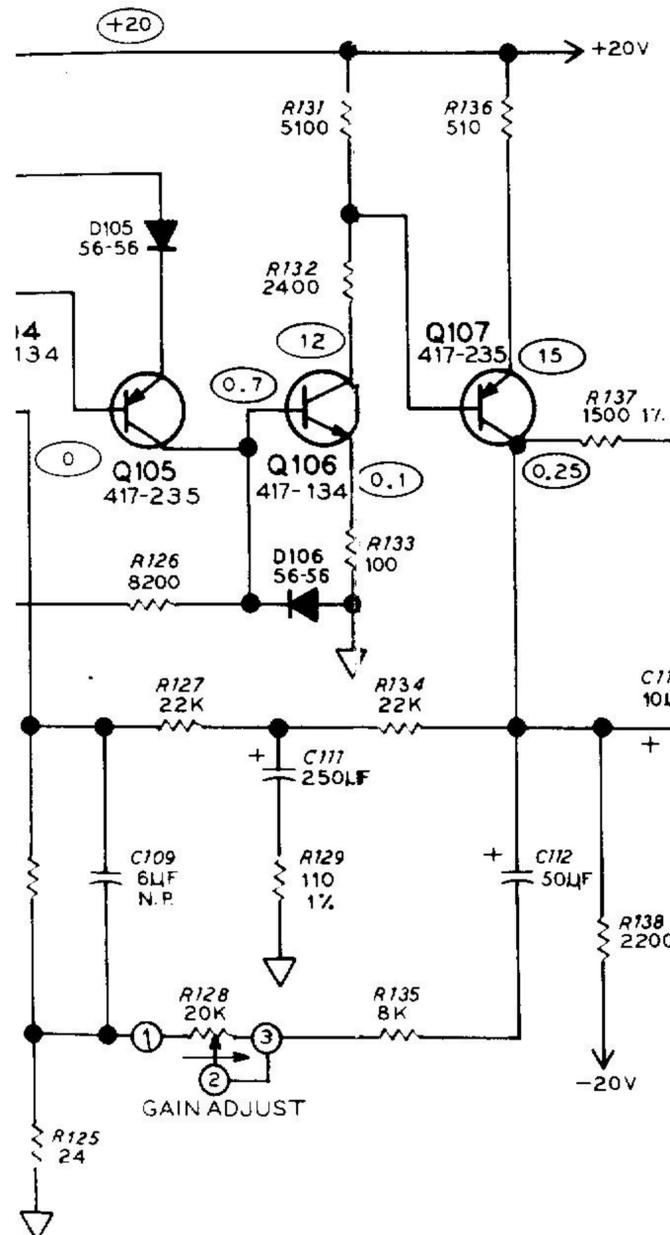
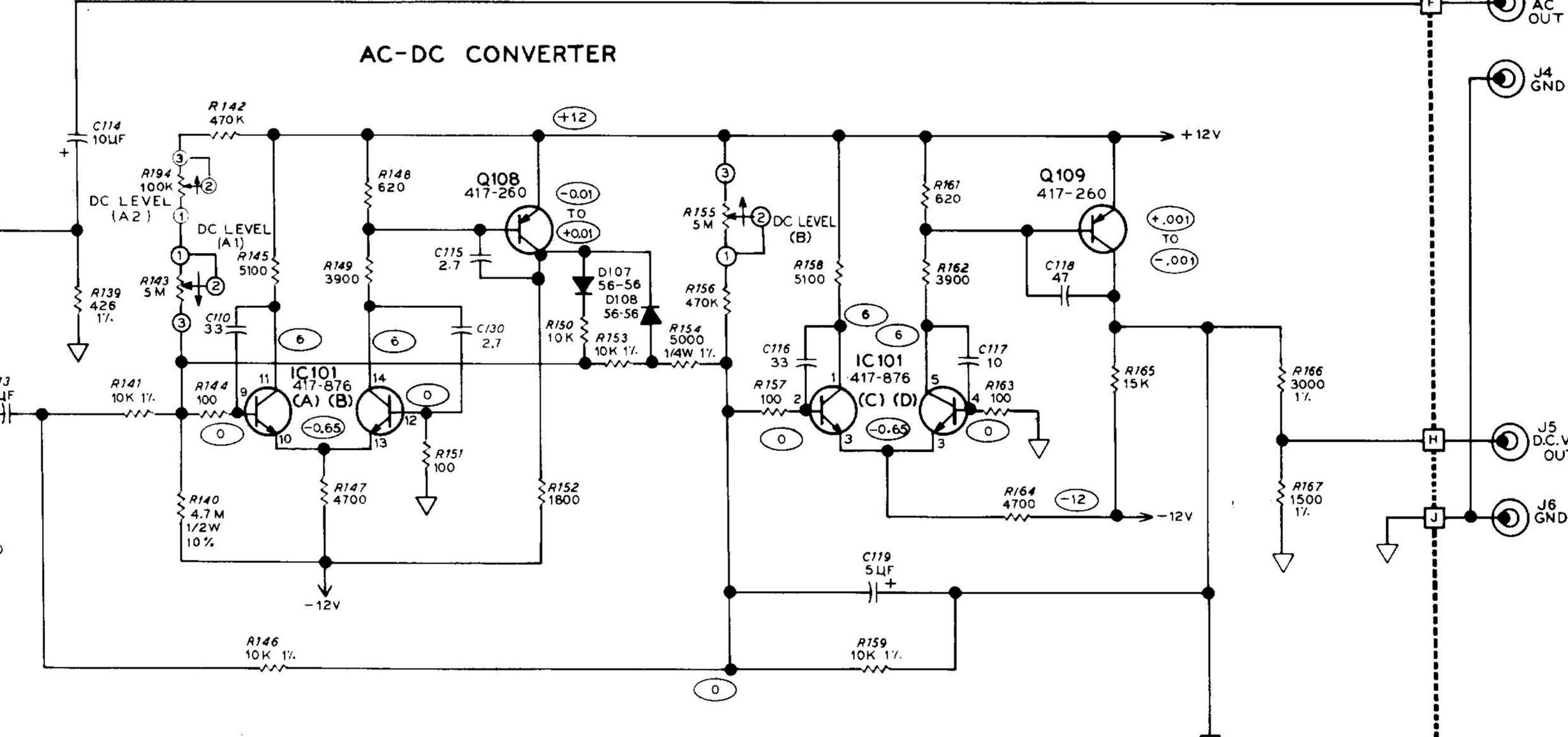


