	7	2354	M H54 073		83
675	6	51		B	NEWVRT	I	4	2361	B J35		83
676	6	52		CW	OUTPT+80	I	4	2365	) I92		83
677	6	53		MN	'6',TDF6+4	I	7	2369	D H71 768		83
678	6	54	BETTER	B	PASS1	I	4	2376	B U60		83
679	6	55	WKAREA	DCW	' '+'	I	11	2390			83
680	6	56	DTFNM	S	INDEX3+1	I	4	2391	S 100		84
681	6	57		B	SCANX	I	4	2395	B N55		84
682	6	58		LCA	MAINX+18+X3,FILENM	I	7	2399	L 0A9 349		84
683	6	59	DIFREC	B	REDREC	I	4	2406	B 774		84
684	6	60	DELTA	BCE	ALPHA,MAINX+5, *	I	8	2410	B M30 006 *		84
685	6	61		C	MAINX+19,' '	I	7	2418	C 020 H76		84
686	6	62		BU	DTFOUT	I	5	2425	B M46 /		84
687	6	63	ALPHA	B	WRTREC	I	4	2430	B 721		85
688	6	64		BCE	DIFREC,MAINX+5, *	I	8	2434	B M06 006 *		85
689	6	65		B	DTFINT	I	4	2442	B W50		85
690	6	66	DTFOUT	MN	'5',TDF6+4	I	7	2446	D H56 768		85
691	6	67		SBR	INDEX3,ENDDTF	I	7	2453	H 099 567		85
692	6	68		B	SAVCD	I	4	2460	B 098		85
693	6	69		SBR	WALK+3,ALTBY	I	7	2464	H Q99 U97		86
694	6	70		C	MAINX+17,'DTF'	I	7	2471	C 018 H79		86
695	6	71		CS	LMAINX	I	4	2478	/ 086		86
696	6	72		MCW	'33333',MAINX+19	I	7	2482	M H84 020		86
697	6	73		BE	SETDSW	I	5	2489	B N05 S		86
698	6	74	RIVER	SBR	BETTER+3,PASS2	I	7	2494	H L79 V06		86
699	6	75		B	GOOD+4	I	4	2501	B K01		87
700	6	76	SETDSW	SBR	BETTER+3,RNDTF	I	7	2505	H L79 N16		87
701	6	77		B	GOOD+4	I	4	2512	B K01		87

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
702	6	78	RNDTF	RTW	1,341	I	8	2516	L (U1 341 R		87
703	6	79		BSP	1	I	5	2524	U (U1 B		87
704	6	80		CW	DTFGM	I	4	2529	) 568		87
705	6	81		B	PASSI	I	4	2533	B U60		87
706	6	82	HEARB	B	SCANX	I	4	2537	B N55		88
707	6	83		MCW	MAINX+18+X3,DTFTAB+103	I	7	2541	M 0A9 452		88
708	6	84		B	ACTUAL	I	4	2548	B -89		88
709	6	85		DCW	+DTFTAB+93	I	3	2554	442		88
710	6	86	*								
711	6	87	*		SCAN FOR A COMMA OR TWO BLANKS						
712	6	88	*								
713	6	89	SCANX	SBR	CLUBS+3	I	4	2555	H 013		88
714	6	90	SCANL	SW	MAINX+20	I	4	2559	, 021		88
715	6	91		C	MAINX+21+X3,' '	I	7	2563	C 0B2 H69		88
716	6	92		A	'1',INDEX3	I	7	2570	A H70 099		89
717	6	93		BE	SETIT	I	5	2577	B 002 S		89
718	6	94		BCE	SETWMS,MAINX+19+X3,,	I	8	2582	B 006 0B0 ,		89
719	6	95		C	INDEX3,'52'	I	7	2590	C 099 H86		89
720	6	96		BU	SCANL	I	5	2597	B N59 /		89
721	6	97	SETIT	SW	SCNSW	I	4	2602	, W18		89
722	6	98	SETWMS	SW	MAINX+20+X3	I	4	2606	, 0B1		90
723	6	99	CLUBS	B	0	I	4	2610	B 000		90
724	7	00	*								
725	7	01	*		SCAN CPERAND TABLE						
726	7	02	*								
727	7	03	*								
728	7	04	OPDSCN	SBR	INDEX2	I	4	2614	H 094		90
729	7	05		MCW	2+X2,SAVX2	I	7	2618	M 0-2 H89		90
730	7	06	OPDRTN	B	NEWSCN	I	4	2625	B #06		90
731	7	07		MCW	SAVX2=3,INDEX2	I	7	2629	M H89 094		90
732	7	08	SEEKOP	C	OPDAR,0+X2	I	7	2636	C W26 0-0		90
733	7	09		SBR	INDEX2	I	4	2643	H 094		91
734	7	10		MCW	0+X2,INDEX1	I	7	2647	M 0-0 089		91
735	7	11		SAR	INDEX2	I	4	2654	Q 094		91
736	7	12		BE	OPDFND	I	5	2658	B 087 S		91
737	7	13	CHAIR	BCE	LSTPAR,0+X2,'	I	8	2663	B 075 0-0 '		91
738	7	14		B	SEEKOP	I	4	2671	B 036		91
739	7	15	LSTPAR	BW	EITHER,SCNSW	I	8	2675	V 333 W18 1		92
740	7	16		B	OPORTN	I	4	2683	B 025		92
741	7	17	OPDFND	LCA	'\$',DIOCSB+X1	I	7	2687	L H53 5X6		92
742	7	18		B	LSTPAR	I	4	2694	B 075		92
743	7	19	SAVCD	SBR	SVCDX+3	I	4	2698	H P20		92
744	7	20		CS	186	I	4	2702	/ 186		92
745	7	21		SW	101	I	4	2706	, 101		92
746	7	22		MCW	LMAINX,186	I	7	2710	M 086 186		93
747	7	23	SVCDX	B	0	I	4	2717	B 000		93
748	7	24	*								
749	7	25	*		READ IN OVERLAY TWO						
750	7	26	*								
751	7	27	TDF1	DCW	=3	I	3	2723			93

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
752	7	28		RTW	1,101	I	8	2724	L (U1 101 R		93
753	7	29	OVLAY2	SW	GMOVL2	I	4	2732	, 332		93
754	7	30		MCW	GMWMRK,GMCVL2	I	7	2736	M 773 332		93
755	7	31		RT	1,101	I	8	2743	M (U1 101 R		94
756	7	32		B	CTAPE	I	4	2751	B S22		94
757	7	33		NOP	TDF1	I	4	2755	N P23		94
758	7	34		B	PUNCH	I	4	2759	B 101		94
759	7	35	*								
760	7	36	*		ALTER PART OF IOCS						
761	7	37	*								
762	7	38	ALTER	B	CTAPE	I	4	2763	B S22		94
763	7	39		NOP	TDF4A	I	4	2767	N A35		94
764	7	40		MCW	OUTPT+7,SYMMN	I	7	2771	M I19 340		94
765	7	41		BSS	OUTCL,C	I	5	2778	B I19 C		95
766	7	42		BSP	4	I	5	2783	U (U4 B		95
767	7	43		SBR	RIVER+6,TUNEL	I	7	2788	H N00 Q88		95
768	7	44		SBR	PREPS2+3	I	4	2795	H 665		95
769	7	45		R		I	1	2799	1		95
770	7	46		C	MAINX+17,'ALT'	I	7	2800	C 018 H92		95
771	7	47		BU	WALK	I	5	2807	B Q96 /		95
772	7	48	HOMAL	B	SAVXX	I	4	2812	B C19		96
773	7	49		B	PACKX	I	4	2816	B R43		96
774	7	50	NOALTB	B	CTAPE	I	4	2820	B S22		96
775	7	51		NOP	TDF4A	I	4	2824	N A35		96
776	7	52		C	OUTPT+83,HLCAL	I	7	2828	C I95 I02		96
777	7	53		BE	CHECK	I	5	2835	B +05 S		96
778	7	54	PROPRE	C	OUTPT+17,'JOB'	I	7	2840	C I29 H95		96
779	7	55	ALTS1	BU	ALTS2E	I	5	2847	B Q60 /		97
780	7	56		B	NOPJB	I	4	2852	B 205		97
781	7	57		B	NOTER	I	4	2856	B 220		97
782	7	58	ALTS2E	C	OUTPT+17,'CTL'	I	7	2860	C I29 H98		97
783	7	59	ALTS2	BE	OUTCL	I	5	2867	B I19 S		97
784	7	60	SOLVED	MCW	OUTPT+85,LMAINX	I	7	2872	M I97 086		97
785	7	61		SW	READS	I	4	2879	, I10		97
786	7	62	ALTIO	BSS	REGEN,G	I	5	2883	B A44 G		98
787	7	63	TUNEL	BW	BSPT4,READS	I	8	2888	V R04 I10 1		98
788	7	64	WALK	B	SAVCD	I	4	2896	B 098		98
789	7	65		B	ALTBY	I	4	2900	B U97		98
790	7	66	BSPT4	BW	REGL,XCARDS	I	8	2904	V R27 I09 1		98
791	7	67		MN	'5',TDF6+4	I	7	2912	D H56 768		98
792	7	68		B	NEWVRT	I	4	2919	B J35		99
793	7	69		B	REGL+5	I	4	2923	B R32		99
794	7	70	REGL	BSP	4	I	5	2927	U (U4 B		99
795	7	71		LCA	AREASV,186	I	7	2932	L 331 186		99
796	7	72		B	ALTBY	I	4	2939	B U97		99
797	7	73	PACKX	SBR	PACKS+3	I	4	2943	H +04		99
798	7	74		SW	BALTR	I	4	2947	, I03		99
799	7	75		CW	SCNSW	I	4	2951	) W18		100
800	7	76		S	INDEX3+1	I	4	2955	S 100		100
801	7	77		B	SCANX	I	4	2959	B N55		100

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
802	7	78		ZA	MAINX+18+X3,HLDA1=4	I	7	2963	+ 0A9	I02	100
803	7	79		BW	PARKS,SCNSW	I	8	2970	V R93	W18 1	100
804	7	80		B	SCANX	I	4	2978	B N55		100
805	7	81		ZA	MAINX+18+X3,HLDB	I	7	2982	+ 0A9	I07	100
806	7	82		CW	BALTR=1	I	4	2989	) I03		101
807	7	83	PARKS	CS	LMAINX	I	4	2993	/ 086		101
808	7	84		SW	1	I	4	2997	, 001		101
809	7	85	PACKS	B	0	I	4	3001	B 000		101
810	7	86	*								
811	7	87	*		ALTER NUMBER COMPARES EQUAL						
812	7	88	*								
813	7	89	CHECK	BW	WRTAL,BALTR	I	8	3005	V +37	I03 1	101
814	7	90	DBLAL	C	OUTPT+83,HLDB=4	I	7	3013	C I95	I07	101
815	7	91		BE	WRTAL	I	5	3020	B +37	S	101
816	7	92		B	CTAPE	I	4	3025	B S22		102
817	7	93		NOP	TDF4A	I	4	3029	N A35		102
818	7	94		B	DBLAL	I	4	3033	B +13		102
819	7	95	WRTAL	BLC	TUNEL	I	5	3037	B Q88	A	102
820	7	96		R		I	1	3042	1		102
821	7	97		C	MAINX+17,'ALT'	I	7	3043	C 018	H92	102
822	7	98		BE	HOMAL	I	5	3050	B Q12	S	102
823	7	99		C	MAINX+17,'JOB'	I	7	3055	C 018	H95	103
824	8	00	ALTS3	BU	ALTS4E	I	5	3062	B +75	/	103
825	8	01		B	NOPJB	I	4	3067	B 205		103
826	8	02		B	RSOLV	I	4	3071	B 175		103
827	8	03	ALTS4E	C	MAINX+17,'CTL'	I	7	3075	C 018	H98	103
828	8	04	ALTS4	BE	CRDCL	I	5	3082	B 138	S	103
829	8	05		BW	TUFF,BALTR	I	8	3087	V A03	I03 1	104
830	8	06		CW	READS	I	4	3095	) I10		104
831	8	07		B	ALTIO	I	4	3099	B Q83		104
832	8	08	TUFF	B	SAVXX	I	4	3103	B C19		104
833	8	09		CW	XCARDS	I	4	3107	) I09		104
834	8	10		SBR	RSOLV+7,SOLVED	I	7	3111	H 182	Q72	104
835	8	101		SBR	CHUCK+3	I	4	3118	H 234		104
836	8	102		MCW	'N',NOSOL	I	7	3122	M I08	131	105
837	8	11		B	PROPRE	I	4	3129	B Q40		105
838	8	12	*								
839	8	13	*		TDF FOR READING 86 CHARACTER RECORDS						
840	8	14	*								
841	8	15	TDF4A	DCW	TUNEL	I	3	3135	Q88		105
842	8	16		RT	4,OUTPT	I	8	3136	M (U4	I12 R	105
843	8	17	*								
844	8	18	*		REGENERATION OF DIOCS AND DTF						
845	8	19	*								
846	8	20	REGEN	BW	ORDN,XCARDS	I	8	3144	V A85	I09 1	105
847	8	21		SBR	NEXREC+3,SPCAS	I	7	3152	H 684	A74	105
848	8	22		SBR	ALDIO-1,SOFT	I	7	3159	H 802	B68	106
849	8	23		CW	READS	I	4	3166	) I10		106
850	8	24		B	FIND	I	4	3170	B 642		106
851	8	25	SPCAS	MCW	AREASV,LMAINX	I	7	3174	M 331	086	106

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
852	8	26		SW	XCARDS=1	I	4	3181	, I09		106
853	8	27	ORDN	SBR	NEXREC+3,ALDIO	I	7	3185	H 684 B03		106
854	8	28		SBR	DIFREC+3,ALDTF	I	7	3192	H M09 C08		107
855	8	29		B	FIND	I	4	3199	B 642		107
856	8	30	ALDIO	CS	LMAINX	I	4	3203	/ 086		107
857	8	31		BW	RDT4A,READS	I	8	3207	V B41 I10 1		107
858	8	32		BLC	LUNET	I	5	3215	B C34 A		107
859	8	33		R		I	1	3220	I		107
860	8	34		C	MAINX+17,'ALT'	I	7	3221	C 018 H92		107
861	8	35		BU	SOFT	I	5	3228	B B68 /		108
862	8	36		B	SAVXX	I	4	3233	B C19		108
863	8	37		B	PACKX	I	4	3237	B R43		108
864	8	38	RDT4A	B	BYPSS	I	4	3241	B C49		108
865	8	39		C	OUTPT+83,HLDA1	I	7	3245	C I95 I02		108
866	8	40	FINAL	BE	DBLCK	I	5	3252	B B72 S		108
867	8	41		SW	READS	I	4	3257	, I10		108
868	8	42	FINAL2	MCW	OUTPT+85,LMAINX	I	7	3261	M I97 086		109
869	8	43	SOFT	B	GAMMA	I	4	3268	B 685		109
870	8	44	DBLCK	CW	READS=1	I	4	3272	) I10		109
871	8	45		BW	FINAL2,BALTR	I	8	3276	V B61 I03 1		109
872	8	46	TRPCK	C	OUTPT+83,HLDB	I	7	3284	C I95 I07		109
873	8	47		BE	ALDIO	I	5	3291	B B03 S		109
874	8	48		B	CTAPE	I	4	3296	B S22		109
875	8	49		NOP	TDF4A	I	4	3300	N A35		110
876	8	50		B	TRPCK	I	4	3304	B B84		110
877	8	51	*								
878	8	52	*		DTF ON ALTER MODE						
879	8	53	*								
880	8	54	ALDTF	SBR	SOFT+3,DELTA	I	7	3308	H B71 M10		110
881	8	55		B	ALDIO	I	4	3315	B B03		110
882	8	56	SAVXX	SBR	SAVXT+3	I	4	3319	H C33		110
883	8	57		MCW	LMAINX,AREASV	I	7	3323	M 086 331		110
884	8	58	SAVXT	B	0	I	4	3330	B 000		110
885	8	59	LUNET	SW	READS	I	4	3334	, I10		111
886	8	60		MCW	'N',FINAL	I	7	3338	M I08 B52		111
887	8	61		B	RDT4A	I	4	3345	B B41		111
888	8	62	BYPSS	SBR	BYPSS+3	I	4	3349	H C80		111
889	8	63		B	CTAPE	I	4	3353	B S22		111
890	8	64		NOP	TDF4A	I	4	3357	N A35		111
891	8	65		BCE	BYPSS+4,OUTPT+74,Y	I	8	3361	B C53 I86 Y		111
892	8	66		BCE	BYPSS+4,OUTPT+74,Z	I	8	3369	B C53 I86 Z		112
893	8	67	BYPSSX	B	0	I	4	3377	B 000		112
894	8	68	*								
895	8	69	*		DTF TABLE OF OPERANDS						
896	8	70	*								
897	8	71		DCW	''' FILETYP	I	1	3381			112
898	8	72		DCW	'001'	I	3	3384			112
899	8	73		DCW	'INP' INPUT	I	3	3387			112
900	8	74		DCW	'002'	I	3	3390			112
901	8	75		DCW	'OUT' OUTPUT	I	3	3393			112

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
902	8	76		DCW	'003'	I	3	3396			113
903	8	77		DCW	'TAP'	I	3	3399	TAPE		113
904	8	78		DCW	'004'	I	3	3402			113
905	8	79		DCW	'REA'	I	3	3405	READER		113
906	8	80		DCW	'005'	I	3	3408			113
907	8	81		DCW	'PUN'	I	3	3411	PUNCH		113
908	8	82		DCW	'008'	I	3	3414			113
909	8	83		DCW	'CHE'	I	3	3417			114
910	8	84		DCW	'006'	I	3	3420			114
911	8	85	FILXZ	DCW	'PRI'	I	3	3423	PRINTER		114
912	8	86		DCW	'''	I	1	3424	MODEPAR		114
913	8	87		DCW	'007'	I	3	3427			114
914	8	88	MODXZ	DCW	'LOA'	I	3	3430			114
915	8	89		DCW	'''	I	1	3431	RECFORM		114
916	8	90		DCW	'012'	I	3	3434			115
917	8	91		DCW	'BLO'	I	3	3437	BLOCKED		115
918	8	92		DCW	'013'	I	3	3440			115
919	8	93		DCW	'UNB'	I	3	3443	UNBLOCKED		115
920	8	94		DCW	'014'	I	3	3446			115
921	8	95		DCW	'FIX'	I	3	3449	FIXED		115
922	8	96		DCW	'015'	I	3	3452			115
923	8	97	RECXZ	DCW	'VAR'	I	3	3455	VARIABLE		116
924	8	98		DCW	'''	I	1	3456	TYPELABEL		116
925	8	99		DCW	'081'	I	3	3459			116
926	9	00		DCW	'STA'	I	3	3462	STANDARD		116
927	9	01		DCW	'082'	I	3	3465			116
928	9	02		DCW	'NON'	I	3	3468	NONSTANDARD		116
929	9	03		DCW	'083'	I	3	3471			116
930	9	04	TYPXZ	DCW	'TM '	I	3	3474	TM		117
931	9	05		DCW	'''	I	1	3475	CHECKLABEL		117
932	9	06		DCW	'084'	I	3	3478			117
933	9	07		DCW	'ALL'	I	3	3481	ALL		117
934	9	08		DCW	'085'	I	3	3484			117
935	9	09	CHEXZ	DCW	'IDE'	I	3	3487	IDENT		117
936	9	10		DCW	'''	I	1	3488	REWIND		117
937	9	11		DCW	'199'	I	3	3491			118
938	9	12		DCW	'UNL'	I	3	3494	UNLOAD		118
939	9	13		DCW	'200'	I	3	3497			118
940	9	14	REWXZ	DCW	'NOR'	I	3	3500	NOREWD		118
941	9	15		DCW	'''	I	1	3501			118
942	9	16		DCW	'201'	I	3	3504			118
943	9	17		DCW	'9 '	I	3	3507			118
944	9	18		DCW	'202'	I	3	3510			119
945	9	19	OVEXZ	DCW	'12 '	I	3	3513			119
946	9	20		DCW	'''	I	1	3514			119
947	9	21		DCW	'076'	I	3	3517			119
948	9	22	TOTXZ	DCW	'REC'	I	3	3520			119
949	9	23	*								
950	9	24	*		DIOCS CPERAND TABLE						
951	9	25	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
952	9	26		DCW	'''	I	1	3521			119
953	9	27		DCW	-MINUS3+4	I	3	3524	19C		119
954	9	28		DCW	'OUT'	I	3	3527			120
955	9	29		DCW	-MINUS2+4	I	3	3530	19D		120
956	9	30	TAPTB	DCW	'INP'	I	3	3533			120
957	9	31		DCW	'''	I	1	3534			120
958	9	32		DCW	'045'	I	3	3537			120
959	9	33		DCW	'REL'	I	3	3540			120
960	9	34		DCW	'046'	I	3	3543			120
961	9	35		DCW	'STO'	I	3	3546			121
962	9	36		DCW	'006'	I	3	3549			121
963	9	37	FEATB	DCW	'OVE'	I	3	3552			121
964	9	38		DCW	'''	I	1	3553			121
965	9	39		DCW	'007'	I	3	3556			121
966	9	40		DCW	'TAP'	I	3	3559			121
967	9	41		DCW	'008'	I	3	3562			121
968	9	42		DCW	'REA'	I	3	3565			122
969	9	43		DCW	'009'	I	3	3568			122
970	9	44		DCW	'PUN'	I	3	3571			122
971	9	45		DCW	'010'	I	3	3574			122
972	9	46	IOCTB	DCW	'PRI'	I	3	3577			122
973	9	47		DCW	'''	I	1	3578			122
974	9	48		DCW	'011'	I	3	3581			122
975	9	49		DCW	'STA'	I	3	3584			123
976	9	50		DCW	'012'	I	3	3587			123
977	9	51		DCW	'NON'	I	3	3590			123
978	9	52		DCW	'013'	I	3	3593			123
979	9	53		DCW	'MIX'	I	3	3596			123
980	9	54		DCW	'014'	I	3	3599			123
981	9	55		DCW	'CHE'	I	3	3602			123
982	9	56		DCW	'015'	I	3	3605			124
983	9	57		DCW	'IDE'	I	3	3608			124
984	9	58		DCW	'026'	I	3	3611			124
985	9	59		DCW	'RDL'	I	3	3614			124
986	9	60		DCW	'016'	I	3	3617			124
987	9	61	LABTB	DCW	'TM'	I	3	3620			124
988	9	62		DCW	'''	I	1	3621			124
989	9	63		DCW	'018'	I	3	3624			125
990	9	64		DCW	'1'	I	3	3627			125
991	9	65		DCW	'019'	I	3	3630			125
992	9	66		DCW	'2'	I	3	3633			125
993	9	67		DCW	'020'	I	3	3636			125
994	9	68		DCW	'3'	I	3	3639			125
995	9	69		DCW	'021'	I	3	3642			125
996	9	70		DCW	'4'	I	3	3645			126
997	9	71		DCW	'022'	I	3	3648			126
998	9	72		DCW	'5'	I	3	3651			126
999	9	73		DCW	'023'	I	3	3654			126
1000	9	74		DCW	'6'	I	3	3657			126
1001	9	75		DCW	'024'	I	3	3660			126

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1002	9	76		DCW	'7 '				EXIT 7		126
1003	9	77		DCW	'025'	I	3	3663			127
1004	9	78	EXITB	DCW	'8 '	I	3	3666			127
1005	9	79		DCW	''	I	3	3669			127
1006	9	80		DCW	'027'	I	1	3670			127
1007	9	81		DCW	'729'	I	3	3673			127
1008	9	82		DCW	'028'	I	3	3676			127
1009	9	83	DRITB	DCW	'733'	I	3	3679			127
1010	9	84		DCW	''	I	3	3682			127
1011	9	85		DCW	'029'	I	1	3683			128
1012	9	86		DCW	'NOR'	I	3	3686			128
1013	9	87		DCW	'030'	I	3	3689	NO RWED		128
1014	9	88	RWDTB	DCW	'UNL'	I	3	3692	UNLOAD		128
1015	9	89		DCW	''	I	3	3695			128
1016	9	90		DCW	'037'	I	1	3696			128
1017	9	91		DCW	'REC'	I	3	3699			128
1018	9	92		DCW	'038'	I	3	3702	RECORD		129
1019	9	93	COUTB	DCW	'HAS'	I	3	3705			129
1020	9	94		DCW	''	I	3	3708	HASH		129
1021	9	95		DCW	'034'	I	1	3709			129
1022	9	96		DCW	'CLE'	I	3	3712			129
1023	9	97		DCW	'033'	I	3	3715			129
1024	9	98		DCW	'PRO'	I	3	3718			129
1025	9	99		DCW	'032'	I	3	3721			130
1026	10	00	REATB	DCW	'SCA'	I	3	3724			130
1027	10	01	*			I	3	3727			130
1028	10	02	*		DTF TABLE OF LABELS						
1029	10	03	*								
1030	10	04		DCW	''	I	1	3728			130
1031	10	05		DCW	'OVE'	I	3	3731	OVERFLOW		130
1032	10	06		DCW	'FOR'	I	3	3734	FORMSCNTL		130
1033	10	07		DCW	'COB'	I	3	3737	COBOL		130
1034	10	08		DCW	'VAR'	I	3	3740	VARBUILD		131
1035	10	09		DCW	'CHA'	I	3	3743	CHANDRIVE		131
1036	10	10		DCW	'FIL'	I	3	3746	FILETYPE		131
1037	10	11		DCW	'MOD'	I	3	3749	MODEPAR		131
1038	10	12		DCW	'CAR'	I	3	3752	CARDROC		131
1039	10	13		DCW	'ALT'	I	3	3755	ALTTAPE		131
1040	10	14		DCW	'REC'	I	3	3758	RECFORM		131
1041	10	15		DCW	'SIZ'	I	3	3761	SIZEREC		132
1042	10	16		DCW	'PAD'	I	3	3764	PADDING		132
1043	10	17		DCW	'BLO'	I	3	3767	BLOCKSIZE		132
1044	10	18		DCW	'IOA'	I	3	3770	IOAREAS		132
1045	10	19		DCW	'WOR'	I	3	3773	WORKAREA		132
1046	10	20		DCW	'IND'	I	3	3776	INDEXREC		132
1047	10	21		DCW	'EOF'	I	3	3779	EOFADDR		132
1048	10	22		DCW	'WLR'	I	3	3782	WLRADDR		133
1049	10	23		DCW	'TOT'	I	3	3785	TOTALS		133
1050	10	24		DCW	'TYP'	I	3	3788	TYPELABEL		133
1051	10	25		DCW	'CHE'	I	3	3791	CHECKLABEL		133



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1052	10	26		DCW	'HEA'	HEADER	I	3	3794		133
1053	10	27		DCW	'SER'	SERIALNUM	I	3	3797		133
1054	10	28		DCW	'REE'	REELSEQ	I	3	3800		133
1055	10	29	DTFLAB	DCW	'REW'	REWIND	I	3	3803		134
1056	10	30	*								
1057	10	31	*								
1058	10	32	*		LABEL TABLE						
1059	10	33	*								
1060	10	34		DCW	' '		I	1	3804		134
1061	10	35		DCW	'TAP'	TAPEUSE	I	3	3807		134
1062	10	36		DCW	'CHE'	CHECKPOINT	I	3	3810		134
1063	10	37		DCW	'DIO'	DIOCSORG	I	3	3813		134
1064	10	38		DCW	'FEA'	FEATURES	I	3	3816		134
1065	10	39		DCW	'IOD'	IODEVICES	I	3	3819		134
1066	10	40		DCW	'LAB'	LABELDEF	I	3	3822		135
1067	10	41		DCW	'ALT'	ALTTAPE	I	3	3825		135
1068	10	42		DCW	'EXI'	EXITS	I	3	3828		135
1069	10	43		DCW	'VAR'	VARBUILD	I	3	3831		135
1070	10	44		DCW	'COU'	COUNTS	I	3	3834		135
1071	10	45		DCW	'DRI'	DRIVETYPE	I	3	3837		135
1072	10	46		DCW	'RWD'	RWDOPTION	I	3	3840		135
1073	10	47		DCW	'REA'	READERROR	I	3	3843		136
1074	10	48	LBLTBL	DCW	'INP'	INPFENO	I	3	3846		136
1075	10	49		LTORG	*		I			3847	
				DCW	'EX'		I	2	3848	LIT	136
					'7'		I	1	3849	LIT	136
					'1 8'		I	3	3852	LIT	136
					'\$'		I	1	3853	LIT	136
					' '		I	1	3854	LIT	136
					'*'		I	1	3855	LIT	137
					'5'		I	1	3856	LIT	137
	643				'55555'		I	5	3861	LIT	137
					'#'		I	1	3862	LIT	137
	652	SAVXL1			=03		I	3	3865	AREA	137
					' , '		I	2	3867	LIT	137
					' ' '		I	2	3869	LIT	137
					'1'		I	1	3870	LIT	138
					'6'		I	1	3871	LIT	138
	685				' '		I	5	3876	LIT	138
					'DTF'		I	3	3879	LIT	138
	696				'33333'		I	5	3884	LIT	138
					'52'		I	2	3886	LIT	138
	731	SAVX2			=03		I	3	3889	AREA	138
					'ALT'		I	3	3892	LIT	139
					'JOB'		I	3	3895	LIT	139
					'CTL'		I	3	3898	LIT	139
	802	HLCA1			=04		I	4	3902	AREA	139
	806	BALTR			=01		I	1	3903	AREA	139
	814	HLCB			=04		I	4	3907	AREA	139
					'N'		I	1	3908	LIT	139

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		852	XCARDS		=01	I	1	3909		AREA	140
		870	READS		=01	I	1	3910		AREA	140
1076	10	50	*								
1077	10	51	*		OUTPUT AREA						
1078	10	52	*								
1079	10	53		ORG	3912	I			3912		
1080	10	54	OUTPT	DA	1X86,G	I		3912	3997		140
				DCW	' '	I	1	3998		GMARK	141
1081	10	55	LOPUT	EQU	*	I		3998			
1082	10	56		EX		I			B 000		142

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1083	10	57		JOB	1401 AUTOCODER-PASS 2-COPY DTF TABLE				-VERSION 3		
1084	10	58		SFX	I						
1085	10	59		ORG	341					0341	
1086	10	60		DCW	' ,	I					145
1087	10	61		DCW	' ' EXITS YES	I	1	0341			145
1088	10	62		DCW	' ' COBOL YES	I	1	0342			145
1089	10	63		DCW	=6	I	6	0343			145
1090	10	64		DCW	' ' 1 INPUT 1 FILETYPE	I	1	0349			145
1091	10	65		DCW	' ' 2 OUTPUT 2	I	1	0350			145
1092	10	66		DCW	' ' 3 TAPE 3	I	1	0351			145
1093	10	67		DCW	' ' 4 READER 4	I	1	0352			146
1094	10	68		DCW	' ' 5 PUNCH 5	I	1	0353			146
1095	10	69		DCW	' ' 6 PRINTER 6	I	1	0354			146
1096	10	70		DCW	' ' 7 LOAD 7 MODEPAR	I	1	0355			146
1097	10	71		DCW	' ' 8 CHECKPOINT 8 FEATURES	I	1	0356			146
1098	10	72		DCW	' ' 9 NUMBER 9 CHANDRIVE	I	1	0357			146
1099	10	73		DCW	' ' 10 NUMBER 10 CARDPOC	I	1	0358			146
1100	10	74		DCW	' ' 11 NUMBER 11 ALTTAPE	I	1	0359			147
1101	10	75		DCW	' ' 12 BLOCKED 12 RECFORM	I	1	0360			147
1102	10	76		DCW	' ' 13 UNBLOCKED 13	I	1	0361			147
1103	10	77		DCW	' ' 14 MIXED 14	I	1	0362			147
1104	10	78		DCW	' ' 15 VARIABLE 15	I	1	0363			147
1105	10	79		DCW	' ' 16-19 NUMBER 16 SIZEREC	I	4	0364			147
1106	10	80		DCW	' ' 20 NUMBER 17 PADDING	I	1	0365			147
1107	10	81		DCW	' ' 21-24 NUMBER 18 BLOCKSIZE	I	4	0366			148
1108	10	82		DCW	' ' 25-34 LABELS 19 IOAREAS	I	10	0367			148
1109	10	83		DCW	' ' 35-44 20	I	10	0368			148
1110	10	84		DCW	' ' 45-54 LABEL 21 WORKAREA	I	10	0369			148
1111	10	85		DCW	' ' 55 NUMBER 22 INDEXREG	I	1	0403			148
1112	10	86		DCW	' ' 56-65 LABEL 23 EORADDR	I	10	0404			149
1113	10	87		DCW	' ' 66-75 LABEL 24 WLRADDR	I	10	0414			149
1114	10	88		DCW	' ' 76 RECORD 25 TOTALS	I	1	0424			149
1115	10	89		DCW	' ' 77-80 HASH 26	I	4	0425			149
1116	10	90		DCW	' ' 81 STANDARD 27 TYPELABEL	I	1	0429			149
1117	10	91		DCW	' ' 82 NONSTANDARD 28	I	1	0430			149
1118	10	92		DCW	' ' 83 TM 29	I	1	0431			149
1119	10	93		DCW	' ' 84 ALL 30 CHECKLABEL	I	1	0432			150
1120	10	94		DCW	' ' 85 IDENT 31	I	1	0433			150
1121	10	95		DCW	' ' ' I 3 0434						150
1122	10	96		DCW	' ' ' I 5 0437						150
1123	10	97		DCW	' ' ' I 10 0442						150
1124	10	98		DCW	' ' 104-108 NUMBER 35 SERIALNUM	I	5	0452			150
1125	10	99		DCW	' ' 109-118 39 EX1ADDR	I	10	0457			150
1126	11	00		DCW	' ' 119-128 40 EX2ADDR	I	10	0467			151
1127	11	01		DCW	' ' 129-138 41 EX3ADDR	I	10	0477			151
1128	11	02		DCW	' ' 139-148 42 EX4ADDR	I	10	0487			151
1129	11	03		DCW	' ' 149-158 43 EX5ADDR	I	10	0497			152
1130	11	04		DCW	' ' 159-168 44 EX6ADDR	I	10	0507			152
1131	11	05		DCW	' ' 169-178 45 EX7ADDR	I	10	0517			152
1132	11	06		DCW	' ' 179-188 46 EX8ADDR	I	10	0527			152

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
1133	11	07		DCW	' 189-198	47			VARBUILD	I 10	0547	153
1134	11	08		DCW	' ' 199 UNLOAD	37			REWIND	I 1	0548	153
1135	11	09		DCW	' ' 200 NOREWD	38				I 1	0549	153
1136	11	10		DCW	' ' 9 201				OVERFLOW	I 1	0550	153
1137	11	11		DCW	' ' 12 202					I 1	0551	153
1138	11	12		DCW	' ' 203-205 NUMBER				REELSEQ	I 3	0554	153
1139	11	13		DCW	' ' 206				FORMCNTL	I 1	0555	154
1140	11	14		DCW	=9					I 9	0564	154
1141	11	15		DCW	' ' 216 ADDRESS				OVERFLOW	I 1	0565	154
1142	11	16		DCW	' ' 216 ADDRESS					I 1	0566	154
1143	11	17		DCW	' ' 216 ADDRESS					I 1	0567	154
1144	11	18	DTFGM	DCW	' ' 216 ADDRESS					I 1	0568	154
1145	11	19		EX						I		155

B 000

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1146	11	20		JOB	1401 AUTOCODER-PASS 2-ALTER OVERLAY						
1147	11	21		SFX	I						
1148	11	22		ORG	101	I			0101		
1149	11	23	*								
1150	11	24	*								
1151	11	25	*		CTL CARD ON TAPE 4						
1152	11	26	*								
1153	11	27	PUNCH	CW	GMOVL2	I	4	0101	I 332		158
1154	11	28		BSP	1	I	5	0105	U (U1 B		158
1155	11	29		BSP	1	I	5	0110	U (U1 B		158
1156	11	30		B	ALTER	I	4	0115	B P63		158
1157	11	31	OUTCL	MCW	OUTPT+85,LMAINX	I	7	0119	M I97 086		158
1158	11	32		BSS	PREPS2,C	I	5	0126	B 662 C		158
1159	11	33	NOSOL	SBR	RSOLV+7,NOALTB	I	7	0131	H 182 Q20		158
1160	11	34	*								
1161	11	35	*		CTL CARD FROM CARDS						
1162	11	36	*								
1163	11	37	CRDCL	BCE	LEAVE,MAINX+23,1	I	8	0138	B 167 024 1		159
1164	11	38		MN	MAINX+21,*+8	I	7	0146	D 022 160		159
1165	11	39		BCE	LEAVE,'456',	I	8	0153	B 167 237		159
1166	11	40		CHAIN	2					MACRO	
1167				BCE		I	1	0161	B	GEN	159
1168				BCE		I	1	0162	B	GEN	159
1169	11	41		B	LETBE	I	4	0163	B 171		159
1170	11	42	LEAVE	S	SPECL	I	4	0167	S 337		159
1171	11	43	LETBE	B	NOPCL	I	4	0171	B 183		160
1172	11	44	RSOLV	B	WRTREC	I	4	0175	B 721		160
1173	11	45		B	WRTAL	I	4	0179	B +37		160
1174	11	46	*								
1175	11	47	NOPCL	SBR	NPCLX+3	I	4	0183	H 204		160
1176	11	48		MCW	'N',ALTS2	I	7	0187	M 238 Q67		160
1177	11	49		MCW	'N',ALTS4	I	7	0194	M 238 +82		160
1178	11	50	NPCLX	B	0	I	4	0201	B 000		160
1179	11	51	NOPJB	SBR	NPJBX+3	I	4	0205	H 219		161
1180	11	52		SW	ALTS1+4,ALTS3+4	I	7	0209	, Q51 +66		161
1181	11	53	NPJBX	B	0	I	4	0216	B 000		161
1182	11	54	NOTER	MCW	OUTPT+85,LMAINX	I	7	0220	M I97 086		161
1183	11	55		B	WRTREC	I	4	0227	B 721		161
1184	11	56	CHUCK	B	NOALTB	I	4	0231	B Q20		161
1185	11	57		LTORG	*	I			0235		
				DCW	'456'	I	3	0237		LIT	161
					'N'	I	1	0238		LIT	162
1186	11	58		ORG	246	I			0246		
1187	11	59		DA	1X86	I		0246	0331		162
1188	11	60	AREASV	EQU	*	I		0331			
1189	11	61	GMOVL2	DCW	' '	I	1	0332			163
1190	11	62		EX		I			B 000		164

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1191	11	63		JOB	1401 AUTOCODER - PASS 2 - END OVERLAY						
1192	11	64		SFX	I						
1193	11	65		ORG	341	I			0341		
1194	11	66	OVLY3	MN	'5',TDF6+4	I	7	0341	D 432 768		167
1195	11	73		SBR	LONG+3,'N'	I	7	0348	H J60 433		167
1196	11	74		LCA	186,LMAINX	I	7	0355	L 186 086		167
1197	11	75		B	NEWWRT	I	4	0362	B J35		167
1198	11	76		CW	OUTPT+80	I	4	0366	) I92		167
1199	11	77		SW	GMOVL4	I	4	0370	, 606		167
1200	11	78		MCW	GMWMRK,GMCVL4	I	7	0374	M 773 606		168
1201	11	79		B	CTAPE	I	4	0381	B S22		168
1202	11	80		NOP	TDF9	I	4	0385	N 412		168
1203	11	81		CW	GMOVL4	I	4	0389	) 606		168
1204	11	82		RWD	5	I	5	0393	U (U5 R		168
1205	11	83		B	CTAPE	I	4	0398	B S22		168
1206	11	84		NOP	TDFSYS	I	4	0402	N 423		168
1207	11	85		B	1900	I	4	0406	B Z00		169
1208	11	86	TDF9	DCW	=3	I	3	0412			169
1209	11	87		WTW	5,OVLY4	I	8	0413	L (U5 434 W		169
1210	11	88	TDFSYS	DCW	=3	I	3	0423			169
1211	11	89		RTW	1,1650	I	8	0424	L (U1 W50 R		169
1212	11	92	*								
1213	11	93		LTORG	*	I			0432		
				DCW	'5'	I	1	0432		LIT	169
					'N'	I	1	0433		LIT	169
1214	11	94	OVLY4	EQU	*+1	I		0434			
1215	11	95		SFX	X						
1216	11	96	*	END OF	JOB						
1217	11	97	*								
1218	11	98		C	CALLTX,BLANKS-2	X	7	0434	C -73 W14		170
1219	11	99		BE	STENDX	X	5	0441	B 450 S		170
1220	12	00		B	SUREXX	X	4	0446	B T08		170
1221	12	01	STENDX	B	SBROTX	X	4	0450	B 033		170
1222	12	02		RWD	5	X	5	0454	U (U5 R		170
1223	12	03		BSP	1	X	5	0459	U (U1 B		170
1224	12	04		BSP	1	X	5	0464	U (U1 B		170
1225	12	05		WTM	6	X	5	0469	U (U6 M		171
1226	12	06		RWD	6	X	5	0474	U (U6 R		171
1227	12	07		MCW	SYNMXX,MAINX+2	X	7	0479	M W01 003		171
1228	12	08		LCA	LOPUT+1,MAINX+35	X	7	0486	L 198 036		171
1229	12	09		WT	5,MAINX	X	8	0493	M (U5 001 W		171
1230	12	10		WTM	5	X	5	0501	U (U5 M		171
1231	12	11		RWD	4	X	5	0506	U (U4 R		172
1232	12	12		CW	LIPUT+1,MAINX+35	X	7	0511	) 187 036		172
1233	12	13		CW	100	X	4	0518	) 100		172
1234	12	14	BYPASX	RT	1,3997	X	8	0522	M (U1 I97 R		172
1235	12	15		SW	LOPUT+1	X	4	0530	, I98		172
1236	12	16		BEF	CBSP2X	X	5	0534	B 543 K		172
1237	12	17		B	BYPASX	X	4	0539	B 522		172
1238	12	18	CBSP2X	RT	1,3997	X	8	0543	M (U1 I97 R		173

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1239	12	19		SW	LOPUT+1	X	4	0551	, I98		173
1240	12	20		S	+1,CBSP1X	X	7	0555	S 605 604		173
1241	12	21		BM	CBSP3X,CBSP1X	X	8	0562	V 574 604 K		173
1242	12	22		B	CBSP2X	X	4	0570	B 543		173
1243	12	23	*								
1244	12	24	* LOAD PASS		THREE						
1245	12	25	*								
1246	12	26	CBSP3X	CS	PARTB	X	4	0574	/ 466		173
1247	12	27		CS		X	1	0578	/		173
1248	12	28		CS		X	1	0579	/		174
1249	12	29		B	CTAPE	X	4	0580	B W50		174
1250	12	30		NOP	TDFEOJ	X	4	0584	N 594		174
1251	12	31		B	2465	X	4	0588	B M65		174
1252	12	32	TDFEOJ	DCW	+CCHALT	X	3	0594	Y34		174
1253	12	33		RTW	1,2210	X	8	0595	L (U1 K10 R		174
1254	12	34	CBSP1X	DCW	'11'	X	2	0604			174
1255	12	35	*								
1256	12	36		LTORG	*	X			0605		
				DCW	+1	X	1	0605		LIT	175
1257	12	37	GMCVL4	DCW	' '	X	1	0606			175
1258	12	38		EX		X			B 000		176

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1259	12	39		JOB	1401 AUTOCODER - PASS 2 - ALTER ASSEMBLY - VERSION 3						
1260	12	40	*								
1261	12	41	*	AREA DEFINITIONS							
1262	12	42	*								
1263	12	43		SFX	B						
1264	12	44		ORG	1	B			0001		
1265	12	45		DA	1X86	B		0001	0086		179
1266	12	46		EQU	* LMAIN	B		0086			
1267	12	47		ORG	87	B			0087		
1268	12	48		DCW	000 INDEX1	B	3	0089			179
1269	12	49		DC	00	B	2	0091			179
1270	12	50		DCW	000 INDEX2	B	3	0094			179
1271	12	51		DC	00	B	2	0096			179
1272	12	52		DCW	000 INDEX3	B	3	0099			179
1273	12	53		DC	00	B	2	0101			179
1274	12	54		ORG	100	B			0100		
1275	12	55		DC	' '	B	1	0100			180
1276	12	56		DA	1X86 INPUT	B		0101	0186		180
1277	12	57		DC	' ' LIPUT+1	B	1	0187			181
1278	12	58		DC	0 ZEROX	B	1	0188			181
1279	12	59		DC	0 CARDSX	B	1	0189			181
1280	12	60		DCW	'****' HLDSBX	B	3	0192			181
1281	12	61	*								
1282	12	62	*	INITIALIZATION							
1283	12	63	*								
1284	12	64		ORG	101	B			0101		
1285	12	65	VOICE	CS	CALLTX	B	4	0101	/ -73		182
1286	12	66		CS		B	1	0105	/		182
1287	12	67	IOCALT	CS	LMAINX	B	4	0106	/ 086		182
1288	12	68		B	CTAPEX	B	4	0110	B W50		182
1289	12	69		NOP	TDFIO5	B	4	0114	N 132		182
1290	12	70		BCE	IOCEOF,MAINXX+73,N	B	8	0118	B 141 074 N		182
1291	12	71		B	YOURS	B	4	0126	B 541		182
1292	12	72	TDFIO5	DCW	+IOCEOF	B	3	0132	141		183
1293	12	73		RT	5,MAINXX	B	8	0133	M (U5 001 R		183
1294	12	74	IOCEOF	MCW	'1',HAPPYX+4	B	7	0141	M 172 N74		183
1295	12	75		MCW	'/086'	B	4	0148	M 176		183
1296	12	76		B	OKAY	B	4	0152	B 467		183
1297	12	77	STRING	CS	LMAINX	B	4	0156	/ 086		183
1298	12	78		B	CTAPEX	B	4	0160	B W50		183
1299	12	79		NOP	TDFIO5	B	4	0164	N 132		184
1300	12	80		B	HAPPYX+5	B	4	0168	B N75		184
1301	12	81		LTORG	*	B			0172		
				DCW	'1'	B	1	0172		LIT	184
					'/086'	B	4	0176		LIT	184
1302	12	82	*								
1303	12	83	*	PARAMETER TABLE							
1304	12	84	*								
1305	12	85		ORG	201	B			0201		
1306	12	86		DA	1X266	B		0201	0466		184



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1307	12	87			261,266 PARTBB	B		0466		FIELD	184
1308	12	88	*								
1309	12	89	*	PROCESS	EX						
1310	12	90	*								
1311	12	91	OKAY	SBR	SWITCH+3,CMALTB	B	7	0467	H L04 510		185
1312	12	92	EXSET	C	CALLTX,BLANKS-2 Q. ANY CALLS	B	7	0474	C -73 W14		185
1313	12	93		BE	PREEM	B	5	0481	B 506 S		185
1314	12	94	ATLSA	B	SUREXX	B	4	0486	B T08		185
1315	12	95		B	PREEM	B	4	0490	B 506		185
1316	12	96	LORGS	C	CALLTX,BLANKS-2 Q. ANY CALLS	B	7	0494	C -73 W14		185
1317	12	97		BU	HAULIT	B	5	0501	B S64 /		185
1318	12	98	PREEM	B	CARDS	B	4	0506	B 525		186
1319	12	99	*								
1320	13	00	*	INPUT	ROUTINE						
1321	13	01	*								
1322	13	02	CMALT	BSS	LSTCD,C Q. NO ALTERS	B	5	0510	B 686 C		186
1323	13	03		BSS	LSTCD,A Q. NO MORE ALTERS	B	5	0515	B 686 A		186
1324	13	04		CS	LMAINX	B	4	0520	/ 086		186
1325	13	05		R		B	1	0524	1		186
1326	13	06	CARDS	SBR	PREEM+3,SBRCTX	B	7	0525	H 509 033		186
1327	13	07		MCW	'SCR',CHARCR	B	7	0532	M #15 U62		186
1328	13	08		MCW		B	1	0539	M		187
1329	13	09		MCW		B	1	0540	M		187
1330	13	10	YOURS	C	MAINXX+17,'ALT'	B	7	0541	C 018 #18		187
1331	13	11		BCE	TREAD,MAINXX+5,*	B	8	0548	B 697 006 *		187
1332	13	12		BU	TREAD	B	5	0556	B 697 /		187
1333	13	13		S	INDEX1+1	B	4	0561	S 090		187
1334	13	14		B	SCANXX	B	4	0565	B M19		187
1335	13	15		ZA	MAINXX+18+X1,HLDA1=4	B	7	0569	+ 0/9 #22		188
1336	13	16	ALTR4	B	CTAPEX GET NEXT RECORD	B	4	0576	B W50		188
1337	13	17		NOP	TDFRAL	B	4	0580	N 922		188
1338	13	18		MCW	'R',OUTPTX+84	B	7	0584	M #23 I96		188
1339	13	19		SW	LOPUTX+1	B	4	0591	, I98		188
1340	13	20		C	OUTPTX+83,HLDA1	B	7	0595	C I95 #22		188
1341	13	21	CALTR	BE	ALTR3 Q. ALTER NUMBER EQUAL TO	B	5	0602	B 631 S		188
1342	13	22		C	OUTPTX+17,'END' NUMBER ON ALTER CARD	B	7	0607	C I29 #26		189
1343	13	23		BE	ENDST NO. WRITE TAPE	B	5	0614	B #02 S		189
1344	13	24		B	CTAPEX	B	4	0619	B W50		189
1345	13	25		NOP	TDF6 X	B	4	0623	N 024		189
1346	13	26		B	ALTR4	B	4	0627	B 576		189
1347	13	27	ALTR3	BCE	ALTR5,MAINXX+19+X1,, Q. DLEETION	B	8	0631	B 651 0S0 ,		189
1348	13	28		B	CTAPEX	B	4	0639	B W50		189
1349	13	29		NOP	TDF6 X	B	4	0643	N 024		190
1350	13	30		B	SWITCH	B	4	0647	B L01		190
1351	13	31	ALTR5	B	SCANXX	B	4	0651	B M19		190
1352	13	32		ZA	MAINXX+18+X1,HLDA1	B	7	0655	+ 0/9 #22		190
1353	13	33	ALTR6	C	OUTPTX+83,HLDA1	B	7	0662	C I95 #22		190
1354	13	34		BE	MACRO DELETE UNTIL SECOND ALTER	B	5	0669	B 931 S		190
1355	13	35		B	CTAPEX NUMBER IS REACHED	B	4	0674	B W50		190
1356	13	36		NOP	TDFRAL	B	4	0678	N 922		191

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1357	13	37		B	ALTR6	B	4	0682	B 662		191
1358	13	38	LSTCD	MCW	'N',CALTR	B	7	0686	M #27 602		191
1359	13	39		B	ALTR4	B	4	0693	B 576		191
1360	13	40	*								
1361	13	41	*		MAJOR PROCESSING						
1362	13	42	*								
1363	13	43	TREAD	SW	1	B	4	0697	, 001		191
1364	13	44		SBR	BRNCHX+3,SWITCH	B	7	0701	H 099 L01		191
1365	13	45		BCE	HOMEXX,MAINXX+5,*	B	8	0708	B 048 006 *		191
1366	13	46		C	MAINXX+17,'MLC'	B	7	0716	C 018 #30		192
1367	13	47		BE	HOMEXX	B	5	0723	B 048 S		192
1368	13	48		C	MAINXX+17,'CHA'	B	7	0728	C 018 #33		192
1369	13	49		BE	CHAINX	B	5	0735	B H11 S		192
1370	13	50		C	MAINXX+17,'ENT' Q. ENTER CARD	B	7	0740	C 018 #36		192
1371	13	51		BE	ENTST	B	5	0747	B 879 S		192
1372	13	52	SWMA1	C	MAINXX+17,'MA ' Q. MODIFY ADDRESS MACRO	B	7	0752	C 018 #39		193
1373	13	53	SWMA2	BE	MASET X	B	5	0759	B U33 S		193
1374	13	54		C	MAINXX+17,'EX ' Q. EX CARD	B	7	0764	C 018 #42		193
1375	13	55		BE	EXSET	B	5	0771	B 474 S		193
1376	13	56		C	MAINXX+17,'END' Q. END CARD	B	7	0776	C 018 #26		193
1377	13	57		BE	ENDSTX	B	5	0783	B U78 S		193
1378	13	58		C	MAINXX+18,WHOOPS Q. CALL STATEMENT	B	7	0788	C 019 W05		194
1379	13	59		BE	CALLNX	B	5	0795	B J51 S		194
1380	13	60		C	MAINXX+19,INCLDX	B	7	0800	C 020 U59		194
1381	13	61		BE	CALLNX	B	5	0807	B J51 S		194
1382	13	62		C	MAINXX+19,LITORG-1	B	7	0812	C 020 T57		194
1383	13	63		BE	LORGS	B	5	0819	B 494 S		194
1384	13	64		SBR	INDEX3,TABLEI Q. GET, PUT, OPEN OR CLOSE	B	7	0824	H 099 T74		195
1385	13	65	COMIOC	C	MAINXX+17,0+X3	B	7	0831	C 018 0+0		195
1386	13	66		SBR	INDEX3	B	4	0838	H 099		195
1387	13	67		BE	MSUBTX	B	5	0842	B P00 S		195
1388	13	68		BCE	OUTIOC,0+X3,=	B	8	0847	B 859 0+0 =		195
1389	13	69		B	COMIOC	B	4	0855	B 831		195
1390	13	70	OUTIOC	BCE	HOMEXX,MAINXX+19,	B	8	0859	B 048 020		196
1391	13	71		BCE	HOMEXX,MAINXX+15,	B	8	0867	B 048 016		196
1392	13	72		B	MSUBTX NO. MACRO	B	4	0875	B P00		196
1393	13	73	*								
1394	13	74	*		PROCESS FIXED FORM RECORD						
1395	13	75	*								
1396	13	76	ENTST	B	SBROTX	B	4	0879	B 033		196
1397	13	77		R		B	1	0883	1		196
1398	13	78		BCE	ENTST,MAINXX+7,*	B	8	0884	B 879 008 *		196
1399	13	79		C	MAINXX+15,'END' Q. END CARD	B	7	0892	C 016 #26		197
1400	13	80		BE	ENDSTX	B	5	0899	B U78 S		197
1401	13	81		C	MAINXX+15,'ENT' Q. NEW MODE	B	7	0904	C 016 #36		197
1402	13	82		BU	ENTST	B	5	0911	B 879 /		197
1403	13	83		B	PREEM	B	4	0916	B 506		197
1404	13	84	TDFRAL	DCW	000	B	3	0922			197
1405	13	85		DCW	'M(U4I12R'	B	8	0930			197
1406	13	86	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1407	13	87	*		DELETE ENTIRE MACRO						
1408	13	88	*								
1409	13	89	MACRO	BCE	OUTMC,OUTPTX+74,R	B	8	0931	B 943 186 R		198
1410	13	90		B	SWITCH	B	4	0939	B L01		198
1411	13	91	OUTMC	B	CTAPEX	B	4	0943	B W50		198
1412	13	92		NOP	TDFRAL	B	4	0947	N 922		198
1413	13	93		C	OUTPTX+19,BLANKS	B	7	0951	C I31 W16		198
1414	13	94	MCOUT	BE	OUTMC	B	5	0958	B 943 S		198
1415	13	95		MCW	'N',MCOUT	B	7	0963	M #27 958		198
1416	13	96		BCE	OUTMC,OUTPTX+74,S	B	8	0970	B 943 186 S		199
1417	13	97		BCE	OUTMC,OUTPTX+74,C	B	8	0978	B 943 186 C		199
1418	13	98		BSP	4	B	5	0986	U (U4 B		199
1419	13	99		MCW	OUTMC,MCOUT	B	7	0991	M 943 958		199
1420	14	00		B	CMALT	B	4	0998	B 510		199
1421	14	01	*								
1422	14	02	*		PROCESS END CARD						
1423	14	03	*								
1424	14	04	ENDST	MCW	LOPUTX,LMAINX	B	7	1002	M I97 086		199
1425	14	05		B	ENDSTX	B	4	1009	B U78		200
1426	14	06		LTORG	*	B			1013		
				DCW	'SCR'	B	3	1015		LIT	200
					'ALT'	B	3	1018		LIT	200
1335			HLDA1		=04	B	4	1022		AREA	200
					'R'	B	1	1023		LIT	200
					'END'	B	3	1026		LIT	200
					'N'	B	1	1027		LIT	200
					'MLC'	B	3	1030		LIT	201
					'CHA'	B	3	1033		LIT	201
					'ENT'	B	3	1036		LIT	201
					'MA '	B	3	1039		LIT	201
					'EX '	B	3	1042		LIT	201
1427	14	07	GM2XXX	DCW	' '	B	1	1043			201
1428	14	08	NUORIG	EQU	*+1	B		1044			
1429	14	09		EX		B			B 000		202

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1430	14	10		JOB	1401 AUTOCODER - PASS 2 - INITIAL ASSEMBLY VERSION 3						
1431	14	11	*								
1432	14	12	*		AREA DEFINITION						
1433	14	13	*								
1434	14	14		SFX	A						
1435	14	15		ORG	1	A			0001		
1436	14	16	MAINXX	DA	1X86	A		0001	0086		205
1437	14	17		ORG	87	A			0087		
1438	14	18		DCW	'000'	A	3	0089			205
1439	14	19		DC	00	A	2	0091			205
1440	14	20		DCW	'000'	A	3	0094			205
1441	14	21		DC	00	A	2	0096			205
1442	14	22		DCW	'000'	A	3	0099			205
1443	14	23		DC	00	A	2	0101			205
1444	14	24		ORG	101	A			0101		
1445	14	25		DA	1X86	A		0101	0186		205
1446	14	26	LIPUTX	EQU	*	A			0186		
1447	14	27		DC	' '	A	1	0187			206
1448	14	28	ZEROXX	DC	0	A	1	0188			206
1449	14	29	CARDSX	DC	0	A	1	0189			206
1450	14	30	HLDSBX	DCW	'****'	A	3	0192			206
1451	14	31	*								
1452	14	32	*		INITIALIZATION						
1453	14	33	*								
1454	14	34		ORG	100	A			0100		
1455	14	35		DC	' '	A	1	0100			207
1456	14	36	START	CS	CALLTX	A	4	0101	/ -73		207
1457	14	37		CS		A	1	0105	/		207
1458	14	371		BCE	**+5,CARDSX,1	A	8	0106	B 118 189 1		207
1459	14	372		B	RED	A	4	0114	B 132		207
1460	14	373		MCW	'N',RHO+1	A	7	0118	M 959 764		208
1461	14	374		MCW	'N',TSTEN+5	A	7	0125	M 959 780		208
1462	14	380	RED	SW	NTPER+4	A	4	0132	, 885		208
1463	14	39		SW	TSTEN+4	A	4	0136	, 779		208
1464	14	40		SW	OUTS2+4	A	4	0140	, 762		208
1465	14	41		BCE	READT,IOCSAV-3,*	A	8	0144	B 467 H07 *		208
1466	14	42		MCW	'N',SWMA1	A	7	0152	M 959 526		209
1467	14	43		MCW	'N',SWMA2	A	7	0159	M 959 533		209
1468	14	44		B	READT	A	4	0166	B 467		209
1469	14	45		ORG	201	A			0201		
1470	14	46		DA	1X266	A		0201	0466		209
1471	14	47	PARTBX		261,266	A		0466		FIELD	209
1472	14	48	*								
1473	14	49	*		MAJOR PROCESSING						
1474	14	50	*								
1475	14	51	READT	B	TWEDB	A	4	0467	B 653		210
1476	14	52	TREAD	SW	1	A	4	0471	, 001		210
1477	14	53		SBR	BRNCHX+3,READT	A	7	0475	H 099 467		210
1478	14	54		BCE	OUTS2,MAINXX+5,*	A	8	0482	B 758 006 *		210
1479	14	55		C	MAINXX+19,'CHAIN'	A	7	0490	C 020 964		210

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1480	14	56		BE	CHAINX	A	5	0497	B H11	S	210
1481	14	57		C	MAINXX+19,'MLCWA'	A	7	0502	C 020	969	211
1482	14	58		BE	OUTS2	A	5	0509	B 758	S	211
1483	14	59		C	MAINXX+17,'ENT' Q. ENTER CARD	A	7	0514	C 018	972	211
1484	14	60		BE	ENTST	A	5	0521	B 795	S	211
1485	14	61	SWMA1	C	MAINXX+19,'MA' Q. MODIFY ADDRESS MACRO	A	7	0526	C 020	977	211
1486	14	62	SWMA2	BE	MASETXX	A	5	0533	B U33	S	211
1487	14	63		C	MAINXX+19,'EX' Q. EX CARD	A	7	0538	C 020	982	212
1488	14	64		BE	EXSET	A	5	0545	B 857	S	212
1489	14	65		C	MAINXX+17,'END' Q. END CARD	A	7	0550	C 018	985	212
1490	14	66		BE	ENDSTX	A	5	0557	B U78	S	212
1491	14	67		C	MAINXX+18,WHOOPS	A	7	0562	C 019	W05	212
1492	14	68		BE	CALLNX Q. CALL STATEMENT	A	5	0569	B J51	S	212
1493	14	69		C	MAINXX+19,INCLDX	A	7	0574	C 020	U59	213
1494	14	70		BE	CALLNX	A	5	0581	B J51	S	213
1495	14	71		C	MAINXX+19,'LTORG'	A	7	0586	C 020	990	213
1496	14	72		BE	LORGS Q. LTORG CARD	A	5	0593	B 918	S	213
1497	14	73		SBR	INDEX3,TABLEI	A	7	0598	H 099	T74	213
1498	14	74	FEW	C	MAINXX+17,0+X3	A	7	0605	C 018	0+0	213
1499	14	75		SBR	INDEX3	A	4	0612	H 099		214
1500	14	76		BE	MSUBTX	A	5	0616	B P00	S	214
1501	14	77		BCE	MANY,0+X3,=	A	8	0621	B 633	0+0 =	214
1502	14	78		B	FEW	A	4	0629	B 605		214
1503	14	79	MANY	BCE	OUTS2,MAINXX+19,	A	8	0633	B 758	020	214
1504	14	80		BCE	OUTS2,MAINXX+15,	A	8	0641	B 758	016	214
1505	14	81		B	MSUBTX NO. MACRO	A	4	0649	B P00		215
1506	14	82	*								
1507	14	83	*	INPUT	ROUTINE						
1508	14	84	*								
1509	14	85	TWEDB	SBR	TWDB1+3	A	4	0653	H 696		215
1510	14	86		CS	LMAINX	A	4	0657	/ 086		215
1511	14	87		B	RTWED	A	4	0661	B 677		215
1512	14	88	CHART	C		A	1	0665	C		215
1513	14	89		BSS	EOF4,A Q. LAST CARD	A	5	0666	B 934	A	215
1514	14	90		R		A	1	0671	1		215
1515	14	91		SSB	TWDB1,1	A	5	0672	K 693	1	216
1516	14	92	RTWED	B	CTAPEX	A	4	0677	B W50		216
1517	14	93		NOP	TDF4	A	4	0681	N 699		216
1518	14	94		BCE	CHANGE,MAINXX+73,N	A	8	0685	B 708	074 N	216
1519	14	95	TWDB1	B	TREAD	A	4	0693	B 471		216
1520	14	96	TDF4	DCW	+EOF4	A	3	0699	934		216
1521	14	97		DCW	'M(U5001R'	A	8	0707			216
1522	14	98	CHANGE	CW	CHART,TSTEN+4	A	7	0708	) 665	779	217
1523	14	99		MN	'4',TDF4+4	A	7	0715	D 991	703	217
1524	15	00		CW	OUTS2+4,NTPER+4	A	7	0722	) 762	885	217
1525	15	01		C	CALLTX,BLANK	A	7	0729	C -73	999	217
1526	15	02		BE	HOOHA	A	5	0736	B 745	S	217
1527	15	03		B	SUREXX	A	4	0741	B T08		217
1528	15	04	HOOHA	MCW	'SCR',CHARCR	A	7	0745	M 994	U62	218
1529	15	05		MCW		A	1	0752	M		218

