

=====  
 OUTPUT 12  
 =====

MEM. STRG. USED 06360

01500 THRU 07623

10000 THRU 10233

LOK	INSTR	LIID	LO	
		0	COMA	PROG*12198*FACT*OCT*67
		1		REMARK*COMMAND TEST
01500	00 0000	2	COMA	0*
01501	44 2204	3		STRAL*ALPARN
01502	50 5020	4		SKP*20
01503	34 1505	5		JP*LOK+2
01504	34 1527	6		JP*C1
01505	76 7547	7		RJP*TYPE
				SAVE INITIAL AL INPUT PARAMETER KEY 4, SET TO SUPPRESS TYPE-OUTS
01506	12 2204	10		ENTAL*ALPARN
01507	65 1511	11		JPALP*LOK+2
01510	76 7602	12		RJP*IOSET
01511	30 1512	13		TYPT*\$CR\$COMMAND TEST\$CR\$ERROR DISPLAY AU,AL
01512	01 0000			SETUP TYPT? TYPC CHAN NO. - 1232/1532
01513	76 4320			INITIAL AL INPUT PARAMETER
01514	55 5541			MODIFY FOR N+1 BUFFER TERMINATION
01515	56 4400			
01516	64 4563			
01517	64 7645			
01520	62 6220			
01521	62 0044			
01522	51 6360			
01523	54 4171			
01524	00 4165			
01525	14 4154			
01526	77 7777	14	C1	ENTALK*7
01527	70 0007	15		STRAL*PASSC
01530	44 1736	15		CL*SRERRF
01531	40 1737	16		SET COMMAND TEST PASS COUNT
				SUBROUTINE ERROR FLAG

 SHEET 49  
 SHEET 1439  
 SB-10163

 REVISION  
 B

01532	12	1733	17
01533	44	1541	20
01534	34	1540	21
01535	12	1541	22
01536	71	0001	23
01537	44	1541	24
01540	40	1734	25
01541	50	7200	26
01542	32	1734	27
01543	42	1734	30
01544	31	1614	31
01545	32	1734	32
01546	50	5001	33
01547	56	1735	34
01550	34	1543	35
01551	57	1736	36
01552	34	1535	37
01553	70	0001	40
01554	14	1740	41
01555	44	1740	42
01556	02	1741	43
01557	63	1527	44
01560	40	1740	45
01561	12	1737	46
01562	61	1600	47
01563	50	5020	50
01564	34	1566	51
01565	34	1576	52
01566	30	1567	53
01567	01	0000	
01570	76	4641	
01571	51	5445	
01572	44	1400	
01573	62	4543	
01574	71	4354	
01575	45	7777	

COMA3

COMA1

COMA4

ENTAL\*COMA2  
STRAL\*COMA1

JP\*COMA1-1  
ENTAL\*COMA1  
ADDALK\*1  
STRAL\*COMA1  
CL\*COMA5  
ENTICR\*0  
ENTB\*COMA5  
STRB\*COMA5

IRJPB\*COMA6  
ENTB\*COMA5  
SKP\*01  
BSK\*COMA7  
JP\*COMA4  
ISK\*PASSC  
JP\*COMA3  
ENTALK\*0001

ADDAL\*CNT  
STRAL\*CNT  
CMAL\*NYMB  
JPNOT\*C1  
CL\*CNT  
ENTAL\*SRERR  
JPALZ\*GOMA10  
SKP\*20

JP\*LOK+2  
JP\*C2  
TYPT\*\$CR5FAILED, RECYCLE

SET ICR INST

UPDATE ICR INST. TO NEXT B-BOX

B-BOX SAVER  
SET CURRENT ICR

ALL PASSES MADE  
NO DO EXIT  
COUNT CYCLES

UPDATE COUNT

FINISHED  
NO  
YES  
WAS THERE AN ERROR  
NO  
KEY 4, SET TO SUPPRESS TYPE-OUTS

01576	50	5604	54
01577	34	1611	55
01600	50	5020	56
01601	34	1603	57
01602	34	1610	60
01603	30	1604	61
01604	01	0000	
01605	20	5314	
01606	00	4556	
01607	44	7677	
01610	50	5604	62
01611	50	5004	63
01612	55	1500	64
01613	34	1527	65
01614	00	2667	66
01615	00	2740	67
01616	00	3014	70
01617	00	3065	71
01620	00	3753	72
01621	00	4044	73
01622	00	4213	74
01623	00	4303	75
01624	00	7033	76
01625	00	7135	77
01626	00	5336	100
01627	00	5456	101
01630	00	5040	102
01631	00	5207	103
01632	00	4560	104
01633	00	4706	105
01634	00	7323	106
01635	00	7407	107
01636	00	4376	110
01637	00	4437	111
01640	00	3140	112
01641	00	3165	113

C2 STOP\*04  
 JP\*COMA11  
 COMA10 SKP\*20  
 JP\*LOK\*2

JP\*C3  
 TYPT\*OK, ENDSER\*

C3 STOP\*04  
 COMA11 SKP\*04

IJP\*COMA  
 JP\*C1  
 COMA6 0\*TF10  
 0\*TF11  
 0\*TF12  
 0\*TF13  
 0\*TF32  
 0\*TF33

0\*TF36  
 0\*TF37  
 0\*TF70  
 0\*TS73  
 0\*TF46  
 0\*TF47  
 0\*TF44  
 0\*TF45

0\*TF42  
 0\*TF43  
 0\*TF74  
 0\*TF75  
 0\*TF40  
 0\*TF41  
 0\*TF14  
 0\*TF15

KEY 4: SET TO SUPPRESS TYPE-OUTS

DO WE STAY IN

NO EXIT  
 REPEAT  
 TEST ENT AU  
 TEST AUB  
 TEST ENTAL  
 TEST ENTALB  
 TEST ENTB  
 TESTBB

TEST ENTBK  
 TEST ENTBKB  
 TEST ENTALK  
 TEST ENTSR  
 TEST STRAU  
 TEST STRAUB  
 TEST STRAL  
 TEST STRALB

TEST STRB  
 TEST STRBB  
 TEST STRADR  
 TEST STRSR  
 TEST CL  
 TEST CLB  
 TEST ADDAL  
 TEST ADDALB

01642 00 3300 114  
 01643 00 3337 115  
 01644 00 7103 116  
 01645 00 3217 117  
 01646 00 3253 120  
 01647 00 3372 121

01650 00 3431 122  
 01651 00 3462 123  
 01652 00 3523 124  
 01653 00 3562 125  
 01654 00 3634 126  
 01655 00 2310 127  
 01656 00 2365 130  
 01657 00 2563 131

01660 00 2624 132  
 01661 00 2425 133  
 01662 00 2501 134  
 01663 00 5600 135  
 01664 00 5711 136  
 01665 00 6004 137  
 01666 00 4136 140  
 01667 00 6360 141

01670 00 6441 142  
 01671 00 6531 143  
 01672 00 6604 144  
 01673 00 6701 145  
 01674 00 6717 146  
 01675 00 6756 147  
 01676 00 6774 150  
 01677 00 4166 151

01700 00 6150 152  
 01701 00 7522 153  
 01702 00 3662 154  
 01703 00 3707 155  
 01704 00 7261 156  
 01705 00 6241 157  
 01706 00 6312 160

0\*TF20  
 0\*TF21  
 0\*TF71  
 0\*TF16  
 0\*TF17  
 0\*TF22

0\*TF23  
 0\*TF24  
 0\*TF25  
 0\*TF26  
 0\*TF27  
 0\*TF02  
 0\*TF03  
 0\*TF06

0\*TF07  
 0\*TF04  
 0\*TF05  
 0\*TF51  
 0\*TF52  
 0\*TF53  
 0\*TF34  
 0\*TF60

0\*TF61  
 0\*TF62  
 0\*TF63  
 0\*TF64  
 0\*TF65  
 0\*TF66  
 0\*TF67  
 0\*TF35

0\*TF55  
 0\*TF76  
 0\*TF30  
 0\*TF31  
 0\*TF73  
 0\*TF56  
 0\*TF57

TEST ADDA  
 TEST ADDAB  
 TEST ADDALK  
 TEST SUBAL  
 TEST SUBALB  
 TEST SUBA

TEST SUBAB  
 TEST MULAL  
 TEST MULALB  
 TEST DIVA  
 TEST DIVAB  
 TEST CMAL  
 TEST CMALB  
 TEST CMSK

TEST CMSKB  
 TEST SLSA  
 TEST SLSUB  
 TEST SLSET  
 TEST SLCL  
 TEST SLCP  
 TEST JP  
 TEST JPAUZ

TEST JPALZ  
 TEST JPAUNZ  
 TEST JPALNZ  
 TEST JPAUP  
 TEST JPALP  
 TEST JPAUN  
 TEST JPALN  
 TEST JPB

TEST IJP  
 TEST RJP  
 TEST IRJP  
 TEST IRJPB  
 TEST BJP  
 TEST SK  
 TEST ISK

01707 00 6512 161  
 01710 00 6662 162  
 01711 00 6735 163  
 01712 00 7012 164  
 01713 00 6555 165  
 01714 00 6463 166  
 01715 00 6630 167

01716 00 6402 170  
 01717 00 4523 171  
 01720 00 4650 172  
 01721 00 4770 173  
 01722 00 5300 174  
 01723 00 5417 175  
 01724 00 5546 176  
 01725 00 5122 177

01726 00 5646 200  
 01727 00 5752 201  
 01730 00 6052 202  
 01731 00 6104 203  
 01732 00 6175 204  
 01733 50 7200 205  
 01734 00 0000 206  
 01735 00 0116 207

01736 00 0000 210  
 01737 00 0000 211  
 01740 00 0000 212  
 01741 00 0012 213

01742 00 0000 217

01743 46 7622 220  
 01744 44 7623 221  
 01745 12 2037 222  
 01746 52 2215 223  
 01747 44 2037 224

0\*TC61  
 0\*TC63  
 0\*TC65  
 0\*TC67  
 0\*TS62  
 0\*TS61  
 0\*TS63

0\*TS60  
 0\*TS41  
 0\*TS42  
 0\*TS43  
 0\*TS45  
 0\*TS46  
 0\*TS47  
 0\*TS44

0\*TS51  
 0\*TS52  
 0\*TS53  
 0\*TS54  
 0\*TS55  
 ENTICR\*0  
 0\*  
 116\*

COMA2  
 COMA5  
 COMA7

PASSC  
 SRERRF  
 CNT  
 NYMB  
 TFDIS

TFDIS

STRAU\*SAVEU  
 STRAL\*SAVEL  
 ENTAL\*TFX  
 SLCL\*K1F  
 STRAL\*TFX

TEST JPEQ  
 TEST JPNOT  
 TEST JPMLEQ  
 TEST JPMGR  
 TEST CPAU  
 TEST CPAL  
 TEST CPA

TEST RND  
 TEST RSHAU  
 TEST RSHAL  
 TEST RSHA  
 TEST LSHAU  
 TEST LSHAL  
 TEST LSHA  
 TEST SF

TEST SKPNB0  
 TEST SKPOV  
 TEST SKPN0V  
 TEST SKPOD0  
 TEST SKPEVN

770000

01750	50	5020	225
01751	34	1753	226
01752	34	2017	227
01753	50	7310	230
01754	75	1737	231
01755	50	7300	232
01756	10	2222	233
01757	12	2223	234
01760	50	4614	235
01761	50	4306	236
01762	16	2206	237
01763	51	2205	240
01764	44	2016	241
			242
01765	12	2204	243
01766	50	4203	244
01767	52	2214	245
01770	02	2217	246
01771	63	2002	247
01772	12	2017	250
01773	51	2220	251
01774	44	2017	252
01775	44	2030	253
01776	12	2022	254
01777	51	2220	255
02000	44	2022	256
02001	44	2033	257
02002	30	2003	260
02003	01	0000	
02004	76	4562	
02005	62	2062	
02006	00	4665	
02007	56	4364	
02010	51	2056	
02011	00	4320	
02012	44	4500	

SKP\*20

JP\*LOK+2  
 JP\*TFD1  
 ENTSR\*10  
 STRSR\*SRERRF  
 ENTSR\*0  
 ENTAU\*BUFF1  
 ENTAL\*BUFF2  
 LSHAL\*12D

RSHA\*6  
 SUBAL\*K1A  
 SLSET\*K1  
 STRAL\*TFDIS1+R  
 REMARK\*IF 1232/1532 ON CHAN 0, MODIFY C REG DISPLAY TO 1  
 ENTAL\*ALPARM  
 RSHAL\*3  
 SLCL\*K3

CMAL\*K4  
 JPNOT\*TFDIS2  
 ENTAL\*TFD1  
 SLSET\*K5  
 STRAL\*TFD1  
 STRAL\*TFD3  
 ENTAL\*TFD2  
 SLSET\*K5

STRAL\*TFD2  
 STRAL\*TFD4  
 TYPT\*\$CR\$ERROR FUNCTION CODE

TFDIS2

DO WE PRINTOUT  
 YES  
 NO, DISPLAY

FORMAT ERROR I TYPE-OUT

404000

SHEET 44A REVISION B  
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02013	77	7777			
02014	30	2015	261	TFDIS1	TYPT*XX
02015	01	0000			
02016	70	7077			
02017	50	1200	262	TFD1	OUT*0
02020	00	2037	263		0*TFX
02021	00	2037	264		0*TFX
02022	50	2600	265	TFD2	OUTOV*0
02023	71	0000	266		ADDALK*0
02024	10	7622	267		ENTAU*SAVEU
02025	12	7623	270		ENTAL*SAVEL
02026	50	5601	271		STOP*1
02027	40	2037	272		CL*TFX
02030	50	1200	273	TFD3	OUT*0
02031	00	2037	274		0*TFX
02032	00	2037	275		0*TFX
02033	50	2600	276	TFD4	OUTOV*0
02034	71	7777	277		ADDALK*7777
02035	50	5000	300		SKP*00
02036	55	1742	301		IJP*TFDIS
02037	00	0000	302	TFX	0*
			303	TSDIS	PROG*WHITNEY*30APL64
			304		REMARK*ERROR DISPLAY SUBROUTINE FOR
			305		REMARK*TYPE 2 INSTRUCTIONS
02040	00	0000	306	TSDIS	0*
02041	46	7622	307		STRAU*SAVEU
02042	44	7623	310		STRAL*SAVEL
02043	12	2037	311		ENTAL*TFX
02044	52	2216	312		SLCL*K16
02045	44	2037	313		STRAL*TFX
02046	50	5020	314		SKP*20
02047	34	2051	315		JP*LOK+2
02050	34	2125	316		JP*TSD1
02051	50	7310	317		ENTSR*10
02052	75	1737	320		STRSR*SRERRF
02053	50	7300	321		ENTSR*0

DISPLAY ERRORING FUNCT. CODE

CLEAR C REG.

777700

DO WE PRINTOUT  
YES  
NO, DISPLAY

02054	10	2222	322
02055	12	2223	323
02056	50	4614	324
02057	50	4706	325
02060	12	2224	326
02061	50	4614	327
02062	50	4314	330
02063	16	2207	331
02064	44	2123	332
02065	12	2225	333
02066	71	7737	334
02067	50	4614	335
02070	51	2221	336
02071	44	2124	337
02072	12	2204	340
02073	50	4203	341
02074	52	2214	342
02075	02	2217	343
02076	63	2107	344
02077	12	2125	345
02100	51	2220	346
02101	44	2125	347
02102	44	2136	350
02103	12	2130	351
02104	51	2220	352
02105	44	2130	353
02106	44	2141	354
02107	30	2110	355
02110	01	0000	
02111	76	4562	
02112	62	2062	
02113	00	4665	
02114	56	4364	
02115	51	2056	
02116	00	4320	
02117	44	4500	
02120	77	7777	

ENTAU\*BUFF1  
 ENTAL\*BUFF2  
 LSHAL\*12D  
 LSHA\*6  
 ENTAL\*BUFF3

FORMAT ERROR II TYPE-OUT

LSHAL\*12D  
 RSHA\*12D  
 SUBAL\*K18  
 STRAL\*TSDIS1+2  
 ENTAL\*BUFF4  
 ADDALK\*7737  
 LSHAL\*12D  
 SLSET\*K6

404040

STRAL\*TSDIS1+3  
 ENTAL\*ALPAM  
 RSHAL\*3  
 SLCL\*K3  
 CHAL\*K4  
 JPNOT\*TSDIS2  
 ENTAL\*TSD1  
 SLSET\*K5

STRAL\*TSD1  
 STRAL\*TSD3  
 ENTAL\*TSD2  
 SLSET\*K5  
 STRAL\*TSD2  
 STRAL\*TSD4

TSDIS2 TYPT\*SCRError FUNCTION CODE

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02121	30	2122	356	TSDIS1	TYPT*XXXX	
02122	01	0000				
02123	70	7070				
02124	70	7777				
02125	50	1200	357	TSD1	OUT*0	DISPLAY ERRORING FUNCT. CODE
02126	00	2037	360		0*TFX	
02127	00	2037	361		0*TFX	
02130	50	2600	362	TSD2	OUTOV*0	
02131	71	0000	363		ADDALK*0	
02132	10	7622	364		ENTAU*SAVEU	
02133	12	7623	365		ENTAL*SAVEL	
02134	50	5601	366		STOP*1	
02135	40	2037	367		CL*TFX	
02136	50	1200	370	TSD3	OUT*0	CLEAR C REG.
02137	00	2037	371		0*TFX	
02140	00	2037	372		0*TFX	
02141	50	2600	373	TSD4	OUTOV*0	
02142	71	7777	374		ADDALK*7777	
02143	55	2040	375		IJP*TSDIS	
			376	TRAT	PROG*CASEY*30APL64	
			377		REMARK*THIS SUBROUTINE CONTAINS THE NORMAL	
			400		REMARK*CONSTANTS USED IN COMMAND AND B REG	
			401		REMARK*TESTS ALSO CONTAINS ERROR DISPLAY SUB	
02144	77	7777	402	TPAT	777777*	
02145	77	7777	403		777777*	
			404		DBLSET*	
02146	00	0000	405	TPAT1	0*	
02147	00	0000	406		0*	
02150	25	2525	407	TPAT2	252525*	
02151	25	2525	410		252525*	
02152	52	5252	411	TPAT3	525252*	
02153	52	5252	412		525252*	
02154	77	0000	413	TPAT4	77*0	
02155	77	0000	414		77*0	
02156	00	7777	415	TPAT5	7777*	
02157	00	7777	416		7777*	

02160	70	7070	417	TPAT6	707070*
02161	70	7070	420		707070*
02162	07	0707	421	TPAT7	070707*
02163	07	0707	422		070707*
02164	20	0001	423	TPAB	200001*
02165	30	0000	424		30*0
02166	00	0001	425	TPAB1	1*
02167	77	7776	426		777776*
02170	40	0000	427	TPAB2	40*0
02171	00	0505	430		505*
02172	31	2132	431	TPAB3	312132*
02173	57	7777	432		577777*
02174	10	7777	433	TPAB4	107777*
02175	27	7777	434		277777*
02176	01	0001	435	TPAB5	010001*
02177	67	7777	436		677777*
02200	00	0020	437	TPAB6	20*
02201	00	0021	440		21*
02202	00	0022	441	TPAB7	22*
02203	00	0041	442		41*
02204	00	0000	443	ALPAM	0*
02205	00	0077	444	K1	000077*
02206	40	4000	445	K1A	404000*
02207	40	4040	446	K1B	404040*
02210	00	7700	447	K2	007700*
02211	00	0037	450	K1C	000037*
02212	77	7700	451	K1D	777700*
02213	00	0001	452	K1E	000001*
02214	00	0037	453	K3	000037*
02215	77	0000	454	K1F	770000*
02216	77	7700	455	K1G	777700*
02217	00	0000	456	K4	000000*
02220	00	0001	457	K5	000001*
02221	00	7700	460	K6	007700*
02222	00	0000	461	BUFF1	0*
02223	00	0000	462	BUFF2	0*

02224	00	0000	463	BUFF3	0*
02225	00	0000	464	BUFF4	0*
02226	00	2020	465	TPAK	2020*
02227	00	5050	466	TPAK1	5050*
02230	00	2222	467	TPAK2	2222*
02231	00	7070	470	TPAK3	7070*
02232	00	3333	471	TPAK4	3333*
02233	77	5252	472	TPAK5	775252*
02234	00	2525	473	TPAK6	2525*
02235	77	7070	474	TPAK7	777070*
02236	00	0707	475		707*
02237	00	0010	476	TPAS	10*
02240	00	0017	477	TPAS1	17*
02241	00	0015	500	TPAS2	15*
02242	00	0012	501	TPAS3	12*
02243	00	0002	502	TPAS4	2*
02244	00	0004	503	TPAS5	4*
02245	00	0007	504	TPAS6	7*
02246	77	7775	505	TPAS7	777775*
02247	00	0020	506	TPAS10	00*0020
02250	00	0027	507	TPAS11	00*0027
02251	00	0035	510	TPAS12	00*0035
02252	00	0032	511	TPAS13	00*0032
02253	00	0000	512	TPAR	0*
			513		DBLSET*
02254	77	7776	514	TC0	777776*
02255	77	7777	515		777777*
02256	77	7777	516	TC01	777777*
02257	17	7777	517		177777*
02260	01	0000	520	TC02	01*0
02261	37	7777	521	TC03	377777*
02262	00	0000	522	TC04	0*
02263	20	0000	523		20*0
02264	50	0000	524	TCUT	50*0
02265	47	7777	525	TCUT1	477777*
02266	67	0000	526	TCUT2	67*0

02267	07	7777	527	TCUT3	077777*	
02270	70	0000	530	TCUT4	70*0	
02271	34	3434	531	TCUT5	343434*	
02272	11	3663	532	TCUT6	113663*	
02273	66	4114	533	TCUT7	664114*	
02274	00	0042	534	SCCNT	0*42	
02275	00	0000	535	SAVEB	0*	
			536	TFSH1	PR0G*SC0TT*30APL64	
02276	00	0000	537	TFSH1	0*	
02277	70	0022	540		ENTALK*22	
02300	44	2306	541		STRAL*TSH	
02301	55	2276	542		IJP*TFSH1	
			543	TFSH2	PR0G*SC0TT*30APL64	
02302	00	0000	544	TFSH2	0*	
02303	70	0017	545		ENTALK*17	
02304	44	2306	546		STRAL*TSH	
02305	55	2302	547		IJP*TFSH2	
02306	00	0000	550	TSH	0*	
02307	00	0000	551	TSCOT	0*	
			552	TF02	PR0G*SC0TT*30APL64	
			553		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			554		REMARK*CORRECT PATTERN IN AU	
			555		REMARK*INCORRECT PATTERN IN AL	
02310	00	0000	556	TF02	0*	COMPARE AL TO Y 02
02311	70	0060	557		ENTALK*60	SET TYPEOUT BUFFER
02312	44	2222	560		STRAL*BUFF1	TO CODES FOR 02
02313	70	0062	561		ENTALK*62	
02314	44	2223	562		STRAL*BUFF2	
02315	12	2322	563		ENTAL*TF022*2	SET UP
02316	44	2037	564		STRAL*TFX	ERROR DISPLAY
02317	76	2302	565		RJP*TFSH2	SET UP SHIFT
02320	10	2146	566		ENTAU*TPAT1	CORRECT TO AU
02321	12	2146	567		ENTAL*TPAT1	CLR AL
02322	02	2147	570		CMAL*TPAT1*1	TEST FUNC
02323	61	2326	571		JPEQ*LOK+3	CHECK OK
02324	76	1742	572	TF022	RJP*TFDIS	ERROR DISPLAY

02325	55	2310	573		IJP*TF02	ERROR EXIT
02326	10	2166	574		ENTAU*TPAB1	CORRECT TO AU
02327	02	2166	575		CMAL*TPAB1	TEST FUNC
02330	61	2324	576		JPEQ*TF022	ERROR JUMP
02331	70	0001	577		ENTALK*1	SET AL TO 000001
02332	02	2166	600		CMAL*TPAB1	TEST FUNC
02333	63	2324	601		JPNOT*TF022	ERROR JUMP
02334	50	4601	602	TF024	LSHAL*1	SHIFT PATTERN
02335	02	2166	603		CMAL*TPAB1	TEST FUNC
02336	61	2324	604		JPEQ*TF022	ERROR JUMP
02337	57	2306	605		ISK*TSH	ALL PATTERNS CHECKED
02340	34	2334	606		JP*TF024	NO CONTINUE
02341	76	2302	607		RJP*TFSH2	SET UP SHIFT
02342	70	7776	610		ENTALK*7776	SET AL TO 777776
02343	10	2254	611		ENTAU*TC0	CORRECT TO AU
02344	02	2254	612		CMAL*TC0	TEST FUNC
02345	63	2324	613		JPNOT*TF022	ERROR JUMP
02346	50	4601	614	TF025	LSHAL*1	SHIFT PATTERN
02347	02	2254	615		CMAL*TC0	TEST FUNC
02350	61	2324	616		JPEQ*TF022	ERROR JUMP
02351	57	2306	617		ISK*TSH	ALL PATTERNS CHECKED
02352	34	2346	620		JP*TF025	NO CONTINUE
02353	70	0000	621		ENTALK*0	CLR AL
02354	02	2254	622		CMAL*TC0	TEST FUNC
02355	65	2357	623		JPMLEQ*LOK*2	CHECK OK
02356	34	2324	624		JP*TF022	ERROR JUMP
02357	70	7776	625		ENTALK*7776	SET AL TO 777776
02360	10	2166	626		ENTAU*TPAB1	CORRECT TO AU
02361	02	2166	627		CMAL*TPAB1	TEST FUNC
02362	67	2364	630		JPMGR*LOK*2	CHECK OK
02363	34	2324	631		JP*TF022	ERROR JUMP
02364	55	2310	632		IJP*TF02	EXIT
			633	TF03	PROG*SCOTT*30APL64	
			634		REMARK*ERROR DISPLAY, FUNCT, CODE IN C REG.	
			635		REMARK*CORRECT PATTERN IN AU	
			636		REMARK*INCORRECT PATTERN IN AL	
02365	00	0000	637	TF03	0*	COMPARE AL TO Y+B 03

02366 70 0060 640  
 02367 44 2222 641  
 02370 70 0063 642  
 02371 44 2223 643  
 02372 12 2401 644  
 02373 44 2037 645  
 02374 44 2306 646  
  
 02375 36 0000 647  
 02376 12 2254 650  
 02377 44 2307 651  
 02400 10 2307 652  
 02401 03 2307 653  
 02402 61 2405 654  
 02403 76 1742 655  
 02404 34 2413 656  
  
 02405 50 4601 657  
 02406 03 2307 660  
 02407 61 2403 661  
 02410 44 2307 662  
 02411 56 2202 663  
 02412 34 2417 664  
 02413 12 2306 665  
 02414 44 2401 666  
  
 02415 44 2406 667  
 02416 55 2365 670  
 02417 12 2401 671  
 02420 71 7776 672  
 02421 44 2401 673  
 02422 44 2406 674  
 02423 12 2307 675  
 02424 34 2400 676  
  
 677  
 700  
 701  
 702  
 02425 00 0000 703

TF032

TR03

TF04

TF04

ENTALK\*60  
 STRAL\*BUFF1  
 ENTALK\*63  
 STRAL\*BUFF2  
 ENTAL\*TF032-2  
 STRAL\*TFX  
 STRAL\*TSH  
  
 ENTBK\*0  
 ENTAL\*TC0  
 STRAL\*TSCOT  
 ENTAU\*TSCOT  
 CMALB\*TSCOT  
 JPEQ\*LOK+3  
 RJP\*TF01S  
 JP\*TR03  
  
 LSHAL\*1  
 CMALB\*TSCOT  
 JPEQ\*TF032  
 STRAL\*TSCOT  
 BSK\*TPAB7  
 JP\*LOK+5  
 ENTAL\*TSH  
 STRAL\*TF032-2  
  
 STRAL\*TF032+3  
 IJP\*TF03  
 ENTAL\*TF032-2  
 ADDALK\*7776  
 STRAL\*TF032-2  
 STRAL\*TF032+3  
 ENTAL\*TSCOT  
 JP\*TF032-3  
  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*

SET TIMEOUT BUFFER  
 TO CODES FOR 03

SET UP  
 ERROR DISPLAY  
 SAVE FUNC

CLR B  
 SET AL TO 777776  
 SAVE PATTERN  
 CORRECT TO AU  
 IS AL CORRECT  
 CHECK OK  
 ERROR DISPLAY  
 RESTORE TEST

SHIFT PATTERN  
 IS AL NOT EQUAL  
 ERROR JUMP  
 SAVE PATTERN  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 SET AL TO ORIG  
 RESTORE FUNC

RESTORE FUNC  
 EXIT  
 SET AL EQUAL FUNC  
 ADDRESS -1  
 RESET FUNC  
 RESET FUNC  
 RESTORE PATTERN  
 CONTINUE TEST

SELECTIVE SUB

SHEET 452 REVISION B  
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02426	70	0060	704
02427	44	2222	705
02430	70	0064	706
02431	44	2223	707
02432	12	2436	710
02433	44	2037	711
02434	10	2146	712
02435	12	2151	713
02436	04	2150	714
02437	02	2150	715
02440	63	2471	716
02441	10	2156	717
02442	12	2154	720
02443	04	2156	721
02444	02	2144	722
02445	63	2471	723
02446	10	2152	724
02447	12	2146	725
02450	04	2144	726
02451	02	2152	727
02452	63	2477	730
02453	04	2150	731
02454	63	2475	732
02455	10	2144	733
02456	04	2152	734
02457	02	2153	735
02460	63	2477	736
02461	10	2162	737
02462	12	2167	740
02463	04	2154	741
02464	02	2235	742
02465	61	2470	743
02466	10	2235	744
02467	76	1742	745
02470	55	2425	746
02471	10	2150	747

TR04  
TR04D

ENTALK\*60  
STRAL\*BUFF1  
ENTALK\*64  
STRAL\*BUFF2  
ENTAL\*LOK\*4  
STRAL\*TFX  
ENTAU\*TPAT1  
ENTAL\*TPAT2+1  
SLSU\*TPAT2  
CMAL\*TPAT2  
JPNOT\*TR040  
ENTAU\*TPAT5  
ENTAL\*TPATH  
SLSU\*TPAT5  
CMAL\*TPAT  
JPNOT\*TR040  
ENTAU\*TPAT3  
ENTAL\*TPAT1  
SLSU\*TPAT  
CMAL\*TPAT3  
JPNOT\*TR044  
SLSU\*TPAT2  
JPALNZ\*TR043  
ENTAU\*TPAT  
SLSU\*TPAT3  
CMAL\*TPAT3+1  
JPNOT\*TR044  
ENTAU\*TPAT7  
ENTAL\*TPAB1+1  
SLSU\*TPAT4  
CMAL\*TPAK7  
JPEQ\*TR04+1  
ENTAU\*TPAK7  
RJP\*TFDIS  
IJP\*TF04  
ENTAU\*TPAT2