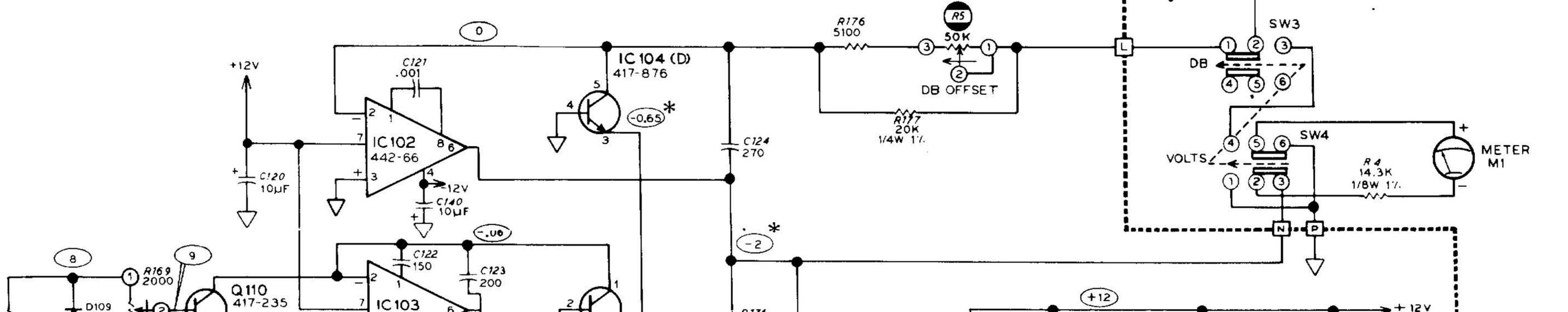
AMPLIFIER

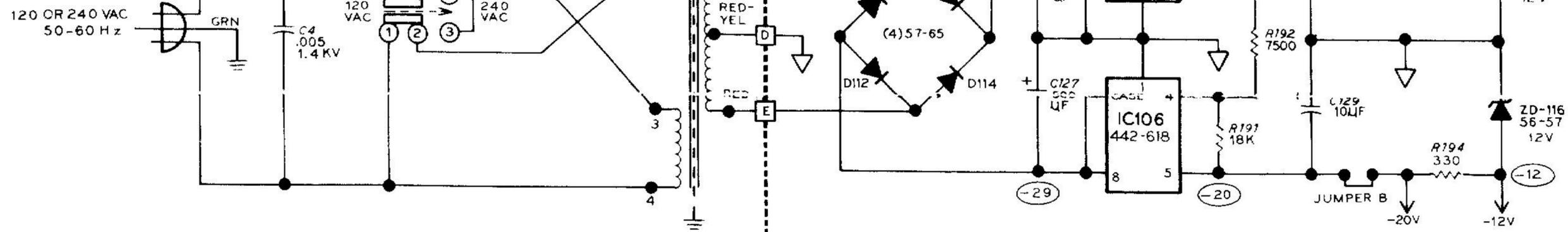


AC-DC CONVERTER

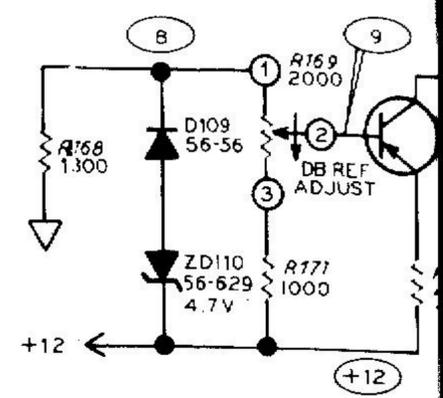


LOG CONVERTER





POWER SUPPLY



**SCHEMATIC OF THE
HEATHKIT®
AC VOLTMETER
MODEL IM-5238**

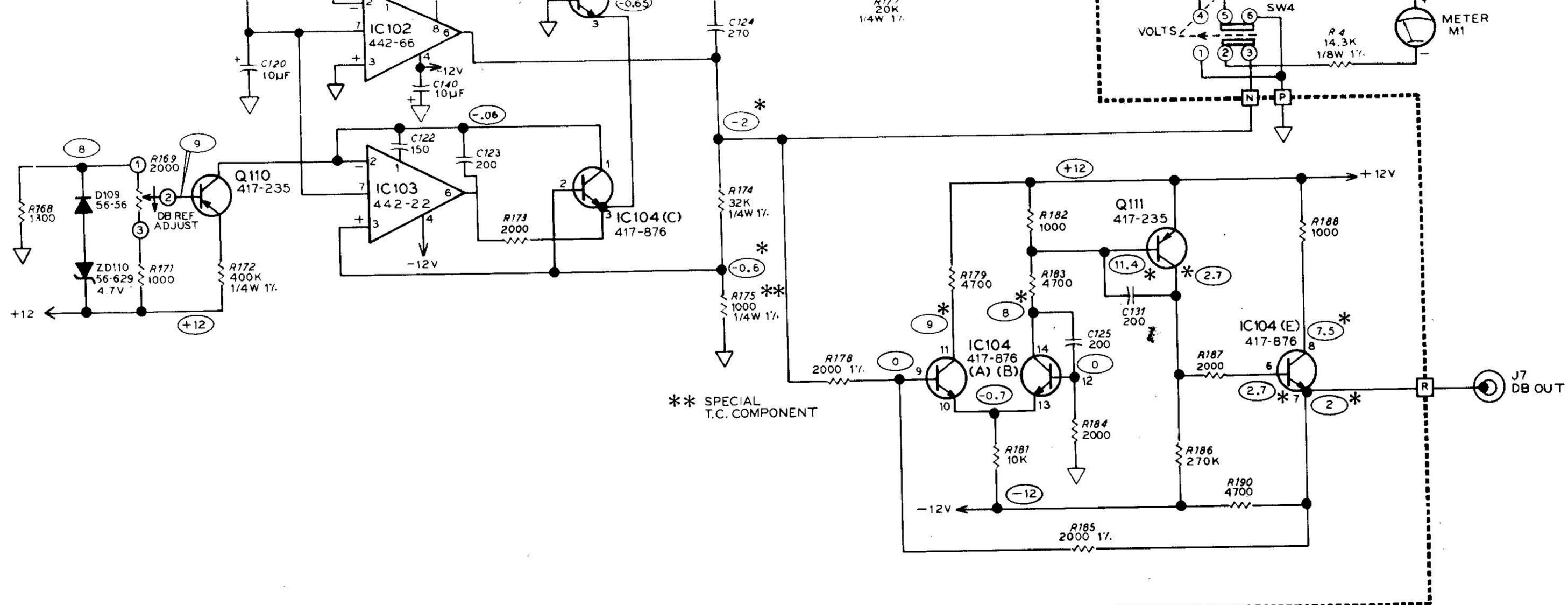
Part of 595-1868-04

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NOTES:

1. THE COMPONENT IDENTIFICATION NUMBERS ON THE AC VOLTMETER ARE IN THE FOLLOWING GROUPS:
 1-99 CHASSIS-MOUNTED PARTS
 101-199 CIRCUIT BOARD PARTS
2. RESISTOR VALUES ARE IN OHMS (Ω): K=1000, M=1,000,000.
3. RESISTORS ARE 1/4-WATT, 5% TOLERANCE UNLESS OTHERWISE NOTED.
4. CAPACITOR VALUES LESS THAN 1 ARE IN μF (MICROFARADS); CAPACITOR VALUES OF 1 OR GREATER ARE IN pF (PICOFARADS), UNLESS OTHERWISE NOTED.
5. THE RANGE SWITCH IS SHOWN IN ITS COUNTERCLOCKWISE (1mV) POSITION.
6. ○ INDICATES A DC VOLTAGE MEASUREMENT TAKEN WITH A HIGH-INPUT IMPEDANCE VOLTMETER FROM THE POINT INDICATED TO CHASSIS GROUND. TOLERANCE; ±20%.

7. ○* INDICATES A DC VOLTAGE APPLIED TO THE VOLTMETER.
8. ▽ INDICATES COUNTERCLOCKWISE ROTATION.
9. ≡ INDICATES A CHASSIS GROUND CONNECTION.
10. ↻ INDICATES CLOCKWISE ROTATION.
11. □ INDICATES A CIRCULAR COMPONENT.
12. ● INDICATES A COMPONENT CONNECTED TO THE CIRCUIT.
13. SIMICONDUCOR IDENTIFICATION SYMBOLS.
14. X-RAY VIEW IS IN THE ...



