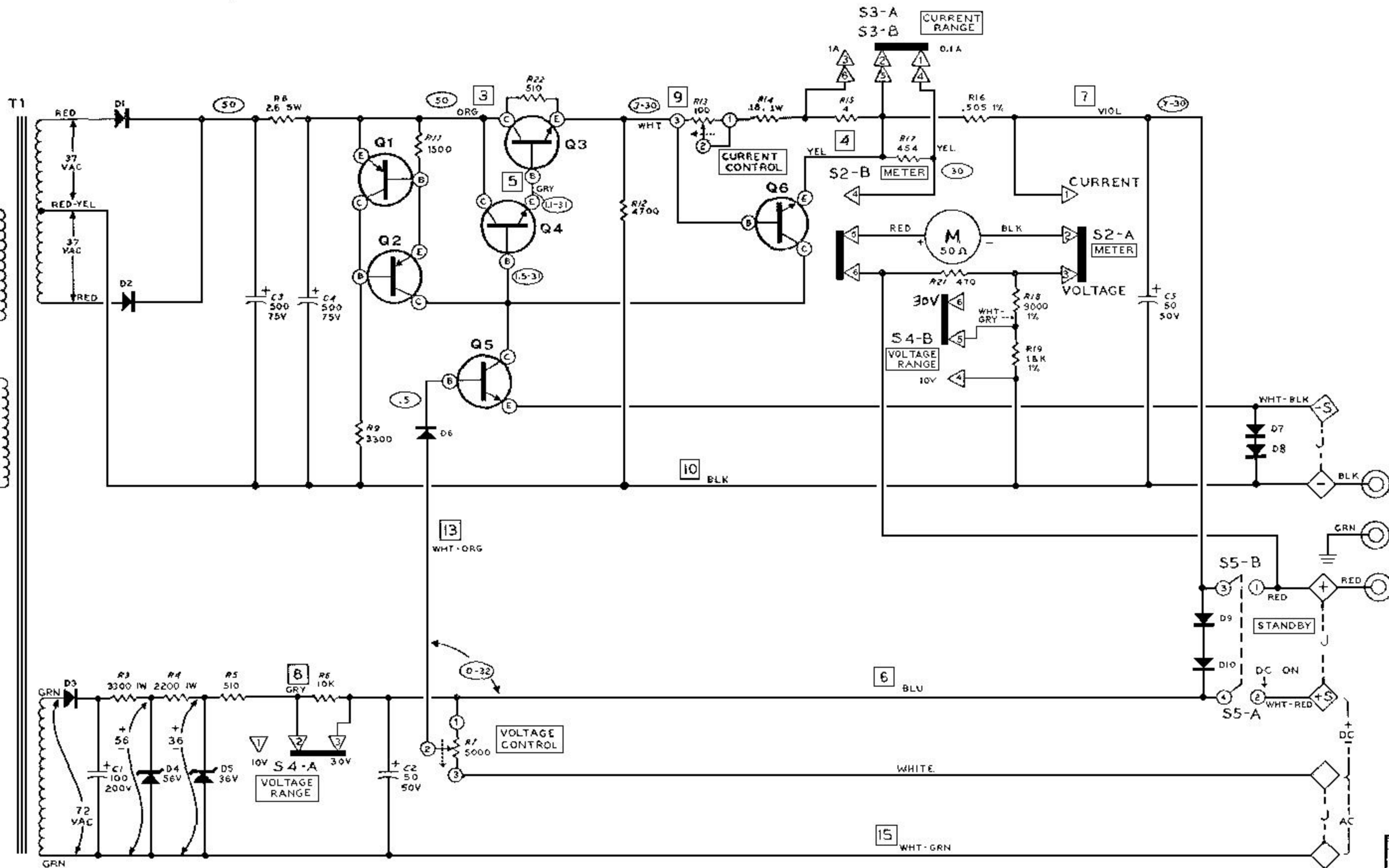
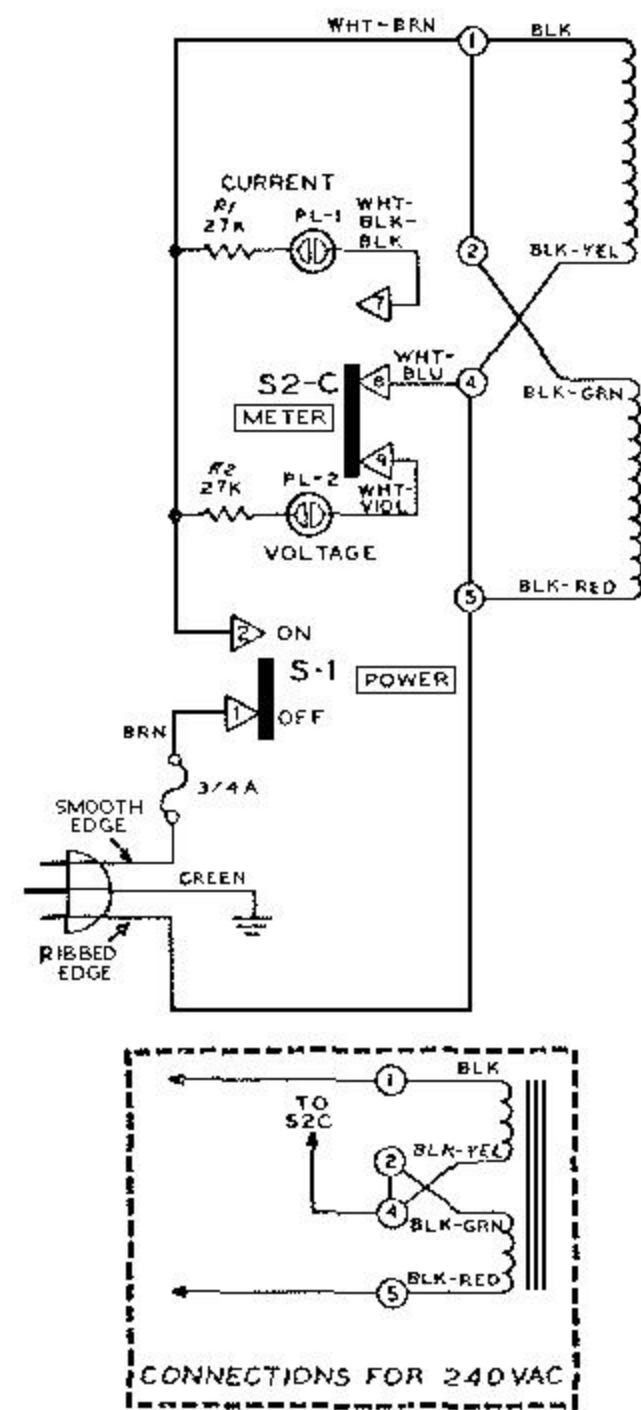


