

9M71/768
2/1/63
PAGE 56

S E C T I O N O N E
P A R T I

START OF PROGRAM TEST ROUTINES.
PROGRAM WILL RETURN TO THIS LOCATION AFTER
EACH PROGRAM PASS WITH SSW 6 DOWN.

TESTING EITHER TXH OR TXL TO TRANSFER.				INIT COND		XAD INPUT	
		01600	ORG 896				
01600	0774 00 7	01600	SECT1 AXT *,7	MONITOR PROG SEQN.			
01601	0774 00 4	77777	AXT 32767,4	XR4	77777	A	000001
01602	3 00000 4	01606	TXH **4,4,0	DECR	00000	B	00000
01603	0774 00 4	00000	AXT 00000,4	XR4	00000	A	777771
01604	-3 77777 4	01606	TXL **2,4,32767	DECR	77777	B	77777
01605	0420 00 0	00000	HPR	ERROR HALT.			
				BOTH TXH AND TXL FAILED TO TRANSFER.			
01606	0761 00 0	01600	NOP SECT1				
01607	0774 00 4	00000	TXLA AXT 00000,4	XR4	00000	A	777771
01610	-3 77777 4	01613	TXL TXHA,4,32767	DECR	77777	B	77777
01611	0420 00 0	00000	HPR	ERROR, TXL FAILS TO TRA			
01612	0761 00 0	01607	NOP TXLA				

TESTING THE IX ADDER AND XR4 FOR OPERATION BY CHECKING FOR XAD3 CARRY
OR NO CARRY USING THE TXH AND TXL INSTRUCTIONS. THIS SERIES OF
TEST ROUTINES BEGIN BY CHECKING PSN 3 AND CONTINUING TO PSN 17.

EACH POSITION IS CHECKED FOR OPERATION BY APPLYING DIFFERENT
COMBINATIONS FROM THE AR, SR, AND XR4.
AFTER THE BASIC IX ADDER HAS BEEN CHECKED, FURTHER TEST ROUTINES
ARE PROVIDED FOR ASSURING THAT ALL THE LOOK-AHEAD CARRIES HAVE
BEEN TESTED.

TESTING IX ADDER PSN 3 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 3 AND XR4.				INITIAL COND		XAD INPUT	
01613	0774 00 4	77777	TXHA AXT 32767,4	XR4	77777	A	000001
01614	3 00000 4	01617	TXH XAD3A,4,00000	DECR		B	00000
01615	0420 00 0	00000	HPR	ERROR, TXH FAILS TO TRA			
01616	0761 00 0	01613	NOP TXHA				

ERROR- HOT CARRY OUTPUT WITH NO INPUTS
OR TXH FAILS TO TRANSFER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 57

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01617	0774 00 4 77777	XAD3A	AXT	32767,4 XR4 77777	A 000001
01620	3 40000 4 01625		TXH	XAD3B,4,16384 DECR 40000	B 40000
01621	0774 00 4 37777		AXT	16383,4 XR4 37777	A 400001
01622	3 00000 4 01625		TXH	XAD3B,4,00000 DECR 00000	B 00000
01623	0420 00 0 00000		HPR		
01624	0761 00 0 01617		NOP	XAD3A	
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER SR OR XR.					

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01625	0774 00 4 77777	XAD3B	AXT	32767,4 XR4 77777	A 000001
01626	3 40000 4 01633		TXH	XAD3C,4,16384 DECR 40000	B 40000
01627	0774 00 4 40000		AXT	16384,4 XR4 40000	A 377771
01630	3 37777 4 01633		TXH	XAD3C,4,16383 DECR 37777	B 37777
01631	0420 00 0 00000		HPR		
01632	0761 00 0 01625		NOP	XAD3B	
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER SR OR LOWER ORDER ADDER.					

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01633	0774, 00 4 37777	XAD3C	AXT	16383,4 XR4 37777	A 400001
01634	3 00000 4 01641		TXH	XAD3D,4,00000 DECR 00000	B 00000
01635	0774 00 4 40000		AXT	16384,4 XR4 40000	A 377771
01636	3 37777 4 01641		TXH	XAD3D,4,16383 DECR 37777	B 37777
01637	0420 00 0 00000		HPR		
01640	0761 00 0 01633		NOP	XAD3C	
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER XR OR LOWER ORDER ADDER					

9M71/768
2/1/63
PAGE 58

SECTION ONE
PART I

TESTING XAD PSN 3 AND XR4.
01641 0774 00 4 77777 XAD3D AXT 32767,4 INITIAL COND XR4 77777 XAD INPUT A 000001
01642 3 40000 4 01645 TXH XAD3E,4,16384 DECR 40000 B 40000
01643 0420 00 0 00000 HPR
01644 0761 00 0 01641 NOP XAD3D
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 3 AND XR4.
01645 0774 00 4 37777 XAD3E AXT 16383,4 INITIAL COND XR4 37777 XAD INPUT A 400001
01646 3 00000 4 01651 TXH XAD3F,4,00000 DECR 00000 B 00000
01647 0420 00 0 00000 HPR
01650 0761 00 0 01645 NOP XAD3E
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 3 AND XR4.
01651 0774 00 4 37777 XAD3F AXT 16383,4 INITIAL COND XR4 37777 XAD INPUT A 400001
01652 -3 40000 4 01657 TXL XAD3G,4,16384 DECR 40000 B 40000
01653 0774 00 4 40000 AXT 16384,4 XR4 40000 A 377771
01654 -3 77777 4 01657 TXL XAD3G,4,32767 DECR 77777 B 77777
01655 0420 00 0 00000 HPR
01656 0761 00 0 01651 NOP XAD3F
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 3 AND XR4.
01657 0774 00 4 37777 XAD3G AXT 16383,4 INITIAL COND XR4 37777 XAD INPUT A 400001
01660 -3 40000 4 01665 TXL XAD3H,4,16384 DECR 40000 B 40000
01661 0774 00 4 00000 AXT 00000,4 XR4 00000 A 777771
01662 -3 37777 4 01665 TXL XAD3H,4,16383 DECR 37777 B 37777
01663 0420 00 0 00000 HPR
01664 0761 00 0 01657 NOP XAD3G
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 3 AND XR4.
01665 0774 00 4 37777 XAD3H AXT 16383,4 INITIAL COND XR4 37777 XAD INPUT A 400001
01666 -3 40000 4 01673 TXL XAD3I,4,16384 DECR 40000 B 40000
01667 0774 00 4 40000 AXT 16384,4 XR4 40000 A 377771
01670 3 37777 4 01673 TXH XAD3I,4,16383 DECR 37777 B 37777
01671 0420 00 0 00000 HPR
01672 0761 00 0 01665 NOP XAD3H
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/768
2/1/63
PAGE 59

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01673	0774 00 4 37777	XAD3I	AXT 16383,4	XR4 37777	A 400001
01674	-3 40000 4 01700		TXL XAD3J,4,16384	DECR 40000	B 40000
01675	0420 00 0 00000		HPR		
01676	0761 00 0 01673		NOP XAD3I		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01677	0774 00 1 01677		AXT *,1	MONITOR	
01700	0774 00 4 40000	XAD3J	AXT 16384,4	XR4 40000	A 377771
01701	-3 77777 4 01706		TXL XAD3K,4,32767	DECR 77777	B 77777
01702	0774 00 4 00000		AXT 00000,4	XR4 00000	A 777771
01703	-3 37777 4 01706		TXL XAD3K,4,16383	DECR 37777	B 37777
01704	0420 00 0 00000		HPR		
01705	0761 00 0 01700		NOP XAD3J		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01706	0774 00 4 40000	XAD3K	AXT 16384,4	XR4 40000	A 377771
01707	-3 77777 4 01712		TXL XAD3L,4,32767	DECR 77777	B 77777
01710	0420 00 0 00000		HPR		
01711	0761 00 0 01706		NOP XAD3K		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01712	0774 00 4 00000	XAD3L	AXT 00000,4	XR4 00000	A 777771
01713	-3 37777 4 01716		TXL XAD3M,4,16383	DECR 37777	B 37777
01714	0420 00 0 00000		HPR		
01715	0761 00 0 01712		NOP XAD3L		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 3 AND XR4.				INITIAL COND	XAD INPUT
01716	0774 00 4 40000	XAD3M	AXT 16384,4	XR4 40000	A 377771
01717	3 37777 4 01722		TXH XAD4A,4,16383	DECR 37777	B 37777
01720	0420 00 0 00000		HPR		
01721	0761 00 0 01716		NOP XAD3M		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 60

S E C T I O N O N E
P A R T I

TESTING IX ADDER PSN 4 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 4 AND XR4.				INITIAL COND	XAD INPUT
01722	0774 00 4 77777	XAD4A	AXT 32767,4	XR4 77777	A 000001
01723	3 40000 4 01726	TXH	XAD4B,4,16384	DECR 40000	B 40000
01724	0420 00 0 00000	HPR			
01725	0761 00 0 01722	NOP	XAD4A		

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 4 AND XR4.				INITIAL COND	XAD INPUT
01726	0774 00 4 77777	XAD4B	AXT 32767,4	XR4 77777	A 000001
01727	3 60000 4 01734	TXH	XAD4C,4,24576	DECR 60000	B 60000
01730	0774 00 4 57777	AXT	24575,4	XR4 57777	A 200001
01731	3 40000 4 01734	TXH	XAD4C,4,16384	DECR 40000	B 40000
01732	0420 00 0 00000	HPR			
01733	0761 00 0 01726	NOP	XAD4B		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 4 AND XR4.				INITIAL COND	XAD INPUT
01734	0774 00 4 77777	XAD4C	AXT 32767,4	XR4 77777	A 000001
01735	3 60000 4 01742	TXH	XAD4D,4,24576	DECR 60000	B 60000
01736	0774 00 4 60000	AXT	24576,4	XR4 60000	A 177771
01737	3 57777 4 01742	TXH	XAD4D,4,24575	DECR 57777	B 57777
01740	0420 00 0 00000	HPR			
01741	0761 00 0 01734	NOP	XAD4C		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 4 AND XR4.				INITIAL COND	XAD INPUT
01742	0774 00 4 57777	XAD4D	AXT 24575,4	XR4 57777	A 200001
01743	3 40000 4 01750	TXH	XAD4E,4,16384	DECR 40000	B 40000
01744	0774 00 4 60000	AXT	24576,4	XR4 60000	A 177771
01745	3 57777 4 01750	TXH	XAD4E,4,24575	DECR 57777	B 57777
01746	0420 00 0 00000	HPR			
01747	0761 00 0 01742	NOP	XAD4D		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 61

TESTING XAD PSN 4 AND XR4.

				INITIAL COND	XAD INPUT
01750	0774 00 4 77777	XAD4E	AXT 32767,4	XR4 77777	A 000001
01751	3 60000 4 01754		TXH XAD4F,4,24576	DECR 60000	B 60000
01752	0420 00 0 00000		HPR		
01753	0761 00 0 01750		NOP XAD4E		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 4 AND XR4.

				INITIAL COND	XAD INPUT
01754	0774 00 4 57777	XAD4F	AXT 24575,4	XR4 57777	A 200001
01755	3 40000 4 01760		TXH XAD4G,4,16384	DECR 77777	B 77777
01756	0420 00 0 00000		HPR		
01757	0761 00 0 01754		NOP XAD4F		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 4 AND XR4.

				INITIAL COND	XAD INPUT
01760	0774 00 4 57777	XAD4G	AXT 24575,4	XR4 57777	A 200001
01761	-3 60000 4 01766		TXL XAD4H,4,24576	DECR 60000	B 60000
01762	0774 00 4 60000		AXT 24576,4	XR4 60000	A 177771
01763	-3 77777 4 01766		TXL XAD4H,4,32767	DECR 77777	B 77777
01764	0420 00 0 00000		HPR		
01765	0761 00 0 01760		NOP XAD4G		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 4 AND XR4.

				INITIAL COND	XAD INPUT
01766	0774 00 4 57777	XAD4H	AXT 24575,4	XR4 57777	A 200001
01767	-3 60000 4 01774		TXL XAD4I,4,24576	DECR 60000	B 60000
01770	0774 00 4 40000		AXT 16384,4	XR4 40000	A 377771
01771	-3 57777 4 01774		TXL XAD4I,4,24575	DECR 57777	B 57777
01772	0420 00 0 00000		HPR		
01773	0761 00 0 01766		NOP XAD4H		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 4 AND XR4.

				INITIAL COND	XAD INPUT
01774	0774 00 4 57777	XAD4I	AXT 24575,4	XR4 57777	A 200001
01775	-3 60000 4 02003		TXL XAD4J,4,24576	DECR 60000	B 60000
01776	0774 00 4 60000		AXT 24576,4	XR4 60000	A 177771
01777	3 57777 4 02003		TXH XAD4J,4,24575	DECR 57777	B 57777
02000	0420 00 0 00000		HPR		
02001	0761 00 0 01774		NOP XAD4I		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 62

S E C T I O N O N E
P A R T I

TESTING XAD PSN 4 AND XR4.				INITIAL COND		XAD INPUT
				MONITOR		
02002	0774 00 1	02002	AXT	*,1		
02003	0774 00 4	57777	XAD4J	AXT	24575,4	XR4 57777
02004	-3 60000 4	02007	TXL	XAD4K,4,24576	DECR 60000	A 200001 B 60000
02005	0420 00 0	00000	HPR			
02006	0761 00 0	02003	NOP	XAD4J		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM XR AND SR.						

TESTING XAD PSN 4 AND XR4.				INITIAL COND		XAD INPUT
02007	0774 00 4	60000	XAD4K	AXT	24576,4	XR4 60000
02010	-3 77777 4	02015	TXL	XAD4L,4,32767	DECR 77777	A 177771 B 77777
02011	0774 00 4	40000	AXT	16384,4	XR4 40000	A 377771
02012	-3 57777 4	02015	TXL	XAD4L,4,24575	DECR 57777	B 57777
02013	0420 00 0	00000	HPR			
02014	0761 00 0	02007	NOP	XAD4K		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM EITHER SR AND LOWER ORDER ADDER OR XR AND LOWER ORDER ADDER.						

TESTING XAD PSN 4 AND XR4.				INITIAL COND		XAD INPUT
02015	0774 00 4	60000	XAD4L	AXT	24576,4	XR4 60000
02016	-3 77777 4	02021	TXL	XAD4M,4,32767	DECR 77777	A 177771 B 77777
02017	0420 00 0	00000	HPR			
02020	0761 00 0	02015	NOP	XAD4L		
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM LOWER ORDER ADDER.						

TESTING XAD PSN 4 AND XR4.				INITIAL COND		XAD INPUT
02021	0774 00 4	40000	XAD4M	AXT	16384,4	XR4 40000
02022	-3 57777 4	02025	TXL	XAD4N,4,24575	DECR 57777	A 377771 B 57777
02023	0420 00 0	00000	HPR			
02024	0761 00 0	02021	NOP	XAD4M		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM XR AND LOWER ORDER ADDER.						

TESTING XAD PSN 4 AND XR4.				INITIAL COND		XAD INPUT
02025	0774 00 4	60000	XAD4N	AXT	24576,4	XR4 60000
02026	3 57777 4	02031	TXH	XAD5A,4,24575	DECR 57777	A 177771 B 57777
02027	0420 00 0	00000	HPR			
02030	0761 00 0	02025	NOP	XAD4N		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM SR AND LOWER ORDER ADDER.						

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 63

TESTING IX ADDER PSN 5 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 5 AND XR4.				INITIAL COND	XAD INPUT
02031	0774 00 4 77777	XAD5A	AXT 32767,4	XR4 77777	A 000001
02032	3 60000 4 02035		TXH XAD5B,4,24576	DECR 60000	B 60000
02033	0420 00 0 00000		HPR		
02034	0761 00 0 02031		NOP XAD5A		

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 5 AND XR4.				INITIAL COND	XAD INPUT
02035	0774 00 4 77777	XAD5B	AXT 32767,4	XR4 77777	A 000001
02036	3 70000 4 02043		TXH XAD5C,4,28672	DECR 70000	B 70000
02037	0774 00 4 67777		AXT 28671,4	XR4 67777	A 100001
02040	3 60000 4 02043		TXH XAD5C,4,24576	DECR 60000	B 60000
02041	0420 00 0 00000		HPR		
02042	0761 00 0 02035		NOP XAD5B		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 5 AND XR4.				INITIAL COND	XAD INPUT
02043	0774 00 4 77777	XAD5C	AXT 32767,4	XR4 77777	A 000001
02044	3 70000 4 02051		TXH XAD5D,4,28672	DECR 70000	B 70000
02045	0774 00 4 70000		AXT 28672,4	XR4 70000	A 077771
02046	3 67777 4 02051		TXH XAD5D,4,28671	DECR 67777	B 67777
02047	0420 00 0 00000		HPR		
02050	0761 00 0 02043		NOP XAD5C		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 5 AND XR4.				INITIAL COND	XAD INPUT
02051	0774 00 4 67777	XAD5D	AXT 28671,4	XR4 67777	A 100001
02052	3 60000 4 02057		TXH XAD5E,4,24576	DECR 60000	B 60000
02053	0774 00 4 70000		AXT 28672,4	XR4 70000	A 077771
02054	3 67777 4 02057		TXH XAD5E,4,28671	DECR 67000	B 67000
02055	0420 00 0 00000		HPR		
02056	0761 00 0 02051		NOP XAD5D		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

9M71/76B
2/1/63
PAGE 64

SECTION ONE
PART I

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02057	0774 00 4 77777	XAD5E AXT	32767,4	XR4 7777	A 000001
02060	3 70000 4 02063	TXH	XAD5F,4,28672	DECR 70000	B 70000
02061	0420 00 0 00000	HPR			
02062	0761 00 0 02057	NOP	XAD5E		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02063	0774 00 4 67777	XAD5F AXT	28671,4	XR4 67777	A 100001
02064	3 60000 4 02067	TXH	XAD5G,4,24576	DECR 60000	B 60000
02065	0420 00 0 00000	HPR			
02066	0761 00 0 02063	NOP	XAD5F		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02067	0774 00 4 67777	XAD5G AXT	28671,4	XR4 67777	A 100001
02070	-3 70000 4 02075	TXL	XAD5H,4,28672	DECR 70000	B 70000
02071	0774 00 4 70000	AXT	28672,4	XR4 70000	A 077771
02072	-3 77777 4 02075	TXL	XAD5H,4,32767	DECR 77777	B 77777
02073	0420 00 0 00000	HPR			
02074	0761 00 0 02067	NOP	XAD5G		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02075	0774 00 4 67777	XAD5H AXT	28671,4	XR4 67777	A 100001
02076	-3 70000 4 02104	TXL	XAD5I,4,28672	DECR 70000	B 70000
02077	0774 00 4 60000	AXT	24576,4	XR4 60000	A 177771
02100	-3 67777 4 02104	TXL	XAD5I,4,28671	DECR 67777	B 67777
02101	0420 00 0 00000	HPR			
02102	0761 00 0 02075	NOP	XAD5H		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02103	0774 00 1 02103	AXT	*,1	MONITOR	
02104	0774 00 4 67777	XAD5I AXT	28671,4	XR4 67777	A 100001
02105	-3 70000 4 02112	TXL	XAD5J,4,28672	DECR 70000	B 70000
02106	0774 00 4 70000	AXT	28672,4	XR4 70000	A 077771
02107	3 67777 4 02112	TXH	XAD5J,4,28671	DECR 67777	B 67777
02110	0420 00 0 00000	HPR			
02111	0761 00 0 02104	NOP	XAD5I		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 65

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02112	0774 00 4 67777	XAD5J AXT	28671,4	XR4 67777	A 100001
02113	-3 70000 4 02116	TXL	XAD5K,4,28672	DECR 70000	B 70000
02114	0420 00 0 00000	HPR			
02115	0761 00 0 02112	NOP	XAD5J		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02116	0774 00 4 70000	XAD5K AXT	28672,4	XR4 70000	A 077771
02117	-3 77777 4 02124	TXL	XAD5L,4,32767	DECR 77777	B 77777
02120	0774 00 4 60000	AXT	24576,4	XR4 60000	A 177771
02121	-3 67777 4 02124	TXL	XAD5L,4,28671	DECR 67777	B 67777
02122	0420 00 0 00000	HPR			
02123	0761 00 0 02116	NOP	XAD5K		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02124	0774 00 4 70000	XAD5L AXT	28672,4	XR4 70000	A 077771
02125	-3 77777 4 02130	TXL	XAD5M,4,32767	DECR 77777	B 77777
02126	0420 00 0 00000	HPR			
02127	0761 00 0 02124	NOP	XAD5L		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02130	0774 00 4 60000	XAD5M AXT	24576,4	XR4 60000	A 177771
02131	-3 67777 4 02134	TXL	XAD5N,4,28671	DECR 67777	B 67777
02132	0420 00 0 00000	HPR			
02133	0761 00 0 02130	NOP	XAD5M		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 5 AND XR4.

				INITIAL COND	XAD INPUT
02134	0774 00 4 70000	XAD5N AXT	28672,4	XR4 70000	A 077771
02135	3 67777 4 02140	TXH	XAD6A,4,28671	DECR 67777	B 67777
02136	0420 00 0 00000	HPR			
02137	0761 00 0 02134	NOP	XAD5N		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 66

S E C T I O N O N E
P A R T I

TESTING IX ADDER PSN 6 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 6 AND XR4.				INITIAL COND	XAD INPUT
02140	0774 00 4 77777	XAD6A	AXT 32767,4	XR4 77777	A 000001
02141	3 70000 4 02144		TXH XAD6B,4,28672	DECR 70000	B 70000
02142	0420 00 0 00000		HPR		
02143	0761 00 0 02140		NOP XAD6A		

ERROR-- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 6 AND XR4.				INITIAL COND	XAD INPUT
02144	0774 00 4 77777	XAD6B	AXT 32767,4	XR4 77777	A 000001
02145	3 74000 4 02152		TXH XAD6C,4,30720	DECR 74000	B 74000
02146	0774 00 4 73777		AXT 30719,4	XR4 73777	A 040001
02147	3 70000 4 02152		TXH XAD6C,4,28672	DECR 70000	B 70000
02150	0420 00 0 00000		HPR		
02151	0761 00 0 02144		NOP XAD6B		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 6 AND XR4.				INITIAL COND	XAD INPUT
02152	0774 00 4 77777	XAD6C	AXT 32767,4	XR4 77777	A 000001
02153	3 74000 4 02160		TXH XAD6D,4,30720	DECR 74000	B 74000
02154	0774 00 4 74000		AXT 30720,4	XR4 74000	A 037771
02155	3 73777 4 02160		TXH XAD6D,4,30719	DECR 73777	B 73777
02156	0420 00 0 00000		HPR		
02157	0761 00 0 02152		NOP XAD6C		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 6 AND XR4.				INITIAL COND	XAD INPUT
02160	0774 00 4 73777	XAD6D	AXT 30719,4	XR4 73777	A 040001
02161	3 70000 4 02166		TXH XAD6E,4,28672	DECR 70000	B 70000
02162	0774 00 4 74000		AXT 30720,4	XR4 74000	A 037771
02163	3 73777 4 02166		TXH XAD6E,4,30719	DECR 73777	B 73777
02164	0420 00 0 00000		HPR		
02165	0761 00 0 02160		NOP XAD6D		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 67

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT

02166	0774 00 4 77777	XAD6E AXT	32767,4	XR4 77777	A 000001
02167	3 73777 4 02172	TXH	XAD6F,4,30719	DECR 74000	B 74000
02170	0420 00 0 00000	HPR			
02171	0761 00 0 02166	NOP	XAD6E		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT

02172	0774 00 4 73777	XAD6F AXT	30719,4	XR4 73777	A 040001
02173	3 70000 4 02176	TXH	XAD6G,4,28672	DECR 70000	B 70000
02174	0420 00 0 00000	HPR			
02175	0761 00 0 02172	NOP	XAD6F		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT

02176	0774 00 4 73777	XAD6G AXT	30719,4	XR4 73777	A 040001
02177	-3 74000 4 02205	TXL	XAD6H,4,30720	DECR 74000	B 74000
02200	0774 00 4 74000	AXT	30720,4	XR4 74000	A 037771
02201	-3 77777 4 02205	TXL	XAD6H,4,32767	DECR 77777	B 77777
02202	0420 00 0 00000	HPR			
02203	0761 00 0 02176	NOP	XAD6G		

ERROR-- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT

02204	0774 00 1 02204	AXT	*,1	MONITOR	
02205	0774 00 4 73777	XAD6H AXT	30719,4	XR4 73777	A 040001
02206	-3 74000 4 02213	TXL	XAD6I,4,30720	DECR 74000	B 74000
02207	0774 00 4 70000	AXT	28672,4	XR4 70000	A 07777
02210	-3 73777 4 02213	TXL	XAD6I,4,30719	DECR 73777	B 73777
02211	0420 00 0 00000	HPR			
02212	0761 00 0 02205	NOP	XAD6H		

ERROR-- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT

02213	0774 00 4 73777	XAD6I AXT	30719,4	XR4 73777	A 040001
02214	-3 74000 4 02221	TXL	XAD6J,4,30720	DECR 74000	B 74000
02215	0774 00 4 74000	AXT	30720,4	XR4 74000	A 037771
02216	3 73777 4 02221	TXH	XAD6J,4,30719	DECR 73777	B 73777
02217	0420 00 0 00000	HPR			
02220	0761 00 0 02213	NOP	XAD6I		

ERROR-- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 68

S E C T I O N O N E
P A R T I

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT
02221 0774 00 4 73777 XAD6J AXT 30719,4 XR4 73777 A 040001
02222 -3 74000 4 02225 TXL XAD6K,4,30720 DECR 74000 B 74000
02223 0420 00 0 00000 HPR
02224 0761 00 0 02221 NOP XAD6J
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT
02225 0774 00 4 74000 XAD6K AXT 30720,4 XR4 74000 A 037771
02226 -3 77777 4 02233 TXL XAD6L,4,32767 DECR 77777 B 77777
02227 0774 00 4 70000 AXT 28672,4 XR4 70000 A 077771
02230 -3 73777 4 02233 TXL XAD6L,4,30719 DECR 73777 B 73777
02231 0420 00 0 00000 HPR
02232 0761 00 0 02225 NOP XAD6K
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT
02233 0774 00 4 74000 XAD6L AXT 30720,4 XR4 74000 A 037771
02234 -3 77777 4 02237 TXL XAD6M,4,32767 DECR 77777 B 77777
02235 0420 00 0 00000 HPR
02236 0761 00 0 02233 NOP XAD6L
ERROR- NO CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT
02237 0774 00 4 70000 XAD6M AXT 28672,4 XR4 70000 A 077771
02240 -3 73777 4 02243 TXL XAD6N,4,30719 DECR 73777 B 73777
02241 0420 00 0 00000 HPR
02242 0761 00 0 02237 NOP XAD6M
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 6 AND XR4. INITIAL COND XAD INPUT
02243 0774 00 4 74000 XAD6N AXT 30720,4 XR4 74000 A 037771
02244 3 73777 4 02247 TXH XAD7A,4,30719 DECR 73777 B 73777
02245 0420 00 0 00000 HPR
02246 0761 00 0 02243 NOP XAD6N
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 69

TESTING IX ADDER PSN 7 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 7 AND XR4.				INITIAL COND		XAD INPUT
02247	0774 00 4 77777	XAD7A	AXT	32767,4	XR4 77777	A 000001
02250	3 74000 4 02253		TXH	XAD7B,4,30720	DECR 74000	B 74000
02251	0420 00 0 00000		HPR			
02252	0761 00 0 02247		NOP	XAD7A		

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 7 AND XR4.				INITIAL COND		XAD INPUT
02253	0774 00 4 77777	XAD7B	AXT	32767,4	XR4 77777	A 000001
02254	3 76000 4 02261		TXH	XAD7C,4,31744	DECR 76000	B 76000
02255	0774 00 4 75777		AXT	31743,4	XR4 75777	A 020001
02256	3 74000 4 02261		TXH	XAD7C,4,30720	DECR 74000	B 74000
02257	0420 00 0 00000		HPR			
02260	0761 00 0 02253		NOP	XAD7B		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 7 AND XR4.				INITIAL COND		XAD INPUT
02261	0774 00 4 77777	XAD7C	AXT	32767,4	XR4 77777	A 000001
02262	3 76000 4 02267		TXH	XAD7D,4,31744	DECR 76000	B 76000
02263	0774 00 4 76000		AXT	31744,4	XR4 76000	A 017771
02264	3 75777 4 02267		TXH	XAD7D,4,31743	DECR 75777	B 75777
02265	0420 00 0 00000		HPR			
02266	0761 00 0 02261		NOP	XAD7C		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 7 AND XR4.				INITIAL COND		XAD INPUT
02267	0774 00 4 75777	XAD7D	AXT	31743,4	XR4 75777	A 020001
02270	3 74000 4 02275		TXH	XAD7E,4,30720	DECR 74000	B 74000
02271	0774 00 4 76000		AXT	31744,4	XR4 76000	A 017771
02272	3 75777 4 02275		TXH	XAD7E,4,31743	DECR 75777	B 75777
02273	0420 00 0 00000		HPR			
02274	0761 00 0 02267		NOP	XAD7D		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

9M71/76B
2/1/63
PAGE 70

SECTION ONE
PART I

TESTING XAD PSN 7 AND XR4.
02275 0774 00 4 77777 XAD7E AXT 32767,4 INITIAL COND XR4 77777 XAD INPUT A 000001
02276 3 76000 4 02301 TXH XAD7F,4,31744 DECR 76000 B 76000
02277 0420 00 0 00000 HPR
02300 0761 00 0 02275 NOP XAD7E
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 7 AND XR4.
02301 0774 00 4 75777 XAD7F AXT 31743,4 INITIAL COND XR4 75777 XAD INPUT A 020001
02302 3 74000 4 02306 TXH XAD7G,4,30720 DECR 74000 B 74000
02303 0420 00 0 00000 HPR
02304 0761 00 0 02301 NOP XAD7F
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 7 AND XR4.
02305 0774 00 1 02305 AXT *,1 INITIAL COND MONITOR XAD INPUT
02306 0774 00 4 75777 XAD7G AXT 31743,4 XR4 75777 A 020001
02307 -3 76000 4 02314 TXL XAD7H,4,31744 DECR 76000 B 76000
02310 0774 00 4 76000 AXT 31744,4 XR4 76000 A 017771
02311 -3 77777 4 02314 TXL XAD7H,4,32767 DECR 77777 B 77777
02312 0420 00 0 00000 HPR
02313 0761 00 0 02306 NOP XAD7G
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 7 AND XR4.
02314 0774 00 4 75777 XAD7H AXT 31743,4 INITIAL COND XR4 75777 XAD INPUT A 020001
02315 -3 76000 4 02322 TXL XAD7I,4,31744 DECR 76000 B 76000
02316 0774 00 4 74000 AXT 30720,4 XR4 74000 A 037771
02317 -3 75777 4 02322 TXL XAD7I,4,31743 DECR 75777 B 75777
02320 0420 00 0 00000 HPR
02321 0761 00 0 02314 NOP XAD7H
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 7 AND XR4.
02322 0774 00 4 75777 XAD7I AXT 31743,4 INITIAL COND XR4 75777 XAD INPUT A 020001
02323 -3 76000 4 02330 TXL XAD7J,4,31744 DECR 76000 B 76000
02324 0774 00 4 76000 AXT 31744,4 XR4 76000 A 017771
02325 3 75777 4 02330 TXH XAD7J,4,31743 DECR 75777 B 75777
02326 0420 00 0 00000 HPR
02327 0761 00 0 02322 NOP XAD7I
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 71

TESTING XAD PSN 7 AND XR4.

02330	0774 00 4 75777	XAD7J	AXT	31743,4	INITIAL COND	XAD INPUT
02331	-3 76000 4 02334		TXL	XAD7K,4,31744	XR4 75777	A 020001
02332	0420 00 0 00000		HPR		DECR 76000	B 76000
02333	0761 00 0 02330		NOP	XAD7J		

ERROR-- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 7 AND XR4.

02334	0774 00 4 76000	XAD7K	AXT	31744,4	INITIAL COND	XAD INPUT
02335	-3 77777 4 02342		TXL	XAD7L,4,32767	XR4 76000	A 017771
					DECR 77777	B 77777
02336	0774 00 4 74000		AXT	30720,4	XR4 74000	A 037771
02337	-3 75777 4 02342		TXL	XAD7L,4,31743	DECR 75777	B 75777
02340	0420 00 0 00000		HPR			
02341	0761 00 0 02334		NOP	XAD7K		

ERROR-- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 7 AND XR4.

02342	0774 00 4 76000	XAD7L	AXT	31744,4	INITIAL COND	XAD INPUT
02343	-3 77777 4 02346		TXL	XAD7M,4,32767	XR4 76000	A 017771
02344	0420 00 0 00000		HPR		DECR 77777	B 77777
02345	0761 00 0 02342		NOP	XAD7L		

ERROR-- NO CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 7 AND XR4.

02346	0774 00 4 74000	XAD7M	AXT	30720,4	INITIAL COND	XAD INPUT
02347	-3 75777 4 02352		TXL	XAD7N,4,31743	XR4 74000	A 037771
02350	0420 00 0 00000		HPR		DECR 75777	B 75777
02351	0761 00 0 02346		NOP	XAD7M		

ERROR-- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 7 AND XR4.

02352	0774 00 4 76000	XAD7N	AXT	31744,4	INITIAL COND	XAD INPUT
02353	3 75777 4 02356		TXH	XAD8A,4,31743	XR4 76000	A 017771
02354	0420 00 0 00000		HPR		DECR 75777	B 75777
02355	0761 00 0 02352		NOP	XAD7N		

ERROR-- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 72

S E C T I O N O N E
P A R T I

TESTING IX ADDER PSN 8 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02356	0774 00 4 77777	XAD8A	AXT	32767,4 XR4 77777	A 000001
02357	3 76000 4 02362		TXH	XAD8B,4,31744 DECR 76000	B 76000
02360	0420 00 0 00000		HPR		
02361	0761 00 0 02356		NOP	XAD8A	

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02362	0774 00 4 77777	XAD8B	AXT	32767,4 XR4 77777	A 000001
02363	3 77000 4 02370		TXH	XAD8C,4,32256 DECR 77000	B 77000
02364	0774 00 4 76777		AXT	32255,4 XR4 76777	A 010001
02365	3 76000 4 02370		TXH	XAD8C,4,31744 DECR 76000	B 76000
02366	0420 00 0 00000		HPR		
02367	0761 00 0 02362		NOP	XAD8B	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02370	0774 00 4 77777	XAD8C	AXT	32767,4 XR4 77777	A 000001
02371	3 77000 4 02376		TXH	XAD8D,4,32256 DECR 77000	B 77000
02372	0774 00 4 77000		AXT	32256,4 XR4 77000	A 007771
02373	3 76777 4 02376		TXH	XAD8D,4,32255 DECR 76777	B 76777
02374	0420 00 0 00000		HPR		
02375	0761 00 0 02370		NOP	XAD8C	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02376	0774 00 4 76777	XAD8D	AXT	32255,4 XR4 76777	A 010001
02377	3 76000 4 02404		TXH	XAD8E,4,31744 DECR 76000	B 76000
02400	0774 00 4 77000		AXT	32256,4 XR4 77000	A 007771
02401	3 76777 4 02404		TXH	XAD8E,4,32255 DECR 76777	B 76777
02402	0420 00 0 00000		HPR		
02403	0761 00 0 02376		NOP	XAD8D	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 73

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02404	0774 00 4 77777	XAD8E	AXT 32767,4	XR4 77777	A 000001
02405	3 77000 4 02411		TXH XAD8F,4,32256	DECR 77000	B 77000
02406	0420 00 0 00000		HPR		
02407	0761 00 0 02404		NOP XAD8E		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02410	0774 00 1 02410		AXT *,1	MONITOR	
02411	0774 00 4 76777	XAD8F	AXT 32255,4	XR4 76777	A 010001
02412	3 76000 4 02415		TXH XAD8G,4,31744	DECR 76000	B 76000
02413	0420 00 0 00000		HPR		
02414	0761 00 0 02411		NOP XAD8F		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02415	0774 00 4 76777	XAD8G	AXT 32255,4	XR4 76777	A 010001
02416	-3 77000 4 02423		TXL XAD8H,4,32256	DECR 77000	B 77000
02417	0774 00 4 77000		AXT 32256,4	XR4 77000	A 007771
02420	-3 77777 4 02423		TXL XAD8H,4,32767	DECR 77777	B 77777
02421	0420 00 0 00000		HPR		
02422	0761 00 0 02415		NOP XAD8G		

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02423	0774 00 4 76777	XAD8H	AXT 32255,4	XR4 76777	A 010001
02424	-3 77000 4 02431		TXL XAD8I,4,32256	DECR 77000	B 77000
02425	0774 00 4 76000		AXT 31744,4	XR4 76000	A 017771
02426	-3 76777 4 02431		TXL XAD8I,4,32255	DECR 76777	B 76777
02427	0420 00 0 00000		HPR		
02430	0761 00 0 02423		NOP XAD8H		

TESTING XAD PSN 8 AND XR4.				INITIAL COND	XAD INPUT
02431	0774 00 4 76777	XAD8I	AXT 32255,4	XR4 76777	A 010001
02432	-3 77000 4 02437		TXL XAD8J,4,32256	DECR 77000	B 77000
02433	0774 00 4 77000		AXT 32256,4	XR4 77000	A 007771
02434	3 76777 4 02437		TXH XAD8J,4,32255	DECR 76777	B 76777
02435	0420 00 0 00000		HPR		
02436	0761 00 0 02431		NOP XAD8I		

YM/1/76B
2/1/63
PAGE 74

SECTION ONE
PART I

TESTING XAD PSN 8 AND XR4.

			INITIAL COND	XAD INPUT
02437	0774 00 4 76777	XAD8J AXT	32255,4 XR4 76777	A 010001
02440	-3 77000 4 02443	TXL	XAD8K,4,32256	DECR 77000 B 77000
02441	0420 00 0 00000	HPR		
02442	0761 00 0 02437	NOP	XAD8J	

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 8 AND XR4.

			INITIAL COND	XAD INPUT
02443	0774 00 4 77000	XAD8K AXT	32256,4 XR4 77000	A 007771
02444	-3 77777 4 02451	TXL	XAD8L,4,32767	DECR 77777 B 77777
02445	0774 00 4 76000	AXT	31744,4 XR4 76000	A 017771
02446	-3 76777 4 02451	TXL	XAD8L,4,32255	DECR 76777 B 76777
02447	0420 00 0 00000	HPR		
02450	0761 00 0 02443	NOP	XAD8K	

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 8 AND XR4.

			INITIAL COND	XAD INPUT
02451	0774 00 4 77000	XAD8L AXT	32256,4 XR4 77000	A 007771
02452	-3 77777 4 02495	TXL	XAD8M,4,32767	DECR 77777 B 77777
02453	0420 00 0 00000	HPR		
02454	0761 00 0 02451	NOP	XAD8L	

ERROR- NO CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 8 AND XR4.

			INITIAL COND	XAD INPUT
02455	0774 00 4 76000	XAD8M AXT	31744,4 XR4 76000	A 017771
02456	-3 76777 4 02461	TXL	XAD8N,4,32255	DECR 76777 B 76777
02457	0420 00 0 00000	HPR		
02460	0761 00 0 02455	NOP	XAD8M	

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 8 AND XR4.

			INITIAL COND	XAD INPUT
02461	0774 00 4 77000	XAD8N AXT	32256,4 XR4 77000	A 007771
02462	3 76777 4 02465	TXH	XAD9A,4,32255	DECR 76777 B 76777
02463	0420 00 0 00000	HPR		
02464	0761 00 0 02461	NOP	XAD8N	

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 75

TESTING IX ADDER PSN 9 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 9 AND XR4.				INITIAL COND	XAD INPUT
02465	0774 00 4 77777	XAD9A	AXT 32767,4	XR4 77777	A 000001
02466	3 77000 4 02471		TXH XAD9B,4,32256	DECR 77000	B 77000
02467	0420 00 0 00000		HPR		
02470	0761 00 0 02465		NOP XAD9A		

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 9 AND XR4.				INITIAL COND	XAD INPUT
02471	0774 00 4 77777	XAD9B	AXT 32767,4	XR4 77777	A 000001
02472	3 77400 4 02477		TXH XAD9C,4,32512	DECR 77400	B 77400

TESTING XAD PSN 9 AND XR4.				INITIAL COND	XAD INPUT
02473	0774 00 4 77377		AXT 32511,4	XR4 77377	A 004001
02474	3 77000 4 02477		TXH XAD9C,4,32256	DECR 77000	B 77000
02475	0420 00 0 00000		HPR		
02476	0761 00 0 02471		NOP XAD9B		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 9 AND XR4.				INITIAL COND	XAD INPUT
02477	0774 00 4 77777	XAD9C	AXT 32767,4	XR4 77777	A 000001
02500	3 77400 4 02506		TXH XAD9D,4,32512	DECR 77400	B 77400

02501	0774 00 4 77400		AXT 32512,4	XR4 77400	A 003771
02502	3 77377 4 02506		TXH XAD9D,4,32511	DECR 77377	B 77377
02503	0420 00 0 00000		HPR		
02504	0761 00 0 02477		NOP XAD9C		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 9 AND XR4.				INITIAL COND	XAD INPUT
02505	0774 00 1 02505		AXT *,1	MONITOR	
02506	0774 00 4 77377	XAD9D	AXT 32511,4	XR4 77377	A 004001
02507	3 77000 4 02514		TXH XAD9E,4,32256	DECR 77000	B 77000

02510	0774 00 4 77400		AXT 32512,4	XR4 77400	A 003771
02511	3 77377 4 02514		TXH XAD9E,4,32511	DECR 77377	B 77377
02512	0420 00 0 00000		HPR		
02513	0761 00 0 02506		NOP XAD9D		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

9M71/768
2/1/63
PAGE 76

S E C T I O N O N E
P A R T I

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02514	0774 00 4 77777	XAD9E AXT	32767,4	XR4 77777	A 000001
02515	3 77400 4 02520	TXH	XAD9F,4,32512	DECR 77400	B 77400
02516	0420 00 0 00000	HPR			
02517	0761 00 0 02514	NOP	XAD9E		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

02520	0774 00 4 77377	XAD9F AXT	32511,4	XR4 77377	A 004001
02521	3 77000 4 02524	TXH	XAD9G,4,32256	DECR 77000	B 77000
02522	0420 00 0 00000	HPR			
02523	0761 00 0 02520	NOP	XAD9F		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02524	0774 00 4 77377	XAD9G AXT	32511,4	XR4 77377	A 004001
02525	-3 77400 4 02532	TXL	XAD9H,4,32512	DECR 77400	B 77400

02526	0774 00 4 77400	AXT	32512,4	XR4 77400	A 003771
02527	-3 77777 4 02532	TXL	XAD9H,4,32767	DECR 77777	B 77777
02530	0420 00 0 00000	HPR			
02531	0761 00 0 02524	NOP	XAD9G		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02532	0774 00 4 77377	XAD9H AXT	32511,4	XR4 77377	A 004001
02533	-3 77400 4 02540	TXL	XAD9I,4,32512	DECR 77400	B 77400

02534	0774 00 4 77000	AXT	32256,4	XR4 77000	A 007771
02535	-3 77377 4 02540	TXL	XAD9I,4,32511	DECR 77377	B 77377
02536	0420 00 0 00000	HPR			
02537	0761 00 0 02532	NOP	XAD9H		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02540	0774 00 4 77377	XAD9I AXT	32511,4	XR4 77377	A 004001
02541	-3 77400 4 02546	TXL	XAD9J,4,32512	DECR 77400	B 77400

02542	0774 00 4 77400	AXT	32512,4	XR4 77400	A 003771
02543	3 77377 4 02546	TXH	XAD9J,4,32511	DECR 77377	B 77377
02544	0420 00 0 00000	HPR			
02545	0761 00 0 02540	NOP	XAD9I		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 77

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02546	0774 00 4 77377	XAD9J	AXT	32511,4	XR4 77377
02547	-3 77400 4 02552		TXL	XAD9K,4,32512	DECR 77400
02550	0420 00 0 00000		HPR		
02551	0761 00 0 02540		NOP	XAD9I	

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02552	0774 00 4 77400	XAD9K	AXT	32512,4	XR4 77400
02553	-3 77777 4 02560		TXL	XAD9L,4,32767	DECR 77777
02554	0774 00 4 77000		AXT	32256,4	XR4 77000
02555	-3 77377 4 02560		TXL	XAD9L,4,32511	DECR 77377
02556	0420 00 0 00000		HPR		
02557	0761 00 0 00000		NOP		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02560	0774 00 4 77400	XAD9L	AXT	32512,4	XR4 77400
02561	-3 77777 4 02564		TXL	XAD9M,4,32767	DECR 77777
02562	0420 00 0 00000		HPR		
02563	0761 00 0 00000		NOP		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02564	0774 00 4 77000	XAD9M	AXT	32256,4	XR4 77000
02565	-3 77377 4 02570		TXL	XAD9N,4,32511	DECR 77377
02566	0420 00 0 00000		HPR		
02567	0761 00 0 00000		NOP		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 9 AND XR4.

				INITIAL COND	XAD INPUT
02570	0774 00 4 77400	XAD9N	AXT	32512,4	XR4 77400
02571	3 77377 4 02574		TXH	XA10A,4,32511	DECR 77377
02572	0420 00 0 00000		HPR		
02573	0761 00 0 00000		NOP		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 78

S E C T I O N O N E
P A R T I

TESTING IX ADDER PSN 10 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 10 AND XR4. INITIAL COND XAD INPUT

02574	0774 00 4 77777	XA10A AXT	32767,4	XR4 77777	A 000001
02575	3 77400 4 02600	TXH	XA10B,4,32512	DECR 77400	B 77400
02576	0420 00 0 00000	HPR			
02577	0761 00 0 02574	NOP	XA10A		

ERROR-- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 10 AND XR4. INITIAL COND XAD INPUT

02600	0774 00 4 77777	XA10B AXT	32767,4	XR4 77777	A 000001
02601	3 77600 4 02607	TXH	XA10C,4,32640	DECR 77600	B 77600
02602	0774 00 4 77577	AXT	32639,4	XR4 77577	A 002001
02603	3 77400 4 02607	TXH	XA10C,4,32512	DECR 77400	B 77400
02604	0420 00 0 00000	HPR			
02605	0761 00 0 02600	NOP	XA10B		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 10 AND XR4. INITIAL COND XAD INPUT

02606	0774 00 1 02606	AXT	*,1	MONITOR	
02607	0774 00 4 77777	XA10C AXT	32767,4	XR4 77777	A 000001
02610	3 77600 4 02615	TXH	XA10D,4,32640	DECR 77600	B 77600
02611	0774 00 4 77600	AXT	32640,4	XR4 77600	A 001771
02612	3 77577 4 02615	TXH	XA10D,4,32639	DECR 77577	B 77577
02613	0420 00 0 00000	HPR			
02614	0761 00 0 02607	NOP	XA10C		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 10 AND XR4. INITIAL COND XAD INPUT

02615	0774 00 4 77577	XA10D AXT	32639,4	XR4 77577	A 002001
02616	3 77400 4 02623	TXH	XA10E,4,32512	DECR 77400	B 77400
02617	0774 00 4 77600	AXT	32640,4	XR4 77600	A 001771
02620	3 77577 4 02623	TXH	XA10E,4,32639	DECR 77577	B 77577
02621	0420 00 0 00000	HPR			
02622	0761 00 0 02615	NOP	XA10D		

ERROR-- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

SECTION ONE
PART I

9M71/76B
2/1/63
PAGE 79

TESTING XAD PSN 10 AND XR4.

02623	0774 00 4 77777	XA10E	AXT	32767,4	INITIAL COND	XAD INPUT
02624	3 77600 4 02627		TXH	XA10F,4,32640	XR4 77777	A 000001
02625	0420 00 0 00000		HPR		DECR 77600	B 77600
02626	0761 00 0 02623		NOP	XA10E		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 10 AND XR4.

02627	0774 00 4 77577	XA10F	AXT	32639,4	INITIAL COND	XAD INPUT
02630	3 77400 4 02633		TXH	XA10G,4,32512	XR4 77577	A 002001
02631	0420 00 0 00000		HPR		DECR 77400	B 77400
02632	0761 00 0 02627		NOP	XA10F		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 10 AND XR4.

02633	0774 00 4 77577	XA10G	AXT	32639,4	INITIAL COND	XAD INPUT
02634	-3 77600 4 02641		TXL	XA10H,4,32640	XR4 77577	A 002001
					DECR 77600	B 77600
02635	0774 00 4 77600		AXT	32640,4	XR4 77600	A 001771
02636	-3 77777 4 02641		TXL	XA10H,4,32767	DECR 77777	B 77777
02637	0420 00 0 00000		HPR			
02640	0761 00 0 02633		NOP	XA10G		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 10 AND XR4.

02641	0774 00 4 77577	XA10H	AXT	32639,4	INITIAL COND	XAD INPUT
02642	-3 77600 4 02647		TXL	XA10I,4,32640	XR4 77577	A 002001
					DECR 77600	B 77600
02643	0774 00 4 77400		AXT	32512,4	XR4 77400	A 003771
02644	-3 77577 4 02647		TXL	XA10I,4,32639	DECR 77577	B 77577
02645	0420 00 0 00000		HPR			
02646	0761 00 0 02641		NOP	XA10H		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 10 AND XR4.

02647	0774 00 4 77577	XA10I	AXT	32639,4	INITIAL COND	XAD INPUT
02650	-3 77600 4 02655		TXL	XA10J,4,32640	XR4 77577	A 002001
					DECR 77600	B 77600
02651	0774 00 4 77600		AXT	32640,4	XR4 77600	A 001771
02652	3 77577 4 02655		TXH	XA10J,4,32639	DECR 77577	B 77577
02653	0420 00 0 00000		HPR			
02654	0761 00 0 02647		NOP	XA10I		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 80

SECTION ONE
PART I

TESTING XAD PSN 10 AND XR4.
02655 0774 00 4 77577 XA10J AXT 32639,4 INITIAL COND XR4 77577 XAD INPUT A 002001
02656 -3 77600 4 02661 TXL XA10K,4,32640 DECR 77600 B 77600
02657 0420 00 0 00000 HPR
02660 0761 00 0 02655 NOP XA10J
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 10 AND XR4.
02661 0774 00 4 77600 XA10K AXT 32640,4 INITIAL COND XR4 77600 XAD INPUT A 001771
02662 -3 77777 4 02667 TXL XA10L,4,32767 DECR 77777 B 77777
02663 0774 00 4 77400 AXT 32512,4 XR4 77400 A 003771
02664 -3 77577 4 02667 TXL XA10L,4,32639 DECR 77577 B 77577
02665 0420 00 0 00000 HPR
02666 0761 00 0 02661 NOP XA10K
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 10 AND XR4.
02667 0774 00 4 77600 XA10L AXT 32640,4 INITIAL COND XR4 77600 XAD INPUT A 001771
02670 -3 77777 4 02673 TXL XA10M,4,32767 DECR 77777 B 77777
02671 0420 00 0 00000 HPR
02672 0761 00 0 02667 NOP XA10L
ERROR- NO CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 10 AND XR4.
02673 0774 00 4 77400 XA10M AXT 32512,4 INITIAL COND XR4 77400 XAD INPUT A 003771
02674 -3 77577 4 02677 TXL XA10N,4,32639 DECR 77577 B 77577
02675 0420 00 0 00000 HPR
02676 0761 00 0 02673 NOP XA10M
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 10 AND XR4.
02677 0774 00 4 77600 XA10N AXT 32640,4 INITIAL COND XR4 77600 XAD INPUT A 001771
02700 3 77577 4 02703 TXH XA11A,4,32639 DECR 77577 B 77577
02701 0420 00 0 00000 HPR
02702 0761 00 0 02677 NOP XA10N
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 81

TESTING IX ADDER PSN 11 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 11 AND XR4.				INITIAL COND	XAD INPUT
02703	0774 00 4 77777	XA11A	AXT 32767,4	XR4 77777	A 000001
02704	3 77600 4 02707		TXH XA11B,4,32640	DECR 77600	B 77600
02705	0420 00 0 00000		HPR		
02706	0761 00 0 02703		NOP XA11A		
ERROR- HOT CARRY OUTPUT WITH NO INPUTS					

TESTING XAD PSN 11 AND XR4.				INITIAL COND	XAD INPUT
02707	0774 00 4 77777	XA11B	AXT 32767,4	XR4 77777	A 000001
02710	3 77700 4 02716		TXH XA11C,4,32704	DECR 77700	B 77700
02711	0774 00 4 77677		AXT 32703,4	XR4 77677	A 001001
02712	3 77600 4 02716		TXH XA11C,4,32640	DECR 77600	B 77600
02713	0420 00 0 00000		HPR		
02714	0761 00 0 02707		NOP XA11B		
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER SR OR XR.					

TESTING XAD PSN 11 AND XR4.				INITIAL COND	XAD INPUT
02715	0774 00 1 02715		AXT *,1	MONITOR	
02716	0774 00 4 77777	XA11C	AXT 32767,4	XR4 77777	A 000001
02717	3 77700 4 02724		TXH XA11D,4,32704	DECR 77700	B 77700
02720	0774 00 4 77700		AXT 32704,4	XR4 77700	A 000771
02721	3 77677 4 02724		TXH XA11D,4,32703	DECR 77677	B 77677
02722	0420 00 0 00000		HPR		
02723	0761 00 0 02716		NOP XA11C		
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER SR OR LOWER ORDER ADDER.					

TESTING XAD PSN 11 AND XR4.				INITIAL COND	XAD INPUT
02724	0774 00 4 77677	XA11D	AXT 32703,4	XR4 77677	A 001001
02725	3 77600 4 02732		TXH XA11E,4,32640	DECR 77600	B 77600
02726	0774 00 4 77700		AXT 32704,4	XR4 77700	A 00077
02727	3 77677 4 02732		TXH XA11E,4,32703	DECR 77677	B 77677
02730	0420 00 0 00000		HPR		
02731	0761 00 0 02724		NOP XA11D		
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER XR OR LOWER ORDER ADDER					

9M71/76B
2/1/63
PAGE 82

S E C T I O N O N E
P A R T I

TESTING XAD PSN 11 AND XR4. INITIAL COND XAD INPUT
02732 0774 00 4 77777 XA11E AXT 32767,4 XR4 77777 A 000001
02733 3 77700 4 02736 TXH XA11F,4,32704 DECR 77700 B 77700
02734 0420 00 0 00000 HPR
02735 0761 00 0 02732 NOP XA11E
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 11 AND XR4. INITIAL COND XAD INPUT
02736 0774 00 4 77677 XA11F AXT 32703,4 XR4 77677 A 001001
02737 3 77600 4 02742 TXH XA11G,4,32640 DECR 77600 B 77600
02740 0420 00 0 00000 HPR
02741 0761 00 0 02736 NOP XA11F
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 11 AND XR4. INITIAL COND XAD INPUT
02742 0774 00 4 77677 XA11G AXT 32703,4 XR4 77677 A 001001
02743 -3 77700 4 02750 TXL XA11H,4,32704 DECR 77700 B 77700

02744 0774 00 4 77700 AXT 32704,4 XR4 77700 A 000771
02745 -3 77777 4 02750 TXL XA11H,4,32767 DECR 77777 B 77777
02746 0420 00 0 00000 HPR
02747 0761 00 0 02742 NOP XA11G
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 11 AND XR4. INITIAL COND XAD INPUT
02750 0774 00 4 77677 XA11H AXT 32703,4 XR4 77677 A 001001
02751 -3 77700 4 02756 TXL XA11I,4,32704 DECR 77700 B 77700

02752 0774 00 4 77600 AXT 32640,4 XR4 77600 A 001771
02753 -3 77677 4 02756 TXL XA11I,4,32703 DECR 77677 B 77677
02754 0420 00 0 00000 HPR
02755 0761 00 0 02750 NOP XA11H
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 11 AND XR4. INITIAL COND XAD INPUT
02756 0774 00 4 77677 XA11I AXT 32703,4 XR4 77677 A 001001
02757 -3 77700 4 02764 TXL XA11J,4,32704 DECR 77700 B 77700

02760 0774 00 4 77700 AXT 32704,4 XR4 77700 A 000771
02761 3 77677 4 02764 TXH XA11J,4,32703 DECR 77677 B 77677
02762 0420 00 0 00000 HPR
02763 0761 00 0 02756 NOP XA11I
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 83

TESTING XAD PSN 11 AND XR4.

				INITIAL COND	XAD INPUT
02764	0774 00 4 77677	XA11J	AXT 32703,4	XR4 77677	A 001001
02765	-3 77700 4 02770		TXL XA11K,4,32704	DECR 77700	B 77700
02766	0420 00 0 00000		HPR		
02767	0761 00 0 02764		NOP XA11J		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 11 AND XR4.

				INITIAL COND	XAD INPUT
02770	0774 00 4 77700	XA11K	AXT 32704,4	XR4 77700	A 000771
02771	-3 77777 4 02776		TXL XA11L,4,32767	DECR 77777	B 77777

02772	0774 00 4 77600		AXT 32640,4	XR4 77600	A 001771
02773	-3 77677 4 02776		TXL XA11L,4,32703	DECR 77677	B 77677
02774	0420 00 0 00000		HPR		
02775	0761 00 0 02770		NOP XA11K		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 11 AND XR4.

				INITIAL COND	XAD INPUT
02776	0774 00 4 77700	XA11L	AXT 32704,4	XR4 77700	A 000771
02777	-3 77777 4 03002		TXL XA11M,4,32767	DECR 77777	B 77777
03000	0420 00 0 00000		HPR		
03001	0761 00 0 02776		NOP XA11L		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 11 AND XR4.

				INITIAL COND	XAD INPUT
03002	0774 00 4 77600	XA11M	AXT 32640,4	XR4 77600	A 001771
03003	-3 77677 4 03006		TXL XA11N,4,32703	DECR 77677	B 77677
03004	0420 00 0 00000		HPR		
03005	0761 00 0 03002		NOP XA11M		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 11 AND XR4.

				INITIAL COND	XAD INPUT
03006	0774 00 4 77700	XA11N	AXT 32704,4	XR4 77700	A 000771
03007	3 77677 4 03013		TXH XA12A,4,32703	DECR 77677	B 77677
03010	0420 00 0 00000		HPR		
03011	0761 00 0 03006		NOP XA11N		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 84

S E C T I O N O N E
P A R T I

TESTING IX ADDER PSN 12 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 12 AND XR4.

				AXT	*,1	INITIAL COND MONITOR	XAD INPUT
03012	0774	00	1	03012			
03013	0774	00	4	77777	XA12A	AXT 32767,4	XR4 77777 A 000001
03014	3	77700	4	03017	TXH	XA12B,4,32704	DECR 77700 B 77700
03015	0420	00	0	00000	HPR		
03016	0761	00	0	03013	NOP	XA12A	

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 12 AND XR4.

						INITIAL COND	XAD INPUT
03017	0774	00	4	77777	XA12B	AXT 32767,4	XR4 77777 A 000001
03020	3	77740	4	03025	TXH	XA12C,4,32736	DECR 77740 B 77740
03021	0774	00	4	77737		AXT 32735,4	XR4 77737 A 000401
03022	3	77700	4	03025	TXH	XA12C,4,32704	DECR 77700 B 77700
03023	0420	00	0	00000	HPR		
03024	0761	00	0	03017	NOP	XA12B	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 12 AND XR4.

						INITIAL COND	XAD INPUT
03025	0774	00	4	77777	XA12C	AXT 32767,4	XR4 77777 A 000001
03026	3	77740	4	03033	TXH	XA12D,4,32736	DECR 77740 B 77740
03027	0774	00	4	77740		AXT 32736,4	XR4 77740 A 000371
03030	3	77737	4	03033	TXH	XA12D,4,32735	DECR 77737 B 77737
03031	0420	00	0	00000	HPR		
03032	0761	00	0	03025	NOP	XA12C	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 12 AND XR4.

						INITIAL COND	XAD INPUT
03033	0774	00	4	77737	XA12D	AXT 32735,4	XR4 77737 A 000401
03034	3	77700	4	03041	TXH	XA12E,4,32704	DECR 77700 B 77700
03035	0774	00	4	77740		AXT 32736,4	XR4 77740 A 000371
03036	3	77737	4	03041	TXH	XA12E,4,32735	DECR 77737 B 77737
03037	0420	00	0	00000	HPR		
03040	0761	00	0	03033	NOP	XA12D	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 35

TESTING XAD PSN 12 AND XR4.				INITIAL COND	XAD INPUT
03041	0774 00 4 77777	XA12E	AXT 32767,4	XR4 77777	A 000001
03042	3 77740 4 03045		TXH XA12F,4,32736	DECR 77740	B 77740
03043	0420 00 0 00000		HPR		
03044	0761 00 0 03041		NOP XA12E		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 12 AND XR4.				INITIAL COND	XAD INPUT
03045	0774 00 4 77737	XA12F	AXT 32735,4	XR4 77737	A 000401
03046	3 77700 4 03051		TXH XA12G,4,32704	DECR 77700	B 77700
03047	0420 00 0 00000		HPR		
03050	0761 00 0 03045		NOP XA12F		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 12 AND XR4.				INITIAL COND	XAD INPUT
03051	0774 00 4 77737	XA12G	AXT 32735,4	XR4 77737	A 000401
03052	-3 77740 4 03057		TXL XA12H,4,32736	DECR 77740	B 77740
03053	0774 00 4 77740		AXT 32736,4	XR4 77740	A 000371
03054	-3 77777 4 03057		TXL XA12H,4,32767	DECR 77777	B 77777
03055	0420 00 0 00000		HPR		
03056	0761 00 0 03051		NOP XA12G		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 12 AND XR4.				INITIAL COND	XAD INPUT
03057	0774 00 4 77737	XA12H	AXT 32735,4	XR4 77737	A 000401
03060	-3 77740 4 03065		TXL XA12I,4,32736	DECR 77740	B 77740
03061	0774 00 4 77700		AXT 32704,4	XR4 77700	A 000771
03062	-3 77737 4 03065		TXL XA12I,4,32735	DECR 77737	B 77737
03063	0420 00 0 00000		HPR		
03064	0761 00 0 03057		NOP XA12H		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 12 AND XR4.				INITIAL COND	XAD INPUT
03065	0774 00 4 77737	XA12I	AXT 32735,4	XR4 77737	A 000401
03066	-3 77740 4 03073		TXL XA12J,4,32736	DECR 77740	B 77740
03067	0774 00 4 77740		AXT 32736,4	XR4 77740	A 000371
03070	3 77737 4 03073		TXH XA12J,4,32735	DECR 77737	B 77737
03071	0420 00 0 00000		HPR		
03072	0761 00 0 03065		NOP XA12I		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 86

SECTION ONE
PART I

TESTING XAD PSN 12 AND XR4.

				INITIAL COND	XAD INPUT
03073	0774 00 4 77737	XA12J	AXT 32735,4	XR4 77737	A 000401
03074	-3 77740 4 03077		TXL XA12K,4,32736	DECR 77740	B 77740
03075	0420 00 0 00000		HPR		
03076	0761 00 0 03073		NOP XA12J		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 12 AND XR4.

				INITIAL COND	XAD INPUT
03077	0774 00 4 77740	XA12K	AXT 32736,4	XR4 77740	A 000371
03100	-3 77777 4 03105		TXL XA12L,4,32767	DECR 77777	B 77777
03101	0774 00 4 77700		AXT 32704,4	XR4 77700	A 000771
03102	-3 77777 4 03105		TXL XA12L,4,32767	DECR 77737	B 77737
03103	0420 00 0 00000		HPR		
03104	0761 00 0 03077		NOP XA12K		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 12 AND XR4.

				INITIAL COND	XAD INPUT
03105	0774 00 4 77740	XA12L	AXT 32736,4	XR4 77740	A 000371
03106	-3 77777 4 03111		TXL XA12M,4,32767	DECR 77777	B 77777
03107	0420 00 0 00000		HPR		
03110	0761 00 0 03105		NOP XA12L		

ERROR- NOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 12 AND XR4.

				INITIAL COND	XAD INPUT
03111	0774 00 4 77700	XA12M	AXT 32704,4	XR4 77700	A 000771
03112	-3 77737 4 03116		TXL XA12N,4,32735	DECR 77737	B 77737
03113	0420 00 0 00000		HPR		
03114	0761 00 0 03111		NOP XA12M		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 12 AND XR4.

				INITIAL COND	XAD INPUT
03115	0774 00 1 03115		AXT **,1	MONITOR	
03116	0774 00 4 77740	XA12N	AXT 32736,4	XR4 77740	A 000371
03117	3 77737 4 03122		TXH XA13A,4,32735	DECR 77737	B 77737
03120	0420 00 0 00000		HPR		
03121	0761 00 0 03116		NOP XA12N		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 87

TESTING IX ADDER PSN 13 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 13 AND XR4.				INITIAL COND	XAD INPUT
03122	0774 00 4 77777	XA13A	AXT	32767,4	XR4 77777 A 000001
03123	3 77740 4 03126		TXH	XA13B,4,32736	DECR 77740 B 77740
03124	0420 00 0 00000		HPR		
03125	0761 00 0 03122		NOP	XA13A	

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 13 AND XR4.				INITIAL COND	XAD INPUT
03126	0774 00 4 77777	XA13B	AXT	32767,4	XR4 77777 A 000001
03127	3 77760 4 03134		TXH	XA13C,4,32752	DECR 77760 B 77760
03130	0774 00 4 77757		AXT	32751,4	XR4 77757 A 000201
03131	3 77740 4 03134		TXH	XA13C,4,32736	DECR 77740 B 77740
03132	0420 00 0 00000		HPR		
03133	0761 00 0 03126		NOP	XA13B	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 13 AND XR4.				INITIAL COND	XAD INPUT
03134	0774 00 4 77777	XA13C	AXT	32767,4	XR4 77777 A 000001
03135	3 77760 4 03142		TXH	XA13D,4,32752	DECR 77760 B 77760
03136	0774 00 4 77760		AXT	32752,4	XR4 77760 A 000171
03137	3 77757 4 03142		TXH	XA13D,4,32751	DECR 77757 B 77757
03140	0420 00 0 00000		HPR		
03141	0761 00 0 03134		NOP	XA13C	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 13 AND XR4.				INITIAL COND	XAD INPUT
03142	0774 00 4 77757	XA13D	AXT	32751,4	XR4 77757 A 000201
03143	3 77740 4 03150		TXH	XA13E,4,32736	DECR 77740 B 77740

TESTING XAD PSN 13 AND XR4.				INITIAL COND	XAD INPUT
03144	0774 00 4 77760		AXT	32752,4	XR4 77760 A 000171
03145	3 77757 4 03150		TXH	XA13E,4,32751	DECR 77757 B 77757
03146	0420 00 0 00000		HPR		
03147	0761 00 0 03142		NOP	XA13D	

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

9M71/76B
2/1/63
PAGE 88

S E C T I O N O N E
P A R T I

TESTING XAD PSN 13 AND XR4. INITIAL COND XAD INPUT
03150 0774 00 4 77777 XA13E AXT 32767,4 XR4 77777 A 000001
03151 3 77760 4 03154 TXH XA13F,4,32752 DECR 77760 B 77760
03152 0420 00 0 00000 HPR
03153 0761 00 0 03150 NOP XA13E
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 13 AND XR4. INITIAL COND XAD INPUT
03154 0774 00 4 77757 XA13F AXT 32751,4 XR4 77757 A 00201
03155 3 77740 4 03160 TXH XA13G,4,32736 DECR 77740 B 77740
03156 0420 00 0 00000 HPR
03157 0761 00 0 03154 NOP XA13F
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 13 AND XR4. INITIAL COND XAD INPUT
03160 0774 00 4 77757 XA13G AXT 32751,4 XR4 77757 A 000201
03161 -3 77760 4 03166 TXL XA13H,4,32752 DECR 77760 B 77760
03162 0774 00 4 77760 AXT 32752,4 XR4 77760 A 000171
03163 -3 77777 4 03166 TXL XA13H,4,32767 DECR 77777 B 77777
03164 0420 00 0 00000 HPR
03165 0761 00 0 03160 NOP XA13G
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

03166 0774 00 4 77757 XA13H AXT 32751,4 XR4 77757 A 000201
03167 -3 77760 4 03174 TXL XA13I,4,32752 DECR 77760 B 77760
03170 0774 00 4 77740 AXT 32736,4 XR4 77740 A 000371
03171 -3 77757 4 03174 TXL XA13I,4,32751 DECR 77757 B 77757
03172 0420 00 0 00000 HPR
03173 0761 00 0 03166 NOP XA13H
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 13 AND XR4. INITIAL COND XAD INPUT
03174 0774 00 4 77757 XA13I AXT 32751,4 XR4 77757 A 000201
03175 -3 77760 4 03202 TXL XA13J,4,32752 DECR 77760 B 77760
03176 0774 00 4 77760 AXT 32752,4 XR4 77760 A 000171
03177 3 77757 4 03202 TXH XA13J,4,32751 DECR 77757 B 77757
03200 0420 00 0 00000 HPR
03201 0761 00 0 03174 NOP XA13I
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 89

TESTING XAD PSN 13 AND XR4.

03202	0774 00 4 77757	XA13J	AXT	32751,4	INITIAL COND	XAD INPUT
03203	-3 77760 4 03206		TXL	XA13K,4,32752	XR4 77757	A 000201
03204	0420 00 0 00000		HPR		DECR 77760	B 77760
03205	0761 00 0 03202		NOP	XA13J		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 13 AND XR4.

03206	0774 00 4 77760	XA13K	AXT	32752,4	INITIAL COND	XAD INPUT
03207	-3 77777 4 03215		TXL	XA13L,4,32767	XR4 77760	A 000171
					DECR 77777	B 77777
03210	0774 00 4 77740		AXT	32736,4	XR4 77740	A 000371
03211	-3 77757 4 03215		TXL	XA13L,4,32751	DECR 77757	B 77757
03212	0420 00 0 00000		HPR			
03213	0761 00 0 03206		NOP	XA13K		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 13 AND XR4.

03214	0774 00 1 03214		AXT	*,1	INITIAL COND MONITOR	XAD INPUT
03215	0774 '00 4 77760	XA13L	AXT	32752,4	XR4 77760	A 000171
03216	-3 77777 4 03221		TXL	XA13M,4,32767	DECR 77777	B 77777
03217	0420 00 0 00000		HPR			
03220	0761 00 0 03215		NOP	XA13L		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 13 AND XR4.

03221	0774 00 4 77740	XA13M	AXT	32736,4	INITIAL COND	XAD INPUT
03222	-3 77757 4 03225		TXL	XA13N,4,32751	XR4 77740	A 000371
03223	0420 00 0 00000		HPR			
03224	0761 00 0 03221		NOP	XA13M		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 13 AND XR4.

03225	0774 00 4 77760	XA13N	AXT	32752,4	INITIAL COND	XAD INPUT
03226	3 77757 4 03231		TXH	XA14A,4,32751	XR4 77760	A 000171
03227	0420 00 0 00000		HPR		DECR 77757	B 77757
03230	0761 00 0 03225		NOP	XA13N		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 90

S E C T I O N O N E
P A R T I

TESTING IX ADDER PSN 14 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 14 AND XR4.				INITIAL COND	XAD INPUT
03231	0774 00 4 77777	XA14A	AXT 32767,4	XR4 77777	A 000001
03232	3 77760 4 03235		TXH XA14B,4,32752	DECR 77760	B 77760
03233	0420 00 0 00000		HPR		
03234	0761 00 0 03231		NOP XA14A		

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 14 AND XR4.				INITIAL COND	XAD INPUT
03235	0774 00 4 77777	XA14B	AXT 32767,4	XR4 77777	A 000001
03236	3 77770 4 03243		TXH XA14C,4,32760	DECR 77770	B 77770
03237	0774 00 4 77767		AXT 32759,4	XR4 77767	A 000101
03240	3 77760 4 03243		TXH XA14C,4,32752	DECR 77760	B 77760
03241	0420 00 0 00000		HPR		
03242	0761 00 0 03235		NOP XA14B		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 14 AND XR4.				INITIAL COND	XAD INPUT
03243	0774 00 4 77777	XA14C	AXT 32767,4	XR4 77777	A 000001
03244	3 77770 4 03251		TXH XA14D,4,32760	DECR 77770	B 77770
03245	0774 00 4 77770		AXT 32760,4	XR4 77770	A 000071
03246	3 77767 4 03251		TXH XA14D,4,32759	DECR 77767	B 77767
03247	0420 00 0 00000		HPR		
03250	0761 00 0 03243		NOP XA14C		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 14 AND XR4.				INITIAL COND	XAD INPUT
03251	0774 00 4 77767	XA14D	AXT 32759,4	XR4 77767	A 000101
03252	3 77760 4 03257		TXH XA14E,4,32752	DECR 77760	B 77760
03253	0774 00 4 77770		AXT 32760,4	XR4 77770	A 000071
03254	3 77767 4 03257		TXH XA14E,4,32759	DECR 77767	B 77767
03255	0420 00 0 00000		HPR		
03256	0761 00 0 03251		NOP XA14D		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER XR OR LOWER ORDER ADDER

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 91

TESTING XAD PSN 14 AND XR4.

03257	0774 00 4 77777	XA14E AXT	32767,4	INITIAL COND	XR4 77777	XAD INPUT
03260	3 77770 4 03263	TXH	XA14F,4,32760	DECR	77770	A 000001
03261	0420 00 0 00000	HPR				B 77770
03262	0761 00 0 03257	NOP	XA14E			

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 14 AND XR4.

03263	0774 00 4 77767	XA14F AXT	32759,4	INITIAL COND	XR4 77767	XAD INPUT
03264	3 77760 4 03267	TXH	XA14G,4,32752	DECR	77760	A 000101
03265	0420 00 0 00000	HPR				B 77760
03266	0761 00 0 03263	NOP	XA14F			

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 14 AND XR4.

03267	0774 00 4 77767	XA14G AXT	32759,4	INITIAL COND	XR4 77767	XAD INPUT
03270	-3 77770 4 03275	TXL	XA14H,4,32760	DECR	77770	A 000101
03271	0774 00 4 77770	AXT	32760,4		XR4 77770	A 000071
03272	-3 77777 4 03275	TXL	XA14H,4,32767	DECR	77777	B 77777
03273	0420 00 0 00000	HPR				
03274	0761 00 0 03267	NOP	XA14G			

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 14 AND XR4.

03275	0774 00 4 77767	XA14H AXT	32759,4	INITIAL COND	XR4 77767	XAD INPUT
03276	-3 77770 4 03303	TXL	XA14I,4,32760	DECR	77770	A 000101
03277	0774 00 4 77760	AXT	32752,4		XR4 77760	A 000171
03300	-3 77767 4 03303	TXL	XA14I,4,32759	DECR	77767	B 77767
03301	0420 00 0 00000	HPR				
03302	0761 00 0 03275	NOP	XA14H			

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 14 AND XR4.

03303	0774 00 4 77767	XA14I AXT	32759,4	INITIAL COND	XR4 77767	XAD INPUT
03304	-3 77770 4 03311	TXL	XA14J,4,32760	DECR	77770	A 000101
03305	0774 00 4 77770	AXT	32760,4		XR4 77770	A 000071
03306	3 77767 4 03311	TXH	XA14J,4,32759	DECR	77767	B 77767
03307	0420 00 0 00000	HPR				
03310	0761 00 0 03303	NOP	XA14I			

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

9M71/76B
2/1/63
PAGE 92

S E C T I O N O N E
P A R T I

TESTING XAD PSN 14 AND XR4.

				INITIAL COND	XAD INPUT
03311	0774 00 4 77767	XA14J	AXT 32759,4	XR4 77767	A 000101
03312	-3 77770 4 03316		TXL XA14K,4,32760	DECR 77770	B 77770
03313	0420 00 0 00000		HPR		
03314	0761 00 0 03311		NOP XA14J		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 14 AND XR4.

				INITIAL COND	XAD INPUT
03315	0774 00 1 03315	AXT	*,1	MONITOR	
03316	0774 00 4 77770	XA14K	AXT 32760,4	XR4 77770	A 000071
03317	-3 77777 4 03324		TXL XA14L,4,32767	DECR 77777	B 77777
03320	0774 00 4 77760		AXT 32752,4	XR4 77760	A 000171
03321	-3 77767 4 03324		TXL XA14L,4,32759	DECR 77767	B 77767
03322	0420 00 0 00000		HPR		
03323	0761 00 0 03316		NOP XA14K		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 14 AND XR4.

				INITIAL COND	XAD INPUT
03324	0774 00 4 77770	XA14L	AXT 32760,4	XR4 77770	A 000071
03325	-3 77777 4 03330		TXL XA14M,4,32767	DECR 77777	B 77777
03326	0420 00 0 00000		HPR		
03327	0761 00 0 03324		NOP XA14L		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 14 AND XR4.

				INITIAL COND	XAD INPUT
03330	0774 00 4 77760	XA14M	AXT 32752,4	XR4 77760	A 000171
03331	-3 77767 4 03334		TXL XA14N,4,32759	DECR 77767	B 77767
03332	0420 00 0 00000		HPR		
03333	0761 00 0 03330		NOP XA14M		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 14 AND XR4.

				INITIAL COND	XAD INPUT
03334	0774 00 4 77770	XA14N	AXT 32760,4	XR4 77770	A 000071
03335	3 77767 4 03340		TXH XA15A,4,32759	DECR 77767	B 77767
03336	0420 00 0 00000		HPR		
03337	0761 00 0 03334		NOP XA14N		

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 93

TESTING IX ADDER PSN 15 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03340	0774 00 4 77777	XA15A AXT	32767,4		XR4 77777	A 000001
03341	3 77770 4 03344	TXH	XA15B,4,32760	DECR	77770	B 77770
03342	0420 00 0 00000	HPR				
03343	0761 00 0 03340	NOP	XA15A			
ERROR- HOT CARRY OUTPUT WITH NO INPUTS						

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03344	0774 00 4 77777	XA15B AXT	32767,4		XR4 77777	A 000001
03345	3 77774 4 03352	TXH	XA15C,4,32764	DECR	77774	B 77774
03346	0774 00 4 77773	AXT	32763,4		XR4 77773	A 000041
03347	3 77770 4 03352	TXH	XA15C,4,32760	DECR	77774	B 77774
03350	0420 00 0 00000	HPR				
03351	0761 00 0 03344	NOP	XA15B			
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER SR OR XR.						

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03352	0774 00 4 77777	XA15C AXT	32767,4		XR4 77777	A 000001
03353	3 77774 4 03360	TXH	XA15D,4,32764	DECR	77774	B 77774
03354	0774 00 4 77774	AXT	32764,4		XR4 77774	A 000031
03355	3 77773 4 03360	TXH	XA15D,4,32763	DECR	77773	B 77773
03356	0420 00 0 00000	HPR				
03357	0761 00 0 03352	NOP	XA15C			
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER SR OR LOWER ORDER ADDER.						

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03360	0774 00 4 77773	XA15D AXT	32763,4		XR4 77773	A 000041
03361	3 77770 4 03366	TXH	XA15E,4,32760	DECR	77770	B 77770
03362	0774 00 4 77774	AXT	32764,4		XR4 77774	A 000031
03363	3 77773 4 03366	TXH	XA15E,4,32763	DECR	77773	B 77773
03364	0420 00 0 00000	HPR				
03365	0761 00 0 03360	NOP	XA15D			
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM EITHER XR OR LOWER ORDER ADDER						

9M71/76B
2/1/63
PAGE 94

SECTION ONE
PART I

TESTING XAD PSN 15 AND XR4. INITIAL COND XAD INPUT
03366 0774 00 4 77777 XA15E AXT 32767,4 XR4 77777 A 000001
03367 3 77774 4 03372 TXH XA15F,4,32764 DECR 77774 B 77774
03370 0420 00 0 00000 HPR
03371 0761 00 0 03366 NOP XA15E
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 15 AND XR4. INITIAL COND XAD INPUT
03372 0774 00 4 77773 XA15F AXT 32763,4 XR4 77773 A 000041
03373 3 77770 4 03376 TXH XA15G,4,32760 DECR 77770 B 77770
03374 0420 00 0 00000 HPR
03375 0761 00 0 03372 NOP XA15F
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 15 AND XR4. INITIAL COND XAD INPUT
03376 0774 00 4 77773 XA15G AXT 32763,4 XR4 77773 A 000041
03377 -3 77774 4 03404 TXL XA15H,4,32764 DECR 77774 B 77774

03400 0774 00 4 77774 AXT 32764,4 XR4 77774 A 000031
03401 -3 77777 4 03404 TXL XA15H,4,32767 DECR 77777 B 77777
03402 0420 00 0 00000 HPR
03403 0761 00 0 03376 NOP XA15G
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 15 AND XR4. INITIAL COND XAD INPUT
03404 0774 00 4 77773 XA15H AXT 32763,4 XR4 77773 A 000041
03405 -3 77774 4 03412 TXL XA15I,4,32764 DECR 77774 B 77774

03406 0774 00 4 77770 AXT 32760,4 XR4 77770 A 000071
03407 -3 77773 4 03412 TXL XA15I,4,32763 DECR 77773 B 77773
03410 0420 00 0 00000 HPR
03411 0761 00 0 03404 NOP XA15H
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 15 AND XR4. INITIAL COND XAD INPUT
03412 0774 00 4 77773 XA15I AXT 32763,4 XR4 77773 A 000041
03413 -3 77774 4 03421 TXL XA15J,4,32764 DECR 77774 B 77774

03414 0774 00 4 77774 AXT 32764,4 XR4 77774 A 000031
03415 3 77773 4 03421 TXH XA15J,4,32763 DECR 77773 B 77773
03416 0420 00 0 00000 HPR
03417 0761 00 0 03412 NOP XA15I
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

SECTION ONE
PART I

9M71/76B
2/1/63
PAGE 95

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03420	0774 00 1 03420	AXT	*,1	MONITOR		
03421	0774 00 4 77773	XA15J	AXT	32763,4	XR4 77773	A 000041
03422	-3 77774 4 03425		TXL	XA15K,4,32764	DECR 77774	B 77774
03423	0420 00 0 00000		HPR			
03424	0761 00 0 03421		NOP	XA15J		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM XR AND SR.						

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03425	0774 00 4 77774	XA15K	AXT	32764,4	XR4 77774	A 000031
03426	-3 77777 4 03433		TXL	XA15L,4,32767	DECR 77777	B 77777
03427	0774 00 4 77770		AXT	32760,4	XR4 77770	A 000071
03430	-3 77773 4 03433		TXL	XA15L,4,32763	DECR 77773	B 77773
03431	0420 00 0 00000		HPR			
03432	0761 00 0 03425		NOP	XA15K		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM EITHER SR AND LOWER ORDER ADDER OR XR AND LOWER ORDER ADDER.						

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03433	0774 00 4 77774	XA15L	AXT	32764,4	XR4 77774	A 000031
03434	-3 77777 4 03437		TXL	XA15M,4,32767	DECR 77777	B 77777
03435	0420 00 0 00000		HPR			
03436	0761 00 0 03433		NOP	XA15L		
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM LOWER ORDER ADDER.						

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03437	0774 00 4 77770	XA15M	AXT	32760,4	XR4 77770	A 000071
03440	-3 77773 4 03443		TXL	XA15N,4,32763	DECR 77773	B 77773
03441	0420 00 0 00000		HPR			
03442	0761 00 0 03437		NOP	XA15M		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM XR AND LOWER ORDER ADDER.						

TESTING XAD PSN 15 AND XR4.				INITIAL COND		XAD INPUT
03443	0774 00 4 77774	XA15N	AXT	32764,4	XR4 77774	A 000031
03444	3 77773 4 03447		TXH	XA16A,4,32763	DECR 77773	B 77773
03445	0420 00 0 00000		HPR			
03446	0761 00 0 03443		NOP	XA15N		
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM SR AND LOWER ORDER ADDER.						

9M71/76B
2/1/63
PAGE 96

S E C T I O N O N E
P A R T I

TESTING IX ADDER PSN 16 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03447	0774 00 4 77777	XA16A	AXT 32767,4	XR4 77777	A 000001
03450	3 77774 4 03453	TXH	XA16B,4,32764	DECR 77774	B 77774
03451	0420 00 0 00000	HPR			
03452	0761 00 0 03447	NOP	XA16A		

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03453	0774 00 4 77777	XA16B	AXT 32767,4	XR4 77777	A 000001
03454	3 77776 4 03461	TXH	XA16C,4,32766	DECR 77776	B 77776
03455	0774 00 4 77775	AXT	32765,4	XR4 77775	A 000021
03456	3 77774 4 03461	TXH	XA16C,4,32764	DECR 77774	B 77774
03457	0420 00 0 00000	HPR			
03460	0761 00 0 03453	NOP	XA16B		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR XR.

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03461	0774 00 4 77777	XA16C	AXT 32767,4	XR4 77777	A 000001
03462	3 77776 4 03467	TXH	XA16D,4,32766	DECR 77776	B 77776
03463	0774 00 4 77776	AXT	32766,4	XR4 77776	A 000011
03464	3 77775 4 03467	TXH	XA16D,4,32765	DECR 77775	B 77775
03465	0420 00 0 00000	HPR			
03466	0761 00 0 03461	NOP	XA16C		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
EITHER SR OR LOWER ORDER ADDER.

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03467	0774 00 4 77775	XA16D	AXT 32765,4	XR4 77775	A 000021
03470	3 77774 4 03475	TXH	XA16E,4,32764	DECR 77774	B 77774
03471	0774 00 4 77776	AXT	32766,4	XR4 77776	A 000011
03472	3 77775 4 03475	TXH	XA16E,4,32765	DECR 77775	B 77775
03473	0420 00 0 00000	HPR			
03474	0761 00 0 03467	NOP	XA16D		

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 97

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03475	0774 00 4 77777	XA16E	AXT 32767,4	XR4 77777	A 000001
03476	3 77776 4 03501		TXH XA16F,4,32766	DECR 77776	B 77776
03477	0420 00 0 00000		HPR		
03500	0761 00 0 03475		NOP XA16E		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03501	0774 00 4 77775	XA16F	AXT 32765,4	XR4 77775	A 000021
03502	3 77774 4 03505		TXH XA16G,4,32764	DECR 77774	B 77774
03503	0420 00 0 00000		HPR		
03504	0761 00 0 03501		NOP XA16F		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM XR.

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03505	0774 00 4 77775	XA16G	AXT 32765,4	XR4 77775	A 000021
03506	-3 77776 4 03513		TXL XA16H,4,32766	DECR 77776	B 77776
03507	0774 00 4 77776		AXT 32766,4	XR4 77776	A 000011
03510	-3 77777 4 03513		TXL XA16H,4,32767	DECR 77777	B 77777
03511	0420 00 0 00000		HPR		
03512	0761 00 0 03505		NOP XA16G		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03513	0774 00 4 77775	XA16H	AXT 32765,4	XR4 77775	A 000021
03514	-3 77776 4 03521		TXL XA16I,4,32766	DECR 77776	B 77776
03515	0774 00 4 77774		AXT 32764,4	XR4 77774	A 000031
03516	-3 77775 4 03521		TXL XA16I,4,32765	DECR 77775	B 77775
03517	0420 00 0 00000		HPR		
03520	0761 00 0 03513		NOP XA16H		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER XR AND SR OR SR AND LOWER ORDER
ADDER.

TESTING XAD PSN 16 AND XR4.				INITIAL COND	XAD INPUT
03521	0774 00 4 77775	XA16I	AXT 32765,4	XR4 77775	A 000021
03522	-3 77776 4 03527		TXL XA16J,4,32766	DECR 77776	B 77776
03523	0774 00 4 77776		AXT 32766,4	XR4 77776	A 000011
03524	3 77775 4 03527		TXH XA16J,4,32765	DECR 77775	B 77775
03525	0420 00 0 00000		HPR		
03526	0761 00 0 03521		NOP XA16I		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR AND A HOT CARRY OUTPUT WITH
ONE INPUT FROM LOWER ORDER ADDER.

9M71/768
2/1/63
PAGE 98

S E C T I O N O N E
P A R T I

TESTING XAD PSN 16 AND XR4. INITIAL COND XAD INPUT
03527 0774 00 4 77775 XA16J AXT 32765,4 XR4 77775 A 000021
03530 -3 77776 4 03533 TXL XA16K,4,32766 DECR 77776 B 77776
03531 0420 00 0 00000 HPR
03532 0761 00 0 03527 NOP XA16J
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

TESTING XAD PSN 16 AND XR4. INITIAL COND XAD INPUT
03535 0774 00 4 77776 XA16K AXT 32766,4 XR4 77776 A 000011
03534 -3 77777 4 03542 TXL XA16L,4,32767 DECR 77777 B 77777
03535 0774 00 4 77774 AXT 32764,4 XR4 77774 A 000031
03536 -3 77775 4 03542 TXL XA16L,4,32765 DECR 77775 B 77775
03537 0420 00 0 00000 HPR
03540 0761 00 0 03533 NOP XA16K
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
EITHER SR AND LOWER ORDER ADDER OR
XR AND LOWER ORDER ADDER.

03541 0774 00 1 03541 AXT *,1 MONITOR
TESTING XAD PSN 16 AND XR4. INITIAL COND XAD INPUT
03542 0774 00 4 77776 XA16L AXT 32766,4 XR4 77776 A 000011
03543 -3 77777 4 03546 TXL XA16M,4,32767 DECR 77777 B 77777
03544 0420 00 0 00000 HPR
03545 0761 00 0 03542 NOP XA16L
ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM
LOWER ORDER ADDER.

TESTING XAD PSN 16 AND XR4. INITIAL COND XAD INPUT
03546 0774 00 4 77774 XA16M AXT 32764,4 XR4 77774 A 000031
03547 -3 77775 4 03552 TXL XA16N,4,32765 DECR 77775 B 77775
03550 0420 00 0 00000 HPR
03551 0761 00 0 03546 NOP XA16M
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND LOWER ORDER ADDER.

TESTING XAD PSN 16 AND XR4. INITIAL COND XAD INPUT
03552 0774 00 4 77776 XA16N AXT 32766,4 XR4 77776 A 000011
03553 3 77775 4 03556 TXH XA17A,4,32765 DECR 77775 B 77775
03554 0420 00 0 00000 HPR
03555 0761 00 0 03552 NOP XA16N
ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
SR AND LOWER ORDER ADDER.

S E C T I O N O N E
P A R T I

9M71/76B
2/1/63
PAGE 99

TESTING IX ADDER PSN 17 AND XR 4 FOR OPERATION BY CHECKING FOR
XAD3 CARRY OR NO CARRY USING THE TXL AND TXH INSTRUCTIONS...
THE XR COMM LINE SETS THE CARRY IN TO ADDER 17 LINE.

TESTING XAD PSN 17 AND XR4.				INITIAL COND	XAD INPUT
03556	0774 00 4 77777	XA17A AXT	32767,4	XR4 77777	A 000001
03557	3 77776 4 03562	TXH	XA17B,4,32766	DECR 77776	B 77776
03560	0420 00 0 00000	HPR			
03561	0761 00 0 03556	NOP	XA17A		

ERROR- HOT CARRY OUTPUT WITH NO INPUTS

TESTING XAD PSN 17 AND XR4.				INITIAL COND	XAD INPUT
03562	0774 00 4 77777	XA17B AXT	32767,4	XR4 77777	A 000001
03563	-3 77777 4 03570	TXL	XA17C,4,32767	DECR 77777	B 77777
03564	0774 00 4 77776	AXT	32766,4	XR4 77776	A 000011
03565	-3 77776 4 03570	TXL	XA17C,4,32766	DECR 77776	B 77776
03566	0420 00 0 00000	HPR			
03567	0761 00 0 03562	NOP	XA17B		

NO CARRY OUTPUT WITH ONE INPUT FROM EITHER
THE SR OR XR.

TESTING XAD PSN 17 AND XR4.				INITIAL COND	XAD INPUT
03570	0774 00 4 77777	XA17C AXT	32767,4	XR4 77777	A 000001
03571	-3 77777 4 03574	TXL	XA17D,4,32767	DECR 77777	B 77777
03572	0420 00 0 00000	HPR			
03573	0761 00 0 03570	NOP	XA17C		

ERROR- HOT CARRY OUTPUT WITH ONE INPUT FROM SR.

TESTING XAD PSN 17 AND XR4.				INITIAL COND	XAD INPUT
03574	0774 00 4 77776	XA17D AXT	32766,4	XR4 77776	A 000011
03575	-3 77776 4 03600	TXL	XA17E,4,32766	DECR 77776	B 77776
03576	0420 00 0 00000	HPR			
03577	0761 00 0 03574	NOP	XA17D		

NO CARRY OUTPUT WITH ONE INPUT FROM THE XR.