7.  INDICATES A DC VOLTAGE WITH A 1KHz, 0.775-VOLT SIGNAL APPLIED TO THE VOLTMETER INPUT. "0"dB RANGE, dB FUNCTION.

8.  INDICATES CIRCUIT BOARD GROUND.

9.  INDICATES A CHASSIS GROUND.

10.  INDICATES CLOCKWISE ROTATION OF A CONTROL.

11.  INDICATES A CIRCUIT BOARD CONNECTION POINT.

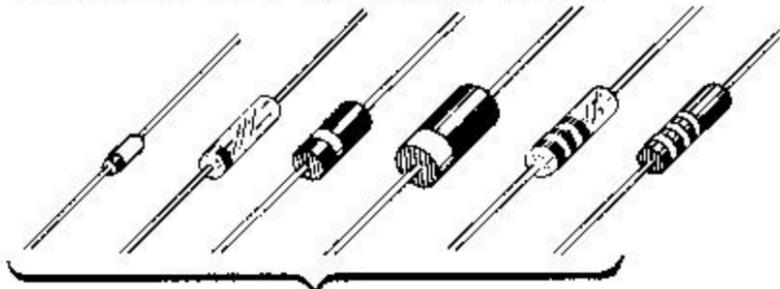
12.  INDICATES A COMPONENT MOUNTED TO THE CHASSIS AND TO THE CIRCUIT BOARD.

13. SEMICONDUCTOR IDENTIFICATION CHARTS ARE ON PAGES 55 AND 56.

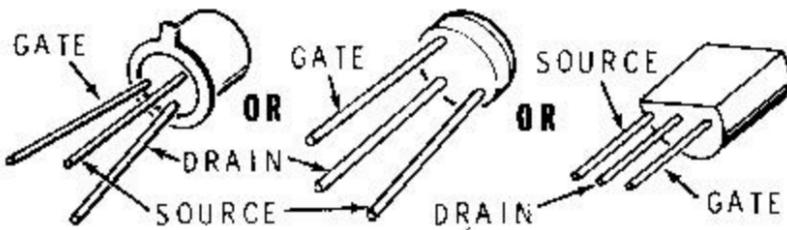
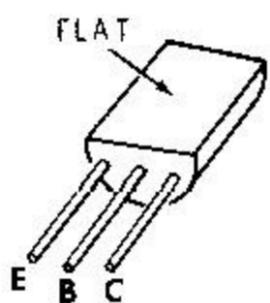
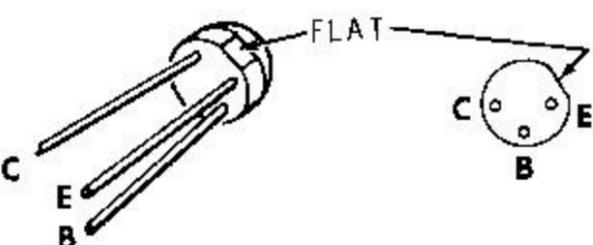
14. X RAY VIEW IS IN THE ILLUSTRATION BOOKLET.

