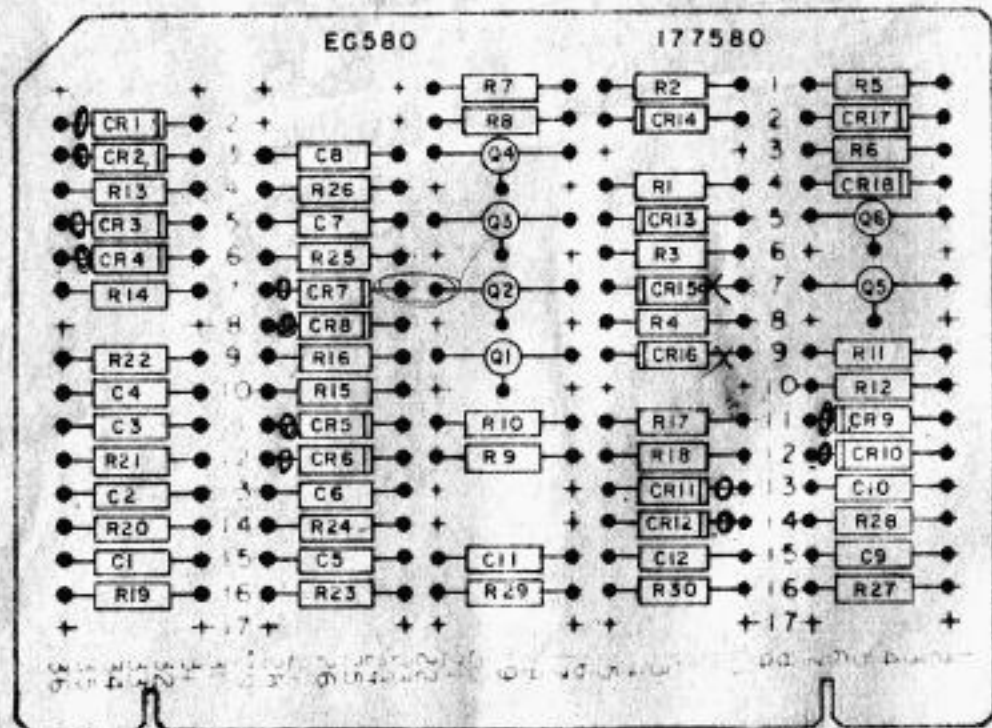


EC580
177580

FLIP FLOP (3)

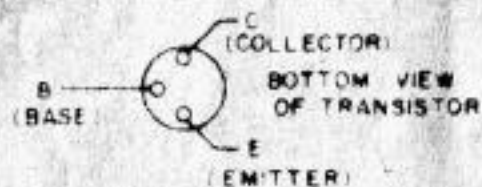
CIRCUIT BOARD EC580

REVISIONS



148802

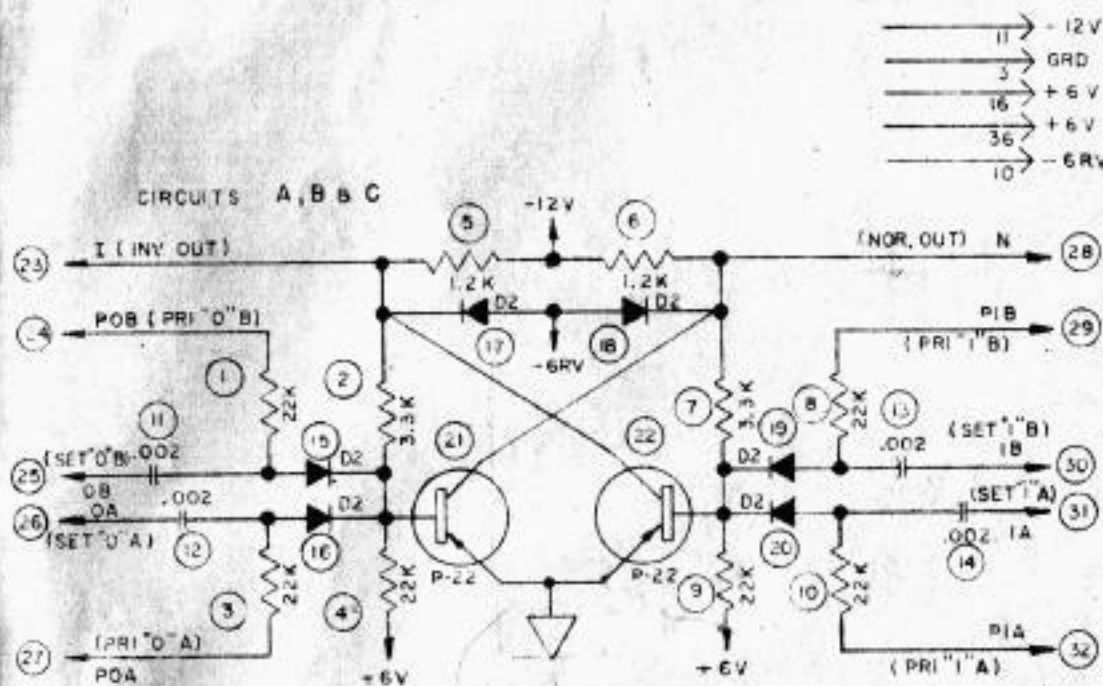
NOTE:
REFER TO 6050 WD FOR BASIC MARKING INFORMATION



FLIP-FLOP

THE FLIP-FLOP EMPLOYS TWO TRANSISTORS SO ARRANGED THAT WHEN ONE IS CONDUCTING, THE OTHER IS HELD IN A CUTOFF CONDITION. THE COLLECTOR POTENTIAL OF THE CUTOFF TRANSISTOR WILL BE CLAMPED TO -6V BY THE CLAMP DIODE. THE CONDUCTING TRANSISTOR WILL HAVE A POTENTIAL OF -0.3V.

