

MASTER IF RED YOU, YOUR ANTENNA AND SAFETY

WARNING

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

Each year hundreds of people are killed, mutilated, or receive severe permanent injuries when attempting to install or remove 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 a proper installation, please **READ** and **FOLLOW** the safety precautions that follow — **THEY MAY SAVE YOUR LIFE.**

Save these instructions for future reference. The same precautions will apply when dismantling an antenna.

GENERAL SAFETY DIRECTIONS

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 can explain which mounting method to use for the size and type antenna you are about to install.
2. Select your installation site with safety, as well as performance, in mind (see page 2 for 'Site Selection'). **REMEMBER: ELECTRIC POWER LINES, PHONE LINES AND GUY WIRES 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 look at your proposed installation. This is little 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 to a specific task, and should know what to do and when to do it. One person should be designated as the "boss" 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, especially during electrical storms or when there is thunder and lightning in the area.

DO dress properly — shoes with rubber soles and heels, rubber gloves, long sleeve 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 lines are 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.
8. If an accident should occur with the power lines: **DON'T** grab hold of the person in contact with the antenna and power line or you too will be electrocuted. Use a DRY board, stick or rope to push or pull the victim away from the antenna. If the victim has stopped breathing, administer artificial respiration — and stay with it. Have someone call for medical help.

SITE SELECTION

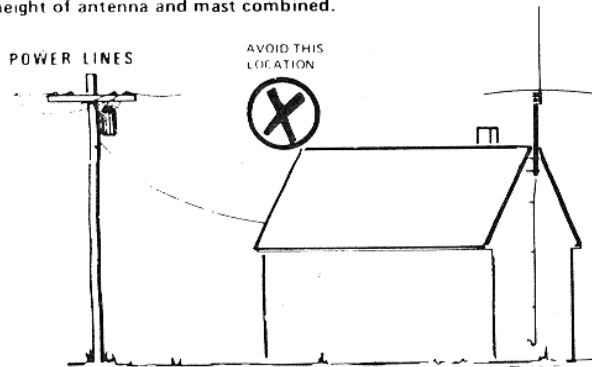
Before attempting to install your antenna, think where you can best place your antenna for safety and performance. To determine a safe distance from wires, power lines and trees:

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

If you are unable to maintain this safe distance, STOP! GET PROFESSIONAL HELP. Select an alternate location.

Most antennas are supported by pipe masts attached to the chimney, roof or side of the house. Antennas can also be attached to self-supporting towers or masts and masts supported by guy lines. Generally, the higher the antenna is above ground, the better it performs. Good practice is to install your vertical antenna about 5 to 10 feet above the roof line and away from power lines and obstructions. Remember that the FCC limits your antenna height to 60 feet. If possible, find a mounting place directly above your set, where the antenna wire can take a short, vertical drop on the outside of the house for entry through a wall or window near the set. Your dealer carries a complete line of installation hardware.

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

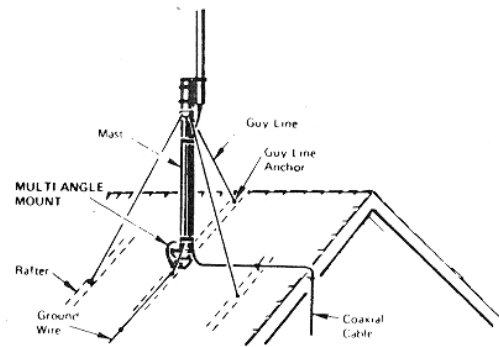
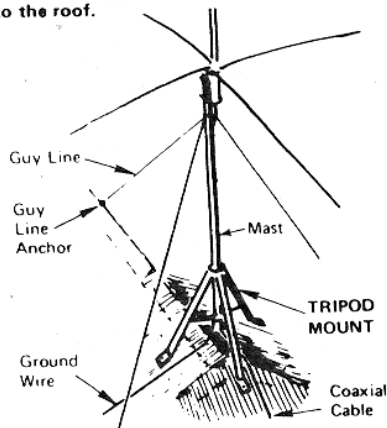


CHOOSE A PROPER SUPPORT AND MOUNTING METHOD

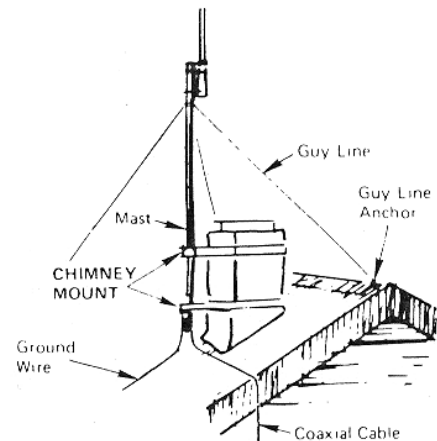
There are three types of supporting structures commonly used in antenna installations; roof, free standing and side-of-house mounts. Illustrations of these devices and various mounting methods follow.