TESTING XAD PSN 17 AND XR4.				INITIAL COND	XAD INPUT
03600	0774 00 4 77776	XA17E AXT	32766,4	XR4 77776	A 000011
03601	-3 77777 4 03603	TXL	++2,4,32767	DECR 77777	B 77777
03602	0420 00 0 00000	HPR			
03603	0761 00 0 03600	NOP	XA17E		

ERROR- NO CARRY OUTPUT WITH TWO INPUTS FROM
XR AND SR.

9M71/76B
2/1/63
PAGE 100

SECTION ONE
PART II

03604 0761 00 0 00000 NOP
03605 0761 00 0 00000 NOP

TESTING XRA PSN 3 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03606 0774 00 1 77777 S1P2 AXT 32767,1 XR 77777 A 000001
03607 3 40000 1 03612 TXH **003,1,16384 DECR 40000 B 40000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.
03610 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
03611 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
03612 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
03613 0020 00 0 03615 TRA **2 UP - GO TO NEXT TEST ROUTINE.
03614 0020 00 0 03606 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRA PSN 3 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03615 0774 00 1 37777 AXT 16383,1 XR 37777 A 400001
03616 -3 40000 1 03621 TXL **003,1,16384 DECR 40000 B 40000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.
03617 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
03620 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
03621 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
03622 0020 00 0 03624 TRA **2 UP - GO TO NEXT TEST ROUTINE.
03623 0020 00 0 03615 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE PART II

9M71/76B
2/1/63
PAGE 101

TESTING XRA PSN 4 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03624	0774 00 4 03624	AXT	*,4	MONITOR	
03625	0774 00 1 37777	AXT	16383,1	XR 37777	A 400001
03626	3 20000 1 03631	TXH	**003,1,8192	DECR 20000	B 20000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
03627	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---	
03630	0420 00 0 00000	HPR		UP - HALT ON ERROR.	
				DN - BYPASS ERROR.	
03631	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---	
03632	0020 00 0 03634	TRA	**2	UP - GO TO NEXT TEST ROUTINE.	
03633	0020 00 0 03625	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.	

TESTING XRA PSN 4 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03634	0774 00 1 17777	AXT	08191,1	XR 17777	A 600001
03635	-3 20000 1 03640	TXL	**003,1,8192	DECR 20000	B 20000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
03636	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---	
03637	0420 00 0 00000	HPR		UP - HALT ON ERROR.	
				DN - BYPASS ERROR.	
03640	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---	
03641	0020 00 0 03643	TRA	**2	UP - GO TO NEXT TEST ROUTINE.	
03642	0020 00 0 03634	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.	

TESTING XRA PSN 5 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03643	0774 00 1 17777	AXT	08191,1	XR 17777	A 600001
03644	3 10000 1 03647	TXH	**003,1,4096	DECR 10000	B 10000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
03645	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---	
03646	0420 00 0 00000	HPR		UP - HALT ON ERROR.	
				DN - BYPASS ERROR.	
03647	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---	
03650	0020 00 0 03652	TRA	**2	UP - GO TO NEXT TEST ROUTINE.	
03651	0020 00 0 03643	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.	

TESTING XRA PSN 5 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03652	0774 00 1 07777	AXT	04095,1	XR 07777	A 700001
03653	-3 10000 1 03656	TXL	**003,1,4096	DECR 10000	B 10000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
03654	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---	
03655	0420 00 0 00000	HPR		UP - HALT ON ERROR.	
				DN - BYPASS ERROR.	
03656	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---	
03657	0020 00 0 03661	TRA	**2	UP - GO TO NEXT TEST ROUTINE.	
03660	0020 00 0 03652	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.	

9M71/76B
2/1/63
PAGE 102

SECTION ONE
PART II

TESTING XRA PSN 6 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03661	0774 00 1 07777	AXT	04095,1	XR	07777	A	700001
03662	3 04000 1 03665	TXH	*+003,1,2048	DECR	04000	B	04000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
03663	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
03664	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
03665	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
03666	0020 00 0 03670	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
03667	0020 00 0 03661	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 6 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03670	0774 00 1 03777	AXT	02047,1	XR	03777	A	740001
03671	-3 04000 1 03674	TXL	*+003,1,2048	DECR	04000	B	04000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
03672	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
03673	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
03674	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
03675	0020 00 0 03677	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
03676	0020 00 0 03670	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 7 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03677	0774 00 1 03777	AXT	02047,1	XR	03777	A	740001
03700	3 02000 1 03703	TXH	*+003,1,1024	DECR	02000	B	02000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
03701	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
03702	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
03703	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
03704	0020 00 0 03706	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
03705	0020 00 0 03677	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 7 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03706	0774 00 1 01777	AXT	01023,1	XR	01777	A	760001
03707	-3 02000 1 03712	TXL	*+003,1,1024	DECR	02000	B	02000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
03710	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
03711	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
03712	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
03713	0020 00 0 03715	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
03714	0020 00 0 03706	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 103

TESTING XRA PSN 8 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03715 0774 00 1 01777	AXT 01023,1	XR 01777	A 760001
03716 3 01000 1 03721	TXH **003,1,512	DECR 01000	B 01000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
03717 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
03720 0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.	
03721 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
03722 0020 00 0 03724	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
03723 0020 00 0 03715	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRA PSN 8 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03724 0774 00 4 03724	AXT *,4	MONITOR	
03725 0774 00 1 00777	AXT 00511,1	XR 00777	A 770001
03726 -3 01000 1 03731	TXL **003,1,512	DECR 01000	B 01000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
03727 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
03730 0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.	
03731 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
03732 0020 00 0 03734	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
03733 0020 00 0 03725	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRA PSN 9 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03734 0774 00 1 00777	AXT 00511,1	XR 00777	A 770001
03735 3 00400 1 03740	TXH **003,1,256	DECR 00400	B 00400
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
03736 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
03737 0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.	
03740 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
03741 0020 00 0 03743	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
03742 0020 00 0 03734	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRA PSN 9 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03743 0774 00 1 00377	AXT 00255,1	XR 00377	A 774001
03744 -3 00400 1 03747	TXL **003,1,256	DECR 00200	B 00200
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
03745 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
03746 0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.	
03747 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
03750 0020 00 0 03752	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
03751 0020 00 0 03743	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

9M71/76B
2/1/63
PAGE 104

SECTION ONE
PART II

TESTING XRA PSN 10 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03752	0774 00 1 00377	AXT	00255,1	XR	00377	A	774001
03753	3 00200 1 03756	TXH	++003,1,128	DECR	00200	B	00200
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
03754	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
03755	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
03756	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
03757	0020 00 0 03761	TRA	++2	UP - GO TO NEXT TEST ROUTINE.			
03760	0020 00 0 03752	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 10 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03761	0774 00 1 00177	AXT	00127,1	XR	00177	A	776001
03762	-3 00200 1 03765	TXL	++003,1,128	DECR	00200	B	00200
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
03763	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
03764	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
03765	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
03766	0020 00 0 03770	TRA	++2	UP - GO TO NEXT TEST ROUTINE.			
03767	0020 00 0 03761	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 11 TO HOLD A BIT.

INITIAL COND. XAD INPUT

03770	0774 00 1 00177	AXT	00127,1	XR	00177	A	776001
03771	3 00100 1 03774	TXH	++003,1,64	DECR	00100	B	00100
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
03772	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
03773	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
03774	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
03775	0020 00 0 03777	TRA	++2	UP - GO TO NEXT TEST ROUTINE.			
03776	0020 00 0 03770	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 11 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

03777	0774 00 1 00077	AXT	00063,1	XR	00077	A	777001
04000	-3 00100 1 04003	TXL	++003,1,64	DECR	00100	B	00100
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04001	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04002	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04003	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04004	0020 00 0 04006	TRA	++2	UP - GO TO NEXT TEST ROUTINE.			
04005	0020 00 0 03777	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 105

TESTING XRA PSN 12 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04006	0774 00 1 00077	AXT	00063,1	XR	00077	A	777001
04007	3 00040 1 04012	TXH	*+003,1,32	DECR	00040	B	00040
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
04010	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2	---		
04011	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04012	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1	---		
04013	0020 00 0 04015	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04014	0020 00 0 04006	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 12 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04015	0774 00 1 00037	AXT	00031,1	XR	00037	A	777401
04016	-3 00040 1 04021	TXL	*+003,1,32	DECR	00040	B	00040
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04017	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2	---		
04020	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04021	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1	---		
04022	0020 00 0 04024	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04023	0020 00 0 04015	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 13 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04024	0774 00 4 04024	AXT	*,4	MONITOR			
04025	0774 00 1 00037	AXT	00031,1	XR	00037	A	777401
04026	3 00020 1 04031	TXH	*+003,1,16	DECR	00020	B	00020
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
04027	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2	---		
04030	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04031	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1	---		
04032	0020 00 0 04034	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04033	0020 00 0 04025	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 13 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04034	0774 00 1 00017	AXT	00015,1	XR	00017	A	777601
04035	-3 00020 1 04040	TXL	*+003,1,16	DECR	00020	B	00020
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04036	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2	---		
04037	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04040	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1	---		
04041	0020 00 0 04043	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04042	0020 00 0 04034	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

9M711/76B
2/1/63
PAGE 106

SECTION ONE
PART II

TESTING XRA PSN 14 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04043	0774 00 1 00017	AXT 00015,1	XR 00017	A 777601
04044	3 00010 1 04047	TXH **003,1,8	DECR 00010	B 00010
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
04045	0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04046	0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.		
04047	0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04050	0020 00 0 04052	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04051	0020 00 0 04043	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRA PSN 14 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04052	0774 00 1 00007	AXT 00007,1	XR 00007	A 777701
04053	-3 00010 1 04056	TXL **003,1,8	DECR 00010	B 00010
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
04054	0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04055	0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.		
04056	0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04057	0020 00 0 04061	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04060	0020 00 0 04052	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRA PSN 15 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04061	0774 00 1 00007	AXT 00007,1	XR 00007	A 777701
04062	3 00004 1 04065	TXH **003,1,4	DECR 00004	B 00004
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
04063	0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04064	0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.		
04065	0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04066	0020 00 0 04070	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04067	0020 00 0 04061	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRA PSN 15 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04070	0774 00 1 00003	AXT 00003,1	XR 00003	A 777741
04071	-3 00004 1 04074	TXL **003,1,4	DECR 00004	B 00004
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
04072	0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04073	0420 00 0 00000	HPR UP - HALT ON ERROR.		
		DN - BYPASS ERROR.		
04074	0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04075	0020 00 0 04077	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04076	0020 00 0 04070	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 107

TESTING XRA PSN 16 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04077	0774 00 1 00003	AXT	00003,1	XR	00003	A	777741
04100	3 00002 1 04103	TXH	*+003,1,2	DECR	00002	B	00002
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.							
04101	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04102	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04103	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04104	0020 00 0 04106	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04105	0020 00 0 04077	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 16 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04106	0774 00 1 00001	AXT	00001,1	XR	00001	A	777761
04107	-3 00002 1 04112	TXL	*+003,1,2	DECR	00002	B	00002
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.							
04110	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04111	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04112	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04113	0020 00 0 04115	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04114	0020 00 0 04106	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 17 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04115	0774 00 1 00001	AXT	00001,1	XR	00001	A	777761
04116	3 00000 1 04121	TXH	*+003,1,0	DECR	00000	B	00000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.							
04117	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04120	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04121	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04122	0020 00 0 04124	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04123	0020 00 0 04115	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRA PSN 17 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04124	0774 00 4 04124	AXT	*.4	MONITOR			
04125	0774 00 1 00000	AXT	00000,1	XR	00000	A	777771
04126	-3 00001 1 04131	TXL	*+003,1,1	DECR	00001	B	00001
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.							
04127	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04130	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04131	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04132	0020 00 0 04134	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04133	0020 00 0 04125	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

9M71/76B
2/1/63
PAGE 108

S E C T I O N O N E
P A R T I I

TESTING XRB PSN 3 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04134	0774 00 2 77777	AXT	32767,2	XR	77777	A	000001
04135	3 40000 2 04140	TXH	*+003,2,16384	DECR	40000	B	40000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
04136	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04137	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04140	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04141	0020 00 0 04143	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04142	0020 00 0 04134	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 3 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04143	0774 00 2 37777	AXT	16383,2	XR	37777	A	400001
04144	-3 40000 2 04147	TXL	*+003,2,16384	DECR	40000	B	40000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04145	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04146	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04147	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04150	0020 00 0 04152	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04151	0020 00 0 04143	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

S E C T I O N O N E
P A R T I I

9M71/768
2/1/63
PAGE 109

TESTING XRB PSN 4 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04152	0774 00 2 37777	AXT 16383,2	XR 37777	A 400001
04153	3 20000 2 04156	TXH **003,2,8192	DECR 20000	B 20000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
04154	0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---	
04155	0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.	
04156	0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---	
04157	0020 00 0 04161	TRA **2	UP - GO TO NEXT TEST ROUTINE.	
04160	0020 00 0 04152	TRA *-6	DN - REPEAT THIS TEST ROUTINE.	

TESTING XRB PSN 4 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04161	0774 00 2 17777	AXT 08191,2	XR 17777	A 600001
04162	-3 20000 2 04165	TXL **003,2,8192	DECR 20000	B 20000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
04163	0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---	
04164	0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.	
04165	0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---	
04166	0020 00 0 04170	TRA **2	UP - GO TO NEXT TEST ROUTINE.	
04167	0020 00 0 04161	TRA *-6	DN - REPEAT THIS TEST ROUTINE.	

TESTING XRB,PSN 5 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04170	0774 00 2 17777	AXT 08191,2	XR 17777	A 600001
04171	3 10000 2 04174	TXH **003,2,4096	DECR 10000	B 10000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
04172	0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---	
04173	0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.	
04174	0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---	
04175	0020 00 0 04177	TRA **2	UP - GO TO NEXT TEST ROUTINE.	
04176	0020 00 0 04170	TRA *-6	DN - REPEAT THIS TEST ROUTINE.	

TESTING XRB PSN 5 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04177	0774 00 2 07777	AXT 04095,2	XR 07777	A 700001
04200	-3 10000 2 04203	TXL **003,2,4096	DECR 10000	B 10000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
04201	0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---	
04202	0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.	
04203	0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---	
04204	0020 00 0 04206	TRA **2	UP - GO TO NEXT TEST ROUTINE.	
04205	0020 00 0 04177	TRA *-6	DN - REPEAT THIS TEST ROUTINE.	

SECTION ONE
PART II

TESTING XRB PSN 6 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04206	0774 00 2 07777	AXT	04095,2	XR	07777	A	700001
04207	3 04000 2 04212	TXH	*+003,2,2048	DECR	04000	B	04000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.							
04210	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04211	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04212	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04213	0020 00 0 04215	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04214	0020 00 0 04206	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 6 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04215	0774 00 2 03777	AXT	02047,2	XR	03777	A	740001
04216	-3 04000 2 04221	TXL	*+003,2,2048	DECR	04000	B	04000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.							
04217	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04220	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04221	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04222	0020 00 0 04224	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04223	0020 00 0 04215	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 7 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04224	0774 00 1 04224	AXT	*,1	MONITOR			
04225	0774 00 2 03777	AXT	02047,2	XR	03777	A	740001
04226	3 02000 2 04231	TXH	*+003,2,1024	DECR	02000	B	02000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.							
04227	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04230	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04231	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04232	0020 00 0 04234	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04233	0020 00 0 04225	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 7 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04234	0774 00 2 01777	AXT	01023,2	XR	01777	A	760001
04235	-3 02000 2 04240	TXL	*+003,2,1024	DECR	02000	B	02000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.							
04236	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04237	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04240	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04241	0020 00 0 04243	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04242	0020 00 0 04234	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 111

TESTING XRB PSN 8 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04243	0774 00 2 01777	AXT	01023,2	XR	01777	A	760001
04244	3 01000 2 04247	TXH	*+003,2,512	DECR	01000	B	01000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
04245	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04246	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04247	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04250	0020 00 0 04252	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04251	0020 00 0 04243	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 8 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04252	0774 00 2 00777	AXT	00511,2	XR	00777	A	770001
04253	-3 01000 2 04256	TXL	*+003,2,512	DECR	01000	B	01000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04254	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04255	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04256	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04257	0020 00 0 04261	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04260	0020 00 0 04252	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB, PSN 9 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04261	0774 00 2 00777	AXT	00511,2	XR	00777	A	770001
04262	3 00400 2 04265	TXH	*+003,2,256	DECR	00400	B	00400
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
04263	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04264	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04265	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04266	0020 00 0 04270	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04267	0020 00 0 04261	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 9 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04270	0774 00 2 00377	AXT	00255,2	XR	00377	A	774001
04271	-3 00400 2 04274	TXL	*+003,2,256	DECR	00200	B	00200
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04272	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04273	0420 00 0 00000	HPR		UP - HALT ON ERROR.			
				DN - BYPASS ERROR.			
04274	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04275	0020 00 0 04277	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04276	0020 00 0 04270	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

9M71/768
2/1/63
PAGE 112

S E C T I O N O N E
P A R T I I

TESTING XRB PSN 10 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04277	0774 00 2 00377	AXT	00255,2	XR	00377	A	774001
04300	3 00200 2 04303	TXH	*+003,2,128	DECR	00200	B	00200
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.							
04301	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04302	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04303	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04304	0020 00 0 04306	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04305	0020 00 0 04277	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 10 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04306	0774 00 2 00177	AXT	00127,2	XR	00177	A	776001
04307	-3 00200 2 04312	TXL	*+003,2,128	DECR	00200	B	00200
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.							
04310	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04311	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04312	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04313	0020 00 0 04315	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04314	0020 00 0 04306	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 11 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04315	0774 00 2 00177	AXT	00127,2	XR	00177	A	776001
04316	3 00100 2 04321	TXH	*+003,2,64	DECR	00100	B	00100
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.							
04317	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04320	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04321	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04322	0020 00 0 04324	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04323	0020 00 0 04315	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

TESTING XRB PSN 11 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04324	0774 00 2 00077	AXT	00063,2	XR	00077	A	777001
04325	-3 00100 2 04330	TXL	*+003,2,64	DECR	00100	B	00100
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.							
04326	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---			
04327	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.			
04330	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---			
04331	0020 00 0 04333	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.			
04332	0020 00 0 04324	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.			

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 113

TESTING XRB PSN 12 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04333 0774 00 1 04333	AXT *.1	MONITOR
04334 0774 00 2 00077	AXT 00063,2	XR 00077 A 777001
04335 3 00040 2 04340	TXH **003,2,32	DECR 00040 B 00040
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.		
04336 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
04337 0420 00 0 00000	HPR UP - HALT ON ERROR.	
	DN - BYPASS ERROR.	
04340 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
04341 0020 00 0 04343	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
04342 0020 00 0 04334	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

TESTING XRB PSN 12 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04343 0774 00 2 00037	AXT 00031,2	XR 00037 A 777401
04344 -3 00040 2 04347	TXL **003,2,32	DECR 00040 B 00040
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.		
04345 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
04346 0420 00 0 00000	HPR UP - HALT ON ERROR.	
	DN - BYPASS ERROR.	
04347 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
04350 0020 00 0 04352	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
04351 0020 00 0 04343	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

TESTING XRB PSN 13 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04352 0774 00 2 00037	AXT 00031,2	XR 00037 A 777401
04353 3 00020 2 04356	TXH **003,2,16	DECR 00020 B 00020
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.		
04354 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
04355 0420 00 0 00000	HPR UP - HALT ON ERROR.	
	DN - BYPASS ERROR.	
04356 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
04357 0020 00 0 04361	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
04360 0020 00 0 04352	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

TESTING XRB PSN 13 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04361 0774 00 2 00017	AXT 00015,2	XR 00017 A 777601
04362 -3 00020 2 04365	TXL **003,2,16	DECR 00020 B 00020
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.		
04363 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
04364 0420 00 0 00000	HPR UP - HALT ON ERROR.	
	DN - BYPASS ERROR.	
04365 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
04366 0020 00 0 04370	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
04367 0020 00 0 04361	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

9M71/76B
2/1/63
PAGE 114

SECTION ONE
PART II

TESTING XRB PSN 14 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04370	0774 00 2 00017	AXT	00015,2	XR	00017	A	777601
04371	3 00010 2 04374	TXH	*+003,2,8	DECR	00010	B	00010
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
04372	0760 00 0 00162	SWT	2 WITH SENSE SWITCH 2 ---				
04373	0420 00 0 00000	HPR	UP - HALT ON ERROR.				
			DN - BYPASS ERROR.				
04374	0760 00 0 00161	SWT	1 WITH SENSE SWITCH 1 ---				
04375	0020 00 0 04377	TRA	*+2 UP - GO TO NEXT TEST ROUTINE.				
04376	0020 00 0 04370	TRA	*-6 DN - REPEAT THIS TEST ROUTINE.				

TESTING XRB PSN 14 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04377	0774 00 2 00007	AXT	00007,2	XR	00007	A	777701
04400	-3 00010 2 04403	TXL	*+003,2,8	DECR	00010	B	00010
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04401	0760 00 0 00162	SWT	2 WITH SENSE SWITCH 2 ---				
04402	0420 00 0 00000	HPR	UP - HALT ON ERROR.				
			DN - BYPASS ERROR.				
04403	0760 00 0 00161	SWT	1 WITH SENSE SWITCH 1 ---				
04404	0020 00 0 04406	TRA	*+2 UP - GO TO NEXT TEST ROUTINE.				
04405	0020 00 0 04377	TRA	*-6 DN - REPEAT THIS TEST ROUTINE.				

TESTING XRB PSN 15 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04406	0774 00 2 00007	AXT	00007,2	XR	00007	A	777701
04407	3 00004 2 04412	TXH	*+003,2,4	DECR	00004	B	00004
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.						
04410	0760 00 0 00162	SWT	2 WITH SENSE SWITCH 2 ---				
04411	0420 00 0 00000	HPR	UP - HALT ON ERROR.				
			DN - BYPASS ERROR.				
04412	0760 00 0 00161	SWT	1 WITH SENSE SWITCH 1 ---				
04413	0020 00 0 04415	TRA	*+2 UP - GO TO NEXT TEST ROUTINE.				
04414	0020 00 0 04406	TRA	*-6 DN - REPEAT THIS TEST ROUTINE.				

TESTING XRB PSN 15 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04415	0774 00 2 00003	AXT	00003,2	XR	00003	A	777741
04416	-3 00004 2 04421	TXL	*+003,2,4	DECR	00004	B	00004
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.						
04417	0760 00 0 00162	SWT	2 WITH SENSE SWITCH 2 ---				
04420	0420 00 0 00000	HPR	UP - HALT ON ERROR.				
			DN - BYPASS ERROR.				
04421	0760 00 0 00161	SWT	1 WITH SENSE SWITCH 1 ---				
04422	0020 00 0 04424	TRA	*+2 UP - GO TO NEXT TEST ROUTINE.				
04423	0020 00 0 04415	TRA	*-6 DN - REPEAT THIS TEST ROUTINE.				

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 115

TESTING XRB PSN 16 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04424 0774 00 2 00003	AXT 00003,2	XR 00003	A 777741
04425 3 00002 2 04430	TXH **003,2,2	DECR 00002	B 00002
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
04426 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04427 0420 00 0 00000	HPR UP - HALT ON ERROR.		
	DN - BYPASS ERROR.		
04430 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04431 0020 00 0 04433	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04432 0020 00 0 04424	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRB PSN 16 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04433 0774 00 1 04433	AXT *,1	MONITOR	
04434 0774 00 2 00001	AXT 00001,2	XR 00001	A 777761
04435 -3 00002 2 04440	TXL **003,2,2	DECR 00002	B 00002
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
04436 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04437 0420 00 0 00000	HPR UP - HALT ON ERROR.		
	DN - BYPASS ERROR.		
04440 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04441 0020 00 0 04443	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04442 0020 00 0 04434	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRB PSN 17 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04443 0774 00 2 00001	AXT 00001,2	XR 00001	A 777761
04444 3 00000 2 04447	TXH **003,2,0	DECR 00000	B 00000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
04445 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04446 0420 00 0 00000	HPR UP - HALT ON ERROR.		
	DN - BYPASS ERROR.		
04447 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04450 0020 00 0 04452	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04451 0020 00 0 04443	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

TESTING XRB PSN 17 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04452 0774 00 2 00000	AXT 00000,2	XR 00000	A 777771
04453 -3 00001 2 04456	TXL **003,2,1	DECR 00001	B 00001
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
04454 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---		
04455 0420 00 0 00000	HPR UP - HALT ON ERROR.		
	DN - BYPASS ERROR.		
04456 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---		
04457 0020 00 0 04461	TRA **2 UP - GO TO NEXT TEST ROUTINE.		
04460 0020 00 0 04452	TRA *-6 DN - REPEAT THIS TEST ROUTINE.		

9M71/768
2/1/63
PAGE 116

SECTION ONE
PART II

04461 0774 00 1 04461

AXT *.1

MONITOR

TESTING XRD PSN 3 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04462 0760 00 0 00016 LMTM SET SEVEN XR MODE
04463 0774 00 3 77777 AXT 32767,3 XR 77777 A 000001
04464 3 40000 3 04467 TXH *+3,3,16384 DECR 40000 B 40000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04465 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04466 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04467 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04470 0020 00 0 04472 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
04471 0020 00 0 04463 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 3 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04472 0774 00 3 37777 AXT 16383,3 XR 37777 A 400001
04473 -3 40000 3 04476 TXL *+3,3,16384 DECR 40000 B 40000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04474 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04475 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04476 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04477 0020 00 0 04501 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
04500 0020 00 0 04472 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 4 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04501 0774 00 3 37777 AXT 16383,3 XR 37777 A 400001
04502 3 20000 3 04505 TXH *+3,3,8192 DECR 20000 B 20000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04503 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04504 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04505 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04506 0020 00 0 04510 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
04507 0020 00 0 04501 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 117

04510 0774 00 1 04510

AXT *,1

MONITOR

TESTING XRD PSN 4 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04511 0774 00 3 17777

AXT 08191,3

XR 17777 A 600001

04512 -3 20000 3 04515

TXL **3,3,8192

DECR 20000 B 20000

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04513 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04514 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04515 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04516 0020 00 0 04520

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04517 0020 00 0 04511

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 5 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04520 0774 00 3 17777

AXT 08191,3

XR 17777 A 600001

04521 3 10000 3 04524

TXH **3,3,4096

DECR 10000 B 10000

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04522 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04523 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04524 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04525 0020 00 0 04527

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04526 0020 00 0 04520

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 5 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04527 0774 00 3 07777

AXT 04095,3

XR 07777 A 700001

04530 -3 10000 3 04533

TXL **3,3,4096

DECR 10000 B 10000

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04531 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04532 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04533 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04534 0020 00 0 04536

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04535 0020 00 0 04527

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

9M71/768
2/1/63
PAGE 118

SECTION ONE
PART II

04536 0774 00 1 04536

AXT *01

MONITOR

TESTING XRD PSN 6 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04537 0774 00 3 07777 AXT 04095.3 XR 07777 A 700001
04540 3 04000 3 04543 TXH *+3.3.2048 DECR 04000 B 04000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04541 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04542 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04543 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04544 0020 00 0 04546 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
04545 0020 00 0 04537 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 6 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04546 0774 00 3 03777 AXT 02047.3 XR 03777 A 740001
04547 -3 04000 3 04552 TXL *+3.3.2048 DECR 04000 B 04000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04550 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04551 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04552 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04553 0020 00 0 04555 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
04554 0020 00 0 04546 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 7 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04555 0774 00 3 03777 AXT 02047.3 XR 03777 A 740001
04556 3 02000 3 04561 TXH *+3.3.1024 DECR 02000 B 02000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04557 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04560 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04561 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04562 0020 00 0 04564 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
04563 0020 00 0 04555 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 119

04564 0774 00 1 04564

AXT *.1

MONITOR

TESTING XRD PSN 7 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04565 0774 00 3 01777

AXT 01023,3

XR 01777 A 760001

04566 -3 02000 3 04571

TXL **3,3,1024

DECR 02000 B 02000

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04567 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04570 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04571 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04572 0020 00 0 04574

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04573 0020 00 0 04565

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 8 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04574 0774 00 3 01777

AXT 01023,3

XR 01777 A 760001

04575 3 01000 3 04600

TXH **3,3,512

DECR 01000 B 01000

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04576 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04577 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04600 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04601 0020 00 0 04603

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04602 0020 00 0 04574

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 8 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04603 0774 00 3 00777

AXT 00511,3

XR 00777 A 770001

04604 -3 01000 3 04607

TXL **3,3,512

DECR 01000 B 01000

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04605 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04606 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04607 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04610 0020 00 0 04612

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04611 0020 00 0 04603

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 120

SECTION ONE
PART II

04612 0774 00 1 04612

AXT *.1

MONITOR

TESTING XRD PSN 9 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04613 0774 00 3 00777 AXT 00511,3 XR 00777 A 770001
04614 3 00400 3 04617 TXH **3,3,256 DECR 00400 B 00400
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04615 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04616 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04617 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04620 0020 00 0 04622 TRA **2 UP - GO TO NEXT TEST ROUTINE.
04621 0020 00 0 04613 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 9 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04622 0774 00 3 00377 AXT 00255,3 XR 00377 A 774001
04623 -3 00400 3 04626 TXL **3,3,256 DECR 00400 B 00400
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04624 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04625 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04626 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04627 0020 00 0 04631 TRA **2 UP - GO TO NEXT TEST ROUTINE.
04630 0020 00 0 04622 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 10 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04631 0774 00 3 00377 AXT 00255,3 XR 00377 A 774001
04632 3 00200 3 04635 TXH **3,3,128 DECR 00200 B 00200
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04633 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
04634 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
04635 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
04636 0020 00 0 04640 TRA **2 UP - GO TO NEXT TEST ROUTINE.
04637 0020 00 0 04631 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 121

04640 0774 00 1 04640

AXT *,1

MONITOR

TESTING XRD PSN 10 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04641 0774 00 3 00177

AXT 00127,3

XR 00177

A 776001

04642 -3 00200 3 04645

TXL **3,3,128

DECR 00200

B 00200

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04643 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04644 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04645 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04646 0020 00 0 04650

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04647 0020 00 0 04641

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 11 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04650 0774 00 3 00177

AXT 00127,3

XR 00177

A 776001

04651 3 00100 3 04654

TXH **3,3,64

DECR 00100

B 00100

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04652 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04653 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04654 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04655 0020 00 0 04657

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04656 0020 00 0 04650

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 11 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04657 0774 00 3 00077

AXT 00063,3

XR 00077

A 777001

04660 -3 00100 3 04663

TXL **3,3,64

DECR 00100

B 00100

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04661 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04662 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04663 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04664 0020 00 0 04666

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04665 0020 00 0 04657

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

MONITOR

INITIAL COND. XAD INPUT

```

04671 0760 00 0 00162      SWT 2 WITH SENSE SWITCH 2 ---
04672 0420 00 0 00000      HPR          UP - HALT ON ERROR.
                                DN - BYPASS ERROR.

04673 0760 00 0 00161      SWT 1 WITH SENSE SWITCH 1 ---
04674 0020 00 0 04676      TRA **2 UP - GO TO NEXT TEST ROUTINE.
04675 0020 00 0 04667      TRA *-6 DN - REPEAT THIS TEST ROUTINE.

```

04700	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
04701	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
04702	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
04703	0020	00	0	04705	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
04704	0020	00	0	04676	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

INITIAL COND. XAD INPUT

04707	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
04710	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
04711	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
04712	0020	00	0	04714	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
04713	0020	00	0	04705	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/768
2/1/63
PAGE 123

04714 0774 00 1 04714

AXT *,1

MONITOR

TESTING XRD PSN 13 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04715 0774 00 3 00017

AXT 00015,3

XR 00017 A 777601

04716 -3 00020 3 04721

TXL **3,3,16

DECR 00020 B 00020

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04717 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04720 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04721 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04722 0020 00 0 04724

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04723 0020 00 0 04715

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 14 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04724 0774 00 3 00017

AXT 00015,3

XR 00017 A 777601

04725 3 00010 3 04730

TXH **3,3,8

DECR 00010 B 00010

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04726 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04727 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04730 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04731 0020 00 0 04733

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04732 0020 00 0 04724

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 14 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04733 0774 00 3 00007

AXT 00007,3

XR 00007 A 777701

04734 -3 00010 3 04737

TXL **3,3,8

DECR 00010 B 00010

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04735 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04736 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04737 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04740 0020 00 0 04742

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04741 0020 00 0 04733

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 124

SECTION ONE
PART II

04742 0774 00 1 04742

AXT *,1

MONITOR

TESTING XRD PSN 15 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04743 0774 00 3 00007

AXT 00007,3

XR 00007 A 777701

04744 3 00004 3 04747

TXH **3,3,4

DECR 00004 B 00004

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04745 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04746 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04747 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04750 0020 00 0 04752

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04751 0020 00 0 04743

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 15 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04752 0774 00 3 00003

AXT 00003,3

XR 00003 A 777741

04753 -3 00004 3 04756

TXL **3,3,4

DECR 00004 B 00004

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04754 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04755 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04756 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04757 0020 00 0 04761

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04760 0020 00 0 04752

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 16 TO HOLD A BIT.

INITIAL COND. XAD INPUT

04761 0774 00 3 00003

AXT 00003,3

XR 00003 A 777741

04762 3 00002 3 04765

TXH **3,3,2

DECR 00002 B 00002

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

04763 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04764 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04765 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04766 0020 00 0 04770

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04767 0020 00 0 04761

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 125

04770 0774 00 1 04770

AXT *,1

MONITOR

TESTING XRD PSN 16 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

04771 0774 00 3 00001

AXT 00001,3

XR 00001 A 777761

04772 -3 00002 3 04775

TXL **3,3,2

DECR 00002 B 00002

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

04773 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

04774 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

04775 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

04776 0020 00 0 05000

TRA **2 UP - GO TO NEXT TEST ROUTINE.

04777 0020 00 0 04771

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 17 TO HOLD A BIT.

INITIAL COND. XAD INPUT

05000 0774 00 3 00001

AXT 00001,3

XR 00001 A 777761

05001 3 00000 3 05004

TXH **3,3,0

DECR 00000 B 00000

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

05002 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

05003 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

05004 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

05005 0020 00 0 05007

TRA **2 UP - GO TO NEXT TEST ROUTINE.

05006 0020 00 0 05000

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

TESTING XRD PSN 17 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

05007 0774 00 3 00000

AXT 00000,3

XR 00000 A 777771

05010 -3 00001 3 05013

TXL **3,3,1

DECR 00001 B 00001

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

05011 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

05012 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

05013 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

05014 0020 00 0 05016

TRA **2 UP - GO TO NEXT TEST ROUTINE.

05015 0020 00 0 05007

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

TEST TXH AND TXL

* TEST TXH. NO X CARRY

05016 0760 00 0 00016
05017 0774 00 3 77777
05020 3 00000 3 05023
05021 0760 00 0 00162
05022 0420 00 0 00000

05023 0760 00 0 00161
05024 0020 00 0 05026
05025 0020 00 0 05016

LMTM
AXT 32767,3
TXH **3,3,0 SHOULD TRANSFER
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-7 DN - REPEAT THIS TEST ROUTINE.

* TEST TXH. GENERATE X CARRY

05026 0774 00 3 00000
05027 3 77777 3 05031
05030 0020 00 0 05033
05031 0760 00 0 00162
05032 0420 00 0 00000

05033 0760 00 0 00161
05034 0020 00 0 05036
05035 0020 00 0 05026

AXT 0,3 00000 TO XRD
TXH **2,3,32767 SHOULD NOT TRANSFER
TRA **3
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-7 DN - REPEAT THIS TEST ROUTINE.

* TEST TXH. C XR SHOULD NOT CHANGE

05036 0774 00 1 05036

05037 0774 00 3 77777
05040 3 77000 3 05041
05041 3 77776 3 05044
05042 0760 00 0 00162
05043 0420 00 0 00000

05044 0760 00 0 00161
05045 0020 00 0 05047
05046 0020 00 0 05037

AXT *,1 MONITOR

AXT 32767,3 77777 TO XRD
TXH **1,3,32256
TXH **3,3,32766 SHOULD TRANSFER
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-7 DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 127

* TEST TXL. NO X CARRY

05047 0774 00 3 77777	AXT 32767,3 77777 TO XRD
05050 -3 00000 3 05052	TXL **2,3,0 SHOULD NOT TRANSFER
05051 0020 00 0 05054	TRA **3
05052 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
05053 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
05054 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
05055 0020 00 0 05057	TRA **2 UP - GO TO NEXT TEST ROUTINE.
05056 0020 00 0 05047	TRA **7 DN - REPEAT THIS TEST ROUTINE.

* TEST TXL. GENERATE X CARRY

05057 0774 00 3 00000	AXT 0,3 00000 TO XRD
05060 -3 77777 3 05063	TXL **3,3,32767 SHOULD TRANSFER
05061 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
05062 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
05063 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
05064 0020 00 0 05066	TRA **2 UP - GO TO NEXT TEST ROUTINE.
05065 0020 00 0 05057	TRA **6 DN - REPEAT THIS TEST ROUTINE.

* TEST TXL. C XR SHOULD NOT CHANGE

05066 0774 00 3 77000	AXT 32256,3 77000 TO XRD
05067 -3 00777 3 05070	TXL **1,3,511
05070 3 76777 3 05073	TXH **3,3,32255 SHOULD TRANSFER
05071 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
05072 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
05073 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
05074 0020 00 0 05076	TRA **2 UP - GO TO NEXT TEST ROUTINE.
05075 0020 00 0 05066	TRA **7 DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 128

S E C T I O N O N E
P A R T I I

TEST TIX AND TXI

* TEST TIX. GENERATE ADDER 3 CARRY

05076	0774	00	3	00001	AXT	1,3	00001 TO XRD
05077	2 77777	3	05101	TIX	**2,3,32767	SHOULD NOT TRANSFER	
05100	0020	00	0	05103	TRA	**3	
05101	0760	00	0	00162	SWT	2 WITH SENSE SWITCH 2 ---	
05102	0420	00	0	00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.	
05103	0760	00	0	00161	SWT	1 WITH SENSE SWITCH 1 ---	
05104	0020	00	0	05106	TRA	**2 UP - GO TO NEXT TEST ROUTINE.	
05105	0020	00	0	05076	TRA	*-7 DN - REPEAT THIS TEST ROUTINE.	

* TEST TIX. NO X CARRY

05106	0774	00	3	77777	AXT	32767,3	77777 TO XRD
05107	2 00001	3	05112	TIX	**3,3,1	SHOULD TRANSFER	
05110	0760	00	0	00162	SWT	2 WITH SENSE SWITCH 2 ---	
05111	0420	00	0	00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.	
05112	0760	00	0	00161	SWT	1 WITH SENSE SWITCH 1 ---	
05113	0020	00	0	05115	TRA	**2 UP - GO TO NEXT TEST ROUTINE.	
05114	0020	00	0	05106	TRA	*-6 DN - REPEAT THIS TEST ROUTINE.	

* TEST TIX. NO X CARRY. XR SHOULD BE REDUCED

05115	0774	00	3	77777	AXT	32767,3	77777 TO XRD
05116	2 77776	3	05117	TIX	**1,3,32766		
05117	-3 00001	3	05122	TXL	**3,3,1	SHOULD TRANSFER	
05120	0760	00	0	00162	SWT	2 WITH SENSE SWITCH 2 ---	
05121	0420	00	0	00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.	
05122	0760	00	0	00161	SWT	1 WITH SENSE SWITCH 1 ---	
05123	0020	00	0	05125	TRA	**2 UP - GO TO NEXT TEST ROUTINE.	
05124	0020	00	0	05115	TRA	*-7	

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 129

* TEST TIX. GENERATE X CARRY. C XR SHOULD BE UNCHANGED

05125 0774 00 3 00000	AXT 0,3
05126 2 00777 3 05127	TIX **1,3,511
05127 -3 00000 3 05132	TXL **3,3,0 SHOULD TRANSFER
05130 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
05131 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
05132 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
05133 0020 00 0 05135	TRA **2 UP - GO TO NEXT TEST ROUTINE.
05134 0020 00 0 05125	TRA *-7 DN - REPEAT THIS TEST ROUTINE.

* TEST TXI. SHOULD TRANSFER UNCONDITIONALLY

05135 0774 00 1 05135	AXT *,1	MONITOR
05136 0774 00 3 00000	AXT 0,3	
05137 1 76400 3 05142	TXI **3,3,32000	
05140 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
05141 0420 00 0 00000	HPR UP - HALT ON ERROR.	
	DN - BYPASS ERROR.	
05142 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
05143 0020 00 0 05145	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
05144 0020 00 0 05136	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

* TEST TXI. C XR SHOULD BE INCREMENTED

05145 0774 00 3 00000	AXT 0,3
05146 1 77777 3 05147	TXI **1,3,32767
05147 3 77776 3 05152	TXH **3,3,32766 SHOULD TRANSFER
05150 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
05151 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
05152 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
05153 0020 00 0 05155	TRA **2 UP - GO TO NEXT TEST ROUTINE.
05154 0020 00 0 05145	TRA *-7 DN - REPEAT THIS TEST ROUTINE.

* TEST TXI.

05155 0774 00 3 00001	AXT 1,3
05156 1 00001 3 05157	TXI **1,3,1
05157 -3 00002 3 05162	TXL **3,3,2 SHOULD TRANSFER
05160 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
05161 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
05162 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
05163 0020 00 0 05165	TRA **2 UP - GO TO NEXT TEST ROUTINE.
05164 0020 00 0 05155	TRA *-7 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

TEST AXC

05165 0774 00 3 00000
05166 -0774 00 3 00777
05167 -3 00000 3 05171
05170 0020 00 0 05173
05171 0760 00 0 00162
05172 0420 00 0 00000

05173 0760 00 0 00161
05174 0020 00 0 05176
05175 0020 00 0 05165

AXT 0,3
AXC 511,3 77001 TO XRD
TXL **2,3,0 SHOULD NOT TRANSFER
TRA **3
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

05176 -0774 00 3 77777
05177 -3 00001 3 05202
* AXC DOES NOT COMPLEMENT XR

05200 0760 00 0 00162
05201 0420 00 0 00000
05202 0760 00 0 00161
05203 0020 00 0 05205
05204 0020 00 0 05176

AXC 32767,3 00001 TO XRD
TXL **3,3,1 SHOULD TRANSFER
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-6 DN - REPEAT THIS TEST ROUTINE.

05205 -0774 00 3 00001
05206 3 77776 3 05211
05207 0760 00 0 00162
05210 0420 00 0 00000

05211 0760 00 0 00161
05212 0020 00 0 05214
05213 0020 00 0 05205

AXC 1,3 77777 TO XRD
TXH **3,3,32766 SHOULD TRANSFER
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 131

*
*
*
*
*

TEST XAD 3 CARRY

05214 0774 00 2 47777	AXT 20479,2	47777 TO XRB
05215 3 00000 2 05220	TXH *+3,2,0	A INPUT 00000 B INPUT 30000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1		
05216 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05217 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05220 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05221 0020 00 0 05223	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
05222 0020 00 0 05214	TRA *-6	DN - REPEAT THIS TEST ROUTINE.
05223 0774 00 2 27777	AXT 12287,2	27777 TO XRB
05224 3 00000 2 05227	TXH *+3,2,0	A INPUT 00000 B INPUT 50000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1		
05225 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05226 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05227 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05230 0020 00 0 05232	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
05231 0020 00 0 05223	TRA *-6	DN - REPEAT THIS TEST ROUTINE.
05232 0774 00 1 05232	AXT *.1	MONITOR
05233 0774 00 2 17777	AXT 8191,2	17777 TO XRB
05234 3 00000 2 05237	TXH *+3,2,0	A INPUT 00000 B INPUT 60000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1		
05235 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05236 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05237 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05240 0020 00 0 05242	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
05241 0020 00 0 05233	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 132

SECTION ONE
PART II

TEST XAD 3 CARRY

05242	0774 00 1 05242	AXT	*,1	MONITOR
05243	0774 00 2 07777	AXT	4095,2	07777 TO XRB
05244	3 00000 2 05247	TXH	*+3,2,0	A INPUT 00000 B INPUT 70000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1				
05245	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05246	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05247	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05250	0020 00 0 05252	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
05251	0020 00 0 05243	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.
05252	0774 00 2 37777	AXT	16383,2	37777 TO XRB
05253	-3 40000 2 05256	TXL	*+3,2,16384	A INPUT 40000 B INPUT 40000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1				
05254	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05255	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05256	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05257	0020 00 0 05261	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
05260	0020 00 0 05252	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.
05261	0774 00 2 17777	AXT	8191,2	17777 TO XRB
05262	-3 20000 2 05265	TXL	*+3,2,8192	A INPUT 20000 B INPUT 60000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1				
05263	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05264	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05265	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05266	0020 00 0 05270	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
05267	0020 00 0 05261	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/768
2/1/63
PAGE 133

TEST XAD 3 CARRY

05270 0774 00 1 05270	AXT *,1	MONITOR
05271 0774 00 2 07777	AXT 4095,2	07777 TO XRB
05272 -3 10000 2 05275	TXL **3,2,4096	A INPUT 10000 B INPUT 70000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1		
05273 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05274 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05275 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05276 0020 00 0 05300	TRA **2	UP - GO TO NEXT TEST ROUTINE.
05277 0020 00 0 05271	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

05300 0774 00 2 03777	AXT 2047,2	03777 TO XRB
05301 -3 04000 2 05304	TXL **3,2,2048	A INPUT 04000 B INPUT 74000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1		

05302 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05303 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05304 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05305 0020 00 0 05307	TRA **2	UP - GO TO NEXT TEST ROUTINE.
05306 0020 00 0 05300	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

05307 0774 00 2 17777	AXT 8191,2	17777 TO XRB
05310 -3 40000 2 05313	TXL **3,2,16384	A INPUT 40000 B INPUT 60000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1		
05311 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05312 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05313 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05314 0020 00 0 05316	TRA **2	UP - GO TO NEXT TEST ROUTINE.
05315 0020 00 0 05307	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 134

SECTION ONE
PART II

TEST XAD 3 CARRY

05316 0774 00 1 05316

AXT *,1

MONITOR

05317 0774 00 2 07777

AXT 4095,2 07777 TO XRB

05320 -3 40000 2 05323

TXL *+3,2,16384 A INPUT 40000
B INPUT 70000

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1

05321 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

05322 0420 00 0 00000

HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

05323 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

05324 0020 00 0 05326

TRA *+2 UP - GO TO NEXT TEST ROUTINE.

05325 0020 00 0 05317

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

05326 0774 00 2 07777

AXT 4095,2

05327 -3 20000 2 05332

TXL *+3,2,8192 A INPUT 20000
B INPUT 70000

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1

05330 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

05331 0420 00 0 00000

HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

05332 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

05333 0020 00 0 05335

TRA *+2 UP - GO TO NEXT TEST ROUTINE.

05334 0020 00 0 05326

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/768
2/1/63
PAGE 135

TEST CARRY TO XAD 3-4

TEST CARRY TO XAD 3

05335	0774 00 1 05335	AXT	*,1	MONITOR
05336	0774 00 2 10001	AXT	4097,2	10001 TO XRB
05337	-3 20000 2 05342	TXL	++3,2,8192	A INPUT 20000 B INPUT 67776

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1

05340	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05341	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05342	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05343	0020 00 0 05345	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
05344	0020 00 0 05336	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

05345	0774 00 2 20001	AXT	8193,2	20001 TO XRB
05346	-3 40000 2 05351	TXL	++3,2,16384	A INPUT 40000 B INPUT 57776

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1

05347	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05350	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05351	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05352	0020 00 0 05354	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
05353	0020 00 0 05345	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

05354	0774 00 2 30001	AXT	12289,2	30001 TO XRB
05355	-3 60000 2 05360	TXL	++3,2,24576	A INPUT 60000 B INPUT 47776

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1

05356	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05357	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05360	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05361	0020 00 0 05363	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
05362	0020 00 0 05354	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

TEST CARRY TO XAD 3-4

05363	0774	00	1	05363	AXT	*,1	MONITOR
05364	0774	00	2	20001	AXT	8193,2	20001 TO XRB
05365	1	20000	2	05366	TXI	**+1,2,8192	A INPUT 20000 B INPUT 20000
05366	3	37777	2	05371	TXH	**+3,2,16383	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.50.1.					XRB SHOULD CONTAIN 40001		
05367	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05370	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05371	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05372	0020	00	0	05374	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
05373	0020	00	0	05364	TRA	*-7	LOOP THIS ROUTINE
05374	0774	00	2	30001	AXT	12289,2	30001 TO XRB
05375	1	10000	2	05376	TXI	**+1,2,4096	A INPUT 10000 B INPUT 30000
05376	3	37777	2	05401	TXH	**+3,2,16383	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.50.1.					XRB SHOULD CONTAIN 40001		
05377	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05400	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05401	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05402	0020	00	0	05404	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
05403	0020	00	0	05374	TRA	*-7	LOOP THIS ROUTINE
05404	0774	00	2	34001	AXT	14337,2	34001 TO XRB
05405	1	04000	2	05406	TXI	**+1,2,2048	A INPUT 04000 B INPUT 34000
05406	3	37777	2	05411	TXH	**+3,2,16383	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.50.1.					XRB SHOULD CONTAIN 40001		
05407	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05410	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05411	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05412	0020	00	0	05414	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
05413	0020	00	0	05404	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 137

TEST CARRY TO XAD 3-4

05414	0774 00 1 05414	AXT	*,1	MONITOR
05415	0774 00 2 30001	AXT	12289,2	30001 TO XRB
05416	1 20000 2 05417	TXI	*,1,2,8192	A INPUT 20000 B INPUT 30000
05417	3 37777 2 05422	TXH	*,3,2,16383	SHOULD TRANSFER.
	REFER TO LOGIC PAGE 03.05.50.1. XRB SHOULD CONTAIN 50001			
05420	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05421	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05422	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05423	0020 00 0 05425	TRA	*,2	UP - GO TO NEXT TEST ROUTINE.
05424	0020 00 0 05415	TRA	*,7	LOOP THIS ROUTINE

TEST CARRY TO XAD 4

05425	0774 00 2 10001	AXT	4097,2	10001 TO XRB
05426	-3 20000 2 05431	TXL	*,3,2,8192	A INPUT 20000 B INPUT 67776
	SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.50.1			
05427	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05430	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05431	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05432	0020 00 0 05434	TRA	*,2	UP - GO TO NEXT TEST ROUTINE.
05433	0020 00 0 05425	TRA	*,6	DN - REPEAT THIS TEST ROUTINE

05434	0774 00 2 04001	AXT	2049,2	04001 TO XRB
05435	1 04000 2 05436	TXI	*,1,2,2048	A INPUT 04000 B INPUT 04000
05436	-3 17777 2 05441	TXL	*,3,2,8191	SHOULD TRANSFER
	REFER TO LOGIC PAGE 03.05.50.1. XRB SHOULD CONTAIN 10001			
05437	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05440	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05441	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05442	0020 00 0 05444	TRA	*,2	UP - GO TO NEXT TEST ROUTINE.
05443	0020 00 0 05434	TRA	*,7	LOOP THIS ROUTINE

9M71/76B
2/1/63
PAGE 138

SECTION ONE
PART II

TEST CARRY TO XAD 3-4

05444	0774 00 1 05444	AXT	*,1	MONITOR
05445	0774 00 2 10001	AXT	4097,2	10001 TO XRB
05446	1 10000 2 05447	TXI	**1,2,4096	A INPUT 10000 B INPUT 10000
05447	3 17777 2 05452	TXH	**3,2,8191	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.50.1.		XRB SHOULD CONTAIN 20001		
05450	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05451	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05452	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05453	0020 00 0 05455	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05454	0020 00 0 05445	TRA	*-7	LOOP THIS ROUTINE
05455	0774 00 2 14001	AXT	6145,2	14001 TO XRB
05456	1 04000 2 05457	TXI	**1,2,2048	A INPUT 04000 B INPUT 14000
05457	3 17777 2 05462	TXH	**3,2,8191	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.50.1.		XRB SHOULD CONTAIN 20001		
05460	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05461	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05462	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05463	0020 00 0 05465	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05464	0020 00 0 05455	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 139

TEST XAD CARRY GROUP THREE

05465 0774 00 2 04000
05466 3 00000 2 05471

AXT 2048,2 04000 TO XRB
TXH **3,2,0 A INPUT 00000
B INPUT 73777

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1 +P XAD KG3
05467 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
05470 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
05471 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
05472 0020 00 0 05474 TRA **2 UP - GO TO NEXT TEST ROUTINE.
05473 0020 00 0 05465 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

05474 0774 00 2 02000
05475 3 00000 2 05500

AXT 1024,2 02000 TO XRB
TXH **3,2,0 A INPUT 00000
B INPUT 75777

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1 +P XAD KG3
05476 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
05477 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
05500 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
05501 0020 00 0 05503 TRA **2 UP - GO TO NEXT TEST ROUTINE.
05502 0020 00 0 05474 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

05503 0774 00 2 01000
05504 3 00000 2 05507

AXT 512,2 01000 TO XRB
TXH **3,2,0 A INPUT 00000
B INPUT 76777

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1 +P XAD KG3
05505 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
05506 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
05507 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
05510 0020 00 0 05512 TRA **2 UP - GO TO NEXT TEST ROUTINE.
05511 0020 00 0 05503 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

9M71/768
2/1/63
PAGE 140

SECTION ONE
PART II

TEST XAD CARRY GROUP THREE

		AXT	*,1	MONITOR
05512	0774 00 1 05512			
05513	0774 00 2 00400	AXT	256,2	00400 TO XRB
05514	3 00000 2 05517	TXH	**3,2,0	A INPUT 00000 B INPUT 77377
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1				
05515	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05516	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05517	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05520	0020 00 0 05522	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05521	0020 00 0 05513	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

05522	0774 00 2 00200	AXT	128,2	200 TO XRB
05523	3 00000 2 05526	TXH	**3,2,0	A INPUT 00000 B INPUT 77577
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1				
05524	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05525	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05526	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05527	0020 00 0 05531	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05530	0020 00 0 05522	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

05531	0774 00 2 00777	AXT	511,2	00777 TO XRB
05532	-3 04000 2 05535	TXL	**3,2,2048	A INPUT 04000 B INPUT 77000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1				
05533	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05534	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05535	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05536	0020 00 0 05540	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05537	0020 00 0 05531	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 141

TEST XAD CARRY GROUP THREE

05540	0774	00	1	05540	AXT	*,1	MONITOR
05541	0774	00	2	03777	AXT	2047,2	03777 TO XRB
05542	-3	04000	2	05545	TXL	*+3,2,2048	A INPUT 04000 B INPUT 74000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1							
05543	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05544	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05545	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05546	0020	00	0	05550	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
05547	0020	00	0	05541	TRA	*-6	DN - REPEAT THIS TEST ROUTINE
05550	0774	00	2	01777	AXT	1023,2	01777 TO XRB
05551	-3	04000	2	05554	TXL	*+3,2,2048	A INPUT 04000 B INPUT 76000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1							
05552	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05553	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05554	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05555	0020	00	0	05557	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
05556	0020	00	0	05550	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.
05557	0774	00	2	00377	AXT	255,2	00377 TO XRB
05560	-3	04000	2	05563	TXL	*+3,2,2048	A INPUT 04000 B INPUT 77400
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1							
05561	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05562	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05563	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05564	0020	00	0	05566	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
05565	0020	00	0	05557	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 142

S E C T I O N O N E
P A R T I I

TEST XAD CARRY GROUP THREE

05566	0774	00	1	05566	AXT	*,1	MONITOR
05567	0774	00	2	01777	AXT	1023,2	01777 TO XRB
05570	-3	02000	2	05573	TXL	**3,2,1024	A INPUT 02000 B INPUT 76000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1							
05571	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05572	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05573	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05574	0020	00	0	05576	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05575	0020	00	0	05567	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

05576	0774	00	1	00777	AXT	511,1	00777 TO XRB
05577	-3	02000	2	05602	TXL	**3,2,1024	A INPUT 02000 B INPUT 77000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1							
05600	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05601	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05602	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05603	0020	00	0	05605	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05604	0020	00	0	05576	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

05605	0774	00	2	00377	AXT	255,2	00377 TO XRB
05606	-3	02000	2	05611	TXL	**3,2,1024	A INPUT 02000 B INPUT 77400
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1							
05607	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
05610	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05611	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
05612	0020	00	0	05614	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05613	0020	00	0	05605	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 143

TEST XAD CARRY GROUP THREE

05614 0774 00 1 05614	AXT *,1	MONITOR
05615 0774 00 2 00777	AXT 511,2	00777 TO XRB
05616 -3 01000 2 05621	TXL *+3,2,512	A INPUT 01000 B INPUT 77000
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1		
05617 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05620 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05621 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05622 0020 00 0 05624	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
05623 0020 00 0 05615	TRA *-6	DN - REPEAT THIS TEST ROUTINE.
05624 0774 00 2 00377	AXT 255,2	00377 TO XRB
05625 -3 01000 2 05630	TXL *+3,2,512	A INPUT 01000 B INPUT 77400
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1		
05626 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05627 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05630 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05631 0020 00 0 05633	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
05632 0020 00 0 05624	TRA *-6	DN - REPEAT THIS TEST ROUTINE.
05633 0774 00 2 00377	AXT 255,2	00377 TO XRB
05634 -3 00400 2 05637	TXL *+3,2,256	A INPUT 00400 B INPUT 77400
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1		
05635 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
05636 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
05637 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
05640 0020 00 0 05642	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
05641 0020 00 0 05633	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 144

SECTION ONE
PART II

TEST XAD CARRY GROUP THREE

05642	0774 00 1 05642	AXT	*,1	MONITOR
05643	0774 00 2 00177	AXT	127,2	00177 TO XRB
05644	-3 00200 2 05647	TXL	#+3,2,128	A INPUT 00200 B INPUT 77600
SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.51.1				
05645	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05646	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05647	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05650	0020 00 0 05652	TRA	#+2	UP - GO TO NEXT TEST ROUTINE.
05651	0020 00 0 05643	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.
05652	0774 00 2 00000	AXT	0,2	CLEAR XRB
05653	-3 00000 2 05656	TXL	#+3,2,0	A INPUT 00000 B INPUT 77777 AND HOT ONE
SHOULD HAVE GENERATED XAD 3 CARRY AND TRANSFERRED				
05654	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05655	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05656	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05657	0020 00 0 05661	TRA	#+2	UP - GO TO NEXT TEST ROUTINE.
05660	0020 00 0 05652	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 145

TEST XAD CARRY GROUP THREE

05661 0774 00 1 05661

AXT *,1

MONITOR

05662 0774 00 2 00001

AXT 1,2

00001 TO XRB

05663 3 00000 2 05666

TXH **3,2,0

A INPUT 00000

B INPUT 77776

SHOULD HAVE TRANSFERRED

05664 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

05665 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

05666 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

05667 0020 00 0 05671

TRA **2 UP - GO TO NEXT TEST ROUTINE.

05670 0020 00 0 05662

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

05671 0774 00 2 04001

AXT 2049,2

04001 TO XRB

05672 3 00200 2 05675

TXH **3,2,128

A INPUT 00200

B INPUT 73776

SHOULD HAVE TRANSFERRED

05673 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

05674 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

05675 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

05676 0020 00 0 05700

TRA **2 UP - GO TO NEXT TEST ROUTINE.

05677 0020 00 0 05671

TRA *-6 DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 146

SECTION ONE
PART II

TEST CARRY INPUTS TO XAD 6-8

TEST CARRY INTO XAD 8

```
05700 0774 00 2 00201      AXT 129,2      00201 TO XRB
05701 1 00200 2 05702      TXI **1,2,128  A INPUT 00200
                                B INPUT 00200
05702 -3 00777 2 05705      TXL **3,2,511  SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 00401

05703 0760 00 0 00162      SWT 2 WITH SENSE SWITCH 2 ---
05704 0420 00 0 00000      HPR          UP - HALT ON ERROR.
                                DN - BYPASS ERROR.
05705 0760 00 0 00161      SWT 1 WITH SENSE SWITCH 1 ---
05706 0020 00 0 05710      TRA **2 UP - GO TO NEXT TEST ROUTINE.
05707 0020 00 0 05700      TRA *-7 LOOP THIS ROUTINE

05710 0774 00 2 00401      AXT 257,2      00401 TO XRB
05711 1 00000 2 05712      TXI **1,2,0      A INPUT 00000
                                B INPUT 00400
05712 -3 00777 2 05715      TXL **3,2,511  SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 00401

05713 0760 00 0 00162      SWT 2 WITH SENSE SWITCH 2 ---
05714 0420 00 0 00000      HPR          UP - HALT ON ERROR.
                                DN - BYPASS ERROR.
05715 0760 00 0 00161      SWT 1 WITH SENSE SWITCH 1 ---
05716 0020 00 0 05720      TRA **2 UP - GO TO NEXT TEST ROUTINE.
05717 0020 00 0 05710      TRA *-7 LOOP THIS ROUTINE

05720 0774 00 2 00601      AXT 385,2      00601 TO XRB
05721 1 00200 2 05722      TXI **1,2,128  A INPUT 00200
                                B INPUT 00600
05722 3 00777 2 05725      TXH **3,2,511  SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 01001

05723 0760 00 0 00162      SWT 2 WITH SENSE SWITCH 2 ---
05724 0420 00 0 00000      HPR          UP - HALT ON ERROR.
                                DN - BYPASS ERROR.
05725 0760 00 0 00161      SWT 1 WITH SENSE SWITCH 1 ---
05726 0020 00 0 05730      TRA **2 UP - GO TO NEXT TEST ROUTINE.
05727 0020 00 0 05720      TRA *-7 LOOP THIS ROUTINE
```

S E C T I O N O N E
P A R T I I

9M71/768
2/1/63
PAGE 147

TEST CARRY INPUTS TO XAD 6-8

05730	0774 00 1 05730	AXT	*,1	MONITOR
05731	0774 00 2 00401	AXT	257,2	00401 TO XRB
05732	1 00400 2 05733	TXI	**1,2,256	A INPUT 00400 B INPUT 00400
05733	3 00777 2 05736	TXH	**3,2,511	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 01001				

TEST CARRY INPUT TO XAD 7

05734	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05735	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05736	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05737	0020 00 0 05741	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05740	0020 00 0 05731	TRA	*-7	LOOP THIS ROUTINE

05741	0774 00 2 01001	AXT	513,2	01001 TO XRB
05742	1 01000 2 05743	TXI	**1,2,512	A INPUT 01000 B INPUT 01000
05743	3 01777 2 05746	TXH	**3,2,1023	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 02001				

05744	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05745	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05746	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05747	0020 00 0 05751	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05750	0020 00 0 05741	TRA	*-7	LOOP THIS ROUTINE

05751	0774 00 2 01401	AXT	769,2	01401 TO XRB
05752	1 00400 2 05753	TXI	**1,2,256	A INPUT 00400 B INPUT 01400
05753	3 01777 2 05756	TXH	**3,2,1023	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 02001				

05754	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05755	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05756	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05757	0020 00 0 05761	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
05760	0020 00 0 05751	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE
PART II

TEST CARRY INPUTS TO XAD 6-8

05761	0774 00 1 05761	AXT	*,1	MONITOR
05762	0774 00 2 01601	AXT	897,2	01601 TO XRB
05763	1 00200 2 05764	TXI	*+1,2,128	A INPUT 00200 B INPUT 01600
05764	3 01777 2 05767	TXH	*+3,2,1023	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 02001				
05765	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05766	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05767	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
05770	0020 00 0 05772	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
05771	0020 00 0 05762	TRA	*-7	LOOP THIS ROUTINE
05772	0774 00 2 01201	AXT	641,2	01201 TO XRB
05773	1 00200 2 05774	TXI	*+1,2,128	A INPUT 00200 B INPUT 01200
05774	-3 01777 2 05777	TXL	*+3,2,1023	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 01401				
05775	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
05776	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
05777	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06000	0020 00 0 06002	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06001	0020 00 0 05772	TRA	*-7	LOOP THIS ROUTINE
06002	0774 00 2 00401	AXT	257,2	00401 TO XRB
06003	1 00400 2 06004	TXI	*+1,2,256	A INPUT 00400 B INPUT 00400
06004	-3 01777 2 06007	TXL	*+3,2,1023	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 01001				
06005	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06006	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06007	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06010	0020 00 0 06012	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06011	0020 00 0 06002	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 149

TEST CARRY INPUTS TO XAD 6-8

06012	0774 00 1 06012	AXT	*,1	MONITOR
06013	0774 00 2 00601	AXT	385,2	00601 TO XRB
06014	1 00200 2 06015	TXI	++1,2,128	A INPUT 00200 B INPUT 00600
06015	-3 01777 2 06020	TXL	++3,2,1023	SHOULD TRANSFER
	REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 01001			
06016	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ----
06017	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06020	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ----
06021	0020 00 0 06023	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
06022	0020 00 0 06013	TRA	*-7	LOOP THIS ROUTINE

06023	0774 00 2 00401	AXT	257,2	00401 TO XRB
06024	1 01000 2 06025	TXI	++1,2,512	A INPUT 01000 B INPUT 00400
06025	-3 01777 2 06030	TXL	++3,2,1023	SHOULD TRANSFER
	REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 01401			
06026	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06027	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06030	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06031	0020 00 0 06033	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
06032	0020 00 0 06023	TRA	*-7	LOOP THIS ROUTINE

TEST CARRY INPUT TO XAD 6

06033	0774 00 2 02001	AXT	1025,2	02001 TO XRB
06034	1 02000 2 06035	TXI	++1,2,1024	A INPUT 02000 B INPUT 02000
06035	3 03777 2 06040	TXH	++3,2,2047	SHOULD TRANSFER
	REFER TO LOGIC PAGE 03.05.51.1. XRB SHOULD CONTAIN 04001			
06036	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06037	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06040	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06041	0020 00 0 06043	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
06042	0020 00 0 06033	TRA	*-7	LOOP THIS ROUTINE

9M71/76B
2/1/63
PAGE 150

SECTION ONE
PART II

TEST CARRY INPUTS TO XAD 6-8

			AXT	*.1	MONITOR
06043	0774	00 1 06043			
06044	0774	00 2 03001	AXT	1537,2	03001 TO XRB
06045	1 01000	2 06046	TXI	**+1,2,512	A INPUT 01000
					B INPUT 03000
06046	3 03777	2 06051	TXH	**+3,2,2047	SHOULD TRANSFER
	REFER TO LOGIC PAGE	03.05.51.1.			XRB SHOULD CONTAIN 04001
06047	0760	00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06050	0420	00 0 00000	HPR		UP - HALT ON ERROR.
					DN - BYPASS ERROR.
06051	0760	00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06052	0020	00 0 06054	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
06053	0020	00 0 06044	TRA	*-7	LOOP THIS ROUTINE
06054	0774	00 2 03401	AXT	1793,2	03401 TO XRB
06055	1 00400	2 06056	TXI	**+1,2,256	A INPUT 00400
					B INPUT 03400
06056	3 03777	2 06061	TXH	**+3,2,2047	SHOULD TRANSFER
	REFER TO LOGIC PAGE	03.05.51.1.			XRB SHOULD CONTAIN 04001
06057	0760	00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06060	0420	00 0 00000	HPR		UP - HALT ON ERROR.
					DN - BYPASS ERROR.
06061	0760	00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06062	0020	00 0 06064	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
06063	0020	00 0 06054	TRA	*-7	LOOP THIS ROUTINE
06064	0774	00 2 03401	AXT	1793,2	03401 TO XRB
06065	1 00000	2 06066	TXI	**+1,2,0	A INPUT 00000
					B INPUT 03400
06066	-3 03777	2 06071	TXL	**+3,2,2047	SHOULD TRANSFER
	REFER TO LOGIC PAGE	03.05.51.1.			XRB SHOULD CONTAIN 03401
06067	0760	00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06070	0420	00 0 00000	HPR		UP - HALT ON ERROR.
					DN - BYPASS ERROR.
06071	0760	00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06072	0020	00 0 06074	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
06073	0020	00 0 06064	TRA	*-7	LOOP THIS ROUTINE

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 151

TEST CARRY INPUTS TO XAD 6-8

06074 0774 00 1 06074 06075 0774 00 2 01001 06076 1 01000 2 06077 06077 -3 03777 2 06102 REFER TO LOGIC PAGE 03.05.51.1. 06100 0760 00 0 00162 06101 0420 00 0 00000 06102 0760 00 0 00161 06103 0020 00 0 06105 06104 0020 00 0 06075 06105 0774 00 2 01401 06106 1 00400 2 06107 06107 -3 03777 2 06112 REFER TO LOGIC PAGE 03.05.51.1. 06110 0760 00 0 00162 06111 0420 00 0 00000 06112 0760 00 0 00161 06113 0020 00 0 06115 06114 0020 00 0 06105 06115 0774 00 2 02401 06116 1 00400 2 06117 06117 -3 03777 2 06122 REFER TO LOGIC PAGE 03.05.51.1. 06120 0760 00 0 00162 06121 0420 00 0 00000 06122 0760 00 0 00161 06123 0020 00 0 06125 06124 0020 00 0 06115	MONITOR AXT *,1 AXT 513,2 01001 TO XRB TXI **1,2,512 A INPUT 01000 B INPUT 01000 TXL **3,2,2047 SHOULD TRANSFER XRB SHOULD CONTAIN 02001 SWT 2 WITH SENSE SWITCH 2 --- HPR UP - HALT ON ERROR. DN - BYPASS ERROR. SWT 1 WITH SENSE SWITCH 1 --- TRA **2 UP - GO TO NEXT TEST ROUTINE. TRA *-7 LOOP THIS ROUTINE AXT 769,2 01401 TO XRB TXI **1,2,256 A INPUT 00400 B INPUT 01400 TXL **3,2,2047 SHOULD TRANSFER XRB SHOULD CONTAIN 02001 SWT 2 WITH SENSE SWITCH 2 --- HPR UP - HALT ON ERROR. DN - BYPASS ERROR. SWT 1 WITH SENSE SWITCH 1 --- TRA **2 UP - GO TO NEXT TEST ROUTINE. TRA *-7 LOOP THIS ROUTINE AXT 1281,2 02401 TO XRB TXI **1,2,256 A INPUT 00400 B INPUT 02400 TXL **3,2,2047 SHOULD TRANSFER XRB SHOULD CONTAIN 03001 SWT 2 WITH SENSE SWITCH 2 --- HPR UP - HALT ON ERROR. DN - BYPASS ERROR. SWT 1 WITH SENSE SWITCH 1 --- TRA **2 UP - GO TO NEXT TEST ROUTINE. TRA *-7 LOOP THIS ROUTINE

9M71/76B
2/1/63
PAGE 152

SECTION ONE
PART II

TEST XAD CARRY GROUP TWO

06125 0774 00 2 00277 AXT 191,2 00277 TO XRB
06126 3 00100 2 06131 TXH *+3,2,64 A INPUT 00100
B INPUT 77500

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06127 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
06130 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
06131 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
06132 0020 00 0 06134 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
06133 0020 00 0 06125 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

06134 0774 00 2 00137 AXT 95,2 00137 TO XRB
06135 3 00040 2 06140 TXH *+3,2,32 A INPUT 00040
B INPUT 77640

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06136 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
06137 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
06140 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
06141 0020 00 0 06143 TRA *+2 UP - GO TO NEXT TEST ROUTINE.
06142 0020 00 0 06134 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 153

TEST XAD CARRY GROUP TWO

06143	0774 00 1 06143	AXT	*,1	MONITOR

06144	0774 00 2 00057	AXT	47,2	00057 TO XRB
06145	3 00020 2 06150	TXH	*,3,2,16	A INPUT 00020 B INPUT 77720

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06146	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06147	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06150	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06151	0020 00 0 06153	TRA	*,2	UP - GO TO NEXT TEST ROUTINE.
06152	0020 00 0 06144	TRA	*,6	DN - REPEAT THIS TEST ROUTINE.

06153	0774 00 2 00027	AXT	23,2	00027 TO XRB
06154	3 00010 2 06157	TXH	*,3,2,8	A INPUT 00010 B INPUT 77750

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06155	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06156	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06157	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06160	0020 00 0 06162	TRA	*,2	UP - GO TO NEXT TEST ROUTINE.
06161	0020 00 0 06153	TRA	*,6	DN - REPEAT THIS TEST ROUTINE.

06162	0774 00 2 00077	AXT	63,2	77 TO XRB
06163	3 00060 2 06166	TXH	*,3,2,48	A INPUT 00060 B INPUT 77700

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06164	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06165	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06166	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06167	0020 00 0 06171	TRA	*,2	UP - GO TO NEXT TEST ROUTINE.
06170	0020 00 0 06162	TRA	*,6	DN - REPEAT THIS TEST ROUTINE

SECTION ONE
PART II

TEST XAD CARRY GROUP TWO

06171	0774 00 1 06171	AXT	*,1	MONITOR
06172	0774 00 2 00177	AXT	127,2	177 TO XRB
06173	-3 00200 2 06176	TXL	*+3,2,128	A INPUT 00200 B INPUT 77600

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06174	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06175	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06176	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06177	0020 00 0 06201	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06200	0020 00 0 06172	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

06201	0774 00 2 00077	AXT	63,2	77 TO XRB
06202	-3 00200 2 06205	TXL	*+3,2,128	A INPUT 00200 B INPUT 77700

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06203	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06204	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06205	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06206	0020 00 0 06210	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06207	0020 00 0 06201	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

06210	0774 00 2 00037	AXT	31,2	37 TO XRB
06211	-3 00200 2 06214	TXL	*+3,2,128	A INPUT 00200 B INPUT 77740

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06212	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06213	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06214	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06215	0020 00 0 06217	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06216	0020 00 0 06210	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 155

06217 0774 00 1 06217 AXT *,1 MONITOR

```
06220 0774 00 2 00017      AXT  15,2      17 TO XRB
06221 -3 00200 2 06224      TXL  *+3,2,128    A INPUT 00200
                                   B INPUT 77760
```

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

```

06222 0760 00 0 00162      SWT 2  WITH SENSE SWITCH 2 ---
06223 0420 00 0 00000      HPR          UP - HALT ON ERROR.
                                DN - BYPASS ERROR.
06224 0760 00 0 00161      SWT 1  WITH SENSE SWITCH 1 ---
06225 0020 00 0 06227      TRA *+2  UP - GO TO NEXT TEST ROUTINE.
06226 0020 00 0 06220      TRA *-6   DN - REPEAT THIS TEST ROUTINE

```

```
06227 0774 00 2 00077      AXT 63,2      00077 TO XRB
06230 -3 00100 2 06233      TXL *+3,2,64    A INPUT 00100
                                   B INPUT 77700
```

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

```

06231 0760 00 0 00162      SWT 2  WITH SENSE SWITCH 2 ---
06232 0420 00 0 00000      HPR          UP - HALT ON ERROR.
                                DN - BYPASS ERROR.
06233 0760 00 0 00161      SWT 1  WITH SENSE SWITCH 1 ---
06234 0020 00 0 06236      TRA *+2  UP - GO TO NEXT TEST ROUTINE.
06235 0020 00 0 06227      TRA *-6  DN - REPEAT THIS TEST ROUTINE.

```

```
06236 0774 00 2 00037      AXT 31,2      00037 TO XRB
06237 -3 00100 2 06242      TXL *+3,2,64    A INPUT 00100
                                B INPUT 77740
```

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

```

06240 0760 00 0 00162      SWT 2  WITH SENSE SWITCH 2 ---
06241 0420 00 0 00000      HPR          UP - HALT ON ERROR.
                                DN - BYPASS ERROR.
06242 0760 00 0 00161      SWT 1  WITH SENSE SWITCH 1 ---
06243 0020 00 0 06245      TRA **2  UP - GO TO NEXT TEST ROUTINE.
06244 0020 00 0 06236      TRA *-6  DN - REPEAT THIS TEST ROUTINE.

```


9M71/76B
2/1/63
PAGE 156

SECTION ONE
PART II

TEST XAD CARRY GROUP TWO

06245	0774	00	1	06245	AXT	*,1	MONITOR
06246	0774	00	2	00017	AXT	15,2	00017 TO XRB
06247	-3	00100	2	06252	TXL	#+3,2,64	A INPUT 00100 B INPUT 77760

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06250	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06251	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06252	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06253	0020	00	0	06255	TRA	#+2	UP - GO TO NEXT TEST ROUTINE.
06254	0020	00	0	06246	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

06255	0774	00	2	00037	AXT	31,2	00037 TO XRB
06256	-3	00040	2	06261	TXL	#+3,2,32	A INPUT 00040 B INPUT 77740

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06257	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06260	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06261	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06262	0020	00	0	06264	TRA	#+2	UP - GO TO NEXT TEST ROUTINE.
06263	0020	00	0	06255	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

06264	0774	00	2	00017	AXT	15,2	00017 TO XRB
06265	-3	00040	2	06270	TXL	#+3,2,32	A INPUT 00040 B INPUT 77760

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06266	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06267	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06270	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06271	0020	00	0	06273	TRA	#+2	UP - GO TO NEXT TEST ROUTINE.
06272	0020	00	0	06264	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 157

TEST XAD CARRY GROUP TWO

06273 0774 00 1 06273	AXT *,1	MONITOR

06274 0774 00 2 00017	AXT 15,2	00017 TO XRB
06275 -3 00020 2 06300	TXL **3,2,16	A INPUT 00020
		B INPUT 77760

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06276 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
06277 0420 00 0 00000	HPR UP - HALT ON ERROR.	
		DN - BYPASS ERROR.

06300 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
06301 0020 00 0 06303	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
06302 0020 00 0 06274	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

06303 0774 00 2 00007	AXT 7,2	00007 TO XRB
06304 -3 00010 2 06307	TXL **3,2,8	A INPUT 00010
		B INPUT 77770

SHOULD HAVE TRANSFERRED. REFER TO LOGIC PAGE 03.05.52.1

06305 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
06306 0420 00 0 00000	HPR UP - HALT ON ERROR.	
		DN - BYPASS ERROR.

06307 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
06310 0020 00 0 06312	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
06311 0020 00 0 06303	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

9M71/76B
2/1/63
PAGE 158

S E C T I O N O N E
P A R T I I

TEST CARRY INPUTS TO XAD 10-12

TEST CARRY INPUT TO XAD 12

06312	0774	00	2	00021	AXT	17,2	00021 TO XRB
06313	1	00020	2	06314	TXI	**1,2,16	A INPUT 00020
							B INPUT 00020
06314	3	00040	2	06317	TXH	**3,2,32	SHOULD TRANSFER
							XRB SHOULD CONTAIN 00041. REFER TO LOGIC PAGE 03.05.52.1
06315	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06316	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
06317	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06320	0020	00	0	06322	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06321	0020	00	0	06312	TRA	*-7	LOOP THIS ROUTINE
06322	0774	00	2	00031	AXT	25,2	00031 TO XRB
06323	1	00010	2	06324	TXI	**1,2,8	A INPUT 00010
							B INPUT 00030
06324	3	00040	2	06327	TXH	**3,2,32	SHOULD TRANSFER
							XRB SHOULD CONTAIN 00041. REFER TO LOGIC PAGE 03.05.52.1
06325	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06326	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
06327	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06330	0020	00	0	06332	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06331	0020	00	0	06322	TRA	*-7	LOOP THIS ROUTINE
06332	0774	00	2	00001	AXT	1,2	00001 TO XRB
06333	1	00020	2	06334	TXI	**1,2,16	A INPUT 00020
							B INPUT 00000
06334	-3	00021	2	06337	TXL	**3,2,17	SHOULD TRANSFER
							XRB SHOULD CONTAIN 00021. REFER TO LOGIC PAGE 03.05.52.1
06335	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06336	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
06337	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06340	0020	00	0	06342	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06341	0020	00	0	06332	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 159

TEST CARRY INPUTS TO XAD 10-12

06342	0774 00 1 06342	AXT	*,1	MONITOR
06343	0774 00 2 00011	AXT	9,2	00011 TO XRB
06344	1 00010 2 06345	TXI	**+1,2,8	A INPUT 00010
				B INPUT 00010
06345	-3 00021 2 06350	TXL	**+3,2,17	SHOULD TRANSFER
	XRB SHOULD CONTAIN 00021. REFER TO LOGIC PAGE 03.05.52.1			
06346	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06347	0420 00 0 00000	HPR		UP - HALT ON ERROR.
				DN - BYPASS ERROR.
06350	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06351	0020 00 0 06353	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
06352	0020 00 0 06343	TRA	*-7	LOOP THIS ROUTINE

TEST CARRY INPUT TO XAD 11

06353	0774 00 2 00041	AXT	33,2	00041 TO XRB
06354	1 00040 2 06355	TXI	**+1,2,32	A INPUT 00040
				B INPUT 00040
06355	3 00100 2 06360	TXH	**+3,2,64	SHOULD TRANSFER
	XRB SHOULD CONTAIN 00101. REFER TO LOGIC PAGE 03.05.52.1			
06356	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06357	0420 00 0 00000	HPR		UP - HALT ON ERROR.
				DN - BYPASS ERROR.
06360	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06361	0020 00 0 06363	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
06362	0020 00 0 06353	TRA	*-7	LOOP THIS ROUTINE

06363	0774 00 2 00061	AXT	49,2	00061 TO XRB
06364	1 00020 2 06365	TXI	**+1,2,16	A INPUT 00020
				B INPUT 00060
06365	3 00100 2 06370	TXH	**+3,2,64	SHOULD TRANSFER
	XRB SHOULD CONTAIN 00101. REFER TO LOGIC PAGE 03.05.52.1			

06366	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06367	0420 00 0 00000	HPR		UP - HALT ON ERROR.
				DN - BYPASS ERROR.
06370	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06371	0020 00 0 06373	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
06372	0020 00 0 06363	TRA	*-7	LOOP THIS ROUTINE

9M71/768
2/1/63
PAGE 160

SECTION ONE
PART II

TEST CARRY INPUTS TO XAD 10-12

06373	0774 00 1 06373	AXT	*,1	MONITOR
06374	0774 00 2 00001	AXT	1,2	00001 TO XRB
06375	1 00040 2 06376	TXI	**1,2,32	A INPUT 00040 B INPUT 00000
06376	-3 00077 2 06401	TXL	**3,2,63	SHOULD TRANSFER
XRB SHOULD CONTAIN 00041. REFER TO LOGIC PAGE 03.05.52.1				
06377	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06400	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06401	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06402	0020 00 0 06404	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06403	0020 00 0 06374	TRA	*-7	LOOP THIS ROUTINE
06404	0774 00 2 00021	AXT	17,2	00021 TO XRB
06405	1 00020 2 06406	TXI	**1,2,16	A INPUT 00020 B INPUT 00020
06406	-3 00077 2 06411	TXL	**3,2,63	SHOULD TRANSFER
XRB SHOULD CONTAIN 00041. REFER TO LOGIC PAGE 03.05.52.1				
06407	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06410	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06411	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06412	0020 00 0 06414	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06413	0020 00 0 06404	TRA	*-7	LOOP THIS ROUTINE

TEST CARRY INPUT TO XAD 10

06414	0774 00 2 00101	AXT	65,2	00101 TO XRB
06415	1 00100 2 06416	TXI	**1,2,64	A INPUT 00100 B INPUT 00100
06416	3 00200 2 06421	TXH	**3,2,128	SHOULD TRANSFER
XRB SHOULD CONTAIN 00201. REFER TO LOGIC PAGE 03.05.52.1				
06417	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06420	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06421	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06422	0020 00 0 06424	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06423	0020 00 0 06414	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 161

TEST CARRY INPUTS TO XAD 10-12

06424	0774 00 1 06424	AXT	*,1	MONITOR
06425	0774 00 2 00141	AXT	97,2	00141 TO XRB
06426	1 00040 2 06427	TXI	++1,2,32	A INPUT 00040 B INPUT 00140
06427	3 00200 2 06432	TXH	++3,2,128	SHOULD TRANSFER
	XRB SHOULD CONTAIN 00201. REFER TO LOGIC PAGE 03.05.52.1			
06430	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06431	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06432	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06433	0020 00 0 06435	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
06434	0020 00 0 06425	TRA	*-7	LOOP THIS ROUTINE
06435	0774 00 2 00161	AXT	113,2	00161 TO XRB
06436	1 00020 2 06437	TXI	++1,2,16	A INPUT 00020 B INPUT 00160
06437	3 00200 2 06442	TXH	++3,2,128	SHOULD TRANSFER
	XRB SHOULD CONTAIN 00201. REFER TO LOGIC PAGE 03.05.52.1			
06440	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06441	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06442	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06443	0020 00 0 06445	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
06444	0020 00 0 06435	TRA	*-7	LOOP THIS ROUTINE
06445	0774 00 2 00101	AXT	65,2	00101 TO XRB
06446	1 00040 2 06447	TXI	++1,2,32	A INPUT 00040 B INPUT 00100
06447	-3 00177 2 06452	TXL	++3,2,127	SHOULD TRANSFER
	XRB SHOULD CONTAIN 00141. REFER TO LOGIC PAGE 03.05.52.1			
06450	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06451	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06452	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06453	0020 00 0 06455	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
06454	0020 00 0 06445	TRA	*-7	LOOP THIS ROUTINE

9M71/76B
2/1/63
PAGE 162

SECTION ONE
PART II

TEST CARRY INPUTS TO XAD 10-12

06455	0774 00 1 06455	AXT	*,1	MONITOR
06456	0774 00 2 00121	AXT	81,2	00121 TO XRB
06457	1 00020 2 06460	TXI	*+1,2,16	A INPUT 00020 B INPUT 00120
06460	-3 00177 2 06463	TXL	*+3,2,127	SHOULD TRANSFER
XRB SHOULD CONTAIN 00141. REFER TO LOGIC PAGE 03.05.52.1				
06461	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06462	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06463	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06464	0020 00 0 06466	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06465	0020 00 0 06456	TRA	*-7	LOOP THIS ROUTINE
06466	0774 00 2 00061	AXT	49,2	00061 TO XRB
06467	1 00020 2 06470	TXI	*+1,2,16	A INPUT 00020 B INPUT 00060
06470	-3 00177 2 06473	TXL	*+3,2,127	SHOULD TRANSFER
XRB SHOULD CONTAIN 00101. REFER TO LOGIC PAGE 03.05.52.1				
06471	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06472	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06473	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06474	0020 00 0 06476	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06475	0020 00 0 06466	TRA	*-7	LOOP THIS ROUTINE
06476	0774 00 2 00041	AXT	33,2	00041 TO XRB
06477	1 00040 2 06500	TXI	*+1,2,32	A INPUT 00040 B INPUT 00040
06500	-3 00177 2 06503	TXL	*+3,2,127	SHOULD TRANSFER
XRB SHOULD CONTAIN 00101. REFER TO LOGIC PAGE 03.05.52.1				
06501	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06502	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06503	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06504	0020 00 0 06506	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06505	0020 00 0 06476	TRA	*-7	LOOP THIS ROUTINE

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 163

*
*
*
*
*

TEST XAD GENERATE GROUP ONE

06506 0774 00 2 00013	AXT 11,2	00013 TO XRB
06507 3 00004 2 06512	TXH **3,2,4	A INPUT 00004
		B INPUT 77764

REFER TO LOGIC PAGE 03.05.53.1

06510 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
06511 0420 00 0 00000	HPR UP - HALT ON ERROR.	
		DN - BYPASS ERROR.
06512 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
06513 0020 00 0 06515	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
06514 0020 00 0 06506	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

06515 0774 00 2 00005	AXT 5,2	00005 TO XRB
06516 3 00002 2 06521	TXH **3,2,2	A INPUT 00002
		B INPUT 77772

REFER TO LOGIC PAGE 03.05.53.1

06517 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
06520 0420 00 0 00000	HPR UP - HALT ON ERROR.	
		DN - BYPASS ERROR.
06521 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
06522 0020 00 0 06524	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
06523 0020 00 0 06515	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

06524 0774 00 2 00002	AXT 2,2	00002 TO XRB
06525 3 00001 2 06530	TXH **3,2,1	A INPUT 00001
		B INPUT 77775

REFER TO LOGIC PAGE 03.05.53.1

06526 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---	
06527 0420 00 0 00000	HPR UP - HALT ON ERROR.	
		DN - BYPASS ERROR.
06530 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---	
06531 0020 00 0 06533	TRA **2 UP - GO TO NEXT TEST ROUTINE.	
06532 0020 00 0 06524	TRA *-6 DN - REPEAT THIS TEST ROUTINE.	

