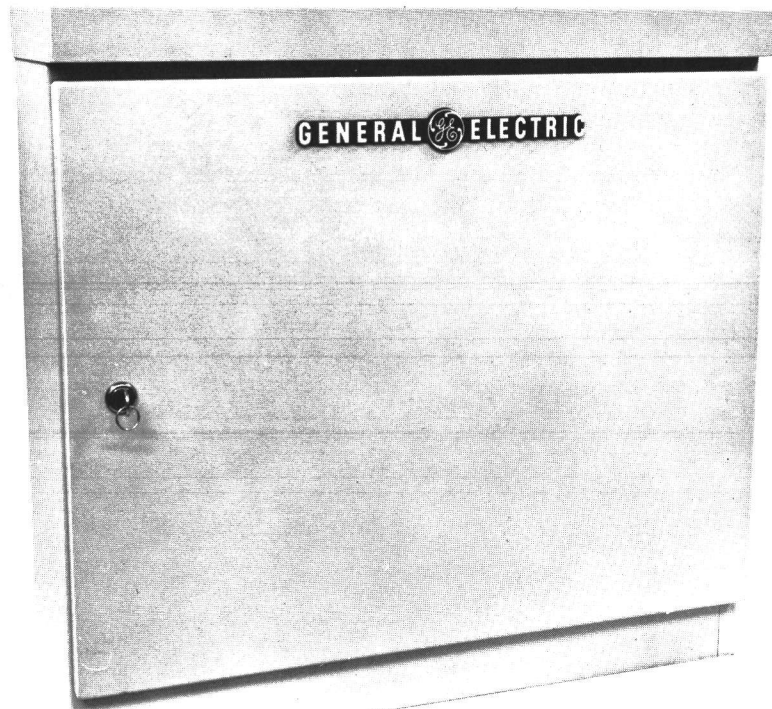


INSTALLATION OF

MASTRTM II

AUXILIARY RECEIVER IN WALL-MOUNT CABINET



The Wall Mount Receiver Combination can be installed in your office, warehouse, garage, or even outdoors. Slimlined and compactly built, the cabinet occupies a minimum of space.

The weatherproof cabinet protects the receiver against all types of weather. The cabinet is equipped with a key lock to prevent unauthorized entry.

PLANNING SPECIFICATIONS

Dimensions (H x W x D)	21-1/4" x 22-1/2" x 6-7/8"
Weight	57-1/2 lbs.
Temperature Range	-30°C to +60°C (-22°F to +140°F)
AC Power Input	121 VAC, ±20%, 50/60 Hz

PLANNING YOUR INSTALLATION

STATION LOCATION

The Wall Mount cabinet can be mounted on a wall, on the cross-arm of a single pole, on cross-arms between two poles, on the antenna support (tower), or some other vertical surface. Be sure that the selected location is strong enough to hold the weight of the combination (approximately 58 pounds). When an outside location is selected for your receiver, it is recommended that the cabinet be mounted so the cabinet door will face away from the prevailing wind for maximum protection against weather. The receiver should always be accessible for maintenance and servicing. When the cabinet is wall mounted, be sure that it is mounted at least 1-inch above the floor or other flat surface to ensure adequate ventilation.

ANTENNA REQUIREMENTS

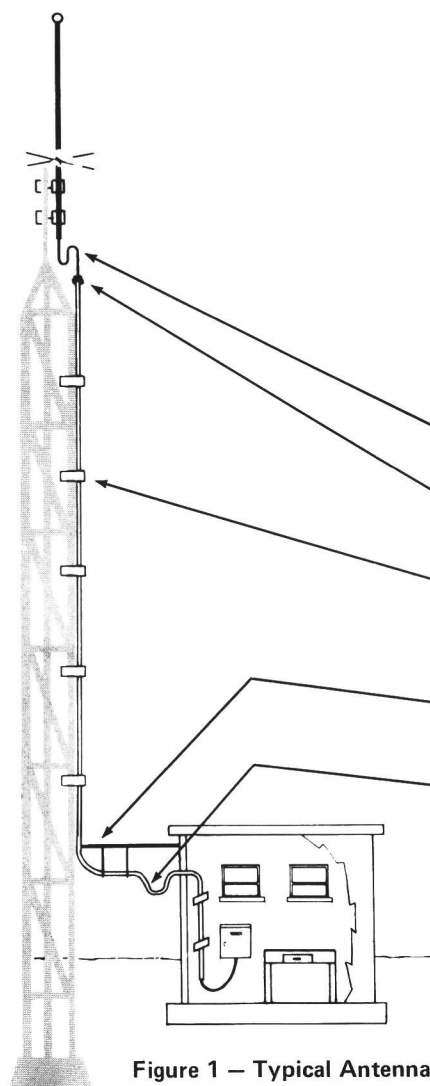
The antenna should be located as close as possible to the Wall Mount cabinet, so that the antenna transmission line can be kept short. Receiving efficiency decreases as the length of the transmission line increases.