SET TYPEOUT BUFFER  
TO CODES FOR 04  
SET UP  
ERROR DISPLAY  
CLR AU  
SET AL TO 252525  
SEL SUB 252525  
IS AL CORRECT  
ERROR JUMP  
SET AU TO 007777  
SET AL TO 770000  
SEL SUB 007777  
IS AL CORRECT  
ERROR JUMP  
SET AU TO 525252  
CLR AL  
SEL SUB 777777  
IS AL CORRECT  
ERROR JUMP  
SEL SUB 252525  
ERROR JUMP  
SET AU TO 777777  
SEL SUB 525252  
IS AL CORRECT  
ERROR JUMP  
SET AU TO 070707  
SET AL TO 777776  
SEL SUB 770000  
IS AL CORRECT  
YES EXIT  
CORRECT TO AU  
ERROR DISPLAY  
EXIT  
CORRECT TO AU

SHEET 453 REVISION B  
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02472	34	2467	750		JP*TR04	DISPLAY
02473	10	2144	751	TR041	ENTAU*TPAT	CORRECT TO AU
02474	34	2467	752		JP*TR04	DISPLAY
02475	10	2146	753	TR043	ENTAU*TPAT1	CORRECT TO AU
02476	34	2467	754		JP*TR04	DISPLAY
02477	10	2152	755	TR044	ENTAU*TPAT3	CORRECT TO AU
02500	34	2467	756		JP*TR04	DISPLAY
			757	TF05	PROG*CASEY*30APL64	
			760		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			761		REMARK*CORRECT PATTERN IN AU	
			762		REMARK*INCORRECT PATTERN IN AL	
02501	00	0000	763	TF05	0*	SEL SUB Y+B
02502	70	0060	764		ENTALK*60	SET TYPEOUT BUFFER
02503	44	2222	765		STRAL*BUFF1	TO CODES FOR 05
02504	70	0065	766		ENTALK*65	
02505	44	2223	767		STRAL*BUFF2	
02506	12	2513	770		ENTAL*LOK*5	SET UP
02507	44	2037	771		STRAL*TFX	ERROR DISPLAY
02510	32	2166	772		ENTB*TPAB1	SET B TO 1
02511	10	2146	773		ENTAU*TPAT1	CLR AU
02512	12	2151	774		ENTAL*TPAT2+1	SET AL TO 252525
02513	05	2151	775		SLSUB*TPAT3+1	SEL SUB 525252
02514	02	2150	776		CMAL*TPAT2	IS AL CORRECT
02515	63	2553	777		JPNOT*TR050	ERROR JUMP
02516	32	2146	1000		ENTB*TPAT1	CLR B
02517	10	2156	1001		ENTAU*TPAT5	SET AU TO 007777
02520	12	2154	1002		ENTAL*TPAT4	SET AL TO 770000
02521	05	2156	1003		SLSUB*TPAT5	SEL SUB 007777
02522	02	2144	1004		CMAL*TPAT	IS AL CORRECT
02523	63	2555	1005		JPNOT*TR051	ERROR JUMP
02524	32	2167	1006		ENTB*TPAB1+1	SET B TO MINUS 1
02525	10	2152	1007		ENTAU*TPAT3	SET AU TO 525252
02526	12	2146	1010		ENTAL*TPAT1	CLR AL
02527	05	2147	1011		SLSUB*TPAT1+1	SEL SUB 777777
02530	02	2146	1012		CMAL*TPAT1	IS AL CORRECT
02531	63	2557	1013		JPNOT*TR052	ERROR JUMP

SHEET 454 REVISION B  
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02532 32 2243 1014  
 02533 05 2146 1015  
 02534 63 2561 1016  
 02535 32 2246 1017  
 02536 10 2144 1020

02537 05 2154 1021  
 02540 02 2153 1022  
 02541 63 2557 1023  
 02542 32 2244 1024  
 02543 10 2162 1025  
 02544 12 2167 1026  
 02545 05 2150 1027  
 02546 02 2235 1030

02547 61 2552 1031  
 02550 10 2235 1032  
 02551 76 1742 1033  
 02552 55 2501 1034  
 02553 10 2150 1035  
 02554 34 2551 1036  
 02555 10 2144 1037  
 02556 34 2551 1040

02557 10 2152 1041  
 02560 34 2551 1042  
 02561 10 2146 1043  
 02562 34 2551 1044  
 1045  
 1046  
 1047  
 1050

02563 00 0000 1051  
 02564 70 0060 1052  
 02565 44 2222 1053  
 02566 70 0066 1054  
 02567 44 2223 1055  
 02570 12 2576 1056  
 02571 44 2037 1057  
 02572 76 2302 1060

ENTB\*TPAS4  
 SLSUB\*TPAT2+2  
 JPALNZ\*TR053  
 ENTB\*TPAS7  
 ENTAU\*TPAT

SLSUB\*TPAT3+2  
 CMAL\*TPAT3+1  
 JPNOT\*TR052  
 ENTB\*TPAS5  
 ENTAU\*TPAT7  
 ENTAL\*TPABI+1  
 SLSUB\*TPAT4+4  
 CMAL\*TPAK7

JPEQ\*TR05+1  
 ENTAU\*TPAK7  
 RJP\*TFDIS  
 IJP\*TF05  
 ENTAU\*TPAT2  
 JP\*TR05  
 ENTAU\*TPAT  
 JP\*TR05

ENTAU\*TRAT3  
 JP\*TR05  
 ENTAU\*TPAT1  
 JP\*TR05

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*60  
 STRAL\*BUFF1  
 ENTALK\*66  
 STRAL\*BUFF2  
 ENTAL\*TF063+2  
 STRAL\*TFX  
 RJP\*TFSH2

SET B TO 2  
 SEL SUB 252525  
 ERROR JUMP  
 SET B TO MINUS 2  
 SET AU TO 77777

SEL SUB 525252  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 4  
 SET AU TO 070707  
 SET AL TO 777776  
 SEL SUB 770000  
 IS AL CORRECT

YES EXIT  
 CORRECT TO AU  
 ERROR DISPLAY  
 EXIT  
 CORRECT TO AU  
 DISPLAY  
 CORRECT TO AU  
 DISPLAY

CORRECT TO AU  
 DISPLAY  
 CORRECT TO AU  
 DISPLAY

COMPARE MASK 06  
 SET TIMEOUT BUFFER  
 TO CODES FOR 06

SET UP  
 ERROR DISPLAY  
 SET UP SHIFT

TR05

TR050

TR051

TR052

TR053

TF06

TF06

02573 10 2144 1061  
 02574 70 0001 1062  
 02575 44 2307 1063  
 02576 06 2307 1064  
 02577 61 2603 1065  
 02600 10 2307 1066

TF063

ENTAU\*TPAT  
 ENTALK\*1  
 STRAL\*TSCOT  
 CMSK\*TSCOT  
 JPEQ\*LOK\*4  
 ENTAU\*TSCOT

MASK TO AU  
 SET AL TO 000001  
 SAVE AL  
 TEST FUNC  
 CHECK OK  
 CORRECT TO AU

02601 76 1742 1067  
 02602 55 2563 1070  
 02603 50 4601 1071  
 02604 06 2307 1072  
 02605 67 2600 1073  
 02606 57 2306 1074  
 02607 34 2575 1075  
 02610 76 2302 1076

RJP\*TFDIS  
 IJP\*TF06  
 LSHAL\*1  
 CMSK\*TSCOT  
 JPMGR\*TF063  
 ISK\*TSH  
 JP\*TF063-3  
 RJP\*TF5H2

ERROR DISPLAY  
 ERROR EXIT  
 SHIFT PATTERN  
 IS AL NOT EQUAL  
 ERROR JUMP  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 SET UP SHIFT

02611 70 7776 1077  
 02612 44 2307 1100  
 02613 06 2307 1101  
 02614 63 2600 1102  
 02615 50 4601 1103  
 02616 06 2307 1104  
 02617 67 2621 1105  
 02620 34 2600 1106

TF065

ENTALK\*7776  
 STRAL\*TSCOT  
 CMSK\*TSCOT  
 JPNOT\*TF063  
 LSHAL\*1  
 CMSK\*TSCOT  
 JPMGR\*LOK\*2  
 JP\*TF063

SET AL TO 777776  
 SAVE AL  
 TEST FUNC  
 ERROR JUMP  
 SHIFT PATTERN  
 IS AL UNEQUAL  
 YES CONTINUE  
 ERROR JUMP

02621 57 2306 1107  
 02622 34 2612 1110  
 02623 55 2563 1111

TF07

ISK\*TSH  
 JP\*TF065  
 IJP\*TF06

ALL PATTERNS CHECKED  
 NO CONTINUE  
 EXIT

02624 00 0000 1116

TF07

PRDG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*

COMPARE MASK Y+B 07

02625 70 0060 1117  
 02626 44 2222 1120  
 02627 70 0067 1121  
 02630 44 2223 1122  
 02631 12 2641 1123  
 02632 44 2037 1124

ENTALK\*60  
 STRAL\*BUFF1  
 ENTALK\*67  
 STRAL\*BUFF2  
 ENTAL\*TF072-2  
 STRAL\*TFX

SET TYPEOUT BUFFER  
 TO CODES FOR 07

SET UP  
 ERROR DISPLAY

SHEET 456  
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02633 44 2666 1125  
 02634 76 2302 1126  
 02635 36 0000 1127  
 02636 10 2144 1130  
 02637 70 0001 1131  
 02640 44 2307 1132  
 02641 07 2307 1133  
 02642 61 2651 1134

02643 10 2307 1135  
 02644 76 1742 1136  
 02645 12 2666 1137  
 02646 44 2641 1140  
 02647 44 2652 1141  
 02650 55 2624 1142  
 02651 50 4601 1143  
 02652 07 2307 1144

02653 67 2643 1145  
 02654 56 2306 1146  
 02655 34 2657 1147  
 02656 34 2645 1150  
 02657 44 2307 1151  
 02660 12 2641 1152  
 02661 71 7776 1153  
 02662 44 2641 1154

02663 44 2652 1155  
 02664 12 2307 1156  
 02665 34 2641 1157  
 02666 00 0000 1160  
 1161  
 1162  
 1163  
 1164

02667 00 0000 1165  
 02670 70 0061 1166  
 02671 44 2222 1167  
 02672 70 0060 1170

TF072

TF074

STRAL\*TELM  
 RJP\*TF5H2  
 ENTBK\*0  
 ENTAU\*TPAT  
 ENTALK\*1  
 STRAL\*TSCOT  
 CMSKB\*TSCOT  
 JREQ\*TF074-1

ENTAU\*TSCOT  
 RJP\*TFDIS  
 ENTAL\*TELM  
 STRAL\*TF072-2  
 STRAL\*TF074  
 IJP\*TF07  
 LSHAL\*1  
 CMSKB\*TSCOT

JPMGR\*TF072  
 BSK\*TSH  
 JP\*LOK+2  
 JP\*TF072+2  
 STRAL\*TSCOT  
 ENTAL\*TF072-2  
 ADDALK\*7776  
 STRAL\*TF072-2

STRAL\*TF074  
 ENTAL\*TSCOT  
 JP\*TF072-2

TELM  
 TF10

0\*  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AL  
 REMARK\*INCORRECT PATTERN IN AU

TF10

0\*  
 ENTALK\*61  
 STRAL\*BUFF1  
 ENTALK\*60

SAVE ORIG FUNC  
 SET UP SHIFT  
 CLR B  
 MASK TO AU  
 SET AL TO 000001  
 SAVE AL  
 IS AL CORRECT  
 YES CONTINUE

CORRECT TO AU  
 ERROR DISPLAY  
 SET AL TO ORIG  
 RESTORE FUNC  
 RESTORE FUNC  
 EXIT  
 SHIFT PATTERN  
 TEST FUNC

ERROR JUMP  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 YES EXIT  
 SAVE AL  
 FUNC TO AL  
 ADDRESS -1  
 RESET FUNC

RESET FUNC  
 RESTORE AL  
 CONTINUE CHECK

ENTER AU 10  
 SET TIMEOUT BUFFER  
 TO CODES FOR 10

02673	44	2223	1171
02674	12	2676	1172
02675	44	2037	1173
02676	10	2144	1174
02677	12	2145	1175
02700	06	2256	1176
02701	63	2736	1177
02702	10	2146	1200
02703	12	2147	1201
02704	06	2256	1202
02705	63	2736	1203
02706	10	2150	1204
02707	12	2151	1205
02710	06	2256	1206
02711	63	2736	1207
02712	10	2152	1210
02713	12	2153	1211
02714	06	2256	1212
02715	63	2736	1213
02716	10	2154	1214
02717	12	2155	1215
02720	06	2256	1216
02721	63	2736	1217
02722	10	2156	1220
02723	12	2157	1221
02724	06	2256	1222
02725	63	2736	1223
02726	10	2160	1224
02727	12	2161	1225
02730	06	2256	1226
02731	63	2736	1227
02732	10	2162	1230
02733	12	2163	1231
02734	06	2256	1232
02735	61	2737	1233
02736	76	1742	1234

TF100

STRAL\*BUFF2  
ENTAL\*LOK+2

STRAL\*TFX  
ENTAU\*TPAT  
ENTAL\*TPAT+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT1  
ENTAL\*TPAT1+1  
CMSK\*TC01

JPNOT\*TF100  
ENTAU\*TPAT2  
ENTAL\*TPAT2+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT3  
ENTAL\*TPAT3+1  
CMSK\*TC01

JPNOT\*TF100  
ENTAU\*TPAT4  
ENTAL\*TPAT4+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT5  
ENTAL\*TPAT5+1  
CMSK\*TC01

JPNOT\*TF100  
ENTAU\*TPAT6  
ENTAL\*TPAT6+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT7  
ENTAL\*TPAT7+1  
CMSK\*TC01

JPEQ\*TF100+1  
RJP\*TFDIS

SET UP

ERROR DISPLAY  
SET AU ALL ONES  
SET AL ALL ONES  
AU EQUAL AL  
ERROR JUMP  
CLR AU  
CLR AU  
AU EQUALS AL

ERROR JUMP  
SET AU 252525  
SET AL 252525  
AU EQUAL AL  
ERROR JUMP  
SET AU 525252  
SET AL 525252  
AU EQUAL AL

ERROR JUMP  
SET AU 770000  
SET AL 770000  
AU EQUAL AL  
ERROR JUMP  
SET AU 007777  
SET AL 007777  
AU EQUAL AL

ERROR JUMP  
SET AU 707070  
SET AL 707070  
AU EQUAL AL  
ERROR JUMP  
SET AU 070707  
SET AL 070707  
AU EQUAL AL

YES EXIT  
ERROR DISPLAY

02737	55	2667	1235		IJP*TF10	EXIT
			1236	TF11	PROG*CASEY*30APL64	
			1237		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			1240		REMARK*CORRECT PATTERN IN AL	
			1241		REMARK*INCORRECT PATTERN IN AU	
02740	00	0000	1242	TF11	0*	ENTER AU + B
02741	70	0061	1243		ENTALK*61	SET TIMEOUT BUFFER
02742	44	2222	1244		STRAL*BUFF1	TO CODES FOR 11
02743	70	0061	1245		ENTALK*61	
02744	44	2223	1246		STRAL*BUFF2	
02745	12	2750	1247		ENTAL*LOK+3	SET UP
02746	44	2037	1250		STRAL*TFX	ERROR DISPLAY
			1251		ENTB*TPAB1	PLUS ONE TO B
02750	11	2144	1252		ENTAUB*TPAT	SET AU TO ALL ONES
02751	12	2145	1253		ENTAL*TPAT+1	SET AL TO ALL ONES
02752	06	2256	1254		CMSK*TC01	AU EQUAL AL
02753	63	3012	1255		JPNOT*TF110	ERROR JUMP
02754	32	2167	1256		ENTB*TPAB1+1	MINUS ONE TO B
02755	11	2146	1257		ENTAUB*TPAT1	SET AU TO ALL ONES
02756	12	2144	1260		ENTAL*TPAT	SET AL TO ALL ONES
			1261		CMSK*TC01	AU EQUAL AL
02757	06	2256	1261		JPNOT*TF110	ERROR JUMP
02760	63	3012	1262		ENTB*TPAS4	PLUS TWO TO B
02761	32	2243	1263		ENTAUB*TPAT	SET AU TO ZEROS
02762	11	2144	1264		ENTAL*TPAT1+1	SET AL TO ZEROS
02763	12	2147	1265		CMSK*TC01	AU EQUAL AL
02764	06	2256	1266		JPNOT*TF110	ERROR JUMP
02765	63	3012	1267		ENTB*TPAT1	CLR B
02766	32	2146	1270			
			1271		ENTAUB*TPAT2	SET AU TO 252525
02767	11	2150	1271		ENTAL*TPAT2+1	SET AL TO 252525
02770	12	2151	1272		CMSK*TC01	AU EQUAL AL
02771	06	2256	1273		JPNOT*TF110	ERROR JUMP
02772	63	3012	1274		ENTB*TPAS5	PLUS 4 TO B
02773	32	2244	1275		ENTAUB*TPAT	SET AU TO 252525
02774	11	2144	1276		ENTAL*TPAT2+1	SET AL TO 252525
02775	12	2151	1277		CMSK*TC01	AU EQUAL AL
02776	06	2256	1300			

02777 63 3012 1301  
 03000 32 2245 1302  
 03001 11 2144 1303  
 03002 12 2152 1304  
 03003 06 2256 1305  
 03004 63 3012 1306

03005 32 2246 1307  
 03006 11 2162 1310  
 03007 12 2161 1311  
 03010 06 2256 1312  
 03011 61 3013 1313  
 03012 76 1742 1314  
 03013 55 2740 1315  
 1316

TF110

TF12

1317  
 1320  
 1321

TF12

03014 00 0000 1322  
 03015 70 0061 1323  
 03016 44 2222 1324  
 03017 70 0062 1325  
 03020 44 2223 1326

03021 10 3023 1327  
 03022 46 2037 1330  
 03023 12 2144 1331  
 03024 10 2145 1332  
 03025 02 2256 1333  
 03026 63 3063 1334  
 03027 12 2146 1335  
 03030 10 2147 1336

03031 02 2147 1337  
 03032 63 3063 1340  
 03033 12 2150 1341  
 03034 10 2151 1342  
 03035 02 2151 1343  
 03036 63 3063 1344  
 03037 12 2152 1345

JPNOT\*TF110  
 ENTB\*TPAS6  
 ENTAUB\*TPAT  
 ENTAL\*TPAT3  
 CMSK\*TC01  
 JPNOT\*TF110

ENTB\*TPAS7  
 ENTAUB\*TPAT7  
 ENTAL\*TPAT6+1  
 CMSK\*TC01  
 JPEQ\*TF110+1  
 RJP\*TFDIS  
 IJP\*TF11  
 PROG\*CASEY\*30APL64

REMARK\*ERROR DISPLAY: FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*61  
 STRAL\*BUFF1  
 ENTALK\*62  
 STRAL\*BUFF2

ENTAU\*LOK+2  
 STRAU\*TFX  
 ENTAL\*TPAT  
 ENTAU\*TPAT+1  
 CMAL\*TC01  
 JPNOT\*TF120  
 ENTAL\*TPAT1  
 ENTAU\*TPAT1+1

CMAL\*TPAT1+1  
 JPNOT\*TF120  
 ENTAL\*TPAT2  
 ENTAU\*TPAT2+1  
 CMAL\*TPAT2+1  
 JPNOT\*TF120  
 ENTAL\*TPAT3

ERROR JUMP  
 PLUS 7 TO B  
 SET AU TO 525252  
 SET AL TO 525252  
 AU EQUAL TO AL  
 ERROR JUMP

MINUS 2 TO B  
 SET AU TO 707070  
 SET AL TO 707070  
 AU EQUAL AL  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

ENTER AL  
 SET TIMEOUT BUFFER  
 TO CODES FOR 12

SET UP  
 ERROR DISPLAY  
 SET AL TO ALL ONES  
 SET AU TO ALL ONES  
 IS AL CORRECT  
 ERROR JUMP  
 CLR AL  
 CLR AU

IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 252525  
 SET AU TO 252525  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 525252

03040 10 2153 1346  
 03041 02 2153 1347  
 03042 63 3063 1350  
 03043 12 2154 1351  
 03044 10 2155 1352  
 03045 02 2155 1353  
 03046 63 3063 1354

03047 12 2156 1355  
 03050 10 2157 1356  
 03051 02 2157 1357  
 03052 63 3063 1360  
 03053 12 2160 1361  
 03054 10 2161 1362  
 03055 02 2161 1363  
 03056 63 3063 1364

03057 12 2162 1365  
 03060 10 2163 1366  
 03061 02 2163 1367  
 03062 61 3064 1370  
 03063 76 1742 1371  
 03064 55 3014 1372  
 1373  
 1374

03065 00 0000 1375  
 03066 70 0061 1400  
 03067 44 2222 1401  
 03070 70 0063 1402  
 03071 44 2223 1403  
 03072 10 3075 1404

03073 46 2037 1405  
 03074 32 2166 1406  
 03075 13 2144 1407  
 03076 10 2144 1410  
 03077 02 2144 1411

TF120  
 TF13

TF13

ENTAU\*TPAT3+1  
 CMAL\*TPAT3+1  
 JPNOT\*TF120  
 ENTAL\*TPAT4  
 ENTAU\*TPAT4+1  
 CMAL\*TPAT4+1  
 JPNOT\*TF120

ENTAL\*TPAT5  
 ENTAU\*TPAT5+1  
 CMAL\*TPAT5+1  
 JPNOT\*TF120  
 ENTAL\*TPAT6  
 ENTAU\*TPAT6+1  
 CMAL\*TPAT6+1  
 JPNOT\*TF120

ENTAL\*TPAT7  
 ENTAU\*TPAT7+1  
 CMAL\*TPAT7+1  
 JPEQ\*TF120+1  
 RJP\*TFD15  
 IJP\*TF12

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*61  
 STRAL\*BUFF1  
 ENTALK\*63  
 STRAL\*BUFF2  
 ENTAU\*LOK+3

STRAU\*TFX  
 ENTB\*TPAB1  
 ENTALB\*TRAT  
 ENTAU\*TPAT  
 CMAL\*TPAT

SET AU TO 525252  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 770000  
 SET AU TO 770000  
 IS AL CORRECT  
 ERROR JUMP

SET AL TO 007777  
 SET AU TO 007777  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 707070  
 SET AU TO 707070  
 IS AL CORRECT  
 ERROR JUMP

SET AL TO 070707  
 SET AU TO 070707  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

ENTER AL + B 13  
 SET TIMEOUT BUFFER  
 TO CODES FOR 13

SET UP

ERROR DISPLAY  
 PLUS ONE TO B  
 SET AL TO ALL ONES  
 SET AU TO ALL ONES  
 IS AL CORRECT

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03100	63	3136	1412
03101	32	2167	1413
03102	13	2146	1414
03103	10	2144	1415
03104	02	2144	1416
03105	63	3136	1417
03106	32	2243	1420
03107	13	2144	1421
03110	10	2147	1422
03111	63	3136	1423
03112	32	2146	1424
03113	13	2150	1425
03114	10	2151	1426
03115	02	2151	1427
03116	63	3136	1430
03117	32	2244	1431
03120	13	2144	1432
03121	10	2151	1433
03122	02	2151	1434
03123	63	3136	1435
03124	32	2245	1436
03125	13	2144	1437
03126	10	2152	1440
03127	02	2152	1441
03130	63	3136	1442
03131	32	2246	1443
03132	13	2162	1444
03133	10	2160	1445
03134	02	2160	1446
03135	61	3137	1447
03136	76	1742	1450
03137	55	3065	1451
			1452

TF130  
TF14

JPNOT\*TF130  
ENTB\*TPAB1+1  
ENTALB\*TPAT1  
ENTAU\*TPAT  
CMAL\*TPAT  
JPNOT\*TF130  
ENTB\*TPAS4  
ENTALB\*TPAT  
ENTAU\*TPAT1+1

JPALNZ\*TF130  
ENTB\*TPAT1  
ENTALB\*TPAT2  
ENTAU\*TPAT2+1  
CMAL\*TPAT2+1  
JPNOT\*TF130  
ENTB\*TPAS5  
ENTALB\*TPAT

ENTAU\*TPAT2+1  
CMAL\*TPAT2+1  
JPNOT\*TF130  
ENTB\*TPAS6  
ENTALB\*TPAT  
ENTAU\*TPAT3  
CMAL\*TPAT3  
JPNOT\*TF130

ENTB\*TPAS7  
ENTALB\*TPAT7  
ENTAU\*TPAT6  
CMAL\*TPAT6  
JPEQ\*TF130+1  
RJP\*TFDIS  
IJP\*TF13  
PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
REMARK\*CORRECT PATTERN IN AU  
REMARK\*INCORRECT PATTERN IN AL

ERROR JUMP  
MINUS ONE TO B  
SET AL TO ALL ONES  
SET AU TO ALL ONES  
IS AL CORRECT  
ERROR JUMP  
PLUS TWO TO B  
CLR AL  
CLR AU

ERROR JUMP  
CLR B  
SET AL TO 252525  
SET AU TO 252525  
IS AL CORRECT  
ERROR JUMP  
PLUS 4 TO B  
SET AL TO 252525

SET AU TO 252525  
IS AL CORRECT  
ERROR JUMP  
PLUS 7 TO B  
SET AL TO 525252  
SET AU TO 525252  
IS AL CORRECT  
ERROR JUMP

MINUS 2 TO B  
SET AL TO 707070  
SET AU TO 707070  
IS AL CORRECT  
YES EXIT  
ERROR DISPLAY  
EXIT

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03200	02	2243	1522		CMAL*TPAS4	IS AL CORRECT
03201	61	3204	1523		JPEQ*LOK+3	CHECK OK
03202	76	1742	1524	TF152	RJP*TFDIS	ERROR DISPLAY
03203	55	3165	1525		IJP*TF15	ERROR EXIT
03204	36	0002	1526		ENTBK*2	SET B TO 2
03205	15	2241	1527		ADDALB*TPAS4-2	TEST FUNC
03206	10	2244	1530		ENTAU*TPAS5	CORRECT TO AU
03207	02	2244	1531		CMAL*TPAS5	IS AL CORRECT
03210	63	3202	1532		JPNOT*TF152	ERROR JUMP
03211	36	0003	1533		ENTBK*3	SET B TO 3
03212	15	2241	1534		ADDALB*TPAS5-3	TEST FUNC
03213	10	2237	1535		ENTAU*TPAS	CORRECT TO AU
03214	02	2237	1536		CMAL*TPAS	IS AL CORRECT
03215	63	3202	1537		JPNOT*TF152	ERROR JUMP
03216	55	3165	1540		IJP*TF15	EXIT
			1541	TF16	PROG*SCOTT*30APL64	
			1542		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			1543		REMARK*CORRECT PATTERN IN AU	
			1544		REMARK*INCORRECT PATTERN IN AL	
03217	00	0000	1545	TF16	0*	SUBT AL MINUS Y 16
03220	70	0061	1546		ENTALK*61	SET TYPEOUT BUFFER
03221	44	2222	1547		STRAL*BUFF1	TO CODES FOR 16
03222	70	0066	1550		ENTALK*66	
03223	44	2223	1551		STRAL*BUFF2	
03224	12	3230	1552		ENTAL*LOK+4	SET UP
03225	44	2037	1553		STRAL*TFX	ERROR DISPLAY
03226	70	0001	1554		ENTALK*1	SET AL TO 000001
03227	10	2146	1555		ENTAU*TPAT1	CLR AU
03230	16	2166	1556		SUBAL*TPAB1	TEST FUNC
03231	61	3234	1557		JPALZ*LOK+3	CHECK OK
03232	76	1742	1560	TF162	RJP*TFDIS	ERROR DISPLAY
03233	55	3217	1561		IJP*TF16	ERROR EXIT
03234	16	2166	1562		SUBAL*TPAB1	TEST FUNC
03235	10	2254	1563		ENTAU*TCO	CORRECT TO AU
03236	02	2254	1564		CMAL*TCO	IS AL CORRECT
03237	63	3232	1565		JPNOT*TF162	ERROR JUMP
03240	12	2263	1566		ENTAL*TCO4+1	SET AL TO 200000

03241 16 2257 1567  
 03242 10 2166 1570  
 03243 02 2166 1571  
 03244 63 3232 1572  
 03245 12 2263 1573  
 03246 16 2175 1574

03247 10 2270 1575  
 03250 02 2270 1576  
 03251 63 3232 1577  
 03252 55 3217 1600

1601  
 1602  
 1603  
 1604

TF17

03253 00 0800 1605  
 03254 70 0061 1606  
 03255 44 2222 1607  
 03256 70 0067 1610  
 03257 44 2223 1611  
 03260 12 3265 1612  
 03261 44 2037 1613  
 03262 10 2146 1614

TF17

03263 70 0001 1615  
 03264 36 0011 1616  
 03265 17 2155 1617  
 03266 61 3271 1620  
 03267 76 1742 1621  
 03270 55 3253 1622  
 03271 12 2263 1623  
 03272 36 0002 1624

TF172

03273 17 2162 1625  
 03274 10 2254 1626  
 03275 02 2254 1627  
 03276 63 3267 1630  
 03277 55 3253 1631  
 1632

TF20

SUBAL\*TC01+1  
 ENTAU\*TPAB1  
 CMAL\*TPAB1  
 JPNOT\*TF162  
 ENTAU\*TC04+1  
 SUBAL\*TPAB4+1

ENTAU\*TCUT4  
 CMAL\*TCUT4  
 JPNOT\*TF162  
 IJP\*TF16

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT, CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

TEST FUNC  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 20000  
 TEST FUNC

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 EXIT

0\*  
 ENTALK\*61  
 STRAL\*BUFF1  
 ENTALK\*67  
 STRAL\*BUFF2  
 ENTAU\*TF172+2  
 STRAL\*TFX  
 ENTAU\*TPAT1

SUBT Y+B FROM AL 17  
 SET TYPEOUT BUFFER  
 TO CODES FOR 17

SET UP  
 ERROR DISPLAY  
 CLR AU

ENTALK\*1  
 ENTBK\*11  
 SUBALB\*TPAB1-11  
 JPALZ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF17  
 ENTAU\*TC04+1  
 ENTBK\*2

SET AL TO 000001  
 SET B TO 11  
 TEST FUNC  
 CHECK OK  
 ERROR DISPLAY  
 ERROR EXIT  
 SET AL TO 200000  
 SET B TO 2

SUBALB\*TPAB+2  
 ENTAU\*TC0  
 CMAL\*TC0  
 JPNOT\*TF172  
 IJP\*TF17  
 PROG\*SCOTT\*30APL64

TEST FUNC  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 EXIT

			1633		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
			1634		REMARK*THE SUM OF ADD A IS CONTAINED IN
			1635		REMARK*THE ENTIRE AU AND AL REGISTERS
03300	00	0000	1636	TF20	0*
03301	70	0062	1637		ADD A TO Y AND Y+1 20
03302	44	2222	1640		SET TIMEOUT BUFFER
03303	70	0060	1641		TO CODES FOR 20.
03304	44	2223	1642		
03305	12	3311	1643		SET UP
03306	44	2037	1644		ERROR DISPLAY
03307	10	2255	1645		SET AU TO 777777
03310	12	2255	1646		SET AL TO 777777
03311	20	2146	1647		A+000000000000
03312	62	3314	1650		ERROR JUMP
03313	61	3316	1651		CHECK OK
03314	76	1742	1652	TF202	ERROR DISPLAY
03315	55	3300	1653		ERROR EXIT
03316	10	2263	1654		SET AU TO 200000
03317	20	2254	1655		A+777777777776
03320	02	2255	1656		IS AL CORRECT
03321	63	3314	1657		ERROR JUMP
03322	50	4722	1660		EXCHANGE REGS
03323	02	2257	1661		IS AU CORRECT
03324	61	3327	1662		CHECK OK
03325	50	4722	1663	TF204	EXCHANGE REGS
03326	34	3314	1664		ERROR JUMP
03327	50	4722	1665		EXCHANGE REGS
03330	20	2256	1666		A+177777777777
03331	02	2255	1667		IS AL CORRECT
03332	63	3314	1670		ERROR JUMP
03333	50	4722	1671		EXCHANGE REGS
03334	02	2261	1672		IS AU CORRECT
03335	63	3325	1673		ERROR JUMP
03336	55	3300	1674		EXIT
			1675	TF21	PROG*SCOTT*30APL64
			1676		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.

