



coupler is used between the antenna and Transceiver. The antenna used must provide a low SWR (standing wave ratio) to the Transceiver for successful operation. Lightning arrestors on the antenna are a must. The antenna must be grounded, and the Transceiver should be taken off the air when a lightning storm is near.

The FINAL TUNE knob should peak near the center third of rotation with a properly matched antenna. Do not use an antenna that wil not tune through a "peak" in TUNE. Connect a SWR bridge to the antenna and make sure the SWR is below 1.5 to 1. Power for operating the bridge may be obtained by carrier output in the TUNE position of the FUNCTION switch.

Use an  $8\Omega$  speaker capable of handling one watt of audio power.

Three typical installations are shown in Figures 5, 6, and 7. Figure 5 shows a basic hookup suitable for either fixed station or mobile operation. Figure 6 shows a fixed station installation using a linear amplifier with a built-in antenna relay switched by the Transceiver.

CAUTION: Remember that one side of the EXT RELAY socket in the Transceiver is connected to the chassis. Therefore, it should not be connected to 120 volt AC lines for relay switching. The AC voltage could cause the Transceiver chassis to be "hot," creating a shock hazard. The switching circuit of an AC external relay must be isolated from the Transceiver by using an isolation transformer.

If low voltage DC is used on the relay switching line, be very careful to get the polarity of the voltage connected properly. The grounded DC lead must be connected to the outside (chassis) of the plug.

Figure 7 shows a setup incorporating a linear amplifier which does not have a built-in relay. When using a separate antenna relay in this manner, a suitable isolation transformer must be used to operate the relay and isolate the AC line from the Transceiver chassis.

## MOBILE

The preferred location for mobile operation is under the dash, although you may desire to