ROOF MOUNT for flat or peaked roofs

A tripod mount will accept a five to ten foot 1 1/4" diameter steel mast for CB omni-directional antennas. One clamp-type bracket is used with three or four guy lines equally spaced around the mast and anchored to the roof.



The swivel feature of the multi-angle mount makes a convenient CB omni-directional antenna mount. One clamp-type bracket is used with three or four guy lines equally spaced around the mast and anchored to the roof.



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 five or ten foot 1 1/4" 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 to three feet below the upper bracket. For maximum strength, space the brackets as far apart as possible and use guy lines.

Follow suitable mounting methods and limitations described in the instructions supplied with the mount.

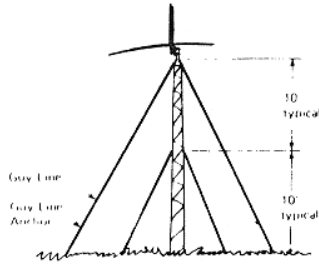
On all roof mounts, apply roofing compound around the base of brackets, screws and anchors for moisture sealing.

Make guy wire attachments through roof and into rafters for strength.

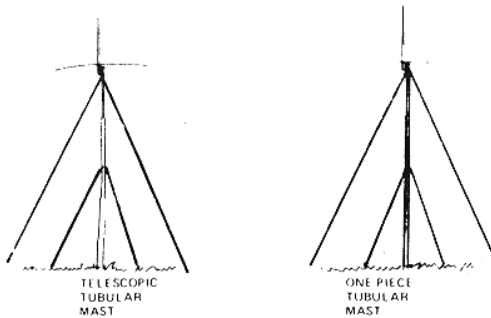
The safe distance from power lines is at least twice the height of the antenna and mast combined.

FREE STANDING MOUNTS

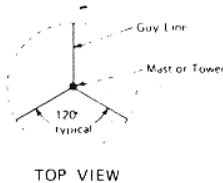
with guy lines or alongside a structure



The one-piece mast, telescopic tubular mast and tower allows the antenna to be mounted away from structures. However, for added strength, a mast or tower may be erected next to a structure and attached to it.



The minimum safe diameter mast for this antenna is specified on the antenna assembly instructions. Guy lines should be equally spaced (see below) in at least three directions. Use at least three guy wires for each 10-foot length of mast.

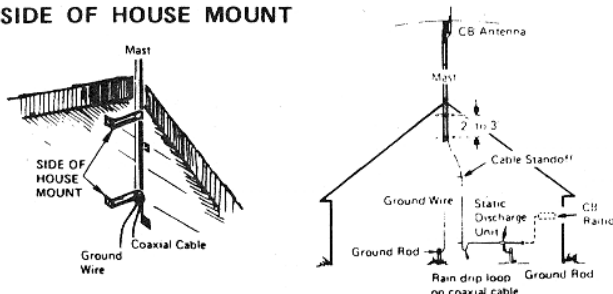


TOP VIEW

Follow suitable mounting methods and limitations described in the instructions supplied with the tower or mast.

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

SIDE OF HOUSE MOUNT



Where roof overhang is not excessive, the side of the house provides a convenient mounting. Position the brackets over a stud if possible, one above the other, and space two or three feet apart. For metal siding, first mark mounting holes; then, drill pilot holes through the siding to accept mounting screws

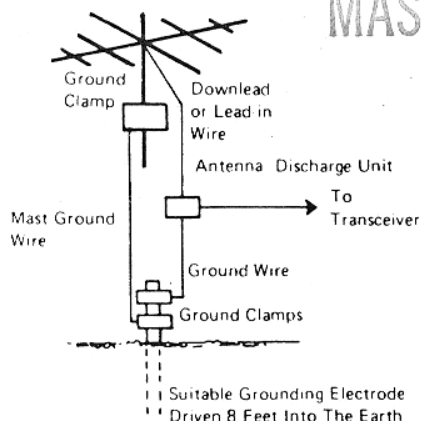
Follow suitable mounting methods and limitations described in the instructions supplied with the mount.