NOTE: TRANSFORMER LEAD NUMBERS REFER TO THE LUGS OF TERMINAL STRIP AS IN THE MANUAL.



SWITCH	SHOWN IN POSITION
S1	OFF
S2	VOLTAGE
S3	0.1A
S4	10V
S5	STANDBY

NOTES:

- RESISTOR VALUES ARE IN OHMS (K=1,000), RESISTORS ARE 1/2 WATT UNLESS OTHERWISE MARKED.
- CAPACITOR VALUES ARE IN MICROFARADS (µF). CAPACITOR WORKING VOLTAGES ARE INDICATED.
- THE CROSS ARROW ON A CONTROL ARM SYMBOL INDICATES CLOCKWISE ROTATION OF CONTROL.
- DC VOLTAGE MEASUREMENTS TAKEN WITH A HIGH IMPEDANCE VOLTMETER, VOLTAGES MAY VARY ±10%.
 - ALL VOLTAGES WERE MEASURED WITH:
 - NO LOAD ON THE OUTPUT TERMINALS AND 115 VAC, 60Hz, ON THE POWER TRANSFORMER PRIMARY.
 - THE VOLTAGE CONTROL AND THE CURRENT CONTROL FULLY CLOCKWISE AND THE VOLTAGE RANGE SWITCH IN THE 30V POSITION.
 - WHERE TWO VOLTAGES ARE SHOWN, THE CIRCUIT VOLTAGE DEPENDS UPON THE SETTINGS OF THE VOLTAGE RANGE SWITCH (S-4) AND THE VOLTAGE CONTROL (R7).
- S/N 09317 HAS A 200 PF DISK CERAMIC CAPACITOR FROM Q6 COLLECTOR TO GND (BLACK BINDING POST).