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1530	15	06		MCW		A	1	0753	M		218
1531	15	07		B	TWDB1	A	4	0754	B 693		218
1532	15	08	*								
1533	15	09	*	READ	RELEASE						
1534	15	10	*								
1535	15	11	OUTS2	BSS	OUTSBX,C	A	5	0758	B 041 C		218
1536	15	12	RHO	NOP		A	1	0763	N		218
1537	15	13		MCW	'8',RHO	A	7	0764	M 995 763		218
1538	15	14		B	OUTSBX	A	4	0771	B 041		219
1539	15	15	*								
1540	15	16	*	FIXED FORM	RECORDS						
1541	15	17	*								
1542	15	18	TSTEN	BSS	ENTST,C	A	5	0775	B 795 C		219
1543	15	19		SRF		A	1	0780	8		219
1544	15	20		SBR	NOSIR+3,ANTST	A	7	0781	H 917 803		219
1545	15	21		MCW	'N',BUT1XX	A	7	0788	M 959 037		219
1546	15	22	ENTST	B	SBROTX	A	4	0795	B 033		219
1547	15	23		B	TWEDB	A	4	0799	B 653		219
1548	15	24	ANTST	MCW	'B',BUT1XX	A	7	0803	M 996 037		220
1549	15	25		SBR	NOSIR+3,TREAD	A	7	0810	H 917 471		220
1550	15	26		BCE	TSTEN,MAINXX+7,*	A	8	0817	B 775 008 *		220
1551	15	27		C	MAINXX+15,'END'	A	7	0825	C 016 985		220
1552	15	28		BE	ENDSTX	A	5	0832	B U78 S		220
1553	15	29		C	MAINXX+15,'ENT'	A	7	0837	C 016 972		221
1554	15	30		BU	TSTEN	A	5	0844	B 775 /		221
1555	15	31		B	SBROTX	A	4	0849	B 033		221
1556	15	32		B	READT	A	4	0853	B 467		221
1557	15	33	*								
1558	15	34	*	PROCESS	EX						
1559	15	35	*								
1560	15	36	EXSET	C	CALLTX,BLANK=3	A	7	0857	C -73 999		221
1561	15	37		BE	OUTS2	A	5	0864	B 758 S		221
1562	15	38		B	SUREXX	A	4	0869	B T08		221
1563	15	39		B	SBROTX	A	4	0873	B 033		222
1564	15	40		B	READT	A	4	0877	B 467		222
1565	15	41	*								
1566	15	42	*	READ RELEASE	REDUNDANCY ROUTINE						
1567	15	43	*								
1568	15	44	NTPER	BSS	YESIR,C	A	5	0881	B 896 C		222
1569	15	45		R		A	1	0886	1		222
1570	15	46		SS	1	A	2	0887	K 1		222
1571	15	47		MCW	'N',RHO	A	7	0889	M 959 763		222
1572	15	48	YESIR	SBR	COMETS+3,CRWRED	A	7	0896	H X65 X71		222
1573	15	49		SBR	CCONPR+3,NOSIR	A	7	0903	H X70 914		223
1574	15	50		B	CRWRED	A	4	0910	B X71		223
1575	15	51	NOSIR	B	TREAD	A	4	0914	B 471		223
1576	15	52	*								
1577	15	53	*	PROCESS	LTORG						
1578	15	54	*								
1579	15	55	LORGS	C	CALLTX,BLANK	A	7	0918	C -73 999		223

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1580	15	56		BU	HAULIT	A	5	0925	B S64 /		223
1581	15	57		B	OUTS2	A	4	0930	B 758		223
1582	15	58	EOF4	CS	LMAINX	A	4	0934	/ 086		223
1583	15	59		SW	1	A	4	0938	, 001		224
1584	15	60		MCW	'END\$\$\$','MAINXX+18	A	7	0942	M #05 019		224
1585	15	61		B	ENDSTX	A	4	0949	B U78		224
1586	15	62	ANTPER	DCW	+NTPERA	A	3	0955	881		224
1587	15	63	ACRWED	DCW	+CRWRED	A	3	0958	X71		224
1588	15	64		LTORG	*	A			0959		
				DCW	'N'	A	1	0959		LIT	224
		1479			'CHAIN'	A	5	0964		LIT	224
		1481			'MLCWA'	A	5	0969		LIT	225
					'ENT'	A	3	0972		LIT	225
		1485			'MA '	A	5	0977		LIT	225
		1487			'EX '	A	5	0982		LIT	225
					'END'	A	3	0985		LIT	225
		1495			'LTORG'	A	5	0990		LIT	225
					'4'	A	1	0991		LIT	225
					'SCR'	A	3	0994		LIT	226
					'8'	A	1	0995		LIT	226
					'B'	A	1	0996		LIT	226
		1560	BLANK		=03	A	3	0999		AREA	226
		1584			'END\$\$\$'	A	6	1005		LIT	226
1589	15	65	*								
1590	15	66	*	MAIN LINE PROCESSING ANNEX							
1591	15	67	*								
1592	15	68		SFX	X						
1593	15	69		ORG	NUORIG	X			1044		
1594	15	70	EOF18	RWD	1	X	5	1044	U (U1 R		227
1595	15	71		S	PREVS	X	4	1049	S H72		227
1596	15	72		B	SWITCH	X	4	1053	B L01		227
1597	15	73	*								
1598	15	74	*	PROCESS LOZENGED FIELD 6 - 20							
1599	15	75	*								
1600	15	76	LOZENG	BM	MLBLZ,MAINX+2+X1	X	8	1057	V D68 0#3 K		227
1601	15	77		B	LABEL	X	4	1065	B /19		227
1602	15	78		MCW	BLANKS,MAINX+4+X1	X	7	1069	M W16 0#5		227
1603	15	79		MCW	INDEX1,SAVX1=3	X	7	1076	M 089 W11		227
1604	15	80		MCW	INDEX3,INDEX2	X	7	1083	M 099 094		228
1605	15	81		B	SBG RD	X	4	1090	B G46		228
1606	15	82		A	SAVX1,INDEX1	X	7	1094	A W11 089		228
1607	15	83		MCW	0+X3,MAINX+X1	X	7	1101	M 0+0 0#1		228
1608	15	84		MCW	SAVX1,INDEX1	X	7	1108	M W11 089		228
1609	15	85		B	UPENGL	X	4	1115	B A48		228
1610	15	86	*								
1611	15	87	*	LOCATE PARAMETERS							
1612	15	88	*								
1613	15	89	LABEL	SBR	LEXIT+3	X	4	1119	H S63		229
1614	15	90		MCW	BLANKS=5,INDEX3	X	7	1123	M W16 099		229
1615	15	91		MCW	BLANKS,CNTP	X	7	1130	M W16 W19		229

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1616	15	92		MN	MAINX+1+X1,CNTP	X	7	1137	D 0+2 W19		229
1617	15	93	CIRCL	S	+1,CNTP	X	7	1144	S W17 W19		229
1618	15	94		BM	TENSR,CNTP	X	8	1151	V /70 W19 K		230
1619	15	95		A	'3',INDEX3	X	7	1159	A W18 099		230
1620	15	96		B	CIRCL	X	4	1166	B /44		230
1621	15	97	TENSR	BCE	CHZON,DECTB-2+X3,0	X	8	1170	B -74 UI0 0		230
1622	15	98		MCW	BLANKS,CNTP=1	X	7	1178	M W16 W19		230
1623	15	99		MCW	DECTB+X3,INDEX3	X	7	1185	M UI2 099		231
1624	16	00		MN	MAINX+2+X1,CNTP	X	7	1192	D 0+3 W19		231
1625	16	01	MOVINP	S	+1,CNTP	X	7	1199	S W17 W19		231
1626	16	02		MCW	0+X3,0+X3	X	7	1206	M 0+0 0+0		231
1627	16	03		SAR	WAREA=3	X	4	1213	Q W22		231
1628	16	04		BCE	CHZON,0+X3,, Q. MISSING PARAMETER	X	8	1217	B -74 0+0 ,		232
1629	16	05		BM	PUTIN,CNTP Q. PARAMETER LOCATED	X	8	1225	V S44 W19 K		232
1630	16	06		MCW	WAREA,INDEX3	X	7	1233	M W22 099		232
1631	16	07		B	MOVINP	X	4	1240	B /99		232
1632	16	08	PUTIN	BCE	CHZON,0+X3,	X	8	1244	B -74 0+0		232
1633	16	09		BWZ	DELET,MAINX+2+X1,S	X	8	1252	V D41 0+3 S		233
1634	16	10	LEXIT	B	0	X	4	1260	B 000		233
1635	16	11	*								
1636	16	12	*	PROCESS	LTORG						
1637	16	13	*								
1638	16	14	HAULIT	MCW	'ORG ',MAINX+19 REPLACE LTORG WITH ORG	X	7	1264	M W27 020		233
1639	16	15		MCW	'L',MAINX+74	X	7	1271	M W28 075		233
1640	16	16		B	SBROT	X	4	1278	B 033		233
1641	16	17		B	EXITC	X	4	1282	B D79		233
1642	16	18		CS	LMAIN	X	4	1286	/ 086		233
1643	16	19		MCW	LITORG,MAINX+20 GENERATE LTORG*	X	7	1290	M T58 021		234
1644	16	20		MCW	CHARCC,MAINX+74	X	7	1297	M U61 075		234
1645	16	21		B	WHYYY	X	4	1304	B K97		234
1646	16	22	*								
1647	16	23	*		PREPARATION FOR LTORG,EX,EX OR IOCS						
1648	16	24	*								
1649	16	25	SUREX	SBR	SIMPLE+3	X	4	1308	H T41		234
1650	16	26		SW	1	X	4	1312	, 001		234
1651	16	27		CS	LIPUTX	X	4	1316	/ 186		234
1652	16	28		LCA	LMAINX,LIPUTX	X	7	1320	L 086 186		234
1653	16	29		B	EXITCX	X	4	1327	B D79		235
1654	16	30		LCA	LIPUTX,LMAINX	X	7	1331	L 186 086		235
1655	16	31	SIMPLE	B	0	X	4	1338	B 000		235
1656	16	32	TDFEXT	DCW	+RWDEXT	X	3	1344	D83		235
1657	16	33		DCW	'M(U1001R'	X	8	1352			235
1658	16	34	LITORG	DCW	'LTORG*'	X	6	1358			235
1659	16	35	*								
1660	16	36	*	IOCS	TABLE						
1661	16	37	*								
1662	16	38		DCW	'='	X	1	1359			235
1663	16	39		DCW	'RLS'	X	3	1362			236
1664	16	40		DCW	'GET'	X	3	1365			236
1665	16	41		DCW	'PUT'	X	3	1368			236



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1666	16	42		DCW	'DTF'	X	3	1371			236
1667	16	43	TABLEI	DCW	'OPE'	X	3	1374			236
1668	16	44	*								
1669	16	45	*	GENERATE	UNKNOWN MACRO CARD						
1670	16	46	*								
1671	16	47	NOROT	SBR	NROTC+3	X	4	1375	H U14		236
1672	16	48		CS	LMAINX	X	4	1379	/ 086		236
1673	16	49		MCW	'B',MAINX+85	X	7	1383	M W29 086		237
1674	16	50		MCW	'UNKNOWN',MAINX+19	X	7	1390	M W36 020		237
1675	16	51		MCW	CHARCC,MAINX+74	X	7	1397	M U61 075		237
1676	16	52		MCW	'*',MAINX+5	X	7	1404	M W37 006		237
1677	16	53	NROTC	B	0	X	4	1411	B 000		237
1678	16	54	POTS	MCW	'B',SWITCH	X	7	1415	M W29 L01		237
1679	16	55		MCW	'N',NEXTCD	X	7	1422	M W38 N66		238
1680	16	56		B	COOKER	X	4	1429	B E90		238
1681	16	57	*								
1682	16	58	*	MODIFY	ADDRESS MACRO						
1683	16	59	*								
1684	16	60	MASET	MCW	CHARCR,MAINX+74	X	7	1433	M U62 075		238
1685	16	61		B	SBROTX	X	4	1440	B 033		238
1686	16	62		MCW	'D',MAINX+17	X	7	1444	M W39 018		238
1687	16	63		B	SGC	X	4	1451	B P18		238
1688	16	64	INCLDX	DCW	'INCLD'	X	5	1459			238
1689	16	65	CHARCS	DCW	'Z'	X	1	1460			239
1690	16	66	CHARCC	DCW	'Y'	X	1	1461			239
1691	16	67	CHARCR	DCW	'W'	X	1	1462			239
1692	16	68	KINGS	B	NOROT	X	4	1463	B T75		239
1693	16	69		MCW	HLDSB,MAINX+10	X	7	1467	M 192 011		239
1694	16	70		B	WHYYY	X	4	1474	B K97		239
1695	16	71	ENDSTX	B	CTAPE	X	4	1478	B W50		239
1696	16	72		NOP	TDF5	X	4	1482	N V89		240
1697	16	73		B	OVLY4I	X	4	1486	B 434		240
1698	16	74	DECTB	DCW	+PARTB	X	3	1492	466		240
1699	16	75		DA	9X3	X		1493	1519		241
1700	16	76	ENDDC	EQU	*	X		1519			
1701	16	77	MOVEC	LCA	' ',0+X3	X	7	1520	L W40 0+0		241
1702	16	78		SBR	INDEX3	X	4	1527	H 099		241
1703	16	79		A	'3',INDEX2+1	X	7	1531	A W18 095		242
1704	16	80		BCE	MIDLE,INDEX2+1,3	X	8	1538	B H22 095 3		242
1705	16	81	LOWER	A	'1',INDEX1	X	7	1546	A W41 089		242
1706	16	82		SW	MAINX+20+X1	X	4	1553	, 0S1		242
1707	16	83		BCE	MOVEC,MAINX+20+X1,,	X	8	1557	B V20 0S1 ,		242
1708	16	84	WEEDD	MCW	INDEX2+1,IOCSAV	X	7	1565	M 095 H10		243
1709	16	85		B	WEEDBX	X	4	1572	B N39		243
1710	16	86		MCW	IOCSAV,INDEX2+1	X	7	1576	M H10 095		243
1711	16	87		B	COMSN	X	4	1583	B P79		243
1712	16	88	TDF5	DCW	=3	X	3	1589			243
1713	16	89		RTW	5,OVLY4I	X	8	1590	L (U5 434 R		243
1714	16	90	NEWEST	DC	0	X	1	1598			243
1715	16	91	SYNM	DCW	'000'	X	3	1601			243

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1716	16	92	WHCOPS	DCW	'CALL'	X	4	1605			244
1717	16	93	ADDCAL	DCW	+CALLTX	X	3	1608	-73		244
1718	16	94		LTORG	*	X			1609		
		1603	SAVX1	DCW	=03	X	3	1611		AREA	244
		1614	BLANKS		=05	X	5	1616		AREA	244
					+1	X	1	1617		LIT	244
					'3'	X	1	1618		LIT	244
		1622	CNTP		=01	X	1	1619		AREA	244
		1627	WAREA		=03	X	3	1622		AREA	245
		1638			'ORG'	X	5	1627		LIT	245
					'L'	X	1	1628		LIT	245
					'B'	X	1	1629		LIT	245
		1674			'UNKNOWN'	X	7	1636		LIT	245
					'*'	X	1	1637		LIT	245
					'N'	X	1	1638		LIT	245
					'D'	X	1	1639		LIT	246
					' '	X	1	1640		LIT	246
					'1'	X	1	1641		LIT	246
1719	16	95		ORG	1649	X			1649		
1720	16	96	GM1	DCW	' '	X	1	1649			247
1721	16	97		EX		X			B 000		248

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1722	16	98		JOB	1401 AUTOCODER - PASS 2 - MACRO-GENERATOR- VERSION 3						
1723	16	99		SFX	X						
1724	17	00	*								
1725	17	01	*	GENERALIZED TAPE INPUT/OUTPUT ROUTINE							
1726	17	02	*								
1727	17	03		ORG	1650	X			1650		
1728	17	04	CTAPEX	SBR	INDEX2	X	4	1650	H 094		251
1729	17	05		SBR	CCONPR+3	X	4	1654	H X70		251
1730	17	06		MCW	3+X2,INDEX2	X	7	1658	M 0-3 094		251
1731	17	07		MCW	8+X2,CTAPEX+7	X	7	1665	M 0-8 X29		251
1732	17	08		MCW	0+X2,CEORC+3	X	7	1672	M 0-0 X41		251
1733	17	09		SW	CCOMPR+4	X	4	1679	, X47		251
1734	17	10		MCW	7+X2,CCOMPR+6	X	7	1683	M 0-7 X49		252
1735	17	11		A	'12',CCOMPR+6	X	7	1690	A Y93 X49		252
1736	17	12		CW	CCOMPR+4	X	4	1697	) X47		252
1737	17	13		MN	CTAPEX+3,CHALT+6	X	7	1701	D X25 Y55		252
1738	17	14		MN	CTAPEX+7,CHALT+6	X	7	1708	D X29 Y55		252
1739	17	15		MCW	'9',CERRCT=1	X	7	1715	M Y94 Y95		252
1740	17	16	CTAPEX	RT	0,0	X	8	1722	M (U0 000 R		253
1741	17	17		BCE	COMETS,CTAPEX+7,W	X	8	1730	B X62 X29 W		253
1742	17	18	CEORC	BEF	0	X	5	1738	B 000 K		253
1743	17	19	CCOMPR	BCE	CTAPEX,0,	X	8	1743	B X22 000		253
1744	17	20		B		X	1	1751	B		253
1745	17	21		B		X	1	1752	B		253
1746	17	22		B		X	1	1753	B		253
1747	17	23		B		X	1	1754	B		254
1748	17	24		B		X	1	1755	B		254
1749	17	25		B		X	1	1756	B		254
1750	17	26		B		X	1	1757	B		254
1751	17	27		B		X	1	1758	B		254
1752	17	28		B		X	1	1759	B		254
1753	17	29		B		X	1	1760	B		254
1754	17	30		B		X	1	1761	B		255
1755	17	31	COMETS	BER	CRWRED	X	5	1762	B X71 L		255
1756	17	32	CCONPR	B	0	X	4	1767	B 000		255
1757	17	33	CRWRED	S	'1',CERRCT	X	7	1771	S Y96 Y95		255
1758	17	34		MN	CTAPEX+3,*+4	X	7	1778	D X25 X88		255
1759	17	35		BSP	0	X	5	1785	U (U0 B		255
1760	17	36		BCE	CTROW,CTAPEX+7,W	X	8	1790	B Y10 X29 W		255
1761	17	37		BM	CHALT,CERRCT	X	8	1798	V Y49 Y95 K		256
1762	17	38		B	CTAPEX	X	4	1806	B X22		256
1763	17	39	CTROW	A	'1',CERASC=2	X	7	1810	A Y96 Y98		256
1764	17	40		SKP	6	X	5	1817	U (U6 E		256
1765	17	41		BCE	CCHALT,CERASC-1,5	X	8	1822	B Y34 Y97 5		256
1766	17	42		B	CTAPEX-7	X	4	1830	B X15		256
1767	17	43	CCHALT	S	CERASC	X	4	1834	S Y98		257
1768	17	44		H	0,202	X	7	1838	. 000 202		257
1769	17	45		B	CTAPEX-7	X	4	1845	B X15		257
1770	17	46	CHALT	H	0,200	X	7	1849	. 000 200		257
1771	17	47		BSS	CTAPEX-7,E	X	5	1856	B X15 E		257

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1772	17	48		MCW	CTAPEC+7,*+8	X	7	1861	M X29 Y75		257
1773	17	49		RT	0,0	X	8	1868	M (U0 000 R		258
1774	17	50		H	0,201	X	7	1876	. 000 201		258
1775	17	51		B	CCONPR	X	4	1883	B X67		258
1776	17	52	HEADR	DCW	'HEADR'	X	5	1891			258
1777	17	53		LTORG	*	X			1892		
				DCW	'12'	X	2	1893		LIT	258
					'9'	X	1	1894		LIT	258
	1739		CERRCT		=01	X	1	1895		AREA	258
					'1'	X	1	1896		LIT	259
	1763		CERASC		=02	X	2	1898		AREA	259
1778	17	54		*							
1779	17	55		*	INITIALIZATION						
1780	17	56		*							
1781	17	57		ORG	1900	X			1900		
1782	17	58	STARTX	MCW	340,IOCSAV	X	7	1900	M 340 H10		260
1783	17	59		MCW		X	1	1907	M		260
1784	17	595		MCW	NORDRL,HOLE=1	X	7	1908	M W12 -55		260
1785	17	60		B	CTAPE	X	4	1915	B W50		260
1786	17	61		NOP	TDFSS	X	4	1919	N Z68		260
1787	17	62		CW	GM1	X	4	1923	) W49		260
1788	17	63		SW	3998	X	4	1927	, I98		260
1789	17	64		MCW	LIPUT+1,3998	X	7	1931	M 187 I98		261
1790	17	65		CW	3995,3997	X	7	1938	) I95 I97		261
1791	17	66		BSS	ALTERX,B	X	5	1945	B Z77 B		261
1792	17	67		RWD	1	X	5	1950	U (U1 R		261
1793	17	675		MCW	HOLE,CARDSX	X	7	1955	M -55 189		261
1794	17	68		B	STARTA	X	4	1962	B 101		261
1795	17	69	TDFSS	DCW	+CCHALT	X	3	1968	Y34		261
1796	17	70		DCW	'L(U1001R'	X	8	1976			262
1797	17	71	ALTERX	B	CTAPEX	X	4	1977	B W50		262
1798	17	72		NOP	TDFSS	X	4	1981	N Z68		262
1799	17	73		CW	GM2XXX	X	4	1985	) #43		262
1800	17	74		RWD	1	X	5	1989	U (U1 R		262
1801	17	75		MCW	IOCSAV,SYMNM	X	7	1994	M H10 W01		262
1802	17	76		MCW	+IOCALT,SWITCH+3	X	7	2001	M -58 L04		262
1803	17	77		SBR	HAPPY+3,STRING	X	7	2008	H N73 156		263
1804	17	78		MCW	'N',OUTSB	X	7	2015	M -59 041		263
1805	17	79		MCW	'N',BUT1X	X	7	2022	M -59 037		263
1806	17	80		MCW	'N',BUT2X	X	7	2029	M -59 089		263
1807	17	81		BCE	VOICEB,IOCSAV-3,*	X	8	2036	B 101 H07 *		263
1808	17	82		MCW	'N',SWMA2B	X	7	2044	M -59 759		264
1809	17	83		B	VOICEB	X	4	2051	B 101		264
1810	17	84		LTORG	*	X			2055		
	1784		HOLE	DCW	=01	X	1	2055		AREA	264
	1802				+IOCALT	X	3	2058	106	ADCON	264
					'N'	X	1	2059		LIT	264
1811	17	85		ORG	1900	X			1900		
1812	17	86		DA	1X174	X		1900	2073		264
1813	17	87	CALLT	EQU	*	X		2073			

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1814	17	88	*								
1815	17	89	*	PROCESS	MISSING PARAMETERS WITH REGARD TO ZONE						
1816	17	90	*								
1817	17	91	CHZON	BWZ	SLASH,MAINX+2+X1,S	X	8	2074	V J08 0#3 S		265
1818	17	92		BWZ	DELET,MAINX+2+X1,B	X	8	2082	V D41 0#3 B		265
1819	17	93		MCW	'B',MAINX+85	X	7	2090	M H44 086		265
1820	17	94	ZONBR	CW	MAINX+X1,MAINX+3+X1	X	7	2097	) 0#1 0#4		265
1821	17	95	ZONCH	B	DEFND	X	4	2104	B +41		265
1822	17	96	SLASH	MCW	BLANKS-2,MAINX+2+X1	X	7	2108	M W14 0#3		266
1823	17	97		B	ZONBR	X	4	2115	B -97		266
1824	17	98	SUBSET	MCW	'N',SWITCH	X	7	2119	M H45 L01		266
1825	17	99		MCW	'B',NEXTCD	X	7	2126	M H44 N66		266
1826	18	00		MCW	CHARCS,MAINX+74	X	7	2133	M U60 075		266
1827	18	01		B	CALIT	X	4	2140	B J58		266
1828	18	02	MASKS	MCW	'B',NOCAL	X	7	2144	M H44 K20		267
1829	18	03	*								
1830	18	04	*	PROCESSING	CALL STATEMENT						
1831	18	05	*								
1832	18	06	CALLN	MCW	CHARCR,MAINX+74	X	7	2151	M U62 075		267
1833	18	07	CALIT	MCW	ADDCAL,INDEX2	X	7	2158	M W08 094		267
1834	18	08		SW	MAINXX+20	X	4	2165	, 021		267
1835	18	09	YSCALX	BCE	XXXX,INDEX2-2,Y	X	8	2169	B K90 092 Y		267
1836	18	10		C	0+X2,' '	X	7	2177	C 0-0 H48		268
1837	18	11		BE	SPADEX	X	5	2184	B K09 S		268
1838	18	12		C	0+X2,MAINX+22	X	7	2189	C 0-0 023		268
1839	18	13		SAR	INDEX2	X	4	2196	Q 094		268
1840	18	14		BE	QUEEN	X	5	2200	B K16 S		268
1841	18	15		B	YSCALX	X	4	2205	B J69		268
1842	18	16	SPADEX	MCW	MAINX+22,0+X2	X	7	2209	M 023 0-0		268
1843	18	17	QUEEN	CW	MAINXX+20	X	4	2216	) 021		269
1844	18	18	NOCALX	NOP	SKELCX	X	4	2220	N R17		269
1845	18	19		B	SBROT	X	4	2224	B 033		269
1846	18	20		BCE	SWITCH,MAINX+19,D	X	8	2228	B L01 020 D		269
1847	18	21	*								
1848	18	22	*	LOAD	PARAMETERS INTO TABLE						
1849	18	23	*								
1850	18	24		MCW	MAINX+10,PARTB	X	7	2236	M 011 466		269
1851	18	25		SBR	INDEX3	X	4	2243	H 099		269
1852	18	26		S	INDEX1+1	X	4	2247	S 090		269
1853	18	27	DIMNDX	B	SCANXX	X	4	2251	B M19		270
1854	18	28		SW	1	X	4	2255	, 001		270
1855	18	29		LCA	MAINX+18+X1,0+X3	X	7	2259	L 0/9 0+0		270
1856	18	30		SBR	INDEX3	X	4	2266	H 099		270
1857	18	31		BCE	HEARTX,MAINX+19+X1,	X	8	2270	B L09 0S0		270
1858	18	32		BCE	WEEDBX,MAINX+19+X1,,	X	8	2278	B N39 0S0 ,		270
1859	18	33		B	DIMNDX	X	4	2286	B K51		270
1860	18	34	XXXX	MCW	'7',MAINX+85	X	7	2290	M H49 086		271
1861	18	35	WHYYY	B	SBROT	X	4	2297	B 033		271
1862	18	36	SWITCH	B	READTA	X	4	2301	B 467		271
1863	18	37		B	POTS	X	4	2305	B U15		271

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1864	18	38	*								
1865	18	39	*	GENERATE	BRANCH AND DCW,S						
1866	18	40	*								
1867	18	41	HEARTX	LCA	' ',0+X3	X	7	2309	L H50	0+0	271
1868	18	42		CS	LMAINX	X	4	2316	/ 086		271
1869	18	43		MCW	PARTB,MAINX+10	X	7	2320	M 466	011	271
1870	18	44		MCW	PARTB-6,MAINX+24	X	7	2327	M 460	025	272
1871	18	45		SAR	INDEX3	X	4	2334	Q 099		272
1872	18	46		MCW	'B',MAINX+15	X	7	2338	M H44	016	272
1873	18	47	SLAM	MCW	CHARCC,MAINX+74	X	7	2345	M U61	075	272
1874	18	48		MCW	INDEX3,SAVXL2=3	X	7	2352	M 099	H53	272
1875	18	49		MCW	SAVXL2,INDEX3	X	7	2359	M H53	099	272
1876	18	50		CW	MAINX+23	X	4	2366	) 024		273
1877	18	51		B	SBROT	X	4	2370	B 033		273
1878	18	52		CS	LMAINX	X	4	2374	/ 086		273
1879	18	53		BCE	SWITCH,0+X3,	X	8	2378	B L01	0+0	273
1880	18	54		MCW	'DCW',MAINX+17	X	7	2386	M H56	018	273
1881	18	55		MCW	INDEX3,INDEX2	X	7	2393	M 099	094	273
1882	18	56		B	SBGRDX	X	4	2400	B G46		273
1883	18	57		MCW	0+X3,MAINX+20+X1	X	7	2404	M 0+0	0S1	274
1884	18	58		SAR	INDEX3	X	4	2411	Q 099		274
1885	18	59		B	SLAM	X	4	2415	B L45		274
1886	18	60	*								
1887	18	61	*	SCAN FOR COMMA, TWO BLANKS, OR AN '							
1888	18	62	*								
1889	18	63	SCANXX	SBR	CLUBS+3	X	4	2419	H N12		274
1890	18	64	SCANL	SW	MAINX+20	X	4	2423	, 021		274
1891	18	65		BCE	SCNAT,MAINX+20+X1,'	X	8	2427	B N13	0S1 '	274
1892	18	66		BCE	CETWMS,MAINX+20+X1,,	X	8	2435	B M98	0S1 ,	274
1893	18	67		C	MAINX+20+X1,' '	X	7	2443	C 0S1	H58	275
1894	18	68		BE	CLUBS	X	5	2450	B N09	S	275
1895	18	69	CXIT1	A	'1',INDEX1	X	7	2455	A H59	089	275
1896	18	70		C	INDEX1,'52'	X	7	2462	C 089	H61	275
1897	18	71		BU	SCANL	X	5	2469	B M23	/	275
1898	18	72		C	MAINX+71,' '	X	7	2474	C 072	H58	275
1899	18	73		BE	CLUBS	X	5	2481	B N09	S	276
1900	18	74		BCE	CLUBS,MAINX+71,	X	8	2486	B N09	072	276
1901	18	75		B	CXIT	X	4	2494	B N02		276
1902	18	76	CETWMS	SW	MAINX+21+X1	X	4	2498	, 0S2		276
1903	18	77	CXIT	A	'1',INDEX1	X	7	2502	A H59	089	276
1904	18	78	CLUBS	B	0	X	4	2509	B 000		276
1905	18	79	SCNAT	ZA	'510',INDEX1+1	X	7	2513	+ H64	090	276
1906	18	80	ATLCK	BCE	CXIT1,MAINX+20+X1,'	X	8	2520	B M55	0S1 '	277
1907	18	81		S	+10,INDEX1+1	X	7	2528	S H66	090	277
1908	18	82		B	ATLCK	X	4	2535	B N20		277
1909	18	83	*								
1910	18	84	*	OBTAIN MORE PARAMETERS FROM ADDITIONAL RECORDS							
1911	18	85	*								
1912	18	86	WEEDBX	SBR	WEDXT+3	X	4	2539	H 021		277
1913	18	87		B	NEWEED	X	4	2543	B N54		277

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1914	18	88	WEDDBX	A	'1',INDEX1	X	7	2547	A H59 089		277
1915	18	89	NEWEED	C	INDEX1,'52'	X	7	2554	C 089 H61		278
1916	18	90		BU	LOOPW	X	5	2561	B 006 /		278
1917	18	91	NEXTCD	NOP	CALLCD	X	4	2566	N G80		278
1918	18	92	HAPPY	B	TWEDBA	X	4	2570	B 653		278
1919	18	93		NOP	READ NEXT RECORD	X	1	2574	N		278
1920	18	94		MCW	CHARCR,MAINX+74	X	7	2575	M U62 075		278
1921	18	95	THRU	B	SBROTX	X	4	2582	B 033		278
1922	18	96		BCE	HAPPY,MAINX+5,*	X	8	2586	B N70 006 *		279
1923	18	97		S	INDEX1+1	X	4	2594	S 090		279
1924	18	98		BCE	MOVEC,MAINX+20,, Q. FIRST PARAMETER MISSSING	X	8	2598	B V20 021 ,		279
1925	18	99	LOOPW	BCE	WEDDBX,MAINX+20+X1,	X	8	2606	B N47 0S1		279
1926	19	00		SW	MAINX+20+X1	X	4	2614	, 0S1		279
1927	19	01	WEDXT	B	0	X	4	2618	B 000		279
1928	19	02	TDF6	DCW	+CCHALT	X	3	2624	Y34		279
1929	19	03		DCW	'M(U6I12W'	X	8	2632			280
1930	19	04	*								
1931	19	05	*	OUTPUT ROUTINE							
1932	19	06	*								
1933	19	07	SBROTX	SBR	BRNCH+3	X	4	2633	H 099		280
1934	19	08	BUT1X	B	HOMEX	X	4	2637	B 048		280
1935	19	09	OUTSB	MCW	ANTPER,COMETS+3	X	7	2641	M 955 X65		280
1936	19	10	HCMEX	MCW	LMAIN,LOPUT	X	7	2648	M 086 I97		280
1937	19	11		BCE	BUT2X,OUTPT+73,*	X	8	2655	B 089 I85 *		280
1938	19	12		MCW	BLANKS-3,OUTPT+73	X	7	2663	M W13 I85		281
1939	19	13		SW	LOPUT+1	X	4	2670	, I98		281
1940	19	14		MCW	LIPUT+1,LCPUT+1	X	7	2674	M 187 I98		281
1941	19	15		B	CTAPEX	X	4	2681	B W50		281
1942	19	16		NOP	TDF6	X	4	2685	N 024		281
1943	19	17	BUT2X	MCW	ACRWED,COMETS+3	X	7	2689	M 958 X65		281
1944	19	18	BRNCH	B	0	X	4	2696	B 000		281
1945	19	19	*								
1946	19	20	*	PROCESS PARAMETERS FOR SUBSTITUTIONS							
1947	19	21	*								
1948	19	22	MSUBTX	MCW	'R',MAINX+74	X	7	2700	M H67 075		282
1949	19	23		B	SBROTX	X	4	2707	B 033		282
1950	19	24		A	'1',SYMNM	X	7	2711	A H59 W01		282
1951	19	25	SGC	MCW	MAINX+17,HLDSB	X	7	2718	M 018 192		282
1952	19	26		S	ENDDC	X	4	2725	S V19		282
1953	19	27		CHAIN	8					MACRO	
1954				S		X	1	2729	S	GEN	282
1955				S		X	1	2730	S	GEN	282
1956				S		X	1	2731	S	GEN	283
1957				S		X	1	2732	S	GEN	283
1958				S		X	1	2733	S	GEN	283
1959				S		X	1	2734	S	GEN	283
1960				S		X	1	2735	S	GEN	283
1961				S		X	1	2736	S	GEN	283
1962	19	28		S	INDEX2+2	X	4	2737	S 096		283
1963	19	29		A	'3',INDEX2+1	X	7	2741	A H68 095		284

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1964	19	30		MCW	MAINX+10,PARTB	X	7	2748	M 011 466		284
1965	19	31		SBR	INDEX3	X	4	2755	H 099		284
1966	19	32		S	INDEX1+1	X	4	2759	S 090		284
1967	19	33		BCE	BTREND,MAINX+20,	X	8	2763	B Q25 021		284
1968	19	34		BCE	MOVEC,MAINX+20,,	X	8	2771	B V20 021 ,		284
1969	19	35	COMSN	A	'3',INDEX2+1	X	7	2779	A H68 095		285
1970	19	36		BCE	ABOVE,INDEX2+1,3	X	8	2786	B H33 095 3		285
1971	19	37	BELOW	B	SCANXX	X	4	2794	B M19		285
1972	19	38		LCA	MAINX+18+X1,0+X3	X	7	2798	L 0/9 0+0		285
1973	19	39		SBR	INDEX3	X	4	2805	H 099		285
1974	19	40		BCE	MOVEC,MAINX+20+X1,,	X	8	2809	B V20 0S1 ,		285
1975	19	41		BCE	WEEDD,MAINX+19+X1,,	X	8	2817	B V65 0S0 ,		286
1976	19	42	BTREND	LCA	','0+X3	X	7	2825	L H69 0+0		286
1977	19	43		CS	LMAINX	X	4	2832	/ 086		286
1978	19	44		C	PREVS=3,HLDSB	X	7	2836	C H72 192		286
1979	19	45		MCW	'999',PREVS	X	7	2843	M H75 H72		286
1980	19	46		BE	HARMN	X	5	2850	B R65 S		286
1981	19	47		BH	RDTP1	X	5	2855	B Q65 U		287
1982	19	48	EOF1	RWD	1	X	5	2860	U (U1 R		287
1983	19	49	*								
1984	19	50	*		SUBSTITUTIONS						
1985	19	51	*								
1986	19	52	RDTP1	SW	100	X	4	2865	, 100		287
1987	19	53		B	CTAPE	X	4	2869	B W50		287
1988	19	54		NOP	TDFLIB	X	4	2873	N B18		287
1989	19	55		C	MAINX+19,HEADR	X	7	2877	C 020 Y91		287
1990	19	56		BU	RDTP1	X	5	2884	B Q65 /		287
1991	19	57		C	MAINX+7,'999'	X	7	2889	C 008 H75		288
1992	19	58		BE	KINGS	X	5	2896	B U63 S		288
1993	19	59		C	MAINX+7,HLDSB	X	7	2901	C 008 192		288
1994	19	60		BU	RDTP1	X	5	2908	B Q65 /		288
1995	19	61		B	HARMN	X	4	2913	B R65		288
1996	19	62	SKELC	MCW	'N',NOCAL	X	7	2917	M H45 K20		288
1997	19	63		MCW	CHARCS,MAINX+74	X	7	2924	M U60 075		289
1998	19	64		B	SBROT	X	4	2931	B 033		289
1999	19	65		BCE	HARMN,MAINX+19,D	X	8	2935	B R65 020 D		289
2000	19	66		MCW	'B ',MAINX+19	X	7	2943	M H80 020		289
2001	19	67	BOUTS	CW	ZEROX	X	4	2950	J 188		289
2002	19	68		MCW	CHARCC,MAINX+74	X	7	2954	M U61 075		289
2003	19	69		B	SBROTX	X	4	2961	B 033		290
2004	19	70	HARMN	CS	LMAINX	X	4	2965	/ 086		290
2005	19	71		SW	1,100	X	7	2969	, 001 100		290
2006	19	72		MCW	LIPUT+1,100	X	7	2976	M 187 100		290
2007	19	73		B	CTAPEX	X	4	2983	B W50		290
2008	19	74		NOP	TDFLB2	X	4	2987	N B29		290
2009	19	75		C	MAINX+19,HEADR	X	7	2991	C 020 Y91		290
2010	19	76		MCW	MAINX+7,PREVS	X	7	2998	M 008 H72		291
2011	19	77		BE	SWITCH	X	5	3005	B L01 S		291
2012	19	78		C	MAINX+7,'')00'	X	7	3010	C 008 H83		291
2013	19	79		BU	LZFND	X	5	3017	B +26 /		291



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2014	19	80		SW	ZEROX	X	4	3022	, 188		291
2015	19	81	*								
2016	19	82	*		RIGHT TO LEFT SCAN FOR LOZENGES						
2017	19	83	*								
2018	19	84	LZFND	ZA	'690',INDEX1+1	X	7	3026	+ H86	090	291
2019	19	85	LOZSC	BCE	LZCNT,MAINX+X1,)	X	8	3033	B B38	0#1 )	292
2020	19	86	DEFND	S	+10,INDEX1+1	X	7	3041	S H66	090	292
2021	19	87		C	INDEX1,'15'	X	7	3048	C 089	H88	292
2022	19	88		BU	LOZSC	X	5	3055	B +33	/	292
2023	19	89		S	INDEX1+1	X	4	3060	S 090		292
2024	19	90	CLEANC	B	SCANXX	X	4	3064	B M19		292
2025	19	91		CW	MAINX+20,MAINX+20+X1	X	7	3068	) 021	OS1	293
2026	19	92		C	INDEX1,'51'	X	7	3075	C 089	H90	293
2027	19	93		BL	ENDCLN	X	5	3082	B A26	T	293
2028	19	94		C	MAINXX+20+X1,' '	X	7	3087	C OS1	H58	293
2029	19	95		BU	CLEANC	X	5	3094	B +64	/	293
2030	19	96		BCE	ENDCLN,MAINX+5,*	X	8	3099	B A26	006 *	293
2031	19	97		SW	MAINX+20+X1	X	4	3107	, OS1		294
2032	19	98		MCW	BLANKS-4,MAINXX+71	X	7	3111	M W12	072	294
2033	19	99		MCW	MAINXX+71	X	4	3118	M 072		294
2034	20	00		CW	MAINXX+20+X1	X	4	3122	) OS1		294
2035	20	01	*								
2036	20	02	*		RIGHT TO LEFT SCAN FOR LOZENGES 6 - 20						
2037	20	03	*								
2038	20	04	ENDCLN	MCW	'015',INDEX1	X	7	3126	M H93	089	294
2039	20	05		SBR	ZONCH+3,UPENGL	X	7	3133	H J07	A48	294
2040	20	06	ENGLOZ	BCE	LOZENG,MAINX+X1,)	X	8	3140	B +57	0#1 )	295
2041	20	07	UPENGL	S	+10,INDEX1+1	X	7	3148	S H66	090	295
2042	20	08		C	INDEX1,'04'	X	7	3155	C 089	H95	295
2043	20	09		BU	ENGLOZ	X	5	3162	B A40	/	295
2044	20	10	OUTSD	SBR	ZONCH+3,DEFND	X	7	3167	H J07	+41	295
2045	20	11	SHIFTL	NOP	PARTB,MAINX+10	X	7	3174	N 466	011	296
2046	20	12		MCW	'N',SHIFTL	X	7	3181	M H45	A74	296
2047	20	13		C	MAINX+18,WHOOPS	X	7	3188	C 019	W05	296
2048	20	14		BE	MASKS	X	5	3195	B J44	S	296
2049	20	15		C	MAINX+19,INCLD	X	7	3200	C 020	U59	296
2050	20	16		BE	MASKS	X	5	3207	B J44	S	296
2051	20	17		B	BOUTS	X	4	3212	B R50		297
2052	20	18	TDFLIB	DCW	+KINGS	X	3	3218	U63		297
2053	20	19		DCW	'M(U1001R'	X	8	3226			297
2054	20	20	TDFLB2	DCW	+EOF18	X	3	3229	+44		297
2055	20	21		DCW	'M(U1001R'	X	8	3237			297
2056	20	22	*								
2057	20	23	*		PROCESS LOZENGE FIELD 21 - 72						
2058	20	24	*								
2059	20	25	LZCNT	BCE	DEFND,MAINX+1+X1,	X	8	3238	B +41	0#2	297
2060	20	26		SW	MAINX+X1,MAINX+3+X1	X	7	3246	, 0#1	0#4	298
2061	20	27		BM	STSYM,MAINX+2+X1	X	8	3253	V C56	0#3 K	298
2062	20	28		B	LABEL	X	4	3261	B /19		298
2063	20	29		MCW	INDEX3,SAVX3=3	X	7	3265	M 099	H98	298

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2064	20	30		S	INDEX3, WAREA	X	7	3272	S 099 W22		298
2065	20	31		MZ	BLANKS, WAREA	X	7	3279	Y W16 W22		299
2066	20	32		MCW	'I99', INDEX3	X	7	3286	M I01 099		299
2067	20	33		S	WAREA, INDEX3	X	7	3293	S W22 099		299
2068	20	34		MCW	'I', INDEX3-2	X	7	3300	M I02 097		299
2069	20	35		C	INDEX3, 'I9F'	X	7	3307	C 099 I05		299
2070	20	36		BL	SPTYP	X	5	3314	B C78 T		300
2071	20	37		MCW	MAINX+76+X3, MAINX+72	X	7	3319	M 0G7 073		300
2072	20	38		SBR	MOVE3+6	X	4	3326	H C47		300
2073	20	39	LMN	CW	MAINX+3+X1	X	4	3330	) 0#4		300
2074	20	40		MCW	SAVX3, INDEX3	X	7	3334	M H98 099		300
2075	20	41	MOVE3	MCW	0+X3, 0	X	7	3341	M 0+0 000		300
2076	20	42		CW	MAINX+X1	X	4	3348	) 0#1		300
2077	20	43		B	DEFND	X	4	3352	B +41		301
2078	20	44	STSYM	MCW	MAINX+68, MAINX+71	X	7	3356	M 069 072		301
2079	20	45		MCW	SYMNM	X	4	3363	M W01		301
2080	20	46		CW	MAINX+X1, MAINX+3+X1	X	7	3367	) 0#1 0#4		301
2081	20	47		B	DEFND	X	4	3374	B +41		301
2082	20	48	*								
2083	20	49	*		SPECIAL PROCESSING OF ONE AND TWO CHARACTER OPERANDS						
2084	20	50	*								
2085	20	51	SPTYP	LCA	MAINX+72, OUTPT+72	X	7	3378	L 073 I84		301
2086	20	52		CW	MAINX+X1, MAINX+3+X1	X	7	3385	) 0#1 0#4		302
2087	20	53		MCW	BLANKS-2, MAINX+71	X	7	3392	M W14 072		302
2088	20	54		BCE	HOUSE, INDEX3, H	X	8	3399	B D22 099 H		302
2089	20	55		MCW	OUTPT+72, MAINX+71	X	7	3407	M I84 072		302
2090	20	56		SBR	MOVE3+6	X	4	3414	H C47		302
2091	20	57		B	SPOUT	X	4	3418	B D33		302
2092	20	58	HOUSE	MCW	OUTPT+72, MAINX+70	X	7	3422	M I84 071		303
2093	20	59		SBR	MOVE3+6	X	4	3429	H C47		303
2094	20	60	SPOUT	CW	OUTPT+3+X1	X	4	3433	) I/5		303
2095	20	61		B	LMN	X	4	3437	B C30		303
2096	20	62	DELET	BW	LBLMV, ZEROX	X	8	3441	V D53 188 1		303
2097	20	63		B	HARMN	X	4	3449	B R65		303
2098	20	64	LBLMV	MCW	'M', SHIFTL	X	7	3453	M I06 A74		303
2099	20	65		CW	ZEROX	X	4	3460	) 188		304
2100	20	66		B	HARMN	X	4	3464	B R65		304
2101	20	67	MLBLZ	MCW	SYMNM, MAINX+10	X	7	3468	M W01 011		304
2102	20	68		B	OUTSD	X	4	3475	B A67		304
2103	20	69	*								
2104	20	70	*		PULL IN CALLED SUBROUTINES AT LTORG, END OR EXECUTE CARDS						
2105	20	71	*								
2106	20	72	EXITC	SBR	CEXIT1+3	X	4	3479	H G45		304
2107	20	73	RWDEXT	RWD	1	X	5	3483	U (U1 R		304
2108	20	74	CWPRC	CW	NEWEST	X	4	3488	) V98		304
2109	20	75	TFRD1	SW	100	X	4	3492	, 100		305
2110	20	76		MCW	LIPUT+1, 100	X	7	3496	M 187 100		305
2111	20	77		B	CTAPEX	X	4	3503	B W50		305
2112	20	78		NOP	TDFEXT	X	4	3507	N T44		305
2113	20	79		C	MAINX+19, HEADR	X	7	3511	C 020 Y91		305

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2114	20	80		BU	TPRD1	X	5	3518	B D92 /		305
2115	20	81	SOLUT	C	MAINX+7,'999'	X	7	3523	C 008 H75		305
2116	20	82		BE	EOF1A	X	5	3530	B F56 S		306
2117	20	83	OPPENT	MCW	ADDCAL,INDEX1	X	7	3535	M W08 089		306
2118	20	84	PRTNER	BCE	TPRD1,INDEX1-2,Y	X	8	3542	B D92 087 Y		306
2119	20	85		SW	MAINX+5	X	4	3550	, 006		306
2120	20	86		C	0+X1,MAINX+7	X	7	3554	C 0#0 008		306
2121	20	87		SAR	INDEX1	X	4	3561	Q 089		306
2122	20	88		BU	PRTNER	X	5	3565	B E42 /		307
2123	20	89		BW	TPRD1,1+X1	X	8	3570	V D92 0#1 1		307
2124	20	90		CW	MAINX+5	X	4	3578	) 006		307
2125	20	91		SW	1+X1	X	4	3582	, 0#1		307
2126	20	92		SW	NEWEST	X	4	3586	, V98		307
2127	20	93	COOKER	B	CTAPEX	X	4	3590	B W50		307
2128	20	94		NOP	TDFEXT	X	4	3594	N T44		307
2129	20	95		C	MAINX+18,WHCOPS	X	7	3598	C 019 W05		308
2130	20	96		BE	SUBSET	X	5	3605	B J19 S		308
2131	20	97		C	MAINXX+19,INCLD	X	7	3610	C 020 U59		308
2132	20	98		BE	SUBSET	X	5	3617	B J19 S		308
2133	20	99		C	MAINX+19,HEADR	X	7	3622	C 020 Y91		308
2134	21	00		BE	SOLUT	X	5	3629	B E23 S		308
2135	21	01		MCW	CHARCC,MAINX+74	X	7	3634	M U61 075		309
2136	21	02		LCA	LOPUT+1,100	X	7	3641	L I98 100		309
2137	21	03		B	SBROT	X	4	3648	B 033		309
2138	21	04		B	COOKER	X	4	3652	B E90		309
2139	21	05	EOF1A	MCW	ADDCAL,INDEX1	X	7	3656	M W08 089		309
2140	21	06	COMBL	BCE	CEXIT,INDEX1-2,Y	X	8	3663	B G26 087 Y		309
2141	21	07		C	0+X1,' '	X	7	3671	C 0#0 H48		310
2142	21	08		SAR	INDEX1	X	4	3678	Q 089		310
2143	21	09		BE	CEXIT	X	5	3682	B G26 S		310
2144	21	10		BW	COMBL,1+X1	X	8	3687	V F63 0#1 1		310
2145	21	11		BW	RWDEXT,NEWEST	X	8	3695	V D83 V98 1		310
2146	21	12	*								
2147	21	13	* CREATE COMMENTS CARD FOR UNKNOWN SUBROUTINES								
2148	21	14	*								
2149	21	15	UNKNWN	B	NOROT	X	4	3703	B T75		310
2150	21	16		SW	1+X1	X	4	3707	, 0#1		311
2151	21	17		MCW	3+X1,MAINX+10	X	7	3711	M 0#3 011		311
2152	21	18		B	SBROT	X	4	3718	B 033		311
2153	21	19		B	COMBL	X	4	3722	B F63		311
2154	21	20	CEXIT	CS	CALLT	X	4	3726	/ -73		311
2155	21	21		CS		X	1	3730	/		311
2156	21	22		CW	100	X	4	3731	) 100		311
2157	21	23		MCW	'999',PREVS	X	7	3735	M H75 H72		312
2158	21	24	CEXIT1	B	0	X	4	3742	B 000		312
2159	21	25	SBGRD	SBR	GRAND+3	X	4	3746	H G57		312
2160	21	26		S	INDEX1+1	X	4	3750	S 090		312
2161	21	27	GRAND	BW	0,0+X2	X	8	3754	V 000 0-0 1		312
2162	21	28		S	'10',INDEX2+1	X	7	3762	S I08 095		312
2163	21	29		A	'1',INDEX1	X	7	3769	A H59 089		313

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2164	21	30		B	GRAND	X	4	3776	B G54		313
2165	21	31	CALLCD	CS	LMAINX	X	4	3780	/ 086		313
2166	21	32		B	CTAPE	X	4	3784	B W50		313
2167	21	33		NOP	TDFEXT	X	4	3788	N T44		313
2168	21	34		MCW	CHARCS,MAINX+74	X	7	3792	M U60 075		313
2169	21	35		SW	1	X	4	3799	, 001		313
2170	21	36		B	THRU	X	4	3803	B N82		314
2171	21	37	IOCSAV	DCW	=4	X	4	3810			314
2172	21	38	CHAINX	MCW	'R',MAINX+74	X	7	3811	M H67 075		314
2173	21	39		B	WHYYY	X	4	3818	B K97		314
2174	21	40	MIDLE	MCW	INDEX3,DECTB+X2	X	7	3822	M 099 UR2		314
2175	21	41		B	LOWER	X	4	3829	B V46		314
2176	21	42	ABOVE	MCW	INDEX3,DECTB+X2	X	7	3833	M 099 UR2		314
2177	21	43		B	BELOW	X	4	3840	B P94		315
2178	21	44		LTORG	*	X			3844		
				DCW	'B'	X	1	3844		LIT	315
					'N'	X	1	3845		LIT	315
					' '	X	3	3848		LIT	315
					'7'	X	1	3849		LIT	315
					' '	X	1	3850		LIT	315
1874			SAVXL2		=03	X	3	3853		AREA	315
					'DCW'	X	3	3856		LIT	316
					' '	X	2	3858		LIT	316
					'1'	X	1	3859		LIT	316
					'52'	X	2	3861		LIT	316
					'510'	X	3	3864		LIT	316
					+10	X	2	3866		LIT	316
					'R'	X	1	3867		LIT	316
					'3'	X	1	3868		LIT	317
					' '	X	1	3869		LIT	317
1978			PREVS		=03	X	3	3872		AREA	317
					'999'	X	3	3875		LIT	317
2000					'B'	X	5	3880		LIT	317
					'100'	X	3	3883		LIT	317
					'690'	X	3	3886		LIT	317
					'15'	X	2	3888		LIT	318
					'51'	X	2	3890		LIT	318
					'015'	X	3	3893		LIT	318
					'04'	X	2	3895		LIT	318
2063			SAVX3		=03	X	3	3898		AREA	318
					'I99'	X	3	3901		LIT	318
					'I'	X	1	3902		LIT	318
					'I9F'	X	3	3905		LIT	319
					'M'	X	1	3906		LIT	319
					'10'	X	2	3908		LIT	319
2179	21	45	*								
2180	21	46	*	OUTPUT AREA							
2181	21	47	*								
2182	21	48		ORG	3912	X			3912		
2183	21	49	OUTPT	DA	1X86,G	X		3912	3997		319

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	' '	X	1	3998		GMARK	320
2184	21	50	LOPUT	EQU	*-1	X		3997			
2185	21	51		EX		X			B 000		321
2186	21	52		END	START	X			/ Z00 080		324



CLEAR STORAGE 1	,008015,019026,030,034041,045,053,0570571026	1
CLEAR STORAGE 2	L068112,102106,113/101099/199,027A070028)027B0010270B0261,001/00111310	2
BOOTSTRAP	,008015,022029,036040,047054,061068,072/061039,0010011040	3

1401 AUTOCODER-PASS 3-TRANSLATOR-INITIAL -VERSION 3 3731L PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	003	JOB	1401 AUTOCODER-PASS 3-TRANSLATOR-INITIAL -VERSION 3						
102	1	02		CTL	630 1						
103	1	03	*								
104	1	04	*EQUATES								
105	1	05	*								
106	1	06	INTAPE	EQU	{U6			{U6			
107	1	07	OUTAPE	EQU	{U4			{U4			
108	1	08	SYSTAP	EQU	{U1			{U1			
109	1	09	INITAP	EQU	{U0			{U0			
110	1	10	XXXX	EQU	0000			0000			
111	1	11	PRINT	EQU	200			0200			
112	1	12	LIBRN	EQU	000			0000			
113	1	13	*								
114	1	14	*TAPE REDUNDANCY ROUTINE								
115	1	15	*								
116	1	16		ORG	RTEND+1				2210		
117	1	17	TPERR	SBR	XL3	4		2210	H 099		4
118	1	18		SBR	REDXT+3	4		2214	H K82		4
119	1	19		MZ	+9,XL3	7		2218	Y M60 099		4
120	1	20		MCW	4000-10+X3,TPINS+7	7		2225	M I10 K73		4
121	1	21		MN	TPINS+3,BSP1+3	7		2232	D K69 K49		4
122	1	22		MCW	TPINS+7,INST2+7	7		2239	M K73 L82		4
123	1	23	BSP1	BSP	INITAP	5		2246	U {U0 B		5
124	1	24		BCE	WRTRD,TPINS+7,W	8		2251	B L55 K73 W		5
125	1	25		MCW	+9,RDCT=1	7		2259	M M60 M61		5
126	1	26	TPINS	RT	INITAP,XXXX	8		2266	M {U0 000 R		5
127	1	27		BER	RDERR	5		2274	B K83 L		5
128	1	28	REDXT	B	XXXX	4		2279	B 000		5
129	1	29	RDERR	MN	TPINS+3,BSP2+3	7		2283	D K69 K93		6
130	1	30	BSP2	BSP	INITAP	5		2290	U {U0 B		6
131	1	31		S	+1,RDCT	7		2295	S M62 M61		6
132	1	32		BWZ	TPINS,RDCT,B	8		2302	V K66 M61 B		6
133	1	33		MN	TPINS+3,TPHLT+6	7		2310	D K69 L23		6
134	1	34	TPHLT	H	XXXX,390	7		2317	. 000 390		7
135	1	35		MCW	TPINS+7,*+8	7		2324	M K73 L38		7
136	1	36		RT	INITAP,XXXX	8		2331	M {U0 000 R		7
137	1	37		BSS	BSP1,E	5		2339	B K46 E		7
138	1	38		H	XXXX,302	7		2344	. 000 302		7
139	1	39		B	REDXT	4		2351	B K79		7
140	1	40	WRTRD	SKP	SYSTAP	5		2355	U {U1 E		8
141	1	41		BCE	SBCTR,WRTRC-1,5	8		2360	B L92 M63 5		8
142	1	42		A	+1,WRTRC=2	7		2368	A M62 M64		8
143	1	43	INST2	WT	INITAP,XXXX	8		2375	M {U0 000 W		8
144	1	44		BER	BSP1	5		2383	B K46 L		8
145	1	45		B	REDXT	4		2388	B K79		8
146	1	46	SBCTR	S	WRTRC	4		2392	S M64		9
147	1	47		MN	TPINS+3,*+7	7		2396	D K69 M09		9

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
148	1	48		H	XXXX,360		7	2403	. 000 360		9	
149	1	49		B	INST2		4	2410	B L75		9	
150	1	50	*									
151	1	51	* NOISE RECORD ROUTINE									
152	1	52	*									
153	1	53	NOISE	SBR	XL3		4	2414	H 099		9	
154	1	54		SBR	NSXT+3		4	2418	H M52		9	
155	1	55		MZ	+9,XL3		7	2422	Y M60 099		9	
156	1	56	N2	BCE	4000-12+X3, XXXX,	SCAN FOR GROUP MARK	8	2429	B IH8 000		10	
157	1	57		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	1	58	NSXT	B	XXXX		4	2449	B 000		11	
171	1	59	OBJCOR	DCW	'3'	OBJECT CORE SIZE CODE	1	2453			12	
172	1	60	HIVAL	DCW	' 999'	HIGHEST OBJECT ADDRESS	5	2458			12	
173	1	61	MANAM	DCW	'='	EQUALS = OR A	1	2459			12	
174	1	62		LTORG	*				2460			
				DCW	+9		1	2460		LIT	12	
		125	RDCT		=01		1	2461		AREA	12	
					+1		1	2462		LIT	12	
		142	WRTCR		=02		2	2464		AREA	12	
175	1	63	*									
176	1	64	*BEGIN OF MAIN LINE									
177	1	65	*									
178	1	66	BEGIN	RWD	INTAPE	REWIND INPUT TAPE	5	2465	U {U6 R		13	
179	1	67		RWD	5	REWIND 5	5	2470	U {U5 R		13	
180	1	68		CS	3999	CLEAR INPUT AREA	4	2475	/ I99		13	
181	1	69		RTW	SYSTAP,001	READ LOWER HALF OF	8	2479	L {U1 001 R		13	
182	1	70		NOP	0	PASS 3	4	2487	N 000		13	
183	1	71		BER	TPERR		5	2491	B K10 L		13	
184	1	72		SW	GMK1,GMK2	INITIALIZE GROUP MARKS	7	2496	, I89 187		13	
185	1	73		CW	SYSMK2		4	2503	) +03		14	
186	1	74		CS	080	CLEAR READ AREA	4	2507	/ 080		14	
187	1	75		SW	EQVADD	INITIALIZE TO UNDEF	4	2511	, A69		14	
188	1	76		RWD	OUTAPE	RWD OUTPUT TAPE	5	2515	U {U4 R		14	
189	1	77		MCW	+FREE+13,N2+6		7	2520	M R20 M35		14	
190	1	78		MCW	'N',N3	CRIPPLE TEST FOR NOISE	7	2527	M R21 573		14	
191	1	79		MCW	'N',N4		7	2534	M R21 558		14	
192	1	80		RT	5,FREE+1	READ IN MACRO FACTOR	8	2541	M {U5 101 R		15	
193	1	81		B	NOISE	WHICH IS	4	2549	B M14		15	