The antenna, tower, other antenna supports, and transmission line are ordered separately from the receiver combination, but proper installation of the antenna is essential for proper operation of the radio. The receiver will not perform satisfactorily unless the antenna is installed in accordance with good engineering practice. Installation instructions are furnished with the antenna. A typical antenna system installation is shown in Figure 1.

POWER AND GROUND REQUIREMENTS

The cabinet should be connected to a good earth ground. A No. 12 stranded flexible wire should be connected between the hinged cabinet rack and a ground rod—or if inside, to a cold water pipe—to ensure a good ground. In addition, the cabinet should be grounded to the hinged rack to protect service personnel and minimize hum currents. This can be done by installing a 1" wide flexible tinned copper bond across the hinge and bolting each end of the bond to the frame. Before drilling the screw holes in the bond, apply solder across the width of the bond where the holes are to be drilled.

Check your local electrical code to be sure that you comply with all local ordinances.



To supplement the manufacturer's instructions, the following hints will be valuable to you when installing your antenna:

- Antenna should not be located in an area of a strong "electrical noise". It should be located at least several hundred feet from noise caused by: high tension power lines, internal combustion engines, heavy electrical machinery, and other "radio-frequency devices".
- Check transmission line and connectors for opens and shorts before installing.
- Leave some slack between top of the transmission line and antenna.
- Tape, or otherwise protect in-line fittings from weather.
- Clamp the line to the tower every five feet.
Use wraplock on Heliac® or RG-17/U type cable.
Use vinyl tape on Foamflex® or RG type cable.
- Use "messenger" cable to support transmission line from tower to radio building, if distance is more than eight feet.
- Make a "drop-loop" in the transmission line just before line enters the building.
- Check continuity between transmission line ground and building ground before transmission line is attached to station. They should be at the same potential.
- Keep transmission line away from all sharp edges. Do not make sharp bends.

Figure 1 — Typical Antenna System Installation

INSTALLING THE CABINET

The "swing-out" chassis should be removed to facilitate cabinet mounting and the drilling of cable entry holes. Remove the chassis frame and chassis (see Figure 2) as follows:

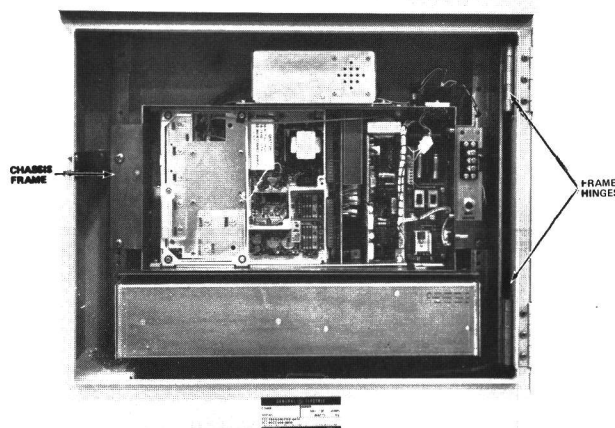


Figure 2 — Wall Mount Cabinet (Chassis View)

1. Disconnect AC plug from duplex AC outlet in cabinet.
2. Remove screw retaining top hinge pin.
3. Remove top and bottom hinge pins from frame hinges.
4. Remove screws holding top and bottom of mounting frame to left side of cabinet. (These screws are necessary for shipping only.)
5. Carefully lift chassis frame, with chassis, out of cabinet.

CABLE ENTRY HOLES

Two access holes are located in the bottom of the cabinet for installing the antenna and AC power cables. A separate 1/2-inch hole for the telephone lines may be drilled by the installer, or the telephone lines may be brought in through the antenna entry hole with the antenna. (See Figure 3 for location of cable entry holes.) Attach 1/2-inch conduit or strain relief cable clamps in each hole (clamps or conduit are supplied by the owner or installer).