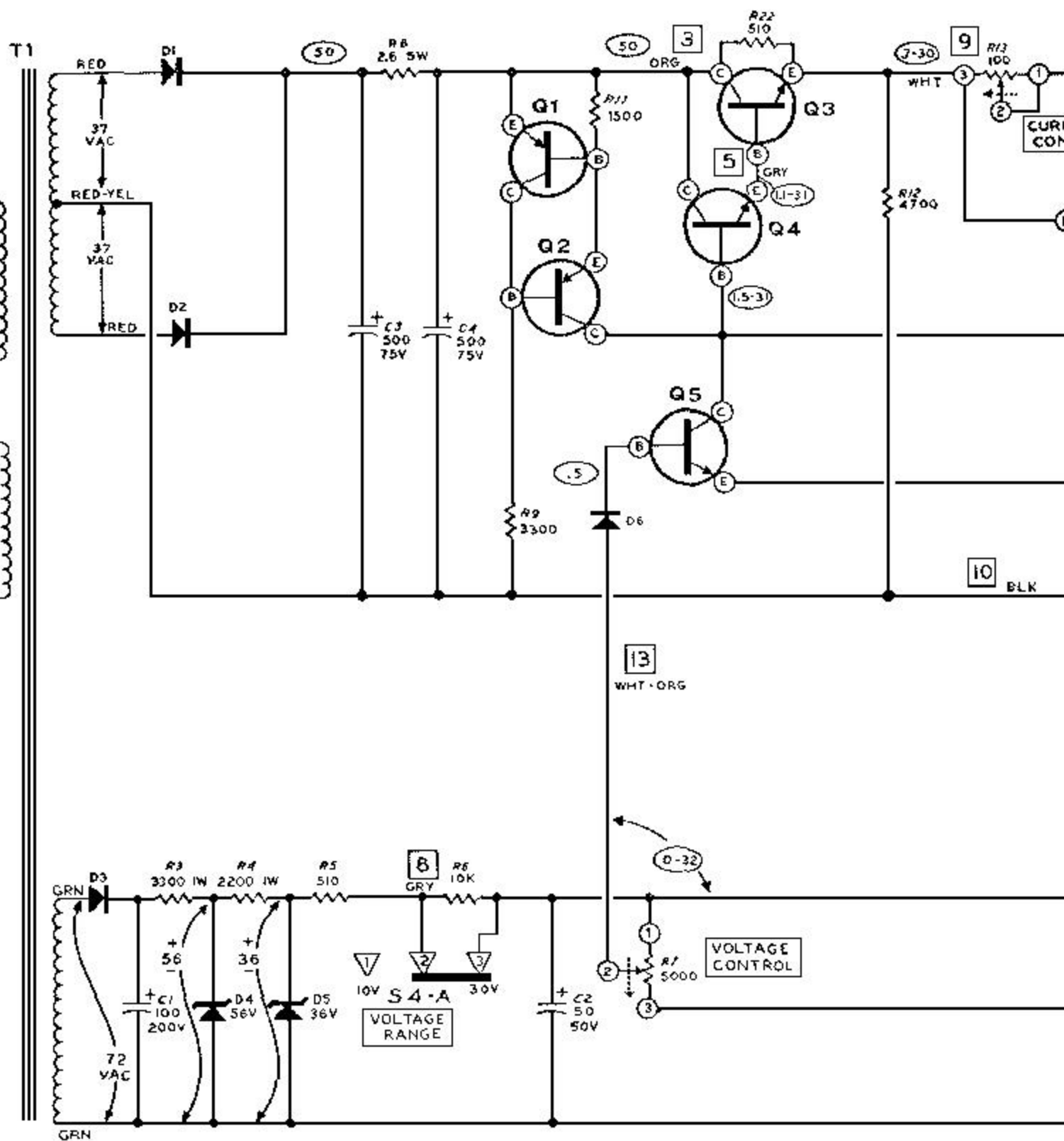
