

```
1 * THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1970 BY VARIAN DATA MACHINES00 00001
2 * 00 00002
3 * V.D.M. PART NO. 92L0107-005E *****
4 * 00 00004
5 * RELEASED 07-10-74 00 00005
6 * 00 00006
7 * 00 00007
8 * 620 TELETYPE TEST PROGRAM 00 00008
9 * 00 00009
10 * 00 00010
11 * ***** * * 00 00011
12 * * * * * 00 00012
13 * * * * * 00 00013
14 * * * * * 00 00014
15 * * * * * 00 00015
16 * * * * * 00 00016
17 * * * * * 00 00017
18 * 00 00018
19 * 00 00019
20 * ***** * * * ***** 00 00020
21 * * * * * 00 00021
22 * * * * * 00 00022
23 * * * * * 00 00023
24 * * * * * 00 00024
25 * * * * * 00 00025
26 * * ***** * * * 00 00026
27 * 00 00027
28 * 00 00028
29 * THIS TEST PROGRAM IS A PART OF THE SIX TWENTY 00 00029
30 * 00 00030
31 * TEST EXECUTIVE PROGRAM SYSTEM (STEPS) 00 00031
32 * 00 00032
33 * 00 00033
34 * THE TTY TEST IS DESIGNED TO PROVIDE A SET OF ROUTINES 00 00034
35 * TO TEST THE OPERATIONAL STATUS OF THE TELETYPE UNIT, THE PROGRAM 00 00035
36 * IS APPLICABLE TO VDM-MODIFIED TELETYPE MODELS 33 ASR, 35 ASR, 00 00036
37 * AND 35 K8R. 00 00037
38 * 00 00038
39 * 00 00039
40 * 00 00040
41 * 00 00041
42 * 00 00042
```



43	*					00	00043
44	*					00	00044
45	*					00	00045
46	*					00	00046
47	*					00	00047
48	*					00	00048
49	*					00	00049
50	*					00	00050
51	*					00	00051
52	*					00	00052
53	*					00	00053
54	*					00	00054
55	*	*****				00	00055
56	*	*				00	00056
57	*	* AREAS RESERVED BY EXECUTIVE *				00	00057
58	*	*****				00	00058
59	*	ORG	0			00	00059
60	*	JMP	EXECUTIVE			00	00060
61	*	ORG	040			00	00061
62	*	JMP	POWER DOWN ROUTINE			00	00062
63	*	JMP	POWER UP ROUTINE			00	00063
64	*	NOTE:	THE TEST EXECUTIVE ALSO RESERVES LOCATIONS 0400 TO 0477			00	00064
65	*		FOR A POINTER TABLE TO STANDARD ROUTINES, AND AS AN AREA			00	00065
66	*		FOR EXECUTIVE DATA, ALL TEST PROGRAMS WORKING WITH THE			00	00066
67	*		EXECUTIVE MUST PRESERVE THIS BLOCK.			00	00067
68	*		STANDARD ROUTINES WILL BE CALLED INDIRECTLY THRU			00	00068
69	*		THIS TABLE			00	00069
70	*					00	00070
71	*					00	00071
72	*	*****				00	00072
73	*					00	00073
74	*	*****				00	00074
000400	A	75	DUIC	SET	0400	(OUTA)	00 00075
000403	A	76	DUMB	SET	0403	(OUTD)	00 00076
000416	A	77	IDCT	SET	0416	(INPG)	00 00077
		78	*				00 00078
000500		79		ORG	0500		00 00079
		80	*				00 00080
000500	0006010	A	81	IKCP	LOAI	0224	PNCH OFF 00 00081
000501	000224	A					
000502	002000	A	82	CALL*	DUIC		00 00082
000503	100400	A					

000504	006010	A	83	LDAI	0223	RDR OFF	00 00083
000505	000223	A					
000506	002000	A	84	CALL*	OUIC		00 00084
000507	100400	A					
000510	006010	A	85	LDAI	0201	PRINT ENABLE	00 00085
000511	000201	A					
000512	002000	A	86	CALL*	OUIC		00 00086
000513	100400	A					
000514	006030	A	87	TTP1	LOXI	HOG1	TAPE LOADED
000515	000675	A					
000516	002000	A	88	CALL*	OUMG		00 00088
000517	100403	A					
000520	006030	A	89	TRDA	LOXI	HOG2	DA=?
000521	000716	A					
000522	002000	A	90	CALL*	OUMG		00 00090
000523	100403	A					
000524	002000	A	91	TIDA	CALL*	IOCT	INPUT DA END WITH PERIOD
000525	100416	A					
000526	001000	A	92	JMP	TSSR	RESET SS3	00 00092
000527	000655	A					
000530	001000	A	93	JMP	TRDA	BACKSLASH	00 00093
000531	000520	A					
000532	001000	A	94	JMP	*+2	,	00 00094
000533	000534	A					
			95	* NORMAL RETURN FROM INPG			00 00095
000534	006030	A	96	LOXI	STTY		00 00096
000535	002644	A					
000536	055000	A	97	STA	0,1	STORE DA	00 00097
000537	006010	A	98	TATT	LDAI	0207	RING BELL ON APPROPRIATE TTY
000540	000207	A					00 00098
000541	002000	A	99	CALL	OUTA	AND INITIALIZE APPROPRIATE TTY	00 00099
000542	002613	A					
000543	006010	A	100	LDAI	0224	PNCH OFF	00 00100
000544	000224	A					
000545	002000	A	101	CALL	OUTA		00 00101
000546	002613	A					
000547	006010	A	102	LDAI	0223	RDR OFF	00 00102
000550	000223	A					
000551	002000	A	103	CALL	OUTA		00 00103
000552	002613	A					
000553	006010	A	104	LDAI	0201	PRINT ENABLE	00 00104
000554	000201	A					



000555	002000	A	105	CALL	OUTA		00 00105
000556	002613	A					
000557	002000	A	106	CALL	OUTC	CR/LF	00 00106
000560	003210	A					
000561	012644	A	107	LJA	STTY		00 00107
000562	006110	A	108	DRAI	0102500		00 00108
000563	102500	A					
000564	050565	A	109	STA	**1		00 00109
000565	102500	A	110	CIA	0	CLEAR TTY INPUT BUFFER	00 00110
000566	006030	A	111	TRID	LDXI	HOGS	TEST ID=?
000567	000726	A					
000570	002000	A	112	CALL	OUTD		00 00112
000571	003243	A					
000572	002000	A	113	TYID	CALL	INPE	INPUT ID END WITH PERIOD
000573	003007	A					
000574	001000	A	114	JMP	TRSS	RESET SSS	00 00114
000575	000665	A					
000576	001000	A	115	JMP	TRID	BACKSLASH	00 00115
000577	000566	A					
000600	001000	A	116	JMP	TRID	BACKARROW	00 00116
000601	000566	A					
			117	*NORMAL RETURN FROM INPE			00 00117
000602	051010	A	118	STA	STID	STORE ID	00 00118
000603	002000	A	119	CALL	INPF	, OR .	00 00119
000604	003047	A					
000605	001000	A	120	JMP	TATT	EXIT TO KEYBOARD CONTROL PROGRAM	00 00120
000606	000537	A					
000607	001000	A	121	JMP	TRID	BACKSLASH	00 00121
000610	000566	A					
000611	001000	A	122	JMP	TRID	BACKARROW	00 00122
000612	000566	A					
000613	001000	A	123	JMP	**2	,	00 00123
000614	000615	A					
			124	*NORMAL RETURN FROM INPF			00 00124
000615	002000	A	125	CALL	OUTC		00 00125
000616	003210	A					
000617	011010	A	126	LDA	STID	RESTORE ID	00 00126
000620	141002	A	127	SUB	KC	KEYBD CHAR	00 00127
000621	001010	A	128	JAZ	TKCT		00 00128
000622	001011	A					
000623	011010	A	129	LDA	STID		00 00129
000624	141003	A	130	SUB	KE	KEYBD ECHU	00 00130



000625	001010	A	131	JAZ	TKET		00	00131	
000626	001233	A							
000627	011010	A	132	LOA	STID		00	00132	
000630	141004	A	133	SUB	PR	PNCH/RDR	00	00133	
000631	001010	A	134	JAZ	TPRT		00	00134	
000632	001445	A							
000633	011010	A	135	LOA	STID		00	00135	
000634	141005	A	136	SUB	PS	PRINT SUPPRESSION	00	00136	
000635	001010	A	137	JAZ	TPST		00	00137	
000636	001326	A							
000637	011010	A	138	LOA	STID		00	00138	
000640	141006	A	139	SUB	PT	PRINTER	00	00139	
000641	001010	A	140	JAZ	TPTT		00	00140	
000642	001261	A							
000643	011010	A	141	LOA	STID		00	00141	
000644	141007	A	142	SUB	RT	RDR	00	00142	
000645	001010	A	143	JAZ	TRTT		00	00143	
000646	002120	A							
000647	006030	A	144	LOXI	HDG4	INVALID TEST ID	00	00144	
000650	000743	A							
000651	002000	A	145	CALL	OUTD		00	00145	
000652	003243	A							
000653	001000	A	146	JMP	TRID		00	00146	
000654	000566	A							
000655	006030	A	147	TSSR	LOXI	HDG5	RESET 883	00	00147
000656	000762	A							
000657	002000	A	148	CALL*	DUMG		00	00148	
000658	100403	A							
000661	001400	A	149	J883	*		00	00149	
000662	000661	A							
000663	001000	A	150	JMP	TRDA		00	00150	
000664	000520	A							
000665	006030	A	151	TRSS	LOXI	HDG5	RESET 883	00	00151
000666	000762	A							
000667	002000	A	152	CALL*	DUMG		00	00152	
000670	100403	A							
000671	001400	A	153	J883	*		00	00153	
000672	000671	A							
000673	001000	A	154	JMP	TRID		00	00154	
000674	000566	A							
000675	106612	A	155 *	MESSAGE	TABLE		00	00155	
			156	HDG1	DATA	0106612, 'THE TELETYPE TEST IS LOADED', 0106612, 0	00	00156	

