checkimg transmitter output, neutralization, harmonics, parasitic analysis, and inverstigation of standing waves on open transmission lines.

F. MEASURING THE COIL INDUCTANCE AND CONDENSER CAPACITY

1. To measure coil inductance, make a resonant circuit with a known condenser capacity.
2. Place TE-15 near to the resonant circuit under test and read the frequency scale on the dial.
3. You now have the coil capacitance of the resonant circuit. By using the following equation, the inductance can be obtained.

$$f = \frac{1}{2\pi\sqrt{LC}}$$

4. To measure the condenser capacity, make a resonant circuit with a known coil inductance.
5. Place the TE-15 near to the resonant circuit under test and read the frequency scale on the dial.
6. You now the condenser capacity of the resonant circuit. By using the capacitance can be obtained.

$$f = \frac{1}{2\pi\sqrt{LC}}$$

G. MEASURING THE "Q" OF THE RESONANT CIRCUIT

1. To measure the "Q" of the resonant circuit, connect RF VTVM to circuit.
2. Place the TE-15 close to the resonant circuit and rotate the control until a sharp dip is observed on the meter. Read scale on the dial. Note the reading down on paper.
3. Then, read and note the voltage indication on the VTVM.
4. Gently rotate tuning dial knob of the TE-15 until the voltage indication of the YTVM is 70% of the value.

5. Again read tuning dial knob of the TE-15 until frequency scale.
6. Take the frequency readings you have obtained and the following equation is observed.

$$Q = 2\,\frac{f^1}{f^1 - f^2}$$