9M71/768
2/1/63
PAGE 164

SECTION ONE
PART II

TEST XAD GENERATE GROUP ONE

06533	0774 00 1 06533	AXT	*,1	MONITOR
06534	0774 00 2 00017	AXT	15,2	00017,2
06535	-3 00020 2 06540	TXL	**3,2,16	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.53.1				
06536	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06537	0420 00 0 00000	HPR		UP - HALT ON ERROR.
				DN - BYPASS ERROR.
06540	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06541	0020 00 0 06543	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06542	0020 00 0 06534	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.
06543	0774 00 2 00001	AXT	1,2	00001 TO XRB
06544	3 00000 2 06547	TXH	**3,2,0	A INPUT 00000
				B INPUT 77776
REFER TO LOGIC PAGE 03.05.53.1				
06545	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06546	0420 00 0 00000	HPR		UP - HALT ON ERROR.
				DN - BYPASS ERROR.
06547	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06550	0020 00 0 06552	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06551	0020 00 0 06543	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.
06552	0774 00 2 00007	AXT	7,2	00007 TO XRB
06553	-3 00010 2 06556	TXL	**3,2,8	A INPUT 00010
				B INPUT 77770
REFER TO LOGIC PAGE 03.05.53.1				
06554	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06555	0420 00 0 00000	HPR		UP - HALT ON ERROR.
				DN - BYPASS ERROR.
06556	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06557	0020 00 0 06561	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06560	0020 00 0 06552	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 165

TEST XAD GENERATE GROUP ONE

06561 0774 00 1 06561	AXT *,1	MONITOR
06562 0774 00 2 00003	AXT 3,2	00003 TO XRB
06563 -3 00010 2 06566	TXL **3,2,8	A INPUT 00010 B INPUT 77774

REFER TO LOGIC PAGE 03.05.53.1

06564 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
06565 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
06566 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
06567 0020 00 0 06571	TRA **2	UP - GO TO NEXT TEST ROUTINE.
06570 0020 00 0 06562	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

06571 0774 00 2 00001	AXT 1,2	00001 TO XRB
06572 -3 00010 2 06575	TXL **3,2,8	A INPUT 00010 B INPUT 77776

REFER TO LOGIC PAGE 03.05.53.1

06573 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
06574 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
06575 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
06576 0020 00 0 06600	TRA **2	UP - GO TO NEXT TEST ROUTINE.
06577 0020 00 0 06571	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

06600 0774 00 2 00003	AXT 3,2	00003 TO XRB
06601 -3 00004 2 06604	TXL **3,2,4	A INPUT 00004 B INPUT 77774

REFER TO LOGIC PAGE 03.05.53.1

06602 0760 00 0 00162	SWT 2	WITH SENSE SWITCH 2 ---
06603 0420 00 0 00000	HPR	UP - HALT ON ERROR. DN - BYPASS ERROR.
06604 0760 00 0 00161	SWT 1	WITH SENSE SWITCH 1 ---
06605 0020 00 0 06607	TRA **2	UP - GO TO NEXT TEST ROUTINE.
06606 0020 00 0 06600	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 186

SECTION ONE
PART II

TEST XAD GENERATE GROUP ONE

06607	0774 00 1 06607	AXT	*,1	MONITOR
06610	0774 00 2 00001	AXT	1,2	00001 TO XRB
06611	-3 00004 2 06614	TXL	*+3,2,4	A INPUT 00004 B INPUT 77776

REFER TO LOGIC PAGE 03.05.53.1

06612	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06613	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06614	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06615	0020 00 0 06617	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06616	0020 00 0 06610	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

06617	0774 00 2 00001	AXT	1,2	00001 TO XRB
06620	-3 00002 2 06623	TXL	*+3,2,2	A INPUT 00002 B INPUT 77776

REFER TO LOGIC PAGE 03.05.53.1

06621	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06622	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06623	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06624	0020 00 0 06626	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06625	0020 00 0 06617	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

06626	0774 00 2 00000	AXT	0,2	00000 TO XRB
06627	-3 00000 2 06632	TXL	*+3,2,0	A INPUT 00000 B INPUT 77777 AND CARRY

REFER TO LOGIC PAGE 03.05.53.1

06630	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06631	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06632	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06633	0020 00 0 06635	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06634	0020 00 0 06626	TRA	*-6	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 167

*
*
*
*
*

TEST CARRY INPUTS TO XAD 14-16

06635	0774	00	2	00001	AXT	1,2	00001 TO XRB
06636	1	00001	2	06637	TXI	*+1,2,1	A INPUT 00001
06637	3	00001	2	06642	TXH	*+3,2,1	B INPUT 00000 AND CARRY
REFER TO LOGIC PAGE 03.05.53.1.					XRB SHOULD CONTAIN 00002		
06640	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06641	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
06642	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06643	0020	00	0	06645	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06644	0020	00	0	06635	TRA	*-7	LOOP THIS ROUTINE
06645	0774	00	2	00001	AXT	1,2	00001 TO XRB
06646	1	00000	2	06647	TXI	*+1,2,0	A INPUT 00000
							B INPUT 00000
06647	-3	00001	2	06652	TXL	*+3,2,1	
REFER TO LOGIC PAGE 03.05.53.1.					XRB SHOULD CONTAIN 00001		
06650	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06651	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
06652	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06653	0020	00	0	06655	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
06654	0020	00	0	06645	TRA	*-7	LOOP THIS ROUTINE

9M71/768
2/1/63
PAGE 168

SECTION ONE
PART II

TEST CARRY INPUTS TO XAD 14-16

			AXT	*.1	MONITOR
06655	0774	00 1 06655			
06656	0774	00 2 00003	AXT	3,2	00003 TO XRB
06657	1 00002	2 06660	TXI	**1,2,2	A INPUT 00002 B INPUT 00002
06660	3 00004	2 06663	TXH	**3,2,4	
REFER TO LOGIC PAGE 03.05.53.1. XRB SHOULD CONTAIN 00005					
06661	0760	00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06662	0420	00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06663	0760	00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06664	0020	00 0 06666	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06665	0020	00 0 06656	TRA	*-7	LOOP THIS ROUTINE
06666	0774	00 2 00003	AXT	3,2	00003 TO XRB
06667	1 00001	2 06670	TXI	**1,2,1	A INPUT 00001 B INPUT 00002
06670	3 00003	2 06673	TXH	**3,2,3	
REFER TO LOGIC PAGE 03.05.53.1. XRB SHOULD CONTAIN 00004					
06671	0760	00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06672	0420	00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06673	0760	00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06674	0020	00 0 06676	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06675	0020	00 0 06666	TRA	*-7	LOOP THIS ROUTINE
06676	0774	00 2 00002	AXT	2,2	00002 TO XRB
06677	1 00000	2 06700	TXI	**1,2,0	A INPUT 00000 B INPUT 00001
06700	-3 00003	2 06703	TXL	**3,2,3	
REFER TO LOGIC PAGE 03.05.53.1. XRB SHOULD CONTAIN 00002					
06701	0760	00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06702	0420	00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06703	0760	00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06704	0020	00 0 06706	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06705	0020	00 0 06676	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE PART II

9M71/76B
2/1/63
PAGE 169

TEST CARRY INPUTS TO XAD 14-16

06706	0774 00 1 06706	AXT	*,1	MONITOR
06707	0774 00 2 00001	AXT	1,2	00001 TO XRB
06710	-3 00001 2 06713	TXL	**3,2,1	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.53.1				
06711	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06712	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06713	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06714	0020 00 0 06716	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06715	0020 00 0 06707	TRA	*-6	DN - REPEAT THIS TEST ROUTINE
06716	0774 00 2 00002	AXT	2,2	00002 TO XRB
06717	3 00001 2 06722	TXH	**3,2,1	SHOULD TRANSFER
REFER TO LOGIC PAGE 03.05.53.1				
06720	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06721	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06722	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06723	0020 00 0 06725	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06724	0020 00 0 06716	TRA	*-6	DN - REPEAT THIS TEST ROUTINE
06725	0774 00 2 00007	AXT	7,2	00007 TO XRB
06726	1 00002 2 06727	TXI	**1,2,2	A INPUT 00002 B INPUT 00006
06727	3 00010 2 06732	TXH	**3,2,8	
REFER TO LOGIC PAGE 03.05.53.1. XRB SHOULD CONTAIN 00011				
06730	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06731	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06732	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06733	0020 00 0 06735	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06734	0020 00 0 06725	TRA	*-7	LOOP THIS ROUTINE

SECTION ONE
PART II

TEST CARRY INPUTS TO XAD 14-16

06735	0774 00 1 06735	AXT	*,1	MONITOR
06736	0774 00 2 00005	AXT	5,2	00005 TO XRB
06737	1 00004 2 06740	TXI	**1,2,4	A INPUT 00004 B INPUT 00004
06740	3 00010 2 06743	TXH	**3,2,8	
REFER TO LOGIC PAGE 03.05.53.1. XRB SHOULD CONTAIN 00011				
06741	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06742	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06743	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06744	0020 00 0 06746	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06745	0020 00 0 06736	TRA	*-7	LOOP THIS ROUTINE
06746	0774 00 2 00005	AXT	5,2	00005 TO XRB
06747	1 00002 2 06750	TXI	**1,2,2	A INPUT 00002 B INPUT 00004
06750	-3 00007 2 06753	TXL	**3,2,7	
REFER TO LOGIC PAGE 03.05.53.1. XRB SHOULD CONTAIN 00007				
06751	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06752	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06753	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06754	0020 00 0 06756	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06755	0020 00 0 06746	TRA	*-7	LOOP THIS ROUTINE
06756	0774 00 2 00003	AXT	3,2	00003 TO XRB
06757	1 00002 2 06760	TXI	**1,2,2	A INPUT 00002 B INPUT 00002
06760	-3 00005 2 06763	TXL	**3,2,5	
REFER TO LOGIC PAGE 03.05.53.1. XRB SHOULD CONTAIN 00005				
06761	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
06762	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
06763	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
06764	0020 00 0 06766	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
06765	0020 00 0 06756	TRA	*-7	DN-REPEAT THIS TEST

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 171

*
*
*
*
*

TEST LXA AND LXD

06766	0763	00	0	00111	LGL	73	CLEAR AC
06767	0774	00	3	00777	AXT	511,3	
06770	0534	00	3	26173	LXA	BZERO,3	CLEAR XRD
06771	-3	00000	3	06774	TXL	++3,3,0	SHOULD TRANSFER
LXA DOES NOT GATE XAD-XR							
06772	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
06773	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
06774	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
06775	0020	00	0	06777	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
06776	0020	00	0	06766	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
06777	0774	00	3	00000	AXT	0,3	
07000	0534	00	3	26174	LXA	BONES,3	77777 TO XRD
07001	3	77776	3	07004	TXH	++3,3,32766	SHOULD TRANSFER
LXA FAILS IN ROUTING SB 21-35 TO XRD							
07002	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07003	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07004	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07005	0020	00	0	07007	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
07006	0020	00	0	06777	TRA	*-7	DN - REPEAT THIS TEST ROUTINE.
07007	0774	00	3	00777	AXT	511,3	
07010	0534	00	3	26506	LXA	B21T35,3	77777 TO XRD
07011	3	77776	3	07014	TXH	++3,3,32766	SHOULD TRANSFER
LXA FAILS							
07012	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07013	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07014	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07015	0020	00	0	07017	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
07016	0020	00	0	07007	TRA	*-7	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 172

SECTION ONE
PART II

TEST LXA AND LXD

07017 0774 00 3 00777 AXT 511,3
07020 0534 00 3 26431 LXA B13T16,3 C B13T16 000036000000
07021 -3 00000 3 07024 TXL **3,3,0 SHOULD TRANSFER
LXA LOADS BITS FROM DECREMENT PORTION OF WORD IN STORAGE

07022 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
07023 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
07024 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
07025 0020 00 0 07027 TRA **2 UP - GO TO NEXT TEST ROUTINE.
07026 0020 00 0 07017 TRA *-7 DN - REPEAT THIS TEST ROUTINE.

07027 0560 00 0 26474 LDQ B24T32 +000000007770
07030 -0763 00 0 00044 LGL 36
07031 0774 00 3 00000 AXT 0,3
07032 0534 00 3 26173 LXA BZERO,3 CLEAR XRD
07033 -3 00000 3 07036 TXL **3,3,0 SHOULD TRANSFER
LXA BRINGS UP PAX CONTROLS

07034 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
07035 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
07036 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
07037 0020 00 0 07041 TRA **2 UP - GO TO NEXT TEST ROUTINE.
07040 0020 00 0 07027 TRA *-9 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 173

07041 0774 00 1 07041

AXT *,1

MONITOR

07042 0774 00 3 00777

AXT 511,3

07043 -0534 00 3 26552

LXD B3T17,3

77777 TO XRD

07044 3 77776 3 07047

TXH **3,3,32766 SHOULD TRANSFER

LXD FAILS

07045 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

07046 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

07047 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

07050 0020 00 0 07052

TRA **2 UP - GO TO NEXT TEST ROUTINE.

07051 0020 00 0 07042

TRA *-7 DN - REPEAT THIS TEST ROUTINE.

07052 0774 00 3 00777

AXT 511,3

07053 -0534 00 3 26322

LXD B32T34,3

00000 TO XRD

07054 -3 00000 3 07057

TXL **3,3,0

LXD LOADS BITS FROM ADDRESS PORTION OF WORD IN STORAGE

07055 0760 00 0 00162

SWT 2 WITH SENSE SWITCH 2 ---

07056 0420 00 0 00000

HPR UP - HALT ON ERROR.

DN - BYPASS ERROR.

07057 0760 00 0 00161

SWT 1 WITH SENSE SWITCH 1 ---

07060 0020 00 0 07062

TRA **2 UP - GO TO NEXT TEST ROUTINE.

07061 0020 00 0 07052

TRA *-7 DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 174

SECTION ONE
PART II

TEST SXA

07062 0560 00 0 26506
07063 -0600 00 0 26603
07064 0634 00 0 26603
07065 -0520 00 0 26603
07066 0020 00 0 07071

LDQ B21T35
STQ T1
SXA T1,0
NZT T1
TRA **3

SHOULD CLEAR T1
SHOULD NOT SKIP

* SXA DOES NOT STORE OR HOT BIT IN XAD-SR GATING

07067 0760 00 0 00162
07070 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07071 0760 00 0 00161
07072 0020 00 0 07074
07073 0020 00 0 07062

SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-9 DN - REPEAT THIS TEST ROUTINE.

07074 0560 00 0 26467
07075 -0600 00 0 26603
07076 0500 00 0 26173
07077 0634 00 0 26603
07100 0520 00 0 26603
07101 0020 00 0 07104

LDQ BST2
STQ T1
CLA BZERO
SXA T1,0
ZET T1
TRA **3

SHOULD NOT SKIP

* SXA BRINGS UP STORE PREFIX CONTROLS

07102 0760 00 0 00162
07103 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07104 0760 00 0 00161
07105 0020 00 0 07107
07106 0020 00 0 07074

SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-10 DN - REPEAT THIS TEST ROUTINE.

07107 0560 00 0 26552
07110 -0600 00 0 26603
07111 0634 00 0 26603
07112 0520 00 0 26603
07113 0020 00 0 07116

LDQ B3T17
STQ T1
SXA T1,0
ZET T1
TRA **3

+077777000000

SHOULD NOT SKIP

* SXA BRINGS UP STORE DECREMENT CONTROLS

07114 0760 00 0 00162
07115 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07116 0760 00 0 00161
07117 0020 00 0 07121
07120 0020 00 0 07107

SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-9 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 175

TEST SXA

07121 0560 00 0 26556	LDQ	B18T20	+000000700000
07122 -0600 00 0 26603	STQ	T1	
07123 0634 00 0 26603	SXA	T1,0	
07124 0520 00 0 26603	ZET	T1	SHOULD NOT SKIP
07125 0020 00 0 07130	TRA	*+3	
* SXA BRINGS UP STORE TAG CONTROLS			
07126 0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
07127 0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07130 0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
07131 0020 00 0 07133	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07132 0020 00 0 07121	TRA	*-9	DN - REPEAT THIS TEST ROUTINE.
07133 0774 00 3 00000	AXT	0,3	
07134 0600 00 0 26603	STZ	T1	
07135 0634 00 3 26603	SXA	T1,3	
07136 -0520 00 0 26603	NZT	T1	SHOULD NOT SKIP
07137 0020 00 0 07142	TRA	*+3	
* SXA DOES NOT GATE XR-XAD			
07140 0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
07141 0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07142 0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
07143 0020 00 0 07145	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07144 0020 00 0 07133	TRA	*-9	DN - REPEAT THIS TEST ROUTINE.
07145 0774 00 1 07145	AXT	*,1	MONITOR
07146 0774 00 3 77777	AXT	32767,3	
07147 0634 00 3 26603	SXA	T1,3	
07150 0520 00 0 26603	ZET	T1	SHOULD NOT SKIP
07151 0020 00 0 07154	TRA	*+3	
* SXA FAILS TO GATE XAD-SR			
07152 0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
07153 0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07154 0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
07155 0020 00 0 07157	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07156 0020 00 0 07146	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 176

SECTION ONE
PART II

TEST SXA

07157 0774 00 3 40000
07160 0634 00 3 26603
07161 0534 00 3 26603
07162 3 37777 3 07165
SXA DROPS BIT FROM COLUMN 3

AXT 16384,3 40000 TO XRD
SXA T1,3
LXA T1,3
TXH *+3,3,16383 SHOULD TRANSFER

07163 0760 00 0 00162
07164 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07165 0760 00 0 00161
07166 0020 00 0 07170
07167 0020 00 0 07157

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07170 0774 00 3 20000
07171 0634 00 3 26603
07172 0534 00 3 26603
07173 3 17777 3 07176
SXA DROPS BIT FROM COLUMN 4

AXT 8192,3 20000 TO XRD
SXA T1,3
LXA T1,3
TXH *+3,3,8191 SHOULD TRANSFER

07174 0760 00 0 00162
07175 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07176 0760 00 0 00161
07177 0020 00 0 07201
07200 0020 00 0 07170

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07201 0774 00 3 10000
07202 0634 00 3 26603
07203 0534 00 3 26603
07204 3 07777 3 07207
SXA DROPS BIT FROM COLUMN 5

AXT 4096,3 10000 TO XRD
SXA T1,3
LXA T1,3
TXH *+3,3,4095 SHOULD TRANSFER

07205 0760 00 0 00162
07206 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07207 0760 00 0 00161
07210 0020 00 0 07212
07211 0020 00 0 07201

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 177

TEST SXA

07212	0774	00	3	04000	AXT	2048,3	04000 TO XRD
07213	0634	00	3	26603	SXA	T1,3	
07214	0534	00	3	26603	LXA	T1,3	
07215	3	03777	3	07220	TXH	*+3,3,2047	SHOULD TRANSFER
* SXA DROPS BIT FROM COLUMN 6							
07216	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07217	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07220	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07221	0020	00	0	07223	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07222	0020	00	0	07212	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07223	0774	00	3	02000	AXT	1024,3	02000 TO XRD
07224	0634	00	3	26603	SXA	T1,3	
07225	0534	00	3	26603	LXA	T1,3	
07226	3	01777	3	07231	TXH	*+3,3,1023	SHOULD TRANSFER
* SXA DROPS BIT FROM COLUMN 7							
07227	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07230	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07231	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07232	0020	00	0	07234	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07233	0020	00	0	07223	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07234	0774	00	3	01000	AXT	512,3	01000 TO XRD
07235	0634	00	3	26603	SXA	T1,3	
07236	0534	00	3	26603	LXA	T1,3	
07237	3	00777	3	07242	TXH	*+3,3,511	SHOULD TRANSFER
* SXA DROPS BIT FROM COLUMN 8							
07240	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07241	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07242	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07243	0020	00	0	07245	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07244	0020	00	0	07234	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 178

SECTION ONE
PART II

TEST SXA

07245	0774	00	1	07245	AXT	*.1	MONITOR
07246	0774	00	3	00400	AXT	256,3	00400 TO XRD
07247	0634	00	3	26603	SXA	T1,3	
07250	0534	00	3	26603	LXA	T1,3	
07251	3	00377	3	07254	TXH	*+3,3,255	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 9							
07252	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07253	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07254	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07255	0020	00	0	07257	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07256	0020	00	0	07246	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07257	0774	00	3	00200	AXT	128,3	00200 TO XRD
07260	0634	00	3	26603	SXA	T1,3	
07261	0534	00	3	26603	LXA	T1,3	
07262	3	00177	3	07265	TXH	*+3,3,127	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 10							
07263	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07264	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07265	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07266	0020	00	0	07270	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07267	0020	00	0	07257	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07270	0774	00	3	00100	AXT	64,3	00100 TO XRD
07271	0634	00	3	26603	SXA	T1,3	
07272	0534	00	3	26603	LXA	T1,3	
07273	3	00077	3	07276	TXH	*+3,3,63	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 11							
07274	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07275	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07276	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07277	0020	00	0	07301	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07300	0020	00	0	07270	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 179

TEST SXA

07301	0774 00 3 00040	AXT	32,3	00040 TO XRD
07302	0634 00 3 26603	SXA	T1,3	
07303	0534 00 3 26603	LXA	T1,3	
07304	3 00037 3 07307	TXH	*+3,3,31	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 12				
07305	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
07306	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07307	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
07310	0020 00 0 07312	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07311	0020 00 0 07301	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07312	0774 00 3 00020	AXT	16,3	00020 TO XRD
07313	0634 00 3 26603	SXA	T1,3	
07314	0534 00 3 26603	LXA	T1,3	
07315	3 00017 3 07320	TXH	*+3,3,15	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 13				
07316	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
07317	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07320	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
07321	0020 00 0 07323	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07322	0020 00 0 07312	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07323	0774 00 3 00010	AXT	8,3	00010 TO XRD
07324	0634 00 3 26603	SXA	T1,3	
07325	0534 00 3 26603	LXA	T1,3	
07326	3 00007 3 07331	TXH	*+3,3,7	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 14				
07327	0760 00 0 00162	SWT	2	WITH SENSE SWITCH 2 ---
07330	0420 00 0 00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07331	0760 00 0 00161	SWT	1	WITH SENSE SWITCH 1 ---
07332	0020 00 0 07334	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07333	0020 00 0 07323	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

9M71/768
2/1/63
PAGE 180

SECTION ONE
PART II

TEST SXA

07334	0774	00	3	00004	AXT	4,3	00004 TO XRD
07335	0634	00	3	26603	SXA	T1,3	
07336	0534	00	3	26603	LXA	T1,3	
07337	3	00003	3	07342	TXH	*+3,3,3	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 15							
07340	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07341	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07342	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07343	0020	00	0	07345	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07344	0020	00	0	07334	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07345	0774	00	1	07345	AXT	*,1	MONITOR
07346	0774	00	3	00002	AXT	2,3	00002 TO XRD
07347	0634	00	3	26603	SXA	T1,3	
07350	0534	00	3	26603	LXA	T1,3	
07351	3	00001	3	07354	TXH	*+3,3,1	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 16							
07352	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07353	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07354	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07355	0020	00	0	07357	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07356	0020	00	0	07346	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07357	0774	00	3	00001	AXT	1,3	
07360	0634	00	3	26603	SXA	T1,3	
07361	0534	00	3	26603	LXA	T1,3	
07362	3	00000	3	07365	TXH	*+3,3,0	SHOULD TRANSFER
SXA DROPS BIT FROM COLUMN 17							
07363	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07364	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07365	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07366	0020	00	0	07370	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07367	0020	00	0	07357	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/768
2/1/63
PAGE 181

TEST SXA

07370 0774 00 3 25252
07371 0634 00 3 26603
07372 0534 00 3 26603
07373 -3 25252 3 07376
 SXA STORES EXTRA BITS

AXT 10922,3 25252 TO XRD
SXA T1,3
LXA T1,3
TXL *+3,3,10922 SHOULD TRANSFER

07374 0760 00 0 00162
07375 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
 DN - BYPASS ERROR.

07376 0760 00 0 00161
07377 0020 00 0 07401
07400 0020 00 0 07370

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE

07401 0774 00 3 52525
07402 0634 00 3 26603
07403 0534 00 3 26603
07404 -3 52525 3 07407
 SXA STORES EXTRA BITS

AXT 21845,3 52525 TO XRD
SXA T1,3
LXA T1,3
TXL *+3,3,21845 SHOULD TRANSFER

07405 0760 00 0 00162
07406 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
 DN - BYPASS ERROR.

07407 0760 00 0 00161
07410 0020 00 0 07412
07411 0020 00 0 07401

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE

9M71/768
2/1/63
PAGE 182

SECTION ONE
PART II

TEST SXA

07412	0560	00	0	26337	LDQ	B28T30	+000000000340
07413	-0763	00	0	00044	LGL	36	
07414	0774	00	3	00000	AXT	0,3	
07415	0600	00	0	26603	STZ	T1	
07416	0634	00	3	26603	SXA	T1,3	
07417	-0520	00	0	26603	NZT	T1	SHOULD NOT SKIP
07420	0020	00	0	07423	TRA	*+3	

SXA BRINGS UP PAX CONTROLS

07421	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07422	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07423	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07424	0020	00	0	07426	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07425	0020	00	0	07412	TRA	*-11	REPEAT THIS TEST

07426	0774	00	3	00001	AXT	1,3	
07427	0634	00	3	26603	SXA	T1,3	
07430	-3	00001	3	07433	TXL	*+3,3,1	

SXA MODIFIES CONTENTS OF XR

07431	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07432	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07433	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07434	0020	00	0	07436	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07435	0020	00	0	07426	TRA	*-7	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 183

*
*
*
*
*

TEST SXD

07436	0560	00	0	26506	LDQ	B21T35	+000000077777
07437	-0600	00	0	26603	STQ	T1	
07440	-0634	00	0	26603	SXD	T1,0	
07441	0520	00	0	26603	ZET	T1	SHOULD NOT SKIP
07442	0020	00	0	07445	TRA	*+3	

SXD BRINGS UP STORE ADDRESS CONTROLS

07443	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07444	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07445	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07446	0020	00	0	07450	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07447	0020	00	0	07436	TRA	*-9	DN - REPEAT THIS TEST ROUTINE.

07450	0774	00	1	07450	AXT	*,1	MONITOR
07451	0560	00	0	26552	LDQ	B3T17	+077777000000
07452	-0600	00	0	26603	STQ	T1	
07453	-0634	00	0	26603	SXD	T1,0	
07454	-0520	00	0	26603	NZT	T1	SHOULD NOT SKIP
07455	0020	00	0	07460	TRA	*+3	

SXD DOES NOT STORE OR HOT BIT IN XAD-SR GATING

07456	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07457	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07460	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07461	0020	00	0	07463	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07462	0020	00	0	07451	TRA	*-9	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 184

SECTION ONE
PART II

TEST SXD

07463 0560 00 0 26460
07464 -0763 00 0 00044
07465 0774 00 3 00000
07466 0600 00 0 26603
07467 -0634 00 3 26603
07470 -0520 00 0 26603
07471 0020 00 0 07474
SXD BRINGS UP PDX CONTROLS

LDQ B3T6 +074000000000
LGL 36
AXT 0,3 00000 TO XRD
STZ T1
SXD T1,3
NZT T1 SHOULD NOT SKIP
TRA **3

07472 0760 00 0 00162
07473 0420 00 0 00000

07474 0760 00 0 00161
07475 0020 00 0 07477
07476 0020 00 0 07463

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-11 REPEAT THIS TEST

07477 -0534 00 3 26200
07500 -0634 00 3 26603
07501 -0534 00 3 26603
07502 3 37777 3 07505
SXD DROPS BIT FROM COLUMN 3

LXD B3,3 40000 TO XRD
SXD T1,3
LXD T1,3
TXH **3,3,16383 SHOULD TRANSFER

07503 0760 00 0 00162
07504 0420 00 0 00000

07505 0760 00 0 00161
07506 0020 00 0 07510
07507 0020 00 0 07477

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07510 0534 00 3 26223
07511 -0634 00 3 26603
07512 -0534 00 3 26603
07513 3 17777 3 07516
SXD DROPS BIT FROM COLUMN 4

LXA B22,3 20000 TO XRD
SXD T1,3
LXD T1,3
TXH **3,3,8191 SHOULD TRANSFER

07514 0760 00 0 00162
07515 0420 00 0 00000

07516 0760 00 0 00161
07517 0020 00 0 07521
07520 0020 00 0 07510

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 185

TEST SXD

07521 0534 00 3 26224
07522 -0634 00 3 26603
07523 -0534 00 3 26603
07524 3 07777 3 07527
SXD DROPS BIT FROM COLUMN 5

LXA B23,3 10000 TO XRD
SXD T1,3
LXD T1,3
TXH **3,3,4095 SHOULD TRANSFER

07525 0760 00 0 00162
07526 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07527 0760 00 0 00161
07530 0020 00 0 07532
07531 0020 00 0 07521

07532 0534 00 3 26225
07533 -0634 00 3 26603
07534 -0534 00 3 26603
07535 3 03777 3 07540
SXD DROPS BIT FROM COLUMN 6

LXA B24,3 04000 TO XRD
SXD T1,3
LXD T1,3
TXH **3,3,2047 SHOULD TRANSFER

07536 0760 00 0 00162
07537 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07540 0760 00 0 00161
07541 0020 00 0 07543
07542 0020 00 0 07532

07543 0774 00 1 07543

AXT *,1 MONITOR

07544 0534 00 3 26226
07545 -0634 00 3 26603
07546 -0534 00 3 26603
07547 3 01777 3 07552
SXD DROPS BIT FROM COLUMN 7

LXA B25,3 02000 TO XRD
SXD T1,3
LXD T1,3
TXH **3,3,1023 SHOULD TRANSFER

07550 0760 00 0 00162
07551 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07552 0760 00 0 00161
07553 0020 00 0 07555
07554 0020 00 0 07544

S E C T I O N O N E
P A R T I I

TEST SXD

07555	0534	00	3	26227	LXA	B26,3	01000 TO XRD
07556	-0634	00	3	26603	SXD	T1,3	
07557	-0534	00	3	26603	LXD	T1,3	
07560	3 00777	3		07563	TXH	++3,3,511	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 8							
07561	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07562	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07563	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07564	0020	00	0	07566	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
07565	0020	00	0	07555	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07566	0534	00	3	26230	LXA	B27,3	00400 TO XRD
07567	-0634	00	3	26603	SXD	T1,3	
07570	-0534	00	3	26603	LXD	T1,3	
07571	3 00377	3		07574	TXH	++3,3,255	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 9							
07572	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07573	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07574	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07575	0020	00	0	07577	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
07576	0020	00	0	07566	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07577	0534	00	3	26231	LXA	B28,3	00200 TO XRD
07600	-0634	00	3	26603	SXD	T1,3	
07601	-0534	00	3	26603	LXD	T1,3	
07602	3 00177	3		07605	TXH	++3,3,127	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 10							
07603	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07604	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07605	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07606	0020	00	0	07610	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
07607	0020	00	0	07577	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 187

TEST SXD

07610	0534	00	3	26232	LXA	B29,3	00100 TO XRD
07611	0634	00	3	26603	SXD	T1,3	
07612	0534	00	3	26603	LXD	T1,3	
07613	3 00077	3		07616	TXH	*+3,3,63	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 11							
07614	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07615	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07616	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07617	0020	00	0	07621	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07620	0020	00	0	07610	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07621	0534	00	3	26233	LXA	B30,3	00040 TO XRD
07622	0634	00	3	26603	SXD	T1,3	
07623	0534	00	3	26603	LXD	T1,3	
07624	3 00037	3		07627	TXH	*+3,3,31	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 12							
07625	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07626	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07627	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07630	0020	00	0	07632	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07631	0020	00	0	07621	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07632	0534	00	3	26234	LXA	B31,3	00020 TO XRD
07633	0634	00	3	26603	SXD	T1,3	
07634	0534	00	3	26603	LXD	T1,3	
07635	3 00017	3		07640	TXH	*+3,3,15	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 13							
07636	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07637	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
07640	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07641	0020	00	0	07643	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07642	0020	00	0	07632	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

TEST SXD

07643	0774	00	1	07643	AXT	*,1	MONITOR
07644	0534	00	3	26235	LXA	B32,3	00010 TO XRD
07645	-0634	00	3	26603	SXD	T1,3	
07646	-0534	00	3	26603	LXD	T1,3	
07647	3	00007	3	07652	TXH	*+3,3,7	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 14							
07650	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07651	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07652	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07653	0020	00	0	07655	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07654	0020	00	0	07644	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07655	0534	00	3	26236	LXA	B33,3	00004 TO XRD
07656	-0634	00	3	26603	SXD	T1,3	
07657	-0534	00	3	26603	LXD	T1,3	
07660	3	00003	3	07663	TXH	*+3,3,3	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 15							
07661	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07662	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07663	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07664	0020	00	0	07666	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07665	0020	00	0	07655	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.
07666	0534	00	3	26237	LXA	B34,3	00002 TO XRD
07667	-0634	00	3	26603	SXD	T1,3	
07670	-0534	00	3	26603	LXD	T1,3	
07671	3	00001	3	07674	TXH	*+3,3,1	SHOULD TRANSFER
SXD DROPS BIT FROM COLUMN 16							
07672	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
07673	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
07674	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
07675	0020	00	0	07677	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
07676	0020	00	0	07666	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 189

TEST SxD

07677 0534 00 3 26240
07700 -0634 00 3 26603
07701 -0534 00 3 26603
07702 3 00000 3 07705
SxD DROPS BIT FROM COLUMN 17

LXA B35,3 00001 TO XRD
SxD T1,3
LxD T1,3
TXH *+3,3,0 SHOULD TRANSFER

07703 0760 00 0 00162
07704 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07705 0760 00 0 00161
07706 0020 00 0 07710
07707 0020 00 0 07677

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07710 0774 00 3 25252
07711 -0634 00 3 26603
07712 -0534 00 3 26603
07713 -3 25252 3 07716
SxD STORES EXTRA BITS

AXT 10922,3 25252 TO XRD
SxD T1,3
LxD T1,3
TXL *+3,3,10922 SHOULD TRANSFER

07714 0760 00 0 00162
07715 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07716 0760 00 0 00161
07717 0020 00,0 07721
07720 0020 00 0 07710

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

07721 0774 00 3 52525
07722 -0634 00 3 26603
07723 -0534 00 3 26603
07724 -3 52525 3 07727
SxD STORES EXTRA BITS

AXT 21845,3 52525 TO XRD
SxD T1,3
LxD T1,3
TXL *+3,3,21845 SHOULD TRANSFER

07725 0760 00 0 00162
07726 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

07727 0760 00 0 00161
07730 0020 00 0 07732
07731 0020 00 0 07721

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

9M71/768
2/1/63
PAGE 190

S E C T I O N O N E
P A R T I I

TESTING NZT TO SKIP WITH STG 1-35 NON-ZERO.

07732	-0520	00 0	26174	NZT BONES	+377777777777
				DOES NZT SKIP-	
07733	0020	00 0	07735	TRA *+2	NO - ERROR, CHECK SSW 2.
07734	0020	00 0	07737	TRA *+3	YES- OK, GO ON, CHECK SSW 1.
07735	0760	00 0	00162	SWT 2	WITH SENSE SWITCH 2 ---
07736	0420	00 0	00000	HPR	UP - HALT ON ERROR.
					DN - BYPASS ERROR.
07737	0760	00 0	00161	SWT 1	WITH SENSE SWITCH 1 ---
07740	0020	00 0	07742	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
07741	0020	00 0	07732	TRA *-7	DN - REPEAT THIS TEST ROUTINE.

TESTING ZET TO NOT SKIP WITH STG 1-35 NON-ZERO.

07742	0520	00 0	26174	ZET BONES	+377777777777
				DOES ZET SKIP-	
07743	0020	00 0	07746	TRA *+3	NO -OK, GO CHECK SWT 1.
					YES- ERROR, CHECK SWT 2.
07744	0760	00 0	00162	SWT 2	WITH SENSE SWITCH 2 ---
07745	0420	00 0	00000	HPR	UP - HALT ON ERROR.
					DN - BYPASS ERROR.
07746	0760	00 0	00161	SWT 1	WITH SENSE SWITCH 1 ---
07747	0020	00 0	07751	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
07750	0020	00 0	07742	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

TESTING ZET TO SKIP WITH STG 1-35 ZERO.

07751	0774	00 1	07751	AXT *,1	MONITOR
07752	0520	00 0	26173	ZET BZERO	+000000000000
				DOES ZET SKIP-	
07753	0020	00 0	07755	TRA *+2	NO -ERROR, CHECK SWT 2.
07754	0020	00 0	07757	TRA *+3	YES-OK, GO CHECK SWT 1.
07755	0760	00 0	00162	SWT 2	WITH SENSE SWITCH 2 ---
07756	0420	00 0	00000	HPR	UP - HALT ON ERROR.
					DN - BYPASS ERROR.
07757	0760	00 0	00161	SWT 1	WITH SENSE SWITCH 1 ---
07760	0020	00 0	07762	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
07761	0020	00 0	07752	TRA *-7	DN - REPEAT THIS TEST ROUTINE.

TESTING NZT TO NOT SKIP WITH STG 1-35 ZERO.

07762	-0520	00 0	26173	NZT BZERO	+000000000000
				DOES NZT SKIP-	
07763	0020	00 0	07766	TRA *+3	NO -OK, GO CHECK SWT 1.
					YES-ERROR, CHECK SWT 2.
07764	0760	00 0	00162	SWT 2	WITH SENSE SWITCH 2 ---
07765	0420	00 0	00000	HPR	UP - HALT ON ERROR.
					DN - BYPASS ERROR.
07766	0760	00 0	00161	SWT 1	WITH SENSE SWITCH 1 ---
07767	0020	00 0	07771	TRA *+2	UP - GO TO NEXT TEST ROUTINE.
07770	0020	00 0	07762	TRA *-6	DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 191

* IN THIS SECTION NZT IS USED TO CAUSE A CORRECT SKIP WHEN BITS *
* ARE PRESENT IN STORAGE. A SIMPLE INDEX LOOP IS USED TO CHECK *
* EACH BIT POSITION *

07771 0774 00 1 00043	AXT 35,1	
07772 -0520 00 1 26241	NZT B35+1,1	DOES NZT SKIP
07773 0020 00 0 07775	TRA *+2	NO-ERROR
07774 0020 00 0 10002	TRA *+6	YES-GET NEXT TEST BIT
07775 0760 00 0 00162	SWT 2	ERROR-CHECK SWITCH 2.
07776 0420 00 0 00000	HPR	UP-HALT ON ERROR
07777 0760 00 0 00161	SWT 1	DN-CHECK SWITCH 1.
10000 0020 00 0 10002	TRA *+2	UP-BYPASS ERROR.
10001 0020 00 0 07772	TRA *-7	DN-LOOP ON ERROR.
10002 2 00001 1 07772	TIX *-8,1,1	
10003 0760 00 0 00161	SWT 1	
10004 0020 00 0 10006	TRA *+2	
10005 0020 00 0 07771	TRA *-12	

S E C T I O N O N E
P A R T I I

TESTING THE LDQ AND STQ TO WORK ON ANY POSITION.

10006	0560	00	0	26174	LDQ	BONES	+377777777777
10007	-0600	00	0	26605	STQ	TEMP1	
10010	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP
10011	0020	00	0	10014	TRA	*+3	NO - OK, CHECK SSW1
10012	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10013	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10014	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10015	0020	00	0	10017	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10016	0020	00	0	10006	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

TESTING THE MQ REGISTER FOR HOLDING ANY HOT BITS.

10017	0560	00	0	26174	LDQ	BONES	+377777777777
10020	0560	00	0	26173	LDQ	BZERO	+000000000000
10021	0600	00	0	26605	STZ	TEMP1	
10022	-0600	00	0	26605	STQ	TEMP1	
10023	-0520	00	0	26605	NZT	TEMP1	DOES NZT SKIP
10024	0020	00	0	10027	TRA	*+3	NO - OK, CHECK SSW1
10025	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10026	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10027	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10030	0020	00	0	10032	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10031	0020	00	0	10017	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 193

IN THE FOLLOWING TEST ROUTINES VARIOUS BIT CONFIGURATIONS
WILL BE USED TO TEST THE DIFFERENT SPLITS OF THE FOLLOWING
COMMAND LINES ---

- 1 - GATE SR TO MQ
- 2 - SET MQ REG
- 3 - GATE MQ TO SR
- 4 - GATE SR TO SB

COLUMNS 1 TO 8.

10032	0560	00	0	26304
10033	-0600	00	0	26605
10034	0520	00	0	26605
10035	0020	00	0	10040
10036	0760	00	0	00162
10037	0420	00	0	00000
10040	0760	00	0	00161
10041	0020	00	0	10043
10042	0020	00	0	10032

LDQ	BIT8	+377000000000
STQ	TEMP1	
ZET	TEMP1	DOES ZET SKIP
TRA	++3	NO - OK, CHECK SSW1
SWT	2	WITH SENSE SWITCH 2 ---
HPR		UP - HALT ON ERROR.
		DN - BYPASS ERROR.
SWT	1	WITH SENSE SWITCH 1 ---
TRA	++2	UP - GO TO NEXT TEST ROUTINE.
TRA	--8	DN - REPEAT THIS TEST ROUTINE.

COLUMNS 9 TO 35.

10043	0774	00	1	10043
10044	0560	00	0	26310
10045	-0600	00	0	26605
10046	0520	00	0	26605
10047	0020	00	0	10052
10050	0760	00	0	00162
10051	0420	00	0	00000
10052	0760	00	0	00161
10053	0020	00	0	10055
10054	0020	00	0	10044

AXT	*,1	MONITOR
LDQ	B935	+000777777777
STQ	TEMP1	
ZET	TEMP1	DOES ZET SKIP
TRA	++3	NO - OK, CHECK SSW1
SWT	2	WITH SENSE SWITCH 2 ---
HPR		UP - HALT ON ERROR.
		DN - BYPASS ERROR.
SWT	1	WITH SENSE SWITCH 1 ---
TRA	++2	UP - GO TO NEXT TEST ROUTINE.
TRA	--8	DN - REPEAT THIS TEST ROUTINE.

COLUMNS 1 AND 2.

PREFIX

10055	0560	00	0	26242
10056	-0600	00	0	26605
10057	0520	00	0	26605
10060	0020	00	0	10063
10061	0760	00	0	00162
10062	0420	00	0	00000
10063	0760	00	0	00161
10064	0020	00	0	10066
10065	0020	00	0	10055

LDQ	B1A2	+300000000000
STQ	TEMP1	
ZET	TEMP1	DOES ZET SKIP
TRA	++3	NO - OK, CHECK SSW1
SWT	2	WITH SENSE SWITCH 2 ---
HPR		UP - HALT ON ERROR.
		DN - BYPASS ERROR.
SWT	1	WITH SENSE SWITCH 1 ---
TRA	++2	UP - GO TO NEXT TEST ROUTINE.
TRA	--8	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE

PART II

IN THE FOLLOWING TEST ROUTINES VARIOUS BIT CONFIGURATIONS
WILL BE USED TO TEST THE DIFFERENT SPLITS OF THE FOLLOWING
COMMAND LINES ---

- 1 - GATE SR TO MQ
- 2 - SET MQ REG
- 3 - GATE MQ TO SR
- 4 - GATE SR TO SB

COLUMNS 3 TO 17.

DECREMENT

10066	0560	00	0	26306	LDQ	B317	+077777000000
10067	-0600	00	0	26605	STQ	TEMP1	
10070	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP
10071	0020	00	0	10074	TRA	*+3	NO - OK, CHECK SSW1
10072	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10073	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10074	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10075	0020	00	0	10077	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10076	0020	00	0	10066	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

COLUMNS 18 TO 20.

TAG

10077	0560	00	0	26555	LDQ	B1820	+000000700000
10100	-0600	00	0	26605	STQ	TEMP1	
10101	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP
10102	0020	00	0	10105	TRA	*+3	NO - OK, CHECK SSW1
10103	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10104	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10105	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10106	0020	00	0	10110	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10107	0020	00	0	10077	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

COLUMNS 21 TO 35.

ADDRESS

10110	0560	00	0	26557	LDQ	B2135	+000000077777
10111	-0600	00	0	26605	STQ	TEMP1	
10112	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP
10113	0020	00	0	10116	TRA	*+3	NO - OK, CHECK SSW1
10114	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10115	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10116	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10117	0020	00	0	10121	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10120	0020	00	0	10110	TRA	*-8	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE PART II

9M71/76B
2/1/63
PAGE 195

IN THE FOLLOWING TEST ROUTINES VARIOUS BIT CONFIGURATIONS
WILL BE USED TO TEST THE DIFFERENT SPLITS OF THE FOLLOWING
COMMAND LINES ---

- 1 - GATE SR TO MQ
- 2 - SET MQ REG
- 3 - GATE MQ TO SR
- 4 - GATE SR TO SB

COLUMNS 9 TO 18.

10121 0560 00 0 26553
10122 -0600 00 0 26605
10123 0520 00 0 26605
10124 0020 00 0 10127
10125 0760 00 0 00162
10126 0420 00 0 00000

10127 0760 00 0 00161
10130 0020 00 0 10132
10131 0020 00 0 10121

LDQ B9T18 +000777400000
STQ TEMP1
ZET TEMP1 DOES ZET SKIP
TRA **3 NO - OK, CHECK SSW1
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

COLUMNS 19 TO 29.

10132 0560 00 0 26554
10133 -0600 00 0 26605
10134 0520 00 0 26605
10135 0020 00 0 10140
10136 0760 00 0 00162
10137 0420 00 0 00000

10140 0760 00 0 00161
10141 0020 00 0 10143
10142 0020 00 0 10132

LDQ B19T29 +000000377700
STQ TEMP1
ZET TEMP1 DOES ZET SKIP
TRA **3 NO - OK, CHECK SSW1
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

COLUMNS 30 TO 35.

10143 0774 00 1 10143

10144 0560 00 0 26560
10145 -0600 00 0 26605
10146 0520 00 0 26605
10147 0020 00 0 10152
10150 0760 00 0 00162
10151 0420 00 0 00000

10152 0760 00 0 00161
10153 0020 00 0 10155
10154 0020 00 0 10144

AXT *,1 MONITOR
LDQ B3035 +000000000077
STQ TEMP1
ZET TEMP1 DOES ZET SKIP
TRA **3 NO - OK, CHECK SSW1
SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.
SWT 1 WITH SENSE SWITCH 1 ---
TRA **2 UP - GO TO NEXT TEST ROUTINE.
TRA *-8 DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

* EACH BIT POSITION OF THE MQ WILL BE CHECKED FOR PROPER SETTING *
* BY MEANS OF A TIX LOOP. COMMAND GATING LINES HAVE PREVIOUSLY *
* BEEN TESTED. *

10155	0774	00	1	00043	AXT	35,1	
10156	0560	00	1	26241	LDQ	B35+1,1	
10157	-0600	00	0	26605	STQ	TEMP1	
10160	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP.
10161	0020	00	0	10167	TRA	*+6	NO-OK GET NEXT TEST BIT.
10162	0760	00	0	00162	SWT	2	YES-CHECK SWITCH 2.
10163	0420	00	0	00000	HPR		UP-HALT ON ERROR.
10164	0760	00	0	00461	SWT	1	DN-CHECK SWITCH 1.
10165	0020	00	0	10167	TRA	*+2	UP-BYPASS ERROR.
10166	0020	00	0	10156	TRA	*-8	DN-LOOP ON ERROR.
10167	2	00001	1	10156	TIX	*-9,1,1	
10170	0760	00	0	00161	SWT	1	
10171	0020	00	0	10173	TRA	*+2	
10172	0020	00	0	10155	TRA	*-13	

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 197

TEST SETTING SHIFT COUNTER PSN 16 AND 17.

10173 0560 00 0 26176	LDQ B1 +200000000000
10174 -0763 00 0 00003	LGL 3 SETTING SC PSN 16 AND 17.
10175 -0600 00 0 26605	STQ TEMP1
10176 0520 00 0 26605	ZET TEMP1 DOES ZET SKIP ---
10177 0020 00 0 10201	TRA *+2 NO - ERROR, CHECK SWT 2.
10200 0020 00 0 10203	TRA *+3 YES - OK, CHECK SWT 1.
10201 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
10202 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
10203 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
10204 0020 00 0 10206	TRA *+2 UP - GO TO NEXT TEST ROUTINE.
10205 0020 00 0 10173	TRA *-10 DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 17.

10206 0560 00 0 26176	LDQ B1 +200000000000
10207 -0763 00 0 00001	LGL 1 SETTING SC PSN 17.
10210 -0600 00 0 26605	STQ TEMP1
10211 0520 00 0 26605	ZET TEMP1 DOES ZET SKIP ---
10212 0020 00 0 10214	TRA *+2 NO - ERROR, CHECK SWT 2.
10213 0020 00 0 10216	TRA *+3 YES - OK, CHECK SWT 1.
10214 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
10215 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
10216 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
10217 0020 00 0 10221	TRA *+2 UP - GO TO NEXT TEST ROUTINE.
10220 0020 00 0 10206	TRA *-10 DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 16.

10221 0560 00 0 26176	LDQ B1 +200000000000
10222 -0763 00 0 00002	LGL 2 SETTING SC PSN 16.
10223 -0600 00 0 26605	STQ TEMP1
10224 0520 00 0 26605	ZET TEMP1 DOES ZET SKIP ---
10225 0020 00 0 10227	TRA *+2 NO - ERROR, CHECK SWT 2.
10226 0020 00 0 10231	TRA *+3 YES - OK, CHECK SWT 1.
10227 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
10230 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
10231 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
10232 0020 00 0 10234	TRA *+2 UP - GO TO NEXT TEST ROUTINE.
10233 0020 00 0 10221	TRA *-10 DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 198

SECTION ONE
PART II

TEST SETTING SHIFT COUNTER PSN 14 AND 15.

10234	0560	00	0	26176	LDQ	B1	+200000000000
10235	-0763	00	0	00014	LGL	12	SETTING SC PSN 14 AND 15.
10236	-0600	00	0	26605	STQ	TEMP1	
10237	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10240	0020	00	0	10242	TRA	**2	NO - ERROR, CHECK SWT 2.
10241	0020	00	0	10244	TRA	**3	YES - OK, CHECK SWT 1.
10242	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10243	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10244	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10245	0020	00	0	10247	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
10246	0020	00	0	10234	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 15.

10247	0560	00	0	26176	LDQ	B1	+200000000000
10250	-0763	00	0	00004	LGL	4	SETTING SC PSN 15.
10251	-0600	00	0	26605	STQ	TEMP1	
10252	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10253	0020	00	0	10255	TRA	**2	NO - ERROR, CHECK SWT 2.
10254	0020	00	0	10257	TRA	**3	YES - OK, CHECK SWT 1.
10255	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10256	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10257	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10260	0020	00	0	10262	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
10261	0020	00	0	10247	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 14.

10262	0560	00	0	26176	LDQ	B1	+200000000000
10263	-0763	00	0	00010	LGL	8	SETTING SC PSN 14.
10264	-0600	00	0	26605	STQ	TEMP1	
10265	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10266	0020	00	0	10270	TRA	**2	NO - ERROR, CHECK SWT 2.
10267	0020	00	0	10272	TRA	**3	YES - OK, CHECK SWT 1.
10270	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10271	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10272	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10273	0020	00	0	10275	TRA	**2	UP - GO TO NEXT TEST ROUTINE.
10274	0020	00	0	10262	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 199

TEST SETTING SHIFT COUNTER PSN 12 AND 13.

10275	0774	00	1	10275	AXT	*,1	MONITOR
10276	0560	00	0	26176	LDQ	B1	+200000000000
10277	-0763	00	0	00060	LGL	48	SETTING SC PSN 12 AND 13.
10300	-0600	00	0	26605	STQ	TEMP1	
10301	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10302	0020	00	0	10304	TRA	*+2	NO - ERROR, CHECK SWT 2.
10303	0020	00	0	10306	TRA	*+3	YES - OK, CHECK SWT 1.
10304	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10305	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10306	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10307	0020	00	0	10311	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10310	0020	00	0	10276	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 13.

10311	0560	00	0	26176	LDQ	B1	+200000000000
10312	-0763	00	0	00020	LGL	16	SETTING SC PSN 13.
10313	-0600	00	0	26605	STQ	TEMP1	
10314	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10315	0020	00	0	10317	TRA	*+2	NO - ERROR, CHECK SWT 2.
10316	0020	00	0	10321	TRA	*+3	YES - OK, CHECK SWT 1.
10317	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10320	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10321	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10322	0020	00	0	10324	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10323	0020	00	0	10311	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 12.

10324	0560	00	0	26176	LDQ	B1	+200000000000
10325	-0763	00	0	00040	LGL	32	SETTING SC PSN 12.
10326	-0600	00	0	26605	STQ	TEMP1	
10327	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10330	0020	00	0	10332	TRA	*+2	NO - ERROR, CHECK SWT 2.
10331	0020	00	0	10334	TRA	*+3	YES - OK, CHECK SWT 1.
10332	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10333	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10334	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10335	0020	00	0	10337	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10336	0020	00	0	10324	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

TEST SETTING SHIFT COUNTER PSN 10 AND 11.

10337	0560	00	0	26176	LDQ	B1	+200000000000
10340	-0763	00	0	00300	LGL	192	SETTING SC PSN 10 AND 11.
10341	-0600	00	0	26605	STQ	TEMP1	
10342	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10343	0020	00	0	10345	TRA	*+2	NO - ERROR, CHECK SWT 2.
10344	0020	00	0	10347	TRA	*+3	YES - OK, CHECK SWT 1.
10345	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10346	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10347	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10350	0020	00	0	10352	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10351	0020	00	0	10337	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 11.

10352	0560	00	0	26176	LDQ	B1	+200000000000
10353	-0763	00	0	00100	LGL	64	SETTING SC PSN 11.
10354	-0600	00	0	26605	STQ	TEMP1	
10355	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10356	0020	00	0	10360	TRA	*+2	NO - ERROR, CHECK SWT 2.
10357	0020	00	0	10362	TRA	*+3	YES - OK, CHECK SWT 1.
10360	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10361	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10362	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10363	0020	00	0	10365	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10364	0020	00	0	10352	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TEST SETTING SHIFT COUNTER PSN 10.

10365	0774	00	1	10365	AXT	*.1	MONITOR
10366	0560	00	0	26176	LDQ	B1	+200000000000
10367	-0763	00	0	00200	LGL	128	SETTING SC PSN 10.
10370	-0600	00	0	26605	STQ	TEMP1	
10371	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10372	0020	00	0	10374	TRA	*+2	NO - ERROR, CHECK SWT 2.
10373	0020	00	0	10376	TRA	*+3	YES - OK, CHECK SWT 1.
10374	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10375	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10376	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10377	0020	00	0	10401	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10400	0020	00	0	10366	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 201

* EACH BIT POSITION OF THE MQ WILL BE CHECKED FOR A CORRECT SHIFT *
* LEFT OF ONE POSITION BY MEANS OF A TIX LOOP. *

10401	0774	00	1	00042	AXT	34,1	
10402	0560	00	1	26241	LDQ	B35+1,1	
10403	-0763	00	0	00001	LGL	1	
10404	-0600	00	0	26605	STQ	TEMP1	
10405	-0520	00	0	26605	NZT	TEMP1	DOES NZT SKIP
10406	0020	00	0	10410	TRA	*+2	NO-ERROR
10407	0020	00	0	10415	TRA	*+6	YES-GET NEXT TEST PSN.
10410	0760	00	0	00162	SWT	2	WITH SWITCH 2
10411	0420	00	0	00000	HPR		UP-HALT ON ERROR.
10412	0760	00	0	00161	SWT	1	DN-CHECK SWITCH 1.
10413	0020	00	0	10415	TRA	*+2	UP-BYPASS ERROR.
10414	0020	00	0	10402	TRA	*-10	DN-LOOP ON ERROR.
10415	2	00001	1	10402	TIX	*-11,1,1	
10416	0760	00	0	00161	SWT	1	
10417	0020	00	0	10421	TRA	*+2	
10420	0020	00	0	10401	TRA	*-15	

9M71/768
2/1/63
PAGE 202

SECTION ONE
PART II

* EACH BIT POSITION OF THE MQ EXCEPT POSITION 35 WILL BE CHECKED
* FOR A CORRECT SHIFT RIGHT OF ONE POSITION BY MEANS OF A TIX
* LOOP.

10421	0774	00	1	00042	AXT	34,1	
10422	0560	00	1	26240	LDQ	B35,1	
10423	-0765	00	0	00001	LGR	1	
10424	-0600	00	0	26605	STQ	TEMP1	
10425	-0520	00	0	26605	NZT	TEMP1	DOES NZT SKIP
10426	0020	00	0	10430	TRA	*+2	NO-ERROR.
10427	0020	00	0	10435	TRA	*+6	YES-GET NEXT TEST PSN.
10430	0760	00	0	00162	SWT	2	
10431	0420	00	0	00000	HPR		WITH SWITCH 2
							UP-HALT ON ERROR.
10432	0760	00	0	00161	SWT	1	
10433	0020	00	0	10435	TRA	*+2	DN-CHECK SWITCH 1
10434	0020	00	0	10422	TRA	*-10	UP-BYPASS ERROR.
10435	2 00001	1		10422	TIX	*-11,1,1	DN-LOOP ON ERROR.
10436	0760	00	0	00161	SWT	1	
10437	0020	00	0	10441	TRA	*+2	
10440	0020	00	0	10421	TRA	*-15	

TESTING MQ REG TO SHIFT RIGHT 1 PSN FROM MQ 35 .

10441	0560	00	0	26240	LDQ	B35	+0000000000001
10442	-0765	00	0	00001	LGR	1	SHIFT BIT RIGHT ONE PSN.
10443	-0600	00	0	26605	STQ	TEMP1	
10444	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP---
10445	0020	00	0	10447	TRA	*+2	NO - ERROR, CHECK SWT 2.
10446	0020	00	0	10451	TRA	*+3	YES- OK, GO CHECK SWT 1.
10447	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10450	0420	00	0	00000	HPR		UP - HALT ON ERROR.
							DN - BYPASS ERROR.
10451	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10452	0020	00	0	10454	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10453	0020	00	0	10441	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TESTING TQP TO TRANSFER WITH

10454 0774 00 1 10454
10455 0560 00 0 26173
10456 0162 00 0 10461
10457 0760 00 0 00162
10460 0420 00 0 00000
10461 0760 00 0 00161
10462 0020 00 0 10464
10463 0020 00 0 10455

TESTING TQP TO NOT TRANSFER

10464 0560 00 0 26175
10465 0162 00 0 10467
10466 0020 00 0 10471
10467 0760 00 0 00162
10470 0420 00 0 00000
10471 0760 00 0 00161
10472 0020 00 0 10474
10473 0020 00 0 10464

MONITOR

+000000000000
YES TQP TRANSFER --
YES- OK, CHECK SWT 1.

ENSE SWITCH 2 ---
- HALT ON ERROR.
TESTI - BYPASS ERROR.
ENSE SWITCH 1 ---
10454 - GO TO NEXT TEST ROUTINE.
10455 - REPEAT THIS TEST ROUTINE.

10456 ()
10457 ()
10460 ()

10461 ()
10462 ()
10463 ()

-000000000000
DOES TQP TRANSFER --
YES- ERROR, CHECK SWT 1.
NO- OK, CHECK SWT 1.

ENSE SWITCH 2 ---
- HALT ON ERROR.
- BYPASS ERROR.

TESTIN NSE SWITCH 1 ---
GO TO NEXT TEST ROUTINE.
REPEAT THIS TEST ROUTINE.

10464 01
10465 01
10466 01
10467 01
10470 01

10471 01
10472 00
10473 00

9M71/76B
2/1/63
PAGE 204

S E C T I O N O N E
P A R T I I

TESTING THE MQ SIGN POSITION.

IN THESE TEST ROUTINES THE SIGN POSITION IS CHECKED IN POSITION 1.
NZT AND ZET DO NOT CHECK THE STORAGE SIGN POSITION.

TESTING MQ SIGN POSITION USING LDQ OR LGL AND LGR.

10474	0560	00	0	26175	LDQ	BSIGN	-000000000000
10475	-0765	00	0	00001	LGR	1	SHIFT BIT FROM MQ S TO MQ 1
10476	-0600	00	0	26605	STQ	TEMP1	
10477	0520	00	0	26605	ZET	TEMP1	
					DOES ZET SKIP		
10500	0020	00	0	10512	TRA	++10	NO - OK, GO ON. CHECK SSW 1 YES-ERROR, TRY ANOTHER WAY
10501	0560	00	0	26176	LDQ	B1	+4000000000000
10502	-0763	00	0	00001	LGL	1	SHIFT LEFT 1
10503	-0765	00	0	00001	LGR	1	SHIFT RIGHT 1.
10504	-0600	00	0	26605	STQ	TEMP1	
10505	0520	00	0	26605	ZET	TEMP1	
					DOES ZET SKIP-		
10506	0020	00	0	10512	TRA	++4	NO - OK, GO ON. CHECK SSW 1.
10507	0560	00	0	26176	LDQ	B1	YES-ERROR, CHECK SSW 2
10510	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10511	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10512	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10513	0020	00	0	10515	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
10514	0020	00	0	10474	TRA	--16	

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 205

TESTING MQ SIGN POSITION. DOES LDQ LOAD MQ S.

10515	0560	00	0	26175	LDQ	BSIGN	-000000000000
10516	-0765	00	0	00001	LGR	1	SHIFT BIT FROM MQ S TO MQ 1.
10517	-0600	00	0	26605	STQ	TEMP1	
10520	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10521	0020	00	0	10524	TRA	++3	NO - OK, CHECK SWT 1. YES- ERROR, CHECK SWT 2.
10522	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10523	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10524	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10525	0020	00	0	10527	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
10526	0020	00	0	10515	TRA	*-9	DN - REPEAT THIS TEST ROUTINE.

TESTING MQ SIGN POSITION. DOES LGL SHIFT A BIT INTO MQ S.

10527	0560	00	0	26176	LDQ	B1	+400000000000
10530	-0763	00	0	00001	LGL	1	SHIFT BIT FROM MQ 1 TO MQ S.
10531	-0765	00	0	00001	LGR	1	SHIFT BIT FROM MQ S TO MQ 1.
10532	-0600	00	0	26605	STQ	TEMP1	
10533	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10534	0020	00	0	10537	TRA	++3	NO - OK, CHECK SWT 1. YES- ERROR, CHECK SWT 2.
10535	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10536	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10537	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10540	0020	00	0	10542	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
10541	0020	00	0	10527	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

TESTING MQ SIGN POSITION FOR A HOT BIT.

10542	0560	00	0	26175	LDQ	BSIGN	+400000000000
10543	0560	00	0	26173	LDQ	BZERO	+000000000000
10544	-0765	00	0	00001	LGR	1	SHIFT BIT FROM MQ S TO MQ 1.
10545	-0600	00	0	26605	STQ	TEMP1	
10546	-0520	00	0	26605	NZT	TEMP1	DOES NZT SKIP ---
10547	0020	00	0	10552	TRA	++3	NO - OK, CHECK SWT 1. YES- ERROR, CHECK SWT 2.
10550	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10551	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10552	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10553	0020	00	0	10555	TRA	++2	UP - GO TO NEXT TEST ROUTINE.
10554	0020	00	0	10542	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 206

SECTION ONE
PART II

TESTING MQ SIGN POSITION FOR A HOT BIT WITH ACC 35 AND MQ 1 ONES.

					AXT	*,1	MONITOR
10555	0774	00	1	10555	LDQ	BST2	-600000000000
10556	0560	00	0	26467	LGL	1	SHIFT BIT INTO ACC PSN 35.
10557	-0763	00	0	00001	LDQ	BZERO	+000000000000
10560	0560	00	0	26173	NZT	TEMP1	DOES NZT SKIP ---
10561	-0520	00	0	26605	TRA	**+3	NO - OK, CHECK SWT 1.
10562	0020	00	0	10565			
10563	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10564	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10565	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10566	0020	00	0	10570	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
10567	0020	00	0	10554	TRA	*-11	DN - REPEAT THIS TEST ROUTINE.

TESTING MQ SIGN POSITION. DOES STQ STORE A BIT FROM MQ S.

10570	0560	00	0	26175	LDQ	BSIGN	-000000000000
10571	-0600	00	0	26605	STQ	TEMP1	
10572	0560	00	0	26173	LDQ	BZERO	+000000000000
10573	0560	00	0	26605	LDQ	TEMP1	
10574	-0765	00	0	00001	LGR	1	SHIFT BIT FROM MQ S TO MQ 1.
10575	-0600	00	0	26605	STQ	TEMP1	
10576	0520	00	0	26605	ZET	TEMP1	DOES ZET SKIP ---
10577	0020	00	0	10602	TRA	**+3	NO - OK, CHECK SWT 1. YES- ERROR, CHECK SWT 2.

10600	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10601	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10602	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10603	0020	00	0	10605	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
10604	0020	00	0	10570	TRA	*-12	DN - REPEAT THIS TEST ROUTINE.

TESTING MQ SIGN POSITION. DOES STQ STORE A HOT BIT FROM MQ S.

10605	0560	00	0	26173	LDQ	BZERO	+000000000000
10606	-0600	00	0	26605	STQ	TEMP1	INITIALIZE TEMP1
10607	0560	00	0	26605	LDQ	TEMP1	
10610	-0765	00	0	00001	LGR	1	SHIFT BIT FROM MQ S TO MQ 1.
10611	-0600	00	0	26605	STQ	TEMP1	
10612	-0520	00	0	26605	NZT	TEMP1	DOES NZT SKIP ---
10613	0020	00	0	10616	TRA	**+3	NO - OK, CHECK SWT 1 YES- ERROR, CHECK SWT 2.
10614	0760	00	0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10615	0420	00	0	00000	HPR		UP - HALT ON ERROR. DN - BYPASS ERROR.
10616	0760	00	0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10617	0020	00	0	10621	TRA	**+2	UP - GO TO NEXT TEST ROUTINE.
10620	0020	00	0	10605	TRA	*-11	DN - REPEAT THIS TEST ROUTINE.

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 207

COMPLETE TEST OF NZT.

10621	0560	00	0	26173	LDQ	BZERO	+000000000000
10622	-0600	00	0	26603	STQ	T1	
10623	-0600	00	0	26604	STQ	T2	
10624	-0520	00	0	26603	NZT	T1	DOES NZT SKIP
10625	0020	00	0	10627	TRA	++2	NO-OK
10626	0020	00	0	10631	TRA	++3	YES-ERROR
10627	-0520	00	0	26604	NZT	T2	DOES NZT SKIP
10630	0020	00	0	10633	TRA	++3	NO-OK
							YES-CHECK SWITCH TWO
10631	0760	00	0	00162	SWT	2	WITH SWITCH TWO
10632	0420	00	0	00000	HPR		UP-HALT ON ERROR
							DN-BYPASS ERROR
10633	0760	00	0	00161	SWT	1	
10634	0020	00	0	10636	TRA	++2	
10635	0020	00	0	10621	TRA	*-12	LOOP TEST
10636	0774	00	1	00043	AXT	35,1	
10637	0560	00	1	26241	NZT LDQ	B35+1,1	TEST BIT TO MQ
10640	-0600	00	0	26603	STQ	T1	
10641	-0600	00	0	26604	STQ	T2	
10642	-0520	00	0	26603	NZT	T1	DOES NZT SKIP
10643	0020	00	0	10650	TRA	++5	NO-ERROR
10644	0761	00	0	10637	NOP	NZT	YES-OK
10645	-0520	00	0	26604	NZT	T2	DOES NZT SKIP
10646	0020	00	0	10650	TRA	++2	NO-ERROR
10647	0020	00	0	10655	TRA	++6	YES-OK
10650	0760	00	0	00162	SWT	2	WITH SWITCH TWO
10651	0420	00	0	00000	HPR		UP-HALT ON ERROR
							DN-BYPASS ERROR
10652	0760	00	0	00161	SWT	1	
10653	0020	00	0	10655	TRA	++2	
10654	0020	00	0	10637	TRA	NZT	LOOP ON ERROR
10655	2 00001	1	1	10637	TIX	NZT,1,1	
10656	0760	00	0	00161	SWT	1	
10657	0020	00	0	10661	TRA	++2	
10660	0020	00	0	10636	TRA	NZT-1	LOOP TEST

9M71/76B
2/1/63
PAGE 208

SECTION ONE
PART II

* TESTING LGL AND LGR BETWEEN MQ AND AC USING A TIX LOOP TO TEST *
* EACH BIT POSITION. *

10661	0774	00	1	00045	AXT	37,1	
10662	0560	00	0	26240	LDQ	B35	
10663	-0763	00	1	00111	LGL	73,1	
10664	-0765	00	1	00046	LGR	38,1	
10665	0162	00	0	10667	TQP	**2	SHOULD NOT TRANSFER.
10666	0020	00	0	10676	TRA	**8	
10667	0560	00	0	26240	LDQ	B35	
10670	-0763	00	1	00111	LGL	73,1	
10671	0760	00	0	00162	SWT	2	WITH SWITCH 2
10672	0420	00	0	00000	HPR		UP-HALT ON ERROR.
10673	0760	00	0	00161	SWT	1	DN-CHECK SWITCH 1
10674	0020	00	0	10676	TRA	**2	UP-BYPASS ERROR.
10675	0020	00	0	10662	TRA	*-11	DN-LOOP ON ERROR.
10676	2 00001	1	10662	TIX	*-12,1,1		
10677	0760	00	0	00161	SWT	1	
10700	0020	00	0	10702	TRA	**2	
10701	0020	00	0	10661	TRA	*-16	

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 209

DOES CAL ENTER A HOT BIT INTO AC PSN P.

10702	-0765	00 0	00112	LGR	74	CLEAR AC AND MQ
10703	-0500	00 0	26173	CAL	BZERO	+000000000000
10704	-0765	00 0	00045	LGR	37	SHIFT AC P TO MQ 1
10705	-0600	00 0	26605	STQ	TEMP1	
10706	-0520	00 0	26605	NZT	TEMP1	DOES NZT SKIP
10707	0020	00 0	10712	TRA	*+3	NO-OK CHECK SWT1
						YES-ERROR CHECK SWT2
10710	0760	00 0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10711	0420	00 0	00000	HPR		UP - HALT ON ERROR.
						DN - BYPASS ERROR.
10712	0760	00 0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10713	0020	00 0	10715	TRA	*+2	UP - GO TO NEXT TEST ROUTINE
10714	0020	00 0	10702	TRA	*-10	DN - REPEAT THIS TEST ROUTINE

DOES CLA ENTER AT LEAST ONE BIT INTO AC

10715	-0765	00 0	00112	LGR	74	CLEAR AC AND MQ
10716	0500	00 0	26174	CLA	BONES	+377777777777
10717	-0765	00 0	00044	LGR	36	SHIFT AC TO MQ
10720	-0600	00 0	26605	STQ	TEMP1	
10721	0520	00 0	26605	ZET	TEMP1	DOES ZET SKIP
10722	0020	00 0	10725	TRA	*+3	NO-OK CHECK SWT1
						YES-ERROR CHECK SWT2
10723	0760	00 0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10724	0420	00 0	00000	HPR		UP - HALT ON ERROR.
						DN - BYPASS ERROR.
10725	0760	00 0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10726	0020	00 0	10730	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10727	0020	00 0	10715	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

DO ANY HOT BITS ENTER AC ON CLA

10730	-0765	00 0	00112	LGR	74	CLEAR AC AND MQ
10731	0500	00 0	26173	CLA	BZERO	+000000000000
10732	-0765	00 0	00044	LGR	36	SHIFT AC TO MQ
10733	-0600	00 0	26605	STQ	TEMP1	
10734	-0520	00 0	26605	NZT	TEMP1	DOES NZT SKIP
10735	0020	00 0	10740	TRA	*+3	NO-OK CHECK SWT1
						YES-ERROR CHECK SWT2
10736	0760	00 0	00162	SWT	2	WITH SENSE SWITCH 2 ---
10737	0420	00 0	00000	HPR		UP - HALT ON ERROR.
						DN - BYPASS ERROR.
10740	0760	00 0	00161	SWT	1	WITH SENSE SWITCH 1 ---
10741	0020	00 0	10743	TRA	*+2	UP - GO TO NEXT TEST ROUTINE.
10742	0020	00 0	10730	TRA	*-10	DN - REPEAT THIS TEST ROUTINE.

9M71/76B
2/1/63
PAGE 210

SECTION ONE
PART II

TESTING CLA GATING LINES

10743 0500 00 0 26304
10744 -0765 00 0 00044
10745 -0600 00 0 26605
10746 0520 00 0 26605
10747 0020 00 0 10752

CLA BIT8 +377000000000
LGR 36 SHIFT AC TO MQ
STQ TEMP1
ZET TEMP1 DOES ZET SKIP
TRA *+3 NO-OK CHECK SWT1
YES-ERROR CHECK SWT2

10750 0760 00 0 00162
10751 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

10752 0760 00 0 00161
10753 0020 00 0 10755
10754 0020 00 0 10743

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-9 DN - REPEAT THIS TEST ROUTINE.

10755 0500 00 0 26601
10756 -0765 00 0 00044
10757 -0600 00 0 26605
10760 0520 00 0 26605
10761 0020 00 0 10764

CLA B9T17 +000777000000
LGR 36 SHIFT AC TO MQ
STQ TEMP1
ZET TEMP1 DOES ZET SKIP
TRA *+3 NO-OK CHECK SWT1
YES-ERROR CHECK SWT2

10762 0760 00 0 00162
10763 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

10764 0760 00 0 00161
10765 0020 00 0 10767
10766 0020 00 0 10755

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-9 DN - REPEAT THIS TEST ROUTINE.

10767 0774 00 1 10767

AXT *,1 MONITOR

10770 0500 00 0 26602
10771 -0765 00 0 00044
10772 -0600 00 0 26605
10773 0520 00 0 26605
10774 0020 00 0 10777

CLA B18T35 +000000777777
LGR 36 SHIFT AC TO MQ
STQ TEMP1
ZET TEMP1 DOES ZET SKIP
TRA *+3 NO-OK CHECK SWT1
YES-ERROR CHECK SWT2

10775 0760 00 0 00162
10776 0420 00 0 00000

SWT 2 WITH SENSE SWITCH 2 ---
HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

10777 0760 00 0 00161
11000 0020 00 0 11002
11001 0020 00 0 10770

SWT 1 WITH SENSE SWITCH 1 ---
TRA *+2 UP - GO TO NEXT TEST ROUTINE.
TRA *-9 DN - REPEAT THIS TEST ROUTINE.

S E C T I O N O N E
P A R T I I

9M71/768
2/1/63
PAGE 211

* TESTING THAT EACH AC POSITION CAN BE SET FROM ITS CORRESPONDING *
* POSITION IN THE ADDER. A TIX LOOP IS USED TO CHECK EACH BIT *
* POSITION. *
* * *

11002 0774 00 2 00000	AXT 0,2	
11003 0774 00 1 00043	AXT 35,1	
11004 0500 00 1 26241	CLA B35+1,1	
11005 -0765 00 2 00043	LGR 35,2	
11006 0162 00 0 11010	TQP **2	DOES TQP TRANSFER
11007 0020 00 0 11017	TRA **8	NO-OK GET NEXT TEST BIT
11010 -0763 00 2 00043	LGL 35,2	RESTORE AC.
11011 0560 00 1 26241	LDQ B35+1,1	FAILING BIT PSN TO MQ.
11012 0760 00 0 00162	SWT 2	WITH SWITCH 2
11013 0420 00 0 00000	HPR	UP-HALT ON ERROR.
11014 0760 00 0 00161	SWT 1	DN-CHECK SWITCH 1.
11015 0020 00 0 11017	TRA **2	UP-BYPASS ERROR.
11016 0020 00 0 11004	TRA *-10	DN-LOOP ON ERROR.
11017 1 00001 2 11020	TXI **1,2,1	
11020 2 00001 1 11004	TIX *-12,1,1	
11021 0760 00 0 00161	SWT 1	
11022 0020 00 0 11024	TRA **2	
11023 0020 00 0 11002	TRA *-17	

TESTING ACC PSN P TO BE SET FROM ADDER PSN P USING CAL.
ACC REG AND CAL GATING LINES HAVE BEEN TESTED.

11024 -0500 00 0 26175	CAL BSIGN -000000000000
11025 -0765 00 0 00044	LGR 36 SHIFT TO MQ S PSN FOR TEST.
11026 0162 00 0 11030	TQP **2 DOES TQP TRANSFER ---
11027 0020 00 0 11033	TRA **4 NO - OK, CHECK SWT 1.
11030 -0500 00 0 26175	CAL BSIGN YES- ERROR, CHECK SWT 2.
11031 0760 00 0 00162	SWT 2 WITH SENSE SWITCH 2 ---
11032 0420 00 0 00000	HPR UP - HALT ON ERROR.
	DN - BYPASS ERROR.
11033 0760 00 0 00161	SWT 1 WITH SENSE SWITCH 1 ---
11034 0020 00 0 11036	TRA **2 UP - GO TO NEXT TEST ROUTINE.
11035 0020 00 0 11024	TRA *-9 DN - REPEAT THIS TEST ROUTINE.


```

*   TESTING THE ZERO CHECKING CIRCUITRY USING TNZ.  A TIX LOOP IS   *
*   USED TO CHECK EACH POSITION.                                     *

```

11036	0774	00	1	00043	AXT	35,1	
11037	0500	00	1	26241	CLA	B35+1,1	
11040	-0100	00	0	11047	TNZ	*+7	TNZ SHOULD TRANSFER.
11041	0560	00	1	26241	LDQ	B35+1,1	PLACE FAILING PSN IN MQ.
11042	0760	00	0	00162	SWT	2	WITH SWITCH 2
11043	0420	00	0	00000	HPR		UP-HALT ON ERROR.
11044	0760	00	0	00161	SWT	1	DN- CHECK SWITCH 1
11045	0020	00	0	11047	TRA	*+2	UP-BYPASS ERROR.
11046	0020	00	0	11037	TRA	*-7	DN-LOOP ON ERROR.
11047	2 00001	1	11037	TIX	*-8,1,1		
11050	0760	00	0	00161	SWT	1	
11051	0020	00	0	11053	TRA	*+2	
11052	0020	00	0	11036	TRA	*-12	

```

TESTING PSN P OF THE ZERO CHECKING CIRCUITRY USING TNZ.
11053 -0500 00 0 26175 CAL BSGN -000000000000

11054 -0100 00 0 11057 TNZ **3 TNZ SHOULD TRANSFER.

11055 0760 00 0 00162 SWT 2 WITH SENSE SWITCH 2 ---
11056 0420 00 0 00000 HPR UP - HALT ON ERROR.
DN - BYPASS ERROR.

11057 0760 00 0 00161 SWT 1 WITH SENSE SWITCH 1 ---
11060 0020 00 0 11062 TRA **2 UP - GO TO NEXT TEST ROUTINE.
11061 0020 00 0 11053 TRA *-6 DN - REPEAT THIS TEST ROUTINE.

```

```

TESTING PSN   Q OF THE ZERO CHECKING CIRCUITRY USING TNZ.

11062  0560 00 0 26176          LDQ  81          +200000000000
11063  -0763 00 0 00046          LGL  38          SHIFT LEFT TO AC Q PSN.
11064  -0100 00 0 11067          TNZ  *+3          TNZ SHOULD TRANSFER.

11065  0760 00 0 00162          SWT  2  WITH SENSE SWITCH 2 ---
11066  0420 00 0 00000          HPR                      UP - HALT ON ERROR.
                                           DN - BYPASS ERROR.

11067  0760 00 0 00161          SWT  1  WITH SENSE SWITCH 1 ---
11070  0020 00 0 11072          TRA  *+2          UP - GO TO NEXT TEST ROUTINE.
11071  0020 00 0 11062          TRA  *-7          DN - REPEAT THIS TEST ROUTINE.

```

SECTION ONE
PART II

9M71/768
2/1/63
PAGE 213

TEST TZE

TEST THAT TZE TRANSFERS WITH A BIT IN AC SIGN.

11072	0500 00 0	26175	CLA	BSIGN	BIT TO PSN SIGN
11073	0100 00 0	11076	TZE	*+3	
11074	0760 00 0	00162	SWT	2	WITH SWITCH TWO
11075	0420 00 0	00000	HPR		UP-HALT ON ERROR
					DN-BYPASS ERROR
11076	0760 00 0	00161	SWT	1	
11077	0020 00 0	11101	TRA	*+2	
11100	0020 00 0	11072	TRA	*-6	REPEAT THIS TEST

TEST THAT TZE DOES NOT TRANSFER WITH A BIT IN ACC Q.

11101	-0500 00 0	26175	CAL	BSIGN	BIT TO PSN +
11102	0560 00 0	26173	LDQ	BZERO	
11103	-0763 00 0	00001	LGL	1	SHIFT TO Q
11104	0100 00 0	11106	TZE	*+2	SHOULD NOT TRANSFER.
11105	0020 00 0	11110	TRA	*+3	OK-CHECK SWT 1
11106	0760 00 0	00162	SWT	2	WITH SWITCH TWO
11107	0420 00 0	00000	HPR		UP-HALT ON ERROR
					DN-BYPASS ERROR
11110	0760 00 0	00161	SWT	1	
11111	0020 00 0	11113	TRA	*+2	
11112	0020 00 0	11102	TRA	*-8	LOOP TEST

TEST THAT TZE DOES NOT TRANSFER WITH A BIT IN PSN +.

11113	-0500 00 0	26175	CAL	BSIGN	BIT TO PSN +
11114	0100 00 0	11116	TZE	*+2	SHOULD NOT TRANSFER
11115	0020 00 0	11120	TRA	*+3	
11116	0760 00 0	00162	SWT	2	WITH SWITCH TWO
11117	0420 00 0	00000	HPR		UP-HALT ON ERROR
					DN-BYPASS ERROR
11120	0760 00 0	00161	SWT	1	
11121	0020 00 0	11123	TRA	*+2	
11122	0020 00 0	11113	TRA	*-7	LOOP TEST

S E C T I O N O N E
P A R T I I

TEST TZE WITH EACH PSN OF ACC REGISTER

11123	0774	00	1	00043	AXT	35,1	
11124	-0500	00	1	26241	CAL	835+1,1	
11125	0560	00	0	26173	LDQ	BZERO	
11126	0100	00	0	11130	TZE	**2	DOES TZE TRANSFER
11127	0020	00	0	11135	TRA	**6	
11130	0760	00	0	00162	SWT	2	WITH SWITCH TWO
11131	0420	00	0	00000	HPR		UP-HALT ON ERROR
						9	DN-BYPASS ERROR
11132	0760	00	0	00161	SWT	1	
11133	0020	00	0	11135	TRA	**2	
11134	0020	00	0	11124	TRA	*-8	
11135	2 00001	1	1	11124	TIX	*-9,1,1	
11136	0760	00	0	00161	SWT	1	
11137	0020	00	0	11141	TRA	**2	
11140	0020	00	0	11123	TRA	*-13	LOOP TEST

S E C T I O N O N E
P A R T I I

9M71/768
2/1/63
PAGE 215

*
* TEST STORE GATING LINES.
*

TEST STZ

11141	0500	00	0	26174	CLA	BONES	+377777777777
11142	0600	00	0	26603	STZ	T1	
11143	-0520	00	0	26603	NZT	T1	SHOULD NOT SKIP.
11144	0020	00	0	11147	TRA	++3	
11145	0760	00	0	00162	SWT	2	WITH SWITCH 2
11146	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11147	0760	00	0	00161	SWT	1	
11150	0020	00	0	11152	TRA	++2	
11151	0020	00	0	11141	TRA	*-8	

TEST STO GATING

11152	0500	00	0	26304	CLA	BIT8	+377000000000
11153	0601	00	0	26603	STO	T1	
11154	0520	00	0	26603	ZET	T1	SHOULD NOT SKIP.
11155	0020	00	0	11160	TRA	++3	
11156	0760	00	0	00162	SWT	2	WITH SWITCH 2
11157	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11160	0760	00	0	00161	SWT	1	
11161	0020	00	0	11163	TRA	++2	
11162	0020	00	0	11152	TRA	*-8	REPEAT THIS TEST.
11163	0500	00	0	26561	CLA	B9T35	+000777777777
11164	0601	00	0	26603	STO	T1	
11165	0520	00	0	26603	ZET	T1	SHOULD NOT SKIP.
11166	0020	00	0	11171	TRA	++3	
11167	0760	00	0	00162	SWT	2	WITH SWITCH 2
11170	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11171	0760	00	0	00161	SWT	1	
11172	0020	00	0	11174	TRA	++2	
11173	0020	00	0	11163	TRA	*-8	REPEAT THIS TEST.

SECTION ONE
PART II

TEST STO AND SLW.

11174	0500	00	0	26176	CLA	B1	
11175	-0763	00	0	00001	LGL	1	SHIFT BIT TO PSN P.
11176	0601	00	0	26603	STO	T1	
11177	-0500	00	0	26603	CAL	T1	
11200	0100	00	0	11203	TZE	++3	SHOULD TRANSFER.
11201	0760	00	0	00162	SWT	2	WITH SWITCH 2
11202	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11203	0760	00	0	00161	SWT	1	
11204	0020	00	0	11206	TRA	++2	
11205	0020	00	0	11174	TRA	--9	REPEAT THIS TEST.

TEST STO AND SLW.

11206	-0500	00	0	26175	CAL	BSIGN	BIT TO PSN P.
11207	0602	00	0	26603	SLW	T1	
11210	-0500	00	0	26603	CAL	T1	
11211	-0765	00	0	00001	LGR	1	
11212	-0100	00	0	11215	TNZ	++3	SHOULD TRANSFER.
11213	0760	00	0	00162	SWT	2	WITH SWITCH 2
11214	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11215	0760	00	0	00161	SWT	1	
11216	0020	00	0	11220	TRA	++2	
11217	0020	00	0	11206	TRA	--9	REPEAT THIS TEST.

TEST STO AND SLW.

11220	0500	00	0	26175	CLA	BSIGN	
11221	0601	00	0	26603	STO	T1	
11222	-0500	00	0	26603	CAL	T1	
11223	-0765	00	0	00001	LGR	1	
11224	-0100	00	0	11227	TNZ	++3	SHOULD TRANSFER.
11225	0760	00	0	00162	SWT	2	WITH SWITCH 2
11226	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11227	0760	00	0	00161	SWT	1	
11230	0020	00	0	11232	TRA	++2	
11231	0020	00	0	11220	TRA	--9	REPEAT THIS TEST.

S E C T I O N O N E
P A R T I I

9M71/76B
2/1/63
PAGE 217

TEST ORS.

DOES ORS FAIL TO SUPPRESS MF STORE CONTROL.

11232	0500	00	0	26174	CLA	BONES	+377777777777
11233	0601	00	0	26603	STO	T1	
11234	0500	00	0	26173	CLA	BZERO	+000000000000
11235	-0602	00	0	26603	ORS	T1	
11236	0520	00	0	26603	ZET	T1	SHOULD NOT SKIP.
11237	0020	00	0	11242	TRA	*+3	
11240	0760	00	0	00162	SWT	2	WITH SWITCH 2
11241	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11242	0760	00	0	00161	SWT	1	
11243	0020	00	0	11245	TRA	*+2	
11244	0020	00	0	11232	TRA	*-10	REPEAT THIS TEST.

DOES ORS STORE FROM MQ.

11245	0500	00	0	26173	CLA	BZERO	+000000000000
11246	0601	00	0	26603	STO	T1	
11247	0560	00	0	26174	LDQ	BONES	+377777777777
11250	-0602	00	0	26603	ORS	T1	
11251	-0520	00	0	26603	NZT	T1	SHOULD NOT SKIP
11252	0020	00	0	11255	TRA	*+3	
11253	0760	00	0	00162	SWT	2	WITH SWITCH 2
11254	0420	00	0	00000	HPR		UP-HALT ON ERROR.
							DN-BYPASS ERROR.
11255	0760	00	0	00161	SWT	1	
11256	0020	00	0	11260	TRA	*+2	
11257	0020	00	0	11245	TRA	*-10	REPEAT THIS TEST.