000676 152310 A
000677 142640 A
000700 152305 A
000701 146305 A
000702 152331 A
000703 150305 A
000704 120324 A
000705 142723 A
000706 152240 A
000707 144723 A
000710 120314 A
000711 147701 A
000712 142305 A
000713 142240 A
000714 106612 A
000715 000000 A
000716 106612 A
000717 152305 A
000720 146305 A
000721 152331 A
000722 150305 A
000723 120304 A
000724 140675 A
000725 000000 A
000726 106612 A
000727 152324 A
000730 154640 A
000731 152305 A
000732 151724 A
000733 120311 A
000734 142305 A
000735 147324 A
000736 144706 A
000737 144705 A
000740 151240 A
000741 136640 A
000742 000000 A
000743 106612 A
000744 144716 A
000745 153301 A
000746 146311 A
000747 142240 A

157 HDG2 DATA 0106612,'TELETYPE DA',0 00 00157

158 HDG3 DATA 0106612,'TTY TEST IDENTIFIER ',0 00 00158

159 HDG4 DATA 0106612,'INVALID TEST IDENTIFIER',0106612,0 00 00159



000750 152305 A
 000751 151724 A
 000752 120311 A
 000753 142305 A
 000754 147324 A
 000755 144708 A
 000756 144705 A
 000757 151240 A
 000760 106612 A
 000761 000000 A
 000762 106612 A 160 HDG5 DATA 0106612, 'PLEASE RESET SENSE SWITCH 3',0 00 00160
 000763 150314 A
 000764 142701 A
 000765 151705 A
 000766 120322 A
 000767 142723 A
 000770 142724 A
 000771 120323 A
 000772 142716 A
 000773 151705 A
 000774 120323 A
 000775 153711 A
 000776 152303 A
 000777 144240 A
 001000 131640 A
 001001 000000 A

161 * DATA TABLE

001002 145703 A 162 KC DATA 0145703 00 00161
 001003 145705 A 163 KE DATA 0145705 00 00162
 001004 150322 A 164 PR DATA 0150322 00 00163
 001005 150323 A 165 PS DATA 0150323 00 00164
 001006 150324 A 166 PT DATA 0150324 00 00165
 001007 151324 A 167 RT DATA 0151324 00 00166
 001010 000000 A 168 STID DATA 0 00 00167
 169 * 00 00168
 170 * TELETYPE KEYBOARD CHARACTER TEST 00 00169
 171 * 00 00170
 001011 002000 A 172 TKCT CALL OUTC 00 00171
 001012 003210 A 00 00172

001013 006030 A 173 LOXI TKKI PRINT L/C CHAR LINE 00 00173
 001014 001126 A 00 00174
 001015 002000 A 174 CALL OUTD 00 00175



001016	003243	A								
001017	006030	A	175		LXI	TKK1		FIRST L/C CHAR		00 00175
001020	001126	A								
001021	006020	A	176		LDBI	42		#L/C CHAR		00 00176
001022	000052	A								
001023	002000	A	177	TKC2	CALL	TCB1		INPUT CHAR SUBR		00 00177
001024	001071	A								
001025	011232	A	178	TKC3	LDA	TKW2		ERROR CHAR		00 00178
001026	001000	A	179		JMP	**3				00 00179
001027	001031	A								
001030	011231	A	180		LDA	TKW1		VALID CHAR		00 00180
001031	002000	A	181		CALL	OUTA		PRINT CHAR		00 00181
001032	002613	A								
001033	005144	A	182		IXR					00 00182
001034	005322	A	183		DBR					00 00183
001035	001020	A	184		JBZ	TKC4		LAST CHAR INPUT?		00 00184
001036	001041	A								
001037	001000	A	185		JMP	TKC2		NOT LAST		00 00185
001040	001023	A								
001041	002000	A	186	TKC4	CALL	OUTC				00 00186
001042	003210	A								
001043	006030	A	187		LXI	TKK2		PRINT U/C CHAR LINE		00 00187
001044	001202	A								
001045	002000	A	188		CALL	OUTD				00 00188
001046	003243	A								
001047	006030	A	189		LXI	TKK2		FIRST U/C CHAR		00 00189
001050	001202	A								
001051	006020	A	190		LDBI	21		# U/C CHAR		00 00190
001052	006025	A								
001053	002000	A	191	TKC5	CALL	TCB1		INPUT CHAR SUBR		00 00191
001054	001071	A								
001055	011232	A	192	TKC6	LDA	TKW2		ERROR CHAR		00 00192
001056	001000	A	193		JMP	**3				00 00193
001057	001051	A								
001060	011231	A	194		LDA	TKW1		VALID CHAR		00 00194
001061	002000	A	195		CALL	OUTA		PRINT CHAR		00 00195
001062	002613	A								
001063	005144	A	196		IXR					00 00196
001064	005322	A	197		DBR					00 00197
001065	001020	A	198		JBZ	TKC4		LAST CHAR INPUT?		00 00198
001066	001011	A								
001067	001000	A	199		JMP	TKC5		NOT LAST		00 00199



001070	001053	A								
			200 *	INPUT CHARACTER SUBROUTINE					00	00200
001071	000000	A	201	TCS1 ENTR					00	00201
001072	015000	A	202	LDA	0,1				00	00202
001073	051231	A	203	STA	TKW1	SAVE EXPECTED CHAR			00	00203
001074	002000	A	204	CALL	INPA	INPUT CHARACTER			00	00204
001075	002610	A								
001076	001000	A	205	JMP	TATT	EXIT TO KEYBOARD CONTROL PROGRAM			00	00205
001077	000537	A								
			206 *	NORMAL RETURN FROM INPA					00	00206
001100	006140	A	207	SUBI	0240				00	00207
001101	000240	A								
001102	001010	A	208	JAZ*	TCS1	SPACE ?			00	00208
001103	101071	A								
001104	006120	A	209	ADDI	0240	NOT SPACE = RESTORE CHAR			00	00209
001105	000240	A								
001106	131231	A	210	ERA	TKW1				00	00210
001107	001010	A	211	JAZ	CS01	VALID CHAR ?			00	00211
001110	001121	A								
001111	131231	A	212	ERA	TKW1	INVALID = RESTORE CHAR			00	00212
001112	051232	A	213	STA	TKW2	SAVE INVALID CHAR			00	00213
001113	006010	A	214	LOAI	0207				00	00214
001114	000207	A								
001115	002000	A	215	CALL	OUTA	RING BELL = OPERATER ATTN!			00	00215
001116	002613	A								
001117	001000	A	216	JMP	TCS1+3	RE-TYPE CHAR (OR SPACE BAR)			00	00216
001120	001074	A								
001121	041071	A	217	CS01	INR	TCS1			00	00217
001122	041071	A	218		INR	TCS1			00	00218
001123	041071	A	219		INR	TCS1			00	00219
001124	001000	A	220	JMP*	TCS1				00	00220
001125	101071	A								
			221 *	DATA TABLE					00	00221
001126	000261	A	222	TKK1	DATA	0261,0262,0263,0264,0265,0266,0267,0270,0271,0260			00	00222
001127	000262	A								
001130	000263	A								
001131	000264	A								
001132	000265	A								
001133	000266	A								
001134	000267	A								
001135	000270	A								
001136	000271	A								



001137	000260	A								
001140	000272	A	223	DATA	0272,0255,0321,0327,0305,0322,0324,0331,0325,0311				00	00223
001141	000255	A								
001142	000321	A								
001143	000327	A								
001144	000305	A								
001145	000322	A								
001146	000324	A								
001147	000331	A								
001150	000325	A								
001151	000311	A								
001152	000317	A	224	DATA	0317,0320,0301,0323,0304,0306,0307,0310,0312,0313				00	00224
001153	000320	A								
001154	000301	A								
001155	000323	A								
001156	000304	A								
001157	000308	A								
001160	000307	A								
001161	000310	A								
001162	000312	A								
001163	000313	A								
001164	000314	A	225	DATA	0314,0273,0332,0330,0303,0326,0302,0316,0315,0254				00	00225
001165	000273	A								
001166	000332	A								
001167	000330	A								
001170	000303	A								
001171	000326	A								
001172	000302	A								
001173	000316	A								
001174	000315	A								
001175	000254	A								
001176	000256	A	226	DATA	0256,0257,0106512,0				00	00226
001177	000257	A								
001200	106512	A								
001201	000000	A								
001202	000241	A	227	TKK2 DATA	0241,0242,0243,0244,0245,0246,0247,0250,0251,0252				00	00227
001203	000242	A								
001204	000243	A								
001205	000244	A								
001206	000245	A								
001207	000246	A								
001210	000247	A								



001211	000250	A							
001212	000251	A							
001213	000252	A							
001214	000275	A	228	DATA	0275,0337,0300,0333,0334,0253,0336,0335,0274,0276			00	00228
001215	000337	A							
001216	000300	A							
001217	000333	A							
001220	000334	A							
001221	000253	A							
001222	000335	A							
001223	000335	A							
001224	000274	A							
001225	000275	A							
001226	000277	A	229	DATA	0277,0106612,0			00	00229
001227	106612	A							
001230	000000	A							
001231			230	TKW1	BSS	1	TEMP STOR INPUT CHAR	00	00230
001232			231	TKW2	BSS	1	TEMP STOR INVALID CHAR	00	00231
			232	*				00	00232
			233	*	KEYBOARD ECHO TEST			00	00233
			234	*				00	00234
001233	006030	A	235	TKET	LOXI	HOG6	KYBD ECHO TEST	00	00235
001234	001245	A							
001235	002000	A	236	CALL	OUTD			00	00236
001236	003243	A							
001237	002000	A	237	CALL	INPB		INPUT & PRINT CHAR	00	00237
001240	002656	A							
001241	001066	A	238	JMP	TATT		EXIT TO KEYBOARD CONTROL PROGRAM	00	00238
001242	000537	A							
			239	*	NORMAL RETURN FROM INPB			00	00239
001243	001000	A	240	JMP	**4			00	00240
001244	001237	A							
001245	106612	A	241	HOG6	DATA	0106612,'KEYBOARD ECHO TEST',0106612,0		00	00241
001246	145705	A							
001247	154702	A							
001250	147701	A							
001251	151304	A							
001252	120305	A							
001253	141710	A							
001254	147640	A							
001255	152305	A							
001256	151724	A							