TYPICAL WALL MOUNT INSTALLATION

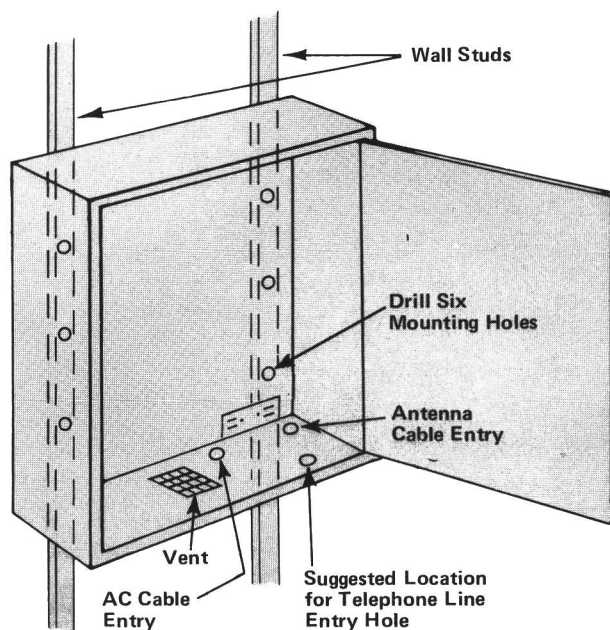
1. Measure distance between the center of wall studs where station is to be mounted as shown in Figure 3. (Be sure wall can support full weight of receiver and cabinet).
2. Mark off this measurement inside cabinet.
3. Drill six 1/4" mounting holes in cabinet.
4. Using cabinet as a template, drill six 3/16" starting holes in studs.
5. Mount cabinet using the No. 14 screws and flat washers supplied.
6. Bring in antenna cable and telephone lines.
7. Re-install chassis and mounting frame in cabinet.
8. Connect receiver to AC power as follows:

121-VAC

Remove AC duplex receptacle cover and connect a No. 12 three-wire AC cable to its terminals. Connect black (hot) wire to copper terminal, the white wire to white terminal, and the ground wire to green terminal. Connect a No. 12 wire from the "swing-out" chassis to the remaining green terminal.

Connect AC plug from chassis into AC duplex receptacle.

Figure 3 — Cable Entry Holes and Wall Installation



POLE MOUNT INSTALLATION

Typical outdoor installations follow. Keep cabinet elevated above high water and flood levels.

Attaching Cabinet to a Single Pole

1. Cut horizontal mounting surfaces for two 2" by 4" wood supports on pole. Cut should be about 1" deep to allow outside surface of wood support to extend out from curvature of pole (see Figure 4).
2. Drill a 1/2" hole through center of wood supports and pole. Mount wood supports with a 1/2" diameter bolt. Tighten bolt securely with washer and nut. Head of bolt must be countersunk on wood support to provide flat surface for cabinet.
3. Drill four 3/8" mounting holes in cabinet and bolt cabinet to wood supports using four 3/8" bolts, washers, and nuts;

OR

Drill six 1/4" mounting holes in cabinet and mount cabinet to wood supports using six No. 14 screws and flat washers supplied.

4. Follow steps 6-8 of "Wall Mount Installation".

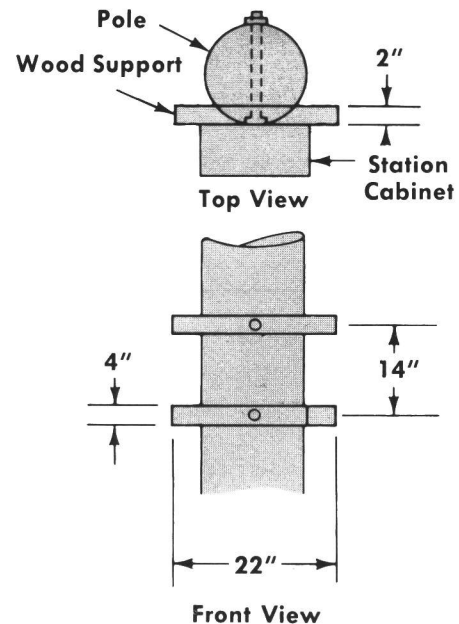


Figure 4 — Installation to a Single Pole

Attaching Cabinet to Antenna Support (Tower)

1. Mount 2" by 4" supports on antenna support as shown in Figure 5. Bolt securely and band tightly together to prevent slippage and vibration.
2. Drill four 3/8" mounting holes in cabinet and bolt cabinet to wood supports using four 3/8" bolts, washers, and nuts;

OR

Drill six 1/4" mounting holes in cabinet and mount cabinet to wood supports using six No. 14 screws and flat washers supplied.

3. Follow steps 6-8 of "Wall Mount Installation".

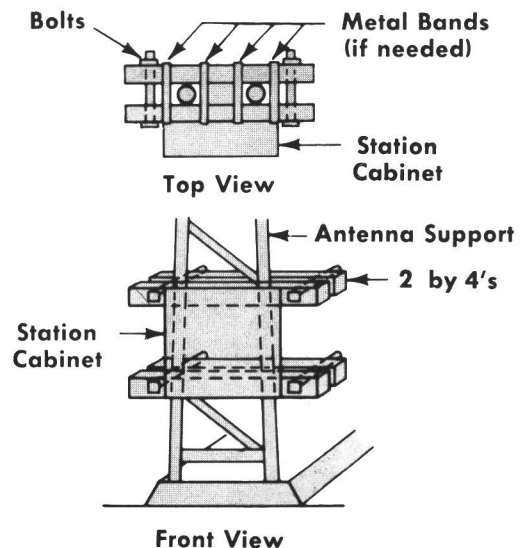


Figure 5 — Installation to Antenna Support

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