9M71/76B
2/1/63
PAGE 218

S E C T I O N O N E
P A R T I I

* TEST AC ENTRY TO SR---STO GATING LINES HAVE BEEN TESTED. A TIX *
* LOOP IS USED TO CHECK EACH BIT POSITION. *

11260	0774	00	1	00043	AXT	35,1	
11261	0500	00	1	26241	CLA	B35+1,1	
11262	0601	00	0	26605	STO	TEMP1	
11263	-0520	00	0	26605	NZT	TEMP1	DOES NZT SKIP
11264	0020	00	0	11266	TRA	*+2	NO-ERROR
11265	0020	00	0	11274	TRA	*+7	YES-OK GET NEXT TEST BIT
11266	0560	00	1	26241	LDQ	B35+1,1	PLACE FAILING PSN IN MQ.
11267	0760	00	0	00162	SWT	2	WITH SWITCH 2
11270	0420	00	0	00000	HPR		UP-HALT ON ERROR
11271	0760	00	0	00161	SWT	1	DN-CHECK SWITCH 1.
11272	0020	00	0	11274	TRA	*+2	UP-BYPASS ERROR.
11273	0020	00	0	11261	TRA	*-10	DN-LOOP ON ERROR
11274	2 00001	1	1	11261	TIX	*-11,1,1	
11275	0760	00	0	00161	SWT	1	
11276	0020	00	0	11300	TRA	*+2	
11277	0020	00	0	11260	TRA	*-15	

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 219

*
*
*
*
*

TEST ALS AND ARS

11300	0774	00	1	11300	AXT	*,1	MONITOR
11301	0500	00	0	26173	CLA	BZERO	CLEAR AC
11302	0560	00	0	26176	LDQ	B1	+200000000000 TO MQ
11303	0767	00	0	00002	ALS	2	
11304	-0600	00	0	26603	STQ	T1	
11305	0520	00	0	26603	ZET	T1	SHOULD NOT SKIP
11306	0020	00	0	11311	TRA	#+3	
11307	0760	00	0	00162	SWT	2	ERROR. ALS SHIFTS MQ LEFT
11310	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11311	0760	00	0	00161	SWT	1	
11312	0020	00	0	11314	TRA	#+2	
11313	0020	00	0	11301	TRA	*-10	REPEAT THIS TEST
11314	0500	00	0	26173	CLA	BZERO	CLEAR AC
11315	0560	00	0	26240	LDQ	B35	+000000000001 TO MQ
11316	0767	00	0	00002	ALS	2	
11317	-0600	00	0	26603	STQ	T1	
11320	0520	00	0	26603	ZET	T1	SHOULD NOT SKIP
11321	0020	00	0	11324	TRA	#+3	
11322	0760	00	0	00162	SWT	2	ERROR. ALS SHIFTS MQ RIGHT
11323	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11324	0760	00	0	00161	SWT	1	
11325	0020	00	0	11327	TRA	#+2	
11326	0020	00	0	11314	TRA	*-10	REPEAT THIS TEST
11327	0500	00	0	26173	CLA	BZERO	+000000000000
11330	0560	00	0	26311	LDQ	BS135	-377777777777
11331	0767	00	0	00001	ALS	1	
11332	0100	00	0	11335	TZE	#+3	SHOULD TRANSFER
11333	0760	00	0	00162	SWT	2	ERROR.
11334	0420	00	0	00000	HPR		BITS ENTER AC 35 ON ALS
11335	0760	00	0	00161	SWT	1	SWITCH 2 UP. HALT ON ERROR
11336	0020	00	0	11340	TRA	#+2	GO TO NEXT TEST
11337	0020	00	0	11327	TRA	*-8	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 220

SECTION ONE
PART II

TEST ALS AND ARS

11340	0500	00	0	26240	CLA	B35	+000000000001
11341	0767	00	0	00001	ALS	1	
11342	-0765	00	0	00001	LGR	1	SHIFT AC 35 TO MQ SIGN
11343	0162	00	0	11346	TQP	*+3	SHOULD TRANSFER
11344	0760	00	0	00162	SWT	2	ERROR
							ALS DOES NOT SHIFT C AC
11345	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11346	0760	00	0	00161	SWT	1	
11347	0020	00	0	11351	TRA	*+2	GO TO NEXT TEST
11350	0020	00	0	11340	TRA	*-8	REPEAT THIS TEST

11351	0774	00	1	11351	AXT	*,1	MONITOR
11352	0500	00	0	26240	CLA	B35	+000000000001
11353	0767	00	0	00044	ALS	36	SHIFT AC 35 TO AC Q
11354	-0765	00	0	00045	LGR	37	SHIFT AC Q TO MQ SIGN
11355	0162	00	0	11357	TQP	*+2	SHOULD NOT TRANSFER
11356	0020	00	0	11361	TRA	*+3	
11357	0760	00	0	00162	SWT	2	ERROR. ALS FAILS
							SWITCH 2 UP. HALT ON ERROR
11360	0420	00	0	00000	HPR		
11361	0760	00	0	00161	SWT	1	
11362	0020	00	0	11364	TRA	*+2	GO TO NEXT TEST
11363	0020	00	0	11352	TRA	*-9	REPEAT THIS TEST

11364	0500	00	0	26303	CLA	B34A35	+000000000003
11365	0560	00	0	26173	LDQ	BZERO	CLEAR MQ
11366	0767	00	0	00001	ALS	1	
11367	-0763	00	0	00001	LGL	1	
11370	0162	00	0	11373	TQP	*+3	
11371	0760	00	0	00162	SWT	2	ERROR.
							ALS GATES AC 35 TO MQ 1
11372	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11373	0760	00	0	00161	SWT	1	
11374	0020	00	0	11376	TRA	*+2	GO TO NEXT TEST
11375	0020	00	0	11364	TRA	*-9	REPEAT THIS TEST

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 221

TEST ALS AND ARS

11376	0500 00 0 26174	CLA	BONES	+377777777777
11377	0560 00 0 26173	LDQ	BZERO	
11400	0767 00 0 00045	ALS	37	CLEAR AC
11401	0100 00 0 11404	TZE	*+3	
11402	0760 00 0 00162	SWT	2	ERROR. ALS FAILS
11403	0420 00 0 00000	HPR		SWITCH 2 UP. HALT ON ERROR
11404	0760 00 0 00161	SWT	1	
11405	0020 00 0 11407	TRA	*+2	GO TO NEXT TEST
11406	0020 00 0 11376	TRA	*-8	
11407	0500 00 0 26240	CLA	B35	
11410	0767 00 0 00000	ALS	0	SHOULD NOT CHANGE C AC
11411	-0765 00 0 00001	LGR	1	
11412	0162 00 0 11414	TQP	*+2	
11413	0020 00 0 11416	TRA	*+3	
11414	0760 00 0 00162	SWT	2	ERROR. ALS FAILS
11415	0420 00 0 00000	HPR		SWITCH 2 UP. HALT ON ERROR
11416	0760 00 0 00161	SWT	1	
11417	0020 00 0 11421	TRA	*+2	GO TO NEXT TEST
11420	0020 00 0 11407	TRA	*-9	REPEAT THIS TEST
11421	-0500 00 0 26175	CAL	BSIGN	400000000000
11422	0771 00 0 00043	ARS	35	SHIFT AC COL P TO AC 35
11423	-0765 00 0 00001	LGR	1	TO MQS
11424	0162 00 0 11426	TQP	*+2	
11425	0020 00 0 11430	TRA	*+3	
11426	0760 00 0 00162	SWT	2	ERROR. ARS FAILS
11427	0420 00 0 00000	HPR		SWITCH 2 UP. HALT ON ERROR
11430	0760 00 0 00161	SWT	1	
11431	0020 00 0 11433	TRA	*+2	GO TO NEXT TEST
11432	0020 00 0 11421	TRA	*-9	REPEAT THIS TEST
11433	0500 00 0 26506	CLA	B21T35	+000000077777
11434	0771 00 0 00017	ARS	15	CLEAR AC
11435	0100 00 0 11440	TZE	*+3	
11436	0760 00 0 00162	SWT	2	ERROR. ARS FAILS
11437	0420 00 0 00000	HPR		SWITCH 2 UP. HALT ON ERROR
11440	0760 00 0 00161	SWT	1	
11441	0020 00 0 11443	TRA	*+2	GO TO NEXT TEST
11442	0020 00 0 11433	TRA	*-7	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 222

SECTION ONE
PART II

COMPLETE TESTING LGL AND LGR

11443 -0500 00 0 26311
11444 -0765 00 0 00044
11445 0100 00 0 11450
11446 0760 00 0 00162

CAL BS135
LGR 36
TZE *+3
SWT 2

777777777777
SHOULD CLEAR AC
ERROR. LGR PICKS UP BITS

11447 0420 00 0 00000
11450 0760 00 0 00161
11451 0020 00 0 11453
11452 0020 00 0 11443

HPR
SWT 1
TRA *+2
TRA *-7

SWITCH 2 UP. HALT ON ERROR
GO TO NEXT TEST
REPEAT THIS TEST

11453 0774 00 1 11453

AXT *,1

MONITOR

11454 0560 00 0 26311
11455 -0763 00 0 00043
11456 -0600 00 0 26603
11457 -0520 00 0 26603
11460 0020 00 0 11463
11461 0760 00 0 00162

LDQ BS135
LGL 35
STQ T1
NZT T1
TRA *+3
SWT 2

ALL BITS TO MQ
CLEAR MQ 1-35
SHOULD NOT SKIP
ERROR. LGL PICKS UP BITS

11462 0420 00 0 00000
11463 0760 00 0 00161
11464 0020 00 0 11466
11465 0020 00 0 11454

HPR
SWT 1
TRA *+2
TRA *-9

SWITCH 2 UP. HALT ON ERROR
GO TO NEXT TEST
REPEAT THIS TEST

11466 0500 00 0 26173
11467 0560 00 0 26175
11470 -0763 00 0 00000
11471 0601 00 0 26604

CLA BZERO
LDQ BSIGN
LGL 0
STO T2

+000000000000
-000000000000
SHOULD NOT ALTER C AC

11472 0560 00 0 26604
11473 0162 00 0 11476
11474 0760 00 0 00162

LDQ T2
TQP *+3
SWT 2

SHOULD TRANSFER
ERROR. LGL GATES MQS-ACS

11475 0420 00 0 00000
11476 0760 00 0 00161
11477 0020 00 0 11501
11500 0020 00 0 11466

HPR
SWT 1
TRA *+2
TRA *-10

SWITCH 2 UP. HALT ON ERROR
GO TO NEXT TEST
REPEAT THIS TEST

S E C T I O N O N E
P A R T I I

9M71/768
2/1/63
PAGE 223

COMPLETE TESTING LGL AND LGR

11501	0500	00	0	26173	CLA	BZERO	CLEAR AC
11502	0560	00	0	26242	LDQ	B1A2	+300000000000
11503	-0763	00	0	00001	LGL	1	
11504	0100	00	0	11507	TZE	**+3	
11505	0760	00	0	00162	SWT	2	ERROR. LGL GATES MQ1-AC35
11506	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11507	0760	00	0	00161	SWT	1	
11510	0020	00	0	11512	TRA	**+2	GO TO NEXT TEST
11511	0020	00	0	11501	TRA	*-8	REPEAT THIS TEST
11512	0500	00	0	26313	CLA	MB34	-000000000002
11513	0560	00	0	26176	LDQ	B1	+200000000000
11514	-0765	00	0	00001	LGR	1	
11515	0162	00	0	11520	TQP	**+3	SHOULD NOT TRANSFER
11516	0760	00	0	00162	SWT	2	ERROR. LGR GATES ACS-MQS
11517	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11520	0760	00	0	00161	SWT	1	
11521	0020	00	0	11523	TRA	**+2	GO TO NEXT TEST
11522	0020	00	0	11512	TRA	*-8	REPEAT THIS TEST
11523	0560	00	0	26173	LDQ	BZERO	CLEAR MQ
11524	0500	00	0	26312	CLA	MB35	-000000000001
11525	-0765	00	0	00001	LGR	1	
11526	-0600	00	0	26604	STQ	T2	
11527	-0520	00	0	26604	NZT	T2	SHOULD NOT SKIP
11530	0020	00	0	11533	TRA	**+3	
11531	0760	00	0	00162	SWT	2	ERROR. LGR GATES AC35-MQ1
11532	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11533	0760	00	0	00161	SWT	1	
11534	0020	00	0	11536	TRA	**+2	GO TO NEXT TEST
11535	0020	00	0	11523	TRA	*-10	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 224

SECTION ONE
PART II

TEST TSX

*
*
*
*
*
*
11536 0760 00 0 00016
11537 0774 00 4 00000
11540 0074 00 4 11543
11541 0760 00 0 00162

LMTM
AXT 0,4
TSX **3,4
SWT 2

CLEAR XRC

ERROR.
TSX FAILS TO TRANSFER
SWITCH 2 UP. HALT ON ERROR

11542 0420 00 0 00000
11543 0760 00 0 00161
11544 0020 00 0 11546
11545 0020 00 0 11536

HPR
SWT 1
TRA **2
TRA *-7

GO TO NEXT TEST
REPEAT THIS TEST

11546 0774 00 4 77777
11547 0074 00 4 11550
11550 -3 77776 4 11553
11551 0760 00 0 00162

AXT -1,4
TSX **1,4
TXL **3,4,32766
SWT 2

77777 TO XRC

ERROR.
TSX FAILS TO GATE XAD-XR
SWITCH 2 UP. HALT ON ERROR

11552 0420 00 0 00000
11553 0760 00 0 00161
11554 0020 00 0 11556
11555 0020 00 0 11546

HPR
SWT 1
TRA **2
TRA *-7

GO TO NEXT TEST
REPEAT THIS TEST

SECTION ONE
PART II

9M71/76B
2/1/63
PAGE 225

TEST TSX

11556	0774	00	1	11556	AXT	*,1	MONITOR
11557	0774	00	4	00000	AXT	0,4	CLEAR XRC
11560	0074	00	4	11561	TSX	**+1,4	
11561	3	00001	4	11564	TXH	**+3,4,1	
11562	0760	00	0	00162	SWT	2	ERROR. TSX FAILS TO GATE COMPLEMENT PC-XAD SWITCH 2 UP. HALT ON ERROR
11563	0420	00	0	00000	HPR		
11564	0760	00	0	00161	SWT	1	
11565	0020	00	0	11567	TRA	**+2	GO TO NEXT TEST
11566	0020	00	0	11557	TRA	*-7	REPEAT THIS TEST
11567	0774	00	4	00777	AXT	511,4	00777 TO XR4
11570	0074	00	4	11571	TSX	**+1,4	
11571	3	66210	4	11573	TXH	**+2,4,1-*	SHOULD NOT TRANSFER
11572	3	66207	4	11576	TXH	**+4,4,1-*	SHOULD TRANSFER
11573	0774	00	2	66210	AXT	3-* ,2	C XRB,XRC SHOULD MATCH
11574	0760	00	0	00162	SWT	2	ERROR. TSX FAILS SWITCH 2 UP. HALT ON ERROR
11575	0420	00	0	00000	HPR		
11576	0760	00	0	00161	SWT	1	
11577	0020	00	0	11601	TRA	**+2	GO TO NEXT TEST
11600	0020	00	0	11567	TRA	*-9	REPEAT THIS TEST
11601	0074	00	4	11602	TSX	**+1,4	
11602	0020	00	4	00002	TRA	2,4	SHOULD GO TO NEXT INST
11603	0020	00	0	11606	TRA	**+3	
11604	0760	00	0	00162	SWT	2	ERROR. TSX FAILS
11605	0420	00	0	00000	HPR		SWITCH 2 UP. HALT ON ERROR
11606	0760	00	0	00161	SWT	1	
11607	0020	00	0	11611	TRA	**+2	GO TO NEXT TEST
11610	0020	00	0	11601	TRA	*-7	REPEAT THIS TEST
11611	0020	00	0	00107	TRA	INDCW+5	
11612	0774	00	4	11614	AXT	**+2,4	
11613	0634	00	4	11611	SXA	*-2,4	ON FIRST PASS ONLY
11614	0600	00	0	00112	STZ	RELBTY	
11615	-0774	00	4	11616	AXC	**+1,4	SET UP SEQUENCE CHECKER
11616	0634	00	4	00101	SXA	SVXR4,4	
11617	0020	00	0	11621	TRA	GNOT	GO TO NEXT ROUTINE

S1P3

9M71/76B
2/1/63
PAGE 226

SECTION ONE
PART III

TEST LBT

* TESTING LBT, SKIP CONDITIONS MET

11620	432263606060		BCD	1LBT	
11621	0500 00 0 26174	GNOT	CLA	BONES	+377777777777
11622	0760 00 0 00001		LBT		SHOULD SKIP
11623	0074 00 4 00105		TSX	ERROR,4	
11624	0074 00 4 00106		TSX	OK,4	
11625	0020 00 0 11621		TRA	*-4	LOOP RETURN

* TESTING LBT, SKIP CONDITIONS NOT MET

11626	432263606060		BCD	1LBT	
11627	0500 00 0 26174		CLA	BONES	+377777777777
11630	0767 00 0 00001		ALS	1	
11631	0760 00 0 00001		LBT		SHOULD NOT SKIP
11632	0020 00 0 11634		TRA	*+2	
11633	0074 00 4 00105		TSX	ERROR,4	
11634	0074 00 4 00106		TSX	OK,4	
11635	0020 00 0 11627		TRA	*-6	LOOP RETURN

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 227

*
*
*
*
*

TEST PBT

* TESTING PBT, SKIP CONDITIONS MET

11636	472263606060	BCD	1PBT	
11637	-0500 00 0 26175	CAL	BSIGN	400000000000
11640	-0760 00 0 00001	PBT		SHOULD SKIP
11641	0074 00 4 00105	TSX	ERROR, 4	
11642	0074 00 4 00106	TSX	OK, 4	
11643	0020 00 0 11637	TRA	*-4	

TESTING PBT, SKIP CONDITIONS NOT MET

11644	472263606060	BCD	1PBT	
11645	0500 00 0 26311	CLA	BS135	-377777777777
11646	-0760 00 0 00001	PBT		SHOULD NOT SKIP
11647	0020 00 0 11651	TRA	*+2	
11650	0074 00 4 00105	TSX	ERROR, 4	
11651	0074 00 4 00106	TSX	OK, 4	
11652	0020 00 0 11645	TRA	*-5	LOOP RETURN

SECTION ONE
PART III

TEST TOV AND TNO

TEST TOV, CONDITIONS MET

11653	634665606060	BCD	1TOV	
11654	0500 00 0 26176	CLA	B1	+200000000000
11655	-0763 00 0 00001	LGL	1	SET OVERFLOW TRIGGER
11656	0140 00 0 11660	TOV	**2	SHOULD TRANSFER
11657	0074 00 4 00105	TSX	ERROR,4	TOV FAILS
11660	0074 00 4 00106	TSX	OK,4	
11661	0020 00 0 11654	TRA	*-5	LOOP RETURN

TEST TOV, CONDITIONS NOT MET

11662	634665606060	BCD	1TOV	
11663	0500 00 0 26176	CLA	B1	+200000000000
11664	-0763 00 0 00001	LGL	1	SET OVERFLOW TRIGGER
11665	0140 00 0 11666	TOV	**1	RESET OVERFLOW TRIGGER
11666	0140 00 0 11670	TOV	**2	SHOULD NOT TRANSFER
11667	0020 00 0 11671	TRA	**2	
11670	0074 00 4 00105	TSX	ERROR,4	
11671	0074 00 4 00106	TSX	OK,4	
11672	0020 00 0 11663	TRA	*-7	

* TEST THAT OVERFLOW TRIGGER IS SET ON ALS

11673	634665606060	BCD	1TOV	
11674	0500 00 0 26177	CLA	B2	+100000000000
11675	0140 00 0 11676	TOV	**1	RESET OVERFLOW TRIGGER
11676	0767 00 0 00003	ALS	3	
11677	0140 00 0 11701	TOV	**2	SHOULD TRANSFER
11700	0074 00 4 00105	TSX	ERROR,4	
11701	0074 00 4 00106	TSX	OK,4	
11702	0020 00 0 11674	TRA	*-6	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 229

TEST FOR FALSE OVERFLOW ON SHIFT INSTRUCTION

11703 634665606060	BCD 1TOV	
11704 0140 00 0 11705	TOV *+1	
11705 0500 00 0 26177	CLA B2	+100000000000
11706 0767 00 0 00001	ALS 1	
11707 0140 00 0 11711	TOV *+2	SHOULD NOT TRANSFER
11710 0020 00 0 11713	TRA *+3	
11711 0560 00 0 26176	LDQ B1	
11712 0074 00 4 00105	TSX ERROR,4	SEE LOGIC PAGE 02.10.36.1
11713 0074 00 4 00106	TSX OK,4	
11714 0020 00 0 11704	TRA *-8	

TEST TNO, CONDITIONS NOT MET

11715 634546606060	BCD 1TNO	
11716 0500 00 0 26177	CLA B2	+100000000000
11717 0767 00 0 00002	ALS 2	SET OVERFLOW TRIGGER
11720 -0140 00 0 11722	TNO *+2	
11721 0020 00 0 11723	TRA *+2	
11722 0074 00 4 00105	TSX ERROR,4	
11723 0074 00 4 00106	TSX OK,4	
11724 0020 00 0 11716	TRA *-6	LOOP RETURN

* TEST TNO, CONDITIONS MET

11725 634546606060	BCD 1TNO	
11726 0500 00 0 26176	CLA B1	
11727 0767 00 0 00003	ALS 3	SET OVERFLOW TRIGGER
11730 -0140 00 0 11731	TNO *+1	RESET OVERFLOW TRIGGER
11731 -0140 00 0 11733	TNO *+2	SHOULD TRANSFER
11732 0074 00 4 00105	TSX ERROR,4	
11733 0074 00 4 00106	TSX OK,4	
11734 0020 00 0 11726	TRA *-6	

9M71/76B
2/1/63
PAGE 230

SECTION ONE
PART III

TEST TRANSFER ON PLUS

* TESTING TPL, CONDITIONS MET

11735	634743606060		BCD	1TPL	
11736	0500 00 0 26173	TPLA	CLA	BZERO	+000000000000
11737	0120 00 0 11741		TPL	**2	SHOULD TRANSFER
11740	0074 00 4 00105		TSX	ERROR,4	
11741	0074 00 4 00106		TSX	OK,4	
11742	0020 00 0 11736		TRA	TPLA	LOOP RETURN

* TESTING TPL, CONDITIONS NOT MET

11743	634743606060		BCD	1TPL	
11744	0500 00 0 26175	TPLB	CLA	BSIGN	-000000000000
11745	0120 00 0 11747		TPL	**2	SHOULD NOT TRANSFER
11746	0020 00 0 11750		TRA	**2	
11747	0074 00 4 00105		TSX	ERROR,4	
11750	0074 00 4 00106		TSX	OK,4	
11751	0020 00 0 11744		TRA	TPLB	LOOP RETURN

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 231

TEST TRANSFER ON MINUS

* TESTING TMI, CONDITIONS MET

11752	634431606060		BCD	1TMI	
11753	0500 00 0 26175	TMIA	CLA	BSIGN	-000000000000
11754	-0120 00 0 11756		TMI	*+2	SHOULD TRANSFER
11755	0074 00 4 00105		TSX	ERROR,4	
11756	0074 00 4 00106		TSX	OK,4	
11757	0020 00 0 11753		TRA	TMIA	LOOP RETURN

* TESTING TMI, CONDITIONS NOT MET

11760	634431606060		BCD	1TMI	
11761	0500 00 0 26173	TMIB	CLA	BZERO	+000000000000
11762	-0120 00 0 11764		TMI	*+2	SHOULD NOT TRANSFER
11763	0020 00 0 11765		TRA	*+2	
11764	0074 00 4 00105		TSX	ERROR,4	
11765	0074 00 4 00106		TSX	OK,4	
11766	0020 00 0 11761		TRA	TMIB	LOOP RETURN

SECTION ONE
PART III

*
*
*
*
*
*
TEST CLEAR AND SUBTRACT

* TESTING CLS ZEROS

11767	234362606060		BCD	ICLS	
11770	0502 00 0 26173	CLSA	CLS	BZERO	+000000000000
11771	-0120 00 0 11773		TMI	**2	SHOULD TRANSFER
11772	0074 00 4 00105		TSX	ERROR,4	
11773	0074 00 4 00106		TSX	OK,4	
11774	0020 00 0 11770		TRA	CLSA	LOOP RETURN

* TESTING CLS SIGN BIT

11775	234362606060		BCD	ICLS	
11776	0502 00 0 26175	CLSB	CLS	BSIGN	-000000000000
11777	0120 00 0 12001		TPL	**2	SHOULD TRANSFER
12000	0074 00 4 00105		TSX	ERROR,4	
12001	0074 00 4 00106		TSX	OK,4	
12002	0020 00 0 11776		TRA	CLSB	LOOP RETURN

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 233

*
*
*
*
*

TEST ADD GATING

12003	212424606060	BCD 1ADD	
12004	0500 00 0 26552	CLA B3T17	+077777000000
12005	0400 00 0 26552	ADD B3T17	
12006	-0100 00 0 12012	TNZ **4	SHOULD TRANSFER
12007	0560 00 0 26552	LDQ B3T17	
12010	-0763 00 0 00001	LGL 1	CORRECT SUM IN MQ
12011	0074 00 4 00105	TSX ERROR,4	ADD CAUSED SUB OPERATION
12012	0074 00 4 00106	TSX OK,4	
12013	0020 00 0 12004	TRA *-7	LOOP RETURN

12014	212424606060	BCD 1ADD	
12015	0500 00 0 26173	CLA BZERO	+000000000000
12016	0400 00 0 26552	ADD B3T17	+077777000000
12017	-0100 00 0 12022	TNZ **3	
12020	0560 00 0 26552	LDQ B3T17	CORRECT SUM TO MQ
12021	0074 00 4 00105	TSX ERROR,4	FAILED TO GATE SR-AD
12022	0074 00 4 00106	TSX OK,4	OR AD-AC
12023	0020 00 0 12015	TRA *-6	LOOP RETURN

12024	212424606060	BCD 1ADD	
12025	0500 00 0 26552	CLA B3T17	+077777000000
12026	0400 00 0 26173	ADD BZERO	+000000000000
12027	-0100 00 0 12032	TNZ **3	
12030	0560 00 0 26552	LDQ B3T17	CORRECT SUM TO MQ
12031	0074 00 4 00105	TSX ERROR,4	FAILED TO GATE AC-AD
12032	0074 00 4 00106	TSX OK,4	
12033	0020 00 0 12025	TRA *-6	LOOP RETURN

9M71/768
2/1/63
PAGE 234

S E C T I O N O N E
P A R T I I I

* TEST ADD GATING

12034	212424606060	BCD	1ADD	
12035	0500 00 0 26174	CLA	BONES	+377777777777
12036	0560 00 0 26241	LDQ	BSA1	-200000000000
12037	-0763 00 0 00002	LGL	2	BITS TO AC Q,P,1-35
12040	0400 00 0 26175	ADD	BSIGN	-000000000000
12041	-0100 00 0 12044	TNZ	*+3	SHOULD TRANSFER
12042	0560 00 0 26311	LDQ	BS135	ERROR. FAILED TO GATE
12043	0074 00 4 00105	TSX	ERROR,4	NOT AC TO ADDERS
12044	0074 00 4 00106	TSX	OK,4	
12045	0020 00 0 12035	TRA	*-8	LOOP RETURN

TEST FOR HOT BITS AC-AD

12046	212424606060	BCD	1ADD	
12047	0500 00 0 26173	CLA	BZERO	+000000000000
12050	0400 00 0 26173	ADD	BZERO	
12051	0100 00 0 12054	TZE	*+3	SHOULD TRANSFER
12052	0560 00 0 26173	LDQ	BZERO	
12053	0074 00 4 00105	TSX	ERROR,4	HOT BITS IN AC-AD GATING
12054	0074 00 4 00106	TSX	OK,4	
12055	0020 00 0 12047	TRA	*-6	LOOP RETURN

12056	212424606060	BCD	1ADD	
12057	0500 00 0 26304	CLA	BIT8	+377000000000
12060	0400 00 0 26173	ADD	BZERO	+000000000000
12061	-0100 00 0 12064	TNZ	*+3	SHOULD TRANSFER
12062	0560 00 0 26304	LDQ	BIT8	FAILED TO GATE
12063	0074 00 4 00105	TSX	ERROR,4	AC Q-8 TO ADDERS
12064	0074 00 4 00106	TSX	OK,4	
12065	0020 00 0 12057	TRA	*-6	LOOP RETURN

12066	212424606060	BCD	1ADD	
12067	0500 00 0 26561	CLA	B9T35	+000777777777
12070	0400 00 0 26173	ADD	BZERO	+000000000000
12071	-0100 00 0 12074	TNZ	*+3	SHOULD TRANSFER
12072	0560 00 0 26561	LDQ	B9T35	FAILED TO GATE
12073	0074 00 4 00105	TSX	ERROR,4	AC 9-35 TO ADDERS
12074	0074 00 4 00106	TSX	OK,4	
12075	0020 00 0 12067	TRA	*-6	LOOP RETURN

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 235

* TESTING NOT AC-AD, RECOMPLEMENT, NO Q CARRY

12076	212424606060	BCD 1ADD	
12077	0500 00 0 26173	CLA BZERO	+000000000000
12100	0400 00 0 26175	ADD BSIGN	-000000000000
12101	0100 00 0 12104	TZE **3	SHOULD TRANSFER
12102	0560 00 0 26173	LDQ BZERO	TRUE SUM TO MQ
12103	0074 00 4 00105	TSX ERROR,4	
12104	0074 00 4 00106	TSX OK,4	
12105	0020 00 0 12077	TRA *-6	LOOP RETURN

* TEST FOR AD-AC PART OF RECOMPLEMENT CYCLE IN SPITE OF Q CARRY

12106	212424606060	BCD 1ADD	
12107	0500 00 0 26173	CLA BZERO	+000000000000
12110	0400 00 0 26311	ADD BS135	-377777777777
12111	-0100 00 0 12114	TNZ **3	SHOULD TRANSFER
12112	0560 00 0 26311	LDQ BS135	
12113	0074 00 4 00105	TSX ERROR,4	
12114	0074 00 4 00106	TSX OK,4	
12115	0020 00 0 12107	TRA *-6	LOOP RETURN

* TEST COMPLEMENT ADD, Q CARRY, HOT ONE TO AC 35

12116	212424606060	BCD 1ADD	
12117	0500 00 0 26175	CLA BSIGN	-0000000000
12120	0400 00 0 26174	ADD BONES	+3777777777
12121	0560 00 0 26174	LDQ BONES	
12122	0760 00 0 00001	LBT	SHOULD SKIP
12123	0074 00 4 00105	TSX ERROR,4	
12124	0074 00 4 00106	TSX OK,4	
12125	0020 00 0 12117	TRA *-6	LOOP RETURN

SECTION ONE
PART III

* TEST ADD GATING

12126 212424606060
12127 0140 00 0 12130
12130 0500 00 0 26242
12131 0400 00 0 26242
12132 0140 00 0 12135

12133 0560 00 0 26241
12134 0074 00 4 00105
12135 0074 00 4 00106
12136 0020 00 0 12127

BCD 1ADD
TOV **1
CLA B1A2
ADD B1A2
TOV **3

LDQ BSA1
TSX ERROR,4
TSX OK,4
TRA *-7

+300000000000
ADDER ONE CARRY SHOULD
SET OVERFLOW TRIGGER

LOOP RETURN

12137 212424606060
12140 0500 00 0 26175
12141 0400 00 0 26173
12142 -0120 00 0 12145

12143 0560 00 0 26175
12144 0074 00 4 00105
12145 0074 00 4 00106
12146 0020 00 0 12140

BCD 1ADD
CLA BSIGN
ADD BZERO
TMI **3

LDQ BSIGN
TSX ERROR,4
TSX OK,4
TRA *-6

-000000000000
+000000000000
NOT Q CARRY SHOULD
INHIBIT GATING SRS-ACS

LOOP RETURN

12147 212424606060
12150 0500 00 0 26173
12151 0400 00 0 26467
12152 -0120 00 0 12155

12153 0560 00 0 26467
12154 0074 00 4 00105
12155 0074 00 4 00106
12156 0020 00 0 12150

BCD 1ADD
CLA BZERO
ADD BST2
TMI **3

LDQ BST2
TSX ERROR,4
TSX OK,4
TRA *-6

+000000000000
-300000000000
SHOULD TRANSFER
Q CARRY ON SHOULD ALLOW
GATING OF SRS TO ACS

LOOP RETURN

* TEST FOR FALSE OVERFLOW ON ADD

12157 212424606060
12160 0500 00 0 26176
12161 0140 00 0 12162
12162 0400 00 0 26177

12163 -0140 00 0 12166
12164 0560 00 0 26242
12165 0074 00 4 00105
12166 0074 00 4 00106
12167 0020 00 0 12160

BCD 1ADD
CLA B1
TOV **1
ADD B2

TNO **3
LDQ B1A2
TSX ERROR,4
TSX OK,4
TRA *-7

+200000000000
RESET OVERFLOW TRIGGER
+100000000000

SHOULD TRANSFER
ELIMINATE FALSE CLUE

LOOP RETURN

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 237

*
*
*
*
*

TEST SUBTRACT

* TESTING SUB GATE AC-AD

12170	626422606060	BCD 1SUB	
12171	0500 00 0 26311	CLA BS135	-377777777777
12172	0402 00 0 26173	SUB BZERO	+000000000000
12173	-0100 00 0 12176	TNZ *+3	
12174	0560 00 0 26311	LDQ BS135	TRUE DIFFERENCE TO MQ
12175	0074 00 4 00105	TSX ERROR,4	
12176	0074 00 4 00106	TSX OK,4	
12177	0020 00 0 12171	TRA *-6	LOOP RETURN

* TESTING SUB GATE SR-AD, AD-AC

12200	626422606060	BCD 1SUB	
12201	0500 00 0 26173	CLA BZERO	+000000000000
12202	0402 00 0 26311	SUB BS135	-377777777777
12203	-0100 00 0 12206	TNZ *+3	SHOULD TRANSFER
12204	0560 00 0 26174	LDQ BONES	+377777777777
12205	0074 00 4 00105	TSX ERROR,4	
12206	0074 00 4 00106	TSX OK,4	
12207	0020 00 0 12201	TRA *-6	LOOP RETURN

* TESTING SUBTRACT, INVERT SB SIGN. Q CARRY TGR ON, GATE SR SIGN TO AC

12210	626422606060	BCD 1SUB	
12211	0500 00 0 26173	CLA BZERO	+000000000000
12212	0402 00 0 26174	SUB BONES	+377777777777
12213	-0120 00 0 12216	TMI *+3	
12214	0560 00 0 26311	LDQ BS135	-377777777777
			TRUE DIFFERENCE TO MQ
12215	0074 00 4 00105	TSX ERROR,4	
12216	0074 00 4 00106	TSX OK,4	
12217	0020 00 0 12211	TRA *-6	

9M71/768
2/1/63
PAGE 238

SECTION ONE
PART III

* TESTING SUB, GATE COMP AC-AD, NO Q CARRY, RECOMPLEMENT

12220	626422606060	BCD 1SUB	
12221	0500 00 0 26237	CLA B34	+000000000002
12222	0402 00 0 26240	SUB B35	+000000000001
12223	0120 00 0 12226	TPL **3	
12224	0074 00 4 00104	TSX ERROR-1,4	SR SIGN WAS GATED TO AC IN
12225	0020 00 0 12221	TRA *-4	SPIKE OF NOT Q CARRY
12226	-0765 00 0 00001	LGR 1	
12227	0100 00 0 12234	TZE **5	SHOULD TRANSFER
12230	-0763 00 0 00001	LGL 1	RESTORE AC
12231	0560 00 0 26240	LDQ B35	+000000000001 TRUE
12232	0074 00 4 00104	TSX ERROR-1,4	DIFFERENCE TO MQ
12233	0020 00 0 12221	TRA *-10	
12234	0162 00 0 12236	TQP **2	SHOULD NOT TRANSFER
12235	0020 00 0 12241	TRA **4	
12236	0763 00 0 00001	LGL 1	RESTORE AC
12237	0560 00 0 26240	LDQ B35	+000000000001 TRUE
12240	0074 00 4 00105	TSX ERROR,4	DIFFERENCE TO MQ
12241	0074 00 4 00106	TSX OK,4	
12242	0020 00 0 12221	TRA *-17	LOOP RETURN

* TESTING FALSE GATING AC-AD ON SUBTRACT

12247	626422606060	BCD 1SUB	
12248	0500 00 0 26311	CLA BS135	
12245	0402 00 0 26311	SUB BS135	
12246	0100 00 0 12251	TZE **3	SHOULD TRANSFER
12247	0560 00 0 26175	LDQ BSIGN	-000000000000
			TRUE DIFFERENCE TO MQ
12250	0074 00 4 00105	TSX ERROR,4	
12251	0074 00 4 00106	TSX OK,4	
12252	0020 00 0 12244	TRA *-6	

* TESTING FOR FALSE OVERFLOW ON SUBTRACT

12253	626422606060	BCD 1SUB	
12254	0500 00 0 26173	CLA BZERO	+000000000000
12255	0140 00 0 12256	TOV **1	RESET OVERFLOW TRIGGER
12256	0402 00 0 26176	SUB B1	+200000000000
12257	-0140 00 0 12261	TNO **2	SHOULD TRANSFER
12260	0074 00 4 00105	TSX ERROR,4	
12261	0074 00 4 00106	TSX OK,4	
12262	0020 00 0 12254	TRA *-6	

SECTION ONE PART III

9M71/76B
2/1/63
PAGE 239

TEST ADD AND CARRY LOGICAL WORD

* TESTING ACL GATE AC-AD

12263	212343606060		BCD	1ACL	
12264	-0500 00 0 26174	ACA	CAL	BONES	+377777777777
12265	0361 00 0 26173		ACL	BZERO	+000000000000
12266	-0100 00 0 12271		TNZ	**3	SHOULD TRANSFER
12267	0560 00 0 26174		LDQ	BONES	LOGICAL SUM TO MQ
12270	0074 00 4 00105		TSX	ERROR,4	
12271	0074 00 4 00106		TSX	OK,4	
12272	0020 00 0 12264		TRA	ACA	

* TESTING ACL GATE SR-AD, AD-AC

12273	212343606060		BCD	1ACL	
12274	-0500 00 0 26173	ACB	CAL	BZERO	+000000000000
12275	0361 00 0 26174		ACL	BONES	+377777777777
12276	-0100 00 0 12301		TNZ	**3	SHOULD TRANSFER
12277	0560 00 0 26174		LDQ	BONES	LOGICAL SUM TO MQ
12300	0074 00 4 00105		TSX	ERROR,4	
12301	0074 00 4 00106		TSX	OK,4	
12302	0020 00 0 12274		TRA	ACB	

* TESTING THAT ACL DOES NOT RESET AC SIGN

12303	212343606060		BCD	1ACL	
12304	0500 00 0 26237		CLA	B34	+000000000002
12305	0560 00 0 26311		LDQ	BS135	
12306	-0765 00 0 00002		LGR	2	SET UP LOGICAL SUM IN MQ
12307	0500 00 0 26241		CLA	BSA1	-200000000000
12310	0361 00 0 26174		ACL	BONES	+377777777777
12311	-0120 00 0 12313		TMI	**2	SHOULD TRANSFER
12312	0074 00 4 00105		TSX	ERROR,4	
12313	0074 00 4 00106		TSX	OK,4	
12314	0020 00 0 12304		TRA	**8	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 240

S E C T I O N O N E
P A R T I I I

* TESTING THAT ACL DOES NOT SET AC SIGN

12315	212343606060		BCD	1ACL	
12316	0500 00 0 26240	ACD	CLA	B35	+000000000001
12317	0361 00 0 26311		ACL	BS135	
12320	0120 00 0 12323		TPL	*+3	
12321	0560 00 0 26240		LDQ	B35	LOGICAL SUM TO MQ
12322	0074 00 4 00105		TSX	ERROR,4	
12323	0074 00 4 00106		TSX	OK,4	
12324	0020 00 0 12316		TRA	ACD	

* TESTING ACL GATE SRS-ADP, ADP-ACP

12325	212343606060		BCD	1ACL	
12326	0500 00 0 26173	ACE	CLA	BZERO	000000000000
12327	0361 00 0 26175		ACL	BSIGN	400000000000
12330	-0760 00 0 00001		PBT		SHOULD SKIP
12331	0074 00 4 00105		TSX	ERROR,4	
12332	0074 00 4 00106		TSX	OK,4	
12333	0020 00 0 12326		TRA	ACE	

* TESTING ACL CARRY TO ADDER 35

12334	212343606060		BCD	1ACL	
12335	-0500 00 0 26175	ACF	CAL	BSIGN	-000000000000
12336	0361 00 0 26173		ACL	BZERO	+000000000000
12337	0760 00 0 00001		LBT		SHOULD NOT SKIP
12340	0020 00 0 12343		TRA	*+3	
12341	0560 00 0 26175		LDQ	BSIGN	
12342	0074 00 4 00105		TSX	ERROR,4	
12343	0074 00 4 00106		TSX	OK,4	
12344	0020 00 0 12335		TRA	ACF	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 241

* TESTING ACL CARRY TO ADDER 35

12345	212343606060		BCD	1ACL	
12346	-0500 00 0 26175	ACG	CAL	BSIGN	400000000000
12347	0361 00 0 26175		ACL	BSIGN	
12350	0760 00 0 00001		LBT		SHOULD SKIP
12351	0074 00 4 00105		TSX	ERROR,4	
12352	0074 00 4 00106		TSX	OK,4	
12353	0020 00 0 12346		TRA	ACG	

* TESTING ACL CARRY INTO ADDER Q

12354	212343606060		BCD	1ACL	
12355	-0500 00 0 26175	ACH	CAL	BSIGN	400000000000
12356	0361 00 0 26175		ACL	BSIGN	
12357	-0765 00 0 00001		LGR	1	
12360	-0760 00 0 00001		PBT		SHOULD NOT SKIP
12361	0020 00 0 12364		TRA	*+3	
12362	0560 00 0 26173		LDQ	BZERO	+000000000000
					AC SHOULD BE CLEARED
12363	0074 00 4 00105		TSX	ERROR,4	
12364	0074 00 4 00106		TSX	OK,4	
12365	0020 00 0 12355		TRA	ACH	

* TESTING ADDER P. INPUTS SR 0, AC 0, CARRY 1

12366	212343606060		BCD	1ACL	
12367	-0500 00 0 26176	ACK	CAL	B1	200000000000
12370	0361 00 0 26176		ACL	B1	
12371	0560 00 0 26175		LDQ	BSIGN	400000000000
					LOGICAL SUM TO MQ
12372	-0760 00 0 00001		PBT		SHOULD SKIP
12373	0074 00 4 00105		TSX	ERROR,4	
12374	0074 00 4 00106		TSX	OK,4	
12375	0020 00 0 12367		TRA	ACK	

9M71/76B
2/1/63
PAGE 242

S E C T I O N O N E
P A R T I I I

* TESTING ADDER P. INPUTS SR 1, AC 0, CARRY 1

12376	212343606060		BCD 1ACL	
12377	-0500 00 0 26176	ACL	CAL B1	200000000000
12400	0361 00 0 26241		ACL BSA1	600000000000
12401	0560 00 0 26240		LDQ B35	000000000001
				LOGICAL SUM TO MQ
12402	-0760 00 0 00001		PBT	SHOULD NOT SKIP
12403	0020 00 0 12405		TRA **2	
12404	0074 00 4 00105		TSX ERROR,4	
12405	0074 00 4 00106		TSX OK,4	
12406	0020 00 0 12377		TRA ACL	

* TESTING ADDER P. INPUTS SR 0, AC 1, CARRY 0

12407	212343606060		BCD 1ACL	
12410	-0500 00 0 26175	ACI	CAL BSIGN	400000000000
12411	0361 00 0 26173		ACL BZERO	000000000000
12412	0560 00 0 26175		LDQ BSIGN	LOGICAL SUM TO MQ
12413	-0760 00 0 00001		PBT	SHOULD SKIP
12414	0074 00 4 00105		TSX ERROR,4	
12415	0074 00 4 00106		TSX OK,4	
12416	0020 00 0 12410		TRA ACI	

* TESTING ADDER P. INPUTS SR 1, AC 1, CARRY 0

12417	212343606060		BCD 1ACL	
12420	-0500 00 0 26175	ACJ	CAL BSIGN	400000000000
12421	0361 00 0 26175		ACL BSIGN	
12422	0560 00 0 26240		LDQ B35	LOGICAL SUM TO MQ 000000000001
12423	-0760 00 0 00001		PBT	SHOULD NOT SKIP
12424	0020 00 0 12426		TRA **2	
12425	0074 00 4 00105		TSX ERROR,4	
12426	0074 00 4 00106		TSX OK,4	
12427	0020 00 0 12420		TRA ACJ	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 243

* TESTING ADDER P. INPUTS SR 0, AC 1, CARRY 1

12430	212343606060		BCD 1ACL	
12431	-0500 00 0 26241	ACM	CAL BSA1	600000000000
12432	0361 00 0 26176		ACL B1	200000000000
12433	0560 00 0 26240		LDQ B35	000000000001
				LOGICAL SUM TO MQ
12434	-0760 00 0 00001		PBT	SHOULD NOT SKIP
12435	0020 00 0 12437		TRA **2	
12436	0074 00 4 00105		TSX ERROR,4	
12437	0074 00 4 00106		TSX OK,4	
12440	0020 00 0 12431		TRA ACM	

* TESTING ADDER COLUMN P WITH INPUTS SR 1, AC 1, CARRY 1

12441	212343606060		BCD 1ACL	
12442	-0500 00 0 26241		CAL BSA1	600000000000
12443	0361 00 0 26241		ACL BSA1	
12444	-0765 00 0 00044		LGR 36	SHIFT AC COL P TO MQ SIGN
12445	0162 00 0 12447		TQP **2	SHOULD NOT TRANSFER
12446	0020 00 0 12452		TRA **4	
12447	-0763 00 0 00044		LGL 36	RESTORE AC
12450	0560 00 0 26312		LDQ MB35	400000000001
				LOGICAL SUM TO MQ
12451	0074 00 4 00105		TSX ERROR,4	
12452	0074 00 4 00106		TSX OK,4	
12453	0020 00 0 12442		TRA *-9	

* TESTING ADDER Q. INPUTS SR 0, AC 1, CARRY 0

12454	212424606060		BQD 1ADD	
12455	0500 00 0 26176		CMA B1	+200000000000
12456	-0763 00 0 00002		LGL 2	SHIFT TO COL Q
12457	0400 00 0 26173		ADD BZERO	+000000000000
12460	-0765 00 0 00001		LGR 1	
12461	-0760 00 0 00001		PBT	SHOULD SKIP
12462	0074 00 4 00105		TSX ERROR,4	
12463	0074 00 4 00106		TSX OK,4	
12464	0020 00 0 12455		TRA *-7	

9M71/76B
2/1/63
PAGE 244

S E C T I O N O N E
P A R T I I I

* TESTING ADDER COL Q. INPUTS SR 0, AC 0, CARRY 1

12465	212424606060	BCD	1ADD	
12466	-0500 00 0 26241	CAL	BSA1	600000000000
12467	0400 00 0 26176	ADD	B1	200000000000
12470	-0765 00 0 00001	LGR	1	
12471	0560 00 0 26175	LDQ	BSIGN	400000000000
12472	-0760 00 0 00001	PBT		SHOULD SKIP
12473	0074 00 4 00105	TSX	ERROR,4	
12474	0074 00 4 00106	TSX	OK,4	
12475	0020 00 0 12466	TRA	*-7	

* TESTING ADDER COL Q. INPUTS SR 0, AC 1, CARRY 1

12476	212424606060	BCD	1ADD	
12477	-0500 00 0 26467	CAL	BST2	700000000000
12500	-0763 00 0 00001	LGL	1	
12501	0400 00 0 26176	ADD	B1	200000000000
12502	0560 00 0 26173	LDQ	BZERO	000000000000
				TRUE SUM TO MQ
12503	-0765 00 0 00001	LGR	1	
12504	-0760 00 0 00001	PBT		
12505	0020 00 0 12507	TRA	*+2	
12506	0074 00 4 00105	TSX	ERROR,4	
12507	0074 00 4 00106	TSX	OK,4	
12510	0020 00 0 12477	TRA	*-9	LOOP RETURN

* TESTING ADDER COL 35. INPUTS SR 1, AC 0, CARRY 1

12511	212343606060	BCD	1ACL	
12512	-0500 00 0 26175	CAL	BSIGN	400000000000
12513	0361 00 0 26312	ACL	MB35	400000000001
12514	0560 00 0 26237	LDQ	B34	TRUE SUM TO MQ
				C MQ 000000000002
				SHOULD NOT SKIP
12515	0760 00 0 00001	LBT		
12516	0020 00 0 12520	TRA	*+2	
12517	0074 00 4 00105	TSX	ERROR,4	
12520	0074 00 4 00106	TSX	OK,4	
12521	0020 00 0 12512	TRA	*-7	LOOP RETURN

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 245

* TESTING ADDER COL 35. INPUTS SR 0, AC 1, CARRY 1

12522	212343606060	BCD	1ACL	
12523	-0500 00 0 26312	CAL	MB35	400000000001
12524	0361 00 0 26175	ACL	BSIGN	400000000000
12525	0560 00 0 26237	LDQ	B34	000000000002
				LOGICAL SUM TO MQ
12526	0760 00 0 00001	LBT		
12527	0020 00 0 12531	TRA	*+2	
12530	0074 00 4 00105	TSX	ERROR,4	
12531	0074 00 4 00106	TSX	OK,4	
12532	0020 00 0 12523	TRA	*-7	

* TESTING ADDER COL 35. INPUTS SR 1, AC 1, CARRY 1

12533	212343606060	BCD	1ACL	
12534	-0500 00 0 26312	CAL	MB35	400000000001
12535	0361 00 0 26312	ACL	MB35	
12536	0560 00 0 26303	LDQ	B34A35	000000000003
				LOGICAL SUM TO MQ
12537	0760 00 0 00001	LBT		SHOULD SKIP
12540	0074 00 4 00105	TSX	ERROR,4	
12541	0074 00 4 00106	TSX	OK,4	
12542	0020 00 0 12534	TRA	*-6	

SECTION ONE
PART III

* TESTING ADDER WITH VARIOUS COMBINATIONS OF SR, AC, AND CARRY. *
* TIX LOOPS ARE USED TO CHECK EACH COLUMN. *

* TESTING ADDER WITH INPUTS SR 0, AC 1, CARRY 0.

12543	212424606060	BCD 1ADD	
12544	0774 00 2 00000	AXT 0,2	
12545	0774 00 1 00043	AXT 35,1	
12546	0020 00 0 12550	TRA **2	
12547	212424606060	BCD 1ADD	
12550	0500 00 1 26241	CLA B35+1,1	
12551	0400 00 0 26173	ADD BZERO	+000000000000
12552	-0765 00 2 00043	LGR 35,2	SHIFT 1 BIT SUM TO MQ SIGN
12553	0162 00 0 12555	TQP **2	SHOULD NOT TRANSFER.
12554	0020 00 0 12561	TRA **5	GET NEXT TEST BIT.
12555	-0763 00 2 00043	LGL 35,2	RESTORE AC
12556	0560 00 1 26241	LDQ B35+1,1	TRUE SUM TO MQ.
12557	0074 00 4 00104	TSX ERROR-1,4	
12560	0020 00 0 12550	TRA *-8	LOOP ON ERROR
12561	1 00001 2 12562	TXI **1,2,1	
12562	2 00001 1 12550	TIX *-10,1,1	
12563	0074 00 4 00106	TSX OK,4	
12564	0020 00 0 12544	TRA *-16	

SECTION ONE PART III

9M71/76B
2/1/63
PAGE 247

* TESTING ADDER WITH INPUTS SR 1, AC 1, CARRY 0.

12565	212424606060	BCD 1ADD
12566	0774 00 2 00000	AXT 0,2
12567	0774 00 1 00042	AXT 34,1
12570	0020 00 0 12572	TRA **2
12571	212424606060	BCD 1ADD
12572	0500 00 1 26241	CLA B35+1,1
12573	0400 00 1 26241	ADD B35+1,1
12574	-0765 00 2 00042	LGR 34,2
12575	0162 00 0 12602	TQP **5
12576	-0763 00 2 00042	LGL 34,2
12577	0560 00 1 26240	LDQ B35,1
12600	0074 00 4 00104	TSX ERROR-1,4
12601	0020 00 0 12572	TRA *-7
12602	1 00001 2 12603	TXI *+1,2,1
12603	2 00001 1 12572	TIX *-9,1,1
12604	0074 00 4 00106	TSX OK,4
12605	0020 00 0 12566	TRA *-15

SHIFT TEST COLUMN TO MQ S.
SHOULD TRANSFER.

RESTORE AC.
TRUE SUM TO MQ.

LOOP ON ERROR.

* TESTING ADDER COLUMN Q AND P WITH INPUTS SR 0, AC 1, CARRY 1

12606	212424606060	BCD 1ADD	
12607	-0500 00 0 26467	CAL BST2	700000000000
12610	0767 00 0 00001	ALS 1	C AC +160000000000
12611	0400 00 0 26176	ADD B1	200000000000
12612	0100 00 0 12615	TZE **3	
12613	0560 00 0 26173	LDQ BZERO	000000000000
12614	0074 00 4 00105	TSX ERROR,4	CORRECT RESULT TO MQ
12615	0074 00 4 00106	TSX OK,4	
12616	0020 00 0 12607	TRA *-7	

9M71/76B
2/1/63
PAGE 248

SECTION ONE
PART III

* TESTING ADDER WITH INPUTS SR 0, AC 1, CARRY 1.

12617	212424606060	BCD 1ADD	
12620	0774 00 2 00000	AXT 0,2	
12621	0774 00 1 00042	AXT 34,1	
12622	0020 00 0 12624	TRA **2	
12623	212424606060	BCD 1ADD	
12624	0500 00 1 26304	CLA B34A35+1,1	
12625	0400 00 1 26241	ADD B35+1,1	
12626	-0765 00 2 00043	LGR 35,2	SHIFT TEST COLUMN TO MQ S.
12627	0162 00 0 12634	TQP **5	SHOULD TRANSFER.
12630	-0763 00 2 00043	LGL 35,2	RESTORE AC.
12631	0560 00 1 26237	LDQ B34,1	TRUE SUM TO MQ.
12632	0074 00 4 00104	TSX ERROR-1,4	
12633	0020 00 0 12624	TRA *-7	LOOP ON ERROR.
12634	1 00001 2 12635	TXI **1,2,1	
12635	2 00001 1 12624	TIX *-9,1,1	
12636	0074 00 4 00106	TSX OK,4	
12637	0020 00 0 12620	TRA *-15	

* TESTING ADDER WITH INPUTS SR 0, AC 0, CARRY 1.

12640	212424606060	BCD 1ADD	
12641	0774 00 2 00000	AXT 0,2	
12642	0774 00 1 00042	AXT 34,1	
12643	0020 00 0 12645	TRA **2	
12644	212424606060	BCD 1ADD	
12645	0500 00 1 26241	CLA B35+1,1	
12646	0400 00 1 26241	ADD B35+1,1	
12647	-0765 00 2 00043	LGR 35,2	SHIFT TEST COLUMN TO MQ S.
12650	0162 00 0 12652	TQP **2	SHOULD NOT TRANSFER.
12651	0020 00 0 12656	TRA **5	
12652	-0763 00 2 00043	LGL 35,2	RESTORE AC.
12653	0560 00 1 26240	LDQ B35,1	TRUE SUM TO MQ.
12654	0074 00 4 00104	TSX ERROR-1,4	
12655	0020 00 0 12645	TRA *-8	LOOP ON ERROR.
12656	1 00001 2 12657	TXI **1,2,1	
12657	2 00001 1 12645	TIX *-10,1,1	
12660	0074 00 4 00106	TSX OK,4	
12661	0020 00 0 12641	TRA *-16	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 249

* TESTING ADDER WITH INPUTS SR 1, AC 0, CARRY 1.

12662	212424606060	BCD 1ADD	
12663	0774 00 2 00000	AXT 0,2	
12664	0774 00 1 00042	AXT 34,1	
12665	0020 00 0 12667	TRA **2	
12666	212424606060	BCD 1ADD	
12667	0500 00 1 26241	CLA B35+1,1	
12670	0400 00 1 26304	ADD B34A35+1,1	
12671	-0765 00 2 00043	LGR 35,2	SHIFT TEST COLUMN TO MQ S.
12672	0162 00 0 12677	TQP **5	SHOULD TRANSFER.
12673	-0763 00 2 00043	LGL 35,2	RESTORE AC
12674	0560 00 1 26237	LDQ B34,1	TRUE SUM TO MQ.
12675	0074 00 4 00104	TSX ERROR-1,4	
12676	0020 00 0 12667	TRA *-7	LOOP ON ERROR.
12677	1 00001 2 12700	TXI **1,2,1	
12700	2 00001 1 12667	TIX *-9,1,1	
12701	0074 00 4 00106	TSX OK,4	
12702	0020 00 0 12663	TRA *-15	

* TESTING ADDER WITH INPUTS SR 1, AC 1, CARRY 1.

12703	212424606060	BCD 1ADD	
12704	0774 00 2 00000	AXT 0,2	
12705	0774 00 1 00042	AXT 34,1	
12706	0020 00 0 12710	TRA **2	
12707	212424606060	BCD 1ADD	
12710	0500 00 1 26304	CLA B34A35+1,1	
12711	0400 00 1 26304	ADD B34A35+1,1	
12712	-0765 00 2 00043	LGR 35,2	SHIFT TEST COLUMN TO MQ S.
12713	0162 00 0 12715	TQP **2	SHOULD NOT TRANSFER.
12714	0020 00 0 12721	TRA **5	
12715	-0763 00 2 00043	LGL 35,2	RESTORE AC.
12716	0560 00 1 26303	LDQ B34A35,1	TRUE SUM TO MQ.
12717	0074 00 4 00104	TSX ERROR-1,4	
12720	0020 00 0 12710	TRA *-8	LOOP ON ERROR
12721	1 00001 2 12722	TXI **1,2,1	
12722	2 00001 1 12710	TIX *-10,1,1	
12723	0074 00 4 00106	TSX OK,4	
12724	0020 00 0 12704	TRA *-16	

SECTION ONE
PART III

TEST ADDER COLUMNS 32-35

TESTING CARRY INTO ADDER 34

12725 212343606060
12726 -0500 00 0 26312
12727 0361 00 0 26175
12730 -0765 00 0 00002
12731 0162 00 0 12733

BCD 1ACL
CAL MB35
ACL BSIGN
LGR 2
TQP **2

400000000001
400000000000
SHIFT AC COL 34 TO MQ SIGN
SHOULD NOT TRANSFER

12732 0020 00 0 12736
12733 -0763 00 0 00002
12734 0560 00 0 26237

TRA **4
LGL 2
LDQ B34

RESTORE AC
+000000000002
LOGICAL SUM TO MQ

12735 0074 00 4 00105

TSX ERROR,4

12736 0074 00 4 00106
12737 0020 00 0 12726

TSX OK,4
TRA *-9

TESTING CARRY INTO ADDER 34

12740 234321606060
12741 0500 00 0 26240
12742 -0765 00 0 00002
12743 0162 00 0 12747

BCD 1CLA
CLA B35
LGR 2
TQP **4

+000000000001
SHIFT AC COL 34 TO MQ SIGN
SHOULD TRANSFER

12744 -0763 00 0 00002
12745 0560 00 0 26240
12746 0074 00 4 00105
12747 0074 00 4 00106
12750 0020 00 0 12741

LGL 2
LDQ B35
TSX ERROR,4
TSX OK,4
TRA *-7

RESTORE AC
CORRECT RESULT TO MQ

TESTING CARRY INTO ADDER 34

12751 212343606060
12752 -0500 00 0 26175
12753 0361 00 0 26175
12754 -0765 00 0 00002

BCD 1ACL
CAL BSIGN
ACL BSIGN
LGR 2

400000000000

12755 0162 00 0 12761
12756 -0763 00 0 00002
12757 0560 00 0 26240
12760 0074 00 4 00105
12761 0074 00 4 00106
12762 0020 00 0 12752

TQP **4
LGL 2
LDQ B35
TSX ERROR,4
TSX OK,4
TRA *-8

SHIFT AC COL 34 TO MQ SIGN
SHOULD TRANSFER
RESTORE AC
LOGICAL SUM TO MQ

SECTION ONE PART III

9M71/76B
2/1/63
PAGE 251

TESTING CARRY INTO ADDER 33

12763 212343606060
12764 -0500 00 0 26312
12765 0361 00 0 26313
12766 -0765 00 0 00003

BCD 1ACL
CAL MB35
ACL MB34
LGR 3

400000000001
400000000002
SHIFT AC COL 33 TO MQ SIGN

12767 0162 00 0 12771
12770 0020 00 0 12774
12771 -0763 00 0 00003
12772 0560 00 0 26236

TQP **2
TRA **4
LGL 3
LDQ B33
TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER
RESTORE AC
000000000004 LOGICAL SUM
TO MQ

12773 0074 00 4 00105
12774 0074 00 4 00106
12775 0020 00 0 12764

TESTING CARRY INTO ADDER 33

12776 212343606060
12777 0500 00 0 26303
13000 0361 00 0 26240
13001 -0765 00 0 00003

BCD 1ACL
CLA B34A35
ACL B35
LGR 3

000000000003
000000000001
SHIFT AC COL 33 TO MQ SIGN

13002 0162 00 0 13004
13003 0020 00 0 13007
13004 -0763 00 0 00003
13005 0560 00 0 26236

TQP **2
TRA **4
LGL 3
LDQ B33
TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER
RESTORE AC
000000000004 LOGICAL SUM
TO MQ

13006 0074 00 4 00105
13007 0074 00 4 00106
13010 0020 00 0 12777

TESTING CARRY INTO ADDER 33

13011 212343606060
13012 -0500 00 0 26240
13013 0361 00 0 26240
13014 -0765 00 0 00003

BCD 1ACL
CAL B35
ACL B35
LGR 3

000000000001
SHIFT AC COL 33 TO MQ SIGN

13015 0162 00 0 13021
13016 -0763 00 0 00003
13017 0560 00 0 26237

TQP **4
LGL 3
LDQ B34
TSX ERROR,4
TSX OK,4
TRA *-8

SHOULD TRANSFER
RESTORE AC
000000000002 LOGICAL SUM
TO MQ

13020 0074 00 4 00105
13021 0074 00 4 00106
13022 0020 00 0 13012

9M71/76B
2/1/63
PAGE 252

SECTION ONE
PART III

TESTING CARRY INTO ADDER 33

13023 234321606060
13024 0500 00 0 26237
13025 -0765 00 0 00003
13026 0162 00 0 13032
13027 -0763 00 0 00003
13030 0560 00 0 26237
13031 0074 00 4 00105
13032 0074 00 4 00106
13033 0020 00 0 13024

BCD 1CLA
CLA B34
LGR 3
TQP *+4
LGL 3
LDQ B34
TSX ERROR,4
TSX OK,4
TRA *-7

+000000000002
SHIFT AC COL 33 TO MQ SIGN
SHOULD TRANSFER
RESTORE AC
CORRECT RESULT TO MQ

TESTING CARRY INPUT TO ADDER 33

13034 234321606060
13035 0500 00 0 26303
13036 -0765 00 0 00003
13037 0162 00 0 13043

BCD 1CLA
CLA B34A35
LGR 3
TQP *+4

+000000000003
SHIFT AC COL 33
SHOULD TRANSFER

13040 -0763 00 0 00003
13041 0560 00 0 26303
13042 0074 00 4 00105
13043 0074 00 4 00106
13044 0020 00 0 13035

LGL 3
LDQ B34A35
TSX ERROR,4
TSX OK,4
TRA *-7

RESTORE AC
CORRECT RESULT TO MQ

TEST CARRY INPUTS TO ADDER 33

13045 212424606060
13046 0500 00 0 26303
13047 0400 00 0 26237
13050 -0765 00 0 00003

BCD 1ADD
CLA B34A35
ADD B34
LGR 3

+000000000003
+000000000002
SHIFT AC COL 33 TO MQ SIGN

13051 0162 00 0 13053
13052 0020 00 0 13056
13053 -0763 00 0 00003
13054 0560 00 0 26315

TQP *+2
TRA *+4
LGL 3
LDQ B33A35

SHOULD NOT TRANSFER

13055 0074 00 4 00105
13056 0074 00 4 00106
13057 0020 00 0 13046

TSX ERROR,4
TSX OK,4
TRA *-9

RESTORE AC
+000000000005
TRUE SUM TO MQ

SECTION ONE PART III

9M71/768
2/1/63
PAGE 253

TESTING CARRY INPUT TO ADDER 32

13060 212343606060
13061 -0500 00 0 26302
13062 0361 00 0 26237
13063 -0765 00 0 00004

BCD 1ACL
CAL B33A34
ACL B34
LGR 4

000000000006
000000000002
SHIFT AC COL 32 TO MQ SIGN

13064 0162 00 0 13066
13065 0020 00 0 13071
13066 -0763 00 0 00004
13067 0560 00 0 26235

TQP **2
TRA **4
LGL 4
LDQ B32

SHOULD NOT TRANSFER
RESTORE AC
000000000010 LOGICAL SUM
TO MQ

13070 0074 00 4 00105
13071 0074 00 4 00106
13072 0020 00 0 13061

TSX ERROR,4
TSX OK,4
TRA *-9

TESTING CARRY INPUT TO ADDER 32

13073 212343606060
13074 -0500 00 0 26307
13075 0361 00 0 26240
13076 -0765 00 0 00004

BCD 1ACL
CAL B3335
ACL B35
LGR 4

000000000007
000000000001
SHIFT AC COL 32 TO MQ SIGN

13077 0162 00 0 13101
13100 0020 00 0 13104
13101 -0763 00 0 00004
13102 0560 00 0 26235

TQP **2
TRA **4
LGL 4
LDQ B32

SHOULD NOT TRANSFER
RESTORE AC
000000000010 LOGICAL SUM
TO MQ

13103 0074 00 4 00105
13104 0074 00 4 00106
13105 0020 00 0 13074

TSX ERROR,4
TSX OK,4
TRA *-9

TESTING CARRY INPUT TO ADDER 32

13106 212343606060
13107 -0500 00 0 26314
13110 0361 00 0 26175
13111 -0765 00 0 00004

BCD 1ACL
CAL M3335
ACL BSIGN
LGR 4

400000000007
400000000000
SHIFT AC COL 32 TO MQ SIGN

13112 0162 00 0 13114
13113 0020 00 0 13117
13114 -0763 00 0 00004
13115 0560 00 0 26235

TQP **2
TRA **4
LGL 4
LDQ B32

SHOULD NOT TRANSFER
RESTORE AC
000000000010 LOGICAL SUM
TO MQ

13116 0074 00 4 00105
13117 0074 00 4 00106
13120 0020 00 0 13107

TSX ERROR,4
TSX OK,4
TRA *-9

9M71/76B
2/1/63
PAGE 254

SECTION ONE
PART III

TEST CARRY INTO ADDER 32

13121 212343606060
13122 -0500 00 0 26303
13123 0361 00 0 26236
13124 -0765 00 0 00004

13125 0162 00 0 13131
13126 -0763 00 0 00004
13127 0560 00 0 26307

13130 0074 00 4 00105
13131 0074 00 4 00106
13132 0020 00 0 13122

BCD 1ACL
CAL B34A35
ACL B33
LGR 4

TQP **4
LGL 4
LDQ B3335

TSX ERROR, 4
TSX OK, 4
TRA *-8

000000000003
000000000004
SHIFT AC COL 32 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
000000000007 LOGICAL SUM
TO MQ

TESTING CARRY INPUT TO ADDER 32

13133 212343606060
13134 -0500 00 0 26237
13135 0361 00 0 26237
13136 -0765 00 0 00004

13137 0162 00 0 13143
13140 -0763 00 0 00004
13141 0560 00 0 26236

13142 0074 00 4 00105
13143 0074 00 4 00106
13144 0020 00 0 13134

BCD 1ACL
CAL B34
ACL B34
LGR 4

TQP **4
LGL 4
LDQ B33

TSX ERROR, 4
TSX OK, 4
TRA *-8

000000000002
SHIFT AC COL 32 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
000000000004 LOGICAL SUM
TO MQ

TESTING CARRY INPUT TO ADDER 32

13145 212343606060
13146 -0500 00 0 26240
13147 0361 00 0 26303
13150 -0765 00 0 00004

13151 0162 00 0 13155
13152 -0763 00 0 00004
13153 0560 00 0 26236

13154 0074 00 4 00105
13155 0074 00 4 00106
13156 0020 00 0 13146

BCD 1ACL
CAL B35
ACL B34A35
LGR 4

TQP **4
LGL 4
LDQ B33

TSX ERROR, 4
TSX OK, 4
TRA *-8

000000000001
000000000003
SHIFT AC COL 32 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
000000000004 LOGICAL SUM
TO MQ

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 255

TESTING CARRY INPUT TO ADDER 32

13157	212343606060	BCD	1ACL	
13160	-0500 00 0 26315	CAL	B33A35	000000000005
13161	0361 00 0 26240	ACL	B35	000000000001
13162	-0765 00 0 00004	LGR	4	SHIFT AC COL 32 TO MQ SIGN
13163	0162 00 0 13167	TQP	*+4	
13164	-0763 00 0 00004	LGL	4	
13165	0560 00 0 26302	LDQ	B33A34	RESTORE AC
				000000000006 LOGICAL SUM
				TO MQ
13166	0074 00 4 00105	TSX	ERROR,4	
13167	0074 00 4 00106	TSX	OK,4	
13170	0020 00 0 13160	TRA	*-8	

TESTING CARRY INPUT TO ADDER 32

13171	212343606060	BCD	1ACL	
13172	-0500 00 0 26312	CAL	MB35	400000000001
13173	0361 00 0 26313	ACL	MB34	400000000002
13174	-0765 00 0 00004	LGR	4	SHIFT AC COL 32 TO MQ SIGN
13175	0162 00 0 13201	TQP	*+4	SHOULD TRANSFER
13176	-0763 00 0 00004	LGL	4	RESTORE AC
13177	0560 00 0 26236	LDQ	B33	000000000004 LOGICAL SUM
				TO MQ
13200	0074 00 4 00105	TSX	ERROR,4	
13201	0074 00 4 00106	TSX	OK,4	
13202	0020 00 0 13172	TRA	*-8	

9M71/76B
2/1/63
PAGE 256

SECTION ONE
PART III

TESTING CARRY INPUT TO ADDER 32

13203	212343606060	BCD	1ACL	
13204	-0500 00 0 26316	CAL	MB33	400000000004
13205	0361 00 0 26312	ACL	MB35	400000000001
13206	-0765 00 0 00004	LGR	4	SHIFT AC COL 32 TO MQ SIGN
13207	0162 00 0 13213	TQP	*+4	SHOULD TRANSFER
13210	-0763 00 0 00004	LGL	4	RESTORE AC
13211	0560 00 0 26302	LDQ	B33A34	000000000006 LOGICAL SUM TO MQ
13212	0074 00 4 00105	TSX	ERROR,4	
13213	0074 00 4 00106	TSX	OK,4	
13214	0020 00 0 13204	TRA	*-8	

TESTING CARRY INPUT TO ADDER 32

13215	212343606060	BCD	1ACL	
13216	-0500 00 0 26316	CAL	MB33	400000000004
13217	0361 00 0 26313	ACL	MB34	400000000002
13220	-0765 00 0 00004	LGR	4	SHIFT AC COL 32 TO MQ SIGN
13221	0162 00 0 13225	TQP	*+4	SHOULD TRANSFER
13222	-0763 00 0 00004	LGL	4	RESTORE AC
13223	0560 00 0 26307	LDQ	B3335	000000000007 LOGICAL SUM TO MQ
13224	0074 00 4 00105	TSX	ERROR,4	
13225	0074 00 4 00106	TSX	OK,4	
13226	0020 00 0 13216	TRA	*-8	

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 257

TEST GENERATE GROUP ONE

13227 212343606060
13230 -0500 00 0 26314
13231 0361 00 0 26175
13232 -0765 00 0 00004

13233 0760 00 0 00001
13234 0020 00 0 13240
13235 -0763 00 0 00004
13236 0560 00 0 26235

13237 0074 00 4 00105
13240 0074 00 4 00106
13241 0020 00 0 13230

BCD 1ACL
CAL M3335
ACL BSIGN
LGR 4

LBT
TRA *+4
LGL 4
LDQ B32

TSX ERROR,4
TSX OK,4
TRA *-9

400000000007
400000000000
SHIFT AC COL 31 TO AC 35

SHOULD NOT SKIP

RESTORE AC
000000000010
LOGICAL SUM TO MQ

13242 212343606060
13243 -0500 00 0 26317
13244 0361 00 0 26320
13245 -0765 00 0 00005

13246 0162 00 0 13252
13247 -0763 00 0 00005
13250 0560 00 0 26301

13251 0074 00 4 00105
13252 0074 00 4 00106
13253 0020 00 0 13243

BCD 1ACL
CAL MB3435
ACL MB32
LGR 5

TQP *+4
LGL 5
LDQ B32A33
TSX ERROR,4
TSX OK,4
TRA *-8

400000000003
400000000010
SHIFT AC COL 31 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
000000000014 LOGICAL
SUM TO MQ

13254 212343606060
13255 -0500 00 0 26321
13256 0361 00 0 26320
13257 -0765 00 0 00005
13260 0162 00 0 13264

13261 -0763 00 0 00005
13262 0560 00 0 26322

13263 0074 00 4 00105
13264 0074 00 4 00106
13265 0020 00 0 13255

BCD 1ACL
CAL M33A35
ACL MB32
LGR 5
TQP *+4

LGL 5
LDQ B32T34
TSX ERROR,4
TSX OK,4
TRA *-8

400000000005
400000000010
SHIFT AC COL 31 TO MQ SIGN
SHOULD TRANSFER

000000000016 LOGICAL
SUM TO MQ

SECTION ONE
PART III

TEST GENERATE GROUP ONE

13266 212343606060
13267 -0500 00 0 26323
13270 0361 00 0 26313
13271 -0765 00 0 00005

13272 0162 00 0 13276
13273 -0763 00 0 00005
13274 0560 00 0 26324

13275 0074 00 4 00105
13276 0074 00 4 00106
13277 0020 00 0 13267

BCD 1ACL
CAL MB3233
ACL MB34
LGR 5

TQP *+4
LGL 5
LDQ B32T35

TSX ERROR,4
TSX OK,4
TRA *-8

400000000014
400000000002
SHIFT AC COL 31 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
000000000017 LOGICAL
SUM TO MQ

13300 234321606060
13301 0500 00 0 26324
13302 -0765 00 0 00005
13303 0162 00 0 13307

13304 -0763 00 0 00005
13305 0560 00 0 26324
13306 0074 00 4 00105
13307 0074 00 4 00106
13310 0020 00 0 13301

BCD 1CLA
CLA B32T35
LGR 5
TQP *+4

LGL 5
LDQ B32T35
TSX ERROR,4
TSX OK,4
TRA *-7

000000000017
SHIFT AC COL 31 TO MQ SIGN
SHOULD TRANSFER

RESTORE AC
CORRECT RESULT TO MQ

13311 212424606060
13312 0500 00 0 26236
13313 0400 00 0 26301
13314 -0765 00 0 00005

13315 0162 00 0 13317
13316 0020 00 0 13322
13317 -0763 00 0 00005
13320 0560 00 0 26234

13321 0074 00 4 00105
13322 0074 00 4 00106
13323 0020 00 0 13312

BCD 1ADD
CLA B33
ADD B32A33
LGR 5

TQP *+2
TRA *+4
LGL 5
LDQ B31

TSX ERROR,4
TSX OK,4
TRA *-9

+000000000004
+000000000014
SHIFT AC COL 31 TO MQ SIGN

SHOULD NOT TRANSFER

RESTORE AC
+000000000020
TRUE SUM TO MQ

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 259

TEST GENERATE GROUP ONE

13324 212424606060
13325 0500 00 0 26322
13326 0400 00 0 26237
13327 -0765 00 0 00005

BCD 1ADD
CLA B32T34
ADD B34
LGR 5

+000000000016
+000000000002
SHIFT AC COL 31 TO MQ SIGN

13330 0162 00 0 13332
13331 0020 00 0 13335
13332 -0763 00 0 00005
13333 0560 00 0 26234

TQP **2
TRA **4
LGL 5
LDQ B31

SHOULD NOT TRANSFER

RESTORE AC
+000000000020
TRUE SUM TO MQ

13334 0074 00 4 00105
13335 0074 00 4 00106
13336 0020 00 0 13325

TSX ERROR,4
TSX OK,4
TRA *-9

13337 212424606060
13340 0500 00 0 26324
13341 0400 00 0 26240
13342 -0765 00 0 00005

BCD 1ADD
CLA B32T35
ADD B35
LGR 5

+000000000017
+000000000001
SHIFT AC COL 31 TO MQ SIGN

13343 0162 00 0 13345
13344 0020 00 0 13350
13345 -0763 00 0 00005
13346 0560 00 0 26234

TQP **2
TRA **4
LGL 5
LDQ B31

SHOULD NOT TRANSFER

RESTORE AC
+000000000020
TRUE SUM TO MQ

13347 0074 00 4 00105
13350 0074 00 4 00106
13351 0020 00 0 13340

TSX ERROR,4
TSX OK,4
TRA *-9

13352 212343606060
13353 -0500 00 0 26314
13354 0361 00 0 26320
13355 -0765 00 0 00005

BCD 1ACL
CAL M3335
ACL MB32
LGR 5

400000000007
400000000010
SHIFT AC COL 31 TO MQ SIGN

13356 0162 00 0 13360
13357 0020 00 0 13363
13360 -0763 00 0 00005
13361 0560 00 0 26234

TQP **2
TRA **4
LGL 5
LDQ B31

SHOULD NOT TRANSFER

RESTORE AC
+000000000020
LOGICAL SUM TO MQ

13362 0074 00 4 00105
13363 0074 00 4 00106
13364 0020 00 0 13353

TSX ERROR,4
TSX OK,4
TRA *-9

9M71/76B
2/1/63
PAGE 260

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP ONE

13365 212424606060
13366 0500 00 0 26301
13367 0400 00 0 26235
13370 -0765 00 0 00005

13371 0162 00 0 13373
13372 0020 00 0 13376
13373 -0763 00 0 00005
13374 0560 00 0 26325

13375 0074 00 4 00105
13376 0074 00 4 00106
13377 0020 00 0 13366

BCD 1ADD
CLA B32A33
ADD B32
LGR 5

TQP **2
TRA **4
LGL 5
LDQ B31A33

TSX ERROR,4
TSX OK,4
TRA *-9

+000000000014
+000000000010
SHIFT AC COL 31 TO MQ SIGN

SHOULD NOT TRANSFER

RESTORE AC
+000000000024
TRUE SUM TO MQ

13400 212424606060
13401 0500 00 0 26322
13402 0400 00 0 26235
13403 -0765 00 0 00005

13404 0162 00 0 13406
13405 0020 00 0 13411
13406 -0763 00 0 00005
13407 0560 00 0 26326

13410 0074 00 4 00105
13411 0074 00 4 00106
13412 0020 00 0 13401

BCD 1ADD
CLA B32T34
ADD B32
LGR 5

TQP **2
TRA **4
LGL 5
LDQ GA26

TSX ERROR,4
TSX OK,4
TRA *-9

+000000000016
+000000000010
SHIFT AC COL 31 TO MQ SIGN

SHOULD NOT TRANSFER

RESTORE AC
+000000000026
TRUE SUM TO MQ

13413 212424606060
13414 0500 00 0 26324
13415 0400 00 0 26235
13416 -0765 00 0 00005

13417 0162 00 0 13421
13420 0020 00 0 13424
13421 -0763 00 0 00005
13422 0560 00 0 26327

13423 0074 00 4 00105
13424 0074 00 4 00106
13425 0020 00 0 13414

BCD 1ADD
CLA B32T35
ADD B32
LGR 5

TQP **2
TRA **4
LGL 5
LDQ GA27

TSX ERROR,4
TSX OK,4
TRA *-9

+000000000017
+000000000010
SHIFT AC COL 31 TO MQ SIGN

SHOULD NOT TRANSFER

RESTORE AC
+000000000027
TRUE SUM TO MQ

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 261

TEST GENERATE GROUP ONE

13426	212424606060	BCD	1ADD	
13427	0500 00 0 26322	CLA	B32T34	+000000000016
13430	0400 00 0 26236	ADD	B33	+000000000004
13431	-0765 00 0 00005	LGR	5	SHIFT AC COL 31 TO MQ SIGN
13432	0162 00 0 13434	TQP	*+2	SHOULD NOT TRANSFER
13433	0020 00 0 13437	TRA	*+4	
13434	-0763 00 0 00005	LGL	5	RESTORE AC
13435	0560 00 0 26330	LDQ	GA22	+000000000022
				TRUE SUM TO MQ
13436	0074 00 4 00105	TSX	ERROR,4	
13437	0074 00 4 00106	TSX	OK,4	
13440	0020 00 0 13427	TRA	*-9	
13441	212424606060	BCD	1ADD	
13442	0500 00 0 26324	CLA	B32T35	+000000000017
13443	0400 00 0 26236	ADD	B33	+000000000004
13444	-0765 00 0 00005	LGR	5	SHIFT AC COL 31 TO MQ SIGN
13445	0162 00 0 13447	TQP	*+2	SHOULD NOT TRANSFER
13446	0020 00 0 13452	TRA	*+4	
13447	-0763 00 0 00005	LGL	5	RESTORE AC
13450	0560 00 0 26562	LDQ	GA23	+000000000023
				TRUE SUM TO MQ
13451	0074 00 4 00105	TSX	ERROR,4	
13452	0074 00 4 00106	TSX	OK,4	
13453	0020 00 0 13442	TRA	*-9	
13454	212424606060	BCD	1ADD	
13455	0500 00 0 26324	CLA	B32T35	+000000000017
13456	0400 00 0 26237	ADD	B34	+000000000002
13457	-0765 00 0 00005	LGR	5	SHIFT AC COL 31 TO MQ SIGN
13460	0162 00 0 13462	TQP	*+2	SHOULD NOT TRANSFER
13461	0020 00 0 13465	TRA	*+4	
13462	-0763 00 0 00005	LGL	5	RESTORE AC
13463	0560 00 0 26563	LDQ	GA21	+000000000021
				TRUE SUM TO MQ
13464	0074 00 4 00105	TSX	ERROR,4	
13465	0074 00 4 00106	TSX	OK,4	
13466	0020 00 0 13455	TRA	*-9	

9M71/76B
2/1/63
PAGE 262

S E C T I O N O N E
P A R T I I I

*
*
*
*
*
*
TEST CARRY INPUTS TO ADDERS 28-30

* TEST CARRY INPUT TO ADDER 30

13467	212424606060	BCD 1ADD	
13470	0500 00 0 26300	CLA B31A32	+000000000030
13471	0400 00 0 26235	ADD B32	+000000000010
13472	-0765 00 0 00006	LGR 6	SHIFT AC COL 30 TO MQ SIGN
13473	0162 00 0 13475	TQP ++2	SHOULD NOT TRANSFER
13474	0020 00 0 13500	TRA ++4	
13475	-0763 00 0 00006	LGL 6	RESTORE AC
13476	0560 00 0 26233	LDQ B30	+000000000040 TRUE SUM TO MQ
13477	0074 00 4 00105	TSX ERROR,4	
13500	0074 00 4 00106	TSX OK,4	
13501	0020 00 0 13470	TRA --9	

13502	212424606060	BCD 1ADD	
13503	0500 00 0 26235	CLA B32	+000000000010
13504	0400 00 0 26235	ADD B32	
13505	-0765 00 0 00006	LGR 6	SHIFT AC COL 30 TO MQ SIGN
13506	0162 00 0 13512	TQP ++4	SHOULD TRANSFER
13507	-0763 00 0 00006	LGL 6	RESTORE AC
13510	0560 00 0 26234	LDQ B31	+000000000020 TRUE SUM TO MQ
13511	0074 00 4 00105	TSX ERROR,4	
13512	0074 00 4 00106	TSX OK,4	
13513	0020 00 0 13503	TRA --8	

13514	234321606060	BCD 1CLA	
13515	0500 00 0 26234	CLA B31	+000000000020
13516	-0765 00 0 00006	LGR 6	SHIFT AC COL 30 TO MQ SIGN
13517	0162 00 0 13523	TQP ++4	SHOULD TRANSFER
13520	-0763 00 0 00006	LGL 6	RESTORE AC
13521	0560 00 0 26234	LDQ B31	+000000000020 CORRECT RESULT TO MQ
13522	0074 00 4 00105	TSX ERROR,4	
13523	0074 00 4 00106	TSX OK,4	
13524	0020 00 0 13515	TRA --7	

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 263

TEST CARRY INPUT TO ADDER 29

13525 212424606060
13526 0500 00 0 26277
13527 0400 00 0 26234
13530 -0765 00 0 00007

BCD 1ADD
CLA B30A31
ADD B31
LGR 7

+000000000060
+000000000020
SHIFT AC COL 29 TO MQ SIGN

13531 0162 00 0 13533
13532 0020 00 0 13536
13533 -0763 00 0 00007
13534 0560 00 0 26232

TQP *+2
TRA *+4
LGL 7
LDQ B29

SHOULD NOT TRANSFER

RESTORE AC
+000000000100
TRUE SUM TO MQ

13535 0074 00 4 00105
13536 0074 00 4 00106
13537 0020 00 0 13526

TSX ERROR,4
TSX OK,4
TRA *-9

13540 212424606060
13541 0500 00 0 26305
13542 0400 00 0 26235
13543 -0765 00 0 00007

BCD 1ADD
CLA B3032
ADD B32
LGR 7

+000000000070
+000000000010
SHIFT AC COL 29 TO MQ SIGN

13544 0162 00 0 13546
13545 0020 00 0 13551
13546 -0763 00 0 00007
13547 0560 00 0 26232

TQP *+2
TRA *+4
LGL 7
LDQ B29

SHOULD NOT TRANSFER

+000000000100
TRUE SUM TO MQ

13550 0074 00 4 00105
13551 0074 00 4 00106
13552 0020 00 0 13541

TSX ERROR,4
TSX OK,4
TRA *-9

13553 212424606060
13554 0500 00 0 26234
13555 0400 00 0 26234
13556 -0765 00 0 00007

BCD 1ADD
CLA B31
ADD B31
LGR 7

+000000000020
SHIFT AC COL 29 TO MQ SIGN

13557 0162 00 0 13563
13560 -0763 00 0 00007
13561 0560 00 0 26233

TQP *+4
LGL 7
LDQ B30

SHOULD TRANSFER
RESTORE AC
+000000000040
TRUE SUM TO MQ

13562 0074 00 4 00105
13563 0074 00 4 00106
13564 0020 00 0 13554

TSX ERROR,4
TSX OK,4
TRA *-8

9M71/76B
2/1/63
PAGE 264

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 29

13565	212424606060	BCD	1ADD	
13566	0500 00 0 26277	CLA	B30A31	+000000000060
13567	0400 00 0 26233	ADD	B30	+000000000040
13570	-0765 00 0 00007	LGR	7	SHIFT AC COL 29 TO MQ SIGN
13571	0162 00 0 13573	TQP	*+2	SHOULD NOT TRANSFER
13572	0020 00 0 13576	TRA	*+4	
13573	-0763 00 0 00007	LGL	7	RESTORE AC
13574	0560 00 0 26334	LDQ	B29A31	+000000000120
				TRUE SUM TO MQ
13575	0074 00 4 00105	TSX	ERROR,4	
13576	0074 00 4 00106	TSX	OK,4	
13577	0020 00 0 13566	TRA	*-9	

TEST CARRY INPUT TO ADDER COLUMN 29

13600	212424606060	BCD	1ADD	
13601	0500 00 0 26331	CLA	B30A32	+000000000050
13602	0400 00 0 26235	ADD	B32	+000000000010
13603	-0765 00 0 00007	LGR	7	SHIFT AC COL 29 TO MQ SIGN
13604	0162 00 0 13610	TQP	*+4	SHOULD TRANSFER
13605	-0763 00 0 00007	LGL	7	RESTORE AC
13606	0560 00 0 26277	LDQ	B30A31	+000000000060
				TRUE SUM TO MQ
13607	0074 00 4 00105	TSX	ERROR,4	
13610	0074 00 4 00106	TSX	OK,4	
13611	0020 00 0 13601	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 265

13612 234321606060	BCD 1CLA	
13613 0500 00 0 26277	CLA B30A31	+000000000060
13614 -0765 00 0 00007	LGR 7	SHIFT AC COL 29 TO MQ SIGN
13615 0162 00 0 13621	TQP *+4	SHOULD TRANSFER
13616 -0763 00 0 00007	LGL 7	RESTORE AC
13617 0560 00 0 26277	LDQ B30A31	CORRECT RESULT TO MQ
13620 0074 00 4 00105	TSX ERROR,4	
13621 0074 00 4 00106	TSX OK,4	
13622 0020 00 0 13613	TRA *-7	

TEST CARRY INPUT TO ADDER 28

13623 212424606060	BCD 1ADD	
13624 0500 00 0 26276	CLA B29A30	+000000000140
13625 0400 00 0 26233	ADD B30	+000000000040
13626 -0765 00 0 00010	LGR 8	SHIFT AC COL 28 TO MQ SIGN
13627 0162 00 0 13631	TQP *+2	SHOULD NOT TRANSFER
13630 0020 00 0 13634	TRA *+4	
13631 -0763 00 0 00010	LGL 8	RESTORE AC
13632 0560 00 0 26231	LDQ B28	+000000000200
13633 0074 00 4 00105	TSX ERROR,4	TRUE SUM TO MQ
13634 0074 00 4 00106	TSX OK,4	
13635 0020 00 0 13624	TRA *-9	

9M71/768
2/1/63
PAGE 266

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 28

13636	212424606060	BCD 1ADD	
13637	0500 00 0 26332	CLA B29T31	+000000000160
13640	0400 00 0 26234	ADD B31	+000000000020
13641	-0765 00 0 00010	LGR 8	SHIFT AC COL 28 TO MQ SIGN
13642	0162 00 0 13644	TQP **2	SHOULD NOT TRANSFER
13643	0020 00 0 13647	TRA **4	
13644	-0763 00 0 00010	LGL 8	RESTORE AC
13645	0560 00 0 26231	LDQ B28	+000000000200
			TRUE SUM TO MQ
13646	0074 00 4 00105	TSX ERROR,4	
13647	0074 00 4 00106	TSX OK,4	
13650	0020 00 0 13637	TRA *-9	
13651	212424606060	BCD 1ADD	
13652	0500 00 0 26333	CLA B29T32	+000000000170
13653	0400 00 0 26235	ADD B32	+000000000010
13654	-0765 00 0 00010	LGR 8	SHIFT AC COL 28 TO MQ SIGN
13655	0162 00 0 13657	TQP **2	SHOULD NOT TRANSFER
13656	0020 00 0 13662	TRA **4	
13657	-0763 00 0 00010	LGL 8	RESTORE AC
13660	0560 00 0 26231	LDQ B28	+000000000200
			TRUE SUM TO MQ
13661	0074 00 4 00105	TSX ERROR,4	
13662	0074 00 4 00106	TSX OK,4	
13663	0020 00 0 13652	TRA *-9	
13664	234321606060	BCD 1CLA	
13665	0500 00 0 26332	CLA B29T31	+000000000160
13666	-0765 00 0 00010	LGR 8	SHIFT AC COL 28 TO MQ SIGN
13667	0162 00 0 13673	TQP **4	SHOULD TRANSFER
13670	-0763 00 0 00010	LGL 8	RESTORE AC
13671	0560 00 0 26332	LDQ B29T31	TRUE RESULT TO MQ
13672	0074 00 4 00105	TSX ERROR,4	
13673	0074 00 4 00106	TSX OK,4	
13674	0020 00 0 13665	TRA *-7	

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 267

TEST CARRY INPUT TO ADDER 28

13675	212424606060	BCD 1ADD	
13676	0500 00 0 26277	CLA B30A31	+000000000060
13677	0400 00 0 26233	ADD B30	+000000000040
13700	-0765 00 0 00010	LGR 8	SHIFT AC COL 28 TO MQ SIGN
13701	0162 00 0 13705	TQP *+4	SHOULD TRANSFER
13702	-0763 00 0 00010	LGL 8	RESTORE AC
13703	0560 00 0 26334	LDQ B29A31	+000000000120
			TRUE SUM TO MQ
13704	0074 00 4 00105	TSX ERROR,4	
13705	0074 00 4 00106	TSX OK,4	
13706	0020 00 0 13676	TRA *-8	
13707	212424606060	BCD 1ADD	
13710	0500 00 0 26277	CLA B30A31	+000000000060
13711	0400 00 0 26234	ADD B31	+000000000020
13712	-0765 00 0 00010	LGR 8	SHIFT AC COL 28 TO MQ SIGN
13713	0162 00 0 13717	TQP *+4	SHOULD TRANSFER
13714	-0763 00 0 00010	LGL 8	RESTORE AC
13715	0560 00 0 26232	LDQ B29	+000000000100
			TRUE SUM TO MQ
13716	0074 00 4 00105	TSX ERROR,4	
13717	0074 00 4 00106	TSX OK,4	
13720	0020 00 0 13710	TRA *-8	
13721	212424606060	BCD 1ADD	
13722	0500 00 0 26334	CLA B29A31	+000000000120
13723	0400 00 0 26234	ADD B31	+000000000020
13724	-0765 00 0 00010	LGR 8	SHIFT AC COL 28 TO MQ SIGN
13725	0162 00 0 13731	TQP *+4	SHOULD TRANSFER
13726	-0763 00 0 00010	LGL 8	RESTORE AC
13727	0560 00 0 26276	LDQ B29A30	+000000000140
			TRUE SUM TO MQ
13730	0074 00 4 00105	TSX ERROR,4	
13731	0074 00 4 00106	TSX OK,4	
13732	0020 00 0 13722	TRA *-8	

9M71/76B
2/1/63
PAGE 268

S E C T I O N O N E
P A R T I I I

TEST CARRY INTO ADDER 28

13733 212424606060
13734 0500 00 0 26331
13735 0400 00 0 26335
13736 -0765 00 0 00010

BCD 1ADD
CLA B30A32
ADD B29A32
LGR 8

+000000000050
+000000000110
SHIFT AC COL 28 TO MQ SIGN

13737 0162 00 0 13743
13740 -0763 00 0 00010
13741 0560 00 0 26332

TQP **4
LGL 8
LDQ B29T31

SHOULD TRANSFER
RESTORE AC
+000000000160
TRUE SUM TO MQ

13742 0074 00 4 00105
13743 0074 00 4 00106
13744 0020 00 0 13734

TSX ERROR,4
TSX OK,4
TRA *-8

13745 212424606060
13746 0500 00 0 26331
13747 0400 00 0 26300
13750 -0765 00 0 00010

BCD 1ADD
CLA B30A32
ADD B31A32
LGR 8

+000000000050
+000000000030
SHIFT AC COL 28 TO MQ SIGN

13751 0162 00 0 13755
13752 -0763 00 0 00010
13753 0560 00 0 26232

TQP **4
LGL 8
LDQ B29

SHOULD TRANSFER
RESTORE AC
+000000000100
TRUE SUM TO MQ

13754 0074 00 4 00105
13755 0074 00 4 00106
13756 0020 00 0 13746

TSX ERROR,4
TSX OK,4
TRA *-8

13757 212424606060
13760 0500 00 0 26335
13761 0400 00 0 26300
13762 -0765 00 0 00010

BCD 1ADD
CLA B29A32
ADD B31A32
LGR 8

+000000000110
+000000000030
SHIFT AC COL 28 TO MQ SIGN

13763 0162 00 0 13767
13764 -0763 00 0 00010
13765 0560 00 0 26276

TQP **4
LGL 8
LDQ B29A30

SHOULD TRANSFER
RESTORE AC
+000000000140
TRUE SUM TO MQ

13766 0074 00 4 00105
13767 0074 00 4 00106
13770 0020 00 0 13760

TSX ERROR,4
TSX OK,4
TRA *-8

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 269

TEST GENERATE GROUP TWO

13771	212424606060	BCD	1ADD	
13772	0500 00 0 26332	CLA	B29T31	+000000000160
13773	0400 00 0 26234	ADD	B31	+000000000020
13774	-0765 00 0 00011	LGR	9	SHIFT AC COL 27 TO MQ SIGN
13775	0162 00 0 14001	TQP	++4	SHOULD TRANSFER
13776	-0763 00 0 00011	LGL	9	RESTORE AC
13777	0560 00 0 26231	LDQ	B28	+000000000200
				TRUE SUM TO MQ
14000	0074 00 4 00105	TSX	ERROR,4	
14001	0074 00 4 00106	TSX	OK,4	
14002	0020 00 0 13772	TRA	--8	
14003	212424606060	BCD	1ADD	
14004	0500 00 0 26336	CLA	B28A31	+000000000220
14005	0400 00 0 26277	ADD	B30A31	+000000000060
14006	-0765 00 0 00011	LGR	9	SHIFT AC COL 27 TO MQ SIGN
14007	0162 00 0 14013	TQP	++4	
14010	-0763 00 0 00011	LGL	9	RESTORE AC
14011	0560 00 0 26275	LDQ	B28A29	+000000000300
				TRUE SUM TO MQ
14012	0074 00 4 00105	TSX	ERROR,4	
14013	0074 00 4 00106	TSX	OK,4	
14014	0020 00 0 14004	TRA	--8	
14015	212424606060	BCD	1ADD	
14016	0500 00 0 26336	CLA	B28A31	+000000000220
14017	0400 00 0 26334	ADD	B29A31	+000000000120
14020	-0765 00 0 00011	LGR	9	SHIFT AC COL 27 TO MQ SIGN
14021	0162 00 0 14025	TQP	++4	SHOULD TRANSFER
14022	-0763 00 0 00011	LGL	9	RESTORE AC
14023	0560 00 0 26337	LDQ	B28T30	+000000000340
				TRUE SUM TO MQ
14024	0074 00 4 00105	TSX	ERROR,4	
14025	0074 00 4 00106	TSX	OK,4	
14026	0020 00 0 14016	TRA	--8	

9M71/76B
2/1/63
PAGE 270

SECTION ONE
PART III

TEST GENERATE GROUP TWO

14027 234321806060
14030 0500 00 0 26337
14031 -0765 00 0 00011
14032 0162 00 0 14036

BCD ICLA
CLA B28T30
LGR 9
TQP **4

+000000000340
SHIFT AC COL 27 TO MQ SIGN
SHOULD TRANSFER

14033 -0763 00 0 00011
14034 0560 00 0 26337

LGL 9
LDQ B28T30

RESTORE AC
CORRECT RESULT TO MQ

14035 0074 00 4 00105
14036 0074 00 4 00106
14037 0020 00 0 14030

TSX ERROR,4
TSX OK,4
TRA *-7

14040 212424606060
14041 0500 00 0 26277
14042 0400 00 0 26275
14043 -0765 00 0 00011

BCD 1ADD
CLA B30A31
ADD B28A29
LGR 9

+000000000060
+000000000300
SHIFT AC COL 27 TO MQ SIGN

14044 0162 00 0 14050
14045 -0763 00 0 00011
14046 0560 00 0 26472

TQP **4
LGL 9
LDQ B28T31

SHOULD TRANSFER
RESTORE AC
+000000000360
TRUE SUM TO MQ

14047 0074 00 4 00105
14050 0074 00 4 00106
14051 0020 00 0 14041

TSX ERROR,4
TSX OK,4
TRA *-8

14052 212424606060
14053 0500 00 0 26275
14054 0400 00 0 26232
14055 -0765 00 0 00011

BCD 1ADD
CLA B28A29
ADD B29
LGR 9

+000000000300
+000000000100
SHIFT AC COL 27 TO MQ SIGN

14056 0162 00 0 14060
14057 0020 00 0 14063
14060 -0763 00 0 00011
14061 0560 00 0 26230