001257	106612	A							
001260	000000	A							
			242 *						00 00242
			243 *	PRINTER TEST					00 00243
			244 *						00 00244
001261	006010	A	245	TPTT LDAI 0237	INITIALIZE				00 00245
001262	000237	A							
001263	051325	A	246	STA TPW1	FIRST CHAR (-1)				00 00246
001264	006030	A	247	TPT1 LDXI 72	INIT FOR NEW LINE				00 00247
001265	000110	A							
001266	002000	A	248	CALL OUTC	CR/LF				00 00248
001267	003210	A							
001270	011325	A	249	LDA TPW1	FIRST CHAR OF PREVIOUS LINE				00 00249
001271	002000	A	250	CALL TPT3	SUBR				00 00250
001272	001307	A							
001273	051325	A	251	STA TPW1	FIRST CHAR OF NEW LINE				00 00251
001274	002000	A	252	TPT2 CALL OUTA	PRINT CHAR				00 00252
001275	002613	A							
001276	001400	A	253	JSS3 YATT	EXIT TO KEYBOARD CONTROL PROGRAM				00 00253
001277	000537	A							
001300	002000	A	254	CALL TPT3	NEXT CHAR				00 00254
001301	001307	A							
001302	005344	A	255	DXR					00 00255
001303	001040	A	256	JXZ TPT1	END OF LINE ?				00 00256
001304	001264	A							
001305	001000	A	257	JMP TPT2	NO				00 00257
001306	001274	A							
			258 *	INCREMENT CHARACTER SUBROUTINE					00 00258
001307	000000	A	259	TPT3 ENTR					00 00259
001310	005111	A	260	IAR					00 00260
001311	006130	A	261	FRAI 0340					00 00261
001312	000340	A							
001313	001010	A	262	JAZ **6	LAST CHAR OF SET ?				00 00262
001314	001321	A							
001315	006130	A	263	ERAI 0340	NO - RESTORE CHAR				00 00263
001316	000340	A							
001317	001000	A	264	JMP* TPT3					00 00264
001320	101307	A							
001321	006010	A	265	LDAI 0240	SET TO FIRST CHAR OF SET				00 00265
001322	000240	A							
001323	001000	A	266	JMP* TPT3	RETURN				00 00266
001324	101307	A							



001325	267	TPW1	BSS	1	WORK AREA	00	00267
	268	*				00	00268
	269	*	PRINT SUPPRESSION TEST			00	00269
	270	*				00	00270
	271	*	IF ANY FAILURES OCCUR *'S WILL APPEAR WITHIN			00	00271
	272	*	THE MESSAGE			00	00272
	273	*				00	00273
001326	006030	A	274	TPST	LOXI (PSTBL) TABLE POINTER	00	00274
001327	001345	A					
001330	015000	A	275	PS20	LOA 0,1 PICK A PAIR	00	00275
001331	002000	A	276	CALL	OUTA	00	00276
001332	002613	A					
001333	004350	A	277	LSRA	8	00	00277
001334	002000	A	278	CALL	OUTA	00	00278
001335	002613	A					
001336	001400	A	279	JSSJ	TATT EXIT TO KEYBOARD CONTROL PROGRAM	00	00279
001337	000537	A					
001340	005144	A	280	IXR		00	00280
001341	001010	A	281	JAZ	TPST	00	00281
001342	001326	A					
001343	001000	A	282	JMP	PS20	00	00282
001344	001330	A					
001345	105215	A	283	PSTBL	DATA CRLF,0102301,STAR,0102323,STAR	00	00283
001346	102301	A					
001347	100452	A					
001350	102323	A					
001351	100452	A					
001352	102322	A	284	DATA	0102322,STAR,0102240,STAR,0102324,STAR,0102324	00	00284
001353	100452	A					
001354	102240	A					
001355	100452	A					
001356	102324	A					
001357	100452	A					
001360	102324	A					
001361	100452	A	285	DATA	STAR,0102331,STAR,0102240,STAR	00	00285
001362	102331	A					
001363	100452	A					
001364	102240	A					
001365	100452	A					
001366	102320	A	286	DATA	0102320,STAR,0102322,STAR,0102311	00	00286
001367	100452	A					
001370	102322	A					

001371	100452	A				
001372	102311	A				
001373	100452	A	287	DATA	STAR,0102316,STAR,0102324,STAR	00 00287
001374	102316	A				
001375	100452	A				
001376	102324	A				
001377	100452	A				
001400	102240	A	288	DATA	0102240,STAR,0102323,STAR,0102325	00 00288
001401	100452	A				
001402	102323	A				
001403	100452	A				
001404	102325	A				
001405	100452	A	289	DATA	STAR,0102320,STAR,0102320,STAR	00 00289
001406	102320	A				
001407	100452	A				
001410	102320	A				
001411	100452	A				
001412	102322	A	290	DATA	0102322,STAR,0102305,STAR,0102323	00 00290
001413	100452	A				
001414	102305	A				
001415	100452	A				
001416	102323	A				
001417	100452	A	291	DATA	STAR,0102323,STAR,0102311,STAR	00 00291
001420	102323	A				
001421	100452	A				
001422	102311	A				
001423	100452	A				
001424	102317	A	292	DATA	0102317,STAR,0102316,STAR,0102240	00 00292
001425	100452	A				
001426	102316	A				
001427	100452	A				
001430	102240	A				
001431	100452	A	293	DATA	STAR,0102324,STAR,0102305,STAR	00 00293
001432	102324	A				
001433	100452	A				
001434	102305	A				
001435	100452	A				
001436	102323	A	294	DATA	0102323,STAR,0102324,STAR	00 00294
001437	100452	A				
001440	102324	A				
001441	100452	A				
001442	102256	A	295	DATA	PERIOD+EOTX,STAR,0	00 00295



001443	100452	A							
001444	000000	A							
	100452	A	296	STAR	EQU	0100452	* AND SUM		00 00296
	102000	A	297	EDTX	EQU	0102000			00 00297
	105215	A	298	CRLF	EQU	0105215			00 00298
	000256	A	299	PERIOD	EQU	0256			00 00299
			300	*					00 00300
			301	*	PUNCH / READER TEST				00 00301
			302	*					00 00302
001445	006030	A	303	TPRT	LOXI	H0G7	33 OR 35 TTY ?		00 00303
001446	002067	A							
001447	002000	A	304		CALL	OUTD			00 00304
001450	003243	A							
001451	002000	A	305		CALL	INPG	INPUT TTY TYPE # END WITH PERIOD		00 00305
001452	003143	A							
001453	001000	A	306		JMP	TATT	EXIT TO KEYBOARD CONTROL PROGRAM		00 00306
001454	000537	A							
001455	001000	A	307		JMP	++2	,		00 00307
001456	001457	A							
001457	001000	A	308		JMP	TPRT	BACKSLASH		00 00308
001460	001445	A							
			309	*	NORMAL RETURN FROM INPG				00 00309
001461	006150	A	310		ANAI	04			00 00310
001462	000004	A							
001463	006130	A	311		ERAI	04			00 00311
001464	000004	A							
001465	001010	A	312		JAZ	++4			00 00312
001466	001471	A							
001467	006110	A	313		ORAI	0377	33		00 00313
001470	000377	A							
001471	006110	A	314		ORAI	0224	35		00 00314
001472	000224	A							
001473	052066	A	315		STA	TYPE			00 00315
001474	002000	A	316		CALL	OUTC			00 00316
001475	003210	A							
001476	006010	A	317		LOAI	(TBER)	INIT ERR TBL PTR		00 00317
001477	003330	A							
001500	052561	A	318		STA	PRW4			00 00318
001501	002000	A	319	PRO1	CALL	TTYC,0221	RDR ON		00 00319
001502	002551	A							
001503	000221	A							
001504	002000	A	320		CALL	TTYC,0222	PUNCH ON		00 00320



001505	002551	A								
001506	000222	A								
001507	006020	A	321	LOBI	100		PUNCH 100 BLANKS		00 00321	
001510	000144	A								
001511	005001	A	322	TZA					00 00322	
001512	002000	A	323	PRO2	CALL	OUTA	PUNCH 10" LEADER		00 00323	
001513	002613	A								
001514	005322	A	324	DBR					00 00324	
001515	001020	A	325	JBZ		PRO3			00 00325	
001516	001521	A								
001517	001000	A	326	JMP		PRO2			00 00326	
001520	001512	A								
			327 *						00 00327	
			328 *	OPERATOR MUST INSERT LEADER, AND SET READER CONTROL TO RUN POSITION						00 00328
			329	*****						00 00329
			330 *						00 00330	
001521	002000	A	331	PRO3	CALL	INPA	WAIT FOR OPERATOR TO INSERT LDR		00 00331	
001522	002610	A								
001523	001000	A	332	JMP		PRND	SS3 EXIT		00 00332	
001524	002036	A								
001525	002000	A	333		CALL	TIYC,0223	TURN RDR OFF		00 00333	
001526	002551	A								
001527	000223	A								
001530	005001	A	334	TZA					00 00334	
001531	052557	A	335	STA		PRW2	PRW2 =0 #CYC		00 00335	
001532	052560	A	336	STA		PRW3	PRW3 =0 #ERR		00 00336	
001533	052562	A	337	STA		PRW5	PRW5 =0 #PUNCH ON/OFF ERRORS		00 00337	
001534	006020	A	338	LOBI		100	PUNCH LEADER		00 00338	
001535	000144	A								
001536	002000	A	339		CALL	OUTA	PUNCH		00 00339	
001537	002613	A								
001540	001400	A	340	J883		PRND	SS3 EXIT		00 00340	
001541	002036	A								
001542	005322	A	341	DBR			DECR CYR		00 00341	
001543	001020	A	342	JBZ		**4	LAST CHAR ?		00 00342	
001544	001547	A								
001545	001000	A	343	JMP		**7	NO		00 00343	
001546	001536	A								
001547	006010	A	344	LOAI		0377	PUNCH RUBOUT		00 00344	
001550	000377	A								
001551	002000	A	345		CALL	OUTA			00 00345	
001552	002613	A								