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

GENERAL INSTALLATION DIRECTIONS FOR MAST MOUNTED ANTENNAS

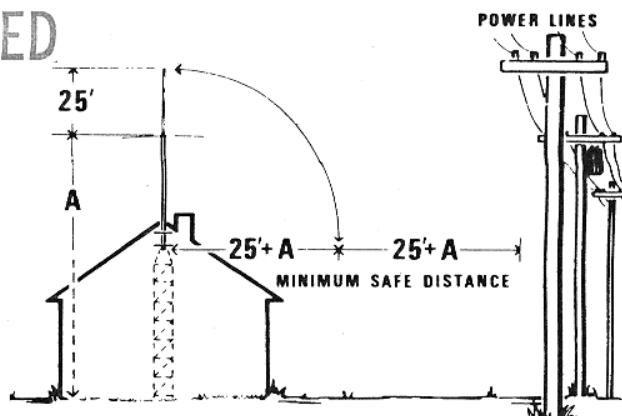
1. Additional material needed to complete installation is described in antenna assembly instructions.
2. Assemble the antenna on the ground at the installation site. Keep the assembly instructions that come with the antenna separate from other instructions (for mount, cable, etc.).
3. On the ground, clamp antenna to mast, pull enough coaxial cable and connect to antenna.
4. Various methods of raising an antenna (or mast), such as "walking up" or the use of an "X frame" can be found in manuals and handbooks available at most dealers. To insure that a mast does not fall the "wrong way" if it should get away during installation or take-down, durable non-conductive rope should be secured at each ten foot level as the mast is raised. The boss stands in a position where he can yank or pull the ropes if the need arises to deflect the falling mast away from hazards (such as power lines) into a "safe fall" (such as a yard or driveway). The ropes are tied taut at the base of the mast after installation and in place at the various levels.
5. Install selected mount following instructions supplied with it. Note any limitations and follow recommended installation procedures.
6. When using guy lines:
 - Install guy anchor bolts
 - Estimate length of guy wire and cut.
 - Attach guy line ring to mast.
 - Attach guy lines to mast and anchor securely.
7. Carefully take antenna and mast assembly to mounting bracket and insert. Tighten clamp bolts. In case of guyed installation, it will be necessary to have at least a second person hold the mast upright while the guy lines are attached and tightened to the anchor bolts.
8. Install self-adhering "DANGER" label, packaged with antenna, on the mast.
9. Install ground rod to drain off static electricity buildup and connect ground wire to mast and ground rod. Use special ground rods — not a spare piece of pipe.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS



MASTER IF RED

Remember, whatever the length of the antenna and mast is combined — DOUBLE IT — that's the safe distance ANY power line must be from the antenna. Refer to the illustration below.



IF POWER LINES ARE NOT AT LEAST THIS SAFE DISTANCE FROM THE ANTENNA — STOP ! CONTACT YOUR POWER COMPANY OR PROFESSIONALS THAT DO THIS TYPE OF WORK.

Are there other antennas nearby or on the same mast that may get in the way?

Are there other objects that may interfere with antenna removal such as trees, air conditioning units, chimneys, dormers, etc.

CHECK THE CONDITION OF THE ANTENNA

The condition of the antenna has changed since it was put up. The weather may have caused rust and corrosion. Some parts may be weak, cracked or broken.

If possible, inspect radials, elements, brackets, etc. and remove any broken or loose pieces that may unexpectedly fall off during disassembly and cause injury.

CAREFULLY DISASSEMBLE AND REMOVE ANTENNA

DO NOT remove an antenna on a windy day or during bad weather. Especially during electrical storms or when there is thunder and lightning in the area.

Have at least one other person to assist you, two would be even better.

Hand tools usually required are pliers, screw driver and adjustable wrench. However, since each situation is different, other equipment may be needed. Use penetrating oil to loosen any rusted screws and nuts.

Disconnect all cables from equipment and power sources first. Then disconnect all cables at the antenna.

If any radials or elements can be easily removed while the antenna is still mounted, do so.

Be careful not to let the antenna, parts or tools fall that could cause damage or injury.

Most antennas are not heavy, but they can be difficult to handle. Use strong rope (nylon or hemp) securely attached to the antenna to help control it while it is being removed.

Remember, if you are unsure about what to do or are doubtful about whether you can handle the job — STOP — get professional help.

1. Use No. 10 AWG copper or No. 8 AWG aluminum or No. 1 AWG copper-clad steel or bronze wire, or larger as ground wires for both mast lead-in. Securely clamp the wire to the bottom of the mast.
2. Secure lead-in wire from antenna to antenna discharge unit and mast ground wire to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
3. Mount antenna discharge unit as close as possible to where the lead-in wire enters the house.
4. Drill a hole in wall near set just large enough to permit entry of cable.
5. Push cable through hole and form a rain drip loop close to where it enters house. (Careful! There are wires in that wall!)
6. Put a small amount of caulking around cable where it enters house to keep out drafts.
7. Install static electricity discharge unit. The grounding conductor shall be run in as straight a line as practicable from the antenna mast and/or the antenna discharge unit to the grounding electrode.
8. Connect antenna cable to set.

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

Keep this installation instruction booklet for future reference when removing the antenna. Remember, use similar cautions when disassembling — the same electrical hazards exist. IF YOU ARE IN DOUBT — GET COMPETENT PROFESSIONAL ASSISTANCE.

ANTENNA REMOVAL

FOR YOUR SAFETY, READ THE FOLLOWING DIRECTIONS BEFORE STARTING TO REMOVE AN ANTENNA

CHECK FOR SURROUNDING HAZARDS

Most important, CHECK FOR LOCATION OF POWER LINES. Their closeness to the antenna may not have been considered when it was put up or new lines may have been installed after the antenna was.