

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

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101			000	JOB	1401 AUTOCODER-PASS 1-GENERATE SYSTEM TAPE-VERSION 3						
102				CTL	630 1						
103			SYSTP	EQU	%U1			%U1			
104			CARD	EQU	0			0000			
105			PRINT	EQU	200			0200			
106				ORG	87				0087		
107			XR1	DCW	000	3		0089			4
108				DC	00	2		0091			4
109			XR2	DCW	000	3		0094			4
110				DC	00	2		0096			4
111			XR3	DCW	000	3		0099			4
112				DC	000000	6		0105			4
113			ZONE	DCW	@2SKB@	4		0109			4
114			ABIT	EQU	ZONE-2			0107			
115			NOBIT	EQU	ZONE-3			0106			
116			XXXX	EQU	0			0000			
117			*								
118			*	START OF MAIN LINE							
119			*								
120				ORG	333				0333		
121			START	RWD	SYSTP	5	0333		U %U1 R		5
122				CC	1	2	0338		F 1		5
123				MCW	@GENERATING 1401 AUTOCODER SYSTEM@,PRINT&32	7	0340		M '83 232		5
124				W		1	0347		2		5
125				CC	1	2	0348		F 1		5
126				CS	PRINT&132	4	0350		/ 332		5
127				CS		1	0354		/		5
128				MCW	CARD&75,SEQNO#4	7	0355		M 075 '87		6
129			*								
130			*	START UP NEXT BLOCK							
131			*								
132			NXTBK	R		1	0362		1		6
133				C	CARD&12,@CONTROL@	7	0363		C 012 '94		6
134				BU	MACRO	5	0370		B 792 /		6
135				BWZ	CKSEQ,CARD&80,2 COMMENT OUT TO TURN OFF SEQ CHK	8	0375		V 726 080 2		6
136				BCE	EOJOB,CARD&78,9	8	0383		B 877 078 9		6
137				SW	CARD&21	4	0391		, 021		7
138				ZA	CARD&25,HOLD5#5	7	0395		? 025 '99		7
139				CW	CARD&21	4	0402		) 021		7
140			*								
141			*	FLOAT ADDRESS TO FIVE CHARACTERS							
142			*								
143			FLOAT	BCE	*&5,HOLD5,&	8	0406		B 418 '99 &		7
144				B	COMP1	4	0414		B 429		7
145				ZA	HOLD5-1,HOLD5	7	0418		? '98 '99		7
146				B	FLOAT	4	0425		B 406		7
147			*								

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148			*	TEST ADDRESS AGAINST HOME ADDRESS							
149			*	TO DEVELOP INDEX VALUE							
150			*								
151			COMP1	MZ	NOBIT,HOLD5	7	0429		Y 106 '99		8
152				S	XR1&2	4	0436		S 091		8
153				C	HOLD5,@01500@	7	0440		C '99 /04		8
154				BE	DOCOR	5	0447		B 538 S		8
155				BH	SUB1	5	0452		B 527 U		8
156				S	@01500@,HOLD5	7	0457		S /09 '99		8
157				MCW	@16000@,WORK5#5	7	0464		M /14 /19		9
158			SUB2	S	HOLD5,WORK5	7	0471		S '99 /19		9
159			*								
160			*	CONVERT INDEX VALUE TO 3 DIGIT MACHINE ADDRESS							
161			*								
162			CNVRT	BAV	*&1	5	0478		B 483 Z		9
163				A	@96@,WORK5-3	7	0483		A /21 /16		9
164				BAV	CNVRT&5	5	0490		B 483 Z		9
165				MZ	WORK5-4,WORK5	7	0495		Y /15 /19		9
166				MN	WORK5-3,*&4	7	0502		D /16 512		10
167				MZ	ZONE,WORK5-2	7	0509		Y 109 /17		10
168				MCW	WORK5,XR1	7	0516		M /19 089		10
169				B	DOCOR	4	0523		B 538		10
170			SUB1	MCW	@01500@,WORK5	7	0527		M /26 /19		10
171				B	SUB2	4	0534		B 471		10
172			*								
173			*	READ CONDENSED CARDS							
174			*								
175			DOCOR	R		1	0538		1		10
176				MCW	@045@,XR3	7	0539		M /29 099		11
177				MCW	@042@,XR2	7	0546		M /32 094		11
178				BWZ	CKSEQ,CARD&80,2 COMMENT OUT TO TURN OFF SEQ CHK	8	0553		V 726 080 2		11
179				BCE	WTAP1,CARD&68,B	8	0561		B 675 068 B		11
180				BCE	SETWM,CARD&40,N	8	0569		B 596 040 N		11
181				C	CARD&46,@001@	7	0577		C 046 /35		12
182				BE	SETWM	5	0584		B 596 S		12
183				MZ	ABIT,CARD&45	7	0589		Y 107 045		12
184			*								
185			*	SET RETURN ADDRESS							
186			*								
187			SETWM	MCW	&DOCOR,CARD&71	7	0596		M /38 071		12
188				MCW	@B@	4	0603		M /39		12
189			*								
190			*	INDEX WORD MARK ADDRESSES							
191			*								
192			COMP2	C	XR2,@063@	7	0607		C 094 /42		12
193				BE	CARD&40	5	0614		B 040 S		13
194				A	&7,XR3	7	0619		A /43 099		13
195				A	&7,XR2	7	0626		A /43 094		13
196				C	CARD&1&X2,@040@	7	0633		C 011 /46		13
197				BE	*&8	5	0640		B 652 S		13

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198				MZ	ABIT,CARD&X2	7		0645	Y 107 010		13
199				C	CARD&1&X3,@040@	7		0652	C 021 /46		14
200				BE	COMP2	5		0659	B 607 S		14
201				MZ	ABIT,CARD&X3	7		0664	Y 107 0?0		14
202				B	COMP2	4		0671	B 607		14
203				*							
204				*	WRITE CORE ON TAPE						
205				*							
206			WTAP1	LCA	@}@,3998	7		0675	L /47 I98		14
207			WTW		SYSTP,1500	8		0682	L %U1 V00 W		14
208			BER		WTERR	5		0690	B 973 L		15
209				*							
210				*	CLEAR INPUT AREA						
211				*							
212				MCW	@I99@,CLEAR&3	7		0695	M /50 705		15
213			CLEAR	CS	XXXX	4		0702	/ 000		15
214				SBR	CLEAR&3	4		0706	H 705		15
215				C	CLEAR&3,@U99@	7		0710	C 705 /53		15
216				BU	CLEAR	5		0717	B 702 /		15
217				B	NXTEK	4		0722	B 362		15
218				*							
219				*	CHECK CARD SEQUENCE						
220				*							
221			CKSEQ	SBR	SEQXT&3	4		0726	H 759		16
222				A	&1,SEQNO	7		0730	A /54 '87		16
223				C	CARD&75,SEQNO	7		0737	C 075 '87		16
224				MCW	CARD&75,SEQNO	7		0744	M 075 '87		16
225				BU	SEQER	5		0751	B 760 /		16
226			SEQXT	B	XXXX	4		0756	B 000		16
227				*							
228				*	CARD SEQUENCE ERROR						
229				*							
230			SEQER	MCW	CARD&80,PRINT&80	7		0760	M 080 280		17
231					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				MCW	@SEQUENCE ERROR@,PRINT&98	7		0773	M /68 298		18
239				W		1		0780	2		18
240				H	0,176	7		0781	. 000 176		18
241				B	DOSEQ	4		0788	B 941		18
242				*							
243				*	PROCESS MACRO LIBRARY						
244				*							
245			MACRO	NOF	CRDER	4		0792	N 917		18
246				C	CARD&20,@HEADR@	7		0796	C 020 /73		18
247				BU	CRDER	5		0803	B 917 /		18