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1677  
1700

03337 00 0000 1701  
03340 70 0062 1702  
03341 44 2222 1703  
03342 70 0061 1704  
03343 44 2223 1705  
03344 12 3351 1706  
03345 44 2037 1707  
03346 10 2255 1710

03347 12 2255 1711  
03350 36 0011 1712  
03351 21 2135 1713  
03352 62 3354 1714  
03353 61 3356 1715  
03354 76 1742 1716  
03355 55 3337 1717  
03356 10 2263 1720

03357 36 0004 1721  
03360 21 2252 1722  
03361 50 5100 1723  
03362 20 2254 1724  
03363 02 2255 1725  
03364 63 3354 1726  
03365 50 4722 1727  
03366 02 2261 1730

03367 61 3355 1731  
03370 50 4722 1732  
03371 34 3354 1733  
1734  
1735  
1736  
1737  
03372 00 0000 1740  
03373 70 0062 1741  
03374 44 2222 1742

TF21

TF213

TF22

TF22

REMARK\*THE SUM OF THE ADD A IS CONTAINED  
REMARK\*IN THE ENTIRE AU AND AL REGISTERS

0\*  
ENTALK\*62  
STRAL\*BUFF1  
ENTALK\*61  
STRAL\*BUFF2  
ENTAL\*LOK\*5  
STRAL\*TFX  
ENTAU\*TC0\*1

ENTAL\*TC0\*1  
ENTBK\*11  
ADDAB\*TPAT1\*11  
JPAUNZ\*TF213  
JPALZ\*LOK\*3  
RJP\*TFDIS  
IJP\*TF21  
ENTAU\*TC04\*1

ENTBK\*4  
ADDAB\*TC01\*4  
SKPNB0\*0  
ADDA\*TC0  
CMAL\*TC0\*1  
JPNOT\*TF213  
LSHA\*22  
CMAL\*TC03

JPEQ\*TF213\*1  
LSHA\*22  
JP\*TF213

PROG\*SCOTT\*30APL64  
REMARK\*ERROR DISPLAY, FUNCT, CODE IN C REG.  
REMARK\*THE REMAINDER OF THE SUBTRACT  
REMARK\*IS CONTAINED IN AU AND AL

0\*  
ENTALK\*62  
STRAL\*BUFF1

ADD A WITH Y+B AND Y+1+B 21  
SET TYPEOUT BUFFER  
TO CODES FOR 21

SET UP  
ERROR DISPLAY  
SET AU TO 777777

SET AL TO 777777  
SET B TO 11  
A+000000000000  
ERROR JUMP  
IS AL CORRECT  
ERROR DISPLAY  
ERROR EXIT  
SET AU TO 200000

SET B TO 4  
A+177777777777  
IS BORROW GENERATED  
CORRECT SUM  
IS AL CORRECT  
ERROR JUMP  
EXCHANGE REG  
IS AU CORRECT

YES EXIT  
EXCHANGE REGS  
ERROR JUMP

SUBT Y AND Y+1 FROM A 22

SET TYPEOUT BUFFER  
TO CODES FOR 22

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03375 70 0062 1743  
 03376 44 2223 1744  
 03377 12 3403 1745  
 03400 44 2037 1746

03401 12 2144 1747  
 03402 10 2257 1750  
 03403 22 2256 1751  
 03404 63 3406 1752  
 03405 60 3410 1753  
 03406 76 1742 1754  
 03407 55 3372 1755  
 03410 12 2144 1756

03411 10 2263 1757  
 03412 22 2256 1760  
 03413 50 4722 1761  
 03414 02 2166 1762  
 03415 63 3427 1763  
 03416 62 3427 1764  
 03417 12 2144 1765  
 03420 10 2257 1766

03421 22 2262 1767  
 03422 02 2144 1770  
 03423 63 3406 1771  
 03424 50 4722 1772  
 03425 02 2144 1773  
 03426 61 3407 1774  
 03427 50 4722 1775  
 03430 34 3406 1776

1777  
 2000  
 2801  
 2002

03431 00 0000 2003  
 03432 70 0062 2004  
 03433 44 2222 2005  
 03434 70 0063 2006

ENTALK\*62  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX

ENTAL\*TPAT  
 ENTAU\*TC01+1  
 SUBA\*TC01  
 JPALNZ\*TF222  
 JPAUZ\*LOK+3  
 RJP\*TF015  
 IJP\*TF22  
 ENTAL\*TPAT

ENTAU\*TC04+1  
 SUBA\*TC01  
 LSHA\*22  
 CMAL\*TPAB1  
 JPNOT\*TF224  
 JPAUNZ\*TF224  
 ENTAL\*TPAT  
 ENTAU\*TC01+1

SUBA\*TC04  
 CMAL\*TPAT  
 JPNOT\*TF222  
 LSHA\*22  
 CMAL\*TPAT  
 JPEQ\*TF222+1  
 LSHA\*22  
 JP\*TF222

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*THE REMAINDER OF THE SUBTRACT  
 REMARK\*IS CONTAINED IN AU AND AL  
 0\*  
 ENTALK\*62  
 STRAL\*BUFF1  
 ENTALK\*63

SET UP  
 ERROR DISPLAY

SET AL TO 777777  
 SET AU TO 177777  
 TEST FUNC  
 ERROR JUMP  
 CONTINUE  
 ERROR DISPLAY  
 ERROR EXIT  
 SET AL TO 777777

SET AU TO 200000  
 TEST FUNC  
 EXCHANGE REGS  
 IS AU CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 SET AL TO 777777  
 SET AU TO 177777

TEST FUNC  
 IS AL CORRECT  
 ERROR JUMP  
 EXCHANGE REGS  
 IS AU CORRECT  
 YES EXIT  
 EXCHANGE REGS  
 ERROR JUMP

SUBT Y+B AND Y+1+B FROM A 23  
 SET TIMEOUT BUFFER  
 TO CODES FOR 23

TF222

TF224

TF23

TF23

03435	44	2223	2007
03436	12	3443	2010
03437	44	2037	2011
03440	12	2144	2012
03441	10	2257	2013
03442	36	0011	2014
03443	23	2245	2015
03444	63	3446	2016
03445	60	3450	2017
03446	76	1742	2020
03447	55	3431	2021
03450	12	2146	2022
03451	10	2263	2023
03452	36	0032	2024
03453	23	2224	2025
03454	02	2166	2026
03455	63	3446	2027
03456	62	3446	2030
03457	50	5100	2031
03460	34	3446	2032
03461	55	3431	2033
			2034
			2035
			2036
			2037
03462	00	0000	2040
03463	70	0062	2041
03464	44	2222	2042
03465	70	0064	2043
03466	44	2223	2044
03467	12	3472	2045
03470	44	2037	2046
03471	70	0000	2047
03472	24	2261	2050
03473	61	3476	2051
03474	76	1742	2052
03475	55	3462	2053

TF232

TF24

TF24

TF242

STRAL\*BUFF2  
 ENTAL\*LOK+5  
 STRAL\*TFX  
 ENTAL\*TPAT  
 ENTAU\*TC01+1  
 ENTBK\*11  
 SUBAB\*TC01-11  
 JPALNZ\*TF232  
 JPAUZ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF23  
 ENTAL\*TPAT1  
 ENTAU\*TC04+1  
 ENTBK\*32  
 SUBAB\*TC01-32  
 CMAL\*TPAB1  
 JPNOT\*TF232  
 JPAUNZ\*TF232  
 SKPNB0\*0  
 JP\*TF232  
 IJP\*TF23  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*THE PRODUCT OF THE MULTIPLY IS  
 REMARK\*CONTAINED IN AU AND AL  
 0\*  
 ENTALK\*62  
 STRAL\*BUFF1  
 ENTALK\*64  
 STRAL\*BUFF2  
 ENTAL\*LOK+3  
 STRAL\*TFX  
 ENTALK\*0  
 MULAL\*TC03  
 JPALZ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF24

SET UP  
 ERROR DISPLAY  
 SET AL TO 777777  
 SET AU TO I77777  
 SET B TO 11

TEST FUNC  
 ERROR JUMP  
 CONTINUE  
 ERROR DISPLAY  
 ERROR EXIT  
 CLR AL  
 SET AU TO 200000  
 SET B TO 32

TEST FUNC  
 IS AL CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 CHECK NO BORROW-  
 ERROR JUMP  
 EXIT

MULTIPLY AL BY Y 24  
 SET TYPEOUT BUFFER  
 TO CODES FOR 24

SET UP  
 ERROR DISPLAY  
 CLR AL  
 0 X 377777  
 IS AL CORRECT  
 ERROR DISPLAY  
 ERROR EXIT

SHEET 469  
 SB-10163

REVISION B

03476 70 0001 2054  
 03477 24 2261 2055  
 03500 02 2261 2056  
 03501 63 3474 2057  
 03502 62 3474 2060  
 03503 24 2261 2061  
 03504 02 2166 2062

03505 63 3474 2063  
 03506 50 4722 2064  
 03507 02 2257 2065  
 03510 61 3513 2066  
 03511 50 4722 2067  
 03512 34 3474 2070  
 03513 12 2152 2071  
 03514 24 2271 2072

03515 02 2272 2073  
 03516 63 3474 2074  
 03517 50 4722 2075  
 03520 02 2273 2076  
 03521 63 3511 2077  
 03522 55 3462 2100  
 2101  
 2102

03523 00 0000 2103  
 03524 70 0062 2104  
 03525 44 2222 2105  
 03526 70 0065 2106  
 03527 44 2223 2107  
 03530 12 3534 2110  
 2111  
 2112

03531 44 2037 2113  
 03532 70 3777 2114  
 03533 36 0011 2115  
 03534 25 2251 2116  
 03535 62 3537 2117

TF244

TF25

TF25

ENTALK\*1  
 MULAL\*TC03  
 CMAL\*TC03  
 JPNOT\*TF242  
 JPAUNZ\*TF242  
 MULAL\*TC03  
 CMAL\*TPAB1

JPNOT\*TF242  
 LSHA\*22  
 CMAL\*TC01+1  
 JPEQ\*LOK+3  
 LSHA\*22  
 JP\*TF242  
 ENTAL\*TPAT3  
 MULAL\*TCUT5

CMAL\*TCUT6  
 JPNOT\*TF242  
 LSHA\*22  
 CMAL\*TCUT7  
 JPNOT\*TF244  
 IJP\*TF24

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*THE PRODUCT OF THE MULTIPLY IS  
 REMARK\*CONTAINED IN AU AND AL

0\*  
 ENTALK\*62  
 STRAL\*BUFF1  
 ENTALK\*65  
 STRAL\*BUFF2  
 ENTAL\*LOK+4

STRAL\*TFX  
 ENTALK\*3777  
 ENTBK\*11  
 MULALB\*TC04-11  
 JPAUNZ\*TF252

SET AL TO 000001  
 1 X 377777  
 IS AL CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 377777 X 377777  
 IS AL CORRECT

ERROR JUMP  
 EXCHANGE REGS  
 IS AU CORRECT  
 YES CONTINUE  
 EXCHANGE REGS  
 ERROR JUMP  
 SET AL TO 525252  
 525252 X 343434

IS AL CORRECT  
 ERROR JUMP  
 EXCHANGE REGS  
 IS AU CORRECT  
 ERROR JUMP  
 EXIT

MULTIPLY AL BY Y+B 25  
 SET TYPEOUT BUFFER  
 TO CODES FOR 25

SET UP

ERROR DISPLAY  
 SET AL TO 003777  
 SET B TO 11  
 003777 X 0  
 ERROR JUMP



03536	61 3541	2120		JPALZ*LOK+3	IS AL CORRECT
03537	76 1742	2121	TF252	RJP*TFDIS	ERROR DISPLAY
03540	55 3523	2122		IJP*TF25	ERROR EXIT
03541	12 2177	2123		ENTAL*TPAB5+1	SET AL TO 677777
03542	36 0012	2124		ENTBK*12	SET B TO 12
03543	25 2165	2125		MULALB*TPAB5-11	677777 X 677777
03544	63 3537	2126		JPALNZ*TF252	ERROR JUMP
03545	50 4722	2127		LSHA*22	EXCHANGE REGS
03546	02 2260	2130		CMAL*TC02	IS AU CORRECT
03547	61 3552	2131		JPE0*LOK+3	YES CONTINUE
03550	50 4722	2132	TF254	LSHA*22	EXCHANGE REGS
03551	34 3537	2133		JP*TF252	ERROR JUMP
03552	12 2177	2134		ENTAL*TPAB5+1	SET AL TO 677777
03553	36 0002	2135		ENTBK*2	SET B TO 2
03554	25 2175	2136		MULALB*TPAB5-1	677777 X 677777
03555	63 3537	2137		JPALNZ*TF252	ERROR JUMP
03556	50 4722	2140		LSHA*22	EXCHANGE REGS
03557	02 2260	2141		CMAL*TC02	IS AL CORRECT
03560	63 3550	2142		JPN0T*TF254	ERROR JUMP
03561	55 3523	2143		IJP*TF25	EXIT
		2144	TF26	PROG*SCOTT*30APL64	
		2145		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
		2146		REMARK*DIVIDE REMAINDER IN AU	
		2147		REMARK*DIVIDE QUOTIENT IN AL	
03562	00 0000	2150	TF26	0*	DIVIDE A BY Y 26
03563	70 0062	2151		ENTALK*62	SET TYPEOUT BUFFER
03564	44 2222	2152		STRAL*BUFF1	TO CODES FOR 26
03565	70 0066	2153		ENTALK*66	
03566	44 2223	2154		STRAL*BUFF2	
03567	12 3573	2155		ENTAL*LOK+4	SET UP
03570	44 2037	2156		STRAL*TFX	ERROR DISPLAY
03571	10 2174	2157		ENTAU*TPAB4	SET AU TO 107777
03572	12 2144	2160		ENTAL*TPAT	SET AL TO 777777
03573	26 2165	2161		DIVA*TPAB+1	DIV A BY 300000
03574	02 2175	2162		CMAL*TPAB4+1	IS AL CORRECT
03575	63 3600	2163		JPN0T*TF263	ERROR JUMP

03576	34	3602	2164		JP*LOK+4	CONTINUE
03577	50	4722	2165		LSHA*22	EXCHANGE REGS
03600	76	1742	2166	TF263	RJP*TFDIS	ERROR DISPLAY
03601	55	3562	2167		IJP*TF26	ERROR EXIT
03602	50	4722	2170		LSHA*22	EXCHANGE REGS
03603	02	2175	2171		CMAL*TPAB4+1	IS AU CORRECT
03604	63	3577	2172		JPNOT*TF263+1	ERROR JUMP
03605	10	2146	2173		ENTAU*TPAT1	CLR AU
03606	26	2264	2174		DIVA*TCUT	DIV A BY 50000
03607	02	2254	2175		CMAL*TCO	IS AL CORRECT
03610	63	3600	2176		JPNOT*TF263	ERROR JUMP
03611	34	3612	2177		JP*LOK+1	
03612	62	3600	2200		JPAUNZ*TF263	ERROR JUMP
03613	12	2265	2201		ENTAL*TCUT1	SET AL TO 477777
03614	10	2146	2202		ENTAU*TPAT1	CLEAR AU
03615	26	2263	2203		DIVA*TCO4+1	DIV A BY 20000
03616	02	2243	2204		CMAL*TPAS4	IS AL CORRECT
03617	63	3600	2205		JPNOT*TF263	ERROR JUMP
03620	50	4722	2206		LSHA*22	EXCHANGE REGS
03621	02	2267	2207		CMAL*TCUT3	IS AU CORRECT
03622	63	3577	2210		JPNOT*TF263+1	ERROR JUMP
03623	10	2266	2211		ENTAU*TCUT2	SET AU TO 670000
03624	12	2146	2212		ENTAL*TPAT1	CLR AL
03625	26	2265	2213		DIVA*TCUT1	DIV A BY 477777
03626	02	2175	2214		CMAL*TPAB4+1	IS AL CORRECT
03627	63	3600	2215		JPNOT*TF263	ERROR JUMP
03630	50	4722	2216		LSHA*22	EXCHANGE REGS
03631	02	2264	2217		CMAL*TCUT	IS AU CORRECT
03632	63	3577	2220		JPNOT*TF263+1	ERROR JUMP
03633	55	3562	2221		IJP*TF26	
			2222	TF27	PROG*SCOTT*30APL64	
			2223		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			2224		REMARK*DIVIDE REMAINDER IN AU	
			2225		REMARK*DIVIDE QUOTIENT IN AL	
03634	00	0000	2226	TF27	0*	DIVIDE A BY Y+B 27
03635	70	0062	2227		ENTALK*62	SET TYPEOUT BUFFER

03636 44 2222 2230  
 03637 70 0067 2231  
 03640 44 2223 2232  
 03641 12 3646 2233  
 03642 44 2037 2234

STRAL\*BUFF1  
 ENTALK\*67  
 STRAL\*BUFF2  
 ENTAL\*LOK\*5  
 STRAL\*TFX

TO CODES FOR 27

SET UP  
 ERROR DISPLAY

03643 36 0001 2235  
 03644 10 2146 2236  
 03645 12 2175 2237  
 03646 27 2165 2240  
 03647 02 2175 2241  
 03650 63 3652 2242  
 03651 60 3654 2243  
 03652 76 1742 2244

ENTBK\*1  
 ENTAU\*TPAT1  
 ENTAL\*TPAB4\*1  
 DIVAB\*TPAB1\*1  
 CMAL\*TPAB4\*1  
 JPNOT\*TF272  
 JPAUZ\*LOK\*3  
 RJJP\*TFDIS

SET B TO 1  
 CLR AU  
 SET AL TO 277777  
 DIV A BY 1  
 IS AL CORRECT  
 ERROR JUMP  
 CONTINUE  
 ERROR DISPLAY

TF272

03653 55 3634 2245  
 03654 36 0002 2246  
 03655 27 2262 2247  
 03656 02 2254 2250  
 03657 63 3652 2251  
 03660 62 3652 2252  
 03661 55 3634 2253  
 2254

IJP\*TF27  
 ENTBK\*2  
 DIVAB\*TCUT-2  
 CMAL\*TCO  
 JPNOT\*TF272  
 JPAUNZ\*TF272  
 IJP\*TF27  
 PROG\*CASEY\*30APL64

ERROR EXIT  
 SET B TO 2  
 DIV A BY 50000  
 IS AL CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 EXIT

TF30

2255

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

2256

REMARK\*NO ERROR DISPLAY IN AU OR AL

03662 00 0000 2257  
 03663 70 0063 2260  
 03664 44 2222 2261  
 03665 70 0060 2262  
 03666 44 2223 2263  
 03667 12 3671 2264

TF30

0\*  
 ENTALK\*63  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2  
 ENTAL\*LOK\*2

INDIRECT RETURN JUMP  
 SET TIMEOUT BUFFER  
 TO CODES FOR 30

SET UP

03670 44 2037 2265  
 03671 30 3706 2266  
 03672 34 3676 2267  
 03673 30 3706 2270  
 03674 34 3676 2271  
 03675 30 3706 2272  
 03676 76 1742 2273  
 03677 55 3662 2274

STRAL\*TFX  
 IRJP\*TF301  
 JP\*TR30  
 IRJP\*TF301  
 JP\*TR30  
 IRJP\*TF301  
 RJJP\*TFDIS  
 IJP\*TF30

ERROR DISPLAY  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR DISPLAY  
 EXIT

TR30

03700	00	0000	2275	TF302	0*0	ENTRANCE SUB
03701	12	3700	2276		ENTAL*TF302	RETURN ADDRESS
03702	71	0001	2277		ADDALK*0001	PLUS 1
03703	44	3700	2300		STRAL*TF302	RESTORE
03704	12	2146	2301		ENTAL*TPAT1	CLR AL
03705	55	3700	2302		IJP*TF302	EXIT
03706	00	3700	2303	TF301	0*TF302	ADDRESS
			2304	TF31	PRG*CASEY*30APL64	
			2305		REMARK*ERROR DISPLAY, FUNCT, CODE IN C REG.	
			2306		REMARK*NO DISPLAY IN AU OR AL	
03707	00	0000	2307	TF31	0*	INDIRECT RJP + B
03710	70	0063	2310		ENTALK*63	SET TYPEOUT BUFFER
03711	44	2222	2311		STRAL*BUFF1	TO CODES FOR 31
03712	70	0061	2312		ENTALK*61	
03713	44	2223	2313		STRAL*BUFF2	
03714	36	0001	2314		ENTBK*1	SET B TO 1
03715	31	3717	2315		IRJPB*TF311+1	TEST JUMP
03716	34	3725	2316		JP*TF313	CONTINUE
03717	34	3746	2317		JP*TR31	ERROR JUMP
03720	00	3722	2320	TF311	0*TF312+1	ADDRESS
03721	34	3746	2321	TF312	JP*TR31	ERROR JUMP
03722	00	0000	2322		0*0	ENT
03723	55	3722	2323		IJP*TF312+1	EXIT SUB
03724	34	3746	2324		JP*TR31	ERROR JUMP
03725	36	0002	2325	TF313	ENTBK*0002	SET B TO 2
03726	31	3727	2326		IRJPB*TF314+2	TEST JUMP
03727	34	3737	2327		JP*TF316	CONTINUE
03730	34	3746	2330		JP*TR31	ERROR JUMP
03731	00	3734	2331	TF314	0*TF315+2	ADDRESS
03732	34	3746	2332	TF315	JP*TR31	ERROR JUMP
03733	34	3746	2333		JP*TR31	ERROR JUMP
03734	00	0000	2334		0*0	ENT
03735	55	3734	2335		IJP*TF315+2	EXIT SUB
03736	34	3746	2336		JP*TR31	ERROR JUMP
03737	32	2254	2337	TF316	ENTB*TC0	SET B TO MINUS ONE
03740	31	3744	2340		IRJPB*TF317+1	TEST JUMP

03741	55	3707	2341
03742	34	3746	2342
03743	00	3744	2343
03744	00	0000	2344
03745	55	3744	2345
03746	12	3711	2346
03747	44	2037	2347
03750	12	2146	2350
03751	76	1742	2351
03752	55	3707	2352
03753	00	0000	2355
03754	70	0063	2356
03755	44	2222	2357
03756	70	0062	2360
03757	44	2223	2361
03760	12	3762	2362
03761	44	2037	2363
03762	32	2144	2364
03763	42	2275	2365
03764	12	2275	2366
03765	10	2144	2367
03766	02	2145	2370
03767	63	4042	2371
03770	32	2146	2372
03771	42	2275	2373
03772	12	2275	2374
03773	10	2146	2375
03774	02	2147	2376
03775	63	4042	2377
03776	32	2150	2400
03777	42	2275	2401
04000	12	2275	2402
			2403
			2404

TF317

TF310  
TR31

TF32

TF32

IJP\*TF31  
JP\*TR31  
0\*TF310-1  
0\*0  
IJP\*LOK-1  
ENTAL\*TF31+2  
STRAL\*TFX  
ENTAL\*TPAT1

RJP\*TFDIS  
IJP\*TF31  
PROG\*CASEY\*30APL64  
REMARK\*ERROR DISPLAY: FUNCT. CODE IN C REG.  
REMARK\*CORRECT PATTERN IN AU  
REMARK\*INCORRECT PATTERN IN AL

0\*  
ENTALK\*63  
STRAL\*BUFF1  
ENTALK\*62  
STRAL\*BUFF2  
ENTAL\*LOK+2  
STRAL\*TFX  
ENTB\*TPAT  
STRB\*SAVEB  
ENTAL\*SAVEB

ENTAU\*TPAT  
CMAL\*TPAT+1  
JPNOT\*TF320  
ENTB\*TPAT1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT1  
CMAL\*TPAT1+1

JPNOT\*TF320  
ENTB\*TPAT2  
STRB\*SAVEB  
ENTAL\*SAVEB

EXIT  
ERROR JUMP  
ADDRESS  
ENT  
EXIT SUB  
SET UP  
ERROR DISPLAY  
CLR AL

ERROR DISPLAY  
EXIT

ENT B 32  
SET TIMEOUT BUFFER

TO CODES FOR 32

SET UP  
ERROR DISPLAY  
SET B TO ALL ONES  
SET AL EQUAL B

CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
CLR B  
SET AL EQUAL B

CORRECT TO AU  
IS AL CORRECT

ERROR JUMP  
SET B TO 252525  
SET AL EQUAL B

SHEET 475 REVISION B  
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04001	10	2150	2405
04002	02	2151	2406
04003	63	4042	2407
04004	32	2152	2410
04005	42	2275	2411
04006	12	2275	2412
04007	10	2152	2413
04010	02	2153	2414
04011	63	4042	2415
04012	32	2154	2416
04013	42	2275	2417
04014	12	2275	2420
04015	10	2154	2421
04016	02	2155	2422
04017	63	4042	2423
04020	32	2156	2424
04021	42	2275	2425
04022	12	2275	2426
04023	10	2156	2427
04024	02	2157	2430
04025	63	4042	2431
04026	32	2160	2432
04027	42	2275	2433
04030	12	2275	2434
04031	10	2160	2435
04032	02	2161	2436
04033	63	4042	2437
04034	32	2162	2440
04035	42	2275	2441
04036	12	2275	2442
04037	10	2162	2443
04040	02	2163	2444
04041	61	4043	2445
04042	76	1742	2446
04043	55	3753	2447
			2450

TF320  
TF33

ENTAU\*TPAT2  
CMAL\*TPAT2+1  
  
JPNOT\*TF320  
ENTB\*TPAT3  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT3  
CMAL\*TPAT3+1  
JPNOT\*TF320  
ENTB\*TPAT4  
  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT4  
CMAL\*TPAT4+1  
JPNOT\*TF320  
ENTB\*TPAT5  
STRB\*SAVEB  
ENTAL\*SAVEB  
  
ENTAU\*TPAT5  
CMAL\*TPAT5+1  
JPNOT\*TF320  
ENTB\*TPAT6  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT6  
CMAL\*TPAT6+1  
  
JPNOT\*TF320  
ENTB\*TPAT7  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT7  
CMAL\*TPAT7+1  
JPEQ\*TF320+1  
RJP\*TFDIS  
  
IJP\*TF32  
PROG\*CASEY\*30APL64

CORRECT TO AU  
IS AL CORRECT  
  
ERROR JUMP  
SET B TO 525252  
SET AL EQUAL B  
  
CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 770000  
  
SET AL EQUAL B  
  
CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 007777  
SET AL EQUAL B  
  
CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 707070  
SET AL EQUAL B  
  
CORRECT TO AU  
IS AL CORRECT  
  
ERROR JUMP  
SET B TO 070707  
SET AL EQUAL B  
  
CORRECT TO AU  
IS AL CORRECT  
YES EXIT  
ERROR DISPLAY  
  
EXIT

SHEET 476 REVISION B  
SB-10163

04044	00	0000	2451	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			2452	REMARK*CORRECT PATTERN IN AU	
			2453	REMARK*INCORRECT PATTERN IN AL	
			2454	0*	ENTER B +B 33
			TF33		
04045	70	0063	2455	ENTALK*63	SET TYPEOUT BUFFER
04046	44	2222	2456	STRAL*BUFF1	TO CODES FOR 33
04047	70	0063	2457	ENTALK*63	
04050	44	2223	2460	STRAL*BUFF2	
04051	12	4054	2461	ENTAL*LOK*3	SET UP
04052	44	2037	2462	STRAL*TFX	ERROR DISPLAY
04053	32	2166	2463	ENTB*TPAB1	PLUS ONE TO B
04054	33	2144	2464	ENTBB*TPAT	SET B TO ALL ONES
04055	42	2275	2465	STRB*SAVEB	SET AL EQUAL B
04056	12	2275	2466	ENTAL*SAVEB	
04057	10	2144	2467	ENTAU*TPAT	CORRECT TO AU
04060	02	2145	2470	CMAL*TPAT+1	IS AL CORRECT
04061	63	4134	2471	JPNOT*TF330	ERROR JUMP
04062	32	2243	2472	ENTB*TPAS4	PLUS 2 TO B
04063	33	2146	2473	ENTBB*TPAT1	SET B TO 252525
04064	42	2275	2474	STRB*SAVEB	SET AL EQUAL B
04065	12	2275	2475	ENTAL*SAVEB	
04066	10	2150	2476	ENTAU*TPAT2	CORRECT TO AU
04067	02	2150	2477	CMAL*TPAT2	IS AL CORRECT
04070	63	4134	2500	JPNOT*TF330	ERROR JUMP
04071	32	2167	2501	ENTB*TPAB1+1	MINUS ONE TO B
04072	33	2154	2502	ENTBB*TPAT4	SET B TO 525252
04073	42	2275	2503	STRB*SAVEB	SET AL EQUAL B
04074	12	2275	2504	ENTAL*SAVEB	
04075	10	2152	2505	ENTAU*TPAT3	CORRECT TO AU
04076	02	2152	2506	CMAL*TPAT3	IS AL CORRECT
04077	63	4134	2507	JPNOT*TF330	ERROR JUMP
04100	32	2244	2510	ENTB*TPAS5	PLUS 4 TO B
04101	33	2150	2511	ENTBB*TPAT2	SET B EQUAL 770000
04102	42	2275	2512	STRB*SAVEB	SET AL EQUAL B
04103	12	2275	2513	ENTAL*SAVEB	
04104	10	2154	2514	ENTAU*TPAT4	CORRECT TO AU