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
194	1	82		BER	TPERR				PASSED ON FROM PASS 2		
195	1	83		RWD	5				AND SAVE VALUE		
196	1	84		MCW	FREE+3,JOBLBL=3						
197	1	85		ZA	'101',ALTRNO				RESET ALTER NUMBER		
198	1	86	*								
199	1	87	* PROCESS		JOB CARD						
200	1	88	*								
201	1	89		B	GET				GET FIRST RECORD		
202	1	90		BCE	GENJOB,FREE+6,*				Q. COMMENTS CARD		
203	1	91		C	FREE+18,'JOB'				Q. JOB CARD		
204	1	92		BU	GENJOB						
205	1	93	CODJOB	MCW	JOBLBL,FREE+8				PICKUP FACTOR		
206	1	94		WT	OUTAPE,FREE+1				PUT JOB CARD		
207	1	95		NOP	0						
208	1	96		BER	TPERR						
209	1	97		A	+1,ALTRNO						
210	1	98		B	GET				GET NEXT RECORD		
211	1	99		MCW	'B',N3				RESET NOISE ROUTINE		
212	2	00		MCW	'M',N4						
213	2	01	*								
214	2	02	*PROCESS		CONTROL CARD						
215	2	03	*								
216	2	04		C	FREE+18,'CTL'				Q. CONTROL CARD		
217	2	05		BU	CHNAD						
218	2	06		CS	0						
219	2	07		SBR	CLEAR+3						
220	2	08		SBR	SVSZ=3						
221	2	09		BWZ	PROSZ,CLEAR+3,2						
222	2	10	CLEAR	CS	15999						
223	2	11		SBR	CLEAR+3				CLEAR ABOVE 4K		
224	2	12		C	CLEAR+3,'I99'				Q. END OF CLEARING		
225	2	13		BU	CLEAR						
226	2	14	PROSZ	MCW	'6',PHOLD=1						
227	2	15		BWZ	CSZ,SVSZ,8						
228	2	16		MCW	'5',PHOLD						
229	2	17		BWZ	CSZ,SVSZ,K						
230	2	18		MCW	'4',PHOLD						
231	2	19		BWZ	CSZ,SVSZ,S						
232	2	20		MCW	'3',PHOLD						
233	2	21	CSZ	C	FREE+21,PHOLD						
234	2	22		BE	INOBJ						
235	2	23		MESSG	'INCORRECT PROCESSOR MACHINE SIZE SPECIFIED',42					MACRO	
236		02		CS	332					GEN	
237		03		CS						GEN	
238		04		MCW	'INCORRECT PROCESSOR MACHINE SIZE SPECIFIED',42+200					GEN	
239		05		W						GEN	
240		07		BCV	*+5					GEN	
241		08		B	*+3					GEN	
242		09		CC	1					GEN	
243	2	24		MCW	PHOLD,FREE+21						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
244	2	25	INOBJ	MCW	FREE+22,OBJCOR			7 2797	M 122 M53		22
245	2	26		ZA	OBJCOR,XL1			7 2804	+ M53 089		22
246	2	27		S	+30,XL1+1			7 2811	S R91 090		22
247	2	28		A	XL1			4 2818	A 089		22
248	2	29		MCW	OBJTBL+X1,HIVAL-3			7 2822	M R/1 M55		23
249	2	30		C	FREE+22,'3'			7 2829	C 122 R47		23
250	2	31		BL	GETMN			5 2836	B 419 T		23
251	2	32		BCE	SETHI,FREE+24,1			8 2841	B Q99 124 1		23
252	2	33		B	IS4K			4 2849	B Q92		23
253	2	34	GENJOB	BSP	INTAPE			5 2853	U (U6 B		23
254	2	35		MCW	FREE+74,FREE+73			7 2858	M 174 173		24
255	2	36		MCW	'JOB ',FREE+20			7 2865	M R96 120		24
256	2	37		MCW				1 2872	M		24
257	2	38		MCW	FREE+74,FREE+15			7 2873	M 174 115		24
258	2	39		MCW				1 2880	M		24
259	2	40		B	CODJOB			4 2881	B 001		24
260	2	41	CHNAD	MCW	+SUBXL,INTXT+3			7 2885	M R99 463		24
261	2	42	IS4K	MCW	'A',MANAM			7 2892	M +00 M59		25
262	2	43	SETHI	MCW	'03',HIVAL-3			7 2899	M +02 M55		25
263	2	44		B	GETMN			4 2906	B 419		25
264	2	45	OBJTBL	DCW	'03'			2 2911			25
265	2	46		DCW	'07'			2 2913			25
266	2	47		DCW	'11'			2 2915			25
267	2	48		DCW	'15'			2 2917			25
268	2	49		LTORG	*				2918		
		189		DCW	+FREE+13			3 2920	113	ADCON	26
					'N'			1 2921		LIT	26
		196	JOBLBL		=03			3 2924		AREA	26
					'101'			3 2927		LIT	26
					'JOB'			3 2930		LIT	26
					+1			1 2931		LIT	26
					'8'			1 2932		LIT	26
					'M'			1 2933		LIT	27
					'CTL'			3 2936		LIT	27
		220	SVSZ		=03			3 2939		AREA	27
					'I99'			3 2942		LIT	27
					'6'			1 2943		LIT	27
		226	PHCLD		=01			1 2944		AREA	27
					'5'			1 2945		LIT	27
					'4'			1 2946		LIT	28
					'3'			1 2947		LIT	28
		238			'INCORRECT PROCESSOR MACHINE SIZE SPECIFIED'			42 2989		LIT	30
					+30			2 2991		LIT	30
		255			'JOB '			5 2996		LIT	30
		260			+SUBXL			3 2999	634	ADCON	30
					'A'			1 3000		LIT	30
					'03'			2 3002		LIT	31
269	2	50	SYSMK2	DCW	' '			1 3003			31
270	2	51		XFR	000				B 000		32

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
271	2	52		JOB	1401 AUTOCODER-PASS 3 LEFT MAIN LINE						
272	2	53	*								
273	2	54	*INITIALIZATION OF INDEX LOCATIONS								
274	2	55	*								
275	2	56		XINIT	XL1,XL2,XL3					MACRO	
276		01	XL1	EQU	089			0089		GEN	
277		02	089	DCW	000	3		0089		GEN	35
278		04	091	DC	00	2		0091		GEN	35
279		05	XL2	EQU	094			0094		GEN	
280		06	094	DCW	000	3		0094		GEN	35
281		08	096	DC	00	2		0096		GEN	35
282		09	XL3	EQU	099			0099		GEN	
283		10	099	DCW	000	3		0099		GEN	35
284		12	100	DC	0	1		0100		GEN	35
285	2	57	*								
286	2	58	*FREE FORM INPUT AREA								
287	2	59	*								
288	2	60		ORG	101				0101		
289	2	61	FREE	EQU	100			0100			
290	2	62		DA	1X86			0101	0186		35
291	2	63			1,1			0101		FIELD	35
292	2	64			19,19			0119		FIELD	35
293	2	65			16,16			0116		FIELD	35
294	2	66			6,6			0106		FIELD	36
295	2	67			21,21			0121		FIELD	36
296	2	68	ALTRNO		81,84			0184		FIELD	36
297	2	69			85,85			0185		FIELD	36
298	2	70	GMK2	DC	' '	1		0187			37
299	2	71	*								
300	2	72	*FIXED FORM INPUT AREA								
301	2	73	*								
302	2	74		ORG	333				0333		
303	2	75	INPUT	EQU	*			0332			
304	2	76		DA	1X86			0333	0418		37
305	2	77			40,40			0372		FIELD	37
306	2	78			17,17			0349		FIELD	37
307	2	79			28,28			0360		FIELD	37
308	2	80			39,39			0371		FIELD	38
309	2	81			76,76			0408		FIELD	38
310	2	82	*								
311	2	83	* GET UPPER HALF OF PASS 3								
312	2	84	*								
313	2	85	GETMN	RTW	SYSTAP,BEGIN	8		0419	L (U1 M65 R		38
314	2	86		NOP	0	4		0427	N 000		38
315	2	87		BER	TPERR	5		0431	B K10 L		38
316	2	88		MCW	MANAM,MASYM-3	7		0436	M M59 B93		38
317	2	89		RTW	SYSTAP,OVL2	8		0443	L (U1 626 R		38
318	2	90		NOP	0	4		0451	N 000		39
319	2	91		BER	TPERR	5		0455	B K10 L		39
320	2	92	INTXT	B	NUREC	4		0460	B 626		39

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
321	2	93	*								
322	2	94	* GET FIXED FORM OVERLAY								
323	2	95	*								
324	2	96	GTFIX	RTW	SYSTAP,OVL2	8		0464	L (U1 626 R		39
325	2	97		NCP	0	4		0472	N 000		39
326	2	98		BER	TPERR	5		0476	B K10 L		39
327	2	99		BSP	SYSTAP	5		0481	U (U1 B		39
328	3	00		BSP	SYSTAP	5		0486	U (U1 B		40
329	3	01		BW	PROFIX,FREESW	8		0491	V 661 H09 1		40
330	3	02		B	RSTMOD	4		0499	B 638		40
331	3	03	*								
332	3	04	* GET FREE FORM OVERLAY								
333	3	05	*								
334	3	06	GTFRE	RTW	SYSTAP,OVL2	8		0503	L (U1 626 R		40
335	3	07		NCP	0	4		0511	N 000		40
336	3	08		BER	TPERR	5		0515	B K10 L		40
337	3	09		B	PSTNU	4		0520	B 630		40
338	3	10	*								
339	3	11	*GET ROUTINE								
340	3	12	*								
341	3	13	GET	SBR	GETXT+3	4		0524	H 553		41
342	3	14		B	RDTAP	4		0528	B 554		41
343	3	15		MCW	INAREA+79,FREE+80	7		0532	M 182 180		41
344	3	16		CHAIN	4					MACRO	
345				MCW		1		0539	M	GEN	41
346				MCW		1		0540	M	GEN	41
347				MCW		1		0541	M	GEN	41
348				MCW		1		0542	M	GEN	41
349	3	17		MCW	INAREA+85,FREE+86	7		0543	M 188 186		42
350	3	18	GETXT	B	XXXX	4		0550	B 000		42
351	3	19	RDTAP	SBR	RDXT+3	4		0554	H 585		42
352	3	20	N4	MCW	+INAREA+12,N2+6	7		0558	M R43 M35		42
353	3	21		RT	INTAPE,INAREA	8		0565	M (U6 103 R		42
354	3	22	N3	B	NOISE	4		0573	B M14		42
355	3	23		BER	TPERR	5		0577	B K10 L		42
356	3	24	RDXT	B	XXXX	4		0582	B 000		43
357	3	25	*								
358	3	26	*PUT ROUTINE								
359	3	27	*								
360	3	28	PUT	SBR	PUTXT+3	4		0586	H 625		43
361	3	29		CW	FREE+21	4		0590	) 121		43
362	3	30		WT	OUTAPE,FREE+1	8		0594	M (U4 101 W		43
363	3	31		NCP	0	4		0602	N 000		43
364	3	32		BER	TPERR	5		0606	B K10 L		43
365	3	33		SW	FREE+21	4		0611	, 121		43
366	3	34		A	+1,ALTRNO	7		0615	A R44 184		44
367	3	35	PUTXT	B	XXXX	4		0622	B 000		44
368	3	36	OVL2	DCW	0	1		0626			44
369	3	37		DCW	' '	1		0627			44
370	3	38		XFR	0				B 000		45

READ TAPE

CHECK FOR NOISE

INCREASE ALTER NUMBER

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS
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SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
371	3	39		JOB	1401 AUTOCODER-PASS 3 PROCESS FREE FORM						
372	3	40	*								
373	3	41	*BEGINNING OF NEW FREE FORM RECORD ANALYSIS								
374	3	42	*								
375	3	43		ORG	OVL2				0626		
376	3	44	NUREC	B	PUT	4		0626	B 586		48
377	3	45	PSTNU	B	GET	4		0630	B 524		48
378	3	46	SUBXL	SW	MODESW	4		0634	, +02		48
379	3	47		CW	FREESW	4		0638	) H09		48
380	3	48		BCE	NUREC,FREE+6,*	8		0642	B 626 106 *		48
381	3	49		BCE	REG,FREE+75,	8		0650	B 991 175		48
382	3	50		BCE	REG,FREE+75,L	8		0658	B 991 175 L		49
383	3	51		BCE	NUREC,FREE+75,S	8		0666	B 626 175 S		49
384	3	52		BCE	NUREC,FREE+75,Z	8		0674	B 626 175 Z		49
385	3	53		BCE	NUREC,FREE+85,R	8		0682	B 626 185 R		49
386	3	54		C	FREE+18,'CHA'	7		0690	C 118 R47		49
387	3	55		BCE	CKCHN,FREE+75,C	8		0697	B 722 175 C		50
388	3	56		BCE	CKCHN,FREE+75,Y	8		0705	B 722 175 Y		50
389	3	57		BU	NUREC	5		0713	B 626 /		50
390	3	58		B	PRCHN	4		0718	B 727		50
391	3	59	CKCHN	BU	REG	5		0722	B 991 /		50
392	3	60	PRCHN	ZA	FREE+22,WAREA2	7		0727	+ 122 A14		50
393	3	61		BCE	**5,WAREA2,+	8		0734	B 746 A14 +		51
394	3	62		B	**8	4		0742	B 753		51
395	3	63		ZA	WAREA2-1,WAREA2	7		0746	+ A13 A14		51
396	3	64		BCE	**5,FREE+75,C	8		0753	B 765 175 C		51
397	3	65		B	**8	4		0761	B 772		51
398	3	66		MCW	'S',FREE+75	7		0765	M R48 175		51
399	3	67		BCE	**5,FREE+75,Y	8		0772	B 784 175 Y		52
400	3	68		B	**8	4		0780	B 791		52
401	3	69		MCW	'Z',FREE+75	7		0784	M R49 175		52
402	3	70		B	PUT	4		0791	B 586		52
403	3	71		C	WAREA2,+00	7		0795	C A14 R51		52
404	3	72		BL	**5	5		0802	B 811 T		52
405	3	73		B	PSTNU	4		0807	B 630		52
406	3	74		MCW	FREE+75,HLDCD=1	7		0811	M 175 R52		53
407	3	75		MCW	'C',FREE+75	7		0818	M R53 175		53
408	3	76		BCE	BLNKX,HLDCD,R	8		0825	B 848 R52 R		53
409	3	77		BCE	BLNKX,HLDCD,S	8		0833	B 848 R52 S		53
410	3	78		MCW	'Y',FREE+75	7		0841	M R54 175		53
411	3	79	BLNKX	MCW	BLNK2,FREE+74	7		0848	M A55 174		54
412	3	80		MCW	FREE+74	4		0855	M 174		54
413	3	81		MCW	SAVOP	4		0859	M R88		54
414	3	82		MCW		1		0863	M		54
415	3	83		MCW		1		0864	M		54
416	3	84		MCW	FREE+74,FREE+5	7		0865	M 174 105		54
417	3	85	CHNLP	B	PUT	4		0872	B 586		54
418	3	86		MCW	FREE+74,FREE+11	7		0876	M 174 111		55
419	3	87		S	+1,WAREA2	7		0883	S R44 A14		55
420	3	88		C	WAREA2,+00	7		0890	C A14 R51		55

ACCOUNT FOR CHAIN 00

BLANK PAGE/LINE

BLANK LABEL FIELD

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
421	3	89		BL	CHNLP	5		0897	B 872 T		55
422	3	90		B	PSTNU	4		0902	B 630		55
423	3	91	GENPS	MCW	'+1 ',FREE+15	7		0906	M R57 115		55
424	3	92		B	PUT	4		0913	B 586		56
425	3	93		MCW	FREE+73,FREE+72	7		0917	M 173 172		56
426	3	94		MCW	'C',FREE+75	7		0924	M R53 175		56
427	3	95		MCW	HIVAL,FREE+25	7		0931	M M58 125		56
428	3	96		MCW	'EQU '	4		0938	M R62		56
429	3	97		MCW		1		0942	M		56
430	3	98		MCW	'\$HIVAL +P '	4		0943	M R72		56
431	3	99		MCW	FREE+73	4		0947	M 173		57
432	4	00		MCW	+NUREC,GENPS+3	7		0951	M R75 909		57
433	4	01		MCW	'B',ISHIV	7		0958	M R76 969		57
434	4	02		B	NUREC	4		0965	B 626		57
435	4	03	ISHIV	NOP	PSTNU	4		0969	N 630		57
436	4	04		MCW	HIVAL,FREE+25	7		0973	M M58 125		57
437	4	05		MCW	'B',PSSW2	7		0980	M R76 +37		58
438	4	06		B	TSTRE	4		0987	B +53		58
439	4	07	REG	S	XL3+1	4		0991	S 100		58
440	4	08		S		1		0995	S		58
441	4	09		S		1		0996	S		58
442	4	10		C	FREE+18,' '	7		0997	C 118 R79		58
443	4	11		BU	SVUP3	5		1004	B +17 /		58
444	4	12		BCE	TSTRE,FREE+19,	8		1009	B +53 119		59
445	4	13	SVUP3	MCW	FREE+20,SAVCP=9	7		1017	M 120 R88		59
446	4	14		MCW		1		1024	M		59
447	4	15		C	FREE+11,'\$HIVAL'	7		1025	C 111 R94		59
448	4	16		BE	ISHIV	5		1032	B 969 S		59
449	4	17	PSSW2	NOP	TSTRE	4		1037	N +53		59
450	4	18		C	FREE+10,'\$P '	7		1041	C 110 R99		59
451	4	19		BE	GENPS	5		1048	B 906 S		60
452	4	20	TSTRE	BCE	ISREA,FREE+85,R	8		1053	B +96 185 R		60
453	4	21		B	TLUOP	4		1061	B M65		60
454	4	22	STFUN	MCW	FREE+15,SAVCP-5	7		1065	M 115 R83		60
455	4	23		BW	NUREC,EQVADD	8		1072	V 626 A69 1		60
456	4	24		C	FREE+15,'3 '	7		1080	C 115 +01		60
457	4	25		BE	EOJ	5		1087	B Q75 S		61
458	4	26		B	NUREC	4		1092	B 626		61
459	4	27	ISREA	SW	FREE+12	4		1096	, 112		61
460	4	28		LCA	FREE+15,EQVADD	7		1100	L 115 A69		61
461	4	29		CW	FREE+12	4		1107	) 112		61
462	4	30		BCE	TYPCL,FREE+15,+	8		1111	B /26 115 +		61
463	4	31		CHAIN	3					MACRO	
464				BCE		1		1119	B	GEN	61
465				BCE		1		1120	B	GEN	62
466				BCE		1		1121	B	GEN	62
467	4	32		B	STFUN	4		1122	B +65		62
468	4	33	TYPCL	SW	EQVADD-2	4		1126	, A67		62
469	4	34		BCE	STFUN,FREE+12,+	8		1130	B +65 112 +		62
470	4	35		SW	EQVADD-1	4		1138	, A68		62

TO HIGHEST ADDRESS OF  
OBJECT CORE

SET NEW HIGHEST VALUE

Q. HIVAL EQUATE PRESNT

Q. ARITH MACRO PRESENT

LOOKUP MNEMONIC

Q. INSTRUCTION

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
471	4	36		BCE	STFUN,FREE+13,+		8	1142	B #65 113 +		62
472	4	37		SW	EQVADD		4	1150	, A69		63
473	4	38		B	STFUN		4	1154	B #65		63
474	4	39		DCW	0		1	1158			63
475	4	40		DCW	' '		1	1159			63
476	4	41		XFR	0				B 000		64

SYSTEM GROUP MARK



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
477	4	42		JOB	1401 AUTOCODER-PASS 3 PROCESS FIX FORM						
478	4	43		ORG	OVL2				0626		
479	4	44	*								
480	4	45	*BEGINNING OF NEW FIXED FORM RECORD ANALYSIS								
481	4	46	*								
482	4	47	ENTSPS	B	PUT		4	0626	B 586		67
483	4	48		BW	GTFRE,FREESW		8	0630	V 503 H09 1		67
484	4	49	RSTMOD	CW	MODESW=1,ABSW		7	0638	) +02 A10		67
485	4	50		B	RDTAP		4	0645	B 554		67
486	4	51		MCW	INAREA+79,INPUT+80		7	0649	M 182 412		67
487	4	52		CHAIN	5					MACRO	
488				MCW			1	0656	M	GEN	67
489				MCW			1	0657	M	GEN	67
490				MCW			1	0658	M	GEN	68
491				MCW			1	0659	M	GEN	68
492				MCW			1	0660	M	GEN	68
493	4	53	PROFIX	MCW	INPUT+80,FREE+80		7	0661	M 412 180		68
494	4	54		MCW	BLANK,FREE+75		7	0668	M A54 175		68
495	4	55		MCW	FREE+75		4	0675	M 175		68
496	4	56		MCW	FREE+75,FREE+20		7	0679	M 175 120		68
497	4	57		MCW			1	0686	M		69
498	4	58		MCW			1	0687	M		69
499	4	59		MCW	INPUT+82,FREE+86		7	0688	M 414 186		69
500	4	60		MCW	INPUT+13,FREE+11		7	0695	M 345 111		69
501	4	61		MCW	INPUT+5		4	0702	M 337		69
502	4	62		BCE	COMCRD,INPUT+8, *		8	0706	B Y71 340 *		69
503	4	63		BCE	LBERR,FREE+11,,		8	0714	B 778 111 ,		69
504	4	64		CHAIN	4					MACRO	
505				BCE			1	0722	B	GEN	70
506				BCE			1	0723	B	GEN	70
507				BCE			1	0724	B	GEN	70
508				BCE			1	0725	B	GEN	70
509	4	65		BCE	LBERR,FREE+10,-		8	0726	B 778 110 -		70
510	4	66		CHAIN	4					MACRO	
511				BCE			1	0734	B	GEN	70
512				BCE			1	0735	B	GEN	70
513				BCE			1	0736	B	GEN	71
514				BCE			1	0737	B	GEN	71
515	4	67		BCE	LBERR,FREE+10,=		8	0738	B 778 110 =		71
516	4	68		CHAIN	4					MACRO	
517				BCE			1	0746	B	GEN	71
518				BCE			1	0747	B	GEN	71
519				BCE			1	0748	B	GEN	71
520				BCE			1	0749	B	GEN	71
521	4	69		BCE	LBERR,FREE+10,+		8	0750	B 778 110 +		72
522	4	70		CHAIN	4					MACRO	
523				BCE			1	0758	B	GEN	72
524				BCE			1	0759	B	GEN	72
525				BCE			1	0760	B	GEN	72
526				BCE			1	0761	B	GEN	72

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
527	4	71		BCE	LBERR,FREE+10,†	8		0762	B 778 110 †		72
528	4	72		CHAIN	4					MACRO	
529				BCE		1		0770	B	GEN	72
530				BCE		1		0771	B	GEN	73
531				BCE		1		0772	B	GEN	73
532				BCE		1		0773	B	GEN	73
533	4	73		B	BCK1	4		0774	B 798		73
534	4	74	LBERR	CS	332	4		0778	/ 332		73
535	4	75		CS		1		0782	/		73
536	4	76		MCW	'ILLEGAL LABEL - SEQUENCE NUMBER',231	7		0783	M +33 231		73
537	4	77		MCS	ALTRNO,236	7		0790	Z 184 236		74
538	4	78		W		1		0797	Z		74
539	4	79	BCK1	C	INPUT+15,BLNK2	7		0798	C 347 A55		74
540	4	80		BE	ABSFIX	5		0805	B S70 S		74
541	4	81		MCW	BLNK2,SAVCP	7		0810	M A55 R88		74
542	4	82		MCW	INPUT+16	4		0817	M 348		74
543	4	83		MCW	INPUT+16,FREE+18	7		0821	M 348 118		74
544	4	84	TLUFIX	S	XL3+1	4		0828	S 100		75
545	4	85		S		1		0832	S		75
546	4	86		S		1		0833	S		75
547	4	87		B	TLUOP	4		0834	B M65		75
548	4	88		BW	FIXINS,EQVADD	8		0838	V 854 A69 1		75
549	4	89		BCE	FOUND,EQVADD,	8		0846	B T40 A69		75
550	4	90	*								
551	4	91	* PROCESS INSTRUCTION								
552	4	92	*								
553	4	93	FIXINS	BCE	LKNOP,INPUT+17,	8		0854	B 974 349		75
554	4	94		BCE	FIXALF,INPUT+17,'	8		0862	B /84 349 '		76
555	4	95		B	SCAN	4		0870	B Z09		76
556	4	96	CKB	BCE	CKMOD,INPUT+28,	8		0874	B 950 360		76
557	4	97		A	+1,XL2	7		0882	A R44 094		76
558	4	98		MCW	',' ,FREE+21+X2	7		0889	M +34 1K1		76
559	4	99		A	+1,XL2	7		0896	A R44 094		77
560	5	00		MCW	'011',XL1	7		0903	M +37 089		77
561	5	01		BCE	FIXALF,INPUT+28,'	8		0910	B /84 360 '		77
562	5	02		B	SCAN	4		0918	B Z09		77
563	5	03	CKOP	C	INPUT+16,'B '	7		0922	C 348 +40		77
564	5	04		BE	MAKBCE	5		0929	B +40 S		77
565	5	05		C	INPUT+16,' B'	7		0934	C 348 +43		78
566	5	06		BE	MOVMOD	5		0941	B +18 S		78
567	5	07		B	LKNOP	4		0946	B 974		78
568	5	08	CKMOD	C	INPUT+16,'B '	7		0950	C 348 +40		78
569	5	09		BE	ALTROP	5		0957	B +51 S		78
570	5	10		C	INPUT+16,' B'	7		0962	C 348 +43		78
571	5	11		BE	ALTROP	5		0969	B +51 S		79
572	5	12	LKNOP	C	INPUT+16,'NCP'	7		0974	C 348 +46		79
573	5	13		BE	CKNOP	5		0981	B /46 S		79
574	5	14		BW	PICKUP,ABSW	8		0986	V +29 A10 1		79
575	5	15		BCE	PICKUP,INPUT+39,	8		0994	B +29 371		79
576	5	16	ISMOD	BCE	MOVMOD,FREE+15,	8		1002	B +18 115		80

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
577	5	17		BWZ	IOTYP,FREE+15,2	Q. I/O INSTRUCTION	8	1010	V /54 115 2		80
578	5	18	MOVMOD	MCW	INPUT+39,FREE+23+X2	MOVE D CHARACTER TO	7	1018	M 371 1K3		80
579	5	19		MCW	','	FREE AREA	4	1025	M +34		80
580	5	20	PICKUP	MCW	INPUT+55,FREE+72	PICKUP COMMENTS	7	1029	M 387 172		80
581	5	21		B	ENDFIX		4	1036	B 626		80
582	5	22	MAKBCE	MCW	'BCE',FREE+18	MOVE -BCE- MNEMONIC	7	1040	M +49 118		81
583	5	23		B	ISMOD	TO OPERATION FIELD	4	1047	B #02		81
584	5	24	ALTROP	BCE	PICKUP,INPUT+39,	Q. D CHARACTER, I.E.,	8	1051	B #29 371		81
585	5	25		MCW	'BIN',FREE+18	UNCONDITIONAL BRANCH	7	1059	M +52 118		81
586	5	26		MCW	'+ B',FREE+15	SET FIVE CHAR BRANCH	7	1066	M +55 115		81
587	5	27		S	XL1+1		4	1073	S 090		81
588	5	28		MCW	BLNK2,FREE+20		7	1077	M A55 120		82
589	5	29	TLUBIN	C	BINTBL+X1,INPUT+39	SEARCH 5-CHARACTER	7	1084	C H/4 371		82
590	5	30		BE	BINFND	BRANCH TABLE FOR	5	1091	B /15 S		82
591	5	31		BCE	MOVMOD,BINTBL+5+X1,	APPROPRIATE UNIQUE	8	1096	B #18 H/9		82
592	5	32		A	+5,XL1	MNEMONIC. IF NOT	7	1104	A +56 089		82
593	5	33		B	TLUBIN	PRESENT LEAVE	4	1111	B #84		82
594	5	34	BINFND	MCW	BINTBL-1+X1,FREE+19	MNEMONIC -BIN-	7	1115	M H/3 119		83
595	5	35		MCW			1	1122	M		83
596	5	36		C	FREE+18,'BSS'	Q. BRANCH SENSE SWITCH	7	1123	C 118 +59		83
597	5	37		BE	MOVMOD		5	1130	B #18 S		83
598	5	38		MCW	INPUT+39,FREE+14	PICKUP D CHARACTER	7	1135	M 371 114		83
599	5	39		B	PICKUP		4	1142	B #29		83
600	5	40	CKNOP	BCE	PICKUP,INPUT+39,		8	1146	B #29 371		83
601	5	41	IOTYP	MCW	INPUT+39,FREE+14	CODE I/O INSTRUCTIONS	7	1154	M 371 114		84
602	5	42		MCW	','	IN ACTUAL IN	4	1161	M +60		84
603	5	43		MCW	INPUT+39,FREE+20	OPERATION FIELD	7	1165	M 371 120		84
604	5	44		MCW	FREE+15		4	1172	M 115		84
605	5	45		MCW	BLANK3		4	1176	M A56		84
606	5	46		B	PICKUP		4	1180	B #29		84
607	5	47	FIXALF	BCE	ENDALF,INPUT+27+X1,'	SCAN FOR ENDING ' SIGN	8	1184	B S18 3V9 '		84
608	5	48		CHAIN	8					MACRO	
609				BCE			1	1192	B	GEN	85
610				BCE			1	1193	B	GEN	85
611				BCE			1	1194	B	GEN	85
612				BCE			1	1195	B	GEN	85
613				BCE			1	1196	B	GEN	85
614				BCE			1	1197	B	GEN	85
615				BCE			1	1198	B	GEN	85
616				BCE			1	1199	B	GEN	86
617	5	49	VALUE	A	+1,XL2	PROCESS STATEMENT AS	7	1200	A R44 094		86
618	5	50		MCW	'\$\$',FREE+21+X2	UNPROCESSABLE ALPHA	7	1207	M +62 1K1		86
619	5	51		B	WHCHOP	LITERAL ILLEGAL OPND	4	1214	B S54		86
620	5	52	ENDALF	SBR	WAREA3	PICKUP LITERAL AND	4	1218	H A15		86
621	5	53		S	+VALUE+2,WAREA3	MOVE TO FREE FORM	7	1222	S +65 A15		86
622	5	54		ZS	WAREA3	AREA	4	1229	- A15		86
623	5	55		A	WAREA3,XL1		7	1233	A A15 089		87
624	5	56		A	WAREA3,XL2		7	1240	A A15 094		87
625	5	57		MCW	INPUT+17+X1,FREE+21+X2		7	1247	M 309 1K1		87
626	5	58	WHCHOP	C	XL1,'011'	EXIT ON BASIS OF WHICH	7	1254	C 089 +37		87

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
627	5	59		BH	CKB				OPERAND ACTING UPON		
628	5	60		B	CKOP						
629	5	61	ABSFIX	BCE	SAMFIX,INPUT+16,				PRINT OUT MESSAGE ONLY		
630	5	62		MCW	INPUT+16,FREE+19				ONCE THAT ACTUAL OPS		
631	5	63		MCW	INPUT+39,FREE+20				ARE PRESENT IN FIXED		
632	5	64	SW1	NOP	SETABS				FORM IMAGES		
633	5	65		CS	332				THIS ACCOUNTS FOR		
634	5	66		CS					THE POSSIBILITY THAT		
635	5	67		MCW	'ACTUAL OP CODES PRESENT IN FIXED FORM IMAGES',270						
636	5	68		CC	1				THE USER FORGOT TO		
637	5	69		W					USE AN ENTER		
638	5	70		CC	1				AUTOCODER STATEMENT		
639	5	71		MCW	'B',SW1				WHEN RETURNING TO		
640	5	72	SETABS	SW	ABSW=1				FREE FORM		
641	5	73		B	TLUFIX						
642	5	74	SAMFIX	MCW	SAVOP,FREE+20				PROCESS SAME OP CODE		
643	5	75		MCW							
644	5	76		B	TLUFIX						
645	5	77	*								
646	5	78	* BEGINNING OF PROCESS CONTROL AND DECLARATIVE OPERATION CODES								
647	5	79	*								
648	5	80	FOUND	BW	FIXINS,EQVADD				DETERMINE TYPE OF		
649	5	81		S	XL3+1				CONTROL OP AND GO TO		
650	5	82		MN	EQVADD-1,XL3				APPROPRIATE ROUTINE		
651	5	83		A	XL3						
652	5	84		A	XL3						
653	5	85		B	*+1+X3						
654	5	86		B	BADOP				DA ILLEGAL IN FIXED FM		
655	5	87		B	DCWSTM				GO TO CONSTANT RTN		
656	5	88		B	ERHLT				SHOULD NEVER OCCUR		
657	5	89		B	ONEOP				END, EX, XFR		
658	5	90		B	ONEOP				GO TO SUFFIX RTN		
659	5	91		B	ERHLT				SHOULD NEVER OCCUR		
660	5	92		B	CKLOR				GO TO ORIGIN RTN		
661	5	93		B	DSTYP				GO TO DS, EQU RTN		
662	5	94		B	INSPC				GO TO SPECIAL ROUTINE		
663	5	95		MCW	INPUT+55,FREE+59						
664	5	96		MCW					TO FREE FORM AREA		
665	5	97		MCW							
666	5	98		MCW							
667	5	99		B	ENDFIX						
668	6	00	INSPC	BCE	NOPND,INPUT+17,				PROCESS		
669	6	01		MCW	'B',FREE+18				CC AND CCB AND SS		
670	6	02		MCW	EQVADD-2,EQVADD				AND SSB		
671	6	03		LCA	BLANK						
672	6	04		MCW	EQVADD,FREE+15						
673	6	05		MCW	' + '						
674	6	06		B	FIXINS						
675	6	07	NOPND	MCW	INPUT+39,FREE+21				PROCESS TWO CHARACTER		
676	6	08		B	ENDFIX				INSTRUCTIONS		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
677	6	09	ERHLT	H	0,301		7	1473	. 000 301		94
678	6	10		B	ERHLT		4	1480	B U73		94
679	6	11	*								
680	6	12	*PROCESS DCW, DC STATEMENTS								
681	6	13	*								
682	6	14	DCWSTM	BCE	DCWTYP,INPUT+17,*		8	1484	B V51 349 *		94
683	6	15		A	BLANK,INPUT+17		7	1492	A A54 349		95
684	6	16		MCW	FREE+18,WAREA6=6		7	1499	M 118 A18		95
685	6	17		MCW			1	1506	M		95
686	6	18		MCW	'EQU',FREE+18		7	1507	M A21 118		95
687	6	19		MCW	'+P '		4	1514	M A24		95
688	6	20		MCW	INPUT+21,FREE+25		7	1518	M 353 125		95
689	6	21		B	PUT		4	1525	B 586		95
690	6	22		MCW	FREE+74,FREE+73		7	1529	M 174 173		96
691	6	23		MCW	INPUT+22,FREE+11		7	1536	M 354 111		96
692	6	24		MCW	WAREA6,FREE+18		7	1543	M A18 118		96
693	6	25		MCW			1	1550	M		96
694	6	26	DCWTYP	CW	INPUT+40,INPUT+39		7	1551	) 372 371		96
695	6	27		CW	INPUT+28		4	1558	) 360		96
696	6	28		BCE	DSARTN,FREE+14,J		8	1562	B X15 114 J		97
697	6	29		BCE	KNOWN,INPUT+23,+		8	1570	B W69 355 +		97
698	6	30		BCE	KNOWN,INPUT+23,-		8	1578	B W69 355 -		97
699	6	31		BCE	KNOWN,INPUT+23,'		8	1586	B W69 355 '		97
700	6	32		MN	INPUT+7,XL1		7	1594	D 339 089		97
701	6	33		MN			1	1601	D		98
702	6	34		A	BLANK,XL1		7	1602	A A54 089		98
703	6	35		C	XL1,'032'		7	1609	C 089 A27		98
704	6	36		BL	CORERR		5	1616	B W80 T		98
705	6	37		C	XL1,'000'		7	1621	C 089 A30		98
706	6	38		BE	CORERR		5	1628	B W80 S		98
707	6	39	RTNDCW	MCW	INPUT+23+X1,FREE+21+X1		7	1633	M 3V5 1S1		98
708	6	40		MCW	''',FREE+21		7	1640	M A31 121		99
709	6	41		MCW	''',FREE+22+X1		7	1647	M A31 1S2		99
710	6	42	RSTWM	SW	INPUT+40,INPUT+39		7	1654	, 372 371		99
711	6	43		SW	INPUT+28		4	1661	, 360		99
712	6	44		B	ENDFIX		4	1665	B 626		99
713	6	45	KNOWN	MCW	INPUT+55,FREE+53		7	1669	M 387 153		99
714	6	46		B	RSTWM		4	1676	B W54		100
715	6	47	CORERR	S	XL1+1		4	1680	S 090		100
716	6	48	LPERR	BCE	RTNDCW,INPUT+24+X1,		8	1684	B W33 3V6		100
717	6	49		A	+1,XL1		7	1692	A R44 089		100
718	6	50		C	XL1,'52'		7	1699	C 089 A33		100
719	6	51		BE	RTNDCW		5	1706	B W33 S		100
720	6	52		B	LPERR		4	1711	B W84		100
721	6	53	*								
722	6	54	* PROCESS DSA STATEMENTS								
723	6	55	*								
724	6	56	DSARTN	S	XL2+2		4	1715	S 096		101
725	6	57		MCW	'011',XL1		7	1719	M +37 089		101
726	6	58		B	SCAN		4	1726	B Z09		101



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
777	7	02	SCAN	SBR	SCNXT+3	4		1909	H J20		107
778	7	03		S	XL3+1	4		1913	S 100		107
779	7	04	LOCP1	BCE	CK1BK,INPUT+18+X1,	8		1917	B Z62 3V0		107
780	7	05	CXL1	C	XL3,'05'	7		1925	C 099 A43		107
781	7	06		BE	NDOPD	5		1932	B Z86 S		107
782	7	07		A	+1,XL1	7		1937	A R44 089		107
783	7	08		A	+1,XL2	7		1944	A R44 094		108
784	7	09		A	+1,XL3	7		1951	A R44 099		108
785	7	10		B	LOOP1	4		1958	B Z17		108
786	7	11	CK1BK	C	XL3,'04'	7		1962	C 099 A45		108
787	7	12		BE	NDOPD	5		1969	B Z86 S		108
788	7	13		BCE	*+5,INPUT+19+X1,	8		1974	B Z86 3V1		108
789	7	14		B	CXL1	4		1982	B Z25		109
790	7	15	NDOPD	MCW	INPUT+17+X1,FREE+21+X2	7		1986	M 3U9 1K1		109
791	7	16		C	XL1,'011'	7		1993	C 089 +37		109
792	7	17		S	XL1+2	4		2000	S 091		109
793	7	18		BH	*+8	5		2004	B -16 U		109
794	7	19		MCW	'011',XL1	7		2009	M +37 089		109
795	7	20		BCE	CKLIT2,INPUT+23+X1,	8		2016	B J88 3V5		110
796	7	21		BWZ	MKMIN,INPUT+23+X1,K	8		2024	V J21 3V5 K		110
797	7	22		MCW	'+',INPUT+23+X1	7		2032	M +60 3V5		110
798	7	23	RTN2	SW	INPUT+24+X1,INPUT+23+X1	7		2039	, 3V6 3V5		110
799	7	24		A	BLANK,INPUT+26+X1	7		2046	A A54 3V8		110
800	7	25		A	+4,XL2	7		2053	A A46 094		111
801	7	26		MCW	INPUT+26+X1,FREE+21+X2	7		2060	M 3V8 1K1		111
802	7	27		MCW		1		2067	M		111
803	7	28		CW	INPUT+24+X1,INPUT+23+X1	7		2068	) 3V6 3V5		111
804	7	29	NOADJ	BCE	FIXLIT,INPUT+17+X1,+	8		2075	B J32 3U9 +		111
805	7	30		BCE	FIXLIT,INPUT+17+X1,-	8		2083	B J32 3U9 -		111
806	7	31		BCE	SCNXT,INPUT+27+X1,	8		2091	B J17 3V9		112
807	7	32		A	+3,XL2	7		2099	A A47 094		112
808	7	33		MN	INPUT+27+X1,FREE+21+X2	7		2106	D 3V9 1K1		112
809	7	34		MCW	'+X'	4		2113	M A49		112
810	7	35	SCNXT	B	XXXX	4		2117	B 000		112
811	7	36	MKMIN	MCW	'-',INPUT+23+X1	7		2121	M A50 3V5		112
812	7	37		B	RTN2	4		2128	B -39		113
813	7	38	FIXLIT	BCE	NOT11,INPUT+27+X1,	8		2132	B J58 3V9		113
814	7	39		A	+1,XL2	7		2140	A R44 094		113
815	7	40		MN	INPUT+27+X1,FREE+21+X2	7		2147	D 3V9 1K1		113
816	7	41		B	SCNXT	4		2154	B J17		113
817	7	42	NOT11	BCE	SUBT,INPUT+26+X1,	8		2158	B J70 3V8		113
818	7	43		B	SCNXT	4		2166	B J17		114
819	7	44	SUBT	A	'I99',XL1	7		2170	A A53 089		114
820	7	45		A	'I99',XL2	7		2177	A A53 094		114
821	7	46		B	NOT11	4		2184	B J58		114
822	7	47	CKLIT2	BCE	SCNXT,INPUT+17+X1,+	8		2188	B J17 3U9 +		114
823	7	48		BCE	SCNXT,INPUT+17+X1,-	8		2196	B J17 3U9 -		114
824	7	49		B	NOADJ	4		2204	B -75		115
825	7	50		DCW	0	1		2208			115
826	7	51	SYSMK1	DCW	' '	1		2209			115

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
827	7	52		XFR	0						
828	7	53	RTEND	EQU	*			2209	B 000		116



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
829	7	54		JOB	1401 AUTOCODER-PASS 3 RIGHT MAIN LINE				-VERSION 3		
830	7	55	*								
831	7	56	*TABLE		LOOKUP OF MNEMONIC OP CODE						
832	7	57	*								
833	7	58		ORG	BEGIN				2465		
834	7	59	TLUOP	SBR	TLUXT+3		4	2465	H 046		119
835	7	60		C	FREE+18,BLANK3=3	Q. ACTUAL	7	2469	C 118 A56		119
836	7	61		BE	ABSCOD	OP CODE	5	2476	B P55 S		119
837	7	62		MLC	FREE+18,XL2		7	2481	M 118 094		119
838	7	63		A	FREE+18,XL2-1		7	2488	A 118 093		119
839	7	64		A	FREE+18,XL2-2		7	2495	A 118 092		119
840	7	65		A	FREE+16,XL2	TABLE LOOKUP	7	2502	A 116 094		120
841	7	66	SUB1	S	+5500,XL2+1	USES ADDRESS	7	2509	S A60 095		120
842	7	67		BWZ	SUB1,XL2+1,B	CONVERSION TECHNIQUE	8	2516	V N09 095 B		120
843	7	68		MLCWA	OPND-549+X2,EQVADD=9		7	2524	L BN9 A69		120
844	7	69		SAR	GETOP+3		4	2531	Q N42		120
845	7	70		S	XL2+2		4	2535	S 096		120
846	7	71	GETOP	MLCWA	XXXX,EQVADD	SEARCH TABLE FOR	7	2539	L 000 A69		121
847	7	72		SAR	GETOP+3	MNEMONIC	4	2546	Q N42		121
848	7	73		BCE	BADOP,EQVADD,'	Q. OP NOT IN TABLE	8	2550	B P28 A69 '		121
849	7	74		C	EQVADD,FREE+18	Q. OP CODE FOUND	7	2558	C A69 118		121
850	7	75		BU	GETOP		5	2565	B N39 /		121
851	7	76		LCA	EQVADD-3,EQVADD	SHIFT TABLE FUNCTION	7	2570	L A66 A69		121
852	7	77		C	'N ',EQVADD	Q. ENTER CARD	7	2577	C A71 A69		122
853	7	78		BE	ENTER		5	2584	B 047 S		122
854	7	79		C	EQVADD,'B '	Q.MLC, MLCWA TYPE	7	2589	C A69 A73		122
855	7	80		BE	SPECIN		5	2596	B 083 S		122
856	7	81		C	EQVADD,'2 '	Q. RAMAC INSTN	7	2601	C A69 A75		122
857	7	82		BE	SPECIN		5	2608	B 083 S		122
858	7	83	SAVCOD	MCW	EQVADD,FREE+15	PLACE TABLE FUNCTION	7	2613	M A69 115		123
859	7	84		SBR	XL3	ON RECORD PRECEDED BY	4	2620	H 099		123
860	7	85		C	XL3,+FREE+11	A PLUS SIGN	7	2624	C 099 A78		123
861	7	86		BE	**8		5	2631	B 043 S		123
862	7	87		MCW	'+',000+X3		7	2636	M +60 0+0		123
863	7	88	TLUXT	B	XXXX	EXIT	4	2643	B 000		123
864	7	89	ENTER	C	FREE+23,'SPS'	DETERMINE TYPE OF	7	2647	C 123 A81		124
865	7	90		BE	GTFIX	ENTER CARD AND	5	2654	B 464 S		124
866	7	91		C	INPUT+20,'AUTO'	GO TO APPROPRIATE	7	2659	C 352 A85		124
867	7	92		BE	GTFRE	ROUTINE	5	2666	B 503 S		124
868	7	93		BW	PSTNU,MODESW		8	2671	V 630 +02 1		124
869	7	94		B	RSTMOD		4	2679	B 638		124
870	7	95	SPECIN	BWZ	MLCTYP,EQVADD-1,B	Q. MLC TYPE	8	2683	V P17 A68 B		125
871	7	96		LCA	EQVADD-2,EQVADD		7	2691	L A67 A69		125
872	7	97	CKEL	BCE	SAVCOD,FREE+19,	Q. SHOULD OP BE -L-	8	2698	B 013 119		125
873	7	98		MCW	'L',EQVADD	MAKE OP CODE -L-	7	2706	M A86 A69		125
874	7	99		B	SAVCOD		4	2713	B 013		125
875	8	00	MLCTYP	LCA	'M',EQVADD	MAKE OP -M-	7	2717	L A87 A69		126
876	8	01		B	CKEL		4	2724	B 098		126
877	8	02	*								
878	8	03	* PROCESS		ILLEGAL OPERATION CODE						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
879	8	04	*								
880	8	05	BADOP	LCA	BLANK,EQVADD		7	2728	L A54 A69		126
881	8	06		BW	SAVCOD,FREESW		8	2735	V 013 H09 1		126
882	8	07		BW	CKFF,MODESW		8	2743	V Q01 +02 1		126
883	8	08		B	SAVCOD		4	2751	B 013		126
884	8	09	ABSCOD	BCE	SAVCOD,FREE+19,		8	2755	B 013 119		127
885	8	10		LCA	BLANK,EQVADD		7	2763	L A54 A69		127
886	8	11		MCW	FREE+19,EQVADD		7	2770	M 119 A69		127
887	8	12		BCE	SAVCOD,FREE+20,		8	2777	B 013 120		127
888	8	13		CW	EQVADD		4	2785	) A69		127
889	8	14		SW			1	2789	,		127
890	8	15		MCW	FREE+20,EQVADD-1		7	2790	M 120 A68		128
891	8	16		B	SAVCOD		4	2797	B 013		128
892	8	17	CKFF	BCE	SAVCOD,FREE+14,		8	2801	B 013 114		128
893	8	18		MCW	FREE+80,INPUT+80		7	2809	M 180 412		128
894	8	19		CHAIN	9					MACRO	
895				MCW			1	2816	M	GEN	128
896				MCW			1	2817	M	GEN	128
897				MCW			1	2818	M	GEN	128
898				MCW			1	2819	M	GEN	129
899				MCW			1	2820	M	GEN	129
900				MCW			1	2821	M	GEN	129
901				MCW			1	2822	M	GEN	129
902				MCW			1	2823	M	GEN	129
903				MCW			1	2824	M	GEN	129
904	8	20		CS	332		4	2825	/ 332		129
905	8	21		CS			1	2829	/		130
906	8	22		MCW	FREE+80,PRINT+80		7	2830	M 180 280		130
907	8	23		CHAIN	4					MACRO	
908				MCW			1	2837	M	GEN	130
909				MCW			1	2838	M	GEN	130
910				MCW			1	2839	M	GEN	130
911				MCW			1	2840	M	GEN	130
912	8	24		MCW	'PROCESSING AS FIXED FORM RECORD',332		7	2841	M B18 332		130
913	8	25		W			1	2848	2		131
914	8	26		SW	FREESW		4	2849	, H09		131
915	8	27		BCV	RESTR		5	2853	B Q62 '		131
916	8	28		B	GTFIX		4	2858	B 464		131
917	8	29	RESTR	CCB	GTFIX, 1		5	2862	F 464 1		131
918	8	30	*								
919	8	31	* END OF JOB	PROCEDURE							
920	8	32	*								
921	8	33	PRECJ	RTW	SYSTAP,OVL2		8	2867	L (U1 626 R		131
922	8	34	EOJ	B	PUT		4	2875	B 586		131
923	8	35		WTM	OUTAPE		5	2879	U (U4 M		132
924	8	36		MESSG	'PASS 3 COMPLETED',60,K,1					MACRO	
925		01		CC	K		2	2884	F K	GEN	132
926		02		CS	332		4	2886	/ 332	GEN	132
927		03		CS			1	2890	/	GEN	132
928		04		MCW	'PASS 3 COMPLETED',60+200		7	2891	M B34 260	GEN	132

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
929		05		W			1	2898	2	GEN	132
930		06		CC	1		2	2899	F 1	GEN	132
931	8	37		CW	SYSMK1		4	2901	) K09		133
932	8	38		CW	GMK1,GMK2		7	2905	) I89 187		133
933	8	39		RTW	SYSTAP,OVL2		8	2912	L (U1 626 R		133
934	8	40		RTW	SYSTAP,085		8	2920	L (U1 085 R		133
935	8	41		NOP	0		4	2928	N 000		133
936	8	42		BER	TPERR		5	2932	B K10 L		133
937	8	43		B	PASSB2		4	2937	B 200		134
938	8	44		LTORG	*				2941		
		352		DCW	+INAREA+12		3	2943	I15	ADCON	134
					+1		1	2944		LIT	134
					'CHA'		3	2947		LIT	134
					'S'		1	2948		LIT	134
					'Z'		1	2949		LIT	134
					+00		2	2951		LIT	134
		406	HLDCD		=01		1	2952		AREA	135
					'C'		1	2953		LIT	135
					'Y'		1	2954		LIT	135
					'+1 '		3	2957		LIT	135
		428			'EQU '		5	2962		LIT	135
		430			'\$HIVAL +P '		10	2972		LIT	135
		432			+NUREC		3	2975	626	ADCON	135
					'B'		1	2976		LIT	136
					' '		3	2979		LIT	136
		445	SAVCP		=09		9	2988		AREA	136
		447			'\$HIVAL'		6	2994		LIT	136
		450			'\$P '		5	2999		LIT	136
					'3 '		2	3001		LIT	136
		484	MODESW		=01		1	3002		AREA	136
		536			'ILLEGAL LABEL - SEQUENCE NUMBER'		31	3033		LIT	137
					' '		1	3034		LIT	137
					'011'		3	3037		LIT	137
					'B '		3	3040		LIT	137
					' B'		3	3043		LIT	138
					'NOP'		3	3046		LIT	138
					'BCE'		3	3049		LIT	138
					'BIN'		3	3052		LIT	138
					'+ B'		3	3055		LIT	138
					+5		1	3056		LIT	138
					'BSS'		3	3059		LIT	138
					'+'		1	3060		LIT	139
					'\$\$'		2	3062		LIT	139
		621			+VALUE+2		3	3065	S02	ADCON	139
		635			'ACTUAL OP CODES PRESENT IN FIXED FORM IMAGES'		44	3109		LIT	141
		640	ABSW		=01		1	3110		AREA	141
					' +'		2	3112		LIT	141
		684	WAREA6		=06		6	3118		AREA	141
					'EQU'		3	3121		LIT	141
					'+P '		3	3124		LIT	142

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					'032'	3		3127		LIT	142
					'000'	3		3130		LIT	142
					'''	1		3131		LIT	142
					'52'	2		3133		LIT	142
					'P'	1		3134		LIT	142
					'00'	2		3136		LIT	142
	771				'LTORG'	5		3141		LIT	143
					'05'	2		3143		LIT	143
					'04'	2		3145		LIT	143
					+4	1		3146		LIT	143
					+3	1		3147		LIT	143
					'+X'	2		3149		LIT	143
					'-'	1		3150		LIT	143
					'I99'	3		3153		LIT	144
	835		BLANK3		=03	3		3156		AREA	144
					+5500	4		3160		LIT	144
	843		EQVADD		=09	9		3169		AREA	144
					'N '	2		3171		LIT	144
					'B '	2		3173		LIT	144
					'2 '	2		3175		LIT	144
	860				+FREE+11	3		3178	111	ADCON	145
					'SPS'	3		3181		LIT	145
					'AUTO'	4		3185		LIT	145
					'L'	1		3186		LIT	145
					'M'	1		3187		LIT	145
	912				'PROCESSING AS FIXED FORM RECORD'	31		3218		LIT	146
	928				'PASS 3 CCMPLETED'	16		3234		LIT	147
939	8	45	*								
940	8	46	*TABLE OF MNEMONIC OPERATION CCDES								
941	8	47	*								
942	8	48		ORG	3253				3253		
943	8	49		DCW	'''	1		3253			148
944	8	50		DCW	=4	4		3257			148
945	8	51		DCW	=2	2		3259			148
946	8	52		DCW	'NNOP'	4		3263			148
947	8	53		DCW	'C XFR'	5		3268			148
948	8	54		DCW	'O LOR'	5		3273			148
949	8	55		DCW	'I JOB'	5		3278			148
950	8	56		DCW	'/CS '	4		3282			149
951	8	57		DCW	'O DA '	5		3287			149
952	8	58		DCW	'S2WSS'	5		3292			149
953	8	59	MASYM	DCW	'=MA '	4		3296			149
954	8	60		DCW	'3 END'	5		3301			149
955	8	61		DCW	'PMCM'	4		3305			149
956	8	62		DCW	'N ENT'	5		3310			149
957	8	63		DCW	'BRMRTB'	6		3316			150
958	8	64		DCW	'ABBLC'	5		3321			150
959	8	65		DCW	' '	1		3322			150
960	8	66		DCW	'BMMBC'	5		3327			150
961	8	67		DCW	'(D '	4		3331			150

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
962	8	68		DCW	'F3WM2 WDC'		9	3340		150
963	8	69		DCW	' FCCB'		5	3345		150
964	8	70		DCW	'S1DUDCR'		7	3352		151
965	8	71		DCW	'YMLZ'		4	3356		151
966	8	72		DCW	' 'M '		4	3360		151
967	8	73		DCW	'UEUSKP'		6	3366		151
968	8	74		DCW	'O ORG'		5	3371		151
969	8	75		DCW	'HSBR'		4	3375		151
970	8	76		DCW	'K8 SS '		6	3381		151
971	8	77		DCW	'YMZ '		4	3385		152
972	8	78		DCW	' '		1	3386		152
973	8	79		DCW	' )CW '		4	3390		152
974	8	80		DCW	'UWLWTW'		6	3396		152
975	8	81		DCW	'B MLC'		5	3401		152
976	8	82		DCW	'ZMCS'		4	3405		152
977	8	83		DCW	'UWMWT '		6	3411		152
978	8	84		DCW	'MMCW'		4	3415		153
979	8	85		DCW	'F2WM2 WDT'		9	3424		153
980	8	86		DCW	'QSAR'		4	3428		153
981	8	87		DCW	'R6WRF'		5	3433		153
982	8	88		DCW	'S1EUECR'		7	3440		153
983	8	89		DCW	'8SRF'		4	3444		153
984	8	90		DCW	' )2WM '		5	3449		153
985	8	91		DCW	'1VBW '		5	3454		154
986	8	92		DCW	'9BBC9'		5	3459		154
987	8	93		DCW	'1R '		4	3463		154
988	8	94		DCW	'URLRTW'		6	3469		154
989	8	95		DCW	'F1RMRD '		7	3476		154
990	8	96		DCW	'F1RLRDW'		7	3483		154
991	8	97		DCW	'MMU '		4	3487		154
992	8	98		DCW	'VBWZ'		4	3491		155
993	8	99		DCW	' ,SW '		4	3495		155
994	9	00		DCW	'RBBPC'		5	3500		155
995	9	01		DCW	'CC '		4	3504		155
996	9	02		DCW	'C4PCB'		5	3509		155
997	9	03		DCW	'DMLN'		4	3513		155
998	9	04		DCW	'UMUWTM'		6	3519		155
999	9	05		DCW	'EMCE'		4	3523		156
1000	9	06		DCW	'C EX '		5	3528		156
1001	9	07		DCW	' UCU '		5	3533		156
1002	9	08		DCW	'ZBBAV'		5	3538		156
1003	9	09		DCW	'5RP '		4	3542		156
1004	9	10		DCW	' .H '		4	3546		156
1005	9	11		DCW	'LLU '		4	3550		156
1006	9	12		DCW	'BWMWTB'		6	3556		157
1007	9	13		DCW	' KSSB'		5	3561		157
1008	9	14		DCW	'KBBEF'		5	3566		157
1009	9	15		DCW	'PMRC'		4	3570		157
1010	9	16		DCW	'UBUBSP'		6	3576		157
1011	9	17		DCW	'URMRT '		6	3582		157

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
1012	9	18		DCW	'SBBE '		5	3587		157
1013	9	19		DCW	'3WR '		4	3591		158
1014	9	20		DCW	'SS '		4	3595		158
1015	9	21		DCW	'BB '		4	3599		158
1016	9	22		DCW	'1 DCW'		5	3604		158
1017	9	23		DCW	'WBBE'		4	3608		158
1018	9	24		DCW	'J DSA'		5	3613		158
1019	9	25		DCW	'LLCA'		4	3617		158
1020	9	26		DCW	'A DC '		5	3622		159
1021	9	27		DCW	'F1WLWDW'		7	3629		159
1022	9	28		DCW	'7WRP'		4	3633		159
1023	9	29		DCW	'BBIN'		5	3638		159
1024	9	30		DCW	'KVBW '		5	3643		159
1025	9	31		DCW	'PBBPB'		5	3648		159
1026	9	32		DCW	'9SPF'		4	3652		159
1027	9	33		DCW	'M SFX'		5	3657		160
1028	9	34		DCW	'4P '		4	3661		160
1029	9	35		DCW	'FORMSD '		7	3668		160
1030	9	36		DCW	'BBCV'		5	3673		160
1031	9	37		DCW	'-ZS '		4	3677		160
1032	9	38		DCW	'O LTO'		5	3682		160
1033	9	39		DCW	'P EQU'		5	3687		160
1034	9	40		DCW	'BBSS'		5	3692		161
1035	9	41		DCW	'F8 CC '		6	3698		161
1036	9	42		DCW	'AA '		4	3702		161
1037	9	43		DCW	'LBBER'		5	3707		161
1038	9	44		DCW	'/BBU '		5	3712		161
1039	9	45		DCW	'BBCE'		4	3716		161
1040	9	46		DCW	'UBBH '		5	3721		161
1041	9	47		DCW	'TBBL '		5	3726		162
1042	9	48		DCW	'X DS '		5	3731		162
1043	9	49		DCW	'F2RM2 RDT'		9	3740		162
1044	9	50		DCW	'AMMBD'		5	3745		162
1045	9	51		DCW	'2W '		4	3749		162
1046	9	52		DCW	'F1WMWD '		7	3756		162
1047	9	53		DCW	'DMN '		4	3760		162
1048	9	54		DCW	'C1RCB'		5	3765		163
1049	9	55		DCW	'6WP '		4	3769		163
1050	9	56		DCW	'XMIZ'		4	3773		163
1051	9	57		DCW	=9		9	3782		163
1052	9	58		DCW	=3		3	3785		163
1053	9	59		DCW	'+ZA '		4	3789		163
1054	9	60		DCW	=1		1	3790		163
1055	9	61		DCW	'UUURWU'		6	3796		164
1056	9	62		DCW	'URURWD'		6	3802		164
1057	9	63		DCW	'R4RF '		5	3807		164
1058	9	64	OPND	DCW	=1		1	3808		164
1059	9	65	*							
1060	9	66	* CONSTANTS AND TABLES							
1061	9	67	*							

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1062	9	68	FREESW	DC	0		1	3809			164
1063	9	69	BINTBL	DCW	'BAV Z'		5	3814			164
1064	9	70		DCW	'BC9 9'		5	3819			164
1065	9	71		DCW	'BU /'		5	3824			164
1066	9	72		DCW	'BCV ''		5	3829			165
1067	9	73		DCW	'BE S'		5	3834			165
1068	9	74		DCW	'BEF K'		5	3839			165
1069	9	75		DCW	'BER L'		5	3844			165
1070	9	76		DCW	'BH U'		5	3849			165
1071	9	77		DCW	'BL T'		5	3854			165
1072	9	78		DCW	'BLC A'		5	3859			165
1073	9	79		DCW	'BPB P'		5	3864			166
1074	9	80		DCW	'BPCBR'		5	3869			166
1075	9	81		DCW	'BSS B'		5	3874			166
1076	9	82		DCW	'BSS C'		5	3879			166
1077	9	83		DCW	'BSS D'		5	3884			166
1078	9	84		DCW	'BSS E'		5	3889			166
1079	9	85		DCW	'BSS F'		5	3894			166
1080	9	86		DCW	'BSS G'		5	3899			167
1081	9	87	*								
1082	9	88	*TAPE INPUT AREA								
1083	9	89	*								
1084	9	90		DS	3			3902			
1085	9	91	INAREA	DA	1X86,G			3903	3988		167
				DCW	' '		1	3989		GMARK	168
1086	9	92	GMK1	EQU	*			3989			
1087	9	93	*								
1088	9	94	* EQUATES								
1089	9	95	*								
1090	9	96	BLANK	EQU	BLANK3-2			3154			
1091	9	97	BLNK2	EQU	BLANK3-1			3155			
1092	9	98	ENDFIX	EQU	ENTSPS			0626			
1093	9	99	WAREA3	EQU	WAREA6-3			3115			
1094	10	00	WAREA2	EQU	WAREA6-4			3114			
1095	10	01		EX	LIBRN				B 000		169

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1096	10	02		JOB	1401 AUTOCODER-PASS 4-LEFT MAIN LINE						
1097	10	03		SFX	Z						
1098	10	04	*								
1099	10	05	* INITIALIZATION OF INDEX LOCATIONS								
1100	10	06	*								
1101	10	07		ORG	085	Z			0085		
1102	10	08	GRPMK1	DC	' '	Z	1	0085			172
1103	10	09		DC	0	Z	1	0086			172
1104	10	10	XL1	DCW	000	Z	3	0089			172
1105	10	11		DC	00	Z	2	0091			172
1106	10	12	XL2	DCW	000	Z	3	0094			172
1107	10	13		DC	00	Z	2	0096			172
1108	10	14	XL3	DCW	000	Z	3	0099			172
1109	10	15		DS	1	Z		0100			
1110	10	16	*								
1111	10	17	*FIXED FORM IMAGE AREA								
1112	10	18	*								
1113	10	19	IMAGE	EQU	*	Z		0100			
1114	10	20		DS	84	Z		0184			
1115	10	21	GRPMK4	DC	' '	Z	1	0185			173
1116	10	22	ZONE	DCW	'2SKB'	Z	4	0189			173
1117	10	23	EXOVFL	DCW	99	Z	2	0191			173
1118	10	24	EXNUMB	DCW	00	Z	2	0193			173
1119	10	25	PROCOR	DCW	=1	Z	1	0194			173
1120	10	26	TOTLBL	DCW	+0000	Z	4	0198			174
1121	10	27	JOBSW	DCW	0	Z	1	0199			174
1122	10	28	*								
1123	10	29	* READ IN CONTROL CARD OVERLAP								
1124	10	30	*								
1125	10	31	PASSB2	RTW	SYSTAP,DOPRCG	Z	8	0200	L (U1 N75 R		174
1126	10	32		NOP	0	Z	4	0208	N 000		174
1127	10	33		BER	TPERR	Z	5	0212	B 221 L		174
1128	10	34		B	START	Z	4	0217	B N75		174
1129	10	35	*								
1130	10	36	*TAPE REDUNDANCY ROUTINE								
1131	10	37	*								
1132	10	38	TPERR	SBR	XL3	Z	4	0221	H 099		174
1133	10	39		SBR	REDXT+3	Z	4	0225	H 293		175
1134	10	40		MZ	+9,XL3	Z	7	0229	Y 464 099		175
1135	10	41		MCW	4000-10+X3,TPINS+7	Z	7	0236	M 110 284		175
1136	10	42		MN	TPINS+3,BSP1+3	Z	7	0243	D 280 260		175
1137	10	43		MCW	TPINS+7,INST2+7	Z	7	0250	M 284 393		175
1138	10	44	BSP1	BSP	INITAP	Z	5	0257	U (U0 B		175
1139	10	45		BCE	WRTRD,TPINS+7,W	Z	8	0262	B 366 284 W		176
1140	10	46		MCW	+9,ROCT=1	Z	7	0270	M 464 465		176
1141	10	47	TPINS	RT	INITAP,XXXX	Z	8	0277	M (U0 000 R		176
1142	10	48		BER	RDERR	Z	5	0285	B 294 L		176
1143	10	49	REDXT	B	XXXX	Z	4	0290	B 000		176
1144	10	50	RDERR	MN	TPINS+3,BSP2+3	Z	7	0294	D 280 304		176
1145	10	51	BSP2	BSP	INITAP	Z	5	0301	U (U0 B		177