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248				BWZ	CKSEQ,CARD&80,2 COMMENT OUT TO TURN OF SEQ CHK	8		0808	V 726 080 2		19
249				MCW	@B@,MACRO	7		0816	M /39 792		19
250				LCA	@}@,81	7		0823	L /47 081		19
251				*							
252				*	WRITE SKELETON INSTRUCTIONS ON TAPE						
253				*							
254			WTAP2	WT	SYSTP,CARD&1	8		0830	M %U1 001 W		19
255				BER	WTERR	5		0838	B 973 L		19
256				C	CARD&11,@999999@	7		0843	C 011 /79		20
257				BE	WTTM	5		0850	B 868 S		20
258				R		1		0855	1		20
259				BWZ	CKSEQ,CARD&80,2 COMMENT OUT TO TURN OF SEQ CHK	8		0856	V 726 080 2		20
260				B	WTAP2	4		0864	B 830		20
261			WTTM	WTM	SYSTP	5		0868	U %U1 M		20
262				B	NXTEK	4		0873	B 362		20
263				*							
264				*	END OF GENERATION						
265				*							
266			EOJOB	WTM	SYSTP	5		0877	U %U1 M		21
267				RWD	SYSTP	5		0882	U %U1 R		21
268				CW	@}@	4		0887	/ /47		21
269				CS	PRINT&132	4		0891	/ 332		21
270				CS		1		0895	/		21
271				MCW	@1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1@,246	7		0896	M S25 246		21
272				W		1		0903	2		21
273				CC	1	2		0904	F 1		22
274				*							
275				*	FINAL HALT						
276				*							
277			HALT	H	0,142	7		0906	. 000 142		22
278				B	HALT	4		0913	B 906		22
279				*							
280				*	MISSING CONTROL CARD						
281				*							
282				CRDER	CS PRINT&132	4		0917	/ 332		22
283				CS		1		0921	/		22
284				MCW	@SYSTEM CONTROL CARD MISSING@,PRINT&27	7		0922	M S52 227		22
285				W		1		0929	2		22
286			HALT2	H	0,177	7		0930	. 000 177		23
287				B	HALT2	4		0937	B 930		23
288				*							
289				*	AFTER SEQUENCE ERROR, CHECK BALANCE OF DECK						
290				*							
291			DOSEQ	R		1		0941	1		23
292				BWZ	CKSEQ,CARD&80,2	8		0942	V 726 080 2		23
293				BCE	ENDSQ,CARD&78,9	8		0950	B 962 078 9		23
294				B	DOSEQ	4		0958	B 941		23
295			ENDSQ	H	0,152	7		0962	. 000 152		23
296				B	ENDSQ	4		0969	B 962		24
297				*							

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298					* WRITE REDUNDANCY ROUTINE						
299					*						
300			WTERR	SBR	WXTI&3		4	0973	H '36		24
301				SBR	XR3		4	0977	H 099		24
302				MZ	&9, XR3		7	0981	Y S53 099		24
303				MCW	4000-6&X3, RETRY&7		7	0988	M I14 '27		24
304			BSP	BSP	SYSTP		5	0995	U %U1 B		24
305				SKP	SYSTP		5	1000	U %U1 E		24
306				BCE	SUBCT, WTCT-1, 1		8	1005	B '37 S54 1		25
307				A	&1, WTCT#2		7	1013	A /54 S55		25
308			RETRY	WT	SYSTP, XXXX		8	1020	M %U1 000 W		25
309				BER	BSP		5	1028	B 995 L		25
310			WXTI	B	XXXX		4	1033	B 000		25
311			SUBCT	S	WTCT		4	1037	S S55		25
312				H	0, 161		7	1041	. 000 161		26
313				B	RETRY		4	1048	B '20		26
				DCW	@GENERATING 1401 AUTOCODER SYSTEM@		32	1083		LIT	27
			SEQNO	DCW	#04		4	1087		AREA	27
				DCW	@CONTROL@		7	1094		LIT	28
			HOLD5	DCW	#05		5	1099		AREA	28
				DCW	@01500@		5	1104		LIT	28
				DCW	@01500@		5	1109		LIT	28
				DCW	@16000@		5	1114		LIT	28
			WORK5	DCW	#05		5	1119		AREA	28
				DCW	@96@		2	1121		LIT	28
				DCW	@01500@		5	1126		LIT	29
				DCW	@045@		3	1129		LIT	29
				DCW	@042@		3	1132		LIT	29
				DCW	@001@		3	1135		LIT	29
				DCW	&DOCOR		3	1138	538	ADCON	29
				DCW	@B@		1	1139		LIT	29
				DCW	@063@		3	1142		LIT	29
				DCW	&7		1	1143		LIT	30
				DCW	@040@		3	1146		LIT	30
				DCW	@j@		1	1147		LIT	30
				DCW	@I99@		3	1150		LIT	30
				DCW	@U99@		3	1153		LIT	30
				DCW	&1		1	1154		LIT	30
				DCW	@SEQUENCE ERROR@		14	1168		LIT	30
				DCW	@HEADER@		5	1173		LIT	31
				DCW	@999999@		6	1179		LIT	31
				DCW	@1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1@		46	1225		LIT	33
				DCW	@SYSTEM CONTROL CARD MISSING@		27	1252		LIT	33
				DCW	&9		1	1253		LIT	33
			WTCT	DCW	#02		2	1255		AREA	33
314				EX	START				B 333		34

## AUTOCODER-PASS 1 SELECT PROGRAM

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
315					JOB AUTOCODER-PASS 1 SELECT PROGRAM						
316				SFX	B						
317			PASSA	EQU	1650		B	1650			
318			DOPSA	EQU	1900		B	1900			
319			SYSTP	EQU	%U1		B	%U1			
320					*						
321					* BRANCH FROM TAPE LOAD ROUTINE						
322					*						
323				ORG	1		B		0001		
324				B	333		4	0001	B 333		37 ADDR
325				H	*-3		B	4 0005	. 005		37 ADDR
326			LOADD	DCW	@599@		B	3 0011			37 ADDR
327				ORG	87		B		0087		
328			XR1	DCW	000		B	3 0089			38
329				DC	00		B	2 0091			38
330				DCW	000		B	3 0094			38
331				DC	00		B	2 0096			38
332				DCW	000		B	3 0099			38
333				DC	00		B	2 0101			38
334					*						
335					* BEGIN PROGRAM						
336					*						
337				ORG	333		B		0333		
338				BER	HALT1		B	5 0333	B 407 L		39
339				SW	GMRK1		B	4 0338	, 835		39
340			CLEAR	CS	3999		B	4 0342	/ 199		39
341				SBR	CLEAR&3		B	4 0346	H 345		39
342				C	CLEAR&3, @U99@		B	7 0350	C 345 787		39
343				BU	CLEAR		B	5 0357	B 342 /		39
344					*						
345					* GET PAST LIBRARY						
346					*						
347			LOOP1	SW	GMRK1		B	4 0362	, 835		39
348				RT	SYSTP, GMRK1-21		B	8 0366	M %U1 814 R		40
349				C	GMRK1-2, @999999		B	7 0374	C 833 802		40
350				BU	LOOP1		B	5 0381	B 362 /		40
351				SW	GMRK1		B	4 0386	, 835		40
352				RT	SYSTP, GMRK1-1		B	8 0390	M %U1 834 R		40
353				BEF	TSTSS		B	5 0398	B 418 K		40
354				B	LOOP1		B	4 0403	B 362		41
355					*						
356					* REDUNDANCY ON TAPE LOAD						
357					*						
358			HALT1	H	0, 199		B	7 0407	. 000 199		41
359				B	HALT1		B	4 0414	B 407		41
360			TSTSS	BSS	LIBRN, F		B	5 0418	B 521 F		41
361					*						
362					* RETRIEVE PASS 2 FOR ASSEMBLY RUN						
363					*						
364				SW	GMRK1		B	4 0423	, 835		41