001553	005001	A	346	TZA				00	00346
001554	001000	A	347	JMP	PRO5			00	00347
001555	001572	A							
001556	005122	A	348	PRO4	IBR		INC TO NEXT CHAR	00	00348
001557	005021	A	349	TBA			SAVE IT	00	00349
001560	002000	A	350	CALL	TPS4		TEST FOR CONTROL CHAR	00	00350
001561	001767	A							
001562	001010	A	351	JAZ	**4		YES	00	00351
001563	001556	A							
001564	005021	A	352	TBA			RETURN	00	00352
001565	006150	A	353	ANAI	0377		REMOVE EXCESS BITS	00	00353
001566	000377	A							
001567	005012	A	354	TAB			(RANGE = 0-0377)	00	00354
001570	001020	A	355	JBZ	PRO6		B=0 JMP PUNCH ON/OFF TEST	00	00355
001571	001600	A							
001572	002000	A	356	PRO6	CALL	OUTA	PUNCH CHAR	00	00356
001573	002613	A							
001574	001400	A	357	JSS3	PRND		SS3 EXIT	00	00357
001575	002036	A							
001576	001000	A	358	JMP	PRO4		CONTINUE	00	00358
001577	001556	A							
001600	002000	A	359	PRO6	CALL	TTYC,0224	PUNCH OFF	00	00359
001601	002551	A							
001602	000224	A							
001603	002000	A	360	CALL	TTYC,0377		TRY TO PUNCH RUBOUT	00	00360
001604	002551	A							
001605	000377	A							
001606	002000	A	361	CALL	TTYC,0222		PUNCH ON	00	00361
001607	002551	A							
001610	000222	A							
001611	005001	A	362	TZA			FUNCH LEADER	00	00362
001612	006020	A	363	LOBI	100			00	00363
001613	000144	A							
001614	002000	A	364	CALL	OUTA		PUNCH	00	00364
001615	002613	A							
001616	001400	A	365	JSS3	PRND		SS3 EXIT	00	00365
001617	002036	A							
001620	005322	A	366	DBR			DECR CTR	00	00366
001621	001020	A	367	JBZ	**4			00	00367
001622	001625	A							
001623	001000	A	368	JMP	**7		NO	00	00368
001624	001614	A							



001625	002000	A	369	CALL	TTYC,0224	TURN PUNCH OFF	00 00369	
001626	002551	A						
001627	000224	A						
001630	002000	A	370	CALL	TTYC,0221	TURN RDR ON ,LOOKING FOR RUBOUT	00 00370	
001631	002551	A						
001632	000221	A						
001633	002000	A	371	PRO7	CALL	INPA	INPUT CHAR	00 00371
001634	002610	A						
001635	001000	A	372	JMP	PRND	SS3 EXIT	00 00372	
001636	002036	A						
001637	006130	A	373	ERAI	0377	A = 0377	00 00373	
001640	000377	A						
001641	001010	A	374	JAZ	**4	YES	00 00374	
001642	001645	A						
001643	001000	A	375	JMP	PRO7	NO	00 00375	
001644	001633	A						
001645	005004	A	376	TZX		INIT TO EXPECTED CHAR	00 00376	
001646	002000	A	377	PRO8	CALL	INPA	INPUT A CHARACTER	00 00377
001647	002610	A						
001650	001000	A	378	JMP	PRND	SS3 EXIT	00 00378	
001651	002036	A						
001652	052556	A	379	STA	PRN1	SAVE	00 00379	
001653	005041	A	380	TXA		COMPARE	00 00380	
001654	132556	A	381	ERA	PRN1	ARE EQUAL	00 00381	
001655	001010	A	382	JAZ	**4	YES	00 00382	
001656	001661	A						
001657	002000	A	383	CALL	TTBL	NO	00 00383	
001658	002017	A						
001659	005144	A	384	IXR		INC EXP TO NXT CHAR	00 00384	
001662	005041	A	385	TXA			00 00385	
001663	002000	A	385	CALL	TPS4	CONTROL CHAR ?	00 00386	
001664	001767	A						
001665	001010	A	387	JAZ	**4	YES	00 00387	
001666	001661	A						
001667	005041	A	388	TXA		REMOVE HIGH ORDER	00 00388	
001670	006130	A	389	ANAI	0377	BITS	00 00389	
001671	000377	A						
001672	005014	A	390	TAX		LAST CHAR?	00 00390	
001673	001040	A	391	JXZ	**4	YES	00 00391	
001674	001677	A						
001675	001000	A	392	JMP	PRO8	NO JUMP TO PRO8	00 00392	
001676	001645	A						

001677	002000	A	393	CALL	INPA	INPUT CHAR FOR PUNCH ON/OFF	00	00393
001700	002610	A						
001701	001000	A	394	JMP	PRND	SS3 EXIT, TEST	00	00394
001702	002038	A						
001703	052558	A	395	STA	PRW1	SAVE CHAR	00	00395
001704	002000	A	396	CALL	TTYC,0223	TURN RDR OFF	00	00396
001705	002551	A						
001706	000223	A						
001707	012558	A	397	LDA	PRW1	INPUT CHAR	00	00397
001710	132066	A	398	ERA	TYPE	TYPE	00	00398
001711	001010	A	399	JAZ	PR10	YES	00	00399
001712	001731	A						
001713	012066	A	400	LDA	TYPE	MOD=35	00	00400
001714	006130	A	401	ERAI	0224		00	00401
001715	000224	A						
001716	001010	A	402	JAZ	PROB	YES,PUNCH OFF ERROR	00	00402
001717	001725	A						
001720	012558	A	403	LDA	PRW1	TRY NEW TYPE MOD 33 (ACTS LIKE 35)	00	00403
001721	006130	A	404	ERAI	0224		00	00404
001722	000224	A						
001723	001010	A	405	JAZ	PR11	YES,OK CHANGE TYPE = 35	00	00405
001724	001782	A						
001725	072558	A	406	PROB	STX	PRW1	00	00406
001726	002000	A	407	CALL	TTBL	PUT 0 INTO TBL	00	00407
001727	002017	A						
001730	042562	A	408	INR	PRW5	PUNCH ON/OFF CTR INC	00	00408
001731	002000	A	409	PR10	CALL	DET	00	00409
001732	002415	A						
001733	001000	A	410	JMP	PRND	SS3 EXIT	00	00410
001734	002038	A						
001735	006010	A	411	LOAI	0377	PUNCH RUBOUT	00	00411
001736	000377	A						
001737	002000	A	412	CALL	OUTA		00	00412
001740	002613	A						
001741	002000	A	413	CALL	TTYC,0222	TURN PUNCH ON	00	00413
001742	002551	A						
001743	000222	A						
001744	012066	A	414	LDA	TYPE		00	00414
001745	006130	A	415	ERAI	0377		00	00415
001746	000377	A						
001747	001010	A	416	JAZ	**5			
001750	001754	A						



001751	002000	A	417	CALL	TTYC,0377	PUNCH RUBOUT	00 00417
001752	002551	A					
001753	000377	A					
001754	001400	A	418	JSS3	PRND	SS3 EXIT	00 00418
001755	002036	A					
001756	005001	A	419	TZA		JMP TO PUNCH PATTERN	00 00419
001757	005002	A	420	TZB		(INIT)	00 00420
001760	001000	A	421	JMP	PRO5	JMP TO READ ROUTINE	00 00421
001761	001572	A					
001762	006010	A	422	PR11	LOAI	0224	CHANGE TYPE = 35
001763	000224	A					
001764	052056	A	423	STA	TYPE		00 00423
001765	001000	A	424	JMP	PR10		00 00424
001766	001731	A					
			425 *			CHECK FOR CONTROL CODE SUBROUTINE	00 00425
001767	000000	A	426	TPS4	ENTR	CHECK A FOR CONTROL CHAR	00 00426
001770	006110	A	427		DRAI	0200	A NO IF YES
001771	000200	A					00 00427
001772	006140	A	428		SUBI	0204	00 00428
001773	000204	A					
001774	006140	A	429		SUBI	010	00 00429
001775	000010	A					
001776	001010	A	430		JAZ*	TPS4	00 00430
001777	101767	A					
002000	006140	A	431		SUBI	05	00 00431
002001	000005	A					
002002	001010	A	432		JAZ*	TPS4	00 00432
002003	101767	A					
002004	005311	A	433		DAR		00 00433
002005	001010	A	434		JAZ*	TPS4	00 00434
002006	101767	A					
002007	005311	A	435		DAR		00 00435
002010	001010	A	436		JAZ*	TPS4	00 00436
002011	101767	A					
002012	005311	A	437		DAR		00 00437
002013	001010	A	438		JAZ*	TPS4	00 00438
002014	101767	A					
002015	001000	A	439		JMP*	TPS4	00 00439
002016	101767	A					
002017	000000	A	440	TT3L	ENTR	X + ACT TO TBER	00 00440
002020	072032	A	441		STX	TTS1+1	00 00441
002021	005041	A	442		TXA		00 00442

002022	032561	A	443	LUX	PRW4		00	00443
002023	055000	A	444	STA	0,1		00	00444
002024	012556	A	445	LDA	PRW1		00	00445
002025	055001	A	446	STA	1,1		00	00446
002026	005144	A	447	IXR			00	00447
002027	005144	A	448	IXR			00	00448
002030	072561	A	449	STX	PRW4		00	00449
002031	006030	A	450	TT31	LDXI	0	00	00450
002032	000000	A						
002033	042560	A	451	INR	PRW3		00	00451
002034	001000	A	452	JMP*	TTBL		00	00452
002035	102017	A						
002036	002000	A	453	PRND	CALL	OUTC	00	00453
002037	003210	A						
002040	002000	A	454	CALL	OUTC	CR/LF	00	00454
002041	003210	A						
002042	002000	A	455	CALL	TTYC,0201	PRINT ENABLE	00	00455
002043	002551	A						
002044	000201	A						
002045	012557	A	456	LDA	PRW2	#CYC	00	00456
002046	002000	A	457	CALL	OUTE		00	00457
002047	003217	A						
002050	002000	A	458	CALL	OUTC	CR/LF	00	00458
002051	003210	A						
002052	012560	A	459	LDA	PRW3	#ERR	00	00459
002053	002000	A	460	CALL	OUTE		00	00460
002054	003217	A						
002055	002000	A	461	CALL	OUTC	CR/LF	00	00461
002056	003219	A						
002057	012562	A	462	LDA	PRW5	#PUNCH ON/OFF ERRS	00	00462
002060	002000	A	463	CALL	OUTE		00	00463
002061	003217	A						
002062	002000	A	464	CALL	OUTC	CR/LF	00	00464
002063	003210	A						
002064	001000	A	465	JMP	TATT	EXIT TO KEYBOARD CONTROL PROGRAM	00	00465
002065	000537	A						
002066			466	TYPE	BSS	1	00	00466
002067	106612	A	467	H0G7	DATA	0106612,'TYPE OF TTY (33 OR 35) =',0	00	00467
002070	152331	A						
002071	150305	A						
002072	120317	A						
002073	143240	A						