CONSTANTS USED IN  
MAKING LITERAL LABELS

BRING IN INSTRUCTION  
THAT COUSED  
REDUNDANCY  
BACKSPACE TAPE  
Q. WRITE REDUNDANCY  
INITIALIZE COUNTER  
RE-READ  
Q. REDUNDANT AGAIN  
EXIT

BACKSPACE AGAIN



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1146	10	52		S	+1, RDCT				REDUCE COUNTER		177
1147	10	53		BWZ	TPINS, RDCT, B	Z	8	0313	Q. 10 SUCCESSIVE READS		177
1148	10	54		MN	TPINS+3, TPHLT+6	Z	7	0321			177
1149	10	55	TPHLT	H	XXXX, 490	Z	7	0328	HALT		177
1150	10	56		MCW	TPINS+7, ++8	Z	7	0335			178
1151	10	57		RT	INITAP, XXXX	Z	8	0342	RE-READ		178
1152	10	58		BSS	BSP1, E	Z	5	0350	DETERMINE OPTION		178
1153	10	59		H	XXXX, 402	Z	7	0355	HALT AGAIN		178
1154	10	60		B	REDXT	Z	4	0362	EXIT		178
1155	10	61	WTRD	SKP	SYSTAP	Z	5	0366	ERASE TAPE		178
1156	10	62		BCE	SBCTR, WTRCR-1, 5	Z	8	0371	Q. FIFTY SKIPS		179
1157	10	63		A	+1, WTRCR=2	Z	7	0379	INCREASE COUNTER		179
1158	10	64	INST2	WT	INITAP, XXXX	Z	8	0386	RE-WRITE		179
1159	10	65		BER	BSP1	Z	5	0394	Q. REDUNDANT AGAIN		179
1160	10	66		B	REDXT	Z	4	0399			179
1161	10	67	SBCTR	S	WTRCR	Z	4	0403	RESET COUNTER		179
1162	10	68		MN	TPINS+3, ++7	Z	7	0407			180
1163	10	69		H	XXXX, 460	Z	7	0414	HALT		180
1164	10	70		B	INST2	Z	4	0421			180
1165	10	71		*							
1166	10	72		*	NOISE RECORD ROUTINE						
1167	10	73		*							
1168	10	74	NOISE	SBR	XL3	Z	4	0425	H 099		180
1169	10	75		SBR	NSXT+3	Z	4	0429	H 463		180
1170	10	76		MZ	+9, XL3	Z	7	0433	Y 464 099		180
1171	10	77	N2	BCE	4000-12+X3, XXXX,	Z	8	0440	B 1H8 000		181
1172	10	78		CHAIN	12					MACRO	
1173				BCE		Z	1	0448	B	GEN	181
1174				BCE		Z	1	0449	B	GEN	181
1175				BCE		Z	1	0450	B	GEN	181
1176				BCE		Z	1	0451	B	GEN	181
1177				BCE		Z	1	0452	B	GEN	181
1178				BCE		Z	1	0453	B	GEN	181
1179				BCE		Z	1	0454	B	GEN	182
1180				BCE		Z	1	0455	B	GEN	182
1181				BCE		Z	1	0456	B	GEN	182
1182				BCE		Z	1	0457	B	GEN	182
1183				BCE		Z	1	0458	B	GEN	182
1184				BCE		Z	1	0459	B	GEN	182
1185	10	79	NSXT	B	XXXX	Z	4	0460	B 000		182
1186	10	80		LTORG	*	Z			0464		
				DCW	+9	Z	1	0464		LIT	183
		1140	RDCT		=01	Z	1	0465		AREA	183
					+1	Z	1	0466		LIT	183
		1157	WTRCR		=02	Z	2	0468		AREA	183
1187	10	81		*							
1188	10	82		*	END OF CONTROL CARD ANALYSIS, READ IN MAIN LINE						
1189	10	83		*							
1190	10	84	CWI98	CW	3998	Z	4	0469	) 198		183
1191	10	85		SW	JOBSW	Z	4	0473	, 199		183

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1192	10	86		B	PUT	Z	4	0477	B 610		183
1193	10	87	RTNJB	CW	JOBSW	Z	4	0481	J 199		184
1194	10	88		B	WRTP	Z	4	0485	B 578		184
1195	10	89	LDOPTB	RTW	SYSTAP,DOPROG	Z	8	0489	L (U1 N75 R		184
1196	10	90		NOP	O	Z	4	0497	N 000		184
1197	10	91		BER	TPERR	Z	5	0501	B 221 L		184
1198	10	92		CW	GRPMK5,GRPMK8	Z	7	0506	J N74 H99		184
1199	10	93		MLC	'O',FACTOR-3	Z	7	0513	M M83 H45		184
1200	10	94	*								
1201	10	95	*START OF MAIN LINE								
1202	10	96	*								
1203	10	97	BYPASS	B	GET	Z	4	0520	B 538		185
1204	10	98		S	XL3+1	Z	4	0524	S 100		185
1205	10	99		S		Z	1	0528	S		185
1206	11	00		S		Z	1	0529	S		185
1207	11	01		B	CKCOM	Z	4	0530	B 706		185
1208	11	02	*								
1209	11	03	*BEGINNING OF NEW CARD ANALYSIS								
1210	11	04	*								
1211	11	05	NUREC	B	PUT	Z	4	0534	B 610		185
1212	11	06	GET	SBR	GETXT+3	Z	4	0538	H 577		185
1213	11	07		CS	INPUT+80	Z	4	0542	/ 080		186
1214	11	08		SW	INPUT+21	Z	4	0546	, 021		186
1215	11	09		SBR	N2+6,INPUT+13	Z	7	0550	H 446 013		186
1216	11	10		RT	INTAP,INPUT+1	Z	8	0557	M (U4 001 R		186
1217	11	11		B	NOISE	Z	4	0565	B 425		186
1218	11	12		BER	TPERR	Z	5	0569	B 221 L		186
1219	11	13	GETXT	B	XXXX	Z	4	0574	B 000		186
1220	11	14	*								
1221	11	15	*IMAGE TO OUTPUT AREA								
1222	11	16	*								
1223	11	17	WRTP	SBR	WRTXT+3	Z	4	0578	H 609		187
1224	11	18		WT	OUTAP,OUTPUT+1	Z	8	0582	M (U5 118 W		187
1225	11	19		NOP	O	Z	4	0590	N 000		187
1226	11	20		BER	TPERR	Z	5	0594	B 221 L		187
1227	11	21		MLC	'000',HOLDC	Z	7	0599	M M86 M91		187
1228	11	22	WRTXT	B	XXXX	Z	4	0606	B 000		187
1229	11	23	PUT	SBR	PUTXT+3	Z	4	0610	H 705		187
1230	11	24		MLC	HOLDC,XL3	Z	7	0614	M M91 099		188
1231	11	25		MLC	IMAGE+80,OUTPUT+80+X3	Z	7	0621	M 180 117		188
1232	11	26	CHAIN	10						MACRO	
1233				MLC		Z	1	0628	M	GEN	188
1234				MLC		Z	1	0629	M	GEN	188
1235				MLC		Z	1	0630	M	GEN	188
1236				MLC		Z	1	0631	M	GEN	188
1237				MLC		Z	1	0632	M	GEN	188
1238				MLC		Z	1	0633	M	GEN	189
1239				MLC		Z	1	0634	M	GEN	189
1240				MLC		Z	1	0635	M	GEN	189
1241				MLC		Z	1	0636	M	GEN	189

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1242				MLC		Z	1	0637	M	GEN	189
1243	11	27	TPYET	A	+80,HOLDC=3	Z	7	0638	A M88 M91		189
1244	11	28	CKTAP	BCE	WRTP,XL3-2,0	Z	8	0645	B 578 097 0		189
1245	11	29		BW	DCWXT, DCWSW2	Z	8	0653	V J85 H92 1		190
1246	11	30		BW	SPGLIN,INITSW	Z	8	0661	V 692 H87 1		190
1247	11	31		CS	INPUT+80	Z	4	0669	/ 080		190
1248	11	32		SW	INPUT+21	Z	4	0673	, 021		190
1249	11	33		MRCM	INPUT+1,IMAGE+1	Z	7	0677	P 001 101		190
1250	11	34		BW	RTNJB,JOBSW	Z	8	0684	V 481 199 1		190
1251	11	35	SPGLIN	S	IMAGE+5	Z	4	0692	S 105		191
1252	11	36		S	XL3+1	Z	4	0696	S 100		191
1253	11	37		S		Z	1	0700	S		191
1254	11	38		S		Z	1	0701	S		191
1255	11	39	PUTXT	B	XXXX	Z	4	0702	B 000		191
1256	11	40	SAVE2	ORG	*	Z		0706	0706		
1257	11	41	CKCOM	BCE	BYPASS,INPUT+6, *	Z	8	0706	B 520 006 *		191
1258	11	42		MN	INPUT+75,CK2+7	Z	7	0714	D 075 735		191
1259	11	43		MZ	INPUT+75,CK2+7	Z	7	0721	Y 075 735		192
1260	11	44	CK2	BCE	BYPASS,'RSWZ',0	Z	8	0728	B 520 M95 0		192
1261	11	45		CHAIN	3					MACRO	
1262				BCE		Z	1	0736	B	GEN	192
1263				BCE		Z	1	0737	B	GEN	192
1264				BCE		Z	1	0738	B	GEN	192
1265	11	46		MLC	INPUT+84,IMAGE+80	Z	7	0739	M 084 180		192
1266	11	47		BWZ	*+5,INPUT+6,2	Z	8	0746	V 758 006 2		192
1267	11	48		B	PROLBL	Z	4	0754	B V38		193
1268	11	49		MCW	INPUT+18,IMAGE+16	Z	7	0758	M 018 116		193
1269	11	50		SW	SCANSW	Z	4	0765	, N15		193
1270	11	51		MLC	'000',FREEA=3	Z	7	0769	M M86 M98		193
1271	11	52		LCA	BLANK4,EQUADD	Z	7	0776	L H62 N11		193
1272	11	53		MCW	'I9I',XL1	Z	7	0783	M N01 089		193
1273	11	54	PLSCAN	BCE	PLUSFD,INPUT+15+X1,+	Z	8	0790	B 817 0/5 +		194
1274	11	55	GOBK	C	XL1,'I9G'	Z	7	0798	C 089 N04		194
1275	11	56		A	'I99',XL1	Z	7	0805	A N07 089		194
1276	11	57		BL	PLSCAN	Z	5	0812	B 790 T		194
1277	11	58	PLUSFD	BCE	GOBK,INPUT+14+X1,+	Z	8	0817	B 798 0/4 +		194
1278	11	59		SW	EQUADD+1+X1	Z	4	0825	, N/2		194
1279	11	60		MCW	INPUT+15,EQUADD=4	Z	7	0829	M 015 N11		195
1280	11	61		S	XL1+2	Z	4	0836	S 091		195
1281	11	62		BW	INSTR,EQUADD	Z	8	0840	V N75 N11 1		195
1282	11	63		BCE	CTRLOP,EQUADD,	Z	8	0848	B C61 N11		195
1283	11	64		B	INSTR	Z	4	0856	B N75		195
1284	11	65	*								
1285	11	66	*SCAN FOR COMMA OR BLANK								
1286	11	67	*								
1287	11	68	COMSCN	SBR	CSCNXT+3	Z	4	0860	H 932		195
1288	11	69		S	XL3+1	Z	4	0864	S 100		195
1289	11	70		SW	INPUT+21+X2,SCANSW	Z	7	0868	, 0K1 N15		196
1290	11	71	TSTCOM	A	+1,XL2	Z	7	0875	A N12 094		196
1291	11	72		A	+1,XL3	Z	7	0882	A N12 099		196

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1292	11	73		BCE	PRSCXT, INPUT+20+X2,,				INDEX LOCATION 2		
1293	11	74		C	INPUT+21+X2,BLANK2	Z	8	0889	B 925 OK0 ,		196
1294	11	75		BE	CSCNXT	Z	7	0897	C OK1 H60		196
1295	11	76		C	XL2,'54'	Z	5	0904	B 929 S		197
1296	11	77		BE	SCNERR	Z	7	0909	C 094 N14		197
1297	11	78		B	TSTCOM	Z	5	0916	B 933 S		197
1298	11	79	PRSCXT	CW	SCANSW=1	Z	4	0921	B 875		197
1299	11	80	CSCNXT	B	XXXX	Z	4	0925	J N15		197
1300	11	81	SCNERR	MZ	BBIT, IMAGE+5	Z	4	0929	B 000		197
1301	11	82		BCE	CSCNXT, IMAGE+75,3	Z	7	0933	Y 188 105		197
1302	11	83		B	NUREC	Z	8	0940	B 929 175 3		198
1303	11	84				Z	4	0948	B 534		198
1304	11	85	*								
1305	11	86			*CONVERT FREE TO FIXED FORM						
1306	11	87	FR2FIX	SBR	FR2FXT+3	Z	4	0952	H S32		198
1307	11	88		MCW	BLANK,W6AREA	Z	7	0956	M H59 H77		198
1308	11	89		MCW	XL2+1,XL3+1	Z	7	0963	M 095 100		198
1309	11	90	SCNDEX	C	XL3,'04'	Z	7	0970	C 099 N17		198
1310	11	91		BH	DOADRS	Z	5	0977	B /50 U		199
1311	11	92		BE	CKADJ	Z	5	0982	B #17 S		199
1312	11	93		C	INPUT+18+X3,'+X'	Z	7	0987	C 0A8 N19		199
1313	11	94		BU	CKADJ	Z	5	0994	B #17 /		199
1314	11	95		MN	INPUT+19+X3,IMAGE+27+X1	Z	7	0999	D 0A9 1S7		199
1315	11	96		A	+K4K-3,XL3	Z	7	1006	A N22 099		199
1316	11	97		B	SCNDEX	Z	4	1013	B 970		200
1317	11	98	CKADJ	BCE	CKMIN, INPUT+18+X3,+	Z	8	1017	B /34 0A8 +		200
1318	11	99	SCANB	EQU	*-1	Z		1023			
1319	12	00		BCE		Z	1	1025	B		200
1320	12	01		BCE		Z	1	1026	B		200
1321	12	02	DOMIN	BCE	ISADJ, INPUT+18+X3,-	Z	8	1027	B #51 0A8 -		200
1322	12	03		BCE		Z	1	1035	B		200
1323	12	04		BCE		Z	1	1036	B		200
1324	12	05		BCE	ISADJ, INPUT+18+X3,=	Z	8	1037	B #51 0A8 =		201
1325	12	06		BCE		Z	1	1045	B		201
1326	12	07		BCE		Z	1	1046	B		201
1327	12	08		B	DOADRS	Z	4	1047	B /50		201
1328	12	09	ISADJ	SBR	W3AREA	Z	4	1051	H H74		201
1329	12	10	PROADJ	S	+SCANB,W3AREA	Z	7	1055	S N25 H74		201
1330	12	11		MLC	XL2,HOLD3	Z	7	1062	M 094 H65		201
1331	12	12		MLNS	W3AREA,XL2	Z	7	1069	D H74 094		202
1332	12	13		MLC	'00'	Z	4	1076	M N27		202
1333	12	14		MLC	INPUT+19+X3,W3AREA-4+X2	Z	7	1080	M 0A9 HP0		202
1334	12	15		S	XL2+1,XL3+1	Z	7	1087	S 095 100		202
1335	12	16		MZ	INPUT+20+X3,W3AREA-4+X2	Z	7	1094	Y 0B0 HP0		202
1336	12	17		MN	INPUT+20+X3,W6AREA	Z	7	1101	D 0B0 H77		202
1337	12	18		SW	IMAGE+24+X1	Z	4	1108	, 1S4		203
1338	12	19		A	W3AREA-4+X2,IMAGE+26+X1	Z	7	1112	A HP0 1S6		203
1339	12	20		CW	IMAGE+24+X1	Z	4	1119	J 1S4		203
1340	12	21		MLC	HOLD3,XL2	Z	7	1123	M H65 094		203
1341	12	22		B	SCNDEX	Z	4	1130	B 970		203

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1342	12	23	CKMIN	SBR	W3AREA				ACCOUNT FOR POSSIBLE		203
1343	12	24		BCE	DOMIN,INPUT+18+X3,-	Z	4	1134	H H74		203
1344	12	25		B	PROADJ	Z	8	1138	B #27 0A8 -		203
1345	12	26		B	+1-2 TYPE	Z	4	1146	B #55		204
1346	12	27	DOADRS	S	FREEA,XL3	Z	7	1150	S M98 099		204
1347	12	28		C	XL3,+007	Z	7	1157	C 099 N30		204
1348	12	29		BL	FIXER	Z	5	1164	B S33 T		204
1349	12	30		A	FREEA,XL3	Z	7	1169	A M98 099		204
1350	12	31		MZ	BLANK,XL3	Z	7	1176	Y H59 099		204
1351	12	32		MCW	'+',INPUT+20+X3	Z	7	1183	M N31 080		205
1352	12	33		MLC	FREEA,XL3	Z	7	1190	M M98 099		205
1353	12	34		MRCM	INPUT+21+X3,IMAGE+17+X1	Z	7	1197	P 081 1/7		205
1354	12	35		SBR	XL3	Z	4	1204	H 099		205
1355	12	36		MZ	ABBIT,XL3	Z	7	1208	Y 189 099		205
1356	12	37		MCW	BLANK,4000-1+X3	Z	7	1215	M H59 119		205
1357	12	38		MN	W6AREA,IMAGE+23+X1	Z	7	1222	D H77 1S3		206
1358	12	39	FR2FXT	B	XXXX	Z	4	1229	B 000		206
1359	12	40	FIXER	SW	FIXSW=1	Z	4	1233	, N32		206
1360	12	41	OPDER	MCW	'000',XL3	Z	7	1237	M M86 099		206
1361	12	42		MZ	ABIT,IMAGE+5	Z	7	1244	Y 187 105		206
1362	12	43		BCE	*+8,XL1,0	Z	8	1251	B S66 089 0		206
1363	12	44		MCW	'003',XL3	Z	7	1259	M N35 099		207
1364	12	45		MCW	'===',IMAGE+70+X3	Z	7	1266	M N38 160		207
1365	12	46		MZ	ABBIT,IMAGE+1+X3	Z	7	1273	Y 189 1+1		207
1366	12	47		BW	FR2FXT,FIXSW	Z	8	1280	V S29 N32 1		207
1367	12	48		B	LTER2	Z	4	1288	B U09		207
1368	12	49	*								
1369	12	50	*SCAN FOR ' SIGN								
1370	12	51	*								
1371	12	52	SCANAT	SBR	SCNATX+3	Z	4	1292	H T85		207
1372	12	53		SW	INPUT+21+X2,SCANSW	Z	7	1296	, OK1 N15		208
1373	12	54		ZA	'510',XL3+1	Z	7	1303	+ N41 100		208
1374	12	55	A1ALF	BCE	NDASCN,INPUT+21+X3,'	Z	8	1310	B T29 081 '		208
1375	12	56		S	+10,XL3+1	Z	7	1318	S N43 100		208
1376	12	57		B	A1ALF	Z	4	1325	B T10		208
1377	12	58	NDASCN	C	XL2,XL3	Z	7	1329	C 094 099		209
1378	12	59		BE	LTERR	Z	5	1336	B T94 S		209
1379	12	60		BCE	SETSW,INPUT+22+X3,,	Z	8	1341	B T86 082 ,		209
1380	12	61		C	INPUT+23+X3,BLANK2	Z	7	1349	C 083 H60		209
1381	12	62		BU	LTERR	Z	5	1356	B T94 /		209
1382	12	63	SXL	S	XL2+1,XL3+1	Z	7	1361	S 095 100		209
1383	12	64		A	+2,XL3	Z	7	1368	A N44 099		210
1384	12	65		A	XL3,XL2	Z	7	1375	A 099 094		210
1385	12	66	SCNATX	B	XXXX	Z	4	1382	B 000		210
1386	12	67	SETSW	CW	SCANSW	Z	4	1386	) N15		210
1387	12	68		B	SXL	Z	4	1390	B T61		210
1388	12	69	*								
1389	12	70	*IMPROPERLY CODED STATEMENT ROUTINE								
1390	12	71	*								
1391	12	72	LTERR	MLZS	ABIT,IMAGE+5	Z	7	1394	Y 187 105		210
				CW	FIXSW	Z	4	1401	) N32		210

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1392	12	73		B	OPDER	Z	4	1405	B S37		211
1393	12	74	LTER2	B	COMSCN	Z	4	1409	B 860		211
1394	12	75		MCW	***,INPUT+20+X3	Z	7	1413	M N45 080		211
1395	12	76		A	+1,XL3	Z	7	1420	A N12 099		211
1396	12	77		B	SCNATX	Z	4	1427	B T82		211
1397	12	78	*								
1398	12	79	*PLACE		LITERALS ON MASTER TAPE						
1399	12	80	*								
1400	12	81	CALL	BW	CKLOR,LITSW=1	Z	8	1431	V U85 N46 1		211
1401	12	82		RT	SYSTAP,INPUT+1	Z	8	1439	M (U1 001 R		212
1402	12	83		RTW	SYSTAP,DOPROG	Z	8	1447	L (U1 N75 R		212
1403	12	84		NOP	O	Z	4	1455	N 000		212
1404	12	85		BER	TPERR	Z	5	1459	B 221 L		212
1405	12	86		B	OVLLIT	Z	4	1464	B N75		212
1406	12	87	RECALL	RTW	SYSTAP,DOPROG	Z	8	1468	L (U1 N75 R		212
1407	12	88		NOP	O	Z	4	1476	N 000		213
1408	12	89		BER	TPERR	Z	5	1480	B 221 L		213
1409	12	90	CKLOR	BCE	BYPASS,IMAGE+75,	Z	8	1485	B 520 175		213
1410	12	91		BCE	NUREC,IMAGE+75,C	Z	8	1493	B 534 175 C		213
1411	12	92		RT	SYSTAP,INPUT+1	Z	8	1501	M (U1 001 R		213
1412	12	93		RT	SYSTAP,INPUT+1	Z	8	1509	M (U1 001 R		214
1413	12	94		RTW	SYSTAP,EOJRT	Z	8	1517	L (U1 706 R		214
1414	12	95		NOP	O	Z	4	1525	N 000		214
1415	12	96		BER	TPERR	Z	5	1529	B 221 L		214
1416	12	97		B	EOJRT	Z	4	1534	B 706		214
1417	12	98	*								
1418	12	99	*GENERATE		ENTRY ADDRESS FOR LABELS						
1419	13	00	*								
1420	13	01	PROLBL	SBR	XTLABL+3	Z	4	1538	H V77		214
1421	13	02		MLC	INPUT+11,IMAGE+13	Z	7	1542	M 011 113		215
1422	13	03		MLC	IMAGE+13,W6AREA	Z	7	1549	M 113 H77		215
1423	13	04		B	PROLAB	Z	4	1556	B W47		215
1424	13	05		MLC	W3AREA,IMAGE+56	Z	7	1560	M H74 156		215
1425	13	06		A	+1,TOTLBL	Z	7	1567	A N12 198		215
1426	13	07	XTLABL	B	XXXX	Z	4	1574	B 000		215
1427	13	08	*								
1428	13	09	*CONVERT		FREE FORM NUMBER TO FIVE CHARACTERS						
1429	13	10	*								
1430	13	11	CVRT5	SBR	CVT5XT+3	Z	4	1578	H V93		216
1431	13	12		BCE	*+5,W5AREA,+	Z	8	1582	B V94 H76 +		216
1432	13	13	CVT5XT	B	XXXX	Z	4	1590	B 000		216
1433	13	14		ZA	W5AREA-1,W5AREA	Z	7	1594	+ H75 H76		216
1434	13	15		B	CVRT5+4	Z	4	1601	B V82		216
1435	13	16	*								
1436	13	17	* CHECK		FOR FINAL OPERAND						
1437	13	18	*								
1438	13	19	FNLOP	SBR	FNLXT+3	Z	4	1605	H W27		216
1439	13	20		BW	FNLXT,SCANSW	Z	8	1609	V W24 N15 1		216
1440	13	21		MZ	ABIT,IMAGE+5	Z	7	1617	Y 187 105		217
1441	13	22	FNLXT	B	XXXX	Z	4	1624	B 000		217

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1442	13	23	*								
1443	13	24	*CONVERT FLOATING A OPERAND ACTUAL ADDRESS TO FIVE CHARACTERS								
1444	13	25	*								
1445	13	26	CVTFLA	SBR	FLAXT+3	Z	4	1628	H W46		217
1446	13	27		ZA	IMAGE+21,W5AREA	Z	7	1632	+ 121 H76		217
1447	13	28		B	CVRT5	Z	4	1639	B V78		217
1448	13	29	FLAXT	B	XXXX	Z	4	1643	B 000		217
1449	13	30	*								
1450	13	31	*CONVERT SYMBOLS TO THREE CHARACTER ENTRY ADDRESS								
1451	13	32	*								
1452	13	33	PROLAB	SBR	LBLXT+3	Z	4	1647	H Y10		217
1453	13	34		ZA	+2,HOLD2	Z	7	1651	+ N44 H64		218
1454	13	35		BCE	**5,W6AREA,	Z	8	1658	B W70 H77		218
1455	13	36		B	**8	Z	4	1666	B W77		218
1456	13	37		MCW	SFXHLD,W6AREA	Z	7	1670	M H86 H77		218
1457	13	38		ZA	W6AREA-2,HOLD4	Z	7	1677	+ H75 H71		218
1458	13	39		A	W6AREA,HOLD4	Z	7	1684	A H77 H71		219
1459	13	40		A	W6AREA,HOLD4-2	Z	7	1691	A H77 H69		219
1460	13	41		MLZS	BLANK,HOLD4	Z	7	1698	Y H59 H71		219
1461	13	42		ZA	FACTOR,HOLD7	Z	7	1705	+ H48 H84		219
1462	13	43	MPYLP	MLNS	HOLD7,HOLD1	Z	7	1712	D H84 H85		219
1463	13	44		ZA		Z	1	1719	+		219
1464	13	45	MULT	BCE	NXTDGT,HOLD1,+	Z	8	1720	B X46 H85 +		220
1465	13	46		A	HOLD4,HOLD7-2	Z	7	1728	A H71 H82		220
1466	13	47		S	+1,HOLD1	Z	7	1735	S N12 H85		220
1467	13	48		B	MULT	Z	4	1742	B X20		220
1468	13	49	NXTDGT	S	+1,HOLD2	Z	7	1746	S N12 H64		220
1469	13	50		BWZ	MPYLP,HOLD2,B	Z	8	1753	V X12 H64 B		221
1470	13	51		S	W5AREA	Z	4	1761	S H76		221
1471	13	52		BAV	**1	Z	5	1765	B X70 Z		221
1472	13	53	LOOP1	A	+96,HOLD7-5	Z	7	1770	A N48 H79		221
1473	13	54		BAV	LOOP1	Z	5	1777	B X70 Z		221
1474	13	55		MLZS	HOLD7-6,W3AREA	Z	7	1782	Y H78 H74		221
1475	13	56		MLC	HOLD7-3	Z	4	1789	M H81		222
1476	13	57		MLNS	HOLD7-5,**4	Z	7	1793	D H79 Y03		222
1477	13	58		MLZS	ZONE,W3AREA-2	Z	7	1800	Y 189 H72		222
1478	13	59	LBLXT	B	XXXX	Z	4	1807	B 000		222
1479	13	60	*								
1480	13	61	*PROCESS DCW, DC, DSA CARDS								
1481	13	62	*								
1482	13	63	DCWCD	BCE	DCWALF,INPUT+21,'	Z	8	1811	B K44 021 '		222
1483	13	64		BCE	ARDEF,INPUT+21,=	Z	8	1819	B L01 021 =		222
1484	13	65		BCE	CKDCW,INPUT+21,+	Z	8	1827	B Y58 021 +		223
1485	13	66		BCE	CKDCW,INPUT+21,-	Z	8	1835	B Y58 021 -		223
1486	13	67		MLC	INPUT+72,INPUT+73	Z	7	1843	M 072 073		223
1487	13	68		MCW	'+'	Z	4	1850	M N49		223
1488	13	69		SW	DCWSW	Z	4	1854	, H89		223
1489	13	70	CKDCW	B	COMSCN	Z	4	1858	B 860		223
1490	13	71		BCE	ISDSA,INPUT+22,'	Z	8	1862	B Y90 022 '		224
1491	13	72		B	FNLOP	Z	4	1870	B W05		224

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1492	13	73		BCE	ISDSA,IMAGE+75,J	Q. DSA STATEMENT	Z	8	1874	B Y90 175 J	224
1493	13	74		BWZ	ISDCW,INPUT+22,2	Q. DC, DCW STATEMENT	Z	8	1882	V K71 022 2	224
1494	13	75	*								
1495	13	76	*PROCESS DSA		CARDS, SUBSET OF DCW						
1496	13	77	*								
1497	13	78	ISDSA	MLC	'011',XL1		Z	7	1890	M N52 089	224
1498	13	79		MLNS	+2,IMAGE+75	CODE RECORD	Z	7	1897	D N44 175	225
1499	13	80		MZ	INPUT+21,IMAGE+27		Z	7	1904	Y 021 127	225
1500	13	81		MCW	BLANK,INPUT+21		Z	7	1911	M H59 021	225
1501	13	82		BWZ	*+5,IMAGE+75,K		Z	8	1918	V Z30 175 K	225
1502	13	83		B	*+8		Z	4	1926	B Z37	225
1503	13	84		MZ	BLANK,IMAGE+75		Z	7	1930	Y H59 175	226
1504	13	85		SW	DSASW2	SET DSA SWITCH	Z	4	1937	, H91	226
1505	13	86		MLC	'001',FREEA		Z	7	1941	M N55 M98	226
1506	13	87		MCW	INPUT+34,IMAGE+53		Z	7	1948	M 034 153	226
1507	13	88		BCE	DSADC,INPUT+22,'		Z	8	1955	B L54 022 '	226
1508	13	89		BCE	DSADC,INPUT+22,+		Z	8	1963	B L54 022 +	227
1509	13	90		BCE	DSADC,INPUT+22,-		Z	8	1971	B L54 022 -	227
1510	13	91		B	FR2FIX	CONVERT FREE TO FIXED	Z	4	1979	B 952	227
1511	13	92		MZ	IMAGE+27,INPUT+21		Z	7	1983	Y 127 021	227
1512	13	93	DSAX1	MZ	IMAGE+27,IMAGE+40		Z	7	1990	Y 127 140	227
1513	13	94		MLC	'03',IMAGE+7	INSERT COUNT	Z	7	1997	M N57 107	228
1514	13	95		MLC	'03',XL2		Z	7	2004	M N57 094	228
1515	13	96	CKAOP	BCE	DCWAST,INPUT+6,	Q. ANY LABEL	Z	8	2011	B -68 006	228
1516	13	97		BWZ	DCWAST,IMAGE+75,S	Q. LITERAL	Z	8	2019	V -68 175 S	228
1517	13	98		BWZ	*+5,INPUT+6,2	Q. ACTUAL ADDRESS	Z	8	2027	V -39 006 2	228
1518	13	99		B	DCWAST		Z	4	2035	B -68	229
1519	14	00		MLC	INPUT+10,IMAGE+21	PROCESS ACTUAL	Z	7	2039	M 010 121	229
1520	14	01		B	CVTFLA	ADDRESS	Z	4	2046	B W28	229
1521	14	02	DCWACT	MLC	W5AREA,IMAGE+21	ADDRESS TO FIXED	Z	7	2050	M H76 121	229
1522	14	03		MLC	W5AREA,IMAGE+61	FORM	Z	7	2057	M H76 161	229
1523	14	04		B	CKMACR		Z	4	2064	B -89	229
1524	14	05	DCWAST	A	XL2,ORGCTR	BUMP ORIGIN COUNTER	Z	7	2068	A 094 H58	230
1525	14	06	BMPCTR	MCW	'*',IMAGE+17	SET TO DCW *	Z	7	2075	M N58 117	230
1526	14	07	DSETAD	A	ORGCTR,IMAGE+61	ASSIGN ADDRESS	Z	7	2082	A H58 161	230
1527	14	08	CKMACR	BCE	NUREC,IMAGE+75,P	Q. EQU STATEMENT	Z	8	2089	B 534 175 P	230
1528	14	09		BCE	NUREC,IMAGE+75,X	Q. DS STATEMENT	Z	8	2097	B 534 175 X	230
1529	14	10		BW	DCWXT,DSASW2	Q. DSA STATEMENT	Z	8	2105	V J85 H91 1	231
1530	14	11		MLC	INPUT+51,IMAGE+53	MOVE CONSTANT TO	Z	7	2113	M 051 153	231
1531	14	12		MLC		FIXED FORM	Z	1	2120	M	231
1532	14	13		MLC			Z	1	2121	M	231
1533	14	14		MLC	XL2,IMAGE+7	COUNT TO FIXED FORM	Z	7	2122	M 094 107	231
1534	14	15		C	XL2,'030'	Q. COUNT GREATER THAN	Z	7	2129	C 094 N61	231
1535	14	16		BH	DCWXT	30	Z	5	2136	B J85 U	231
1536	14	17		MN	'8',INPUT+75	WRITE FREE FORM RECORD	Z	7	2141	D N62 075	232
1537	14	18		BWZ	*+8,IMAGE+75,B	ON TAPE	Z	8	2148	V J63 175 B	232
1538	14	19		MZ	IMAGE+75,INPUT+75		Z	7	2156	Y 175 075	232
1539	14	20		MCW	HOLDC,XL3		Z	7	2163	M M91 099	232
1540	14	21		MCW	INPUT+80,OUTPUT+80+X3		Z	7	2170	M 080 117	232
1541	14	22		SW	DCWSW2		Z	4	2177	, H92	233



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1542	14	23		B	TPYET	Z	4	2181	B 638		233
1543	14	24	DCWXT	CW	DSASW2,DCWSW2	Z	7	2185	J H91 H92		233
1544	14	25		BW	*+5,LITSW2	Z	8	2192	V K04 H90 1		233
1545	14	26		B	NUREC	Z	4	2200	B 534		233
1546	14	27		BCE	LITRTN,INPUT+21,'	Z	8	2204	B P31 021 '		233
1547	14	28		BCE	LTGEN,INPUT+22,+	Z	8	2212	B M00 022 +		234
1548	14	29		BCE	LTGEN,INPUT+22,-	Z	8	2220	B M00 022 -		234
1549	14	30		BCE	LTGEN,INPUT+22,'	Z	8	2228	B M00 022 '		234
1550	14	31		B	LITRTN	Z	4	2236	B P31		234
1551	14	32	PDCWLF	S	XL2+2	Z	4	2240	S 096		234
1552	14	33	DCWALF	B	SCANAT	Z	4	2244	B S92		234
1553	14	34		B	FNLOP	Z	4	2248	B W05		235
1554	14	35		BW	ACNRT,DSASW2	Z	8	2252	V L62 H91 1		235
1555	14	36		S	+30,XL2+1	Z	7	2260	S N64 095		235
1556	14	37		B	CKAOP	Z	4	2267	B -11		235
1557	14	38	ISDCW	S	+20,XL2+1	Z	7	2271	S N66 095		235
1558	14	39		BW	NOZONE,DCWSW	Z	8	2278	V K93 H89 1		235
1559	14	40		MLZS	INPUT+21,INPUT+21+X2	Z	7	2286	Y 021 0K1		236
1560	14	41	NOZONE	CW	DCWSW	Z	4	2293	J H89		236
1561	14	42		B	CKAOP	Z	4	2297	B -11		236
1562	14	43	ARDEF	SW	INPUT+22	Z	4	2301	, 022		236
1563	14	44		ZA	INPUT+24,W5AREA	Z	7	2305	+ 024 H76		236
1564	14	45		B	CVRT5	Z	4	2312	B V78		236
1565	14	46		MLZS	ABBIT,IMAGE+4	Z	7	2316	Y 189 104		236
1566	14	47		MLNS	W5AREA,XL2	Z	7	2323	D H76 094		237
1567	14	48		MLC		Z	1	2330	M		237
1568	14	49		C	XL2,'053'	Z	7	2331	C 094 N69		237
1569	14	50		BH	CKAOP	Z	5	2338	B -11 U		237
1570	14	51		MZ	BBIT,IMAGE+5	Z	7	2343	Y 188 105		237
1571	14	52		B	CKAOP	Z	4	2350	B -11		237
1572	14	53	DSADC	BCE	PDCWLF,INPUT+22,'	Z	8	2354	B K40 022 '		237
1573	14	54	ACNRT	S	+10,XL3+1	Z	7	2362	S N43 100		238
1574	14	55		MCW	XL3,W3AREA	Z	7	2369	M 099 H74		238
1575	14	56		C	XL3,'006'	Z	7	2376	C 099 N72		238
1576	14	57		BL	DOBIG	Z	5	2383	B A57 T		238
1577	14	58		BCE	XALF1,INPUT+22,'	Z	8	2388	B +93 022 '		238
1578	14	59		B	XLIT1	Z	4	2396	B B82		238
1579	14	60	LTGEN	B	PUT	Z	4	2400	B 610		239
1580	14	61		MCW	'/',IMAGE+75	Z	7	2404	M N73 175		239
1581	14	62		MCW	LAREA+72,INPUT+72	Z	7	2411	M H31 072		239
1582	14	63		MCW		Z	1	2418	M		239
1583	14	64		MCW		Z	1	2419	M		239
1584	14	65		MCW		Z	1	2420	M		239
1585	14	66		MCW	LAREA+74,LAREA+73	Z	7	2421	M H33 H32		239
1586	14	67		B	PROLBL	Z	4	2428	B V38		240
1587	14	68		S	XL2+2	Z	4	2432	S 096		240
1588	14	69		S		Z	1	2436	S		240
1589	14	70		B	DCWCD	Z	4	2437	B Y11		240
1590	14	71	*								
1591	14	72	*CALL	IN DA ROUTINE							

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1592	14	73	*								
1593	14	74	DARTN	RTW	SYSTAP,DOPROG				CALL DA ROUTINE		
1594	14	75		NOP	0	Z	8	2441	L (U1 N75 R		240
1595	14	76		BER	TPERR	Z	4	2449	N 000		240
1596	14	77		B	DASTMT	Z	5	2453	B 221 L		240
1597	14	78	FINDA	RTW	SYSTAP,DOPROG				GO TO DA ROUTINE		
1598	14	79		NOP	0	Z	4	2458	B N75		241
1599	14	80		BER	TPERR	Z	8	2462	L (U1 N75 R		241
1600	14	81		B	CKCOM	Z	4	2470	N 000		241
1601	14	82		LTORG	*	Z	5	2474	B 221 L		241
				DCW	'0'	Z	4	2479	B 706		241
					'000'	Z			2483		
					+80	Z	1	2483		LIT	241
					=03	Z	3	2486		LIT	241
1243			HOLDC		'RSWZ'	Z	2	2488		LIT	242
					=03	Z	3	2491		AREA	242
1270			FREEA		'I9I'	Z	4	2495		LIT	242
					'I9G'	Z	3	2498		AREA	242
					'I99'	Z	3	2501		LIT	242
1279			EQUADD		=04	Z	3	2504		LIT	242
					+1	Z	3	2507		LIT	242
					'54'	Z	4	2511		AREA	243
1298			SCANSW		=01	Z	1	2512		LIT	243
					'04'	Z	2	2514		LIT	243
					'+X'	Z	1	2515		AREA	243
1315					+K4K-3	Z	2	2517		LIT	243
1329					+SCANB	Z	3	2519		LIT	243
					'00'	Z	3	2522	197	ADCON	243
					+007	Z	3	2525	*23	ADCON	244
					'+'	Z	2	2527		LIT	244
1358			FIXSW		=01	Z	3	2530		LIT	244
					'003'	Z	1	2531		LIT	244
					'==='	Z	1	2532		AREA	244
					'510'	Z	3	2535		LIT	244
					+10	Z	3	2538		LIT	244
					+2	Z	3	2541		LIT	245
					'..'	Z	2	2543		LIT	245
1400			LITSW		=01	Z	1	2544		LIT	245
					+96	Z	1	2545		LIT	245
					'+'	Z	2	2546		AREA	245
					'011'	Z	1	2548		LIT	245
					'001'	Z	3	2549		LIT	245
					'03'	Z	3	2552		LIT	246
					'*'	Z	3	2555		LIT	246
					'030'	Z	2	2557		LIT	246
					'8'	Z	1	2558		LIT	246
					+30	Z	3	2561		LIT	246
					+20	Z	1	2562		LIT	246
					'053'	Z	2	2564		LIT	246
					'006'	Z	2	2566		LIT	247
						Z	3	2569		LIT	247
						Z	3	2572		LIT	247

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					'/'	Z	1	2573		LIT	247
1602	14	83	GRPMK5	DCW	' '	Z	1	2574			247
1603	14	84		EX	DOZERO	Z			B 000		248

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1604	14	85		JOB	1401 AUTOCODER-PASS 4 PROCESS JOB/CTL				-VERSION 3		
1605	14	86	*								
1606	14	87	*PROCESS CONTROL CARD								
1607	14	88	*								
1608	14	89	DOPROG	ORG	*	Z		2575	2575		
1609	14	90	START	CS	INPUT+84	Z	4	2575	/ 084		251
1610	14	91		CS	3999	Z	4	2579	/ 199		251
1611	14	92		SW	INPUT+21,INPUT+81	Z	7	2583	, 021 081		251
1612	14	93		SW	IMAGE+1,IMAGE+6	Z	7	2590	, 101 106		251
1613	14	94		SW	IMAGE+8,IMAGE+14	Z	7	2597	, 108 114		251
1614	14	95		SW	IMAGE+17,IMAGE+28	Z	7	2604	, 117 128		251
1615	14	96		SW	IMAGE+39,IMAGE+57	Z	7	2611	, 139 157		252
1616	14	97		SW	IMAGE+62,IMAGE+67	Z	7	2618	, 162 167		252
1617	14	98		SW	IMAGE+23	Z	4	2625	, 123		252
1618	14	99		SW	GRPMK1,GRPMK8	Z	7	2629	, 085 H99		252
1619	15	00		SW	GRPMK3,GRPMK4	Z	7	2636	, H44 185		252
1620	15	01		CW	INITSW	Z	4	2643	) H87		252
1621	15	02		RWD	INTAP	Z	5	2647	U (U4 R		253
1622	15	03		RWD	OUTAP	Z	5	2652	U (U5 R		253
1623	15	04		RWD	LITAPE	Z	5	2657	U (U6 R		253
1624	15	05		MLC	'000',HOLCC	Z	7	2662	M R16 M91		253
1625	15	06		B	GET	Z	4	2669	B 538		253
1626	15	07		MCW	INPUT+80,IMAGE+21	Z	7	2673	M 080 121		253
1627	15	08		MCW	'I',IMAGE+75	Z	7	2680	M R17 175		254
1628	15	09		SW	3998	Z	4	2687	, I98		254
1629	15	10		B	GET	Z	4	2691	B 538		254
1630	15	11		BCE	NOCTL,INPUT+6,*	Z	8	2695	B Q71 006 *		254
1631	15	12		C	INPUT+18,'CTL'	Z	7	2703	C 018 R20		254
1632	15	13		BU	NOCTL	Z	5	2710	B Q71 /		254
1633	15	14		MLNS	INPUT+21,CTL3+7	Z	7	2715	D 021 P29		255
1634	15	15	CTL3	BCE	CTL2,CKPRO,	Z	8	2722	B P37 R13		255
1635	15	16		BCE		Z	1	2730	B		255
1636	15	17		BCE		Z	1	2731	B		255
1637	15	18		BCE		Z	1	2732	B		255
1638	15	19		B	NOCTL	Z	4	2733	B Q71		255
1639	15	20	CTL2	MLC	INPUT+21,PROCOR	Z	7	2737	M 021 194		255
1640	15	21		ZA	INPUT+21,XL1	Z	7	2744	+ 021 089		256
1641	15	22		S	+30,XL1+1	Z	7	2751	S R22 090		256
1642	15	23		A	XL1	Z	4	2758	A 089		256
1643	15	24		A	XL1	Z	4	2762	A 089		256
1644	15	25		MLC	FCTBL+X1,FACTOR	Z	7	2766	M QZ7 H48		256
1645	15	26		MLC	'0',FACTOR-3	Z	7	2773	M R23 H45		256
1646	15	27		MLC	FCTBL-3+X1,CKTAP+7	Z	7	2780	M QZ4 652		257
1647	15	28		BCE	IS16K,INPUT+21,6	Z	8	2787	B Q52 021 6		257
1648	15	29		BCE	IS16K,INPUT+21,5	Z	8	2795	B Q52 021 5		257
1649	15	30		BCE	IS8K,INPUT+21,4	Z	8	2803	B Q33 021 4		257
1650	15	31		MLC	'3',PROCOR	Z	7	2811	M R24 194		257
1651	15	32	*								
1652	15	33	* INITIALIZE OUTPUT AREA AND SET UP BLOCKING SIZE								
1653	15	34	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1654	15	35	IS4K	LCA	GRPMK8,3998				SET GROUP MARK AT END		258
1655	15	36		B	PUT	Z	7	2818	L H99 I98		258
1656	15	37		B	LDOPTB	Z	4	2825	B 610		258
1657	15	38	IS8K	LCA	GRPMK8,4318				OF OUTPUT AREA		258
1658	15	39		MCW	'('	Z	4	2829	B 489		258
1659	15	40		MCW	4317	Z	7	2833	L H99 31Y		258
1660	15	41		B	CWI98	Z	4	2840	M R25		258
1661	15	42	IS16K	LCA	GRPMK8,4718						258
1662	15	43		MCW	'('	Z	4	2844	M 31X		258
1663	15	44		MCW	4717	Z	4	2848	B 469		259
1664	15	45		B	CWI98	Z	7	2852	L H99 71Y		259
1665	15	46	NOCTL	MLC	FCTBL,FACTOR						259
1666	15	47		MLC	'3',PROCOR	Z	4	2859	M R25		259
1667	15	48		BSP	INTAP	Z	7	2863	M 71X		259
1668	15	49		B	IS4K	Z	4	2867	B 469		259
1669	15	50	FCTBL	DCW	0015				PROCESS WHEN NO		259
1670	15	51		DCW	3051	Z	7	2871	M Q97 H48		259
1671	15	52		DCW	7087	Z	7	2878	M R24 194		259
1672	15	53		DCW	7127	Z	5	2885	U (U4 B		259
1673	15	54	CKPRO	DCW	3456				B Q18		260
1674	15	55		LTORG	*	Z	4	2890			260
				DCW	'000'	Z	4	2897			260
					'I'	Z	3	2901		LIT	260
					'CTL'	Z	1	2905		LIT	261
					+30	Z	3	2913		LIT	261
					'0'	Z	2	2916		LIT	261
					'3'	Z	1	2917		LIT	261
					'('	Z	1	2920		LIT	261
1675	15	56	*			Z	2	2922		LIT	261
1676	15	57	*MAIN LINE CONSTANTS AND WORK AREAS			Z	1	2923		LIT	261
1677	15	58	*			Z	1	2924		LIT	261
1678	15	59	*LITERAL HOLD AREA			Z	1	2925		LIT	261
1679	15	60	*								
1680	15	61		ORG	SAVE				2914		
1681	15	62	LAREA	EQU	*	Z	3	2916		LIT	260
1682	15	63		DCW	+00000	Z	1	2917		LIT	261
1683	15	64		DCW	=10	Z	3	2920		LIT	261
1684	15	65		DCW	'DCW'	Z	2	2922		LIT	261
1685	15	66		DCW	=1	Z	1	2923		LIT	261
1686	15	67		DS	53	Z	1	2924		LIT	261
1687	15	68		DCW	'/'	Z	1	2925		LIT	261
1688	15	69		DS	9	Z	1	2925		LIT	261
1689	15	70	GRPMK3	DC	' '	Z	1	2925		LIT	261
1690	15	71	HLDLIT	EQU	LAREA+1	Z	1	2925		LIT	261
1691	15	72	*								
1692	15	73	*CONSTANTS AND WORK AREAS								
1693	15	74	*								
1694	15	75	FACTOR	DCW	'0000'						
1695	15	76	BIGCTR	DCW	'00000'						
1696	15	77	ORGCTR	DCW	'00332'						
									LABEL CONVERSION FACTR		264
									BIG LITERAL LABEL CNTR		264
									ORIGIN COUNTER		264

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
1697	15	78	BLANK4	DCW	=4					
1698	15	79	B2CNTR	DCW	=5					
1699	15	80	HOLD4	DCW	=4					
1700	15	81	W6AREA	DCW	=6					
1701	15	82	HOLD7	DCW	=7					
1702	15	83	HOLD1	DCW	+0					
1703	15	84	SFXHLD	DCW	0					
1704	15	85	INITSW	DCW	0					
1705	15	86	MARKSW	DC	0					
1706	15	87	DCWSW	DC	0					
1707	15	88	LITSW2	DC	0					
1708	15	89	DSASW2	DC	0					
1709	15	90	DCWSW2	DC	0					
1710	15	91	GRPMK8	EQU	3899					
1711	15	92	3899	DCW	' '					
1712	15	93		EX	DOZERO					

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1713	15	94		JOB	1401 AUTOCODER-PASS 4 MAIN LINE OVERLAY -VERSION 3						
1714	15	95	*								
1715	15	96	*PROCESS		INSTRUCTION STATEMENTS						
1716	15	97	*								
1717	15	98		ORG	DOPROG	Z			2575		
1718	15	99	INSTR	MCW	EQUADD,IMAGE+67	Z	7	2575	M N11 167		271
1719	16	00		CW	LENSW=1	Z	4	2582	J G34		271
1720	16	01		MLC	'01',IMAGE+7	Z	7	2586	M G36 107		271
1721	16	02		BW	*+5,EQUADD	Z	8	2593	V 005 N11 1		271
1722	16	03		B	AUGMNT	Z	4	2601	B R06		271
1723	16	04	DOCNT	BCE	DONE,INPUT+21+X2,	Z	8	2605	B P31 OK1		271
1724	16	05		BCE	XISALF,INPUT+21+X2,'	Z	8	2613	B +77 OK1		272
1725	16	06		LCA	BLANK2+1,INPUT+20+X2	Z	7	2621	L H61 OK0		272
1726	16	07		B	COMSCN	Z	4	2628	B 860		272
1727	16	08		MLC	XL3,W3AREA	Z	7	2632	M 099 H74		272
1728	16	09		MLC	FREEA,XL3	Z	7	2639	M M98 099		272
1729	16	10		BCE	XISLIT,INPUT+21+X3,+	Z	8	2646	B B51 OB1 +		273
1730	16	11		BCE	XISLIT,INPUT+21+X3,-	Z	8	2654	B B51 OB1 -		273
1731	16	12		B	FR2FIX	Z	4	2662	B 952		273
1732	16	13		BCE	SMLTYP,IMAGE+23+X1,=	Z	8	2666	B +40 1S3 =		273
1733	16	14	CKDONE	A	+3,IMAGE+7	Z	7	2674	A G37 107		273
1734	16	15		BW	FREMOD,LENSW	Z	8	2681	V P39 G34 1		274
1735	16	16		C	XL1,'010'	Z	7	2689	C 089 G40		274
1736	16	17		BL	DONE	Z	5	2696	B P31 T		274
1737	16	18		MLC	'011',XL1	Z	7	2701	M G43 089		274
1738	16	19		BW	*+5,SCANSW	Z	8	2708	V P20 N15 1		274
1739	16	20		B	ELMBLK	Z	4	2716	B Q83		274
1740	16	21	INTXL1	MCW	XL2,FREEA	Z	7	2720	M 094 M98		275
1741	16	22		B	DOCNT	Z	4	2727	B 005		275
1742	16	23	DONE	BW	CKMOD1,SCANSW	Z	8	2731	V Q03 N15 1		275
1743	16	24	FREMOD	MLC	INPUT+21+X2,IMAGE+39	Z	7	2739	M OK1 139		275
1744	16	25		BCE	*+5,IMAGE+39,	Z	8	2746	B P58 139		275
1745	16	26		B	C1	Z	4	2754	B P80		275
1746	16	27		BCE	C1,INPUT+22+X2,	Z	8	2758	B P80 OK2		276
1747	16	28		MCW	INPUT+22+X2,IMAGE+39	Z	7	2766	M OK2 139		276
1748	16	29		A	+1,XL2	Z	7	2773	A G44 094		276
1749	16	30	C1	C	INPUT+23+X2,BLANK2	Z	7	2780	C OK3 H60		276
1750	16	31		BE	ISMOD	Z	5	2787	B Q11 S		276
1751	16	32		MZ	ABIT,IMAGE+5	Z	7	2792	Y 187 105		277
1752	16	33		B	ISMOD	Z	4	2799	B Q11		277
1753	16	34	CKMOD1	BCE	DOIADD,IMAGE+39,	Z	8	2803	B Q32 139		277
1754	16	35	ISMOD	A	+1,IMAGE+7	Z	7	2811	A G44 107		277
1755	16	36		MLC	IMAGE+7,XL2	Z	7	2818	M 107 094		277
1756	16	37		MLC	IMAGE+39,IMAGE+66+X2	Z	7	2825	M 139 106		278
1757	16	38	DOIADD	MLC	ORGCTR,IMAGE+61	Z	7	2832	M H58 161		278
1758	16	39		A	+1,IMAGE+61	Z	7	2839	A G44 161		278
1759	16	40		A	IMAGE+7,ORGCTR	Z	7	2846	A 107 H58		278
1760	16	41		MLC	BLANK,IMAGE+75	Z	7	2853	M H59 175		278
1761	16	42		B	NUREC	Z	4	2860	B 534		278
1762	16	43	LOOPBL	A	+1,XL2	Z	7	2864	A G44 094		279

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1763	16	44		C	XL2,'51'						
					BETWEEN OPERANDS	Z	7	2871	C 094 G46		279
1764	16	45		BL	ERRBLK	Z	5	2878	B Q95 T		279
1765	16	46	ELMBLK	BCE	LOOPBL,INPUT+21+X2,	Z	8	2883	B Q64 OK1		279
1766	16	47		B	INTXL1	Z	4	2891	B P20		279
1767	16	48	ERRBLK	MZ	ABIT,IMAGE+5	Z	7	2895	Y 187 105		279
1768	16	49		B	CKDONE	Z	4	2902	B 074		280
1769	16	50		*							
1770	16	51		*	PROCESS UNIQUE MNEMONICS						
1771	16	52		*							
1772	16	53	AUGMNT	MCW	EQUADD-1,IMAGE+39	D MOD TO IMAGE AREA	Z	7	2906	M N10 139	280
1773	16	54		BCE	ISFIVE,EQUADD-1,	Q. BIN TYPE	Z	8	2913	B +32 N10	280
1774	16	55	CKREG	BW	DOCNT,EQUADD-1	Q. TYPICAL UNIQUE MNEM	Z	8	2921	V 005 N10 1	280
1775	16	56		BW	TAPAug,EQUADD-2	Q. TAPE TYPE	Z	8	2929	V R52 N09 1	280
1776	16	57		MCW	EQUADD-2,IMAGE+70	ERGO RAMAC TYPE	Z	7	2937	M N09 170	281
1777	16	58		MLC	'('		Z	4	2944	M G47	281
1778	16	59		B	OPDONE		Z	4	2948	B +21	281
1779	16	60	TAPAug	C	INPUT+21,'0'	PROCESS TAPE TYPE OF	Z	7	2952	C 021 G48	281
1780	16	61		BH	DOCNT	UNIQUE MNEMONICS	Z	5	2959	B 005 U	281
1781	16	62		BCE	MSCSW,INPUT+22,,	CHECK FOR PROPERLY	Z	8	2964	B R95 022 ,	281
1782	16	63		C	INPUT+23,BLANK2	CODED A OPERAND	Z	7	2972	C 023 H60	282
1783	16	64		BE	GETPOP		Z	5	2979	B R99 S	282
1784	16	65		MCW	'===',IMAGE+70		Z	7	2984	M G51 170	282
1785	16	66		B	OPDONE		Z	4	2991	B +21	282
1786	16	665	MSCSW	CW	SCANSW		Z	4	2995	J N15	282
1787	16	67	GETPOP	MN	INPUT+21,IMAGE+70		Z	7	2999	D 021 170	282
1788	16	68		MCW	EQUADD-2		Z	4	3006	M N09	282
1789	16	69		MLC	'('		Z	4	3010	M G47	283
1790	16	70		MLC	'002',XL2		Z	7	3014	M G54 094	283
1791	16	72	OPDONE	MLZS	ABBIT,IMAGE+1	MARK A OPERAND DONE	Z	7	3021	Y 189 101	283
1792	16	73		B	CKDONE		Z	4	3028	B 074	283
1793	16	74	ISFIVE	SW	LENSW	SET SWITCH FOR FIVE	Z	4	3032	, G34	283
1794	16	75		B	CKREG	CHAR INSTRUCTION	Z	4	3036	B R21	283
1795	16	76		*							
1796	16	77		*	PROCESS AREA DEFINITION LITERAL						
1797	16	78		*							
1798	16	79	SMLTYP	SW	IMAGE+24+X1	MOVE LENGTH TO	Z	4	3040	, 1S4	283
1799	16	80		MLC	IMAGE+26+X1,LAREA+24	LITERAL HOLD AREA	Z	7	3044	M 1S6 G83	284
1800	16	81		MLC	'='		Z	4	3051	M G55	284
1801	16	82		CW	IMAGE+24+X1	REMOVE LENGTH FROM	Z	4	3055	J 1S4	284
1802	16	83		MCW	BLANK4,IMAGE+26+X1	CHAR ADJ PORTION	Z	7	3059	M H62 1S6	284
1803	16	84		MCW	INPUT+84,LAREA+4	OF OPERAND AND SAVE	Z	7	3066	M 084 G63	284
1804	16	85		B	WRTLIT	ALTER NUMBER	Z	4	3073	B A89	284
1805	16	86		*							
1806	16	87		*	PROCESS ALPHAMERIC LITERALS						
1807	16	88		*							
1808	16	89	XISALF	B	SCANAT	SCAN FOR ' SIGN	Z	4	3077	B S92	284
1809	16	90		C	XL3,'07'	Q. BIG LITERAL	Z	7	3081	C 099 G57	285
1810	16	91		BL	DOBIG		Z	5	3088	B A57 T	285
1811	16	92	XALF1	A	XL3,XL1		Z	7	3093	A 099 089	285
1812	16	93		MCW	INPUT+19+X2,IMAGE+15+X1	GENERATE UNIQUE LABEL	Z	7	3100	M 0J9 1/5	285



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
1813	16	94		BCE	GM1,FREE+18+X2,				AND STRIP ZONING	Z 8 3107 B A43 0J8	285	
1814	16	95		BCE					OFF GROUP MARKS IN	Z 1 3115 B	285	
1815	16	96		BCE					LITERAL TO ELIMINATE	Z 1 3116 B	285	
1816	16	97		BCE					CONFLICT	Z 1 3117 B	286	
1817	16	98	ADD	S	XL3+1,XL1+1				WITH NOISE RECORD	Z 7 3118 S 100 090	286	
1818	16	99		MZ	EXOVFL-1,IMAGE+17+X1				ROUTINE	Z 7 3125 Y 190 1/7	286	
1819	17	00	SETEX	MCW	EXNUMB-1,IMAGE+22+X1				GIVE LITERAL SECTION	Z 7 3132 M 192 1S2	286	
1820	17	01		B	PROLIT				CODE	Z 4 3139 B A82	286	
1821	17	02	GM1	MZ	BLANK4,IMAGE+14+X1					Z 7 3143 Y H62 1/4	286	
1822	17	03		MZ						Z 1 3150 Y	286	
1823	17	04		MZ						Z 1 3151 Y	287	
1824	17	05		MZ						Z 1 3152 Y	287	
1825	17	06		B	ADD					Z 4 3153 B A18	287	
1826	17	07	*									
1827	17	08	*PROCESS BIG LITERALS									
1828	17	09	*									
1829	17	10	DOBIG	MLC	BIGCTR,IMAGE+22+X1				GENERATE BIG LITERAL	Z 7 3157 M H53 1S2	287	
1830	17	11		MLC	'\$'				LABEL	Z 4 3164 M G58	287	
1831	17	12		A	+1,BIGCTR					Z 7 3168 A G44 H53	287	
1832	17	13		MCW	INPUT+84,LAREA+4				SAVE ALTER NUMBER	Z 7 3175 M 084 G63	287	
1833	17	14	*									
1834	17	15	*PLACE LITERALS IN HOLD AREA AND WRITE OUT ON LITERAL TAPE									
1835	17	16	*									
1836	17	17	PROLIT	MLC	INPUT+19+X2,LAREA+19+X3				LITERAL TO HOLD AREA	Z 7 3182 M 0J9 GG8	288	
1837	17	18	WRTLIT	MLC	IMAGE+22+X1,LAREA+11				LITERAL LABEL TO AREA	Z 7 3189 M 1S2 G70	288	
1838	17	19		BW	DSAX1,LITSW2					Z 8 3196 V Z90 H90 1	288	
1839	17	20		WT	LITAPE,HLDLIT				WRITE OUT LITERAL	Z 8 3204 M (U6 G60 W	288	
1840	17	21		NQP	0					Z 4 3212 N 000	288	
1841	17	22		BER	TPERR					Z 5 3216 B 221 L	288	
1842	17	23		MCW	BLANK4,LAREA+4				CLEAR HOLD AREA	Z 7 3221 M H62 G63	289	
1843	17	24		MLC	LAREA+74,LAREA+73					Z 7 3228 M H33 H32	289	
1844	17	25		CW	LITSW				SET SW TO INDICATE AT	Z 4 3235 J N46	289	
1845	17	26		BW	DSAX1,DSASW2				Q. RECURSIVE DCW	Z 8 3239 V Z90 H91 1	289	
1846	17	27		B	CKDONE				LEAST ONE LIT EXISTS	Z 4 3247 B 074	289	
1847	17	28	*									
1848	17	29	*PROCESS NUMERIC LITERALS									
1849	17	30	*									
1850	17	31	XISLIT	C	INPUT+22+X3,'0'				Q. ADDRESS CONSTANT	Z 7 3251 C 0B2 G48	289	
1851	17	32		MLC	W3AREA,XL3					Z 7 3258 M H74 099	290	
1852	17	33		BH	DOBIG					Z 5 3265 B A57 U	290	
1853	17	34		C	XL3,'07'				Q. BIG LITERAL	Z 7 3270 C 099 G57	290	
1854	17	35		BL	DOBIG					Z 5 3277 B A57 T	290	
1855	17	36	XLIT1	A	XL1,XL3				PROCESS SMALL NUMERIC	Z 7 3282 A 089 099	290	
1856	17	37		MLC	INPUT+19+X2,IMAGE+14+X3				LITERALS	Z 7 3289 M 0J9 1A4	290	
1857	17	38		MZ	EXOVFL-1,IMAGE+21+X1				GENERATE UNIQUE LABEL	Z 7 3296 Y 190 1S1	291	
1858	17	39		MLC	FREEA,XL3				FOR LITERAL	Z 7 3303 M M98 099	291	
1859	17	40		MLZS	INPUT+21+X3,IMAGE+18+X1					Z 7 3310 Y 0B1 1/8	291	
1860	17	41		MLC	W3AREA,XL3					Z 7 3317 M H74 099	291	
1861	17	42		B	SETEX					Z 4 3324 B A32	291	
1862	17	43	*									

