

SITE SELECTION

Before attempting to install your antenna, think where you can best place it for **safety** and **performance**.

To determine a safe distance from wires, power lines, and trees:

1. Measure the height of your antenna.
2. Add this length to the length of your tower or mast, and then
3. Double this total for the minimum recommended safe distance.

If you are unable to maintain this safe distance, STOP! GET PROFESSIONAL HELP. Many antennas are supported by pipe masts attached to the chimney, roof, or side of the house. Generally, the higher the antenna is above ground, the better it performs. Good practice is to install your antenna about 5 to 10ft above the roofline and away from power lines and obstructions. Remember that the FCC limits your antenna height to 60ft. If possible, find a mounting place directly above your transmitter, where the antenna wire can take a short vertical drop on the outside of the building for entry through a wall, duct, or window. Your dealer carries a complete line of installation hardware.

AVOID THIS LOCATION



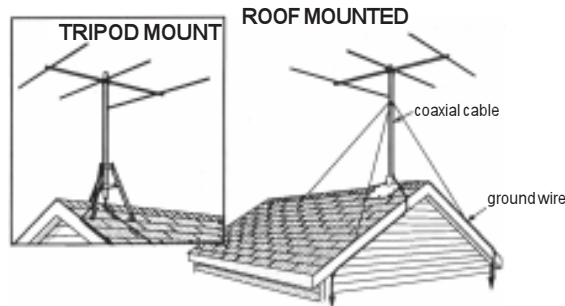
The safe distance from power lines should be at least twice the height of the antenna and mast combined.

CHOOSE A PROPER SUPPORT AND MOUNTING METHOD

However you decide to mount and support your antenna, always make sure that safety is your first concern. Some of the more common installation methods are illustrated below.

ROOF MOUNTED

The swivel feature of "universal" type mounting brackets makes a convenient antenna mount for flat or peaked surfaces. One clamp type bracket is used with 3 or 4 guy wires equally spaced around the mast and anchored to the surface by eyebolts. Apply roofing compound around the base of the bracket, screws, and eyebolts for moisture sealing.



TELESCOPING MAST

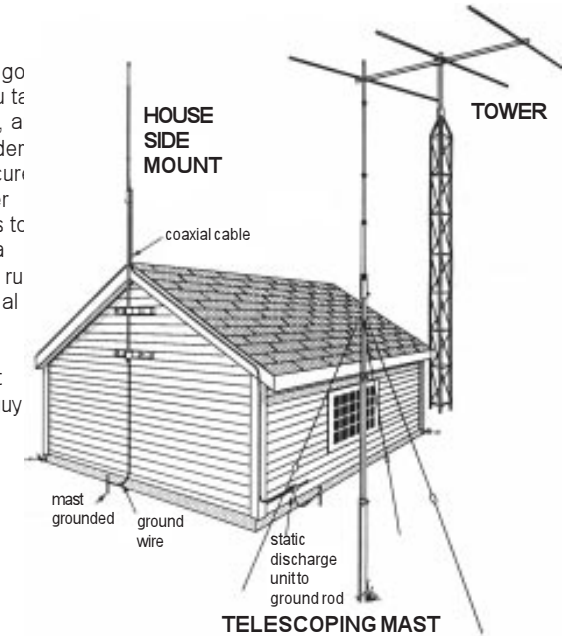
Guy wires should be equally spaced in at least three directions. Use at least three guy wires for each 10ft section of mast.

SIDE OF BUILDING MOUNTING

The safe distance from power lines is at least twice the height of the antenna and mast combined. Where roof overhang is not excessive, the side of the building provides a convenient mounting. Position the brackets over a stud if possible, one over the other, and space them two or three feet apart along the mast. For metal siding, first mark mounting holes, then drill pilot holes through the siding to accept mounting screws.

TOWER

Tower safety is paramount to a go installation and requires that you take location, tree growth, soil depth, a proximity to buildings into consideration. Tower foundations must be secured based on a solid concrete/tower mounting plate. An alternative is to use a 4 to 6ft section of tower into a concrete base for an extremely rugged mount. Proper guying is essential for a safe, weather-resistant installation that must handle severe wind loading and is best accomplished with preformed guy grips, torque brackets, and turnbuckles. When working on towers, always use a safety belt made of high-quality web-type material.



CHIMNEY MOUNTING

The chimney is often an easy and convenient mounting place, but the chimney must be strong enough to support the antenna in high winds. Do not use a chimney that has loose bricks or mortar. A good chimney mount makes use of a 5 or 10ft, 1.25" diameter steel mast, and a heavy duty two strap clamp-type bracket. Install the upper bracket just below the top course of bricks and the lower bracket two or three feet below the upper bracket. For maximum strength, space the brackets as far apart as possible.



GENERAL INSTALLATION INSTRUCTION FOR MAST-MOUNTED ANTENNAS

1. Assemble your new antenna on the ground at the installation site. Keep the separate assembly instructions that came with it.
2. On the ground, clamp the antenna to the mast and connect the coaxial cable to the antenna.
3. To insure that the mast does not fall the "wrong way" if you should lose control of it during the installation or takedown, durable nonconductive rope should be secured at each two foot level as the mast is raised. The "boss" should stand in a position where he or she can yank or pull on the ropes if the need arises to deflect the falling mast away from hazards (such as power lines) into a "safe fall" (such as into a yard or driveway). The ropes are tied taut at the base of the mast after installation and in place at the various levels.