002143	001000	A	483	JMP	TATT	EXIT TO KEYBOARD CONTROL PROGRAM	00 00483
002144	000537	A					
002145	001010	A	484	JAZ	**+4	*	00 00484
002146	002151	A					
002147	001000	A	485	JMP	**=6	*	00 00485
002150	002141	A					
002151	002000	A	486	TR01	CALL	INPA	INPUT CHAR
002152	002610	A					
002153	001000	A	487	JMP	RTND	SS3 EXIT	00 00487
002154	002346	A					
002155	052556	A	488	STA	PRW1	SAVE IT	00 00488
002156	005144	A	489	IXR		INC EXPECTED CHAR	00 00489
002157	005041	A	490	TXA		*	00 00490
002160	002000	A	491	CALL	TPS4	IS IT A CONTROL CHAR ?	00 00491
002161	001767	A					
002162	001010	A	492	JAZ	**=4	YES	00 00492
002163	002156	A					
002164	005041	A	493	TXA		NO	00 00493
002165	006150	A	494	ANAI	0377	REMOVE ANY HIGH ORDER BITS	00 00494
002166	000377	A					
002167	005014	A	495	TAX		*	00 00495
002170	001010	A	496	JAZ	TR02	LAST CHAR ? JMP TO ON/OFF TEST	00 00496
002171	002201	A					
002172	132556	A	497	ERA	PRW1	EXP = ACT ?	00 00497
002173	001010	A	498	JAZ	TR01	YES	00 00498
002174	002151	A					
002175	002000	A	499	CALL	TTBL	NO ENTER ERR INTO TBL	00 00499
002176	002017	A					
002177	001000	A	500	JMP	TR01		00 00500
002200	002151	A					
002201	012556	A	501	TR02	LCA	PRW1	RDR ON/OFF TEST.
002202	001010	A	502	JAZ	**+4	DID IT READ THE BLANK OK?	00 00502
002203	002206	A					
002204	002000	A	503	CALL	TTBL	NO	00 00503
002205	002017	A					
002206	006010	A	504	LOAI	0283	TURN RDR OFF	00 00504
002207	000223	A					
002210	002000	A	505	CALL	OUTA	*	00 00505
002211	002613	A					
002212	006020	A	506	LDBI	(TRBF)	B POINTS TO BUFFER	00 00506
002213	002403	A					
002214	006030	A	507	LDCI	32000		00 00507



002215	076400	A							
002215	012644	A	508		LDA	STTY			00 00508
002217	006110	A	509		ORAI	0101200	ADJ. TTY DA		00 00509
002220	101200	A							
002221	052225	A	510		STA	TR03			00 00510
002222	006120	A	511		ADDI	01300			00 00511
002223	001300	A							
002224	052235	A	512		STA	TR04			00 00512
002225	101000	A	513	TR03	SEN	0,TR04	READ REG R0Y		00 00513
002226	002235	A							
002227	002000	A	514		CALL	TOUT	TIME OUT		00 00514
002230	003301	A							
002231	001000	A	515		JMP	TR05	EXIT		00 00515
002232	002242	A							
002233	001000	A	516		JMP	TR03	LOOP BACK		00 00516
002234	002225	A							
002235	102500	A	517	TR04	CIA	0	INPUT A CHAR		00 00517
002236	056000	A	518		STA	0,2	STORE CHAR INTO BFR		00 00518
002237	005122	A	519		ISR		INCR BFR PTR		00 00519
002240	001000	A	520		JMP	TR03	CONTINUE INPUT		00 00520
002241	002225	A							
002242	005021	A	521	TR05	TBA		CHECK # FRAMES READ		00 00521
002243	006140	A	522		SUBI	(TRBF+2)	AFTER RDR TURNED OFF		00 00522
002244	002405	A							
002245	001004	A	523		JAN	TR07	LESS THAN 2		00 00523
002246	002334	A							
002247	006140	A	524		SUBI	2	OR		00 00524
002250	000002	A							
002251	001002	A	525		JAP	TR07	MORE THAN 3		00 00525
002252	002334	A							
002253	052274	A	526		STB	TR05+1	SAVE BFR PTR		00 00526
002254	005004	A	527		TZX		X =EXP CHAR-1		00 00527
002255	006020	A	528		LOBI	(TRBF)	B =BFR PTR		00 00528
002256	002405	A							
002257	016000	A	529	TR05	LDA	0,2	GET CHAR FROM BFR		00 00529
002260	052556	A	530		STA	PRW1	PUT IT INTO ACT (PRW1)		00 00530
002261	005144	A	531		IXR		INC EXP CHAR		00 00531
002262	072264	A	532		STX	**2			00 00532
002263	006130	A	533		ERAI	0	ACT = EXP?		00 00533
002264	000000	A							
002265	001010	A	534		JAZ	**4	YES		00 00534
002266	002271	A							

PAGE	25	06/06/74	TYTEST	VORTEX	DASMR	0952 HOURS	
002267	002000	A	535	CALL	TTBL	NO	00 00535
002270	002017	A					
002271	005122	A	536	IBR		INC BFR PTR	00 00536
002272	005021	A	537	TBA		DONE ?	00 00537
002273	006140	A	538	TR08	SUBI	0	* 00 00538
002274	000000	A					
002275	001010	A	539	JA7	++4	YES	00 00539
002276	002301	A					
002277	001000	A	540	JMP	TR06	NO	00 00540
002300	002257	A					
002301	002000	A	541	CALL	DET	OUTPUT ERR TBL	00 00541
002302	002415	A					
002303	001000	A	542	JMP	RTND	SS3 EXIT	00 00542
002304	002346	A					
002305	006010	A	543	LOAI	0221	TURN RDR ON	00 00543
002306	000221	A					
002307	002000	A	544	CALL	OUTA	*	00 00544
002310	002613	A					
002311	002000	A	545	CALL	INPA	INPUT A CHAR	00 00545
002312	002610	A					
002313	001000	A	546	JMP	RTND	SS3 EXIT	00 00546
002314	002346	A					
002315	005144	A	547	IXR		NEXT CHAR THE EXP?	00 00547
002316	072320	A	548	STX	++2		00 00548
002317	006140	A	549	SUBI	0		00 00549
002320	000000	A					
002321	001010	A	550	JAZ	TR01	JMP IF YES	00 00550
002322	002151	A					
002323	042563	A	551	INR	PRW6	NO ,INC # RDR ON ERRORS	00 00551
002324	004251	A	552	LRLA	9	INTO	00 00552
002325	005304	A	553	DECR	04	PUT EXP=-1,ACT=#FRAMES	00 00553
002326	052556	A	554	STA	PRW1	ERROR TBL	00 00554
002327	002000	A	555	CALL	TTBL		00 00555
002330	002017	A					
002331	005004	A	556	TXZ		LOOK FOR FIRST BLANK	00 00556
002332	001000	A	557	JMP	TR00		00 00557
002333	002141	A					
002334	005021	A	558	TR07	TBA	PUT ERR FRAME	00 00558
002335	006140	A	559	SUBI	(TRBF-1)	# INTO	00 00559
002336	002402	A					
002337	004251	A	560	LRLA	9	ERROR	00 00560
002340	052556	A	561	STA	PRW1	TABLE	00 00561

PAGE	26	06/06/74	TYTEST	VORTEX	DASMR	0952 HOURS	
002341	002000	A	562	CALL	TTBL	TO INDICATE	00 00562
002342	002017	A					
002343	042562	A	563	INP	PR15	INC # RDR OFF ERRORS	00 00563
002344	001000	A	564	JMP	TROB-4	RDR ON/OFF ERR	00 00564
002345	002253	A					
002346	002000	A	565	RTND CALL	OUTC	OUTPUT	00 00565
002347	003210	A					
002350	002000	A	566	CALL	TTYC,0201	PRINT ENABLE	00 00566
002351	002551	A					
002352	000201	A					
002353	002000	A	567	CALL	OUTC	CR/LF	00 00567
002354	003210	A					
002355	012557	A	568	LDA	PRW2	#CYC	00 00568
002356	002000	A	569	CALL	OUTC		00 00569
002357	003217	A					
002360	002000	A	570	CALL	OUTC		00 00570
002361	003210	A					
002362	012560	A	571	LDA	PRW3	#ERR	00 00571
002363	002000	A	572	CALL	OUTC		00 00572
002364	003217	A					
002365	002000	A	573	CALL	OUTC	CR/LF	00 00573
002366	003210	A					
002367	012562	A	574	LDA	PRW5	# PUNCH ON/OFF OR RDR OFF ERRORS	00 00574
002370	002000	A	575	CALL	OUTC		00 00575
002371	003217	A					
002372	002000	A	576	CALL	OUTC	CR/LF	00 00576
002373	003210	A					
002374	012553	A	577	LDA	PRW6	0 OR RDR ON ERRORS	00 00577
002375	002000	A	578	CALL	OUTC		00 00578
002376	003217	A					
002377	002000	A	579	CALL	OUTC	CR/LF	00 00579
002400	003210	A					
002401	001000	A	580	JMP	TATT	EXIT TO KEYBOARD CONTROL PROGRAM	00 00580
002402	000537	A					
002403			581	TRBF BSS	10		00 00581
002415	000000	A	582	OET ENTR		OUTPUT ERROR TABLE	00 00582
002416	052513	A	583	STA	OETS	SAVE REG A	00 00583
002417	062514	A	584	SIB	OETS+1	B	00 00584
002420	072515	A	585	SIX	OETS+2	X	00 00585
002421	042557	A	586	INR	PRW2		00 00586
002422	002000	A	587	CALL	TTYC,0201	PRINT ENABLE	00 00587
002423	002551	A					