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1863	17	44	*GENERATE LABEL ENTRY ADDRESS FOR SYMBOLIC OPERANDS								
1864	17	45	*								
1865	17	46	PROPND	SBR	BOPXT+3	Z	4	3328	H C60		291
1866	17	47		BCE	BOPXT,IMAGE+17	Z	7	3332	B C57	117	292
1867	17	48		MCW	IMAGE+22,W6AREA	Z	7	3339	M 122	H77	292
1868	17	49		B	PROLAB	Z	4	3346	B W47		292
1869	17	50		MLC	W3AREA,IMAGE+70	Z	7	3350	M H74	170	292
1870	17	51	BOPXT	B	XXXX	Z	4	3357	B 000		292
1871	17	52	*								
1872	17	53	*DETERMINE TYPE OF CONTROL OP								
1873	17	54	*								
1874	17	55	CTRLOP	MCW	EQUADD-1,IMAGE+75	Z	7	3361	M N10	175	292
1875	17	56		S	XL3+1	Z	4	3368	S 100		293
1876	17	57		MN	EQUADD-1,XL3	Z	7	3372	D N10	099	293
1877	17	58		A	XL3	Z	4	3379	A 099		293
1878	17	59		A	XL3	Z	4	3383	A 099		293
1879	17	60		B	*+1+X3	Z	4	3387	B C11		293
1880	17	61		B	DARTN	Z	4	3391	B M41		293
1881	17	62		B	DCWCD	Z	4	3395	B Y11		293
1882	17	63		B	ERRHLT	Z	4	3399	B D63		294
1883	17	64		B	EXEND	Z	4	3403	B G10		294
1884	17	65		B	DOSFX	Z	4	3407	B F92		294
1885	17	66		B	ERRHLT	Z	4	3411	B D63		294
1886	17	67		B	ORGSTM	Z	4	3415	B D74		294
1887	17	68		B	DSSTMT	Z	4	3419	B F00		294
1888	17	69		B	INSPC	Z	4	3423	B D38		294
1889	17	70		MCW	INPUT+80,IMAGE+21	Z	7	3427	M 080	121	295
1890	17	71		B	NUREC	Z	4	3434	B 534		295
1891	17	72	INSPC	MCW	EQUADD-2,IMAGE+67	Z	7	3438	M N09	167	295
1892	17	73		MCW	BLANK2,IMAGE+75	Z	7	3445	M H60	175	295
1893	17	74		MLC	'01',IMAGE+7	Z	7	3452	M G36	107	295
1894	17	75		B	FREMOD	Z	4	3459	B P39		295
1895	17	76	ERRHLT	H	0,0402	Z	7	3463	. 000	402	296
1896	17	77		B	ERRHLT	Z	4	3470	B D63		296
1897	17	78	*								
1898	17	79	*PROCESS LITERAL ORIGIN AND ORIGIN CARDS								
1899	17	80	*								
1900	17	81	ORGSTM	B	COMSCN	Z	4	3474	B 860		296
1901	17	82		B	FNLOP	Z	4	3478	B W05		296
1902	17	83		B	FR2FIX	Z	4	3482	B 952		296
1903	17	84		BCE	SUBORG,IMAGE+24,X	Z	8	3486	B E63	124 X	296
1904	17	85		BCE	ORGPRO,IMAGE+17,*	Z	8	3494	B E89	117 *	296
1905	17	86		ZS	+1,ORGCTR	Z	7	3502	- G44	H58	297
1906	17	87		BCE	ORGADJ,IMAGE+17,	Z	8	3509	B E33	117	297
1907	17	88		BWZ	ORGCVT,IMAGE+17,2	Z	8	3517	V E78	117 2	297
1908	17	89		S	XL2+1	Z	4	3525	S 095		297
1909	17	90		B	PROPND	Z	4	3529	B C28		297
1910	17	91	ORGADJ	A	IMAGE+26,ORGCTR	Z	7	3533	A 126	H58	297
1911	17	92	TYPORG	MLC	ORGCTR,IMAGE+61	Z	7	3540	M H58	161	298
1912	17	93		BCE	NUREC,INPUT+16,0	Z	8	3547	B 534	016 0	298

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1913	17	94		B	PUT				PUT LTORG RECORD		298
1914	17	95		B	CALL				GO TO LITERAL ROUTINE		298
1915	17	96	SUBORG	ZS	+1,ORGCTR				SET COUNTER TO -1		298
1916	17	97		B	PROPND				PROCESS A OPERAND		298
1917	17	98		B	TYPORG						298
1918	17	99	ORGCVT	B	CVTFLA				RESET COUNTER TO ACTL		299
1919	18	00		A	W5AREA,ORGCTR				ADDRESS LESS ONE		299
1920	18	01	ORGPRO	MZ	ABBIT,IMAGE+1				MARK A OPERAND		299
1921	18	02		B	ORGADJ				PROCESSED		299
1922	18	03		*							
1923	18	04			*PROCESS DS STATEMENTS						
1924	18	05		*							
1925	18	06	DSSTMT	B	COMSCN				SCAN FOR COMMA/BLANK		299
1926	18	07		B	FNLOP				CHECK LAST OPERAND		299
1927	18	08		B	FR2FIX				CONVERT TO FIXED FORM		299
1928	18	09		BWZ	CKEQU,INPUT+21,2				Q. ACTUAL OPERAND		300
1929	18	10		BCE	CK4ADJ,IMAGE+17,*				Q. ASTERISK OPERAND		300
1930	18	11		BCE	NUREC,IMAGE+17,(				Q. I/O OPERAND		300
1931	18	12		B	PROPND				GENERATE LABEL ADDRESS		300
1932	18	13		B	NUREC						300
1933	18	14	CK4ADJ	ZA	IMAGE+26,IMAGE+61				PICKUP CHARACTER		300
1934	18	15		B	DSETAD				ADJUSTMENT		301
1935	18	16	CKEQU	ZA	IMAGE+21,W5AREA				CONVERT ACTUAL OPND OF		301
1936	18	17		B	CVRT5				EQU AND DS		301
1937	18	18		A	IMAGE+26,W5AREA				ADD CHARACTER ADJ		301
1938	18	19		BCE	DCWACT,IMAGE+75,P				Q. EQU CODE		301
1939	18	20		A	W5AREA,ORGCTR				PROCESS DS		301
1940	18	21		B	BMPCTR						302
1941	18	22		*							
1942	18	23			*PROCESS SUFFIX STATEMENTS						
1943	18	24		*							
1944	18	25	DOSFX	MLC	INPUT+21,IMAGE+17				SABE SUFFIX		302
1945	18	26		MCW	INPUT+21,SFXHLD				CHARACTER		302
1946	18	27		B	NUREC						302
1947	18	28		*							
1948	18	29			*PROCESS EXECUTE, END STATEMENTS						
1949	18	30		*							
1950	18	31	EXEND	B	COMSCN				SCAN FOR COMMA/BLANK		302
1951	18	32		B	FNLOP				CHECK LAST OPERAND		302
1952	18	33		B	FR2FIX				CONVERT TO FIXED FORM		302
1953	18	34		BCE	NUREC,INPUT+16,X						303
1954	18	35		B	CALL				MERGE LITERALS		303
1955	18	36		LTORG	*						
										3734	
	1719		LENSW	DCW	=01						AREA
					'01'						LIT
					+3						LIT
					'010'						LIT
					'011'						LIT
					+1						LIT
					'51'						LIT

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					'('	Z	1	3747		LIT	304
					'0'	Z	1	3748		LIT	304
					'==='	Z	3	3751		LIT	304
					'002'	Z	3	3754		LIT	304
					'='	Z	1	3755		LIT	304
					'07'	Z	2	3757		LIT	305
					'\$'	Z	1	3758		LIT	305
1956	18	37	GRPMK2	DCW	' '	Z	1	3759			305
1957	18	38	SAVE	EQU	*+1	Z		3760			
1958	18	39		EX	DOZERO	Z			B 000		306

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1959	18	40		JOB	1401 AUTOCODER-PASS 4 PROCESS DA				-VERSION 3		
1960	18	41	*								
1961	18	42	*PROCESS DA	STATEMENTS							
1962	18	43	*								
1963	18	44		ORG	DOPROG	Z			2575		
1964	18	45	DASTMT	BSP	SYSTAP	Z	5	2575	U (U1 B		309
1965	18	46		BSP	SYSTAP	Z	5	2580	U (U1 B		309
1966	18	47		SW	NUMSW,DACSW	Z	7	2585	, F31 F55		309
1967	18	48		SW	FRMKSW,DGMKSW	Z	7	2592	, F58 F57		309
1968	18	49		BCE	DAERR,INPUT+21,X	Z	8	2599	B C14 021 X		309
1969	18	50	EXSCAN	BCE	NDXSCN,INPUT+22+X2,X	Z	8	2607	B 034 0K2 X		310
1970	18	51		BCE	DAERR,XL2,4	Z	8	2615	B C14 094 4		310
1971	18	52		A	+1,XL2	Z	7	2623	A F18 094		310
1972	18	53		B	EXSCAN	Z	4	2630	B 007		310
1973	18	54	NDXSCN	A	INPUT+21+X2,BLKCTR	Z	7	2634	A 0K1 F17		310
1974	18	55		A	+2,XL2	Z	7	2641	A F19 094		311
1975	18	56		B	COMSCN	Z	4	2648	B 860		311
1976	18	57		ZA	INPUT+19+X2,RECCTR=5	Z	7	2652	+ 0J9 F24		311
1977	18	58	FINHED	BCE	DAINDX,INPUT+21+X2,X	Z	8	2659	B C73 0K1 X		311
1978	18	59		BCE	DAGMRK,INPUT+21+X2,G	Z	8	2667	B C91 0K1 G		311
1979	18	60		BCE	DAFMRK,INPUT+21+X2,†	Z	8	2675	B D06 0K1 †		312
1980	18	61		BCE	DACLRL,INPUT+21+X2,C	Z	8	2683	B C65 0K1 C		312
1981	18	62		BCE	CMPSZ,INPUT+20+X2,	Z	8	2691	B P06 0K0		312
1982	18	63		MZ	ABIT,IMAGE+5	Z	7	2699	Y 187 105		312
1983	18	64	CMPSZ	S	W5AREA	Z	4	2706	S H76		312
1984	18	65		MCW	BLKCTR,B2CNTR	Z	7	2710	M F17 H67		313
1985	18	66	DAREP	S	+1,B2CNTR	Z	7	2717	S F18 H67		313
1986	18	67		BM	SFANS, B2CNTR	Z	8	2724	V P43 H67 K		313
1987	18	68		A	RECCTR,W5AREA	Z	7	2732	A F24 H76		313
1988	18	69		B	DAREP	Z	4	2739	B P17		313
1989	18	70	SFANS	MCW	W5AREA,B2CNTR	Z	7	2743	M H76 H67		314
1990	18	71		MLC	*†,IMAGE+17	Z	7	2750	M F25 117		314
1991	18	72		BCE	DASTR,INPUT+6,	Z	8	2757	B P73 006		314
1992	18	73		BWZ	DANUM,INPUT+6,2	Z	8	2765	V P98 006 2		314
1993	18	74	DASTR	MLC	ORGCTR,DALOC=5	Z	7	2773	M H58 F30		314
1994	18	75		A	+1,DALOC	Z	7	2780	A F18 F30		315
1995	18	76		A	W5AREA,ORGCTR	Z	7	2787	A H76 H58		315
1996	18	77		B	ENDDA	Z	4	2794	B Q20		315
1997	18	78	DANUM	MLC	INPUT+10,IMAGE+21	Z	7	2798	M 010 121		315
1998	18	79		CW	NUMSW=1	Z	4	2805	J F31		315
1999	18	80		B	CVTFLA	Z	4	2809	B W28		315
2000	18	81		MLC	W5AREA,DALOC	Z	7	2813	M H76 F30		316
2001	18	82	ENDDA	MLC	DALOC,IMAGE+66	Z	7	2820	M F30 166		316
2002	18	83		MLC	DALOC	Z	4	2827	M F30		316
2003	18	84		A	RECCTR,IMAGE+66	Z	7	2831	A F24 166		316
2004	18	85		S	+1,IMAGE+66	Z	7	2838	S F18 166		316
2005	18	86		S	+1,DALOC	Z	7	2845	S F18 F30		316
2006	18	87		CW	HEDSW=1	Z	4	2852	J F32		317
2007	18	88		BW	DALOOP,DACSW	Z	8	2856	V +37 F55 1		317
2008	18	89		MCW	IMAGE+80,CAHLD	Z	7	2864	M 180 G54		317

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2009	18	90		CHAIN	10					MACRO	
2010				MCW		Z	1	2871	M	GEN	317
2011				MCW		Z	1	2872	M	GEN	317
2012				MCW		Z	1	2873	M	GEN	317
2013				MCW		Z	1	2874	M	GEN	317
2014				MCW		Z	1	2875	M	GEN	318
2015				MCW		Z	1	2876	M	GEN	318
2016				MCW		Z	1	2877	M	GEN	318
2017				MCW		Z	1	2878	M	GEN	318
2018				MCW		Z	1	2879	M	GEN	318
2019				MCW		Z	1	2880	M	GEN	318
2020	18	91		MCW	'A',IMAGE+75	CODE DC STATEMENT AND	Z	7	2881	M F33 175	318
2021	18	92		MCW	BLANK4,IMAGE+80	TO CLEAR ENTIRE DA	Z	7	2888	M H62 180	319
2022	18	93		MCW	BLANK4,IMAGE+55	AREA	Z	7	2895	M H62 155	319
2023	18	94		MCW	BLANK4,IMAGE+27	NOTE - EACH DC IS 19	Z	7	2902	M H62 127	319
2024	18	95		SW	INITSW	CHARACTERS	Z	4	2909	, H87	319
2025	18	96		MCW	BLANK4,IMAGE+11	OPTIMIZING THE	Z	7	2913	M H62 111	319
2026	18	97		MCW	'DC ',IMAGE+16	CONDENSED CARD	Z	7	2920	M F36 116	319
2027	18	98		MCW	'19',IMAGE+7		Z	7	2927	M F38 107	320
2028	18	99		MCW	DALOC,IMAGE+61		Z	7	2934	M F30 161	320
2029	19	00	CKNDQ	C	B2CNTR,+0020		Z	7	2941	C H67 F42	320
2030	19	01		BH	DOLST		Z	5	2948	B R82 U	320
2031	19	02		A	+19,IMAGE+61		Z	7	2953	A F44 161	320
2032	19	03		MZ	ABBIT,IMAGE+1		Z	7	2960	Y 189 101	321
2033	19	04		B	PUT		Z	4	2967	B 610	321
2034	19	05		S	+19,B2CNTR		Z	7	2971	S F44 H67	321
2035	19	06		B	CKNDQ		Z	4	2978	B R41	321
2036	19	07	DOLST	C	B2CNTR,+0000		Z	7	2982	C H67 F48	321
2037	19	08		BE	RTMGE		Z	5	2989	B +20 S	321
2038	19	09		MN	B2CNTR,IMAGE+7		Z	7	2994	D H67 107	322
2039	19	10		MN			Z	1	3001	D	322
2040	19	11		A	B2CNTR,IMAGE+61		Z	7	3002	A H67 161	322
2041	19	12		MZ	ABBIT,IMAGE+1		Z	7	3009	Y 189 101	322
2042	19	13		B	PUT		Z	4	3016	B 610	322
2043	19	14	RTMGE	MCW	DAHLD,IMAGE+80	RESTORE IMAGE AREA	Z	7	3020	M G54 180	322
2044	19	15		CHAIN	10					MACRO	
2045				MCW		Z	1	3027	M	GEN	322
2046				MCW		Z	1	3028	M	GEN	323
2047				MCW		Z	1	3029	M	GEN	323
2048				MCW		Z	1	3030	M	GEN	323
2049				MCW		Z	1	3031	M	GEN	323
2050				MCW		Z	1	3032	M	GEN	323
2051				MCW		Z	1	3033	M	GEN	323
2052				MCW		Z	1	3034	M	GEN	323
2053				MCW		Z	1	3035	M	GEN	324
2054				MCW		Z	1	3036	M	GEN	324
2055	19	16	DALoop	SW	INITSW		Z	4	3037	, H87	324
2056	19	17		ZA	+1,B2CNTR		Z	7	3041	+ F18 H67	324
2057	19	18	DAPUT	C	B2CNTR,BLKCTR	GENERATE -B- NUMBER	Z	7	3048	C H67 F17	324
2058	19	19		BH	PUTIT		Z	5	3055	B B70 U	324

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2059	19	20	DAGET	CW	INITSW	Z	4	3060	) H87		324
2060	19	21		BW	DAPUT2,HEDSW	Z	8	3064	V +90 F32	1	325
2061	19	22		MCW	IMAGE+66,GMKADD=5	Z	7	3072	M 166 F53		325
2062	19	23		A	+1,GMKADD	Z	7	3079	A F18 F53		325
2063	19	24		SW	HEDSW	Z	4	3086	, F32		325
2064	19	25	DAPUT2	B	PUT	Z	4	3090	B 610		325
2065	19	26		BW	CKFNLG,MARKSW	Z	8	3094	V E02 H88	1	325
2066	19	27	GET1	B	GET	Z	4	3102	B 538		326
2067	19	28		BCE	GET1,INPUT+6,*	Z	8	3106	B A02 006	*	326
2068	19	29		C	INPUT+19,BLANK4	Z	7	3114	C 019 H62		326
2069	19	30		BU	CKFMRK	Z	5	3121	B D21 /		326
2070	19	31		MCW	INPUT+84,IMAGE+80	Z	7	3126	M 084 180		326
2071	19	32		BCE	*+5,INPUT+6,	Z	8	3133	B A45 006		326
2072	19	33		B	PROLBL	Z	4	3141	B V38		327
2073	19	34		MLC	+0,IMAGE+75	Z	7	3145	M F54 175		327
2074	19	35		S	XL2+1	Z	4	3152	S 095		327
2075	19	36		B	COMSCN	Z	4	3156	B 860		327
2076	19	37		ZA	INPUT+19+X2,IMAGE+66	Z	7	3160	+ 0J9 166		327
2077	19	38		C	RECNTN,IMAGE+66	Z	7	3167	C F24 166		327
2078	19	39		BH	TFERR	Z	5	3174	B C39 U		327
2079	19	40		BCE	SUBFLD,INPUT+20+X2,	Z	8	3179	B B52 OK0		328
2080	19	41		B	COMSCN	Z	4	3187	B 860		328
2081	19	42		B	FNLOP	Z	4	3191	B W05		328
2082	19	43		ZA	INPUT+19+X2,IMAGE+61	Z	7	3195	+ 0J9 161		328
2083	19	44		C	RECNTN,IMAGE+61	Z	7	3202	C F24 161		328
2084	19	45		BH	TFERR	Z	5	3209	B C39 U		328
2085	19	46		C	IMAGE+61,IMAGE+66	Z	7	3214	C 161 166		329
2086	19	47		BH	FLDERR	Z	5	3221	B C54 U		329
2087	19	48	ADDREC	A	DALOC,IMAGE+61	Z	7	3226	A F30 161		329
2088	19	49		A	DALOC,IMAGE+66	Z	7	3233	A F30 166		329
2089	19	50		BM	DAGET,IMAGE+75	Z	8	3240	V +60 175	K	329
2090	19	51		B	DALOP	Z	4	3248	B +37		329
2091	19	52	SUBFLD	MLZS	BBIT,IMAGE+75	Z	7	3252	Y 188 175		330
2092	19	53		MLC	IMAGE+66,IMAGE+61	Z	7	3259	M 166 161		330
2093	19	54		B	ADDREC	Z	4	3266	B B26		330
2094	19	55	PUTIT	B	PUT	Z	4	3270	B 610		330
2095	19	56		BW	*+8,MARKSW	Z	8	3274	V B89 H88	1	330
2096	19	57		MZ	ABIT,IMAGE+75	Z	7	3282	Y 187 175		330
2097	19	58		A	+1,B2CNTR	Z	7	3289	A F18 H67		331
2098	19	59		A	RECNTN,IMAGE+61	Z	7	3296	A F24 161		331
2099	19	60		A	RECNTN,IMAGE+66	Z	7	3303	A F24 166		331
2100	19	61		B	DAPUT	Z	4	3310	B +48		331
2101	19	62	DAERR	MLZS	ABBIT,IMAGE+4	Z	7	3314	Y 189 104		331
2102	19	63		ZA	+1,BLKCTR	Z	7	3321	+ F18 F17		331
2103	19	64		ZA	+1,RECNTN	Z	7	3328	+ F18 F24		332
2104	19	65		B	CMPSZ	Z	4	3335	B P06		332
2105	19	66	TFERR	SBR	*+11	Z	4	3339	H C53		332
2106	19	67		MZ	ABIT,IMAGE+5	Z	7	3343	Y 187 105		332
2107	19	68		B	XXXX	Z	4	3350	B 000		332
2108	19	69	FLDERR	MZ	BBIT,IMAGE+5	Z	7	3354	Y 188 105		332

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2109	19	70		B	DAPUT2				FIELD ROUTINE		332
2110	19	71	DACLR	CW	DACSW=1				PROCESS CLEAR OPTION		333
2111	19	72		B	DATWO				ON HEADER RECORD		333
2112	19	73	DAINDX	MLNS	INPUT+22+X2,IMAGE+27				PROCESS INDEXING ON		333
2113	19	74		A	+3,XL2				HEADER RECORD		333
2114	19	75		B	FINHED						333
2115	19	76	DAGMRK	CW	DGMKSW=1				INITIALIZE TO SHOW		333
2116	19	77	DATWO	A	+2,XL2				THERE IS GROUP		333
2117	19	78		B	FINHED				MARK AFTER AREA		334
2118	19	79	DAFMRK	A	+1,RECNR				INITIALIZE TO SHOW		334
2119	19	80		CW	FRMKSW=1				PRESENCE OF RECORD		334
2120	19	81		B	DATWO				MARKS BETWEEN RECORDS		334
2121	19	82	CKFMRK	SW	MARKSW						334
2122	19	83		BW	CKFNLG,FRMKSW				Q. RECORD MARKS		334
2123	19	84		MLC	'+'',IMAGE+25				GENERATE -B- NUMBER		334
2124	19	85		MLC	'DC *',IMAGE+17				OF RECORD MARKS		335
2125	19	86		MLC							335
2126	19	87		MLC	+1,IMAGE+75						335
2127	19	88		MLC	'01',IMAGE+7						335
2128	19	89		MLC	DALOC,IMAGE+61						335
2129	19	90		A	RECNR,IMAGE+61						335
2130	19	91		BW	DALoop,NUMSW						336
2131	19	92		MCW	BLANK,IMAGE+17						336
2132	19	93		MZ	ABBIT,IMAGE+3						336
2133	19	94		B	DALoop						336
2134	19	95	CKFNLG	BW	CALLOP,DGMKSW				Q. SET GROUP MARK		336
2135	19	96		MLC	'DCW',IMAGE+16				GENERATE RECORD TO SET		337
2136	19	97		MLC	'1',IMAGE+75				GROUP MARK AT END OF		337
2137	19	98		MLC	'01',IMAGE+7				DA STATEMENT		337
2138	19	99		MCW	GMKADD,IMAGE+61						337
2139	20	00		MLC	' ' ',IMAGE+25						337
2140	20	01		BW	GMKAST,NUMSW						338
2141	20	02		MCW	BLANK,IMAGE+17						338
2142	20	03		MZ	ABBIT,IMAGE+3						338
2143	20	04	PUTGMK	B	PUT				PUT GROUP MARK RECORD		338
2144	20	05		B	CALLOP				GO BACK TO MAIN LINE		338
2145	20	06	GMKAST	A	+1,ORGCTR						338
2146	20	07		MCW	'*',IMAGE+17						339
2147	20	08		B	PUTGMK						339
2148	20	09	CALLOP	BSP	INTAP						339
2149	20	10		B	GET						339
2150	20	11		CW	MARKSW,GRPMK6						339
2151	20	12		B	FINDA						339
2152	20	13	BLKCTR	DCW	+00000						339
2153	20	14		LTORG	*						339
				DCW	+1						340
					+2						340
1976			RECNR		=05						340
					'*'						340
1993			DALCC		=05						340



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1998			NUMSW		=01	Z	1	3631		AREA	340
2006			HEDSW		=01	Z	1	3632		AREA	340
					'A'	Z	1	3633		LIT	341
					'DC '	Z	3	3636		LIT	341
					'19'	Z	2	3638		LIT	341
					+0020	Z	4	3642		LIT	341
					+19	Z	2	3644		LIT	341
					+0000	Z	4	3648		LIT	341
2061			GMKADD		=05	Z	5	3653		AREA	341
					+0	Z	1	3654		LIT	342
2110			DACSW		=01	Z	1	3655		AREA	342
					+3	Z	1	3656		LIT	342
2115			DGMKSW		=01	Z	1	3657		AREA	342
2119			FRMKSW		=01	Z	1	3658		AREA	342
					'+'	Z	3	3661		LIT	342
					'DC *'	Z	4	3665		LIT	342
					'01'	Z	2	3667		LIT	343
					'DCW'	Z	3	3670		LIT	343
					'1'	Z	1	3671		LIT	343
					' '	Z	3	3674		LIT	343
2154	20	15		DA	1X80	Z		3675	3754		343
2155	20	16	DAHLD		80	Z		3754		SBFLD	
2156	20	17	GRPMK6	DCW	' '	Z	1	3755			344
2157	20	18		EX	DOZERO	Z			B 000		345
					SYSTEM GROUP MARK						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2158	20	19		JOB	1401 AUTOCODER-PASS 4 PROCESS LITERALS						
2159	20	20		ORG	DOPROG	Z			2575		
2160	20	21	OVLLIT	WTM	LITAPE	Z	5	2575	U (U6 M		348
2161	20	22		WTW	LITAPE,IMAGE+1	Z	8	2580	L (U6 101 W		348
2162	20	23		NOP	0	Z	4	2588	N 000		348
2163	20	24		BER	TPERR	Z	5	2592	B 221 L		348
2164	20	25		BEF	*+1	Z	5	2597	B 002 K		348
2165	20	26		WTW	LITAPE,IMAGE+1	Z	8	2602	L (U6 101 W		348
2166	20	27		NOP	0	Z	4	2610	N 000		348
2167	20	28		BER	TPERR	Z	5	2614	B 221 L		349
2168	20	29	*						AS NOISE RECORD		
2169	20	30		RWD	LITAPE	Z	5	2619	U (U6 R		349
2170	20	31		BSP	SYSTAP	Z	5	2624	U (U1 B		349
2171	20	32		BSP	SYSTAP	Z	5	2629	U (U1 B		349
2172	20	33		BSP	SYSTAP	Z	5	2634	U (U1 B		349
2173	20	34		CW	GRPMK7	Z	4	2639	) Q27		349
2174	20	35		CS	INPUT+80	Z	4	2643	/ 080		349
2175	20	36		SW	INPUT+16,LITSW2	Z	7	2647	, 016 H90		350
2176	20	37		MRCM	INPUT+1,IMAGE+1	Z	7	2654	P 001 101		350
2177	20	38		MLC	BLANK4,IMAGE+80	Z	7	2661	M H62 180		350
2178	20	39		S	XL2+2	Z	4	2668	S 096		350
2179	20	40		S		Z	1	2672	S		350
2180	20	41		MLC	'DCW',IMAGE+16	Z	7	2673	M Q15 116		350
2181	20	42	LITGB	MCW	+INPUT+13,N2+6	Z	7	2680	M Q18 446		351
2182	20	43		RT	LITAPE,INPUT+1	Z	8	2687	M (U6 001 R		351
2183	20	44		B	NOISE	Z	4	2695	B 425		351
2184	20	45		BER	TPERR	Z	5	2699	B 221 L		351
2185	20	46		BEF	RTNLIT	Z	5	2704	B P39 K		351
2186	20	47		MCW	INPUT+4,IMAGE+70	Z	7	2709	M 004 170		351
2187	20	48		MLC	'/',IMAGE+75	Z	7	2716	M Q19 175		352
2188	20	49		B	PROLBL	Z	4	2723	B V38		352
2189	20	50		B	DCWCD	Z	4	2727	B Y11		352
2190	20	51	LITRTN	B	PUT	Z	4	2731	B 610		352
2191	20	52		B	LITGB	Z	4	2735	B 080		352
2192	20	53	RTNLIT	MCW	+IMAGE+13,N2+6	Z	7	2739	M Q22 446		352
2193	20	54		RTW	LITAPE,IMAGE+1	Z	8	2746	L (U6 101 R		352
2194	20	55		B	NOISE	Z	4	2754	B 425		353
2195	20	56		BER	TPERR	Z	5	2758	B 221 L		353
2196	20	57		RWD	LITAPE	Z	5	2763	U (U6 R		353
2197	20	58		SW	LITSW	Z	4	2768	, N46		353
2198	20	59		CW	LITSW2	Z	4	2772	) H90		353
2199	20	60		A	+10,EXNUMB	Z	7	2776	A Q24 193		353
2200	20	61		BCE	*+5,EXNUMB-1,0	Z	8	2783	B P95 192 0		353
2201	20	62		B	RECALL	Z	4	2791	B U68		354
2202	20	63		A	+96,EXOVFL	Z	7	2795	A Q26 191		354
2203	20	64		A	+96,EXOVFL	Z	7	2802	A Q26 191		354
2204	20	65		B	RECALL	Z	4	2809	B U68		354
2205	20	66		LTORG	*	Z			2813		
				DCW	'DCW'	Z	3	2815		LIT	354
2181					+INPUT+13	Z	3	2818	013	ADCON	354

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		2192			'/'	Z	1	2819		LIT	354
					+IMAGE+13	Z	3	2822	113	ADCON	355
					+10	Z	2	2824		LIT	355
					+96	Z	2	2826		LIT	355
2206	20	67	GRPMK7	DCW	' '	Z	1	2827			355
2207	20	68		EX	DOZERO	Z			8 000		356
					SYSTEM GROUP MARK						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2208	20	69		JOB	1401 AUTOCODER-PASS 4 END OF PASS OVERLAY -VERSION 3						
2209	20	70		ORG	SAVE2	Z			0706		
2210	20	71	EOJRT	RWD	LITAPE	Z	5	0706	U (U6 R		359
2211	20	72		B	PUT	Z	4	0711	B 610		359
2212	20	73		WT	OUTAP,OUTPUT+1	Z	8	0715	M (U5 118 W		359
2213	20	74		NOP	0	Z	4	0723	N 000		359
2214	20	75		BER	TPERR	Z	5	0727	B 221 L		359
2215	20	76		WTM	OUTAP	Z	5	0732	U (U5 M		359
2216	20	77		RWD	OUTAP	Z	5	0737	U (U5 R		359
2217	20	79		CS	INPUT+85	Z	4	0742	/ 085		360
2218	20	80		CW	GRPMK2,GRPMK3	Z	7	0746	) G59 H44		360
2219	20	81		CW	GRPMK4	Z	4	0753	) 185		360
2220	20	82		RTW	SYSTAP,PASSC1	Z	8	0757	L (U1 Z25 R		360
2221	20	83		NOP	0	Z	4	0765	N 000		360
2222	20	84		BER	TPERR	Z	5	0769	B 221 L		360
2223	20	85		LCA	TOTLBL,2393	Z	7	0774	L 198 L93		360
2224	20	86		LCA	PROCOR,2389	Z	7	0781	L 194 L89		361
2225	20	87		B	PASSC2	Z	4	0788	B M00		361
2226	20	88		DCW	0	Z	1	0792			361
2227	20	89		DCW	' '	Z	1	0793			361
2228	20	90		EX	0	Z			B 000		362
2229	20	91	*								
2230	20	92	* EQUATES								
2231	20	93	*								
2232	20	94	INTAP	EQU	(U4	Z		(U4			
2233	20	95	GUTAP	EQU	(U5	Z		(U5			
2234	20	96	LITAPE	EQU	(U6	Z		(U6			
2235	20	97	K4K	EQU	4000	Z		4000			
2236	20	98	W3AREA	EQU	W6AREA-3	Z		3874			
2237	20	99	W5AREA	EQU	W6AREA-1	Z		3876			
2238	21	00	BLANK	EQU	BLANK4-3	Z		3859			
2239	21	01	BLANK2	EQU	BLANK4-2	Z		3860			
2240	21	02	HOLD2	EQU	B2CNTR-3	Z		3864			
2241	21	03	HOLD3	EQU	B2CNTR-2	Z		3865			
2242	21	04	ABIT	EQU	ZONE-2	Z		0187			
2243	21	05	BBIT	EQU	ZONE-1	Z		0188			
2244	21	06	ABBIT	EQU	ZONE	Z		0189			
2245	21	07	XXXX	EQU	000	Z		0000			
2246	21	08	INPUT	EQU	000	Z		0000			
2247	21	09	OUTPUT	EQU	3917	Z		3917			
2248	21	10	PASSC1	EQU	1925	Z		1925			
2249	21	11	PASSC2	EQU	2400	Z		2400			
2250	21	12	DOZERO	EQU	000	Z		0000			
2251	21	13	FREE	EQU	INPUT	Z		0000			
2252	21	14		END	START	Z			/ N75 080		365

CLEAR STORAGE 1	,008015,019026,030,034041,045,053,0570571026	1
CLEAR STORAGE 2	L068112,102106,113/101099/199,027A070028102780010270B0261,001/00111310	2
BOOTSTRAP	,008015,022029,036040,047054,061068,072/061039,0010011040	3

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
148	1	48	* TO BOTH PASSES									
149	1	49	*									
150	1	50	*									
151	1	51		ORG	ENDOFEC+1				1925			
152	1	52	*									
153	1	53	* GET + PUT									
154	1	54	*									
155	1	55	GET	C	BLKCT,KBLKNG	7	1925	C L30	L26		4	
156	1	56		BE	WRITE	5	1932	B X67	S		4	
157	1	57	NXTREC	A	+80,BLKCT	7	1937	A L36	L30		4	
158	1	58		MCW	BLKCT,XR3	7	1944	M L30	099		4	
159	1	59	MOVEIN	MCW	INPUT,CARD+080	7	1951	M IA7	080		4	
160	1	60		CHAIN	9					MACRO		
161				MCW		1	1958	M		GEN	4	
162				MCW		1	1959	M		GEN	4	
163				MCW		1	1960	M		GEN	5	
164				MCW		1	1961	M		GEN	5	
165				MCW		1	1962	M		GEN	5	
166				MCW		1	1963	M		GEN	5	
167				MCW		1	1964	M		GEN	5	
168				MCW		1	1965	M		GEN	5	
169				MCW		1	1966	M		GEN	5	
170	1	61		S	XR3+001	4	1967	S 100			6	
171	1	62		S		1	1971	S			6	
172	1	63		S		1	1972	S			6	
173	1	64		B	ANAL	4	1973	B 114			6	
174	1	65	PUT	MCW	BLKCT,XR3	7	1977	M L30	099		6	
175	1	66		MCW	CARD+080,INPUT	7	1984	M 080	IA7		6	
176	1	67		CHAIN	9					MACRO		
177				MCW		1	1991	M		GEN	6	
178				MCW		1	1992	M		GEN	7	
179				MCW		1	1993	M		GEN	7	
180				MCW		1	1994	M		GEN	7	
181				MCW		1	1995	M		GEN	7	
182				MCW		1	1996	M		GEN	7	
183				MCW		1	1997	M		GEN	7	
184				MCW		1	1998	M		GEN	7	
185				MCW		1	1999	M		GEN	8	
186	1	68		B	GET	4	2000	B Z25			8	
187	1	69	*									
188	1	70	*TAPE REDUNDANCY ROUTINE									
189	1	71	*									
190	1	72	TPERR	SBR	XR1	4	2004	H 089			8	
191	1	73		SBR	REDXT+3	4	2008	H -76			8	
192	1	74		MZ	+9,XR1	7	2012	Y L37	089		8	
193	1	75		MCW	4000-10+X1,TPINST+7	7	2019	M IZ0	-67		8	
194	1	76		MN	TPINST+3,BSP1+3	7	2026	D -63	-43		8	
195	1	77		MCW	TPINST+7,INST2+7	7	2033	M -67	J76		9	
196	1	78	BSP1	BSP	INITAP	5	2040	U (U0	B		9	
197	1	79		BCE	WRTRED,TPINST+7,W	8	2045	B J49	-67 W		9	

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	80		MCW	+9,READCT=1	7		2053	M L37 L38		9
199	1	81	TPINST	RT	INITAP,XXXX	8		2060	M (U0 000 R		9
200	1	82		BER	RDRERR	5		2068	B -77 L		10
201	1	83	REDXT	B	XXXX	4		2073	B 000		10
202	1	84	RDRERR	MN	TPINST+3,BSP2+3	7		2077	D -63 -87		10
203	1	85	BSP2	BSP	INITAP	5		2084	U (U0 B		10
204	1	86		S	+1,READCT	7		2089	S L39 L38		10
205	1	87		BWZ	TPINST,READCT,B	8		2096	V -60 L38 B		10
206	1	88		MN	TPINST+3,TPHALT+6	7		2104	D -63 J17		11
207	1	89	TPHALT	H	XXXX,590	7		2111	. 000 590		11
208	1	90		MCW	TPINST+7,*+8	7		2118	M -67 J32		11
209	1	91		RT	INITAP,XXXX	8		2125	M (U0 000 R		11
210	1	92		BSS	BSP1,E	5		2133	B -40 E		11
211	1	93	TPHLT3	H	XXXX,511	7		2138	. 000 511		12
212	1	94		B	REDXT	4		2145	B -73		12
213	1	95	WRTRED	SKP	SYSTPE	5		2149	U (U1 E		12
214	1	96		BCE	SUBCTR,WRTCTR-1,5	8		2154	B J86 L40 5		12
215	1	97		A	+1,WRTCTR=2	7		2162	A L39 L41		12
216	1	98	INST2	WT	INITAP,XXXX	8		2169	M (U0 000 W		12
217	1	99		BER	BSP1	5		2177	B -40 L		13
218	2	00		B	REDXT	4		2182	B -73		13
219	2	01	SUBCTR	S	WRTCTR	4		2186	S L41		13
220	2	02		MN	TPINST+3,*+7	7		2190	D -63 K03		13
221	2	03	TPHLT2	H	XXXX,560	7		2197	. 000 560		13
222	2	04		B	INST2	4		2204	B J69		13
223	2	05	*								
224	2	06	* CHECK FOR SHORT RECORDS								
225	2	07	*								
226	2	08	CHKLGT	SBR	XR1	4		2208	H 089		13
227	2	09		SBR	LGTX+3	4		2212	H K46		14
228	2	10		MZ	+9,XR1	7		2216	Y L37 089		14
229	2	11	LGTC	BCE	4000-12+X1,LIMIT,	8		2223	B IY8 I31		14
230	2	12		CHAIN	12					MACRO	
231				BCE		1		2231	B	GEN	14
232				BCE		1		2232	B	GEN	14
233				BCE		1		2233	B	GEN	14
234				BCE		1		2234	B	GEN	14
235				BCE		1		2235	B	GEN	15
236				BCE		1		2236	B	GEN	15
237				BCE		1		2237	B	GEN	15
238				BCE		1		2238	B	GEN	15
239				BCE		1		2239	B	GEN	15
240				BCE		1		2240	B	GEN	15
241				BCE		1		2241	B	GEN	15
242				BCE		1		2242	B	GEN	16
243	2	13	LGTX	B	XXXX	4		2243	B 000		16
244	2	14	*								
245	2	15	* CROSSOVER, C TO D								
246	2	16	*								
247	2	17	RDPSSD	RTW	SYSTPE,1	8		2247	L (U1 001 R		16

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



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
293	2	63		CS	3999	4		2415	/ I99		21
294	2	64		SW	GRPMRK	4		2419	, Q66		21
295	2	65		LCA	'00',PROCSW	7		2423	L Q68 L95		21
296	2	66		LCA	+0150,SERCHS	7		2430	L Q72 L99		21
297	2	67		LCA	'0015',FACTOR	7		2437	L Q76 L88		22
298	2	68		RTW	SYSTPE,1	8		2444	L (U1 001 R		22
299	2	69		NOP	XXXX	4		2452	N 000		22
300	2	70		BER	TPERR	5		2456	B -04 L		22
301	2	71		CW	ENDINT	4		2461	) R01		22
302	2	72	*								
303	2	73	* SET I/O GROUP MARK								
304	2	74	*								
305	2	75		MCW	MACHSZ,KEEP1=001	7		2465	M L89 Q77		22
306	2	76		A	+3,KEEP1	7		2472	A Q78 Q77		23
307	2	77		MN	KEEP1,**+004	7		2479	D Q77 M89		23
308	2	78		MZ	ZONE2,**+007	7		2486	Y 109 M99		23
309	2	79	SETIO	LCA	GRPMRK,GPMRK3	7		2493	L Q66 I98		23
310	2	80		BWZ	SETBMP,SETIO+006,2	8		2500	V P18 M99 2		23
311	2	81		CS	4799	4		2508	/ 79Z		24
312	2	82		CS	4399	4		2512	/ 39Z		24
313	2	83		MCW	'=',BUMP	7		2516	M Q79 W81		24
314	2	84		BCE	SET8K,MACHSZ,4	8		2523	B 020 L89 4		24
315	2	85	*								
316	2	86	* 12K CONSTANTS								
317	2	87	*								
318	2	88		MCW	BLKG12,KBLKNG	7		2531	M Q52 L26		24
319	2	89		MCW	TBSZ12,TABLSZ	7		2538	M Q56 L18		24
320	2	90		MCW	TBLM12,TABMAX	7		2545	M Q59 L11		25
321	2	91		MCW	TPAD12,TPAD	7		2552	M Q62 L34		25
322	2	92		MCW	MDTP12,MDTP=003	7		2559	M Q65 Q82		25
323	2	93		A	+72,FACTOR	7		2566	A Q84 L88		25
324	2	94		BCE	SETTP,MACHSZ,5	8		2573	B 062 L89 5		25
325	2	95	*								
326	2	96	* 16K CONSTANTS								
327	2	97	*								
328	2	98		A	+400,TABLSZ	7		2581	A Q87 L18		26
329	2	99		A	+40,FACTOR	7		2588	A Q89 L88		26
330	3	00		MZ	ABBIT,TABMAX	7		2595	Y 113 L11		26
331	3	01		MZ	ABBIT,TPAD	7		2602	Y 113 L34		26
332	3	02		MZ	ABBIT,MDTP	7		2609	Y 113 Q82		26
333	3	03		B	SETTP	4		2616	B 062		26
334	3	04	*								
335	3	05	* 8K CONSTANTS								
336	3	06	*								
337	3	07	SET8K	MCW	BLKG8K,KBLKNG	7		2620	M Q36 L26		27
338	3	08		MCW	TBSZ8K,TABLSZ	7		2627	M Q40 L18		27
339	3	09		MCW	TBLM8K,TABMAX	7		2634	M Q43 L11		27
340	3	10		MCW	TPAD8K,TPAD	7		2641	M Q46 L34		27
341	3	11		MCW	MDTP8K,MDTP	7		2648	M Q49 Q82		27
342	3	12		A	+36,FACTOR	7		2655	A Q91 L88		28

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
343	3	13	SETTP	MZ	TPAD,CLRMAX	7		2662	Y L34 K99		28
344	3	14		MCW	MDTP,MOVEIN+003	7		2669	M Q82 Z54		28
345	3	15		MCW	MDTP,PUT+013	7		2676	M Q82 Z90		28
346	3	16		MCW	TPAD,WRITE+006	7		2683	M L34 X73		28
347	3	17		MCW	TPAD,READ+010	7		2690	M L34 X98		29
348	3	18		MCW	TPAD,LIMAD=3	7		2697	M L34 Q94		29
349	3	19		MA	+13,LIMAD	7		2704	= Q96 Q94		29
350	3	20		MCW	LIMAD,LGTCK+6	7		2711	M Q94 K29		29
351	3	21	SETBMP	MCW	BUMP,BUMPOP	7		2718	M W81 L27		29
352	3	22		LCA	GRPMRK,ENDOFC	7		2725	L Q66 Z24		30
353	3	23	*								
354	3	24	* WRITE PASS	C	CHECKPOINT ON 6						
355	3	25	*								
356	3	26		CS	80	4		2732	/ 080		30
357	3	27		SW	CARD+001,CARD+006	7		2736	, 001 006		30
358	3	28		SW	CARD+017,CARD+024	7		2743	, 017 024		30
359	3	29		SW	CARD+028,CARD+035	7		2750	, 028 035		30
360	3	30		SW	CARD+057,CARD+062	7		2757	, 057 062		30
361	3	31		SW	CARD+068,CARD+071	7		2764	, 068 071		31
362	3	32		WTW	COUTPT,1	8		2771	L (U6 001 W		31
363	3	33		NOP	XXXX	4		2779	N 000		31
364	3	34		BER	TPERR	5		2783	B -04 L		31
365	3	35		CW	ENDOFC,GRPMRK	7		2788	) Z24 Q66		31
366	3	36		C	TOTLAB,TABLSZ	7		2795	C L93 L18		31
367	3	37		MCW	TABLSZ,SERCHS	7		2802	M L18 L99		32
368	3	38		S	TOTLAB	4		2809	S L93		32
369	3	39		BE	CLRTAB	5		2813	B Y13 S		32
370	3	40		BH	CLRTAB	5		2818	B Y13 U		32
371	3	41		MCW	+0009,SERCHS	7		2823	M R00 L99		32
372	3	42		B	CLRTAB	4		2830	B Y13		32
373	3	43	BLKG8K	DCW	'400'	3		2836			32
374	3	44	TBSZ8K	DCW	+0510	4		2840			33
375	3	45	TBLM8K	DSA	5100	3		2843	/0#		33
376	3	46	TPAD8K	DSA	7598	3		2846	E9Y		33
377	3	47	MDTP8K	DSA	7597+X3	3		2849	EIX		33
378	3	48	BLKG12	DCW	'800'	3		2852			33
379	3	49	TBSZ12	DCW	+0870	4		2856			33
380	3	50	TBLM12	DSA	8700	3		2859	70-		33
381	3	51	TPAD12	DSA	11198	3		2862	A9Q		34
382	3	52	MDTP12	DSA	11197+X3	3		2865	AIP		34
383	3	53	GRPMRK	DC	' '	1		2866			34
384	3	54		LTORG	*				2867		
				DCW	'00'	2		2868		LIT	34
					+0150	4		2872		LIT	34
					'0015'	4		2876		LIT	34
	305	KEEP1			=01	1		2877		AREA	34
					+3	1		2878		LIT	34
					'='	1		2879		LIT	35
	322	MDTP			=03	3		2882		AREA	35
					+72	2		2884		LIT	35

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

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
387	3	57		JOB	1401 AUTOCODER-PASS 5 MAIN LINE						
388	3	58	*								
389	3	59	*	PASS	C-LOAD SYMBOL TABLE + SET ADDRESSES						
390	3	60	*								
391	3	61	ZONE	EQU	113			0113			
392	3	62	113	DCW	'2SKB'	4		0113			40
393	3	63	ZONE2	EQU	109			0109			
394	3	64	109	DCW	'2SKB'	4		0109			41
395	3	65	ABBIT	EQU	ZONE			0113			
396	3	66	BBIT	EQU	ZONE-001			0112			
397	3	67	ABIT	EQU	ZONE-002			0111			
398	3	68	NOBIT	EQU	ZONE-003			0110			
399	3	69	XR1	EQU	89			0089			
400	3	70	89	DCW	'000'	3		0089			42
401	3	71	XR2	EQU	94			0094			
402	3	72	94	DCW	'000'	3		0094			43
403	3	73	XR3	EQU	99			0099			
404	3	74	99	DCW	'000'	3		0099			44
405	3	75		ORG	ZONE+001				0114		
406	3	76	*								
407	3	77	*	DETERMINE	RECORD TYPE						
408	3	78	*								
409	3	79	ANAL	BM	PUT,CARD+005	8		0114	V Z77 005 K		45
410	3	80		BCE	PUT,TYPE,I	8		0122	B Z77 075 I		45
411	3	81		BCE	INSTR,TYPE,	8		0130	B 219 075		45
412	3	82		MN	TYPE,XR2	7		0138	D 075 094		45
413	3	83		BCE	DA,XR2,0	8		0145	B 871 094 0		45
414	3	84		MCW	'0',INDFTR	7		0153	M Y92 Y69		46
415	3	85		MCW	'0',DASW	7		0160	M Y92 Y68		46
416	3	86		A	XR2	4		0167	A 094		46
417	3	87		A	XR2	4		0171	A 094		46
418	3	88		B	**001+X2	4		0175	B 1P9		46
419	3	89		NOP	XXXX	4		0179	N 000		46
420	3	90		B	CONST	4		0183	B 260		46
421	3	91		B	CONST	4		0187	B 260		47
422	3	92		B	EXEND	4		0191	B 973		47
423	3	93		B	SFX	4		0195	B 992		47
424	3	94		B	PUT	4		0199	B Z77		47
425	3	95		B	ORG	4		0203	B 376		47
426	3	96		B	DS	4		0207	B 295		47
427	3	97		B	PUT	4		0211	B Z77		47
428	3	98		B	PUT	4		0215	B Z77		48
429	3	99	*								
430	4	00	*	PROCESS	INSTRUCTIONS						
431	4	01	*								
432	4	02	INSTR	MCW	'0',INDFTR	7		0219	M Y92 Y69		48
433	4	03		B	PRCADD	4		0226	B #03		48
434	4	04		B	PROCLB	4		0230	B /09		48
435	4	05		BWZ	PUT,STADDR,2	8		0234	V Z77 003 2		48
436	4	06		A	COUNT,NOWCTR	7		0242	A 007 Y48		48

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
437	4	07		S	'1',NOWCTR	7		0249	S Y93 Y48		49
438	4	08		B	PUT	4		0256	B Z77		49
439	4	09	*								
440	4	10	*		PROCESS CONSTANTS + DSA						
441	4	11	*								
442	4	12	CONST	BCE	PRCAST,AOPHO,*	8		0260	B 283 017 *		49
443	4	13		MCW	'1',ACTSW	7		0268	M Y93 Y67		49
444	4	14		B	PROCLB	4		0275	B /09		49
445	4	15		B	PUT	4		0279	B Z77		49
446	4	16	*								
447	4	17	*		CONSTANTS WITH ASTERISK ADDRESS						
448	4	18	*								
449	4	19	PRCAST	B	PRCADD	4		0283	B #03		49
450	4	20		B	PROCLB	4		0287	B /09		50
451	4	21		B	PUT	4		0291	B Z77		50
452	4	22	*								
453	4	23	*		PROCESS DS + EQUATES						
454	4	24	*								
455	4	25	DS	BCE	PROCTU,AOPHO,(	8		0295	B 361 017 (		50
456	4	26		A	AINDEX,INDFTR	7		0303	A 027 Y69		50
457	4	27		BCE	CONST,AOPHO,*	8		0310	B 260 017 *		50
458	4	28		BWZ	CONST,AOPHO,2	8		0318	V 260 017 2		50
459	4	29		BWZ	*+005,STACP,2	8		0326	V 338 001 2		51
460	4	30		B	CONST	4		0334	B 260		51
461	4	31	*								
462	4	32	*		EQUATE						
463	4	33	*								
464	4	34		B	SETAOP	4		0338	B U35		51
465	4	35		MCW	DSAPUT,LABRTN+003	7		0342	M Y72 S97		51
466	4	36		BWZ	UNPROC,STAOP,2	8		0349	V /81 001 2		51
467	4	37		B	CONST	4		0357	B 260		51
468	4	38	*								
469	4	39	*		DS OF INPUT DEVICE						
470	4	40	*								
471	4	41	PROCTU	MCW	AOPER-003,LABADD-001	7		0361	M 019 060		52
472	4	42		MCW	'0'	4		0368	M Y92		52
473	4	43		B	CONST	4		0372	B 260		52
474	4	44	*								
475	4	45	*		PROCESS ORIGIN + LITERAL ORIGIN						
476	4	46	*								
477	4	47	ORG	BWZ	SETHGH,CARD+033,B	8		0376	V 405 033 B		52
478	4	48		ZA	LABADD,ORGADD	7		0384	+ 061 032		52
479	4	49		A	'1',ORGADD	7		0391	A Y93 032		52
480	4	50		MZ	ABBIT,CARD+033	7		0398	Y 113 033		53
481	4	51	SETHGH	BCE	ORGSAY,MAXSW,1	8		0405	B 432 Y60 1		53
482	4	52		C	NOWCTR,HGHCTR	7		0413	C Y48 Y58		53
483	4	53		BH	ORGSAY	5		0420	B 432 U		53
484	4	54		ZA	NOWCTR,HGHCTR	7		0425	+ Y48 Y58		53
485	4	55	*								
486	4	56	*		PROCESS SAVE COUNTER OF ORIGIN						

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

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
537	5	07		S	'1',NOWCTR	7		0690	S Y93 Y48		61
538	5	08		MZ	ABBIT,STAOP	7		0697	Y 113 001		61
539	5	09		B	PUT	4		0704	B Z77		61
540	5	10	*								
541	5	11	* ORIGIN		ASTERISK						
542	5	12	*								
543	5	13	ASTRSK	BCE	PUT,ADDRSW,1	8		0708	B Z77 Y59 1		62
544	5	14		BCE	SETSW, LITRSW,1	8		0716	B 598 Y61 1		62
545	5	15		MCW	NOWCTR,ORGCTR	7		0724	M Y48 Y53		62
546	5	16		B	RSTSWA	4		0731	B 616		62
547	5	17	*								
548	5	18	* ORIGIN		MAXIMUM						
549	5	19	*								
550	5	20	BLKAOP	BCE	SETSW,MAXSW,1	8		0735	B 598 Y60 1		62
551	5	21		MCW	HGHCTR,ORGCTR	7		0743	M Y58 Y53		63
552	5	22		A	'1',ORGCTR	7		0750	A Y93 Y53		63
553	5	23		B	RSTSWA	4		0757	B 616		63
554	5	24	*								
555	5	25	* ORIGIN		ACTUAL OR PROCESSED						
556	5	26	*								
557	5	27	ACTUAL	ZA	ORGADD,NOWCTR	7		0761	+ 032 Y48		63
558	5	28		S	'1',NOWCTR	7		0768	S Y93 Y48		63
559	5	29		BCE	TSTXOO,AOPHO,*	8		0775	B 821 017 *		64
560	5	30		MCW	'0',LITRSW	7		0783	M Y92 Y61		64
561	5	31		BWZ	SCNTB,AOPHO,2	8		0790	V 806 017 2		64
562	5	32		BWZ	SETORG,STAOP,K	8		0798	V 609 001 K		64
563	5	33	SCNTB	MCW	'0',ADDRSW	7		0806	M Y92 Y59		64
564	5	34		S	ORGCTR	4		0813	S Y53		65
565	5	35		B	PUT	4		0817	B Z77		65
566	5	36	TSTXOO	BCE	PUT,AQPADJ-002,X	8		0821	B Z77 024 X		65
567	5	37		BWZ	PUT,CARD+034,B	8		0829	V Z77 034 B		65
568	5	38		A	ORGCTR,ORGADD	7		0837	A Y53 032		65
569	5	39		BCE	PUT,ADDRSW,1	8		0844	B Z77 Y59 1		65
570	5	40		BCE	PUT,LITRSW,1	8		0852	B Z77 Y61 1		66
571	5	41		MZ	ABBIT,CARD+034	7		0860	Y 113 034		66
572	5	42		B	ACTUAL	4		0867	B 761		66
573	5	43	*								
574	5	44	* PROCESS	DA	STATEMENTS						
575	5	45	*								
576	5	46	DA	BCE	ORIGDA,TYPE,0	8		0871	B 926 075 0		66
577	5	47		BCE	TSTRPT,ACTSW,1	8		0879	B 910 Y67 1		66
578	5	48	BTOADD	C	LABADD,SUPADD	7		0887	C 061 066		67
579	5	49		BL	*+8	5		0894	B 906 T		67
580	5	50		MCW	'005',XR3	7		0899	M Y96 099		67
581	5	51		B	PRCADD	4		0906	B #03		67
582	5	52	TSTRPT	BCE	PUT,TYPE,#	8		0910	B Z77 075 #		67
583	5	53		B	PROCLB	4		0918	B /09		67
584	5	54		B	PUT	4		0922	B Z77		67
585	5	55	*								
586	5	56	* DA		HEADER						

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



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
637	6	07		BCE	DBLDEF,DBLSW,1	8		1165	B S98 Y64	1	74
638	6	08		BCE	STORE,SPCSW,0	8		1173	B S69 Y63	0	75
639	6	09	*								
640	6	10	*		UNPROCESSED LABEL						
641	6	11	*								
642	6	12	UNPROC	MCW	'1',UNPRSW	7		1181	M Y93 L94		75
643	6	13		A	'1',TOTLAB	7		1188	A Y93 L93		75
644	6	14		BCE	SETSWL,TYPE,/	8		1195	B S50 075	/	75
645	6	15		B	LABRTN	4		1203	B S94		75
646	6	16	*								
647	6	17	*		SEARCH TABLE FOR DBL DEF LITERAL						
648	6	18	*								
649	6	19	TSTDBL	BCE	UNPROC,LBLHC,\$	8		1207	B /81 008	\$	76
650	6	20		B	DOLABL	4		1215	B T58		76
651	6	21		B	SEARCH	4		1219	B W29		76
652	6	22		BCE	UNPROC,DBLSW,0	8		1223	B /81 Y64	0	76
653	6	23		BCE	UNPROC,ADDHC,	8		1231	B /81 M-0		76
654	6	24		MZ	BBIT,STLABL	7		1239	Y 112 002		76
655	6	25		B	LABRTN	4		1246	B S94		77
656	6	26	*								
657	6	27	*		UNPROCESSED LABEL OF LITERAL						
658	6	28	*								
659	6	29	SETSWL	BCE	LABRTN,LBLHC,\$	8		1250	B S94 008	\$	77
660	6	30		MCW	'11',LITRSW	7		1258	M Z01 Y61		77
661	6	31		B	LABRTN	4		1265	B S94		77
662	6	32	*								
663	6	33	*		STORE LABEL IN TABLE						
664	6	34	*								
665	6	35	STORE	LCA	FNCTN,SYMBOL	7		1269	L L08 M-9		77
666	6	36		LCA	HOLDAD	4		1276	L Z12		77
667	6	37	MRKPRC	MZ	ABBIT,STLABL	7		1280	Y 113 002		78
668	6	38		MCW	'1',PROCSW	7		1287	M Y93 L95		78
669	6	39	LABRTN	B	XXXX	4		1294	B 000		78
670	6	40	*								
671	6	41	*		DOUBLY DEFINED LABEL						
672	6	42	*								
673	6	43	DBLDEF	BCE	STORE,ADDHO,	8		1298	B S69 M-0		78
674	6	44		MZ	BBIT,STLABL	7		1306	Y 112 002		78
675	6	45		BCE	LITRAL,TYPE,/	8		1313	B T25 075	/	79
676	6	46		B	LABRTN	4		1321	B S94		79
677	6	47	*								
678	6	48	*		DOUBLY DEFINED LITERAL						
679	6	49	*								
680	6	50	LITRAL	BWZ	LABRTN,STBOP,B	8		1325	V S94 004	B	79
681	6	51		MCW	'(',TYPE	7		1333	M Z05 075		79
682	6	52		S	COUNT,ORGCTR	7		1340	S 007 Y53		79
683	6	53		S	COUNT,NOWCTR	7		1347	S 007 Y48		80
684	6	54		B	LABRTN	4		1354	B S94		80
685	6	55	*								
686	6	56	*		SET UP LABEL + ADDRESS						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
687	6	57	* FOR TABLE SEARCH								
688	6	58	*								
689	6	59	DOLABL	SBR	DOLABR+003	4		1358	H U34		80
690	6	60		MCW	LABEL, FNCTN	7		1362	M 013 L08		80
691	6	61		MCW	CNVLAB, ARGUMT=003	7		1369	M 056 Z08		80
692	6	62	SETFUN	BCE	**005, FNCTN,	8		1376	B T88 L08		80
693	6	63		B	**008	4		1384	B T95		81
694	6	64		MCW	SFXCTR, FNCTN	7		1388	M L23 L08		81
695	6	65		MCW	LABADD+X1, HCLDAD=004	7		1395	M 0W1 Z12		81
696	6	66		BCE	DOINDX, HOADD+X1, 0	8		1402	B U17 OV7 0		81
697	6	67		MZ	ABIT, HOLDAD-003	7		1410	Y 111 Z09		81
698	6	68	DOINDX	MN	INDFTR, **004	7		1417	D Y69 U27		82
699	6	69		MZ	ZONE, HOLDAD-001	7		1424	Y 113 Z11		82
700	6	70	DOLABR	B	XXXX	4		1431	B 000		82
701	6	71	*								
702	6	72	* PROCESS A OPERAND OF ORIGIN + EQUATE								
703	6	73	*								
704	6	74	SETAOP	SBR	AOPRTN+003	4		1435	H U87		82
705	6	75		MCW	+BRSRH, DOLABR+003	7		1439	M Z15 U34		82
706	6	76		MCW	AOPER, FNCTN	7		1446	M 022 L08		82
707	6	77		MCW	AOP, ARGUMT	7		1453	M 070 Z08		83
708	6	78		B	SETFUN	4		1460	B T76		83
709	6	79	BRSRH	B	SEARCH	4		1464	B W29		83
710	6	80		BCE	ADDBNK, DBLSW, 1	8		1468	B V03 Y64 1		83
711	6	81		BCE	STRBNK, SPCSW, 0	8		1476	B U88 Y63 0		83
712	6	82	AOPRTN	B	XXXX	4		1484	B 000		83
713	6	83	*								
714	6	84	* LABEL NOT IN TABLE, STORE								
715	6	85	* WITH BLANK ADDRESS								
716	6	86	*								
717	6	87	STRBNK	LCA	FNCTN, SYMBOL	7		1488	L L08 M-9		84
718	6	88		LCA	' '	4		1495	L Z19		84
719	6	89		B	AOPRTN	4		1499	B U84		84
720	6	90	*								
721	6	91	* RETRIEVE VALUE FROM TABLE								
722	6	92	*								
723	6	93	ADDBNK	BCE	AOPRTN, ADDHC,	8		1503	B U84 M-0		84
724	6	94		MCW	'1', ORGSW	7		1511	M Y93 Y66		84
725	6	95		BWZ	**5, LBLREF, 2	8		1518	V V30 M-1 2		84
726	6	96		B	**8	4		1526	B V37		85
727	6	97		MZ	ABIT, LBLREF	7		1530	Y 111 M-1		85
728	6	98		MCW	ADDLO, LABADD	7		1537	M M-3 061		85
729	6	99		BCE	AOPROC, LABADD-3, (	8		1544	B W18 058 (		85
730	7	00		BWZ	**008, LABADD-003, 2	8		1552	V V67 058 2		85
731	7	01		MCW	'1', HOADD	7		1560	M Y93 057		86
732	7	02		BCE	AOPRTN, TYPE, 0	8		1567	B U84 075 0		86
733	7	03	*								
734	7	04	* ADD CHARACTER ADJUSTMENT FOR EQUATE								
735	7	05	*								
736	7	06		MZ	LABADD-001, SAVEZN=001	7		1575	Y 060 Z20		86