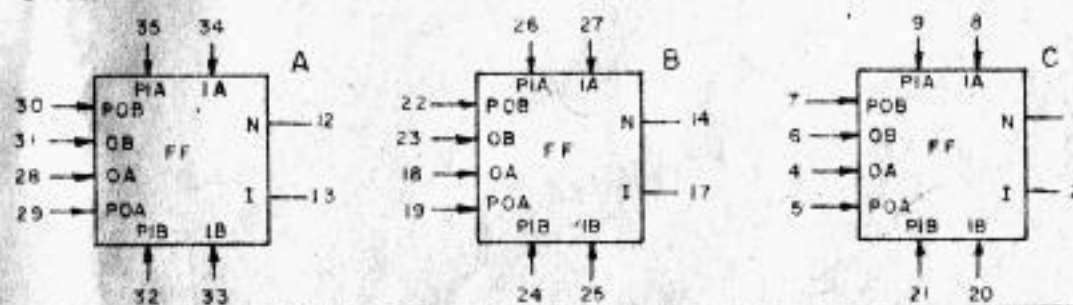
THE CIRCUIT IS NORMALLY DRIVEN BY APPLYING A POSITIVE 6V PULSE THROUGH THE DIFFERENTIATING CAPACITOR TO THE BASE OF TRANSISTOR THAT IS ON. THIS RESULTS IN THE ON SIDE TURNING OFF AND THE OFF SIDE TURNING ON. THE POSITIVE PULSES MAY BE BLOCKED BY RETURNING THE INHIBITING RESISTOR TO -6V. THIS PREVENTS THE GATING DIODE FROM CONDUCTING AND COUPLING THE PULSE TO THE BASE OF THE CORRESPONDING TRANSISTOR. WHEN THE INHIBITING RESISTOR IS RETURNED TO GROUND POTENTIAL, THE DRIVER PULSE WILL BE PASSED BY THE CORRESPONDING DIODE.



NOTE:
CIRCLED NUMBERS DESIGNATE COMPONENTS OR INPUT AND OUTPUT TERMINALS ON MULTIPLE CIRCUITS

NOTE:
INPUT AND OUTPUT TERMINALS NEED NOT APPEAR IN ORDER SHOWN. UNUSED TERMINALS MAY BE OMITTED.

SYMBOLS



TABLE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
A	R19	R7	R20	R13	R1	R2	R8	R21	R14	R22	C1	C2	C3	C4	CR1	CR2	CR13	CR14	CR3
B	R23	R9	R24	R15	R3	R4	R10	R25	R16	R26	C5	C6	C7	C8	CR5	CR6	CR15	CR16	CR7
C	R27	R11	R28	R17	R5	R6	R12	R29	R18	R30	C9	C10	C11	C12	CR9	CR10	CR17	CR8	CR11

	20	21	22	23	24	25	26	27	28	29	30	31	32
A	CR4	Q4	Q3	13	30	31	28	29	12	32	33	34	35
B	CR8	Q1	Q2	17	22	23	18	19	14	24	25	27	26
C	CR12	Q6	Q5	2	7	6	4	5	1	21	20	8	9

R&D USE ONLY

REF DESIGN	TELETYPE PART NO	TOTAL QTY	NAME AND DESCRIPTION	LOCATING FUNCTION	REF DESIGN	TELETYPE PART NO	TOTAL QTY	NAME AND DESCRIPTION	LOCATING FUNCTION
Q1 TO Q12	177332	12	CAPACITOR, .002 MFD	DIFFERENTIATING COUPLING					
CR1 TO CR12	177108	18	DIODE D2	GATING DIODE					
CR13 TO CR18			SAME AS CR1	-EV CLAMP					
R1 TO R6	137441	6	RESISTOR, 1200 OHMS	COLLECTOR LOAD					
R7 TO R12	129851	6	RESISTOR, 3300 OHMS	COUPLING					
R13 TO R18	118177	18	RESISTOR, 22K OHMS	BASE BIAS					
R19 TO R30			SAME AS R13	INHIBITING RESISTOR					
Q1 TO Q6	177105	6	TRANSISTOR P22	ACTIVE ELEMENT					
	144495	6	PAD, TRANSISTOR						
EC	148802	1	CIRCUIT CARD, ETCHED						

R & D USE ONLY

APPROVALS	
ENTER	DATE
NUMBER	
PROJ NO 177580	
DATE 10-25-63	
PO FILE NO G-4.753.219A	
DRWN P.K.	CHKD J.M.G.
ENGR W.S.	APPR R.K.
TELETYPE CORPORATION	

Paul King Jerry Glasston
E.W. Sullivan R. Rack