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
365				LCA	GMRK1,3998	B	7	0427	L 835 I98		41
366				MCW	&PASSA&13,NOIS2&6	B	7	0434	M 805 658		41
367			*								
368			*	GET PAST	LIBRARIAN						
369			*								
370			LOOP2	BCE	LOPSA,BYCT,4	B	8	0441	B 476 807 4		42
371				SW	3998	B	4	0449	, I98		42
372				RTW	SYSTP,PASSA	B	8	0453	L %U1 W50 R		42
373				B	NOISE	B	4	0461	B 637		42
374				A	&1,BYCT#1	B	7	0465	A 806 807		42
375				B	LOOP2	B	4	0472	B 441		42
376			*								
377			*	PASS 2	FOUND						
378			*								
379			LOPSA	RTW	SYSTP,PASSA	B	8	0476	L %U1 W50 R		43
380				B	NOISE	B	4	0484	B 637		43
381				BER	RDERR	B	5	0488	B 676 L		43
382				CW	GMRK1	B	4	0493	) 835		43
383			CLR	CS	PASSA-1	B	4	0497	/ W49		43
384				SBR	CLR&3	B	4	0501	H 500		43
385				C	CLR&3,LOADD	B	7	0505	C 500 011		43
386				BU	CLR	B	5	0512	B 497 /		44
387				B	DOPSA	B	4	0517	B 200		44
388			*								
389			*	LIBRARY	RUN						
390			*								
391			LIBRN	MCW	@!13@,NOIS2&6	B	7	0521	M 810 658		44
392				CW	GMRK1	B	4	0528	) 835		44
393				BSS	OUTPT,B	B	5	0532	B 558 B		44
394			*								
395			*	RETRIEVE	UPDATE PROGRAM						
396			*								
397				RTW	SYSTP,2000	B	8	0537	L %U1 !00 R		44
398				B	NOISE	B	4	0545	B 637		44
399				BER	RDERR	B	5	0549	B 676 L		45
400				B	2000	B	4	0554	B !00		45
401			*								
402			*	RETRIEVE	OUTPUT PROGRAM						
403			*								
404			OUTPT	RTW	SYSTP,2000	B	8	0558	L %U1 !00 R		45
405				B	NOISE	B	4	0566	B 637		45
406				SW	GMRK1	B	4	0570	, 835		45
407				LCA	GMRK1,3998	B	7	0574	L 835 I98		45
408				RTW	SYSTP,2000	B	8	0581	L %U1 !00 R		46
409				B	NOISE	B	4	0589	B 637		46
410				RTW	SYSTP,2000	B	8	0593	L %U1 !00 R		46
411				B	NOISE	B	4	0601	B 637		46
412				SW	3998	B	4	0605	, I98		46
413				RTW	SYSTP,2000	B	8	0609	L %U1 !00 R		46
414				B	NOISE	B	4	0617	B 637		47

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
415				BER	RDERR	B	5	0621	B 676 L		47
416				CW	GMRK1,3998	B	7	0626	) 835 I98		47
417				B	2000	B	4	0633	B !00		47
418			*								
419			*	TEST	FOR NOISE RECORDS						
420			*								
421			NOISE	SBR	NOSXT&3	B	4	0637	H 675		47
422				SBR	XR1	B	4	0641	H 089		47
423				MZ	&9,XR1	B	7	0645	Y 811 089		47
424			NOIS2	BCE	4000-12&X1,0,)	B	8	0652	B IY8 000 )	GMARK	48
425				CHAIN	12	B				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			NOSXT	B	0	B	4	0672	B 000		49
439			*								
440			*	READ	REDUNDANCY ROUTINE						
441			*								
442			RDERR	SBR	XR1	B	4	0676	H 089		50
443				SBR	RDXT&3	B	4	0680	H 726		50
444				MZ	&9,XR1	B	7	0684	Y 811 089		50
445				MCW	4000-10&X1,RDTRY&7	B	7	0691	M IZ0 717		50
446			BSP	BSP	SYSTP	B	5	0698	U %U1 B		50
447				MCW	&9,RDCT#1	B	7	0703	M 811 812		50
448			RDTRY	RTW	SYSTP,0	B	8	0710	L %U1 000 R		51
449				BER	*&5	B	5	0718	B 727 L		51
450			RDXT	B	0	B	4	0723	B 000		51
451				BSP	SYSTP	B	5	0727	U %U1 B		51
452				S	&1,RDCT	B	7	0732	S 806 812		51
453				BWZ	RDTRY,RDCT,B	B	8	0739	V 710 812 B		51
454				H	0,191	B	7	0747	. 000 191		52
455				MCW	RDTRY&7,*&8	B	7	0754	M 717 768		52
456				RTW	SYSTP,0	B	8	0761	L %U1 000 R		52
457				BSS	BSP,E	B	5	0769	B 698 E		52
458				H	0,111	B	7	0774	. 000 111		52
459				B	RDXT	B	4	0781	B 723		52
460				LTORG	*	B			0785		
				DCW	@U99@	B	3	0787		LIT	53
				DCW	@999999 HEADR@	B	15	0802		LIT	53
				DCW	&PASSAB&13	B	3	0805	W63	ADCON	53
				DCW	&1	B	1	0806		LIT	53

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
			BYCTB	DCW	#01	B	1	0807		AREA	53
				DCW	@!13@	B	3	0810		LIT	53
				DCW	&9	B	1	0811		LIT	53
			RDCTB	DCW	#01	B	1	0812		AREA	54
461				DCW	#22	B	22	0834			54
462			GMRK1	DCW	@}@	B	1	0835		GMARK	54
463				EX	0	B			B 000		55

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
464				JOB	AUTOCODER-PASS 1 RETRIEVE UPDATE	-VERSION 3	B				
465				SFX	R	R					
466			SYSTP	EQU	%U1	R		%U1			
467			LTAPSW	EQU	2725	R		2725			
468				ORG	2000	R			2000		
469				BSS	LIST,G	R	5	2000	B J26 G		58
470				CW	ENDRT	R	4	2005	) K12		58
471			START	RTW	SYSTP,1	R	8	2009	L %U1 001 R		58
472				BCE	START,013,}	R	8	2017	B !09 013 }	GMARK	58
473				CHAIN	12	R				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				BER	RDERR	R	5	2037	B !46 L		60
487				B	333	R	4	2042	B 333		60
488			RDERR	BSP	SYSTP	R	5	2046	U %U1 B		60
489				MCW	&9,RDCT#1	R	7	2051	M K06 K07		60
490			RDTRY	RTW	SYSTP,1	R	8	2058	L %U1 001 R		60
491				BER	*&5	R	5	2066	B !75 L		61
492				B	333	R	4	2071	B 333		61
493				BSP	SYSTP	R	5	2075	U %U1 B		61
494				S	&1,RDCT	R	7	2080	S K08 K07		61
495				BWZ	RDTRY,RDCT,B	R	8	2087	V !58 K07 B		61
496				H	0,191	R	7	2095	. 000 191		61
497			AGAIN	RTW	SYSTP,1	R	8	2102	L %U1 001 R		62
498				BSS	RDERR,E	R	5	2110	B !46 E		62
499				H	0,111	R	7	2115	. 000 111		62
500				B	333	R	4	2122	B 333		62
501			LIST	SW	ENDRT	R	4	2126	, K12		62
502				LCA	ENDRT,1998	R	7	2130	L K12 Z98		62
503				RTW	SYSTP,333	R	8	2137	L %U1 333 R		63
504				BEF	GET	R	5	2145	B J54 K		63
505				B	LIST	R	4	2150	B J26		63
506			GET	BSP	SYSTP	R	5	2154	U %U1 B		63
507				BSP	SYSTP	R	5	2159	U %U1 B		63
508				CW	ENDRT,1998	R	7	2164	) K12 Z98		63
509				SW	LTAPSW	R	4	2171	, P25		63
510				MCW	@333@,RDTRY&6	R	7	2175	M K11 !64		64
511				MCW	@333@,AGAIN&6	R	7	2182	M K11 J08		64
512				RTW	SYSTP,333	R	8	2189	L %U1 333 R		64
513				BER	RDERR	R	5	2197	B !46 L		64

