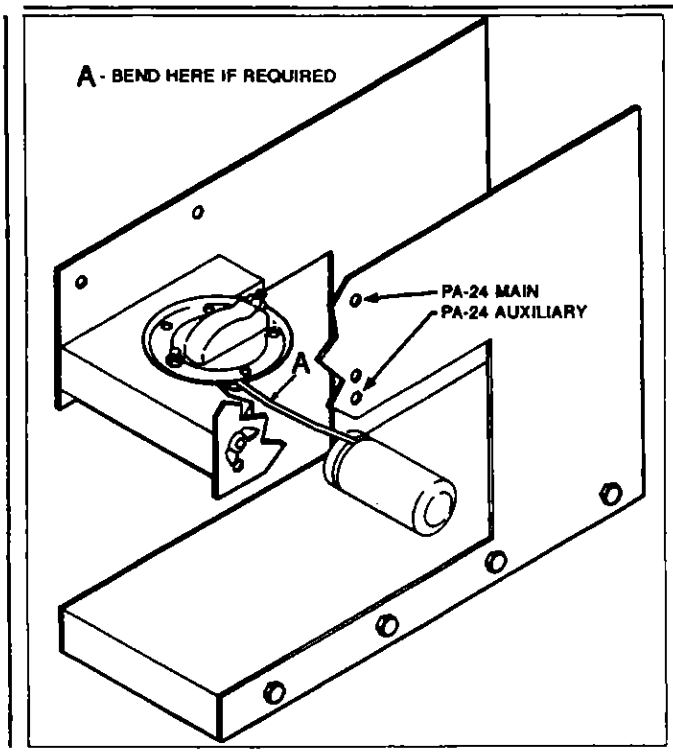

Figure 8-9. Checking Sender Unit

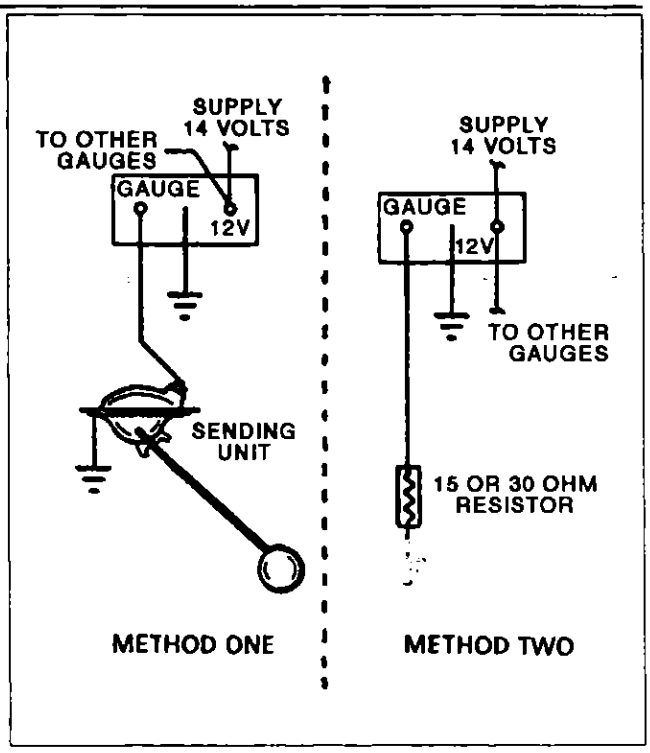

Figure 8-10. Checking Fuel Gauge

4. After the sender has been adjusted, check for the proper amount of resistance by the following procedure:

(a) Connect an ohmmeter to the sender unit.

(b) Position the float arm against its bottom stop and ascertain the ohmmeter indicates 0.0 to 0.5 ohms resistance.

(c) Slowly move the float arm from the bottom stop to the top stop. The ohmmeter needle should steadily move up the scale, without fluctuation, as the float arm is moved.

(d) With the float arm against its top stop, the ohmmeter should indicate 29.6 to 31.3 ohms resistance (except for individual PA-24-400 auxiliary cell senders which should indicate 14.6 to 16.3 ohms resistance). If incorrect resistance or fluctuation is found, the sender should be replaced.

c. Wiring Check.

1. Check all ground connections throughout the indicating system for corrosion or loose connections that may cause excessive resistance in the circuit.

2. Check all splices and terminal connections for corrosion and security.

3. Check wiring between connections for excessive resistance due to frayed or broken strands.

d. Gauge Check.

1. Sender Method:

(a) Position and secure a calibrated main cell sender to the fabricated checking jig.

(b) Connect the sender directly to the gauge being checked using Number 16 or larger wire. (Refer to Figure 8-10.)

(c) Connect a 14-volt power supply to the electrical system of the airplane.

(d) Operate the power supply and move the sender float arm through its travel. Ascertain that the empty and full positions of the sender and the gauge correspond. If not, the gauge should be replaced.