


# Scanner Beam II Antenna

**WARNING!**  
**INSTALLATION OF**  
**THIS PRODUCT**  
**NEAR POWER**  
**LINE IS**  
**DANGEROUS**



**FOR YOUR**  
**SAFETY, FOLLOW**  
**INSTALLATION**  
**DIRECTIONS.**

## Scanner Beam Assembly and Mounting Instructions

1. Carefully open the hardware bags and place the contents on a flat surface.
2. Use the supplied hardware to loosely attach the supplied mast clamp assemblies to the antenna boom and offset boom. (See Figure 1 at right.)
3. Press the supplied blue plastic end plugs into the ends of the antenna boom and offset boom.
4. Separate the weatherboot from the balun transformer. (Note: If you prepare your own cable, slide the balun transformer's weatherboot onto the cable before you attach the F-connector.)
5. Thread the balun transformer's spade terminal ends thru the antenna's clear plastic strain relief. Use the supplied washers and large wing nuts to secure the transformer's ends to the antenna's threaded lead-in terminals marked **CONNECT LEAD-IN HERE**.
6. Screw the coaxial cable's F-connector onto the balun transformer. If you use a prebuilt cable without a weatherboot, cover the connection with weatherproof tape. Otherwise, slip the weatherboot over the connection.
7. Use plastic tape to secure the transformer and coaxial cable to the top surface of the main boom.
8. Hold the antenna's elements near the pivot points and extend each element until they snap into position. (See Figure 2 at right.) (Note: You may wait to unfold the elements until you get the antenna up on the roof.) (Caution: Do not pull the elements near their outer ends or you could damage them.)
9. Slide the offset boom's mast clamp assembly over the top of the mast. Tighten the mast clamp assembly to hold the antenna in place. Take care not to overtighten the nuts. (Caution: The crossover wires must not touch the antenna boom, the mast, or each other. If necessary, carefully bend the crossover wires to provide at least 1/2 inch of clearance.)
10. Rotate the mast so the antenna's shortest elements point toward the signal you want to receive.
11. **GROUNDING FOR LIGHTNING PROTECTION;** Run a large (#8 or larger copper, aluminum or copper-clad steel wire directly from the antenna mast to a 3/8" or larger ground rod driven at least four feet into moist soil. For roof-mounted antennas, the ground wire should not touch the roofing material. Additionally, use a gas-discharge lightning arrester between the antenna coaxial cable and the receiver.

### SPECIAL NOTICE FOR TRANSMITTING

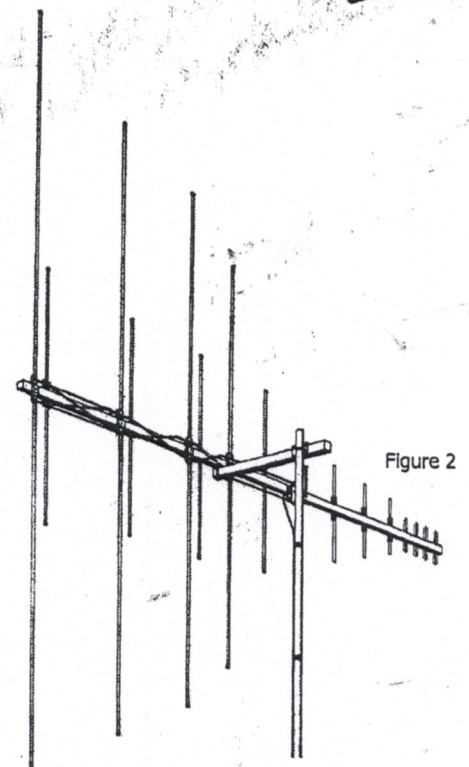
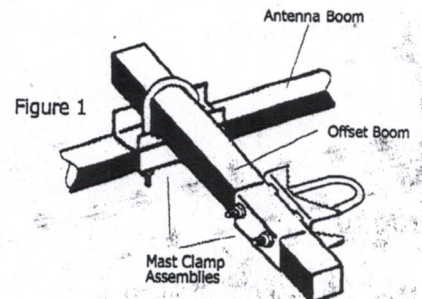
Do not exceed 25 watts power to avoid damaging the balun transformer.

### IN CASE OF DIFFICULTY

Be sure that all connections are tight. The center wire in the F-connector must be straight and extend as far as the edge of the connector to make contact. It may be pulled slightly with long-nosed pliers if necessary.

### WARRANTY

Grove enterprises this product to be free of manufacturing defects for a period of one year from the date of purchase. If defective, the antenna will be replaced at no charge provided the owner contact Grove Enterprises for a return authorization.



**WARNING: INSTALLATION OF THIS PRODUCT NEAR POWERLINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS.**



**WATCH FOR POWERLINES!  
You can be KILLED if this antenna comes near electric powerlines.  
READ INSTRUCTIONS**

**IF AN ACCIDENT SHOULD OCCUR WITH POWERLINES**

1. Call for emergency help.
2. Don't touch a person who is in contact with the antenna or the powerline (you'll be electrocuted, too).
3. If the victim is free and clear from any electric power lines and is unresponsive, check their breathing and pulse. If the victim is not breathing, administer artificial respiration; if they have no pulse, administer CPR until emergency help arrives.