002424	000201	A							
002425	006010	A	588	LOAI	(TBER)	JMP IF			00 00588
002426	003330	A							
002427	142561	A	589	SUB	PRW4	NO ERRS			00 00589
002430	001010	A	590	JAZ	OETS				00 00590
002431	002501	A							
002432	001200	A	591	JSS2	OET2-2				00 00591
002433	002440	A							
002434	006030	A	592	LOXI	HOG8	* YES			00 00592
002435	002105	A							
002436	002000	A	593	CALL	OUTD	* PRINT			00 00593
002437	003243	A							
002440	006030	A	594	LOXI	(TBER)				00 00594
002441	003330	A							
002442	001100	A	595	OET2	JSS1	OETS	SS1 BYPASS ERR HLT		00 00595
002443	002447	A							
002444	015000	A	596	LDA	0,1	A = DATA IN ERROR			00 00596
002445	025001	A	597	LOB	1,1				00 00597
002446	000777	A	598	HLT	0777	HLT TO DISPLAY ERR			00 00598
002447	001200	A	599	OETS	JSS2	OETA	SS2 BYPASS ERR PRINTOUT		00 00599
002450	002467	A							
002451	002000	A	600	CALL	OUTC	CR/LF			00 00600
002452	003210	A							
002453	015000	A	601	LDA	0,1				00 00601
002454	002000	A	602	CALL	OUTE				00 00602
002455	003217	A							
002456	005042	A	603	TXB		PRINT 2 SPACES	SAVE X		00 00603
002457	006010	A	604	LOAI	0120240		PRINT		00 00604
002460	120240	A							
002461	002000	A	605	CALL	OUTB		' '		00 00605
002462	003175	A							
002463	005024	A	606	TBX			RETURN X		00 00606
002464	015001	A	607	LDA	1,1				00 00607
002465	002000	A	608	CALL	OUTE				00 00608
002466	003217	A							
002467	005144	A	609	OETA	IXR	CONTINUE			00 00609
002470	005144	A	610	IXR					00 00610
002471	005041	A	611	TXA					00 00611
002472	142561	A	612	SUB	PRW4				00 00612
002473	001400	A	613	JSS3	(OET)*	SS3 EXIT			00 00613
002474	102415	A							
002475	001010	A	614	JAZ	OETS	DONE			00 00614



002476	002501	A								
002477	001000	A	615		JMP	DET2				00 00615
002500	002442	A								
002501	006010	A	616	DETS	LDAI	(TBER)	RESET	TBL PTR		00 00616
002502	003330	A								
002503	052561	A	617		STA	PRW4				00 00617
002504	012513	A	618		LDA	DETS	RESTORE	REG A		00 00618
002505	022514	A	619		LDB	DETS+1		B		00 00619
002506	032515	A	620		LDX	DETS+2		X		00 00620
002507	042415	A	621		INR	DET	SET	RETURN		00 00621
002510	042415	A	622		INR	DET				00 00622
002511	001000	A	623		JMP*	DET				00 00623
002512	102415	A								
002513		A	624	DETS	BSS	3	SAVE	REGS		00 00624
002516	000000	A	625	TTBC	ENTR		CLEAR	TTY RD BFR		00 00625
002517	012644	A	626		LDA	TTY	*			00 00626
002520	006110	A	627		DRAI	0102500	*			00 00627
002521	102500	A								
002522	052523	A	628		STA	*+1	*			00 00628
002523	102500	A	629		CIA	0	*	CLEAR BFR		00 00629
002524	001000	A	630		JMP*	TTBC	*	RETURN		00 00630
002525	102516	A								
002526	052554	A	631	TTY1	STA	TTYC+3	SAVE	A		00 00631
002527	072555	A	632		STX	TTYC+4	SAVE	X		00 00632
002530	032551	A	633		LDX	TTYC	A=CONTROL			00 00633
002531	015000	A	634		LDA	0,1	CHARACTER			00 00634
002532	002000	A	635		CALL	OUTA	OUTPUT	CHARACTER		00 00635
002533	002513	A								
002534	005004	A	636		TZX		TIME	DELAY		00 00636
002535	002000	A	637		CALL	TDLY				00 00637
002536	003304	A								
002537	002000	A	638		CALL	TDLY				00 00638
002540	003304	A								
002541	002000	A	639		CALL	TDLY				00 00639
002542	003304	A								
002543	002000	A	640		CALL	TDLY				00 00640
002544	003304	A								
002545	042551	A	641		INR	TTYC	SET	RETURN		00 00641
002546	012554	A	642		LDA	TTYC+3	RESTORE	A		00 00642
002547	032555	A	643		LDX	TTYC+4	RESTORE	X		00 00643
002550	001000	A	644		JMP	0	RETURN			00 00644
002551	000000	A								00 00645

002551		645	TTYC	BES	0	ENTRY	00 00645
002552	001000 A	646		JMP	TTY1	LOOP	00 00646
002553	002526 A						
002554		647		BSS	2	STORAGE FOR A + X	00 00647
002556		648	PRW1	BSS	1	ACT	00 00648
002557		649	PRW2	BSS	1	MCYC	00 00649
002560		650	PRW3	BSS	1	WERR	00 00650
002561		651	PRW4	BSS	1	TBER PTR	00 00651
002562		652	PRW5	BSS	1	#PUNCH ON/OFF OR RDR OFF ERRS	00 00652
002563		653	PRW6	BSS	1	# RDR ON ERRS	00 00653
002564		654		BSS	2	STORAGE FOR A + X	00 00654
		655	*				00 00655
		656	*			INPUT ONE CHARACTER FROM TTY TO A REGISTER	00 00656
		657	*				00 00657
002566	012644 A	658	INA1	LDA	STTY		00 00658
002567	006110 A	659		ORAI	0101200	ADJUST TTY DA	00 00659
002570	101200 A						
002571	052575 A	660		STA	#+4		00 00660
002572	006120 A	661		ADDI	001300		00 00661
002573	001300 A						
002574	052604 A	662		STA	#+8		00 00662
002575	101000 A	663		SEN	0,#+7	READ REGISTER READY	00 00663
002576	002604 A						
002577	005011 A	664		MERG	011	NOP	00 00664
002600	001400 A	665		JSS3*	INPA	TERMINATE EXIT	00 00665
002601	102610 A						
002602	001000 A	666		JMP	#+5		00 00666
002603	002575 A						
002604	102500 A	667		CIA	0	INPUT CHARACTER	00 00667
002605	042610 A	668		INR	INPA		00 00668
002606	042610 A	669		INR	INPA		00 00669
002607	001000 A	670		JMP*	0	EXIT	00 00670
002610	100000 A						
002610		671	INPA	BES	0		00 00671
002611	001000 A	672		JMP	INA1		00 00672
002612	002566 A						
		673	*				00 00673
		674	*			OUTPUT ONE CHARACTER FROM A REG TO TTY	00 00674
		675	*				00 00675
002613	000000 A	676	OUTA	ENTR	0		00 00676
002614	073312 A	677		STX	T801	SAVE X	00 00677
002615	005014 A	678		TAX			00 00678

002616	012644	A	679	LDA	STTY			00	00679	
002617	006110	A	680	ORAI	0101100	ADJUST TTY DA		00	00680	
002620	101100	A								
002621	052630	A	681	STA	**7			00	00681	
002622	006120	A	682	ADDI	002000			00	00682	
002623	002000	A								
002624	052640	A	683	STA	OUT1			00	00683	
002625	005041	A	684	TXA				00	00684	
002626	006030	A	685	LOXI	32767	TIME-OUT CONSTANT	E	*****		
002627	077777	A								
002630	101000	A	686	SEN	0,OUT1	WRITE REGISTER READY		00	00686	
002631	002640	A								
002632	002000	A	687	CALL	TOUT			00	00687	
002633	003301	A								
002634	005011	A	688	MERG	011			00	00688	
002635	000118	A	689	MLT	77			00	00689	
002636	001000	A	690	JMP	**6			00	00690	
002637	002630	A								
002640	103100	A	691	OUT1	DAR	0		00	00691	
002641	033312	A	692	LOX	TS01	RESTORE X		00	00692	
002642	001000	A	693	JMP*	OUTA	RETURN		00	00693	
002643	102613	A								
002644	000001	A	694	SYTY	DATA	01		00	00694	
			695	*				00	00695	
			696	*	INPUT ONE CHARACTER + PRINT FROM TTY TO A REGISTER				00	00696
			697	*				00	00697	
002645	002000	A	698	INB1	CALL	INPA	INPUT ONE CHARACTER	00	00698	
002646	002610	A								
002647	001000	A	699	JMP*	INP6	TERMINATE EXIT		00	00699	
002650	102656	A								
002651	002000	A	700	CALL	OUTA	OUTPUT ONE CHARACTER		00	00700	
002652	002613	A								
002653	042656	A	701	INR	INPB			00	00701	
002654	042658	A	702	INR	INPB			00	00702	
002655	001000	A	703	JMP*	0	EXIT		00	00703	
002656	100000	A								
002658			704	INPB	BEB	0		00	00704	
002657	001000	A	705	JMP	INB1			00	00705	
002660	002645	A								
			706	*						
			707	*	INPUT ONE CHARACTER (EDITED)				00	00707
			708	*				00	00708	

002661	002000	A	709	INC3	CALL	INPB		00	00709
002662	002656	A							
002663	001000	A	710		JMP*	INPC	TERMINATE EXIT	00	00710
002664	102710	A							
002665	006130	A	711		ERAI	'\'	BACKSLASH	00	00711
002666	000334	A							
002667	001010	A	712		JAZ	INC2	ABORT INPUT EXIT	00	00712
002670	002705	A							
002671	006130	A	713		ERAI	'\'	RESTORE A	00	00713
002672	000334	A							
002673	006130	A	714		ERAI	0337	BACKARROW	00	00714
002674	000337	A							
002675	001010	A	715		JAZ	INC1	DELETE ONE CHARACTER EXIT	00	00715
002676	002703	A							
002677	006130	A	716		ERAI	0337	RESTORE A	00	00716
002700	000337	A							
002701	042710	A	717		INR	INPC		00	00717
002702	042710	A	718		INR	INPC		00	00718
002703	042710	A	719	INC1	INR	INPC		00	00719
002704	042710	A	720		INR	INPC		00	00720
002705	042710	A	721	INC2	INR	INPC		00	00721
002706	042710	A	722		INR	INPC		00	00722
002707	001000	A	723		JMP*	0	EXIT	00	00723
002710	100000	A							
002710			724	INPC	BES	0		00	00724
002711	001000	A	725		JMP	INC3		00	00725
002712	002661	A							
			726	*				00	00726
			727	*	INPUT ONE ALPHA CHARACTER FROM TTY KEYBOARD TO A REG			00	00727
			728	*				00	00728
002713	001000	A	729		JMP	INPD+1	SET CORRECT INPUT	00	00729
002714	002747	A							
002715	002000	A	730	IND4	CALL	INPC	INPUT ONE CHAR	00	00730
002716	002710	A							
002717	001000	A	731		JMP*	INPD	TERMINATE EXIT	00	00731
002720	102748	A							
002721	001000	A	732		JMP	IND2	ABORT INPUT EXIT	00	00732
002722	002743	A							
002723	001000	A	733		JMP	IND1	DELETE PREVIOUS CHARACTER EXIT	00	00733
002724	002741	A							
002725	006140	A	734		SUBI	0301	CHAR A	00	00734
002726	000301	A							