TQP **2
TRA **4
LGL 9
LDQ B27

SHOULD NOT TRANSFER
RESTORE AC
+000000000400
TRUE SUM TO MQ

14062 0074 00 4 00105
14063 0074 00 4 00106
14064 0020 00 0 14053

TSX ERROR,4
TSX OK,4
TRA *-9

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 271

TEST GENERATE GROUP TWO

14065	212424606060	BCD 1ADD	
14066	0500 00 0 26276	CLA B29A30	+000000000140
14067	0400 00 0 26340	ADD B28A30	+000000000240
14070	-0765 00 0 00011	LGR 9	SHIFT AC COL 27 TO MQ SIGN
14071	0162 00 0 14073	TQP *+2	SHOULD NOT TRANSFER
14072	0020 00 0 14076	TRA *+4	
14073	-0763 00 0 00011	LGL 9	RESTORE AC
14074	0560 00 0 26230	LDQ B27	+000000000400
			TRUE SUM TO MQ
14075	0074 00 4 00105	TSX ERROR,4	
14076	0074 00 4 00106	TSX OK,4	
14077	0020 00 0 14066	TRA *-9	
14100	212424606060	BCD 1ADD	
14101	0500 00 0 26332	CLA B29T31	+000000000160
14102	0400 00 0 26336	ADD B28A31	+000000000220
14103	-0765 00 0 00011	LGR 9	SHIFT AC COL 27 TO MQ SIGN
14104	0162 00 0 14106	TQP *+2	SHOULD NOT TRANSFER
14105	0020 00 0 14111	TRA *+4	
14106	-0763 00 0 00011	LGL 9	RESTORE AC
14107	0560 00 0 26230	LDQ B27	+000000000400
			TRUE SUM TO MQ
14110	0074 00 4 00105	TSX ERROR,4	
14111	0074 00 4 00106	TSX OK,4	
14112	0020 00 0 14101	TRA *-9	
14113	212424606060	BCD 1ADD	
14114	0500 00 0 26275	CLA B28A29	+000000000300
14115	0400 00 0 26231	ADD B28	+000000000200
14116	-0765 00 0 00011	LGR 9	SHIFT AC COL 27 TO MQ SIGN
14117	0162 00 0 14121	TQP *+2	SHOULD NOT TRANSFER
14120	0020 00 0 14124	TRA *+4	
14121	-0763 00 0 00011	LGL 9	RESTORE AC
14122	0560 00 0 26341	LDQ B27A29	+000000000500
			TRUE SUM TO MQ
14123	0074 00 4 00105	TSX ERROR,4	
14124	0074 00 4 00106	TSX OK,4	
14125	0020 00 0 14114	TRA *-9	

9M71/76B
2/1/63
PAGE 272

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP TWO

14126	212424606060	BCD	1ADD	
14127	0500 00 0 26340	CLA	B28A30	+000000000240
14130	0400 00 0 26275	ADD	B28A29	+000000000300
14131	-0765 00 0 00011	LGR	9	SHIFT AC COL 27 TO MQ SIGN
14132	0162 00 0 14134	TQP	*+2	SHOULD NOT TRANSFER
14133	0020 00 0 14137	TRA	*+4	
14134	-0763 00 0 00011	LGL	9	RESTORE AC
14135	0560 00 0 26342	LDQ	GB54	+000000000540
				TRUE SUM TO MQ
14136	0074 00 4 00105	TSX	ERROR,4	
14137	0074 00 4 00106	TSX	OK,4	
14140	0020 00 0 14127	TRA	*-9	

14141	212424606060	BCD	1ADD	
14142	0500 00 0 26275	CLA	B28A29	+000000000300
14143	0400 00 0 26276	ADD	B29A30	+000000000140
14144	-0765 00 0 00011	LGR	9	SHIFT AC COL 27 TO MQ SIGN

14145	0162 00 0 14147	TQP	*+2	SHOULD NOT TRANSFER
14146	0020 00 0 14152	TRA	*+4	
14147	-0763 00 0 00011	LGL	9	RESTORE AC
14150	0560 00 0 26343	LDQ	B27A30	+000000000440
				TRUE SUM TO MQ

14151	0074 00 4 00105	TSX	ERROR,4	
14152	0074 00 4 00106	TSX	OK,4	
14153	0020 00 0 14142	TRA	*-9	

14154	212424606060	BCD	1ADD	
14155	0500 00 0 26337	CLA	B28T30	+000000000340
14156	0400 00 0 26336	ADD	B28A31	+000000000220
14157	-0765 00 0 00011	LGR	9	SHIFT AC COL 27 TO MQ SIGN

14160	0162 00 0 14162	TQP	*+2	SHOULD NOT TRANSFER
14161	0020 00 0 14165	TRA	*+4	
14162	-0763 00 0 00011	LGL	9	RESTORE AC
14163	0560 00 0 26344	LDQ	GB56	+000000000560
				TRUE SUM TO MQ

14164	0074 00 4 00105	TSX	ERROR,4	
14165	0074 00 4 00106	TSX	OK,4	
14166	0020 00 0 14155	TRA	*-9	

TEST GENERATE GROUP TWO

14167 212424606060
14170 0500 00 0 26332
14171 0400 00 0 26275
14172 -0765 00 0 00011

14173 0162 00 0 14175
14174 0020 00 0 14200
14175 -0763 00 0 00011
14176 0560 00 0 26345

14177 0074 00 4 00105
14200 0074 00 4 00106
14201 0020 00 0 14170

14202 212424606060
14203 0500 00 0 26337
14204 0400 00 0 26277
14205 -0765 00 0 00011

14206 0162 00 0 14210
14207 0020 00 0 14213
14210 -0763 00 0 00011
14211 0560 00 0 26346

14212 0074 00 4 00105
14213 0074 00 4 00106
14214 0020 00 0 14203

131
129

+000000000160
+000000000300
SHIFT AC COL 27 TO MQ SIGN

SHOULD NOT TRANSFER

RESTORE AC
+000000000460
TRUE SUM TO MQ

14R,4
14
14
14

14
14
14

1430
31

+000000000340
+000000000060
SHIFT AC COL 27 TO MQ SIGN

14
14
14

SHOULD NOT TRANSFER

RESTORE AC
+000000000420
TRUE SUM TO MQ

31

14R,4
14
14
14

142
142
142
142

142
142
142

9M71/76B
2/1/63
PAGE 274

SECTION ONE
PART III

TEST CARRY INPUTS TO ADDERS 24-26

TEST CARRY INPUTS TO ADDER 26

14215	212424606060	BCD 1ADD	
14216	0500 00 0 26274	CLA B27A28	+000000000600
14217	0400 00 0 26231	ADD B28	+000000000200
14220	-0765 00 0 00012	LGR 10	SHIFT AC COL 26 TO MQ SIGN
14221	0162 00 0 14223	TQP **2	SHOULD NOT TRANSFER
14222	0020 00 0 14226	TRA **4	
14223	-0763 00 0 00012	LGL 10	RESTORE AC
14224	0560 00 0 26227	LDQ B26	+000000001000
			TRUE SUM TO MQ
14225	0074 00 4 00105	TSX ERROR,4	
14226	0074 00 4 00106	TSX OK,4	
14227	0020 00 0 14216	TRA *-9	

14230	234321606060	BCD 1CLA	
14231	0500 00 0 26230	CLA B27	+000000000400
14232	-0765 00 0 00012	LGR 10	SHIFT AC COL 26 TO MQ SIGN
14233	0162 00 0 14237	TQP **4	SHOULD TRANSFER
14234	-0763 00 0 00012	LGL 10	RESTORE AC
14235	0560 00 0 26230	LDQ B27	CORRECT RESULT TO MQ
14236	0074 00 4 00105	TSX ERROR,4	
14237	0074 00 4 00106	TSX OK,4	
14240	0020 00 0 14231	TRA *-7	

14241	212424606060	BCD 1ADD	
14242	0500 00 0 26231	CLA B28	+000000000200
14243	0400 00 0 26231	ADD B28	
14244	-0765 00 0 00012	LGR 10	SHIFT AC COL 26 TO MQ SIGN
14245	0162 00 0 14251	TQP **4	SHOULD TRANSFER
14246	-0763 00 0 00012	LGL 10	RESTORE AC
14247	0560 00 0 26230	LDQ B27	+000000000400
			TRUE SUM TO MQ
14250	0074 00 4 00105	TSX ERROR,4	
14251	0074 00 4 00106	TSX OK,4	
14252	0020 00 0 14242	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 275

TEST CARRY INPUTS TO ADDER 25

14253	212424606060	BCD	1ADD	
14254	0500 00 0 26273	CLA	B26A27	+000000001400
14255	0400 00 0 26230	ADD	B27	+000000000400
14256	-0765 00 0 00013	LGR	11	SHIFT AC COL 25 TO MQ SIGN
14257	0162 00 0 14261	TQP	++2	SHOULD NOT TRANSFER
14260	0020 00 0 14264	TRA	++4	
14261	-0763 00 0 00013	LGL	11	RESTORE AC
14262	0560 00 0 26226	LDQ	B25	+000000002000
				TRUE SUM TO MQ
14263	0074 00 4 00105	TSX	ERROR, 4	
14264	0074 00 4 00106	TSX	OK, 4	
14265	0020 00 0 14254	TRA	*-9	

14266	212424606060	BCD	1ADD	
14267	0500 00 0 26347	CLA	B26A28	+000000001200
14270	0400 00 0 26274	ADD	B27A28	+000000000600
14271	-0765 00 0 00013	LGR	11	SHIFT AC COL 25 TO MQ SIGN
14272	0162 00 0 14274	TQP	++2	SHOULD NOT TRANSFER
14273	0020 00 0 14277	TRA	++4	
14274	-0763 00 0 00013	LGL	11	RESTORE AC
14275	0560 00 0 26226	LDQ	B25	+000000002000
				TRUE SUM TO MQ
14276	0074 00 4 00105	TSX	ERROR, 4	
14277	0074 00 4 00106	TSX	OK, 4	
14300	0020 00 0 14267	TRA	*-9	

14301	212424606060	BCD	1ADD	
14302	0500 00 0 26230	CLA	B27	+000000000400
14303	0400 00 0 26230	ADD	B27	
14304	-0765 00 0 00013	LGR	11	SHIFT AC COL 25 TO MQ SIGN
14305	0162 00 0 14311	TQP	++4	SHOULD TRANSFER
14306	-0763 00 0 00013	LGL	11	RESTORE AC
14307	0560 00 0 26227	LDQ	B26	+000000001000
				TRUE SUM TO MQ
14310	0074 00 4 00105	TSX	ERROR, 4	
14311	0074 00 4 00106	TSX	OK, 4	
14312	0020 00 0 14302	TRA	*-8	

9M71/76B
2/1/63
PAGE 276

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 25

14313	212424606060	BCD	1ADD	
14314	0500 00 0 26273	CLA	B26A27	+000000001400
14315	0400 00 0 26227	ADD	B26	+000000001000
14316	-0765 00 0 00013	LGR	11	SHIFT AC COL 25 TO MQ SIGN
14317	0162 00 0 14321	TQP	*+2	SHOULD NOT TRANSFER
14320	0020 00 0 14324	TRA	*+4	
14321	-0763 00 0 00013	LGL	11	RESTORE AC
14322	0560 00 0 26350	LDQ	B25A27	+000000002400
				TRUE SUM TO MQ
14323	0074 00 4 00105	TSX	ERROR,4	
14324	0074 00 4 00106	TSX	OK,4	
14325	0020 00 0 14314	TRA	*-9	

TESTING CARRY INPUTS TO ADDER 25

14326	212424606060	BCD	1ADD	
14327	0500 00 0 26347	CLA	B26A28	+000000001200
14330	0400 00 0 26231	ADD	B28	+000000000200
14331	-0765 00 0 00013	LGR	11	SHIFT AC COL 25 TO MQ SIGN
14332	0162 00 0 14336	TQP	*+4	SHOULD TRANSFER
14333	-0763 00 0 00013	LGL	11	RESTORE AC
14334	0560 00 0 26273	LDQ	B26A27	+000000001400
				TRUE SUM TO MQ
14335	0074 00 4 00105	TSX	ERROR,4	
14336	0074 00 4 00106	TSX	OK,4	
14337	0020 00 0 14327	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 277

14340 234321606060	BCD 1CLA	
14341 0500 00 0 26273	CLA B26A27	+000000001400
14342 -0765 00 0 00013	LGR 11	SHIFT AC COL 25 TO MQ SIGN
14343 0162 00 0 14347	TQP **4	SHOULD TRANSFER
14344 -0763 00 0 00013	LGL 11	RESTORE AC
14345 0560 00 0 26273	LDQ B26A27	CORRECT RESULT TO MQ
14346 0074 00 4 00105	TSX ERROR,4	
14347 0074 00 4 00106	TSX OK,4	
14350 0020 00 0 14341	TRA *-7	

TEST CARRY INPUTS TO ADDER 24

14351 212424606060	BCD 1ADD	
14352 0500 00 0 26272	CLA B25A26	+000000003000
14353 0400 00 0 26227	ADD B26	+000000001000
14354 -0765 00 0 00014	LGR 12	SHIFT AC COL 24 TO MQ SIGN
14355 0162 00 0 14357	TQP **2	SHOULD NOT TRANSFER
14356 0020 00 0 14362	TRA **4	
14357 -0763 00 0 00014	LGL 12	RESTORE AC
14360 0560 00 0 26225	LDQ B24	+000000004000
		TRUE SUM TO MQ
14361 0074 00 4 00105	TSX ERROR,4	
14362 0074 00 4 00106	TSX OK,4	
14363 0020 00 0 14352	TRA *-9	

9M71/76B
2/1/63
PAGE 278

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 24

14364 212424606060
14365 0500 00 0 26350
14366 0400 00 0 26273
14367 -0765 00 0 00014

BCD 1ADD
CLA B25A27
ADD B26A27
LGR 12

+000000002400
+000000001400
SHIFT AC COL 24 TO MQ SIGN

14370 0162 00 0 14372
14371 0020 00 0 14375
14372 -0763 00 0 00014
14373 0560 00 0 26225

TQP **2
TRA **4
LGL 12
LDQ B24

SHOULD NOT TRANSFER

RESTORE AC
+000000004000
TRUE SUM TO MQ

14374 0074 00 4 00105
14375 0074 00 4 00106
14376 0020 00 0 14365

TSX ERROR,4
TSX OK,4
TRA *-9

14377 212424606060
14400 0500 00 0 26351
14401 0400 00 0 26231
14402 -0765 00 0 00014

BCD 1ADD
CLA B25T28
ADD B28
LGR 12

+000000003600
+000000000200
SHIFT AC COL 24 TO MQ SIGN

14403 0162 00 0 14405
14404 0020 00 0 14410
14405 -0763 00 0 00014
14406 0560 00 0 26225
14407 0074 00 4 00105
14410 0074 00 4 00106
14411 0020 00 0 14400

TQP **2
TRA **4
LGL 12
LDQ B24
TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER

RESTORE AC

14412 212424606060
14413 0500 00 0 26227
14414 0400 00 0 26227
14415 -0765 00 0 00014

BCD 1ADD
CLA B26
ADD B26
LGR 12

+000000001000

SHIFT AC COL 24 TO MQ SIGN

14416 0162 00 0 14422
14417 -0763 00 0 00014
14420 0560 00 0 26226

TQP **4
LGL 12
LDQ B25

SHOULD TRANSFER
RESTORE AC
+000000002000
TRUE SUM TO MQ

14421 0074 00 4 00105
14422 0074 00 4 00106
14423 0020 00 0 14413

TSX ERROR,4
TSX OK,4
TRA *-8

SECTION ONE PART III

9M71/768
2/1/63
PAGE 279

TEST CARRY INPUT TO ADDER 24

14424	212424606060	BCD	1ADD	
14425	0500 00 0 26272	CLA	B25A26	+000000003000
14426	0400 00 0 26230	ADD	B27	+000000000400
14427	-0765 00 0 00014	LGR	12	SHIFT AC COL 24 TO MQ SIGN
14430	0162 00 0 14434	TQP	*+4	SHOULD TRANSFER
14431	-0763 00 0 00014	LGL	12	RESTORE AC
14432	0560 00 0 26352	LDQ	B25T27	+000000003400
				TRUE SUM TO MQ
14433	0074 00 4 00105	TSX	ERROR,4	
14434	0074 00 4 00106	TSX	OK,4	
14435	0020 00 0 14425	TRA	*-8	
14436	212424606060	BCD	1ADD	
14437	0500 00 0 26273	CLA	B26A27	+000000001400
14440	0400 00 0 26230	ADD	B27	+000000000400
14441	-0765 00 0 00014	LGR	12	SHIFT AC 24 TO MQ SIGN
14442	0162 00 0 14446	TQP	*+4	SHOULD TRANSFER
14443	-0763 00 0 00014	LGL	12	RESTORE AC
14444	0560 00 0 26226	LDQ	B25	+000000002000
				TRUE SUM TO MQ
14445	0074 00 4 00105	TSX	ERROR,4	
14446	0074 00 4 00106	TSX	OK,4	
14447	0020 00 0 14437	TRA	*-8	
14450	212424606060	BCD	1ADD	
14451	0500 00 0 26350	CLA	B25A27	+000000002400
14452	0400 00 0 26230	ADD	B27	+000000000400
14453	-0765 00 0 00014	LGR	12	SHIFT C AC 24 TO MQ SIGN
14454	0162 00 0 14460	TQP	*+4	SHOULD TRANSFER
14455	-0763 00 0 00014	LGL	12	RESTORE AC
14456	0560 00 0 26272	LDQ	B25A26	+000000003000
				TRUE SUM TO MQ
14457	0074 00 4 00105	TSX	ERROR,4	
14460	0074 00 4 00106	TSX	OK,4	
14461	0020 00 0 14451	TRA	*-8	

9M71/76B
2/1/63
PAGE 280

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 24

14462	212424606060	BCD 1ADD	
14463	0500 00 0 26347	CLA B26A28	+000000001200
14464	0400 00 0 26274	ADD B27A28	+000000000600
14465	-0765 00 0 00014	LGR 12	SHIFT C AC 24 TO MQ SIGN
14466	0162 00 0 14472	TQP **4	SHOULD TRANSFER
14467	-0763 00 0 00014	LGL 12	RESTORE AC
14470	0560 00 0 26226	LDQ B25	+000000002000
			TRUE SUM TO MQ
14471	0074 00 4 00105	TSX ERROR,4	
14472	0074 00 4 00106	TSX OK,4	
14473	0020 00 0 14463	TRA *-8	

14474	212424606060	BCD 1ADD	
14475	0500 00 0 26353	CLA B25A28	+000000002200
14476	0400 00 0 26274	ADD B27A28	+000000000600
14477	-0765 00 0 00014	LGR 12	SHIFT C AC 24 TO MQ SIGN

14500	0162 00 0 14504	TQP **4	SHOULD TRANSFER
14501	-0763 00 0 00014	LGL 12	RESTORE AC
14502	0560 00 0 26272	LDQ B25A26	+000000003000
			TRUE SUM TO MQ

14503	0074 00 4 00105	TSX ERROR,4	
14504	0074 00 4 00106	TSX OK,4	
14505	0020 00 0 14475	TRA *-8	

14506	212424606060	BCD 1ADD	
14507	0500 00 0 26353	CLA B25A28	+000000002200
14510	0400 00 0 26347	ADD B26A28	+000000001200
14511	-0765 00 0 00014	LGR 12	SHIFT C AC 24 TO MQ SIGN

14512	0162 00 0 14516	TQP **4	SHOULD TRANSFER
14513	-0763 00 0 00014	LGL 12	RESTORE AC
14514	0560 00 0 26352	LDQ B25T27	+000000003400
			TRUE SUM TO MQ

14515	0074 00 4 00105	TSX ERROR,4	
14516	0074 00 4 00106	TSX OK,4	
14517	0020 00 0 14507	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 281

*
*
*
*
*

TEST GENERATE GROUP THREE

14520	212424606060	BCD	1ADD	
14521	0500 00 0 26352	CLA	B25T27	+000000003400
14522	0400 00 0 26226	ADD	B25	+000000002000
14523	-0765 00 0 00015	LGR	13	SHIFT C AC 23 TO MQ SIGN
14524	0162 00 0 14530	TQP	++4	SHOULD TRANSFER
14525	-0763 00 0 00015	LGL	13	RESTORE AC
14526	0560 00 0 26354	LDQ	GC54	+000000005400
				TRUE SUM TO MQ
14527	0074 00 4 00105	TSX	ERROR,4	
14530	0074 00 4 00106	TSX	OK,4	
14531	0020 00 0 14521	TRA	*-8	
14532	212424606060	BCD	1ADD	
14533	0500 00 0 26354	CLA	GC54	+000000005400
14534	0400 00 0 26227	ADD	B26	+000000001000
14535	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14536	0162 00 0 14542	TQP	++4	SHOULD TRANSFER
14537	-0763 00 0 00015	LGL	13	
14540	0560 00 0 26564	LDQ	GC64	+000000006400
				TRUE SUM TO MQ
14541	0074 00 4 00105	TSX	ERROR,4	
14542	0074 00 4 00106	TSX	OK,4	
14543	0020 00 0 14533	TRA	*-8	
14544	212424606060	BCD	1ADD	
14545	0500 00 0 26564	CLA	GC64	+000000006400
14546	0400 00 0 26230	ADD	B27	+000000000400
14547	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14550	0162 00 0 14554	TQP	++4	SHOULD TRANSFER
14551	-0763 00 0 00015	LGL	13	RESTORE AC
14552	0560 00 0 26355	LDQ	GC70	+000000007000
				TRUE SUM TO MQ
14553	0074 00 4 00105	TSX	ERROR,4	
14554	0074 00 4 00106	TSX	OK,4	
14555	0020 00 0 14545	TRA	*-8	

9M71/768
2/1/63
PAGE 282

SECTION ONE
PART III

TEST GENERATE GROUP THREE

14556 234321606060
14557 0500 00 0 26355
14560 -0765 00 0 00015

BCD 1CLA
CLA GC70
LGR 13

+000000007000
SHIFT AC COL 23 TO MQ SIGN

14561 0162 00 0 14565
14562 -0763 00 0 00015
14563 0560 00 0 26355

TQP **4
LGL 13
LDQ GC70

SHOULD TRANSFER
RESTORE AC
CORRECT RESULT TO MQ

14564 0074 00 4 00105
14565 0074 00 4 00106
14566 0020 00 0 14557

TSX ERROR,4
TSX OK,4
TRA *-7

14567 234321606060
14570 0500 00 0 26356
14571 -0765 00 0 00015

BCD 1CLA
CLA B24T27
LGR 13

+000000007400
SHIFT AC COL 23 TO MQ SIGN

14572 0162 00 0 14576
14573 -0763 00 0 00015
14574 0560 00 0 26356

TQP **4
LGL 13
LDQ B24T27

SHOULD TRANSFER
RESTORE AC
CORRECT RESULT TO MQ

14575 0074 00 4 00105
14576 0074 00 4 00106
14577 0020 00 0 14570

TSX ERROR,4
TSX OK,4
TRA *-7

14600 212424606060
14601 0500 00 0 26271
14602 0400 00 0 26226
14603 -0765 00 0 00015

BCD 1ADD
CLA B24A25
ADD B25
LGR 13

+000000006000
+000000002000
SHIFT AC COL 23 TO MQ SIGN

14604 0162 00 0 14606
14605 0020 00 0 14611
14606 -0763 00 0 00015
14607 0560 00 0 26224

TQP **2
TRA **4
LGL 13
LDQ B23

SHOULD NOT TRANSFER
RESTORE AC
+000000010000
TRUE SUM TO MQ

14610 0074 00 4 00105
14611 0074 00 4 00106
14612 0020 00 0 14601

TSX ERROR,4
TSX OK,4
TRA *-9

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 283

TEST GENERATE GROUP THREE

14613	212424606060	BCD	1ADD	
14614	0500 00 0 26565	CLA	B24A26	+000000005000
14615	0400 00 0 26272	ADD	B25A26	+000000003000
14616	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14617	0162 00 0 14621	TQP	*+2	SHOULD NOT TRANSFER
14620	0020 00 0 14624	TRA	*+4	
14621	-0763 00 0 00015	LGL	13	RESTORE AC
14622	0560 00 0 26224	LDQ	B23	+000000010000
				TRUE SUM TO MQ
14623	0074 00 4 00105	TSX	ERROR,4	
14624	0074 00 4 00106	TSX	OK,4	
14625	0020 00 0 14614	TRA	*-9	
14626	212424606060	BCD	1ADD	
14627	0500 00 0 26356	CLA	B24T27	+000000007400
14630	0400 00 0 26230	ADD	B27	+000000000400
14631	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14632	0162 00 0 14634	TQP	*+2	SHOULD NOT TRANSFER
14633	0020 00 0 14637	TRA	*+4	
14634	-0763 00 0 00015	LGL	13	RESTORE AC
14635	0560 00 0 26224	LDQ	B23	+000000010000
				TRUE SUM TO MQ
14636	0074 00 4 00105	TSX	ERROR,4	
14637	0074 00 4 00106	TSX	OK,4	
14640	0020 00 0 14627	TRA	*-9	
14641	212424606060	BCD	1ADD	
14642	0500 00 0 26271	CLA	B24A25	+000000006000
14643	0400 00 0 26225	ADD	B24	+000000004000
14644	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14645	0162 00 0 14647	TQP	*+2	SHOULD NOT TRANSFER
14646	0020 00 0 14652	TRA	*+4	
14647	-0763 00 0 00015	LGL	13	RESTORE AC
14650	0560 00 0 26357	LDQ	B23A25	+000000012000
				TRUE SUM TO MQ
14651	0074 00 4 00105	TSX	ERROR,4	
14652	0074 00 4 00106	TSX	OK,4	
14653	0020 00 0 14642	TRA	*-9	

9M71/76B
2/1/63
PAGE 284

SECTION ONE
PART III

TEST GENERATE GROUP THREE

14654	212424606060	BCD	1ADD	
14655	0500 00 0 26355	CLA	GC70	+000000007000
14656	0400 00 0 26225	ADD	B24	+000000004000
14657	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14660	0162 00 0 14662	TQP	**2	SHOULD NOT TRANSFER
14661	0020 00 0 14665	TRA	**4	
14662	-0763 00 0 00015	LGL	13	RESTORE AC
14663	0560 00 0 26360	LDQ	GD13	+000000013000
				TRUE SUM TO MQ
14664	0074 00 4 00105	TSX	ERROR,4	
14665	0074 00 4 00106	TSX	OK,4	
14666	0020 00 0 14655	TRA	*-9	
14667	212424606060	BCD	1ADD	
14670	0500 00 0 26356	CLA	B24T27	+000000007400
14671	0400 00 0 26225	ADD	B24	+000000004000
14672	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14673	0162 00 0 14675	TQP	**2	SHOULD NOT TRANSFER
14674	0020 00 0 14700	TRA	**4	
14675	-0763 00 0 00015	LGL	13	RESTORE AC
14676	0560 00 0 26361	LDQ	GC134	+000000013400
				TRUE SUM TO MQ
14677	0074 00 4 00105	TSX	ERROR,4	
14700	0074 00 4 00106	TSX	OK,4	
14701	0020 00 0 14670	TRA	*-9	
14702	212424606060	BCD	1ADD	
14703	0500 00 0 26355	CLA	GC70	+000000007000
14704	0400 00 0 26226	ADD	B25	+000000002000
14705	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14706	0162 00 0 14710	TQP	**2	SHOULD NOT TRANSFER
14707	0020 00 0 14713	TRA	**4	
14710	-0763 00 0 00015	LGL	13	RESTORE AC
14711	0560 00 0 26362	LDQ	B23A26	+000000011000
				TRUE SUM TO MQ
14712	0074 00 4 00105	TSX	ERROR,4	
14713	0074 00 4 00106	TSX	OK,4	
14714	0020 00 0 14703	TRA	*-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 285

TEST GENERATE GROUP THREE

14715	212424606060	BCD	1ADD	
14716	0500 00 0 26356	CLA	B24T27	+000000007400
14717	0400 00 0 26226	ADD	B25	+000000002000
14720	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14721	0162 00 0 14723	TQP	*+2	SHOULD NOT TRANSFER
14722	0020 00 0 14726	TRA	*+4	
14723	-0763 00 0 00015	LGL	13	RESTORE AC
14724	0560 00 0 26363	LDQ	GC114	+000000011400
				TRUE SUM TO MQ
14725	0074 00 4 00105	TSX	ERROR,4	
14726	0074 00 4 00106	TSX	OK,4	
14727	0020 00 0 14716	TRA	*-9	
14730	212424606060	BCD	1ADD	
14731	0500 00 0 26356	CLA	B24T27	+000000007400
14732	0400 00 0 26227	ADD	B26	+000000001000
14733	-0765 00 0 00015	LGR	13	SHIFT AC COL 23 TO MQ SIGN
14734	0162 00 0 14736	TQP	*+2	SHOULD NOT TRANSFER
14735	0020 00 0 14741	TRA	*+4	
14736	-0763 00 0 00015	LGL	13	RESTORE AC
14737	0560 00 0 26364	LDQ	B23A27	+000000010400
				TRUE SUM TO MQ
14740	0074 00 4 00105	TSX	ERROR,4	
14741	0074 00 4 00106	TSX	OK,4	
14742	0020 00 0 14731	TRA	*-9	

9M71/76B
2/1/63
PAGE 286

SECTION ONE
PART III

TEST CARRY INPUTS TO ADDERS 20-22

TEST CARRY INPUT TO ADDER 22

14743	212424606060	BCD	1ADD	
14744	0500 00 0 26270	CLA	B23A24	+000000014000
14745	0400 00 0 26225	ADD	B24	+000000004000
14746	-0765 00 0 00016	LGR	14	SHIFT AC COL 22 TO MQ SIGN
14747	0162 00 0 14751	TQP	++2	SHOULD NOT TRANSFER
14750	0020 00 0 14754	TRA	++4	
14751	-0763 00 0 00016	LGL	14	RESTORE AC
14752	0560 00 0 26223	LDQ	B22	+000000020000
				TRUE SUM TO MQ
14753	0074 00 4 00105	TSX	ERROR,4	
14754	0074 00 4 00106	TSX	OK,4	
14755	0020 00 0 14744	TRA	*-9	
14756	212424606060	BCD	1ADD	
14757	0500 00 0 26225	CLA	B24	+000000004000
14760	0400 00 0 26225	ADD	B24	+000000004000
14761	-0765 00 0 00016	LGR	14	SHIFT AC COL 22 TO MQ SIGN
14762	0162 00 0 14766	TQP	++4	SHOULD TRANSFER
14763	-0763 00 0 00016	LGL	14	RESTORE AC
14764	0560 00 0 26224	LDQ	B23	+000000010000
				TRUE SUM TO MQ
14765	0074 00 4 00105	TSX	ERROR,4	
14766	0074 00 4 00106	TSX	OK,4	
14767	0020 00 0 14757	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 287

TEST CARRY INPUTS TO ADDER 22

14770	234321606060	BCD	1CLA	
14771	0500 00 0 26224	CLA	B23	+0 00000 0 10000
14772	-0765 00 0 00016	LGR	14	SHIFT AC COL 22 TO MQ SIGN
14773	0162 00 0 14777	TQP	*+4	SHOULD TRANSFER
14774	-0763 00 0 00016	LGL	14	RESTORE AC
14775	0560 00 0 26224	LDQ	B23	CORRECT RESULT TO MQ
14776	0074 00 4 00105	TSX	ERROR,4	
14777	0074 00 4 00106	TSX	OK,4	
15000	0020 00 0 14771	TRA	*-7	

TEST CARRY INPUTS TO ADDER 21

15001	212424606060	BCD	1ADD	
15002	0500 00 0 26267	CLA	B22A23	+0 00000 0 30000
15003	0400 00 0 26224	ADD	B23	+0 00000 0 10000
15004	-0765 00 0 00017	LGR	15	SHIFT AC COL 21 TO MQ SIGN
15005	0162 00 0 15007	TQP	*+2	SHOULD NOT TRANSFER
15006	0020 00 0 15012	TRA	*+4	
15007	-0763 00 0 00017	LGL	15	RESTORE AC
15010	0560 00 0 26222	LDQ	B21	+0 00000 0 40000
				TRUE SUM TO MQ
15011	0074 00 4 00105	TSX	ERROR,4	
15012	0074 00 4 00106	TSX	OK,4	
15013	0020 00 0 15002	TRA	*-9	

15014	212424606060	BCD	1ADD	
15015	0500 00 0 26365	CLA	B22T24	+0 00000 0 34000
15016	0400 00 0 26225	ADD	B24	+0 00000 0 04000
15017	-0765 00 0 00017	LGR	15	SHIFT AC COL 21 TO MQ SIGN
15020	0162 00 0 15022	TQP	*+2	SHOULD NOT TRANSFER
15021	0020 00 0 15025	TRA	*+4	
15022	-0763 00 0 00017	LGL	15	RESTORE AC
15023	0560 00 0 26222	LDQ	B21	+0 00000 0 40000
				TRUE SUM TO MQ
15024	0074 00 4 00105	TSX	ERROR,4	
15025	0074 00 4 00106	TSX	OK,4	
15026	0020 00 0 15015	TRA	*-9	

9M71/768

2/1/63

PAGE 288

SECTION ONE
PART III

TEST CARRY INPUT TO ADDER 21

15027	212424606060	BCD	IADD	
15030	0500 00 0 26267	CLA	B22A23	+0 00000 0 30000
15031	0400 00 0 26223	ADD	B22	+0 00000 0 20000
15032	-0765 00 0 00017	LGR	15	SHIFT AC COL 21 TO MQ SIGN
15033	0162 00 0 15035	TQP	++2	SHOULD NOT TRANSFER
15034	0020 00 0 15040	TRA	++4	
15035	-0763 00 0 00017	LGL	15	RESTORE AC
15036	0560 00 0 26366	LDQ	B21A23	+0 00000 0 50000
				TRUE SUM TO MQ
15037	0074 00 4 00105	TSX	ERROR,4	
15040	0074 00 4 00106	TSX	OK,4	
15041	0020 00 0 15030	TRA	*-9	

15042	212424606060	BCD	IADD	
15043	0500 00 0 26224	CLA	B23	+0 00000 0 10000
15044	0400 00 0 26224	ADD	B23	
15045	-0765 00 0 00017	LGR	15	SHIFT AC COL 21 TO MQ SIGN
15046	0162 00 0 15052	TQP	++4	SHOULD TRANSFER
15047	-0763 00 0 00017	LGL	15	RESTORE AC
15050	0560 00 0 26223	LDQ	B22	+0 00000 0 20000
				TRUE SUM TO MQ
15051	0074 00 4 00105	TSX	ERROR,4	
15052	0074 00 4 00106	TSX	OK,4	
15053	0020 00 0 15043	TRA	*-8	

15054	212424606060	BCD	IADD	
15055	0500 00 0 26367	CLA	B22A24	+0 00000 0 24000
15056	0400 00 0 26225	ADD	B24	+0 00000 0 04000
15057	-0765 00 0 00017	LGR	15	SHIFT AC COL 21 TO MQ SIGN
15060	0162 00 0 15064	TQP	++4	SHOULD TRANSFER
15061	-0763 00 0 00017	LGL	15	RESTORE AC
15062	0560 00 0 26267	LDQ	B22A23	+0 00000 0 30000
				TRUE SUM TO MQ
15063	0074 00 4 00105	TSX	ERROR,4	
15064	0074 00 4 00106	TSX	OK,4	
15065	0020 00 0 15055	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 289

TEST CARRY INPUT TO ADDER 21

15066	234321606060	BCD	1CLA	
15067	0500 00 0 26267	CLA	B22A23	+0 00000 0 30000
15070	-0765 00 0 00017	LGR	15	SHIFT AC COL 21 TO MQ SIGN
15071	0162 00 0 15075	TQP	*+4	SHOULD TRANSFER
15072	-0763 00 0 00017	LGL	15	RESTORE AC
15073	0560 00 0 26267	LDQ	B22A23	CORRECT RESULT TO MQ
15074	0074 00 4 00105	TSX	ERROR,4	
15075	0074 00 4 00106	TSX	OK,4	
15076	0020 00 0 15067	TRA	*-7	

TEST CARRY INPUT TO ADDER 20

15077	212424606060	BCD	1ADD	
15100	0500 00 0 26266	CLA	B21A22	+0 00000 0 60000
15101	0400 00 0 26223	ADD	B22	+0 00000 0 20000
15102	-0765 00 0 00020	LGR	16	SHIFT AC COL 20 TO MQ SIGN
15103	0162 00 0 15105	TQP	*+2	SHOULD NOT TRANSFER
15104	0020 00 0 15110	TRA	*+4	
15105	-0763 00 0 00020	LGL	16	RESTORE AC
15106	0560 00 0 26221	LDQ	B20	+0 00000 1 00000
				TRUE SUM TO MQ
15107	0074 00 4 00105	TSX	ERROR,4	
15110	0074 00 4 00106	TSX	OK,4	
15111	0020 00 0 15100	TRA	*-9	

15112	212424606060	BCD	1ADD	
15113	0500 00 0 26370	CLA	B21T23	+0 00000 0 70000
15114	0400 00 0 26224	ADD	B23	+0 00000 0 10000
15115	-0765 00 0 00020	LGR	16	SHIFT AC COL 21 TO MQ SIGN
15116	0162 00 0 15120	TQP	*+2	SHOULD NOT TRANSFER
15117	0020 00 0 15123	TRA	*+4	
15120	-0763 00 0 00020	LGL	16	RESTORE AC
15121	0560 00 0 26221	LDQ	B20	+0 00000 1 00000
				TRUE SUM TO MQ
15122	0074 00 4 00105	TSX	ERROR,4	
15123	0074 00 4 00106	TSX	OK,4	
15124	0020 00 0 15113	TRA	*-9	

9M71/76B
2/1/63
PAGE 290

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 20

15125	212424606060	BCD 1ADD	
15126	0500 00 0 26371	CLA B21T24	+0 00000 0 74000
15127	0400 00 0 26225	ADD B24	+0 00000 0 04000
15130	-0765 00 0 00020	LGR 16	SHIFT AC COL 20 TO MQ SIGN
15131	0162 00 0 15133	TQP **2	SHOULD NOT TRANSFER
15132	0020 00 0 15136	TRA **4	
15133	-0763 00 0 00020	LGL 16	RESTORE AC
15134	0560 00 0 26221	LDQ B20	+0 00000 1 00000
			TRUE SUM TO MQ
15135	0074 00 4 00105	TSX ERROR,4	
15136	0074 00 4 00106	TSX OK,4	
15137	0020 00 0 15126	TRA *-9	

15140	212424606060	BCD 1ADD	
15141	0500 00 0 26223	CLA B22	+0 00000 0 20000
15142	0400 00 0 26223	ADD B22	+0 00000 0 20000
15143	-0765 00 0 00020	LGR 16	SHIFT AC COL 20 TO MQ SIGN
15144	0162 00 0 15150	TQP **4	SHOULD TRANSFER
15145	-0763 00 0 00020	LGL 16	RESTORE AC
15146	0560 00 0 26222	LDQ B21	+0 00000 0 40000
			TRUE SUM TO MQ
15147	0074 00 4 00105	TSX ERROR,4	
15150	0074 00 4 00106	TSX OK,4	
15151	0020 00 0 15141	TRA *-8	

15152	234321606060	BCD 1CLA	
15153	0500 00 0 26370	CLA B21T23	+0 00000 0 70000
15154	-0765 00 0 00020	LGR 16	SHIFT AC COL 20 TO MQ SIGN
15155	0162 00 0 15161	TQP **4	SHOULD TRANSFER
15156	-0763 00 0 00020	LGL 16	RESTORE AC
15157	0560 00 0 26370	LDQ B21T23	CORRECT RESULT TO MQ
15160	0074 00 4 00105	TSX ERROR,4	
15161	0074 00 4 00106	TSX OK,4	
15162	0020 00 0 15153	TRA *-7	

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 291

TEST CARRY INPUT TO ADDER 20

15163 212424606060	BCD 1ADD	
15164 0500 00 0 26267	CLA B22A23	+0 00000 0 30000
15165 0400 00 0 26224	ADD B23	+0 00000 0 10000
15166 -0765 00 0 00020	LGR 16	SHIFT AC COL 20 TO MQ SIGN
15167 0162 00 0 15173	TQP *+4	SHOULD TRANSFER
15170 -0763 00 0 00020	LGL 16	RESTORE AC
15171 0560 00 0 26222	LDQ B21	+0 00000 0 40000
		TRUE SUM TO MQ
15172 0074 00 4 00105	TSX ERROR,4	
15173 0074 00 4 00106	TSX OK,4	
15174 0020 00 0 15164	TRA *-8	

15175 212424606060	BCD 1ADD	
15176 0500 00 0 26366	CLA B21A23	+0 00000 0 50000
15177 0400 00 0 26224	ADD B23	+0 00000 0 10000
15200 -0765 00 0 00020	LGR 16	SHIFT AC COL 20 TO MQ SIGN
15201 0162 00 0 15205	TQP *+4	SHOULD TRANSFER
15202 -0763 00 0 00020	LGL 16	RESTORE AC
15203 0560 00 0 26266	LDQ B21A22	+0 00000 0 60000
		TRUE SUM TO MQ
15204 0074 00 4 00105	TSX ERROR,4	
15205 0074 00 4 00106	TSX OK,4	
15206 0020 00 0 15176	TRA *-8	

15207 212424606060	BCD 1ADD	
15210 0500 00 0 26372	CLA B21A24	+0 00000 0 44000
15211 0400 00 0 26367	ADD B22A24	+0 00000 0 24000
15212 -0765 00 0 00020	LGR 16	SHIFT AC COL 20 TO MQ SIGN
15213 0162 00 0 15217	TQP *+4	SHOULD TRANSFER
15214 -0763 00 0 00020	LGL 16	RESTORE AC
15215 0560 00 0 26370	LDQ B21T23	+0 00000 0 70000
		TRUE SUM TO MQ
15216 0074 00 4 00105	TSX ERROR,4	
15217 0074 00 4 00106	TSX OK,4	
15220 0020 00 0 15210	TRA *-8	

9M71/76B
2/1/63
PAGE 292

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 20

15221	212424606060	BCD	1ADD	
15222	0500 00 0 26367	CLA	B22A24	+0 00000 0 24000
15223	0400 00 0 26270	ADD	B23A24	+0 00000 0 14000
15224	-0765 00 0 00020	LGR	16	SHIFT AC COL 20 TO MQ SIGN
15225	0162 00 0 15231	TQP	++4	SHOULD TRANSFER
15226	-0763 00 0 00020	LGL	16	RESTORE AC
15227	0560 00 0 26222	LDQ	B21	+0 00000 0 40000
				TRUE SUM TO MQ
15230	0074 00 4 00105	TSX	ERROR,4	
15231	0074 00 4 00106	TSX	OK,4	
15232	0020 00 0 15222	TRA	*-8	

15233	212424606060	BCD	1ADD	
15234	0500 00 0 26372	CLA	B21A24	+0 00000 0 44000
15235	0400 00 0 26270	ADD	B23A24	+0 00000 0 14000
15236	-0765 00 0 00020	LGR	16	SHIFT AC COL 20 TO MQ SIGN
15237	0162 00 0 15243	TQP	++4	SHOULD TRANSFER
15240	-0763 00 0 00020	LGL	16	RESTORE AC
15241	0560 00 0 26266	LDQ	B21A22	+0 00000 0 60000
				TRUE SUM TO MQ
15242	0074 00 4 00105	TSX	ERROR,4	
15243	0074 00 4 00106	TSX	OK,4	
15244	0020 00 0 15234	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 293

*
*
*
*
*

TEST GENERATE GROUP FOUR

15245 212424606060 15246 0500 00 0 26370 15247 0400 00 0 26222 15250 -0765 00 0 00021 15251 0162 00 0 15255 15252 -0763 00 0 00021 15253 0560 00 0 26373 15254 0074 00 4 00105 15255 0074 00 4 00106 15256 0020 00 0 15246	BCD 1ADD CLA B21T23 ADD B21 LGR 17 TQP **4 LGL 17 LDQ GE13 TSX ERROR,4 TSX OK,4 TRA *-8	 +0 00000 0 70000 +0 00000 0 40000 SHIFT AC COL 19 TO MQ SIGN SHOULD TRANSFER RESTORE AC +0 00000 1 30000 TRUE SUM TO MQ
15257 212424606060 15260 0500 00 0 26374 15261 0400 00 0 26267 15262 -0765 00 0 00021 15263 0162 00 0 15267 15264 -0763 00 0 00021 15265 0560 00 0 26375 15266 0074 00 4 00105 15267 0074 00 4 00106 15270 0020 00 0 15260	BCD 1ADD CLA B20A22 ADD B22A23 LGR 17 TQP **4 LGL 17 LDQ GE15 TSX ERROR,4 TSX OK,4 TRA *-8	 +0 00000 1 20000 +0 00000 0 30000 SHIFT AC COL 19 TO MQ SIGN SHOULD TRANSFER RESTORE AC +0 00000 1 50000 TRUE SUM TO MQ
15271 234321606060 15272 0500 00 0 26376 15273 -0765 00 0 00021 15274 0162 00 0 15300 15275 -0763 00 0 00021 15276 0560 00 0 26376 15277 0074 00 4 00105 15300 0074 00 4 00106 15301 0020 00 0 15272	BCD 1CLA CLA B20T22 LGR 17 TQP **4 LGL 17 LDQ B20T22 TSX ERROR,4 TSX OK,4 TRA *-7	 +0 00000 1 60000 SHIFT AC COL 19 TO MQ SIGN SHOULD TRANSFER RESTORE AC CORRECT RESULT TO MQ

9M71/76B
2/1/63
PAGE 294

SECTION ONE
PART III

TEST GENERATE GROUP FOUR

15302	212424606060	BCD 1ADD	
15303	0500 00 0 26377	CLA B20A23	+0 00000 1 10000
15304	0400 00 0 26366	ADD B21A23	+0 00000 0 50000
15305	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN

15306	0162 00 0 15312	TQP **4	SHOULD TRANSFER
15307	-0763 00 0 00021	LGL 17	RESTORE AC
15310	0560 00 0 26376	LDQ B20T22	+0 00000 1 60000
			TRUE SUM TO MQ

15311	0074 00 4 00105	TSX ERROR,4	
15312	0074 00 4 00106	TSX OK,4	
15313	0020 00 0 15303	TRA *-8	

15314	212424606060	BCD 1ADD	
15315	0500 00 0 26376	CLA B20T22	+0 00000 1 60000
15316	0400 00 0 26224	ADD B23	+0 00000 0 10000
15317	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN

15320	0162 00 0 15324	TQP **4	SHOULD TRANSFER
15321	-0763 00 0 00021	LGL 17	RESTORE AC
15322	0560 00 0 26566	LDQ B20T23	+0 00000 1 70000
			TRUE SUM TO MQ

15323	0074 00 4 00105	TSX ERROR,4	
15324	0074 00 4 00106	TSX OK,4	
15325	0020 00 0 15315	TRA *-8	

15326	212424606060	BCD 1ADD	
15327	0500 00 0 26265	CLA B20A21	+0 00000 1 40000
15330	0400 00 0 26222	ADD B21	+0 00000 0 40000
15331	-0765 00 0 00021	LGR 17	SHIFT AC 19 TO MQ SIGN

15332	0162 00 0 15334	TQP **2	SHOULD NOT TRANSFER
15333	0020 00 0 15337	TRA **4	
15334	-0763 00 0 00021	LGL 17	RESTORE AC
15335	0560 00 0 26220	LDQ B19	+0 00000 2 00000
			TRUE SUM TO MQ

15336	0074 00 4 00105	TSX ERROR,4	
15337	0074 00 4 00106	TSX OK,4	
15340	0020 00 0 15327	TRA *-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 295

TEST GENERATE GROUP FOUR

15341 212424606060	BCD 1ADD		
15342 0500 00 0 26376	CLA B20T22	+0 00000 1 60000	
15343 0400 00 0 26223	ADD B22	+0 00000 0 20000	
15344 -0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN	
15345 0162 00 0 15347	TQP **2	SHOULD NOT TRANSFER	
15346 0020 00 0 15352	TRA **4		
15347 -0763 00 0 00021	LGL 17	RESTORE AC	
15350 0560 00 0 26220	LDQ B19	+0 00000 2 00000	
		TRUE SUM TO MQ	
15351 0074 00 4 00105	TSX ERROR,4		
15352 0074 00 4 00106	TSX OK,4		
15353 0020 00 0 15342	TRA *-9		
15354 212424606060	BCD 1ADD		
15355 0500 00 0 26375	CLA GE15	+0 00000 1 50000	
15356 0400 00 0 26267	ADD B22A23	+0 00000 0 30000	
15357 -0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN	
15360 0162 00 0 15362	TQP **2	SHOULD NOT TRANSFER	
15361 0020 00 0 15365	TRA **4		
15362 -0763 00 0 00021	LGL 17	RESTORE AC	
15363 0560 00 0 26220	LDQ B19	+0 00000 2 00000	
		TRUE SUM TO MQ	
15364 0074 00 4 00105	TSX ERROR,4		
15365 0074 00 4 00106	TSX OK,4		
15366 0020 00 0 15355	TRA *-9		
15367 212424606060	BCD 1ADD		
15370 0500 00 0 26265	CLA B20A21	+0 00000 1 40000	
15371 0400 00 0 26221	ADD B20	+0 00000 1 00000	
15372 -0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN	
15373 0162 00 0 15375	TQP **2	SHOULD NOT TRANSFER	
15374 0020 00 0 15400	TRA **4		
15375 -0763 00 0 00021	LGL 17	RESTORE AC	
15376 0560 00 0 26400	LDQ B19A21	+0 00000 2 40000	
		TRUE SUM TO MQ	
15377 0074 00 4 00105	TSX ERROR,4		
15400 0074 00 4 00106	TSX OK,4		
15401 0020 00 0 15370	TRA *-9		

9M71/76B
2/1/63
PAGE 296

SECTION ONE
PART III

TEST CARRY GROUP FOUR

15402	212424606060	BCD 1ADD	
15403	0500 00 0 26374	CLA B20A22	+0 00000 1 20000
15404	0400 00 0 26265	ADD B20A21	+0 00000 1 40000
15405	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN
15406	0162 00 0 15410	TQP **2	SHOULD NOT TRANSFER
15407	0020 00 0 15413	TRA **4	
15410	-0763 00 0 00021	LGL 17	RESTORE AC
15411	0560 00 0 26401	LDQ GE26	+0 00000 2 60000 TRUE SUM TO MQ
15412	0074 00 4 00105	TSX ERROR,4	
15413	0074 00 4 00106	TSX OK,4	
15414	0020 00 0 15403	TRA *-9	
15415	212424606060	BCD 1ADD	
15416	0500 00 0 26376	CLA B20T22	+0 00000 1 60000
15417	0400 00 0 26377	ADD B20A23	+0 00000 1 10000
15420	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN
15421	0162 00 0 15423	TQP **2	
15422	0020 00 0 15426	TRA **4	
15423	-0763 00 0 00021	LGL 17	RESTORE AC
15424	0560 00 0 26402	LDQ GE27	+0 00000 2 70000 TRUE SUM TO MQ
15425	0074 00 4 00105	TSX ERROR,4	
15426	0074 00 4 00106	TSX OK,4	
15427	0020 00 0 15416	TRA *-9	
15430	212424606060	BCD 1ADD	
15431	0500 00 0 26376	CLA B20T22	+0 00000 1 60000
15432	0400 00 0 26222	ADD B21	+0 00000 0 40000
15433	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN
15434	0162 00 0 15436	TQP **2	SHOULD NOT TRANSFER
15435	0020 00 0 15441	TRA **4	
15436	-0763 00 0 00021	LGL 17	RESTORE AC
15437	0560 00 0 26567	LDQ B19A22	+0 00000 2 20000 TRUE SUM TO MQ
15440	0074 00 4 00105	TSX ERROR,4	
15441	0074 00 4 00106	TSX OK,4	
15442	0020 00 0 15431	TRA *-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 297

TEST GENERATE GROUP FOUR

15443	212424606060	BCD 1ADD	
15444	0500 00 0 26265	CLA B20A21	+0 00000 1 40000
15445	0400 00 0 26370	ADD B21T23	+0 00000 0 70000
15446	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN
15447	0162 00 0 15451	TQP **2	SHOULD NOT TRANSFER
15450	0020 00 0 15454	TRA **4	
15451	-0763 00 0 00021	LGL 17	RESTORE AC
15452	0560 00 0 26403	LDQ GE23	+0 00000 2 30000
			TRUE SUM TO AC
15453	0074 00 4 00105	TSX ERROR,4	
15454	0074 00 4 00106	TSX OK,4	
15455	0020 00 0 15444	TRA *-9	

15456	212424606060	BCD 1ADD	
15457	0500 00 0 26376	CLA B20T22	+0 00000 1 60000
15460	0400 00 0 26267	ADD B22A23	+0 00000 0 30000
15461	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN
15462	0162 00 0 15464	TQP **2	SHOULD NOT TRANSFER
15463	0020 00 0 15467	TRA **4	
15464	-0763 00 0 00021	LGL 17	RESTORE AC
15465	0560 00 0 26404	LDQ B19A23	+0 00000 2 10000
			TRUE SUM TO MQ
15466	0074 00 4 00105	TSX ERROR,4	
15467	0074 00 4 00106	TSX OK,4	
15470	0020 00 0 15457	TRA *-9	

SECTION ONE
PART III

TEST CARRY INPUTS TO ADDERS 16-18

TEST CARRY INPUT TO ADDER 18

15471	212424606060	BCD 1ADD	
15472	0500 00 0 26264	CLA B19A20	+0 00000 3 00000
15473	0400 00 0 26221	ADD B20	+0 00000 1 00000
15474	-0765 00 0 00022	LGR 18	SHIFT AC COL 18 TO MQ SIGN
15475	0162 00 0 15477	TQP **2	SHOULD NOT TRANSFER
15476	0020 00 0 15502	TRA **4	
15477	-0763 00 0 00022	LGL 18	RESTORE AC
15500	0560 00 0 26217	LDQ B18	+0 00000 4 00000
			TRUE SUM TO MQ
15501	0074 00 4 00105	TSX ERROR, 4	
15502	0074 00 4 00106	TSX OK, 4	
15503	0020 00 0 15472	TRA *-9	

15504	212424606060	BCD 1ADD	
15505	0500 00 0 26221	CLA B20	+0 00000 1 00000
15506	0400 00 0 26221	ADD B20	
15507	-0765 00 0 00022	LGR 18	SHIFT AC COL 18 TO MQ SIGN
15510	0162 00 0 15514	TQP **4	SHOULD TRANSFER
15511	-0763 00 0 00022	LGL 18	RESTORE AC
15512	0560 00 0 26220	LDQ B19	+0 00000 2 00000
			TRUE SUM TO MQ
15513	0074 00 4 00105	TSX ERROR, 4	
15514	0074 00 4 00106	TSX OK, 4	
15515	0020 00 0 15505	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 299

TEST CARRY INPUT TO ADDER 18

15516 234321606060	BCD 1CLA	
15517 0500 00 0 26220	CLA B19	+0 00000 2 00000
15520 -0765 00 0 00022	LGR 18	SHIFT AC COL 18 TO MQ SIGN
15521 0162 00 0 15525	TQP *+4	SHOULD TRANSFER
15522 -0763 00 0 00022	LGL 18	RESTORE AC
15523 0560 00 0 26220	LDQ B19	CORRECT RESULT TO MQ
15524 0074 00 4 00105	TSX ERROR,4	
15525 0074 00 4 00106	TSX OK,4	
15526 0020 00 0 15517	TRA *-7	

TEST CARRY INPUT TO ADDER 17

15527 212424606060	BCD 1ADD	
15530 0500 00 0 26263	CLA B18A19	+0 00000 6 00000
15531 0400 00 0 26220	ADD B19	+0 00000 2 00000
15532 -0765 00 0 00023	LGR 19	SHIFT AC COL 17 TO MQ SIGN
15533 0162 00 0 15535	TQP *+2	SHOULD NOT TRANSFER
15534 0020 00 0 15540	TRA *+4	
15535 -0763 00 0 00023	LGL 19	RESTORE AC
15536 0560 00 0 26216	LDQ B17	+0 00001 0 00000
		TRUE SUM TO MQ
15537 0074 00 4 00105	TSX ERROR,4	
15540 0074 00 4 00106	TSX OK,4	
15541 0020 00 0 15530	TRA *-9	

15542 212424606060	BCD 1ADD	
15543 0500 00 0 26405	CLA B18A20	+0 00000 5 00000
15544 0400 00 0 26264	ADD B19A20	+0 00000 3 00000
15545 -0765 00 0 00023	LGR 19	SHIFT AC COL 17 TO MQ SIGN
15546 0162 00 0 15550	TQP *+2	SHOULD NOT TRANSFER
15547 0020 00 0 15553	TRA *+4	
15550 -0763 00 0 00023	LGL 19	RESTORE AC
15551 0560 00 0 26216	LDQ B17	+0 00001 0 00000
15552 0074 00 4 00105	TSX ERROR,4	
15553 0074 00 4 00106	TSX OK,4	
15554 0020 00 0 15543	TRA *-9	

9M71/76B
2/1/63
PAGE 300

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 17

15555	212424606060	BCD 1ADD	
15556	0500 00 0 26263	CLA B18A19	+0 00000 6 00000
15557	0400 00 0 26217	ADD B18	+0 00000 4 00000
15560	-0765 00 0 00023	LGR 19	SHIFT AC COL 17 TO MQ SIGN
15561	0162 00 0 15563	TQP **2	SHOULD NOT TRANSFER
15562	0020 00 0 15566	TRA **4	
15563	-0763 00 0 00023	LGL 19	RESTORE AC
15564	0560 00 0 26406	LDQ B17A19	+0 00001 2 00000
			TRUE SUM TO MQ
15565	0074 00 4 00105	TSX ERROR,4	
15566	0074 00 4 00106	TSX OK,4	
15567	0020 00 0 15556	TRA *-9	

15570	212424606060	BCD 1ADD	
15571	0500 00 0 26220	CLA B19	+0 00000 2 00000
15572	0400 00 0 26220	ADD B19	
15573	-0765 00 0 00023	LGR 19	SHIFT AC COL 17 TO MQ SIGN
15574	0162 00 0 15600	TQP **4	SHOULD TRANSFER
15575	-0763 00 0 00023	LGL 19	RESTORE AC
15576	0560 00 0 26217	LDQ B18	+0 00000 4 00000
			TRUE SUM TO AC
15577	0074 00 4 00105	TSX ERROR,4	
15600	0074 00 4 00106	TSX OK,4	
15601	0020 00 0 15571	TRA *-8	

15602	212424606060	BCD 1ADD	
15603	0500 00 0 26405	CLA B18A20	+0 00000 5 00000
15604	0400 00 0 26221	ADD B20	+0 00000 1 00000
15605	-0765 00 0 00023	LGR 19	SHIFT AC COL 17 TO MQ SIGN
15606	0162 00 0 15612	TQP **4	SHOULD TRANSFER
15607	-0763 00 0 00023	LGL 19	RESTORE AC
15610	0560 00 0 26263	LDQ B18A19	+0 00000 6 00000
			TRUE SUM TO MQ
15611	0074 00 4 00105	TSX ERROR,4	
15612	0074 00 4 00106	TSX OK,4	
15613	0020 00 0 15603	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 301

TEST CARRY INPUT TO ADDER 17

15614 234321606060	BCD 1CLA	
15615 0500 00 0 26263	CLA B18A19	+0 00000 6 00000
15616 -0765 00 0 00023	LGR 19	SHIFT AC COL 17 TO MQ SIGN
15617 0162 00 0 15623	TQP **4	SHOULD TRANSFER
15620 -0763 00 0 00023	LGL 19	RESTORE AC
15621 0560 00 0 26263	LDQ B18A19	CORRECT RESULT TO MQ
15622 0074 00 4 00105	TSX ERROR,4	
15623 0074 00 4 00106	TSX OK,4	
15624 0020 00 0 15615	TRA *-7	

TEST CARRY INPUT TO ADDER 16

15625 212424606060	BCD 1ADD	
15626 0500 00 0 26262	CLA B17A18	+0 00001 4 00000
15627 0400 00 0 26217	ADD B18	+0 00000 4 00000
15630 -0765 00 0 00024	LGR 20	SHIFT AC COL 16 TO MQ SIGN
15631 0162 00 0 15633	TQP **2	SHOULD NOT TRANSFER
15632 0020 00 0 15636	TRA **4	
15633 -0763 00 0 00024	LGL 20	RESTORE AC
15634 0560 00 0 26215	LDQ B16	+0 00002 0 00000
		TRUE SUM TO MQ
15635 0074 00 4 00105	TSX ERROR,4	
15636 0074 00 4 00106	TSX OK,4	
15637 0020 00 0 15626	TRA *-9	

15640 212424606060	BCD 1ADD	
15641 0500 00 0 26406	CLA B17A19	+0 00001 2 00000
15642 0400 00 0 26263	ADD B18A19	+0 00000 6 00000
15643 -0765 00 0 00024	LGR 20	SHIFT AC COL 16 TO MQ SIGN
15644 0162 00 0 15646	TQP **2	SHOULD NOT TRANSFER
15645 0020 00 0 15651	TRA **4	
15646 -0763 00 0 00024	LGL 20	RESTORE AC
15647 0560 00 0 26215	LDQ B16	+0 00002 0 00000
		TRUE SUM TO MQ
15650 0074 00 4 00105	TSX ERROR,4	
15651 0074 00 4 00106	TSX OK,4	
15652 0020 00 0 15641	TRA *-9	

9M71/76B
2/1/63
PAGE 302

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 16

15653	212424606060	BCD	1ADD	
15654	0500 00 0 26407	CLA	B17T20	+0 00001 7 00000
15655	0400 00 0 26221	ADD	B20	+0 00000 1 00000
15656	-0765 00 0 00024	LGR	20	SHIFT AC COL 16 TO MQ SIGN
15657	0162 00 0 15661	TQP	*+2	SHOULD NOT TRANSFER
15660	0020 00 0 15664	TRA	*+4	
15661	-0763 00 0 00024	LGL	20	RESTORE AC
15662	0560 00 0 26215	LDQ	B16	+0 00002 0 00000
				TRUE SUM TO MQ
15663	0074 00 4 00105	TSX	ERROR,4	
15664	0074 00 4 00106	TSX	OK,4	
15665	0020 00 0 15654	TRA	*-9	

15666	212424606060	BCD	1ADD	
15667	0500 00 0 26217	CLA	B18	+0 00000 4 00000
15670	0400 00 0 26217	ADD	B18	
15671	-0765 00 0 00024	LGR	20	SHIFT AC COL 16 TO MQ SIGN
15672	0162 00 0 15676	TQP	*+4	SHOULD TRANSFER
15673	-0763 00 0 00024	LGL	20	RESTORE AC
15674	0560 00 0 26216	LDQ	B17	+0 00001 0 00000
				TRUE SUM TO MQ
15675	0074 00 4 00105	TSX	ERROR,4	
15676	0074 00 4 00106	TSX	OK,4	
15677	0020 00 0 15667	TRA	*-8	

15700	234321606060	BCD	1CLA	
15701	0500 00 0 26410	CLA	B17T19	+0 00001 6 00000
15702	-0765 00 0 00024	LGR	20	SHIFT AC COL 16 TO MQ SIGN
15703	0162 00 0 15707	TQP	*+4	SHOULD TRANSFER
15704	-0763 00 0 00024	LGL	20	RESTORE AC
15705	0560 00 0 26410	LDQ	B17T19	CORRECT RESULT TO MQ
15706	0074 00 4 00105	TSX	ERROR,4	
15707	0074 00 4 00106	TSX	OK,4	
15710	0020 00 0 15701	TRA	*-7	

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 303

TEST CARRY INPUT TO ADDER 16

15711	212424606060	BCD 1ADD	
15712	0500 00 0 26263	CLA B18A19	+0 00000 6 00000
15713	0400 00 0 26220	ADD B19	+0 00000 2 00000
15714	-0765 00 0 00024	LGR 20	SHIFT AC COL 16 TO MQ SIGN
15715	0162 00 0 15721	TQP **4	SHOULD TRANSFER
15716	-0763 00 0 00024	LGL 20	RESTORE AC
15717	0560 00 0 26216	LDQ B17	+0 00001 0 00000
			TRUE SUM TO MQ
15720	0074 00 4 00105	TSX ERROR,4	
15721	0074 00 4 00106	TSX OK,4	
15722	0020 00 0 15712	TRA *-8	
15723	212424606060	BCD 1ADD	
15724	0500 00 0 26406	CLA B17A19	+0 00001 2 00000
15725	0400 00 0 26220	ADD B19	+0 00000 2 00000
15726	-0765 00 0 00024	LGR 20	SHIFT AC COL 16 TO MQ SIGN
15727	0162 00 0 15733	TQP **4	SHOULD TRANSFER
15730	-0763 00 0 00024	LGL 20	RESTORE AC
15731	0560 00 0 26262	LDQ B17A18	+0 00001 4 00000
			TRUE SUM TO MQ
15732	0074 00 4 00105	TSX ERROR,4	
15733	0074 00 4 00106	TSX OK,4	
15734	0020 00 0 15724	TRA *-8	
15735	212424606060	BCD 1ADD	
15736	0500 00 0 26411	CLA B17A20	+0 00001 1 00000
15737	0400 00 0 26405	ADD B18A20	+0 00000 5 00000
15740	-0765 00 0 00024	LGR 20	SHIFT AC COL 16 TO MQ SIGN
15741	0162 00 0 15745	TQP **4	SHOULD TRANSFER
15742	-0763 00 0 00024	LGL 20	RESTORE AC
15743	0560 00 0 26410	LDQ B17T19	+0 00001 6 00000
			TRUE SUM TO MQ
15744	0074 00 4 00105	TSX ERROR,4	
15745	0074 00 4 00106	TSX OK,4	
15746	0020 00 0 15736	TRA *-8	

9M71/76B
2/1/63
PAGE 304

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 16

15747 212424606060
15750 0500 00 0 26405
15751 0400 00 0 26264
15752 -0765 00 0 00024

BCD 1ADD
CLA B18A20
ADD B19A20
LGR 20

+0 00000 5 00000
+0 00000 3 00000
SHIFT AC COL 16 TO MQ SIGN

15753 0162 00 0 15757
15754 -0763 00 0 00024
15755 0560 00 0 26216

TQP **4
LGL 20
LDQ B17

SHOULD TRANSFER
RESTORE AC
+0 00001 0 00000
TRUE SUM TO MQ

15756 0074 00 4 00105
15757 0074 00 4 00106
15760 0020 00 0 15750

TSX ERROR,4
TSX OK,4
TRA *-8

15761 212424606060
15762 0500 00 0 26411
15763 0400 00 0 26264
15764 -0765 00 0 00024

BCD 1ADD
CLA B17A20
ADD B19A20
LGR 20

+0 00001 1 00000
+0 00000 3 00000
SHIFT AC COL 16 TO MQ SIGN

15765 0162 00 0 15771
15766 -0763 00 0 00024
15767 0560 00 0 26262

TQP **4
LGL 20
LDQ B17A18

SHOULD TRANSFER
RESTORE AC
+0 00001 4 00000
TRUE SUM TO MQ

15770 0074 00 4 00105
15771 0074 00 4 00106
15772 0020 00 0 15762

TSX ERROR,4
TSX OK,4
TRA *-8

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 305

*
*
*
*
*

TEST GENERATE GROUP FIVE

15773 212424606060
15774 0500 00 0 26410
15775 0400 00 0 26216
15776 -0765 00 0 00025

15777 0162 00 0 16003
16000 -0763 00 0 00025
16001 0560 00 0 26412

16002 0074 00 4 00105
16003 0074 00 4 00106
16004 0020 00 0 15774

BCD 1ADD
CLA B17T19 +0 00001 6 00000
ADD B17 +0 00001 0 00000
LGR 21 SHIFT AC COL 15 TO MQ SIGN

TQP **4 SHOULD TRANSFER
LGL 21 RESTORE AC
LDQ GF26 +0 00002 6 00000
TRUE SUM TO MQ

TSX ERROR,4
TSX OK,4
TRA *-8

16005 212424606060
16006 0500 00 0 26413
16007 0400 00 0 26263
16010 -0765 00 0 00025

16011 0162 00 0 16015
16012 -0763 00 0 00025
16013 0560 00 0 26414

16014 0074 00 4 00105
16015 0074 00 4 00106
16016 0020 00 0 16006

BCD 1ADD
CLA B16A18 +0 00002 4 00000
ADD B18A19 +0 00000 6 00000
LGR 21 SHIFT AC COL 15 TO MQ SIGN

TQP **4 SHOULD TRANSFER
LGL 21 RESTORE AC
LDQ GF32 +0 00003 2 00000
TRUE SUM TO MQ

TSX ERROR,4
TSX OK,4
TRA *-8

9M71/76B
2/1/63
PAGE 306

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP FIVE

16017	212424606060	BCD	1ADD	
16020	0500 00 0 26415	CLA	B16A19	+0 00002 2 00000
16021	0400 00 0 26406	ADD	B17A19	+0 00001 2 00000
16022	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
16023	0162 00 0 16027	TQP	**+4	SHOULD TRANSFER
16024	-0763 00 0 00025	LGL	21	RESTORE AC
16025	0560 00 0 26416	LDQ	B16T18	+0 00003 4 00000
				TRUE SUM TO MQ
16026	0074 00 4 00105	TSX	ERROR,4	
16027	0074 00 4 00106	TSX	OK,4	
16030	0020 00 0 16020	TRA	*-8	
16031	234321606060	BCD	1CLA	
16032	0500 00 0 26416	CLA	B16T18	+0 00003 4 00000
16033	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
16034	0162 00 0 16040	TQP	**+4	SHOULD TRANSFER
16035	-0763 00 0 00025	LGL	21	RESTORE AC
16036	0560 00 0 26416	LDQ	B16T18	+0 00003 4 00000
				CORRECT RESULT TO MQ
16037	0074 00 4 00105	TSX	ERROR,4	
16040	0074 00 4 00106	TSX	OK,4	
16041	0020 00 0 16032	TRA	*-7	
16042	234321606060	BCD	1CLA	
16043	0500 00 0 26417	CLA	B16T19	+0 00003 6 00000
16044	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
16045	0162 00 0 16051	TQP	**+4	SHOULD TRANSFER
16046	-0763 00 0 00025	LGL	21	RESTORE AC
16047	0560 00 0 26417	LDQ	B16T19	CORRECT RESULT TO MQ
16050	0074 00 4 00105	TSX	ERROR,4	
16051	0074 00 4 00106	TSX	OK,4	
16052	0020 00 0 16043	TRA	*-7	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 307

TEST GENERATE GROUP FIVE

16053	212424606060	BCD 1ADD	
16054	0500 00 0 26261	CLA B16A17	+0 00003 0 00000
16055	0400 00 0 26216	ADD B17	+0 00001 0 00000
16056	0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
16057	0162 00 0 16061	TQP **2	SHOULD NOT TRANSFER
16060	0020 00 0 16064	TRA **4	
16061	0763 00 0 00025	LGL 21	RESTORE AC
16062	0560 00 0 26214	LDQ B15	+0 00004 0 00000
			TRUE SUM TO MQ
16063	0074 00 4 00105	TSX ERROR, 4	
16064	0074 00 4 00106	TSX OK, 4	
16065	0020 00 0 16054	TRA *-9	

16066	212424606060	BCD 1ADD	
16067	0500 00 0 26416	CLA B16T18	+0 00003 4 00000
16070	0400 00 0 26217	ADD B18	+0 00000 4 00000
16071	0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
16072	0162 00 0 16074	TQP **2	SHOULD NOT TRANSFER
16073	0020 00 0 16077	TRA **4	
16074	0763 00 0 00025	LGL 21	RESTORE AC
16075	0560 00 0 26214	LDQ B15	+0 00004 0 00000
			TRUE SUM TO MQ
16076	0074 00 4 00105	TSX ERROR, 4	
16077	0074 00 4 00106	TSX OK, 4	
16100	0020 00 0 16067	TRA *-9	

16101	212424606060	BCD 1ADD	
16102	0500 00 0 26417	CLA B16T19	+0 00003 6 00000
16103	0400 00 0 26220	ADD B19	+0 00000 2 00000
16104	0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
16105	0162 00 0 16107	TQP **2	SHOULD NOT TRANSFER
16106	0020 00 0 16112	TRA **4	
16107	0763 00 0 00025	LGL 21	RESTORE AC
16110	0560 00 0 26214	LDQ B15	+0 00004 0 00000
			TRUE SUM TO MQ
16111	0074 00 4 00105	TSX ERROR, 4	
16112	0074 00 4 00106	TSX OK, 4	
16113	0020 00 0 16102	TRA *-9	

9M71/76B
2/1/63
PAGE 308

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP FIVE

16114	212424606060	BCD 1ADD	
16115	0500 00 0 26261	CLA B16A17	+0 00003 0 00000
16116	0400 00 0 26215	ADD B16	+0 00002 0 00000
16117	-0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
16120	0162 00 0 16122	TQP **2	SHOULD NOT TRANSFER
16121	0020 00 0 16125	TRA **4	
16122	-0763 00 0 00025	LGL 21	RESTORE AC
16123	0560 00 0 26420	LDQ B15A17	+0 00005 0 00000
			TRUE SUM TO MQ
16124	0074 00 4 00105	TSX ERROR,4	
16125	0074 00 4 00106	TSX OK,4	
16126	0020 00 0 16115	TRA *-9	

16127	212424606060	BCD 1ADD	
16130	0500 00 0 26416	CLA B16T18	+0 00003 4 00000
16131	0400 00 0 26215	ADD B16	+0 00002 0 00000
16132	-0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
16133	0162 00 0 16135	TQP **2	SHOULD NOT TRANSFER
16134	0020 00 0 16140	TRA **4	
16135	-0763 00 0 00025	LGL 21	RESTORE AC
16136	0560 00 0 26421	LDQ GF54	+0 00005 4 00000
			TRUE SUM TO MQ
16137	0074 00 4 00105	TSX ERROR,4	
16140	0074 00 4 00106	TSX OK,4	
16141	0020 00 0 16130	TRA *-9	

16142	212424606060	BCD 1ADD	
16143	0500 00 0 26417	CLA B16T19	+0 00003 6 00000
16144	0400 00 0 26215	ADD B16	+0 00002 0 00000
16145	-0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
16146	0162 00 0 16150	TQP **2	SHOULD NOT TRANSFER
16147	0020 00 0 16153	TRA **4	
16150	-0763 00 0 00025	LGL 21	RESTORE AC
16151	0560 00 0 26422	LDQ GF56	+0 00005 6 00000
			TRUE SUM TO MQ
16152	0074 00 4 00105	TSX ERROR,4	
16153	0074 00 4 00106	TSX OK,4	
16154	0020 00 0 16143	TRA *-9	

SECTION ONE PART III

9M71/76B
2/1/63
PAGE 309

TEST GENERATE GROUP FIVE

16155	212424606060	BCD	1ADD	
16156	0500 00 0 26416	CLA	B16T18	+0 00003 4 00000
16157	0400 00 0 26216	ADD	B17	+0 00001 0 00000
16160	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
16161	0162 00 0 16163	TQP	**+2	SHOULD NOT TRANSFER
16162	0020 00 0 16166	TRA	**+4	
16163	-0763 00 0 00025	LGL	21	RESTORE AC
16164	0560 00 0 26423	LDQ	B15A18	+0 00004 4 00000
				TRUE SUM TO MQ
16165	0074 00 4 00105	TSX	ERROR,4	
16166	0074 00 4 00106	TSX	OK,4	
16167	0020 00 0 16156	TRA	*-9	
16170	212424606060	BCD	1ADD	
16171	0500 00 0 26417	CLA	B16T19	+0 00003 6 00000
16172	0400 00 0 26216	ADD	B17	+0 00001 0 00000
16173	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
16174	0162 00 0 16176	TQP	**+2	SHOULD TRANSFER
16175	0020 00 0 16201	TRA	**+4	
16176	-0763 00 0 00025	LGL	21	RESTORE AC
16177	0560 00 0 26424	LDQ	GF46	+0 00004 6 00000
				TRUE SUM TO MQ
16200	0074 00 4 00105	TSX	ERROR,4	
16201	0074 00 4 00106	TSX	OK,4	
16202	0020 00 0 16171	TRA	*-9	
16203	212424606060	BCD	1ADD	
16204	0500 00 0 26417	CLA	B16T19	+0 00003 6 00000
16205	0400 00 0 26217	ADD	B18	+0 00000 4 00000
16206	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
16207	0162 00 0 16211	TQP	**+2	SHOULD NOT TRANSFER
16210	0020 00 0 16214	TRA	**+4	
16211	-0763 00 0 00025	LGL	21	RESTORE AC
16212	0560 00 0 26425	LDQ	B15A19	+0 00004 2 00000
				TRUE SUM TO MQ
16213	0074 00 4 00105	TSX	ERROR,4	
16214	0074 00 4 00106	TSX	OK,4	
16215	0020 00 0 16204	TRA	*-9	

9M71/768
2/1/63
PAGE 310

S E C T I O N O N E
P A R T I I I

*
*
*
*
*
*
TEST CARRY INPUTS TO ADDERS 12-14

TEST CARRY INPUT TO ADDER 14

16216	212424606060	BCD 1ADD	
16217	0500 00 0 26260	CLA B15A16	+0 00006 0 00000
16220	0400 00 0 26215	ADD B16	+0 00002 0 00000
16221	-0765 00 0 00026	LGR 22	SHIFT AC COL 14 TO MQ SIGN
16222	0162 00 0 16224	TQP *+2	SHOULD NOT TRANSFER
16223	0020 00 0 16227	TRA **4	
16224	-0763 00 0 00026	LGL 22	RESTORE AC
16225	0560 00 0 26213	LDQ B14	+0 00010 0 00000 TRUE SUM TO MQ
16226	0074 00 4 00105	TSX ERROR,4	
16227	0074 00 4 00106	TSX OK,4	
16230	0020 00 0 16217	TRA *-9	
16231	212424606060	BCD 1ADD	
16232	0500 00 0 26215	CLA B16	+0 00002 0 00000
16233	0400 00 0 26215	ADD B16	
16234	-0765 00 0 00026	LGR 22	SHIFT AC COL 14 TO MQ SIGN
16235	0162 00 0 16241	TQP **4	SHOULD TRANSFER
16236	-0763 00 0 00026	LGL 22	RESTORE AC
16237	0560 00 0 26214	LDQ B15	+0 00004 0 00000 TRUE SUM TO MQ
16240	0074 00 4 00105	TSX ERROR,4	
16241	0074 00 4 00106	TSX OK,4	
16242	0020 00 0 16232	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 311

TEST CARRY INPUT TO ADDER 14

16243	234321606060	BCD	1CLA	
16244	0500 00 0 26214	CLA	B15	+0 00004 0 00000
16245	-0765 00 0 00026	LGR	22	SHIFT AC COL 14 TO MQ SIGN
16246	0162 00 0 16252	TQP	*+4	SHOULD TRANSFER
16247	-0763 00 0 00026	LGL	22	RESTORE AC
16250	0560 00 0 26214	LDQ	B15	CORRECT RESULT TO MQ
16251	0074 00 4 00105	TSX	ERROR,4	
16252	0074 00 4 00106	TSX	OK,4	
16253	0020 00 0 16244	TRA	*-7	

TEST CARRY INPUT TO ADDER 13

16254	234321606060	BCD	1CLA	
16255	0500 00 0 26257	CLA	B14A15	+0 00014 0 00000
16256	-0765 00 0 00027	LGR	23	SHIFT AC COL 13 TO MQ SIGN
16257	0162 00 0 16263	TQP	*+4	SHOULD TRANSFER
16260	-0763 00 0 00027	LGL	23	RESTORE AC
16261	0560 00 0 26257	LDQ	B14A15	CORRECT RESULT TO MQ
16262	0074 00 4 00105	TSX	ERROR,4	
16263	0074 00 4 00106	TSX	OK,4	
16264	0020 00 0 16255	TRA	*-7	

16265	212424606060	BCD	1ADD	
16266	0500 00 0 26214	CLA	B15	+0 00004 0 00000
16267	0400 00 0 26214	ADD	B15	
16270	-0765 00 0 00027	LGR	23	SHIFT AC COL 13 TO MQ SIGN
16271	0162 00 0 16275	TQP	*+4	SHOULD TRANSFER
16272	-0763 00 0 00027	LGL	23	RESTORE AC
16273	0560 00 0 26213	LDQ	B14	+0 00010 0 00000
				TRUE SUM TO MQ
16274	0074 00 4 00105	TSX	ERROR,4	
16275	0074 00 4 00106	TSX	OK,4	
16276	0020 00 0 16266	TRA	*-8	

9M71/76B
2/1/63
PAGE 312

SECTION ONE
PART III

TEST CARRY INPUT TO ADDER 13

16277 212424606060
16300 0500 00 0 26426
16301 0400 00 0 26215
16302 -0765 00 0 00027

16303 0162 00 0 16307
16304 -0763 00 0 00027
16305 0560 00 0 26257

16306 0074 00 4 00105
16307 0074 00 4 00106
16310 0020 00 0 16300

BCD 1ADD
CLA B14A16
ADD B16
LGR 23

TQP **4
LGL 23
LDQ B14A15

TSX ERROR,4
TSX OK,4
TRA *-8

+0 00012 0 00000
+0 00002 0 00000
SHIFT AC COL 13 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
+0 00014 0 00000
TRUE SUM TO MQ

16311 212424606060
16312 0500 00 0 26257
16313 0400 00 0 26214
16314 -0765 00 0 00027

16315 0162 00 0 16317
16316 0020 00 0 16322
16317 -0763 00 0 00027
16320 0560 00 0 26213

16321 0074 00 4 00105
16322 0074 00 4 00106
16323 0020 00 0 16312

BCD 1ADD
CLA B14A15
ADD B15
LGR 23

TQP **2
TRA **4
LGL 23
LDQ B14

TSX ERROR,4
TSX OK,4
TRA *-9

+0 00014 0 00000
+0 00004 0 00000
SHIFT AC COL 13 TO MQ SIGN

SHOULD NOT TRANSFER
RESTORE AC
+0 00020 0 00000
TRUE SUM TO MQ

16324 212424606060
16325 0500 00 0 26570
16326 0400 00 0 26215
16327 -0765 00 0 00027

16330 0162 00 0 16332
16331 0020 00 0 16335
16332 -0763 00 0 00027
16333 0560 00 0 26213

16334 0074 00 4 00105
16335 0074 00 4 00106
16336 0020 00 0 16325

BCD 1ADD
CLA B14T16
ADD B16
LGR 23

TQP **2
TRA **4
LGL 23
LDQ B14

TSX ERROR,4
TSX OK,4
TRA *-9

+0 00016 0 00000
+0 00002 0 00000
SHIFT AC COL 13 TO MQ SIGN

SHOULD NOT TRANSFER
RESTORE AC
+0 00020 0 00000
TRUE SUM TO MQ

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 313

TEST CARRY INPUT TO ADDER 13

16337	212424606060	BCD	1ADD	
16340	0500 00 0 26257	CLA	B14A15	+0 00014 0 00000
16341	0400 00 0 26213	ADD	B14	+0 00010 0 00000
16342	-0765 00 0 00027	LGR	23	SHIFT AC COL 13 TO MQ SIGN
16343	0162 00 0 16345	TQP	*+2	SHOULD NOT TRANSFER
16344	0020 00 0 16350	TRA	*+4	
16345	0763 00 0 00027	LGL	23	RESTORE AC
16346	0560 00 0 26427	LDQ	B13A15	+0 00024 0 00000
				TRUE SUM TO MQ
16347	0074 00 4 00105	TSX	ERROR,4	
16350	0074 00 4 00106	TSX	OK,4	
16351	0020 00 0 16340	TRA	*-9	

TEST CARRY INPUT TO ADDER 12

16352	212424606060	BCD	1ADD	
16353	0500 00 0 26213	CLA	B14	+0 00010 0 00000
16354	0400 00 0 26213	ADD	B14	
16355	-0765 00 0 00030	LGR	24	SHIFT AC COL 12 TO MQ SIGN
16356	0162 00 0 16362	TQP	*+4	SHOULD TRANSFER
16357	-0763 00 0 00030	LGL	24	RESTORE AC
16360	0560 00 0 26212	LDQ	B13	+0 00020 0 00000
				TRUE SUM TO MQ
16361	0074 00 4 00105	TSX	ERROR,4	
16362	0074 00 4 00106	TSX	OK,4	
16363	0020 00 0 16353	TRA	*-8	

16364	212424606060	BCD	1ADD	
16365	0500 00 0 26427	CLA	B13A15	+0 00024 0 00000
16366	0400 00 0 26214	ADD	B15	+0 00004 0 00000
16367	-0765 00 0 00030	LGR	24	SHIFT AC COL 12 TO MQ SIGN
16370	0162 00 0 16374	TQP	*+4	SHOULD TRANSFER
16371	-0763 00 0 00030	LGL	24	RESTORE AC
16372	0560 00 0 26256	LDQ	B13A14	+0 00030 0 00000
				TRUE SUM TO MQ
16373	0074 00 4 00105	TSX	ERROR,4	
16374	0074 00 4 00106	TSX	OK,4	
16375	0020 00 0 16365	TRA	*-8	

9M71/76B
2/1/63
PAGE 314

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 12

16376	212424606060	BCD 1ADD	
16377	0500 00 0 26571	CLA B13A16	+0 00022 0 00000
16400	0400 00 0 26426	ADD B14A16	+0 00012 0 00000
16401	-0765 00 0 00030	LGR 24	SHIFT AC COL 12 TO MQ SIGN
16402	0162 00 0 16406	TQP **4	SHOULD TRANSFER
16403	-0763 00 0 00030	LGL 24	RESTORE AC
16404	0560 00 0 26430	LDQ B13T15	+0 00034 0 00000
			TRUE SUM TO MQ
16405	0074 00 4 00105	TSX ERROR,4	
16406	0074 00 4 00106	TSX OK,4	
16407	0020 00 0 16377	TRA *-8	

16410	234321606060	BCD 1CLA	
16411	0500 00 0 26430	CLA B13T15	+0 00034 0 00000
16412	-0765 00 0 00030	LGR 24	SHIFT AC COL 12 TO MQ SIGN
16413	0162 00 0 16417	TQP **4	SHOULD TRANSFER
16414	-0763 00 0 00030	LGL 24	RESTORE AC
16415	0560 00 0 26430	LDQ B13T15	CORRECT RESULT TO MQ
16416	0074 00 4 00105	TSX ERROR,4	
16417	0074 00 4 00106	TSX OK,4	
16420	0020 00 0 16411	TRA *-7	

16421	212424606060	BCD 1ADD	
16422	0500 00 0 26256	CLA B13A14	+0 00030 0 00000
16423	0400 00 0 26213	ADD B14	+0 00010 0 00000
16424	-0765 00 0 00030	LGR 24	SHIFT AC COL 12 TO MQ SIGN
16425	0162 00 0 16427	TQP **2	SHOULD NOT TRANSFER
16426	0020 00 0 16432	TRA **4	
16427	-0763 00 0 00030	LGL 24	RESTORE AC
16430	0560 00 0 26211	LDQ B12	+0 00040 0 00000
			TRUE SUM TO MQ
16431	0074 00 4 00105	TSX ERROR,4	
16432	0074 00 4 00106	TSX OK,4	
16433	0020 00 0 16422	TRA *-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 315

TEST CARRY INPUT TO ADDER 12

16434 212424606060 16435 0500 00 0 26430 16436 0400 00 0 26214 16437 -0765 00 0 00030	BCD 1ADD CLA B13T15 ADD B15 LGR 24	+0 00034 0 00000 +0 00004 0 00000 SHIFT AC COL 12 TO MQ SIGN
16440 0162 00 0 16442 16441 0020 00 0 16445 16442 -0763 00 0 00030 16443 0560 00 0 26211	TQP **2 TRA **4 LGL 24 LDQ B12	SHOULD NOT TRANSFER RESTORE AC +0 00040 0 00000 TRUE SUM TO MQ
16444 0074 00 4 00105 16445 0074 00 4 00106 16446 0020 00 0 16435	TSX ERROR,4 TSX OK,4 TRA *-9	
16447 212424606060 16450 0500 00 0 26431 16451 0400 00 0 26215 16452 -0765 00 0 00030	BCD 1ADD CLA B13T16 ADD B16 LGR 24	+0 00036 0 00000 +0 00002 0 00000 SHIFT AC COL 12 TO MQ SIGN
16453 0162 00 0 16455 16454 0020 00 0 16460 16455 -0763 00 0 00030 16456 0560 00 0 26211	TQP **2 TRA **4 LGL 24 LDQ B12	SHOULD NOT TRANSFER RESTORE AC +0 00040 0 00000 TRUE SUM TO MQ
16457 0074 00 4 00105 16460 0074 00 4 00106 16461 0020 00 0 16450	TSX ERROR,4 TSX OK,4 TRA *-9	
16462 212424606060 16463 0500 00 0 26430 16464 0400 00 0 26213 16465 -0765 00 0 00030	BCD 1ADD CLA B13T15 ADD B14 LGR 24	+0 00034 0 00000 +0 00010 0 00000 SHIFT AC COL 12 TO MQ SIGN
16466 0162 00 0 16470 16467 0020 00 0 16473 16470 -0763 00 0 00030 16471 0560 00 0 26432	TQP **2 TRA **4 LGL 24 LDQ B12A15	SHOULD NOT TRANSFER RESTORE AC +0 00044 0 00000 TRUE SUM TO MQ
16472 0074 00 4 00105 16473 0074 00 4 00106 16474 0020 00 0 16463	TSX ERROR,4 TSX OK,4 TRA *-9	

9M71/76B
2/1/63
PAGE 316

SECTION ONE
PART III

TEST CARRY INPUT TO ADDER 12

16475 212424606060
16476 0500 00 0 26256
16477 0400 00 0 26212
16500 -0765 00 0 00030

BCD 1ADD
CLA B13A14
ADD B13
LGR 24

+0 00030 0 00000
+0 00020 0 00000
SHIFT AC COL 12 TO MQ SIGN

16501 0162 00 0 16503
16502 0020 00 0 16506
16503 -0763 00 0 00030
16504 0560 00 0 26433

TQP **2
TRA **4
LGL 24
LDQ B12A14

SHOULD NOT TRANSFER

16505 0074 00 4 00105
16506 0074 00 4 00106
16507 0020 00 0 16476

TSX ERROR,4
TSX OK,4
TRA *-9

+0 00050 0 00000
TRUE SUM TO MQ

16510 212424606060
16511 0500 00 0 26430
16512 0400 00 0 26212
16513 -0765 00 0 00030

BCD 1ADD
CLA B13T15
ADD B13
LGR 24

+0 00034 0 00000
+0 00020 0 00000
SHIFT AC COL 12 TO MQ SIGN

16514 0162 00 0 16516
16515 0020 00 0 16521
16516 -0763 00 0 00030
16517 0560 00 0 26434

TQP **2
TRA **4
LGL 24
LDQ GG54

SHOULD NOT TRANSFER

16520 0074 00 4 00105
16521 0074 00 4 00106
16522 0020 00 0 16511

TSX ERROR,4
TSX OK,4
TRA *-9

RESTORE AC
+0 00054 0 00000
TRUE SUM TO MQ

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 317

*
*
*
*
*

TEST GENERATE GROUP SIX

16523 234321606060 16524 0500 00 0 26435 16525 -0765 00 0 00031	BCD 1CLA CLA B12T15 LGR 25	+0 00074 0 00000 SHIFT AC COL 11 TO MQ SIGN
16526 0162 00 0 16532 16527 -0763 00 0 00031 16530 0560 00 0 26435	TQP **4 LGL 25 LDQ B12T15	SHOULD TRANSFER RESTORE AC CORRECT RESULT TO MQ
16531 0074 00 4 00105 16532 0074 00 4 00106 16533 0020 00 0 16524	TSX ERROR,4 TSX OK,4 TRA *-7	
16534 212424606060 16535 0500 00 0 26212 16536 0400 00 0 26212 16537 -0765 00 0 00031	BCD 1ADD CLA B13 ADD B13 LGR 25	+0 00020 0 00000 SHIFT AC COL 11 TO MQ SIGN
16540 0162 00 0 16544 16541 -0763 00 0 00031 16542 0560 00 0 26211	TQP **4 LGL 25 LDQ B12	SHOULD TRANSFER RESTORE AC +0 00040 0 00000 TRUE SUM TO MQ
16543 0074 00 4 00105 16544 0074 00 4 00106 16545 0020 00 0 16535	TSX ERROR,4 TSX OK,4 TRA *-8	
16546 212424606060 16547 0500 00 0 26256 16550 0400 00 0 26213 16551 -0765 00 0 00031	BCD 1ADD CLA B13A14 ADD B14 LGR 25	+0 00030 0 00000 +0 00010 0 00000 SHIFT AC COL 11 TO MQ SIGN
16552 0162 00 0 16556 16553 -0763 00 0 00031 16554 0560 00 0 26211	TQP **4 LGL 25 LDQ B12	SHOULD TRANSFER RESTORE AC +0 00040 0 00000 TRUE SUM TO MQ
16555 0074 00 4 00105 16556 0074 00 4 00106 16557 0020 00 0 16547	TSX ERROR,4 TSX OK,4 TRA *-8	

