

9LD01A AND 9LD02A

EXPLANATION OF OPERATION

THIS LOAMR WAS WRITTEN TO USE AS LITTLE OF THE CIRCUITRY AS POSSIBLE AND STILL COMPARE THE CHECK SUMS.

THE CONTROL WORD FOR THE LOADER USES ONLY S TRIGGER, AS DOES THE LOAD CARD BUTTON, THEREFORE. IF THE BUTTON IS OPERATING CORRECTLY THE PROGRAM SHOULD LOAD.

NO INDEXING IS USED THROUGHOUT THE LOADER. THE MAIN FRAME INSTRUCTIONS USED ARE LISTED BELOW.

CLA	STA	SLW
TZE	CAL	SUB
STO	ACL	TMI

THESE INSTRUCTIONS MAY BE ELIMINATED BY IGNORING A CHECK SUM COMPARISON, AND TRANSFERRING MANUALLY, THE LOADER WILL THEN EXECUTE ONLY THREE INSTRUCTIONS, RCDA, RCHA AND TCOA. TO DO THIS PLACE A TRA TO 0001 AT LOCATION 0004, FOR 9LD01 OR TRA TO 77751 AT LOCATION 71754 FOR 9LD02. IF A MANUAL TRANSFER IS UNDESIRABLE PLACE A TRA TO 1 AT LOCATION 0006, FOR 9LD01 OR TRA TO 77751 AT LOCATION 77756, FOR 9LD02

THE CONSTANT AT LOCATION 0023 OR 77773, WHEN SUBTRACTED FROM THE 9L WORD-LOCATION 0026 OR 77776-WILL DECREASE THE DECREMENT-WORD COUNT-BY 1 AND INCREASE THE ADDRESS-INITIAL ADDRESS-BY 1. AFTER THE WORD COUNT IN THE DECREMENT OF 9L HAS BEEN REDUCED TO 0, ALL WORDS WILL HAVE BEEN READ INTO THE CORRECT LOCATIONS, AND THE NEXT SUBTRACTION WILL CHANGE THE ACCUMULATOR TO MINUS. THE CHECK SUMS WILL THEN BE COMPARED AT LOCATIONS 0017 - 0021 OR 77767 - 77771.

LOCATIONS 0006 - 0016 OR 77756 - 77766 CONSTRUCT THE CHECK SUM,

LOCATIONS 0026 - 0027 OR 77776 - 77777 HOLD THE 9L AND 9R WORDS OF EACH CARD. 9L DECREMENT CONTAINING THE NUMBER OF WORDS ON THE CARD AND 9L ADDRESS CONTAINING THE INITIAL ADDRESS. 9R CONTAINS THE CHECK SUM OF THE CARD BEING READ.

THIS LOADER USES A SPECIAL TRA CARD WHICH MAY NOT BE USED FOR ANY OTHER LOADER, NOR WILL THE LOADER READ ANY OTHER TRA CARD.

9L OF THE TRA CARD IS BLANK, AND 9R CONTAINS A PLUS TRA TO THE STARTING ADDRESS OF THE PROGRAM BEING LOADED.

*					9LD01A	
00000	0000 25 0 00003	TEMP	IOCD 3,0,21		THIS LOCATION IS USED FOR CONTROL TO READ THE REMAINDER OF THE LOADER, AND ALSO AS STORAGE FRO THE INCOMPLETE CHECK SUM	
00001	0762 00 0 01321		RCDA			
00002	0540 00 0 00025		RCHA B		CONTROL HAS S TGR ON AND WILL READ 9L AND 9R WORDS INTO B+1 AND B+2.	
00003	0060 00 0 00003		TCOA *			
00004	0500 00 0 00026		CLA B+1		9L WORD-WORD COUNT ON CARD AND INITIAL ADDRESS, ALSO USED AS CONTROL WORD TO READ REMAINDER OF CARD AFTER CONTROL AT B HAS BEEN EXECUTED.	
00005	0100 00 0 00027		TZE B+2		IF ZERO-EITHER TRA CARD OR BLANK CARD.	
00006	0601 00 0 00000		STO TEMP		IF NOT ZERO-SAVE. 9L TO BE ADDED INTO CHECK SUM.	
00007	0621 00 0 00014		STA *+5		ADDRESS OF 8L WORD IN STORAGE	
00010	0402 00 0 00024		SUB CONST		L 777777. SUBTRACTING THIS CONSTANT WILL INCREASE THE ADDRESS AND DECREASE THE WORD NO.	
00011	-0120 00 0 00020		TMI CONST-4		WHEN ACC BECOMES MINUS THE LAST WORD HAS BEEN ADDED INTO CHECK SUM.	
00012	0601 00 0 00026		STO B+1		IF NOT MINUS-SAVE.	
00013	-0500 00 0 00000		CAL TEMP		INCOMPLETE CHECK SUM.	
00014	0361 00 0 00000		ACL		8L ADDRESS-INITIALLY.	
00015	0602 00 0 00000		SLW TEMP		SAVE INCOMPLETE SUM.	
00016	0500 00 0 00026		CLA B+1			
00017	0020 00 0 00007		TRA *-8		RETURN TO STORE ADDRESS.	
00020	0500 00 0 00000		CLA TEMP		COMPLETE CHECK SUM.	
00021	0402 00 0 00027		SUB B+2		B+2 WILL HOLD CORRECT CHECK SUM FROM CARD, UNLESS A TRA CARD. IF A TRA CARD B+2 WILL HOLD THE TRANSFER.	
00022	0100 00 0 00001		TZE 1		IF ZERO BACK TO RCDA	
00023	0000 00 0 00001		HTR 1		IF NOT ZERO-HALT	
00024	+000000777777	CONST	OCT 777777			
00025	-0000 02 0 00026	B	IOCP B+1,0,2		CONTROL TO READ 9L AND 9R OF EACH CARD INTO B+1 AND B+2 RESPECTIVELY	

00026 +0000000000000

OCT 0

LOCATION FOR 9L OF EACH
CARD WHICH WILL BE USED
AS A CONTROL WORD AFTER
EXECUTION OF WORD AT B,
ALSO AS TEMPORARY STORAGE
FOR CONSECUTIVE ADDRESSES
AND WORD COUNT AFTER
SUBTRACTING COSNT.

00027 +0000000000000

OCT 0

9R WORD OF EACH CARD WILL
READ INTO THIS LOCATION, AND
WILL CONTAIN THE CHECK
SUM FROM EACH CARD, UNLESS
A TRA CARD. IN THIS CASE
9R WILL CONTAIN A STRAIGHT
TRANSFER TO THE START
OF THE PROGRAM.

00000

END

77775 +0000000000000		OCT 0	LOCATION FOR 9L OF EACH CARD WHICH WILL BE USED AS A CONTROL WORD AFTER EXECUTION OF WORD AT B, ALSO AS TEMPORARY STORAGE FOR CONSECUTIVE ADDRESSES AND WORD COUNT AFTER SUBTRACTING COSNT.
77776 +0000000000000		OCT 0	9R WORD OF EACH CARD WILL READ INTO THIS LOCATION, AND WILL CONTAIN THE CHECK SUM FROM EACH CARD, UNLESS A TRA CARD. IN THIS CASE 9R WILL CONTAIN A STRAIGHT TRANSFER TO THE START OF THE PROGRAM.
77777 +0000000000000	TEMP	OCT 0	TEMPORARY STORAGE FOR IN COMPLETE CHECK SUM.
00000		END	