04105	02	2154	2515
04106	63	4134	2516
04107	32	2146	2517
04110	33	2156	2520
04111	42	2275	2521
04112	12	2275	2522
04113	10	2157	2523
04114	02	2157	2524
04115	63	4134	2525
04116	32	2246	2526
04117	33	2162	2527
04120	42	2275	2530
04121	12	2275	2531
04122	10	2160	2532
04123	02	2160	2533
04124	63	4134	2534
04125	32	2245	2535
04126	33	2153	2536
04127	42	2275	2537
04130	12	2275	2540
04131	10	2162	2541
04132	02	2162	2542
04133	61	4135	2543
04134	76	1742	2544
04135	55	4044	2545
04136	00	0000	2551
04137	70	0063	2552
04140	44	2222	2553
04141	70	0064	2554
04142	44	2223	2555
04143	34	4145	2556
04144	55	4165	2557
04145	34	4147	2560
04146	55	4165	2561

TF330  
TF34  
TF34

CMAL\*TPAT4  
JPNOT\*TF330  
ENTB\*TPAT1  
ENTBB\*TPAT5  
STRB\*SAVEB  
ENTAL\*SAVEB  
  
 ENTAU\*TPAT5+1  
CMAL\*TPAT5+1  
JPNOT\*TF330  
ENTB\*TPAT7  
ENTBB\*TPAT7  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT6  
  
 CMAL\*TPAT6  
JPNOT\*TF330  
ENTB\*TPAT6  
ENTBB\*TPAT3+1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT7  
CMAL\*TPAT7  
  
 JPEQ\*TF330+1  
RJP\*TFDIS  
IJP\*TF33  
PROG\*CASEY\*30APL64  
REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
REMARK\*NO DISPLAY AU OR AL  
0\*  
ENTALK\*63  
  
 STRAL\*BUFF1  
ENTALK\*64  
STRAL\*BUFF2  
JP\*LOK+2  
IJP\*TR34+5  
JP\*LOK+2  
IJP\*TR34+5

IS AL CORRECT  
ERROR JUMP  
CLR B  
SET B TO 007777  
SET AL EQUAL B  
  
 CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
MINUS 2 TO B  
SET B TO 707070  
SET AL EQUAL B  
  
 CORRECT TO AU  
  
 IS AL CORRECT  
ERROR JUMP  
PLUS 7 TO B  
SET B TO 070707  
SET AL EQUAL B  
  
 CORRECT TO AU  
IS AL CORRECT  
  
 YES EXIT  
ERROR DISPLAY  
EXIT  
  
 DIRECT JUMP 34  
SET TYPEOUT BUFFER  
  
 TO CODES FOR 34  
  
 TEST JUMP  
ERROR JUMP  
TEST JUMP  
ERROR JUMP

SHEET 478  
 SB-10163  
 REVISION B



04147 34 4151 2562  
 04150 55 4165 2563  
 04151 34 4153 2564  
 04152 55 4165 2565  
 04153 34 4155 2566  
 04154 55 4165 2567  
 04155 34 4164 2570

04156 55 4165 2571  
 04157 10 2146 2572  
 04160 12 4137 2573  
 04161 44 2037 2574  
 04162 12 2146 2575  
 04163 76 1742 2576  
 04164 55 4136 2577  
 04165 00 4157 2600

2601  
 2602  
 2603

04166 00 0000 2604  
 04167 70 0063 2605  
 04170 44 2222 2606  
 04171 70 0065 2607  
 04172 44 2223 2610

04173 12 4177 2611  
 04174 44 2037 2612  
 04175 12 2146 2613  
 04176 36 0003 2614  
 04177 35 4176 2615  
 04200 34 4211 2616  
 04201 37 0001 2617  
 04202 35 4200 2620

04203 34 4211 2621  
 04204 37 7775 2622  
 04205 35 4205 2623  
 04206 34 4211 2624  
 04207 37 0003 2625

JP\*LOK+2  
 IJP\*TR34+5  
 JP\*LOK+2  
 IJP\*TR34+5  
 JP\*LOK+2  
 IJP\*TR34+5  
 JP\*TR34+4

IJP\*TR34+5  
 ENTAU\*TPAT1  
 ENTAL\*TF34+1  
 STRAL\*TFX  
 ENTAL\*TPAT1  
 RJP\*TFDIS  
 IJP\*TF34  
 0\*TR34-1

TR34

TF35

TF35

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY AU OR AL  
 0\*  
 ENTALK\*63  
 STRAL\*BUFF1  
 ENTALK\*65  
 STRAL\*BUFF2

ENTAL\*LOK+4  
 STRAL\*TFX  
 ENTAL\*TPAT1  
 ENTBK\*0003  
 JPB\*LOK-1  
 JP\*TR35  
 ENTBK\*1  
 JPB\*LOK-2

JP\*TR35  
 ENTBK\*7775  
 JPB\*LOK  
 JP\*TR35  
 ENTBK\*3

TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP

ERROR JUMP  
 CLR AU  
 SET UP  
 ERROR DISPLAY  
 CLR AL  
 ERROR DISPLAY  
 EXIT  
 ADDRESS

JUMP PLUS B  
 SET TIMEOUT BUFFER  
 TO CODES FOR 35

SET UP  
 ERROR DISPLAY  
 CLR AL  
 SET B TO 3  
 TEST JUMP +3  
 ERROR JUMP  
 B + 1  
 TEST JUMP + 4

ERROR JUMP  
 B - 2  
 TEST JUMP + 2  
 ERROR JUMP  
 B + 3

04210	35	4205	2626	JPB*LOK-3	TEST JUMP + 5
04211	76	1742	2627	TR35 RJP*TFDIS	ERROR DISPLAY
04212	55	4166	2630	IJP*TF35	EXIT
			2631	TF36 PROG*CASEY*30APL64	
			2632	REMARK*ERROR DISPLAY: FUNCT. CODE IN C REG.	
			2633	REMARK*CORRECT PATTERN IN AU	
			2634	REMARK*INCORRECT PATTERN IN AL	
04213	00	0000	2635	TF36 0*	ENTER B WITH CONSTANT
04214	70	0063	2636	ENTALK*63	SET TIMEOUT BUFFER
04215	44	2222	2637	STRAL*BUFF1	TO CODES FOR 36
04216	70	0066	2640	ENTALK*66	
04217	44	2223	2641	STRAL*BUFF2	
04220	12	4222	2642	ENTAL*LOK*2	SET UP
04221	44	2037	2643	STRAL*TFX	ERROR DISPLAY
04222	36	0000	2644	ENTBK*0	CLR B
04223	42	2275	2645	STRB*SAVEB	SET AL EQUAL B
04224	12	2275	2646	ENTAL*SAVEB	
04225	10	2146	2647	ENTAU*TPAT1	CORRECT TO AU
04226	63	4301	2650	JPALNZ*TF360	ERROR JUMP
04227	36	7777	2651	ENTBK*7777	SET B TO 777777
04230	42	2275	2652	STRB*SAVEB	SET AL EQUAL B
04231	12	2275	2653	ENTAL*SAVEB	
04232	10	2144	2654	ENTAU*TPAT	CORRECT TO AU
04233	02	2144	2655	CMAL*TPAT	IS AL CORRECT
04234	63	4301	2656	JPNOT*TF360	ERROR JUMP
04235	36	0001	2657	ENTBK*0001	SET B TO 000001
04236	42	2275	2660	STRB*SAVEB	SET AL EQUAL B
04237	12	2275	2661	ENTAL*SAVEB	
04240	10	2166	2662	ENTAU*TPAB1	CORRECT TO AU
04241	02	2166	2663	CMAL*TPAB1	IS AL CORRECT
04242	63	4301	2664	JPNOT*TF360	ERROR JUMP
04243	36	0505	2665	ENTBK*0505	SET B TO 000505
04244	42	2275	2666	STRB*SAVEB	SET AL EQUAL B
04245	12	2275	2667	ENTAL*SAVEB	
04246	10	2171	2670	ENTAU*TPAB2+1	CORRECT TO AU
04247	02	2171	2671	CMAL*TPAB2+1	IS AL CORRECT

04250	63	4301	2672
04251	36	7070	2673
04252	42	2275	2674
04253	12	2275	2675
04254	10	2235	2676
04255	02	2235	2677
04256	63	4301	2700
04257	36	2525	2701
04260	42	2275	2702
04261	12	2275	2703
04262	10	2234	2704
04263	02	2234	2705
04264	63	4301	2706
04265	36	2020	2707
04266	42	2275	2710
04267	12	2275	2711
04270	10	2226	2712
04271	02	2226	2713
04272	63	4301	2714
04273	36	5252	2715
04274	42	2275	2716
04275	12	2275	2717
04276	10	2233	2720
04277	02	2233	2721
04300	61	4302	2722
04301	76	1742	2723
04302	55	4213	2724
			2725
			2726
			2727
			2730
04303	00	0000	2731
04304	70	0063	2732
04305	44	2222	2733
04306	70	0067	2734
04307	44	2223	2735

TF360

TF37

TF37

JPNOT\*TF360  
 ENTBK\*7070  
 STRB\*SAVEB

ENTAL\*SAVEB  
 ENTAU\*TPAK7  
 CMAL\*TPAK7  
 JPNOT\*TF360  
 ENTBK\*2525  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAK6

CMAL\*TPAK6  
 JPNOT\*TF360  
 ENTBK\*2020  
 STRB\*SAVEB  
 ENTAU\*TPAK  
 CMAL\*TPAK  
 JPNOT\*TF360

ENTBK\*5252  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAK5  
 CMAL\*TPAK5  
 JREQ\*TF360+1  
 RJP\*TFDIS  
 IJP\*TF36

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*63  
 STRAL\*BUFF1  
 ENTALK\*67

STRAL\*BUFF2

ERROR JUMP  
 SET B TO 777070  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 002525  
 SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
 ERROR JUMP  
 SET B TO 002020  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

SET B TO 775252  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

ENTER B WITH CONSTANT + B  
 SET TYPEOUT BUFFER  
 TO CODES FOR 37

04310 12 4313 2736  
 04311 44 2037 2737  
 04312 36 0017 2740  
 04313 37 0000 2741  
 04314 42 2275 2742

04315 12 2275 2743  
 04316 10 2240 2744  
 04317 02 2240 2745  
 04320 63 4373 2746  
 04321 36 0014 2747  
 04322 37 0001 2750  
 04323 42 2275 2751  
 04324 12 2275 2752

04325 10 2241 2753  
 04326 02 2241 2754  
 04327 63 4373 2755  
 04330 36 0013 2756  
 04331 37 7776 2757  
 04332 42 2275 2760  
 04333 12 2275 2761  
 04334 10 2242 2762

04335 02 2242 2763  
 04336 63 4373 2764  
 04337 36 0000 2765  
 04340 37 0002 2766  
 04341 42 2275 2767  
 04342 12 2275 2770  
 04343 10 2243 2771  
 04344 02 2243 2772

04345 63 4373 2773  
 04346 36 0703 2774  
 04347 37 0004 2775  
 04350 42 2275 2776  
 04351 12 2275 2777  
 04352 10 2236 3000  
 04353 02 2236 3001  
 04354 63 4373 3002

ENTAL\*LOK+3  
 STRAL\*TFX  
 ENTBK\*0017  
 ENTBKB\*0  
 STRB\*SAVEB

ENTAL\*SAVEB  
 ENTAU\*TPAS1  
 CMAL\*TPAS1  
 JPNOT\*TF370  
 ENTBK\*0014  
 ENTBKB\*0001  
 STRB\*SAVEB  
 ENTAU\*SAVEB

ENTAU\*TPAS2  
 CMAL\*TPAS2  
 JPNOT\*TF370  
 ENTBK\*0013  
 ENTBKB\*7776  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAS3

CMAL\*TPAS3  
 JPNOT\*TF370  
 ENTBK\*0  
 ENTBKB\*0002  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAS4  
 CMAL\*TPAS4

JPNOT\*TF370  
 ENTBK\*0703  
 ENTBKB\*0004  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAK7+1  
 CMAL\*TPAK7+1  
 JPNOT\*TF370

SET UP  
 ERROR DISPLAY  
 SET B TO 000017  
 B PLUS ZERO  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 000014  
 B PLUS 1  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 000013  
 B MINUS 1  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 CLR B  
 B PLUS 2  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 00703  
 B PLUS 4  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

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04355	36	7770	3003	ENTBK*7770	SET B TO 777770
04356	37	0007	3004	ENTBK*0007	B PLUS 7
04357	42	2275	3005	STRB*SAVEB	SET AL EQUAL B
04360	12	2275	3006	ENTAL*SAVEB	
04361	10	2146	3007	ENTAU*TPAT1	CORRECT TO AU
04362	02	2146	3010	CMAL*TPAT1	IS AL CORRECT
04363	63	4373	3011	JPNOT*TF370	ERROR JUMP
04364	36	2527	3012	ENTBK*2527	SET B TO 002527
04365	37	7775	3013	ENTBK*7775	B MINUS 2
04366	42	2275	3014	STRB*SAVEB	SET AL EQUAL B
04367	12	2275	3015	ENTAL*SAVEB	
04370	10	2234	3016	ENTAU*TPAK6	CORRECT TO AU
04371	02	2234	3017	CMAL*TPAK6	IS AL CORRECT
04372	61	4374	3020	JPEQ*TF370+6	YES EXIT
04373	76	1742	3021	RJP*TFDIS	ERROR DISPLAY
04374	55	4303	3022	IJP*TF37	EXIT
04375	50	5000	3023	SKP*00	
			3024	PROG*CASEY*30APL64	
			3025	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			3026	REMARK*CORRECT PATTERN IN AU	
			3027	REMARK*INCORRECT PATTERN IN AL	
			3030	0*	CLEAR Y 40
04376	00	0000	3030	TF40	
04377	70	0064	3031	ENTALK*64	SET TYPEOUT BUFFER
04400	44	2222	3032	STRAL*BUFF1	TO CODES FOR 40
04401	70	0060	3033	ENTALK*60	
04402	44	2223	3034	STRAL*BUFF2	
04403	12	4431	3035	ENTAL*TF40T+2	SET UP
04404	44	2037	3036	STRAL*TFX	ERROR DISPLAY
04405	10	2146	3037	ENTAU*TPAT1	CORRECT TO AU
04406	12	2144	3040	ENTAL*TPAT	SET AL TO 777777
04407	76	4427	3041	RJP*TF40T	TEST CLR
04410	12	2146	3042	ENTAL*TPAT1	CLR AL
04411	76	4427	3043	RJP*TF40T	TEST CLR
04412	12	2150	3044	ENTAL*TPAT2	SET AL TO 252525
04413	76	4427	3045	RJP*TF40T	TEST CLR
04414	12	2152	3046	ENTAL*TPAT3	SET AL TO 525252

04415	76	4427	3047
04416	12	2154	3050
04417	76	4427	3051
04420	12	2156	3052
04421	76	4427	3053
04422	12	2160	3054
04423	76	4427	3055
04424	12	2162	3056
04425	76	4427	3057
04426	55	4376	3060
04427	00	0000	3061
04430	44	2253	3062
04431	40	2253	3063
04432	12	2253	3064
04433	63	4435	3065
04434	55	4427	3066
04435	76	1742	3067
04436	55	4376	3070
			3071
			3072
			3073
			3074
04437	00	0000	3075
04440	70	0064	3076
04441	44	2222	3077
04442	70	0061	3100
04443	44	2223	3101
04444	12	4452	3102
04445	44	2037	3103
04446	10	2146	3104
04447	36	0001	3105
04450	12	2144	3106
04451	45	2252	3107
04452	41	2252	3110
04453	12	2253	3111
04454	63	4521	3112

TF40T

TR40

TF41

TF41

RJP\*TF40T  
 ENTAL\*TPAT4  
 RJP\*TF40T  
 ENTAL\*TPAT5  
 RJP\*TF40T  
 ENTAL\*TPAT6  
 RJP\*TF40T  
 ENTAL\*TPAT7

RJP\*TF40T  
 IJP\*TF40  
 0\*0  
 STRAL\*TPAR  
 CL\*TPAR  
 ENTAL\*TPAR  
 JPALNZ\*TR40  
 IJP\*TF40T

RJP\*TFDIS  
 IJP\*TF40  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*64

STRAL\*BUFF1  
 ENTALK\*61  
 STRAL\*BUFF2  
 ENTAL\*LOK+6  
 STRAL\*TFX  
 ENTAU\*TPAT1  
 ENTBK\*0001  
 ENTAL\*TPAT

STRALB\*TPAR#1  
 CLB\*TPAR-1  
 ENTAL\*TPAR  
 JPALNZ\*TR41

TEST CLR  
 SET AL TO 770000  
 TEST CLR  
 SET AL TO 007777  
 TEST CLR  
 SET AL TO 707070  
 TEST CLR  
 SET AL TO 070707

TEST CLR  
 EXIT  
 ENTRANCE  
 SAVE AL  
 CLEAR STORAGE  
 CHECK CLEAR  
 ERROR JUMP  
 EXIT CHECK

ERROR DISPLAY  
 ERROR EXIT

CLEAR Y+B 41  
 SET TYPEOUT BUFFER

TO CODES FOR 41

SET UP  
 ERROR DISPLAY  
 CORRECT TO AU  
 SET B TO 1  
 SET AL TO 777777

SAVE AL  
 TEST CLEAR  
 SET AL EQUAL CLEAR  
 ERROR JUMP

04455	36	0000	3113
04456	12	2146	3114
04457	45	2253	3115
04460	41	2253	3116
04461	12	2253	3117
04462	63	4521	3120
04463	32	2167	3121
04464	12	2150	3122
04465	45	2254	3123
04466	41	2254	3124
04467	12	2253	3125
04470	63	4521	3126
04471	32	2243	3127
04472	12	2152	3130
04473	45	2251	3131
04474	41	2251	3132
04475	12	2253	3133
04476	63	4521	3134
04477	32	2244	3135
04500	12	2156	3136
04501	45	2247	3137
04502	41	2247	3140
04503	12	2253	3141
04504	63	4521	3142
04505	32	2246	3143
04506	12	2150	3144
04507	45	2255	3145
04510	41	2255	3146
04511	12	2253	3147
04512	63	4521	3150
04513	32	2245	3151
04514	12	2152	3152
04515	45	2244	3153
04516	41	2244	3154
04517	12	2253	3155
04520	61	4522	3156

ENTBK\*0  
 ENTAL\*TPAT1

STRALB\*TPAR  
 CLB\*TPAR  
 ENTAL\*TPAR  
 JPALNZ\*TR41  
 ENTB\*TPAB1+1  
 ENTAL\*TPAT2  
 STRALB\*TPAR+1  
 CLB\*TPAR+1

ENTAL\*TPAR  
 JPALNZ\*TR41  
 ENTB\*TPAS4  
 ENTAL\*TPAT3  
 STRALB\*TPAR+2  
 CLB\*TPAR-2  
 ENTAL\*TPAR  
 JPALNZ\*TR41

ENTB\*TPAS5  
 ENTAL\*TPAT5  
 STRALB\*TPAR-4  
 CLB\*TPAR-4  
 ENTAL\*TPAR  
 JPALNZ\*TR41  
 ENTB\*TPAS7  
 ENTAL\*TPAT2

STRALB\*TPAR+2  
 CLB\*TPAR+2  
 ENTAL\*TPAR  
 JPALNZ\*TR41  
 ENTB\*TPAS6  
 ENTAL\*TPAT3  
 STRALB\*TPAR-7  
 CLB\*TPAR-7

ENTAL\*TPAR  
 JPALZ\*TR41+1

CLR B  
 CLR AL

SAVE AL  
 TEST CLEAR  
 CHECK CLEAR  
 ERROR JUMP  
 SET B TO MINUS 1  
 SET AL TO 252525  
 SAVE AL  
 TEST CLEAR

CHECK CLEAR  
 ERROR JUMP  
 SET B TO 2  
 SET AL TO 525252  
 SAVE AL  
 TEST CLEAR  
 CHECK CLEAR  
 ERROR JUMP

SET B TO 4  
 SET AL TO 007777  
 SAVE AL  
 TEST CLEAR  
 CHECK CLEAR  
 ERROR JUMP  
 SET B TO MINUS 2  
 SET AL TO 252525

SAVE AL  
 TEST CLEAR  
 CHECK CLEAR  
 ERROR JUMP  
 SET B TO 7  
 SET AL TO 525252  
 SAVE AL  
 TEST CLEAR

CHECK CLEAR  
 CORRECT EXIT

04521	76	1742	3157	TR41	RJP*TFDIS	.ERROR DISPLAY
04522	55	4437	3160		IJP*TF41	EXIT
			3161	TS41	PROG*SCOTT*30APL64	
			3162		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			3163		REMARK*SHIFTED PATTERN IN AU	
			3164		REMARK*SHIFT COUNT IN AL	
04523	00	0000	3165	TS41	0*	RIGHT SHIFT AU 5041
04524	70	0065	3166		ENTALK*65	SET TYPEOUT BUFFER
04525	44	2222	3167		STRAL*BUFF1	TO CODES FOR 5041
04526	70	0060	3170		ENTALK*60	
04527	44	2223	3171		STRAL*BUFF2	
04530	70	0064	3172		ENTALK*64	
04531	44	2224	3173		STRAL*BUFF3	
04532	70	0061	3174		ENTALK*61	
04533	44	2225	3175		STRAL*BUFF4	
04534	12	4540	3176		ENTAL*TS411	SET UP
04535	44	2037	3177		STRAL*TFX	ERROR DISPLAY
04536	36	0001	3200		ENTBK*1	SET B TO 1
04537	10	2263	3201		ENTAU*TC04+1	SET AU TO 200000
04540	50	4101	3202	TS411	RSHAU*1	SHIFT AU RIGHT 1
04541	62	4545	3203		JPAUNZ*TS413	SHIFT OK CONTINUE
04542	12	0001	3204	TS412	ENTAL*0001	SET AL EQUAL B
04543	76	2040	3205		RJP*TSDIS	ERROR DISPLAY
04544	55	4523	3206		IJP*TS41	ERROR EXIT
04545	56	2200	3207	TS413	BSK*TPAB6	SHIFT COMPLETE
04546	34	4540	3210		JP*TS411	NO CONTINUE
04547	50	4101	3211		RSHAU*1	SHIFT AU END OFF
04550	62	4542	3212		JPAUNZ*TS412	ERROR JUMP
04551	10	2170	3213		ENTAU*TPAB2	SET AU TO 400000
04552	50	4121	3214		RSHAU*21	CHECK SIGN EXT
04553	50	6200	3215		CPAU*0	CHECK ALL ONES
04554	60	4544	3216		JPAUZ*TS413+1	EXIT
04555	50	6200	3217		CPAU*0	RESTORE AU
04556	36	0021	3220		ENTBK*21	CORRECT TO B
04557	34	4542	3221		JP*TS412	ERROR JUMP
			3222	TF42	PROG*CASEY*30APL64	



04560	00	0000	3223
04561	70	0064	3224
04562	44	2222	3225
04563	70	0062	3226
04564	44	2223	3227
04565	12	4570	3230
04566	44	2037	3231
04567	32	2144	3232
04570	42	2253	3233
04571	12	2253	3234
04572	10	2144	3235
04573	02	2145	3236
04574	63	4646	3237
04575	32	2146	3240
04576	42	2253	3241
04577	12	2253	3242
04600	10	2146	3243
04601	63	4646	3244
04602	32	2150	3245
04603	42	2253	3246
04604	12	2253	3247
04605	10	2150	3250
04606	02	2151	3251
04607	63	4646	3252
04610	32	2152	3253
04611	42	2253	3254
04612	12	2253	3255
04613	10	2152	3256
04614	02	2153	3257
04615	63	4646	3260
04616	32	2154	3261
04617	42	2253	3262
04620	12	2253	3263
04621	10	2154	3264

TF42

REMARK\*ERROR DISPLAY; FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*64  
 STRAL\*BUFF1

STORE B 42  
 SET TIMEOUT BUFFER  
 TO CODES FOR 42

ENTALK\*62  
 STRAL\*BUFF2  
 ENTAL\*LDK\*3  
 STRAL\*TFX  
 ENTB\*TPAT  
 STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT

SET UP  
 ERROR DISPLAY  
 SET B TO 77777  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU

CMAL\*TPAT\*1  
 JPNOT\*TF420  
 ENTB\*TPAT1  
 STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT1  
 JPALNZ\*TF420  
 ENTB\*TPAT2

IS AL CORRECT  
 ERROR JUMP  
 CLR B  
 SAVE B  
 SET AL EQUAL B  
 CLR AU  
 ERROR JUMP  
 SET B TO 252525

STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT2  
 CMAL\*TPAT2\*1  
 JPNOT\*TF420  
 ENTB\*TPAT3  
 STRB\*TPAR  
 ENTAL\*TPAR

SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 525252  
 SAVE B  
 SET AL EQUAL B

ENTAU\*TPAT3  
 CMAL\*TPAT3\*1  
 JPNOT\*TF420  
 ENTB\*TPAT4  
 STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT4

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 770000  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU

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04622 02 2155 3270  
 04623 63 4646 3271  
 04624 32 2156 3272  
 04625 42 2253 3273  
 04626 12 2253 3274  
 04627 10 2156 3275  
 04630 02 2157 3276

04631 63 4646 3277  
 04632 32 2160 3300  
 04633 42 2253 3301  
 04634 12 2253 3302  
 04635 10 2160 3303  
 04636 02 2161 3304  
 04637 63 4646 3305  
 04640 32 2162 3306

04641 42 2253 3307  
 04642 12 2253 3310  
 04643 10 2162 3311  
 04644 02 2163 3312  
 04645 61 4647 3313  
 04646 76 1742 3314  
 04647 55 4560 3315  
 3316

TF420  
 TS42

3317  
 3320  
 3321  
 04650 00 0000 3322  
 04651 70 0065 3323  
 04652 44 2222 3324  
 04653 70 0060 3325  
 04654 44 2223 3326

TS42

04655 70 0064 3327  
 04656 44 2224 3330  
 04657 70 0062 3331  
 04660 44 2225 3332  
 04661 12 4665 3333

CMAL\*TPAT4\*1  
 JPNOT\*TF420  
 ENTB\*TPAT5  
 STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT5  
 CMAL\*TPAT5\*1

JPNOT\*TF420  
 ENTB\*TPAT6  
 STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT6  
 CMAL\*TPAT6\*1  
 JPNOT\*TF420  
 ENTB\*TPAT7

STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT7  
 CMAL\*TPAT7\*1  
 JPEQ\*TF420\*1  
 RJP\*TFDIS  
 IJP\*TF42  
 PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY; FUNCT. CODE IN C REG.  
 REMARK\*SHIFT COUNT IN AU  
 REMARK\*SHIFTED PATTERN IN AL  
 0\*

ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2

ENTALK\*64  
 STRAL\*BUFF3  
 ENTALK\*62  
 STRAL\*BUFF4  
 ENTAL\*TS421

IS AL CORRECT  
 ERROR JUMP  
 SET B TO 007777  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 707070  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 070707

SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

RIGHT SHIFT AL 5042  
 SET TIMEOUT BUFFER  
 TO CODES FOR 5042

SET UP

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04662	44 2037	3334	STRAL*TFX	ERROR DISPLAY
04663	36 0001	3335	ENTBK*1	SET B TO 1
04664	12 2263	3336	ENTAL*TCO*1	SET AL TO 200000
04665	50 4201	3337	RSHAL*1	SHIFT AL RIGHT 1
04666	63 4673	3340	JPALNZ*TS423	SHIFT OK CONTINUE
04667	42 2275	3341	STRB*SAVEB	SET AU EQUAL B
04670	10 2275	3342	ENTAU*SAVEB	ERROR DISPLAY
04671	76 2040	3343	RJP*TSDIS	ERROR EXIT
04672	55 4650	3344	IJP*TS42	
04673	56 2200	3345	BSK*TPAB6	SHIFT COMPLETE
04674	34 4665	3346	JP*TS421	NO CONTINUE
04675	50 4201	3347	RSHAL*1	RIGHT SHIFT END OFF
04676	63 4667	3350	JPALNZ*TS422	ERROR JUMP
04677	12 2170	3351	ENTAL*TPAB2	SET AL TO 400000
04700	50 4221	3352	RSHAL*21	CHECK SIGN EXT
04701	50 6100	3353	CPAL*0	CHECK ALL ONES
04702	61 4672	3354	JPALZ*TS423-1	EXIT
04703	50 6100	3355	CPAL*0	RESTORE AL
04704	36 0021	3356	ENTBK*21	CORRECT COUNT TO B
04705	34 4667	3357	JP*TS422	ERROR JUMP
		3360	PROG*CASEY*30APL64	
		3361	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
		3362	REMARK*CORRECT PATTERN IN AU	
		3363	REMARK*INCORRECT PATTERN IN AL	
04706	00 0000	3364	0*	STORE B AT Y+B
04707	70 0064	3365	ENTALK*64	SET TYPEOUT BUFFER
04710	44 2222	3366	STRAL*BUFF1	TO CODES FOR 43
04711	70 0063	3367	ENTALK*63	
04712	44 2223	3370	STRAL*BUFF2	SET UP
04713	12 4716	3371	ENTAL*LOK*3	ERROR DISPLAY
04714	44 2037	3372	STRAL*TFX	SET B TO 1
04715	32 2166	3373	ENTB*TPAB1	SAVE B
04716	43 2252	3374	STRBB*TPAR=1	
04717	12 2253	3375	ENTAL*TPAR	SET AL EQUAL B
04720	10 2166	3376	ENTAU*TPAB1	CORRECT TO AU
04721	02 2166	3377	CMAL*TPAB1	IS AL CORRECT

04722	63	4766	3400
04723	32	2243	3401
04724	43	2251	3402
04725	12	2253	3403
04726	10	2243	3404
04727	02	2243	3405
04730	63	4766	3406
04731	32	2167	3407
04732	43	2254	3410
04733	12	2253	3411
04734	10	2167	3412
04735	02	2167	3413
04736	63	4766	3414
04737	32	2244	3415
04740	43	2247	3416
04741	12	2253	3417
04742	10	2244	3420
04743	02	2244	3421
04744	63	4766	3422
04745	36	0000	3423
04746	43	2253	3424
04747	12	2253	3425
04750	10	2146	3426
04751	63	4766	3427
04752	32	2246	3430
04753	43	2255	3431
04754	12	2253	3432
04755	10	2246	3433
04756	02	2246	3434
04757	63	4766	3435
04760	32	2245	3436
04761	43	2244	3437
04762	12	2253	3440
04763	10	2245	3441
04764	02	2245	3442
04765	61	4767	3443

JPNOT\*TF430  
 ENTB\*TPAS4  
 STRBB\*TPAR-2

ENTAL\*TPAR  
 ENTAU\*TPAS4  
 CMAL\*TPAS4  
 JPNOT\*TF430  
 ENTB\*TPAB1+1  
 STRBB\*TPAR+1  
 ENTAU\*TPAR  
 ENTAU\*TPAB1+1