9M71/76B
2/1/63
PAGE 318

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP SIX

16560	212424606060	BCD	1ADD	
16561	0500 00 0 26430	CLA	B13T15	+0 00034 0 00000
16562	0400 00 0 26214	ADD	B15	+0 00004 0 00000
16563	-0765 00 0 00031	LGR	25	SHIFT AC COL 11 TO MQ SIGN
16564	0162 00 0 16570	TQP	*+4	SHOULD TRANSFER
16565	-0763 00 0 00031	LGL	25	RESTORE AC
16566	0560 00 0 26211	LDQ	B12	+0 00040 0 00000
				TRUE SUM TO MQ
16567	0074 00 4 00105	TSX	ERROR,4	
16570	0074 00 4 00106	TSX	OK,4	
16571	0020 00 0 16561	TRA	*-8	
16572	212424606060	BCD	1ADD	
16573	0500 00 0 26432	CLA	B12A15	+0 00044 0 00000
16574	0400 00 0 26257	ADD	B14A15	+0 00014 0 00000
16575	-0765 00 0 00031	LGR	25	SHIFT AC COL 11 TO MQ SIGN
16576	0162 00 0 16602	TQP	*+4	SHOULD TRANSFER
16577	-0763 00 0 00031	LGL	25	RESTORE AC
16600	0560 00 0 26255	LDQ	B12A13	+0 00060 0 00000
				TRUE SUM TO MQ
16601	0074 00 4 00105	TSX	ERROR,4	
16602	0074 00 4 00106	TSX	OK,4	
16603	0020 00 0 16573	TRA	*-8	
16604	212424606060	BCD	1ADD	
16605	0500 00 0 26433	CLA	B12A14	+0 00050 0 00000
16606	0400 00 0 26213	ADD	B14	+0 00010 0 00000
16607	-0765 00 0 00031	LGR	25	SHIFT AC COL 11 TO MQ SIGN
16610	0162 00 0 16614	TQP	*+4	SHOULD TRANSFER
16611	-0763 00 0 00031	LGL	25	RESTORE AC
16612	0560 00 0 26255	LDQ	B12A13	+0 00060 0 00000
				TRUE SUM TO MQ
16613	0074 00 4 00105	TSX	ERROR,4	
16614	0074 00 4 00106	TSX	OK,4	
16615	0020 00 0 16605	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 319

TEST GENERATE GROUP SIX

16616 212424606060 16617 0500 00 0 26433 16620 0400 00 0 26213 16621 -0765 00 0 00031	BCD 1ADD CLA B12A14 ADD B14 LGR 25	+0 00050 0 00000 +0 00010 0 00000 SHIFT AC COL 11 TO MQ SIGN
16622 0162 00 0 16626 16623 -0763 00 0 00031 16624 0560 00 0 26255	TQP *+4 LGL 25 LDQ B12A13	SHOULD TRANSFER RESTORE AC +0 00060 0 00000 TRUE SUM TO MQ
16625 0074 00 4 00105 16626 0074 00 4 00106 16627 0020 00 0 16617	TSX ERROR,4 TSX OK,4 TRA *-8	
16630 212424606060 16631 0500 00 0 26432 16632 0400 00 0 26427 16633 -0765 00 0 00031	BCD 1ADD CLA B12A15 ADD B13A15 LGR 25	+0 00044 0 00000 +0 00024 0 00000 SHIFT AC COL 11 TO MQ SIGN
16634 0162 00 0 16640 16635 -0763 00 0 00031 16636 0560 00 0 26436	TQP *+4 LGL 25 LDQ B12T14	SHOULD TRANSFER RESTORE AC +0 00070 0 00000 TRUE SUM TO MQ
16637 0074 00 4 00105 16640 0074 00 4 00106 16641 0020 00 0 16631	TSX ERROR,4 TSX OK,4 TRA *-8	
16642 212424606060 16643 0500 00 0 26255 16644 0400 00 0 26212 16645 -0765 00 0 00031	BCD 1ADD CLA B12A13 ADD B13 LGR 25	+0 00060 0 00000 +0 00020 0 00000 SHIFT AC COL 11 TO MQ SIGN
16646 0162 00 0 16650 16647 0020 00 0 16653 16650 -0763 00 0 00031 16651 0560 00 0 26210	TQP *+2 TRA *+4 LGL 25 LDQ B11	SHOULD NOT TRANSFER RESTORE AC +0 00100 0 00000 TRUE SUM TO MQ
16652 0074 00 4 00105 16653 0074 00 4 00106 16654 0020 00 0 16643	TSX ERROR,4 TSX OK,4 TRA *-9	

9M71/76B
2/1/63
PAGE 320

SECTION ONE
PART III

TEST GENERATE GROUP SIX

16655	212424606060	BCD 1ADD	
16656	0500 00 0 26436	CLA B12T14	+0 00070 0 00000
16657	0400 00 0 26213	ADD B14	+0 00010 0 00000
16660	-0765 00 0 00031	LGR 25	SHIFT AC COL 11 TO MQ SIGN
16661	0162 00 0 16663	TQP **2	SHOULD NOT TRANSFER
16662	0020 00 0 16666	TRA **4	
16663	-0763 00 0 00031	LGL 25	RESTORE AC
16664	0560 00 0 26210	LDQ B11	+0 00100 0 00000
			TRUE SUM TO MQ
16665	0074 00 4 00105	TSX ERROR,4	
16666	0074 00 4 00106	TSX OK,4	
16667	0020 00 0 16656	TRA *-9	
16670	212424606060	BCD 1ADD	
16671	0500 00 0 26435	CLA B12T15	+0 00074 0 00000
16672	0400 00 0 26214	ADD B15	+0 00004 0 00000
16673	-0765 00 0 00031	LGR 25	SHIFT AC COL 11 TO MQ SIGN
16674	0162 00 0 16676	TQP **2	SHOULD NOT TRANSFER
16675	0020 00 0 16701	TRA **4	
16676	-0763 00 0 00031	LGL 25	RESTORE AC
16677	0560 00 0 26210	LDQ B11	+0 00100 0 00000
			TRUE SUM TO MQ
16700	0074 00 4 00105	TSX ERROR,4	
16701	0074 00 4 00106	TSX OK,4	
16702	0020 00 0 16671	TRA *-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 321

*
*
*
*
*
*

TEST CARRY INPUTS TO ADDERS 9P-10
TEST GENERATE GROUP SEVEN

TEST CARRY INPUT TO ADDER 10

16703	212424606060	BCD 1ADD	
16704	0500 00 0 26254	CLA B11A12	+000140000000
16705	0400 00 0 26211	ADD B12	+000040000000
16706	-0765 00 0 00032	LGR 26	SHIFT AC COL 10 TO MQ SIGN
16707	0162 00 0 16711	TQP **2	SHOULD NOT TRANSFER
16710	0020 00 0 16714	TRA **4	
16711	-0763 00 0 00032	LGL 26	RESTORE AC
16712	0560 00 0 26207	LDQ B10	+000200000000 TRUE SUM TO MQ
16713	0074 00 4 00105	TSX ERROR,4	
16714	0074 00 4 00106	TSX OK,4	
16715	0020 00 0 16704	TRA *-9	

16716	212424606060	BCD 1ADD	
16717	0500 00 0 26211	CLA B12	+000040000000
16720	0400 00 0 26211	ADD B12	
16721	-0765 00 0 00032	LGR 26	SHIFT AC COL 10 TO MQ SIGN
16722	0162 00 0 16726	TQP **4	SHOULD TRANSFER
16723	-0763 00 0 00032	LGL 26	RESTORE AC
16724	0560 00 0 26210	LDQ B11	+000100000000 TRUE SUM TO MQ
16725	0074 00 4 00105	TSX ERROR,4	
16726	0074 00 4 00106	TSX OK,4	
16727	0020 00 0 16717	TRA *-8	

9M71/768
2/1/63
PAGE 322

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 10

16730	234321606060	BCD 1CLA	
16731	0500 00 0 26210	CLA B11	+000100000000
16732	-0765 00 0 00032	LGR 26	SHIFT AC COL 10 TO MQ SIGN
16733	0162 00 0 16737	TQP *+4	SHOULD TRANSFER
16734	-0763 00 0 00032	LGL 26	RESTORE AC
16735	0560 00 0 26210	LDQ B11	CORRECT RESULT TO MQ
16736	0074 00 4 00105	TSX ERROR,4	
16737	0074 00 4 00106	TSX OK,4	
16740	0020 00 0 16731	TRA *-7	

TEST CARRY INPUT TO ADDER 9

16741	212424606060	BCD 1ADD	
16742	0500 00 0 26254	CLA B11A12	+000140000000
16743	0400 00 0 26211	ADD B12	+000040000000
16744	-0765 00 0 00033	LGR 27	SHIFT AC COL 9 TO MQ SIGN
16745	0162 00 0 16751	TQP *+4	SHOULD TRANSFER
16746	-0763 00 0 00033	LGL 27	RESTORE AC
16747	0560 00 0 26207	LDQ B10	+000200000000
			TRUE SUM TO MQ
16750	0074 00 4 00105	TSX ERROR,4	
16751	0074 00 4 00106	TSX OK,4	
16752	0020 00 0 16742	TRA *-8	

16753	212424606060	BCD 1ADD	
16754	0500 00 0 26437	CLA B10A12	+000240000000
16755	0400 00 0 26211	ADD B12	+000040000000
16756	-0765 00 0 00033	LGR 27	SHIFT AC COL 9 TO MQ SIGN
16757	0162 00 0 16763	TQP *+4	SHOULD TRANSFER
16760	-0763 00 0 00033	LGL 27	RESTORE AC
16761	0560 00 0 26253	LDQ B10A11	+000300000000
			TRUE SUM TO MQ
16762	0074 00 4 00105	TSX ERROR,4	
16763	0074 00 4 00106	TSX OK,4	
16764	0020 00 0 16754	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 323

TEST CARRY INPUT TO ADDER 9

16765	212424606060	BCD	IADD	
16766	0500 00 0 26207	CLA	B10	+000200000000
16767	0400 00 0 26210	ADD	B11	+000100000000
16770	-0765 00 0 00033	LGR	27	SHIFT AC COL 9 TO MQ SIGN
16771	0162 00 0 16775	TQP	*+4	SHOULD TRANSFER
16772	0763 00 0 00033	LGL	27	RESTORE AC
16773	0560 00 0 26253	LDQ	B10A11	+000300000000
				TRUE SUM TO MQ
16774	0074 00 4 00105	TSX	ERROR,4	
16775	0074 00 4 00106	TSX	OK,4	
16776	0020 00 0 16766	TRA	*-8	
16777	212424606060	BCD	IADD	
17000	0500 00 0 26253	CLA	B10A11	+000300000000
17001	0400 00 0 26210	ADD	B11	+000100000000
17002	-0765 00 0 00033	LGR	27	SHIFT AC COL 9 TO MQ SIGN
17003	0162 00 0 17005	TQP	*+2	SHOULD NOT TRANSFER
17004	0020 00 0 17010	TRA	*+4	
17005	-0763 00 0 00033	LGL	27	RESTORE AC
17006	0560 00 0 26206	LDQ	B9	+000400000000
				TRUE SUM TO MQ
17007	0074 00 4 00105	TSX	ERROR,4	
17010	0074 00 4 00106	TSX	OK,4	
17011	0020 00 0 17000	TRA	*-9	
17012	212424606060	BCD	IADD	
17013	0500 00 0 26440	CLA	B10T12	+000340000000
17014	0400 00 0 26211	ADD	B12	+000040000000
17015	-0765 00 0 00033	LGR	27	SHIFT AC COL 9 TO MQ SIGN
17016	0162 00 0 17020	TQP	*+2	SHOULD NOT TRANSFER
17017	0020 00 0 17023	TRA	*+4	
17020	-0763 00 0 00033	LGL	27	RESTORE AC
17021	0560 00 0 26206	LDQ	B9	+000400000000
				TRUE SUM TO MQ
17022	0074 00 4 00105	TSX	ERROR,4	
17023	0074 00 4 00106	TSX	OK,4	
17024	0020 00 0 17013	TRA	*-9	

9M71/76B
2/1/63
PAGE 324

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 9

17025	212424606060	BCD 1ADD	
17026	0500 00 0 26253	CLA B10A11	+000300000000
17027	0400 00 0 26207	ADD B10	+000200000000
17030	-0765 00 0 00033	LGR 27	SHUFT AC COL 9 TO MQ SIGN
17031	0162 00 0 17033	TQP **2	SHOULD NOT TRANSFER
17032	0020 00 0 17036	TRA **4	
17033	-0763 00 0 00033	LGL 27	RESTORE AC
17034	0560 00 0 26441	LDQ B9A11	+000500000000 TRUE SUM TO MQ
17035	0074 00 4 00105	TSX ERROR,4	
17036	0074 00 4 00106	TSX OK,4	
17037	0020 00 0 17026	TRA *-9	

TEST GENERATE GROUP SEVEN AND CARRY TO ADDER 9P

17040	212424606060	BCD 1ADD	
17041	0500 00 0 26207	CLA B10	+000200000000
17042	0400 00 0 26207	ADD B10	
17043	-0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
17044	0162 00 0 17050	TQP **4	SHOULD TRANSFER
17045	-0763 00 0 00034	LGL 28	RESTORE AC
17046	0560 00 0 26206	LDQ B9	+000400000000 TRUE SUM TO MQ
17047	0074 00 4 00105	TSX ERROR,4	
17050	0074 00 4 00106	TSX OK,4	
17051	0020 00 0 17041	TRA *-8	

17052	212424606060	BCD 1ADD	
17053	0500 00 0 26441	CLA B9A11	+000500000000
17054	0400 00 0 26210	ADD B11	+000100000000
17055	-0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
17056	0162 00 0 17062	TQP **4	SHOULD TRANSFER
17057	-0763 00 0 00034	LGL 28	RESTORE AC
17060	0560 00 0 26252	LDQ B9A10	+000600000000 TRUE SUM TO MQ
17061	0074 00 4 00105	TSX ERROR,4	
17062	0074 00 4 00106	TSX OK,4	
17063	0020 00 0 17053	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 325

TEST GENERATE GROUP SEVEN AND CARRY TO ADDER 9P

17064 212424606060	BCD 1ADD	
17065 0500 00 0 26442	CLA B9A12	+000440000000
17066 0400 00 0 26437	ADD B10A12	+000240000000
17067 -0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
17070 0162 00 0 17074	TQP **4	SHOULD TRANSFER
17071 -0763 00 0 00034	LGL 28	RESTORE AC
17072 0560 00 0 26443	LDQ B9T11	+000700000000
		TRUE SUM TO MQ
17073 0074 00 4 00105	TSX ERROR,4	
17074 0074 00 4 00106	TSX OK,4	
17075 0020 00 0 17065	TRA *-8	
17076 212424606060	BCD 1ADD	
17077 0500 00 0 26441	CLA B9A11	+000500000000
17100 0400 00 0 26207	ADD B10	+000200000000
17101 -0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
17102 0162 00 0 17106	TQP **4	SHOULD TRANSFER
17103 -0763 00 0 00034	LGL 28	RESTORE AC
17104 0560 00 0 26443	LDQ B9T11	+000700000000
		TRUE SUM TO MQ
17105 0074 00 4 00105	TSX ERROR,4	
17106 0074 00 4 00106	TSX OK,4	
17107 0020 00 0 17077	TRA *-8	
17110 212424606060	BCD 1ADD	
17111 0500 00 0 26252	CLA B9A10	+000600000000
17112 0400 00 0 26207	ADD B10	+000200000000
17113 -0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
17114 0162 00 0 17116	TQP **2	SHOULD NOT TRANSFER
17115 0020 00 0 17121	TRA **4	
17116 -0763 00 0 00034	LGL 28	RESTORE AC
17117 0560 00 0 26205	LDQ B8	+001000000000
		TRUE SUM TO MQ
17120 0074 00 4 00105	TSX ERROR,4	
17121 0074 00 4 00106	TSX OK,4	
17122 0020 00 0 17111	TRA *-9	

9M71/76B
2/1/63
PAGE 326

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP SEVEN AND CARRY TO ADDER 9P

17123	212424606060	BCD 1ADD	
17124	0500 00 0 26443	CLA B9T11	+000700000000
17125	0400 00 0 26210	ADD B11	+000100000000
17126	-0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
17127	0162 00 0 17131	TQP **2	SHOULD NOT TRANSFER
17130	0020 00 0 17134	TRA **4	
17131	-0763 00 0 00034	LGL 28	RESTORE AC
17132	0560 00 0 26205	LDQ 88	+001000000000
			TRUE SUM TO MQ
17133	0074 00 4 00105	TSX ERROR,4	
17134	0074 00 4 00106	TSX OK,4	
17135	0020 00 0 17124	TRA *-9	

17136	212424606060	BCD 1ADD	
17137	0500 00 0 26252	CLA B9A10	+000600000000
17140	0400 00 0 26206	ADD B9	+000400000000
17141	-0765 00 0 00034	LGR 28	SHIFT COL 8 TO MQ SIGN

17142	0162 00 0 17144	TQP **2	SHOULD NOT TRANSFER
17143	0020 00 0 17147	TRA **4	
17144	-0763 00 0 00034	LGL 28	RESTORE AC
17145	0560 00 0 26444	LDQ B8A10	+001200000000
			TRUE SUM TO MQ

17146	0074 00 4 00105	TSX ERROR,4	
17147	0074 00 4 00106	TSX OK,4	
17150	0020 00 0 17137	TRA *-9	

17151	212424606060	BCD 1ADD	
17152	0500 00 0 26443	CLA B9T11	+000700000000
17153	0400 00 0 26207	ADD B10	+000200000000
17154	-0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN

17155	0162 00 0 17157	TQP **2	SHOULD NOT TRANSFER
17156	0020 00 0 17162	TRA **4	
17157	-0763 00 0 00034	LGL 28	RESTORE AC
17160	0560 00 0 26445	LDQ B8A11	+001100000000
			TRUE SUM TO MQ

17161	0074 00 4 00105	TSX ERROR,4	
17162	0074 00 4 00106	TSX OK,4	
17163	0020 00 0 17152	TRA *-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 327

TEST GENERATE GROUP SEVEN

17164	212424606060	BCD	1ADD	
17165	0500 00 0 26443	CLA	B9T11	+000700000000
17166	0400 00 0 26206	ADD	B9	+000400000000
17167	-0765 00 0 00034	LGR	28	SHIFT AC COL 08 TO MQ SIGN
17170	0162 00 0 17172	TQP	**2	SHOULD NOT TRANSFER
17171	0020 00 0 17175	TRA	**4	
17172	-0763 00 0 00034	LGL	28	RESTORE AC
17173	0560 00 0 26446	LDQ	B81011	+001300000000
				TRUE SUM TO MQ
17174	0074 00 4 00105	TSX	ERROR,4	
17175	0074 00 4 00106	TSX	OK,4	
17176	0020 00 0 17165	TRA	*-9	
17177	212424606060	BCD	1ADD	
17200	0500 00 0 26447	CLA	B9T12	+000740000000
17201	0400 00 0 26211	ADD	B12	+000040000000
17202	-0765 00 0 00034	LGR	28	SHIFT AC COL 8 TO MQ SIGN
17203	0162 00 0 17205	TQP	**2	SHOULD NOT TRANSFER
17204	0020 00 0 17210	TRA	**4	
17205	-0763 00 0 00034	LGL	28	RESTORE AC
17206	0560 00 0 26205	LDQ	B8	+001000000000
				TRUE SUM TO MQ
17207	0074 00 4 00105	TSX	ERROR,4	
17210	0074 00 4 00106	TSX	OK,4	
17211	0020 00 0 17200	TRA	*-9	

9M71/76B
2/1/63
PAGE 328

SECTION ONE
PART III

TEST CARRY INPUTS TO ADDERS 6-7

TEST CARRY INPUT TO ADDER 7

17212	212424606060	BCD 1ADD	
17213	0500 00 0 26251	CLA B8A9	+001400000000
17214	0400 00 0 26206	ADD B9	+000400000000
17215	-0765 00 0 00035	LGR 29	SHIFT AC COL 7 TO MQ SIGN

17216	0162 00 0 17220	TQP **2	SHOULD NOT TRANSFER
17217	0020 00 0 17223	TRA **4	
17220	-0763 00 0 00035	LGL 29	RESTORE AC
17221	0560 00 0 26204	LDQ B7	+002000000000
			TRUE SUM TO AC

17222	0074 00 4 00105	TSX ERROR,4	
17223	0074 00 4 00106	TSX OK,4	
17224	0020 00 0 17213	TRA *-9	

17225	212424606060	BCD 1ADD	
17226	0500 00 0 26206	CLA B9	+000400000000
17227	0400 00 0 26206	ADD B9	
17230	-0765 00 0 00035	LGR 29	SHIFT AC COL 7 TO MQ SIGN

17231	0162 00 0 17235	TQP **4	SHOULD TRANSFER
17232	-0763 00 0 00035	LGL 29	RESTORE AC
17233	0560 00 0 26205	LDQ B8	+001000000000
			TRUE SUM TO MQ

17234	0074 00 4 00105	TSX ERROR,4	
17235	0074 00 4 00106	TSX OK,4	
17236	0020 00 0 17226	TRA *-8	

17237	234321606060	BCD 1CLA	
17240	0500 00 0 26205	CLA B8	+001000000000
17241	-0765 00 0 00035	LGR 29	SHIFT AC COL 7 TO MQ SIGN

17242	0162 00 0 17246	TQP **4	SHOULD TRANSFER
17243	-0763 00 0 00035	LGL 29	RESTORE AC
17244	0560 00 0 26205	LDQ B8	CORRECT RESULT TO MQ

17245	0074 00 4 00105	TSX ERROR,4	
17246	0074 00 4 00106	TSX OK,4	
17247	0020 00 0 17240	TRA *-7	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 329

TEST CARRY INPUT TO ADDER 6

17250	212424606060	BCD	IADD	
17251	0500 00 0 26204	CLA	B7	+002000000000
17252	0400 00 0 26205	ADD	B8	+001000000000
17253	-0765 00 0 00036	LGR	30	SHIFT AC COL 6 TO MQ SIGN
17254	0162 00 0 17260	TQP	*+4	SHOULD TRANSFER
17255	-0763 00 0 00036	LGL	30	RESTORE AC
17256	0560 00 0 26250	LDQ	B7A8	+003000000000
				TRUE SUM TO MQ
17257	0074 00 4 00105	TSX	ERROR,4	
17260	0074 00 4 00106	TSX	OK,4	
17261	0020 00 0 17251	TRA	*-8	

17262	212424606060	BCD	IADD	
17263	0500 00 0 26205	CLA	B8	+001000000000
17264	0400 00 0 26205	ADD	B8	
17265	-0765 00 0 00036	LGR	30	SHIFT AC COL 6 TO MQ SIGN
17266	0162 00 0 17272	TQP	*+4	SHOULD TRANSFER
17267	-0763 00 0 00036	LGL	30	RESTORE AC
17270	0560 00 0 26204	LDQ	B7	+002000000000
				TRUE SUM TO MQ
17271	0074 00 4 00105	TSX	ERROR,4	
17272	0074 00 4 00106	TSX	OK,4	
17273	0020 00 0 17263	TRA	*-8	

17274	212424606060	BCD	IADD	
17275	0500 00 0 26450	CLA	B7A9	+002400000000
17276	0400 00 0 26206	ADD	B9	+000400000000
17277	-0765 00 0 00036	LGR	30	SHIFT AC COL 6 TO MQ SIGN
17300	0162 00 0 17304	TQP	*+4	SHOULD TRANSFER
17301	-0763 00 0 00036	LGL	30	RESTORE AC
17302	0560 00 0 26250	LDQ	B7A8	+003000000000
				TRUE SUM TO MQ
17303	0074 00 4 00105	TSX	ERROR,4	
17304	0074 00 4 00106	TSX	OK,4	
17305	0020 00 0 17275	TRA	*-8	

9M71/76B
2/1/63
PAGE 330

S E C T I O N O N E
P A R T I I I

TEST CARRY INPUT TO ADDER 6

17306 212424606060
17307 0500 00 0 26250
17310 0400 00 0 26205
17311 -0765 00 0 00036

BCD 1ADD
CLA B7A8
ADD B8
LGR 30

+003000000000
+001000000000
SHIFT AC COL 6 TO MQ SIGN

17312 0162 00 0 17314
17313 0020 00 0 17317
17314 -0763 00 0 00036
17315 0560 00 0 26203

TQP **2
TRA **4
LGL 30
LDQ B6

TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER

RESTORE AC
+004000000000
TRUE SUM TO MQ

17316 0074 00 4 00105
17317 0074 00 4 00106
17320 0020 00 0 17307

17321 212424606060
17322 0500 00 0 26451
17323 0400 00 0 26206
17324 -0765 00 0 00036

BCD 1ADD
CLA B7T9
ADD B9
LGR 30

+003400000000
+000400000000
SHIFT AC COL 6 TO MQ SIGN

17325 0162 00 0 17327
17326 0020 00 0 17332
17327 -0763 00 0 00036
17330 0560 00 0 26203

TQP **2
TRA **4
LGL 30
LDQ B6

TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER

RESTORE AC
+004000000000
TRUE SUM TO MQ

17331 0074 00 4 00105
17332 0074 00 4 00106
17333 0020 00 0 17322

17334 212424606060
17335 0500 00 0 26250
17336 0400 00 0 26204
17337 -0765 00 0 00036

BCD 1ADD
CLA B7A8
ADD B7
LGR 30

+003000000000
+002000000000
SHIFT AC COL 6 TO MQ SIGN

17340 0162 00 0 17342
17341 0020 00 0 17345
17342 -0763 00 0 00036
17343 0560 00 0 26452

TQP **2
TRA **4
LGL 30
LDQ B6A8

SHOULD NOT TRANSFER

RESTORE AC
+005000000000
TRUE SUM TO MQ

17344 0074 00 4 00105
17345 0074 00 4 00106
17346 0020 00 0 17335

TSX ERROR,4
TSX OK,4
TRA *-9

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 331

TEST GENERATE GROUP EIGHT

17347 212424606060
17350 0500 00 0 26204
17351 0400 00 0 26204
17352 -0765 00 0 00037

BCD 1ADD
CLA B7
ADD B7
LGR 31

+002000000000
SHIFT AC COL 5 TO MQ SIGN

17353 0162 00 0 17357
17354 -0763 00 0 00037
17355 0560 00 0 26203

TQP **4
LGL 31
LDQ B6

SHOULD TRANSFER
RESTORE AC
+004000000000
TRUE SUM TO MQ

17356 0074 00 4 00105
17357 0074 00 4 00106
17360 0020 00 0 17350

TSX ERROR,4
TSX OK,4
TRA *-8

17361 212424606060
17362 0500 00 0 26452
17363 0400 00 0 26205
17364 -0765 00 0 00037

BCD 1ADD
CLA B6A8
ADD B8
LGR 31

+005000000000
+001000000000
SHIFT AC COL 5 TO MQ SIGN

17365 0162 00 0 17371
17366 -0763 00 0 00037
17367 0560 00 0 26247

TQP **4
LGL 31
LDQ B6A7

SHOULD TRANSFER
RESTORE AC
+006000000000
TRUE SUM TO MQ

17370 0074 00 4 00105
17371 0074 00 4 00106
17372 0020 00 0 17362

TSX ERROR,4
TSX OK,4
TRA *-8

17373 234321606060
17374 0500 00 0 26453
17375 -0765 00 0 00037

BCD 1CLA
CLA B6T8
LGR 31

+007000000000
SHIFT AC COL 5 TO MQ SIGN

17376 0162 00 0 17402
17377 -0763 00 0 00037
17400 0560 00 0 26453

TQP **4
LGL 31
LDQ B6T8

SHOULD TRANSFER
RESTORE AC
CORRECT RESULT TO MQ

17401 0074 00 4 00105
17402 0074 00 4 00106
17403 0020 00 0 17374

TSX ERROR,4
TSX OK,4
TRA *-7

9M71/76B
2/1/63
PAGE 332

SECTION ONE
PART III

TEST GENERATE GROUP EIGHT

17404 212424606060
17405 0500 00 0 26250
17406 0400 00 0 26205
17407 -0765 00 0 00037

BCD 1ADD
CLA B7A8
ADD B8
LGR 31

+003000000000
+001000000000
SHIFT AC COL 5 TO MQ SIGN

17410 0162 00 0 17414
17411 -0763 00 0 00037
17412 0560 00 0 26203

TQP **4
LGL 31
LDQ B6

SHOULD TRANSFER
RESTORE AC
+004000000000
TRUE SUM TO MQ

17413 0074 00 4 00105
17414 0074 00 4 00106
17415 0020 00 0 17405

TSX ERROR,4
TSX OK,4
TRA *-8

17416 212424606060
17417 0500 00 0 26247
17420 0400 00 0 26204
17421 -0765 00 0 00037

BCD 1ADD
CLA B6A7
ADD B7
LGR 31

+006000000000
+002000000000
SHIFT AC COL 5 TO MQ SIGN

17422 0162 00 0 17424
17423 0020 00 0 17427
17424 -0763 00 0 00037
17425 0560 00 0 26202

TQP **2
TRA **4
LGL 31
LDQ B5

SHOULD NOT TRANSFER
RESTORE AC
+010000000000
TRUE SUM TO MQ

17426 0074 00 4 00105
17427 0074 00 4 00106
17430 0020 00 0 17417

TSX ERROR,4
TSX OK,4
TRA *-9

17431 212424606060
17432 0500 00 0 26453
17433 0400 00 0 26205
17434 -0765 00 0 00037

BCD 1ADD
CLA B6T8
ADD B8
LGR 31

+007000000000
+001000000000
SHIFT AC COL 5 TO MQ SIGN

17435 0162 00 0 17437
17436 0020 00 0 17442
17437 -0763 00 0 00037
17440 0560 00 0 26202

TQP **2
TRA **4
LGL 31
LDQ B5

SHOULD NOT TRANSFER
RESTORE AC
+010000000000
TRUE SUM TO MQ

17441 0074 00 4 00105
17442 0074 00 4 00106
17443 0020 00 0 17432

TSX ERROR,4
TSX OK,4
TRA *-9

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 333

*
*
*
*
*

TEST CARRY INPUTS TO ADDERS 2-4

TEST CARRY INPUT TO ADDER 4

17444	212424606060	BCD	IADD	
17445	0500 00 0 26246	CLA	B5A6	+014000000000
17446	0400 00 0 26203	ADD	B6	+004000000000
17447	-0765 00 0 00040	LGR	32	SHIFT AC COL 4 TO MQ SIGN
17450	0162 00 0 17452	TQP	*+2	SHOULD NOT TRANSFER
17451	0020 00 0 17455	TRA	*+4	
17452	-0763 00 0 00040	LGL	32	RESTORE AC
17453	0560 00 0 26201	LDQ	B4	+020000000000
				TRUE SUM TO MQ
17454	0074 00 4 00105	TSX	ERROR,4	
17455	0074 00 4 00106	TSX	OK,4	
17456	0020 00 0 17445	TRA	*-9	

17457	212424606060	BCD	IADD	
17460	0500 00 0 26203	CLA	B6	+004000000000
17461	0400 00 0 26203	ADD	B6	
17462	-0765 00 0 00040	LGR	32	SHIFT AC COL 4 TO MQ SIGN
17463	0162 00 0 17467	TQP	*+4	SHOULD TRANSFER
17464	-0763 00 0 00040	LGL	32	RESTORE AC
17465	0560 00 0 26202	LDQ	B5	+010000000000
				TRUE SUM TO MQ
17466	0074 00 4 00105	TSX	ERROR,4	
17467	0074 00 4 00106	TSX	OK,4	
17470	0020 00 0 17460	TRA	*-8	

SECTION ONE
PART III

TEST CARRY INPUT TO ADDER 4

17471 212424606060
17472 0500 00 0 26173
17473 0400 00 0 26202
17474 -0765 00 0 00040

17475 0162 00 0 17501
17476 -0763 00 0 00040
17477 0560 00 0 26202

17500 0074 00 4 00105
17501 0074 00 4 00106
17502 0020 00 0 17472

BCD 1ADD
CLA BZERO
ADD B5
LGR 32

TQP **4
LGL 32
LDQ B5

TSX ERROR,4
TSX OK,4
TRA *-8

+000000000000
+010000000000
SHIFT AC COL 4 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
+010000000000
TRUE SUM TO MQ

TEST CARRY INPUT TO ADDER 3

17503 234321606060
17504 0500 00 0 26245
17505 -0765 00 0 00041

BCD 1CLA
CLA B4A5
LGR 33

TQP **4
LGL 33
LDQ B4A5
TSX ERROR,4
TSX OK,4
TRA *-7

+030000000000
SHIFT AC COL 3 TO MQ SIGN

RESTORE AC
CORRECT RESULT TO MQ

17506 0162 00 0 17512
17507 -0763 00 0 00041
17510 0560 00 0 26245
17511 0074 00 4 00105
17512 0074 00 4 00106
17513 0020 00 0 17504

17514 212424606060
17515 0500 00 0 26202
17516 0400 00 0 26202
17517 -0765 00 0 00041

BCD 1ADD
CLA B5
ADD B5
LGR 33

TQP **4
LGL 33
LDQ B4

TSX ERROR,4
TSX OK,4
TRA *-8

+010000000000

SHIFT AC COL 3 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
+020000000000
TRUE SUM TO MQ

17520 0162 00 0 17524
17521 -0763 00 0 00041
17522 0560 00 0 26201

17523 0074 00 4 00105
17524 0074 00 4 00106
17525 0020 00 0 17515

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 335

TEST CARRY INPUT TO ADDER 3

17526	212424606060	BCD 1ADD	
17527	0500 00 0 26454	CLA B4A6	+024000000000
17530	0400 00 0 26203	ADD B6	+004000000000
17531	-0765 00 0 00041	LGR 33	SHIFT AC COL 3 TO MQ SIGN
17532	0162 00 0 17536	TQP *+4	SHOULD TRANSFER
17533	-0763 00 0 00041	LGL 33	RESTORE AC
17534	0560 00 0 26245	LDQ B4A5	+030000000000
			TRUE SUM TO MQ
17535	0074 00 4 00105	TSX ERROR,4	
17536	0074 00 4 00106	TSX OK,4	
17537	0020 00 0 17527	TRA *-8	

17540	212424606060	BCD 1ADD	
17541	0500 00 0 26245	CLA B4A5	+030000000000
17542	0400 00 0 26202	ADD B5	+010000000000
17543	-0765 00 0 00041	LGR 33	SHIFT AC COL 3 TO MQ SIGN
17544	0162 00 0 17546	TQP *+2	SHOULD NOT TRANSFER
17545	0020 00 0 17551	TRA *+4	
17546	-0763 00 0 00041	LGL 33	RESTORE AC
17547	0560 00 0 26200	LDQ B3	+040000000000
			TRUE SUM TO MQ
17550	0074 00 4 00105	TSX ERROR,4	
17551	0074 00 4 00106	TSX OK,4	
17552	0020 00 0 17541	TRA *-9	

17553	212424606060	BCD 1ADD	
17554	0500 00 0 26454	CLA B4A6	+024000000000
17555	0400 00 0 26246	ADD B5A6	+014000000000
17556	-0765 00 0 00041	LGR 33	SHIFT AC COL 3 TO MQ SIGN
17557	0162 00 0 17561	TQP *+2	SHOULD NOT TRANSFER
17560	0020 00 0 17564	TRA *+4	
17561	-0763 00 0 00041	LGL 33	RESTORE AC
17562	0560 00 0 26200	LDQ B3	+040000000000
			TRUE SUM TO MQ
17563	0074 00 4 00105	TSX ERROR,4	
17564	0074 00 4 00106	TSX OK,4	
17565	0020 00 0 17554	TRA *-9	

SECTION ONE
PART III

TEST CARRY INPUT TO ADDER 3

17566 212424606060
17567 0500 00 0 26245
17570 0400 00 0 26201
17571 -0765 00 0 00041

17572 0162 00 0 17574
17573 0020 00 0 17577
17574 -0763 00 0 00041
17575 0560 00 0 26455

17576 0074 00 4 00105
17577 0074 00 4 00106
17600 0020 00 0 17567

BCD 1ADD
CLA B4A5
ADD B4
LGR 33

TQP **2
TRA **4
LGL 33
LDQ B3A5

TSX ERROR,4
TSX OK,4
TRA *-9

+030000000000
002000000000
SHIFT AC COL 3 TO MQ SIGN

SHOULD NOT TRANSFER

RESTORE AC
+050000000000
TRUE SUM TO MQ

TEST CARRY INPUT TO ADDER 2

17601 234321606060
17602 0500 00 0 26456
17603 -0765 00 0 00042

17604 0162 00 0 17610
17605 -0763 00 0 00042
17606 0560 00 0 26456

17607 0074 00 4 00105
17610 0074 00 4 00106
17611 0020 00 0 17602

BCD 1CLA
CLA B3T5
LGR 34

TQP **4
LGL 34
LDQ B3T5

TSX ERROR,4
TSX OK,4
TRA *-7

+070000000000
SHIFT AC COL 2 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
CORRECT RESULT TO MQ

17612 212424606060
17613 0500 00 0 26201
17614 0400 00 0 26201
17615 -0765 00 0 00042

17616 0162 00 0 17622
17617 -0763 00 0 00042
17620 0560 00 0 26200

17621 0074 00 4 00105
17622 0074 00 4 00106
17623 0020 00 0 17613

BCD 1ADD
CLA B4
ADD B4
LGR 34

TQP **4
LGL 34
LDQ B3

TSX ERROR,4
TSX OK,4
TRA *-8

+020000000000

SHIFT AC COL 2 TO MQ SIGN

SHOULD TRANSFER
RESTORE AC
+040000000000
TRUE SUM TO MQ

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 337

TEST CARRY INTO ADDER 2

17624	212424606060	BCD 1ADD	
17625	0500 00 0 26455	CLA B3A5	+050000000000
17626	0400 00 0 26202	ADD B5	+010000000000
17627	-0765 00 0 00042	LGR 34	SHIFT AC COL 2 TO MQ SIGN
17630	0162 00 0 17634	TQP **4	SHOULD TRANSFER
17631	-0763 00 0 00042	LGL 34	RESTORE AC
17632	0560 00 0 26244	LDQ B3A4	+060000000000
			TRUE SUM TO MQ
17633	0074 00 4 00105	TSX ERROR,4	
17634	0074 00 4 00106	TSX OK,4	
17635	0020 00 0 17625	TRA *-8	
17636	212424606060	BCD 1ADD	
17637	0500 00 0 26457	CLA B3A6	+044000000000
17640	0400 00 0 26203	ADD B6	+004000000000
17641	-0765 00 0 00042	LGR 34	SHIFT AC COL 2 TO MQ SIGN
17642	0162 00 0 17646	TQP **4	SHOULD TRANSFER
17643	-0763 00 0 00042	LGL 34	RESTORE AC
17644	0560 00 0 26455	LDQ B3A5	+050000000000
			TRUE SUM TO MQ
17645	0074 00 4 00105	TSX ERROR,4	
17646	0074 00 4 00106	TSX OK,4	
17647	0020 00 0 17637	TRA *-8	
17650	212424606060	BCD 1ADD	
17651	0500 00 0 26244	CLA B3A4	+060000000000
17652	0400 00 0 26201	ADD B4	+020000000000
17653	-0765 00 0 00042	LGR 34	SHIFT AC COL 2 TO MQ SIGN
17654	0162 00 0 17656	TQP **2	SHOULD NOT TRANSFER
17655	0020 00 0 17661	TRA **4	
17656	-0763 00 0 00042	LGL 34	RESTORE AC
17657	0560 00 0 26177	LDQ B2	+100000000000
			TRUE SUM TO MQ
17660	0074 00 4 00105	TSX ERROR,4	
17661	0074 00 4 00106	TSX OK,4	
17662	0020 00 0 17651	TRA *-9	

9M71/768
2/1/63
PAGE 338

SECTION ONE
PART III

TEST CARRY INPUT TO ADDER 2

17663 212424606060
17664 0500 00 0 26456
17665 0400 00 0 26202
17666 -0765 00 0 00042

BCD 1ADD
CLA B3T5
ADD B5
LGR 34

+070000000000
+010000000000
SHIFT AC COL 2 TO MQ SIGN

17667 0162 00 0 17671
17670 0020 00 0 17674
17671 -0763 00 0 00042
17672 0560 00 0 26177

TQP **2
TRA **4
LGL 34
LDQ B2

TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER

RESTORE AC
+100000000000
TRUE SUM TO MQ

17673 0074 00 4 00105
17674 0074 00 4 00106
17675 0020 00 0 17664

17676 212424606060
17677 0500 00 0 26460
17700 0400 00 0 26203
17701 -0765 00 0 00042

BCD 1ADD
CLA B3T6
ADD B6
LGR 34

+074000000000
+004000000000
SHIFT AC COL 2 TO MQ SIGN

17702 0162 00 0 17704
17703 0020 00 0 17707
17704 -0763 00 0 00042
17705 0560 00 0 26177

TQP **2
TRA **4
LGL 34
LDQ B2

TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER

RESTORE AC
+100000000000
TRUE SUM TO MQ

17706 0074 00 4 00105
17707 0074 00 4 00106
17710 0020 00 0 17677

17711 212424606060
17712 0500 00 0 26244
17713 0400 00 0 26200
17714 -0765 00 0 00042

BCD 1ADD
CLA B3A4
ADD B3
LGR 34

+060000000000
+040000000000
SHIFT AC COL 2 TO MQ SIGN

17715 0162 00 0 17717
17716 0020 00 0 17722
17717 -0763 00 0 00042
17720 0560 00 0 26464

TQP **2
TRA **4
LGL 34
LDQ B2A4

TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT TRANSFER

RESTORE AC
+120000000000
TRUE SUM TO MQ

17721 0074 00 4 00105
17722 0074 00 4 00106
17723 0020 00 0 17712

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 339

TEST CARRY INPUT TO ADDER 2

17724	212424606060	BCD	1ADD	
17725	0500 00 0 26456	CLA	B3T5	+070000000000
17726	0400 00 0 26200	ADD	B3	+040000000000
17727	-0765 00 0 00042	LGR	34	SHIFT AC COL 2 TO MQ SIGN
17730	0162 00 0 17732	TQP	*+2	SHOULD NOT TRANSFER
17731	0020 00 0 17735	TRA	*+4	
17732	-0763 00 0 00042	LGL	34	RESTORE AC
17733	0560 00 0 26461	LDQ	B245	+130000000000
				TRUE SUM TO MQ
17734	0074 00 4 00105	TSX	ERROR,4	
17735	0074 00 4 00106	TSX	OK,4	
17736	0020 00 0 17725	TRA	*-9	

17737	212424606060	BCD	1ADD	
17740	0500 00 0 26456	CLA	B3T5	+070000000000
17741	0400 00 0 26201	ADD	B4	+020000000000
17742	-0765 00 0 00042	LGR	34	SHIFT AC COL 2 TO MQ SIGN
17743	0162 00 0 17745	TQP	*+2	SHOULD NOT TRANSFER
17744	0020 00 0 17750	TRA	*+4	
17745	-0763 00 0 00042	LGL	34	RESTORE AC
17746	0560 00 0 26465	LDQ	B2A5	+110000000000
				TRUE SUM TO MQ
17747	0074 00 4 00105	TSX	ERROR,4	
17750	0074 00 4 00106	TSX	OK,4	
17751	0020 00 0 17740	TRA	*-9	

9M71/768
2/1/63
PAGE 340

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP NINE

17752 212424606060
17753 0500 00 0 26243
17754 0400 00 0 26200
17755 -0765 00 0 00043
17756 0162 00 0 17760
17757 0020 00 0 17763
17760 -0763 00 0 00043
17761 0560 00 0 26176

17762 0074 00 4 00105
17763 0074 00 4 00106
17764 0020 00 0 17753

BCD 1ADD
CLA B2A3
ADD B3
LGR 35
TQP **2
TRA **4
LGL 35
LDQ B1

TSX ERROR,4
TSX OK,4
TRA *-9

+140000000000
+040000000000
SHIFT AC COL 1 TO MQ SIGN
SHOULD NOT TRANSFER

RESTORE AC
+200000000000
TRUE SUM TO MQ

17765 212424606060
17766 0500 00 0 26462
17767 0400 00 0 26201
17770 -0765 00 0 00043

17771 0162 00 0 17773
17772 0020 00 0 17776
17773 -0763 00 0 00043
17774 0560 00 0 26176

17775 0074 00 4 00105
17776 0074 00 4 00106
17777 0020 00 0 17766

BCD 1ADD
CLA B2T4
ADD B4
LGR 35

TQP **2
TRA **4
LGL 35
LDQ B1

TSX ERROR,4
TSX OK,4
TRA *-9

+160000000000
+020000000000
SHIFT AC COL 1 TO MQ SIGN
SHOULD NOT TRANSFER

RESTORE AC
+200000000000
TRUE SUM TO MQ

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 341

TEST GENERATE GROUP NINE

20000	212424606060	BCD	1ADD	
20001	0500 00 0 26463	CLA	B2T5	+170000000000
20002	0400 00 0 26202	ADD	B5	+010000000000
20003	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
20004	0162 00 0 20006	TQP	*+2	SHOULD NOT TRANSFER
20005	0020 00 0 20011	TRA	*+4	
20006	-0763 00 0 00043	LGL	35	RESTORE AC
20007	0560 00 0 26176	LDQ	B1	+200000000000
				TRUE SUM TO MQ
20010	0074 00 4 00105	TSX	ERROR, 4	
20011	0074 00 4 00106	TSX	OK, 4	
20012	0020 00 0 20001	TRA	*-9	
20013	212424606060	BCD	1ADD	
20014	0500 00 0 26200	CLA	B3	+040000000000
20015	0400 00 0 26200	ADD	B3	
20016	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
20017	0162 00 0 20023	TQP	*+4	SHOULD TRANSFER
20020	-0763 00 0 00043	LGL	35	RESTORE AC
20021	0560 00 0 26177	LDQ	B2	+100000000000
				TRUE SUM TO MQ
20022	0074 00 4 00105	TSX	ERROR, 4	
20023	0074 00 4 00106	TSX	OK, 4	
20024	0020 00 0 20014	TRA	*-8	
20025	212424606060	BCD	1ADD	
20026	0500 00 0 26464	CLA	B2A4	+120000000000
20027	0400 00 0 26201	ADD	B4	+020000000000
20030	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
20031	0162 00 0 20035	TQP	*+4	SHOULD TRANSFER
20032	-0763 00 0 00043	LGL	35	RESTORE AC
20033	0560 00 0 26243	LDQ	B2A3	+140000000000
				TRUE SUM TO MQ
20034	0074 00 4 00105	TSX	ERROR, 4	
20035	0074 00 4 00106	TSX	OK, 4	
20036	0020 00 0 20026	TRA	*-8	

9M71/76B
2/1/63
PAGE 342

S E C T I O N O N E
P A R T I I I

TEST GENERATE GROUP NINE

20037	212424606060	BCD	1ADD	
20040	0500 00 0 26465	CLA	B2A5	+110000000000
20041	0400 00 0 26455	ADD	B3A5	+050000000000
20042	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
20043	0162 00 0 20047	TQP	*+4	SHOULD TRANSFER
20044	-0763 00 0 00043	LGL	35	RESTORE AC
20045	0560 00 0 26462	LDQ	B2T4	+160000000000
				TRUE SUM TO MQ
20046	0074 00 4 00105	TSX	ERROR,4	
20047	0074 00 4 00106	TSX	OK,4	
20050	0020 00 0 20040	TRA	*-8	
20051	234321606060	BCD	1CLA	
20052	0500 00 0 26462	CLA	B2T4	+160000000000
20053	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
20054	0162 00 0 20060	TQP	*+4	SHOULD TRANSFER
20055	-0763 00 0 00043	LGL	35	RESTORE AC
20056	0560 00 0 26462	LDQ	B2T4	+160000000000
				TRUE SUM TO MQ
20057	0074 00 4 00105	TSX	ERROR,4	
20060	0074 00 4 00106	TSX	OK,4	
20061	0020 00 0 20052	TRA	*-7	
20062	212424606060	BCD	1ADD	
20063	0500 00 0 26244	CLA	B3A4	+060000000000
20064	0400 00 0 26201	ADD	B4	+020000000000
20065	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
20066	0162 00 0 20072	TQP	*+4	SHOULD TRANSFER
20067	-0763 00 0 00043	LGL	35	RESTORE AC
20070	0560 00 0 26177	LDQ	B2	+100000000000
				TRUE SUM TO MQ
20071	0074 00 4 00105	TSX	ERROR,4	
20072	0074 00 4 00106	TSX	OK,4	
20073	0020 00 0 20063	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 343

TEST GENERATE GROUP NINE

20074	212424606060	BCD 1ADD	
20075	0500 00 0 26456	CLA B3T5	+070000000000
20076	0400 00 0 26202	ADD B5	+010000000000
20077	-0765 00 0 00043	LGR 35	SHIFT AC COL 1 TO MQ SIGN
20100	0162 00 0 20104	TQP **4	SHOULD TRANSFER
20101	-0763 00 0 00043	LGL 35	RESTORE AC
20102	0560 00 0 26177	LDQ B2	+100000000000
			TRUE SUM TO MQ
20103	0074 00 4 00105	TSX ERROR, 4	
20104	0074 00 4 00106	TSX OK, 4	
20105	0020 00 0 20075	TRA *-8	

20106	212424606060	BCD 1ADD	
20107	0500 00 0 26465	CLA B2A5	+110000000000
20110	0400 00 0 26245	ADD B4A5	+030000000000
20111	-0765 00 0 00043	LGR 35	SHIFT AC COL 1 TO MQ SIGN
20112	0162 00 0 20116	TQP **4	SHOULD TRANSFER
20113	-0763 00 0 00043	LGL 35	RESTORE AC
20114	0560 00 0 26243	LDQ B2A3	+140000000000
			TRUE SUM TO MQ
20115	0074 00 4 00105	TSX ERROR, 4	
20116	0074 00 4 00106	TSX OK, 4	
20117	0020 00 0 20107	TRA *-8	

SECTION ONE
PART III

TEST CARRY INPUTS TO ADDERS P-Q

TEST CARRY INPUT TO ADDER P

20120 212424606060
20121 0500 00 0 26242
20122 0400 00 0 26177
20123 -0765 00 0 00044

BCD 1ADD
CLA B1A2
ADD B2
LGR 36

+300000000000
+100000000000
SHIFT AC COL P TO MQ SIGN

20124 0162 00 0 20126
20125 0020 00 0 20131
20126 -0763 00 0 00044
20127 0560 00 0 26175

TQP **2
TRA **4
LGL 36
LDQ BSIGN

SHOULD NOT TRANSFER

20130 0074 00 4 00105
20131 0074 00 4 00106
20132 0020 00 0 20121

TSX ERROR,4
TSX OK,4
TRA *-9

RESTORE AC
-000000000000
LOGICAL SUM TO MQ

20133 212424606060
20134 0500 00 0 26177
20135 0400 00 0 26177
20136 -0765 00 0 00044

BCD 1ADD
CLA B2
ADD B2
LGR 36

+100000000000

20137 0162 00 0 20143
20140 -0763 00 0 00044
20141 0560 00 0 26176

TQP **4
LGL 36
LDQ B1

SHIFT AC COL P TO MQ SIGN

20142 0074 00 4 00105
20143 0074 00 4 00106
20144 0020 00 0 20134

TSX ERROR,4
TSX OK,4
TRA *-8

SHOULD TRANSFER
RESTORE AC
+200000000000
TRUE SUM TO MQ

SECTION ONE PART III

9M71/76B
2/1/63
PAGE 345

TEST CARRY INPUT TO ADDER P

20145	234321606060	BCD	1CLA	
20146	0500 00 0 26176	CLA	B1	+200000000000
20147	-0765 00 0 00044	LGR	36	SHIFT AC COL P TO MQ SIGN
20150	0162 00 0 20154	TQP	*+4	SHOULD TRANSFER
20151	-0763 00 0 00044	LGL	36	RESTORE AC
20152	0560 00 0 26176	LDQ	B1	CORRECT RESULT TO MQ
20153	0074 00 4 00105	TSX	ERROR,4	
20154	0074 00 4 00106	TSX	OK,4	
20155	0020 00 0 20146	TRA	*-7	

TEST CARRY INPUT TO ADDER Q

20156	212424606060	BCD	1ADD	
20157	0500 00 0 26176	CLA	B1	+200000000000
20160	0400 00 0 26176	ADD	B1	
20161	-0765 00 0 00045	LGR	37	SHIFT AC COL Q TO MQ SIGN
20162	0162 00 0 20166	TQP	*+4	SHOULD TRANSFER
20163	-0763 00 0 00045	LGL	37	RESTORE AC
20164	0560 00 0 26175	LDQ	BSIGN	-000000000000
20165	0074 00 4 00105	TSX	ERROR,4	LOGICAL SUM TO MQ
20166	0074 00 4 00106	TSX	OK,4	
20167	0020 00 0 20157	TRA	*-8	

20170	212424606060	BCD	1ADD	
20171	-0500 00 0 26466	CAL	BSA2	500000000000
20172	0400 00 0 26177	ADD	B2	100000000000
20173	-0765 00 0 00045	LGR	37	SHIFT AC COL Q TO MQ SIGN
20174	0162 00 0 20200	TQP	*+4	SHOULD TRANSFER
20175	-0763 00 0 00045	LGL	37	RESTORE AC
20176	0560 00 0 26241	LDQ	BSA1	600000000000
20177	0074 00 4 00105	TSX	ERROR,4	LOGICAL SUM TO MQ
20200	0074 00 4 00106	TSX	OK,4	
20201	0020 00 0 20171	TRA	*-8	

SECTION ONE
PART III

TEST CARRY INPUT TO ADDER Q

20202 232143606060
20203 -0500 00 0 26241
20204 -0765 00 0 00045

BCD ICAL
CAL BSA1
LGR 37

600000000000
SHIFT AC COL Q TO MQ SIGN

20205 0162 00 0 20211
20206 -0763 00 0 00045
20207 0560 00 0 26241
20210 0074 00 4 00105
20211 0074 00 4 00106
20212 0020 00 0 20203

TQP **4
LGL 37
LDQ BSA1
TSX ERROR, 4
TSX OK, 4
TRA *-7

SHOULD TRANSFER
RESTORE AC
CORRECT RESULT TO MQ

20213 212424606060
20214 -0500 00 0 26241
20215 0400 00 0 26176
20216 -0765 00 0 00045

BCD IADD
CAL BSA1
ADD B1
LGR 37

600000000000
200000000000
SHIFT AC COL Q TO MQ SIGN

20217 0162 00 0 20221
20220 0020 00 0 20223
20221 -0763 00 0 00045

TQP **2
TRA **3
LGL 37

SHOULD NOT TRANSFER

20222 0074 00 4 00105
20223 0074 00 4 00106
20224 0020 00 0 20214

TSX ERROR, 4
TSX OK, 4
TRA *-8

RESTORE AC

AC SHOULD CONTAIN BIT IN Q

20225 212424606060
20226 -0500 00 0 26467
20227 0400 00 0 26177
20230 -0765 00 0 00045

BCD IADD
CAL BST2
ADD B2
LGR 37

700000000000
100000000000
SHIFT AC COL Q TO MQ SIGN

20231 0162 00 0 20233
20232 0020 00 0 20235
20233 -0763 00 0 00045

TQP **2
TRA **3
LGL 37

SHOULD NOT TRANSFER

20234 0074 00 4 00105
20235 0074 00 4 00106
20236 0020 00 0 20226

TSX ERROR, 4
TSX OK, 4
TRA *-8

RESTORE AC
AC SHOULD CONTAIN BIT IN Q

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 347

*
*
*
*
*

TEST ADDER P CARRY AND PROPAGATE Q

20237	626422606060	BCD 1SUB	
20240	0500 00 0 26176	CLA B1	+200000000000
20241	0767 00 0 00002	ALS 2	SHIFT BIT TO AC COL Q
20242	0402 00 0 26177	SUB B2	+100000000000
20243	0120 00 0 20246	TPL **3	SHOULD TRANSFER
20244	0560 00 0 26467	LDQ BST2	700000000000
			LOGICAL DIFFERENCE TO MQ
20245	0074 00 4 00105	TSX ERROR,4	
20246	0074 00 4 00106	TSX OK,4	
20247	0020 00 0 20240	TRA *-7	
20250	626422606060	BCD 1SUB	
20251	-0500 00 0 26175	CAL BSIGN	BIT TO AC COLUMN P
20252	0402 00 0 26177	SUB B2	+100000000000
20253	0120 00 0 20256	TPL **3	SHOULD TRANSFER
20254	0560 00 0 26242	LDQ B1A2	+300000000000
			CORRECT DIFFENCE TO MQ
20255	0074 00 4 00105	TSX ERROR,4	
20256	0074 00 4 00106	TSX OK,4	
20257	0020 00 0 20251	TRA *-6	
20260	626422606060	BCD 1SUB	
20261	0502 00 0 26177	CLS B2	+100000000000
20262	0402 00 0 26175	SUB BSIGN	-000000000000
20263	-0120 00 0 20266	TMI **3	SHOULD TRANSFER
20264	0560 00 0 26466	LDQ BSA2	-100000000000
			CORRECT DIFFERENCE TO MQ
20265	0074 00 4 00105	TSX ERROR,4	
20266	0074 00 4 00106	TSX OK,4	
20267	0020 00 0 20261	TRA *-6	

9M71/768
2/1/63
PAGE 348

S E C T I O N O N E
P A R T I I I

TEST ADDER P CARRY AND PROPAGATE Q

20270	626422606060	BCD 1SUB	
20271	0500 00 0 26176	CLA B1	+200000000000
20272	0402 00 0 26177	SUB B2	+100000000000
20273	0120 00 0 20276	TPL **3	SHOULD TRANSFER
20274	0560 00 0 26177	LDQ B2	+100000000000
			TRUE DIFFERENCE TO MQ
20275	0074 00 4 00105	TSX ERROR,4	
20276	0074 00 4 00106	TSX OK,4	
20277	0020 00 0 20271	TRA *-6	

20300	626422606060	BCD 1SUB	
20301	0500 00 0 26173	CLA BZERO	+000000000000
20302	0402 00 0 26177	SUB B2	+100000000000
20303	-0120 00 0 20306	TMI **3	SHOULD TRANSFER
20304	0560 00 0 26466	LDQ BSA2	-100000000000
			TRUE DIFFERENCE TO MQ
20305	0074 00 4 00105	TSX ERROR,4	
20306	0074 00 4 00106	TSX OK,4	
20307	0020 00 0 20301	TRA *-6	

20310	626422606060	BCD 1SUB	
20311	0502 00 0 26177	CLS B2	+100000000000
20312	0402 00 0 26241	SUB BSA1	-200000000000
20313	0120 00 0 20316	TPL **3	SHOULD TRANSFER
20314	0560 00 0 26177	LDQ B2	+100000000000
			TRUE DIFFERENCE TO MQ
20315	0074 00 4 00105	TSX ERROR,4	
20316	0074 00 4 00106	TSX OK,4	
20317	0020 00 0 20311	TRA *-6	

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 349

*
*
*
*
*

TEST CARRY GROUP TWO

20320	212424606060	BCD 1ADD	
20321	0500 00 0 26470	CLA B28T32	+000000000370
20322	0400 00 0 26235	ADD B32	+000000000010
20323	-0765 00 0 00011	LGR 9	SHIFT AC COL 27 TO MQ SIGN
20324	0162 00 0 20326	TQP ++2	SHOULD NOT TRANSFER
20325	0020 00 0 20331	TRA ++4	
20326	-0763 00 0 00011	LGL 9	RESTORE AC
20327	0560 00 0 26230	LDQ B27	+000000000400
			TRUE SUM TO MQ
20330	0074 00 4 00105	TSX ERROR,4	
20331	0074 00 4 00106	TSX OK,4	
20332	0020 00 0 20321	TRA *-9	

20333	212424606060	BCD 1ADD	
20334	0500 00 0 26471	CLA GB35	+000000000350
20335	0400 00 0 26235	ADD B32	+000000000010
20336	-0765 00 0 00011	LGR 9	SHIFT AC COL 27 TO MQ SIGN
20337	0162 00 0 20343	TQP ++4	SHOULD TRANSFER
20340	-0763 00 0 00011	LGL 9	RESTORE AC
20341	0560 00 0 26472	LDQ B28T31	+000000000360
			TRUE SUM TO MQ
20342	0074 00 4 00105	TSX ERROR,4	
20343	0074 00 4 00106	TSX OK,4	
20344	0020 00 0 20334	TRA *-8	

9M71/768
2/1/63
PAGE 350

S E C T I O N O N E
P A R T I I I

TEST GROUP CARRY THREE

20345 212424606060
20346 0500 00 0 26473
20347 0400 00 0 26231
20350 -0765 00 0 00015

BCD 1ADD
CLA B24T28
ADD B28
LGR 13

+000000007600
+000000000200
SHIFT AC COL 23 TO MQ SIGN

20351 0162 00 0 20353
20352 0020 00 0 20356
20353 -0763 00 0 00015
20354 0560 00 0 26224

TQP *+2
TRA *+4
LGL 13
LDQ B23

SHOULD NOT TRANSFER

RESTORE AC
+000000010000
TRUE SUM TO MQ

20355 0074 00 4 00105
20356 0074 00 4 00106
20357 0020 00 0 20346

TSX ERROR,4
TSX OK,4
TRA *-9

20360 212424606060
20361 0500 00 0 26474
20362 0400 00 0 26235
20363 -0765 00 0 00015
20364 0162 00 0 20366
20365 0020 00 0 20371
20366 -0763 00 0 00015
20367 0560 00 0 26224

BCD 1ADD
CLA B24T32
ADD B32
LGR 13
TQP *+2
TRA *+4
LGL 13
LDQ B23

+000000007770
+000000000010
SHIFT AC COL 23 TO MQ SIGN
SHOULD NOT TRANSFER

RESTORE AC
+000000010000
TRUE SUM TO MQ

20370 0074 00 4 00105
20371 0074 00 4 00106
20372 0020 00 0 20361

TSX ERROR,4
TSX OK,4
TRA *-9

20373 234321606060
20374 0500 00 0 26474
20375 -0765 00 0 00015
20376 0162 00 0 20402

BCD 1CLA
CLA B24T32
LGR 13
TQP *+4

+000000007770
SHIFT AC COL 23 TO MQ SIGN
SHOULD TRANSFER

20377 -0763 00 0 00015
20400 0560 00 0 26474
20401 0074 00 4 00105
20402 0074 00 4 00106
20403 0020 00 0 20374

LGL 13
LDQ B24T32
TSX ERROR,4
TSX OK,4
TRA *-7

RESTORE AC
CORRECT RESULT TO MQ

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 351

TEST GROUP CARRY THREE

20404 212424606060
20405 0500 00 0 26475
20406 0400 00 0 26235
20407 -0765 00 0 00015

BCD 1ADD
CLA GB773
ADD B32
LGR 13

+000000007730
+000000000010
SHIFT AC COL 23 TO MQ SIGN

20410 0162 00 0 20414
20411 -0763 00 0 00015
20412 0560 00 0 26476

TQP *+4
LGL 13
LDQ B24T30

SHOULD TRANSFER
RESTORE AC
+000000007740
TRUE SUM TO MQ

20413 0074 00 4 00105
20414 0074 00 4 00106
20415 0020 00 0 20405

TSX ERROR,4
TSX OK,4
TRA *-8

20416 212424606060
20417 0500 00 0 26477
20420 0400 00 0 26235
20421 -0765 00 0 00015
20422 0162 00 0 20426

BCD 1ADD
CLA GB737
ADD B32
LGR 13
TQP *+4

+000000007370
+000000000010
SHIFT AC COL 23 TO MQ SIGN
SHOULD TRANSFER

20423 -0763 00 0 00015
20424 0560 00 0 26356

LGL 13
LDQ B24T27

RESTORE AC
+000000007400
TRUE SUM TO MQ

20425 0074 00 4 00105
20426 0074 00 4 00106
20427 0020 00 0 20417

TSX ERROR,4
TSX OK,4
TRA *-8

20430 212424606060
20431 0500 00 0 26477
20432 0400 00 0 26231
20433 -0765 00 0 00015

BCD 1ADD
CLA GB737
ADD B28
LGR 13

+000000007370
+000000000200
SHIFT AC COL 23 TO MQ SIGN

20434 0162 00 0 20440
20435 -0763 00 0 00015
20436 0560 00 0 26500

TQP *+4
LGL 13
LDQ GB757

SHOULD TRANSFER
RESTORE AC
+000000007570
TRUE SUM TO MQ

20437 0074 00 4 00105
20440 0074 00 4 00106
20441 0020 00 0 20431

TSX ERROR,4
TSX OK,4
TRA *-8

9M71/76B
2/1/63
PAGE 352

S E C T I O N O N E
P A R T I I I

TEST GROUP CARRY FOUR

20442	234321606060	BCD	1CLA	
20443	0500 00 0 26501	CLA	B20T35	+000000177777
20444	-0765 00 0 00021	LGR	17	SHIFT AC COL 19 TO MQ SIGN
20445	0162 00 0 20451	TQP	++4	SHOULD TRANSFER
20446	-0763 00 0 00021	LGL	17	RESTORE AC
20447	0560 00 0 26501	LDQ	B20T35	CORRECT RESULT TO MQ
20450	0074 00 4 00105	TSX	ERROR,4	
20451	0074 00 4 00106	TSX	OK,4	
20452	0020 00 0 20443	TRA	*-7	
20453	212424606060	BCD	1ADD	
20454	0500 00 0 26371	CLA	B21T24	+000000074000
20455	0400 00 0 26225	ADD	B24	+000000004000
20456	-0765 00 0 00021	LGR	17	SHIFT AC COL 19 TO MQ SIGN
20457	0162 00 0 20463	TQP	++4	SHOULD TRANSFER
20460	-0763 00 0 00021	LGL	17	RESTORE AC
20461	0560 00 0 26221	LDQ	B20	+000000100000
				TRUE SUM TO MQ
20462	0074 00 4 00105	TSX	ERROR,4	
20463	0074 00 4 00106	TSX	OK,4	
20464	0020 00 0 20454	TRA	*-8	
20465	212424606060	BCD	1ADD	
20466	0500 00 0 26502	CLA	GC1766	+000000176600
20467	0400 00 0 26231	ADD	B28	+000000000200
20470	-0765 00 0 00021	LGR	17	SHIFT AC COL 19 TO MQ SIGN
20471	0162 00 0 20475	TQP	++4	SHOULD TRANSFER
20472	-0763 00 0 00021	LGL	17	RESTORE AC
20473	0560 00 0 26572	LDQ	B20T26	+000000177000
				TRUE SUM TO MQ
20474	0074 00 4 00105	TSX	ERROR,4	
20475	0074 00 4 00106	TSX	OK,4	
20476	0020 00 0 20466	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 353

TEST GROUP CARRY FOUR

20477 212424606060	BCD 1ADD		
20500 0500 00 0 26503	CLA B21T28		+000000077600
20501 0400 00 0 26231	ADD B28		+000000000200
20502 0765 00 0 00021	LGR 17		SHIFT AC COL 19 TO MQ SIGN
20503 0162 00 0 20507	TQP *+4		SHOULD TRANSFER
20504 0763 00 0 00021	LGL 17		RESTORE AC
20505 0560 00 0 26221	LDQ B20		+000000100000
			TRUE SUM TO MQ
20506 0074 00 4 00105	TSX ERROR,4		
20507 0074 00 4 00106	TSX OK,4		
20510 0020 00 0 20500	TRA *-8		

20511 212424606060	BCD 1ADD		
20512 0500 00 0 26504	CLA GX1		+000000177670
20513 0400 00 0 26235	ADD B32		+000000000010
20514 0765 00 0 00021	LGR 17		SHIFT AC COL 19 TO MQ SIGN
20515 0162 00 0 20521	TQP *+4		SHOULD TRANSFER
20516 0763 00 0 00021	LGL 17		RESTORE AC
20517 0560 00 0 26505	LDQ B20T29		+000000177700
			TRUE SUM TO MQ
20520 0074 00 4 00105	TSX ERROR,4		
20521 0074 00 4 00106	TSX OK,4		
20522 0020 00 0 20512	TRA *-8		

20523 212424606060	BCD 1ADD		
20524 0500 00 0 26506	CLA B21T35		+000000077777
20525 0400 00 0 26240	ADD B35		+000000000001
20526 0765 00 0 00021	LGR 17		SHIFT AC COL 19 TO MQ SIGN
20527 0162 00 0 20533	TQP *+4		SHOULD TRANSFER
20530 0763 00 0 00021	LGL 17		RESTORE AC
20531 0560 00 0 26221	LDQ B20		+000000100000
			TRUE SUM TO MQ
20532 0074 00 4 00105	TSX ERROR,4		
20533 0074 00 4 00106	TSX OK,4		
20534 0020 00 0 20524	TRA *-8		

9M71/76B
2/1/63
PAGE 354

S E C T I O N O N E
P A R T I I I

TEST GROUP CARRY FOUR

20535	212424606060	BCD 1ADD	
20536	0500 00 0 26507	CLA GX2	+000000173777
20537	0400 00 0 26240	ADD B35	+000000000001
20540	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN
20541	0162 00 0 20545	TQP *+4	SHOULD TRANSFER
20542	-0763 00 0 00021	LGL 17	RESTORE AC
20543	0560 00 0 26510	LDQ B20T24	+000000174000
			TRUE SUM TO MQ
20544	0074 00 4 00105	TSX ERROR,4	
20545	0074 00 4 00106	TSX OK,4	
20546	0020 00 0 20536	TRA *-8	
20547	212424606060	BCD 1ADD	
20550	0500 00 0 26510	CLA B20T24	+000000174000
20551	0400 00 0 26225	ADD B24	+000000004000
20552	-0765 00 0 00021	LGR 17	SHIFT AC COL 19 TO MQ SIGN
20553	0162 00 0 20555	TQP *+2	SHOULD NOT TRANSFER
20554	0020 00 0 20560	TRA *+4	
20555	-0763 00 0 00021	LGL 17	RESTORE AC
20556	0560 00 0 26220	LDQ B19	+000000200000
			TRUE SUM TO MQ
20557	0074 00 4 00105	TSX ERROR,4	
20560	0074 00 4 00106	TSX OK,4	
20561	0020 00 0 20550	TRA *-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 355

TEST GENERATE GROUP FOUR

20562	212424606060	BCD	1ADD	
20563	0500 00 0 26505	CLA	B20T29	+000000177700
20564	0400 00 0 26232	ADD	B29	+000000000100
20565	-0765 00 0 00021	LGR	17	SHIFT AC COL 19 TO MQ SIGN
20566	0162 00 0 20570	TQP	*+2	
20567	0020 00 0 20573	TRA	*+4	
20570	-0763 00 0 00021	LGL	17	RESTORE AC
20571	0560 00 0 26220	LDQ	B19	+000000200000
				TRUE SUM TO MQ
20572	0074 00 4 00105	TSX	ERROR,4	
20573	0074 00 4 00106	TSX	OK,4	
20574	0020 00 0 20563	TRA	*-9	

20575	212424606060	BCD	1ADD	
20576	0500 00 0 26501	CLA	B20T35	+000000177777
20577	0400 00 0 26240	ADD	B35	+000000000001
20600	-0765 00 0 00021	LGR	17	SHIFT AC COL 19 TO MQ SIGN
20601	0162 00 0 20603	TQP	*+2	SHOULD NOT TRANSFER
20602	0020 00 0 20606	TRA	*+4	
20603	-0763 00 0 00021	LGL	17	RESTORE AC
20604	0560 00 0 26220	LDQ	B19	+000000200000
				TRUE SUM TO MQ
20605	0074 00 4 00105	TSX	ERROR,4	
20606	0074 00 4 00106	TSX	OK,4	
20607	0020 00 0 20576	TRA	*-9	

9M71/768
2/1/63
PAGE 356

S E C T I O N O N E
P A R T I I I

TEST SECTION CARRY 17-35

20610	234321606060	BCD 1CLA	
20611	0500 00 0 26511	CLA B16T35	+000003777777
20612	-0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
20613	0162 00 0 20617	TQP **4	SHOULD TRANSFER
20614	-0763 00 0 00025	LGL 21	RESTORE AC
20615	0560 00 0 26511	LDQ B16T35	CORRECT RESULT TO MQ
20616	0074 00 4 00105	TSX ERROR,4	
20617	0074 00 4 00106	TSX OK,4	
20620	0020 00 0 20611	TRA *-7	
20621	212424606060	BCD 1ADD	
20622	0500 00 0 26512	CLA GX3	+000003777757
20623	0400 00 0 26240	ADD B35	+000000000001
20624	-0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
20625	0162 00 0 20631	TQP **4	SHOULD TRANSFER
20626	-0763 00 0 00025	LGL 21	RESTORE AC
20627	0560 00 0 26513	LDQ B16T31	+000003777760
			TRUE SUM TO MQ
20630	0074 00 4 00105	TSX ERROR,4	
20631	0074 00 4 00106	TSX OK,4	
20632	0020 00 0 20622	TRA *-8	
20633	212424606060	BCD 1ADD	
20634	0500 00 0 26514	CLA GX4	+0000037777377
20635	0400 00 0 26240	ADD B35	+000000000001
20636	-0765 00 0 00025	LGR 21	SHIFT AC COL 15 TO MQ SIGN
20637	0162 00 0 20643	TQP **4	SHOULD TRANSFER
20640	-0763 00 0 00025	LGL 21	RESTORE AC
20641	0560 00 0 26515	LDQ B16T27	+000003777400
			TRUE SUM TO MQ
20642	0074 00 4 00105	TSX ERROR,4	
20643	0074 00 4 00106	TSX OK,4	
20644	0020 00 0 20634	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 357

TEST SECTION CARRY 17-35

20645	212424606060	BCD	1ADD	
20646	0500 00 0 26516	CLA	GX5	+000003767777
20647	0400 00 0 26240	ADD	B35	+000000000001
20650	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
20651	0162 00 0 20655	TQP	*+4	SHOULD TRANSFER
20652	-0763 00 0 00025	LGL	21	RESTORE AC
20653	0560 00 0 26517	LDQ	B16T23	+000003770000
20654	0074 00 4 00105	TSX	ERROR,4	TRUE SUM TO MQ
20655	0074 00 4 00106	TSX	OK,4	
20656	0020 00 0 20646	TRA	*-8	
20657	212424606060	BCD	1ADD	
20660	0500 00 0 26520	CLA	B17T35	+000001777777
20661	0400 00 0 26240	ADD	B35	+000000000001
20662	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
20663	0162 00 0 20667	TQP	*+4	SHOULD TRANSFER
20664	-0763 00 0 00025	LGL	21	RESTORE AC
20665	0560 00 0 26215	LDQ	B16	+000002000000
20666	0074 00 4 00105	TSX	ERROR,4	TRUE SUM TO AC
20667	0074 00 4 00106	TSX	OK,4	
20670	0020 00 0 20660	TRA	*-8	
20671	212424606060	BCD	1ADD	
20672	0500 00 0 26521	CLA	GX6	+000003777360
20673	0400 00 0 26234	ADD	B31	+000000000020
20674	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
20675	0162 00 0 20701	TQP	*+4	SHOULD TRANSFER
20676	-0763 00 0 00025	LGL	21	RESTORE AC
20677	0560 00 0 26515	LDQ	B16T27	+000003777400
20700	0074 00 4 00105	TSX	ERROR,4	TRUE SUM TO MQ
20701	0074 00 4 00106	TSX	OK,4	
20702	0020 00 0 20672	TRA	*-8	

9M71/76B
2/1/63
PAGE 358

S E C T I O N O N E
P A R T I I I

TEST SECTION CARRY 17-35

20703 212424606060
20704 0500 00 0 26522
20705 0400 00 0 26231
20706 -0765 00 0 00025

BCD 1ADD
CLA GX7
ADD B28
LGR 21

+000003767600
+000000000200
SHIFT AC COL 15 TO MQ SIGN

20707 0162 00 0 20713
20710 -0763 00 0 00025
20711 0560 00 0 26517

TQP **4
LGL 21
LDQ B16T23

SHOULD TRANSFER
RESTORE AC
+000003770000
TRUE SUM TO MQ

20712 0074 00 4 00105
20713 0074 00 4 00106
20714 0020 00 0 20704

TSX ERROR,4
TSX OK,4
TRA *-8

20715 212424606060
20716 0500 00 0 26523
20717 0400 00 0 26231
20720 -0765 00 0 00025

BCD 1ADD
CLA B17T28
ADD B28
LGR 21

+000001777600
+000000000200
SHIFT AC COL 15 TO MQ SIGN

20721 0162 00 0 20725
20722 -0763 00 0 00025
20723 0560 00 0 26215

TQP **4
LGL 21
LDQ B16

SHOULD TRANSFER
RESTORE AC
+000002000000
TRUE SUM TO MQ

20724 0074 00 4 00105
20725 0074 00 4 00106
20726 0020 00 0 20716

TSX ERROR,4
TSX OK,4
TRA *-8

20727 212424606060
20730 0500 00 0 26524
20731 0400 00 0 26225
20732 -0765 00 0 00025

BCD 1ADD
CLA GX8
ADD B24
LGR 21

+000003764000
+000000004000
SHIFT AC COL 15 TO MQ SIGN

20733 0162 00 0 20737
20734 -0763 00 0 00025
20735 0560 00 0 26517

TQP **4
LGL 21
LDQ B16T23

SHOULD TRANSFER
RESTORE AC
+000003770000
TRUE SUM TO MQ

20736 0074 00 4 00105
20737 0074 00 4 00106
20740 0020 00 0 20730

TSX ERROR,4
TSX OK,4
TRA *-8

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 359

TEST SECTION CARRY 17-35

20741	212424606060	BCD	1ADD	
20742	0500 00 0 26573	CLA	B17T24	+000001774000
20743	0400 00 0 26225	ADD	B24	+000000004000
20744	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
20745	0162 00 0 20751	TQP	*+4	SHOULD TRANSFER
20746	-0763 00 0 00025	LGL	21	RESTORE AC
20747	0560 00 0 26215	LDQ	B16	+000002000000
				TRUE SUM TO MQ
20750	0074 00 4 00105	TSX	ERROR,4	
20751	0074 00 4 00106	TSX	OK,4	
20752	0020 00 0 20742	TRA	*-8	
20753	212424606060	BCD	1ADD	
20754	0500 00 0 26407	CLA	B17T20	+000001700000
20755	0400 00 0 26221	ADD	B20	+000000100000
20756	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
20757	0162 00 0 20763	TQP	*+4	SHOULD TRANSFER
20760	-0763 00 0 00025	LGL	21	RESTORE AC
20761	0560 00 0 26215	LDQ	B16	+000002000000
				TRUE SUM TO MQ
20762	0074 00 4 00105	TSX	ERROR,4	
20763	0074 00 4 00106	TSX	OK,4	
20764	0020 00 0 20754	TRA	*-8	
20765	212424606060	BCD	1ADD	
20766	0500 00 0 26517	CLA	B16T23	+000003770000
20767	0400 00 0 26224	ADD	B23	+000000010000
20770	-0765 00 0 00025	LGR	21	SHIFT AC COL 15 TO MQ SIGN
20771	0162 00 0 20773	TQP	*+2	SHOULD NOT TRANSFER
20772	0020 00 0 20776	TRA	*+4	
20773	-0763 00 0 00025	LGL	21	RESTORE AC
20774	0560 00 0 26214	LDQ	B15	+000004000000
				TRUE SUM TO MQ
20775	0074 00 4 00105	TSX	ERROR,4	
20776	0074 00 4 00106	TSX	OK,4	
20777	0020 00 0 20766	TRA	*-9	

9M71/76B
2/1/63
PAGE 360

SECTION ONE
PART III

TEST SECTION CARRY 17-35

21000 212424606060
21001 0500 00 0 26515
21002 0400 00 0 26230
21003 -0765 00 0 00025

BCD 1ADD
CLA B16T27
ADD B27
LGR 21

+000003777400
+000000000400
SHIFT AC COL 15 TO MQ SIGN

21004 0162 00 0 21006
21005 0020 00 0 21011
21006 -0763 00 0 00025
21007 0560 00 0 26214

TQP *+2
TRA *+4
LGL 21
LDQ B15

SHOULD NOT TRANSFER

RESTORE AC
+000002000000
TRUE SUM TO MQ

21010 0074 00 4 00105
21011 0074 00 4 00106
21012 0020 00 0 21001

TSX ERROR,4
TSX OK,4
TRA *-9

21013 212424606060
21014 0500 00 0 26513
21015 0400 00 0 26234
21016 -0765 00 0 00025

BCD 1ADD
CLA B16T31
ADD B31
LGR 21

+000003777760
+000000000020
SHIFT AC COL 15 TO MQ SIGN

21017 0162 00 0 21021
21020 0020 00 0 21024
21021 -0763 00 0 00025
21022 0560 00 0 26214

TQP *+2
TRA *+4
LGL 21
LDQ B15

SHOULD NOT TRANSFER

RESTORE AC
+000004000000
TRUE SUM TO MQ

21023 0074 00 4 00105
21024 0074 00 4 00106
21025 0020 00 0 21014

TSX ERROR,4
TSX OK,4
TRA *-9

21026 212424606060
21027 0500 00 0 26511
21030 0400 00 0 26240
21031 -0765 00 0 00025

BCD 1ADD
CLA B16T35
ADD B35
LGR 21

+000003777777
+000000000001
SHIFT AC COL 15 TO MQ SIGN

21032 0162 00 0 21034
21033 0020 00 0 21037
21034 -0763 00 0 00025
21035 0560 00 0 26214

TQP *+2
TRA *+4
LGL 21
LDQ B15

SHOULD NOT TRANSFER

RESTORE AC
+000004000000
TRUE SUM TO MQ

21036 0074 00 4 00105
21037 0074 00 4 00106
21040 0020 00 0 21027

TSX ERROR,4
TSX OK,4
TRA *-9

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 361

*
*
*
*
*
*

TEST GROUP CARRY SIX
AND SECTION CARRY 17-35 LINE TWO

21041	212424606060	BCD 1ADD	
21042	0500 00 0 26435	CLA B12T15	+000074000000
21043	0400 00 0 26214	ADD B15	+000004000000
21044	-0765 00 0 00031	LGR 25	SHIFT AC COL 11 TO MQ SIGN
21045	0162 00 0 21047	TQP *+2	SHOULD NOT TRANSFER
21046	0020 00 0 21052	TRA *+4	
21047	-0763 00 0 00031	LGL 25	RESTORE AC
21050	0560 00 0 26210	LDQ B11	+000100000000 TRUE SUM TO MQ
21051	0074 00 4 00105	TSX ERROR,4	
21052	0074 00 4 00106	TSX OK,4	
21053	0020 00 0 21042	TRA *-9	
21054	212424606060	BCD 1ADD	
21055	0500 00 0 26525	CLA B12T19	+000077600000
21056	0400 00 0 26220	ADD B19	+000000200000
21057	-0765 00 0 00031	LGR 25	SHIFT AC COL 11 TO MQ SIGN
21060	0162 00 0 21062	TQP *+2	SHOULD NOT TRANSFER
21061	0020 00 0 21065	TRA *+4	
21062	-0763 00 0 00031	LGL 25	RESTORE AC
21063	0560 00 0 26210	LDQ B11	+000100000000 TRUE SUM TO MQ
21064	0074 00 4 00105	TSX ERROR,4	
21065	0074 00 4 00106	TSX OK,4	
21066	0020 00 0 21055	TRA *-9	

SECTION ONE
PART III

TEST GROUP CARRY SIX AND SECTION CARRY 17-35 LINE TWO

21067 212424606060
21070 0500 00 0 26526
21071 0400 00 0 26224
21072 -0765 00 0 00031

21073 0162 00 0 21075
21074 0020 00 0 21100
21075 -0763 00 0 00031
21076 0560 00 0 26210

21077 0074 00 4 00105
21100 0074 00 4 00106
21101 0020 00 0 21070

BCD 1ADD
CLA B12T23
ADD B23
LGR 25

+000077770000
+000000010000
SHIFT AC COL 11 TO MQ SIGN

TQP **2
TRA **4
LGL 25
LDQ B11

SHOULD NOT TRANSFER

RESTORE AC
+000100000000
TRUE SUM TO MQ

TSX ERROR,4
TSX OK,4
TRA *-9

21102 212424606060
21103 0500 00 0 26527
21104 0400 00 0 26230
21105 -0765 00 0 00031
21106 0162 00 0 21110
21107 0020 00 0 21113
21110 -0763 00 0 00031
21111 0560 00 0 26210

21112 0074 00 4 00105
21113 0074 00 4 00106
21114 0020 00 0 21103

BCD 1ADD
CLA B12T27
ADD B27
LGR 25

+000077777400
+000000000400
SHIFT AC COL 11 TO MQ SIGN
SHOULD NOT TRANSFER

TQP **2
TRA **4
LGL 25
LDQ B11

RESTORE AC
+000100000000
TRUE SUM TO MQ

TSX ERROR,4
TSX OK,4
TRA *-9

21115 212424606060
21116 0500 00 0 26530
21117 0400 00 0 26234
21120 -0765 00 0 00031

21121 0162 00 0 21123
21122 0020 00 0 21126
21123 -0763 00 0 00031
21124 0560 00 0 26210

21125 0074 00 4 00105
21126 0074 00 4 00106
21127 0020 00 0 21116

BCD 1ADD
CLA B12T31
ADD B31
LGR 25

+000077777760
+000000000020
SHIFT AC COL 11 TO MQ SIGN

TQP **2
TRA **4
LGL 25
LDQ B11

SHOULD NOT TRANSFER

RESTORE AC
+000100000000
TRUE SUM TO MQ

TSX ERROR,4
TSX OK,4
TRA *-9

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 363

TEST CARRY GROUP SIX AND SECTION CARRY 17-35 LINE TWO

21130	212424606060	BCD	1ADD	
21131	0500 00 0 26531	CLA	B12T35	+000077777777
21132	0400 00 0 26240	ADD	B35	+000000000001
21133	-0765 00 0 00031	LGR	25	SHIFT AC COL 11 TO MQ SIGN
21134	0162 00 0 21136	TQP	*+2	SHOULD NOT TRANSFER
21135	0020 00 0 21141	TRA	*+4	
21136	-0763 00 0 00031	LGL	25	RESTORE AC
21137	0560 00 0 26210	LDQ	B11	+000100000000 TRUE SUM TO MQ
21140	0074 00 4 00105	TSX	ERROR,4	
21141	0074 00 4 00106	TSX	OK,4	
21142	0020 00 0 21131	TRA	*-9	
21143	234321606060	BCD	1CLA	
21144	0500 00 0 26525	CLA	B12T19	+000077600000
21145	-0765 00 0 00031	LGR	25	SHIFT AC COL 11 TO MQ SIGN
21146	0162 00 0 21152	TQP	*+4	SHOULD TRANSFER
21147	-0763 00 0 00031	LGL	25	RESTORE AC
21150	0560 00 0 26525	LDQ	B12T19	CORRECT RESULT TO MQ
21151	0074 00 4 00105	TSX	ERROR,4	
21152	0074 00 4 00106	TSX	OK,4	
21153	0020 00 0 21144	TRA	*-7	
21154	212424606060	BCD	1ADD	
21155	0500 00 0 26431	CLA	B13T16	+000036000000
21156	0400 00 0 26215	ADD	B16	+000002000000
21157	-0765 00 0 00031	LGR	25	SHIFT AC COL 11 TO MQ SIGN
21160	0162 00 0 21164	TQP	*+4	SHOULD TRANSFER
21161	-0763 00 0 00031	LGL	25	RESTORE AC
21162	0560 00 0 26211	LDQ	B12	+000040000000 TRUE SUM TO MQ
21163	0074 00 4 00105	TSX	ERROR,4	
21164	0074 00 4 00106	TSX	OK,4	
21165	0020 00 0 21155	TRA	*-8	

9M71/76B
2/1/63
PAGE 364

SECTION ONE
PART III

TEST CARRY GROUP SEVEN

21166 234321606060
21167 0500 00 0 26532
21170 -0765 00 0 00034

BCD 1CLA
CLA B9T15
LGR 28

+000774000000
SHIFT AC COL 8 TO MQ SIGN

21171 0162 00 0 21175
21172 -0763 00 0 00034
21173 0560 00 0 26532

TQP **4
LGL 28
LDQ B9T15

SHOULD TRANSFER
RESTORE AC
+000774000000
CORRECT RESULT TO MQ

21174 0074 00 4 00105
21175 0074 00 4 00106
21176 0020 00 0 21167

TSX ERROR,4
TSX OK,4
TRA *-7

21177 212424606060
21200 0500 00 0 26440
21201 0400 00 0 26211
21202 -0765 00 0 00034

BCD 1ADD
CLA B10T12
ADD B12
LGR 28

+000340000000
+000040000000
SHIFT AC COL 8 TO MQ SIGN

21203 0162 00 0 21207
21204 -0763 00 0 00034
21205 0560 00 0 26206

TQP **4
LGL 28
LDQ B9

SHOULD TRANSFER
RESTORE AC
+000400000000
TRUE SUM TO MQ

21206 0074 00 4 00105
21207 0074 00 4 00106
21210 0020 00 0 21200

TSX ERROR,4
TSX OK,4
TRA *-8

21211 212424606060
21212 0500 00 0 26574
21213 0400 00 0 26215
21214 -0765 00 0 00034
21215 0162 00 0 21221

BCD 1ADD
CLA B10T16
ADD B16
LGR 28
TQP **4

+000376000000
+000002000000
SHIFT AC COL 8 TO MQ SIGN
SHOULD TRANSFER

21216 -0763 00 0 00034
21217 0560 00 0 26206

LGL 28
LDQ B9

RESTORE AC
+000400000000
TRUE SUM TO MQ

21220 0074 00 4 00105
21221 0074 00 4 00106
21222 0020 00 0 21212

TSX ERROR,4
TSX OK,4
TRA *-8

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 365

TEST CARRY GROUP SEVEN

21223 212424606060	BCD 1ADD	
21224 0500 00 0 26533	CLA GX9	+000772000000
21225 0400 00 0 26215	ADD B16	+000002000000
21226 -0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
21227 0162 00 0 21233	TQP **4	SHOULD TRANSFER
21230 -0763 00 0 00034	LGL 28	RESTORE AC
21231 0560 00 0 26532	LDQ B9T15	+000774000000
		TRUE SUM TO MQ
21232 0074 00 4 00105	TSX ERROR,4	
21233 0074 00 4 00106	TSX OK,4	
21234 0020 00 0 21224	TRA *-8	
21235 212424606060	BCD 1ADD	
21236 0500 00 0 26532	CLA B9T15	+000774000000
21237 0400 00 0 26214	ADD B15	+000004000000
21240 -0765 00 0 00034	LGR 28	SHIFT AC COL 8 TO MQ SIGN
21241 0162 00 0 21243	TQP **2	SHOULD NOT TRANSFER
21242 0020 00 0 21246	TRA **4	
21243 -0763 00 0 00034	LGL 28	RESTORE AC
21244 0560 00 0 26205	LDQ B8	+001000000000
		TRUE SUM TO MQ
21245 0074 00 4 00105	TSX ERROR,4	
21246 0074 00 4 00106	TSX OK,4	
21247 0020 00 0 21236	TRA *-9	
21250 212424606060	BCD 1ADD	
21251 0500 00 0 26561	CLA B9T35	+000777777777
21252 0400 00 0 26240	ADD B35	+000000000001
21253 -0765 00 0 00034	LGR 28	SHIFT AC COL 28 TO MQ SIGN
21254 0162 00 0 21256	TQP **2	SHOULD NOT TRANSFER
21255 0020 00 0 21261	TRA **4	
21256 -0763 00 0 00034	LGL 28	RESTORE AC
21257 0560 00 0 26205	LDQ B8	+001000000000
		TRUE SUM TO MQ
21260 0074 00 4 00105	TSX ERROR,4	
21261 0074 00 4 00106	TSX OK,4	
21262 0020 00 0 21251	TRA *-9	

9M71/76B
2/1/63
PAGE 366

S E C T I O N O N E
P A R T I I I

TEST GROUP CARRY EIGHT

21263 212424606060
21264 0500 00 0 26453
21265 0400 00 0 26205
21266 -0765 00 0 00037

BCD 1ADD
CLA B6T8
ADD B8
LGR 31

+007000000000
+001000000000
SHIFT AC COL 5 TO MQ SIGN

21267 0162 00 0 21271
21270 0020 00 0 21274
21271 -0763 00 0 00037
21272 0560 00 0 26202

