



this point. (Local oscillator operation can be checked by connecting the Probe to the grid or cathode of the oscillator tube.) Transistor circuits may also be tested in a similar manner. Remember that probe sensitivity is limited by the sensitivity of the voltmeter, so it is unlikely that you will obtain satisfactory indications in the RF and mixer stages of a receiver.

Use this same procedure to check RF or IF amplifier gain. Write down the readings you obtain and divide the output voltage by the input

voltage. The answer you obtain will be the gain of the stage or stages.

RF signals present in transmitters can also be measured, providing the ratings of the probe are not exceeded.

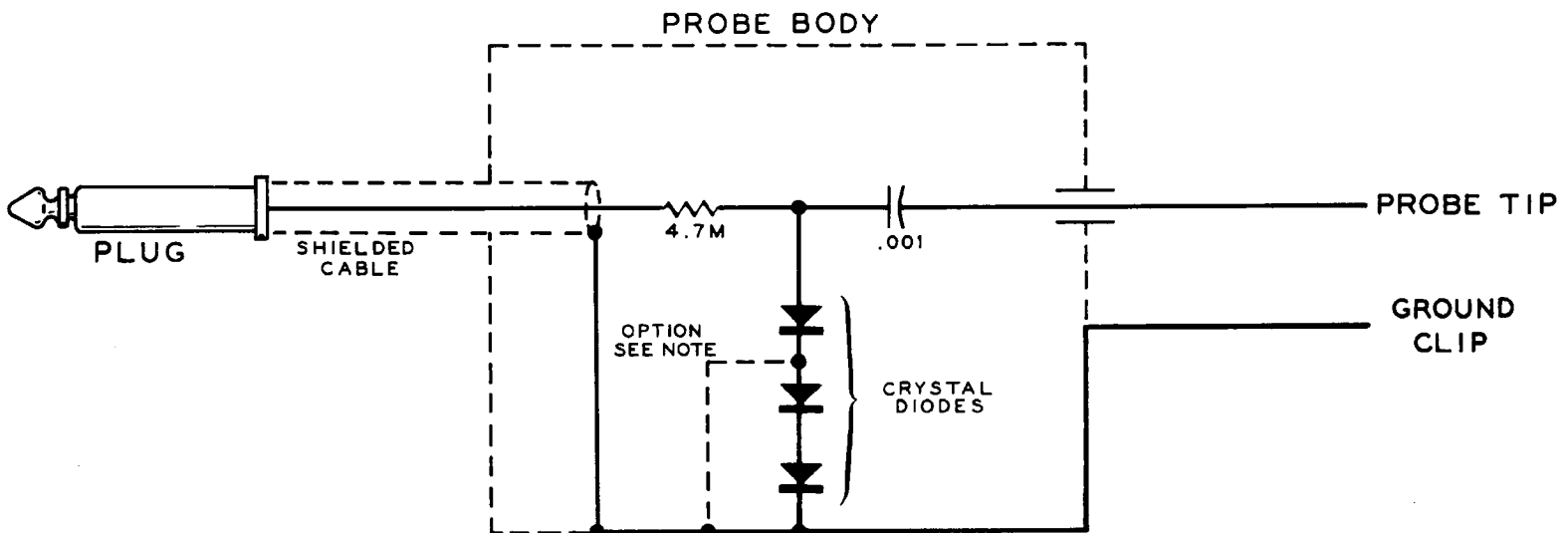
Remember that 90 volts is the maximum AC voltage that should be applied to the Probe. DC voltages up to 1000 volts can be connected to the Probe safely as long as the superimposed RF voltage does not exceed the 90 volt limit.

CIRCUIT DESCRIPTION

DC isolation is provided by the .001 μF capacitor. Since this input capacitor is rated at 1000 volts DC, the Probe must not be applied to circuits where DC voltages are higher than this.

An RF signal at the probe tip will be coupled through the low impedance of the input capacitor to the 4.7 megohm resistor and the crystal

diodes. The positive half-cycles of the RF signal are grounded through the crystal diodes. The remaining negative half-cycles are filtered by the 4.7 megohm resistor and the cable capacitance, and appear at the input of the meter as a negative DC voltage. The filter resistor forms a voltage divider with the input resistance of the meter to provide an rms voltage (70% of the negative peak) to the meter input.



NOTE: REFER TO PICTORIAL 1 OF THE STEP-BY-STEP ASSEMBLY FOR OPTIONAL WIRING.