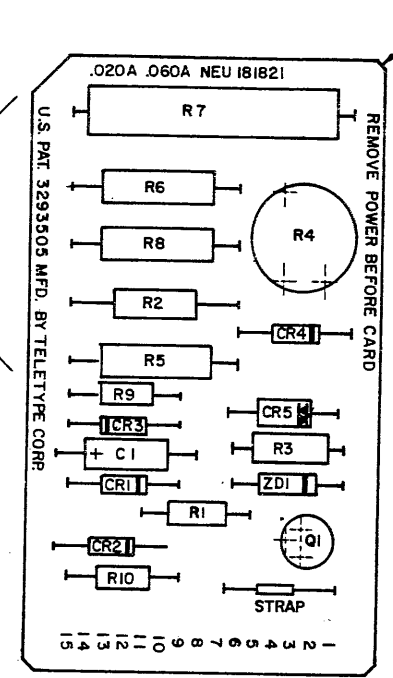


NO	NOTES
1	MASTER ARTWORK NO. 181821AW FOR PRINTING SCREEN IS AVAILABLE IN R&D OFFICE SERVICE SECTION.
2	RAISE R2, 5, 6, 7, 8 - 1/32 TO 1/16" ABOVE CIRCUIT CARD.
3	TO FACILITATE MANUFACTURE THE COMPONENT LAYOUT WAS CHANGED INCLUDING R1 AND CR5 WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 336470 STRAP.

SEE NOTE 2



UL RECOGNITION SYMBOL
REQUIRED PER MR 2001.

CIRCUIT DESCRIPTION

THE SELECTOR MAGNET DRIVER CIRCUIT IS POWERED FROM A SOURCE OF 117 VOLT ALTERNATING CURRENT THROUGH A STEP DOWN ISOLATION TRANSFORMER. DIODES CR1 AND CR2 PROVIDE FULL WAVE RECTIFICATION OF THE REDUCED VOLTAGE TO -20 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY FILTER CAPACITOR IS CONNECTED BETWEEN TERMINALS 2 AND 15.

THE DIRECT CURRENT SIGNAL LINE CIRCUIT IS CONNECTED THROUGH TERMINALS 14 OR 8 AND 2 DEPENDING ON LINE CURRENT. TERMINAL 7 STRAPPED EXTERNALLY TO TERMINAL 14 OR 8, DEPENDING ON LINE CURRENT.

IN THE MARKING CONDITION, Q1 IS OFF-BIASED. WITH Q1 OFF, THE BASE OF Q2 WILL BE CLAMPED AT THE ZENER REFERENCE VOLTAGE BY DIODE CR4. THIS VOLTAGE CLAMP IS THEN TRANSLATED TO CURRENT REGULATION BY THE TRANSISTOR ACTION OF Q2. THE REGULATED MAGNET CURRENT IS ADJUSTED TO 500 AMPERES BY RHEOSTAT R4.