002727	001004	A	735		JAN	IND3	INVALID INPUT	00	00735
002730	002751	A							
002731	006140	A	736		SUBI	032	CHAR Z	00	00736
002732	000032	A							
002733	001002	A	737		JAP	IND3	INVALID INPUT	00	00737
002734	002751	A							
002735	006120	A	738		ADDI	0333	RESTORE A	00	00738
002736	000333	A							
002737	042746	A	739		INR	INPD	NORMAL EXIT	00	00739
002740	042746	A	740		INR	INPD		00	00740
002741	042746	A	741	IND1	INR	INPD	DELETE PREVIOUS CHARACTER EXIT	00	00741
002742	042746	A	742		INR	INPD		00	00742
002743	042746	A	743	IND2	INR	INPD	ABORT INPUT EXIT	00	00743
002744	042746	A	744		INR	INPD		00	00744
002745	001000	A	745		JMP*	0	EXIT	00	00745
002746	100000	A							
002746			746	INPD	BES	0		00	00746
002747	001000	A	747		JMP	IND4		00	00747
002750	002715	A							
002751	002000	A	748	IND3	CALL	OUTG	INVALID INPUT--PRINT MESSAGE	00	00748
002752	003052	A							
002753	001000	A	749		JMP	IND4		00	00749
002754	002715	A							
			750 *					00	00750
			751 *					00	00751
			752 *		INPUT TWO LETTER CHARACTERS FROM TTY			00	00752
			753 *					00	00753
002755	002000	A	754	INE3	CALL	INPD	INPUT ALPHA CHAR	00	00754
002756	002746	A							
002757	001000	A	755		JMP*	INPE	TERMINATE EXIT	00	00755
002760	103007	A							
002761	001000	A	756		JMP	INE2	ABORT INPUT EXIT	00	00756
002762	003004	A							
002763	001000	A	757		JMP	INE1	DELETE PREVIOUS CHARACTER EXIT	00	00757
002764	003002	A							
002765	004250	A	758		LRLA	8		00	00758
002766	053313	A	759		STA	TS02		00	00759
002767	002000	A	760		CALL	INPD	INPUT ALPHA CHAR	00	00760
002770	002746	A							
002771	001000	A	761		JMP*	INPE	TERMINATE EXIT	00	00761
002772	103007	A							
002773	001000	A	762		JMP	INE2	ABORT INPUT EXIT	00	00762



002774	003004	A								
002775	001000	A	763	JMP	INE1		DELETE PREVIOS CHARACTER EXIT		00	00763
002776	003002	A								
002777	113313	A	764	ORA	TS02				00	00764
003000	043007	A	765	INR	INPE		NORMAL EXIT		00	00765
003001	043007	A	766	INR	INPE				00	00766
003002	043007	A	767	INE1	INR	INPE	DELETE PREVIOS CHARACTER EXIT		00	00767
003003	043007	A	768		INR	INPE			00	00768
003004	043007	A	769	INE2	INR	INPE	ABORT INPUT EXIT		00	00769
003005	043007	A	770		INR	INPE			00	00770
003006	001000	A	771	JMP*	0		EXIT		00	00771
003007	100000	A								
003007			772	INPE	BES	0			00	00772
003010	001000	A	773	JMP	INE3				00	00773
003011	002755	A								
			774 *						00	00774
			775 *	INPUT PERIOD, COMMA FOR MESSAGE TERMINATOR					00	00775
			776 *						00	00776
003012	002000	A	777	INF5	CALL	INPC	INPUT ONE CHARACTER		00	00777
003013	002710	A								
003014	001000	A	778	JMP*	INPF		TERMINATE EXIT		00	00778
003015	103047	A								
003016	001000	A	779	JMP	INF2		ABORT INPUT EXIT		00	00779
003017	003044	A								
003020	001000	A	780	JMP	INF1		DELETE PREVIOS CHARACTER EXIT		00	00780
003021	003042	A								
003022	006140	A	781	SUB1	0254		COMMA		00	00781
003023	000254	A								
003024	001010	A	782	JAZ	INF3		COMMA EXIT		00	00782
003025	003040	A								
003026	006140	A	783	SUB1	02		PERIOD		00	00783
003027	000002	A								
003030	001010	A	784	JAZ	INF4		PERIOD EXIT		00	00784
003031	003036	A								
003032	002000	A	785	CALL	OUTG		PRINT INVALID MESSAGE		00	00785
003033	003052	A								
003034	001000	A	786	JMP	INF5		GET CORRECT INPUT		00	00786
003035	003012	A								
003036	043047	A	787	INF4	INR	INPF	NORMAL EXIT		00	00787
003037	043047	A	788		INR	INPF			00	00788
003040	043047	A	789	INF3	INR	INPF	COMMA EXIT		00	00789
003041	043047	A	790		INR	INPF			00	00790

003042	043047	A	791	INF1	INR	INPF	DELETE PREVIOUS CHARACTER EXIT	00	00791
003043	043047	A	792		INR	INPF		00	00792
003044	043047	A	793	INF2	INR	INPF	ABORT INPUT EXIT	00	00793
003045	043047	A	794		INR	INPF		00	00794
003046	001000	A	795		JMP*	0	EXIT	00	00795
003047	100000	A							
003047			796	INPF	BES	0		00	00796
003050	001000	A	797		JMP	INF5		00	00797
003051	003012	A							
			798	*				00	00798
			799	*	INVALID INPUT--PRINT MESSAGE			00	00799
			800	*				00	00800
003052	000000	A	801	OUTG	ENTR	0		00	00801
003053	006030	A	802		LDXI	MSG5	INVALID MESSAGE	00	00802
003054	003321	A							
003055	002000	A	803		CALL	OUTD	OUTPUT MESSAGE	00	00803
003056	003243	A							
003057	001000	A	804		JMP*	OUTG		00	00804
003060	103032	A							
			805	*				00	00805
			806	*	INPUT OCTAL NUMBER FROM TTY KEYBOARD			00	00806
			807	*	ASSEMBLE AS 16 BIT NUMBER IN A REG			00	00807
			808	*	ONLY OCTAL NUMBERS ACCEPTED			00	00808
			809	*				00	00809
003081	005001	A	810	ING7	TZA			00	00810
003082	053313	A	811		STA	T802	TEMP STORAGE FOR OCTAL NUMBER	00	00811
003083	053314	A	812		STA	T803	TEMP STORAGE FOR OCTAL NUMBER	00	00812
003084	053315	A	813		STA	T804	TEMP STORAGE FOR DIGIT COUNTER	00	00813
003085	063320	A	814		STB	T807		00	00814
003086	005002	A	815		TZA			00	00815
003087	002000	A	816	ING5	CALL	INPC	INPUT ONE CHARACTER	00	00816
003070	002710	A							
003071	001000	A	817		JMP*	INPG	TERMINATE EXIT	00	00817
003072	103143	A							
003073	001000	A	818		JMP	ING2	ABORT INPUT EXIT	00	00818
003074	003138	A							
003075	001000	A	819		JMP	ING1	DELETE PREVIOUS CHARACTER EXIT	00	00819
003076	003163	A							
003077	053316	A	820		STA	T805	SAVE INPUT	00	00820
003100	006140	A	821		SUB1	0260		00	00821
003101	000260	A							
003102	001004	A	822		JAN	ING6	INVALID IF NOT OCTAL NUMBER	00	00822



003103	003146	A							
003104	006140	A	823		SUBI	010			00 00823
003105	000010	A							
003106	001002	A	824		JAP	ING6		INVALID IF NOT OCTAL NUMBER	00 00824
003107	003146	A							
003110	006120	A	825		ADDI	010		RESTORE DIGIT	00 00825
003111	000010	A							
003112	113313	A	826		DRA	TS02			00 00826
003113	053314	A	827		STA	TS03			00 00827
003114	004443	A	828		LLRL	3			00 00828
003115	001020	A	829		JBZ	++4			00 00829
003116	003121	A							
003117	001000	A	830		JMP	ING8			00 00830
003120	003157	A							
003121	053313	A	831		STA	TS02			00 00831
003122	043315	A	832		INR	TS04		ADVANCE DIGIT COUNTER	00 00832
003123	013315	A	833		LDA	TS04			00 00833
003124	006140	A	834		SUBI	7			00 00834
003125	000007	A							
003126	001002	A	835		JAP	ING8		TOO MANY DIGITS. START INPUT OVER	00 00835
003127	003157	A							
003130	001000	A	836		JMP	ING5		GET NEXT DIGIT	00 00836
003131	003067	A							
003132	043143	A	837	ING3	INR	INPG		NORMAL EXIT	00 00837
003133	043143	A	838		INR	INPG			00 00838
003134	043143	A	839	ING4	INR	INPG		COMMA EXIT	00 00839
003135	043143	A	840		INR	INPG			00 00840
003136	043143	A	841	ING2	INR	INPG		ABORT INPUT EXIT	00 00841
003137	043143	A	842		INR	INPG			00 00842
003140	023320	A	843		LOS	TS07			00 00843
003141	013314	A	844		LDA	TS03		GET ASSEMBLED OCTAL NUMBER	00 00844
003142	001000	A	845		JMP*	0		EXIT	00 00845
003143	100000	A							
003143			846	INPG	BES	0			00 00846
003144	001000	A	847		JMP	ING7			00 00847
003145	003061	A							
003146	013316	A	848	ING6	LDA	TS05		GET LAST INPUT	00 00848
003147	006140	A	849		SUBI	0254		IS IT A COMMA	00 00849
003150	000254	A							
003151	001010	A	850		JAZ	ING4		YES	00 00850
003152	003134	A							
003153	006140	A	851		SUBI	02		IS IT A PERIOD	00 00851