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
514				B	333	R	4	2202	B 333		64
515				LTORG	*	R			2206		
			RDCTR	DCW	&9	R	1	2206		LIT	64
				DCW	#01	R	1	2207		AREA	64
				DCW	&1	R	1	2208		LIT	65
				DCW	@333@	R	3	2211		LIT	65
516			ENDRT	DCW	@}@	R	1	2212		GMARK	65
517				EX	0	R			B 000		66

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
518				JOB	AUTOCODER-PASS 1 COPY SYSTEM TAPE	-VERSION 3	R				
519				SFX	U	U					
520				ORG	87	U			0087		
521			XR1	DCW	000	U	3	0089			69
522				DC	00	U	2	0091			69
523			XR2	DCW	000	U	3	0094			69
524				DC	00	U	2	0096			69
525			XR3	DCW	000	U	3	0099			69
526				DC	00	U	2	0101			69
527			SYSTP	EQU	%U1	U			%U1		
528			OUTAP	EQU	%U6	U			%U6		
529			INPUT	EQU	1500	U			1500		
530				*							
531				* BEGIN PROGRAM							
532				*							
533				ORG	333	U			0333		
534				SW	ENDUP	U	4	0333	, /39		70
535				RWD	SYSTP	U	5	0337	U %U1 R		70
536				RWD	OUTAP	U	5	0342	U %U6 R		70
537				CC	1	U	2	0347	F 1		70
538				CS	332	U	4	0349	/ 332		70
539				CS		U	1	0353	/		70
540				B	CLEAR	U	4	0354	B '21		70
541				BSS	COPY, C	U	5	0358	B 525 C		71
542				*							
543				* RETRIEVE UPDATE PROGRAM							
544				*							
545				RTW	SYSTP, INPUT	U	8	0363	L %U1 V00 R		71
546				SBR	XR1	U	4	0371	H 089		71
547				MN	0&X1	U	4	0375	D 0'0		71
548				SW		U	1	0379	,		71
549				DCW	@N0000@	U	5	0384			71
550				B	NOISE	U	4	0385	B 759		71
551				BER	RDERR	U	5	0389	B 798 L		72
552				WTW	OUTAP, INPUT	U	8	0394	L %U6 V00 W		72
553				BER	WTERR	U	5	0402	B 928 L		72
554				B	CLEAR	U	4	0407	B '21		72
555			BYPSS	RTW	SYSTP, INPUT	U	8	0411	L %U1 V00 R		72
556				C	INPUT&19, @999999 HEADR@	U	7	0419	C V19 '70		72
557				BU	BYPSS	U	5	0426	B 411 /		73
558				RTW	SYSTP, INPUT	U	8	0431	L %U1 V00 R		73
559				BEF	GETUP	U	5	0439	B 448 K		73
560				B	BYPSS	U	4	0444	B 411		73
561			GETUP	BCE	LDUPD, BYCT, 3	U	8	0448	B 498 '72 3		73
562				RTW	SYSTP, INPUT	U	8	0456	L %U1 V00 R		73
563				DCW	@N0000000000000@	U	14	0477			74
564				B	NOISE	U	4	0478	B 759		74
565				BER	RDERR	U	5	0482	B 798 L		74
566				A	&1, BYCT#1	U	7	0487	A '71 '72		74
567				B	GETUP	U	4	0494	B 448		74



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
668			*	READ	REDUNDANCY ROUTINE						
669			*								
670			RDERR	SBR	RDXT&3	U	4	0798	H 855		84
671				SBR	XR3	U	4	0802	H 099		85
672				MZ	&9, XR3	U	7	0806	Y /29 099		85
673				MCW	4000-24&X3, RDTRY&7	U	7	0813	M IG6 846		85
674				MN	RDTRY&3, BSP1&3	U	7	0820	D 842 830		85
675			BSP1	BSP	SYSTP	U	5	0827	U %U1 B		85
676				MCW	&9, RDCT#1	U	7	0832	M /29 /30		85
677			RDTRY	RT	SYSTP, 0	U	8	0839	M %U1 000 R		86
678				BER	*&5	U	5	0847	B 856 L		86
679				B	0	U	4	0852	B 000		86
680				MN	RDTRY&3, BSP2&3	U	7	0856	D 842 866		86
681			BSP2	BSP	SYSTP	U	5	0863	U %U1 B		86
682				S	&1, RDCT	U	7	0868	S '71 /30		86
683				BWZ	RDTRY, RDCT, B	U	8	0875	V 839 /30 B		87
684				MN	RDTRY&3, *&7	U	7	0883	D 842 896		87
685				H	0, 190	U	7	0890	. 000 190		87
686				MCW	RDTRY&7, *&8	U	7	0897	M 846 911		87
687				RT	SYSTP, 0	U	8	0904	M %U1 000 R		87
688				BSS	BSP1, E	U	5	0912	B 827 E		88
689				H	0, 111	U	7	0917	. 000 111		88
690				B	RDXT	U	4	0924	B 852		88
691			*								
692			*	WRITE	REDUNDANCY ROUTINE						
693			*								
694			WTERR	SBR	WTXT&3	U	4	0928	H 998		88
695				SBR	XR3	U	4	0932	H 099		88
696				MZ	&9, XR3	U	7	0936	Y /29 099		88
697				MCW	4000-6&X3, WTTRY&7	U	7	0943	M I14 989		88
698				MN	WTTRY&3, BSP3&3	U	7	0950	D 985 960		89
699			BSP3	BSP	OUTAP	U	5	0957	U %U6 B		89
700				SKP	SYSTP	U	5	0962	U %U1 E		89
701				BCE	SUBCT, WTCT-1, 1	U	8	0967	B 999 /31 1		89
702				A	&1, WTCT#2	U	7	0975	A '71 /32		89
703			WTTRY	WT	OUTAP, 0	U	8	0982	M %U6 000 W		90
704				BER	BSP3	U	5	0990	B 957 L		90
705				B	0	U	4	0995	B 000		90
706				SUBCT	S WTCT	U	4	0999	S /32		90
707				MN	WTTRY&3, *&7	U	7	1003	D 985 '16		90
708				H	0, 160	U	7	1010	. 000 160		90
709				B	WTTRY	U	4	1017	B 982		90
710			*								
711			*	CLEAR	OUTPUT AREA						
712			*								
713			CLEAR	SBR	CLRXT&3	U	4	1021	H '55		91
714				MCW	@I99@, CLR&3	U	7	1025	M /35 '35		91
715			CLR	CS	3999	U	4	1032	/ I99		91
716				SBR	CLR&3	U	4	1036	H '35		91
717				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				BU	CLR	U	5	1047	B '32 /		91
719			CLRXT	B	0	U	4	1052	B 000		91
720				LTORG	*	U			1056		
				DCW	@9999999 HEADR@	U	15	1070		LIT	92
				DCW	&1	U	1	1071		LIT	92
			BYCTU	DCW	#01	U	1	1072		AREA	92
				DCW	@999999@	U	6	1078		LIT	92
			LIBSWU	DCW	#01	U	1	1079		AREA	92
			EOFWSU	DCW	#01	U	1	1080		AREA	92
			SKPCTU	DCW	#02	U	2	1082		AREA	92
				DCW	@1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6@	U	43	1125		LIT	94
			UPDSWU	DCW	#01	U	1	1126		AREA	94
				DCW	@N@	U	1	1127		LIT	94
				DCW	@B@	U	1	1128		LIT	94
				DCW	&9	U	1	1129		LIT	94
			RDCTU	DCW	#01	U	1	1130		AREA	95
			WTCTU	DCW	#02	U	2	1132		AREA	95
				DCW	@I99@	U	3	1135		LIT	95
				DCW	&INPUTU-1	U	3	1138	U99	ADCON	95
721			ENDUP	DCW	@}@	U	1	1139		GMARK	95
722				EX	0	U			B 000		96





SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
823			TEST1	BCE	TWOOP,21&X3,,	U	8	1885	B 216 0B1 ,		110
824				C	22&X3,@ @	U	7	1893	C 0B2 ?41		110
825				BE	TWOOP	U	5	1900	B 216 S		110
826				A	&1, XR3	U	7	1905	A ?49 099		110
827				B	TEST1	U	4	1912	B Y85		110
828			TWOOP	ZA	20&X3,WK1#4	U	7	1916	? 0B0 ?53		110
829				A	@0@,WK1	U	7	1923	A ?54 ?53		111
830				BCE	NXTOP,21&X3,,	U	8	1930	B 242 0B1 ,		111
831				B	OUT	U	4	1938	B !08		111
832			NXTOP	SW	22&X3	U	4	1942	, 0B2		111
833				SBR	XR2	U	4	1946	H 094		111
834			ADD	A	&1, XR3	U	7	1950	A ?49 099		111
835				C	22&X3,@ @	U	7	1957	C 0B2 ?41		112
836				BU	ADD	U	5	1964	B 250 /		112
837				ZA	20&X3,WK2#4	U	7	1969	? 0B0 ?58		112
838				A	@0@,WK2	U	7	1976	A ?54 ?58		112
839				C	WK1,WK2	U	7	1983	C ?53 ?58		112
840				BL	BADST	U	5	1990	B Q59 T		112
841				BE	ONOP	U	5	1995	B K20 S		113
842			IS2OP	CW	OPSW	U	4	2000	) ?48		113
843			CLRWM	CW	1&X2	U	4	2004	) 0!1		113
844			OUT	CW	23	U	4	2008	) 023		113
845				BW	*&8,OPSW	U	8	2012	V !27 ?48 1		113
846				MCW	@DELET@,218	U	7	2020	M ?63 218		113
847				B	PTCTL	U	4	2027	B 037		113
848				*							
849				*	SEARCH FOR FIRST STATEMENT						
850				*							
851			COMP	C	WK1,SEQNO	U	7	2031	C ?53 A67		114
852				BE	GOTIT	U	5	2038	B !70 S		114
853				A	&1,SEQNO	U	7	2043	A ?49 A67		114
854				B	WTAP2	U	4	2050	B M95		114
855				B	RDTF	U	4	2054	B M17		114
856				BW	NTFND,HEDSW	U	8	2058	V Q84 ?91 1		114
857				B	COMP	U	4	2066	B !31		114
858				*							
859				*	FIRST STATEMENT FOUND						
860				*							
861			GOTIT	BW	QINSR,OPSW	U	8	2070	V J46 ?48 1		115
862				*							
863				*	SEARCH FOR SECOND STATEMENT						
864				*							
865			COMP2	B	PRINT	U	4	2078	B 072		115
866				B	RDTF	U	4	2082	B M17		115
867				C	WK2,SEQNO	U	7	2086	C ?58 A67		115
868				BH	BSPC	U	5	2093	B J10 U		115
869				BW	NTFND,HEDSW	U	8	2098	V Q84 ?91 1		115
870				B	COMP2	U	4	2106	B !78		116
871				*							
872				*	SECOND STATEMENT FOUND						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
873				*							
874			BSPC	BSP	SYSTP	U	5	2110	U %U1 B		116
875				CS	IMAGE&79	U	4	2115	/ 180		116
876				S	&1,SEQNO	U	7	2119	S ?49 A67		116
877			THRU	BW	LOOP3,DELSW	U	8	2126	V Y10 ?79 1		116
878				B	DOCTL	U	4	2134	B N94		116
879				B	PTCTL	U	4	2138	B 037		116
880				B	INSR&4	U	4	2142	B J77		117
881				*							
882				*	TEST INSERT OR DELETE						
883				*							
884			QINSR	BW	INSR,INSW	U	8	2146	V J73 ?73 1		117
885				B	PRINT	U	4	2154	B 072		117
886				S	&1,SEQNO	U	7	2158	S ?49 A67		117
887				CS	IMAGE&79	U	4	2165	/ 180		117
888				B	THRU	U	4	2169	B J26		117
889				*							
890				*	INSERT STATEMENTS						
891				*							
892			INSR	B	WTAP2	U	4	2173	B M95		117
893				B	READ	U	4	2177	B L24		118
894				BW	SERCH,INSW	U	8	2181	V V84 ?73 1		118
895				BW	SERCH,DELSW	U	8	2189	V V84 ?79 1		118
896				B	DOOUT	U	4	2197	B L07		118
897				CW	SEQSW#1	U	4	2201	) ?64		118
898				B	PRINT	U	4	2205	B 072		118
899				S	&1,SEQNO	U	7	2209	S ?49 A67		118
900				B	INSR	U	4	2216	B J73		119
901			ONOP	BW	IS2OP,INSW	U	8	2220	V !00 ?73 1		119
902				SW	OPSW	U	4	2228	, ?48		119
903				B	CLRWM	U	4	2232	B !04		119
904				*							
905				*	REPLICATE LIBRARY						
906				*							
907			REPET	B	WTAP2	U	4	2236	B M95		119
908			CLNUP	B	RDTF	U	4	2240	B M17		119
909				B	WTAP2	U	4	2244	B M95		119
910				BW	FINAL,ENDSW	U	8	2248	V K60 ?98 1		120
911				B	CLNUP	U	4	2256	B K40		120
912				*							
913				*	END OF UPDATE - GO TO COPY ROUTINE						
914				*							
915			FINAL	WTM	OUTAP	U	5	2260	U %U6 M		120
916				MCW	&INPUT&13,NOIS2&6	U	7	2265	M ?67 780		120
917				CW	LIBSW,EOPSW	U	7	2272	) ?79 ?80		120
918				CW	UPDSW	U	4	2279	) /26		120
919				CS	332	U	4	2283	/ 332		120
920				CS		U	1	2287	/		121
921				CC	1	U	2	2288	F 1		121
922			BYP1	RT	SYSTP,IMAGE	U	8	2290	M %U1 101 R		121



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

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1073				CS	299	U	4	2831	/ 299		138
1074			LOOP4	B	READ	U	4	2835	B L24		138
1075				BW	SERCH,INSW	U	8	2839	V V84 ?73 1		138
1076				BW	SERCH,DELSW	U	8	2847	V V84 ?79 1		138
1077				B	LOOP4	U	4	2855	B Q35		139
1078					*						
1079					* BAD CONTROL CARD						
1080					*						
1081			BADST	MCW	@BAD STATEMENT@,299	U	7	2859	M B38 299		139
1082				W		U	1	2866	2		139
1083				CC	L	U	2	2867	F L		139
1084				CS	299	U	4	2869	/ 299		139
1085				CW	1&X2,23	U	7	2873	) 0!1 023		139
1086				B	LOOP4	U	4	2880	B Q35		139
1087					*						
1088					* STATEMENT DOES NOT EXIST IN SUBROUTINE						
1089					*						
1090			NTFND	MCW	@STATEMENT DOES NOT EXIST@,299	U	7	2884	M B62 299		140
1091				W		U	1	2891	2		140
1092				CC	L	U	2	2892	F L		140
1093				CS	299	U	4	2894	/ 299		140
1094				BW	END99,ENDSW	U	8	2898	V R10 ?98 1		140
1095				B	LOOP4	U	4	2906	B Q35		140
1096					*						
1097					* END OF LIBRARY REACHED BEFORE ROUTINE FOUND						
1098					*						
1099			END99	MCW	@SUBROUTINE UNKNOWN@,299	U	7	2910	M B80 299		140
1100				W		U	1	2917	2		141
1101				CC	L	U	2	2918	F L		141
1102				CS	299	U	4	2920	/ 299		141
1103				MCW	@END OF LIBRARY REACHED@,222	U	7	2924	M C02 222		141
1104				W		U	1	2931	2		141
1105				BSP	SYSTP	U	5	2932	U %U1 B		141
1106				CS	IMAGE&79	U	4	2937	/ 180		141
1107			LOOP6	B	READ	U	4	2941	B L24		142
1108				B	LOOP6	U	4	2945	B R41		142
1109				DCW	#50	U	50	2998			144
1110			BLANK	DC	#29	U	29	3027			145
1111				LTORG	*	U			3028		
				DCW	&IMAGEU&13	U	3	3030	114	ADCON	145
				DCW	@999999@	U	6	3036		LIT	145
			NAMEU	DCW	#03	U	3	3039		AREA	146
				DCW	@ @	U	2	3041		LIT	146
				DCW	@DELET@	U	5	3046		LIT	146
				DCW	&2	U	1	3047		LIT	146
			OPSWU	DCW	#01	U	1	3048		AREA	146
				DCW	&1	U	1	3049		LIT	146
			WK1U	DCW	#04	U	4	3053		AREA	146
				DCW	@0@	U	1	3054		LIT	147
			WK2U	DCW	#04	U	4	3058		AREA	147