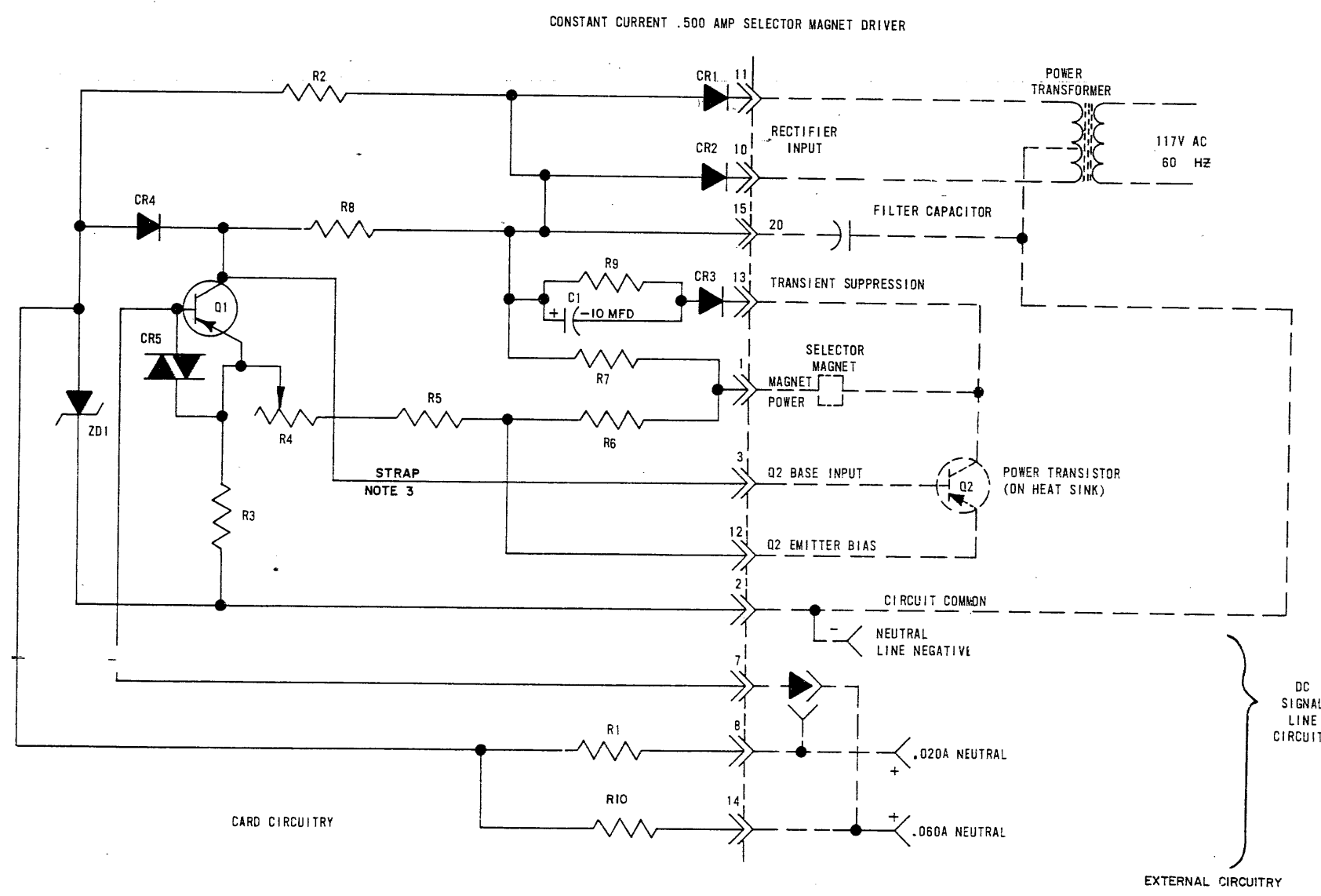
WITH THE SIGNAL LINE IN THE OPEN OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1 OR R10. THE POTENTIAL AT THE COLLECTOR OF Q1 WILL BE NEAR ZERO OFF-BIASING Q2. WITH Q2 OFF, NO SELECTOR MAGNET CURRENT FLOWS, ALLOWING THE MAGNET TO RELEASE DURING THE TURN OFF OF Q2. THE INDUCTIVE TRANSIENT DEVELOPED AT THE COLLECTOR IS SUPPRESSED BY THE NETWORK CONSISTING OF CR3, R9 AND C1.

SNAP-ACTION IS SUPPLIED TO THE CIRCUIT TRANSITIONS BY FEEDBACK IN THE EMITTER CIRCUIT OF TRANSISTOR Q1.

CIRCUIT BOARD EC

REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	182779	1	RESISTOR 420 OHMS 1/2W	D10 AMP. SWITCHING
				FOR 020A NEUTRAL
R10	182797	1	RESISTOR 135 OHMS 1/2W	D30 AMP. SWITCHING
				FOR 060A NEUTRAL
				LINE
R2	181669	1	RESISTOR 330 OHMS 2 5W	ZENER CURRENT
				LIMITING
R3	182778	1	RESISTOR 0.82 OHMS 1/2W	COMMON EMITTER BIAS
R4	182773	1	RHEOSTAT 3 OHMS 2 5W	OUTPUT CURRENT
				ADJUST
R5	181717	1	RESISTOR 8 OHMS 5W	Q2 EMITTER BIAS
R6	182770	1	RESISTOR 270 OHMS 4W	Q2 EMITTER BIAS
R7	182772	1	RESISTOR 14 OHMS 10W	Q2 COLLECTOR LOAD
R8	182627	1	RESISTOR 390 OHMS 4W	Q1 COLLECTOR LOAD
R9	182776	1	RESISTOR 150 OHMS 1/2W	Q2 COLLECTOR -
				TRANSIENT LIMITING
CR1	182520	2	DIODE 1N3193	POWER RECTIFIER
CR2	182520		SAME AS CR1	POWER RECTIFIER
CR3	181619	2	DIODE 1N482	COLLECTOR TRANSIENT
				LIMITING
CR4	181619		SAME AS CR3	VOLTAGE CLAMPING
CR5	178844	1	VARIATOR 100A	INPUT PROTECTION
ZD1	182774	1	DIODE, ZENER 4.7V 5.1W	REFERENCE
C1	182628	1	CAPACITOR, 10 MFD 25W VDC	COLLECTOR TRANSIENT
				LIMITING
Q1	181671	1	TRANSISTOR, HIGH GAIN	INPUT SWITCH
	336470	1	STRAP	NOTE 3
EC	181823	1	CIRCUIT BOARD, ETCHED	

181821		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	4-19-65	86501
3	9-19-66	88815
4	11-25-66	88816-1
5	5-5-67	93502
6	4-2-68	95450
7	7-5-68	95948
8	11-6-68	96521
9	12-20-68	98266
10	3-3-71	236
11	3-29-72	236-1
12	3-29-72	236-1



APPROVALS	
R AND D	E OF M
H. J. K.	
E-NUMBER	
PROD NO 181821	
DATE 7-30-63 4-28-67	
R&D FILE 2-30152, 153AA	
DRAWN JER-CG	CHKD N A J
ENG. AS-PRS	APPD J W

TELETYPE
CORPORATION

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