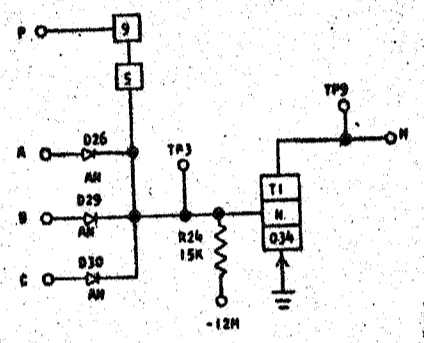
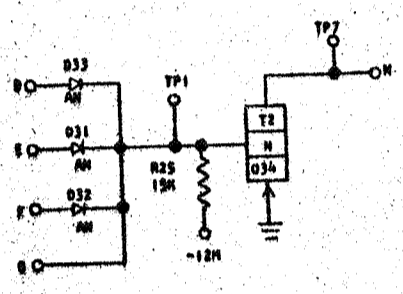
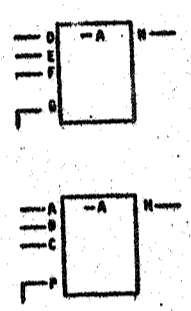


729829  
STANDARD CODE

CARD CODE 729829  
CJ WF

**REFERENCE DRAWING**  
SEE PRODUCTION DRAWING 371268

CTDL 3-WAY "AND" PNP NO LOADS



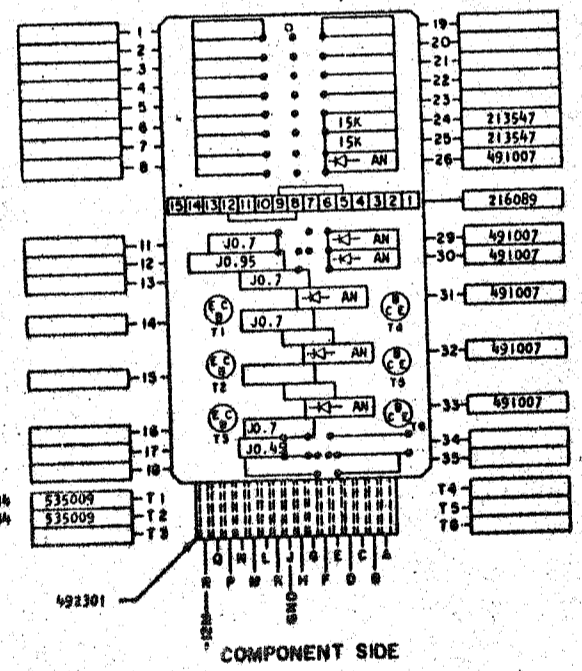
- SEQUENCE OF OPERATION
1. ALL INPUTS DOWN TRANSISTOR ON OUTPUT UP
  2. ANY INPUT UP TRANSISTOR OFF OUTPUT DOWN
  3. INPUTS ON EXTENDER CARD DOWN IN COINCIDENCE WITH DOWN INPUTS ON CARD FOR UP OUTPUT
  4. COLLECTORS MUST BE LOADED
  5. LOGIC BLOCKS MAY HAVE SYMBOLS OTHER THAN SHOWN

PINS	SIGNAL NAME	WAVE SHAPE	LEVELS	
			MIN	MAX
D, A	T INPUT	[Waveform: High when all inputs are low]	UP	1.44 - 6.24
			DOWN	-0.74 - -6.24
E, B	T INPUT	[Waveform: High when all inputs are low]	UP	1.44 - 6.24
			DOWN	-0.74 - -6.24
F, C	T INPUT	[Waveform: High when all inputs are low]	UP	1.44 - 6.24
			DOWN	-0.74 - -6.24
G, P	EXTENDER INPUT	[Waveform: High when all inputs are low]	UP	+6.0
			DOWN	0.0
H, H	U OUTPUT	[Waveform: High when all inputs are low]	UP	-0.54 - 0.24
			DOWN	-7.44 - -12.5

DELAY - USEC

	MINIMUM	MAXIMUM
TURN ON	0.10	0.80
TURN OFF	0.05	0.80

\*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 EP "00".



CIRCUIT ADD. PACKAGING STANDARD

APPROVAL	DATE
ABC	4-2-62

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASH YSTR-CTDL - 3	6-29-62	EC 115599					729829
WAY "AND" PNP NO LOADS	30-4-63	JT 83687					
DESIGN	MODEL	SMS					
DETAIL RD	3-1-62	SCALE	NONE				
CHECK WR	3-1-62	DRAW	LIG 3-17-62				
APPRO	CHECK						

729829