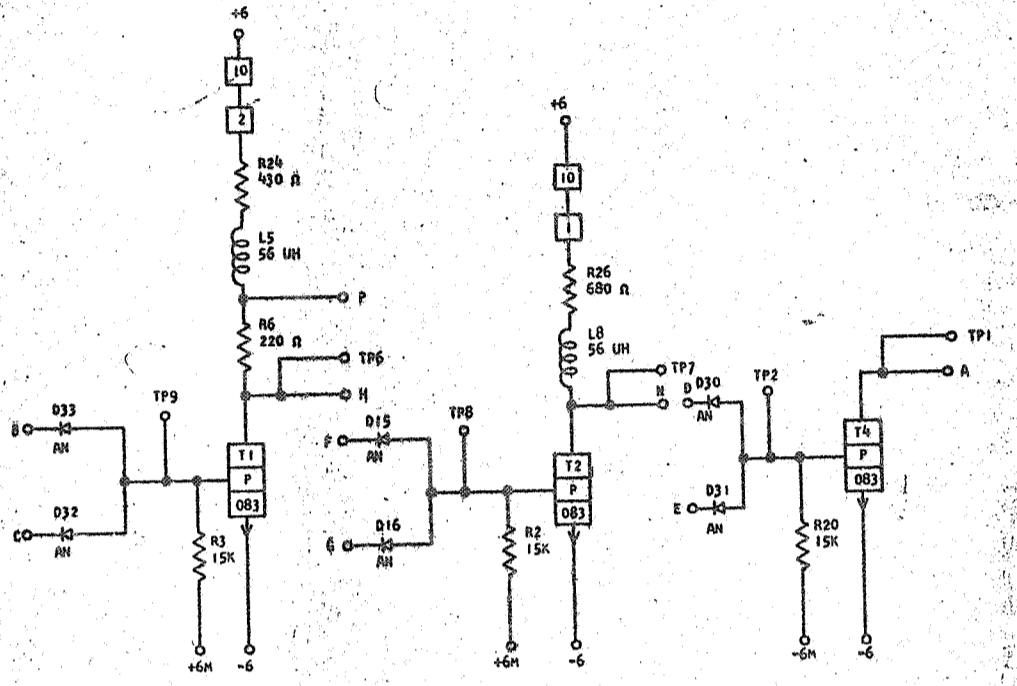
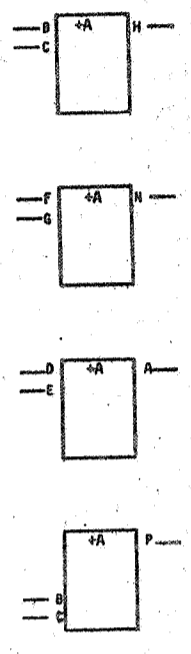


STANDARDS CODE  
729826

CARD CODE 729826  
CH VW

REFERENCE DRAWING  
SEE PRODUCTION DRAWING 371264

CTDL-TWO WAY "AND" NPN TWO LOADS



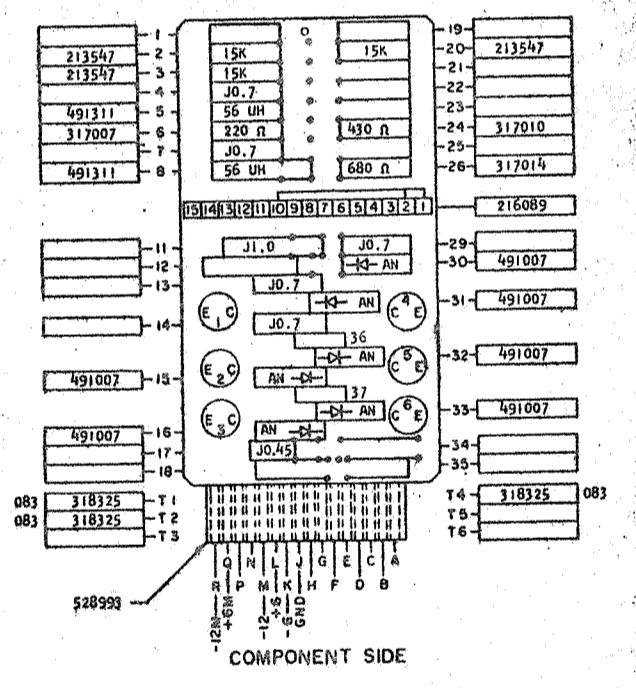
- SEQUENCE OF OPERATION
1. BOTH INPUTS UP, TRANSISTOR ON, OUTPUT DOWN
  2. ANY INPUT DOWN TRANSISTOR OFF OUTPUT UP
  3. T4 COLLECTOR MUST BE LOADED
  4. LOGIC BLOCKS MAY HAVE SYMBOLS OTHER THAN SHOWN

PINS	SIGNAL NAME	WAVE SHAPE	LEVELS	
			MIN	MAX
B, F, D	U	INPUT	UP	-5.26 0.24
			DOWN	-7.44 -12.5
C, G, E	U	INPUT	UP	-5.26 0.24
			DOWN	-7.44 -12.5
H, N, A	T	OUTPUT	UP	1.44 6.24
			DOWN	-5.46 -6.24
P	N	OUTPUT	UP	2.82 6.24
			DOWN	-1.07 -2.40

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-TWO WAY "AND" NPN TWO LOADS	7-62	115599					
DESIGN							
DETAIL	3-1-62	SCALE	NONE				
CHECK	3-1-62	DRAW	LTC	3-17-62			
APPRO		CHECK					