

and a normal reading is obtained on the CB ServiceMaster. If the transceiver is being powered by a bench power supply, adjust the power supply voltage over the range of 11 to 15 volts and note that the transmitter power output varies on both the CB ServiceMaster and the power meter of the transceiver. If desired, note the power level in watts from the CB ServiceMaster for each increment on the power meter scale. This information can be recorded or plotted on a graph and presented to the owner of the radio.

If the transceiver is equipped to operate on both AM and SSB modes, the power meter will undoubtedly have a different range for each mode. Check operation of the AM mode as described in the previous paragraph. Check operation of the power meter in the SSB mode while performing the SSB TRANSMITTER RF POWER CHECK and SSB TRANSMITTER MODULATION CHECK. Note that the power meter indication and the RF wattmeter indication of the CB ServiceMaster both vary as the modulation varies. Note the power (in watts) for each increment of the power meter.

### **EFFECTS OF VOLTAGE CHECK**

All previous checks in this instruction manual prescribed a 13.8 volt DC input to mobile transceivers being checked. In all checks it is good practice to note the effects of low voltage. Vary the power supply output over the range of 11 to 15 volts and note the results. Never increase voltage above 15 volts, as it may burn out the equipment being checked.

Voltage changes should have very little effect on transmitter frequency. Transmitter power, receiver sensitivity, and audio power may be affected to a significant degree. Testing at low and high voltages can occasionally reveal a fault that is undetected at normal voltage levels.

### **CHECKING AUDIO EQUIPMENT**

In addition to checking Citizen's Band transceivers and other communications equipment, the CB ServiceMaster can be used to check and service audio equipment. It can check any audio equipment with 4-ohm, 8-ohm, or 16-ohm speaker output at output levels up to 10 watts. On stereo equipment, only one channel can be checked at a time, or two CB ServiceMasters can be used simultaneously.

Connect the speaker output of the audio equipment to the RECEIVER AUDIO jacks on the CB ServiceMaster. The AUDIO OUTPUT jacks can be used to inject 1 kHz or two-tone test signals from the CB ServiceMaster into the equipment being checked. The audio meter can be used for checking audio output power and distortion. The dB scale can be used for frequency response checks.

The output of the audio equipment can be monitored on the speaker of the CB ServiceMaster if desired. The audio signal is also displayed on the oscilloscope.