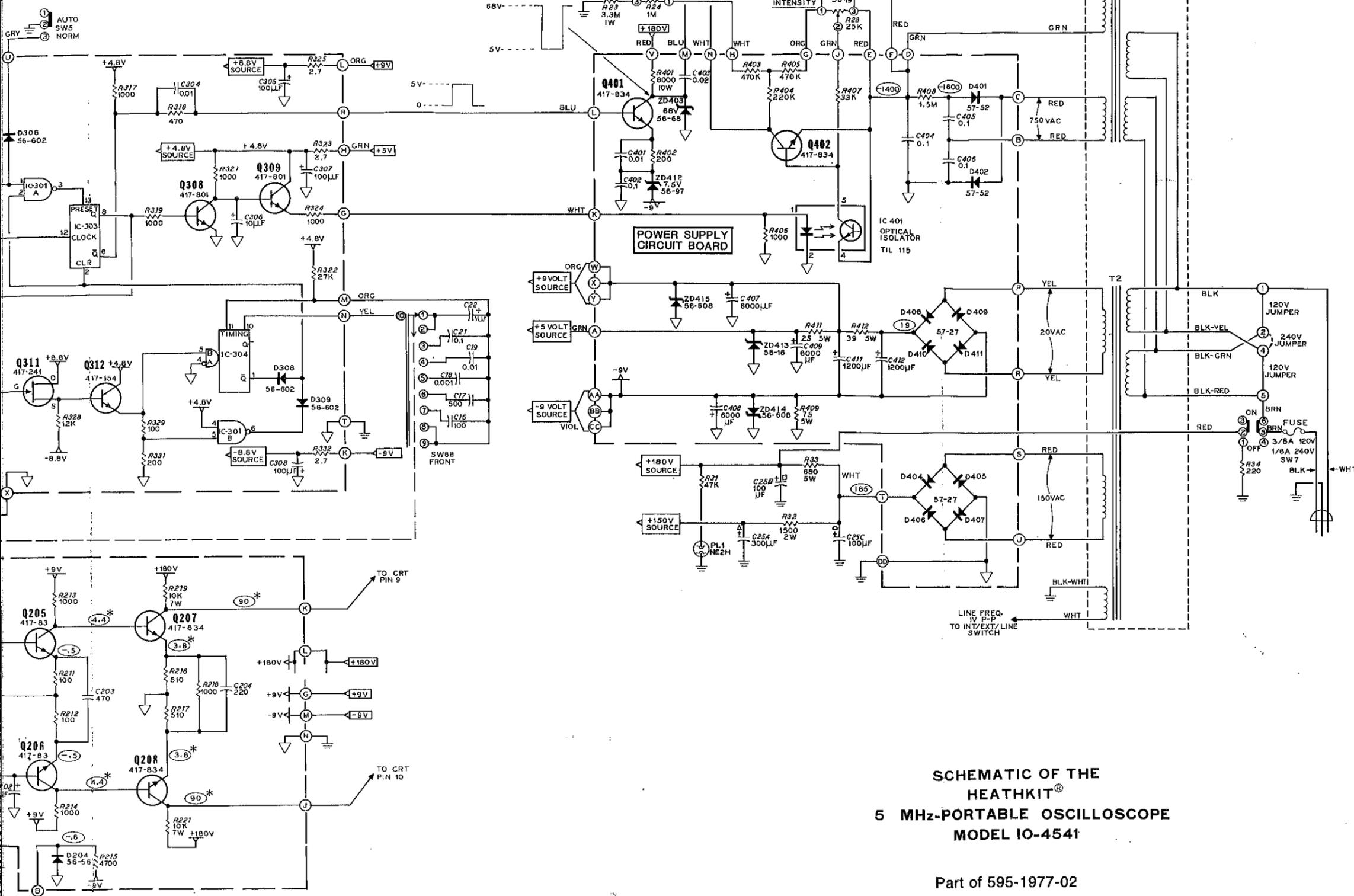


NOTES:

1. CIRCUIT COMPONENTS ARE NUMBERED IN THE FOLLOWING GROUPS:
 - 1- 99 PARTS ON THE CHASSIS.
 - 101-199 PARTS ON THE VERTICAL AMPLIFIER CIRCUIT BOARD.
 - 201-299 PARTS ON THE HORIZONTAL AMPLIFIER CIRCUIT BOARD.
 - 301-399 PARTS ON THE SWEEP-TRIGGER CIRCUIT BOARD.
 - 401-499 PARTS ON THE POWER SUPPLY CIRCUIT BOARD.

2. RESISTOR VALUES ARE 1/2 WATT, 5% TOLERANCE UNLESS OTHERWISE STATED.
3. RESISTOR VALUES ARE IN OHMS. (K=1000, M=1,000,000).
4. CAPACITOR VALUES LESS THAN 1 ARE IN μ F; VALUES OF 1 OR GREATER ARE IN pF UNLESS OTHERWISE MARKED.
5. THIS SYMBOL WITH A LETTER IN IT INDICATES A WIRE CONNECTION TO A CIRCUIT BOARD.
6. ∇ THIS SYMBOL INDICATES A CIRCUIT BOARD GROUND.

7. \equiv THIS SYMBOL INDICATES A CHASSIS GROUND.
8. VOLTAGE READINGS ARE NOMINAL, VARYING WITH VOLTAGE AND ADJUSTMENTS.
9. \bigcirc THIS SYMBOL INDICATES A DC VOLTAGE MEASUREMENT WAS MADE WITH A VOLT-METER.
10. \bigcirc^* THIS SYMBOL INDICATES THAT THE VOLTAGE WILL CHANGE WITH THE ASSOCIATED CONTROL SETTING.



**SCHEMATIC OF THE
HEATHKIT®
5 MHz-PORTABLE OSCILLOSCOPE
MODEL IO-4541**

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INDICATES A CHASSIS GROUND.

NOMINAL, VARYING WITH LINE VOLTAGES.

INDICATES A DC VOLTAGE MEASURED AT POINT INDICATED TO CHASSIS GROUND. MEASUREMENTS WERE MADE WITH A HIGH IMPEDANCE METER.

INDICATES THAT THE ENCLOSED VOLTAGE WILL CHANGE WITH THE CHANGE IN AN ADJUSTMENT CONTROL SETTING.

11. VOLTAGE MEASUREMENTS ON THE SWEEP TRIGGER CIRCUIT BOARD WERE MADE WITH THE TRIGGER LEVEL CONTROL SET VERY CLOSE TO ITS CENTER POSITION TO BALANCE TRANSISTORS Q304 AND Q305.

12. VOLTAGES ON THE BASES OF TRANSISTORS Q106 AND Q206 WILL BE EQUAL TO THE GATE TO SOURCE VOLTAGE OF TRANSISTORS Q103 AND Q203 RESPECTIVELY.