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
737	7	07		A	AOPADJ,LABADD	7		1582	A 026 061		86
738	7	08		MZ	SAVEZN,LABADD-001	7		1589	Y Z20 060		86
739	7	09		BCE	AOPROC,AINDEX,	8		1596	B W18 027		87
740	7	10		MN	INDFTR,#+004	7		1604	D Y69 W14		87
741	7	11		MZ	ZONE,LABADD-001	7		1611	Y 113 060		87
742	7	12	AOPROC	MZ	ABBIT,STACP	7		1618	Y 113 001		87
743	7	13		B	AOPRTN	4		1625	B U84		87
744	7	14	*								
745	7	15	* TABLE SEARCH								
746	7	16	*								
747	7	17	SEARCH	SBR	RETURN+003	4		1629	H X66		87
748	7	18		MCW	DBLSW+001,DBLSW	7		1633	M Y65 Y64		88
749	7	19		MCW	TABMAX,MAXADD	7		1640	M L11 L14		88
750	7	20		MCW	ARGUMT,XR2	7		1647	M Z08 094		88
751	7	21		MCW	SERCHS,MAXSER	7		1654	M L99 L22		88
752	7	22	TBLSRH	C	FNCTN,SYMBOL	7		1661	C L08 M-9		88
753	7	23		BE	SETDBL	5		1668	B X45 S		89
754	7	24		BCE	RETURN,SYMHC,	8		1673	B X63 M-4		89
755	7	25	BUMP	A	'010',XR2	7		1681	A Z23 094		89
756	7	26		S	'1',MAXSER	7		1688	S Y93 L22		89
757	7	27		BM	SETSPC,MAXSER	8		1695	V X56 L22 K		89
758	7	28		C	XR2,MAXADD	7		1703	C 094 L14		90
759	7	29		BU	TBLSRH	5		1710	B W61 /		90
760	7	30		BCE	SETSPC,WRAPSW,1	8		1715	B X56 Y62 1		90
761	7	31		MCW	'1',WRAPSW	7		1723	M Y93 Y62		90
762	7	32		MCW	ARGUMT,MAXADD	7		1730	M Z08 L14		90
763	7	33		S	XR2+001	4		1737	S 095		90
764	7	34		B	TBLSRH	4		1741	B W61		91
765	7	35	*								
766	7	36	* LABEL IN TABLE								
767	7	37	*								
768	7	38	SETDBL	MCW	'1',DBLSW	7		1745	M Y93 Y64		91
769	7	39		B	RETURN	4		1752	B X63		91
770	7	40	*								
771	7	41	* SPACE AVAILABLE								
772	7	42	*								
773	7	43	SETSPC	MCW	'1',SPCSW	7		1756	M Y93 Y63		91
774	7	44	RETURN	B	XXXX	4		1763	B 000		91
775	7	45	*								
776	7	46	* INPUT/OUTPUT - PASS C								
777	7	47	*								
778	7	48	WRITE	WT	COUTPT,TPAREA	8		1767	M (U6 I18 W		91
779	7	49		NOP	XXXX	4		1775	N 000		91
780	7	50		BER	TPERR	5		1779	B -04 L		92
781	7	51	BRANCH	NOP	FINAL	4		1784	N Y73		92
782	7	52	READ	S	HOLDA	4		1788	S L31		92
783	7	53		RT	CINPUT,TPAREA	8		1792	M (U5 I18 R		92
784	7	54		B	CHKLGT	4		1800	B K08		92
785	7	55		BER	TPERR	5		1804	B -04 L		92
786	7	56		B	NXTREC	4		1809	B Z37		92

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
787	7	57	*								
788	7	58	* CLEAR TABLE AREA								
789	7	59	*								
790	7	60	CLRTAB	MCW	CLRMAX,CLEAR+003	7		1813	M K99 Y23		93
791	7	61	CLEAR	CS	XXXX	4		1820	/ 000		93
792	7	62		SBR	CLEAR+003	4		1824	H Y23		93
793	7	63		C	CLEAR+003,CLRMIN	7		1828	C Y23 L02		93
794	7	64		BU	CLEAR	5		1835	B Y20 /		93
795	7	65		B	READ	4		1840	B X88		93
796	7	66	NOWCTR	DCW	+00000	5		1848			93
797	7	67	ORGCTR	DCW	+00000	5		1853			94
798	7	68	HGHCTR	DCW	+00000	5		1858			94
799	7	69	ADDRSW	DCW	'0'	1		1859			94
800	7	70	MAXSW	DC	'0'	1		1860			94
801	7	71	LITRSW	DC	'0'	1		1861			94
802	7	72	WRAPSW	DCW	'0'	1		1862			94
803	7	73	SPCSW	DC	'0'	1		1863			94
804	7	74	DBLSW	DC	'0'	1		1864			94
805	7	75		DC	'0'	1		1865			94
806	7	76	ORGSW	DCW	'0'	1		1866			94
807	7	77	ACTSW	DCW	'0'	1		1867			94
808	7	78	DASW	DCW	'0'	1		1868			94
809	7	79	INDFTR	DCW	'0'	1		1869			95
810	7	80	DSAPUT	DSA	PUT	3		1872	Z77		95
811	7	81	*								
812	7	82	* END OF PASS C, GET PASS D								
813	7	83	*								
814	7	84	FINAL	WTM	COUPT	5		1873	U (U6 M		95
815	7	85		RWD	CINPUT	5		1878	U (U5 R		95
816	7	86		RWD	COUPT	5		1883	U (U6 R		95
817	7	87		B	RDPSSD	4		1888	B K47		95
818	7	88		LTORG	*				1892		
				DCW	'0'	1		1892		LIT	95
					'1'	1		1893		LIT	96
					'005'	3		1896		LIT	96
	490				+ADPOR	3		1899	536	ADCON	96
					'11'	2		1901		LIT	96
					+00	2		1903		LIT	96
					'8'	1		1904		LIT	96
					'('	1		1905		LIT	96
	691		ARGUMT		=03	3		1908		AREA	97
	695		HCLCAD		=04	4		1912		AREA	97
	705				+BRSRH	3		1915	U64	ADCON	97
					' '	4		1919		LIT	97
	736		SAVEZN		=01	1		1920		AREA	97
					'010'	3		1923		LIT	97
819	7	89	ENDOFC	DCW	' '	1		1924			97
820	7	90		XFR	LIBRN				B 000		98

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
821	7	91		JOB	1401 AUTOCODER-PASS 6-PROCESS OPERANDS						
822	7	92	*								
823	7	93	91	DCW	'00000'	5		0091			101
824	7	94	96	DCW	'00000'	5		0096			101
825	7	95	101	DCW	'00000'	5		0101			101
826	7	96	109	DCW	'2SKB'	4		0109			102
827	7	97	113	DCW	'2SKB'	4		0113			102
828	7	98		ORG	ZONE+001				0114		
829	7	99	*								
830	8	00	*	DETERMINE	RECORD TYPE						
831	8	01	*								
832	8	02		MCW	'0',ASTRSW	7		0114	M U32 U18		102
833	8	03		BM	PUT,CARD+005	8		0121	V Z77 005 K		102
834	8	04		BCE	PUT,TYPE,I	8		0129	B Z77 075 I		102
835	8	05		MN	TYPE,TYPEA=001	7		0137	D 075 U33		102
836	8	06		BCE	PRINST,TYPEA,	8		0144	B 196 U33		103
837	8	07		BCE	PRDSA,TYPEA,2	8		0152	B 318 U33 2		103
838	8	08		BCE	PROEND,TYPEA,3	8		0160	B 446 U33 3		103
839	8	09		BCE	PROSFX,TYPEA,4	8		0168	B 579 U33 4		103
840	8	10		BCE	ORGEQU,TYPEA,6	8		0176	B 489 U33 6		104
841	8	11		BCE	ORGEQU,TYPEA,7	8		0184	B 489 U33 7		104
842	8	12		B	PUT	4		0192	B Z77		104
843	8	13	*								
844	8	14	*	PROCESS	INSTRUCTIONS						
845	8	15	*								
846	8	16		PRINST BWZ	SETAST,STADDR,2	8		0196	V 208 003 2		104
847	8	17		B	LOADDR	4		0204	B 215		104
848	8	18		SETAST MCW	'1',ASTRSW	7		0208	M U34 U18		104
849	8	19	*								
850	8	20	*	SET	ASTERISK ADDRESS						
851	8	21	*								
852	8	22		LOADDR ZA	LABADD,ASTADD=005	7		0215	+ 061 U39		105
853	8	23		A	COUNT,ASTADD	7		0222	A 007 U39		105
854	8	24		S	'1',ASTADD	7		0229	S U34 U39		105
855	8	25	*								
856	8	26	*	TEST	FOR A OPERAND						
857	8	27	*								
858	8	28		BCE	PUT,COUNT,1	8		0236	B Z77 007 1		105
859	8	29		BCE	PUT,COUNT,2	8		0244	B Z77 007 2		105
860	8	30		BWZ	*+005,STACP,2	8		0252	V 264 001 2		106
861	8	31		B	SEEBOP	4		0260	B 268		106
862	8	32		B	PROCOP	4		0264	B 578		106
863	8	33	*								
864	8	34	*	TEST	FOR B OPERAND						
865	8	35	*								
866	8	36		SEEBOP BCE	PUT,COUNT,4	8		0268	B Z77 007 4		106
867	8	37		BCE	PUT,COUNT,5	8		0276	B Z77 007 5		106
868	8	38		BWZ	*+005,STBCP,2	8		0284	V 296 004 2		107
869	8	39		B	PUT	4		0292	B Z77		107
870	8	40		MCW	'003',XR3	7		0296	M U42 099		107

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
871	8	41		MCW	'011',XR1	7		0303	M U45 089		107
872	8	42		B	PROCOP	4		0310	B 578		107
873	8	43		B	PUT	4		0314	B 277		107
874	8	44	*								
875	8	45	* PROCESS DSA AND ADCON								
876	8	46	*								
877	8	47	PRDSA	BWZ	*+005,STADDR,2	8		0318	V 330 003 2		108
878	8	48		B	TSTPRC	4		0326	B 434		108
879	8	49		MCW	'1',ASTRSK	7		0330	M U34 U18		108
880	8	50	SETDSA	ZA	LABADD,ASTADD	7		0337	+ 061 U39		108
881	8	51		MCW	'003',XR3	7		0344	M U42 099		108
882	8	52		MCW	'011',XR1	7		0351	M U45 089		109
883	8	53		BWZ	*+005,STBCP,2	8		0358	V 370 004 2		109
884	8	54		B	PUT	4		0366	B 277		109
885	8	55		B	PROCOP	4		0370	B 578		109
886	8	56		BWZ	PUT,STBOP,2	8		0374	V 277 004 2		109
887	8	57		BCE	CMP16K,AINDEX,-	8		0382	B 409 027 -		109
888	8	58	COMPRS	MCW	+PUT,OPRTN+3	7		0390	M U48 /78		110
889	8	59		BCE	PUT,AOP+1,(	8		0397	B 277 071 (		110
890	8	60		B	CNVT03	4		0405	B #94		110
891	8	61	*								
892	8	62	* GET 16000 COMPLEMENT								
893	8	63	*								
894	8	64	CMP16K	MCW	+16000, FNCTN-001	7		0409	M U53 L07		110
895	8	65		S	HOLDAR, FNCTN-001	7		0416	S U58 L07		110
896	8	66		ZA	FNCTN-001, HOLDAR=005	7		0423	+ L07 U58		111
897	8	67		B	COMPRS	4		0430	B 390		111
898	8	68	TSTPRC	BWZ	SETDSA,STBOP,2	8		0434	V 337 004 2		111
899	8	69		B	PUT	4		0442	B 277		111
900	8	70	*								
901	8	71	* PROCESS EX + END								
902	8	72	*								
903	8	73	PROEND	S	ASTADD	4		0446	S U39		111
904	8	74		BWZ	*+005,STAOP,2	8		0450	V 462 001 2		111
905	8	75		B	*+005	4		0458	B 466		111
906	8	76		B	PROCOP	4		0462	B 578		112
907	8	77		BCE	ENDOPN,TYPE,3	8		0466	B 478 075 3		112
908	8	78		B	PUT	4		0474	B 277		112
909	8	79	ENDOPN	MCW	'B',BRNCH2	7		0478	M U59 X84		112
910	8	80		B	PUT	4		0485	B 277		112
911	8	81	*								
912	8	82	* PROCESS ORIGIN + EQUATE								
913	8	83	*								
914	8	84	ORGEQU	BWZ	*+005,STACP,2	8		0489	V 501 001 2		112
915	8	85		B	ORGOUT	4		0497	B 574		112
916	8	86		BCE	ORGOUT,AOPHC,	8		0501	B 574 017		113
917	8	87		BWZ	ORGOUT,AOPHC,2	8		0509	V 574 017 2		113
918	8	88		BCE	ORGOUT,AOPHC,*	8		0517	B 574 017 *		113
919	8	89		BCE	ORGOUT,AOPHC,(	8		0525	B 574 017 (		113
920	8	90		B	PROCOP	4		0533	B 578		113

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
921	8	91		BWZ	ORGOUT,STAOP,2		8	0537	V 574 001 2		114
922	8	92		MCW	'0',ITERSW		7	0545	M U32 U28		114
923	8	93		BCE	*+008,TYPEA,7		8	0552	B 567 U33 7		114
924	8	94		MZ	BBIT,STAOP		7	0560	Y 112 001		114
925	8	95		MCW	HOLDAR,LABADD		7	0567	M U58 061		114
926	8	96	ORGOUT	B	PUT		4	0574	B Z77		115
927	8	97	*								
928	8	98	*		PROCESS OPERAND SUB-ROUTINE						
929	8	99	*								
930	9	00	PROCOP	SBR	OPRTN+003		4	0578	H /78		115
931	9	01		BWZ	*+005,STACP+X3,2		8	0582	V 594 0+1 2		115
932	9	02		B	OPRTN		4	0590	B /75		115
933	9	03		BCE	SETZRO,AOPHC+X1,		8	0594	B 942 0/7		115
934	9	04		BCE	PERCNT,AOPHC+X1,(		8	0602	B 950 0/7 (		115
935	9	05		BWZ	FLOAT,AOPHO+X1,2		8	0610	V S21 0/7 2		116
936	9	06		BCE	PROAST,AOPHC+X1,*		8	0618	B /90 0/7 *		116
937	9	07	*								
938	9	08	*		CONVERT SYMBOL TO TABLE ADDRESS						
939	9	09	*								
940	9	10	CNVSYM	BCE	*+005,AOP-002+X3,		8	0626	B 638 0F8		116
941	9	11		B	SETSYM		4	0634	B 804		116
942	9	12		MCW	AOPER+X1,W6AREA=006		7	0638	M 0S2 U65		116
943	9	13		BCE	*+5,W6AREA,		8	0645	B 657 U65		117
944	9	14		B	*+8		4	0653	B 664		117
945	9	15		MCW	SFXCTR,W6AREA		7	0657	M L23 U65		117
946	9	16		ZA	+2,HOLD2=002		7	0664	+ U66 U68		117
947	9	17		ZA	W6AREA-002,HOLD4=004		7	0671	+ U63 U72		117
948	9	18		A	W6AREA,HOLD4		7	0678	A U65 U72		118
949	9	19		A	W6AREA,HOLD4-002		7	0685	A U65 U70		118
950	9	20		MZ	NOBIT,HOLD4		7	0692	Y 110 U72		118
951	9	21		ZA	FACTOR,HOLD7		7	0699	+ L88 U26		118
952	9	22	MPYLP	MN	HOLD7,HOLD1		7	0706	D U26 U27		118
953	9	23		ZA			1	0713	+		118
954	9	24	MULT	BCE	NXTDGT,HOLD1,+		8	0714	B 740 U27 +		119
955	9	25		A	HOLD4,HOLD7-002		7	0722	A U72 U24		119
956	9	26		S	+1,HOLD1		7	0729	S U73 U27		119
957	9	27		B	MULT		4	0736	B 714		119
958	9	28	NXTDGT	S	+1,HOLD2		7	0740	S U73 U68		119
959	9	29		BWZ	MPYLP,HOLD2,B		8	0747	V 706 U68 B		120
960	9	30		MCW	'000',AOP+X3		7	0755	M U76 0G0		120
961	9	31		BAV	*+001		5	0762	B 767 Z		120
962	9	32	LOCP1	A	+96,HOLD7-005		7	0767	A U78 U21		120
963	9	33		BAV	LOOP1		5	0774	B 767 Z		120
964	9	34		MZ	HOLD7-006,AOP+X3		7	0779	Y U20 0G0		120
965	9	35		MCW	HOLD7-003		4	0786	M U23		121
966	9	36		MN	HOLD7-005,*+004		7	0790	D U21 800		121
967	9	37		MZ	ZONE2,AOP-002+X3		7	0797	Y 109 0F8		121
968	9	38	*								
969	9	39	*		SYMBOLIC OPERAND						
970	9	40	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
971	9	41	SETSYM	MCW	AOPER+X1,FNCTN	7		0804	M 0S2 L08		121
972	9	42		BCE	*+005,FNCTN,	8		0811	B 823 L08		121
973	9	43		B	*+008	4		0819	B 830		121
974	9	44		MCW	SFXCTR,FNCTN	7		0823	M L23 L08		122
975	9	45		MCW	TABMAX,MAXADD	7		0830	M L11 L14		122
976	9	46		MCW	'0',SWICH1	7		0837	M U32 U19		122
977	9	47		MCW	AOP+X3,XR2	7		0844	M 0G0 094		122
978	9	48		MCW	SERCHS,MAXSER	7		0851	M L99 L22		122
979	9	49	*								
980	9	50	* TABLE SEARCH								
981	9	51	*								
982	9	52	SRHLOP	C	FNCTN,SYMBOL	7		0858	C L08 M-9		123
983	9	53		BE	RECALL	5		0865	B 980 S		123
984	9	54		BCE	UNDEF,SYMHO,	8		0870	B 961 M-4		123
985	9	55	BUMPER	A	'010',XR2	7		0878	A U81 094		123
986	9	56		S	'1',MAXSER	7		0885	S U34 L22		123
987	9	57		BM	UNDEF,MAXSER	8		0892	V 961 L22 K		124
988	9	58		C	XR2,MAXADD	7		0900	C 094 L14		124
989	9	59		BU	SRHLOP	5		0907	B 858 /		124
990	9	60		BCE	UNDEF,SWICH1,1	8		0912	B 961 U19 1		124
991	9	61		MCW	'1',SWICH1	7		0920	M U34 U19		124
992	9	62		MCW	AOP+X3,MAXADD	7		0927	M 0G0 L14		125
993	9	63		S	XR2+001	4		0934	S 095		125
994	9	64		B	SRHLOP	4		0938	B 858		125
995	9	65	*								
996	9	66	* BLANK OPERAND								
997	9	67	*								
998	9	68	SETZRO	S	HOLDAR	4		0942	S U58		125
999	9	69		B	CHRADJ	4		0946	B #49		125
1000	9	70	*								
1001	9	71	* PERCENT OPERAND								
1002	9	72	*								
1003	9	73	PERCNT	MCW	AOPER-003+X1,AOP+X3	7		0950	M 0/9 0G0		125
1004	9	74		B	MARK	4		0957	B /68		125
1005	9	75	*								
1006	9	76	* UNDEFINED OPERAND								
1007	9	77	*								
1008	9	78	UNDEF	BCE	OPRTN,ITERSW,0	8		0961	B /75 U28 0		126
1009	9	79		MCW	'==',AOP+X3	7		0969	M U84 0G0		126
1010	9	80		B	OPRTN	4		0976	B /75		126
1011	9	81	*								
1012	9	82	* RETRIEVE VALUE FROM TABLE								
1013	9	83	*								
1014	9	84	RECALL	BCE	UNDEF,ADDHO,	8		0980	B 961 M-0		126
1015	9	85		BWZ	*+5,LBLREF,2	8		0988	V #00 M-1 2		126
1016	9	86		B	*+8	4		0996	B #07		126
1017	9	87		MZ	ABIT,LBLREF	7		1000	Y 111 M-1		127
1018	9	88		MCW	ADDLO,HOLDAR	7		1007	M M-3 U58		127
1019	9	89		MCW	'0'	4		1014	M U32		127
1020	9	90		BCE	IOADD,HOLDAR-003,(	8		1018	B /79 U55 (		127



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1021	9	91		BWZ	**008,HOLDAR-003,2	8		1026	V #41 U55 2		127
1022	9	92		MCW	'1',HOLDAR-004	7		1034	M U34 U54		128
1023	9	93		BCE	TSTCNV,TYPEA,6	8		1041	B #78 U33 6		128
1024	9	94	*								
1025	9	95	*	ADD CHARACTER ADJUSTMENT							
1026	9	96	*								
1027	9	97	CHRADJ	MZ	HOLDAR-001,HOLDZN=001	7		1049	Y U57 U85		128
1028	9	98		BCE	TSTCNV,AOPADJ-002+X1,X	8		1056	B #78 0S4 X		128
1029	9	99		A	AOPADJ+X1,HOLDAR	7		1064	A 0S6 U58		128
1030	10	00		MZ	HOLDZN,HOLDAR-001	7		1071	Y U85 U57		129
1031	10	01	TSTCNV	BM	MARK,TYPE	8		1078	V /68 075 K		129
1032	10	02		BCE	MARK,TYPEA,2	8		1086	B /68 U33 2		129
1033	10	03	*								
1034	10	04	*	CONVERT FIVE DIGIT ADDRESS TO THREE DIGIT ADDR							
1035	10	05	*								
1036	10	06	CNVTO3	BAV	**001	5		1094	B #99 Z		129
1037	10	07		A	'96',HOLDAR-003	7		1099	A U87 U55		129
1038	10	08		BAV	CNVTO3+005	5		1106	B #99 Z		130
1039	10	09		MZ	HOLDAR-004,HOLDAR	7		1111	Y U54 U58		130
1040	10	10		MN	HOLDAR-003,**004	7		1118	D U55 /28		130
1041	10	11		MZ	ZONE2,HOLDAR-002	7		1125	Y 109 U56		130
1042	10	12		MZ	HOLDZN,HOLDAR-001	7		1132	Y U85 U57		130
1043	10	13		BCE	STRADD,AINDEX+X1,	8		1139	B /61 0S7		131
1044	10	14		MN	AINDEX+X1,**004	7		1147	D 0S7 /57		131
1045	10	15		MZ	ZONE,HOLDAR-001	7		1154	Y 113 U57		131
1046	10	16	STRADD	MCW	HOLDAR,AOP+X3	7		1161	M U58 0G0		131
1047	10	17	*								
1048	10	18	*	MARK OPERAND PROCESSED							
1049	10	19	*								
1050	10	20	MARK	MZ	ABBIT,STACP+X3	7		1168	Y 113 0+1		131
1051	10	21	OPRTN	B	XXXX	4		1175	B 000		132
1052	10	22	*								
1053	10	23	*	I/O ADDRESS IN TABLE							
1054	10	24	*								
1055	10	25	IOADD	MCW	HOLDAR-001,AOP+X3	7		1179	M U57 0G0		132
1056	10	26		B	MARK	4		1186	B /68		132
1057	10	27	*								
1058	10	28	*	ASTERISK OPERAND							
1059	10	29	*								
1060	10	30	PROCAST	BCE	**5,AOPER+X1,	8		1190	B 502 0S2		132
1061	10	31		B	CNVSYM	4		1198	B 626		132
1062	10	32		BCE	OPRTN,ASTRSW,1	8		1202	B /75 U18 1		132
1063	10	33		MCW	ASTADD,HOLDAR	7		1210	M U39 U58		133
1064	10	34		B	CHRADJ	4		1217	B #49		133
1065	10	35	*								
1066	10	36	*	ACTUAL OPERAND - FLOAT TO 5 DIGITS							
1067	10	37	*								
1068	10	38	FLOAT	BCE	CNVSYM,AOPHC+X1,=	8		1221	B 626 0/7 =		133
1069	10	39		BCE	CNVSYM,AOPHC+X1,'	8		1229	B 626 0/7 '		133
1070	10	40		BWZ	**005,AOPER-004+X1,2	8		1237	V 549 0/8 2		133

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1071	10	41		B	CNVSYM	4		1245	B 626		133
1072	10	42		ZA	AOPER-001+X1,HOLDAR	7		1249	+ 0S1 U58		134
1073	10	43	REFLOT	BCE	*+005,HOLDAR,+	8		1256	B S68 U58 +		134
1074	10	44		B	CHRADJ	4		1264	B #49		134
1075	10	45		ZA	HOLDAR-001,HOLDAR	7		1268	+ U57 U58		134
1076	10	46		B	REFLOT	4		1275	B S56		134
1077	10	47	*								
1078	10	48	*		PROCESS SUFFIX						
1079	10	49	*								
1080	10	50	PROSFX	MCW	AOPHO,SFXCTR	7		1279	M 017 L23		134
1081	10	51		B	PUT	4		1286	B Z77		135
1082	10	52	*								
1083	10	53	*		INITIALIZE PASS D						
1084	10	54	*								
1085	10	55	PASSD	SW	GPMRK2-1	4		1290	, U30		135
1086	10	56		RTW	DINPUT,BYPRD	8		1294	L (U6 U29 R		135
1087	10	57		CW	GPMRK2-1	4		1302	) U30		135
1088	10	58		CS	CARD+080	4		1306	/ 080		135
1089	10	59		SW	CARD+001,CARD+006	7		1310	, 001 006		135
1090	10	60		SW	CARD+017,CARD+024	7		1317	, 017 024		135
1091	10	61		SW	CARD+028,CARD+035	7		1324	, 028 035		136
1092	10	62		SW	CARD+057,CARD+062	7		1331	, 057 062		136
1093	10	63		SW	CARD+068,CARD+071	7		1338	, 068 071		136
1094	10	64		MCW	BUMPOP,BUMPER	7		1345	M L27 878		136
1095	10	65		MCW	'6',TPHALT+4	7		1352	M U88 J15		136
1096	10	66		MCW	'6',TPHLT2+4	7		1359	M U88 K01		137
1097	10	67		MCW	'6',TPHLT3+4	7		1366	M U88 J42		137
1098	10	68		MCW	TPAD,WRITE2+006	7		1373	M L34 X73		137
1099	10	69		MCW	TPAD,READ2+010	7		1380	M L34 X98		137
1100	10	70		MCW	' ',SFXCTR	7		1387	M U89 L23		137
1101	10	71	*								
1102	10	72	*		TEST LAST ITERATION						
1103	10	73	*								
1104	10	74		BCE	LSTITR,PROCSW,0	8		1394	B U07 L95 0		138
1105	10	75		BCE		1		1402	B		138
1106	10	76		B	READ2	4		1403	B X88		138
1107	10	77	LSTITR	MCW	'1',ITERSW	7		1407	M U34 U28		138
1108	10	78		B	READ2	4		1414	B X88		138
1109	10	79	ASTRSW	DCW	0	1		1418			138
1110	10	80	SWICH1	DCW	'0'	1		1419			138
1111	10	81	HOLD7	DCW	' '	7		1426			139
1112	10	82	HOLD1	DCW	+0	1		1427			139
1113	10	83	ITERSW	DCW	'0'	1		1428			139
1114	10	84	BYPRD	DCW	' '	1		1429			139
1115	10	85	GPMRK2	DC	' '	2		1431			139
1116	10	86	SSOP	EQU	1900			1900			
1117	10	87		LTORG	*				1432		
				DCW	'0'	1		1432		LIT	139
835			TYPEA		=01	1		1433		AREA	139
					'1'	1		1434		LIT	139

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		852	ASTADD		=05	5		1439		AREA	140
					'003'	3		1442		LIT	140
					'011'	3		1445		LIT	140
		888			+PUT	3		1448	Z77	ADCON	140
					+16000	5		1453		LIT	140
		896	HOLDAR		=05	5		1458		AREA	140
					'8'	1		1459		LIT	140
		942	W6AREA		=06	6		1465		AREA	141
					+2	1		1466		LIT	141
		946	HOLD2		=02	2		1468		AREA	141
		947	HOLD4		=04	4		1472		AREA	141
					+1	1		1473		LIT	141
					'000'	3		1476		LIT	141
					+96	2		1478		LIT	141
					'010'	3		1481		LIT	142
					'==='	3		1484		LIT	142
		1027	HOLDZN		=01	1		1485		AREA	142
					'96'	2		1487		LIT	142
					'6'	1		1488		LIT	142
					' '	1		1489		LIT	142
1118	10	88	*								
1119	10	89	* INPUT/OUTPUT - PASS D								
1120	10	90	*								
1121	10	91		ORG	WRITE				1767		
1122	10	92	WRITE2	WT	DOUTPT,TPAREA	8		1767	M (U5 I18 W		143
1123	10	93		NOP	XXXX	4		1775	N 000		143
1124	10	94		BER	TPERR	5		1779	B -04 L		143
1125	10	95	BRNCH2	NOP	FINALD	4		1784	N Y13		143
1126	10	96	READ2	S	HOLDA	4		1788	S L31		143
1127	10	97		RT	DINPUT,TPAREA	8		1792	M (U6 I18 R		143
1128	10	98		B	CHKLGT	4		1800	B K08		143
1129	10	99		BER	TPERR	5		1804	B -04 L		144
1130	11	00		B	NXTREC	4		1809	B Z37		144
1131	11	01	*								
1132	11	02	FINALD	WTM	DOUTPT	5		1813	U (U5 M		144
1133	11	03		RWD	DINPUT	5		1818	U (U6 R		144
1134	11	04		RWD	DOUTPT	5		1823	U (U5 R		144
1135	11	05		RTW	SYSTPE,333	8		1828	L (U1 333 R		144
1136	11	06		NOP	XXXX	4		1836	N 000		144
1137	11	07		BER	TPERR	5		1840	B -04 L		145
1138	11	08		CW	ENDOV L	4		1845	) S45		145
1139	11	09		MCW	BUMPOP,TSTLST	7		1849	M L27 474		145
1140	11	10		MCW	BUMPOP,NOT	7		1856	M L27 726		145
1141	11	11		B	TSTREF	4		1863	B 333		145
1142	11	12		DCW	' '	1		1867			145
1143	11	13	ENDOFD	DCW	' '	1		1868			145
1144	11	14		EX	LIBRN				B 000		146

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1145	11	15		JOB	1401 AUTOCODER-PASS 6 PRINT SYMBOL TABLE				-VERSION 3		
1146	11	16	*								
1147	11	17		ORG	333					0333	
1148	11	18	*								
1149	11	19	*	END OF PASS D							
1150	11	20	*								
1151	11	21	*	PRINT LIST OF UNREFERENCED LABELS							
1152	11	22	*								
1153	11	23	TSTREF	CS	0332		4	0333	/ 332		149
1154	11	24		CS			1	0337	/		149
1155	11	25		S	XR3+1		4	0338	S 100		149
1156	11	26		S			1	0342	S		149
1157	11	27		S			1	0343	S		149
1158	11	28		SW	HEADSW=001		4	0344	, /80		149
1159	11	29	NXTLBL	BCE	TSTLST,SYMH0,		8	0348	B 474 M-4		149
1160	11	30		BCE	TSTLST,ADCH0,		8	0356	B 474 M-0		150
1161	11	31		BCE	LOZNG,SYMH0,)		8	0364	B 530 M-4 )		150
1162	11	32		C	SYMH0,'A'		7	0372	C M-4 /81		150
1163	11	33		BH	DOREF		5	0379	B 441 U		150
1164	11	34		C	SYMH0,'Z'		7	0384	C M-4 /82		150
1165	11	35		BL	DOREF		5	0391	B 441 T		151
1166	11	36		MN	SYMH0,XR3		7	0396	D M-4 099		151
1167	11	37		BWZ	SWTAB,SYMH0,B		8	0403	V 433 M-4 B		151
1168	11	38		A	'010',XR3		7	0411	A /85 099		151
1169	11	39		BM	SWTAB,SYMH0		8	0418	V 433 M-4 K		151
1170	11	40		A	'010',XR3		7	0426	A /85 099		152
1171	11	41	SWTAB	SW	SORTAB+X3		4	0433	, /D8		152
1172	11	42		S	XR3+2		4	0437	S 101		152
1173	11	43	DOREF	BWZ	**+5,LBLREF,2		8	0441	V 453 M-1 2		152
1174	11	44		B	TSTLST		4	0449	B 474		152
1175	11	45		BW	NEWPGE,HEADSW		8	0453	V 502 /80 1		152
1176	11	46	DONEXT	CW	HEADSW		4	0461	) /80		152
1177	11	47		B	PRINT		4	0465	B 538		153
1178	11	48		W			1	0469	2		153
1179	11	49		CS	216		4	0470	/ 216		153
1180	11	50	TSTLST	A	'010',XR2		7	0474	A /85 094		153
1181	11	51		C	XR2,TABMAX		7	0481	C 094 L11		153
1182	11	52		BE	DUMP		5	0488	B 646 S		153
1183	11	53		BCV	NEWPGE		5	0493	B 502 '		153
1184	11	54		B	NXTLBL		4	0498	B 348		154
1185	11	55	NEWPGE	CC	1		2	0502	F 1		154
1186	11	56		MCW	'UNREFERENCED LABELS',219		7	0504	M 504 219		154
1187	11	57		CC	T		2	0511	F T		154
1188	11	58		W			1	0513	2		154
1189	11	59		CS	0219		4	0514	/ 219		154
1190	11	60		BW	DONEXT,HEADSW		8	0518	V 461 /80 1		154
1191	11	61		B	NXTLBL		4	0526	B 348		155
1192	11	62	LOZNG	SW	LIST-1		4	0530	, /78		155
1193	11	63		B	DOREF		4	0534	B 441		155
1194	11	64	*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1195	11	65	* PRINT SUBROUTINE FOR UNREFERENCED LABELS + SYMBOL TABLE								
1196	11	66	*								
1197	11	67	PRINT	SBR	PRTXT+3	4		0538	H 634		155
1198	11	68		MCW	SYMBOL,206+X1	7		0542	M M-9	2+6	155
1199	11	69		BCE	DOIO,ADDHO,(	8		0549	B 635	M-0 (	155
1200	11	70		MN	ADDLO,212+X1	7		0557	D M-3	2/2	155
1201	11	71		MN		1		0564	D		156
1202	11	72		MN		1		0565	D		156
1203	11	73		MN		1		0566	D		156
1204	11	74		BWZ	*+8,ADDHO,2	8		0567	V 582	M-0 2	156
1205	11	75		MCW	'1',208+X1	7		0575	M S05	2+8	156
1206	11	76		BWZ	PRTXT,ADDLO-1,2	8		0582	V 631	M-2 2	156
1207	11	77		MN	'1',215+X1	7		0590	D S05	2/5	156
1208	11	78		MCW	'+X'	4		0597	M S07		157
1209	11	79		BWZ	PRTXT,ADDLO-1,S	8		0601	V 631	M-2 S	157
1210	11	80		MN	'2',215+X1	7		0609	D S08	2/5	157
1211	11	81		BWZ	PRTXT,ADDLO-1,K	8		0616	V 631	M-2 K	157
1212	11	82		MN	'3',215+X1	7		0624	D S09	2/5	157
1213	11	83	PRTXT	B	XXXX	4		0631	B 000		157
1214	11	84	DOIO	MCW	ADDLO,212+X1	7		0635	M M-3	2/2	158
1215	11	85		B	PRTXT	4		0642	B 631		158
1216	11	86	*								
1217	11	87	* PRINT SYMBOL TABLE								
1218	11	88	*								
1219	11	89	DUMP	B	NXTPGE	4		0646	B 859		158
1220	11	90		S	XR3+1	4		0650	S 100		158
1221	11	91		S		1		0654	S		158
1222	11	92		S		1		0655	S		158
1223	11	93	NXTCTR	SW	ENDSW=1	4		0656	, S10		158
1224	11	94		BW	SCAN, SORTAB+1+X3	8		0660	V 687	/D9 1	159
1225	11	95	BMPXR3	BCE	TSTEOJ, SORTAB+1+X3, '	8		0668	B 888	/D9 '	159
1226	11	96		A	+1, XR3	7		0676	A S11	099	159
1227	11	97		B	NXTCTR	4		0683	B 656		159
1228	11	98	SCAN	BCE	BMPXR3, SORTAB+1+X3, -	8		0687	B 668	/D9 -	159
1229	11	99		BCE	BMPXR3, SORTAB+1+X3, +	8		0695	B 668	/D9 +	160
1230	12	00		BCE	BMPXR3, SORTAB+1+X3, /	8		0703	B 668	/D9 /	160
1231	12	01		MCW	SORTAB+1+X3, TSTLBL+7	7		0711	M /D9	725	160
1232	12	02	TSTLBL	BCE	DOPNT, SYMHO, X	8		0718	B 777	M-4 X	160
1233	12	03	NOT	A	'010', XR2	7		0726	A /85	094	160
1234	12	04		C	XR2, TABMAX	7		0733	C 094	L11	161
1235	12	05		BU	TSTLBL	5		0740	B 718	/	161
1236	12	06		S	XR2+1	4		0745	S 095		161
1237	12	07		S		1		0749	S		161
1238	12	08		A	+1, XR3	7		0750	A S11	099	161
1239	12	09		CW	ENDSW	4		0757	) S10		161
1240	12	10		BW	PNTSYN, PNTSW	8		0761	V 812	S18 1	161
1241	12	11		SW	PNTSW	4		0769	, S18		162
1242	12	12		B	TSTESW	4		0773	B 847		162
1243	12	13	DOPNT	BCE	NOT, ADDHO,	8		0777	B 726	M-0	162
1244	12	14		B	PRINT	4		0785	B 538		162

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1245	12	15		SW	PNTSW	4		0789	, S18		162
1246	12	16		A	'016',XR1	7		0793	A S14 089		162
1247	12	17		C	XR1,'128'	7		0800	C 089 S17		162
1248	12	18		BU	NOT	5		0807	B 726 /		163
1249	12	19	PNTSYM	W		1		0812	2		163
1250	12	20		CW	PNTSW=1	4		0813	) S18		163
1251	12	21		CS	332	4		0817	/ 332		163
1252	12	22		CS		1		0821	/		163
1253	12	23		S	XR1+1	4		0822	S 090		163
1254	12	24		BW	*+9,ENDSW	8		0826	V 842 S10 1		163
1255	12	25		BCE	TSTEOJ, SORTAB+1+X3,'	8		0834	B 888 /D9 '		164
1256	12	26		BCV	NXTPGE	5		0842	B 859 '		164
1257	12	27	TSTESW	BW	NOT,ENDSW	8		0847	V 726 S10 1		164
1258	12	28		B	NXTCTR	4		0855	B 656		164
1259	12	29	NXTPGE	SBR	PGXT+3	4		0859	H 887		164
1260	12	30		CS	332	4		0863	/ 332		164
1261	12	31		CS		1		0867	/		164
1262	12	32		CC	1	2		0868	F 1		165
1263	12	33		MCW	'SYMBOL TABLE',212	7		0870	M S30 212		165
1264	12	34		W		1		0877	2		165
1265	12	35		CC	K	2		0878	F K		165
1266	12	36		CS	212	4		0880	/ 212		165
1267	12	37	PGXT	B	XXXX	4		0884	B 000		165
1268	12	38	TSTEOJ	BW	*+3,HEADSW	8		0888	V 898 /80 1		165
1269	12	39		CC	1	2		0896	F 1		166
1270	12	391		CS	332	4		0898	/ 332		166
1271	12	392		CHAIN	3					MACRO	
1272				CS		1		0902	/	GEN	166
1273				CS		1		0903	/	GEN	166
1274				CS		1		0904	/	GEN	166
1275	12	40		BCE	EOJOB,ITERSW,1	8		0905	B 997 U28 1		166
1276	12	41	*								
1277	12	42	* GET PASS C								
1278	12	43	*								
1279	12	44		BSP	SYSTPE	5		0913	U (U1 B		166
1280	12	45		BSP	SYSTPE	5		0918	U (U1 B		167
1281	12	46		MCW	'5',TPHALT+4	7		0923	M S31 J15		167
1282	12	47		MCW	'5',TPHLT2+4	7		0930	M S31 K01		167
1283	12	48		MCW	'5',TPHLT3+4	7		0937	M S31 J42		167
1284	12	49		MCW	'00',PROC SW	7		0944	M S33 L95		167
1285	12	50		MCW	' ',SFXCTR	7		0951	M S34 L23		168
1286	12	51	*								
1287	12	52	* SET NUMBER OF SEEKS FOR TABLE SEARCH								
1288	12	53	*								
1289	12	54		C	TOTLAB,TABLSZ	7		0958	C L93 L18		168
1290	12	55		MCW	TABLSZ,SERCHS	7		0965	M L18 L99		168
1291	12	56		S	TOTLAB	4		0972	S L93		168
1292	12	57		BE	RDPSSC	5		0976	B K72 S		168
1293	12	58		BH	RDPSSC	5		0981	B K72 U		168
1294	12	59		MCW	+0009,SERCHS	7		0986	M S38 L99		169

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1295	12	60		B	RDPSSC	4		0993	B K72		169
1296	12	61	*								
1297	12	62	* LAST	ITERATION,	GET PASS E						
1298	12	63	*								
1299	12	64	EOJOB	CW	GPMRK2-1	4		0997	) U30		169
1300	12	65		CS	3999	4		1001	/ I99		169
1301	12	66		BCE	READE,MACHSZ,3	8		1005	B #44 L89 3		169
1302	12	67		CS	4799	4		1013	/ 79Z		169
1303	12	68		CHAIN	7					MACRO	
1304				CS		1		1017	/	GEN	169
1305				CS		1		1018	/	GEN	170
1306				CS		1		1019	/	GEN	170
1307				CS		1		1020	/	GEN	170
1308				CS		1		1021	/	GEN	170
1309				CS		1		1022	/	GEN	170
1310				CS		1		1023	/	GEN	170
1311	12	681	CLR	CS	3999	4		1024	/ I99		170
1312	12	682		SBR	CLR+3	4		1028	H #27		171
1313	12	683		C	CLR+3,+SSCP-1	7		1032	C #27 S41		171
1314	12	684		BU	CLR	5		1039	B #24 /		171
1315	12	69	READE	RTW	SYSTPE,SSCP	8		1044	L (U1 Z00 R		171
1316	12	70		BER	SYSERR	5		1052	B #68 L		171
1317	12	71	GOTOE	MCW	'N',SSOP	7		1057	M S42 Z00		171
1318	12	72		B	SSOP+1	4		1064	B Z01		172
1319	12	73	SYSERR	MCW	+9,RDCT=1	7		1068	M S43 S44		172
1320	12	74		BSP	SYSTPE	5		1075	U (U1 B		172
1321	12	75	RETRY	RTW	SYSTPE,SSCP	8		1080	L (U1 Z00 R		172
1322	12	76		BER	AGAIN	5		1088	B #97 L		172
1323	12	77		B	GOTOE	4		1093	B #57		172
1324	12	78	AGAIN	BSP	SYSTPE	5		1097	U (U1 B		172
1325	12	79		S	'1',RDCT	7		1102	S S05 S44		173
1326	12	80		BWZ	RETRY,RDCT,B	8		1109	V #80 S44 B		173
1327	12	81		H	XXXX,691	7		1117	. 000 691		173
1328	12	82		RTW	SYSTPE,SSCP	8		1124	L (U1 Z00 R		173
1329	12	83		BSS	SYSERR,E	5		1132	B #68 E		173
1330	12	84		H	XXXX,612	7		1137	. 000 612		174
1331	12	85		B	GOTOE	4		1144	B #57		174
1332	12	86	LIST	DCW	' ABCDEFGHI-JKLMNOPQR#/STUVWXYZ)''	32		1179			175
1333	12	87	SORTAB	EQU	LIST-31			1148			
1334	12	88		LTORG	*					1180	
	1158		HEADSW	DCW	=01	1		1180		AREA	175
					'A'	1		1181		LIT	175
					'Z'	1		1182		LIT	175
					'010'	3		1185		LIT	175
	1186				'UNREFERENCED LABELS'	19		1204		LIT	176
					'1'	1		1205		LIT	176
					'+X'	2		1207		LIT	176
					'2'	1		1208		LIT	176
					'3'	1		1209		LIT	176
	1223		ENDSW		=01	1		1210		AREA	176

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					+1		1	1211		LIT	176
					'016'		3	1214		LIT	177
					'128'		3	1217		LIT	177
		1250	PNTSW		=01		1	1218		AREA	177
		1263			'SYMBOL TABLE'		12	1230		LIT	177
					'5'		1	1231		LIT	177
					'00'		2	1233		LIT	177
					' '		1	1234		LIT	177
					+0009		4	1238		LIT	178
		1313			+SSOP-1		3	1241	Y99	ADCON	178
					'N'		1	1242		LIT	178
					+9		1	1243		LIT	178
		1319	RDCT		=01		1	1244		AREA	178
1335	12	89	ENDCVL	DCW	' '		1	1245			178
1336	12	90		EX	LIBRN				B 000		179
1337	12	91		END	LIBRN				/ 000 080		182





SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1	48	* INITIALIZATION ROUTINE								
149	1	49	*								
150	1	50		ORG	1900				1900		
151	1	51	SSOP	DCW	'B'	1		1900			4
152	1	52		CS	332	4		1901	/	332	4
153	1	53		CS		1		1905	/		4
154	1	54		CS		1		1906	/		4
155	1	55		CS		1		1907	/		4
156	1	56		RTW	SYSTAP,400	8		1908	L (U1	400 R	4
157	1	57		NOP	XXXX	4		1916	N	000	4
158	1	58		BER	TPERRI	5		1920	B	M03 L	5
159	1	59		CW	ENDIN2,LSTOP1	7		1925	)	X99 093	5
160	1	60		SW	ENDIN	4		1932	,	I98	5
161	1	61		LCA	ENDIN,333	7		1936	L	I98 333	5
162	1	62		LCA	ENDIN,181	7		1943	L	I98 181	5
163	1	63		MCW	SSOP,TSTSI2	7		1950	M	Z00 407	5
164	1	64		MCW	SSOP,SSAVE1	7		1957	M	Z00 091	6
165	1	65		CW	ENDIN	4		1964	)	I98	6
166	1	66		RWD	ORIGTP	5		1968	U (U4	R	6
167	1	67		RWD	WORKTP	5		1973	U (U5	R	6
168	1	68		RWD	XTRATP	5		1978	U (U6	R	6
169	1	69		SW	PUNCH+72,PUNCH+76	7		1983	,	172 176	6
170	1	70		A	+1,PUNCH+75	7		1990	A	096 175	7
171	1	71		B	READ4	4		1997	B	T15	7
172	1	72	*								
173	1	73	* CHECK FOR JOB CARD								
174	1	74	*								
175	1	75		C	MNEMON-2,'JOB'	7		2001	C	H48 099	7
176	1	76		BU	CKCTL	5		2008	B	-78 /	7
177	1	77		CW	JOBSW=1	4		2013	)	P00	7
178	1	78		RT	WORKTP,180	8		2017	M (U5	180 R	7
179	1	79		LCA	333,181	7		2025	L	333 181	8
180	1	80		MCW	OPERND,JOBSAV	7		2032	M	I02 085	8
181	1	81		MCW	IMAGE+80,PUNCH+80	7		2039	M	I10 180	8
182	1	82		MCW	ALTNO,JOBALT=4	7		2046	M	I14 P04	8
183	1	83		MCW	PAGENO,JOBPAG=2	7		2053	M	H32 P06	8
184	1	84		MCW	LINENO,JOBLIN=3	7		2060	M	H35 P09	9
185	1	85		MCW	LABEL,JOBLAB=6	7		2067	M	H41 P15	9
186	1	86		B	READ4	4		2074	B	T15	9
187	1	87	*								
188	1	88	* CHECK FOR CONTROL CARD								
189	1	89	*								
190	1	90	CKCTL	C	MNEMON-2,'CTL'	7		2078	C	H48 P18	9
191	1	91		BU	TSTSI2	5		2085	B	407 /	9
192	1	92		CW	CTLSW=1	4		2090	)	P19	9
193	1	93		MCW	IMAGE+30,CTLSAV=10	7		2094	M	H60 P29	10
194	1	94		MCW	ALTNO,CTLALT=4	7		2101	M	I14 P33	10
195	1	95		MCW	PAGENO,CTLPAG=2	7		2108	M	H32 P35	10
196	1	96		MCW	LINENO,CTLLIN=3	7		2115	M	H35 P38	10
197	1	97		B	READ4	4		2122	B	T15	10

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	98	*								
199	1	99	* TEST		OUTPUT OPTION DESIRED						
200	2	00	*								
201	2	01	CHKOP	BCE	OPNTAP,LSTAPE,1	8		2126	B K14 P24	1	11
202	2	02	TSTOP	BCE	TSTSIZ,OUTOPN,0	8		2134	B 407 P22	0	11
203	2	03		BCE	CONDOP,OUTOPN,1	8		2142	B 400 P22	1	11
204	2	04		BCE	TSTSIZ,OUTOPN,2	8		2150	B 407 P22	2	11
205	2	05		BCE	CONDOP,OUTOPN,3	8		2158	B 400 P22	3	12
206	2	06		BCE	TSTSIZ,OUTOPN,4	8		2166	B 407 P22	4	12
207	2	07		BCE	CONDOP,OUTOPN,5	8		2174	B 400 P22	5	12
208	2	08		BCE	TSTSIZ,OUTOPN,6	8		2182	B 407 P22	6	12
209	2	09		BCE	CONDOP,OUTOPN,7	8		2190	B 400 P22	7	13
210	2	10		BCE	TSTSIZ,OUTOPN,	8		2198	B 407 P22		13
211	2	11		CW	CTLSW1=1	4		2206	) P39		13
212	2	12		B	TSTSIZ	4		2210	B 407		13
213	2	13	OPNTAP	CW	TAPOPI	4		2214	) 092		13
214	2	14		B	TSTOP	4		2218	B J34		13
215	2	15	*								
216	2	16	* SETUP + GET		MAIN PROGRAM						
217	2	17	*								
218	2	18	GETMAN	BSP	ORIGTP	5		2222	U (U4 B		13
219	2	19		SW	FIXFRM+1, FIXFRM+6	7		2227	, 001 006		14
220	2	20		SW	FIXFRM+8, FIXFRM+14	7		2234	, 008 014		14
221	2	21		SW	FIXFRM+23, FIXFRM+57	7		2241	, 023 057		14
222	2	22		SW	FIXFRM+62, FIXFRM+67	7		2248	, 062 067		14
223	2	23		SW	FIXFRM+68, FIXFRM+71	7		2255	, 068 071		14
224	2	24		SW	FIXFRM+74	4		2262	, 074		14
225	2	25		CW	181,333	7		2266	) 181 333		15
226	2	26		MCW	KBLK1,HOLDA1-1	7		2273	M 027 023		15
227	2	27		LCA	'LO , , 1 ',PUNCH+71	7		2280	L P71 171		15
228	2	28		LCA	'2SKB',ZONE	7		2287	L P75 189		15
229	2	29		LCA	'00000',XR3+2	7		2294	L P80 101		15
230	2	30		LCA	XR3+2	4		2301	L 101		15
231	2	31		LCA		1		2305	L		16
232	2	32		SW	GRPMK3	4		2306	, 095		16
233	2	33		BCE	SETOUT,CNDSW1,1	8		2310	B L49 033	1	16
234	2	34		BW	*+5,LSTOP1	8		2318	V L30 093	1	16
235	2	35		B	SETOUT	4		2326	B L49		16
236	2	36		BW	*+5,TAPOPI	8		2330	V L42 092	1	16
237	2	37		B	SETOUT	4		2338	B L49		16
238	2	38		MCW	'1',NOOUT1	7		2342	M P81 094		17
239	2	39	SETOUT	MCW	OUTOPN,OPNSV1	7		2349	M P22 090		17
240	2	40		WTW	XTRATP,SAVCN1	8		2356	L (U6 021	W	17
241	2	41		NOP	XXXX	4		2364	N 000		17
242	2	42		BER	TPERRI	5		2368	B M03 L		17
243	2	43		RWD	XTRATP	5		2373	U (U6 R		17
244	2	44		CW	GRPMK3	4		2378	) 095		18
245	2	45		RTW	SYSTAP,201	8		2382	L (U1 201	R	18
246	2	46		NOP	XXXX	4		2390	N 000		18
247	2	47		BER	TPERRI	5		2394	B M03 L		18

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248	2	48		B	INIT2		4	2399	B 201		18
249	2	49	*								
250	2	50	* TAPE		REDUNDANCY ROUTINE						
251	2	51	*								
252	2	52	TPERRI	SBR	XR2		4	2403	H 094		18
253	2	53		SBR	REDXI+3		4	2407	H M75		18
254	2	54		MZ	+9,XR2		7	2411	Y P82	094	19
255	2	55		MCW	4000-10+X2,TPINSI+7		7	2418	M IRO	M66	19
256	2	56		MN	TPINSI+3,BSPI+3		7	2425	D M62	M42	19
257	2	57		MCW	TPINSI+7,INST2I+7		7	2432	M M66	N75	19
258	2	58	BSPI	BSP	INITAP		5	2439	U (UO	B	19
259	2	59		BCE	WRTTDR,TPINSI+7,W		8	2444	B N48	M66 W	20
260	2	60		MCW	+9,READCI=1		7	2452	M P82	P83	20
261	2	61	TPINSI	RT	INITAP,XXXX		8	2459	M (UO	000 R	20
262	2	62		BER	RDRERI		5	2467	B M76	L	20
263	2	63	REDXI	B	XXXX		4	2472	B 000		20
264	2	64	RDRERI	MN	TPINSI+3,BSP2I+3		7	2476	D M62	M86	20
265	2	65	BSP2I	BSP	INITAP		5	2483	U (UO	B	21
266	2	66		S	+1,READCI		7	2488	S 096	P83	21
267	2	67		BWZ	TPINSI,READCI,B		8	2495	V M59	P83 B	21
268	2	68		MN	TPINSI+3,TPHALI+6		7	2503	D M62	N16	21
269	2	69	TPHALI	H	XXXX,790		7	2510	. 000	790	21
270	2	70		MCW	TPINSI+7,*+8		7	2517	M M66	N31	22
271	2	71		RT	INITAP,XXXX		8	2524	M (UO	000 R	22
272	2	72		BSS	BSPI,E		5	2532	B M39	E	22
273	2	73		H	XXXX,711		7	2537	. 000	711	22
274	2	74		B	REDXI		4	2544	B M72		22
275	2	75	WRTTDR	SKP	SYSTAP		5	2548	U (U1	E	22
276	2	76		BCE	SUBCTI,WRTCTI-1,5		8	2553	B N85	P84 5	23
277	2	77		A	+1,WRTCTI=2		7	2561	A 096	P85	23
278	2	78	INST2I	WT	INITAP,XXXX		8	2568	M (UO	000 W	23
279	2	79		BER	BSPI		5	2576	B M39	L	23
280	2	80		B	REDXI		4	2581	B M72		23
281	2	81	SUBCTI	S	WRTCTI		4	2585	S P85		23
282	2	82		MN	TPINSI+3,*+7		7	2589	D M62	002	24
283	2	83		H	XXXX,760		7	2596	. 000	760	24
284	2	84		B	INST2I		4	2603	B N68		24
285	2	85	CLRLEG	DCW	'CLEAR STORAGE '		14	2620			24
286	2	86	HCLDA1	DCW	+0000		4	2624			24
287	2	87	KBLK1	DCW	'080'		3	2627			24
288	2	88	CORSIZ	DCW	' 3999'		5	2632			25
289	2	89	CND SW1	DCW	'0'		1	2633			25
290	2	90	JOBSAV	DCW	=52		52	2685			27
291	2	91	ERRCT1	DCW	'0000'		4	2689			27
292	2	92	OPNSV1	DCW	' '		1	2690			27
293	2	93	SSAVE1	DCW	' '		1	2691			27
294	2	94	TAPCP1	DCW	' '		1	2692			27
295	2	95	LSTOP1	DCW	' '		1	2693			28
296	2	96	NOOUT1	DCW	' '		1	2694			28
297	2	97	GRPMK3	DC	' '		1	2695			28

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	2	98	SAVCN1	EQU	HOLDA1-3			2621			
299	2	99		LTORG	*				2696		
				DCW	+1		1	2696		LIT	28
					'JOB'		3	2699		LIT	28
		177	JOBSW		=01		1	2700		AREA	28
		182	JOBALT		=04		4	2704		AREA	28
		183	JOBPAG		=02		2	2706		AREA	28
		184	JOBLIN		=03		3	2709		AREA	29
		185	JOBLAB		=06		6	2715		AREA	29
					'CTL'		3	2718		LIT	29
		192	CTLSW		=01		1	2719		AREA	29
		193	CTLSAV		=10		10	2729		AREA	29
		194	CTLALT		=04		4	2733		AREA	29
		195	CTLPAG		=02		2	2735		AREA	29
		196	CTLLIN		=03		3	2738		AREA	30
		211	CTLSW1		=01		1	2739		AREA	30
		227			'L0 , , , 1 '		32	2771		LIT	30
					'2SKB'		4	2775		LIT	31
		229			'00000'		5	2780		LIT	31
					'1'		1	2781		LIT	31
					+9		1	2782		LIT	31
		260	READCI		=01		1	2783		AREA	31
		277	WRTCTI		=02		2	2785		AREA	31
300	3	00		ORG	3831				3831		
301	3	01	INPUT4	DA	1X86			3831	3916		31
302	3	02	PAGENO		1,2			3832		FIELD	32
303	3	03	LINENO		3,5			3835		FIELD	32
304	3	04	LABEL		6,11			3841		FIELD	32
305	3	05	MNEMON		16,20			3850		FIELD	32
306	3	06	OPERND		21,72			3902		FIELD	32
307	3	07	ALTNO		81,84			3914		FIELD	32
308	3	08	IMAGE	EQU	INPUT4-1			3830			
309	3	09	FIXINP	EQU	IMAGE+87+X3			3917	X		
310	3	10	INPUT5	EQU	FIXINP+1+X0			3918			
311	3	11	PROSIZ	EQU	CTLSAV-9			2720			
312	3	12	OBJSIZ	EQU	CTLSAV-8			2721			
313	3	13	OUTOPN	EQU	CTLSAV-7			2722			
314	3	14	LSTAPE	EQU	CTLSAV-5			2724			
315	3	15	ENDIN	EQU	3998			3998			
316	3	16	3998	DCW	' '		1	3998			33
317	3	17		XFR	LIBRN				B 000		34

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
318	3	18		JOB	1401 AUTOCODER-PASS 7 LIST,CONDNS-INITL 2 -VERSION 3						
319	3	19		ORG	400				0400		
320	3	20	*								
321	3	21	*	CONDENSE	OPTION						
322	3	22	*								
323	3	23	CONDOP	MCW	'1',CNDSW1	7		0400	M T64	033	37
324	3	24	*								
325	3	25	*	TEST	OBJECT MACHINE SIZE						
326	3	26	*								
327	3	27	TSTSIZ	BSS	SENSW,F	5		0407	B /03	F	37
328	3	28		BW	*+3,LSTOP1	8		0412	V 422	093 1	37
329	3	29		CC	1	2		0420	F 1		37
330	3	30		MCW	'1',PRINT+15	7		0422	M T64	215	37
331	3	31		MCW	CLRLEG	4		0429	M 020		37
332	3	32		MCW	'1',200	7		0433	M T64	200	38
333	3	33		BW	IS4K,CTLSW	8		0440	V 544	P19 1	38
334	3	34		C	OBJSIZ,'3'	7		0448	C P21	T65	38
335	3	35		BL	OVER4K	5		0455	B 464	T	38
336	3	36		B	IS4K	4		0460	B 544		38
337	3	37	OVER4K	C	OBJSIZ,'6'	7		0464	C P21	T66	38
338	3	38		BL	BADCTL	5		0471	B 540	T	39
339	3	39		MCW	',053053N000000N00001026',PUNCH+52	7		0476	M T89	152	39
340	3	40		LCA	',008015,022026,030037,044,049'	4		0483	L U18		39
341	3	41		MCW	PUNCH+52,PRINT+72	7		0487	M 152	272	39
342	3	42		B	PRTPNH	4		0494	B S17		39
343	3	43		MCW	'1,001/00111710+',PUNCH+71	7		0498	M U33	171	39
344	3	44		MCW	'=071029C029056B026/B001/099'	4		0505	M U60		39
345	3	45		LCA	'L068116,105106,110117B101/191'	4		0509	L U89		40
346	3	46		BCE	IS8K,OBJSIZ,4	8		0513	B 651	P21 4	40
347	3	47		BCE	IS12K,OBJSIZ,5	8		0521	B 669	P21 5	40
348	3	48		MCW	'15',CORSIZ-3	7		0529	M U91	029	40
349	3	49		B	CLRST2	4		0536	B 683		40
350	3	50	BADCTL	CW	CTLSW1	4		0540	J P39		40
351	3	51	IS4K	MCW	',0570571026',PUNCH+44	7		0544	M V02	144	41
352	3	52		LCA	',008015,019026,030,034041,045,053'	4		0551	L V35		41
353	3	53		MCW	PUNCH+44,PRINT+64	7		0555	M 144	264	41
354	3	54		B	PRTPNH	4		0562	B S17		41
355	3	55		MCW	'B0010270B0261,001/00111310',PUNCH+70	7		0566	M V61	170	41
356	3	56		LCA	'L068112,102106,113/101099/199,027A070028)027'	4		0573	L W05		41
357	3	57		BCE	CLRST2,OBJSIZ,3	8		0577	B 683	P21 3	42
358	3	58		MZ	'S',PUNCH+27	7		0585	Y W06	127	42
359	3	59		MCW	'1',CORSIZ-3	7		0592	M T64	029	42
360	3	60		BCE	CLRST2,OBJSIZ,2	8		0599	B 683	P21 2	42
361	3	61		MCW	'T',PUNCH+27	7		0607	M W07	127	42
362	3	62		MCW	'3',CORSIZ-2	7		0614	M T65	030	43
363	3	63		BCE	CLRST2,OBJSIZ,1	8		0621	B 683	P21 1	43
364	3	64		CW	CTLSW1	4		0629	J P39		43
365	3	65		MCW	'I',PUNCH+27	7		0633	M W08	127	43
366	3	66		MCW	'39',CORSIZ-2	7		0640	M W10	030	43
367	3	67		B	CLRST2	4		0647	B 683		43