CMAL\*TPAB1+1  
 JPNOT\*TF430  
 ENTB\*TPAS5  
 STRBB\*TPAR-4  
 ENTAU\*TPAR  
 ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TF430

ENTBK\*0  
 STRBB\*TPAR  
 ENTAU\*TPAR  
 ENTAU\*TPAT1  
 JPALNZ\*TF430  
 ENTB\*TPAS7  
 STRBB\*TPAR+2  
 ENTAU\*TPAR

ENTAU\*TPAS7  
 CMAL\*TPAS7  
 JPNOT\*TF430  
 ENTB\*TPAS6  
 STRBB\*TPAR-7  
 ENTAU\*TPAR  
 ENTAU\*TPAS6  
 CMAL\*TPAS6

JPEQ\*TF430+1

ERROR JUMP  
 SET B TO 2  
 SAVE B

SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO MINUS 1  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU

IS AL CORRECT  
 ERROR JUMP  
 SET B TO 4  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

CLR B  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 ERROR JUMP  
 SET B TO MINUS 2  
 SAVE B  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 7  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT

YES EXIT

04766	76	1742	3444	TF430	RJP*TFDIS	ERROR DISPLAY
04767	55	4706	3445		IJP*TF43	EXIT
			3446	TS43	PROG*SCOTT*30APL64	
			3447		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			3450		REMARK*SHIFTED PATTERN OR SHIFT COUNT IN AU	
			3451		REMARK*SHIFTED PATTERN OR SHIFT COUNT IN AL	
04770	00	0000	3452	TS43	0*	RIGHT SHIFT A 5043
04771	70	0065	3453		ENTALK*65	SET TYPEOUT BUFFER
04772	44	2222	3454		STRAL*BUFF1	TO CODES FOR 5043
04773	70	0060	3455		ENTALK*60	
04774	44	2223	3456		STRAL*BUFF2	
04775	70	0064	3457		ENTALK*64	
04776	44	2224	3460		STRAL*BUFF3	
			3461		ENTALK*63	
04777	70	0063	3462		STRAL*BUFF4	
05000	44	2225	3463		ENTAL*TS431	SET UP
05001	12	5006	3464		STRAL*TFX	ERROR DISPLAY
05002	44	2037	3465		ENTBK*1	SET B TO 1
05003	36	0001	3466		ENTAU*TC04*1	SET AU TO 20000
05004	10	2263	3467		ENTALK*0	CLR AL
05005	70	0000	3470	TS431	RSHA*1	SHIFT A RIGHT 1
05006	50	4301				
			3471		JPAUNZ*TS433	SHIFT OK CONTINUE
05007	62	5014	3472	TS432	STRB*SAVEB	SET AL EQUAL B
05010	42	2275	3473		ENTAL*SAVEB	
05011	12	2275	3474		RJP*TSDIS	ERROR DISPLAY
05012	76	2040	3475		IJP*TS43	ERROR EXIT
05013	55	4770	3476	TS433	BSK*TPAB6	SHIFT COMPLETE
05014	56	2200	3477		JP*TS431	NO CONTINUE
05015	34	5006	3500		RSHA*1	SHIFT AU RIGHT TO AL
05016	50	4301				
			3501		JPAUNZ*TS432	ERROR JUMP
05017	62	5010	3502		ENTBK*0	CLR B
05020	36	0000	3503	TS434	RSHA*1	SHIFT A RIGHT 1
05021	50	4301	3504		JPALNZ*TS436	SHIFT OK CONTINUE
05022	63	5027	3505	TS435	STRB*SAVEB	SET AL EQUAL B
05023	42	2275	3506		ENTAL*SAVEB	
05024	12	2275	3507		RJP*TSDIS	ERROR DISPLAY
05025	76	2040	3510		IJP*TS43	ERROR EXIT
05026	55	4770				

05027	56	2200	3511	TS436	BSK*TPAB6	SHIFT COMPLETE
05030	34	5021	3512		JP*TS434	NO CONTINUE
05031	50	4301	3513		RSHA*1	SHIFT A END OFF
05032	63	5023	3514		JPALNZ*TS435	ERROR JUMP
05033	10	2170	3515		ENTAU*TPAB2	SET AU TO 400000
05034	50	4343	3516		RSHA*43	CHECK SIGN EXT
05035	06	2144	3517		CMSK*TPAT	IS AU AND AL CORRECT
05036	63	5024	3520		JPNOT*TS435+1	ERROR JUMP
05037	55	4770	3521		IJP*TS43	EXIT
			3522	TF44	PROG*CASEY*30APL64	
			3523		REMARK*ERROR DISPLAY, FUNCT, CODE IN C REG.	
			3524		REMARK*CORRECT PATTERN IN AU	
			3525		REMARK*INCORRECT PATTERN IN AL	
05040	00	0000	3526	TF44	0*	STORE AL 44
05041	70	0064	3527		ENTALK*64	SET TYPEOUT BUFFER
05042	44	2222	3530		STRAL*BUFF1	TO CODES FOR 44
05043	70	0064	3531		ENTALK*64	
05044	44	2223	3532		STRAL*BUFF2	
05045	10	5050	3533		ENTAU*LOK+3	SET UP
05046	46	2037	3534		STRAU*TFX	ERROR DISPLAY
05047	12	2144	3535		ENTAL*TPAT	SET AL TO 777777
05050	44	2253	3536		STRAL*TPAR	SAVE AL
05051	10	2253	3537		ENTAU*TPAR	SET AU EQUAL AL
05052	06	2256	3540		CMSK*TC01	IS AU CORRECT
05053	63	5117	3541		JPNOT*TF440	ERROR JUMP
05054	12	2146	3542		ENTAL*TPAT1	CLR AL
05055	44	2253	3543		STRAL*TPAR	SAVE AL
05056	10	2253	3544		ENTAU*TPAR	SET AU EQUAL AL
05057	06	2256	3545		CMSK*TC01	IS AU CORRECT
05060	63	5117	3546		JPNOT*TF440	ERROR JUMP
05061	12	2150	3547		ENTAL*TPAT2	SET AL TO 252525
05062	44	2253	3550		STRAL*TPAR	SAVE AL
05063	10	2253	3551		ENTAU*TPAR	SET AU EQUAL AL
05064	06	2256	3552		CMSK*TC01	IS AU CORRECT
05065	63	5117	3553		JPNOT*TF440	ERROR JUMP
05066	12	2152	3554		ENTAL*TPAT3	SET AL TO 525252

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05067	44	2253	3555
05070	10	2253	3556
05071	06	2256	3557
05072	63	5117	3560
05073	12	2154	3561
05074	44	2253	3562
05075	10	2253	3563
05076	06	2256	3564
05077	63	5117	3565
05100	12	2156	3566
05101	44	2253	3567
05102	10	2253	3570
05103	06	2256	3571
05104	63	5117	3572
05105	12	2160	3573
05106	44	2253	3574
05107	10	2253	3575
05110	06	2256	3576
05111	63	5117	3577
05112	12	2162	3600
05113	44	2253	3601
05114	10	2253	3602
05115	06	2256	3603
05116	61	5121	3604
05117	50	4722	3605
05120	76	1742	3606
05121	55	5040	3607
			3610
			3611
			3612
			3613
05122	00	0000	3614
05123	70	0065	3615
05124	44	2222	3616
05125	70	0060	3617
05126	44	2223	3620

TF440  
 TS44  
 TS44

STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF440  
 ENTAL\*TPAT4  
 STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JRNOT\*TF440  
 ENTAL\*TPAT5  
 STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF440  
 ENTAL\*TPAT6  
 STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF440  
 ENTAL\*TPAT7  
 STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPEQ\*TF440+2  
 LSHA\*22  
 RJP\*TFDIS  
 IJP\*TF44  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT OR INCORRECT PATTERN IN AU  
 REMARK\*CORRECT PATTERN OR SCALE COUNT IN AL  
 0\*  
 ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET AL TO 770000  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET AL TO 007777  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET AL TO 707070  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET AL TO 070707  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 YES EXIT  
 EXCHANGE REGS  
 ERROR DISPLAY  
 EXIT  
 SCALE FACTOR 5044  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5044

05127	70	0064	3621
05130	44	2224	3622
05131	70	0064	3623
05132	44	2225	3624
05133	12	5142	3625
05134	44	2037	3626
05135	36	0000	3627
05136	10	2146	3630
05137	12	2166	3631
05140	46	2306	3632
05141	44	2307	3633
05142	50	4442	3634
05143	63	5147	3635
05144	12	2263	3636
05145	06	2144	3637
05146	61	5151	3640
05147	76	2040	3641
05150	55	5122	3642
05151	12	0017	3643
05152	42	2275	3644
05153	02	2275	3645
05154	63	5147	3646
05155	10	2306	3647
05156	12	2307	3650
05157	50	4701	3651
05160	56	2275	3652
05161	34	5140	3653
05162	36	0000	3654
05163	10	2144	3655
05164	12	2167	3656
05165	46	2306	3657
05166	44	2307	3660
05167	50	4442	3661
05170	02	2144	3662
05171	63	5147	3663
05172	12	2173	3664

TS441

TS443

TS445

ENTALK\*64  
 STRAL\*BUFF3  
 ENTALK\*64  
 STRAL\*BUFF4  
 ENTAL\*TS441+2  
 STRAL\*TFX  
 ENTBK\*0  
 ENTAU\*TPAT1  
 ENTAL\*TPAB1  
 STRAU\*TSH  
 STRAL\*TSCOT  
 SF\*42  
 JPALNZ\*TS443  
 ENTAL\*TCO4+1  
 CMSK\*TPAT  
 JPEQ\*LOK+3  
 RJP\*TSDIS  
 IJP\*TS44  
 ENTAL\*0017  
 STRB\*SAVEB  
 CMAL\*SAVEB  
 JPNOT\*TS443  
 ENTAU\*TSH  
 ENTAL\*TSCOT  
 LSHA\*1  
 BSK\*SCCNT+1  
 JP\*TS441  
 ENTBK\*0  
 ENTAU\*TPAT  
 ENTAL\*TPAB1+1  
 STRAU\*TSH  
 STRAL\*TSCOT  
 SF\*42  
 CMAL\*TPAT  
 JPNOT\*TS443  
 ENTAL\*TPAB3+1

SET UP  
 ERROR DISPLAY  
 CLR B  
 CLR AU  
 SET AL TO 000001  
 SAVE AU

SAVE AL  
 NORMALIZE  
 ERROR JUMP  
 CORRECT TO AL  
 IS AU CORRECT  
 YES CONTINUE  
 ERROR DISPLAY  
 ERROR EXIT

SET AL EQUAL SCALE  
 SET AL EQUAL B  
 ERROR JUMP  
 RESTORE AU  
 RESTORE AL  
 SHIFT PATTERN  
 ALL PATTERNS CHECKED

NO CONTINUE  
 CLR B  
 SET AU TO 777777  
 SET AL TO 777776  
 SAVE AU  
 SAVE AL  
 NORMALIZE  
 IS AL CORRECT

ERROR JUMP  
 CORRECT TO AL

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05173 06 2144 3665  
 05174 63 5147 3666  
 05175 12 0017 3667  
 05176 42 2275 3670

05177 02 2275 3671  
 05200 63 5147 3672  
 05201 10 2306 3673  
 05202 12 2307 3674  
 05203 50 4701 3675  
 05204 56 2275 3676  
 05205 34 5165 3677  
 05206 55 5122 3700

3701 TF45

3702

3703

3704

3705 TF45

3706

3707

3710

05207 00 0000 3705  
 05210 70 0064 3706  
 05211 44 2222 3707  
 05212 70 0065 3710

05213 44 2223 3711  
 05214 10 5220 3712  
 05215 46 2037 3713  
 05216 36 0001 3714  
 05217 12 2144 3715  
 05220 45 2252 3716  
 05221 10 2253 3717  
 05222 06 2256 3720

05223 63 5275 3721  
 05224 36 0002 3722  
 05225 12 2146 3723  
 05226 45 2251 3724  
 05227 10 2253 3725  
 05230 62 5275 3726  
 05231 36 0003 3727  
 05232 12 2150 3730

CMSK\*TPAT  
 JPNOT\*TS443  
 ENTAL\*0017  
 STRB\*SAVEB

CMAL\*SAVEB  
 JPNOT\*TS443  
 ENTAU\*TSH  
 ENTAL\*TSCOT  
 LSHA\*1  
 BSK\*SCCNT\*1  
 JP\*TS445  
 IJP\*TS#4

PROG\*CASEY\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*CORRECT PATTERN IN AU

REMARK\*INCORRECT PATTERN IN AL

0\*

ENTALK\*64  
 STRAL\*BUFF1  
 ENTALK\*65

STRAL\*BUFF2  
 ENTAU\*LOK\*4  
 STRAU\*TFX  
 ENTBK\*0001  
 ENTAL\*TPAT  
 STRALB\*TPAR\*1  
 ENTAU\*TPAR  
 CMSK\*TC01

JPNOT\*TF450  
 ENTBK\*0002  
 ENTAL\*TPAT1  
 STRALB\*TPAR\*2  
 ENTAU\*TPAR  
 JPAUNZ\*TF450  
 ENTBK\*0003  
 ENTAL\*TPAT2

IS AU CORRECT  
 ERROR JUMP  
 SET AL EQUAL SCALE  
 SET AL EQUAL B

ERROR JUMP  
 RESTORE AU  
 RESTORE AL  
 SHIFT PATTERN  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 EXIT

STORE AL + B 45  
 SET TYPEOUT BUFFER  
 TO CODES FOR 45

SET UP  
 ERROR DISPLAY  
 SET B TO 1  
 SET AL TO 777777  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT

ERROR JUMP  
 SET B TO 2  
 CLR AL  
 SAVE AL  
 SET AU EQUAL AL  
 ERROR JUMP  
 SET B TO 3  
 SET AL TO 252525

05233 45 2250 3731  
 05234 10 2253 3732  
 05235 06 2256 3733  
 05236 63 5275 3734  
 05237 36 0004 3735  
 05240 12 2152 3736

05241 45 2247 3737  
 05242 10 2253 3740  
 05243 06 2256 3741  
 05244 63 5275 3742  
 05245 36 0005 3743  
 05246 12 2154 3744  
 05247 45 2246 3745  
 05250 10 2253 3746

05251 06 2256 3747  
 05252 63 5275 3750  
 05253 36 0000 3751  
 05254 12 2156 3752  
 05255 45 2253 3753  
 05256 10 2253 3754  
 05257 06 2256 3755  
 05260 63 5275 3756

05261 36 0001 3757  
 05262 12 2160 3760  
 05263 45 2252 3761  
 05264 10 2253 3762  
 05265 06 2256 3763  
 05266 63 5275 3764  
 05267 36 0002 3765  
 05270 12 2162 3766

05271 45 2251 3767  
 05272 10 2253 3770  
 05273 06 2256 3771  
 05274 61 5277 3772  
 05275 50 4722 3773  
 05276 76 1742 3774  
 05277 55 5207 3775

TF450

STRALB\*TPAR\*3  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0004  
 ENTAL\*TPAT3

STRALB\*TPAR\*4  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0005  
 ENTAL\*TPAT4  
 STRALB\*TPAR\*5  
 ENTAU\*TPAR

CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0000  
 ENTAL\*TPAT5  
 STRALB\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450

ENTBK\*0001  
 ENTAL\*TPAT6  
 STRALB\*TPAR-1  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0002  
 ENTAL\*TPAT7

STRALB\*TPAR\*2  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPEQ\*TF450\*2  
 LSHA\*22  
 RJP\*TFDIS  
 IJP\*TF45

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET B TO 4  
 SET AL TO 525252

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET B TO 5  
 SET AL TO 770000  
 SAVE AL  
 SET AU EQUAL AL

IS AU CORRECT  
 ERROR JUMP  
 CLR B  
 SET AL TO 007777  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP

SET B TO 1  
 SET AL TO 707070  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET B TO 2  
 SET AL TO 070707

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 YES EXIT  
 EXCHANGE REGS  
 ERROR DISPLAY  
 EXIT

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B

			3776	TS45	PROG*SCOTT*30APL64	
			3777		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4000		REMARK*SHIFTED PATTERN IN AU	
			4001		REMARK*SHIFT COUNT IN AL	
05300	00	0000	4002	TS45	0*	LEFT SHIFT AU 5045
05301	70	0065	4003		ENTALK*65	SET TYPEOUT BUFFER
05302	44	2222	4004		STRAL*BUFF1	TO CODES FOR 5045
05303	70	0060	4005		ENTALK*60	
05304	44	2223	4006		STRAL*BUFF2	
05305	70	0064	4007		ENTALK*64	
05306	44	2224	4010		STRAL*BUFF3	
05307	70	0065	4011		ENTALK*65	
05310	44	2225	4012		STRAL*BUFF4	
05311	12	5316	4013		ENTAL*TS451	SET UP
05312	44	2037	4014		STRAL*TFX	ERROR DISPLAY
05313	36	0001	4015		ENTBK*1	SET B TO 1
05314	70	0000	4016		ENTALK*0	CLR AL
05315	10	2166	4017		ENTAU*TPAB1	SET AU TO 000001
05316	50	4501	4020	TS451	LSHAU*1	SHIFT AU LEFT 1
05317	62	5323	4021		JPAUNZ*LOK*4	SHIFT OK CONTINUE
05320	42	2275	4022		STRB*SAVEB	SET AL EQUAL B
05321	12	2275	4023		ENTAL*SAVEB	
05322	76	2040	4024	TS453	RJP*TSDIS	ERROR DISPLAY
05323	55	5300	4025		IJP*TS45	ERROR EXIT
05324	56	2201	4026		BSK*TPAB6+1	SHIFT COMPLETE
05325	34	5316	4027		JP*TS451	NO CONTINUE
05326	12	2170	4030		ENTAL*TPAB2	SET AL TO 400000
05327	06	2256	4031		CMSK*TC01	IS AU CORRECT
05330	63	5322	4032		JPNOT*TS453	ERROR JUMP
05331	50	4501	4033		LSHAU*1	TEST END AROUND
05332	12	2166	4034		ENTAL*TPAB1	CORRECT TO AL
05333	06	2256	4035		CMSK*TC01	IS AU CORRECT
05334	63	5322	4036		JPNOT*TS453	ERROR JUMP
05335	55	5300	4037		IJP*TS45	EXIT
			4040	TF46	PROG*CASEY*30APL64	
			4041		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	

			4042
			4043
05336	00	0000	4044
05337	70	0064	4045
05340	44	2222	4046
05341	70	0066	4047
05342	44	2223	4050
05343	12	5346	4051
05344	44	2037	4052
			4053
05345	10	2144	4054
05346	46	2253	4055
05347	12	2253	4056
05350	02	2144	4057
05351	63	5415	4060
05352	10	2146	4061
05353	46	2253	4062
05354	12	2253	4063
			4064
05355	02	2146	4065
05356	63	5415	4066
05357	10	2150	4067
05360	46	2253	4070
05361	12	2253	4071
05362	02	2150	4072
05363	63	5415	4073
05364	10	2152	4074
			4075
05365	46	2253	4076
05366	12	2253	4077
05367	02	2152	4100
05370	63	5415	4101
05371	10	2154	4102
05372	46	2253	
05373	12	2253	
05374	02	2154	
			4103
05375	63	5415	4104
05376	10	2156	4105
05377	46	2253	

REMARK\*CORRECT PATTERN IN AU

REMARK\*INCORRECT PATTERN IN AL

TF46

0\*

ENTALK\*64

STRAL\*BUFF1

ENTALK\*66

STRAL\*BUFF2

ENTAL\*LOK\*3

STRAL\*TFX

ENTAU\*TPAT

STRAU\*TPAR

ENTAL\*TPAR

CMAL\*TPAT

JPNOT\*TF460

ENTAU\*TPAT1

STRAU\*TPAR

ENTAL\*TPAR

CMAL\*TPAT1

JPNOT\*TF460

ENTAU\*TPAT2

STRAU\*TPAR

ENTAL\*TPAR

CMAL\*TPAT2

JPNOT\*TF460

ENTAU\*TPAT3

STRAU\*TPAR

ENTAL\*TPAR

CMAL\*TPAT3

JPNOT\*TF460

ENTAU\*TPAT4

STRAU\*TPAR

ENTAL\*TPAR

CMAL\*TPAT4

JPNOT\*TF460

ENTAU\*TPAT5

STRAU\*TPAR

STORE AU 46

SET TIMEOUT BUFFER

TO CODES FOR 46

SET UP

ERROR DISPLAY

SET AU TO 777777

SAVE AU

SET AL EQUAL AU

IS AL CORRECT

ERROR JUMP

CLR AU

SAVE AU

SET AL EQUAL AU

IS AL CORRECT

ERROR JUMP

SET AU TO 252525

SAVE AU

SET AL EQUAL AU

IS AL CORRECT

ERROR JUMP

SET AU TO 525252

SAVE AU

SET AL EQUAL AU

IS AL CORRECT

ERROR JUMP

SET AU TO 770000

SAVE AU

SET AL EQUAL AU

IS AL CORRECT

ERROR JUMP

SET AU TO 007777

SAVE AU

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05400 12 2253 4106  
 05401 02 2156 4107  
 05402 63 5415 4110

05403 10 2160 4111  
 05404 46 2253 4112  
 05405 12 2253 4113  
 05406 02 2160 4114  
 05407 63 5415 4115  
 05410 10 2162 4116  
 05411 46 2253 4117  
 05412 12 2253 4120

05413 02 2162 4121  
 05414 61 5416 4122  
 05415 76 1742 4123  
 05416 55 5336 4124  
 4125  
 4126  
 4127  
 4130

05417 00 0000 4131  
 05420 70 0065 4132  
 05421 44 2222 4133  
 05422 70 0060 4134  
 05423 44 2223 4135  
 05424 70 0064 4136  
 05425 44 2224 4137  
 05426 70 0066 4140

05427 44 2225 4141  
 05430 12 5435 4142  
 05431 44 2037 4143  
 05432 36 0001 4144  
 05433 10 2146 4145  
 05434 12 2166 4146  
 05435 50 4601 4147  
 05436 63 5442 4150

05437 42 2275 4151

ENTAL\*TPAR  
 CMAL\*TPAT5  
 JPNOT\*TF460

ENTAU\*TPAT6  
 STRAU\*TPAR  
 ENTAL\*TPAR  
 CMAL\*TPAT6  
 JPNOT\*TF460  
 ENTAU\*TPAT7  
 STRAU\*TPAR  
 ENTAL\*TPAR

CMAL\*TPAT7  
 JREQ\*TF460\*1  
 RJP\*TFDIS  
 IJP\*TF46

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*SHIFT COUNT IN AU  
 REMARK\*SHIFTED PATTERN IN AL

0\*  
 ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2  
 ENTALK\*64  
 STRAL\*BUFF3  
 ENTALK\*66

STRAL\*BUFF4  
 ENTAL\*TS461  
 STRAL\*TFX  
 ENTBK\*1  
 ENTAU\*TPAT1  
 ENTAL\*TPAB1  
 LSHAL\*1  
 JPALNZ\*LOK\*4

STRB\*SAVEB

SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP

SET AU TO 707070  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET AU TO 070707  
 SAVE AU  
 SET AL EQUAL AU

IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

LEFT SHIFT AL 5046  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5046

SET UP  
 ERROR DISPLAY  
 SET B TO 1  
 CLRAU  
 SET AL TO 000001  
 SHIFT AL LEFT 1  
 SHIFT OK CONTINUE

SET AU EQUAL B

TF460

TS46

TS46

TS461

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B

05440	10	2275	4152		ENTAU*SAVER	
05441	76	2040	4153	TS462	RJP*TS015	ERROR DISPLAY
05442	55	5417	4154		IJP*TS46	ERROR EXIT
05443	56	2201	4155		BSK*TPAB6+1	SHIFT COMPLETE
05444	34	5435	4156		JP*TS461	NO CONTINUE
05445	02	2170	4157		CMAL*TPAB2	IS AL CORRECT
05446	61	5451	4160		JPEQ*LOK+3	YES CONTINUE
05447	10	2170	4161		ENTAU*TPAB2	CORRECT TO AU
05450	34	5441	4162		JP*TS462	ERROR JUMP
05451	50	4601	4163		LSHAL*1	TEST END OFF
05452	02	2166	4164		CMAL*TPAB1	IS AL CORRECT
05453	61	5442	4165		JPEQ*TS462+1	YES EXIT
05454	10	2166	4166		ENTAU*TPAB1	CORRECT TO AU
05455	34	5441	4167		JP*TS462	ERROR JUMP
			4170	TF47	PROG*CASEY*30APL64	
			4171		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4172		REMARK*CORRECT PATTERN IN AU	
			4173		REMARK*INCORRECT PATTERN IN AL	
05456	00	0000	4174	TF47	0*	STORE AU + B 47
05457	70	0064	4175		ENTALK*64	SET TIMEOUT BUFFER
05460	44	2222	4176		STRAL*BUFF1	TO CODES FOR 47
05461	70	0067	4177		ENTALK*67	
05462	44	2223	4200		STRAL*BUFF2	
05463	12	5467	4201		ENTAL*LOK+4	SET UP
05464	44	2037	4202		STRAL*TFX	ERROR DISPLAY
05465	36	0001	4203		ENTBK*0001	SET B TO 1
05466	10	2144	4204		ENTAU*TPAT	SET AU TO 777777
05467	47	2252	4205		STRAUB*TPAR+1	SAVE AU
05470	12	2253	4206		ENTAL*TPAR	SET AL EQUAL AU
05471	02	2144	4207		CMAL*TPAT	IS AL CORRECT
05472	63	5544	4210		JPNOT*TF470	ERROR JUMP
05473	36	0002	4211		ENTBK*0002	SET B TO 2
05474	10	2146	4212		ENTAU*TPAT1	CLR AU
05475	47	2251	4213		STRAUB*TPAR+2	SAVE AU
05476	12	2253	4214		ENTAL*TPAR	SET AL EQUAL AU
05477	63	5544	4215		JPALNZ*TF470	ERROR JUMP
05500	36	0003	4216		ENTBK*0003	SET B TO 3

05501	10	2150	4217
05502	47	2250	4220
05503	12	2253	4221
05504	02	2150	4222
05505	63	5544	4223
05506	36	0004	4224
05507	10	2152	4225
05510	47	2247	4226
05511	12	2253	4227
05512	02	2152	4230
05513	63	5544	4231
05514	36	0005	4232
05515	10	2154	4233
05516	47	2246	4234
05517	12	2253	4235
05520	02	2154	4236
05521	63	5544	4237
05522	36	0000	4240
05523	10	2156	4241
05524	47	2253	4242
05525	12	2253	4243
05526	02	2156	4244
05527	63	5544	4245
05530	36	0001	4246
05531	10	2160	4247
05532	47	2252	4250
05533	12	2253	4251
05534	02	2160	4252
05535	63	5544	4253
05536	36	0002	4254
05537	10	2162	4255
05540	47	2251	4256
05541	12	2253	4257
05542	02	2162	4260
05543	61	5545	4261
05544	76	1742	4262

TF470

ENTAU\*TPAT2  
 STRAUB\*TPAR-3  
 ENTAL\*TPAR  
 CMAL\*TPAT2  
 JPNOT\*TF470  
 ENTBK\*0004

ENTAU\*TPAT3  
 STRAUB\*TPAR-4  
 ENTAL\*TPAR  
 CMAL\*TPAT3  
 JPNOT\*TF470  
 ENTBK\*0005  
 ENTAU\*TPAT4  
 STRAUB\*TPAR-5

ENTAL\*TPAR  
 CMAL\*TPAT4  
 JPNOT\*TF470  
 ENTBK\*0000  
 ENTAU\*TPAT5  
 STRAUB\*TPAR  
 ENTAL\*TPAR  
 CMAL\*TPAT5

JPNOT\*TF470  
 ENTBK\*0001  
 ENTAU\*TPAT6  
 STRAUB\*TPAR-1  
 ENTAL\*TPAR  
 CMAL\*TPAT6  
 JPNOT\*TF470  
 ENTBK\*0002

ENTAU\*TPAT7  
 STRAUB\*TPAR-2  
 ENTAL\*TPAR  
 CMAL\*TPAT7  
 JPEQ\*TF470+1  
 RJP\*TFDIS

SET AU TO 252525  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 4

SET AU TO 525252  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 5  
 SET AU TO 770000  
 SAVE AU

SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 CLR B  
 SET AU TO 007777  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 1  
 SET AU TO 707070  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 2

SET AU TO 070707  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY

05545	55	5456	4263		IJP*TF47	EXIT
			4264	TS47	PROG*SCOTT*30APL64	
			4265		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4266		REMARK*CORRECT OR INCORRECT PATTERN IN AU	
			4267		REMARK*INCORRECT OR CORRECT PATTERN IN AL	
05546	00	0000	4270	TS47	0*	LEFT SHIFT A 5047
05547	70	0065	4271		ENTALK*65	SET TYPEOUT BUFFER
05550	44	2222	4272		STRAL*BUFF1	TO CODES FOR 5047
05551	70	0060	4273		ENTALK*60	
05552	44	2223	4274		STRAL*BUFF2	
05553	70	0064	4275		ENTALK*64	
05554	44	2224	4276		STRAL*BUFF3	
05555	70	0067	4277		ENTALK*67	
05556	44	2225	4300		STRAL*BUFF4	
05557	12	5563	4301		ENTAL*TS471	SET UP
05560	44	2037	4302		STRAL*TFX	ERROR DISPLAY
05561	10	2146	4303		ENTAU*TPAT1	CLR AU
05562	12	2166	4304		ENTAL*TPAB1	SET AL TO 000001
05563	50	4722	4305	TS471	LSHA*22	SHIFT A LEFT 22
05564	61	5567	4306		JPALZ*LOK*3	SHIFT OK CONTINUE
05565	76	2040	4307	TS472	RJP*TS0IS	ERROR DISPLAY
05566	55	5546	4310		IJP*TS47	ERROR EXIT
05567	62	5572	4311		JPAUNZ*LOK*3	IS AU CORRECT
05570	12	2166	4312		ENTAL*TPAB1	CORRECT TO AL
05571	34	5565	4313		JP*TS472	ERROR JUMP
05572	50	4722	4314		LSHA*22	SHIFT A LEFT 22
05573	62	5565	4315		JPAUNZ*TS472	ERROR JUMP
05574	02	2166	4316		CMAL*TPAB1	IS AL CORRECT
05575	61	5566	4317		JPEG*TS472*1	EXIT
05576	10	2166	4320		ENTAU*TPAB1	CORRECT TO AU
05577	34	5565	4321		JP*TS472	ERROR JUMP
			4322	TF51	PROG*CASEY*30APL64	
			4323		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4324		REMARK*CORRECT PATTERN IN AU	
			4325		REMARK*INCORRECT PATTERN IN AL	
05600	00	0000	4326	TF51	0*	SELECTIVE SET 51