TQP **2
TRA **4
LGL 31
LDQ B5

SHOULD NOT TRANSFER

RESTORE AC
+010000000000
TRUE SUM TO MQ

21273 0074 00 4 00105
21274 0074 00 4 00106
21275 0020 00 0 21264

TSX ERROR,4
TSX OK,4
TRA *-9

21276 212424606060
21277 0500 00 0 26541
21300 0400 00 0 26210
21301 -0765 00 0 00037

BCD 1ADD
CLA B6T11
ADD B11
LGR 31

+007700000000
+000100000000
SHIFT AC COL 5 TO MQ SIGN

21302 0162 00 0 21304
21303 0020 00 0 21307
21304 -0763 00 0 00037
21305 0560 00 0 26202

TQP **2
TRA **4
LGL 31
LDQ B5

SHOULD NOT TRANSFER

RESTORE AC
+010000000000
TRUE SUM TO MQ

21306 0074 00 4 00105
21307 0074 00 4 00106
21310 0020 00 0 21277

TSX ERROR,4
TSX OK,4
TRA *-9

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 367

TEST GROUP CARRY EIGHT

21311	212424606060	BCD 1ADD	
21312	0500 00 0 26534	CLA B6T15	+007774000000
21313	0400 00 0 26214	ADD B15	+000004000000
21314	-0765 00 0 00037	LGR 31	SHIFT AC COL 5 TO MQ SIGN
21315	0162 00 0 21317	TQP **2	SHOULD NOT TRANSFER
21316	0020 00 0 21322	TRA **4	
21317	-0763 00 0 00037	LGL 31	RESTORE AC
21320	0560 00 0 26202	LDQ B5	+010000000000
			TRUE SUM TO MQ
21321	0074 00 4 00105	TSX ERROR,4	
21322	0074 00 4 00106	TSX OK,4	
21323	0020 00 0 21312	TRA *-9	
21324	212424606060	BCD 1ADD	
21325	0500 00 0 26600	CLA B6T16	+007776000000
21326	0400 00 0 26215	ADD B16	+000002000000
21327	-0765 00 0 00037	LGR 31	SHIFT AC COL 5 TO MQ SIGN
21330	0162 00 0 21332	TQP **2	SHOULD NOT TRANSFER
21331	0020 00 0 21335	TRA **4	
21332	-0763 00 0 00037	LGL 31	RESTORE AC
21333	0560 00 0 26202	LDQ B5	+010000000000
			TRUE SUM TO MQ
21334	0074 00 4 00105	TSX ERROR,4	
21335	0074 00 4 00106	TSX OK,4	
21336	0020 00 0 21325	TRA *-9	
21337	234321606060	BCD 1CLA	
21340	0500 00 0 26534	CLA B6T15	+007774000000
21341	-0765 00 0 00037	LGR 31	SHIFT AC COL 5 TO MQ SIGN
21342	0162 00 0 21346	TQP **4	SHOULD TRANSFER
21343	-0763 00 0 00037	LGL 31	RESTORE AC
21344	0560 00 0 26534	LDQ B6T15	CORRECT RESULT TO MQ
21345	0074 00 4 00105	TSX ERROR,4	
21346	0074 00 4 00106	TSX OK,4	
21347	0020 00 0 21340	TRA *-7	

9M71/76B
2/1/63
PAGE 368

S E C T I O N O N E
P A R T I I I

TEST GROUP CARRY EIGHT

21350	212424606060	BCD 1ADD	
21351	0500 00 0 26535	CLA B7T11	+003700000000
21352	0400 00 0 26210	ADD B11	+000100000000
21353	-0765 00 0 00037	LGR 31	SHIFT AC COL 5 TO MQ SIGN
21354	0162 00 0 21360	TQP **4	SHOULD TRANSFER
21355	-0763 00 0 00037	LGL 31	RESTORE AC
21356	0560 00 0 26203	LDQ B6	+004000000000
			TRUE SUM TO MQ
21357	0074 00 4 00105	TSX ERROR,4	
21360	0074 00 4 00106	TSX OK,4	
21361	0020 00 0 21351	TRA *-8	

21362	212424606060	BCD 1ADD	
21363	0500 00 0 26536	CLA GX10	+007640000000
21364	0400 00 0 26211	ADD B12	+000040000000
21365	-0765 00 0 00037	LGR 31	SHIFT AC COL 5 TO MQ SIGN
21366	0162 00 0 21372	TQP **4	SHOULD TRANSFER
21367	-0763 00 0 00037	LGL 31	RESTORE AC
21370	0560 00 0 26541	LDQ B6T11	+007700000000
			TRUE SUM TO MQ
21371	0074 00 4 00105	TSX ERROR,4	
21372	0074 00 4 00106	TSX OK,4	
21373	0020 00 0 21363	TRA *-8	

21374	212424606060	BCD 1ADD	
21375	0500 00 0 26537	CLA B7T12	+003740000000
21376	0400 00 0 26211	ADD B12	+000040000000
21377	-0765 00 0 00037	LGR 31	SHIFT AC COL 5 TO MQ SIGN
21400	0162 00 0 21404	TQP **4	SHOULD TRANSFER
21401	-0763 00 0 00037	LGL 31	RESTORE AC
21402	0560 00 0 26203	LDQ B6	+004000000000
			TRUE SUM TO MQ
21403	0074 00 4 00105	TSX ERROR,4	
21404	0074 00 4 00106	TSX OK,4	
21405	0020 00 0 21375	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 369

TEST GROUP CARRY EIGHT

21406 212424606060 21407 0500 00 0 26575 21410 0400 00 0 26215 21411 -0765 00 0 00037	BCD 1ADD CLA B7T16 ADD B16 LGR 31	+003776000000 +000002000000 SHIFT AC COL 5 TO MQ SIGN
21412 0162 00 0 21416 21413 -0763 00 0 00037 21414 0560 00 0 26203	TQP **4 LGL 31 LDQ B6	SHOULD TRANSFER RESTORE AC +004000000000 TRUE SUM TO MQ
21415 0074 00 4 00105 21416 0074 00 4 00106 21417 0020 00 0 21407	TSX ERROR,4 TSX OK,4 TRA *-8	
21420 212424606060 21421 0500 00 0 26540 21422 0400 00 0 26215 21423 -0765 00 0 00037	BCD 1ADD CLA GX12 ADD B16 LGR 31	+007676000000 +000002000000 SHIFT AC COL 5 TO MQ SIGN
21424 0162 00 0 21430 21425 -0763 00 0 00037 21426 0560 00 0 26541	TQP **4 LGL 31 LDQ B6T11	SHOULD TRANSFER RESTORE AC +007700000000 TRUE SUM TO MQ
21427 0074 00 4 00105 21430 0074 00 4 00106 21431 0020 00 0 21421	TSX ERROR,4 TSX OK,4 TRA *-8	
21432 212424606060 21433 0500 00 0 26542 21434 0400 00 0 26215 21435 -0765 00 0 00037	BCD 1ADD CLA GX13 ADD B16 LGR 31	+007772000000 +000002000000 SHIFT AC COL 5 TO MQ SIGN
21436 0162 00 0 21442 21437 -0763 00 0 00037 21440 0560 00 0 26534	TQP **4 LGL 31 LDQ B6T15	SHOULD TRANSFER RESTORE AC +007774000000 TRUE SUM TO MQ
21441 0074 00 4 00105 21442 0074 00 4 00106 21443 0020 00 0 21433	TSX ERROR,4 TSX OK,4 TRA *-8	

9M71/768
2/1/63
PAGE 370

S E C T I O N O N E
P A R T I I I

TEST GENERATE BITS 2-16

21444	212424606060	BCD 1ADD	
21445	0500 00 0 26543	CLA B2T8	+177000000000
21446	0400 00 0 26205	ADD B8	+001000000000
21447	-0765 00 0 00043	LGR 35	SHIFT AC COL 1 TO MQ SIGN

21450	0162 00 0 21452	TQP **2	SHOULD NOT TRANSFER
21451	0020 00 0 21455	TRA **4	
21452	-0763 00 0 00043	LGL 35	RESTORE AC
21453	0560 00 0 26176	LDQ B1	+200000000000
			TRUE SUM TO MQ

21454	0074 00 4 00105	TSX ERROR, 4	
21455	0074 00 4 00106	TSX OK, 4	
21456	0020 00 0 21445	TRA *-9	

21457	212424606060	BCD 1ADD	
21460	0500 00 0 26544	CLA B2T11	+177700000000
21461	0400 00 0 26210	ADD B11	+000100000000
21462	-0765 00 0 00043	LGR 35	SHIFT AC COL 1 TO MQ SIGN

21463	0162 00 0 21465	TQP **2	SHOULD NOT TRANSFER
21464	0020 00 0 21470	TRA **4	
21465	-0763 00 0 00043	LGL 35	RESTORE AC
21466	0560 00 0 26176	LDQ B1	+200000000000
			TRUE SUM TO MQ

21467	0074 00 4 00105	TSX ERROR, 4	
21470	0074 00 4 00106	TSX OK, 4	
21471	0020 00 0 21460	TRA *-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 371

TEST GENERATE BITS 2-16

21472	212424606060	BCD	1ADD	
21473	0500 00 0 26545	CLA	B2T15	+177774000000
21474	0400 00 0 26214	ADD	B15	+000004000000
21475	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
21476	0162 00 0 21500	TQP	*+2	SHOULD NOT TRANSFER
21477	0020 00 0 21503	TRA	*+4	
21500	-0763 00 0 00043	LGL	35	RESTORE AC
21501	0560 00 0 26176	LDQ	B1	+200000000000
				TRUE SUM TO MQ
21502	0074 00 4 00105	TSX	ERROR,4	
21503	0074 00 4 00106	TSX	OK,4	
21504	0020 00 0 21473	TRA	*-9	
21505	212424606060	BCD	1ADD	
21506	0500 00 0 26546	CLA	B3T8	+077000000000
21507	0400 00 0 26205	ADD	B8	+001000000000
21510	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
21511	0162 00 0 21515	TQP	*+4	SHOULD TRANSFER
21512	-0763 00 0 00043	LGL	35	RESTORE AC
21513	0560 00 0 26177	LDQ	B2	+100000000000
				TRUE SUM TO MQ
21514	0074 00 4 00105	TSX	ERROR,4	
21515	0074 00 4 00106	TSX	OK,4	
21516	0020 00 0 21506	TRA	*-8	
21517	212424606060	BCD	1ADD	
21520	0500 00 0 26576	CLA	B3T11	+077700000000
21521	0400 00 0 26210	ADD	B11	+000100000000
21522	-0765 00 0 00043	LGR	35	SHIFT AC COL 1 TO MQ SIGN
21523	0162 00 0 21527	TQP	*+4	SHOULD TRANSFER
21524	-0763 00 0 00043	LGL	35	RESTORE AC
21525	0560 00 0 26177	LDQ	B2	+100000000000
				TRUE SUM TO MQ
21526	0074 00 4 00105	TSX	ERROR,4	
21527	0074 00 4 00106	TSX	OK,4	
21530	0020 00 0 21520	TRA	*-8	

9M71/768
2/1/63
PAGE 372

SECTION ONE
PART III

TEST GENERATE BITS 2-16

21531 212424606060
21532 0500 00 0 26577
21533 0400 00 0 26214
21534 -0765 00 0 00043

BCD 1ADD
CLA B3T15
ADD B15
LGR 35

+077774000000
+000004000000
SHIFT AC COL 1 TO MQ SIGN

21535 0162 00 0 21541
21536 -0763 00 0 00043
21537 0560 00 0 26177

TQP **4
LGL 35
LDQ B2

SHOULD TRANSFER
RESTORE AC
+100000000000
TRUE SUM TO MQ

21540 0074 00 4 00105
21541 0074 00 4 00106
21542 0020 00 0 21532

TSX ERROR, 4
TSX OK, 4
TRA *-8

21543 212424606060
21544 0500 00 0 26547
21545 0400 00 0 26206
21546 -0765 00 0 00043

BCD 1ADD
CLA GX14
ADD B9
LGR 35

+176400000000
+000400000000
SHIFT AC COL 1 TO MQ SIGN

21547 0162 00 0 21553
21550 -0763 00 0 00043
21551 0560 00 0 26543

TQP **4
LGL 35
LDQ B2T8

SHOULD TRANSFER
RESTORE AC
+177000000000
TRUE SUM TO MQ

21552 0074 00 4 00105
21553 0074 00 4 00106
21554 0020 00 0 21544

TSX ERROR, 4
TSX OK, 4
TRA *-8

21555 212424606060
21556 0500 00 0 26550
21557 0400 00 0 26211
21560 -0765 00 0 00043

BCD 1ADD
CLA GX15
ADD B12
LGR 35

+176740000000
+000040000000
SHIFT AC COL 1 TO MQ SIGN

21561 0162 00 0 21565
21562 -0763 00 0 00043
21563 0560 00 0 26543

TQP **4
LGL 35
LDQ B2T8

SHOULD TRANSFER
RESTORE AC
+177000000000
TRUE SUM TO MQ

21564 0074 00 4 00105
21565 0074 00 4 00106
21566 0020 00 0 21556

TSX ERROR, 4
TSX OK, 4
TRA *-8

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 373

TEST GENERATE BITS 2-16

21567	212424606060	BCD 1ADD	
21570	0500 00 0 26551	CLA GX16	+177640000000
21571	0400 00 0 26211	ADD B12	+000040000000
21572	-0765 00 0 00043	LGR 35	SHIFT AC COL 1 TO MQ SIGN
21573	0162 00 0 21577	TQP *+4	SHOULD TRANSFER
21574	-0763 00 0 00043	LGL 35	RESTORE AC
21575	0560 00 0 26544	LDQ B2T11	+177700000000
			TRUE SUM TO MQ
21576	0074 00 4 00105	TSX ERROR,4	
21577	0074 00 4 00106	TSX OK,4	
21600	0020 00 0 21570	TRA *-8	
21601	234321606060	BCD 1CLA	
21602	0500 00 0 26545	CLA B2T15	+177774000000
21603	-0765 00 0 00043	LGR 35	SHIFT AC COL 1
21604	0162 00 0 21610	TQP *+4	SHOULD TRANSFER
21605	-0763 00 0 00043	LGL 35	RESTORE AC
21606	0560 00 0 26545	LDQ B2T15	CORRECT RESULT TO MQ
21607	0074 00 4 00105	TSX ERROR,4	
21610	0074 00 4 00106	TSX OK,4	
21611	0020 00 0 21602	TRA *-7	

9M71/76B
2/1/63
PAGE 374

SECTION ONE
PART III

TEST GROUP CARRY NINE

21612 212424606060
21613 0500 00 0 26552
21614 0400 00 0 26216
21615 -0765 00 0 00043

BCD 1ADD
CLA B3T17
ADD B17
LGR 35

+077777000000
+000001000000
SHIFT AC COL 1 TO MQ SIGN

21616 0162 00 0 21622
21617 -0763 00 0 00043
21620 0560 00 0 26177

TQP *+4
LGL 35
LDQ B2

SHOULD TRANSFER
RESTORE AC
+100000000000
TRUE SUM TO MQ

21621 0074 00 4 00105
21622 0074 00 4 00106
21623 0020 00 0 21613

TSX ERROR,4
TSX OK,4
TRA *-8

21624 212424606060
21625 -0500 00 0 26311
21626 0767 00 0 00001
21627 0400 00 0 26237

BCD 1ADD
CAL BS135
ALS 1
ADD B34

777777777777
ONES TO AC Q,P,1-34
000000000002

21630 0100 00 0 21633
21631 0560 00 0 26173

TZE *+3
LDQ BZERO

SHOULD TRANSFER
000000000000
CORRECT RESULT TO MQ

21632 0074 00 4 00105
21633 0074 00 4 00106
21634 0020 00 0 21625

TSX ERROR,4
TSX OK,4
TRA *-7

SECTION ONE
PART III

9M71/768
2/1/63
PAGE 375

*
*
*
*
*

TEST COM

* TEST COM GATE AD-AC

21635	234644606060	BCD	ICOM	
21636	-0500 00 0 26311	CAL	BS135	777777777777
21637	0760 00 0 00006	COM		
21640	0601 00 0 26603	STO	T1	
21641	0560 00 0 26173	LDQ	BZERO	AC P,1-35 SHOULD BE CLEAR
21642	0520 00 0 26603	ZET	T1	SHOULD SKIP
21643	0074 00 4 00105	TSX	ERROR,4	
21644	0074 00 4 00106	TSX	OK,4	
21645	0020 00 0 21636	TRA	*-7	LOOP RETURN

* TESTING COM GATE NOT AC-AD, AD-AC

21646	234644606060	BCD	ICOM	
21647	0500 00 0 26173	CLA	BZERO	+000000000000
21650	0760 00 0 00006	COM		
21651	-0100 00 0 21654	TNZ	*+3	SHOULD TRANSFER
21652	0560 00 0 26311	LDQ	BS135	-377777777777
21653	0074 00 4 00105	TSX	ERROR,4	
21654	0074 00 4 00106	TSX	OK,4	
21655	0020 00 0 21647	TRA	*-6	LOOP RETURN

* TESTING COM GATE NOT AC Q-8 TO ADDERS

21656	234644606060	BCD	ICOM	
21657	0500 00 0 26310	CLA	B935	+000777777777
21660	0760 00 0 00006	COM		
21661	-0100 00 0 21664	TNZ	*+3	SHOULD TRANSFER
21662	0560 00 0 26304	LDQ	BIT8	+377000000000
21663	0074 00 4 00105	TSX	ERROR,4	
21664	0074 00 4 00106	TSX	OK,4	
21665	0020 00 0 21657	TRA	*-6	LOOP RETURN

9M71/76B
2/1/63
PAGE 376

S E C T I O N O N E
P A R T I I I

* TESTING COM GATE NOT AC 9-35 TO ADDERS

21666	234644606060	BCD	1COM	
21667	0500 00 0 26304	CLA	B1T8	+377000000000
21670	0760 00 0 00006	COM		
21671	-0765 00 0 00044	LGR	36	SHIFT AC 1-35 TO MQ 1-35
21672	-0600 00 0 26603	STQ	T1	
21673	0520 00 0 26603	ZET	T1	SHOULD NOT SKIP
21674	0020 00 0 21700	TRA	*+4	
21675	-0763 00 0 00044	LGL	36	
21676	0560 00 0 26310	LDQ	B935	
21677	0074 00 4 00105	TSX	ERROR,4	
21700	0074 00 4 00106	TSX	OK,4	
21701	0020 00 0 21667	TRA	*-10	

* TESTING GATE COMPLIMENT AC COLUMNS Q-35 TO ADDERS USING AN INDEXING
* LOOP

21702	234644606060	BCD	1COM	
21703	0774 00 1 00000	AXT	0,1	
21704	0020 00 0 21706	TRA	*+2	
21705	234644606060	BCD	1COM	
21706	0500 00 0 26173	CLA	BZERO	+000000000000
21707	0760 00 0 00006	COM		
21710	-0765 00 1 00045	LGR	37,1	SHIFT TEST COLUMN TO MQ S.
21711	0162 00 0 21713	TQP	*+2	SHOULD NOT TRANSFER
21712	0020 00 0 21717	TRA	*+5	
21713	-0763 00 1 00045	LGL	37,1	RESTORE AC
21714	0560 00 0 26311	LDQ	BS135	ALL BITS TO MQ
				AC Q-35 SHOULD BE ALL ONES
21715	0074 00 4 00104	TSX	ERROR-1,4	
21716	0020 00 0 21706	TRA	*-8	LOOP ON ERROR
21717	1 00001 1 21720	TXI	*+1,1,1	
21720	-3 00044 1 21706	TXL	*-10,1,36	
21721	0074 00 4 00106	TSX	OK,4	
21722	0020 00 0 21703	TRA	*-15	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 377

*
*
*
*
*

TEST FOR FALSE PG FUNCTIONS

21723	0761	00	0	00000		NOP		WASTE INSTRUCTION
21724	0760	00	0	00016	FPG	LMTM		
21725	0774	00	3	00043		AXT	35,3	
21726	0634	00	3	26606		SXA	TEMP2,3	
21727	0020	00	0	21732		TRA	*+3	
21730	6264	2260	6060			BCD	1SUB	
21731	0534	00	3	26606		LXA	TEMP2,3	
21732	-0500	00	3	26240		CAL	BSIGN+35,3	
21733	0402	00	0	26240		SUB	B35	BIT IN AC SHOULD INHIBIT SETTING Q CARRY TRIGGER
21734	0120	00	0	21744		TPL	*+8	SHOULD TRANSFER
21735	0601	00	0	26605		STO	TEMP1	SAVE WRONG RESULT
21736	0500	00	0	26173		CLA	BZERO	+000000000000
21737	0560	00	0	26174		LDQ	BONES	+377777777777
21740	-0765	00	3	00043		LGR	35,3	GENERATE TRUE DIFFERENCE
21741	0500	00	0	26605		CLA	TEMP1	RESTORE WRONG ANSWER
21742	0074	00	4	00104		TSX	ERROR-1,4	
21743	0020	00	0	21731		TRA	FPG+5	
21744	2	00001	3	21726		TIX	FPG+2,3,1	
21745	0074	00	4	00106		TSX	OK,4	
21746	0020	00	0	21724		TRA	FPG	

9M71/76B
2/1/63
PAGE 378

S E C T I O N O N E
P A R T I I I

*
*
*
*
*

TEST ADM AND SBM

21747	212444606060	BCD	1ADM	
21750	0500 00 0 26467	CLA	BST2	-300000000000
21751	0401 00 0 26467	ADM	BST2	
21752	0100 00 0 21755	TZE	*+3	SHOULD TRANSFER
21753	0560 00 0 26173	LDQ	BZERO	
21754	0074 00 4 00105	TSX	ERROR, 4	ADM FAILS
21755	0074 00 4 00106	TSX	OK, 4	
21756	0020 00 0 21750	TRA	*-6	LOOP RETURN

21757	622244606060	BCD	1SBM	
21760	0500 00 0 26467	CLA	BST2	-300000000000
21761	-0400 00 0 26467	SBM	BST2	
21762	-0100 00 0 21765	TNZ	*+3	SHOULD TRANSFER
21763	0560 00 0 26241	LDQ	BSA1	
21764	0074 00 4 00105	TSX	ERROR, 4	
21765	0074 00 4 00106	TSX	OK, 4	
21766	0020 00 0 21760	TRA	*-6	LOOP RETURN

21767	622244606060	BCD	1SBM	
21770	0500 00 0 26242	CLA	B1A2	+300000000000
21771	-0400 00 0 26242	SBM	B1A2	
21772	0100 00 0 21775	TZE	*+3	SHOULD TRANSFER
21773	0560 00 0 26173	LDQ	BZERO	
21774	0074 00 4 00105	TSX	ERROR, 4	SBM FAILS
21775	0074 00 4 00106	TSX	OK, 4	
21776	0020 00 0 21770	TRA	*-6	LOOP RETURN

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 379

*
*
*
*
*

TEST ORA

21777 465121606060
22000 0500 00 0 26174
22001 -0501 00 0 26174
22002 -0100 00 0 22005

BCD 10RA
CLA BONES +377777777777
ORA BONES
TNZ *+3 SHOULD TRANSFER

22003 0560 00 0 26174
22004 0074 00 4 00105
22005 0074 00 4 00106
22006 0020 00 0 22000

LDQ BONES
TSX ERROR,4 ORA JUST CLEARS AC
TSX OK,4
TRA *-6

22007 465121606060
22010 -0500 00 0 26173
22011 -0501 00 0 26174
22012 -0100 00 0 22015

BCD 10RA
CAL BZERO CLEAR AC
ORA BONES 377777777777
TNZ *+3 SHOULD TRANSFER

22013 0560 00 0 26311
22014 0074 00 4 00105
22015 0074 00 4 00106
22016 0020 00 0 22010

LDQ BS135
TSX ERROR,4 ORA FAILS TO GATE SB TO SR
TSX OK,4
TRA *-6

22017 465121606060
22020 -0500 00 0 26311
22021 -0501 00 0 26173
22022 -0100 00 0 22025

BCD 10RA
CAL BS135 777777777777
ORA BZERO
TNZ *+3 SHOULD TRANSFER

22023 0560 00 0 26311
22024 0074 00 4 00105
22025 0074 00 4 00106
22026 0020 00 0 22020

LDQ BS135
TSX ERROR,4 ORA FAILS TO GATE AC-SR
TSX OK,4
TRA *-6

9M71/76B
2/1/63
PAGE 380

S E C T I O N O N E
P A R T I I I

* TEST ORA

22027	465121606060	BCD	10RA	
22030	-0500 00 0 26311	CAL	BS135	777777777777
22031	-0501 00 0 26311	ORA	BS135	
22032	-0765 00 0 00001	LGR	1	SHIFT AC Q TO AC P
22033	-0760 00 0 00001	PBT		SHOULD NOT SKIP
22034	0020 00 0 22037	TRA	*+3	
22035	0560 00 0 26174	LDQ	BONES	
22036	0074 00 4 00105	TSX	ERROR,4	ORA GATES HOT BIT TO AC Q
22037	0074 00 4 00106	TSX	OK,4	
22040	0020 00 0 22030	TRA	*-8	

22041	465121606060	BCD	10RA	
22042	-0500 00 0 26311	CAL	BS135	
22043	-0763 00 0 00001	LGL	1	
22044	-0501 00 0 26311	ORA	BS135	AC SHOULD CONTAIN BITS IN Q,P,1-35 SHOULD CLEAR AC
22045	0760 00 0 00006	COM		
22046	0100 00 0 22051	TZE	*+3	
22047	0560 00 0 26173	LDQ	BZERO	
22050	0074 00 4 00105	TSX	ERROR,4	ORA DESTROYS AC COL Q
22051	0074 00 4 00106	TSX	OK,4	
22052	0020 00 0 22042	TRA	*-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 381

*
*
*
*
*

TEST STP, STD, STT, STA, STL

22053 626347606060	BCD 1STP	
22054 0500 00 0 26467	CLA BST2	-300000000000
22055 0601 00 0 26603	STO T1	
22056 -0500 00 0 26173	CAL BZERO	CLEAR AC
22057 0630 00 0 26603	STP T1	SHOULD CLEAR T1
22060 -0520 00 0 26603	NZT T1	
22061 0020 00 0 22065	TRA *+4	
22062 0500 00 0 26603	CLA T1	
22063 0560 00 0 26173	LDQ BZERO	ZEROS TO MQ
22064 0074 00 4 00105	TSX ERROR,4	STP DID NOT BRING UP STORE
22065 0074 00 4 00106	TSX OK,4	
22066 0020 00 0 22054	TRA *-10	
22067 626347606060	BCD 1STP	
22070 0600 00 0 26603	STZ T1	
22071 -0500 00 0 26467	CAL BST2	-300000000000
22072 0630 00 0 26603	STP T1	
22073 0520 00 0 26603	ZET T1	
22074 0020 00 0 22100	TRA *+4	
22075 0560 00 0 26467	LDQ BST2	
22076 0500 00 0 26603	CLA T1	
22077 0074 00 4 00105	TSX ERROR,4	STP DID NOT GATE AC-SR
22100 0074 00 4 00106	TSX OK,4	
22101 0020 00 0 22070	TRA *-9	
22102 626347606060	BCD 1STP	
22103 0600 00 0 26603	STZ T1	
22104 -0500 00 0 26311	CAL BS135	ALL BITS TO AC P,1-35
22105 0630 00 0 26603	STP T1	SHOULD STORE PREFIX ONLY
22106 0500 00 0 26603	CLA T1	
22107 0402 00 0 26467	SUB BST2	-300000000000
22110 0100 00 0 22113	TZE *+3	
22111 0560 00 0 26173	LDQ BZERO	
22112 0074 00 4 00105	TSX ERROR,4	
22113 0074 00 4 00106	TSX OK,4	
22114 0020 00 0 22103	TRA *-9	

S E C T I O N O N E
P A R T I I I

TEST STP, STD, STT, STA, STL

22115	626347606060	BCD	1STP	
22116	0774 00 2 77777	AXT	32767,2	ALL BITS TO XRB
22117	0600 00 0 26603	STZ	T1	CLEAR TEMPORARY STORAGE
22120	0600 00 0 26604	STZ	T2	
22121	0500 00 0 26173	CLA	BZERO	
22122	0630 00 2 26603	STP	T2-1,2	

22123	0560 00 0 26173	LDQ	BZERO	
22124	0500 00 0 26603	CLA	T1	
22125	0100 00 0 22130	TNZ	*+3	
22126	0500 00 0 26604	CLA	T2	
22127	0100 00 0 22131	TZE	*+2	
22130	0074 00 4 00105	TSX	ERROR,4	STP STORES XR
22131	0074 00 4 00106	TSX	OK,4	
22132	0020 00 0 22116	TRA	*-12	

22133	626324606060	BCD	1STD	
22134	0500 00 0 26552	CLA	B3T17	+077777000000
22135	0601 00 0 26603	STO	T1	
22136	0500 00 0 26173	CLA	BZERO	CLEAR AC
22137	0622 00 0 26603	STD	T1	

22140	0560 00 0 26173	LDQ	BZERO	
22141	0500 00 0 26603	CLA	T1	
22142	0520 00 0 26603	ZET	T1	
22143	0074 00 4 00105	TSX	ERROR,4	STD DOES NOT STORE
22144	0074 00 4 00106	TSX	OK,4	
22145	0020 00 0 22134	TRA	*-9	

22146	626324606060	BCD	1STD	
22147	0500 00 0 26552	CLA	B3T17	+077777000000
22150	0600 00 0 26603	STZ	T1	
22151	0622 00 0 26603	STD	T1	

22152	0520 00 0 26603	ZET	T1	
22153	0020 00 0 22157	TRA	*+4	
22154	0500 00 0 26603	CLA	T1	
22155	0560 00 0 26552	LDQ	B3T17	
22156	0074 00 4 00105	TSX	ERROR,4	
22157	0074 00 4 00106	TSX	OK,4	
22160	0020 00 0 22147	TRA	*-9	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 383

TEST STP, STD, STT, STA, STL

22161	626324606060	BCD	1STD	
22162	0600 00 0 26603	STZ	T1	
22163	-0500 00 0 26174	CAL	BONES	+377777777777
22164	0622 00 0 26603	STD	T1	SHOULD STORE DECREMENT
22165	0500 00 0 26603	CLA	T1	AND NOTHING ELSE
22166	0402 00 0 26552	SUB	B3T17	
22167	0100 00 0 22172	TZE	*+3	
22170	0560 00 0 26173	LDQ	BZERO	
22171	0074 00 4 00105	TSX	ERROR,4	
22172	0074 00 4 00106	TSX	OK,4	
22173	0020 00 0 22162	TRA	*-9	
22174	626363606060	BCD	1STT	
22175	0500 00 0 26556	CLA	B18T20	+000000700000
22176	0601 00 0 26603	STO	T1	
22177	0500 00 0 26173	CLA	BZERO	CLEAR AC
22200	0625 00 0 26603	STT	T1	SHOULD CLEAR T1
22201	-0520 00 0 26603	NZT	T1	SHOULD NOT SKIP
22202	0020 00 0 22206	TRA	*+4	
22203	0500 00 0 26603	CLA	T1	STT STORES PROGRAM COUNTER
22204	0560 00 0 26173	LDQ	BZERO	OR DOES NOT STORE AT ALL
22205	0074 00 4 00105	TSX	ERROR,4	
22206	0074 00 4 00106	TSX	OK,4	
22207	0020 00 0 22175	TRA	*-10	
22210	626363606060	BCD	1STT	
22211	0500 00 0 26556	CLA	B18T20	
22212	0600 00 0 26603	STZ	T1	
22213	0625 00 0 26603	STT	T1	
22214	0520 00 0 26603	ZET	T1	SHOULD NOT SKIP
22215	0020 00 0 22221	TRA	*+4	
22216	0500 00 0 26603	CLA	T1	STT DOES NOT GATE AC-SR
22217	0560 00 0 26556	LDQ	B18T20	
22220	0074 00 4 00105	TSX	ERROR,4	
22221	0074 00 4 00106	TSX	OK,4	
22222	0020 00 0 22211	TRA	*-9	

9M71/76B
2/1/63
PAGE 384

S E C T I O N O N E
P A R T I I I

TEST STP, STD, STL, STT, STA

22223	626363606060		
22224	-0500 00 0 26311	BCD 1STT	
22225	0600 00 0 26603	CAL BS135	LOAD BITS TO AC P, 1-35
22226	0625 00 0 26603	STZ T1	
		STT T1	SHOULD STORE TAG ONLY
22227	0500 00 0 26603		
22230	0402 00 0 26556	CLA T1	
22231	0100 00 0 22234	SUB B18T20	
22232	0560 00 0 26173	TZE *+3	SHOULD TRANSFER
		LDQ BZERO	
22233	0074 00 4 00105		
22234	0074 00 4 00106	TSX ERROR, 4	
22235	0020 00 0 22224	TSX OK, 4	
		TRA *-9	LOOP RETURN

22236	626363606060		
22237	0774 00 2 77777	BCD 1STT	
22240	0600 00 0 26603	AXT 32767, 2	
22241	0600 00 0 26604	STZ T1	
22242	0500 00 0 26506	STZ T2	
22243	0625 00 2 26603	CLA B21T35	+000000077777
		STT T2-1, 2	
22244	0500 00 0 26603		
22245	-0100 00 0 22251	CLA T1	
22246	0500 00 0 26604	TNZ *+4	SHOULD NOT TRANSFER
22247	0100 00 0 22252	CLA T2	
22250	0560 00 0 26173	TZE *+3	SHOULD TRANSFER
22251	0074 00 4 00105	LDQ BZERO	
22252	0074 00 4 00106	TSX ERROR, 4	STT STORES XR
22253	0020 00 0 22237	TSX OK, 4	
		TRA *-12	LOOP RETURN

22254	626321606060		
22255	0500 00 0 26506	BCD 1STA	
22256	0601 00 0 26603	CLA B21T35	
22257	0500 00 0 26173	STO T1	
22260	0621 00 0 26603	CLA BZERO	CLEAR AC
		STA T1	
22261	-0520 00 0 26603		
22262	0020 00 0 22266	NZT T1	SHOULD NOT SKIP
22263	0500 00 0 26603	TRA *+4	
22264	0560 00 0 26173	CLA T1	
22265	0074 00 4 00105	LDQ BZERO	
22266	0074 00 4 00106	TSX ERROR, 4	STA FAILS
22267	0020 00 0 22255	TSX OK, 4	
		TRA *-10	LOOP RETURN

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 385

TEST STP, STL, STD, STT, STA

22270	626321606060	BCD	1STA	
22271	0500 00 0 26506	CLA	B21T35	+000000077777
22272	0600 00 0 26603	STZ	T1	
22273	0621 00 0 26603	STA	T1	
22274	0520 00 0 26603	ZET	T1	SHOULD NOT SKIP
22275	0020 00 0 22301	TRA	++4	
22276	0500 00 0 26603	CLA	T1	
22277	0560 00 0 26506	LDQ	B21T35	
22300	0074 00 4 00105	TSX	ERROR,4	STA DOES NOT STORE
22301	0074 00 4 00106	TSX	OK,4	
22302	0020 00 0 22271	TRA	*-9	LOOP RETURN
22303	626321606060	BCD	1STA	
22304	-0500 00 0 26311	CAL	BS135	LOAD ONES IN AC P,1-35
22305	0600 00 0 26603	STZ	T1	
22306	0621 00 0 26603	STA	T1	
22307	0500 00 0 26603	CLA	T1	
22310	0402 00 0 26506	SUB	B21T35	
22311	0100 00 0 22314	TZE	++3	SHOULD TRANSFER
22312	0560 00 0 26173	LDQ	BZERO	
22313	0074 00 4 00105	TSX	ERROR,4	STA STORES MORE THAN 21-35
22314	0074 00 4 00106	TSX	OK,4	
22315	0020 00 0 22304	TRA	*-9	LOOP RETURN
22316	626321606060	BCD	1STA	
22317	0500 00 0 26173	CLA	BZERO	
22320	0560 00 0 26174	LDQ	BONES	LOAD BITS IN MQ 1-35
22321	0600 00 0 26603	STZ	T1	
22322	0621 00 0 26603	STA	T1	
22323	-0520 00 0 26603	NZT	T1	SHOULD NOT SKIP
22324	0020 00 0 22330	TRA	++4	
22325	0500 00 0 26603	CLA	T1	
22326	0560 00 0 26173	LDQ	BZERO	
22327	0074 00 4 00105	TSX	ERROR,4	STA STORES PART OF MQ
22330	0074 00 4 00106	TSX	OK,4	
22331	0020 00 0 22317	TRA	*-10	LOOP RETURN

9M71/76B
2/1/63
PAGE 386

SECTION ONE
PART III

TEST STL, STP, STD, STT, STA

22332	626321606060	BCD	1STA	
22333	0500 00 0 26506	CLA	B21T35	+000000077777
22334	0600 00 0 26603	STZ	T1	
22335	0621 00 0 26603	STA	T1	
22336	0402 00 0 26506	SUB	B21T35	

22337	0100 00 0 22342	TZE	++3	SHOULD TRANSFER
22340	0560 00 0 26173	LDQ	BZERO	
22341	0074 00 4 00105	TSX	ERROR, 4	STA FAILS
22342	0074 00 4 00106	TSX	OK, 4	
22343	0020 00 0 22333	TRA	*-8	LOOP RETURN

22344	626343606060	BCD	1STL	
22345	0600 00 0 26603	STZ	T1	
22346	0625 00 0 26603	STL	T1	
22347	0520 00 0 26603	ZET	T1	SHOULD NOT SKIP
22350	0020 00 0 22356	TRA	++6	

22351	0500 00 0 26603	CLA	T1	
22352	0560 00 0 22354	LDQ	++2	
22353	0020 00 0 22355	TRA	++2	
22354	0 00000 0 22347	PZE	*-5	THIS IS A CONSTANT
22355	0074 00 4 00105	TSX	ERROR, 4	STL DOES NOT STORE
22356	0074 00 4 00106	TSX	OK, 4	
22357	0020 00 0 22345	TRA	*-10	LOOP RETURN

22360	626343606060	BCD	1STL	
22361	0600 00 0 26603	STZ	T1	CLEAR TEMPORARY STORAGE
22362	0600 00 0 26604	STZ	T2	
22363	0774 00 2 00001	AXT	1,2	
22364	0500 00 0 26173	CLA	BZERO	+000000000000
22365	0625 00 2 26604	STL	T1+1,2	
22366	0500 00 0 26603	CLA	T1	
22367	0402 00 0 22373	SUB	++4	

22370	0100 00 0 22375	TZE	++5	SHOULD TRANSFER
22371	0560 00 0 26173	LDQ	BZERO	
22372	0020 00 0 22374	TRA	++2	
22373	0 00000 0 22366	PZE	*-5	THIS IS A CONSTANT
22374	0074 00 4 00105	TSX	ERROR, 4	STL STORES XR
22375	0074 00 4 00106	TSX	OK, 4	
22376	0020 00 0 22361	TRA	*-13	LOOP RETURN

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 387

* TEST STL, STA, STD, STP, STT

22377	626343606060	BCD	1STL	
22400	0560 00 0 26174	LDQ	BONES	+377777777777
22401	0600 00 0 26603	STZ	T1	CLEAR TEMPORARY STORAGE
22402	-0625 00 0 26603	STL	T1	
22403	0500 00 0 26603	CLA	T1	
22404	0402 00 0 22410	SUB	++4	
22405	0100 00 0 22412	TZE	++5	SHOULD TRANSFER
22406	0560 00 0 26173	LDQ	BZERO	
22407	0020 00 0 22411	TRA	++2	
22410	0 00000 0 22403	PZE	--5	THIS IS A CONSTANT
22411	0074 00 4 00105	TSX	ERROR,4	STL STORES PART OF MQ
22412	0074 00 4 00106	TSX	OK,4	
22413	0020 00 0 22400	TRA	--11	LOOP RETURN
22414	626343606060	BCD	1STL	
22415	0500 00 0 26174	CLA	BONES	+377777777777
22416	0600 00 0 26603	STZ	T1	CLEAR TEMPORARY STORAGE
22417	-0625 00 0 26603	STL	T1	
22420	0500 00 0 26603	CLA	T1	
22421	0402 00 0 22425	SUB	++4	
22422	0100 00 0 22427	TZE	++5	SHOULD TRANSFER
22423	0560 00 0 26173	LDQ	BZERO	
22424	0020 00 0 22426	TRA	++2	
22425	0 00000 0 22420	PZE	--5	THIS IS A CONSTANT
22426	0074 00 4 00105	TSX	ERROR,4	
22427	0074 00 4 00106	TSX	OK,4	
22430	0020 00 0 22415	TRA	--11	LOOP RETURN
22431	626343606060	BCD	1STL	
22432	0500 00 0 26311	CLA	BS135	-377777777777
22433	0601 00 0 26603	STO	T1	ALL BITS TO TEMP STORAGE
22434	0500 00 0 26173	CLA	BZERO	CLEAR AC
22435	0560 00 0 26173	LDQ	BZERO	CLEAR MQ
22436	-0625 00 0 26603	STL	T1	
22437	0500 00 0 26603	CLA	T1	
22440	0402 00 0 22443	SUB	++3	
22441	0100 00 0 22445	TZE	++4	SHOULD TRANSFER
22442	0020 00 0 22444	TRA	++2	
22443	-3 77777 7 22437	SVN	--4,7,32767	THIS IS A CONSTANT
22444	0074 00 4 00105	TSX	ERROR,4	STL SHOULD STORE IN
22445	0074 00 4 00106	TSX	OK,4	ADDRESS ONLY
22446	0020 00 0 22432	TRA	--12	LOOP RETURN

9M71/768
2/1/63
PAGE 388

SECTION ONE
PART III

TESTING XRE PSN 3 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22447	606751056060	BCD 1 XR5		
22450	0760 00 0 00016	LMTM		
22451	0774 00 5 77777	AXT 32767,5	XR 77777	A 000001
22452	3 40000 5 22454	TXH *+002,5,16384	DECR 40000	B 40000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
22453	0074 00 4 00105	TSX ERROR,4		
22454	0074 00 4 00106	TSX OK,4		
22455	0020 00 0 22450	TRA *-5		

TESTING XRE PSN 3 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22456	606751056060	BCD 1 XR5		
22457	0774 00 5 37777	AXT 16383,5	XR 37777	A 400001
22460	-3 40000 5 22462	TXL *+002,5,16384	DECR 40000	B 40000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
22461	0074 00 4 00105	TSX ERROR,4		
22462	0074 00 4 00106	TSX OK,4		
22463	0020 00 0 22457	TRA *-4		

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 389

TESTING XRE PSN 4 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22464	606751056060	BCD 1 XR5		
22465	0774 00 5 37777	AXT 16383,5	XR 37777	A 400001
22466	3 20000 5 22470	TXH **002,5,8192	DECR 20000	B 20000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
22467	0074 00 4 00105	TSX ERROR,4		
22470	0074 00 4 00106	TSX OK,4		
22471	0020 00 0 22465	TRA *-4		

TESTING XRE PSN 4 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22472	606751056060	BCD 1 XR5		
22473	0774 00 5 17777	AXT 08191,5	XR 17777	A 600001
22474	-3 20000 5 22476	TXL **002,5,8192	DECR 20000	B 20000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
22475	0074 00 4 00105	TSX ERROR,4		
22476	0074 00 4 00106	TSX OK,4		
22477	0020 00 0 22473	TRA *-4		

TESTING XRE PSN 5 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22500	606751056060	BCD 1 XR5		
22501	0774 00 5 17777	AXT 08191,5	XR 17777	A 600001
22502	3 10000 5 22504	TXH **002,5,4096	DECR 10000	B 10000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
22503	0074 00 4 00105	TSX ERROR,4		
22504	0074 00 4 00106	TSX OK,4		
22505	0020 00 0 22501	TRA *-4		

TESTING XRE PSN 5 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22506	606751056060	BCD 1 XR5		
22507	0774 00 5 07777	AXT 04095,5	XR 07777	A 700001
22510	-3 10000 5 22512	TXL **002,5,4096	DECR 10000	B 10000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
22511	0074 00 4 00105	TSX ERROR,4		
22512	0074 00 4 00106	TSX OK,4		
22513	0020 00 0 22507	TRA *-4		

9M71/76B
2/1/63
PAGE 390

SECTION ONE
PART III

TESTING XRE PSN 6 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22514	606751056060	BCD 1 XR5		
22515	0774 00 5 07777	AXT 04095,5	XR 07777	A 700001
22516	3 04000 5 22520	TXH **002,5,2048	DECR 04000	B 04000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
22517	0074 00 4 00105	TSX ERROR,4		
22520	0074 00 4 00106	TSX OK,4		
22521	0020 00 0 22515	TRA *-4		

TESTING XRE PSN 6 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22522	606751056060	BCD 1 XR5		
22523	0774 00 5 03777	AXT 02047,5	XR 03777	A 740001
22524	-3 04000 5 22526	TXL **002,5,2048	DECR 04000	B 04000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
22525	0074 00 4 00105	TSX ERROR,4		
22526	0074 00 4 00106	TSX OK,4		
22527	0020 00 0 22523	TRA *-4		

TESTING XRE PSN 7 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22530	606751056060	BCD 1 XR5		
22531	0774 00 5 03777	AXT 02047,5	XR 03777	A 740001
22532	3 02000 5 22534	TXH **002,5,1024	DECR 02000	B 02000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
22533	0074 00 4 00105	TSX ERROR,4		
22534	0074 00 4 00106	TSX OK,4		
22535	0020 00 0 22531	TRA *-4		

TESTING XRE PSN 7 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22536	606751056060	BCD 1 XR5		
22537	0774 00 5 01777	AXT 01023,5	XR 01777	A 760001
22540	-3 02000 5 22542	TXL **002,5,1024	DECR 02000	B 02000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
22541	0074 00 4 00105	TSX ERROR,4		
22542	0074 00 4 00106	TSX OK,4		
22543	0020 00 0 22537	TRA *-4		

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 391

TESTING XRE PSN 8 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22544	606751056060	BCD 1 XR5		
22545	0774 00 5 01777	AXT 01023,5		XR 01777 A 760001
22546	3 01000 5 22550	TXH **002,5,512		DECR 01000 B 01000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
22547	0074 00 4 00105	TSX ERROR,4		
22550	0074 00 4 00106	TSX OK,4		
22551	0020 00 0 22545	TRA *-4		

TESTING XRE PSN 8 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22552	606751056060	BCD 1 XR5		
22553	0774 00 5 00777	AXT 00511,5		XR 00777 A 770001
22554	-3 01000 5 22556	TXL **002,5,512		DECR 01000 B 01000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
22555	0074 00 4 00105	TSX ERROR,4		
22556	0074 00 4 00106	TSX OK,4		
22557	0020 00 0 22553	TRA *-4		

TESTING XRE PSN 9 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22560	606751056060	BCD 1 XR5		
22561	0774 00 5 00777	AXT 00511,5		XR 00777 A 770001
22562	3 00400 5 22564	TXH **002,5,256		DECR 00400 B 00400
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
22563	0074 00 4 00105	TSX ERROR,4		
22564	0074 00 4 00106	TSX OK,4		
22565	0020 00 0 22561	TRA *-4		

TESTING XRE PSN 9 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22566	606751056060	BCD 1 XR5		
22567	0774 00 5 00377	AXT 00255,5		XR 00377 A 774001
22570	-3 00400 5 22572	TXL **002,5,256		DECR 00200 B 00200
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
22571	0074 00 4 00105	TSX ERROR,4		
22572	0074 00 4 00106	TSX OK,4		
22573	0020 00 0 22567	TRA *-4		

9M71/768
2/1/63
PAGE 392

SECTION ONE
PART III

TESTING XRE PSN 10 TO HOLD A BIT.

22574 606751056060
22575 0774 00 5 00377
22576 3 00200 5 22600
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

BCD 1 XR5
AXT 00255,5
TXH *+002,5,128

22577 0074 00 4 00105
22600 0074 00 4 00106
22601 0020 00 0 22575

TSX ERROR,4
TSX OK,4
TRA *-4

INITIAL COND. XAD INPUT

XR 00377 A 774001
DECR 00200 B 00200

TESTING XRE PSN 10 TO HOLD A HOT BIT

22602 606751056060
22603 0774 00 5 00177
22604 -3 00200 5 22606
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

BCD 1 XR5
AXT 00127,5
TXL *+002,5,128

22605 0074 00 4 00105
22606 0074 00 4 00106
22607 0020 00 0 22603

TSX ERROR,4
TSX OK,4
TRA *-4

INITIAL COND. XAD INPUT

XR 00177 A 776001
DECR 00200 B 00200

TESTING XRE PSN 11 TO HOLD A BIT.

22610 606751056060
22611 0774 00 5 00177
22612 3 00100 5 22614
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

BCD 1 XR5
AXT 00127,5
TXH *+002,5,64

22613 0074 00 4 00105
22614 0074 00 4 00106
22615 0020 00 0 22611

TSX ERROR,4
TSX OK,4
TRA *-4

INITIAL COND. XAD INPUT

XR 00177 A 776001
DECR 00100 B 00100

TESTING XRE PSN 11 TO HOLD A HOT BIT

22616 606751056060
22617 0774 00 5 00077
22620 -3 00100 5 22622
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

BCD 1 XR5
AXT 00063,5
TXL *+002,5,64

22621 0074 00 4 00105
22622 0074 00 4 00106
22623 0020 00 0 22617

TSX ERROR,4
TSX OK,4
TRA *-4

INITIAL COND. XAD INPUT

XR 00077 A 777001
DECR 00100 B 00100

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 393

TESTING XRE PSN 12 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22624	606751056060	BCD 1 XR5
22625	0774 00 5 00077	AXT 00063,5
22626	3 00040 5 22630	TXH *+002,5,32
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.		

XR 00077	A 777001
DECR 00040	B 00040

22627	0074 00 4 00105	TSX ERROR,4
22630	0074 00 4 00106	TSX OK,4
22631	0020 00 0 22625	TRA *-4

TESTING XRE PSN 12 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22632	606751056060	BCD 1 XR5
22633	0774 00 5 00037	AXT 00031,5
22634	-3 00040 5 22636	TXL *+002,5,32
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.		

XR 00037	A 777401
DECR 00040	B 00040

22635	0074 00 4 00105	TSX ERROR,4
22636	0074 00 4 00106	TSX OK,4
22637	0020 00 0 22633	TRA *-4

TESTING XRE PSN 13 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22640	606751056060	BCD 1 XR5
22641	0774 00 5 00037	AXT 00031,5
22642	3 00020 5 22644	TXH *+002,5,16
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.		

XR 00037	A 777401
DECR 00020	B 00020

22643	0074 00 4 00105	TSX ERROR,4
22644	0074 00 4 00106	TSX OK,4
22645	0020 00 0 22641	TRA *-4

TESTING XRE PSN 13 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22646	606751056060	BCD 1 XR5
22647	0774 00 5 00017	AXT 00015,5
22650	-3 00020 5 22652	TXL *+002,5,16
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.		

XR 00017	A 777601
DECR 00020	B 00020

22651	0074 00 4 00105	TSX ERROR,4
22652	0074 00 4 00106	TSX OK,4
22653	0020 00 0 22647	TRA *-4

9M71/768
2/1/63
PAGE 394

SECTION ONE
PART III

TESTING XRE PSN 14 TO HOLD A BIT.

22654 606751056060 BCD 1 XR5
22655 0774 00 5 00017 AXT 00015,5
22656 3 00010 5 22660 TXH *+002,5,8
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

22657 0074 00 4 00105 TSX ERROR,4
22660 0074 00 4 00106 TSX OK,4
22661 0020 00 0 22655 TRA *-4

INITIAL COND. XAD INPUT

XR 00017 A 777601
DECR 00010 B 00010

TESTING XRE PSN 14 TO HOLD A HOT BIT

22662 606751056060 BCD 1 XR5
22663 0774 00 5 00007 AXT 00007,5
22664 -3 00010 5 22666 TXL *+002,5,8
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

22665 0074 00 4 00105 TSX ERROR,4
22666 0074 00 4 00106 TSX OK,4
22667 0020 00 0 22663 TRA *-4

INITIAL COND. XAD INPUT

XR 00007 A 777701
DECR 00010 B 00010

TESTING XRE PSN 15 TO HOLD A BIT.

22670 606751056060 BCD 1 XR5
22671 0774 00 5 00007 AXT 00007,5
22672 3 00004 5 22674 TXH *+002,5,4
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

22673 0074 00 4 00105 TSX ERROR,4
22674 0074 00 4 00106 TSX OK,4
22675 0020 00 0 22671 TRA *-4

INITIAL COND. XAD INPUT

XR 00007 A 777701
DECR 00004 B 00004

TESTING XRE PSN 15 TO HOLD A HOT BIT

22676 606751056060 BCD 1 XR5
22677 0774 00 5 00003 AXT 00003,5
22700 -3 00004 5 22702 TXL *+002,5,4
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

22701 0074 00 4 00105 TSX ERROR,4
22702 0074 00 4 00106 TSX OK,4
22703 0020 00 0 22677 TRA *-4

INITIAL COND. XAD INPUT

XR 00003 A 777741
DECR 00004 B 00004

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 395

TESTING XRE PSN 16 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22704 606751056060 BCD 1 XR5
22705 0774 00 5 00003 AXT 00003,5
22706 3 00002 5 22710 TXH **002,5,2
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00003 A 777741
DECR 00002 B 00002

22707 0074 00 4 00105 TSX ERROR,4
22710 0074 00 4 00106 TSX OK,4
22711 0020 00 0 22705 TRA *-4

TESTING XRE PSN 16 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22712 606751056060 BCD 1 XR5
22713 0774 00 5 00001 AXT 00001,5
22714 -3 00002 5 22716 TXH **002,5,2
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00001 A 777761
DECR 00002 B 00002

22715 0074 00 4 00105 TSX ERROR,4
22716 0074 00 4 00106 TSX OK,4
22717 0020 00 0 22713 TRA *-4

TESTING XRE PSN 17 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22720 606751056060 BCD 1 XR5
22721 0774 00 5 00001 AXT 00001,5
22722 3 00000 5 22724 TXH **002,5,0
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00001 A 777761
DECR 00000 B 00000

22723 0074 00 4 00105 TSX ERROR,4
22724 0074 00 4 00106 TSX OK,4
22725 0020 00 0 22721 TRA *-4

TESTING XRE PSN 17 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22726 606751056060 BCD 1 XR5
22727 0774 00 5 00000 AXT 00000,5
22730 -3 00001 5 22732 TXL **002,5,1
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00000 A 777771
DECR 00001 B 00001

22731 0074 00 4 00105 TSX ERROR,4
22732 0074 00 4 00106 TSX OK,4
22733 0020 00 0 22727 TRA *-4

9M71/76B
2/1/63
PAGE 396

SECTION ONE
PART III

TESTING XRF PSN 3 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22734 606751066060
22735 0760 00 0 00016

BCD 1 XR6
LMTM

22736 0774 00 6 77777
22737 3 40000 6 22741

AXT 32767,6
TXH **002,6,16384

XR 77777 A 000001
DECR 40000 B 40000

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

22740 0074 00 4 00105
22741 0074 00 4 00106
22742 0020 00 0 22735

TSX ERROR,4
TSX OK,4
TRA *-5

TESTING XRF PSN 3 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22743 606751066060
22744 0774 00 6 37777
22745 -3 40000 6 22747

BCD 1 XR6
AXT 16383,6
TXL **002,6,16384

XR 37777 A 400001
DECR 40000 B 40000

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

22746 0074 00 4 00105
22747 0074 00 4 00106
22750 0020 00 0 22744

TSX ERROR,4
TSX OK,4
TRA *-4

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 397

TESTING XRF PSN 4 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22751	606751066060	BCD 1 XR6		
22752	0774 00 6 37777	AXT 16383,6	XR 37777	A 400001
22753	3 20000 6 22755	TXH *+002,6,8192	DECR 20000	B 20000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
22754	0074 00 4 00105	TSX ERROR,4		
22755	0074 00 4 00106	TSX OK,4		
22756	0020 00 0 22752	TRA *-4		

TESTING XRF PSN 4 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22757	606751066060	BCD 1 XR6		
22760	0774 00 6 17777	AXT 08191,6	XR 17777	A 600001
22761	-3 20000 6 22763	TXL *+002,6,8192	DECR 20000	B 20000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
22762	0074 00 4 00105	TSX ERROR,4		
22763	0074 00 4 00106	TSX OK,4		
22764	0020 00 0 22760	TRA *-4		

TESTING XRF PSN 5 TO HOLD A BIT.

INITIAL COND. XAD INPUT

22765	606751066060	BCD 1 XR6		
22766	0774 00 6 17777	AXT 08191,6	XR 17777	A 600001
22767	3 10000 6 22771	TXH *+002,6,4096	DECR 10000	B 10000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
22770	0074 00 4 00105	TSX ERROR,4		
22771	0074 00 4 00106	TSX OK,4		
22772	0020 00 0 22766	TRA *-4		

TESTING XRF PSN 5 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

22773	606751066060	BCD 1 XR6		
22774	0774 00 6 07777	AXT 04095,6	XR 07777	A 700001
22775	-3 10000 6 22777	TXL *+002,6,4096	DECR 10000	B 10000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
22776	0074 00 4 00105	TSX ERROR,4		
22777	0074 00 4 00106	TSX OK,4		
23000	0020 00 0 22774	TRA *-4		

9M71/76B
2/1/63
PAGE 398

SECTION ONE
PART III

TESTING XRF PSN 6 TO HOLD A BIT.

23001 606751066060
23002 0774 00 6 07777
23003 3 04000 6 23005
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

23004 0074 00 4 00105
23005 0074 00 4 00106
23006 0020 00 0 23002

INITIAL COND. XAD INPUT

XR 07777 A 700001
DECR 04000 B 04000

BCD 1 XR6
AXT 04095,6

TXH *+002,6,2048

TSX ERROR,4
TSX OK,4
TRA *-4

TESTING XRF PSN 6 TO HOLD A HOT BIT

23007 606751066060
23010 0774 00 6 03777
23011 -3 04000 6 23013
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

INITIAL COND. XAD INPUT

XR 03777 A 740001
DECR 04000 B 04000

BCD 1 XR6
AXT 02047,6

TXL *+002,6,2048

TSX ERROR,4
TSX OK,4
TRA *-4

23012 0074 00 4 00105
23013 0074 00 4 00106
23014 0020 00 0 23010

TESTING XRF PSN 7 TO HOLD A BIT.

23015 606751066060
23016 0774 00 6 03777
23017 3 02000 6 23021
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

INITIAL COND. XAD INPUT

XR 03777 A 740001
DECR 02000 B 02000

BCD 1 XR6
AXT 02047,6

TXH *+002,6,1024

TSX ERROR,4
TSX OK,4
TRA *-4

23020 0074 00 4 00105
23021 0074 00 4 00106
23022 0020 00 0 23016

TESTING XRF PSN 7 TO HOLD A HOT BIT

23023 606751066060
23024 0774 00 6 01777
23025 -3 02000 6 23027
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

INITIAL COND. XAD INPUT

XR 01777 A 760001
DECR 02000 B 02000

BCD 1 XR6
AXT 01023,6

TXL *+002,6,1024

TSX ERROR,4
TSX OK,4
TRA *-4

23026 0074 00 4 00105
23027 0074 00 4 00106
23030 0020 00 0 23024

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 399

TESTING XRF PSN 8 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23031	606751066060	BCD 1 XR6		
23032	0774 00 6 01777	AXT 01023,6	XR 01777	A 760001
23033	3 01000 6 23035	TXH *+002,6,512	DECR 01000	B 01000
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23034	0074 00 4 00105	TSX ERROR,4		
23035	0074 00 4 00106	TSX OK,4		
23036	0020 00 0 23032	TRA *-4		

TESTING XRF PSN 8 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23037	606751066060	BCD 1 XR6		
23040	0774 00 6 00777	AXT 00511,6	XR 00777	A 770001
23041	-3 01000 6 23043	TXL *+002,6,512	DECR 01000	B 01000
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23042	0074 00 4 00105	TSX ERROR,4		
23043	0074 00 4 00106	TSX OK,4		
23044	0020 00 0 23040	TRA *-4		

TESTING XRF PSN 9 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23045	606751066060	BCD 1 XR6		
23046	0774 00 6 00777	AXT 00511,6	XR 00777	A 770001
23047	3 00400 6 23051	TXH *+002,6,256	DECR 00400	B 00400
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23050	0074 00 4 00105	TSX ERROR,4		
23051	0074 00 4 00106	TSX OK,4		
23052	0020 00 0 23046	TRA *-4		

TESTING XRF PSN 9 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23053	606751066060	BCD 1 XR6		
23054	0774 00 6 00377	AXT 00255,6	XR 00377	A 774001
23055	-3 00400 6 23057	TXL *+002,6,256	DECR 00200	B 00200
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23056	0074 00 4 00105	TSX ERROR,4		
23057	0074 00 4 00106	TSX OK,4		
23060	0020 00 0 23054	TRA *-4		

9M71/768
2/1/63
PAGE 400

SECTION ONE
PART III

TESTING XRF PSN 10 TO HOLD A BIT.

23061 606751066060
23062 0774 00 6 00377
23063 3 00200 6 23065
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

BCD 1 XR6
AXT 00255,6
TXH *+002,6,128

INITIAL COND. XAD INPUT

XR 00377 A 774001
DECR 00200 B 00200

23064 0074 00 4 00105
23065 0074 00 4 00106
23066 0020 00 0 23062

TSX ERROR,4
TSX OK,4
TRA *-4

TESTING XRF PSN 10 TO HOLD A HOT BIT

23067 606751066060
23070 0774 00 6 00177
23071 -3 00200 6 23073
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

BCD 1 XR6
AXT 00127,6
TXL *+002,6,128

INITIAL COND. XAD INPUT

XR 00177 A 776001
DECR 00200 B 00200

23072 0074 00 4 00105
23073 0074 00 4 00106
23074 0020 00 0 23070

TSX ERROR,4
TSX OK,4
TRA *-4

TESTING XRF PSN 11 TO HOLD A BIT.

23075 606751066060
23076 0774 00 6 00177
23077 3 00100 6 23101
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

BCD 1 XR6
AXT 00127,6
TXH *+002,6,64

INITIAL COND. XAD INPUT

XR 00177 A 776001
DECR 00100 B 00100

23100 0074 00 4 00105
23101 0074 00 4 00106
23102 0020 00 0 23076

TSX ERROR,4
TSX OK,4
TRA *-4

TESTING XRF PSN 11 TO HOLD A HOT BIT

23103 606751066060
23104 0774 00 6 00077
23105 -3 00100 6 23107
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

BCD 1 XR6
AXT 00063,6
TXL *+002,6,64

INITIAL COND. XAD INPUT

XR 00077 A 777001
DECR 00100 B 00100

23106 0074 00 4 00105
23107 0074 00 4 00106
23110 0020 00 0 23104

TSX ERROR,4
TSX OK,4
TRA *-4

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 401

TESTING XRF PSN 12 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23111	606751066060	BCD 1 XR6		
23112	0774 00 6 00077	AXT 00063,6		XR 00077 A 777001
23113	3 00040 6 23115	TXH *+002,6,32		DECR 00040 B 00040
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23114	0074 00 4 00105	TSX ERROR,4		
23115	0074 00 4 00106	TSX OK,4		
23116	0020 00 0 23112	TRA *-4		

TESTING XRF PSN 12 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23117	606751066060	BCD 1 XR6		
23120	0774 00 6 00037	AXT 00031,6		XR 00037 A 777401
23121	-3 00040 6 23123	TXL *+002,6,32		DECR 00040 B 00040
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23122	0074 00 4 00105	TSX ERROR,4		
23123	0074 00 4 00106	TSX OK,4		
23124	0020 00 0 23120	TRA *-4		

TESTING XRF PSN 13 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23125	606751066060	BCD 1 XR6		
23126	0774 00 6 00037	AXT 00031,6		XR 00037 A 777401
23127	3 00020 6 23131	TXH *+002,6,16		DECR 00020 B 00020
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23130	0074 00 4 00105	TSX ERROR,4		
23131	0074 00 4 00106	TSX OK,4		
23132	0020 00 0 23126	TRA *-4		

TESTING XRF PSN 13 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23133	606751066060	BCD 1 XR6		
23134	0774 00 6 00017	AXT 00015,6		XR 00017 A 777601
23135	-3 00020 6 23137	TXL *+002,6,16		DECR 00020 B 00020
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23136	0074 00 4 00105	TSX ERROR,4		
23137	0074 00 4 00106	TSX OK,4		
23140	0020 00 0 23134	TRA *-4		

9M71/768
2/1/63
PAGE 402

S E C T I O N O N E
P A R T I I I

TESTING XRF PSN 14 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23141 606751066060 BCD 1 XR6
23142 0774 00 6 00017 AXT 00015,6
23143 3 00010 6 23145 TXH *+002,6,8
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00017 A 777601
DECR 00010 B 00010

23144 0074 00 4 00105 TSX ERROR,4
23145 0074 00 4 00106 TSX OK,4
23146 0020 00 0 23142 TRA *-4

TESTING XRF PSN 14 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23147 606751066060 BCD 1 XR6
23150 0774 00 6 00007 AXT 00007,6
23151 -3 00010 6 23153 TXL *+002,6,8
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00007 A 777701
DECR 00010 B 00010

23152 0074 00 4 00105 TSX ERROR,4
23153 0074 00 4 00106 TSX OK,4
23154 0020 00 0 23150 TRA *-4

TESTING XRF PSN 15 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23155 606751066060 BCD 1 XR6
23156 0774 00 6 00007 AXT 00007,6
23157 3 00004 6 23161 TXH *+002,6,4
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00007 A 777701
DECR 00004 B 00004

23160 0074 00 4 00105 TSX ERROR,4
23161 0074 00 4 00106 TSX OK,4
23162 0020 00 0 23156 TRA *-4

TESTING XRF PSN 15 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23163 606751066060 BCD 1 XR6
23164 0774 00 6 00003 AXT 00003,6
23165 -3 00004 6 23167 TXL *+002,6,4
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00003 A 777741
DECR 00004 B 00004

23166 0074 00 4 00105 TSX ERROR,4
23167 0074 00 4 00106 TSX OK,4
23170 0020 00 0 23164 TRA *-4

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 403

TESTING XRF PSN 16 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23171	606751066060	BCD 1 XR6
23172	0774 00 6 00003	AXT 00003,6
23173	3 00002 6 23175	TXH *+002,6,2

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00003	A 777741
DECR 00002	B 00002

23174	0074 00 4 00105	TSX ERROR,4
23175	0074 00 4 00106	TSX OK,4
23176	0020 00 0 23172	TRA *-4

TESTING XRF PSN 16 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23177	606751066060	BCD 1 XR6
23200	0774 00 6 00001	AXT 00001,6
23201	-3 00002 6 23203	TXL *+002,6,2

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00001	A 777761
DECR 00002	B 00002

23202	0074 00 4 00105	TSX ERROR,4
23203	0074 00 4 00106	TSX OK,4
23204	0020 00 0 23200	TRA *-4

TESTING XRF PSN 17 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23205	606751066060	BCD 1 XR6
23206	0774 00 6 00001	AXT 00001,6
23207	3 00000 6 23211	TXH *+002,6,0

TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00001	A 777761
DECR 00000	B 00000

23210	0074 00 4 00105	TSX ERROR,4
23211	0074 00 4 00106	TSX OK,4
23212	0020 00 0 23206	TRA *-4

TESTING XRF PSN 17 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

3213	606751066060	BCD 1 XR6
23214	0774 00 6 00000	AXT 00000,6
23215	-3 00001 6 23217	TXL *+002,6,1

TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00000	A 777771
DECR 00001	B 00001

23216	0074 00 4 00105	TSX ERROR,4
23217	0074 00 4 00106	TSX OK,4
23220	0020 00 0 23214	TRA *-4

9M71/76B
2/1/63
PAGE 404

SECTION ONE
PART III

TESTING XRG PSN 3 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23221	606751076060			
23222	0760 00 0 00016	BCD 1 XR7		
		LMTM		
23223	0774 00 7 77777	AXT 32767,7		
23224	3 40000 7 23226	TXH **002,7,16384	XR 77777	A 000001
	TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.		DECR 40000	B 40000
23225	0074 00 4 00105			
23226	0074 00 4 00106	TSX ERROR,4		
23227	0020 00 0 23222	TSX OK,4		
		TRA *-5		

TESTING XRG PSN 3 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23230	606751076060			
23231	0774 00 7 37777	BCD 1 XR7		
23232	-3 40000 7 23234	AXT 16383,7		
	TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.	TXL **002,7,16384	XR 37777	A 400001
			DECR 40000	B 40000
23233	0074 00 4 00105			
23234	0074 00 4 00106	TSX ERROR,4		
23235	0020 00 0 23231	TSX OK,4		
		TRA *-4		

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 405

TESTING XRG PSN 4 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23236	606751076060	BCD 1 XR7		
23237	0774 00 7 37777	AXT 16383,7	XR 37777	A 400001
23240	3 20000 7 23242	TXH **002,7,8192	DECR 20000	B 20000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
23241	0074 00 4 00105	TSX ERROR,4		
23242	0074 00 4 00106	TSX OK,4		
23243	0020 00 0 23237	TRA *-4		

TESTING XRG PSN 4 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23244	606751076060	BCD 1 XR7		
23245	0774 00 7 17777	AXT 08191,7	XR 17777	A 600001
23246	-3 20000 7 23250	TXL **002,7,8192	DECR 20000	B 20000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
23247	0074 00 4 00105	TSX ERROR,4		
23250	0074 00 4 00106	TSX OK,4		
23251	0020 00 0 23245	TRA *-4		

TESTING XRG PSN 5 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23252	606751076060	BCD 1 XR7		
23253	0774 00 7 17777	AXT 08191,7	XR 17777	A 600001
23254	3 10000 7 23256	TXH **002,7,4096	DECR 10000	B 10000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
23255	0074 00 4 00105	TSX ERROR,4		
23256	0074 00 4 00106	TSX OK,4		
23257	0020 00 0 23253	TRA *-4		

TESTING XRG PSN 5 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23260	606751076060	BCD 1 XR7		
23261	0774 00 7 07777	AXT 04095,7	XR 07777	A 700001
23262	-3 10000 7 23264	TXL **002,7,4096	DECR 10000	B 10000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
23263	0074 00 4 00105	TSX ERROR,4		
23264	0074 00 4 00106	TSX OK,4		
23265	0020 00 0 23261	TRA *-4		

9M71/768
2/1/63
PAGE 406

SECTION ONE
PART III

TESTING XRG PSN 6 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23266	606751076060	BCD 1 XR7		
23267	0774 00 7 07777	AXT 04095,7	XR 07777	A 700001
23270	3 04000 7 23272	TXH **002,7,2048	DECR 04000	B 04000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
23271	0074 00 4 00105	TSX ERROR,4		
23272	0074 00 4 00106	TSX OK,4		
23273	0020 00 0 23267	TRA *-4		

TESTING XRG PSN 6 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23274	606751076060	BCD 1 XR7		
23275	0774 00 7 03777	AXT 02047,7	XR 03777	A 740001
23276	-3 04000 7 23300	TXL **002,7,2048	DECR 04000	B 04000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
23277	0074 00 4 00105	TSX ERROR,4		
23300	0074 00 4 00106	TSX OK,4		
23301	0020 00 0 23275	TRA *-4		

TESTING XRG PSN 7 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23302	606751076060	BCD 1 XR7		
23303	0774 00 7 03777	AXT 02047,7	XR 03777	A 740001
23304	3 02000 7 23306	TXH **002,7,1024	DECR 02000	B 02000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.				
23305	0074 00 4 00105	TSX ERROR,4		
23306	0074 00 4 00106	TSX OK,4		
23307	0020 00 0 23303	TRA *-4		

TESTING XRG PSN 7 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23310	606751076060	BCD 1 XR7		
23311	0774 00 7 01777	AXT 01023,7	XR 01777	A 760001
23312	-3 02000 7 23314	TXL **002,7,1024	DECR 02000	B 02000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.				
23313	0074 00 4 00105	TSX ERROR,4		
23314	0074 00 4 00106	TSX OK,4		
23315	0020 00 0 23311	TRA *-4		

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 407

TESTING XRG PSN 8 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23316 606751076060	BCD 1 XR7		
23317 0774 00 7 01777	AXT 01023,7	XR 01777	A 760001
23320 3 01000 7 23322	TXH **002,7,512	DECR 01000	B 01000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23321 0074 00 4 00105	TSX ERROR,4		
23322 0074 00 4 00106	TSX OK,4		
23323 0020 00 0 23317	TRA *-4		

TESTING XRG PSN 8 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23324 606751076060	BCD 1 XR7		
23325 0774 00 7 00777	AXT 00511,7	XR 00777	A 770001
23326 -3 01000 7 23330	TXL **002,7,512	DECR 01000	B 01000
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23327 0074 00 4 00105	TSX ERROR,4		
23330 0074 00 4 00106	TSX OK,4		
23331 0020 00 0 23325	TRA *-4		

TESTING XRG PSN 9 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23332 606751076060	BCD 1 XR7		
23333 0774 00 7 00777	AXT 00511,7	XR 00777	A 770001
23334 3 00400 7 23336	TXH **002,7,256	DECR 00400	B 00400
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23335 0074 00 4 00105	TSX ERROR,4		
23336 0074 00 4 00106	TSX OK,4		
23337 0020 00 0 23333	TRA *-4		

TESTING XRG PSN 9 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23340 606751076060	BCD 1 XR7		
23341 0774 00 7 00377	AXT 00255,7	XR 00377	A 774001
23342 -3 00400 7 23344	TXL **002,7,256	DECR 00200	B 00200
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23343 0074 00 4 00105	TSX ERROR,4		
23344 0074 00 4 00106	TSX OK,4		
23345 0020 00 0 23341	TRA *-4		

9M71/76B
2/1/63
PAGE 408

S E C T I O N O N E
P A R T I I I

TESTING XRG PSN 10 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23346 606751076060 BCD 1 XR7
23347 0774 00 7 00377 AXT 00255,7
23350 3 00200 7 23352 TXH *+002,7,128
 TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00377 A 774001
DECR 00200 B 00200

23351 0074 00 4 00105 TSX ERROR,4
23352 0074 00 4 00106 TSX OK,4
23353 0020 00 0 23347 TRA *-4

TESTING XRG PSN 10 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23354 606751076060 BCD 1 XR7
23355 0774 00 7 00177 AXT 00127,7
23356 -3 00200 7 23360 TXL *+002,7,128
 TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00177 A 776001
DECR 00200 B 00200

23357 0074 00 4 00105 TSX ERROR,4
23360 0074 00 4 00106 TSX OK,4
23361 0020 00 0 23355 TRA *-4

TESTING XRG PSN 11 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23362 606751076060 BCD 1 XR7
23363 0774 00 7 00177 AXT 00127,7
23364 3 00100 7 23366 TXH *+002,7,64
 TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

XR 00177 A 776001
DECR 00100 B 00100

23365 0074 00 4 00105 TSX ERROR,4
23366 0074 00 4 00106 TSX OK,4
23367 0020 00 0 23363 TRA *-4

TESTING XRG PSN 11 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23370 606751076060 BCD 1 XR7
23371 0774 00 7 00077 AXT 00063,7
23372 -3 00100 7 23374 TXL *+002,7,64
 TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

XR 00077 A 777001
DECR 00100 B 00100

23373 0074 00 4 00105 TSX ERROR,4
23374 0074 00 4 00106 TSX OK,4
23375 0020 00 0 23371 TRA *-4

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 409

TESTING XRG PSN 12 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23376 606751076060	BCD 1 XR7		
23377 0774 00 7 00077	AXT 00063,7	XR 00077	A 777001
23400 3 00040 7 23402	TXH *+002,7,32	DECR 00040	B 00040
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23401 0074 00 4 00105	TSX ERROR,4		
23402 0074 00 4 00106	TSX OK,4		
23403 0020 00 0 23377	TRA *-4		

TESTING XRG PSN 12 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23404 606751076060	BCD 1 XR7		
23405 0774 00 7 00037	AXT 00031,7	XR 00037	A 777401
23406 -3 00040 7 23410	TXL *+002,7,32	DECR 00040	B 00040
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23407 0074 00 4 00105	TSX ERROR,4		
23410 0074 00 4 00106	TSX OK,4		
23411 0020 00 0 23405	TRA *-4		

TESTING XRG PSN 13 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23412 606751076060	BCD 1 XR7		
23413 0774 00 7 00037	AXT 00031,7	XR 00037	A 777401
23414 3 00020 7 23416	TXH *+002,7,16	DECR 00020	B 00020
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23415 0074 00 4 00105	TSX ERROR,4		
23416 0074 00 4 00106	TSX OK,4		
23417 0020 00 0 23413	TRA *-4		

TESTING XRG PSN 13 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23420 606751076060	BCD 1 XR7		
23421 0774 00 7 00017	AXT 00015,7	XR 00017	A 777601
23422 -3 00020 7 23424	TXL *+002,7,16	DECR 00020	B 00020
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23423 0074 00 4 00105	TSX ERROR,4		
23424 0074 00 4 00106	TSX OK,4		
23425 0020 00 0 23421	TRA *-4		

9M71/768
2/1/63
PAGE 410

SECTION ONE
PART III

TESTING XRG PSN 14 TO HOLD A BIT.

23426 606751076060
23427 0774 00 7 00017
23430 3 00010 7 23432
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

BCD 1 XR7
AXT 00015,7
TXH *+002,7,8

INITIAL COND. XAD INPUT

XR 00017 A 777601
DECR 00010 B 00010

23431 0074 00 4 00105
23432 0074 00 4 00106
23433 0020 00 0 23427

TSX ERROR,4
TSX OK,4
TRA *-4

TESTING XRG PSN 14 TO HOLD A HOT BIT

23434 606751076060
23435 0774 00 7 00007
23436 -3 00010 7 23440
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

BCD 1 XR7
AXT 00007,7
TXL *+002,7,8

INITIAL COND. XAD INPUT

XR 00007 A 777701
DECR 00010 B 00010

23437 0074 00 4 00105
23440 0074 00 4 00106
23441 0020 00 0 23435

TSX ERROR,4
TSX OK,4
TRA *-4

TESTING XRG PSN 15 TO HOLD A BIT.

23442 606751076060
23443 0774 00 7 00007
23444 3 00004 7 23446
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.

BCD 1 XR7
AXT 00007,7
TXH *+002,7,4

INITIAL COND. XAD INPUT

XR 00007 A 777701
DECR 00004 B 00004

23445 0074 00 4 00105
23446 0074 00 4 00106
23447 0020 00 0 23443

TSX ERROR,4
TSX OK,4
TRA *-4

TESTING XRG PSN 15 TO HOLD A HOT BIT

23450 606751076060
23451 0774 00 7 00003
23452 -3 00004 7 23454
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.

BCD 1 XR7
AXT 00003,7
TXL *+002,7,4

INITIAL COND. XAD INPUT

XR 00003 A 777741
DECR 00004 B 00004

23453 0074 00 4 00105
23454 0074 00 4 00106
23455 0020 00 0 23451

TSX ERROR,4
TSX OK,4
TRA *-4

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 411

TESTING XRG PSN 16 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23456 606751076060	BCD 1 XR7		
23457 0774 00 7 00003	AXT 00003,7	XR 00003	A 777741
23460 3 00002 7 23462	TXH *+002,7,2	DECR 00002	B 00002
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23461 0074 00 4 00105	TSX ERROR,4		
23462 0074 00 4 00106	TSX OK,4		
23463 0020 00 0 23457	TRA *-4		

TESTING XRG PSN 16 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23464 606751076060	BCD 1 XR7		
23465 0774 00 7 00001	AXT 00001,7	XR 00001	A 777761
23466 -3 00002 7 23470	TXL *+002,7,2	DECR 00002	B 00002
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23467 0074 00 4 00105	TSX ERROR,4		
23470 0074 00 4 00106	TSX OK,4		
23471 0020 00 0 23465	TRA *-4		

TESTING XRG PSN 17 TO HOLD A BIT.