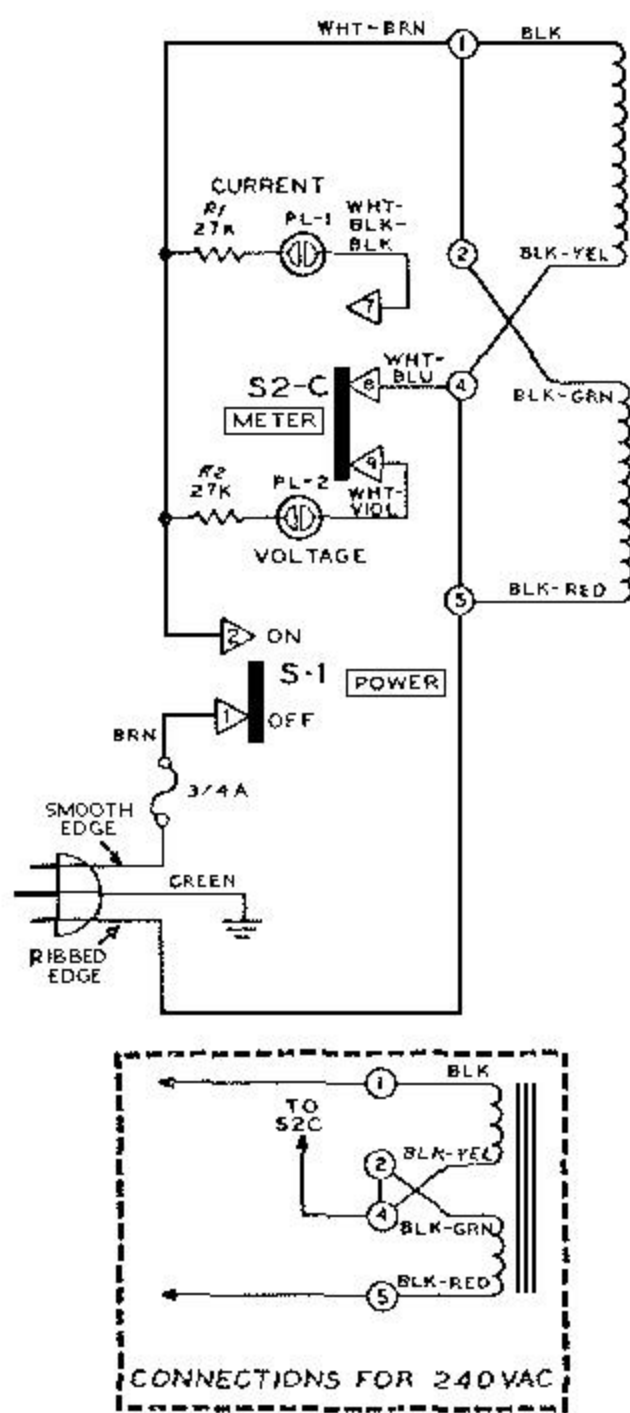
SPECIAL SYMBOLS