003154	000002	A							
003155	001010	A	852	JAZ	ING3	YES			00 00852
003156	003132	A							
003157	002000	A	853	ING8	CALL	OUT6	PRINT INVALID MESSAGE		00 00853
003160	003052	A							
003161	001000	A	854	JMP	ING7	START OVER WITH OCTAL INPUT			00 00854
003162	003061	A							
			855	*					00 00855
003163	013314	A	856	ING1	LDA	T803			00 00856
003164	004343	A	857		LSRA	3			00 00857
003165	053314	A	858		STA	T803			00 00858
003166	004243	A	859		LRLA	3			00 00859
003167	053313	A	860		STA	T802			00 00860
003170	013315	A	861		LDA	T804			00 00861
003171	005311	A	862		DAR		REDUCE DIGIT COUNT		00 00862
003172	053315	A	863		STA	T804			00 00863
003173	001000	A	864		JMP	ING5			00 00864
003174	003067	A							
			865	*					00 00865
			866	*	OUTPUT TWO CHARACTERS FROM A REG TO TTY (HIGH ORDER FIRST)				00 00866
			867	*	ENTER WITH CHARACTERS IN A REG				00 00867
			868	*					00 00868
003175	000000	A	869	OUTB	ENTR	0			00 00869
003176	063317	A	870		STB	T806	SAVE B		00 00870
003177	004550	A	871		LLSR	8			00 00871
003200	002000	A	872		CALL	OUTA	OUTPUT FIRST CHAR		00 00872
003201	002613	A							
003202	004450	A	873		LLRL	8			00 00873
003203	002000	A	874		CALL	OUTA	OUTPUT SECOND CHAR		00 00874
003204	002613	A							
003205	023317	A	875		LDB	T806	RESTORE B		00 00875
003206	001000	A	876		JMP*	OUTB	RETURN		00 00876
003207	103175	A							
			877	*					00 00877
			878	*	OUTPUT CARRIAGE RETURN AND LINE FEED TO TTY				00 00878
			879	*					00 00879
003210	000000	A	880	OUTC	ENTR	0			00 00880
003211	006010	A	881		LOAI	0106612	CR AND LF		00 00881
003212	106612	A							
003213	002000	A	882		CALL	OUTB	OUTPUT 2 CHAR		00 00882
003214	003175	A							
003215	001000	A	883		JMP*	OUTC	RETURN		00 00883



003216	103210	A	884	*					00	00884
			885	*	OUTPUT	OCTAL	WORD	AND A SPACE TO TTY	00	00885
			886	*					00	00886
003217	000000	A	887	OUTE	ENTR	0			00	00887
003220	005002	A	888		TZB				00	00888
003221	004557	A	889		LLSR	15			00	00889
003222	005122	A	890		IBR				00	00890
003223	006110	A	891	OUT2	ORAI	10'	MAKE	DIGIT	00	00891
003224	000260	A								
003225	002000	A	892	CALL	OUTA		OUTPUT	ONE DIGIT	00	00892
003226	002613	A								
003227	005001	A	893		TZA				00	00893
003230	004443	A	894		LLRL	3			00	00894
003231	001020	A	895		JBZ	*+4	OCTAL	OUTPUT COMPLETE	00	00895
003232	003235	A								
003233	001000	A	896	JMP	OUT2				00	00896
003234	003223	A								
003235	006010	A	897	LOAI	0240		ASCII	BLANK CODE	00	00897
003236	000240	A								
003237	002000	A	898	CALL	OUTA		OUTPUT	SPACE	00	00898
003240	002613	A								
003241	001000	A	899	JMP*	OUTE		RETURN		00	00899
003242	103217	A								
			900	*					00	00900
			901	*	OUTPUT	MESSAGE	TO TTY (X REG	CONTAINS ADDRESS OF MESSAGE)	00	00901
			902	*					00	00902
003243	000000	A	903	OUTD	ENTR	0			00	00903
003244	015000	A	904		LOA	0,1			00	00904
003245	001010	A	905		JAZ*	OUTD			00	00905
003246	103243	A								
003247	002000	A	906	CALL	OUTB				00	00906
003250	003175	A								
003251	005144	A	907		IXR				00	00907
003252	001000	A	908	JMP	OUTD+1				00	00908
003253	003244	A								
			909	*					00	00909
			910	*	OUTPUT	OCTAL	MEMORY	ADDRESS TO TTY PRINTER	00	00910
			911	*					00	00911
003254	000000	A	912	OUTP	ENTR	0			00	00912
003255	053313	A	913		STA	TS02	SAVE	WORD	00	00913
003256	006010	A	914		LOAI	'(PAREN	SPACE	00	00914

003257	124240	A								
003260	002000	A	915	CALL	OUTB	PRINT CHAR			00	00915
003261	003175	A								
003262	013313	A	916	LDA	TS02				00	00916
003263	002000	A	917	JMPM	OUTE	OUTPUT OCTAL WORD			00	00917
003264	003217	A								
003265	006010	A	918	LDAI)'	RIGHT PARENTHESIS			00	00918
003266	000251	A								
003267	002000	A	919	CALL	OUTA	PRINT CHAR			00	00919
003270	002613	A								
003271	001000	A	920	JMP*	OUTF				00	00920
003272	103254	A								
			921 *						00	00921
			922 *	I/O TIME-OUT SUBROUTINE					00	00922
			923 *						00	00923
003273	005344	A	924	TOU1	DXR				00	00924
003274	001040	A	925	JXZ*	TOUT	TIME-OUT RETURN			00	00925
003275	103301	A								
003276	043301	A	926	INR	TOUT	SET UP FOR			00	00926
003277	043301	A	927	INR	TOUT	NORMAL EXIT			00	00927
003300	001000	A	928	JMP	0				00	00928
003301	000000	A								
003301			929	TOUT	BES	0			00	00929
003302	001000	A	930	JMP	TOU1				00	00930
003303	003273	A								
			931 *						00	00931
			932 *	TIME DELAY SUBROUTINE					00	00932
			933 *						00	00933
003304	000000	A	934	TOLY	ENTR	0			00	00934
003305	005344	A	935		DXR				00	00935
003306	001040	A	936	JXZ*	TOLY	RETURN			00	00936
003307	103304	A								
003310	001000	A	937	JMP	**3				00	00937
003311	003305	A								
			938 *						00	00938
			939 *	DATA TABLE					00	00939
			940 *						00	00940
003312	000000	A	941	TS01	DATA	0	TEMPORARY STORAGE		00	00941
003313	000000	A	942	TS02	DATA	0	TEMPORARY STORAGE		00	00942
003314	000000	A	943	TS03	DATA	0	TEMPORARY STORAGE		00	00943
003315	000000	A	944	TS04	DATA	0	TEMPORARY STORAGE		00	00944
003316	000000	A	945	TS05	DATA	0	TEMPORARY STORAGE		00	00945

003317	000000	A	946	TS06	DATA	0	TEMPORARY STORAGE	00	00946
003320	000000	A	947	TS07	DATA	0	TEMPORARY STORAGE	00	00947
			948	*				00	00948
			949	*	MESSAGE TABLE			00	00949
			950	*				00	00950
003321	120240	A	951	MSG5	DATA	'	INVALID',0106612, 0	00	00951

003322 144716 A
 003323 153301 A
 003324 146311 A
 003325 142240 A
 003326 106612 A
 003327 000000 A

003330			952	TBER	BSS	1	ERROR TABLE	00	00952
	000500	A	953		END	TKCP		00	00953

ENTRY NAMES

EXTERNAL NAMES

SYMBOLS

002644	A	STTY	105215	A	CRLF	001121	A	CS01	102000	A	EDTX
000675	A	H0G1	000716	A	H0G2	000726	A	H0G3	000743	A	H0G4
000762	A	H0G5	001245	A	H0G6	002067	A	H0G7	002105	A	H0G8
002566	A	INA1	002645	A	INB1	002703	A	INC1	002705	A	INC2
002681	A	INC3	002741	A	IND1	002743	A	IND2	002751	A	IND3
002715	A	IND4	003002	A	INE1	003004	A	INE2	002755	A	INE3
003042	A	INF1	003044	A	INF2	003040	A	INF3	003036	A	INF4
003012	A	INF5	003163	A	ING1	003136	A	ING2	003132	A	ING3
003134	A	ING4	003067	A	ING5	003146	A	ING6	003061	A	ING7
003157	A	ING8	002610	A	INPA	002656	A	INPB	002710	A	INPC
002746	A	INPD	003007	A	INPE	003047	A	INPF	003143	A	INPG
000416	A	IDCT	001002	A	KC	001003	A	KE	003321	A	MSG5
002415	A	DET	002442	A	DET2	002447	A	DET3	002467	A	DET4
002501	A	DETS	002513	A	UETS	006400	A	DUIC	006403	A	DUMG
002640	A	OUT1	003223	A	OUT2	002613	A	OUTA	003175	A	OUTB
003210	A	OUTC	003243	A	OUTD	003217	A	OUTE	003254	A	OUTF
003052	A	OUTG	000256	A	PERIOD	001004	A	PR	001501	A	PRO1
001512	A	PRO2	001521	A	PRO3	001556	A	PRO4	001572	A	PRO5
001600	A	PRO6	001633	A	PRO7	001646	A	PRO8	001725	A	PRO9
001731	A	PR10	001762	A	PR11	002036	A	PRND	002556	A	PRW1
002557	A	PRW2	002560	A	PRW3	002561	A	PRW4	002562	A	PRW5
002563	A	PRW6	001005	A	PS	001330	A	PS20	001345	A	PSTBL
001006	A	PT	001007	A	RT	002346	A	RTND	100452	A	STAR
001010	A	STID	000537	A	TATT	003330	A	TBER	001071	A	TCS1
003304	A	TDLY	000524	A	TIDA	000572	A	TIID	001023	A	TKC2



001025 A TKC3	001041 A TKC4	001053 A TKC5	001055 A TKC6
000500 A TKCP	001011 A TKCT	001233 A TKET	001126 A TKK1
001202 A TKK2	001231 A TKW1	001232 A TKW2	003273 A TOU1
003301 A TOUT	001445 A TPRY	001767 A TPS4	001326 A TPST
001264 A TPT1	001274 A TPT2	001307 A TPT3	001261 A TPTT
001325 A TPW1	002141 A TR00	002151 A TR01	002201 A TR02
002225 A TR03	002235 A TR04	002242 A TR05	002257 A TR06
002334 A TR07	002273 A TR08	002403 A TRBF	000520 A TRDA
000566 A TRID	000666 A TRS8	002120 A TRTT	003312 A T801
003313 A T802	003314 A T803	003315 A T804	003316 A T805
003317 A T806	003320 A T807	000655 A T88R	002516 A TTBC
002017 A TTBL	000514 A TTPI	002031 A TT91	002526 A TTY1
002551 A TTYC	002056 A TYPE		

0 ERRORS ASSEMBLY COMPLETE

