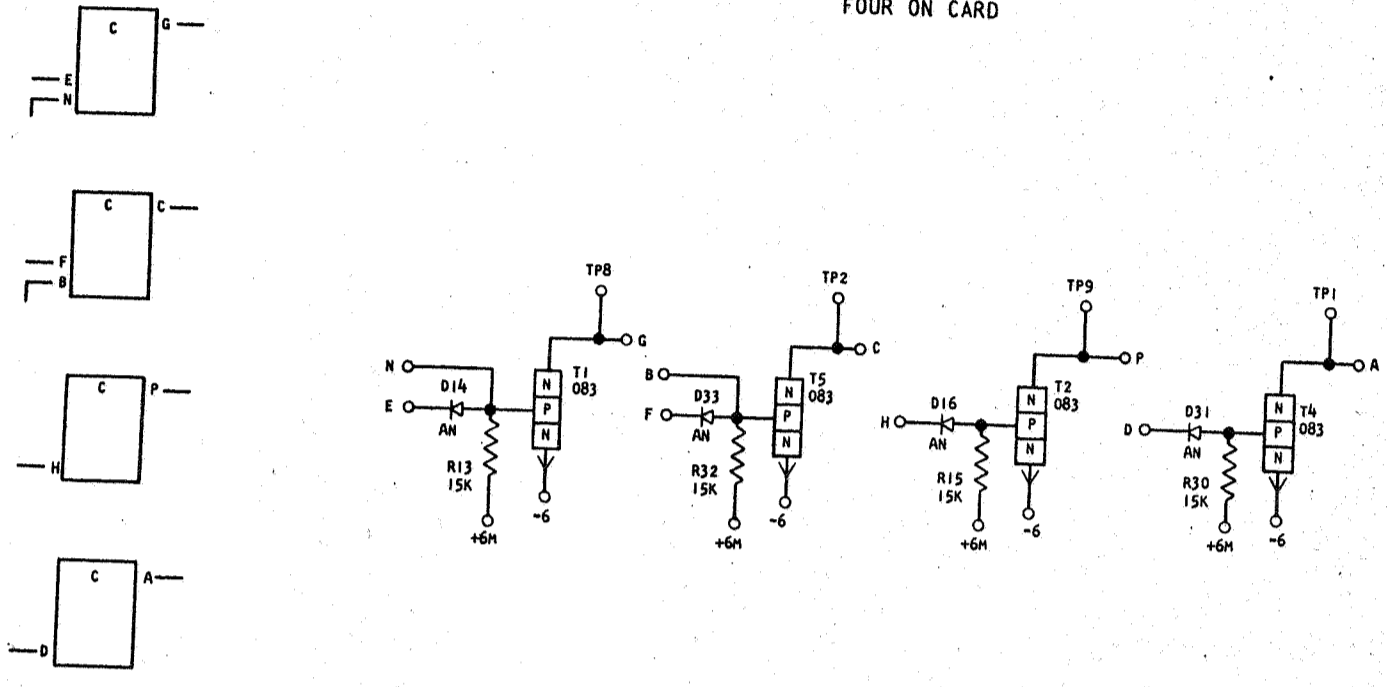


STANDARDS CODE  
729849

CARD CODE 729849  
CR --

**REFERENCE DRAWING**  
SEE PRODUCTION DRAWING 371276

CTDL - ONE WAY NPN NO LOADS  
FOUR ON CARD



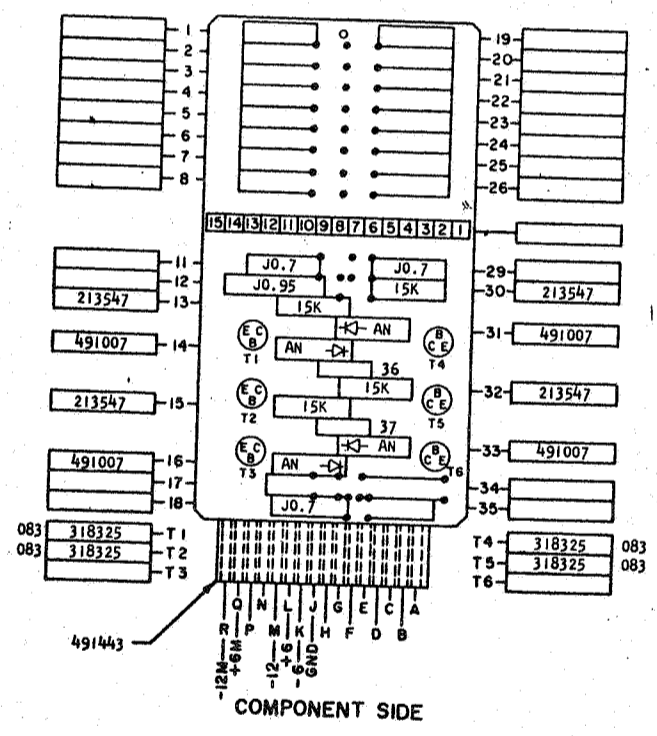
- SEQUENCE OF OPERATION
1. UP INPUT TRANSISTOR ON OUTPUT DOWN
  2. DOWN INPUT TRANSISTOR OFF OUTPUT UP
  3. INPUTS ON EXTENDER CARD UP IN COINCIDENCE WITH UP INPUT ON CARD FOR DOWN OUTPUT
  4. COLLECTORS MUST BE LOADED
  5. LOGIC BLOCKS MAY HAVE SYMBOLS OTHER THAN SHOWN

PINS	SIGNAL NAME	WAVE SHAPE	LEVELS	
			MIN	MAX
E, F, H, D	U	INPUT	UP	-5.26 0.24
			DOWN	-7.44 -12.5
N, B	EXTENDER INPUT	INPUT	UP	-6.
			DOWN	-12.
G, C, P, A	T	OUTPUT	UP	1.44 6.24
			DOWN	-5.46 -6.24

DELAY - USEC

	MINIMUM	MAXIMUM
TURN ON	0.05	0.70
TURN OFF	0.05	1.50*

\*THIS DELAY CAN OCCUR ONLY ON HEAVILY LOADED BLOCKS.  
NOTE: THE ABOVE RANGES OF DELAYS ARE REPRESENTATIVE. SPECIFIC CIRCUIT APPLICATION AND/OR WIRING CAPACITANCE MAY RESULT IN DELAYS WHICH ARE OUT OF THE GIVEN RANGES. IN SUCH CASES, CARD REPLACEMENT SHOULD INDICATE IF THE CIRCUIT IS OUT OF SPECIFICATIONS. EXAMPLE: LOGIC BLOCK DRIVING EF 'OR'.



CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
ABC	4-2-62

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-CTDL-ONE	DATE	-62	CHANGE NO.	115599	APPROVAL		DATE		DEVELOPMENT NO.
DESIGN	WY NPN NO LDS-FOUR ON CARD	MODEL	SMS							
DETAIL	RQ 3-1-62	SCALE	NONE							
CHECK	WH 3-1-62	DRAW	LIG 3-17-62							
APPRO		CHECK								

729849