- Numbers of letters within symbol outlines will vary.)
- SLIDE SWITCH TERMINAL
 - CIRCUIT BOARD NUMBERED HOLES
 - TRANSISTOR TERMINAL
 - CONTROL OR SWITCH TERMINAL
 - REAR APRON TERMINAL STRIP
 - PANEL BINDING POST
 - DC VOLTAGE FROM POINT SHOWN TO BLACK BINDING POST.
 - JUMPER CONNECTION ON REAR APRON


SCHEMATIC OF THE HEATHKIT® 1-30V DC REGULATED POWER SUPPLY MODEL 1P-28

PART NO.	COMPONENT	MAY BE REPLACED WITH	BASE DIAGRAM
417-201	Q1, Q2	2N3906	
417-162	Q3	2N3055	
417-109	Q4	2N3566	
417-94	Q5, Q6	2N3416	
57-21	D1, D2, D3, D7, D8, D9, D10	SILICON, 600 PIV. 1A	
56-13	D4	56 V ZENER, 1W	
56-55	D5	36 V ZENER 1W	
56-26	D6	1N191	

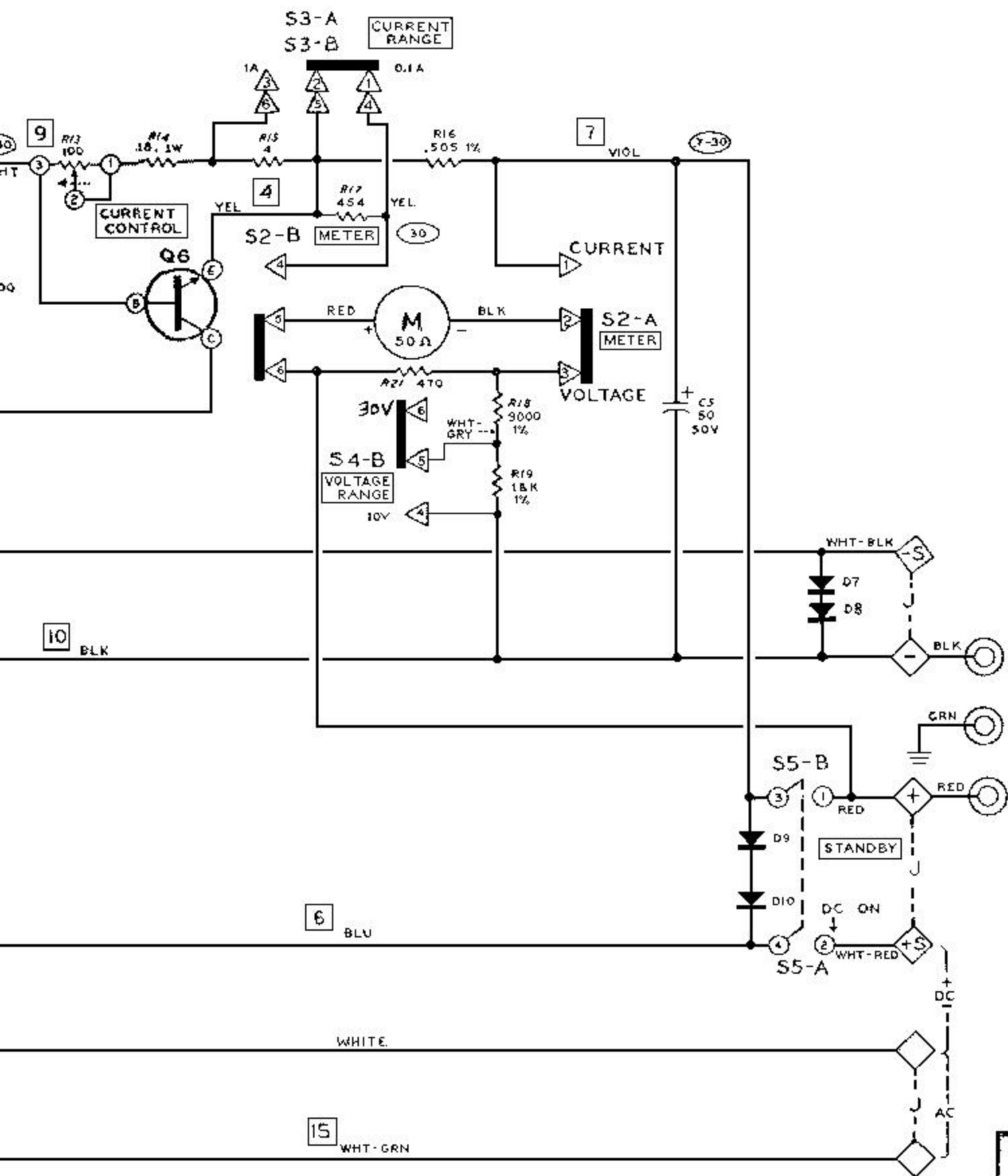
NOTE: TRANSFORMER LEAD NUMBERS REFER TO THE LUGS OF TERMINAL STRIP AS IN THE MANUAL.



NOTES:

1. RESISTOR VALUES ARE IN OHMS (K=1,000), RESISTORS ARE 1/2 WATT UNLESS OTHERWISE MARKED.
2. CAPACITOR VALUES ARE IN MICROFARADS (μF). CAPACITOR WORKING VOLTAGES ARE INDICATED.
3. THE CROSS ARROW  ON A CONTROL ARM SYMBOL INDICATES CLOCKWISE ROTATION OF CONTROL.
4. a. DC VOLTAGE MEASUREMENTS TAKEN WITH A HIGH IMPEDANCE VOLTMETER VOLTAGES MAY VARY ±10%.
b. ALL VOLTAGES WERE MEASURED WITH:
(1) NO LOAD ON THE OUTPUT TERMINALS AND 115 VAC, 60Hz, ON THE POWER TRANSFORMER PRIMARY.
(2) THE VOLTAGE CONTROL AND THE CURRENT CONTROL FULLY CLOCKWISE AND THE VOLTAGE RANGE SWITCH IN THE 30V POSITION.
c. WHERE TWO VOLTAGES ARE SHOWN, THE CIRCUIT VOLTAGE DEPENDS UPON THE SETTINGS OF THE VOLTAGE RANGE SWITCH (S-4) AND THE VOLTAGE CONTROL (R7).
5. S/N 09317 HAS A 200 PF DISK CERAMIC CAPACITOR FROM Q6 COLLECTOR TO GND (BLACK BINDING POST).