INITIAL COND. XAD INPUT

23472 606751076060	BCD 1 XR7		
23473 0774 00 7 00001	AXT 00001,7	XR 00001	A 777761
23474 3 00000 7 23476	TXH *+002,7,0	DECR 00000	B 00000
TXH SHOULD TRANSFER WITH XAD3 CARRY TGR OFF.			
23475 0074 00 4 00105	TSX ERROR,4		
23476 0074 00 4 00106	TSX OK,4		
23477 0020 00 0 23473	TRA *-4		

TESTING XRG PSN 17 TO HOLD A HOT BIT

INITIAL COND. XAD INPUT

23500 606751076060	BCD 1 XR7		
23501 0774 00 7 00000	AXT 00000,7	XR 00000	A 777771
23502 -3 00001 7 23504	TXL *+002,7,1	DECR 00001	B 00001
TXL SHOULD TRANSFER WITH XAD3 CARRY TGR ON.			
23503 0074 00 4 00105	TSX ERROR,4		
23504 0074 00 4 00106	TSX OK,4		
23505 0020 00 0 23501	TRA *-4		

SECTION ONE
PART III

TEST PAX, PDX, PAC, PDC

23506 472167606722
23507 0600 00 0 26603
23510 0774 00 2 00001
23511 0500 00 0 23512
23512 0734 00 2 26603

BCD 1PAX XB
STZ T1
AXT 1,2
CLA *+1
PAX T1,2

23513 -0520 00 0 26603
23514 0020 00 0 23517
23515 0560 00 0 26173
23516 0074 00 4 00105
23517 0074 00 4 00106
23520 0020 00 0 23507

NZT T1
TRA *+3
LDQ BZERO
TSX ERROR,4
TSX OK,4
TRA *-9

SHOULD NOT SKIP

CLEAR MQ
PAX BRINGS UP STORE LINES

23521 472167606722
23522 0500 00 0 26173
23523 0560 00 0 26173
23524 0734 00 2 00377

BCD 1PAX XB
CLA BZERO
LDQ BZERO
PAX 255,2

SHOULD CLEAR XRB

23525 -3 00000 2 23527
23526 0074 00 4 00105
23527 0074 00 4 00106
23530 0020 00 0 23522

TXL *+2,2,0
TSX ERROR,4
TSX OK,4
TRA *-6

PAX DOES NOT GATE AC-SR

23531 472167606722
23532 0500 00 0 26173
23533 0774 00 2 00777
23534 0734 00 2 26174

BCD 1PAX XB
CLA BZERO
AXT 511,2
PAX BONES,2

CLEAR AC
00777 TO XRB
SHOULD CLEAR XRB

23535 -3 00000 2 23537
23536 0074 00 4 00105
23537 0074 00 4 00106
23540 0020 00 0 23532

TXL *+2,2,0
TSX ERROR,4
TSX OK,4
TRA *-6

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 413

• TEST PAX, PDX, PAC, PDC

23541	472167606722	BCD	1PAX	XB	
23542	0774 00 2 00000	AXT	0,2		
23543	0500 00 0 26506	CLA	B21T35		+000000077777
23544	0734 00 2 00000	PAX	0,2		
23545	3 77776 2 23547	TXH	*+2,2,32766		SHOULD TRANSFER
23546	0074 00 4 00105	TSX	ERROR,4		
23547	0074 00 4 00106	TSX	OK,4		
23550	0020 00 0 23542	TRA	*-6		

23551	472167606722	BCD	1PAX	XB	
23552	0500 00 0 26456	CLA	B3T5		+07000000000000
23553	0774 00 2 00777	AXT	511,2		
23554	0734 00 2 00000	PAX	0,2		SHOULD CLEAR XRB
23555	-3 00000 2 23557	TXL	*+2,2,0		SHOULD TRANSFER
23556	0074 00 4 00105	TSX	ERROR,4		PAX ENTERS BITS FROM 3-17
23557	0074 00 4 00106	TSX	OK,4		
23560	0020 00 0 23552	TRA	*-6		

23561	472167606722	BCD	1PAX	XB	
23562	0500 00 0 26514	CLA	GX4		+000003777377
23563	0734 00 2 00000	PAX	0,2		
23564	3 77376 2 23566	TXH	*+2,2,32510		
23565	0074 00 4 00105	TSX	ERROR,4		PAX COMPLEMENTS C XR
23566	0074 00 4 00106	TSX	OK,4		
23567	0020 00 0 23562	TRA	*-5		

23570	472123606722	BCD	1PAC	XB	
23571	0500 00 0 26240	CLA	B35		LOAD BIT IN AC COL 35
23572	0774 00 2 00000	AXT	0,2		
23573	0737 00 2 00000	PAC	0,2		
23574	3 00000 2 23576	TXH	*+2,2,0		
23575	0074 00 4 00105	TSX	ERROR,4		PAC DOES NOT ENTER BITS
23576	0074 00 4 00106	TSX	OK,4		IN INDEX REGISTER
23577	0020 00 0 23571	TRA	*-6		

9M71/76B
2/1/63
PAGE 414

S E C T I O N O N E
P A R T I I I

* TEST PAX, PDX, PAC, PDC

23600	472123606722	BCD	1PAC	XB	
23601	0500 00 0 26240	CLA	B35		
23602	0774 00 2 00000	AXT	0,2		
23603	0737 00 2 00000	PAC	0,2		ALL BITS TO XRB
23604	3 77776 2 23606	TXH	++2,2,32766		SHOULD TRANSFER
23605	0074 00 4 00105	TSX	ERROR,4		
23606	0074 00 4 00106	TSX	OK,4		
23607	0020 00 0 23601	TRA	*-6		

23610	472467606722	BCD	1PDX	XB	
23611	0500 00 0 26173	CLA	BZERO		
23612	-0734 00 2 00000	PDX	0,2		CLEAR XRB
23613	-3 00000 2 23615	TXL	++2,2,0		SHOULD TRANSFER
23614	0074 00 4 00105	TSX	ERROR,4		
23615	0074 00 4 00106	TSX	OK,4		
23616	0020 00 0 23611	TRA	*-5		

23617	472467606722	BCD	1PDX	XB	
23620	0500 00 0 26174	CLA	BONES		LOAD AC BITS IN 1-35
23621	0774 00 2 00000	AXT	0,2		
23622	-0734 00 2 00000	PDX	0,2		
23623	3 00000 2 23625	TXH	++2,2,0		SHOULD TRANSFER
23624	0074 00 4 00105	TSX	ERROR,4		
23625	0074 00 4 00106	TSX	OK,4		
23626	0020 00 0 23620	TRA	*-6		

23627	472467606722	BCD	1PDX	XB	
23630	0500 00 0 26552	CLA	B3T17		+077777000000
23631	0774 00 2 00777	AXT	511,2		
23632	-0734 00 2 00000	PDX	0,2		ALL BITS TO XRB
23633	3 77776 2 23635	TXH	++2,2,32766		SHOULD TRANSFER
23634	0074 00 4 00105	TSX	ERROR,4		
23635	0074 00 4 00106	TSX	OK,4		
23636	0020 00 0 23630	TRA	*-6		

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 415

TEST PAX, PDX, PAC, PDC

23637	472467606722	BCD	1PDX	XB	
23640	0500 00 0 26506	CLA	B21T35		+000000077777
23641	0774 00 2 00777	AXT	511,2		
23642	-0734 00 2 23642	PDX	*,2		
23643	--3 00000 2 23645	TXL	*,2,2,0		
23644	0074 00 4 00105	TSX	ERROR,4		PDX GATES AC ADDRESS TO XR
23645	0074 00 4 00106	TSX	OK,4		
23646	0020 00 0 23640	TRA	*-6		
23647	472423606722	BCD	1PDC	XB	
23650	0500 00 0 26215	CLA	B16		+000002000000
23651	0774 00 2 00777	AXT	511,2		
23652	-0737 00 2 23652	PDC	*,2		
23653	3 77775 2 23655	TXH	*,2,2,32765		SHOULD TRANSFER
23654	0074 00 4 00105	TSX	ERROR,4		
23655	0074 00 4 00106	TSX	OK,4		
23656	0020 00 0 23650	TRA	*-6		

9M71/76B
2/1/63
PAGE 416

S E C T I O N O N E
P A R T I I I

TEST PXA, PXD, PCA, PCD

23657 476721606722
23660 0500 00 0 26173
23661 -0774 00 2 00001
23662 0754 00 2 00000

BCD 1PXA XB
CLA BZERO
AXC 1,2
PXA 0,2

CLEAR AC
ALL BITS TO XRB

23663 -0100 00 0 23666
23664 0560 00 0 26506
23665 0074 00 4 00105
23666 0074 00 4 00106
23667 0020 00 0 23660

TNZ **3
LDQ B21T35
TSX ERROR,4
TSX OK,4
TRA *-7

SHOULD TRANSFER
PXA GATES NO BITS TO AC

23670 476721606722
23671 0500 00 0 26173
23672 -0774 00 2 00001
23673 0754 00 2 00000

BCD 1PXA XB
CLA BZERO
AXC 1,2
PXA 0,2

CLEAR AC
ALL ONES TO XRB

23674 -0765 00 0 00017
23675 0100 00 0 23701
23676 -0763 00 0 00017
23677 0560 00 0 26506
23700 0074 00 4 00105
23701 0074 00 4 00106
23702 0020 00 0 23671

LGR 15
TZE **4
LGL 15
LDQ B21T35
TSX ERROR,4
TSX OK,4
TRA *-9

SHIFT AC COL 20 TO AC 35

+000000077777
PXA PLACES BITS IN DEC

23703 476721606722
23704 0500 00 0 26175
23705 0754 00 2 00000
23706 0120 00 0 23711

BCD 1PXA XB
CLA BSIGN
PXA 0,2
TPL **3

SET AC SIGN PLUS

23707 0560 00 0 26506
23710 0074 00 4 00105
23711 0074 00 4 00106
23712 0020 00 0 23704

LDQ B21T35
TSX ERROR,4
TSX OK,4
TRA *-6

CLEAR MQ

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 417

* TEST PXA, PXD, PCA, PCD

23713	476721606722	BCD 1PXA XB	
23714	0774 00 2 00000	AXT 0,2	CLEAR XRB
23715	0500 00 0 26173	CLA BZERO	CLEAR AC
23716	0754 00 2 00000	PXA 0,2	
23717	0100 00 0 23722	TZE *+3	SHOULD TRANSFER
23720	0560 00 0 26173	LDQ BZERO	CLEAR MQ
23721	0074 00 4 00105	TSX ERROR,4	
23722	0074 00 4 00106	TSX OK,4	
23723	0020 00 0 23714	TRA *-7	

23724	476721606060	BCD 1PXA	
23725	0500 00 0 26311	CLA BS135	BITS TO AC P,1-35
23726	0754 00 0 00000	PXA 0,0	SHOULD CLEAR AC

23727	0100 00 0 23732	TZE *+3	SHOULD TRANSFER
23730	0560 00 0 26173	LDQ BZERO	
23731	0074 00 4 00105	TSX ERROR,4	
23732	0074 00 4 00106	TSX OK,4	
23733	0020 00 0 23725	TRA *-6	

23734	476721606722	BCD 1PXA XB	
23735	0774 00 2 07770	AXT 4088,2	
23736	0500 00 0 26174	CLA BONES	
23737	0754 00 2 23737	PXA *,2	AC SHOULD BE 000000007770
23740	0754 00 2 00000	PXA 0,2	SHOULD NOT CHANGE C AC

23741	0402 00 0 26474	SUB B24T32	
23742	0100 00 0 23746	TZE *+4	
23743	0400 00 0 26474	ADD B24T32	RESTORE AC
23744	0560 00 0 26474	LDQ B24T32	
23745	0074 00 4 00105	TSX ERROR,4	
23746	0074 00 4 00106	TSX OK,4	
23747	0020 00 0 23735	TRA *-10	

9M71/76B
2/1/63
PAGE 418

SECTION ONE
PART III

* TEST PXA, PXD, PCA, PCD

23750 476724606060
23751 0500 00 0 26174
23752 -0754 00 0 00000

BCD 1PXD
CLA BONES
PXD 0,0

ONES TO AC COLS 1-35
SHOULD CLEAR AC

23753 0100 00 0 23756
23754 0560 00 0 26173
23755 0074 00 4 00105
23756 0074 00 4 00106
23757 0020 00 0 23751

TZE *+3
LDQ BZERO
TSX ERROR,4
TSX OK,4
TRA *-6

CLEAR MQ
PXD WITH NO TAG
SHOULD CLEAR ACCUMULATOR

23760 476724606722
23761 0774 00 2 00000
23762 -0754 00 2 23762

BCD 1PXD XB
AXT 0,2
PXD *,2

SHOULD CLEAR AC

23763 0100 00 0 23766
23764 0560 00 0 26173
23765 0074 00 4 00105
23766 0074 00 4 00106
23767 0020 00 0 23761

TZE *+3
LDQ BZERO
TSX ERROR,4
TSX OK,4
TRA *-6

SHOULD TRANSFER

23770 476724606722
23771 0774 00 2 00740
23772 0754 00 0 00000
23773 -0754 00 2 00000

BCD 1PXD XB
AXT 480,2
PXA 0,0
PXD 0,2

00740 TO XRB
CLEAR AC

23774 -0100 00 0 23777
23775 0560 00 0 26447
23776 0074 00 4 00105
23777 0074 00 4 00106
24000 0020 00 0 23771

TNZ *+3
LDQ B9T12
TSX ERROR,4
TSX OK,4
TRA *-7

SHOULD TRANSFER

S E C T I O N O N E
P A R T I I I

9M71/768
2/1/63
PAGE 419

* TEST PXA, PXD, PCA, PCD

24001	476724606722	BCD	1PXD XB	
24002	0774 00 2 77777	AXT	32767,2	ALL BITS TO XR
24003	-0754 00 2 24003	PXD	*,2	
24004	0402 00 0 26552	SUB	B3T17	+077777000000
24005	0100 00 0 24011	TZE	*+4	SHOULD TRANSFER
24006	0400 00 0 26552	ADD	B3T17	RESTORE AC
24007	0560 00 0 26552	LDQ	B3T17	
24010	0074 00 4 00105	TSX	ERROR,4	
24011	0074 00 4 00106	TSX	OK,4	
24012	0020 00 0 24002	TRA	*-8	
24013	472321606722	BCD	1PCA XB	
24014	0774 00 2 00777	AXT	511,2	00777 TO XRB
24015	0756 00 2 24015	PCA	*,2	
24016	-3 00777 2 24020	TXL	*+2,2,511	XRB SHOULD EQUAL 00777
24017	0074 00 4 00105	TSX	ERROR,4	PCA MODIFIED C XRB
24020	0074 00 4 00106	TSX	OK,4	
24021	0020 00 0 24014	TRA	*-5	
24022	472324606722	BCD	1PCD XB	
24023	-0774 00 2 00700	AXC	448,2	77100 TO XRB
24024	-0756 00 2 24024	PCD	*,2	00700 TO AC DECREMENT
24025	0402 00 0 26443	SUB	B9T11	
24026	0100 00 0 24032	TZE	*+4	SHOULD TRANSFER
24027	0400 00 0 26443	ADD	B9T11	RESTORE AC
24030	0560 00 0 26443	LDQ	B9T11	
24031	0074 00 4 00105	TSX	ERROR,4	PCD FAILS
24032	0074 00 4 00106	TSX	OK,4	
24033	0020 00 0 24023	TRA	*-8	
24034	472321606060	BCD	1PCA	
24035	0774 00 2 00000	AXT	0,2	
24036	0756 00 2 24036	PCA	*,2	
24037	0100 00 0 24042	TZE	*+3	AC SHOULD BE CLEARED
24040	0560 00 0 26173	LDQ	BZERO	
24041	0074 00 4 00105	TSX	ERROR,4	PCA FAILS
24042	0074 00 4 00106	TSX	OK,4	
24043	0020 00 0 24035	TRA	*-6	

9M71/76B
2/1/63
PAGE 420

S E C T I O N O N E
P A R T I I I

TEST TAG REGISTER DECODER
LOGIC PAGE 03.05.21.1

24044 636730606721
24045 0760 00 0 00016
24046 0500 00 0 26173
24047 0560 00 0 26173

BCD 1TXH XA
LMTM SET SEVEN XR MODE
CLA BZERO
LDQ BZERO LEAVE NO FALSE CLUES

24050 -0774 00 1 00001
24051 3 77776 1 24053
24052 0074 00 4 00105
24053 0074 00 4 00106
24054 0020 00 0 24045

AXC 1,1
TXH **2,1,32766 SHOULD TRANSFER
TSX ERROR,4 CANNOT DECODE TAG 1
TSX OK,4
TRA *-7

24055 636730606722
24056 -0774 00 2 00002
24057 3 77775 2 24061
24060 0074 00 4 00105
24061 0074 00 4 00106
24062 0020 00 0 24056

BCD 1TXH XB
AXC 2,2
TXH **2,2,32765 SHOULD TRANSFER
TSX ERROR,4 CANNOT DECODE TAG 2
TSX OK,4
TRA *-4

24063 636730606724
24064 -0774 00 3 00003
24065 3 77774 3 24067
24066 0074 00 4 00105
24067 0074 00 4 00106
24070 0020 00 0 24064

BCD 1TXH XD
AXC 3,3
TXH **2,3,32764 SHOULD TRANSFER
TSX ERROR,4 CANNOT DECODE TAG 3
TSX OK,4
TRA *-4

24071 636730606725
24072 -0774 00 5 00005
24073 3 77772 5 24075
24074 0074 00 4 00105
24075 0074 00 4 00106
24076 0020 00 0 24072

BCD 1TXH XE
AXC 5,5
TXH **2,5,32762 SHOULD TRANSFER
TSX ERROR,4
TSX OK,4
TRA *-4

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 421

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24077 636730606726
24100 -0774 00 6 00006
24101 3 77771 6 24103
24102 0074 00 4 00105
24103 0074 00 4 00106
24104 0020 00 0 24100

BCD 1TXH XF
AXC 6,6
TXH **2,6,32761 SHOULD TRANSFER
TSX ERROR,4 CANNOT DECODE TAG 6
TSX OK,4
TRA *-4

24105 636730606726
24106 -0774 00 7 00007
24107 3 77770 7 24111
24110 0074 00 4 00105
24111 0074 00 4 00106
24112 0020 00 0 24106

BCD 1TXH XF
AXC 7,7
TXH **2,7,32760 SHOULD TRANSFER
TSX ERROR,4
TSX OK,4
TRA *-4

24113 636743606723
24114 -0760 00 0 00016
24115 0774 00 4 00004
24116 -3 00004 4 24121
24117 0760 00 0 00016
24120 0074 00 4 00105
24121 0074 00 4 00106
24122 0020 00 0 24114

BCD 1TXL XC
EMTM
AXT 4,4
TXL **3,4,4 SHOULD TRANSFER
LMTM
TSX ERROR,4 CANNOT DECODE TAG 4
TSX OK,4
TRA *-6

24123 636743606722
24124 -0760 00 0 00016
24125 0774 00 2 00002
24126 -3 00002 2 24130
24127 0074 00 4 00105
24130 0074 00 4 00106
24131 0020 00 0 24124

BCD 1TXL XB
EMTM
AXT 2,2
TXL **2,2,2 SHOULD TRANSFER
TSX ERROR,4 CANNOT DECODE TAG 2
TSX OK,4
TRA *-5

24132 636743606721
24133 0774 00 1 00001
24134 -3 00001 1 24136
24135 0074 00 4 00105
24136 0074 00 4 00106
24137 0020 00 0 24133

BCD 1TXL XA
AXT 1,1
TXL **2,1,1 SHOULD TRANSFER
TSX ERROR,4 CANNOT DECODE TAG 1
TSX OK,4
TRA *-4

9M71/76B
2/1/63
PAGE 422

S E C T I O N O N E
P A R T I I I

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24140	636730602122	BCD	1TXH	AB	
24141	-0774 00 2 00001	AXC	1,2		
24142	0774 00 1 00000	AXT	0,1		
24143	3 77776 2 24145	TXH	**2,2,32766	SHOULD TRANSFER	
24144	0074 00 4 00105	TSX	ERROR,4	TAG 1 MODIFIES XRB	
24145	0074 00 4 00106	TSX	OK,4		
24146	0020 00 0 24141	TRA	*-5		

24147	636730602123	BCD	1TXH	AC	
24150	-0774 00 4 00001	AXC	1,4		
24151	0774 00 1 00000	AXT	0,1		
24152	3 77776 4 24154	TXH	**2,4,32766	SHOULD TRANSFER	
24153	0074 00 4 00105	TSX	ERROR,4	TAG 1 MODIFIES XRC	
24154	0074 00 4 00106	TSX	OK,4		
24155	0020 00 0 24150	TRA	*-5		

24156	636730602122	BCD	1TXH	AB	
24157	-0774 00 1 00001	AXC	1,1		
24160	0774 00 2 00000	AXT	0,2		
24161	3 77776 1 24163	TXH	**2,1,32766	SHOULD TRANSFER	
24162	0074 00 4 00105	TSX	ERROR,4		
24163	0074 00 4 00106	TSX	OK,4		
24164	0020 00 0 24157	TRA	*-5		

24165	636730606724	BCD	1TXH	XD	
24166	0760 00 0 00016	LMTM			
24167	-0774 00 3 00001	AXC	1,3	ALL BITS TO XRD	
24170	-0760 00 0 00016	EMTM			
24171	0774 00 3 00000	AXT	0,3	CLEAR XRA AND XRB	
24172	0760 00 0 00016	LMTM			
24173	3 77776 3 24175	TXH	**2,3,32766	SHOULD TRANSFER	
24174	0074 00 4 00105	TSX	ERROR,4		
24175	0074 00 4 00106	TSX	OK,4		
24176	0020 00 0 24166	TRA	*-8		

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 423

• TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24177 636730606725
24200 0760 00 0 00016
24201 -0774 00 5 00001
24202 -0760 00 0 00016
24203 0774 00 5 00000
24204 0760 00 0 00016
24205 3 77776 5 24207
24206 0074 00 4 00105
24207 0074 00 4 00106
24210 0020 00 0 24200

BCD 1TXH XE
LMTM
AXC 1,5 ALL BITS TO XRE
EMTM
AXT 0,5 CLEAR XRA AND XRC
LMTM
TXH *+2,5,32766 SHOULD TRANSFER
TSX ERROR,4
TSX OK,4
TRA *-8

24211 636730606726
24212 0760 00 0 00016
24213 -0774 00 6 00001
24214 -0760 00 0 00016
24215 0774 00 6 00000
24216 0760 00 0 00016
24217 3 77776 6 24221
24220 0074 00 4 00105
24221 0074 00 4 00106
24222 0020 00 0 24212

BCD 1TXH XF
LMTM
AXC 1,6 ALL BITS TO XRF
EMTM
AXT 0,6 CLEAR XRB AND XRC
LMTM
TXH *+2,6,32766 SHOULD TRANSFER
TSX ERROR,4
TSX OK,4
TRA *-8

24223 636730606727
24224 0760 00 0 00016
24225 -0774 00 7 00001
24226 -0760 00 0 00016
24227 0774 00 7 00000
24230 0760 00 0 00016
24231 3 77776 7 24233
24232 0074 00 4 00105
24233 0074 00 4 00106
24234 0020 00 0 24224

BCD 1TXH XG
LMTM
AXC 1,7
EMTM
AXT 0,7 CLEAR XRA, XRB AND XRC
LMTM
TXH *+2,7,32766 SHOULD TRANSFER
TSX ERROR,4
TSX OK,4
TRA *-8

9M71/76B
2/1/63
PAGE 424

S E C T I O N O N E
P A R T I I I

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24235 636730606721
24236 0760 00 0 00016
24237 -0774 00 1 00001
24240 0774 00 0 00000
24241 3 77776 1 24243
24242 0074 00 4 00105
24243 0074 00 4 00106
24244 0020 00 0 24236

BCD 1TXH XA
LMTM
AXC 1,1 SET SEVEN XR MODE
AXT 0,0
TXH **2,1,32766 SHOULD TRANSFER
TSX ERROR,4 AXT TAG 0 AFFECTS XRA
TSX OK,4
TRA *-6

24245 636730606722
24246 -0774 00 2 00001
24247 0774 00 0 00000
24250 3 77776 2 24252
24251 0074 00 4 00105
24252 0074 00 4 00106
24253 0020 00 0 24246

BCD 1TXH XB
AXC 1,2
AXT 0,0
TXH **2,2,32766 SHOULD TRANSFER
TSX ERROR,4 AXT TAG 0 AFFECTS XRB
TSX OK,4
TRA *-5

24254 636730606723
24255 -0774 00 4 00001
24256 0774 00 0 00000
24257 3 77776 4 24261
24260 0074 00 4 00105
24261 0074 00 4 00106
24262 0020 00 0 24255

BCD 1TXH XC
AXC 1,4
AXT 0,0
TXH **2,4,32766 SHOULD TRANSFER
TSX ERROR,4 AXT TAG 0 AFFECTS XRC
TSX OK,4
TRA *-5

24263 636730606724
24264 -0774 00 3 00003
24265 0774 00 1 00000
24266 3 77774 3 24270
24267 0074 00 4 00105
24270 0074 00 4 00106
24271 0020 00 0 24264

BCD 1TXH XD
AXC 3,3
AXT 0,1 CLEAR XRA
TXH **2,3,32764 SHOULD TRANSFER
TSX ERROR,4 AXT TAG 1 AFFECTS XRD
TSX OK,4
TRA *-5

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 425

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24272	636730606725	BCD	1TXH XE	
24273	-0774 00 5 00005	AXC	5,5	
24274	0774 00 1 00000	AXT	0,1	
24275	3 77772 5 24277	TXH	#+2,5,32762	SHOULD TRANSFER
24276	0074 00 4 00105	TSX	ERROR,4	AXT TAG 1 AFFECTS XRE
24277	0074 00 4 00106	TSX	OK,4	
24300	0020 00 0 24273	TRA	*-5	

24301	636730606724	BCD	1TXH XD	
24302	0774 00 3 00003	AXT	3,3	
24303	-0774 00 2 00002	AXC	2,2	
24304	-3 00003 3 24306	TXL	#+2,3,3	SHOULD TRANSFER
24305	0074 00 4 00105	TSX	ERROR,4	AXT TAG 2 AFFECTS XRD
24306	0074 00 4 00106	TSX	OK,4	
24307	0020 00 0 24302	TRA	*-5	

24310	636730606726	BCD	1TXH XF	
24311	-0774 00 6 00006	AXC	6,6	
24312	0774 00 2 00000	AXT	0,2	
24313	3 77771 6 24315	TXH	#+2,6,32761	SHOULD TRANSFER
24314	0074 00 4 00105	TSX	ERROR,4	AXT TAG 2 AFFECTS XRF
24315	0074 00 4 00106	TSX	OK,4	
24316	0020 00 0 24311	TRA	*-5	

24317	636730606721	BCD	1TXH XA	
24320	-0774 00 1 00001	AXC	1,1	
24321	0774 00 3 00000	AXT	0,3	
24322	3 77776 1 24324	TXH	#+2,1,32766	SHOULD TRANSFER
24323	0074 00 4 00105	TSX	ERROR,4	AXT TAG 3 AFFECTS XRA
24324	0074 00 4 00106	TSX	OK,4	
24325	0020 00 0 24320	TRA	*-5	

24326	636730606722	BCD	1TXH XB	
24327	-0774 00 2 00002	AXC	2,2	
24330	0774 00 3 00000	AXT	0,3	
24331	3 77775 2 24333	TXH	#+2,2,32765	SHOULD TRANSFER
24332	0074 00 4 00105	TSX	ERROR,4	AXT TAG 3 AFFECTS XRB
24333	0074 00 4 00106	TSX	OK,4	
24334	0020 00 0 24327	TRA	*-5	

9M71/76B
2/1/63
PAGE 426

S E C T I O N O N E
P A R T I I I

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24335	636730606727	BCD	1TXH	XG
24336	-0774 00 7 00007	AXC	7,7	
24337	0774 00 3 00000	AXT	0,3	
24340	3 77770 7 24342	TXH	**2,7,32760 SHOULD TRANSFER	
24341	0074 00 4 00105	TSX	ERROR,4	AXT TAG 3 AFFECTS XRG
24342	0074 00 4 00106	TSX	OK,4	
24343	0020 00 0 24336	TRA	*-5	

24344	636730606725	BCD	1TXH	XE
24345	-0774 00 5 00005	AXC	5,5	
24346	0774 00 4 00000	AXT	0,4	
24347	3 77772 5 24351	TXH	**2,5,32762 SHOULD TRANSFER	
24350	0074 00 4 00105	TSX	ERROR,4	AXT TAG 4 AFFECTS XRE
24351	0074 00 4 00106	TSX	OK,4	
24352	0020 00 0 24345	TRA	*-5	

24353	636730606726	BCD	1TXH	XF
24354	-0774 00 6 00006	AXC	6,6	
24355	0774 00 4 00000	AXT	0,4	
24356	3 77771 6 24360	TXH	**2,6,32761 SHOULD TRANSFER	
24357	0074 00 4 00105	TSX	ERROR,4	AXT TAG 4 AFFECTS XRF
24360	0074 00 4 00106	TSX	OK,4	
24361	0020 00 0 24354	TRA	*-5	

24362	636730606721	BCD	1TXH	XA
24363	-0774 00 1 00001	AXC	1,1	
24364	0774 00 5 00000	AXT	0,5	
24365	3 77776 1 24367	TXH	**2,1,32766 SHOULD TRANSFER	
24366	0074 00 4 00105	TSX	ERROR,4	AXT TAG 5 AFFECTS XRA
24367	0074 00 4 00106	TSX	OK,4	
24370	0020 00 0 24363	TRA	*-5	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 427

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24371	636730606723	BCD	1TXH	XC	
24372	0774 00 4 00004	AXC	4,4		
24373	0774 00 5 00000	AXT	0,5		
24374	3 77773 4 24376	TXH	*+2,4,32763 SHOULD TRANSFER		
24375	0074 00 4 00105	TSX	ERROR,4	AXT TAG 5 AFFECTS XRC	
24376	0074 00 4 00106	TSX	OK,4		
24377	0020 00 0 24372	TRA	*-5		

24400	636730606727	BCD	1TXH	XG	
24401	0774 00 7 15537	AXT	7007,7		
24402	0774 00 5 11615	AXT	5005,5		
24403	3 15536 7 24405	TXH	*+2,7,7006 SHOULD TRANSFER		
24404	0074 00 4 00105	TSX	ERROR,4	AXT TAG 5 AFFECTS XRG	
24405	0074 00 4 00106	TSX	OK,4		
24406	0020 00 0 24401	TRA	*-5		

24407	636743606722	BCD	1TXL	XB	
24410	0774 00 2 03722	AXT	2002,2		
24411	0774 00 6 13566	AXT	6006,6		
24412	-3 03722 2 24414	TXL	*+2,2,2002 SHOULD TRANSFER		
24413	0074 00 4 00105	TSX	ERROR,4	AXT TAG 6 AFFECTS XRB	
24414	0074 00 4 00106	TSX	OK,4		
24415	0020 00 0 24410	TRA	*-5		

24416	636760606723	BCD	1TX	XC	
24417	0774 00 4 07644	AXT	4004,4		
24420	0774 00 6 13566	AXT	6006,6		
24421	-3 07644 4 24423	TXL	*+2,4,4004 SHOULD TRANSFER		
24422	0074 00 4 00105	TSX	ERROR,4	AXT TAG 6 AFFECTS XRC	
24423	0074 00 4 00106	TSX	OK,4		
24424	0020 00 0 24417	TRA	*-5		

9M71/76B
2/1/63
PAGE 428

S E C T I O N O N E
P A R T I I I

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24425	636730606727	BCD	ITXH XG	
24426	0774 00 7 15537	AXT	7007,7	
24427	0774 00 6 13566	AXT	6006,6	
24430	3 15536 7 24432	TXH	++2,7,7006	SHOULD TRANSFER
24431	0074 00 4 00105	TSX	ERROR,4	AXT TAG 6 AFFECTS XRG
24432	0074 00 4 00106	TSX	OK,4	
24433	0020 00 0 24426	TRA	*-5	

24434	636743606724	BCD	ITXL XD	
24435	0774 00 3 05673	AXT	3003,3	
24436	0774 00 7 15537	AXT	7007,7	
24437	-3 05673 3 24441	TXL	++2,3,3003	SHOULD TRANSFER
24440	0074 00 4 00105	TSX	ERROR,4	AXT TAG 7 AFFECTS XRD
24441	0074 00 4 00106	TSX	OK,4	
24442	0020 00 0 24435	TRA	*-5	

24443	636743606725	BCD	ITXL XE	
24444	0774 00 5 11615	AXT	5005,5	
24445	0774 00 7 15537	AXT	7007,7	
24446	-3 11615 5 24450	TXL	++2,5,5005	SHOULD TRANSFER
24447	0074 00 4 00105	TSX	ERROR,4	AXT TAG 7 AFFECTS XRE
24450	0074 00 4 00106	TSX	OK,4	
24451	0020 00 0 24444	TRA	*-5	

24452	636743606726	BCD	ITXL XF	
24453	0774 00 6 13566	AXT	6006,6	
24454	0774 00 7 15537	AXT	7007,7	
24455	-3 13566 6 24457	TXL	++2,6,6006	SHOULD TRANSFER
24456	0074 00 4 00105	TSX	ERROR,4	AXT TAG 7 AFFECTS XRF
24457	0074 00 4 00106	TSX	OK,4	
24460	0020 00 0 24453	TRA	*-5	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 429

* TEST TAG REGISTER DECODER. LOGIC PAGE 03.05.21.1

24461	636730606060	BCD	1TXH	
24462	-0760 00 0 00016	EMTM		
24463	0774 00 4 00077	AXT	63,4	00077 TO XRC
24464	0774 00 2 03740	AXT	2016,2	03740 TO XRB
24465	0774 00 1 77000	AXT	32256,1	77000 TO XRA
24466	3 77776 7 24470	TXH	*+2,7,32766	SHOULD TRANSFER
24467	0074 00 4 00105	TSX	ERROR,4	
24470	0074 00 4 00106	TSX	OK,4	
24471	0020 00 0 24462	TRA	*-7	LOOP RETURN
24472	476721606060	BCD	1PXA	
24473	0774 00 1 07600	AXT	3968,1	07600 TO XRA
24474	0774 00 2 77000	AXT	32256,2	77000 TO XRB
24475	0754 00 3 24475	PXA	*,3	
24476	0402 00 0 26503	SUB	B21T28	+000000077600
24477	0100 00 0 24501	TZE	*+2	SHOULD TRANSFER
24500	0074 00 4 00105	TSX	ERROR,4	MULTIPLE TAGGING FAILS
24501	0074 00 4 00106	TSX	OK,4	
24502	0020 00 0 24473	TRA	*-7	
24503	476724606060	BCD	1PXD	
24504	0774 00 2 07700	AXT	4032,2	07700 TO XRB
24505	0774 00 1 70000	AXT	28672,1	70000 TO XRA
24506	-0754 00 3 24506	PXD	*,3	
24507	-0754 00 2 24507	PXD	*,2	
24510	0402 00 0 26576	SUB	B3T11	+077700000000
24511	0100 00 0 24513	TZE	*+2	SHOULD TRANSFER
24512	0074 00 4 00105	TSX	ERROR,4	PXD WITH MULTIPLE TAG
24513	0074 00 4 00106	TSX	OK,4	DOES NOT MODIFY XR
24514	0020 00 0 24504	TRA	*-8	

9M71/76B
2/1/63
PAGE 430

SECTION ONE
PART III

*
*
*
*
*
*

TEST TNX

24515 634567606724
24516 0760 00 0 00016
24517 0774 00 3 00001
24520 -2 00001 3 24522
24521 0074 00 4 00105
24522 0074 00 4 00106
24523 0020 00 0 24516

BCD 1TNX XD
LMTM
AXT 1,3
TNX **2,3,1
TSX ERROR,4
TSX OK,4
TRA *-5

SHOULD TRANSFER
TNX FAILS

LOOP RETURN

24524 634567606724
24525 0774 00 3 00002
24526 -2 00001 3 24530
24527 0020 00 0 24531
24530 0074 00 4 00105
24531 0074 00 4 00106
24532 0020 00 0 24525

BCD 1TNX XD
AXT 2,3
TNX **2,3,1
TRA **2
TSX ERROR,4
TSX OK,4
TRA *-5

SHOULD NOT TRANSFER

TNX FAILS

LOOP RETURN

24533 634567606724
24534 0774 00 3 01000
24535 -2 01000 3 24536
24536 3 01000 3 24541
24537 -3 00777 3 24541
24540 0020 00 0 24542
24541 0074 00 4 00105
24542 0074 00 4 00106
24543 0020 00 0 24534

BCD 1TNX XD
AXT 512,3
TNX **1,3,512
TXH **3,3,512
TXL **2,3,511
TRA **2
TSX ERROR,4
TSX OK,4
TRA *-7

SHOULD NOT TRANSFER
SHOULD NOT TRANSFER

TNX SHOULD NOT HAVE
CHANGED C XR
LOOP RETURN

24544 634567606060
24545 0774 00 3 01000
24546 -2 00001 3 24547
24547 3 00777 3 24551
24550 3 00776 3 24552
24551 0074 00 4 00105
24552 0074 00 4 00106
24553 0020 00 0 24545

BCD 1TNX
AXT 512,3
TNX **1,3,1
TXH **2,3,511
TXH **2,3,510
TSX ERROR,4
TSX OK,4
TRA *-6

SHOULD NOT TRANSFER
SHOULD TRANSFER
XRD SHOULD CONTAIN 00777

LOOP RETURN

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 431

*
*
*
*
*
*

TEST SCA AND SCD

24554 622321606724
24555 0774 00 3 00001
24556 0636 00 3 26603
24557 0534 00 3 26603
24560 3 77776 3 24562
24561 0074 00 4 00105
24562 0074 00 4 00106
24563 0020 00 0 24555

BCD 1SCA XD
AXT 1,3
SCA T1,3
LXA T1,3
TXH **2,3,32766 SHOULD TRANSFER
TSX ERROR,4 SCA FAILS
TSX OK,4
TRA *-6

24564 622321606724
24565 0774 00 3 00001
24566 0636 00 3 26603
24567 3 00001 3 24571
24570 3 00000 3 24572
24571 0074 00 4 00105
24572 0074 00 4 00106
24573 0020 00 0 24565

BCD 1SCA XD
AXT 1,3
SCA T1,3
TXH **2,3,1 SHOULD NOT TRANSFER
TXH **2,3,0 SHOULD TRANSFER
TSX ERROR,4 XRD DOES NOT CONTAIN 00001
TSX OK,4
TRA *-6 LOOP RETURN

24574 622324606724
24575 0774 00 3 77777
24576 -0636 00 3 26603
24577 3 77776 3 24601
24600 0074 00 4 00105
24601 0074 00 4 00106
24602 0020 00 0 24575

BCD 1SCD XD
AXT 32767,3
SCD T1,3
TXH **2,3,32766 SHOULD TRANSFER
TSX ERROR,4 SCD MODIFIES XR
TSX OK,4
TRA *-5 LOOP RETURN

24603 622324606060
24604 0600 00 0 26603
24605 -0636 00 0 26603
24606 0520 00 0 26603
24607 0074 00 4 00105
24610 0074 00 4 00106
24611 0020 00 0 24604

BCD 1SCD
STZ T1
SCD T1,0
ZET T1 SHOULD SKIP
TSX ERROR,4
TSX OK,4
TRA *-5 LOOP RETURN

9M71/768
2/1/63
PAGE 432

SECTION ONE
PART III

TEST LAC AND LDC

24612 432123606724
24613 0774 00 3 00777
24614 0535 00 3 26237
24615 3 77776 3 24617
24616 3 77775 3 24620
24617 0074 00 4 00105
24620 0074 00 4 00106
24621 0020 00 0 24613

BCD 1LAC XD
AXT 511,3
LAC B34,3 77776 TO XRD
TXH *+2,3,32766 SHOULD NOT TRANSFER
TXH *+2,3,32765 SHOULD TRANSFER
TSX ERROR,4
TSX OK,4
TRA *-6 LOOP RETURN

24622 432423606724
24623 -0535 00 3 26216
24624 3 77776 3 24626
24625 0074 00 4 00105
24626 0074 00 4 00106
24627 0020 00 0 24623

BCD 1LDC XD
LDC B17,3 77777 TO XRD
TXH *+2,3,32766 SHOULD TRANSFER
TSX ERROR,4
TSX OK,4
TRA *-4 LOOP RETURN

24630 0761 00 0 00000
24631 0774 00 7 77777
24632 0774 00 6 77777
24633 0774 00 5 77777
24634 0774 00 3 77777
24635 0074 00 4 00106
24636 0020 00 0 24631

NOP WASTE INSTRUCTION
AXT -1,7
AXT -1,6
AXT -1,5
AXT -1,3
TSX OK,4
TRA *-5 FOR MONITOR

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 433

*
*
*
*
*

TEST LRS, LLS AND RQL

24637	435162606060	BCD	1LRS	
24640	-0500 00 0 26175	CAL	BSIGN	400000000000
24641	0560 00 0 26173	LDQ	BZERO	
24642	0765 00 0 00046	LRS	38	SHIFT C AC P TO MQ 3
24643	-0763 00 0 00004	LGL	4	SHIFT C MQ 3 TO AC 35
24644	0402 00 0 26240	SUB	B35	+000000000001
24645	0100 00 0 24651	TZE	*+4	
24646	0400 00 0 26240	ADD	B35	RESTORE AC
24647	0560 00 0 26240	LDQ	B35	CORRECT RESULT TO MQ
24650	0074 00 4 00105	TSX	ERROR,4	
24651	0074 00 4 00106	TSX	OK,4	
24652	0020 00 0 24640	TRA	*-10	REPEAT THIS TEST
24653	435162445062	BCD	1LRSMQS	
24654	0500 00 0 26240	CLA	B35	+000000000001
24655	0560 00 0 26175	LDQ	BSIGN	-000000000000
24656	0765 00 0 00001	LRS	1	
24657	0162 00 0 24661	TQP	*+2	SHOULD TRANSFER
24660	0074 00 4 00105	TSX	ERROR,4	MQ SIGN SHOULD BE PLUS
24661	0074 00 4 00106	TSX	OK,4	
24662	0020 00 0 24654	TRA	*-6	REPEAT THIS TEST
24663	435162445062	BCD	1LRSMQS	
24664	0500 00 0 26175	CLA	BSIGN	-000000000000
24665	0560 00 0 26173	LDQ	BZERO	+000000000000
24666	0765 00 0 00000	LRS	0	
24667	0162 00 0 24671	TQP	*+2	SHOULD NOT TRANSFER
24670	0020 00 0 24672	TRA	*+2	
24671	0074 00 4 00105	TSX	ERROR,4	MQ SIGN SHOULD BE MINUS
24672	0074 00 4 00106	TSX	OK,4	
24673	0020 00 0 24664	TRA	*-7	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 434

S E C T I O N O N E
P A R T I I I

* TEST LRS, LLS AND RQL

24674	435162604450	BCD	1LRS MQ	
24675	0560 00 0 26175	LDQ	BSIGN	-000000000000
24676	0500 00 0 26175	CLA	BSIGN	
24677	0765 00 0 00001	LRS	1	SHOULD NOT ALTER C MQ
24700	-0763 00 0 00001	LGL	1	
24701	0162 00 0 24704	TQP	*+3	SHOULD TRANSFER
24702	-0765 00 0 00001	LGR	1	RESTORE MQ
24703	0074 00 4 00105	TSX	ERROR,4	
24704	0074 00 4 00106	TSX	OK,4	
24705	0020 00 0 24675	TRA	*-8	REPEAT THIS TEST
24706	434362606060	BCD	1LLS	
24707	0560 00 0 26176	LDQ	B1	+200000000000
24710	0763 00 0 00001	LLS	1	
24711	0162 00 0 24713	TQP	*+2	SHOULD TRANSFER
24712	0074 00 4 00105	TSX	ERROR,4	LLS GATES MQ 1 TO MQ S
24713	0074 00 4 00106	TSX	OK,4	
24714	0020 00 0 24707	TRA	*-5	REPEAT THIS TEST
24715	434362606060	BCD	1LLS	
24716	0500 00 0 26173	CLA	BZERO	CLEAR AC
24717	0560 00 0 26466	LDQ	BSA2	-100000000000
24720	0763 00 0 00001	LLS	1	
24721	0760 00 0 00001	LBT		SHOULD NOT SKIP
24722	0020 00 0 24724	TRA	*+2	
24723	0074 00 4 00105	TSX	ERROR,4	LLS GATES MQ S TO AC 35
24724	0074 00 4 00106	TSX	OK,4	
24725	0020 00 0 24716	TRA	*-7	REPEAT THIS TEST
24726	434362606060	BCD	1LLS	
24727	0500 00 0 26175	CLA	BSIGN	-000000000000
24730	0560 00 0 26173	LDQ	BZERO	+000000000000
24731	0763 00 0 00000	LLS	0	
24732	0120 00 0 24734	TPL	*+2	
24733	0074 00 4 00105	TSX	ERROR,4	LLS SHOULD GATE MQS TO ACS
24734	0074 00 4 00106	TSX	OK,4	
24735	0020 00 0 24727	TRA	*-6	REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 435

* TEST LRS, LLS AND RQL

24736 434362606060
24737 0500 00 0 26173
24740 0560 00 0 26175
24741 0763 00 0 00000
24742 --0120 00 0 24744

BCD 1LLS
CLA BZERO +000000000000
LDQ BSIGN --000000000000
LLS 0
TMI *+2 SHOULD TRANSFER

24743 0074 00 4 00105
24744 0074 00 4 00106
24745 0020 00 0 24737

TSX ERROR,4 LLS SHOULD GATE MQS TO ACS
TSX OK,4
TRA *-6 REPEAT THIS TEST

24746 434362606060
24747 0560 00 0 26176
24750 0500 00 0 26173
24751 0763 00 0 00001
24752 0760 00 0 00001
24753 0074 00 4 00105
24754 0074 00 4 00106
24755 0020 00 0 24747

BCD 1LLS
LDQ B1 +200000000000
CLA BZERO CLEAR AC
LLS 1
LBT SHOULD SKIP
TSX ERROR,4 LLS SHOULD GATE MQ1 TO AC
TSX OK,4
TRA *-6

24756 434362606060
24757 0500 00 0 26173
24760 0560 00 0 26311
24761 0763 00 0 00043
24762 0402 00 0 26311

BCD 1LLS
CLA BZERO +000000000000
LDQ BS135 -377777777777
LLS 35
SUB BS135

24763 0100 00 0 24765
24764 0074 00 4 00105
24765 0074 00 4 00106
24766 0020 00 0 24757

TZE *+2 SHOULD TRANSFER
TSX ERROR,4 LLS FAILS
TSX OK,4
TRA *-7 REPEAT THIS TEST

24767 515043606060
24770 0500 00 0 26173
24771 0560 00 0 26311
24772 -0773 00 0 00001
24773 0760 00 0 00001
24774 0020 00 0 24777
24775 0560 00 0 26173
24776 0074 00 4 00105
24777 0074 00 4 00106
25000 0020 00 0 24770

BCD 1RQL
CLA BZERO +000000000000
LDQ BS135 -377777777777
RQL 1
LBT SHOULD NOT SKIP
TRA *+3
LDQ BZERO
TSX ERROR,4 RQL GATES BIT TO AC 35
TSX OK,4
TRA *-8

9M71/76B
2/1/63
PAGE 436

S E C T I O N O N E
P A R T I I I

* TEST LRS, LLS AND RQL

25001	515043445062	BCD	1RQLMQS	
25002	0500 00 0 26240	CLA	B35	+000000000001
25003	0560 00 0 26175	LDQ	BSIGN	
25004	-0773 00 0 00001	RQL	1	
25005	0162 00 0 25007	TQP	*+2	SHOULD TRANSFER
25006	0074 00 4 00105	TSX	ERROR,4	
25007	0074 00 4 00106	TSX	OK,4	
25010	0020 00 0 25002	TRA	*-6	
25011	515043606060	BCD	1RQL	
25012	0500 00 0 26173	CLA	BZERO	CLEAR AC
25013	0560 00 0 26175	LDQ	BSIGN	-000000000000
25014	-0773 00 0 00003	RQL	3	
25015	-0600 00 0 26603	STQ	T1	
25016	0500 00 0 26603	CLA	T1	
25017	0402 00 0 26236	SUB	B33	+000000000004
25020	0100 00 0 25022	TZE	*+2	
25021	0074 00 4 00105	TSX	ERROR,4	RQL SHOULD GATE MQS-MQ35
25022	0074 00 4 00106	TSX	OK,4	
25023	0020 00 0 25012	TRA	*-9	REPEAT THIS TEST
25024	515043606060	BCD	1RQL	
25025	0560 00 0 26176	LDQ	B1	+200000000000
25026	-0773 00 0 00001	RQL	1	
25027	0162 00 0 25031	TQP	*+2	
25030	0020 00 0 25032	TRA	*+2	
25031	0074 00 4 00105	TSX	ERROR,4	RQL SHOULD GATE MQ1-MQS
25032	0074 00 4 00106	TSX	OK,4	
25033	0020 00 0 25025	TRA	*-6	REPEAT THIS TEST
25034	515043606060	BCD	1RQL	
25035	0560 00 0 26240	LDQ	B35	+000000000001
25036	-0773 00 0 00107	RQL	71	SHIFT MQ 35 TO MQ SIGN
25037	0162 00 0 25041	TQP	*+2	SHOULD NOT TRANSFER
25040	0020 00 0 25042	TRA	*+2	
25041	0074 00 4 00105	TSX	ERROR,4	RQL FAILS
25042	0074 00 4 00106	TSX	OK,4	
25043	0020 00 0 25035	TRA	*-6	REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 437

*
*
*
*
*

TEST SSP, SSM, CHS, CLM AND RND

25044	626247256344	BCD 1SSPETM	
25045	0500 00 0 26173	CLA BZERO	CLEAR AC
25046	0560 00 0 00000	LDQ 0	SAVE CONTENTS LOCATION 0
25047	0600 00 0 00000	STZ 0	
25050	0760 00 0 00003	SSP	SET AC SIGN PLUS
25051	0500 00 0 00000	CLA 0	
25052	-0600 00 0 00000	STQ 0	
25053	-0760 00 0 00007	LTM	JUST IN CASE
25054	0100 00 0 25056	TZE *+2	
25055	0074 00 4 00105	TSX ERROR,4	SSP ENTERS TRAP MODE
25056	0074 00 4 00106	TSX OK,4	
25057	0020 00 0 25045	TRA *-10	REPEAT THIS TEST
25060	626247606060	BCD 1SSP	
25061	0500 00 0 26175	CLA BSIGN	-000000000000
25062	0760 00 0 00003	SSP	SET AC SIGN PLUS
25063	0120 00 0 25065	TPL *+2	SHOULD TRANSFER
25064	0074 00 4 00105	TSX ERROR,4	SSP FAILS
25065	0074 00 4 00106	TSX OK,4	
25066	0020 00 0 25061	TRA *-5	REPEAT THIS TEST
25067	626247432263	BCD 1SSPLBT	
25070	0500 00 0 26303	CLA B34A35	+000000000003
25071	0760 00 0 00003	SSP	
25072	0120 00 0 25074	TPL *+2	
25073	0074 00 4 00105	TSX ERROR,4	SSP DECODED AS LBT OR CHS
25074	0074 00 4 00106	TSX OK,4	
25075	0020 00 0 25070	TRA *-5	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 438

SECTION ONE
PART III

* TEST SSP, SSM, CHS, CLM AND RND

25076	432263626247	BCD	1LBTSSP	
25077	0502 00 0 26173	CLS	BZERO	-000000000000 TO AC
25100	0760 00 0 00001	LBT		
25101	-0120 00 0 25103	TMI	*+2	SHOULD TRANSFER
25102	0074 00 4 00105	TSX	ERROR,4	LBT DECODED AS SSP
25103	0074 00 4 00106	TSX	OK,4	
25104	0020 00 0 25077	TRA	*-5	REPEAT THIS TEST

25105	626244606060	BCD	1SSM	
25106	0500 00 0 26173	CLA	BZERO	+000000000000
25107	-0760 00 0 00003	SSM		
25110	-0120 00 0 25112	TMI	*+2	SHOULD TRANSFER
25111	0074 00 4 00105	TSX	ERROR,4	SSM FAILS
25112	0074 00 4 00106	TSX	OK,4	
25113	0020 00 0 25106	TRA	*-5	REPEAT THIS TEST

25114	626244472263	BCD	1SSMPBT	
25115	-0500 00 0 26175	CAL	BSIGN	400000000000
25116	-0760 00 0 00003	SSM		
25117	-0120 00 0 25121	TMI	*+2	
25120	0074 00 4 00105	TSX	ERROR,4	SSM DECODED AS PBT
25121	0074 00 4 00106	TSX	OK,4	
25122	0020 00 0 25115	TRA	*-5	REPEAT THIS TEST

25123	472263626244	BCD	1PBTSSM	
25124	0500 00 0 26173	CLA	BZERO	CLEAR AC
25125	-0760 00 0 00001	PBT		
25126	0120 00 0 25130	TPL	*+2	
25127	0074 00 4 00105	TSX	ERROR,4	PBT DECODED AS SSM
25128	0074 00 4 00106	TSX	OK,4	
25129	0020 00 0 25124	TRA	*-5	REPEAT THIS TEST

25132	233062242363	BCD	1CHSDCT	
25133	0500 00 0 26173	CLA	BZERO	CLEAR AC
25134	0760 00 0 00002	CHS		SET AC SIGN MINUS
25135	0020 00 0 25137	TRA	*+2	
25136	0074 00 4 00105	TSX	ERROR,4	CHS BRINGS UP SKIP CONTROL
25137	0074 00 4 00106	TSX	OK,4	
25140	0020 00 0 25133	TRA	*-5	REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 439

• TEST SSP, SSM, CHS, CLM AND RND

25141	233062606060	BCD	1CHS	
25142	0500 00 0 26175	CLA	BSIGN	-000000000000
25143	0760 00 0 00002	CHS		
25144	0120 00 0 25146	TPL	**2	SHOULD TRANSFER
25145	0074 00 4 00105	TSX	ERROR, 4	CHS FAILS
25146	0074 00 4 00106	TSX	OK, 4	
25147	0020 00 0 25142	TRA	*-5	REPEAT THIS TEST

25150	233062234644	BCD	1CHSCOM	
25151	0500 00 0 26173	CLA	BZERO	CLEAR AC
25152	0760 00 0 00002	CHS		
25153	0100 00 0 25155	TZE	**2	SHOULD TRANSFER
25154	0074 00 4 00105	TSX	ERROR, 4	CHS MODIFIES C AC Q-35
25155	0074 00 4 00106	TSX	OK, 4	
25156	0020 00 0 25151	TRA	*-5	REPEAT THIS TEST

25157	234644233062	BCD	1COMCHS	
25160	0500 00 0 26175	CLA	BSIGN	-000000000000
25161	0760 00 0 00006	COM		
25162	-0120 00 0 25164	TMI	**2	SHOULD TRANSFER
25163	0074 00 4 00105	TSX	ERROR, 4	COM INVERTS AC SIGN
25164	0074 00 4 00106	TSX	OK, 4	
25165	0020 00 0 25160	TRA	*-5	REPEAT THIS TEST

25166	233062234344	BCD	1CHSCLM	
25167	0500 00 0 26240	CLA	B35	+000000000001
25170	0760 00 0 00002	CHS		
25171	-0100 00 0 25173	TNZ	**2	
25172	0074 00 4 00105	TSX	ERROR, 4	CHS CLEARS AC
25173	0074 00 4 00106	TSX	OK, 4	
25174	0020 00 0 25167	TRA	*-5	REPEAT THIS TEST

25175	233062606060	BCD	1CHS	
25176	0500 00 0 26173	CLA	BZERO	CLEAR AC
25177	0760 00 0 00002	CHS		
25200	-0120 00 0 25202	TMI	**2	SHOULD TRANSFER
25201	0074 00 4 00105	TSX	ERROR, 4	CHS FAILS
25202	0074 00 4 00106	TSX	OK, 4	
25203	0020 00 0 25176	TRA	*-5	REPEAT THIS TEST

9M71/768
2/1/63
PAGE 440

SECTION ONE
PART III

* TEST SSP, SSM, CHS, CLM AND RND

25204 234344432263
25205 0500 00 0 26174
25206 0760 00 0 00000
25207 0020 00 0 25211
25210 0074 00 4 00105
25211 0074 00 4 00106
25212 0020 00 0 25205

BCD 1CLMLBT
CLA BONES
CLM
TRA **2
TSX ERROR,4
TSX OK,4
TRA *-5

+377777777777

CLM BRINGS UP SKIP CONTROL

REPEAT THIS TEST

25213 432263234344
25214 0500 00 0 26237
25215 0760 00 0 00001
25216 -0100 00 0 25220
25217 0074 00 4 00105
25220 0074 00 4 00106
25221 0020 00 0 25214

BCD 1LBTCLM
CLA B34
LBT
TNZ **2
TSX ERROR,4
TSX OK,4
TRA *-5

+000000000002

LBT CLEARS AC

REPEAT THIS TEST

25222 234344606060
25223 0500 00 0 26174
25224 0560 00 0 26173
25225 0760 00 0 00000
25226 0100 00 0 25230
25227 0074 00 4 00105
25230 0074 00 4 00106
25231 0020 00 0 25223

BCD 1CLM
CLA BONES
LDQ BZERO
CLM
TZE **2
TSX ERROR,4
TSX OK,4
TRA *-6

+377777777777

CLEAR MQ

SHOULD TRANSFER
CLM FAILS

REPEAT THIS TEST

25232 234344233062
25233 0500 00 0 26175
25234 0760 00 0 00000
25235 -0120 00 0 25237
25236 0074 00 4 00105
25237 0074 00 4 00106
25238 0020 00 0 25233

BCD 1CLMCHS
CLA BSIGN
CLM
TMI **2
TSX ERROR,4
TSX OK,4
TRA *-5

-000000000000

AC SIGN SHOULD BE MINUS

REPEAT THIS TEST

25241 234344514524
25242 0500 00 0 26173
25243 0560 00 0 26311
25244 0760 00 0 00000
25245 0100 00 0 25247
25246 0074 00 4 00105
25247 0074 00 4 00106
25250 0020 00 0 25242

BCD 1CLMRND
CLA BZERO
LDQ BS135
CLM
TZE **2
TSX ERROR,4
TSX OK,4
TRA *-6

CLEAR AC
ALL BITS TO MQ

CLM BRINGS UP RND CONTROL

REPEAT THIS TEST

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 441

* TEST SSP, SSM, CHS, CLM AND RND

25251	234344254542	BCD	ICLMENK	
25252	0560 00 0 26311	LDQ	BS135	ALL ONES TO MQ
25253	0760 00 0 00000	CLM		
25254	0600 00 0 26603	STQ	T1	
25255	0500 00 0 26603	CLA	T1	
25256	0402 00 0 26311	SUB	BS135	
25257	0100 00 0 25261	TZE	*+2	SHOULD TRANSFER
25260	0074 00 4 00105	TSX	ERROR,4	CLM MODIFIES C MQ
25261	0074 00 4 00106	TSX	OK,4	
25262	0020 00 0 25252	TRA	*-8	REPEAT THIS TEST

25263	254542234344	BCD	1ENKCLM	
25264	0500 00 0 26240	CLA	B35	+000000000001
25265	0760 00 0 00004	ENK		
25266	0100 00 0 25270	TNZ	*+2	
25267	0074 00 4 00105	TSX	ERROR,4	ENK INSTRUCTION CLEARS AC
25270	0074 00 4 00106	TSX	OK,4	
25271	0020 00 0 25264	TRA	*-5	REPEAT THIS TEST

25272	514524242363	BCD	1RND DCT	
25273	0500 00 0 26173	CLA	BZERO	CLEAR AC
25274	0760 00 0 00010	RND		
25275	0020 00 0 25277	TRA	*+2	
25276	0074 00 4 00105	TSX	ERROR,4	RND CAUSES SKIP
25277	0074 00 4 00106	TSX	OK,4	
25300	0020 00 0 25273	TRA	*-5	REPEAT THIS TEST

25301	514524606060	BCD	1RND	
25302	0500 00 0 26173	CLA	BZERO	CLEAR AC
25303	0560 00 0 26176	LDQ	B1	+200000000000
25304	0760 00 0 00010	RND		
25305	0760 00 0 00001	LBT		SHOULD SKIP
25306	0074 00 4 00105	TSX	ERROR,4	RND FAILS
25307	0074 00 4 00106	TSX	OK,4	
25310	0020 00 0 25302	TRA	*-6	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 442

S E C T I O N O N E
P A R T I I I

* TEST SSP, SSM, CHS, CLM AND RND

25311 514524265145
25312 0500 00 0 26173
25313 0560 00 0 26552
25314 0760 00 0 00010
25315 0100 00 0 25317
25316 0074 00 4 00105

25317 0074 00 4 00106
25320 0020 00 0 25312

BCD 1RNDFRN
CLA BZERO
LDQ B3T17
RND
TZE *+2
TSX ERROR,4

TSX OK,4
TRA *-6

+000000000000
+077777000000

SHOULD TRANSFER
RND ERRONEOUSLY
INCREMENTS AC

REPEAT THIS TEST

25321 514524265145
25322 0500 00 0 26173
25323 0560 00 0 26176
25324 0760 00 0 00006
25325 0760 00 0 00010
25326 0100 00 0 25330
25327 0074 00 4 00105
25330 0074 00 4 00106
25331 0020 00 0 25322

BCD 1RNDFRN
CLA BZERO
LDQ B1
COM
RND
TZE *+2
TSX ERROR,4
TSX OK,4
TRA *-7

CLEAR AC
+200000000000
LOAD ONES TO AC Q-35

REPEAT THIS TEST

SECTION ONE
PART III

9M71/76B
2/1/63
PAGE 443

*
*
*
*
*

TEST SENSE LIGHT INSTRUCTIONS

25332 624363606060
25333 0500 00 0 26173
25334 0774 00 2 00004
25335 -0760 00 2 00145
25336 0361 00 2 26201
25337 2 00001 2 25335
25340 0602 00 0 26604
25341 0074 00 4 00106
25342 0020 00 0 25333

BCD 1SLT
CLA BZERO CLEAR AC
AXT 4,2
SLT 5,2
ACL BSIGN+4,2
TIX *-2,2,1
SLW T2 SAVE C SENSE LIGHTS
TSX OK,4
TRA *-7

25343 624345432263
25344 0500 00 0 26240
25345 0760 00 0 00141
25346 0020 00 0 25350
25347 0074 00 4 00105
25350 0074 00 4 00106
25351 0020 00 0 25344

BCD 1SLNLBT
CLA B35 +000000000001
SLN 1
TRA **2
TSX ERROR,4 SLN DECODED AS LBT OR SLT
TSX OK,4
TRA *-5 REPEAT THIS TEST

25352 624363472263
25353 -0500 00 0 26175
25354 -0760 00 0 00141
25355 0761 00 0 00000
25356 -0760 00 0 00141
25357 0020 00 0 25361
25360 0074 00 4 00105
25361 0074 00 4 00106
25362 0020 00 0 25353

BCD 1SLTPBT
CAL BSIGN 400000000000
SLT 1 RESET SENSE LIGHT ONE
NOP
SLT 1 SHOULD NOT SKIP
TRA **2
TSX ERROR,4 SLT DECODED AS SLN OR PBT
TSX OK,4
TRA *-7 REPEAT THIS TEST

25363 624345624363
25364 0760 00 0 00141
25365 -0760 00 0 00141
25366 0020 00 0 25370
25367 0020 00 0 25373
25370 0760 00 0 00142
25371 -0760 00 0 00142

BCD 1SLNSLT
SLN 1
SLT 1
TRA **2 SENSE LIGHT ONE FAILS
TRA **4
SLN 2 TRY SENSE LIGHT TWO
SLT 2

25372 0074 00 4 00105
25373 0074 00 4 00106
25374 0020 00 0 25364

TSX ERROR,4 SLN OR SLT FAILS ON LITES
TSX OK,4 ONE AND TWO
TRA *-8 REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 444

SECTION ONE
PART III

* TEST SENSE LIGHT INSTRUCTIONS

25375	624345624363	BCD	1SLNSLT	
25376	0760 00 0 00141	SLN	1	SET LIGHT ONE
25377	-0760 00 0 00141	SLT	1	
25400	0074 00 4 00105	TSX	ERROR,4	LIGHT ONE FAILS
25401	0074 00 4 00106	TSX	OK,4	
25402	0020 00 0 25376	TRA	*-4	REPEAT THIS TEST

25403	624345624363	BCD	1SLNSLT	
25404	0760 00 0 00142	SLN	2	SET LIGHT TWO
25405	-0760 00 0 00142	SLT	2	
25406	0074 00 4 00105	TSX	ERROR,4	LIGHT TWO FAILS
25407	0074 00 4 00106	TSX	OK,4	
25410	0020 00 0 25404	TRA	*-4	REPEAT THIS TEST

25411	624345624363	BCD	1SLNSLT	
25412	0760 00 0 00143	SLN	3	SET LIGHT THREE
25413	-0760 00 0 00143	SLT	3	
25414	0074 00 4 00105	TSX	ERROR,4	LIGHT THREE FAILS
25415	0074 00 4 00106	TSX	OK,4	
25416	0020 00 0 25412	TRA	*-4	REPEAT THIS TEST

25417	624345624363	BCD	1SLNSLT	
25420	0760 00 0 00144	SLN	4	SET LIGHT FOUR
25421	-0760 00 0 00144	SLT	4	
25422	0074 00 4 00105	TSX	ERROR,4	LIGHT FOUR FAILS
25423	0074 00 4 00106	TSX	OK,4	
25424	0020 00 0 25420	TRA	*-4	REPEAT THIS TEST

25425	624326624363	BCD	1SLFSLT	
25426	0760 00 0 00141	SLN	1	SET LIGHT ONE
25427	0760 00 0 00140	SLF		RESET ALL LIGHTS
25430	-0760 00 0 00141	SLT	1	
25431	0020 00 0 25433	TRA	*+2	
25432	0074 00 4 00105	TSX	ERROR,4	SLF OR SLT FAILS
25433	0074 00 4 00106	TSX	OK,4	
25434	0020 00 0 25426	TRA	*-6	REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 445

* TEST SENSE LIGHT INSTRUCTIONS

25435	624326624363	BCD	1SLFSLT	
25436	0760 00 0 00142	SLN	2	SET LIGHT TWO
25437	0760 00 0 00140	SLF		
25440	-0760 00 0 00142	SLT	2	SHOULD NOT SKIP
25441	0020 00 0 25443	TRA	**2	
25442	0074 00 4 00105	TSX	ERROR,4	SLF OR SLT FAILS
25443	0074 00 4 00106	TSX	OK,4	
25444	0020 00 0 25436	TRA	*-6	REPEAT THIS TEST

25445	624326624363	BCD	1SLFSLT	
25446	0760 00 0 00143	SLN	3	SET LIGHT THREE
25447	0760 00 0 00140	SLF		
25450	-0760 00 0 00143	SLT	3	SHOULD NOT SKIP
25451	0020 00 0 25453	TRA	**2	
25452	0074 00 4 00105	TSX	ERROR,4	SLF OR SLT FAILS
25453	0074 00 4 00106	TSX	OK,4	
25454	0020 00 0 25446	TRA	*-6	REPEAT THIS TEST

25455	624326624363	BCD	1SLFSLT	
25456	0760 00 0 00144	SLN	4	SET LIGHT FOUR
25457	0760 00 0 00140	SLF		
25460	-0760 00 0 00144	SLT	4	SHOULD NOT SKIP
25461	0020 00 0 25463	TRA	**2	
25462	0074 00 4 00105	TSX	ERROR,4	SLF OR SLT FAILS
25463	0074 00 4 00106	TSX	OK,4	
25464	0020 00 0 25456	TRA	*-6	REPEAT THIS TEST

25465	624363606060	BCD	1SLT	
25466	0760 00 0 00141	SLN	1	SET LIGHT ONE
25467	-0760 00 0 00141	SLT	1	RESET LIGHT ONE
25470	0761 00 0 00000	NOP		
25471	-0760 00 0 00141	SLT	1	SHOULD NOT SKIP
25472	0020 00 0 25474	TRA	**2	
25473	0074 00 4 00105	TSX	ERROR,4	SLT 1 FAILS
25474	0074 00 4 00106	TSX	OK,4	
25475	0020 00 0 25466	TRA	*-7	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 446

S E C T I O N O N E
P A R T I I I

* TEST SENSE LIGHT INSTRUCTIONS

25476	624363606060	BCD 1SLT	
25477	0760 00 0 00142	SLN 2	SET LIGHT TWO
25500	-0760 00 0 00142	SLT 2	RESET LIGHT TWO
25501	0761 00 0 00000	NOP	
25502	-0760 00 0 00142	SLT 2	SHOULD NOT SKIP
25503	0020 00 0 25505	TRA *+2	
25504	0074 00 4 00105	TSX ERROR,4	SLT 2 FAILS
25505	0074 00 4 00106	TSX OK,4	
25506	0020 00 0 25477	TRA *-7	REPEAT THIS TEST

25507	624363606060	BCD 1SLT	
25510	0760 00 0 00143	SLN 3	SET LIGHT THREE
25511	-0760 00 0 00143	SLT 3	RESET LIGHT THREE
25512	0761 00 0 00000	NOP	
25513	-0760 00 0 00143	SLT 3	SHOULD NOT SKIP
25514	0020 00 0 25516	TRA *+2	
25515	0074 00 4 00105	TSX ERROR,4	SLT 3 FAILS
25516	0074 00 4 00106	TSX OK,4	
25517	0020 00 0 25510	TRA *-7	REPEAT THIS TEST

25520	624363606060	BCD 1SLT	
25521	0760 00 0 00144	SLN 4	SET LIGHT FOUR
25522	-0760 00 0 00144	SLT 4	RESET LIGHT FOUR
25523	0761 00 0 00000	NOP	
25524	-0760 00 0 00144	SLT 4	SHOULD NOT SKIP
25525	0020 00 0 25527	TRA *+2	
25526	0074 00 4 00105	TSX ERROR,4	SLT 4 FAILS
25527	0074 00 4 00106	TSX OK,4	
25530	0020 00 0 25521	TRA *-7	REPEAT THIS TEST

25531	624345624363	BCD 1SLNSLT	
25532	0760 00 0 00140	SLF	RESET ALL SENSE LIGHTS
25533	0760 00 0 00142	SLN 2	
25534	0760 00 0 00143	SLN 3	
25535	0760 00 0 00144	SLN 4	
25536	-0760 00 0 00141	SLT 1	SHOULD NOT SKIP
25537	0020 00 0 25541	TRA *+2	
25540	0074 00 4 00105	TSX ERROR,4	SLT OR SLN FAILS
25541	0074 00 4 00106	TSX OK,4	
25542	0020 00 0 25532	TRA *-8	

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 447

• TEST SENSE LIGHT INSTRUCTIONS

25543 624345624363	BCD 1SLNSLT	
25544 0760 00 0 00140	SLF	RESET ALL SENSE LIGHTS
25545 0760 00 0 00141	SLN 1	EXCEPT ONE
25546 -0760 00 0 00142	SLT 2	
25547 0020 00 0 25551	TRA *+2	
25550 0074 00 4 00105	TSX ERROR,4	SLN 1 OR SLT 2 FAILS
25551 0074 00 4 00106	TSX OK,4	
25552 0020 00 0 25544	TRA *-6	REPEAT THIS TEST

25553 624345624363	BCD 1SLNSLT	
25554 0760 00 0 00140	SLF	RESET ALL SENSE LIGHTS
25555 0760 00 0 00141	SLN 1	SET LIGHT 1
25556 -0760 00 0 00143	SLT 3	SHOULD NOT SKIP
25557 0020 00 0 25561	TRA *+2	
25560 0074 00 4 00105	TSX ERROR,4	
25561 0074 00 4 00106	TSX OK,4	
25562 0020 00 0 25554	TRA *-6	REPEAT THIS TEST

25563 624345624363	BCD 1SLNSLT	
25564 0760 00 0 00140	SLF	RESET ALL SENSE LIGHTS
25565 0760 00 0 00141	SLN 1	SET LIGHT ONE
25566 -0760 00 0 00144	SLT 4	SHOULD NOT SKIP
25567 0020 00 0 25571	TRA *+2	
25570 0074 00 4 00105	TSX ERROR,4	
25571 0074 00 4 00106	TSX OK,4	
25572 0020 00 0 25564	TRA *-6	REPEAT THIS TEST

25573 626663624345	BCD 1SWTSLN	
25574 0760 00 0 00140	SLF	RESET ALL SENSE LIGHTS
25575 0760 00 0 00163	SWT 3	SHOULD NOT SET LIGHT THREE
25576 0761 00 0 00000	NOP	
25577 -0760 00 0 00143	SLT 3	
25600 0020 00 0 25602	TRA *+2	
25601 0074 00 4 00105	TSX ERROR,4	SC 13 EQUALS ONE SHOULD INHIBIT OP PANEL CLASS ADDRESS FOURTEEN
25602 0074 00 4 00106	TSX OK,4	PAGE 03.02.01.1
25603 0020 00 0 25574	TRA *-7	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 448

SECTION ONE
PART III

* TEST SENSE LIGHT INSTRUCTIONS

25604 624345432263
25605 0500 00 0 26240
25606 0760 00 0 00141
25607 0020 00 0 25611
25610 0074 00 4 00105

BCD 1SLNLBT
CLA B35
SLN 1
TRA **2
TSX ERROR,4

+000000000001

OPN 760 NULL PRESENT IN
SPITE OF SC 11 AND 12
PAGE 03.02.01.1

25611 0074 00 4 00106
25612 0020 00 0 25605

TSX OK,4
TRA *-5

REPEAT THIS TEST

25613 454647624345
25614 0760 00 0 00140
25615 0761 00 0 00142
25616 -0760 00 0 00142
25617 0020 00 0 25621
25620 0074 00 4 00105
25621 0074 00 4 00106
25622 0020 00 0 25614

BCD 1NOPSLN
SLF
NOP 98
SLT 2
TRA **2
TSX ERROR,4
TSX OK,4
TRA *-6

SHOULD NOT SKIP

SOD 0 COMES UP ON NOP

REPEAT THIS TEST

25623 624363472263
25624 -0500 00 0 26175
25625 0760 00 0 00140
25626 -0760 00 0 00141
25627 0020 00 0 25631
25630 0074 00 4 00105
25631 0074 00 4 00106
25632 0020 00 0 25624

BCD 1SLTPBT
CAL BSIGN
SLF
SLT 1
TRA **2
TSX ERROR,4
TSX OK,4
TRA *-6

400000000000

SLT DECODED AS PBT

REPEAT THIS TEST

25633 432263624345
25634 0760 00 0 00140
25635 0760 00 0 00001
25636 0761 00 0 00000
25637 -0760 00 0 00141
25640 0020 00 0 25642
25641 0074 00 4 00105
25642 0074 00 4 00106
25643 0020 00 0 25634

BCD 1LBTSLN
SLF
LBT
NOP
SLT 1
TRA **2
TSX ERROR,4
TSX OK,4
TRA *-7

RESET ALL SENSE LIGHTS

LBT DECODED AS SLN 1

REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 449

• TEST SENSE LIGHT INSTRUCTIONS

25644	472263624363	BCD	1PBTSLT	
25645	0760 00 0 00141	SLN	1	SET LIGHT ONE
25646	-0760 00 0 00001	PBT		
25647	0761 00 0 00000	NOP		
25650	-0760 00 0 00141	SLT	1	
25651	0074 00 4 00105	TSX	ERROR,4	PBT DECODED AS SLT
25652	0074 00 4 00106	TSX	OK,4	
25653	0020 00 0 25645	TRA	*-6	REPEAT THIS TEST

25654	624345233062	BCD	1SLNCHS	
25655	0500 00 0 26173	CLA	BZERO	CLEAR AC
25656	0760 00 0 00142	SLN	2	
25657	0120 00 0 25661	TPL	*+2	
25660	0074 00 4 00105	TSX	ERROR,4	SLN DECODED AS CHS
25661	0074 00 4 00106	TSX	OK,4	
25662	0020 00 0 25655	TRA	*-5	REPEAT THIS TEST

25663	233062624345	BCD	1CHSSLN	
25664	0760 00 0 00140	SLF		RESET ALL SENSE LIGHTS
25665	0760 00 0 00002	CHS		
25666	-0760 00 0 00142	SLT	2	
25667	0020 00 0 25671	TRA	*+2	
25670	0074 00 4 00105	TSX	ERROR,4	CHS DECODED AS SLN 2
25671	0074 00 4 00106	TSX	OK,4	
25672	0020 00 0 25664	TRA	*-6	REPEAT THIS TEST

25673	624345626247	BCD	1SLNSSP	
25674	0500 00 0 26175	CLA	BSIGN	-000000000000
25675	0760 00 0 00143	SLN	3	
25676	-0120 00 0 25700	TMI	*+2	
25677	0074 00 4 00105	TSX	ERROR,4	SLN 2 DECODED AS SSP
25700	0074 00 4 00106	TSX	OK,4	
25701	0020 00 0 25674	TRA	*-5	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 450

S E C T I O N O N E
P A R T I I I

* TEST SENSE LIGHT INSTRUCTIONS

25702	626247624345	BCD	1SSPSLN	
25703	0760 00 0 00140	SLF		RESET SENSE LIGHTS
25704	0760 00 0 00003	SSP		
25705	-0760 00 0 00143	SLT	3	
25706	0020 00 0 25710	TRA	**2	
25707	0074 00 4 00105	TSX	ERROR,4	SSP DECODED AS SLN 3
25710	0074 00 4 00106	TSX	OK,4	
25711	0020 00 0 25703	TRA	*-6	REPEAT THIS TEST

25712	624363626244	BCD	1SLTSSM	
25713	0760 00 0 00003	SSP		SET AC SIGN PLUS
25714	-0760 00 0 00143	SLT	3	
25715	0761 00 0 00000	NOP		
25716	0120 00 0 25720	TPL	**2	
25717	0074 00 4 00105	TSX	ERROR,4	SLT DECODED AS SSM
25720	0074 00 4 00106	TSX	OK,4	
25721	0020 00 0 25713	TRA	*-6	REPEAT THIS TEST

25722	626244624363	BCD	1SSMSLT	
25723	0760 00 0 00143	SLN	3	SET SENSE LIGHT THREE
25724	-0760 00 0 00003	SSM		
25725	-0760 00 0 00143	SLT	3	
25726	0074 00 4 00105	TSX	ERROR,4	SSM DECODED AS SLT
25727	0074 00 4 00106	TSX	OK,4	
25730	0020 00 0 25723	TRA	*-5	REPEAT THIS TEST

25731	624345254542	BCD	1SLNENK	
25732	0560 00 0 26311	LDQ	BS135	ALL ONES TO MQ
25733	0760 00 0 00144	SLN	4	
25734	-0600 00 0 26603	STQ	T1	
25735	0500 00 0 26603	CLA	T1	
25736	0402 00 0 26311	SUB	BS135	
25737	0100 00 0 25741	TZE	**2	
25740	0074 00 4 00105	TSX	ERROR,4	SLN 4 DECODED AS ENK
25741	0074 00 4 00106	TSX	OK,4	
25742	0020 00 0 25732	TRA	*-8	REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 451

* TEST SENSE LIGHT INSTRUCTIONS

25743	254542624345	BCD	1ENKSLN	
25744	0760 00 0 00140	SLF		RESET SENSE LIGHTS
25745	0760 00 0 00004	ENK		
25746	-0760 00 0 00144	SLT	4	
25747	0020 00 0 25751	TRA	*+2	
25750	0074 00 4 00105	TSX	ERROR,4	ENK DECODED AS SLN 4
25751	0074 00 4 00106	TSX	OK,4	
25752	0020 00 0 25744	TRA	*-6	REPEAT THIS TEST

25753	624345606060	BCD	1SLN	
25754	0774 00 2 00004	AXT	4,2	
25755	-0500 00 0 26604	CAL	T2	
25756	-0760 00 0 00001	PBT		RESTORE SENSE LIGHTS
25757	0760 00 2 00145	SLN	5,2	
25760	0767 00 0 00001	ALS	1	
25761	2 00001 2 25756	TIX	*-3,2,1	
25762	0074 00 4 00106	TSX	OK,4	
25763	0020 00 0 25754	TRA	*-7	

9M71/768
2/1/63
PAGE 452

SECTION ONE
PART III

TEST XCA AND XCL

25764 672321634743
25765 0500 00 0 26173

BCD 1XCATPL
CLA BZERO

+000000000000

25766 0131 00 0 25770
25767 0020 00 0 25771
25770 0074 00 4 00105
25771 0074 00 4 00106
25772 0020 00 0 25765

XCA **2
TRA **2
TSX ERROR,4
TSX OK,4
TRA *-5

SHOULD NOT TRANSFER
XCA IS DECODED AS TPL
REPEAT THIS TEST

25773 634743672321
25774 0560 00 0 26173
25775 0500 00 0 26174
25776 0120 00 0 25777
25777 -0100 00 0 26001
26000 0074 00 4 00105
26001 0074 00 4 00106
26002 0020 00 0 25774

BCD 1TPLXCA
LDQ BZERO
CLA BONES
TPL **1
TNZ **2
TSX ERROR,4
TSX OK,4
TRA *-6

CLEAR MQ
+37777777777
SHOULD TRANSFER
TPL DECODED AS XCA
REPEAT THIS TEST

26003 572321606060
26004 0500 00 0 26173
26005 0560 00 0 26173
26006 0131 00 0 00000
26007 0100 00 0 26011

BCD 1XCA
CLA BZERO
LDQ BZERO
XCA
TZE **2

CLEAR AC AND MQ
SHOULD TRANSFER

26010 0074 00 4 00105
26011 0074 00 4 00106
26012 0020 00 0 26004

TSX ERROR,4
TSX OK,4
TRA *-6

XCA FAILS TO GATE MQ-SR
REPEAT THIS TEST

26013 672321606060
26014 0500 00 0 26174
26015 0560 00 0 26173
26016 0131 00 0 00000
26017 0100 00 0 26022
26020 0560 00 0 26173
26021 0074 00 4 00105
26022 0074 00 4 00106
26023 0020 00 0 26014

BCD 1XCA
CLA BONES
LDQ BZERO
XCA
TZE **3
LDQ BZERO
TSX ERROR,4
TSX OK,4
TRA *-7

+37777777777
+000000000000
SHOULD TRANSFER
XCA FAILS TO GATE AD-AC
REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 453

* TEST XCA AND XCL

26024	672321606060	BCD	1XCA	
26025	0500 00 0 26173	CLA	BZERO	+000000000000
26026	0560 00 0 26174	LDQ	BONES	+377777777777
26027	0131 00 0 00000	XCA		
26030	-0100 00 0 26033	TNZ	*+3	SHOULD TRANSFER
26031	0560 00 0 26174	LDQ	BONES	
26032	0074 00 4 00105	TSX	ERROR,4	XCA FAILS TO GATE SR-AD
26033	0074 00 4 00106	TSX	OK,4	
26034	0020 00 0 26025	TRA	*-7	REPEAT THIS TEST
26035	672343606060	BCD	1XCL	
26036	0560 00 0 26174	LDQ	BONES	+377777777777
26037	0500 00 0 26173	CLA	BZERO	+000000000000
26040	-0130 00 0 00000	XCL		
26041	-0100 00 0 26043	TNZ	*+2	SHOULD TRANSFER
26042	0074 00 4 00105	TSX	ERROR,4	XCL FAILS TO GATE SR-AD
26043	0074 00 4 00106	TSX	OK,4	
26044	0020 00 0 26036	TRA	*-6	REPEAT THIS TEST
26045	672321606060	BCD	1XCA	
26046	0560 00 0 26174	LDQ	BONES	+377777777777
26047	0500 00 0 26173	CLA	BZERO	+000000000000
26050	0131 00 0 00000	XCA		
26051	-0763 00 0 00045	LGL	37	SHIFT C MQ TO AC
26052	0100 00 0 26054	TZE	*+2	SHOULD TRANSFER
26053	0074 00 4 00105	TSX	ERROR,4	XCA FAILS TO GATE SR-MQ
26054	0074 00 4 00106	TSX	OK,4	
26055	0020 00 0 26046	TRA	*-7	REPEAT THIS TEST
26056	672321606060	BCD	1XCA	
26057	0500 00 0 26174	CLA	BONES	+377777777777
26060	0560 00 0 26173	LDQ	BZERO	+000000000000
26061	0131 00 0 00000	XCA		
26062	-0763 00 0 00044	LGL	36	SHIFT C MQ TO AC
26063	-0100 00 0 26066	TNZ	*+3	SHOULD TRANSFER
26064	0560 00 0 26174	LDQ	BONES	
26065	0074 00 4 00105	TSX	ERROR,4	XCA FAILS TO GATE AC-SR
26066	0074 00 4 00106	TSX	OK,4	
26067	0020 00 0 26057	TRA	*-8	REPEAT THIS TEST

9M71/76B
2/1/63
PAGE 454

S E C T I O N O N E
P A R T I I I

* TEST XCA AND XCL

26070	672343606060	BCD	1XCL	
26071	0500 00 0 26174	CLA	BONES	+377777777777
26072	0560 00 0 26173	LDQ	BZERO	+000000000000
26073	-0130 00 0 00000	XCL		
26074	0131 00 0 00000	XCA		
26075	-0100 00 0 26100	TNZ	++3	SHOULD TRANSFER
26076	0560 00 0 26174	LDQ	BONES	
26077	0074 00 4 00105	TSX	ERROR,4	XCL FAILS TO GATE AC-SR
26100	0074 00 4 00106	TSX	OK,4	
26101	0020 00 0 26071	TRA	*-8	REPEAT THIS TEST
26102	672321606060	BCD	1XCA	
26103	0560 00 0 26173	LDQ	BZERO	+000000000000
26104	0500 00 0 26175	CLA	BSIGN	-000000000000
26105	0131 00 0 00000	XCA		
26106	0120 00 0 26111	TPL	++3	SHOULD TRANSFER
26107	0074 00 4 00104	TSX	ERROR-1,4	XCA FAILS TO GATE SRS-ACS
26110	0020 00 0 26103	TRA	*-5	
26111	0162 00 0 26113	TQP	++2	SHOULD NOT TRANSFER
26112	0020 00 0 26114	TRA	++2	
26113	0074 00 4 00105	TSX	ERROR,4	
26114	0074 00 4 00106	TSX	OK,4	
26115	0020 00 0 26103	TRA	*-10	REPEAT THIS TEST
26116	672321606060	BCD	1XCA	
26117	0560 00 0 26175	LDQ	BSIGN	400000000000
26120	-0500 00 0 26175	CAL	BSIGN	
26121	0131 00 0 00000	XCA		
26122	0162 00 0 26125	TQP	++3	SHOULD TRANSFER
26123	0074 00 4 00104	TSX	ERROR-1,4	XCA GATES ACP-SRS OR FAILS TO GATE SRS-MQS
26124	0020 00 0 26117	TRA	*-5	
26125	-0120 00 0 26127	TMI	++2	SHOULD TRANSFER
26126	0074 00 4 00105	TSX	ERROR,4	XCA FAILS TO GATE MQS-SRS
26127	0074 00 4 00106	TSX	OK,4	
26130	0020 00 0 26117	TRA	*-9	REPEAT THIS TEST

S E C T I O N O N E
P A R T I I I

9M71/76B
2/1/63
PAGE 455

* TEST XCL AND XCA

```
26131 672343606060
26132 0560 00 0 26173
26133 -0500 00 0 26175
26134 -0130 00 0 00000
26135 0162 00 0 26137
26136 0020 00 0 26141
26137 0074 00 4 00104
26140 0020 00 0 26132
26141 -0760 00 0 00001
26142 0020 00 0 26144
26143 0074 00 4 00105
26144 0074 00 4 00106
26145 0020 00 0 26132
```

```
BCD 1XCL
LDQ BZERO +000000000000
CAL BSIGN +400000000000
XCL
TQP **2 SHOULD NOT TRANSFER
TRA **3
TSX ERROR-1,4 XCL FAILS TO GATE SRS-MQS
TRA *-6
PBT SHOULD NOT SKIP
TRA **2
TSX ERROR,4 XCL FAILS TO GATE MQS-SRS
TSX OK,4
TRA *-11
```

```
26146 672343606060
26147 0560 00 0 26175
26150 0500 00 0 26175
26151 -0130 00 0 00000
26152 0162 00 0 26155
```

```
BCD 1XCL
LDQ BSIGN -000000000000
CLA BSIGN
XCL
TQP **3 SHOULD TRANSFER
```

```
26153 0074 00 4 00104
26154 0020 00 0 26147
26155 -0760 00 0 00001
26156 0074 00 4 00105
26157 0074 00 4 00106
26160 0020 00 0 26147
```

```
TSX ERROR-1,4 XCL GATES ACS-SRS
OR FAILS TO GATE SRS-MQS
TRA *-5
PBT
TSX ERROR,4 XCL FAILS TO GATE SRS-ADP
TSX OK,4
TRA *-9 REPEAT THIS TEST
```

```
26161 672343606060
26162 0560 00 0 26175
26163 0500 00 0 26175
26164 -0130 00 0 00000
26165 0120 00 0 26167
```

```
BCD 1XCL
LDQ BSIGN
CLA BSIGN -000000000000
XCL
TPL **2 SHOULD TRANSFER
TSX ERROR,4 XCL FAILS TO CLEAR ACS
TSX OK,4
TRA *-6 REPEAT THIS TEST
```

```
26166 0074 00 4 00105
26167 0074 00 4 00106
26170 0020 00 0 26162
```

9M71/76B
2/1/63
PAGE 456

S E C T I O N O N E
C O N S T A N T S

26171 0 00000 0 00001 PZE 1
26172 0074 00 4 00111 TSX LOOP,4

26173 +000000000000 BZERO OCT 0
26174 +377777777777 BONES OCT 377777777777
26175 -000000000000 BSIGN OCT 400000000000

26176 +200000000000	B1	OCT	200000000000
26177 +100000000000	B2	OCT	100000000000
26200 +040000000000	B3	OCT	400000000000
26201 +020000000000	B4	OCT	200000000000
26202 +010000000000	B5	OCT	100000000000
26203 +004000000000	B6	OCT	400000000000
26204 +002000000000	B7	OCT	200000000000
26205 +001000000000	B8	OCT	100000000000
26206 +000400000000	B9	OCT	400000000000
26207 +000200000000	B10	OCT	200000000000
26210 +000100000000	B11	OCT	100000000000
26211 +000040000000	B12	OCT	400000000000
26212 +000020000000	B13	OCT	200000000000
26213 +000010000000	B14	OCT	100000000000
26214 +000004000000	B15	OCT	400000000000
26215 +000002000000	B16	OCT	200000000000
26216 +000001000000	B17	OCT	100000000000
26217 +000000400000	B18	OCT	400000000000
26220 +000000200000	B19	OCT	200000000000
26221 +000000100000	B20	OCT	100000000000
26222 +000000040000	B21	OCT	400000000000
26223 +000000020000	B22	OCT	200000000000
26224 +000000010000	B23	OCT	100000000000
26225 +000000004000	B24	OCT	400000000000
26226 +000000002000	B25	OCT	200000000000
26227 +000000001000	B26	OCT	100000000000
26230 +000000000400	B27	OCT	400000000000
26231 +000000000200	B28	OCT	200000000000
26232 +000000000100	B29	OCT	100000000000
26233 +000000000040	B30	OCT	400000000000
26234 +000000000020	B31	OCT	200000000000
26235 +000000000010	B32	OCT	100000000000
26236 +000000000004	B33	OCT	400000000000
26237 +000000000002	B34	OCT	200000000000
26240 +000000000001	B35	OCT	100000000000

SECTION ONE CONSTANTS

9M71/76B
2/1/63
PAGE 457

26241 -200000000000	BSA1	OCT	600000000000
26242 +300000000000	B1A2	OCT	300000000000
26243 +140000000000	B2A3	OCT	140000000000
26244 +060000000000	B3A4	OCT	060000000000
26245 +030000000000	B4A5	OCT	030000000000
26246 +014000000000	B5A6	OCT	014000000000
26247 +006000000000	B6A7	OCT	006000000000
26250 +003000000000	B7A8	OCT	003000000000
26251 +001400000000	B8A9	OCT	001400000000
26252 +000600000000	B9A10	OCT	000600000000
26253 +000300000000	B10A11	OCT	000300000000
26254 +000140000000	B11A12	OCT	000140000000
26255 +000060000000	B12A13	OCT	000060000000
26256 +000030000000	B13A14	OCT	000030000000
26257 +000014000000	B14A15	OCT	000014000000
26260 +000006000000	B15A16	OCT	000006000000
26261 +000003000000	B16A17	OCT	000003000000
26262 +000001400000	B17A18	OCT	000001400000
26263 +000000600000	B18A19	OCT	000000600000
26264 +000000300000	B19A20	OCT	000000300000
26265 +000000140000	B20A21	OCT	000000140000
26266 +000000060000	B21A22	OCT	000000060000
26267 +000000030000	B22A23	OCT	000000030000
26270 +000000014000	B23A24	OCT	000000014000
26271 +000000006000	B24A25	OCT	000000006000
26272 +000000003000	B25A26	OCT	000000003000
26273 +000000001400	B26A27	OCT	000000001400
26274 +000000000600	B27A28	OCT	000000000600
26275 +000000000300	B28A29	OCT	000000000300
26276 +000000000140	B29A30	OCT	000000000140
26277 +000000000060	B30A31	OCT	000000000060
26300 +000000000030	B31A32	OCT	000000000030
26301 +000000000014	B32A33	OCT	000000000014
26302 +000000000006	B33A34	OCT	000000000006
26303 +000000000003	B34A35	OCT	000000000003
26304 +377000000000	B1T8	OCT	377000000000
26305 +000000000070	B3032	OCT	000000000070
26306 +077777700000	B317	OCT	077777700000
26307 +000000000007	B3335	OCT	000000000007
26310 +000777777777	B935	OCT	000777777777
26311 -377777777777	BS135	OCT	777777777777
26312 -000000000001	MB35	OCT	400000000001
26313 -000000000002	MB34	OCT	400000000002
26314 -000000000007	M3335	OCT	400000000007
26315 +000000000005	B33A35	OCT	000000000005
26316 -000000000004	MB33	OCT	400000000004
26317 -000000000003	MB3435	OCT	400000000003
26320 -000000000010	MB32	OCT	400000000010
26321 -000000000005	M33A35	OCT	400000000005
26322 +000000000016	B32T34	OCT	000000000016
26323 -000000000014	MB3233	OCT	400000000014
26324 +000000000017	B32T35	OCT	000000000017
26325 +000000000024	B31A33	OCT	000000000024
26326 +000000000026	GA26	OCT	000000000026
26327 +000000000027	GA27	OCT	000000000027

9M71/76B

2/1/63

PAGE 458

S E C T I O N O N E
C O N S T A N T S

26330	+000000000022	GA22	OCT	000000000022
26331	+000000000050	B30A32	OCT	000000000050
26332	+000000000160	B29T31	OCT	000000000160
26333	+000000000170	B29T32	OCT	000000000170
26334	+000000000120	B29A31	OCT	000000000120
26335	+000000000110	B29A32	OCT	000000000110
26336	+000000000220	B28A31	OCT	000000000220
26337	+000000000340	B28T30	OCT	000000000340
26340	+000000000240	B28A30	OCT	000000000240
26341	+000000000500	B27A29	OCT	000000000500
26342	+000000000540	GB54	OCT	000000000540
26343	+000000000440	B27A30	OCT	000000000440
26344	+000000000560	GB56	OCT	000000000560
26345	+000000000460	GB46	OCT	000000000460
26346	+000000000420	B27A31	OCT	000000000420
26347	+000000001200	B26A28	OCT	000000001200
26350	+000000002400	B25A27	OCT	000000002400
26351	+000000003600	B25T28	OCT	000000003600
26352	+000000003400	B25T27	OCT	000000003400
26353	+000000002200	B25A28	OCT	000000002200
26354	+000000005400	GC54	OCT	000000005400
26355	+000000007000	GC70	OCT	000000007000
26356	+000000007400	B24T27	OCT	000000007400
26357	+000000012000	B23A25	OCT	000000012000
26360	+000000013000	GD13	OCT	000000013000
26361	+000000013400	GC134	OCT	000000013400
26362	+000000011000	B23A26	OCT	000000011000
26363	+000000011400	GC114	OCT	000000011400
26364	+000000010400	B23A27	OCT	000000010400
26365	+000000034000	B22T24	OCT	000000034000
26366	+000000050000	B21A23	OCT	000000050000
26367	+000000024000	B22A24	OCT	000000024000
26370	+000000070000	B21T23	OCT	000000070000
26371	+000000074000	B21T24	OCT	000000074000
26372	+000000044000	B21A24	OCT	000000044000
26373	+000000130000	GE13	OCT	000000130000
26374	+000000120000	B20A22	OCT	000000120000
26375	+000000150000	GE15	OCT	000000150000
26376	+000000160000	B20T22	OCT	000000160000
26377	+000000110000	B20A23	OCT	000000110000
26400	+000000240000	B19A21	OCT	000000240000
26401	+000000260000	GE26	OCT	000000260000
26402	+000000270000	GE27	OCT	000000270000
26403	+000000230000	GE23	OCT	000000230000
26404	+000000210000	B19A23	OCT	000000210000

S E C T I O N O N E
C O N S T A N T S

9M71/76B
2/1/63
PAGE 459

26405	+000000500000	B18A20	OCT	000000500000
26406	+000001200000	B17A19	OCT	000001200000
26407	+000001700000	B17T20	OCT	000001700000
26410	+000001600000	B17T19	OCT	000001600000
26411	+000001100000	B17A20	OCT	000001100000
26412	+000002600000	GF26	OCT	000002600000
26413	+000002400000	B16A18	OCT	000002400000
26414	+000003200000	GF32	OCT	000003200000
26415	+000002200000	B16A19	OCT	000002200000
26416	+000003400000	B16T18	OCT	000003400000
26417	+000003600000	B16T19	OCT	000003600000
26420	+000005000000	B15A17	OCT	000005000000
26421	+000005400000	GF54	OCT	000005400000
26422	+000005600000	GF56	OCT	000005600000
26423	+000004400000	B15A18	OCT	000004400000
26424	+000004600000	GF46	OCT	000004600000
26425	+000004200000	B15A19	OCT	000004200000

26426	+000012000000	B14A16	OCT	000012000000
26427	+000024000000	B13A15	OCT	000024000000
26430	+000034000000	B13T15	OCT	000034000000
26431	+000036000000	B13T16	OCT	000036000000
26432	+000044000000	B12A15	OCT	000044000000
26433	+000050000000	B12A14	OCT	000050000000
26434	+000054000000	GG54	OCT	000054000000
26435	+000074000000	B12T15	OCT	000074000000
26436	+000070000000	B12T14	OCT	000070000000

26437	+000240000000	B10A12	OCT	000240000000
26440	+000340000000	B10T12	OCT	000340000000
26441	+000500000000	B9A11	OCT	000500000000
26442	+000440000000	B9A12	OCT	000440000000
26443	+000700000000	B9T11	OCT	000700000000
26444	+001200000000	B8A10	OCT	001200000000
26445	+001100000000	B8A11	OCT	001100000000
26446	+001300000000	B81011	OCT	001300000000
26447	+000740000000	B9T12	OCT	000740000000
26450	+002400000000	B7A9	OCT	002400000000
26451	+003400000000	B7T9	OCT	003400000000
26452	+005000000000	B6A8	OCT	005000000000
26453	+007000000000	B6T8	OCT	007000000000

26454	+024000000000	B4A6	OCT	024000000000
26455	+050000000000	B3A5	OCT	050000000000
26456	+070000000000	B3T5	OCT	070000000000
26457	+044000000000	B3A6	OCT	044000000000
26460	+074000000000	B3T6	OCT	074000000000
26461	+130000000000	B245	OCT	130000000000
26462	+160000000000	B2T4	OCT	160000000000
26463	+170000000000	B2T5	OCT	170000000000
26464	+120000000000	B2A4	OCT	120000000000
26465	+110000000000	B2A5	OCT	110000000000
26466	-100000000000	B5A2	OCT	500000000000
26467	-300000000000	B5T2	OCT	700000000000

9M71/76B
2/1/63
PAGE 460

S E C T I O N O N E
C O N S T A N T S

26470	+000000000370	B28T32	OCT	000000000370
26471	+000000000350	GB35	OCT	000000000350
26472	+000000000360	B28T31	OCT	000000000360
26473	+000000007600	B24T28	OCT	000000007600
26474	+000000007770	B24T32	OCT	000000007770
26475	+000000007730	GB773	OCT	000000007730
26476	+000000007740	B24T30	OCT	000000007740
26477	+000000007370	GB737	OCT	000000007370
26500	+000000007570	GB757	OCT	000000007570
26501	+000000177777	B20T35	OCT	000000177777
26502	+000000176600	GC1766	OCT	000000176600
26503	+000000077600	B21T28	OCT	000000077600
26504	+000000177670	GX1	OCT	000000177670
26505	+000000177700	B20T29	OCT	000000177700
26506	+000000077777	B21T35	OCT	000000077777
26507	+000000173777	GX2	OCT	000000173777
26510	+000000174000	B20T24	OCT	000000174000
26511	+000003777777	B16T35	OCT	000003777777
26512	+000003777757	GX3	OCT	000003777757
26513	+000003777760	B16T31	OCT	000003777760
26514	+000003777377	GX4	OCT	000003777377
26515	+000003777400	B16T27	OCT	000003777400
26516	+000003767777	GX5	OCT	000003767777
26517	+000003770000	B16T23	OCT	000003770000
26520	+000001777777	B17T35	OCT	000001777777
26521	+000003777360	GX6	OCT	000003777360
26522	+000003767600	GX7	OCT	000003767600
26523	+000001777600	B17T28	OCT	000001777600
26524	+000003764000	GX8	OCT	000003764000
26525	+000077600000	B12T19	OCT	000077600000
26526	+000077770000	B12T23	OCT	000077770000
26527	+000077777400	B12T27	OCT	000077777400
26530	+000077777760	B12T31	OCT	000077777760
26531	+000077777777	B12T35	OCT	000077777777
26532	+000774000000	B9T15	OCT	000774000000
26533	+000772000000	GX9	OCT	000772000000
26534	+007774000000	B6T15	OCT	007774000000
26535	+003700000000	B7T11	OCT	003700000000
26536	+007640000000	GX10	OCT	007640000000
26537	+003740000000	B7T12	OCT	003740000000
26540	+007676000000	GX12	OCT	007676000000
26541	+007700000000	B6T11	OCT	007700000000
26542	+007772000000	GX13	OCT	007772000000

S E C T I O N O N E
C O N S T A N T S

9M71/76B
2/1/63
PAGE 461

26543	+177000000000	B2T8	OCT	177000000000
26544	+177700000000	B2T11	OCT	177700000000
26545	+177774000000	B2T15	OCT	177774000000
26546	+077000000000	B3T8	OCT	077000000000
26547	+176400000000	GX14	OCT	176400000000
26550	+176740000000	GX15	OCT	176740000000
26551	+177640000000	GX16	OCT	177640000000
26552	+077777000000	B3T17	OCT	077777000000
26553	+000777400000	B9T18	OCT	000777400000
26554	+000000377700	B19T29	OCT	000000377700
26555	+000000700000	B1820	OCT	000000700000
26556	+000000700000	B18T20	OCT	000000700000
26557	+000000077777	B2135	OCT	000000077777
26560	+000000000077	B3035	OCT	000000000077
26561	+000777777777	B9T35	OCT	000777777777
26562	+000000000023	GA23	OCT	000000000023
26563	+000000000021	GA21	OCT	000000000021
26564	+000000006400	GC64	OCT	000000006400
26565	+000000005000	B24A26	OCT	000000005000
26566	+000000170000	B20T23	OCT	000000170000
26567	+000000220000	B19A22	OCT	000000220000
26570	+000016000000	B14T16	OCT	000016000000
26571	+000022000000	B13A16	OCT	000022000000
26572	+000000177000	B20T26	OCT	000000177000
26573	+000001774000	B17T24	OCT	000001774000
26574	+000376000000	B10T16	OCT	000376000000
26575	+003776000000	B7T16	OCT	003776000000
26576	+077700000000	B3T11	OCT	077700000000
26577	+077774000000	B3T15	OCT	077774000000
26600	+007776000000	B6T16	OCT	007776000000
26601	+000777000000	B9T17	OCT	000777000000
26602	+000000777777	B18T35	OCT	000000777777

	26603	T1	BSS	1	TEMPORARY STORAGE
	26604	T2	BSS	1	TEMPORARY STORAGE
26605	+000000000000	TEMP1	OCT	+000000000000	
26606	+000000000000	TEMP2	OCT	+000000000000	