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@DELET@	U	5	3063		LIT	147
			SEQSWU	DCW	#01	U	1	3064		AREA	147
				DCW	&INPUTU&13	U	3	3067	V13	ADCON	147
				DCW	@INSER@	U	5	3072		LIT	147
			INSWU	DCW	#01	U	1	3073		AREA	147
				DCW	@DELET@	U	5	3078		LIT	148
			DELSWU	DCW	#01	U	1	3079		AREA	148
				DCW	@REPET@	U	5	3084		LIT	148
			LSTSWU	DCW	#01	U	1	3085		AREA	148
				DCW	@HEADR@	U	5	3090		LIT	148
			HEDSWU	DCW	#01	U	1	3091		AREA	148
				DCW	@999999@	U	6	3097		LIT	148
			ENDSWU	DCW	#01	U	1	3098		AREA	149
				DCW	@1401 AUTOCODER - LIBRARY CHANGES@	U	32	3130		LIT	149
				DCW	@PAGE@	U	4	3134		LIT	149
			PGNOU	DCW	#03	U	3	3137		AREA	150
				DCW	@SEQ LABEL OP OPERANDS@	U	26	3163		LIT	150
			SEQNOU	DCW	#04	U	4	3167		AREA	150
				DCW	@INPUT CARDS OUT OF SEQUENCE - START OVER@	U	40	3207		LIT	152
				DCW	@SUBROUTINE UNKNOWN@	U	18	3225		LIT	152
				DCW	@BAD STATEMENT@	U	13	3238		LIT	152
				DCW	@STATEMENT DOES NOT EXIST@	U	24	3262		LIT	153
				DCW	@SUBROUTINE UNKNOWN@	U	18	3280		LIT	154
				DCW	@END OF LIBRARY REACHED@	U	22	3302		LIT	155
1112			3998	DCW	@}@	U	1	3998		GMARK	156
1113				EX	0	U			B 000		157

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1114				JOB	AUTOCODER-PASS 1 OUTPUT LIBRARY	-VERSION 3	U				
1115				SFX	P		P				
1116				SYSTP	EQU %U1		P	%U1			
1117				XRI	EQU 89		P	0089			
1118				*							
1119				*	BEGIN PROGRAM						
1120				*							
1121				ORG	2000		P		2000		
1122				SW	ENDOT		P	4 2000	, 744		160
1123				LCA	ENDOT,181		P	7 2004	L 744 181		160
1124				CS			P	1 2011	/		160
1125				CS	80		P	4 2012	/ 080		160
1126				SW	6,16		P	7 2016	, 006 016		160
1127				CS	332		P	4 2023	/ 332		160
1128				CS			P	1 2027	/		160
1129				CC	1		P	2 2028	F 1		161
1130				RWD	SYSTP		P	5 2030	U %U1 R		161
1131				RT	SYSTP,101		P	8 2035	M %U1 101 R		161
1132				CS	180		P	4 2043	/ 180		161
1133				SW	106,116		P	7 2047	, 106 116		161
1134				SW	121		P	4 2054	, 121		161
1135				BSS	DOALL,E		P	5 2058	B L28 E		161
1136				*							
1137				*	PRINT AND/OR PUNCH SELECTED MACROS						
1138				*							
1139				CW	HDRSW		P	4 2063	) R32		162
1140				READ	CC 1		P	2 2067	F 1		162
1141				B	PRTHD		P	4 2069	B N59		162
1142				R			P	1 2073	1		162
1143				MCW	@2@,OPCOD		P	7 2074	M Q90 Q69		162
1144				C	20,@PRINT@		P	7 2081	C Q20 Q95		162
1145				BE	SELMC		P	5 2088	B J19 S		162
1146				C	20,@PUNCH@		P	7 2093	C Q20 R00		163
1147				BU	ERROR		P	5 2100	B N06 /		163
1148				*							
1149				*	PUNCH OPTION						
1150				*							
1151				A	&4,OPCOD		P	7 2105	A R01 Q69		163
1152				MN	&4,OPSAV#1		P	7 2112	D R01 R02		163
1153				*							
1154				*	SEARCH FOR MACRO						
1155				*							
1156				SELMC	C 8,NAME#3		P	7 2119	C 008 R05		163
1157				BE	TSTLC		P	5 2126	B K96 S		163
1158				MCW	20,218		P	7 2131	M Q20 218		164
1159				MCW	11,212		P	7 2138	M Q11 212		164
1160				BL	RDP2		P	5 2145	B J85 T		164
1161				RWD	SYSTP		P	5 2150	U %U1 R		164
1162				LCA	ENDOT,181		P	7 2155	L 744 181		164
1163				RT	SYSTP,101		P	8 2162	M %U1 101 R		164