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05601 70 0065 4327  
 05602 44 2222 4330  
  
 05603 70 0061 4331  
 05604 44 2223 4332  
 05605 12 5610 4333  
 05606 44 2037 4334  
 05607 12 2146 4335  
 05610 51 2144 4336  
 05611 76 5637 4337  
 05612 51 2146 4340  
  
 05613 76 5637 4341  
 05614 12 2160 4342  
 05615 51 2162 4343  
 05616 76 5637 4344  
 05617 12 2162 4345  
 05620 51 2160 4346  
 05621 76 5637 4347  
 05622 12 2150 4350  
  
 05623 51 2152 4351  
 05624 76 5637 4352  
 05625 12 2152 4353  
 05626 51 2150 4354  
 05627 76 5637 4355  
 05630 12 2167 4356  
 05631 51 2166 4357  
 05632 76 5637 4360  
  
 05633 12 2166 4361  
 05634 51 2167 4362  
 05635 76 5637 4363  
 05636 55 5600 4364  
 05637 00 0000 4365  
 05640 02 2144 4366  
 05641 63 5643 4367  
 05642 55 5637 4370  
  
 05643 10 2144 4371  
 05644 76 1742 4372

ENTALK\*65  
 STRAL\*BUFF1  
  
 ENTALK\*61  
 STRAL\*BUFF2  
 ENTAL\*LOK\*5  
 STRAL\*TFX  
 ENTAL\*TPAT1  
 SLSET\*TPAT  
 RJP\*TF510  
 SLSET\*TPAT1  
  
 RJP\*TF510  
 ENTAL\*TPAT6  
 SLSET\*TPAT7  
 RJP\*TF510  
 ENTAL\*TPAT7  
 SLSET\*TPAT6  
 RJP\*TF510  
 ENTAL\*TPAT2  
  
 SLSET\*TPAT3  
 RJP\*TF510  
 ENTAL\*TPAT3  
 SLSET\*TPAT2  
 RJP\*TF510  
 ENTAL\*TPAB1+1  
 SLSET\*TPAB1  
 RJP\*TF510  
  
 ENTAL\*TPAB1  
 SLSET\*TPAB1+1  
 RJP\*TF510  
 IJP\*TF51  
 0\*0  
 CMAL\*TPAT  
 JPNOT\*TF511  
 IJP\*TF510  
  
 ENTAU\*TPAT  
 RJP\*TFDIS

TF510  
  
 TF511

SET TYPEOUT BUFFER  
 TO CODES FOR 51  
  
 SET UP  
 ERROR DISPLAY  
 CLR AL  
 SET WITH 777777  
 TEST SET  
 SET WITH 000000  
  
 TEST SET  
 SET AL TO 707070  
 SET WITH 070707  
 TEST SET  
 SET AL TO 070707  
 SET WITH 707070  
 TEST SET  
 SET AL TO 252525  
  
 SET WITH 525252  
 TEST SET  
 SET AL TO 525252  
 SET WITH 252525  
 TEST SET  
 SET AL TO 777776  
 SET WITH 000001  
 TEST SET  
  
 SET AL TO 000001  
 SET WITH 777776  
 TEST SET  
 EXIT  
 ENTRANCE  
 IS AL CORRECT  
 ERROR JUMP  
 EXIT CHECK  
  
 CORRECT TO AU  
 ERROR DISPLAY

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 B

05645	55	5600	4373
			4374
			4375
			4376
			4377
05646	00	0000	4400
05647	70	0065	4401
05650	44	2222	4402
05651	70	0060	4403
05652	44	2223	4404
05653	70	0065	4405
05654	44	2224	4406
05655	70	0061	4407
05656	44	2225	4410
05657	12	5664	4411
05660	44	2037	4412
05661	10	2150	4413
05662	12	2150	4414
05663	20	2150	4415
05664	50	5100	4416
05665	34	5670	4417
05666	76	2040	4420
05667	55	5646	4421
05670	10	2152	4422
05671	12	2152	4423
05672	20	2152	4424
05673	50	5100	4425
05674	34	5666	4426
05675	10	2150	4427
05676	12	2150	4430
05677	22	2152	4431
05700	50	5100	4432
05701	34	5703	4433
05702	34	5666	4434
05703	10	2152	4435
05704	12	2152	4436

TS51

TS51

TS512

IJP\*TS51  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY; FUNCT. CODE IN C REG.  
 REMARK\*THE A REGISTER WILL HOLD THE SUM OR

ERROR EXIT

REMARK\*THE DIFFERENCE OF AN ADD OR SUBT A  
 0\*  
 ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2  
 ENTALK\*65  
 STRAL\*BUFF3

SKIP ON NO BORROW 5051  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5051

ENTALK\*61  
 STRAL\*BUFF4  
 ENTAL\*TS512\*2  
 STRAL\*TFX  
 ENTAU\*TPAT2  
 ENTAL\*TPAT2  
 ADDA\*TPAT2  
 SKPNB0\*0

SET UP  
 ERROR DISPLAY  
 SET AU TO 252525  
 SET AL TO 252525  
 A+252525252525  
 CHECK NO SKIP

JP\*LOK+3  
 RJP\*TSDIS  
 IJP\*TS51  
 ENTAU\*TPAT3  
 ENTAL\*TPAT3  
 ADDA\*TPAT3  
 SKPNB0\*0  
 JP\*TS512

CHECK OK  
 ERROR DISPLAY  
 ERROR EXIT  
 SET AU TO 525252  
 SET AL TO 525252  
 A+525252525252  
 CHECK FOR SKIP  
 ERROR JUMP

ENTAU\*TPAT2  
 ENTAL\*TPAT2  
 SUBA\*TPAT3  
 SKPNB0\*0  
 JP\*LOK+2  
 JP\*TS512  
 ENTAU\*TPAT3  
 ENTAL\*TPAT3

SET AU TO 252525  
 SET AL TO 252525  
 A-525252525252  
 CHECK NO SKIP  
 CHECK OK  
 ERROR JUMP  
 SET AU TO 525252  
 SET AL TO 525252

05705 22 2150 4437  
 05706 50 5100 4440  
 05707 34 5666 4441  
 05710 55 5646 4442  
 4443  
 4444

TF52

SUBA\*TPAT2 A-252525252525  
 SKPNB0\*0 CHECK FOR SKIP  
 JP\*TS512 ERROR JUMP  
 IJP\*TS51 EXIT  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

05711 00 0000 4445  
 05712 70 0065 4446  
 05713 44 2222 4447  
 05714 70 0062 4450  
 05715 44 2223 4451  
 05716 12 5721 4452

TF52

REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\* SELECTIVE CLEAR 52  
 ENTALK\*65 SET TYPEOUT BUFFER  
 STRAL\*BUFF1 TO CODES FOR 52  
 ENTALK\*62  
 STRAL\*BUFF2  
 ENTAL\*LOK+3 SET UP

05717 44 2037 4455  
 05720 12 2144 4456  
 05721 52 2146 4457  
 05722 63 5747 4460  
 05723 52 2144 4461  
 05724 63 5747 4462  
 05725 12 2160 4463  
 05726 52 2162 4464

STRAL\*TFX ERROR DISPLAY  
 ENTAL\*TPAT SET AL TO 777777  
 SLCL\*TPAT1 CLEAR WITH 000000  
 JPALNZ\*TR52 ERROR JUMP  
 SLCL\*TPAT CLEAR WITH 777777  
 JPALNZ\*TR52 ERROR JUMP  
 ENTAL\*TPAT6 SET AL TO 707070  
 SLCL\*TPAT7 CLEAR WITH 070707

05727 63 5747 4465  
 05730 12 2162 4466  
 05731 52 2160 4467  
 05732 63 5747 4470  
 05733 12 2150 4471  
 05734 52 2152 4472  
 05735 63 5747 4473  
 05736 12 2152 4474

JPALNZ\*TR52 ERROR JUMP  
 ENTAL\*TPAT7 SET AL TO 070707  
 SLCL\*TPAT6 CLEAR WITH 707070  
 JPALNZ\*TR52 ERROR JUMP  
 ENTAL\*TPAT2 SET AL TO 252525  
 SLCL\*TPAT3 CLEAR WITH 525252  
 JPALNZ\*TR52 ERROR JUMP  
 ENTAL\*TPAT3 SET AL TO 525252

05737 52 2150 4475  
 05740 63 5747 4476  
 05741 12 2166 4477  
 05742 52 2167 4500  
 05743 63 5747 4501  
 05744 12 2167 4502  
 05745 52 2166 4503

SLCL\*TPAT2 CLEAR WITH 252525  
 JPALNZ\*TR52 ERROR JUMP  
 ENTAL\*TPAB1 SET AL TO 000001  
 SLCL\*TPAB1+1 CLEAR WITH 777776  
 JPALNZ\*TR52 ERROR JUMP  
 ENTAL\*TPAB1+1 SET AL TO 777776  
 SLCL\*TPAB1 CLEAR WITH 000001

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05746	61	5751	4504		JPALZ*TR52*2	EXIT CORRECT
05747	10	2146	4505	TR52	ENTAU*TPAT1	CORRECT TO AU
05750	76	1742	4506		RJP*TFDIS	ERROR DISPLAY
05751	55	5711	4507		IJP*TF52	EXIT
			4510	TS52	PROG*SCOTT**30APL64	
			4511		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4512		REMARK*THE DIVIDE REMAINDER IN AU	
			4513		REMARK*THE DIVIDE QUOTIENT IN AL	
05752	00	0000	4514	TS52	0*	SKIP ON OVERFLOW
05753	70	0065	4515		ENTALK*65	SET TIMEOUT BUFFER
05754	44	2222	4516		STRAL*BUFF1	TO CODES FOR 5052
05755	70	0060	4517		ENTALK*60	
05756	44	2223	4520		STRAL*BUFF2	
05757	70	0065	4521		ENTALK*65	
05760	44	2224	4522		STRAL*BUFF3	
			4523		ENTALK*62	
05761	70	0062	4523		STRAL*BUFF4	
05762	44	2225	4524		ENTAL*TS522*2	SET UP
05763	12	5772	4525		STRAL*TFX	ERROR DISPLAY
05764	44	2037	4526		SKPOV*0	CLR OVER
05765	50	5200	4527		ENTAL*TPAT1	CLR AL
05766	12	2146	4530		ENTALK*3777	SET AL TO 003777
05767	70	3777	4531		ENTAU*TPAT1	CLR AU
05770	10	2146	4532			
			4533		DIVA*TPAB1	DIV A BY 1
05771	26	2166	4533		SKPOV*0	CHECK NO SKIP
05772	50	5200	4534		JP*LOK*3	CHECK OK
05773	34	5776	4535		RJP*TSDIS	ERROR DISPLAY
05774	76	2040	4536	TS522	IJP*TS52	ERROR EXIT
05775	55	5752	4537		ENTALK*0	CLR AL
05776	70	0000	4540		ENTAU*TPAB1	SET AU TO 000001
05777	10	2166	4541		DIVA*TPAB1	DIV A BY 1
06000	26	2166	4542			
			4543		SKPOV*0	CHECK FOR SKIP
06001	50	5200	4543		JP*TS522	ERROR JUMP
06002	34	5774	4544		IJP*TS52	EXIT
06003	55	5752	4545		PROG*CASEY**30APL64	
			4546	TF53	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4547			

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		4550	REMARK*CORRECT PATTERN IN AU	
		4551	REMARK*INCORRECT PATTERN IN AL	
06004	00 0000	4552	0*	SELECTIVE COMPLEMENT 53
06005	70 0065	4553	ENTALK*65	SET TYPEOUT BUFFER
06006	44 2222	4554	STRAL*BUFF1	TO CODES FOR 53
06007	70 0063	4555	ENTALK*63	
06010	44 2223	4556	STRAL*BUFF2	
06011	12 6014	4557	ENTAL*LOK+3	SET UP
06012	44 2037	4560	STRAL*TFX	ERROR DISPLAY
		4561	ENTAL*TPAT1	CLR AL
06013	12 2146	4562	SLCP*TPAT	COMP WITH 777777
06014	53 2144	4563	CMAL*TPAT+1	IS AL CORRECT
06015	02 2145	4564	JPNOT*TR531	ERROR JUMP
06016	63 6047	4565	SLCP*TPAT1	COMP WITH 000000
06017	53 2146	4566	CMAL*TPAT+1	IS AL CORRECT
06020	02 2145	4567	JPNOT*TR531	ERROR JUMP
06021	63 6047	4570	ENTAL*TPAT6	SET AL TO 707070
06022	12 2160			
		4571	SLCP*TPAT7	COMP WITH 070707
06023	53 2162	4572	CMAL*TPAT	IS AL CORRECT
06024	02 2144	4573	JPNOT*TR531	ERROR JUMP
06025	63 6047	4574	ENTAL*TPAT3	SET AL TO 525252
06026	12 2152	4575	SLCP*TPAT2	COMP WITH 252525
06027	53 2150	4576	CMAL*TPAT	IS AL CORRECT
06030	02 2144	4577	JPNOT*TR531	ERROR JUMP
06031	63 6047	4600	ENTAL*TPAT2	SET AL TO 252525
06032	12 2150			
		4601	SLCP*TPAT3	COMP WITH 525252
06033	53 2152	4602	CMAL*TPAT	IS AL CORRECT
06034	02 2144	4603	JPNOT*TR531	ERROR JUMP
06035	63 6047	4604	SLCP*TPAT2	COMP WITH 252525
06036	53 2150	4605	CMAL*TPAT3	IS AL CORRECT
06037	02 2152	4606	JPNOT*TR532	ERROR JUMP
06040	63 6045	4607	ENTAL*TPAT1	CLR AL
06041	12 2146	4610	SLCP*TPAT3	COMP WITH 525252
06042	53 2152			
		4611	CMAL*TPAT3+1	IS AL CORRECT
06043	02 2153	4612	JPEQ*TR531+2	CORRECT EXIT
06044	61 6051	4613	ENTAU*TPAT3+1	CORRECT TO AU
06045	10 2153			

TF53

TR532

06046	34	6050	4614		JP*TR531+1	DISPLAY
06047	10	2144	4615	TR531	ENTAU*TPAT	CORRECT TO AU
06050	76	1742	4616		RJP*TFDIS	ERROR DISPLAY
06051	55	6004	4617		IJP*TF53	EXIT
			4620	TS53	PROG*SCOTT*30APL64	
			4621		REMARK*ERROR DISPLAY; FUNCT. CODE IN C REG.	
			4622		REMARK*THE DIVIDE REMAINDER IN AU	
			4623		REMARK*THE DIVIDE QUOTIENT IN AL	
06052	00	0000	4624	TS53	0*	SKIP OVERFLOW 5053
06053	70	0065	4625		ENTALK*65	SET TYPEOUT BUFFER
06054	44	2222	4626		STRAL*BUFF1	TO CODES FOR 5053
06055	70	0060	4627		ENTALK*60	
06056	44	2223	4630		STRAL*BUFF2	
06057	70	0065	4631		ENTALK*65	
06060	44	2224	4632		STRAL*BUFF3	
06061	70	0063	4633		ENTALK*63	
06062	44	2225	4634		STRAL*BUFF4	
06063	12	6072	4635		ENTAL*TS532+2	SET UP
06064	44	2037	4636		STRAL*TFX	ERROR DISPLAY
06065	50	5200	4637		SKPOV*0	CLR OVER
06066	10	2146	4640		ENTAU*TPAT1	CLR AU
06067	70	0000	4641		ENTALK*0	CLR AL
06070	10	2166	4642		ENTAU*TPAB1	SET AU TO 000001
06071	26	2166	4643		DIVA*TPAB1	DIV A BY 1
06072	50	5300	4644		SKPNV*0	CHECK FOR NO SKIP
06073	34	6076	4645		JP*LOK+3	CHECK OK
06074	76	2040	4646	TS532	RJP*TSDIS	ERROR DISPLAY
06075	55	6052	4647		IJP*TS53	ERROR EXIT
06076	70	3777	4650		ENTALK*3777	SET AL TO 003777
06077	10	2146	4651		ENTAU*TPAT1	SET AU TO 000000
06100	26	2166	4652		DIVA*TPAB1	DIV A BY 1
06101	50	5300	4653		SKPNV*0	CHECK FOR SKIP
06102	34	6074	4654		JP*TS532	ERROR JUMP
06103	55	6052	4655		IJP*TS53	EXIT
			4656	TS54	PROG*SCOTT*30APL64	
			4657		REMARK*ERROR DISPLAY; FUNCT. CODE IN C REG.	

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B

06104	00	0000	4660
06105	70	0065	4661
06106	44	2222	4662
06107	70	0060	4663
06110	44	2223	4664
06111	70	0065	4665
06112	44	2224	4666
06113	70	0064	4667
06114	44	2225	4670
06115	12	6122	4671
06116	44	2037	4672
06117	36	0000	4673
06120	10	2144	4674
06121	70	0003	4675
06122	50	5400	4676
06123	34	6126	4677
06124	76	2040	4700
06125	55	6104	4701
06126	50	4601	4702
06127	56	2201	4703
06130	34	6122	4704
06131	67	6135	4705
06132	70	7774	4706
06133	36	0000	4707
06134	34	6122	4710
06135	36	0000	4711
06136	70	0001	4712
06137	50	5400	4713
06140	34	6124	4714
06141	50	4601	4715
06142	56	2201	4716
06143	34	6137	4717
06144	67	6125	4720
06145	36	0000	4721
06146	70	7776	4722
			4723
			4724

TS554

TS545

TS544

REMARK\*PARITY PATTERN IN AU  
REMARK\*PARITY PATTERN IN AL  
0\*  
ENTALK\*65  
STRAL\*BUFF1

ENTALK\*60  
STRAL\*BUFF2  
ENTALK\*65  
STRAL\*BUFF3  
ENTALK\*64  
STRAL\*BUFF4  
ENTAL\*TS545-2  
STRAL\*TFX

ENTBK\*0  
ENTAU\*TPAT  
ENTALK\*0003  
SKPODD\*0  
JP\*LOK+3  
RJP\*TSDIS  
IJP\*TS54  
LSHAL\*1

BSK\*TPAB6+1  
JP\*TS545-2  
JPALNG\*LOK+4  
ENTALK\*7774  
ENTBK\*0  
JP\*TS545-2  
ENTBK\*0  
ENTALK\*1

SKPODD\*0  
JP\*TS545  
LSHAL\*1  
BSK\*TPAB6+1  
JP\*TS544  
JPALNG\*TS545+1  
ENTBK\*0  
ENTALK\*7776

SKIP ON ODD PARITY 5054  
SET TIMEOUT BUFFER  
TO CODES FOR 5054

SET UP  
ERROR DISPLAY

CLR B  
SET AU TO 777777  
SET AL TO 000003  
CHECK NO SKIP  
CHECK OK  
ERROR DISPLAY  
ERROR EXIT  
SHIFT PATTERN

ALL PATTERNS CHECKED  
NO CONTINUE  
TWO PASS CHECK  
SET AL TO 777774  
SET B TO 0  
GO TO CHECK  
CLR B  
SET AL TO I

CHECK FOR SKIP  
ERROR JUMP  
SHIFT PATTERN  
ALL PATTERNS CHECKED  
NO CONTINUE  
EXIT  
CLR B  
SET AL TO 777776

06147	34	6137	4725		JP*TS544	CONTINUE CHECK
			4726	TF55	PROG*CASEY*50APL64	
			4727		REMARK*ERROR DISPLAY; FUNCT. CODE IN CREG.	
			4730		REMARK*NO DISPLAY IN AU OR AL	
06150	00	0000	4731	TF55	0*	INDIRECT JUMP 55
06151	70	0065	4732		ENTALK*65	SET TYPEOUT BUFFER
06152	44	2222	4733		STRAL*BUFF1	TO CODES FOR 55
06153	70	0065	4734		ENTALK*65	
06154	44	2223	4735		STRAL*BUFF2	
06155	12	6160	4736		ENTAL*LOK+3	SET UP
06156	44	2037	4737		STRAL*TFX	ERROR DISPLAY
06157	12	2146	4740		ENTAL*TPAT1	CLR AL
06160	55	6161	4741		IJP*LOK+1	TEST JUMP
06161	00	6164	4742		0*TF551+1	ADDRESS
06162	34	6173	4743		JP*TR55	ERROR JUMP
06163	00	6167	4744	TF551	0*TF552+1	ADDRESS
06164	55	6163	4745		IJP*TF551	TEST JUMP
06165	34	6173	4746		JP*TR55	ERROR JUMP
06166	00	6172	4747	TF552	0*TF553+1	ADDRESS
06167	55	6166	4750		IJP*TF552	TEST JUMP
06170	34	6173	4751		JP*TR55	ERROR JUMP
06171	00	6174	4752	TF553	0*TR55+1	ADDRESS
06172	55	6171	4753		IJP*TF553	TEST JUMP
06173	76	1742	4754	TR55	RJP*TFDIS	ERROR DISPLAY
06174	55	6150	4755		IJP*TF55	EXIT
			4756	TS55	PROG*SCOTT*50APL64	
			4757		REMARK*ERROR DISPLAY; FUNCT. CODE IN C REG.	
			4760		REMARK*PARITY PATTERN IN AU	
			4761		REMARK*PARITY PATTERN IN AL	
06175	00	0000	4762	TS55	0*	SKIP ON EVEN PARITY
06176	70	0065	4763		ENTALK*65	SET TYPEOUT BUFFER
06177	44	2222	4764		STRAL*BUFF1	TO CODES FOR 5055
06200	70	0060	4765		ENTALK*60	
06201	44	2223	4766		STRAL*BUFF2	
06202	70	0065	4767		ENTALK*65	
06203	44	2224	4770		STRAL*BUFF3	



06204	70	0065	4771
06205	44	2225	4772
06206	12	6213	4773
06207	44	2037	4774
06210	36	0000	4775
06211	10	2144	4776
06212	70	0001	4777
06213	50	5500	5000
06214	34	6217	5001
06215	76	2040	5002
06216	55	6175	5003
06217	50	4601	5004
06220	56	2201	5005
06221	34	6213	5006
06222	67	6226	5007
06223	36	0000	5010
06224	70	7776	5011
06225	34	6213	5012
06226	36	0000	5013
06227	70	0003	5014
06230	50	5500	5015
06231	34	6215	5016
06232	50	4601	5017
06233	56	2201	5020
06234	34	6230	5021
06235	67	6216	5022
06236	36	0000	5023
06237	70	7774	5024
06240	34	6230	5025
			5026
			5027
			5030
			5031
06241	00	0000	5032
06242	70	0065	5033
06243	44	2222	5034

TS551

TS552

TS556

TF56

TF56

ENTALK\*65  
 STRAL\*BUFF4  
 ENTAL\*TS551  
 STRAL\*TFX  
 ENTBK\*0  
 ENTAU\*TPAT  
 ENTALK\*1  
 SKPEVN\*0  
 JP\*LOK\*3  
 RJP\*TSDIS  
 IJP\*TS55  
 LSHAL\*1  
 BSK\*TPAB6\*1  
 JP\*TS551  
 JPALNG\*LOK\*4  
 ENTBK\*0  
 ENTALK\*7776  
 JP\*TS551  
 ENTBK\*0  
 ENTALK\*0003  
 SKPEVN\*0  
 JP\*TS552  
 LSHAL\*1  
 BSK\*TPAB6\*1  
 JP\*TS556  
 JPALNG\*TS552\*1  
 ENTBK\*0  
 ENTALK\*7774  
 JP\*TS556  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL.  
 0\*  
 ENTALK\*65  
 STRAL\*BUFF1

SET UP  
 ERROR DISPLAY  
 SET B TO 0  
 SET AU TO 777777  
 SET AL TO 000001  
 CHECK NO SKIP

CHECK OK  
 ERROR DISPLAY  
 ERROR EXIT  
 SHIFT PATTERN  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 TWO PASS CHECK  
 CLR B

SET AL TO 777776  
 CONTINUE CHECK  
 CLR B  
 SET AL TO 3  
 CHECK FOR SKIP  
 ERROR JUMP  
 SHIFT PATTERN  
 ALL PATTERNS CHECKED

NO CONTINUE  
 EXIT  
 CLR B  
 SET AL TO 777774  
 CONTINUE CHECK

B SKIP 56  
 SET TYPEOUT BUFFER  
 TO CODES FOR 56

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06244	70	0066	5035
06245	44	2223	5036
06246	12	6251	5037
06247	44	2037	5040
06250	36	0000	5041
06251	56	2156	5042
06252	34	6251	5043
06253	42	2275	5044
06254	12	2275	5045
06255	10	2156	5046
06256	02	2157	5047
06257	63	6310	5050
06260	36	0000	5051
06261	56	2226	5052
06262	34	6261	5053
06263	42	2275	5054
06264	12	2275	5055
06265	10	2226	5056
06266	02	2226	5057
06267	63	6310	5060
06270	36	0000	5061
06271	56	2171	5062
06272	34	6271	5063
06273	42	2275	5064
06274	12	2275	5065
06275	10	2171	5066
06276	02	2171	5067
06277	63	6310	5070
06300	36	0000	5071
06301	56	2242	5072
06302	34	6301	5073
06303	42	2275	5074
06304	12	2275	5075
06305	10	2242	5076
06306	02	2242	5077
06307	61	6311	5100

ENTALK\*66  
STRAL\*BUFF2

ENTAL\*LOK\*3  
STRAL\*TFX  
ENTBK\*0  
BSK\*TPAT5  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT5

CMAL\*TPAT5\*5  
JPNOT\*TF560  
ENTBK\*0  
BSK\*TPAK  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAK

CMAL\*TPAK  
JPNOT\*TF560  
ENTBK\*0  
BSK\*TPAB2\*1  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAB2\*1

CMAL\*TPAB2\*1  
JPNOT\*TF560  
ENTBK\*0  
BSK\*TPAS3  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAS3

CMAL\*TPAS3  
JPEQ\*TF560\*1

SET UP  
ERROR DISPLAY  
CLR B  
SKIP ON 7777  
CONTINUE SKIP  
SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
ERROR JUMP  
CLR B  
SKIP ON 2020  
CONTINUE SKIP  
SET AL EQUALB

CORRECT TO AU

IS AL CORRECT  
ERROR JUMP  
CLR B  
SKIP ON 505  
CONTINUE SKIP  
SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
ERROR JUMP  
CLR B  
SKIP ON 2  
CONTINUE SKIP  
SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
YES EXIT

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06310	76	1742	5101	TF560	RJP*TFDIS	ERROR DISPLAY
06311	55	6241	5102		IJP*TF56	EXIT
			5103	TF57	PROG*CASEY*30APL64	
			5104		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5105		REMARK*CORRECT PATTERN IN AU	
			5106		REMARK*INCORRECT PATTERN IN AL	
06312	00	0000	5107	TF57	0*	INDEX SKIP 57.
06313	70	0065	5110		ENTALK*65	SET TYPEOUT BUFFER
06314	44	2222	5111		STRAL*BUFF1	TO CODES FOR 57
06315	70	0067	5112		ENTALK*67	
06316	44	2223	5113		STRAL*BUFF2	
06317	10	2146	5114		ENTAU*TPAT1	CORRECT TO AU
06320	12	2156	5115		ENTAL*TPAT5	SET AL TO 007777
06321	44	2253	5116		STRAL*TPAR	SET INDEX
06322	57	2253	5117	TF570	ISK*TPAR	SKIP ON INDEX
06323	34	6322	5120		JP*LOK-1	CONTINUE SKIP
06324	12	2253	5121		ENTAL*TPAR	SET AL EQUAL FINAL
06325	63	6354	5122		JPALNZ*TR57	ERROR JUMP
06326	12	2234	5123		ENTAL*TPAK6	SET AL TO 2525
06327	44	2253	5124		STRAL*TPAR	SET INDEX
06330	57	2253	5125		ISK*TPAR	SKIP ON INDEX
06331	34	6330	5126		JP*LOK-1	CONTINUE SKIP
06332	12	2253	5127		ENTAL*TPAR	SET AL EQUAL FINAL
06333	63	6354	5130		JPALNZ*TR57	ERROR JUMP
06334	12	2240	5131		ENTAL*TPAS1	SET AL TO 17
06335	44	2253	5132		STRAL*TPAR	SET INDEX
06336	57	2253	5133		ISK*TPAR	SKIP ON INDEX
06337	34	6336	5134		JP*LOK-1	CONTINUE SKIP
06340	12	2253	5135		ENTAL*TPAR	SET AL EQUAL FINAL
06341	63	6354	5136		JPALNZ*TR57	ERROR JUMP
06342	12	2144	5137		ENTAL*TPAT	SET AL TO 777777
06343	44	2253	5140		STRAL*TPAR	SET INDEX
06344	57	2253	5141		ISK*TPAR	SKIP ON INDEX
06345	34	6344	5142		JP*LOK-1	CONTINUE SKIP
06346	12	2253	5143		ENTAL*TPAR	SET AL EQUAL FINAL
06347	63	6354	5144		JPALNZ*TR57	ERROR JUMP

06350 44 2253 5145  
 06351 57 2253 5146  
 06352 34 6354 5147  
 06353 55 6312 5150  
 06354 12 6322 5151  
 06355 44 2037 5152

TR57

STRAL\*TPAR  
 ISK\*TPAR  
 JP\*TR57  
 IJP\*TF57  
 ENTAL\*TF570  
 STRAL\*TFX

SET INDEX  
 SKIP ON INDEX  
 ERROR JUMP  
 EXIT  
 SET UP  
 ERROR DISPLAY

06356 76 1742 5153  
 06357 55 6312 5154

TF60

RJP\*TFDIS  
 IJP\*TF57  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY FUNC CODE IN C REG  
 REMARK\*SHIFTED PATTERN IN AU  
 REMARK\*NO DISPLAY IN AL

DISPLAY  
 ERROR EXIT

06360 00 0000 5161  
 06361 70 0066 5162

TF60

0\*  
 ENTALK\*66

JUMP AU ZERO 60  
 SET TPEOUT BUFFER

06362 44 2222 5163  
 06363 70 0060 5164  
 06364 12 6370 5165  
 06365 44 2037 5166  
 06366 76 2276 5167  
 06367 10 2146 5170  
 06370 60 6373 5171  
 06371 76 1742 5172

TF602

STRAL\*BUFF1  
 ENTALK\*60  
 ENTAL\*LOK\*4  
 STRAL\*TFX  
 RJP\*TFSH1  
 ENTAU\*TPAT1  
 JPAUZ\*LOK\*3  
 RJP\*TFDIS

TO CODES FOR 60  
 SET UP  
 ERROR DISPLAY  
 SET UP FOR SHIFT  
 CLR AU  
 TEST FOR JUMP  
 ERROR DISPLAY

06372 55 6360 5173  
 06373 10 2166 5174  
 06374 60 6371 5175  
 06375 50 4501 5176  
 06376 57 2306 5177  
 06377 34 6374 5200  
 06400 55 6360 5201  
 5202