SCHEMATIC OF THE
HEATHKIT®
1-30V DC REGULATED
POWER SUPPLY
MODEL 1P-28



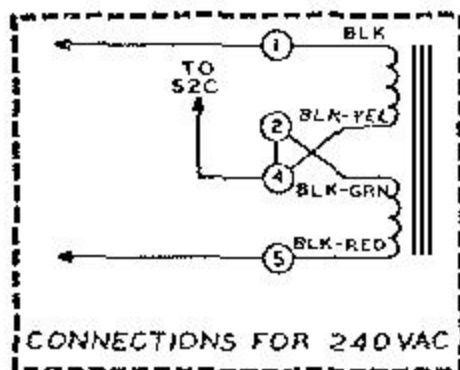
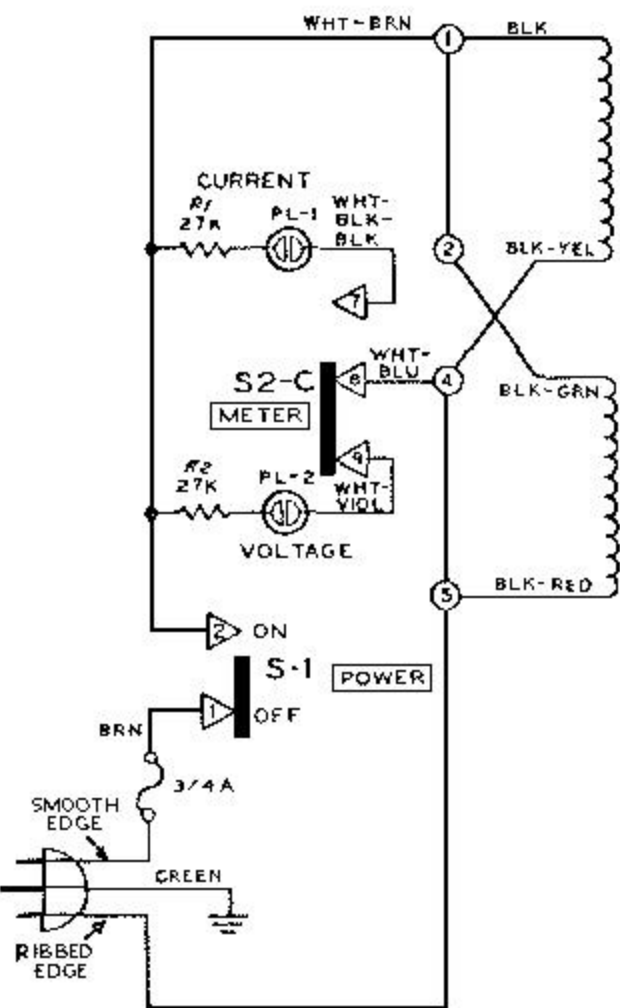
SWITCH	SHOWN IN POSITION
S1	OFF
S2	VOLTAGE
S3	0.1A
S4	10V
S5	STANDBY

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- SPECIAL SYMBOLS**
Numbers of letters within symbol outlines will vary.)
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 - REAR APRON TERMINAL STRIP
 - PANEL BINDING POST
 - DC VOLTAGE FROM POINT SHOWN TO BLACK BINDING POST.
 - JUMPER CONNECTION ON REAR APRON

PART NO.	COMPONENT	MAY BE REPLACED WITH	BASE DIAGRAM
417-201	Q1, Q2	2N3906	
417-102	Q3	2N3055	
417-109	Q4	2N3566	
417-94	Q5, Q6	2N3416	
57-21	D1, D2, D3, D7, D8, D9, D10	SILICON, 600 PIV, 1A	
56-13	D4	56 V ZENER, 1W	
56-55	D5	36 V ZENER 1W	
56-76	D6	1N191	

NOTE: TRANSFORMER LEAD NUMBERS REFER TO THE LUGS OF TERMINAL STRIP AS IN THE MANUAL.



CONNECTIONS FOR 240VAC