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1164				CS	180	P	4	2170	/ 180		165
1165				SW	106,116	P	7	2174	, 106 116		165
1166				SW	121	P	4	2181	, 121		165
1167			RDTP2	RT	SYSTP,101	P	8	2185	M %U1 101 R		165
1168				B	NOISE	P	4	2193	B P67		165
1169				BER	RDERR	P	5	2197	B Q06 L		165
1170				C	111,@999999@	P	7	2202	C 111 R11		165
1171				BE	UNKN	P	5	2209	B L05 S		166
1172				C	120,@HEADR@	P	7	2214	C 120 R16		166
1173				BU	RDTP2	P	5	2221	B J85 /		166
1174				C	8,108	P	7	2226	C 008 108		166
1175				BU	RDTP2	P	5	2233	B J85 /		166
1176				*							
1177				*	DESIRE						
1178				*							
1179				MCW	8,NAME	P	7	2238	M 008 R05		166
1180				CC	K	P	2	2245	F K		166
1181				W		P	1	2247	Z		167
1182				S	SEQNO	P	4	2248	S R48		167
1183				B	INSER	P	4	2252	B N17		167
1184				CC	K	P	2	2256	F K		167
1185			PTAGN	B	PRINT	P	4	2258	B N81		167
1186				RT	SYSTP,101	P	8	2262	M %U1 101 R		167
1187				B	NOISE	P	4	2270	B P67		167
1188				BER	RDERR	P	5	2274	B Q06 L		168
1189				C	120,@HEADR@	P	7	2279	C 120 R21		168
1190				BU	PTAGN	P	5	2286	B K58 /		168
1191				BSP	SYSTP	P	5	2291	U %U1 B		168
1192				*							
1193				*	TEST						
1194				*	END						
1195				TSTLC	BLC	P	5	2296	B M54 A		168
1196				B	READ	P	4	2301	B !67		168
1197				*							
1198				*	MACRO						
1199				*	NOT						
1200				UNKN	MCW	P	7	2305	M R28 299		168
1201				W		P	1	2312	Z		169
1202				CS	299	P	4	2313	/ 299		169
1203				MCW	@999@,NAME	P	7	2317	M R31 R05		169
1204				B	TSTLC	P	4	2324	B K96		169
1205				*							
1206				*	PRINT						
1207				*	AND/OR						
1208				DOALL	BSS	P	5	2328	B L60 D		169
1209				CW	HDRSW#1	P	4	2333	) R32		169
1210				BSS	*%5,G	P	5	2337	B L46 G		169
1211				B	SETUP	P	4	2342	B L60		170
1212				*							
1213				*	PUNCH						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1214				*							
1215				A	%4,OPCOD	P	7	2346	A R01 O69		170
1216				MN	%4,OPSAV	P	7	2353	D R01 R02		170
1217			SETUP	B	HEAD1	P	4	2360	B P19		170
1218				CW	HDSW1#1	P	4	2364	) R33		170
1219				B	PRTHD	P	4	2368	B N59		170
1220				RDTP	RT	P	8	2372	M %U1 101 R		170
1221				B	NOISE	P	4	2380	B P67		171
1222				BER	RDERR	P	5	2384	B Q06 L		171
1223				C	111,@999999@	P	7	2389	C 111 R39		171
1224				BE	EOJOB	P	5	2396	B M54 S		171
1225				C	120,@HEADR@	P	7	2401	C 120 R44		171
1226				BU	DOPNT	P	5	2408	B M35 /		171
1227				B	INSER	P	4	2413	B N17		171
1228				CC	K	P	2	2417	F K		172
1229				SBR	PRTXT%3,*%6	P	7	2419	H O83 M31		172
1230				BCV	NEWPC	P	5	2426	B O97 @		172
1231				S	SEQNO#4	P	4	2431	S R48		172
1232				DOPNT	B	P	4	2435	B N81		172
1233				SW	106,116	P	7	2439	, 106 116		172
1234				SW	121	P	4	2446	, 121		172
1235				B	RDTP	P	4	2450	B L72		173
1236				*							
1237				*	END						
1238				*							
1239				EOJOB	CS	P	4	2454	/ 332		173
1240				CS		P	1	2458	/		173
1241				CC	K	P	2	2459	F K		173
1242				MCW	@END OF LIBRARY@,214	P	7	2461	M R62 214		173
1243				W		P	1	2468	Z		173
1244				CC	1	P	2	2469	F 1		173
1245				CS	180	P	4	2471	/ 180		174
1246				BCE	CLRPH,OPSAV,4	P	8	2475	B M99 R02 4		174
1247			RWD	RWD	SYSTP	P	5	2483	U %U1 R		174
1248			HALT	H	0,155	P	7	2488	. 000 155		174
1249				B	HALT	P	4	2495	B M88		174
1250				CLRPH	P	P	1	2499	4		174
1251				SS	8	P	2	2500	K 8		174
1252				B	RWD	P	4	2502	B M83		175
1253				*							
1254				*	INCORRECT						
1255				*	INPUT						
1256				ERROR	H	P	7	2506	. 000 144		175
1257				B	TSTLC	P	4	2513	B K96		175
1258				INSER	SBR	P	4	2517	H N58		175
1259				MCW	@,105	P	7	2521	M R67 105		175
1260				MCW	@INSER@,120	P	7	2528	M R72 120		175
1261				BCE	*%5,OPSAV,4	P	8	2535	B N47 R02 4		176
1262				B	*%2	P	4	2543	B N48		176
1263				P		P	1	2547	4		176

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1264				MCW	@HEADR@,120	P	7	2548	M R77 120		176
1265			INSXT	B	0	P	4	2555	B 000		176
1266			*								
1267				*	PRINT HEADING						
1268			*								
1269			PRTHD	SBR	HDXT&3	P	4	2559	H N80		176
1270				MCW	@SEQ LABEL OP OPERANDS@,227	P	7	2563	M ?03 227		176
1271				W		P	1	2570	2		177
1272				CC	K	P	2	2571	F K		177
1273				CS	228	P	4	2573	/ 228		177
1274			HDXT	B	0	P	4	2577	B 000		177
1275			*								
1276				*	PRINT STATEMENT						
1277			*								
1278			PRINT	SBR	PRTXT&3	P	4	2581	H O83		177
1279				C	120,@HEADR@	P	7	2585	C 120 ?08		177
1280				BE	DOHDR	P	5	2592	B 005 S		177
1281				BW	CLR,HDRSW	P	8	2597	V 070 R32 1		178
1282			DOHDR	CS	332	P	4	2605	/ 332		178
1283				CS		P	1	2609	/		178
1284				BCE	COMNT,106,*	P	8	2610	B 084 106 *		178
1285				MCW	172,271	P	7	2618	M 172 271		178
1286				MCW	120,218	P	7	2625	M 120 218		178
1287				MCW	111,212	P	7	2632	M 111 212		179
1288			DOSEQ	MN	SEQNO,204	P	7	2639	D R48 204		179
1289				MCS		P	1	2646	Z		179
1290				MN	SEQNO,104	P	7	2647	D R48 104		179
1291				MCW		P	1	2654	M		179
1292				A	&1,SEQNO	P	7	2655	A ?09 R48		179
1293				MCW	@ @,105	P	7	2662	M ?10 105		179
1294			OPCOD	W		P	1	2669	2		180
1295			CLR	CS	332	P	4	2670	/ 332		180
1296				CS		P	1	2674	/		180
1297				BCV	NEWPG	P	5	2675	B 097 @		180
1298			PRTXT	B	0	P	4	2680	B 000		180
1299			COMNT	MCW	172,273	P	7	2684	M 172 273		180
1300				MCW		P	1	2691	M		180
1301				MCW		P	1	2692	M		181
1302				B	DOSEQ	P	4	2693	B 039		181
1303			*								
1304				*	START NEW PAGE						
1305			*								
1306			NEWPG	CC	1	P	2	2697	F 1		181
1307				BW	*&5,HDSW1	P	8	2699	V P11 R33 1		181
1308				B	HEAD1	P	4	2707	B P19		181
1309				B	PRTHD	P	4	2711	B N59		181
1310				B	PRTXT	P	4	2715	B 080		181
1311			*								
1312				*	PRINT MAIN HEADING						
1313			*								