TF604

TS60

IJP\*TF60  
 ENTAU\*TPAB1  
 JPAUZ\*TF602  
 LSHAU\*1  
 ISK\*TSH  
 JP\*TF604  
 IJP\*TF60  
 PROG\*SCOTT\*30APL64

ERROR EXIT  
 SET AU TO 000001  
 TEST NO JUMP  
 SHIFT PATTERN  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 EXIT

06401 44 2223 5203  
 5204  
 5205  
 5206  
 5207  
 06402 00 0000 5210  
 06403 70 0065 5211  
 06404 44 2222 5211

TS60

REMARK\*ERROR DISPLAY, FUNCT: CODE IN C REG.  
 STRAL\*BUFF2  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*65  
 STRAL\*BUFF1

ROUND A 5060  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5060

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06405 70 0060 5212  
 06406 44 2223 5213  
 06407 70 0066 5214  
 06410 44 2224 5215  
 06411 70 0060 5216  
 06412 44 2225 5217  
 06413 12 6417 5220

06414 44 2037 5221  
 06415 12 2144 5222  
 06416 10 2261 5223  
 06417 50 6000 5224  
 06420 02 2170 5225  
 06421 61 6425 5226  
 06422 10 2170 5227  
 06423 76 2040 5230

06424 55 6402 5231  
 06425 10 2144 5232  
 06426 50 6000 5233  
 06427 02 2146 5234  
 06430 61 6433 5235  
 06431 10 2146 5236  
 06432 34 6423 5237  
 06433 10 2261 5240

06434 50 6000 5241  
 06435 02 2261 5242  
 06436 61 6424 5243  
 06437 10 2261 5244  
 06440 34 6423 5245

06441 00 0000 5251  
 06442 70 0066 5252  
 06443 44 2222 5253  
 06444 70 0061 5254  
 06444 70 0061 5255

TS602

TF61

TF61

ENTALK\*60  
 STRAL\*BUFF2  
 ENTALK\*66  
 STRAL\*BUFF3  
 ENTALK\*60  
 STRAL\*BUFF4  
 ENTAL\*LOK+4

STRAL\*TFX  
 ENTAL\*TPAT  
 ENTAU\*TC03  
 RND\*0  
 CMAL\*TPAB2  
 JPEQ\*LOK+4  
 ENTAU\*TPAB2  
 RJP\*TSDIS

IJP\*TS60  
 ENTAU\*TPAT  
 RND\*0  
 CMAL\*TPAT1  
 JPEQ\*LOK+3  
 ENTAU\*TPAT1  
 JP\*TS602  
 ENTAU\*TC03

RND\*0  
 CMAL\*TC03  
 JPEQ\*TS602+1  
 ENTAU\*TC03  
 JP\*TS602

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU

REMARK\*SHIFTED PATTERN IN AL  
 0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*61

SET UP

ERROR DISPLAY  
 SET AL TO 777777  
 SET AU TO 377777  
 TEST ROUND  
 IS AL CORRECT  
 YES CONTINUE  
 ORRECT TO AU  
 ERROR DISPLAY

ERROR EXIT  
 SET AU TO 777777  
 TEST ROUND  
 IS AL CORRECT  
 YES CONTINUE  
 CORRECT TO AU  
 ERROR JUMP  
 SET AU TO 377777

TEST ROUND  
 IS AL CORRECT  
 EXIT  
 CORRECT TO AU  
 ERROR JUMP

JUMP AL ZERO 61  
 SET TYPEOUT BUFFER  
 TO CODES FOR 61

06445	44	2223	5256		STRAL*BUFF2	
06446	12	6452	5257		ENTAL*LOK+4	SET UP
06447	44	2037	5260		STRAL*TFX	ERROR DISPLAY
06450	76	2276	5261		RJP*TFSH1	SET UP SHIFT
06451	70	0000	5262		ENTALK*0	CLR AL
06452	61	6455	5263		JPALZ*LOK+3	TEST FOR JUMP
06453	76	1742	5264	TF612	RJP*TFDIS	ERROR DISPLAY
06454	55	6441	5265		IJP*TF61	ERROR EXIT
06455	70	0001	5266		ENTALK*1	SET AL TO 1
06456	61	6453	5267	TF614	JPALZ*TF612	TEST NO JUMP
06457	50	4601	5270		LSHAL*1	SHIFT PATTERN
06460	57	2306	5271		ISK*TSH	ALL PATTERNS CHECKED
06461	34	6456	5272		JP*TF614	NO CONTINUE
06462	55	6441	5273		IJP*TF61	EXIT
			5274	TS61	PROG*SCOTT*30APL64	
			5275		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5276		REMARK*CORRECT PATTERN IN AU	
			5277		REMARK*INCORRECT PATTERN IN AL	
06463	00	0000	5300	TS61	0*	COMPLEMENT AL 5061
06464	70	0065	5301		ENTALK*65	SET TIMEOUT BUFFER
06465	44	2222	5302		STRAL*BUFF1	TO CODES FOR 5061
06466	70	0060	5303		ENTALK*60	
06467	44	2223	5304		STRAL*BUFF2	
06470	70	0066	5305		ENTALK*66	
06471	44	2224	5306		STRAL*BUFF3	
06472	70	0061	5307		ENTALK*61	
06473	44	2225	5310		STRAL*BUFF4	
06474	12	6477	5311		ENTAL*LOK+3	SET UP
06475	44	2037	5312		STRAL*TFX	ERROR DISPLAY
06476	70	7777	5313		ENTALK*7777	SET AL TO 77777
06477	50	6100	5314		CPAL*0	TEST FUNC
06500	61	6504	5315		JPALZ*LOK+4	CHECK OK
06501	10	2146	5316		ENTAU*TPAT1	CLR AU
06502	76	2040	5317	TS612	RJP*TSDIS	ERROR DISPLAY
06503	55	6463	5320		IJP*TS61	ERROR EXIT
06504	71	0001	5321		ADDALK*0001	AL + 1

06505 50 6100 5322  
 06506 02 2167 5323  
 06507 61 6503 5324  
  
 06510 10 2167 5325  
 06511 34 6502 5326  
  
 06512 00 0000 5333  
 06513 70 0066 5334  
  
 06514 44 2222 5335  
 06515 70 0061 5336  
 06516 44 2223 5337  
 06517 12 6523 5340  
 06520 44 2037 5341  
 06521 12 2146 5342  
 06522 02 2147 5343  
 06523 61 6526 5344  
  
 06524 76 1742 5345  
 06525 55 6512 5346  
 06526 02 2150 5347  
 06527 61 6524 5350  
 06530 55 6512 5351  
  
 5352  
 5353  
 5354  
  
 5355  
 06531 00 0000 5356  
 06532 70 0066 5357  
 06533 44 2222 5360  
 06534 70 0062 5361  
 06535 44 2223 5362  
 06536 12 6542 5363  
 06537 44 2037 5364  
  
 06540 76 2276 5365

CPAL\*0  
 CMAL\*TPAB1+1  
 JPEQ\*TS612+1  
  
 ENTAU\*TPAB1+1  
 JP\*TS612  
 TC61 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU  
 REMARK\*CORRECT PATTERN IN AL  
 TC61 0\*  
 ENTALK\*66  
  
 STRAL\*BUFF1  
 ENTALK\*61  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX  
 ENTAL\*TPAT1  
 CMAL\*TPAT1+1  
 JPEQ\*LOK+3  
  
 TC612 RJP\*TFDIS  
 IJP\*TC61  
 CMAL\*TPAT2  
 JPEQ\*TC612  
 IJP\*TC61  
 TF62 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*SHIFTED PATTERN IN AU  
  
 REMARK\*NO DISPLAY IN AL  
 TF62 0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*62  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX  
  
 RJP\*TFSH1

TEST FUNC  
 IS AL CORRECT  
 EXIT  
  
 CORRECT TO AU  
 ERROR JUMP  
  
 JUMP EQUAL 61  
 SET TIMEOUT BUFFER  
  
 TO CODES FOR 61  
  
 SET UP  
 ERROR DISPLAY  
 CLR AL  
 SET EQ DESIG  
 TEST FOR JUMP  
  
 ERROR DISPLAY  
 ERROR EXIT  
 CLR EQ DESIG  
 TEST NO JUMP  
 EXIT  
  
 JUMP AU NOT ZERO 62  
 SET TIMEOUT BUFFER  
 TO CODES FOR 62  
  
 SET UP  
 ERROR DISPLAY  
  
 SET UP SHIFT

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06541	10	2146	5366		ENTAU*TPAT1	CLR AU
06542	62	6544	5367		JPAUNZ*TF622	TEST NO JUMP
06543	34	6546	5370		JP*LOK+3	CHECK OK
06544	76	1742	5371	TF622	RJP*TFDIS	ERROR DISPLAY
06545	55	6531	5372		IJP*TF62	ERROR EXIT
06546	10	2166	5373		ENTAU*TPAB1	SET AU TO 000001
06547	62	6551	5374	TF624	JPAUNZ*LOK+2	TEST FOR JUMP
06550	34	6544	5375		JP*TF622	ERROR JUMP
06551	50	4501	5376		LSHAU*1	SHIFT PATTERN
06552	57	2306	5377		ISK*TSH	ALL PATTERNS CHECKED
06553	34	6547	5400		JP*TF624	NO CONTINUE
06554	55	6531	5401		IJP*TF62	EXIT
			5402	TS62	PROG*SCOTT*30APL64	
			5403		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5404		REMARK*INCORRECT PATTERN IN AU	
			5405		REMARK*CORRECT PATTERN IN AL	
06555	00	0000	5406	TS62	0*	COMPLEMENT AU 5062
06556	70	0065	5407		ENTALK*65	SET TYPEOUT BUFFER
06557	44	2222	5410		STRAL*BUFF1	TO CODES FOR 5062
06560	70	0060	5411		ENTALK*60	
06561	44	2223	5412		STRAL*BUFF2	
06562	70	0066	5413		ENTALK*66	
06563	44	2224	5414		STRAL*BUFF3	
06564	70	0062	5415		ENTALK*62	
06565	44	2225	5416		STRAL*BUFF4	
06566	12	6571	5417		ENTAL*LOK+3	SET UP
06567	44	2037	5420		STRAL*TFX	ERROR DISPLAY
06570	10	2144	5421		ENTAU*TPAT	SET AU TO 777777
06571	50	6200	5422		CPAU*0	TEST FUNC
06572	60	6576	5423		JPAUZ*LOK+4	CHECK OK
06573	70	0000	5424		ENTALK*0	CORRECT TO AL
06574	76	2040	5425	TS622	RJP*TSDIS	ERROR DISPLAY
06575	55	6555	5426		IJP*TS62	ERROR EXIT
06576	10	2166	5427		ENTAU*TPAB1	SET AUT TO000001
06577	50	6200	5430		CPAU*0	TEST FUNC
06600	70	7776	5431		ENTALK*7776	CORRECT TO AL
06601	06	2144	5432		CMSK*TPAT	IS AU CORRECT



06602	63	6574	5433		JPNOT*TS622	ERROR JUMP
06603	55	6555	5434		IJP*TS62	EXIT
			5435	TF63	PROG*SCOTT*50APL64	
			5436		REMARK*ERROR DISPLAY; FUNCT. CODE IN C REG.	
			5437		REMARK*NO DISPLAY IN AU	
			5440		REMARK*SHIFTED PATTERN IN AL	
06604	00	0000	5441	TF63	0*	JUMP AL NOT ZERO 63
06605	70	0066	5442		ENTALK*66	SET TYPEOUT BUFFER
06606	44	2222	5443		STRAL*BUFF1	TO CODES FOR 63
06607	70	0063	5444		ENTALK*63	
06610	44	2223	5445		STRAL*BUFF2	
06611	12	6615	5446		ENTAL*LOK*4	SET UP
06612	44	2037	5447		STRAL*TFX	ERROR DISPLAY
06613	76	2276	5450		RJP*TF5H1	SET UP SHIFT
06614	70	0000	5451		ENTALK*0	CLR AL
06615	63	6617	5452		JPALNZ*TF632	TEST NO JUMP
06616	34	6621	5453		JP*LOK*3	CHECK OK
06617	76	1742	5454	TF632	RJP*TFDIS	ERROR DISPLAY
06620	55	6604	5455		IJP*TF63	ERROR EXIT
06621	70	0001	5456		ENTALK*0001	SET AL TO 000001
06622	63	6624	5457	TF634	JPALNZ*LOK*2	TEST FOR JUMP
06623	34	6617	5460		JP*TF632	ERROR JUMP
06624	50	4601	5461		LSHAL*1	SHIFT PATTERN
06625	57	2306	5462		ISK*TSH	ALL PATTERNS CHECKED
06626	34	6622	5463		JP*TF634	NO CONTINUE
06627	55	6604	5464		IJP*TF63	EXIT
			5465	TS63	PROG*SCOTT*50APL64	
			5466		REMARK*ERROR DISPLAY; FUNCT. CODE IN C REG.	
			5467		REMARK*THE PATTERNS IN AU AND AL	
			5470		REMARK*SHOULD BE EQUAL	
06630	00	0000	5471		SETADR*5026	
06631	70	0065	5472	TS63	0*	COMPLEMENT A
06632	44	2222	5473		ENTALK*65	SET TYPEOUT BUFFER
06633	70	0060	5474		STRAL*BUFF1	TO CODES FOR 5063
06634	44	2223	5475		ENTALK*60	
			5476		STRAL*BUFF2	

06635	70	0066	5477
06636	44	2224	5500
06637	70	0063	5501
06640	44	2225	5502
06641	12	6645	5503
06642	44	2037	5504
06643	12	2150	5505
06644	10	2150	5506
06645	50	6300	5507
06646	02	2152	5510
06647	61	6652	5511
06650	76	2040	5512
06651	55	6630	5513
06652	06	2144	5514
06653	63	6650	5515
06654	50	6300	5516
06655	02	2150	5517
06656	63	6650	5520
06657	06	2144	5521
06660	63	6650	5522
06661	55	6630	5523
06662	00	0000	5527
06663	70	0066	5530
06664	44	2222	5531
06665	70	0063	5532
06666	44	2223	5533
06667	12	6673	5534
06670	44	2037	5535
06671	12	2166	5537
06672	02	2146	5540
06673	63	6676	5541
06674	76	1742	5542

TS632

TC63

TC63

TC632

ENTALK\*66  
 STRAL\*BUFF3  
 ENTALK\*63  
 STRAL\*BUFF4  
 ENTAL\*LOK+4  
 STRAL\*TFX  
 ENTAL\*TPAT2  
 ENTAU\*TPAT2

CPA\*0  
 CMAL\*TPAT3  
 JPEQ\*LOK+3  
 RJP\*TSDIS  
 IJP\*TS63  
 CMSK\*TPAT  
 JPNOT\*TS632  
 CPA\*0

CMAL\*TPAT2  
 JPNOT\*TS632  
 CMSK\*TPAT  
 JPNOT\*TS632  
 IJP\*TS63  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU

REMARK\*CORRECT PATTERN IN AL  
 0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*63  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX

ENTAL\*TPAB1  
 CMAL\*TPAT1  
 JPNOT\*LOK+3  
 RJP\*TFDIS

SET UP  
 ERROR DISPLAY  
 SET AL TO 252525  
 SET AU TO 252525

TEST FUNC  
 IS AL CORRECT  
 YES CONTINUE  
 ERROR DISPLAY  
 ERROR EXIT  
 IS AU CORRECT  
 ERROR JUMP  
 TEST FUNC

IS AL CORRECT  
 ERROR JUMP  
 IS AU CORRECT  
 ERROR JUMP  
 EXIT

JUMP NOT EQUAL 63  
 SET TYPEOUT BUFFER  
 TO CODES FOR 63

SET UP  
 ERROR DISPLAY

SET AL TO 000001  
 SET UNEG DESIG  
 TEST FOR JUMP  
 ERROR DISPLAY

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06675	55	6662	5543
06676	02	2166	5544
06677	63	6674	5545
06700	55	6662	5546
			5547
			5550
			5551
			5552
06701	00	0000	5553
06702	70	0066	5554
06703	44	2222	5555
06704	70	0064	5556
06705	44	2223	5557
06706	12	6711	5560
06707	44	2037	5561
06710	10	2172	5562
06711	64	6714	5563
06712	76	1742	5564
06713	55	6701	5565
06714	10	2160	5566
06715	64	6712	5567
06716	55	6701	5570
			5571
			5572
			5573
			5574
06717	00	0000	5575
06720	70	0066	5576
06721	44	2222	5577
06722	70	0065	5600
06723	44	2223	5601
06724	70	6727	5602
06725	44	2037	5603
06726	12	2172	5604
06727	65	6732	5605
06730	76	1742	5606

IJP\*TC63  
 CMAL\*TPAB1

JPNOT\*TC632  
 IJP\*TC63  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*NO DISPLAY IN AL

TF64

TF64

ENTALK\*66

STRAL\*BUFF1  
 ENTALK\*64  
 STRAL\*BUFF2  
 ENTAL\*LOK+3  
 STRAL\*TFX  
 ENTAU\*TPAB3  
 JPAUP\*LOK+3  
 RJP\*TFDIS

TF642

IJP\*TF64  
 ENTAU\*TRAT6  
 JPAUP\*TF642  
 IJP\*TF64  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU  
 REMARK\*CORRECT PATTERN IN AL

TF65

TF65

0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*65  
 STRAL\*BUFF2  
 ENTALK\*LOK+3  
 STRAL\*TFX  
 ENTAL\*TPAB3

TF652

JPALP\*LOK+3  
 RJP\*TFDIS

ERROR EXIT  
 CLR UNEQ DESIG

TEST NO JUMP  
 EXIT

JUMP AU POSITIVE  
 SET TYPEOUT BUFFER

TO CODES FOR 64

SET UP  
 ERROR DISPLAY  
 SET AU TO 312132  
 TEST FOR JUMP  
 ERROR DISPLAY

ERROR EXIT  
 SET AU TO 707070  
 TEST NO JUMP  
 EXIT

JUMP AL POSITIVE 65  
 SET TYPEOUT BUFFER  
 TO CODES FOR 65

SET UP  
 ERROR DISPLAY  
 SET AL TO 312132

TEST FOR JUMP  
 ERROR DISPLAY

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06731 55 6717 5607  
 06732 12 2160 5610  
 06733 65 6730 5611  
 06734 55 6717 5612

IJP\*TF65  
 ENTAL\*TPAT6  
 JPALP\*TF652  
 IJP\*TF65

ERROR EXIT  
 SET AL TO 707070  
 TEST NO JUMP  
 EXIT

5613 TC65  
 5614  
 5615  
 5616

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*COMPARE MASK IN AU  
 REMARK\*CORRECT PATTERN IN AL

06735 00 0000 5617  
 06736 70 0066 5620  
 06737 44 2222 5621  
 06740 70 0065 5622

TC65

0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*65

JUMP Y LESS THAN OR EQUAL TO AL 65  
 SET TYPEOUT BUFFER  
 TO CODES FOR 65

06741 44 2223 5623  
 06742 12 6747 5624  
 06743 44 2037 5625  
 06744 10 2144 5626  
 06745 12 2150 5627  
 06746 06 2152 5630  
 06747 65 6752 5631  
 06750 76 1742 5632

STRAL\*BUFF2  
 ENTAL\*TC652-1  
 STRAL\*TFX  
 ENTAU\*TPAT  
 ENTAL\*TPAT2  
 CMSK\*TPAT3  
 JPMLEQ\*LOK+3  
 RJP\*TFDIS

SET UP  
 ERROR DISPLAY  
 SET AU TO 777777  
 SET AL TO 252525  
 SET LESS THAN DESIG  
 TEST FOR JUMP  
 ERROR DISPLAY

TC652

06751 55 6735 5633  
 06752 12 2146 5634  
 06753 06 2166 5635  
 06754 65 6750 5636  
 06755 55 6735 5637

IJP\*TC65  
 ENTAL\*TPAT1  
 CMSK\*TPAB1  
 JPMLEQ\*TC652  
 IJP\*TC65

ERROR EXIT  
 CLR AL  
 CLR DESIG  
 TEST NO JUMP  
 EXIT

TF66

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU

06756 00 0000 5643  
 06757 70 0066 5644  
 06760 44 2222 5646  
 06761 70 0066 5647  
 06762 44 2223 5650  
 06763 12 6766 5651  
 06764 44 2037 5652

TF66

REMARK\*NO DISPLAY IN AL  
 0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*66  
 STRAL\*BUFF2  
 ENTAL\*LOK+3  
 STRAL\*TFX

JUMP AU NEGATIVE 66  
 SET TYPEOUT BUFFER  
 TO CODES FOR 66

SET UP  
 ERROR DISPLAY

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06765	10	2160	5653		ENTAU*TPAT6	SET AU TO 707070
06766	66	6771	5654		JPAUNG*LOK+3	TEST FOR JUMP
06767	76	1742	5655	TF662	RJP*TFDIS	ERROR DISPLAY
06770	55	6756	5656		IJP*TF66	ERROR EXIT
06771	10	2172	5657		ENTAU*TPAB3	SET AU TO 312132
06772	66	6767	5660		JPAUNG*TF662	TEST NO JUMP
06773	55	6756	5661			EXIT
			5662	TF67	IJP*TF66	
			5663		PROG*SCOTT*30APL64	
			5664		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5665		REMARK*NO DISPLAY IN AU	
			5666	TF67	REMARK*CORRECT PATTERN IN AL	
06774	00	0000	5666		0*	JUMP AL NEGATIVE 67
06775	70	0066	5667		ENTALK*66	SET TYPEOUT BUFFER
06776	44	2222	5670		STRAL*BUFF1	TO CODES FOR 67
06777	70	0067	5671		ENTALK*67	
07000	44	2223	5672		STRAL*BUFF2	
07001	12	7004	5673		ENTAL*LOK+3	SET UP
07002	44	2037	5674		STRAL*TFX	ERROR DISPLAY
07003	12	2160	5675		ENTAL*TPAT6	SET AL TO 707070
07004	67	7007	5676		JPALNG*LOK+3	TEST FOR JUMP
07005	76	1742	5677	TF672	RJP*TFDIS	ERROR DISPLAY
07006	55	6774	5700		IJP*TF67	ERROR EXIT
07007	12	2172	5701		ENTAL*TPAB3	SET AL TO 312132
07010	67	7005	5702		JPALNG*TF672	TEST NO JUMP
07011	55	6774	5703		IJP*TF67	EXIT
			5704	TC67	PROG*SCOTT*30APL64	
			5705		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5706		REMARK*COMPARE MASK IN AU	
			5707		REMARK*CORRECT PATTERN IN AL	
07012	00	0000	5710	TC67	0*	JUMP Y GREATER THAN AL
07013	70	0066	5711		ENTALK*66	SET TYPEOUT BUFFER
07014	44	2222	5712		STRAL*BUFF1	TO CODES FOR 67
07015	70	0067	5713		ENTALK*67	
07016	44	2223	5714		STRAL*BUFF2	
07017	12	7024	5715		ENTAL*TC672-1	SET UP
07020	44	2037	5716		STRAL*TFX	ERROR DISPLAY
07021	10	2144	5717		ENTAU*TPAT	SET AU TO 777777

07022	12	2160	5720
07023	06	2162	5721
07024	67	7027	5722
07025	76	1742	5723
07026	55	7012	5724
07027	12	2166	5725
07030	06	2146	5726
07031	67	7025	5727
07032	55	7012	5730
07033	00	0000	5735
07034	70	0067	5736
07035	44	2222	5737
07036	70	0060	5740
07037	44	2223	5741
07040	10	7042	5742
07041	46	2037	5743
07042	70	7777	5744
07043	10	2144	5745
07044	02	2144	5746
07045	63	7101	5747
07046	70	0000	5750
07047	10	2146	5751
07050	63	7101	5752
07051	70	7776	5753
07052	10	2167	5754
07053	02	2167	5755
07054	63	7101	5756
07055	70	0001	5757
07056	10	2166	5760
07057	02	2166	5761
07060	63	7101	5762
07061	70	5252	5763

TC672

TF70

TF70

ENTAL\*TPAT6  
 CMSK\*TPAT7  
 JPMGR\*LOK+3  
 RJP\*TFDIS  
 IJP\*TC67  
 ENTAU\*TPAB1  
 CMAL\*TPAT1

JPMGR\*TC672  
 IJP\*TC67

PRG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*67

STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2  
 ENTAU\*LOK+2  
 STRAU\*TFX  
 ENTALK\*7777  
 ENTAU\*TPAT  
 CMAL\*TPAT

JPNOT\*TF700  
 ENTALK\*0  
 ENTAU\*TPAT1  
 JPALNZ\*TF700  
 ENTALK\*7776  
 ENTAU\*TPAB1+1  
 CMAL\*TPAB1+1  
 JPNOT\*TF700

ENTALK\*0001  
 ENTAU\*TPAB1  
 CMAL\*TPAB1  
 JPNOT\*TF700  
 ENTALK\*5252

SET AL TO 707070  
 SET DESIG  
 TEST FOR JUMP  
 ERROR DISPLAY  
 ERROR EXIT  
 SET AL TO 000001  
 CLR DESIG

TEST NO JUMP  
 EXIT

ENTER AL WITH CONSTANT  
 SET TIMEOUT BUFFER

TO CODES FOR 70

SET UP  
 ERROR DISPLAY  
 SET AL TO 777777  
 CORRECT TO AU  
 IS AL CORRECT

IS AL CORRECT  
 CLR AL  
 CLR AU  
 ERROR JUMP  
 SET AL TO 777776  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

SET AL TO 000001  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 775252

SHEET 524 REVISION B  
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07062 10 2233 5764  
 07063 02 2233 5765  
 07064 63 7101 5766  
 07065 70 2525 5767  
 07066 10 2234 5770  
 07067 02 2234 5771  
 07070 63 7101 5772  
 07071 70 7070 5773  
 07072 10 2235 5774  
  
 07073 02 2235 5775  
 07074 63 7101 5776  
 07075 70 0707 5777  
 07076 10 2236 6000  
 07077 02 2236 6001  
 07100 61 7102 6002  
 07101 76 1742 6003  
 07102 55 7033 6004  
  
 6005  
 6006  
 6007  
 6010  
 07103 00 0000 6011  
 07104 70 0067 6012  
 07105 44 2222 6013  
 07106 70 0061 6014  
  
 07107 44 2223 6015  
 07110 12 7113 6016  
 07111 44 2037 6017  
 07112 70 0001 6020  
 07113 71 0001 6021  
 07114 10 2243 6022  
 07115 02 2243 6023  
 07116 61 7121 6024  
  
 07117 76 1742 6025  
 07120 55 7103 6026  
 07121 71 2220 6027

TF700

TF71

TF71

TF712

ENTAU\*TPAK5  
 CMAL\*TPAK5  
 JPNOT\*TF700  
 ENTALK\*2525  
 ENTAU\*TPAK6  
 CMAL\*TPAK6  
 JPNOT\*TF700  
 ENTALK\*7070  
 ENTAU\*TPAK7  
  
 CMAL\*TPAK7  
 JPNOT\*TF700  
 ENTALK\*0707  
 ENTAU\*TPAK7+1  
 CMAL\*TPAK7+1  
 JPEQ\*TF700+2  
 RJP\*TFDIS  
 IJP\*TF70  
  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT, CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*67  
 STRAL\*BUFF1  
 ENTALK\*61  
  
 STRAL\*BUFF2  
 ENTAL\*LOK+3  
 STRAL\*TFX  
 ENTALK\*0001  
 ADDALK\*0001  
 ENTAU\*TPAS4  
 CMAL\*TPAS4  
 JPEQ\*LOK+3  
  
 RJP\*TFDIS  
 IJP\*TF71  
 ADDALK\*2220

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 002525  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 777070  
 CORRECT TO AU  
  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 000707  
 CORRECT TO AU  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT  
  
 ADD AL WITH CONSTANT 71  
 SET TYPEOUT BUFFER  
 TO CODES FOR 71  
  
 SET UP  
 ERROR DISPLAY  
 SET AL TO 000001  
 ADD AL PLUS 1  
 CORRECT TO AU  
 IS AL CORRECT  
 YES CONTINUE  
  
 ERROR DISPLAY  
 ERROR EXIT  
 ADD AL + 002220

SHEET 525  
 SB-10163  
 REVISION B

07122 10 2230 6030  
 07123 02 2230 6031  
 07124 63 7117 6032

07125 71 1111 6033  
 07126 10 2232 6034  
 07127 02 2232 6035  
 07130 63 7117 6036  
 07131 71 4444 6037  
 07132 10 2146 6040  
 07133 63 7117 6041  
 07134 55 7103 6042

6043  
 6044  
 6045  
 6046

07135 00 0000 6047  
 07136 70 0065 6050  
 07137 44 2222 6051  
 07140 70 0060 6052

07141 44 2223 6053  
 07142 70 0067 6054  
 07143 44 2224 6055  
 07144 70 0063 6056  
 07145 44 2225 6057  
 07146 12 7150 6060  
 07147 44 2037 6061  
 07150 50 7320 6062

07151 75 2253 6063  
 07152 12 2253 6064  
 07153 10 2247 6065  
 07154 02 2247 6066  
 07155 63 7257 6067  
 07156 50 7327 6070  
 07157 75 2253 6071  
 07160 12 2253 6072

07161 10 2250 6073

TS73  
 TS73

ENTAU\*TPAK2  
 CMAL\*TPAK2  
 JPNQT\*TF712

ADDALK\*1111  
 ENTAU\*TPAK4  
 CMAL\*TPAK4  
 JPNQT\*TF712  
 ADDALK\*4444  
 ENTAU\*TPAT1  
 JPALNZ\*TF712  
 IJP\*TF71

PROG\*MUELLER\*2 NOV 64  
 REMARK\*ERROR DISPLAY; FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*0  
 ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60

STRAL\*BUFF2  
 ENTALK\*67  
 STRAL\*BUFF3  
 ENTALK\*63  
 STRAL\*BUFF4  
 ENTAL\*LOK\*2  
 STRAL\*TFX  
 ENTSR\*0020

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS10  
 CMAL\*TPAS10  
 JPNQT\*TS730  
 ENTSR\*0027  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS11

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

ADD AL +001111  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 ADD AL +774444  
 CORRECT TO AU  
 ERROR JUMP  
 EXIT

ENTSR SR 5053  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5073

SET UP  
 ERROR DISPLAY  
 SET SR TO 20

SAVE SR  
 SET AL EQUAL TO SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 27  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU

SHEET 526  
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 REVISION B



07162 02 2250 6074  
 07163 63 7257 6075  
 07164 50 7335 6076  
 07165 75 2253 6077  
 07166 12 2253 6100

07167 10 2251 6101  
 07170 02 2251 6102  
 07171 63 7257 6103  
 07172 50 7332 6104  
 07173 75 2253 6105  
 07174 12 2253 6106  
 07175 10 2252 6107  
 07176 02 2252 6110