SEMICONDUCTOR IDENTIFICATION CHARTS

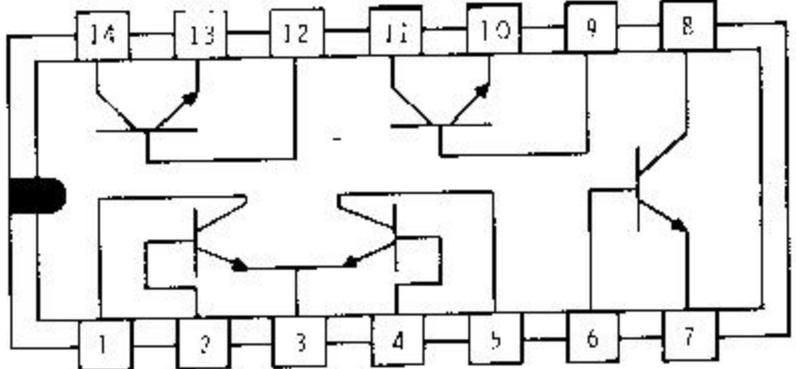
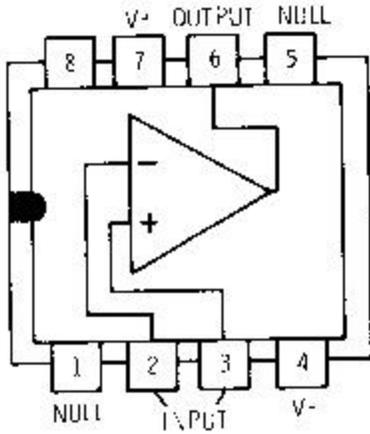
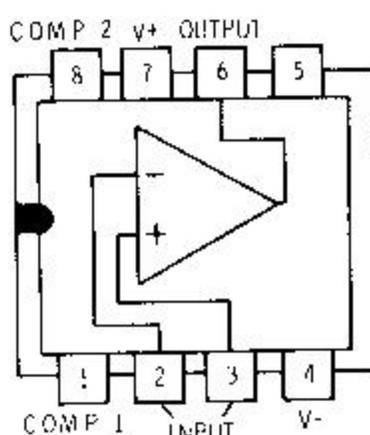
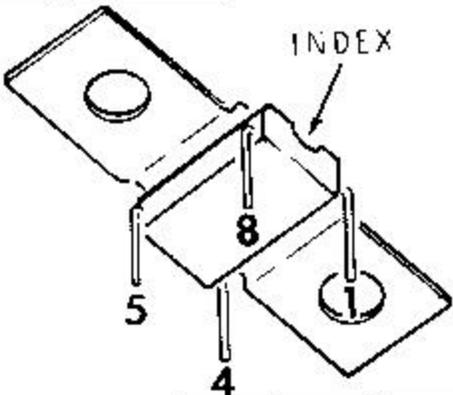
DIODES

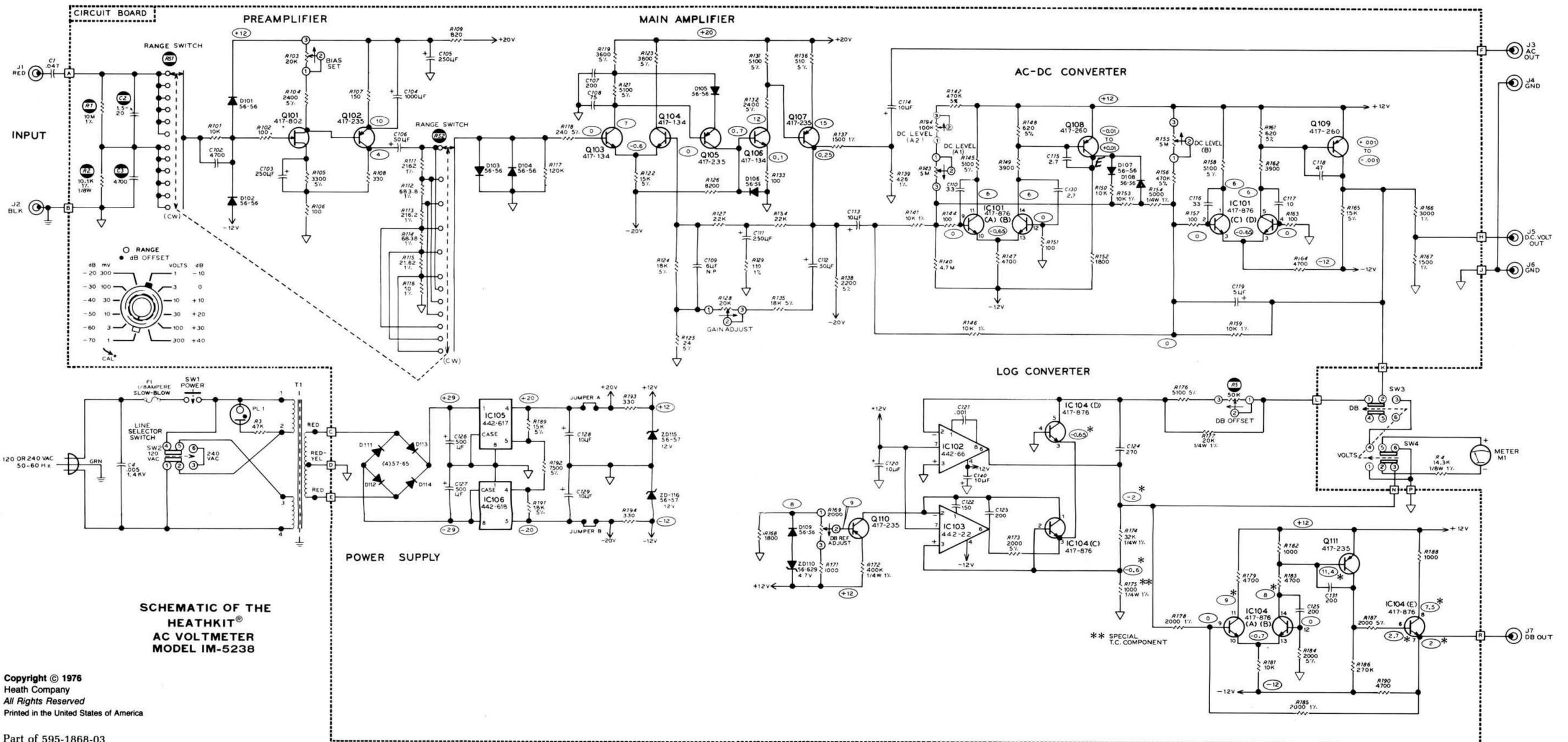
COMPONENT	HEATH PART NO.	MANUFACTURER'S NUMBER	IDENTIFICATION
D101 THROUGH D109	56-56	1N4149	<p>IMPORTANT: THE BANDED END OF DIODES CAN BE MARKED IN A NUMBER OF WAYS.</p>  <p>BANDED END</p>
ZD110	56-629	BZX83C3V	
D111 THROUGH D114	57-65	1N4002	
ZD115, ZD116	56-57	1N716A	