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1314			HEAD1	SBR	HD2XT&3	P	4	2719	H P66		182
1315				CS	332	P	4	2723	/ 332		182
1316				CS		P	1	2727	/		182
1317				MCW	@1401 AUTOCODER - LIBRARY@,243	P	7	2728	M ?34 243		182
1318				MCW	@PAGE@,275	P	7	2735	M ?38 275		182
1319				A	&1,PGNO#3	P	7	2742	A ?09 ?41		182
1320				MCS	PGNO,279	P	7	2749	Z ?41 279		182
1321				W		P	1	2756	2		183
1322				CC	L	P	2	2757	F L		183
1323				CS	299	P	4	2759	/ 299		183
1324			HD2XT	B	0	P	4	2763	B 000		183
1325			*								
1326				*	TEST FOR NOISE RECORDS						
1327			*								
1328			NOISE	SBR	NOSXT&3	P	4	2767	H Q05		183
1329				SBR	XR1	P	4	2771	H 089		183
1330				MZ	&9,XR1	P	7	2775	Y ?42 089		183
1331				BCE	4000-12&X1,113,}	P	8	2782	B 1Y8 113 }	GMARK	184
1332				CHAIN	12	P				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			NOSXT	B	0	P	4	2802	B 000		185
1346			*								
1347				*	READ REDUNDANCY ROUTINE						
1348			*								
1349			RDERR	SBR	RDXT&3	P	4	2806	H Q38		186
1350			BSP	BSP	SYSTP	P	5	2810	U %U1 B		186
1351				MCW	&9,RDCT#1	P	7	2815	M ?42 ?43		186
1352			RDTRY	RT	SYSTP,101	P	8	2822	M %U1 101 R		186
1353				BER	*&5	P	5	2830	B Q39 L		186
1354			RDXT	B	0	P	4	2835	B 000		186
1355				BSP	SYSTP	P	5	2839	U %U1 B		186
1356				S	&1,RDCT	P	7	2844	S ?09 ?43		187
1357				BWZ	RDTRY,RDCT,B	P	8	2851	V Q22 ?43 B		187
1358				H	0,191	P	7	2859	. 000 191		187
1359				RT	SYSTP,101	P	8	2866	M %U1 101 R		187
1360				BSS	BSP,E	P	5	2874	B Q10 E		187
1361				H	0,111	P	7	2879	. 000 111		188
1362				B	RDXT	P	4	2886	B Q35		188
1363				LTORG	*	P			2890		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@2@	P	1	2890		LIT	188
				DCW	@PRINT@	P	5	2895		LIT	188
				DCW	@PUNCH@	P	5	2900		LIT	188
				DCW	@4	P	1	2901		LIT	188
			OPSAVP	DCW	#01	P	1	2902		AREA	188
			NAMEP	DCW	#03	P	3	2905		AREA	189
				DCW	@999999@	P	6	2911		LIT	189
				DCW	@HEADR@	P	5	2916		LIT	189
				DCW	@HEADR@	P	5	2921		LIT	189
				DCW	@UNKNOWN@	P	7	2928		LIT	189
				DCW	@999@	P	3	2931		LIT	189
			HDRSWP	DCW	#01	P	1	2932		AREA	189
			HDSWIP	DCW	#01	P	1	2933		AREA	190
				DCW	@999999@	P	6	2939		LIT	190
				DCW	@HEADR@	P	5	2944		LIT	190
			SEQNOP	DCW	#04	P	4	2948		AREA	190
				DCW	@END OF LIBRARY@	P	14	2962		LIT	190
				DCW	@ @	P	5	2967		LIT	190
				DCW	@INSER@	P	5	2972		LIT	191
				DCW	@HEADR@	P	5	2977		LIT	191
				DCW	@SEQ LABEL OP OPERANDS@	P	26	3003		LIT	191
				DCW	@HEADR@	P	5	3008		LIT	192
				DCW	@1	P	1	3009		LIT	192
				DCW	@ @	P	1	3010		LIT	192
				DCW	@1401 AUTOCODER - LIBRARY@	P	24	3034		LIT	192
				DCW	@PAGE@	P	4	3038		LIT	192
			PGNOP	DCW	#03	P	3	3041		AREA	192
				DCW	@9	P	1	3042		LIT	192
			RDCTP	DCW	#01	P	1	3043		AREA	193
1364			ENDOT	DCW	@}@	P	1	3044		GMARK	193
1365			EX			P			B 000		194
1366			END			P			/ 000 080		

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ABIT	107	ADDU	1950	AGAINR	2102	ALLU	1742	BACKU	1722	BADSTU	2859	BDEOFU	750
BEGINU	1500	BLANKU	3027	BSP	995	BSP1U	827	BSP2U	863	BSP3U	957	BSPB	698
BSPCU	2110	BSPP	2810	BUMPU	2753	BYCTB	807	BYCTU	1072	BYP1U	2290	BYPSSU	411
CARD	0	CDXTU	2405	CKDELU	2368	CKREPU	2388	CKSEQ	726	CLEAR	702	CLEARB	342
CLEARU	1021	CLNUPU	2240	CLRB	497	CLRP	2670	CLRPHP	2499	CLRU	1032	CLRWMU	2004
CLRXTU	1052	CNVRT	478	COMNTP	2684	COMNTU	2732	COMP1	429	COMP2	607	COMP2U	2078
COMPU	2031	COPYU	525	CPYNDU	692	CRDER	917	CTLXTU	2633	DELSWU	3079	DOALLP	2328
DOCOR	538	DOCTLU	2594	DOHDRP	2605	DOOUTU	2307	DOPNTP	2435	DOPSAB	1900	DOSEQ	941
DOSEQP	2639	END99U	2910	ENDOTP	3044	ENDRTR	2212	ENDSQ	962	ENDSWU	3098	ENDUPU	1139
EOFWSU	1080	EOFU	601	EOJOB	877	EOJOBP	2454	ERASEU	637	ERRORP	2506	EXITU	1777
FINALU	2260	FLOAT	406	FOUNDU	1730	GETR	2154	GETUPU	448	GMRK1B	835	GOTITU	2070
HALT	906	HALT1B	407	HALT1U	669	HALT2	930	HALT2U	2790	HALTP	2488	HD2XTP	2763
HDRSWP	2932	HDSW1P	2933	HDXTB	2577	HDXTU	2590	HEAD1P	2719	HEADRU	1656	HEADU	2532
HDSWU	3091	HOLD5	1099	IMAGEU	101	INPUTU	1500	INSERP	2517	INSERU	1806	INSRU	2173
INSWU	3073	INSXTP	2555	IS2OPU	2000	ISMORU	727	ISUNKU	2821	LDUPDU	498	LIBRNB	521
LIBSWU	1079	LISTR	2126	LOADDB	11	LOOP1B	362	LOOP1U	1628	LOOP2B	441	LOOP2U	1757
LOOP3U	1810	LOOP4U	2835	LOOP6U	2941	LOPSAB	476	LSTCDU	2409	LSTSWU	3085	LTAPSW	2725
MACRO	792	MOREU	1648	NAMEP	2905	NAMEU	3039	NENPGP	2697	NENPGU	2658	NEWXTU	2668
NOBIT	106	NOIS2B	652	NOIS2U	774	NOISEB	637	NOISEP	2767	NOISEU	759	NOSXTB	672
NOSXTP	2802	NOSXTU	794	NTFNDU	2884	NXTBK	362	NXTOPU	1942	ONOPU	2220	OPCODEP	2669
OPSAVP	2902	OPSWU	3048	OUTAPU	3041	OUTPTB	558	OUTU	2008	OUTXTU	2320	PARTLU	1846
PASSAB	1650	PASTU	1689	PGNOP	3041	PGNOU	3137	PRINT	200	PRINTP	2581	PRINTU	2672
PRTHDP	2559	PRTXTP	2680	PTAGNP	2258	PTCTLU	2637	PTCXTU	2654	PTXTU	2771	QINSRU	2146
QUITU	2775	RDCDU	2340	RDCTB	812	RDCTP	3043	RDCTR	2207	RDCTU	1130	RDERRB	676
RDERRP	2806	RDERRR	2046	RDERRU	798	RDP2P	2185	RDP2U	2372	RDP2U	2417	RDTRYB	710
RDTRYP	2822	RDTRYR	2058	RDTRYU	839	RDXTB	723	RDXTU	2835	RDXTU	852	READP	2067
READU	2324	REBEGU	1560	REOUTU	593	REPETU	2236	RETRY	1020	RTXTU	2491	RWDP	2483
SELMCP	2119	SEGER	760	SEQNCU	2745	SEQNO	1087	SEQNOP	2948	SEQNOU	3167	SEQSWU	3064
SEQXT	756	SERCHU	1584	SETUPP	2360	SETWM	596	SKPCTU	1082	SOMEU	1881	START	333
STARTR	2009	SUB1	527	SUB2	471	SUBCT	1037	SUBCTU	999	SWICHU	556	SYSTP	%U1
SYSTPB	%U1	SYSTPP	%U1	SYSTPR	%U1	SYSTPU	%U1	TEST1U	1885	THRUU	2126	TSTLCP	2296
TSISQU	2716	TSISSB	418	TWOOPU	1916	UNKNP	2305	UNKWNU	2801	UPDSWU	1126	WK1U	3053
WK2U	3058	WORK5	1119	WT2XTU	2528	WTAP1	675	WTAP1U	580	WTAP2	830	WTAP2U	2495
WTCT	1255	WTCTU	1132	WTERR	973	WTERRU	928	WTM	868	WTRYU	982	WXT	1033
WXTU	995	XR1	89	XR1B	89	XR1P	89	XR1U	89	XR2	94	XR2U	94
XR3	99	XR3U	99	XXXX	0	ZONE	109						

\*\*\*\*\* \*\* 3 Errors

ERROR