07177 63 7257 6111  
 07200 50 7317 6112  
 07201 75 2253 6113  
 07202 12 2253 6114  
 07203 10 2240 6115  
 07204 02 2240 6116  
 07205 63 7257 6117  
 07206 50 7304 6120

07207 75 2253 6121  
 07210 12 2253 6122  
 07211 10 2244 6123  
 07212 02 2244 6124  
 07213 63 7257 6125  
 07214 50 7312 6126  
 07215 75 2253 6127  
 07216 12 2253 6130

07217 10 2242 6131  
 07220 02 2242 6132  
 07221 63 7257 6133  
 07222 50 7301 6134  
 07223 75 2253 6135  
 07224 12 2253 6136  
 07225 10 2166 6137  
 07226 02 2166 6140

CMAL\*TPAS11  
 JPNOT\*TS730  
 ENTSR\*0035  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS12  
 CMAL\*TPAS12  
 JPNOT\*TS730  
 ENTSR\*0032  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS13  
 CMAL\*TPAS13

JPNOT\*TS730  
 ENTSR\*0017  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS1  
 CMAL\*TPAS1  
 JPNOT\*TS730  
 ENTSR\*0004

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TS730  
 ENTSR\*0012  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS3  
 CMAL\*TPAS3  
 JPNOT\*TS730  
 ENTSR\*0001  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAB1  
 CMAL\*TPAB1

IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 35  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 32  
 SAVE SR  
 SET AL TO EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET SR TO 17  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 15

SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 12  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 1  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT

07227	63	7257	6141
07230	50	7302	6142
07231	75	2253	6143
07232	12	2253	6144
07233	10	2243	6145
07234	02	2243	6146
07235	63	7257	6147
07236	50	7304	6150
07237	75	2253	6151
07240	12	2253	6152
07241	10	2244	6153
07242	02	2244	6154
07243	63	7257	6155
07244	50	7307	6156
07245	75	2253	6157
07246	12	2253	6160
07247	10	2245	6161
07250	02	2245	6162
07251	63	7257	6163
07252	50	7300	6164
07253	75	2253	6165
07254	12	2253	6166
07255	10	2146	6167
07256	61	7260	6170
07257	76	2040	6171
07260	55	7135	6172
07261	00	0000	6177
07262	70	0067	6200
07263	44	2222	6201
07264	70	0063	6202
07265	44	2223	6203
07266	12	7303	6204

TS730  
TF73  
TF73

```

JPNOT*TS730
ENTSR*0002
STRSR*TPAR
ENTAL*TPAR
ENTAU*TPAS4
CMAL*TPAS4

JPNOT*TS730
ENTSR*0004
STRSR*TPAR
ENTAL*TPAR
ENTAU*TPAS5
CMAL*TPAS5
JPNOT*TS730
ENTSR*0007

STRSR*TPAR
ENTAL*TPAR
ENTAU*TPAS6
CMAL*TPAS6
JPNOT*TS730
ENTSR*0000
STRSR*TPAR
ENTAL*TPAR

ENTAU*TPAT1
JPALZ*TS730+1
RJP*TSDIS
IJP*TS73
PROG*CASEY*30APL64
REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
REMARK*CORRECT PATTERN IN AU
REMARK*INCORRECT PATTERN IN AL

0*
ENTALK*67
STRAL*BUFF1
ENTALK*63
STRAL*BUFF2
ENTAL*TF730+1
    
```

```

ERROR JUMP
SET SR TO 2
SAVE SR
SET AL EQUAL SR
CORRECT TO AU
IS AL CORRECT

ERROR JUMP
SET SR TO 4
SAVE SR
SET AL EQUAL SR
CORRECT TO AU
IS AL CORRECT
ERROR JUMP
SET SR TO 7

SAVE SR
SET AL EQUAL SR
CORRECT TO AU
IS AL CORRECT
ERROR JUMP
CLR SR
SAVE SR
SET AL EQUAL SR

CLR AU
EXIT AL ZERO
ERROR DISPLAY
EXIT

B JUMP 73
SET TIMEOUT BUFFER
TO CODES FOR 73

SET UP
    
```

SHEET 528 REVISION B  
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07336	12	2156	6251
07337	06	2256	6252
07340	63	7404	6253
07341	12	2146	6254
07342	74	2253	6255
07343	10	2253	6256
07344	12	2146	6257
07345	62	7404	6260
07346	12	2226	6261
07347	74	2253	6262
07350	10	2253	6263
07351	12	2226	6264
07352	06	2256	6265
07353	63	7404	6266
07354	12	2227	6267
07355	74	2253	6270
07356	10	2253	6271
07357	12	2227	6272
07360	06	2256	6273
07361	63	7404	6274
07362	12	2231	6275
07363	74	2253	6276
07364	10	2253	6277
07365	12	2231	6300
07366	06	2256	6301
07367	63	7404	6302
07370	12	2160	6303
07371	74	2253	6304
07372	10	2253	6305
07373	12	2160	6306
07374	06	2256	6307
07375	63	7404	6310
07376	12	2176	6311
07377	74	2253	6312
07400	10	2253	6313
07401	12	2176	6314

ENTAL\*TPAT5  
CMSK\*TC01

JPNOT\*TF740  
ENTAL\*TPAT1  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAT1  
JPAUNZ\*TF740  
ENTAL\*TPAK  
STRADR\*TPAR

ENTAU\*TPAR  
ENTAL\*TPAK  
CMSK\*TC01  
JPNOT\*TF740  
ENTAL\*TPAK1  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAK1

CMSK\*TC01  
JPNOT\*TF740  
ENTAL\*TPAK3  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAK3  
CMSK\*TC01  
JPNOT\*TF740

ENTAL\*TPAT6  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAT6  
CMSK\*TC01  
JPNOT\*TF740  
ENTAL\*TPAB5  
STRADR\*TPAR

ENTAU\*TPAR  
ENTAL\*TPAB5

CORRECT TO AL  
IS AU CORRECT

ERROR JUMP  
CLR AL  
TEST FUNC  
SET AU EQUAL ADDRESS  
CLR AL  
ERROR JUMP  
SET AL TO 002020  
TEST FUNC

SET AU EQUAL ADDRESS  
CORRECT TO AL  
IS AU CORRECT  
ERROR JUMP  
SET AL TO 005050  
TEST FUNC  
SET AU EQUAL ADDRESS  
CORRECT TO AL

IS AU CORRECT  
ERROR JUMP  
SET AL TO 007070  
TEST FUNC  
SET AU EQUAL ADDRESS  
CORRECT TO AL  
IS AU CORRECT  
ERROR JUMP

SET AL TO 707070  
TEST FUNC  
SET AU EQUAL ADDRESS  
CORRECT TO AL  
IS AU CORRECT  
ERROR JUMP  
SET AL TO 010001  
TEST FUNC

SET AU EQUAL ADDRESS  
CORRECT TO AL

07402	06	2256	6315		CMSK*TC01	IS AU CORRECT
07403	61	7406	6316		JPEQ*TF740*2	YES EXIT
07404	50	4722	6317	TF740	LSHA*22	EXCHANGE REGS
07405	76	1742	6320		RJP*TFDIS	ERROR DISPLAY
07406	55	7323	6321		IJP*TF74	EXIT
			6322	TF75	PROG*CASEY*30APL64	
			6323		REMARK*ERROR DISPLAY: FUNCT. CODE IN C REG.	
			6324		REMARK*CORRECT PATTERN IN AU	
			6325		REMARK*INCORRECT PATTERN IN AL	
07407	00	0000	6326	TF75	0*	STORE SR 75
07410	70	0067	6327		ENTALK*67	SET TIMEOUT BUFFER
07411	44	2222	6330		STRAL*BUFF1	TO CODES FOR 75
07412	70	0065	6331		ENTALK*65	
07413	44	2223	6332		STRAL*BUFF2	
07414	12	7420	6333		ENTAL*LOK*4	SET UP
07415	44	2037	6334		STRAL*TFX	ERROR DISPLAY
07416	40	2253	6335		CL*TPAR	CLR STORAGE
07417	50	7320	6336		ENTSR*0020	SET SR TO 20
07420	75	2253	6337		STRSR*TPAR	SAVE SR
07421	12	2253	6340		ENTAL*TPAR	SET AL EQUAL TO SR
07422	10	2247	6341		ENTAU*TPAS10	CORRECT TO AU
07423	02	2247	6342		CMAL*TPAS10	IS AL CORRECT
07424	63	7520	6343		JPNOT*TF750	ERROR JUMP
07425	50	7327	6344		ENTSR*0027	SET SR TO 27
07426	75	2253	6345		STRSR*TPAR	SAVE SR
07427	12	2253	6346		ENTAL*TPAR	SET AL EQUAL SR
07430	10	2250	6347		ENTAU*TPAS11	CORRECT TO AU
07431	02	2250	6350		CMAL*TPAS11	IS AL CORRECT
07432	63	7520	6351		JPNOT*TF750	ERROR JUMP
07433	50	7335	6352		ENTSR*0035	SET SR TO 35
07434	75	2253	6353		STRSR*TPAR	SAVE SR
07435	12	2253	6354		ENTAL*TPAR	SET AL EQUAL SR
07436	10	2251	6355		ENTAU*TPAS12	CORRECT TO AU
07437	02	2251	6356		CMAL*TPAS12	IS AL CORRECT
07440	63	7520	6357		JPNOT*TF750	ERROR JUMP
07441	50	7332	6360		ENTSR*0032	SET SR TO 32

07442 75 2253 6361  
 07443 12 2253 6362  
 07444 10 2252 6363  
 07445 02 2252 6364  
 07446 63 7520 6365  
 07447 50 7317 6366

07450 75 2253 6367  
 07451 12 2253 6370  
 07452 10 2240 6371  
 07453 02 2240 6372  
 07454 63 7520 6373  
 07455 50 7304 6374  
 07456 75 2253 6375  
 07457 12 2253 6376

07460 10 2244 6377  
 07461 02 2244 6400  
 07462 63 7520 6401  
 07463 50 7300 6402  
 07464 75 2253 6403  
 07465 12 2253 6404  
 07466 10 2146 6405  
 07467 63 7520 6406

07470 50 7302 6407  
 07471 75 2253 6410  
 07472 12 2253 6411  
 07473 10 2243 6412  
 07474 02 2243 6413  
 07475 63 7520 6414  
 07476 50 7307 6415  
 07477 75 2253 6416

07500 12 2253 6417  
 07501 10 2245 6420  
 07502 02 2245 6421  
 07503 63 7520 6422  
 07504 50 7304 6423  
 07505 75 2253 6424  
 07506 12 2253 6425

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS13  
 CMAL\*TPAS13  
 JPNOT\*TF750  
 ENTSR\*0017

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS1  
 CMAL\*TPAS1  
 JPNOT\*TF750  
 ENTSR\*0004  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TF750  
 ENTSR\*0000  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT1  
 JPALNZ\*TF750

ENTSR\*0002  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS4  
 CMAL\*TPAS4  
 JPNOT\*TF750  
 ENTSR\*0007  
 STRSR\*TPAR

ENTAL\*TPAR  
 ENTAU\*TPAS6  
 CMAL\*TPAS6  
 JPNOT\*TF750  
 ENTSR\*0004  
 STRSR\*TPAR  
 ENTAL\*TPAR

SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 17

SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 4  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 0  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 ERROR JUMP

SET SR TO 2  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 7  
 SAVE SR

SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 4  
 SAVE SR  
 SET AL EQUAL SR

SHEET 532 REVISION B  
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07507 10 2244 6426  
 07510 02 2244 6427  
 07511 63 7520 6430  
 07512 50 7317 6431  
 07513 75 2253 6432  
 07514 12 2253 6433  
 07515 10 2240 6434

07516 02 2240 6435  
 07517 61 7521 6436  
 07520 76 1742 6437  
 07521 55 7407 6440

07522 00 0000 6444

07523 70 0067 6445  
 07524 44 2222 6446  
 07525 70 0066 6447  
 07526 44 2223 6450  
 07527 12 7531 6451  
 07530 44 2037 6452  
 07531 76 7540 6453  
 07532 34 7536 6454

07533 76 7540 6455  
 07534 34 7536 6456  
 07535 76 7540 6457  
 07536 30 7546 6460  
 07537 55 7522 6461  
 07540 00 0000 6462  
 07541 12 7540 6463  
 07542 71 0001 6464

07543 44 7540 6465  
 07544 12 2146 6466  
 07545 55 7540 6467  
 07546 00 1742 6470  
 6471

TF750

TF76

TF76

TR76

TF760

TF761

ENTAU\*TPASS  
 CMAL\*TPASS  
 JPNOT\*TF750  
 ENTSR\*0017  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS1

CMAL\*TPAS1  
 JPEQ\*TF750\*1  
 RJP\*TFDIS  
 IJP\*TF75

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU OR AL  
 0\*

ENTALK\*67  
 STRAL\*BUFF1  
 ENTALK\*66  
 STRAL\*BUFF2  
 ENTAL\*LOK\*2  
 STRAL\*TFX  
 RJP\*TF760  
 JP\*TR76

RJP\*TF760  
 JP\*TR76  
 RJP\*TF760  
 IRJP\*TF761  
 IJP\*TF76  
 0\*  
 ENTAL\*TF760  
 ADDALK\*0001

STRAL\*TF760  
 ENTAL\*TPAT1  
 IJP\*TF760

0\*TFDIS  
 REMARK\*INSERT SELECTED I/O CHANNEL NUMBER

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SAVE SR  
 STORE SR  
 SET AL EQUAL SR  
 CORRECT TO AU

IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

RETURN JUMP 76.

SET TYPEOUT BUFFER  
 TO CODES FOR 76

SET UP  
 ERROR DISPLAY  
 TEST JUMP  
 ERROR JUMP

TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR DISPLAY  
 EXIT  
 ENTRANCE SUB  
 RETURN ADDRESS  
 PLUS 1

RESTORE  
 CLR AL  
 EXIT  
 ADDRESS

		6472	REMARK*IN ALL I/O COMMANDS.
		6473	REMARK*MODIFY FOR 1232/1532 INTERCHANGE
07547	00 0000	6474	0*
07550	12 2204	6475	ENTAL*ALPAM INITIAL AL INPUT PARAMETER
07551	50 4203	6476	RSHAL*3 CHANNEL NO. TO BITS 5-0
07552	52 2211	6477	SLCL*KIC 000037
07553	10 2212	6500	ENTAU*KID 777700
07554	50 7311	6501	ENTSR*11
07555	04 0047	6502	SLSU*TS1
07556	44 0047	6503	STRAL*TS1
07557	04 0056	6504	SLSU*TS2
07560	44 0056	6505	STRAL*TS2
07561	04 0063	6506	SLSU*TS3
07562	44 0063	6507	STRAL*TS3
07563	04 0065	6510	SLSU*TS4
07564	44 0065	6511	STRAL*TS4
07565	50 7300	6512	ENTSR*0
07566	12 2204	6513	ENTAL*ALPAM INITIAL AL INPUT PARAMETER
07567	50 4612	6514	LSHAL*100 1232/1532 BIT TO BIT 0
07570	52 2213	6515	SLCL*KIE 000001
07571	74 7572	6516	STRADR*LOK*1
07572	36 0000	6517	ENTBK*0
07573	13 7600	6520	ENTALB*TYPE1
07574	50 7311	6521	ENTSR*11
07575	44 0022	6522	STRAL*RN00P
07576	50 7300	6523	ENTSR*0
07577	55 7547	6524	IJP*TYPE
		6525	REMARK*TABLE OF 1232/1532 MODIFIED INSTRUCTIONS
07600	76 0076	6526	RJP*CONVER
07601	71 0040	6527	ADDALK*40 1532
		6530	REMARK*MODIFY OUTPUT AND EXF BUFFERS FOR N+1 TERMINATION
07602	00 0000	6531	0*
07603	50 7311	6532	ENTSR*11
07604	12 0051	6533	ENTAL*TS1+2
07605	71 0001	6534	ADDALK*1
07606	44 0050	6535	STRAL*TS1+1

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07607	12	0060	6536
07610	71	0001	6537
07611	44	0057	6540
07612	50	7300	6541
07613	12	2021	6542
07614	71	0001	6543
07615	44	2020	6544
07616	44	2031	6545
07617	44	2020	6546
07620	44	2137	6547
07621	55	7602	6550
07622	00	0000	6551
07623	00	0000	6552
			6553
10000	00	0000	6554
10001	75	0042	6555
10002	46	0070	6556
10003	44	0071	6557
10004	42	0072	6560
10005	70	0003	6561
10006	76	0053	6562
10007	32	0000	6563
10010	37	0001	6564
10011	42	0000	6565
10012	50	7310	6566
10013	11	0000	6567
10014	50	7300	6570
10015	36	0002	6571
10016	70	0000	6572
10017	50	4706	6573
10020	02	0073	6574
10021	61	0033	6575
10022	71	0040	6576
10023	02	0131	6577
10024	63	0030	6600
10025	70	0015	6601

	ENTALK*TS2+2
	ADDALK*1
	STRAL*TS2+1
	ENTSR*0
	ENTALK*TFD1+2
	ADDALK*1
	STRAL*TFD1+1
	STRAL*TFD3+1
	STRAL*TFD1+1
	STRAL*TS03+1
	IJP*IOSET
SAVEU	0*
SAVEL	0*
	REMARK*TYPT FOR 1232 OR 1532
TYPT	0*
	STRSR*TSPT20
	STRAU*TSPT3
	STRAL*TSPT4
	STRB*TSPT5
	ENTALK*3
	RJP*TSPT12
TSPT1	ENTB*TYPT
	ENTBK*1
	STRB*TYPT
	ENTSR*10
	ENTaub*0
	ENTSR*0
	ENTBK*2
TSPT2	ENTALK*0
	LSHA*6
	CMAL*TSPT6
	JPEQ*TSPT22
RNOOP	ADDALK*40
	CMAL*M136
	JPNOT*LOK+4
	ENTALK*15

MODIFIED TO RJP\*CONVER IF 1232 SELECTED  
 CR-LF?  
 NO  
 CR

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 SB-10163

10026	76	0044	6602	RJP*TSPT7	
10027	70	0012	6603	ENTALK*12	LF
10030	76	0044	6604	RJP*TSPT7	
10031	73	0016	6605	TSPT21	BJP*TSPT2
10032	34	0007	6606		JP*TSPT1
10033	70	0001	6607	TSPT22	ENTALK*1
10034	76	0053	6610		RJP*TSPT12
10035	14	0000	6611		ADDAL*TYPT
10036	44	0000	6612		STRAL*TYPT
10037	10	0070	6613		ENTAU*TSPT3
10040	12	0071	6614		ENTAL*TSPT4
10041	32	0072	6615		ENTB*TSPT5
10042	50	7300	6616	TSPT20	ENTSR*0
10043	55	0000	6617		IJP*TYPT
10044	00	0000	6620	TSPT7	0*
10045	76	0062	6621		RJP*TSPT13
10046	44	0075	6622		STRAL*TSPT11
10047	50	1200	6623	TS1	BUFOUT*CHAN*AD*1*TSPT11
10050	01	0075			
10051	01	0075			
10052	55	0044	6624		IJP*TSPT7
10053	00	0000	6625	TSPT12	0*
10054	76	0062	6626		RJP*TSPT13
10055	44	0075	6627		STRAL*TSPT11
10056	50	1300	6630	TS2	EXFCT*CHAN*AD*1*TSPT11
10057	01	0075			
10060	01	0075			
10061	55	0053	6631		IJP*TSPT12
10062	00	0000	6632	TSPT13	0*
10063	50	2300	6633	TS3	SKPFIN*CHAN
10064	34	0063	6634		JP*LOK-1
10065	50	2200	6635	TS4	SKPOIN*CHAN
10066	34	0065	6636		JP*LOK-1
10067	55	0062	6637		IJP*TSPT13
10070	00	0000	6640	TSPT3	0*
10071	00	0000	6641	TSPT4	0*
10072	00	0000	6642	TSPT5	0*

10073 00 0077 6643  
 10074 00 0136 6644  
 10075 00 0000 6645  
 10076 00 0000 6646  
 10077 42 0126 6647  
 10100 36 0000 6650

10101 71 0040 6651  
 10102 02 0131 6652  
 10103 63 0110 6653  
 10104 70 0004 6654  
 10105 76 0044 6655  
 10106 70 0003 6656  
 10107 34 0124 6657  
 10110 44 0132 6660

10111 13 0133 6661  
 10112 52 0127 6662  
 10113 50 4211 6663  
 10114 02 0132 6664  
 10115 61 0122 6665  
 10116 56 0130 6666  
 10117 34 0111 6667  
 10120 12 0132 6670

10121 50 5640 6671  
 10122 13 0133 6672  
 10123 52 0073 6673  
 10124 32 0126 6674  
 10125 55 0076 6675  
 10126 00 0000 6676  
 10127 17 7000 6677  
 10130 00 0100 6700

10131 00 0136 6701  
 10132 00 0000 6702  
 10133 10 1006 6703  
 10134 10 2007 6704  
 10135 10 3010 6705  
 10136 10 4011 6706

T\$PT6  
 T\$PT61  
 T\$PT11  
 CONVER

CONV1

CONV2

CONV3

COUNTR  
 CT177  
 M76

M136  
 MDUM  
 CONST

77\*  
 0\*136  
 0\*  
 0\*  
 STRB\*COUNTR  
 ENTBK\*0

ADDALK\*40  
 CMAL\*M136  
 JPNOT\*LOK\*8  
 ENTALK\*4  
 RJP\*T\$PT7  
 ENTALK\*3  
 JP\*CONV3  
 STRAL\*MDUM

ENTALB\*CONST  
 SLCL\*CT177  
 RSHAL\*9D  
 CMAL\*MDUM  
 JPEQ\*CONV2  
 BSK\*M76  
 JP\*CONV1  
 ENTAL\*MDUM

STOP\*40  
 ENTALB\*CONST  
 SLCL\*T\$PT6  
 ENTB\*COUNTR  
 IJP\*CONVER  
 0\*  
 177000\*  
 000100\*

000136\*  
 0\*  
 101006\*  
 102007\*  
 103010\*  
 104011\*

ADD ASCII BIAS  
 CR-LF  
 NO  
 CR  
 LF

10137	10	5012	6707	105012*
10140	10	6013	6710	106013*
10141	10	7014	6711	107014*
10142	11	0015	6712	110015*
10143	11	1016	6713	111016*
10144	11	2017	6714	112017*
10145	11	3020	6715	113020*
10146	11	4021	6716	114021*
10147	11	5022	6717	115022*
10150	11	6023	6720	116023*
10151	11	7024	6721	117024*
10152	12	0025	6722	120025*
10153	12	1026	6723	121026*
10154	12	2027	6724	122027*
10155	12	3030	6725	123030*
10156	12	4031	6726	124031*
10157	12	5032	6727	125032*
10160	12	6033	6730	126033*
10161	12	7034	6731	127034*
10162	13	0035	6732	130035*
10163	13	1036	6733	131036*
10164	13	2037	6734	132037*
10165	01	5004	6735	015004*
10166	01	2003	6736	012003*
10167	13	7076	6737	137076*
10170	05	2050	6740	052050*
10171	04	7072	6741	047072*
10172	05	6075	6742	056075*
10173	04	0005	6743	040005*
10174	17	7077	6744	177077*
10175	06	0060	6745	060060*
10176	06	1061	6746	061061*
10177	06	2062	6747	062062*
10200	06	3063	6750	063063*
10201	06	4064	6751	064064*
10202	06	5065	6752	065065*

10203	06	6066	6753	066066*
10204	06	7067	6754	067067*
10205	07	9070	6755	070070*
10206	07	1071	6756	071071*
10207	05	0051	6757	050051*
10210	05	1040	6760	051040*
10211	05	3042	6761	053042*
10212	05	4056	6762	054056*
10213	05	5041	6763	055041*
10214	05	7074	6764	057074*
10215	07	2053	6765	072053*
10216	07	3073	6766	073073*
10217	07	4043	6767	074043*
10220	07	5044	6770	075044*
10221	07	6045	6771	076045*
10222	07	7054	6772	077054*
10223	10	0057	6773	100057*
10224	04	4047	6774	044047*
10225	05	2050	6775	052050*
10226	13	5046	6776	135046*
10227	13	4001	6777	134001*
10230	04	5002	7000	045002*
10231	04	2052	7001	042052*
10232	04	1055	7002	041055*
10233	13	6050	7003	136050*
			7004	ENDATA*

## LABELS AND ADDRESSES

ALPARM	02204	BUFF1	02222	BUFF2	02223	BUFF3	02224	BUFF4	02225
COMA	01500	COMA1	01541	COMA10	01600	COMA11	01611	COMA2	01733
COMA3	01535	COMA4	01543	COMA5	01734	COMA6	01614	COMA7	01735
CONST	10133	CONV1	10111	CONV2	10122	CONV3	10124	CONVER	10076
COUNTR	10126	C1	01527	C2	01576	C3	01610	CHAN	00000
CNT	01740	CT177	10127	IOSET	07602	K1	02205	K1A	02206
K1B	02207	K1C	02211	K1D	02212	K1E	02213	K1F	02215
K1G	02216	K2	02210	K3	02214	K4	02217	K5	02220
K6	02221	M136	10131	M76	10130	MDUM	10132	NYMB	01741
PASSC	01736	RNOOP	10022	SAVEB	02275	SAVEL	07623	SAVEU	07622
SCCNT	02274	SRERRF	01737	T51	10047	T52	10056	T53	10063
T54	10065	TSPT1	10007	TSPT11	10075	TSPT12	10053	TSPT13	10062
TSPT2	10016	TSPT20	10042	TSPT21	10031	TSPT22	10033	TSPT3	10070
TSPT4	10071	TSPT5	10072	TSPT6	10073	TSPT61	10074	TSPT7	10044
TB73	07313	TC0	02254	TC01	02256	TC02	02260	TC03	02261
TC04	02262	TC61	06512	TC612	06524	TC63	06662	TC632	06674
TC65	06735	TC652	06750	TC67	07012	TC672	07025	TCUT	02264
TCUT1	02265	TCUT2	02266	TCUT3	02267	TCUT4	02270	TCUT5	02271
TCUT6	02272	TCUT7	02273	TELM	02666	TF02	02310	TF022	02324
TF024	02334	TF025	02346	TF03	02365	TF032	02403	TF04	02425
TF05	02501	TF06	02563	TF063	02600	TF065	02612	TF07	02624
TF072	02643	TF074	02652	TF10	02667	TF100	02736	TF11	02740
TF110	03012	TF12	03014	TF120	03063	TF13	03065	TF130	03136
TF14	03140	TF142	03153	TF145	03163	TF15	03165	TF152	03202
TF16	03217	TF162	03232	TF17	03253	TF172	03267	TF20	03300
TF202	03314	TF204	03325	TF21	03337	TF213	03354	TF22	03372
TF222	03406	TF224	03427	TF23	03431	TF232	03446	TF24	03462
TF242	03474	TF244	03511	TF25	03523	TF252	03537	TF254	03550
TF26	03562	TF263	03600	TF27	03634	TF272	03652	TF30	03662
TF301	03706	TF302	03700	TF31	03707	TF310	03745	TF311	03720
TF312	03721	TF313	03725	TF314	03731	TF315	03732	TF316	03737
TF317	03743	TF32	03753	TF320	04042	TF33	04044	TF330	04134
TF34	04136	TF35	04166	TF36	04213	TF360	04301	TF37	04303
TF370	04373	TF40	04376	TF40T	04427	TF41	04437	TF42	04560
TF420	04646	TF43	04706	TF430	04766	TF44	05040	TF440	05117

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REVISION 5

TF45	05207	TF450	05275	TF46	05336	TF460	05415	TF47	05456
TF470	05544	TF51	05600	TF510	05637	TF511	05643	TF52	05711
TF53	06004	TF55	06150	TF551	06163	TF552	06166	TF553	06171
TF56	06241	TF560	06310	TF57	06312	TF570	06322	TF60	06360
TF602	06371	TF604	06374	TF61	06441	TF612	06453	TF614	06456
TF62	06531	TF622	06544	TF624	06547	TF63	06604	TF632	06617
TF634	06622	TF64	06701	TF642	06712	TF65	06717	TF652	06730
TF66	06756	TF662	06767	TF67	06774	TF672	07005	TF70	07033
TF700	07101	TF71	07103	TF712	07117	TF73	07261	TF730	07302
TF731	07310	TF74	07323	TF740	07404	TF75	07407	TF750	07520
TF76	07522	TF760	07540	TF761	07546	TFD1	02017	TFD2	02022
TFD3	02030	TFD4	02033	TFDIS	01742	TFDIS1	02014	TFDIS2	02002
TFSH1	02276	TFSH2	02302	TFX	02037	TPAB	02164	TPAB1	02166
TPAB2	02170	TPAB3	02172	TPAB4	02174	TPAB5	02176	TPAB6	02200
TPAB7	02202	TPAK	02226	TPAK1	02227	TPAK2	02230	TPAK3	02231
TPAK4	02232	TPAK5	02233	TPAK6	02234	TPAK7	02235	TPAR	02253
TPAS	02237	TPAS1	02240	TPAS10	02247	TPAS11	02250	TPAS12	02251
TPAS13	02252	TPAS2	02241	TPAS3	02242	TPAS4	02243	TPAS5	02244
TPAS6	02245	TPAS7	02246	TPAT	02144	TPAT1	02146	TPAT2	02150
TPAT3	02152	TPAT4	02154	TPAT5	02156	TPAT6	02160	TPAT7	02162
TR03	02413	TR04	02467	TR040	02471	TR041	02473	TR043	02475
TR044	02477	TR05	02551	TR050	02553	TR051	02555	TR052	02557
TR053	02561	TR30	03676	TR31	03746	TR34	04160	TR35	04211
TR40	04435	TR41	04521	TR52	05747	TR531	06047	TR532	06045
TR55	06173	TR57	06354	TR76	07536	TS41	04523	TS411	04540
TS412	04542	TS413	04545	TS42	04650	TS421	04665	TS422	04667
TS423	04673	TS43	04770	TS431	05006	TS432	05010	TS433	05014
TS434	05021	TS435	05023	TS436	05027	TS44	05122	TS441	05140
TS443	05147	TS445	05165	TS45	05300	TS451	05316	TS453	05322
TS46	05417	TS461	05435	TS462	05441	TS47	05546	TS471	05563
TS472	05565	TS51	05646	TS512	05666	TS52	05752	TS522	05774
TS53	06052	TS532	06074	TS54	06104	TS544	06137	TS545	06124
TS55	06175	TS551	06213	TS552	06215	TS556	06230	TS60	06402
TS602	06423	TS61	06463	TS612	06502	TS62	06555	TS622	06574
TS63	06630	TS632	06650	TS73	07135	TS730	07257	TSC0T	02307
TS01	02125	TS02	02130	TS03	02136	TS04	02141	TS0IS	02040

TSDIS1 02121  
TYPT 10000

TSDIS2 02107

TSH 02306

TYPE 07547

TYPE1 07600