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
368	3	68	IS8K	MZ	'S',PUNCH+29	7		0651	Y W06	129	44
369	3	69		MCW	'7',CORSIZ-3	7		0658	M W11	029	44
370	3	70		B	CLRST2	4		0665	B 683		44
371	3	71	IS12K	MZ	'K',PUNCH+29	7		0669	Y W12	129	44
372	3	72		MCW	'11',CORSIZ-3	7		0676	M W14	029	44
373	3	73	CLRST2	MCW	PUNCH+71,PRINT+91	7		0683	M 171	291	44
374	3	74		MCW	'2',PRINT+15	7		0690	M W15	215	45
375	3	75		MCW	CLRLEG	4		0697	M 020		45
376	3	76		B	PRTPNH	4		0701	B S17		45
377	3	77		MCW	'0010011040',PUNCH+71	7		0705	M W26	171	45
378	3	78		MCW	'061068,072/061039',PUNCH+46	7		0712	M W44	146	45
379	3	79		LCA	'008015,022029,036040,047054'	4		0719	L W72		45
380	3	80		MCW	PUNCH+71,PRINT+91	7		0723	M 171	291	46
381	3	81		MCW	'BOOTSTRAP',PRINT+9	7		0730	M W81	209	46
382	3	82		B	PRTPNH	4		0737	B S17		46
383	3	83		BW	*+3,LSTOP1	8		0741	V 751	093 1	46
384	3	84		CC	K	2		0749	F K		46
385	3	85		BW	DOHEAD,CTLSW	8		0751	V 818	P19 1	46
386	3	86	*								
387	3	87	* TEST PROCESSOR MACHINE SIZE								
388	3	88	*								
389	3	89		C	PROSIZ,'3'	7		0759	C P20	T65	47
390	3	90		BE	DOHEAD	5		0766	B 818	S	47
391	3	91		BH	BADPRO	5		0771	B 814	U	47
392	3	92		C	PROSIZ,'6'	7		0776	C P20	T66	47
393	3	93		BL	BADPRO	5		0783	B 814	T	47
394	3	94		MCW	'400',KBLK1	7		0788	M W84	027	47
395	3	95		BCE	DOHEAD,PROSIZ,4	8		0795	B 818	P20 4	48
396	3	96		A	'400',KBLK1	7		0803	A W84	027	48
397	3	97		B	DOHEAD	4		0810	B 818		48
398	3	98	BADPRO	CW	CTLSW1	4		0814	J P39		48
399	3	99	*								
400	4	00	* PRINT HEADING, JOB + CONTROL CARDS								
401	4	01	*								
402	4	02	DOHEAD	MCW	'1',PRINT+114	7		0818	M T64	314	48
403	4	03		MCW	'PAGE',PRINT+109	7		0825	M W88	309	48
404	4	04		MCW	JOBSAV,OPRAND	7		0832	M 085	278	49
405	4	05		MCW	PUNCH+80,LOCN	7		0839	M 180	290	49
406	4	06		MCW	'0',200	7		0846	M W89	200	49
407	4	07		B	PRINT2	4		0853	B #61		49
408	4	08		BW	*+3,LSTOP1	8		0857	V 867	093 1	49
409	4	09		CC	K	2		0865	F K		49
410	4	10		CS	PRINT+78	4		0867	/ 278		49
411	4	11		MCW	'SFX CT LOCN INSTRUCTION TYPE CARD',PRINT+114	7		0871	M X25	314	50
412	4	12		MCW	'SEQ PG LIN LABEL OP OPERANDS',PRINT+34	7		0878	M X58	234	50
413	4	13		MCW	'0',200	7		0885	M W89	200	50
414	4	14		B	PRINT2	4		0892	B #61		50
415	4	15		CS	PRINT+132	4		0896	/ 332		50
416	4	16		CS		1		0900	/		50
417	4	17		B	PRINT2	4		0901	B #61		50

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
418	4	18		BW	TSTCTL,JOBSW	8		0905	V 970	P00 1	51
419	4	19		MCS	JOBALT,ALT	7		0913	Z P04	204	51
420	4	20		MCS	JOBPAG,PG	7		0920	Z P06	207	51
421	4	21		MZ	JOBPAG,PG	7		0927	Y P06	207	51
422	4	22		MCW	JOBLIN,LIN	7		0934	M P09	211	51
423	4	23		MCW	JOBLAB,LAB	7		0941	M P15	219	52
424	4	24		MCW	'JOB',OPCODE-2	7		0948	M X61	223	52
425	4	25		MCW	JOBSAV,OPRAND	7		0955	M 085	278	52
426	4	26		B	PRINT2	4		0962	B #61		52
427	4	27		CS	OPRAND	4		0966	/ 278		52
428	4	28	TSTCTL	BW	NOCNTL,CTLSW	8		0970	V #50	P19 1	52
429	4	29		MCS	CTLALT,ALT	7		0978	Z P33	204	53
430	4	30		MCS	CTLPAG,PG	7		0985	Z P35	207	53
431	4	31		MZ	CTLPAG,PG	7		0992	Y P35	207	53
432	4	32		MCW	CTLLIN,LIN	7		0999	M P38	211	53
433	4	33		MCW	CTLSAV,PRINT+36	7		1006	M P29	236	53
434	4	34		MCW	'CTL',OPCODE-2	7		1013	M X64	223	54
435	4	35		BW	CTLPNT,CTLSW1	8		1020	V #42	P39 1	54
436	4	36		MCW	'BAD STATEMENT',PRINT+128	7		1028	M X77	328	54
437	4	37	ERRCTL	A	+1,ERRCTL	7		1035	A X78	089	54
438	4	38	CTLPNT	B	PRINT2	4		1042	B #61		54
439	4	39		B	GETMAN	4		1046	B K22		54
440	4	40	NOCNTL	MCW	'NO CONTROL CARD',PRINT+130	7		1050	M X93	330	55
441	4	41		B	ERRCTL	4		1057	B #35		55
442	4	42	PRINT2	SBR	PNT2XT+3	4		1061	H /02		55
443	4	43		BW	**+2,LSTOP1	8		1065	V #74	093 1	55
444	4	44		W		1		1073	2		55
445	4	45		BW	PNT2XT,TAPOP1	8		1074	V #99	092 1	55
446	4	46		WT	3,200	8		1082	M (U3	200 W	56
447	4	47		NOP	XXXX	4		1090	N 000		56
448	4	48		BER	TPERRI	5		1094	B M03	L	56
449	4	49	PNT2XT	B	XXXX	4		1099	B 000		56
450	4	50	*								
451	4	51	* TEST	SENSE	SWITCHES FOR OUTPUT OPTIONS						
452	4	52	*								
453	4	53	SENSW	LCA	'0',OUTOPN	7		1103	L W89	P22	56
454	4	54		LCA	'0',CNDSW1	7		1110	L W89	033	56
455	4	55		MCW	' ',LSTAPE	7		1117	M X94	P24	57
456	4	56		SW	TAPOP1	4		1124	, 092		57
457	4	57		BSS	ADD1,B	5		1128	B /68	B	57
458	4	58	TSTSSC	BSS	ADD2,C	5		1133	B /79	C	57
459	4	59	TSTSSG	BSS	ADD4,G	5		1138	B /90	G	57
460	4	60	TSTSSD	BSS	LSTAP,D	5		1143	B S01	D	57
461	4	61	TST SSE	BSS	SUPLST,E	5		1148	B S09	E	57
462	4	62	SSXT	CW	OUTOPN	4		1153	) P22		58
463	4	63		MCW	'N',TSTSIZ	7		1157	M X95	407	58
464	4	64		B	CHKOP	4		1164	B J26		58
465	4	65	ADD1	A	+1,OUTOPN	7		1168	A X78	P22	58
466	4	66		B	TSTSSC	4		1175	B /33		58
467	4	67	ADD2	A	+2,OUTOPN	7		1179	A X96	P22	58



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
468	4	68		B	TSTSSG	4		1186	B /38		58
469	4	69	ADD4	A	+4,OUTOPN	7		1190	A X97 P22		59
470	4	70		B	TSTSSD	4		1197	B /43		59
471	4	71	LSTAP	CW	TAPOP1	4		1201	) 092		59
472	4	72		B	TSTSSE	4		1205	B /48		59
473	4	73	SUPLST	SW	LSTOP1	4		1209	, 093		59
474	4	74		B	SSXT	4		1213	B /53		59
475	4	75	*								
476	4	76	* PRINT AND/OR PUNCH								
477	4	77	*								
478	4	78	PRTPNH	SBR	EXIT+3	4		1217	H T14		59
479	4	79		MCS	PUNCH+75,CARDNO	7		1221	Z 175 314		60
480	4	80		BW	**2,LSTOP1	8		1228	V S37 093 1		60
481	4	81		W		1		1236	2		60
482	4	82		BW	PUNCH1,TAPOP1	8		1237	V S86 092 1		60
483	4	83		WT	3,200	8		1245	M (U3 200 W		60
484	4	84		NOP	XXXX	4		1253	N 000		60
485	4	85		BER	TPERRI	5		1257	B M03 L		61
486	4	86		MCW	'+',100	7		1262	M X98 100		61
487	4	87		WT	3,100	8		1269	M (U3 100 W		61
488	4	88		NOP	XXXX	4		1277	N 000		61
489	4	89		BER	TPERRI	5		1281	B M03 L		61
490	4	90	PUNCH1	BCE	**2,CNDSW1,0	8		1286	B S95 033 0		61
491	4	91		P		1		1294	4		61
492	4	92		A	+1,PUNCH+75	7		1295	A X78 175		62
493	4	93		CS	PRINT+132	4		1302	/ 332		62
494	4	94		CS		1		1306	/		62
495	4	95		CS	PUNCH+71	4		1307	/ 171		62
496	4	96	EXIT	B	XXXX	4		1311	B 000		62
497	4	97	*								
498	4	98	* READ ORIGINAL TAPE								
499	4	99	*								
500	5	00	READ4	SBR	READ4X+3	4		1315	H T39		62
501	5	01		RT	ORIGTP,INPUT4	8		1319	M (U4 H31 R		62
502	5	02		B	CHKLG	4		1327	B T40		63
503	5	03		BER	TPERRI	5		1331	B M03 L		63
504	5	04	READ4X	B	XXXX	4		1336	B 000		63
505	5	05	CHKLG	BCE	READ4+4,INPUT4+12,	8		1340	B T19 H43		63
506	5	06		CHAIN	12					MACRO	
507				BCE		1		1348	B	GEN	63
508				BCE		1		1349	B	GEN	63
509				BCE		1		1350	B	GEN	63
510				BCE		1		1351	B	GEN	64
511				BCE		1		1352	B	GEN	64
512				BCE		1		1353	B	GEN	64
513				BCE		1		1354	B	GEN	64
514				BCE		1		1355	B	GEN	64
515				BCE		1		1356	B	GEN	64
516				BCE		1		1357	B	GEN	64
517				BCE		1		1358	B	GEN	65

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
518				BCE			1	1359	B	GEN	65
519	5	07		B	READ4X-5		4	1360	B T31		65
520	5	08		LTORG	*				1364		
				DCW	'1'		1	1364		LIT	65
					'3'		1	1365		LIT	65
					'6'		1	1366		LIT	65
339					',053053N000000N00001026'		23	1389		LIT	65
340					',008015,022026,030037,044,049'		29	1418		LIT	66
343					'1,001/00111710+'		15	1433		LIT	67
344					'=071029C029056B026/B001/099'		27	1460		LIT	68
345					'L068116,105106,110117B101/191'		29	1489		LIT	69
					'15'		2	1491		LIT	69
351					',0570571026'		11	1502		LIT	70
352					',008015,019026,030,034041,045,053'		33	1535		LIT	71
355					'B0010270B0261,001/00111310'		26	1561		LIT	72
356					'L068112,102106,113/101099/199,027A0700281027'		44	1605		LIT	74
					'S'		1	1606		LIT	74
					'T'		1	1607		LIT	74
					'I'		1	1608		LIT	74
					'39'		2	1610		LIT	74
					'7'		1	1611		LIT	75
					'K'		1	1612		LIT	75
					'11'		2	1614		LIT	75
					'2'		1	1615		LIT	75
377					',0010011040'		11	1626		LIT	75
378					',061068,072/061039'		18	1644		LIT	75
379					',008015,022029,036040,047054'		28	1672		LIT	76
381					'BOOTSTRAP'		9	1681		LIT	76
					'400'		3	1684		LIT	77
					'PAGE'		4	1688		LIT	77
					'0'		1	1689		LIT	77
411					'SFX CT LOCN INSTRUCTION TYPE CARD'		36	1725		LIT	78
412					'SEQ PG LIN LABEL OP OPERANDS'		33	1758		LIT	79
					'JOB'		3	1761		LIT	79
					'CTL'		3	1764		LIT	79
436					'BAD STATEMENT'		13	1777		LIT	80
					+1		1	1778		LIT	80
440					'NO CONTROL CARD'		15	1793		LIT	80
					' '		1	1794		LIT	80
					'N'		1	1795		LIT	80
					+2		1	1796		LIT	80
					+4		1	1797		LIT	80
					'+'		1	1798		LIT	81
521	5	09	ENDIN2	DCW	' '		1	1799			81
522	5	10		XFR	LIBRN				B 000		82

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
523	5	11		JOB	1401 AUTOCODER-PASS 7 PROCESS EX/END						
524	5	12		ORG	ISIICS				0794		
525	5	13	*								
526	5	14	* EX, END CARDS								
527	5	15	*								
528	5	16	EXEND	MCW	'B',INOP	7		0794	M D12 293		85
529	5	17		MCW	'B',HOLDH+1	7		0801	M D12 D93		85
530	5	18		BCE	SETAOP,TYPE,C	8		0808	B 830 075 C		85
531	5	19		MCW	'/' 080',INBOP	7		0816	M D21 301		85
532	5	20		MCW	'/' 080',HOLDH+7	7		0823	M D28 D99		85
533	5	21	SETAOP	MCW	AOP,INAOP	7		0830	M 070 297		86
534	5	22		MCW	AOP,HOLDH+4	7		0837	M 070 D96		86
535	5	23		BCE	SYMUND,AOP,=	8		0844	B L09 070 =		86
536	5	24		B	SETLOC	4		0852	B U18		86
537	5	25		B	CONDNS	4		0856	B L54		86
538	5	26		B	PRNTLN	4		0860	B Y54		86
539	5	27		BCE	GETOV1,TYPE,C	8		0864	B Z63 075 C		87
540	5	28		CC	1	2		0872	F 1		87
541	5	29		MCW	'1',200	7		0874	M D29 200		87
542	5	30		MCS	ERRCNT,PRINT+4	7		0881	Z C66 204		87
543	5	31		C	PRINT+4,BLANK4=4	7		0888	C 204 D33		87
544	5	32		BU	SETERH	5		0895	B 945 /		87
545	5	33	TSTCOR	BW	EOJOB,ADDRSk=1	8		0900	V 928 D34 1		88
546	5	34		MCW	WORD1,PRINT+20	7		0908	M S49 220		88
547	5	35		B	WTAPE	4		0915	B J24		88
548	5	36		BW	**2,LSTOP	8		0919	V 928 C70 1		88
549	5	37		W		1		0927	2		88
550	5	38	EOJOB	BW	RESET,TAPCP	8		0928	V 543 C69 1		88
551	5	39		WTM	3	5		0936	U (U3 M		89
552	5	40		B	RESET	4		0941	B 543		89
553	5	41	SETERH	MCW	'ERRORS',PRINT+11	7		0945	M D40 211		89
554	5	42		C	PRINT+4,' 1'	7		0952	C 204 D44		89
555	5	43		BU	**8	5		0959	B 971 /		89
556	5	44		MCW	BLANK1,PRINT+11	7		0964	M D30 211		89
557	5	45		B	WTAPE	4		0971	B J24		89
558	5	46		BW	**2,LSTOP	8		0975	V 984 C70 1		90
559	5	47		W		1		0983	2		90
560	5	48		CS	PRINT+11	4		0984	/ 211		90
561	5	49		B	TSTCOR	4		0988	B 900		90
562	5	50	*								
563	5	51	* CONDENSE EX, END CARDS								
564	5	52	*								
565	5	53	NOCARD	C	WMLOC,AWMSTR	7		0992	C C75 C78		90
566	5	54		BE	TSTEND	5		0999	B #20 S		90
567	5	55		CW	NEWSW	4		1004	) G27		90
568	5	56	ENDRTN	BW	NOCARD,NEWSW	8		1008	V 992 G27 1		91
569	5	57		B	PNCHCD	4		1016	B P62		91
570	5	58	TSTEND	BCE	EXCUTE,TYPE,C	8		1020	B #57 075 C		91
571	5	59		CS	PUNCH+71	4		1028	/ 171		91
572	5	60		MCW	HOLDH+7,PUNCH+46	7		1032	M D99 146		91

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
573	5	61		MCS	PUNCH+75,CARDNO	7		1039	Z 175 314		91
574	5	62		SBR	PNHXT+3,LSTCD	7		1046	H Q90 S11		92
575	5	63		B	TSTPCH	4		1053	B Q21		92
576	5	64	EXCUTE	MCE	WMSTR,PUNCH+71	7		1057	E D11 171		92
577	5	65		MCW	'N000000',PUNCH+46	7		1064	M D51 146		92
578	5	66		MCW	HOLDH+4,PUNCH+71	7		1071	M D96 171		92
579	5	67		MCS	PUNCH+75,CARDNO	7		1078	Z 175 314		92
580	5	68		SBR	PNHXT+3,EXOUT	7		1085	H Q90 +96		93
581	5	69		B	TSTPCH	4		1092	B Q21		93
582	5	70	*								
583	5	71	* PUNCH COMPATIBILITY CARDS								
584	5	72	*								
585	5	73	EXOUT	CS	PUNCH+71	4		1096	/ 171		93
586	5	74		B	READOG	4		1100	B B09		93
587	5	75		BSP	ORIGTP	5		1104	U (U4 B		93
588	5	76		C	MNEMON-2,'JCB'	7		1109	C H48 D54		93
589	5	77		BU	*+8	5		1116	B /28 /		93
590	5	78		MCW	IMAGE+80,PUNCH+80	7		1121	M I10 180		94
591	5	79		MCW	WORD2,PUNCH+39	7		1128	M S88 139		94
592	5	80		LCA	WORD3,PUNCH+66	7		1135	L S99 166		94
593	5	81		MCW	PUNCH+66,PUNCH+50	7		1142	M 166 150		94
594	5	82		BCE	*+2,CONDSW,0	8		1149	B /58 C10 0		94
595	5	83		P		1		1157	4		94
596	5	84		B	WTAP2	4		1158	B +43		95
597	5	85		CS	PUNCH+66	4		1162	/ 166		95
598	5	86		A	+1,PUNCH+75	7		1166	A D55 175		95
599	5	87		MCW	WORD4,PUNCH+21	7		1173	M T20 121		95
600	5	88		MCW	WORD5,PUNCH+71	7		1180	M T31 171		95
601	5	89		SBR	PNHXT+3,OUTEX	7		1187	H Q90 S26		95
602	5	90		BCE	*+2,CONDSW,0	8		1194	B S03 C10 0		96
603	5	91		P		1		1202	4		96
604	5	92		B	WTAP2	4		1203	B +43		96
605	5	93		B	NEWCRD	4		1207	B Q34		96
606	5	94	LSTCD	CS	PUNCH+80	4		1211	/ 180		96
607	5	95		BCE	*+4,CONDSW,0	8		1215	B S26 C10 0		96
608	5	96		P		1		1223	4		96
609	5	97		SS	8	2		1224	K 8		97
610	5	98	OUTEX	B	CNDOUT+7	4		1226	B +14		97
611	5	99	WORD1	DCW	'OBJECT CORE EXCEEDED'	20		1249			97
612	6	00	WORD2	DCW	',015022)024056,029036,040047,0540611001'	39		1288			98
613	6	01	WORD3	DCW	',001008B001'	11		1299			99
614	6	02	WORD4	DCW	',068072)063067/061039'	21		1320			99
615	6	03	WORD5	DCW	',0010011C4C'	11		1331			100
616	6	04	OV2GM	DCW	' '	1		1332			100
617	6	05		XFR	LIBRN				B 000		101

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
618	6	06		JOB	1401 AUTOCODER-PASS 7 LEFT MAIN LINE						
619	6	07	*								
620	6	08	* READ		SECOND HALF OF MAIN PROGRAM						
621	6	09	*								
622	6	10		ORG	201				0201		
623	6	11	INIT2	RTW	SYSTAP,2000	8		0201	L (U1 -00	R	104
624	6	12		NOP	XXXX	4		0209	N 000		104
625	6	13		BER	TPERR	5		0213	B 334	L	104
626	6	14		RTW	XTRATP,SAVCON	8		0218	L (U6 B98	R	104
627	6	15		NOP	XXXX	4		0226	N 000		104
628	6	16		BER	TPERR	5		0230	B 334	L	104
629	6	17		RWD	XTRATP	5		0235	U (U6 R		104
630	6	18		CW	GMSAVE,WMSW=1	7		0240	) C72 D56		105
631	6	19		CW	ENDE1,ENDE2	7		0247	) Z94 H27		105
632	6	20		SW	GM,181	7		0254	, 333 181		105
633	6	21		SW	OV1GM	4		0261	, U17		105
634	6	22		WTW	XTRATP,ISIOCS	8		0265	L (U6 794	W	105
635	6	23		NOP	XXXX	4		0273	N 000		105
636	6	24		BER	TPERR	5		0277	B 334	L	106
637	6	25		RWD	XTRATP	5		0282	U (U6 R		106
638	6	26		CW	OV1GM	4		0287	) U17		106
639	6	27		ZA	+5,LINCT	7		0291	+ D57 F13		106
640	6	28		BCE	RESET,NOOUT,1	8		0298	B 543 C71	1	106
641	6	29		B	GET	4		0306	B A24		106
642	6	30		B	SETUP	4		0310	B 595		106
643	6	31		DCW	' '	1		0314			107
644	6	32	*								
645	6	33	* MAIN		LINE PROGRAM						
646	6	34	*								
647	6	35		ORG	333				0333		
648	6	36	GM	DC	' '	1		0333			108
649	6	37	*								
650	6	38	* TAPE		REDUNDANCY ROUTINE						
651	6	39	*								
652	6	40	TPERR	SBR	XR2	4		0334	H 094		108
653	6	41		SBR	REDXT+3	4		0338	H 406		108
654	6	42		MZ	PLUS9,XR2	7		0342	Y 538 094		108
655	6	43		MCW	4000-10+X2,TPINST+7	7		0349	M IR0 397		108
656	6	44		MN	TPINST+3,BSP1+3	7		0356	D 393 373		109
657	6	45		MCW	TPINST+7,INST2+7	7		0363	M 397 506		109
658	6	46	BSP1	BSP	INITAP	5		0370	U (U0 B		109
659	6	47		BCE	WRTRED,TPINST+7,W	8		0375	B 479 397	W	109
660	6	48		MCW	PLUS9,READCT	7		0383	M 538 540		109
661	6	49	TPINST	RT	INITAP,XXXX	8		0390	M (U0 000	R	110
662	6	50		BER	RDRERR	5		0398	B 407	L	110
663	6	51	REDXT	B	XXXX	4		0403	B 000		110
664	6	52	RDRERR	MN	TPINST+3,BSP2+3	7		0407	D 393 417		110
665	6	53	BSP2	BSP	INITAP	5		0414	U (U0 B		110
666	6	54		S	PLUS1,READCT	7		0419	S 539 540		110
667	6	55		BWZ	TPINST,READCT,B	8		0426	V 390 540	B	111

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
668	6	56		MN	TPINST+3,TPHALT+6	7		0434	D 393 447		111
669	6	57	TPHALT	H	XXXX,790	7		0441	. 000 790		111
670	6	58		MCW	TPINST+7,++8	7		0448	M 397 462		111
671	6	59		RT	INITAP,XXXX	8		0455	M (U0 000 R		111
672	6	60		BSS	BSP1,E	5		0463	B 370 E		112
673	6	61		H	XXXX,712	7		0468	. 000 712		112
674	6	62		B	REDXT	4		0475	B 403		112
675	6	63	WRTRED	SKP	SYSTAP	5		0479	U (U1 E		112
676	6	64		BCE	SUBCTR,WRTCTR-1,5	8		0484	B 516 541 5		112
677	6	65		A	PLUS1,WRTCTR	7		0492	A 539 542		112
678	6	66	INST2	WT	INITAP,XXXX	8		0499	M (U0 000 W		113
679	6	67		BER	BSP1	5		0507	B 370 L		113
680	6	68		B	REDXT	4		0512	B 403		113
681	6	69	SUBCTR	S	WRTCTR	4		0516	S 542		113
682	6	70		MN	TPINST+3,++7	7		0520	D 393 533		113
683	6	71		H	XXXX,760	7		0527	. 000 760		113
684	6	72		B	INST2	4		0534	B 499		113
685	6	73	PLUS9	DCW	+9	1		0538			114
686	6	74	PLUS1	DCW	+1	1		0539			114
687	6	75	READCT	DCW	=1	1		0540			114
688	6	76	WRTCTR	DCW	=2	2		0542			114
689	6	77	*								
690	6	78	* GET PASS F								
691	6	79	*								
692	6	80	RESET	LCA	SSAVE,201	7		0543	L C68 201		114
693	6	81		LCA		1		0550	L		114
694	6	82		RT	SYSTAP,332	8		0551	M (U1 332 R		114
695	6	83		CW	181,333	7		0559	) 181 333		115
696	6	84		RTW	SYSTAP,2000	8		0566	L (U1 -00 R		115
697	6	85		NOP	XXXX	4		0574	N 000		115
698	6	86		BER	TPERR	5		0578	B 334 L		115
699	6	87		MCW	201,2001	7		0583	M 201 -01		115
700	6	88		MCW		1		0590	M		115
701	6	89		B	2002	4		0591	B -02		115
702	6	90	*								
703	6	91	* BEGIN MAIN LINE PROGRAM								
704	6	92	*								
705	6	93	SETUP	CS	PRINT+132	4		0595	/ 332		116
706	6	94		CS		1		0599	/		116
707	6	95	GETORG	B	READOG	4		0600	B 809		116
708	6	96	*								
709	6	97	* DETERMINE TYPE								
710	6	98	*								
711	6	99	ANALWK	SW	TYPESW=1	4		0604	, D58		116
712	7	00		MN	TYPE,TYPEA=1	7		0608	D 075 D59		116
713	7	01		BCE	BYPASS,TYPE,I	8		0615	B S85 075 (		116
714	7	02		BCE	BYPASS,TYPE,8	8		0623	B S85 075 8		116
715	7	03		BCE	BYPASS,TYPE,I	8		0631	B S85 075 I		117
716	7	04		BCE	BYPASS,TYPE,H	8		0639	B S85 075 H		117
717	7	05		BCE	PROWRK,ALTER,	8		0647	B 881 080		117

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
718	7	06	ANALOG	BCE	SETCOM,LABEL-5,*	8		0655	B J72 H36 *		117
719	7	07		BCE	MACPNT,IMAGE+75,R	8		0663	B 805 105 R		118
720	7	08		BCE	ISIOCS,IMAGE+75,W	8		0671	B 794 105 W		118
721	7	09		BCE	MACPNT+7,IMAGE+75,S	8		0679	B 812 105 S		118
722	7	10		BCE	MACPNT+7,IMAGE+75,Z	8		0687	B 812 105 Z		118
723	7	11		C	MNEMON-2,'JOB'	7		0695	C H48 D54		118
724	7	115		BE	DOJOB	5		0702	B 843 S		119
725	7	12		C	ALTER,ALTNO	7		0707	C 080 114		119
726	7	13		BU	SEQERR	5		0714	B +83 /		119
727	7	14		B	SETFRE	4		0719	B T01		119
728	7	15		CW	TYPESW	4		0723	) D58		119
729	7	16		BCE	INSTR,TYPE,	8		0727	B V43 075		119
730	7	17		MN	TYPE,XR2	7		0735	D 075 094		120
731	7	18		A	XR2	4		0742	A 094		120
732	7	19		A	XR2	4		0746	A 094		120
733	7	20		B	**1+X2	4		0750	B 7N4		120
734	7	21		B	DA	4		0754	B W52		120
735	7	22		B	CONST	4		0758	B #62		120
736	7	23		B	DSA	4		0762	B 969		120
737	7	24		B	GETOV2	4		0766	B +94		121
738	7	25		B	SFX	4		0770	B L43		121
739	7	26		B	TYPERR	4		0774	B S78		121
740	7	27		B	ORG	4		0778	B K12		121
741	7	28		B	DS	4		0782	B K85		121
742	7	29		B	TYPERR	4		0786	B S78		121
743	7	30		B	TYPERR	4		0790	B S78		121
744	7	31		*							
745	7	32		* MACRO CARD							
746	7	33		*							
747	7	34	ISIOCS	MCW	'IOCS',KIND-1	7		0794	M D63 308		122
748	7	35		B	MACPNT+7	4		0801	B 812		122
749	7	36	MACPNT	MCW	'MACRO',KIND	7		0805	M D68 309		122
750	7	37		B	SETFRE	4		0812	B T01		122
751	7	38		BCE	CALERR,IMAGE+86,7	8		0816	B 828 116 7		122
752	7	39		B	COMXT	4		0824	B J85		122
753	7	40	CALERR	MCW	'OVERCALL',PRINT+123	7		0828	M D76 323		123
754	7	41		B	BMPERR	4		0835	B L28		123
755	7	42		B	COMXT	4		0839	B J85		123
756	7	43		*							
757	7	44		* NEW JOB CARD							
758	7	45		*							
759	7	46	DOJOB	MCW	OPERND,JOB	7		0843	M I02 C62		123
760	7	47		BW	DOIDT,NEWSW	8		0850	V 862 G27 1		123
761	7	48		B	PNCHCD	4		0858	B P62		123
762	7	49	DOIDT	MCW	IMAGE+80,PUNCH+80	7		0862	M I10 180		124
763	7	50		S	LINCT	4		0869	S F13		124
764	7	51		B	PRTHDG	4		0873	B -00		124
765	7	52		B	MACPNT+7	4		0877	B 812		124
766	7	53		*							
767	7	54		* PROGRAM GENERATED RECORD							

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
768	7	55	*								
769	7	56	PROWRK	BCE	XTRA,TYPE,Y	8		0881	B 924 075 Y		124
770	7	57		CW	OP+1	4		0889	J 068		124
771	7	58		MCS	AOP,PRINT+11	7		0893	Z 070 211		124
772	7	59		SW	OP+1	4		0900	, 068		125
773	7	60		BCE	ADCON,TYPE,S	8		0904	B 944 075 S		125
774	7	61		BCE	LITRAL,TYPEA,1	8		0912	B 999 059 1		125
775	7	62		B	TYPERR	4		0920	B S78		125
776	7	63	*								
777	7	64	* LITERAL GREATER THAN 30 CHARACTERS								
778	7	65	*								
779	7	66	XTRA	SW	PRINT+27	4		0924	, 227		125
780	7	67		MCW	FIXFRM+72,OPRAND	7		0928	M 072 278		125
781	7	68		CHAIN	5					MACRO	
782				MCW		1		0935	M	GEN	125
783				MCW		1		0936	M	GEN	126
784				MCW		1		0937	M	GEN	126
785				MCW		1		0938	M	GEN	126
786				MCW		1		0939	M	GEN	126
787	7	69		B	BYPASS	4		0940	B S85		126
788	7	70	*								
789	7	71	* ADCON CARD								
790	7	72	*								
791	7	73	ADCON	MCW	'ADCON',KIND	7		0944	M D81 309		126
792	7	74		SW	PRINT+27	4		0951	, 227		126
793	7	75		MCW	FIXFRM+53,PRINT+40	7		0955	M 053 240		127
794	7	76		MCW	FIXFRM+16,OPCODE-2	7		0962	M 016 223		127
795	7	77	DSA	MCW	BOP,PRINT+95	7		0969	M 073 295		127
796	7	78		MCW	BOP,HOLDH+3	7		0976	M 073 D95		127
797	7	79		B	SETADD	4		0983	B S45		127
798	7	80		BCE	SYMUND,BOP,=	8		0987	B L09 073 =		128
799	7	81		B	SETLIT	4		0995	B /56		128
800	7	82	*								
801	7	83	* LITERAL + AREA DEFINITION CARDS								
802	7	84	*								
803	7	85	LITRAL	BWZ	PROLIT,TYPE,S	8		0999	V #41 075 S		128
804	7	86		BWZ	DADC,FIXFRM+1,B	8		1007	V S28 001 B		128
805	7	87		MCW	'RMARK',KIND	7		1015	M D86 309		128
806	7	88		BCE	PROLIT+7,TYPE,A	8		1022	B #48 075 A		129
807	7	89		MCW	'G',KIND-4	7		1030	M D87 305		129
808	7	90		B	PROLIT+7	4		1037	B #48		129
809	7	91	PROLIT	MCW	'LIT',KIND-2	7		1041	M D90 307		129
810	7	92		MCW	FIXFRM+53,PRINT+57	7		1048	M 053 257		129
811	7	93		MCW	FIXFRM+16,OPCODE-2	7		1055	M 016 223		130
812	7	94	CONST	B	SETADD	4		1062	B S45		130
813	7	95		A	'00',COUNT	7		1066	A D92 007		130
814	7	96		C	COUNT,'00'	7		1073	C 007 D92		130
815	7	97		BL	GOOD	5		1080	B #96 T		130
816	7	98		MZ	ZONE-1,STSTMT	7		1085	Y 188 005		130
817	7	99		B	SETLIT	4		1092	B /56		131



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
818	8	00	GOOD	BCE	AREADF,PRINT+27,=	8		1096	B /83 227 =		131
819	8	01		BWZ	AREADF,FIXFRM+4,B	8		1104	V /83 004 B		131
820	8	02		MCW	OPRAND,HOLDDT-1	7		1112	M 278 E43		131
821	8	03		BCE	SETLIT,PRINT+27,'	8		1119	B /56 227 '		131
822	8	04		BWZ	UNSIGN,PRINT+27,2	8		1127	V /72 227 2		132
823	8	05		MCW	COUNT,XR1	7		1135	M 007 089		132
824	8	06		MZ	BLANK4,PRINT+27+X1	7		1142	Y D33 2S7		132
825	8	07		MZ	PRINT+27,HOLDH+X1	7		1149	Y 227 DZ2		132
826	8	08	SETLIT	B	SETLOC	4		1156	B U18		132
827	8	09		B	CONDNS	4		1160	B L54		132
828	8	10	LITOUT	B	PRNTLN	4		1164	B Y54		133
829	8	11		B	BYPASS	4		1168	B S85		133
830	8	12	UNSIGN	MCW	OPRAND,HOLDDT=52	7		1172	M 278 E44		133
831	8	13		B	SETLIT	4		1179	B /56		133
832	8	14	AREADF	BW	*+5,TYPESW	8		1183	V /95 D58 1		133
833	8	15		B	SETLIT	4		1191	B /56		133
834	8	16		MCW	FIXFRM+13,LAB	7		1195	M 013 219		133
835	8	17		MCW	BLANK4-2,PRINT+31	7		1202	M D31 231		134
836	8	18		MCW	COUNT	4		1209	M 007		134
837	8	19		MCW	'='	4		1213	M E45		134
838	8	20		MCW	'AREA',KIND-1	7		1217	M E49 308		134
839	8	21		B	SETLIT	4		1224	B /56		134
840	8	22	DADC	B	SETADD	4		1228	B S45		134
841	8	23		B	CONDNS	4		1232	B L54		134
842	8	24		CS	PRINT+132	4		1236	/ 332		135
843	8	25		CS		1		1240	/		135
844	8	26		B	BYPASS	4		1241	B S85		135
845	8	27	*								
846	8	28	* SET CONDENSE ADDRESSES FOR CONSTANTS								
847	8	29	*								
848	8	30	SETADD	SBR	ADDXT+3	4		1245	H S77		135
849	8	31		ZA	LABADD,LOADAD	7		1249	+ 061 E83		135
850	8	32		MCW	LOADAD	4		1256	M E83		135
851	8	33		S	COUNT,WMADDR	7		1260	S 007 E78		135
852	8	34		A	+1,WMADDR	7		1267	A D55 E78		136
853	8	35	ADDXT	B	XXXX	4		1274	B 000		136
854	8	36	*								
855	8	37	* GET NEXT RECORDS								
856	8	38	*								
857	8	39	TYPERR	H	XXXX,770	7		1278	. 000 770		136
858	8	40	BYPASS	B	GET	4		1285	B A24		136
859	8	41		BW	ANALWK,TYPESW	8		1289	V 604 D58 1		136
860	8	42		B	GETORG	4		1297	B 600		136
861	8	43	*								
862	8	44	* FREE FORM RECORD TO PRINT AREA								
863	8	45	*								
864	8	46	SETFRE	SBR	FREEXT+3	4		1301	H T89		136
865	8	47		MCS	ALTNO,ALT	7		1305	Z I14 204		137
866	8	48		MCS	PAGENO,PG	7		1312	Z H32 207		137
867	8	49		MZ	PAGENO,PG	7		1319	Y H32 207		137

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
868	8	50		MCW	LINENO,LIN	7		1326	M H35 211		137
869	8	51		MCW	LABEL,LAB	7		1333	M H41 219		137
870	8	52		MCW	MNEMON,OPCODE	7		1340	M H50 225		138
871	8	53		MCW	OPERND,OPRAND	7		1347	M I02 278		138
872	8	54		BCE	IOGEN,IMAGE+75,Z	8		1354	B T90 105 Z		138
873	8	55		BCE	IOGEN,IMAGE+75,Y	8		1362	B T90 105 Y		138
874	8	56		BCE	GENSTM,IMAGE+75,C	8		1370	B T97 105 C		138
875	8	57		BCE	GENSTM,IMAGE+75,S	8		1378	B T97 105 S		139
876	8	58	FREEXT	B	XXXX	4		1386	B 000		139
877	8	59	IOGEN	MCW	'IO',KIND	7		1390	M E51 309		139
878	8	60	GENSTM	MCW	'GEN',KIND-2	7		1397	M E54 307		139
879	8	61		BCE	COMERR,IMAGE+86,B	8		1404	B J97 116 B		139
880	8	62		B	FREEXT	4		1412	B T86		139
881	8	63		DCW	' '	1		1416			139
882	8	64	OVIGM	DC	' '	1		1417			140
883	8	65	*								
884	8	66	* ASSEMBLED INFORMATION TO PRINT AREA								
885	8	67	*								
886	8	68	SETLOC	SBR	LOCXT+3	4		1418	H V01		140
887	8	69		MCS	COUNT,CT	7		1422	Z 007 284		140
888	8	70		MCW	SFXCTR,SUFFIX	7		1429	M G18 280		140
889	8	71		MN	LABADD,LOCN	7		1436	D 061 290		140
890	8	72		MCW		1		1443	M		141
891	8	73		BWZ	TSTFR,LABADD-1,2	8		1444	V U66 060 2		141
892	8	74		MCW	'X',PRINT+92	7		1452	M E55 292		141
893	8	75		MZ	BLANK1,PRINT+89	7		1459	Y D30 289		141
894	8	76	TSTFR	BCE	FOURCH,LABADD-4,0	8		1466	B V02 057 0		141
895	8	77	TSTLBL	BM	DBLDEF,STLABL	8		1474	V V13 002 K		141
896	8	78	TSTSTM	BM	STMBAD,STSTMT	8		1482	V V28 005 K		142
897	8	79		BWZ	STMBAD,STSTMT,S	8		1490	V V28 005 S		142
898	8	80	LOCXT	B	XXXX	4		1498	B 000		142
899	8	81	FOURCH	MCW	BLANK1,LOCN-4	7		1502	M D30 286		142
900	8	82		B	TSTLBL	4		1509	B U74		142
901	8	83	DBLDEF	MCW	'LABEL',PRINT+120	7		1513	M E60 320		142
902	8	84		B	BMPERR	4		1520	B L28		143
903	8	85		B	TSTSTM	4		1524	B U82		143
904	8	86	STMBAD	MCW	'BAD STATEMENT',PRINT+128	7		1528	M E73 328		143
905	8	87		B	BMPERR	4		1535	B L28		143
906	8	88		B	LOCXT	4		1539	B U98		143
907	8	89	*								
908	8	90	* INSTRUCTION CARD								
909	8	91	*								
910	8	92	INSTR	MCW	DMOD,INDMCD	7		1543	M 074 303		143
911	8	93		MCW	BOP,INBOP	7		1550	M 073 301		143
912	8	94		MCW	AOP,INAOP	7		1557	M 070 297		144
913	8	95		MCW	OP,INOP	7		1564	M 067 293		144
914	8	96		MCW	DMOD,HOLDH+8	7		1571	M 074 E00		144
915	8	97		MCW		1		1578	M		144
916	8	98		MCW		1		1579	M		144
917	8	99		MCW		1		1580	M		144

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
918	9	00		MCW	LABADD,WMADDR=5	7		1581	M 061 E78		144
919	9	01		MCW	LABADD,LOADAD=5	7		1588	M 061 E83		145
920	9	02		A	COUNT,LOADAD	7		1595	A 007 E83		145
921	9	03		S	+1,LOADAD	7		1602	S D55 E83		145
922	9	04		BCE	SYMUND,BOP,=	8		1609	B L09 073 =		145
923	9	05		BCE	SYMUND,AOP,=	8		1617	B L09 070 =		145
924	9	06		BCE	BADOP,OP,	8		1625	B W37 067		146
925	9	07		B	SETLIT	4		1633	B /56		146
926	9	08	BADOP	MCW	' OP',PRINT+123	7		1637	M E86 323		146
927	9	09		B	BMPERR	4		1644	B L28		146
928	9	10		B	SETLIT	4		1648	B /56		146
929	9	11	*								
930	9	12	* DEFINE AREA CARDS								
931	9	13	*								
932	9	14	DA	BCE	HEADER,TYPE,0	8		1652	B X41 075 0		146
933	9	15		MCW	SUPADD,WMADDR	7		1660	M 066 E78		147
934	9	16		MCW	'FIELD',KIND	7		1667	M E91 309		147
935	9	17		BWZ	SETDA,TYPE,B	8		1674	V W93 075 B		147
936	9	18		MCW	'SBF',KIND-2	7		1682	M E94 307		147
937	9	19		B	ORGXT	4		1689	B K62		147
938	9	20	SETDA	B	SETLOC	4		1693	B U18		147
939	9	21		B	CONDNS	4		1697	B L54		148
940	9	22		B	PRNTLN	4		1701	B Y54		148
941	9	23	BYPDA	B	GET	4		1705	B A24		148
942	9	24		BCE	RPTOUT,TYPE,†	8		1709	B X21 075 †		148
943	9	25		B	GETORG	4		1717	B 600		148
944	9	26	RPTOUT	MCW	SUPADD,WMADDR	7		1721	M 066 E78		148
945	9	27		B	CONDNS	4		1728	B L54		148
946	9	28		CS	PRINT+132	4		1732	/ 332		149
947	9	29		CS		1		1736	/		149
948	9	30		B	BYPDA	4		1737	B X05		149
949	9	31	HEADER	BWZ	BADDA,FIXFRM+4,B	8		1741	V Y24 004 B		149
950	9	32		B	SETLOC	4		1749	B U18		149
951	9	33	NXTRPT	MN	SUPADD,PRINT+97	7		1753	D 066 297		149
952	9	34		MCW		1		1760	M		149
953	9	35		MCW	LABADD,WMADDR	7		1761	M 061 E78		150
954	9	36		B	CONDNS	4		1768	B L54		150
955	9	37		B	GET	4		1772	B A24		150
956	9	38		C	FIXFRM+16,'CA '	7		1776	C 016 E97		150
957	9	39		BU	PNTDA	5		1783	B X96 /		150
958	9	40		BCE	NXTRPT,TYPE,†	8		1788	B X53 075 †		150
959	9	41	PNTDA	BCE	ADDR4K,PRINT+93,0	8		1796	B Y39 293 0		151
960	9	42		C	PRINT+97,OBJCOR	7		1804	C 297 C09		151
961	9	43		BL	PUADSW	5		1811	B K97 T		151
962	9	44		B	PRNTLN	4		1816	B Y54		151
963	9	45		B	GETORG	4		1820	B 600		151
964	9	46	BADDA	MCW	' NO B X L',PRINT+129	7		1824	M F06 329		151
965	9	47		B	BMPERR	4		1831	B L28		151
966	9	48		B	HEADER+8	4		1835	B X49		152
967	9	49	ADDR4K	SBR	AD4KXT+3	4		1839	H Y53		152

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
968	9	50		MCW	BLANK1,PRINT+93	7		1843	M D30 293		152
969	9	51	AD4KXT	B	XXXX	4		1850	B 000		152
970	9	52	*								
971	9	53	* PRINT		STATEMENTS						
972	9	54	*								
973	9	55	PRNTLN	SBR	PRNTXT+3	4		1854	H Z50		152
974	9	56		BCE	DOPNT,LOCN,	8		1858	B Y86 290		152
975	9	57		BCE	DOPNT,TYPEA,7	8		1866	B Y86 D59 7		152
976	9	58		C	LOCN,' 0081'	7		1874	C 290 F11		153
977	9	59		BH	ADDERR	5		1881	B J57 U		153
978	9	60	DOPNT	BW	*+2,LSTOP	8		1886	V Y95 C70 1		153
979	9	61		W		1		1894	2		153
980	9	62		B	WTAPE	4		1895	B J24		153
981	9	63		BCE	CLR,TYPEA,7	8		1899	B Z19 D59 7		153
982	9	64		C	LOCN,OBJCCR	7		1907	C 290 C09		154
983	9	65		BL	PUADSW	5		1914	B K97 T		154
984	9	66	CLR	CS	PRINT+132	4		1919	/ 332		154
985	9	67		CS		1		1923	/		154
986	9	68		BCE	PRNTXT,TYPE,3	8		1924	B Z47 075 3		154
987	9	69		A	+1,LINCT=2	7		1932	A D55 F13		154
988	9	70		BCE	OVRFLO,LINCT-1,5	8		1939	B Z51 F12 5		155
989	9	71	PRNTXT	B	XXXX	4		1947	B 000		155
990	9	72	OVRFLO	B	PRTHDG	4		1951	B -00		155
991	9	73		S	LINCT	4		1955	S F13		155
992	9	74		B	PRNTXT	4		1959	B Z47		155
993	9	75	GETCV1	RTW	XTRATP,ISIOCS	8		1963	L (U6 794 R		155
994	9	76		NOP	XXXX	4		1971	N 000		155
995	9	77		BER	TPERR	5		1975	B 334 L		156
996	9	78		CW	OV1GM	4		1980	) U17		156
997	9	79		RWD	XTRATP	5		1984	U (U6 R		156
998	9	80		B	BYPASS	4		1989	B S85		156
999	9	81		DCW	' '	1		1993			156
1000	9	82	ENDE1	DCW	' '	1		1994			156
1001	9	83		XFR	LIBRN				B 000		157

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1002	9	84		JOB	1401 AUTOCODER-PASS 7 RIGHT MAIN LINE						
1003	9	85		ORG	2000						
1004	9	86	*								
1005	9	87	*	PRINT	PAGE HEADING						
1006	9	88	*								
1007	9	89	PRTHDG	SBR	PHDGXT+3	4		2000	H J23		160
1008	9	90		MCW	'PAGE',PRINT+109	7		2004	M F17	309	160
1009	9	91		A	+1,NUMBER	7		2011	A D55	C84	160
1010	9	92		MCS	NUMBER,PRINT+114	7		2018	Z C84	314	160
1011	9	93		MCW	JOB,OPRAND	7		2025	M C62	278	160
1012	9	94		MCW	PUNCH+80,LOCN	7		2032	M 180	290	160
1013	9	95		BW	WTHEAD,LSTOP	8		2039	V -52	C70 1	161
1014	9	96		CC	1	2		2047	F 1		161
1015	9	97		W		1		2049	2		161
1016	9	98		CC	K	2		2050	F K		161
1017	9	99	WTHEAD	MCW	'1',200	7		2052	M D29	200	161
1018	10	00		B	WTAPE	4		2059	B J24		161
1019	10	01		CS	PRINT+132	4		2063	/ 332		161
1020	10	02		CS		1		2067	/		162
1021	10	03		MCW	'SFX CT LOCN INSTRUCTION TYPE CARD',PRINT+114	7		2068	M F53	314	162
1022	10	04		MCW	'SEQ PG LIN LABEL OP OPERANDS',PRINT+34	7		2075	M F86	234	162
1023	10	05		BW	*+2,LSTOP	8		2082	V -91	C70 1	162
1024	10	06		W		1		2090	2		162
1025	10	07		MCW	'0',200	7		2091	M F87	200	162
1026	10	08		B	WTAPE	4		2098	B J24		162
1027	10	09		CS	PRINT+132	4		2102	/ 332		163
1028	10	10		CS		1		2106	/		163
1029	10	11		BW	*+2,LSTOP	8		2107	V J16	C70 1	163
1030	10	12		W		1		2115	2		163
1031	10	13		B	WTAPE	4		2116	B J24		163
1032	10	14	PHDGXT	B	XXXX	4		2120	B 000		163
1033	10	15	WTAPE	SBR	WTXT+3	4		2124	H J56		163
1034	10	16		BW	WTXT,TAPOP	8		2128	V J53	C69 1	164
1035	10	17		WT	3,200	8		2136	M U3	200 W	164
1036	10	18		NOP	XXXX	4		2144	N 000		164
1037	10	19		BER	TPERR	5		2148	B 334	L	164
1038	10	20	WTXT	B	XXXX	4		2153	B 000		164
1039	10	21	ADDERR	MCW	' ADDR',PRINT+132	7		2157	M F92	332	164
1040	10	22		B	BMPERR	4		2164	B L28		165
1041	10	23		B	DOPNT	4		2168	B Y86		165
1042	10	24	*								
1043	10	25	*	COMMENTS	CARD						
1044	10	26	*								
1045	10	27	SETCOM	B	SETFRE	4		2172	B T01		165
1046	10	28		MCW	OPERND,PRINT+80	7		2176	M I02	280	165
1047	10	29		MCW		1		2183	M		165
1048	10	30		MCW		1		2184	M		165
1049	10	31	COMXT	B	PRNTLN	4		2185	B Y54		165
1050	10	32		B	READOG	4		2189	B B09		166
1051	10	33		B	ANALOG	4		2193	B 655		166

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1052	10	34	COMERR	MCW	'MACRO ERROR',PRINT+126	7		2197	M G03	326	166
1053	10	35		B	BMPERR	4		2204	B L28		166
1054	10	36		B	FREEXT	4		2208	B T86		166
1055	10	37	*								
1056	10	38	* ORG,	LTORG	CARDS						
1057	10	39	*								
1058	10	40	ORG	MCW	SUPADD,LABADD	7		2212	M 066	061	166
1059	10	41		MCW	ORGADD,SUPADD	7		2219	M 032	066	166
1060	10	42		BWZ	BADORG,FIXFRM+1,2	8		2226	V K70	001 2	167
1061	10	43	ORGOUT	MN	SUPADD,PRINT+97	7		2234	D 066	297	167
1062	10	44		MCW		1		2241	M		167
1063	10	45		BCE	ADDR4K,PRINT+93,0	8		2242	B Y39	293 0	167
1064	10	46		C	PRINT+97,OBJCOR	7		2250	C 297	C09	167
1065	10	47		BL	PUADSW	5		2257	B K97	T	167
1066	10	48	ORGXT	B	SETLOC	4		2262	B U18		168
1067	10	49		B	LITOUT	4		2266	B /64		168
1068	10	50	BADORG	MCW	' UNDEF ORG',PRINT+130	7		2270	M G13	330	168
1069	10	51		B	BMPERR	4		2277	B L28		168
1070	10	52		B	ORGOUT	4		2281	B K34		168
1071	10	53	*								
1072	10	54	* DS,	EQU	CARDS						
1073	10	55	*								
1074	10	56	DS	BCE	SYMUND,AOP,=	8		2285	B L09	070 =	168
1075	10	57		B	ORGXT	4		2293	B K62		168
1076	10	58	*								
1077	10	59	* ERROR -		ADDRESS EXCEEDS CORE						
1078	10	60	*								
1079	10	61	PUADSW	SBR	ADSWXT+3	4		2297	H L08		169
1080	10	62		CW	ADDRSW	4		2301	) D34		169
1081	10	63	ADSWXT	B	XXXX	4		2305	B 000		169
1082	10	64	*								
1083	10	65	* ERROR -		UNDEFINED SYMBOL						
1084	10	66	*								
1085	10	67	SYMUND	SBR	UNDXT+3	4		2309	H L27		169
1086	10	68		MCW	' SYM',PRINT+127	7		2313	M G17	327	169
1087	10	69		B	BMPERR	4		2320	B L28		169
1088	10	70	UNDXT	B	XXXX	4		2324	B 000		169
1089	10	71	*								
1090	10	72	* BUMP		NUMBER OF ERRORS						
1091	10	73	*								
1092	10	74	BMPERR	SBR	ERREXT+3	4		2328	H L42		170
1093	10	75		A	+1,ERRCNT	7		2332	A D55	C66	170
1094	10	76	ERREXT	B	XXXX	4		2339	B 000		170
1095	10	77	*								
1096	10	78	* SUFFIX		CARD						
1097	10	79	*								
1098	10	80	SFX	MCW	IMAGE+21,SFXCTR=1	7		2343	M H51	G18	170
1099	10	81		B	LITOUT	4		2350	B /64		170
1100	10	82	*								
1101	10	83	* CONDENSE		ROUTINE						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1102	10	84	*								
1103	10	85	CONDNS	SBR	CONDXT+3	4		2354	H +42		170
1104	10	86		CW	BIGSW,DCSW	7		2358	) H17 G48		170
1105	10	87		BM	CONDXT,STSTMT	8		2365	V +39 005 K		171
1106	10	88		BW	PNCHCD,WMSW	8		2373	V P62 056 1		171
1107	10	89	*								
1108	10	90	* PROCESS RECORD								
1109	10	91	*								
1110	10	92	NXTRCD	BCE	DOWM,TYPEA,0	8		2381	B N39 059 0		171
1111	10	93		BCE	ENDRTN,TYPEA,3	8		2389	B +08 059 3		171
1112	10	94		BWZ	TSTDC,TYPE,B	8		2397	V 017 075 B		172
1113	10	95	*								
1114	10	96	* TEST ROOM ON CARD								
1115	10	97	*								
1116	10	98	TSTROM	C	COUNT,'39'	7		2405	C 007 G20		172
1117	10	99		BL	TSTCON	5		2412	B Q91 T		172
1118	11	00		MCW	PNHLOC,ROOMCT=3	7		2417	M C81 G23		172
1119	11	01		A	COUNT,ROOMCT	7		2424	A 007 G23		172
1120	11	02		C	ROOMCT,'039'	7		2431	C G23 G26		173
1121	11	03		BL	SETPNH	5		2438	B 009 T		173
1122	11	04		BW	RSTCTR,NEWSW=1	8		2443	V N98 G27 1		173
1123	11	05	*								
1124	11	06	* TEST SEQUENCE								
1125	11	07	*								
1126	11	08		MCW	COUNTR=5,SEQCT=5	7		2451	M G32 G37		173
1127	11	09		A	COUNT,SEQCT	7		2458	A 007 G37		173
1128	11	10		C	LOADAD,SEQCT	7		2465	C E83 G37		174
1129	11	11		BU	SETPNH	5		2472	B 009 /		174
1130	11	12		A	COUNT,COUNTR	7		2477	A 007 G32		174
1131	11	13	*								
1132	11	14	* MOVE DATA TO PUNCH AREA								
1133	11	15	*								
1134	11	16	MVDATA	SBR	XR3,HOLDH	7		2484	H 099 092		174
1135	11	17		A	COUNT,XR3	7		2491	A 007 099		174
1136	11	18		A	COUNT,PNHLOC	7		2498	A 007 C81		175
1137	11	19		MCW	PNHLOC,XR2	7		2505	M C81 094		175
1138	11	20		MCW	XXXX+X3,PUNCH+X2	7		2512	M 0+0 1-0		175
1139	11	21		CW	DATASW=1	4		2519	) G38		175
1140	11	22		BW	FIRST,NEWSW	8		2523	V 053 G27 1		175
1141	11	23		BWZ	CNDOUT,TYPE,B	8		2531	V +07 075 B		176
1142	11	24	*								
1143	11	25	* SET WORD MARK ADDRESS								
1144	11	26	*								
1145	11	27	DOWM	MCW	WMADDR,CNVADD=5	7		2539	M E78 G43		176
1146	11	28		B	CNVRT	4		2546	B P16		176
1147	11	29		A	+3,WMLOC	7		2550	A G44 C75		176
1148	11	30		MCW	WMLOC,XR1	7		2557	M C75 089		176
1149	11	31		MCW	CNVADD,WMADDR-2	7		2564	M G43 E76		177
1150	11	32		MCW	WMADDR-2,XXXX+X1	7		2571	M E76 0+0		177
1151	11	33		C	XR1,+WMSTR-3	7		2578	C 089 G47		177

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1152	11	34		BU	CNDOUT	5		2585	B +07 /		177
1153	11	35		SW	WMSW	4		2590	, D56		177
1154	11	36		B	CNDOUT	4		2594	B +07		177
1155	11	37	RSTCTR	MCW	LOADAD,COUNTR	7		2598	M E83 G32		178
1156	11	38		B	MVDATA	4		2605	B M84		178
1157	11	39	SETPNH	B	PNCHCD	4		2609	B P62		178
1158	11	40		B	NXTRCD	4		2613	B L81		178
1159	11	41	TSTDC	BW	COMPWM,NEWSW	8		2617	V 029 G27 1		178
1160	11	42		B	TSTROM	4		2625	B M05		178
1161	11	43	COMPWM	C	WMLOC,AWMSTR	7		2629	C C75 C78		178
1162	11	44		BE	TSTROM	5		2636	B M05 S		179
1163	11	45		SW	DCSW=1	4		2641	, G48		179
1164	11	46		B	PNCHCD	4		2645	B P62		179
1165	11	47		B	TSTROM	4		2649	B M05		179
1166	11	48	*								
1167	11	49	* FIRST DATA ON CARD								
1168	11	50	*								
1169	11	51	FIRST	CW	NEWSW	4		2653	) G27		179
1170	11	52		BWZ	PRODC,TYPE,B	8		2657	V 069 075 B		179
1171	11	53		B	CNDOUT	4		2665	B +07		179
1172	11	54	*								
1173	11	55	* CONDENSE DC CARDS								
1174	11	56	*								
1175	11	57	PRODC	MCW	' )',PUNCH+47	7		2669	M G49 147		180
1176	11	58		MCW	WMADDR,CNVADD	7		2676	M E78 G43		180
1177	11	59		B	CNVRT	4		2683	B P16		180
1178	11	60		MCW	CNVADD,WMADDR-2	7		2687	M G43 E76		180
1179	11	61		MCW	WMADDR-2,WMSTR-15	7		2694	M E76 C96		180
1180	11	62		MCW	WMADDR-2	4		2701	M E76		180
1181	11	63		A	+6,WMLOC	7		2705	A G50 C75		181
1182	11	64		B	CNDOUT	4		2712	B +07		181
1183	11	65	*								
1184	11	66	* CONVERT 5 TO 3 DIGIT ADDRESS								
1185	11	67	*								
1186	11	68	CNVRT	SBR	CNVXT+3	4		2716	H P61		181
1187	11	69		BAV	*+1	5		2720	B P25 Z		181
1188	11	70	ADDAGN	A	+96,CNVADD-3	7		2725	A G52 G40		181
1189	11	71		BAV	ADDAGN	5		2732	B P25 Z		181
1190	11	72		MZ	CNVADD-4,CNVADD	7		2737	Y G39 G43		181
1191	11	73		MN	CNVADD-3,*+4	7		2744	D G40 P54		182
1192	11	74		MZ	ZONE,CNVADD-2	7		2751	Y 189 G41		182
1193	11	75	CNVXT	B	XXXX	4		2758	B 000		182
1194	11	76	*								
1195	11	77	* PUNCH A CARD								
1196	11	78	*								
1197	11	79	PNCHCD	SBR	PNHXT+3	4		2762	H Q90		182
1198	11	80		BW	EDIT,DCSW	8		2766	V Q07 G48 1		182
1199	11	81		BW	EDIT,DATASW	8		2774	V Q07 G38 1		182
1200	11	82		MCW	COUNTR,CNVADD	7		2782	M G32 G43		183
1201	11	83		B	CNVRT	4		2789	B P16		183