TRANSISTORS

COMPONENT	HEATH PART NO.	MANUFACTURER'S NUMBER	IDENTIFICATION
Q101	417-802	E304	
Q102, Q105, Q107, Q110, Q111	417-235	2N4121	
Q103, Q104, Q106	417-134	MPS6520	
Q108, Q109	417-260	2N4258A	

INTEGRATED CIRCUITS

COMPONENT	HEATH PART NO.	MANUFACTURER'S NUMBER	BASE DIAGRAM (TOP VIEW)
IC101, IC104	417-876	CA3046	
IC103	442-22	741	
IC102	442-66	308	
IC105	442-617	78MGC	<p data-bbox="1274 2100 1572 2139" style="text-align: center;">IDENTIFICATION</p> 
IC106	442-618	79MGC	



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 101-199 CIRCUIT BOARD PARTS
- RESISTOR VALUES ARE IN OHMS (Ω): K=1,000, M=1,000,000.
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- THE RANGE SWITCH IS SHOWN IN ITS COUNTERCLOCKWISE (1mV) POSITION.
- INDICATES A DC VOLTAGE MEASUREMENT TAKEN WITH A HIGH-INPUT IMPEDANCE VOLTMETER FROM THE POINT INDICATED TO CHASSIS GROUND. TOLERANCE: $\pm 20\%$.
- * INDICATES A DC VOLTAGE WITH A 1KHz, 0.775-VOLT SIGNAL APPLIED TO THE VOLTMETER INPUT. "0"dB RANGE, dB FUNCTION.
- ▽ INDICATES CIRCUIT BOARD GROUND.
- ≡ INDICATES A CHASSIS GROUND.
- ⊕ INDICATES CLOCKWISE ROTATION OF A CONTROL.
- INDICATES A CIRCUIT BOARD CONNECTION POINT.
- INDICATES A COMPONENT MOUNTED TO THE CHASSIS AND TO THE CIRCUIT BOARD.
- SEMICONDUCTOR IDENTIFICATION CHARTS ARE ON PAGES 55 AND 56.
- X-RAY VIEW IS IN THE ILLUSTRATION BOOKLET.