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4. Install the selected mounting bracket.

5. If you are going to use guy wire installation instead of a mounting bracket:

- install guy anchor bolts.
- estimate length of the guy wire and cut.
- attach a mast using guy ring.

6. Carefully take the antenna and mast assembly to the mounting bracket and insert it. Tighten the clamp bolts. In case of a guyed installation, it will be necessary to have at least a second person to hold the mast upright while the guy wires are attached and tightened to the anchor bolts.

7. Install self-adhering "DANGER" label packed in antenna hardware kit at eye level.

8. Install a ground rod to drain off static electricity build-up and connect the ground wire to the mast and ground rod. Use special ground rods, not a spare piece of pipe.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS

1. Use #10 AWG copper or #8 AWG or larger copper-clad steel or bronze wire as ground wires for both the mast and the lead-in. Securely clamp the wire to the bottom of the mast.

2. Secure the lead-in wire from antenna to antenna discharge unit and mast ground wire to building with stand-off insulators spaced from 4ft (1.2m) to 6ft (1.8m) apart.

3. Mount antenna discharge unit as close as possible to where the lead-in wire enters the building.

4. Drill a hole in the wall (CAREFUL! There are wires in that wall!) near your set just large enough to permit entry of the cable.

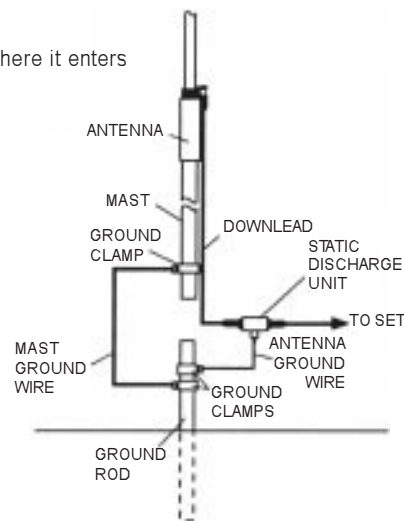
5. Push the cable through the hole and form a rain drip loop close to where it enters the house.

6. Put small amounts of caulking around the cable where it enters the building to keep out drafts.

7. Install static electricity discharge unit.

8. Connect antenna cable to the set.

You should not attempt to raise a mast in excess of 30ft in height/length (not including the antenna proper) in a fully extended condition. Thirty to fifty foot tubular masts must be elevated, a section at a time, with the base or outer section secured in place with guy wires. GET PROFESSIONAL HELP.



WARNING!



INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS! FOR YOUR SAFETY, FOLLOW THE ENCLOSED INSTALLATION DIRECTIONS.

HOW TO INSTALL YOUR OUTDOOR ANTENNA SAFELY IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE U.S. CONSUMER PRODUCT SAFETY COMMISSION.

These safety recommendations apply to all antennas.

YOU, YOUR ANTENNA, AND SAFETY

Each year, hundreds of people are killed, mutilated, or receive severe and permanent injuries when attempting to install an antenna. In many of these cases, the victim was aware of the danger of electrocution, but did not take adequate steps to avoid the hazard.

For your safety, and to help you achieve a good installation, please **READ** and **FOLLOW** the safety precautions below. **THEY MAY SAVE YOUR LIFE!**

1. If you are installing an antenna for the first time, please, for your own safety as well as others, seek PROFESSIONAL ASSISTANCE. Consult your dealer. He or she can explain which mounting method to use for the size and type of antenna you are about to install.

2. Select your installation site with safety, as well as performance, in mind. (Detailed information in Site Selection appears in a separate section of this booklet.) **REMEMBER: ELECTRIC POWER LINES AND PHONE LINES LOOK ALIKE. FOR YOUR SAFETY, ASSUME THAT ANY OVERHEAD LINES CAN KILL YOU.**

3. Call your electric power company. Tell them your plans and ask them to come take a look at your proposed installation. This is a small inconvenience, considering **YOUR LIFE IS AT STAKE.**

4. Plan your installation procedure carefully and completely *before* you begin. Successful raising of a mast or tower is largely a matter of coordination. Each person should be assigned a specific task, and should know what to do and when to do it. One person should be designated as the leader/coordinator of the operation to call out instructions and watch for signs of trouble.

5. When installing your antenna, **REMEMBER: DO NOT USE A METAL LADDER. DO NOT WORK ON A WET OR WINDY DAY. DO DRESS PROPERLY:** shoes with rubber soles and heels, rubber gloves, long sleeved shirt or jacket.

6. If the assembly starts to drop, get away from it and let it fall. Remember, the antenna, mast, cable and metal guy wires are all excellent conductors of electrical current. Even the slightest touch of any of these parts to a power line completes an electrical path through the antenna and the installer -- **THAT'S YOU!**

7. If ANY PART of the antenna system should come in contact with a power line, **DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY.** They will remove it safely.

If an accident should occur with the power lines, call for qualified emergency help **IMMEDIATELY.**