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1202	11	84		MCW	CNVADD,WMSTR-21	7		2793	M G43 C90		183
1203	11	85		MCW	PNHLOC,WMSTR-24	7		2800	M C81 C87		183
1204	11	86	EDIT	MCE	WMSTR,PUNCH+71	7		2807	E D11 171		183
1205	11	87		MN	'0',PUNCH+41	7		2814	D F87 141		183
1206	11	88	TSTPCH	BCE	*+2,CONDSW,0	8		2821	B Q30 C10 0		184
1207	11	89		P		1		2829	4		184
1208	11	90		B	WTAP2	4		2830	B +43		184
1209	11	91	*								
1210	11	92	* RESET COUNTERS + SWITCHES								
1211	11	93	*								
1212	11	94	NEWCRD	A	+1,PUNCH+75	7		2834	A D55 175		184
1213	11	95		CS	PUNCH+71	4		2841	/ 171		184
1214	11	96		LCA	'LO',PUNCH+71	7		2845	L G84 171		184
1215	11	97		SW	NEWSW,DATASW	7		2852	, G27 G38		184
1216	11	98		CW	WMSW,DCSW	7		2859	) D56 G48		185
1217	11	99		MCW	'000',PNHLOC	7		2866	M G87 C81		185
1218	12	00		MCW	AWMSTR,WMLOC	7		2873	M C78 C75		185
1219	12	01		MCW	'001001040040040040040040',WMSTR	7		2880	M H14 D11		185
1220	12	02	PNHXT	B	XXXX	4		2887	B 000		185
1221	12	03	*								
1222	12	04	* CONSTANT GREATER THAN 39 CHARACTERS								
1223	12	05	*								
1224	12	06	TSTCON	BW	*+5,NEWSW	8		2891	V R03 G27 1		186
1225	12	07		B	PNCHCD	4		2899	B P62		186
1226	12	08		MCW	COUNT,HOLDCT=2	7		2903	M 007 H16		186
1227	12	09		MCW	LOADAD,COUNTR	7		2910	M E83 G32		186
1228	12	10		MCW	'39',COUNT	7		2917	M G20 007		186
1229	12	11		S	'39',HOLDCT	7		2924	S G20 H16		187
1230	12	12		S	HOLDCT,COUNTR	7		2931	S H16 G32		187
1231	12	13		MZ	ZONE-3,HOLDCT	7		2938	Y 186 H16		187
1232	12	14		SW	BIGSW=1	4		2945	, H17		187
1233	12	15		MCW	WMADDR,SAVEWM=5	7		2949	M E78 H22		187
1234	12	16		B	MVDATA	4		2956	B M84		187
1235	12	17	BIGRN	B	PNCHCD	4		2960	B P62		188
1236	12	18		CW	BIGSW	4		2964	) H17		188
1237	12	19		MCW	HOLDCT,COUNT	7		2968	M H16 007		188
1238	12	20		MCW	'A',TYPE	7		2975	M H23 075		188
1239	12	21		MCW	HOLDDT,HOLDCT-39	7		2982	M E44 E05		188
1240	12	22		MCW	SAVEWM,WMADDR	7		2989	M H22 E78		188
1241	12	23		A	'39',WMADDR	7		2996	A G20 E78		189
1242	12	24		B	RSTCTR	4		3003	B N98		189
1243	12	25	*								
1244	12	26	* EXIT FROM CONDENSE ROUTINE								
1245	12	27	*								
1246	12	28	CNDOUT	MCS	PUNCH+75,CARDNO	7		3007	Z 175 314		189
1247	12	29		S	XR3+1	4		3014	S 100		189
1248	12	30		S		1		3018	S		189
1249	12	31		S		1		3019	S		189
1250	12	32		BW	BIGRN,BIGSW	8		3020	V R60 H17 1		189
1251	12	33		MCW	BLANK1,HOLDCT	7		3028	M D30 E44		190

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1252	12	34		MCW	HOLDDT	4		3035	M E44		190
1253	12	35	CONDXT	B	XXXX	4		3039	B 000		190
1254	12	36	WTAP2	SBR	WT2XT+3	4		3043	H +82		190
1255	12	37		BW	WT2XT,TAPCP	8		3047	V +79	C69 1	190
1256	12	38		MCW	'+',100	7		3055	M H24	100	190
1257	12	39		WT	3,100	8		3062	M (U3	100 W	191
1258	12	40		NOP	XXXX	4		3070	N 000		191
1259	12	41		BER	TPERR	5		3074	B 334	L	191
1260	12	42	WT2XT	B	XXXX	4		3079	B 000		191
1261	12	43	*								
1262	12	44	* SEQUENCE ERROR ON INPUT RECORDS								
1263	12	45	*								
1264	12	46	SEQERR	H	XXXX,777	7		3083	. 000	777	191
1265	12	47		B	SEQERR	4		3090	B +83		191
1266	12	48	GETOV2	RTW	SYSTAP,ISIOCS	8		3094	L (U1	794 R	192
1267	12	49		NOP	XXXX	4		3102	N 000		192
1268	12	50		BER	TPERR	5		3106	B 334	L	192
1269	12	51		CW	OV2GM	4		3111	) T32		192
1270	12	52		BSP	SYSTAP	5		3115	U (U1	B	192
1271	12	53		B	EXEND	4		3120	B 794		192
1272	12	54	*								
1273	12	55	* GET RECORD FROM WORKING TAPE								
1274	12	56	*								
1275	12	57	GET	SBR	WORKXT+3	4		3124	H 808		192
1276	12	58		C	BLKCT,KBLKNG	7		3128	C C00	C04	193
1277	12	59		BU	NXTREC	5		3135	B A68	/	193
1278	12	60		S	HOLDA	4		3140	S C01		193
1279	12	61		SBR	LGTCCK+6,INPUT5+13	7		3144	H 880	I31	193
1280	12	62		RT	WORKTP,INPUT5	8		3151	M (U5	I18 R	193
1281	12	63		B	CHKLGT	4		3159	B 859		193
1282	12	64		BER	TPERR	5		3163	B 334	L	194
1283	12	65	NXTREC	A	+80,BLKCT	7		3168	A H26	C00	194
1284	12	66		MCW	BLKCT,XR3	7		3175	M C00	099	194
1285	12	67		MCW	FIXINP,FIXFRM+80	7		3182	M IA7	080	194
1286	12	68		CHAIN	10						
1287				MCW		1		3189	M		194
1288				MCW		1		3190	M		194
1289				MCW		1		3191	M		194
1290				MCW		1		3192	M		195
1291				MCW		1		3193	M		195
1292				MCW		1		3194	M		195
1293				MCW		1		3195	M		195
1294				MCW		1		3196	M		195
1295				MCW		1		3197	M		195
1296				MCW		1		3198	M		195
1297	12	69		S	XR3+1	4		3199	S 100		196
1298	12	70		S		1		3203	S		196
1299	12	71		S		1		3204	S		196
1300	12	72	WORKXT	B	XXXX	4		3205	B 000		196
1301	12	73	*								

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1302	12	74	* READ		ORIGINAL TAPE						
1303	12	75	*								
1304	12	76	READOG	SBR	ORIGXT+3	4		3209	H 858		196
1305	12	77		MCW	BLANK1,IMAGE+21	7		3213	M D30 H51		196
1306	12	78		S	IMAGE+20	4		3220	S H50		196
1307	12	79		S		1		3224	S		197
1308	12	80		S		1		3225	S		197
1309	12	81		S		1		3226	S		197
1310	12	82		SBR	LGTCCK+6,INPUT4+12	7		3227	H B80 H43		197
1311	12	83		RT	ORIGTP,INPUT4	8		3234	M (U4 H31 R		197
1312	12	84		B	CHKLGT	4		3242	B B59		197
1313	12	85		BER	TPERR	5		3246	B 334 L		197
1314	12	86		S	XR2+1	4		3251	S 095		198
1315	12	87	ORIGXT	B	XXXX	4		3255	B 000		198
1316	12	88	*								
1317	12	89	* CHECK FOR		SHORT RECORDS						
1318	12	90	*								
1319	12	91	CHKLGT	SBR	XR2	4		3259	H 094		198
1320	12	92		SBR	LGTX+3	4		3263	H B97		198
1321	12	93		MZ	'B',XR2	7		3267	Y D12 094		198
1322	12	94	LGTCCK	BCE	4000-12+X2,XXXX,	8		3274	B IQ8 000		198
1323	12	95		CHAIN	12					MACRO	
1324				BCE		1		3282	B	GEN	198
1325				BCE		1		3283	B	GEN	199
1326				BCE		1		3284	B	GEN	199
1327				BCE		1		3285	B	GEN	199
1328				BCE		1		3286	B	GEN	199
1329				BCE		1		3287	B	GEN	199
1330				BCE		1		3288	B	GEN	199
1331				BCE		1		3289	B	GEN	199
1332				BCE		1		3290	B	GEN	200
1333				BCE		1		3291	B	GEN	200
1334				BCE		1		3292	B	GEN	200
1335				BCE		1		3293	B	GEN	200
1336	12	96	LGTX	B	XXXX	4		3294	B 000		200
1337	12	97	HOLDA	DCW	+0000	4		3301			200
1338	12	98	BLKCT	EQU	HOLDA-1			3300			
1339	12	99	KBLKNG	DCW	'080'	3		3304			200
1340	13	00	OBJCOR	DCW	' 3999'	5		3309			201
1341	13	01	CONDSW	DCW	'0'	1		3310			201
1342	13	02	JOB	DCW	=52	52		3362			203
1343	13	03	ERRCNT	DCW	'0000'	4		3366			203
1344	13	04		DCW	' '	1		3367			203
1345	13	05	SSAVE	DCW	' '	1		3368			203
1346	13	06	TAPOP	DCW	' '	1		3369			203
1347	13	07	LSTCP	DCW	' '	1		3370			204
1348	13	08	NCCCT	DCW	' '	1		3371			204
1349	13	09	SAVCON	EQU	HOLDA-3			3298			
1350	13	10	GMSAVE	DC	' '	1		3372			204
1351	13	11	WMLOC	DSA	WMSTR-21	3		3375	C90		204

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1352	13	12	AWMSTR	DSA	WMSTR-21	3		3378	C90		204
1353	13	13	PNHLOC	DCW	'000'	3		3381			204
1354	13	14	NUMBER	DCW	'001'	3		3384			204
1355	13	15	WMSTR	DCW	'001001040040040040040040040'	27		3411			205
1356	13	16		LTORG	*				3412		
				DCW	'B'	1		3412		LIT	205
		531			'/' 080'	9		3421		LIT	205
		532			'/' 080'	7		3428		LIT	206
					'1'	1		3429		LIT	206
		543	BLANK4		=04	4		3433		AREA	206
		545	ADDRSW		=01	1		3434		AREA	206
		553			'ERRORS'	6		3440		LIT	206
					' 1'	4		3444		LIT	206
		577			'N000000'	7		3451		LIT	206
					'JOB'	3		3454		LIT	207
					+1	1		3455		LIT	207
		630	WMSW		=01	1		3456		AREA	207
					+5	1		3457		LIT	207
		711	TYPESW		=01	1		3458		AREA	207
		712	TYPEA		=01	1		3459		AREA	207
					'IOCS'	4		3463		LIT	207
		749			'MACRO'	5		3468		LIT	208
		753			'OVERCALL'	8		3476		LIT	208
		791			'ADCON'	5		3481		LIT	208
		805			'RMARK'	5		3486		LIT	208
					'G'	1		3487		LIT	208
					'LIT'	3		3490		LIT	208
					'00'	2		3492		LIT	208
		830	HOLDDT		=52	52		3544		AREA	210
					'='	1		3545		LIT	210
					'AREA'	4		3549		LIT	210
					'IO'	2		3551		LIT	210
					'GEN'	3		3554		LIT	210
					'X'	1		3555		LIT	211
		901			'LABEL'	5		3560		LIT	211
		904			'BAD STATEMENT'	13		3573		LIT	211
		918	WMADDR		=05	5		3578		AREA	211
		919	LOADAD		=05	5		3583		AREA	211
					' OP'	3		3586		LIT	211
		934			'FIELD'	5		3591		LIT	211
					'SBF'	3		3594		LIT	212
					'DA '	3		3597		LIT	212
		964			' NO B X L'	9		3606		LIT	212
		976			' 0081'	5		3611		LIT	212
		987	LINCT		=02	2		3613		AREA	212
					'PAGE'	4		3617		LIT	212
		1021			'SFX CT LOCN INSTRUCTION TYPE CARD'	36		3653		LIT	213
		1022			'SEQ PG LIN LABEL OP OPERANDS'	33		3686		LIT	214
					'0'	1		3687		LIT	214
		1039			' ADDR'	5		3692		LIT	214

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		1052			'MACRO ERROR'	11		3703		LIT	215
		1068			' UNDEF ORG'	10		3713		LIT	215
					' SYM'	4		3717		LIT	215
		1098	SFXCTR		=01	1		3718		AREA	215
					'39'	2		3720		LIT	215
		1118	ROOMCT		=03	3		3723		AREA	215
					'039'	3		3726		LIT	215
		1122	NEWSW		=01	1		3727		AREA	216
		1126	COUNTR		=05	5		3732		AREA	216
		1126	SEQCT		=05	5		3737		AREA	216
		1139	DATASW		=01	1		3738		AREA	216
		1145	CNVADD		=05	5		3743		AREA	216
					+3	1		3744		LIT	216
		1151			+WMSTR-3	3		3747	D08	ADCON	216
		1163	DCSW		=01	1		3748		AREA	217
					' )'	1		3749		LIT	217
					+6	1		3750		LIT	217
					+96	2		3752		LIT	217
		1214			'L0 , , , 1 '	32		3784		LIT	217
					'000'	3		3787		LIT	218
		1219			'001001040040040040040040040'	27		3814		LIT	218
		1226	HOLDCT		=02	2		3816		AREA	218
		1232	BIGSW		=01	1		3817		AREA	218
		1233	SAVEWM		=05	5		3822		AREA	218
					'A'	1		3823		LIT	218
					'+'	1		3824		LIT	219
					+80	2		3826		LIT	219
					' '	1		3827			219
1357	13	17	ENDE2	DCW							
1358	13	18	BLANK1	EQU	BLANK4-3			3430			
1359	13	19	HOLDH	EQU	HOLDDT-52			3492			
1360	13	20		EX	LIBRN				B 000		220
1361	13	21		END	LIBRN				/ 000 080		223

CLEAR STORAGE 1	,008015,019026,030,034041,045,053,0570571026	1
CLEAR STORAGE 2	L068112,102106,113/101099/199,027A070028)027B001027080261,001/00111310	2
BOOTSTRAP	,008015,022029,036040,047054,061068,072/061039,0010011040	3

1401 AUTOCODER-PASS 8 LOAD TAPE-RIGHT MAIN-VERSION 3 3782L PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	000	JOB	1401 AUTOCODER-PASS 8 LOAD TAPE-RIGHT MAIN-VERSION 3						
102	1	02		CTL	630 1						
103	1	03	*								
104	1	04	* EQUATES USED BY PROGRAM								
105	1	05	*								
106	1	06	INITAP	EQU	(U0			(U0			
107	1	07	INTAPE	EQU	(U5			(U5			
108	1	08	OUTAPE	EQU	(U6			(U6			
109	1	09	PUNCH	EQU	100			0100			
110	1	10	OUTPUT	EQU	PUNCH+1			0101			
111	1	11	IMAGE	EQU	0			0000			
112	1	12	XXXX	EQU	0			0000			
113	1	13	COUNT	EQU	IMAGE+7			0007			
114	1	14	LABADD	EQU	IMAGE+61			0061			
115	1	15	SUPADD	EQU	IMAGE+66			0066			
116	1	16	ACP	EQU	IMAGE+70			0070			
117	1	17	BOP	EQU	IMAGE+73			0073			
118	1	18	DMOD	EQU	IMAGE+74			0074			
119	1	19	TYPE	EQU	IMAGE+75			0075			
120	1	20	PRINT	EQU	200			0200			
121	1	21	LIBRN	EQU	0			0000			
122	1	22		ORG	87				0087		
123	1	23	XR1	DCW	000	3		0089			4
124	1	24		DC	00	2		0091			4
125	1	25	XR2	DCW	000	3		0094			4
126	1	26		DC	00	2		0096			4
127	1	27	XR3	DCW	000	3		0099			4
128	1	28		DC	00	2		0101			4
129	1	29	*								
130	1	30	* INITIALIZATION ROUTINE								
131	1	31	*								
132	1	32		ORG	336				0336		
133	1	33	ZONE	DCW	'2SKB'	4		0339			5
134	1	34	INITLZ	RWD	OUTAPE	5		0340	U (U6 R		5
135	1	35		C	OUTOPN,'2'	7		0345	C -00 P07		5
136	1	36		BH	ENDJOB	5		0352	B -55 U		5
137	1	37		C	OUTOPN,'7'	7		0357	C -00 P08		5
138	1	38		BL	ENDJOB	5		0364	B -55 T		5
139	1	39		RWD	4	5		0369	U (U4 R		5
140	1	40		RWD	INTAPE	5		0374	U (U5 R		6
141	1	41		CW	LTAPSW,PNH4SW	7		0379	) P25 P26		6
142	1	42		MCW	SSOP,TSTSS	7		0386	M -01 475		6
143	1	43	*								
144	1	44	* TEST FOR CTL CARD								
145	1	45	*								
146	1	46	READ4	MCW	'013',LGTCK+6	7		0393	M P11 058		6
147	1	47		RT	4,1	8		0400	M (U4 001 R		6

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1	48		B	CHKLGT	4		0408	B 037		6
149	1	49		BER	TPERR	5		0412	B M33 L		7
150	1	50		C	18,'JOB'	7		0417	C 018 P14		7
151	1	51		BU	CKCTL	5		0424	B 444 /		7
152	1	52		MCW	79,IDENT=4	7		0429	M 079 P18		7
153	1	53		CW	JOBSW=1	4		0436	) P19		7
154	1	54		B	READ4	4		0440	B 393		7
155	1	55	CKCTL	C	18,'CTL'	7		0444	C 018 P22		7
156	1	56		MCW	OUTOPN,23	7		0451	M -00 023		8
157	1	57		RWD	4	5		0458	U (U4 R		8
158	1	58		BE	TSTSS	5		0463	B 475 S		8
159	1	59		LCA	'33',22	7		0468	L P24 022		8
160	1	60	TSTSS	BSS	SENSW,F	5		0475	B 528 F		8
161	1	61	TSTOP	BCE	LTAPOP,23,2	8		0480	B 591 023 2		8
162	1	62		BCE	LTAPOP,23,3	8		0488	B 591 023 3		9
163	1	63		BCE	LTAPOP,23,6	8		0496	B 591 023 6		9
164	1	64		BCE	LTAPOP,23,7	8		0504	B 591 023 7		9
165	1	65		SW	LTAPSW=1	4		0512	, P25		9
166	1	66		B	START	4		0516	B #17		9
167	1	67	*								
168	1	68	* OPTION TO PUNCH NEW SOURCE DECK								
169	1	69	*								
170	1	70	PNH4OP	SW	PNH4SW=1	4		0520	, P26		9
171	1	71		B	TSTLSW	4		0524	B #49		10
172	1	72	*								
173	1	73	* TEST SENSE SWITCHES FOR OPTION								
174	1	74	*								
175	1	75	SENSW	LCA	'0',23	7		0528	L P27 023		10
176	1	76		BSS	ADD1,B	5		0535	B 558 B		10
177	1	77	TSTSSC	BSS	ADD2,C	5		0540	B 569 C		10
178	1	78	TSTSSG	BSS	ADD4,G	5		0545	B 580 G		10
179	1	79	SSCUT	CW	23	4		0550	) 023		10
180	1	80		B	TSTOP	4		0554	B 480		10
181	1	81	ADD1	A	'1',23	7		0558	A P28 023		11
182	1	82		B	TSTSSC	4		0565	B 540		11
183	1	83	ADD2	A	'2',23	7		0569	A P07 023		11
184	1	84		B	TSTSSG	4		0576	B 545		11
185	1	85	ADD4	A	'4',23	7		0580	A P29 023		11
186	1	86		B	SSOUT	4		0587	B 550		11
187	1	87	*								
188	1	88	* SET UP CLEAR STORAGE RECORD								
189	1	89	*								
190	1	90	LTAPOP	CS	PUNCH+80	4		0591	/ 180		11
191	1	91		SW	GRPMRK	4		0595	, P06		12
192	1	92		LCA	GRPMRK,PUNCH+99	7		0599	L P06 199		12
193	1	93		LCA	IDENT,PUNCH+79	7		0606	L P18 179		12
194	1	94		LCA	' '	4		0613	L P31		12
195	1	95		LCA	'B007'	4		0617	L P35		12
196	1	96		LCA	' )021'	4		0621	L P39		12
197	1	97		LCA	'B047L'	4		0625	L P44		12

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	98		LCA	'L(U1001R'	4		0629	L P52		13
199	1	99		LCA	'.'	4		0633	L P53		13
200	2	00		LCA	BSPTU1	4		0637	L 093		13
201	2	01	*								
202	2	02	* TEST	OBJECT	CORE SIZE						
203	2	03	*								
204	2	04		C	22,'3'	7		0641	C 022 P54		13
205	2	05		BE	IS4K	5		0648	B 747 S		13
206	2	06		BH	IS4K	5		0653	B 747 U		13
207	2	07		C	22,'6'	7		0658	C 022 P55		13
208	2	08		BL	IS4K	5		0665	B 747 T		14
209	2	09		LCA	'IO+',PUNCH+44	7		0670	L P58 144		14
210	2	10		LCA	'099'	4		0677	L P61		14
211	2	11		LCA	'B053'	4		0681	L P65		14
212	2	12		LCA	'M074099'	4		0685	L P72		14
213	2	13		LCA	'099'	4		0689	L P76		14
214	2	14		LCA	'B001/'	4		0693	L P81		14
215	2	15		LCA	'C004041'	4		0697	L P88		15
216	2	16		LCA	'=044004'	4		0701	L P95		15
217	2	17		LCA	'/I9I'	4		0705	L P99		15
218	2	18		BCE	BTSTRP,22,6	8		0709	B 842 022 6		15
219	2	19		BCE	IS12K,22,5	8		0717	B 736 022 5		15
220	2	20		MZ	ZONE-2,PUNCH+4	7		0725	Y 337 104		15
221	2	21		B	BTSTRP	4		0732	B 842		15
222	2	22	IS12K	MZ	ZONE-1,PUNCH+4	7		0736	Y 338 104		16
223	2	23		B	BTSTRP	4		0743	B 842		16
224	2	24	IS4K	LCA	'IO',PUNCH+75	7		0747	L Q01 175		16
225	2	25		LCA	'B053',PUNCH+46	7		0754	L P65 146		16
226	2	26		LCA	'M080099'	4		0761	L Q08		16
227	2	27		LCA	'099'	4		0765	L P76		16
228	2	28		LCA	'B001'	4		0769	L Q12		16
229	2	29		LCA	'B0320020'	4		0773	L Q20		17
230	2	30		LCA	'002'	4		0777	L Q24		17
231	2	31		LCA	'A075003'	4		0781	L Q31		17
232	2	32		LCA	'002'	4		0785	L Q35		17
233	2	33		LCA	'/I99'	4		0789	L Q39		17
234	2	34		SW	PUNCH+80	4		0793	, 180		17
235	2	35		BCE	BTSTRP,22,3	8		0797	B 842 022 3		17
236	2	36		MCW	'Z',PUNCH+2	7		0805	M Q40 102		18
237	2	37		BCE	BTSTRP,22,2	8		0812	B 842 022 2		18
238	2	38		MCW	'T',PUNCH+2	7		0820	M Q41 102		18
239	2	39		BCE	BTSTRP,22,1	8		0827	B 842 022 1		18
240	2	40		MCW	'I',PUNCH+2	7		0835	M Q42 102		18
241	2	41	*								
242	2	42	* SET UP	BOOTSTRAP	RECORD						
243	2	43	*								
244	2	44	BTSTRP	B	WRITE1	4		0842	B -30		19
245	2	45		CW	PUNCH+99	4		0846	) 199		19
246	2	46		LCA	GRPMRK,PUNCH+80	7		0850	L P06 180		19
247	2	47		LCA	' ',PUNCH+24	7		0857	L Q43 124		19



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248	2	48		LCA	'020'	4		0864	L Q47		19
249	2	49		LCA	BER1	4		0868	L 080		19
250	2	50		LCA	RDREC	4		0872	L 088		19
251	2	51		LCA	'.'	4		0876	L P53		20
252	2	52		LCA	BSPTU1	4		0880	L 093		20
253	2	53		B	WRITE1	4		0884	B -30		20
254	2	54		CS	PUNCH+75	4		0888	/ 175		20
255	2	55		LCA	' ',PUNCH+35	7		0892	L Q43	135	20
256	2	56		LCA	'B007'	4		0899	L P35		20
257	2	57		LCA	'N000'	4		0903	L Q51		20
258	2	58		LCA	'L	4		0907	L Q58		21
259	2	59		LCA	BER1	4		0911	L 080		21
260	2	60		LCA	RDREC	4		0915	L 088		21
261	2	61		LCA	'.'	4		0919	L P53		21
262	2	62		LCA	BSPTU1	4		0923	L 093		21
263	2	63	*								
264	2	64	* TEST PROCESSOR CORE SIZE								
265	2	65	*								
266	2	66		C	21,'3'	7		0927	C 021 P54		21
267	2	67		BE	START	5		0934	B #17 S		21
268	2	68		BH	START	5		0939	B #17 U		22
269	2	69		C	21,'6'	7		0944	C 021 P55		22
270	2	70		BL	START	5		0951	B #17 T		22
271	2	71		MN	21,SAVEZN=1	7		0956	D 021 Q59		22
272	2	72		A	+3,SAVEZN	7		0963	A Q60 Q59		22
273	2	73		MN	SAVEZN,**4	7		0970	D Q59 980		22
274	2	74		MZ	ZONE,**7	7		0977	Y 339 990		23
275	2	75		LCA	GRPMRK,GRPMRK	7		0984	L P06 P06		23
276	2	76		CW	GRPMRK	4		0991	) P06		23
277	2	77		MCW	'400',KBLKNG	7		0995	M Q63 P01		23
278	2	78		BCE	START,21,4	8		1002	B #17 021 4		23
279	2	79		A	'400',KBLKNG	7		1010	A Q63 P01		24
280	2	80	*								
281	2	81	* SET PARAMETERS								
282	2	82	*								
283	2	83	START	BCE	PNH40P,23,4	8		1017	B 520 023 4		24
284	2	84		BCE	PNH40P,23,5	8		1025	B 520 023 5		24
285	2	85		BCE	PNH40P,23,6	8		1033	B 520 023 6		24
286	2	86		BCE	PNH40P,23,7	8		1041	B 520 023 7		24
287	2	87	TSTLSW	BW	EOJOB,LTAPSW	8		1049	V X81 P25 1		25
288	2	88		MCW	KBLKNG,BLKCT	7		1057	M P01 P04		25
289	2	89		CS	80	4		1064	/ 080		25
290	2	90		BW	SETINP,JOBSW	8		1068	V #84 P19 1		25
291	2	91		RT	INTAPE,INPUT	8		1076	M (U5 +28 R		25
292	2	92	SETINP	SW	IMAGE+23,IMAGE+57	7		1084	, 023 057		26
293	2	93		SW	IMAGE+62,IMAGE+67	7		1091	, 062 067		26
294	2	94		SW	IMAGE+68,IMAGE+71	7		1098	, 068 071		26
295	2	95		SW	IMAGE+74,IMAGE+6	7		1105	, 074 006		26
296	2	96		SW	IMAGE+1	4		1112	, 001		26
297	2	97		B	GET	4		1116	B -76		26

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	2	98	*								
299	2	99	* ANALYZE RECORD TYPE								
300	3	00	*								
301	3	01	ANALYZ	BCE	BYPASS,TYPE,I	8		1120	B J59 075 I		27
302	3	02		BM	BYPASS,IMAGE+5	8		1128	V J59 005 K		27
303	3	03		BCE	INSTR,TYPE,	8		1136	B S22 075		27
304	3	04		BCE	DOJOB,TYPE,I	8		1144	B S11 075 I		27
305	3	05		MN	TYPE,XR2	7		1152	D 075 094		27
306	3	06		A	XR2	4		1159	A 094		28
307	3	07		A	XR2	4		1163	A 094		28
308	3	08		B	*+1+X2	4		1167	B /P1		28
309	3	09		B	DA	4		1171	B V85		28
310	3	10		B	CONST	4		1175	B S65		28
311	3	11		B	DSA	4		1179	B V59		28
312	3	12		B	EXEND	4		1183	B W82		28
313	3	13		B	BYPASS	4		1187	B J59		29
314	3	14		B	BYPASS	4		1191	B J59		29
315	3	15		B	BYPASS	4		1195	B J59		29
316	3	16		B	BYPASS	4		1199	B J59		29
317	3	17		B	XTRA	4		1203	B V34		29
318	3	18		B	BYPASS	4		1207	B J59		29
319	3	19	DOJOB	MCW	IMAGE+20,PUNCH+79	7		1211	M 020 179		29
320	3	20		B	BYPASS	4		1218	B J59		30
321	3	21	*								
322	3	22	* PROCESS INSTRUCTION								
323	3	23	*								
324	3	24	INSTR	MCW	DMOD,PUNCH+42	7		1222	M 074 142		30
325	3	25		MCW		1		1229	M		30
326	3	26		MCW		1		1230	M		30
327	3	27		MCW		1		1231	M		30
328	3	28		MCW	LABADD,CNVADD	7		1232	M 061 +01		30
329	3	29		A	COUNT,CNVADD	7		1239	A 007 +01		30
330	3	30		S	'1',CNVADD	7		1246	S P28 +01		31
331	3	31	INSTXT	B	SETLOC	4		1253	B J67		31
332	3	32		B	WRITE2	4		1257	B K64		31
333	3	33		B	BYPASS	4		1261	B J59		31
334	3	34	*								
335	3	35	* PROCESS CONSTANTS								
336	3	36	*								
337	3	37	CONST	A	'00',COUNT	7		1265	A Q65 007		31
338	3	38		C	COUNT,'00'	7		1272	C 007 Q65		31
339	3	39		BL	*+5	5		1279	B S88 T		31
340	3	40		B	BYPASS	4		1284	B J59		32
341	3	41		BCE	PCHCON,IMAGE+23,=	8		1288	B T44 023 =		32
342	3	42		BWZ	PCHCON,IMAGE+4,B	8		1296	V T44 004 B		32
343	3	43		MCW	IMAGE+53,HOLDDT-22	7		1304	M 053 R26		32
344	3	44		BCE	ALPHA,IMAGE+23,'	8		1311	B T23 023 '		32
345	3	45		B	PCHCON	4		1319	B T44		32
346	3	46	ALPHA	MCW	+HOLDDT-51,XR1	7		1323	M Q68 089		33
347	3	47		A	COUNT,XR1	7		1330	A 007 089		33

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
348	3	48		MCW	BLANK1=1,XXXX+X1	7		1337	M Q69 0+0		33
349	3	49	PCHCON	MCW	HOLDDT-20,PUNCH+66	7		1344	M R28 166		33
350	3	50		MCW	LABADD,CNVADD	7		1351	M 061 +01		33
351	3	51		C	COUNT,'32'	7		1358	C 007 Q71		34
352	3	52		BL	LARGE	5		1365	B T82 T		34
353	3	53		BCE	PRODC,TYPE,A	8		1370	B U47 075 A		34
354	3	54		B	INSTXT	4		1378	B S53		34
355	3	55	*								
356	3	56	* CONSTANT GREATER THAN 32 CHARACTERS								
357	3	57	*								
358	3	58	LARGE	S	'32',COUNT	7		1382	S Q71 007		34
359	3	59		S	COUNT,CNVADD	7		1389	S 007 +01		34
360	3	60		MCW	COUNT,HOLDCT=2	7		1396	M 007 Q73		35
361	3	61		MCW	'32',COUNT	7		1403	M Q71 007		35
362	3	62		B	SETLOC	4		1410	B J67		35
363	3	63		BCE	LRGDC,TYPE,A	8		1414	B U94 075 A		35
364	3	64	LRGXT	MCW	HOLDCT,COUNT	7		1422	M Q73 007		35
365	3	65		MCW	HOLDDT,TEMP=20	7		1429	M R48 Q93		36
366	3	66		B	WRITE2	4		1436	B K64		36
367	3	67		MCW	TEMP,PUNCH+54	7		1440	M Q93 154		36
368	3	68	*								
369	3	69	* PROCESS DC								
370	3	70	*								
371	3	71	PRODC	MCW	LABADD,CNVADD	7		1447	M 061 +01		36
372	3	72		S	COUNT,CNVADD	7		1454	S 007 +01		36
373	3	73		A	'1',CNVADD	7		1461	A P28 +01		36
374	3	74		B	CNVRT	4		1468	B K11		37
375	3	75		MCW	CNVWK,PUNCH+30	7		1472	M +04 130		37
376	3	76		MCW	'1'	4		1479	M Q94		37
377	3	77		MCW	LABADD,CNVADD	7		1483	M 061 +01		37
378	3	78		B	INSTXT	4		1490	B S53		37
379	3	79	*								
380	3	80	* DC GREATER THAN 32 CHARACTERS								
381	3	81	*								
382	3	82	LRGDC	MCW	LABADD,CNVADD	7		1494	M 061 +01		37
383	3	83		S	HOLDCT,CNVADD	7		1501	S Q73 +01		38
384	3	84		S	'31',CNVADD	7		1508	S Q96 +01		38
385	3	85		B	CNVRT	4		1515	B K11		38
386	3	86		MCW	CNVWK,PUNCH+30	7		1519	M +04 130		38
387	3	87		MCW	'1'	4		1526	M Q94		38
388	3	88		B	LRGXT	4		1530	B U22		38
389	3	89	*								
390	3	90	* EXTRA CARD FOR CONSTANT OVER 32 CHARACTERS								
391	3	91	*								
392	3	92	XTRA	BCE	BYPASS,IMAGE+21,	8		1534	B J59 021		39
393	3	93		MCW	IMAGE+73,HOLDDT=52	7		1542	M 073 R48		39
394	3	94		CHAIN	6					MACRO	
395				MCW		1		1549	M	GEN	39
396				MCW		1		1550	M	GEN	39
397				MCW		1		1551	M	GEN	39

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
398				MCW		1		1552	M	GEN	39
399				MCW		1		1553	M	GEN	39
400				MCW		1		1554	M	GEN	40
401	3	95		B	BYPASS	4		1555	B J59		40
402	3	96	*								
403	3	97	*		PROCESS DSA						
404	3	98	*								
405	3	99	DSA	MCW	BOP,PUNCH+37	7		1559	M 073 137		40
406	4	00		BCE	PRODC,TYPE,B	8		1566	B U47 075 B		40
407	4	01		MCW	LABADD,CNVADD	7		1574	M 061 +01		40
408	4	02		B	INSTXT	4		1581	B S53		40
409	4	03	*								
410	4	04	*		PROCESS DEFINE AREA						
411	4	05	*								
412	4	06	DA	BCE	BYPASS,TYPE,-	8		1585	B J59 075 -		40
413	4	07		BCE	HEADER,TYPE,0	8		1593	B W24 075 0		41
414	4	08	*								
415	4	09	*		FIELD, FIELD REPEAT						
416	4	10	*								
417	4	11	FIELD	MCW	SUPADD,CNVADD	7		1601	M 066 +01		41
418	4	12		B	DARTN	4		1608	B W47		41
419	4	13		BCE	FIELD,TYPE,†	8		1612	B W01 075 †		41
420	4	14		B	ANALYZ	4		1620	B /20		41
421	4	15	*								
422	4	16	*		HEADER, HEADER REPEAT						
423	4	17	*								
424	4	18	HEADER	MCW	LABADD,CNVADD	7		1624	M 061 +01		41
425	4	19		B	DARTN	4		1631	B W47		42
426	4	20		BCE	HEADER,TYPE,†	8		1635	B W24 075 †		42
427	4	21		B	ANALYZ	4		1643	B /20		42
428	4	22	*								
429	4	23	*		DA SUBROUTINE						
430	4	24	*								
431	4	25	DARTN	SBR	DAXT+3	4		1647	H W81		42
432	4	26		B	CNVRT	4		1651	B K11		42
433	4	27		MCW	CNVWK,PUNCH+26	7		1655	M +04 126		42
434	4	28		MCW	CNVWK	4		1662	M +04		42
435	4	29		MCW	' , '	4		1666	M R49		43
436	4	30		B	WRITE2	4		1670	B K64		43
437	4	31		B	GET	4		1674	B -76		43
438	4	32	DAXT	B	XXXX	4		1678	B 000		43
439	4	33	*								
440	4	34	*		PROCESS EX, END						
441	4	35	*								
442	4	36	EXEND	BCE	END,TYPE,3	8		1682	B X58 075 3		43
443	4	37		MCW	AOP,PUNCH+30	7		1690	M 070 130		43
444	4	38		MCW	' B '	4		1697	M R50		43
445	4	39		MCW	' N000000 '	4		1701	M R57		44
446	4	40		B	WRITE2	4		1705	B K64		44
447	4	41		LCA	' ' ,PUNCH+24	7		1709	L Q43 124		44

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
448	4	42		LCA	'B007'	4		1716	L P35		44
449	4	43		B	GET	4		1720	B -76		44
450	4	44		BCE	ISJOB,TYPE,I	8		1724	B X47 075 I		44
451	4	45	COMPAT	B	WRITE1	4		1732	B -30		44
452	4	46		LCA	'L',PUNCH+26	7		1736	L R64 126		45
453	4	47		B	ANALYZ	4		1743	B /20		45
454	4	48	ISJOB	MCW	IMAGE+20,PUNCH+79	7		1747	M 020 179		45
455	4	49		B	COMPAT	4		1754	B X32		45
456	4	50	*								
457	4	51	* END								
458	4	52	*								
459	4	53	END	MCW	'/ 080',PUNCH+26	7		1758	M R71 126		45
460	4	54		MCW	AOP,PUNCH+23	7		1765	M 070 123		45
461	4	55		B	WRITE2	4		1772	B K64		46
462	4	56		WTM	OUTAPE	5		1776	U (U6 M		46
463	4	57	EOJOB	BW	PUNCH4,PNH4SW	8		1781	V X93 P26 1		46
464	4	58		B	ENDJOB	4		1789	B -55		46
465	4	59	*								
466	4	60	* PUNCH NEW		SOURCE DECK						
467	4	61	*								
468	4	62	PUNCH4	CS	PUNCH+80	4		1793	/ 180		46
469	4	63		MCW	'113',LGTCK+6	7		1797	M R74 058		46
470	4	64		RT	4,PUNCH+1	8		1804	M (U4 101 R		47
471	4	65		B	CHKLGT	4		1812	B 037		47
472	4	66		BER	TPERR	5		1816	B M33 L		47
473	4	67		BCE	DOLTO,PUNCH+75,L	8		1821	B Z54 175 L		47
474	4	68		BCE	PUNCH4,PUNCH+75,S	8		1829	B X93 175 S		47
475	4	69		BCE	PUNCH4,PUNCH+75,C	8		1837	B X93 175 C		48
476	4	70		BCE	PUNCH4,PUNCH+75,Z	8		1845	B X93 175 Z		48
477	4	71		BCE	PUNCH4,PUNCH+75,Y	8		1853	B X93 175 Y		48
478	4	72	BUMP	A	+1,SEQCT-1	7		1861	A R75 097		48
479	4	73		MCW	SEQCT,PUNCH+5	7		1868	M 098 105		48
480	4	74		BCE	DOPCH,PUNCH+6,*	8		1875	B Z13 106 *		49
481	4	75		MCW	BLANK4=4,PUNCH+15	7		1883	M R79 115		49
482	4	76		C	PUNCH+18,'JOB'	7		1890	C 118 P14		49
483	4	77		BU	DOPCH	5		1897	B Z13 /		49
484	4	78		MCW	BLANK4,PUNCH+11	7		1902	M R79 111		49
485	4	79		MCW	BLANK4-2	4		1909	M R77		49
486	4	80	DOPCH	MCW	BLANK4-1,PUNCH+75	7		1913	M R78 175		50
487	4	81		P		1		1920	4		50
488	4	82		SS	4	2		1921	K 4		50
489	4	83		C	PUNCH+18,'END'	7		1923	C 118 R82		50
490	4	84		BU	PUNCH4	5		1930	B X93 /		50
491	4	85		BCE	PUNCH4,PUNCH+6,*	8		1935	B X93 106 *		50
492	4	86		CS	PUNCH+80	4		1943	/ 180		50
493	4	87		P		1		1947	4		51
494	4	88		SS	8	2		1948	K 8		51
495	4	89		B	ENDJOB	4		1950	B -55		51
496	4	90	DOLTO	MCW	'LTORG',PUNCH+20	7		1954	M R87 120		51
497	4	91		B	BUMP	4		1961	B Y61		51

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
498	4	92		DCW	' '	1		1965		51
499	4	93	ENDF1	DCW	' '	1		1966		51
500	4	94		XFR	LIBRN				B 000	52

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
501	4	95		JOB	1401 AUTOCODER-PASS 8-LOAD TAPE-LEFT MAIN -VERSION 3						
502	4	96		ORG	2000				2000		
503	4	97	OUTOPN	DCW	' '	1		2000			55
504	4	98	SSOP	DCW	'B'	1		2001			55
505	4	99		RTW	1,1	8		2002	L (U1 001 R		55
506	5	00		NOP	XXXX	4		2010	N 000		55
507	5	01		BER	TPERR	5		2014	B M33 L		55
508	5	02		CW	ENDF1,ENDF2	7		2019	) Z66 I98		55
509	5	03		B	INITLZ	4		2026	B 340		55
510	5	04	*								
511	5	05	* WRITE CLEAR STORAGE AND BOOTSTRAP								
512	5	06	*								
513	5	07	WRITE1	SBR	WT1XT+3	4		2030	H -54		56
514	5	08		WTW	OUTAPE,OUTPUT	8		2034	L (U6 101 W		56
515	5	09		NOP	XXXX	4		2042	N 000		56
516	5	10		BER	TPERR	5		2046	B M33 L		56
517	5	11	WT1XT	B	XXXX	4		2051	B 000		56
518	5	12	*								
519	5	13	* GO BACK TO PASS E FOR EXTRA OUTPUT								
520	5	14	*								
521	5	15	ENDJOB	RTW	1,333	8		2055	L (U1 333 R		56
522	5	16		NOP	XXXX	4		2063	N 000		56
523	5	17		BER	TPERR	5		2067	B M33 L		57
524	5	18		B	MESSAG	4		2072	B 333		57
525	5	19	*								
526	5	20	* RETRIEVE INPUT RECORD								
527	5	21	*								
528	5	22	GET	SBR	GETXT+3	4		2076	H J58		57
529	5	23		C	BLKCT,KBLKNG	7		2080	C P04 P01		57
530	5	24		BU	NXTREC	5		2087	B J20 /		57
531	5	25		S	HOLDA	4		2092	S P05		57
532	5	26		MCW	+INPUT+13,LGTCK+6	7		2096	M R90 058		57
533	5	27		RT	INTAPE,INPUT	8		2103	M (U5 +28 R		58
534	5	28		B	CHKLGT	4		2111	B 037		58
535	5	29		BER	TPERR	5		2115	B M33 L		58
536	5	30	NXTREC	A	+80,BLKCT	7		2120	A R92 P04		58
537	5	31		MCW	BLKCT,XR3	7		2127	M P04 099		58
538	5	32		MCW	INPUT-1+X3,IMAGE+80	7		2134	M +87 080		58
539	5	33		CHAIN	8					MACRO	
540				MCW		1		2141	M	GEN	58
541				MCW		1		2142	M	GEN	59
542				MCW		1		2143	M	GEN	59
543				MCW		1		2144	M	GEN	59
544				MCW		1		2145	M	GEN	59
545				MCW		1		2146	M	GEN	59
546				MCW		1		2147	M	GEN	59
547				MCW		1		2148	M	GEN	59
548	5	34		S	XR3+1	4		2149	S 100		60
549	5	35		S		1		2153	S		60
550	5	36		S		1		2154	S		60

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
551	5	37	GETXT	B	XXXX	4		2155	B 000		60
552	5	38	*								
553	5	39	* DO NEXT RECORD								
554	5	40	*								
555	5	41	BYPASS	B	GET	4		2159	B -76		60
556	5	42		B	ANALYZ	4		2163	B /20		60
557	5	43	*								
558	5	44	* SET ADDRESSES IN OUTPUT								
559	5	45	*								
560	5	46	SETLOC	SBR	LOCXT+3	4		2167	H K10		60
561	5	47		B	CNVRT	4		2171	B K11		61
562	5	48		MCW	CNVWK,PUNCH+26	7		2175	M +04	126	61
563	5	49		ZA	+34,CNVADD	7		2182	+ R94	+01	61
564	5	50		A	COUNT,CNVADD	7		2189	A 007	+01	61
565	5	51		B	CNVRT	4		2196	B K11		61
566	5	52		MCW	CNVWK,PUNCH+23	7		2200	M +04	123	61
567	5	53	LOCXT	B	XXXX	4		2207	B 000		62
568	5	54	*								
569	5	55	* CONVERT 5 TO 3 DIGIT ADDRESS								
570	5	56	*								
571	5	57	CNVRT	SBR	CNVXT+3	4		2211	H K63		62
572	5	58		BAV	*+1	5		2215	B K20	Z	62
573	5	59	ADDAGN	A	+96,CNVADD-3	7		2220	A R96	R98	62
574	5	60		BAV	ADDAGN	5		2227	B K20	Z	62
575	5	61		MZ	CNVADD-4,CNVADD=5	7		2232	Y R97	+01	62
576	5	62		MN	CNVADD-3,*+4	7		2239	D R98	K49	62
577	5	63		MZ	ZONE,CNVADD-2	7		2246	Y 339	R99	63
578	5	64		MCW	CNVADD,CNVWK=3	7		2253	M +01	+04	63
579	5	65	CNVXT	B	XXXX	4		2260	B 000		63
580	5	66	*								
581	5	67	* WRITE OUTPUT RECORDS								
582	5	68	*								
583	5	69	WRITE2	SBR	WT2XT+3	4		2264	H L30		63
584	5	70		BCE	DOGM,PUNCH+35,	8		2268	B L31	135	63
585	5	71		WTW	OUTAPE,OUTPUT+19	8		2276	L U6	120 W	63
586	5	72		NOP	XXXX	4		2284	N 000		64
587	5	73		BER	TPERR	5		2288	B M33	L	64
588	5	74		NOP		1		2293	N		64
589	5	75	CLEAR	MCW	BLANK1,PUNCH+75	7		2294	M Q69	175	64
590	5	76		MCW	PUNCH+75	4		2301	M 175		64
591	5	77		MCW	BLANK1,HOLDDT	7		2305	M Q69	R48	64
592	5	78		MCW	HOLDDT	4		2312	M R48		64
593	5	79		MCW	'N000',PUNCH+30	7		2316	M Q51	130	65
594	5	80		MCW	'L	4		2323	M +11		65
595	5	81	WT2XT	B	XXXX	4		2327	B 000		65
596	5	82	DOGM	CS	299	4		2331	/ 299		65
597	5	83		LCA	PUNCH+80,280	7		2335	L 180	280	65
598	5	84		LCA		1		2342	L		65
599	5	85		MCW	PUNCH+66,274	7		2343	M 166	274	65
600	5	86		LCA	' '	4		2350	L Q43		66



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
601	5	87		LCA	'8007'	4		2354	L P35		66
602	5	88		LCA	'1043043'	4		2358	L +18		66
603	5	89		LCA	PUNCH+26	4		2362	L 126		66
604	5	90		LCA	'1,043'	4		2366	L +22		66
605	5	91		SW	225,235	7		2370	, 225 235		66
606	5	92		A	+8,227	7		2377	A +23 227		66
607	5	93		CW	225	4		2384	) 225		67
608	5	94		BCE	WTGM,PUNCH+27,N	8		2388	B M03 127 N		67
609	5	95		MCW	PUNCH+30,237	7		2396	M 130 237		67
610	5	96	WTGM	CW	235	4		2403	) 235		67
611	5	97		WTH	OUTAPE,220	8		2407	L (U6 220 W		67
612	5	98		NOP	XXXX	4		2415	N 000		67
613	5	99		BER	TPERR	5		2419	B M33 L		68
614	6	00		NOP		1		2424	N		68
615	6	01		CW	280	4		2425	) 280		68
616	6	02		B	CLEAR	4		2429	B K94		68
617	6	03	*								
618	6	04	* TAPE	REDUNDANCY	ROUTINE						
619	6	05	*								
620	6	06	TPERR	SBR	XR2	4		2433	H 094		68
621	6	07		SBR	REDXT+3	4		2437	H N05		68
622	6	08		MZ	+9,XR2	7		2441	Y +24 094		68
623	6	09		MCW	4000-10+X2,TPINST+7	7		2448	M IR0 M96		69
624	6	10		MN	TPINST+3,BSP1+3	7		2455	D M92 M72		69
625	6	11		MCW	TPINST+7,INST2+7	7		2462	M M96 005		69
626	6	12	BSP1	BSP	INITAP	5		2469	U (U0 B		69
627	6	13		BCE	WRTRED,TPINST+7,W	8		2474	B N78 M96 W		69
628	6	14		MCW	+9,READCT=1	7		2482	M +24 +25		70
629	6	15	TPINST	RT	INITAP,XXXX	8		2489	M (U0 000 R		70
630	6	16		BER	RDRERR	5		2497	B N06 L		70
631	6	17	REDXT	B	XXXX	4		2502	B 000		70
632	6	18	RDRERR	MN	TPINST+3,BSP2+3	7		2506	D M92 N16		70
633	6	19	BSP2	BSP	INITAP	5		2513	U (U0 B		70
634	6	20		S	+1,READCT	7		2518	S R75 +25		71
635	6	21		BWZ	TPINST,READCT,8	8		2525	V M89 +25 B		71
636	6	22		MN	TPINST+3,TPHALT+6	7		2533	D M92 N46		71
637	6	23	TPHALT	H	XXXX,890	7		2540	. 000 890		71
638	6	24		MCW	TPINST+7,*+8	7		2547	M M96 N61		71
639	6	25		RT	INITAP,XXXX	8		2554	M (U0 000 R		72
640	6	26		BSS	BSP1,E	5		2562	B M69 E		72
641	6	27		H	XXXX,811	7		2567	. 000 811		72
642	6	28		B	REDXT	4		2574	B N02		72
643	6	29	WRTRED	SKP	1	5		2578	U (U1 E		72
644	6	30		BCE	SUBCTR,WRTCTR-1,5	8		2583	B 015 +26 5		72
645	6	31		A	+1,WRTCTR=2	7		2591	A R75 +27		73
646	6	32	INST2	WT	INITAP,XXXX	8		2598	M (U0 000 W		73
647	6	33		BER	BSP1	5		2606	B M69 L		73
648	6	34		B	REDXT	4		2611	B N02		73
649	6	35	SUBCTR	S	WRTCTR	4		2615	S +27		73
650	6	36		MN	TPINST+3,*+7	7		2619	D M92 032		73

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
651	6	37		H	XXXX,860	7		2626	. 000 860		74
652	6	38		B	INST2	4		2633	B N98		74
653	6	39	*								
654	6	40	* CHECK FOR		SHORT RECORD						
655	6	41	*								
656	6	42	CHKLGT	SBR	XR2	4		2637	H 094		74
657	6	43		SBR	LGTX+3	4		2641	H 075		74
658	6	44		MZ	+9,XR2	7		2645	Y +24 094		74
659	6	45	LGTC	BCE	4000-12+X2,XXXX,	8		2652	B IQ8 000		74
660	6	46		CHAIN	12					MACRO	
661				BCE		1		2660	B	GEN	74
662				BCE		1		2661	B	GEN	75
663				BCE		1		2662	B	GEN	75
664				BCE		1		2663	B	GEN	75
665				BCE		1		2664	B	GEN	75
666				BCE		1		2665	B	GEN	75
667				BCE		1		2666	B	GEN	75
668				BCE		1		2667	B	GEN	75
669				BCE		1		2668	B	GEN	76
670				BCE		1		2669	B	GEN	76
671				BCE		1		2670	B	GEN	76
672				BCE		1		2671	B	GEN	76
673	6	47	LGTX	B	XXXX	4		2672	B 000		76
674	6	48	BER1	DCW	'8001L'	5		2680			76
675	6	49	RDREC	DCW	'L(U1020R'	8		2688			76
676	6	50	BSPTU1	DCW	'U(U18'	5		2693			77
677	6	51	SEQCT	DCW	'0100 '	5		2698			77
678	6	52	KBLKNG	DCW	080	3		2701			77
679	6	53	HOLDA	DCW	+0000	4		2705			77
680	6	54	BLKCT	EQU	HOLDA-1			2704			
681	6	55	GRPMRK	DC	' '	1		2706			77
682	6	56		LTORG	*				2707		
				DCW	'2'	1		2707		LIT	77
					'7'	1		2708		LIT	77
					'013'	3		2711		LIT	77
					'JOB'	3		2714		LIT	78
					=04	4		2718		AREA	78
152			IDENT								
153			JOBSW		=01	1		2719		AREA	78
					'CTL'	3		2722		LIT	78
					'33'	2		2724		LIT	78
165			LTAPSW		=01	1		2725		AREA	78
170			PNH4SW		=01	1		2726		AREA	78
					'0'	1		2727		LIT	79
					'1'	1		2728		LIT	79
					'4'	1		2729		LIT	79
					' '	2		2731		LIT	79
					'B007'	4		2735		LIT	79
					'021'	4		2739		LIT	79
197					'B047L'	5		2744		LIT	79
198					'L(U1001R'	8		2752		LIT	80

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					'.'	1		2753		LIT	80
					'3'	1		2754		LIT	80
					'6'	1		2755		LIT	80
					'10+'	3		2758		LIT	80
					'099'	3		2761		LIT	80
					'B053'	4		2765		LIT	80
		212			'M074099'	7		2772		LIT	81
					'099'	4		2776		LIT	81
		214			'B001/'	5		2781		LIT	81
		215			'C004041'	7		2788		LIT	81
		216			'=044004'	7		2795		LIT	81
					'/I9I'	4		2799		LIT	81
					'IO'	2		2801		LIT	81
		226			'M080099'	7		2808		LIT	82
					'B001'	4		2812		LIT	82
		229			'B0320020'	8		2820		LIT	82
					'002'	4		2824		LIT	82
		231			'A075003'	7		2831		LIT	82
					'002'	4		2835		LIT	82
					'/I99'	4		2839		LIT	82
					'Z'	1		2840		LIT	83
					'T'	1		2841		LIT	83
					'I'	1		2842		LIT	83
					' '	1		2843		LIT	83
					'020'	4		2847		LIT	83
					'N000'	4		2851		LIT	83
		258			'L'	7		2858		LIT	83
		271	SAVEZN		=01	1		2859		AREA	84
					+3	1		2860		LIT	84
					'400'	3		2863		LIT	84
					'00'	2		2865		LIT	84
		346			+HOLDDT-51	3		2868	Q97	ADCON	84
		348	BLANK1		=01	1		2869		AREA	84
					'32'	2		2871		LIT	84
		360	HOLDCT		=02	2		2873		AREA	85
		365	TEMP		=20	20		2893		AREA	85
					'0'	1		2894		LIT	85
					'31'	2		2896		LIT	85
		393	HOLDDT		=52	52		2948		AREA	87
					' '	1		2949		LIT	87
					'B'	1		2950		LIT	87
		445			'N000000'	7		2957		LIT	87
		452			'L'	7		2964		LIT	87
		459			'/ 080'	7		2971		LIT	88
					'113'	3		2974		LIT	88
					+1	1		2975		LIT	88
		481	BLANK4		=04	4		2979		AREA	88
					'END'	3		2982		LIT	88
		496			'LTORG'	5		2987		LIT	88
		532			+INPUT+13	3		2990	+41	ADCON	88

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					+80		2	2992		LIT	89
					+34		2	2994		LIT	89
					+96		2	2996		LIT	89
		575	CNVADD		=05		5	3001		AREA	89
		578	CNVWK		=03		3	3004		AREA	89
		594			'L		7	3011		LIT	89
		602			'043043'		7	3018		LIT	89
					'043'		4	3022		LIT	90
					+8		1	3023		LIT	90
					+9		1	3024		LIT	90
		628	READCT		=01		1	3025		AREA	90
		645	WRTCTR		=02		2	3027		AREA	90
683	6	57	*								
684	6	58	* INPUT AREA								
685	6	59	*								
686	6	60	INPUT	EQU	*+1			3028			
687	6	61	ENDF2	EQU	3998			3998			
688	6	62	3998	DCW	' '		1	3998			91
689	6	63		XFR	LIBRN				B 000		92

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
690	6	64		JOB	1401 AUTOCODER-PASS 8 EXTRA OUTPUT OVERLAY-VERSION 3						
691	6	65		ORG	333				0333		
692	6	66	*								
693	6	67	* PRINT END OF JOB MESSAGES								
694	6	68	*								
695	6	69	MESSAG	CC	1	2		0333	F 1		95
696	6	70		CS	332	4		0335	/ 332		95
697	6	71		CS		1		0339	/		95
698	6	72		MCW	'END OF ASSEMBLY',PRINT+15	7		0340	M 696 215		95
699	6	73		W		1		0347	2		95
700	6	74		CC	K	2		0348	F K		95
701	6	75		MCW	'IF EXTRA OUTPUT DESIRED, SET SENSE',PRINT+34	7		0350	M 730 234		95
702	6	76		MCW	'SWITCH F ON, AND',PRINT+51	7		0357	M 746 251		96
703	6	77		W		1		0364	2		96
704	6	78		CC	J	2		0365	F J		96
705	6	79		CS	PRINT+71	4		0367	/ 271		96
706	6	80		MCW	'B ON FOR CONDENSED CARDS',PRINT+24	7		0371	M 770 224		96
707	6	81		W		1		0378	2		96
708	6	82		MCW	'C ON FOR LOADABLE TAPE 6',PRINT+24	7		0379	M 794 224		96
709	6	83		W		1		0386	2		97
710	6	84		MCW	'D ON FOR LISTING TAPE 3',PRINT+24	7		0387	M 818 224		97
711	6	85		W		1		0394	2		97
712	6	86		MCW	'E ON TO SUPPRESS LISTING',PRINT+24	7		0395	M 842 224		97
713	6	87		W		1		0402	2		97
714	6	88		MCW	'G ON FOR NEW SOURCE DECK',PRINT+24	7		0403	M 866 224		97
715	6	89		W		1		0410	2		97
716	6	90		CC	J	2		0411	F J		98
717	6	91		CS	PRINT+24	4		0413	/ 224		98
718	6	92		MCW	'AND PRESS START',PRINT+15	7		0417	M 881 215		98
719	6	93		W		1		0424	2		98
720	6	94		CC	K	2		0425	F K		98
721	6	95		MCW	'IF NO EXTRA OUTPUT DESIRED, PRESS START',PRINT+39	7		0427	M 920 239		98
722	6	96		W		1		0434	2		98
723	6	97		CC	1	2		0435	F 1		99
724	6	98		CW	GRPMRK	4		0437	) P06		99
725	6	99		H	XXXX,880	7		0441	. 000 880		99
726	7	00		BSS	GOTOE,F	5		0448	B 530 F		99
727	7	01		CS	PRINT+39	4		0453	/ 239		99
728	7	02		MCW	'END OF JOB',PRINT+10	7		0457	M 930 210		99
729	7	03		W		1		0464	2		99
730	7	04		CC	K	2		0465	F K		100
731	7	05		MCW	'INPUT FOR RE-ASSEMBLY ON TAPE UNIT 4',PRINT+36	7		0467	M 966 236		100
732	7	06		W		1		0474	2		100
733	7	07		RWD	1	5		0475	U (U1 R		100
734	7	08		RWD	4	5		0480	U (U4 R		100
735	7	09		RWD	5	5		0485	U (U5 R		100
736	7	10		RWD	6	5		0490	U (U6 R		100
737	7	11		BW	FINAL,LTAPSW	8		0495	V 517 P25 1		101
738	7	12		CS	236	4		0503	/ 236		101
739	7	13		MCW	'LOADABLE TAPE ON TAPE UNIT 6',PRINT+28	7		0507	M 994 228		101

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
740	7	14		CC	K	2		0514	F K		101
741	7	15		W		1		0516	2		101
742	7	16	FINAL	CC	1	2		0517	F 1		101
743	7	17		H	XXXX,889	7		0519	. 000 889		101
744	7	18		B	FINAL+2	4		0526	B 519		102
745	7	19	GOTOE	CW	ENDF2,ENDF3	7		0530	) 198 998		102
746	7	20		CW	INPUT+80	4		0537	) A08		102
747	7	21		CS	PUNCH+99	4		0541	/ 199		102
748	7	22		BSP	1	5		0545	U (U1 B		102
749	7	23		BSP	1	5		0550	U (U1 B		102
750	7	24		BSP	1	5		0555	U (U1 B		102
751	7	25		BSP	1	5		0560	U (U1 B		103
752	7	26		BSP	1	5		0565	U (U1 B		103
753	7	27		BSP	1	5		0570	U (U1 B		103
754	7	28		BSP	1	5		0575	U (U1 B		103
755	7	29		BSP	1	5		0580	U (U1 B		103
756	7	30		RTW	1,PASSE	8		0585	L (U1 Z00 R		103
757	7	31		BER	TPERR2	5		0593	B 602 L		103
758	7	32		B	PASSE+1	4		0598	B Z01		104
759	7	33	TPERR2	MCW	+9,READC=1	7		0602	M 995 996		104
760	7	34		BSP	1	5		0609	U (U1 B		104
761	7	35	RETRY	RTW	1,PASSE	8		0614	L (U1 Z00 R		104
762	7	36		BER	AGAIN	5		0622	B 631 L		104
763	7	37		B	PASSE+1	4		0627	B Z01		104
764	7	38	AGAIN	BSP	1	5		0631	U (U1 B		104
765	7	39		S	+1,READC	7		0636	S 997 996		105
766	7	40		BWZ	RETRY,READC,B	8		0643	V 614 996 B		105
767	7	41		H	XXXX,891	7		0651	. 000 891		105
768	7	42		RTW	1,PASSE	8		0658	L (U1 Z00 R		105
769	7	43		BSS	TPERR2,E	5		0666	B 602 E		105
770	7	44		H	XXXX,812	7		0671	. 000 812		106
771	7	45		B	PASSE+1	4		0678	B Z01		106
772	7	46		LTORG	*				0682		
		698		DCW	'END OF ASSEMBLY'	15		0696		LIT	106
		701			'IF EXTRA OUTPUT DESIRED, SET SENSE'	34		0730		LIT	107
		702			'SWITCH F ON, AND'	16		0746		LIT	108
		706			'B ON FOR CONDENSED CARDS'	24		0770		LIT	109
		708			'C ON FOR LOADABLE TAPE 6'	24		0794		LIT	110
		710			'D ON FOR LISTING TAPE 3'	24		0818		LIT	111
		712			'E ON TO SUPPRESS LISTING'	24		0842		LIT	112
		714			'G ON FOR NEW SOURCE DECK'	24		0866		LIT	113
		718			'AND PRESS START'	15		0881		LIT	113
		721			'IF NO EXTRA OUTPUT DESIRED, PRESS START'	39		0920		LIT	114
		728			'END OF JCB'	10		0930		LIT	115
		731			'INPUT FOR RE-ASSEMBLY ON TAPE UNIT 4'	36		0966		LIT	116
		739			'LOADABLE TAPE ON TAPE UNIT 6'	28		0994		LIT	117
					+9	1		0995		LIT	117
		759	READC		=01	1		0996		AREA	117
					+1	1		0997		LIT	117
773	7	47	ENDF3	DCW	' '	1		0998			117

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
774	7	48	PASSE	EQU	1900			1900			
775	7	49		EX	LIBRN				8 000		118
776	7	50		END	LIBRN				/ 000 080		121

AUTOCODER  
ASSEMBLER