**FOLLOW THESE RULES AND LIVE**

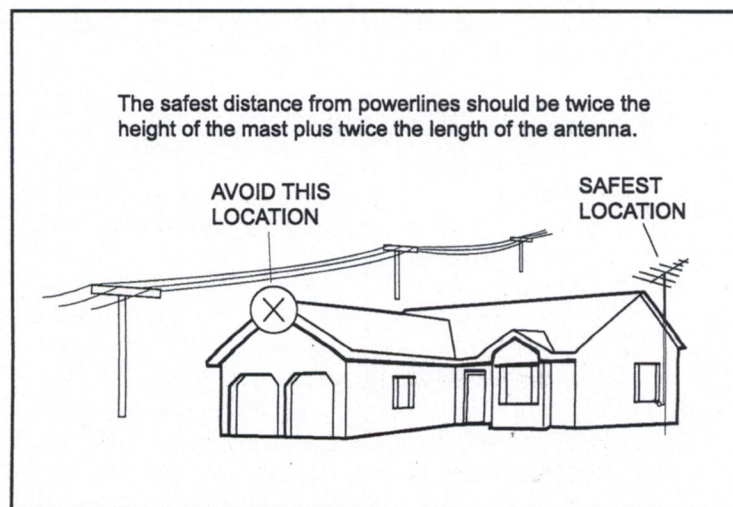
1. If you're not sure about a careful, safe installation—don't try to do it yourself. Call your local power company or check with Yellow Pages under "Antennas or Television and Radio Antenna Systems" for an installer in your area.
2. With at least two people, assemble as much of the antenna on the ground as possible.
3. Watch out for overhead powerlines. Check the distance to the powerlines before you start installing—**WE RECOMMEND YOU STAY A MINIMUM OF TWICE THE MAXIMUM LENGTH OF THE ANTENNA AND ITS MAST AWAY FROM ALL POWERLINES.**
4. Do not use a metal ladder.
5. Remember, even the slightest touch of an antenna to a powerline can cause a fatal shock.
6. Don't try to do the job on a windy day.
7. Have a friend watch as a spotter on the ground when you're on the roof to see things you can't.
8. If you start to drop the antenna, get away from it and let it fall.
9. If any part of the antenna comes in contact with a powerline—**CALL YOUR LOCAL POWER COMPANY; DON'T TRY TO REMOVE IT YOURSELF!** They will remove it safely.
10. Keep mast, lead-in and metal guy wires away from powerlines, too. They are all excellent conductors of electrical current.
11. Be sure everyone understands the danger of touching an overhead powerline. Tell them never to try to remove any object touching a powerline.
12. Make sure that the antenna and its mast are properly grounded.

**HOW TO SELECT AND MEASURE YOUR INSTALLATION SITE**

Before attempting to install your antenna, think of where you can best place your antenna for **safety** and performance. Most antennas are supported by pipe masts attached to the chimney, roof, or side of the house. Generally, the higher the antenna is above the ground, the better it performs. A good practice is to install your antenna about 5 to 10 feet above the roofline and away from powerlines 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 lead-in wire can take a short, vertical drop on the outside of the house for entry through a wall or window near the set. To determine a **safe** distance from wires, powerlines, and trees:

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

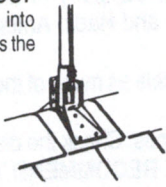
If you cannot maintain this safe distance, **STOP! GET PROFESSIONAL HELP.**



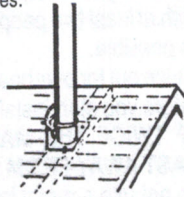
## CHOOSING A MOUNT

Follow the installation directions for the individual type of mount you choose.

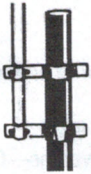
**BASE AND ROOF MOUNT:** Mast locks into U-bolt. Swivel base fits the slope of most roofs.



**UNIVERSAL MAST ANCHOR MOUNT:** Has U-bolt for easy swivel. Adapts to most roof slopes.



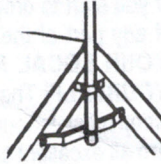
**VENT PIPE MOUNT:** For smaller antennas. Attaches to vent pipe.



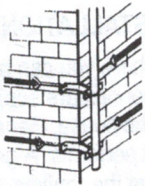
**WALL MOUNTS:** Used on side of structure.



**EAVE MOUNT:** For attaching antenna mast to hanging rafters or trim boards.



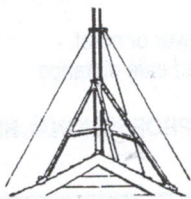
**CORNER MOUNTS:** Two Y-mounts with straps for chimney corner mounting.



**CHIMNEY RACKET MOUNT:** Provides secure mounting to chimney with straps.



**TRIPOD MOUNT:** Sturdy antenna mount for larger antennas subject to stronger winds. Fits most roof slopes.



**TOWER:** Not recommended, for professional use only.



**TELESCOPIC MAST:** Has interlocking sections.



- IF YOUR MAST DOES NOT HAVE A DANGER LABEL, INSTALL THE SELF-ADHERING **DANGER** LABEL PACKAGED IN ANTENNA HARDWARE KIT AT EYE LEVEL ON YOUR MAST.

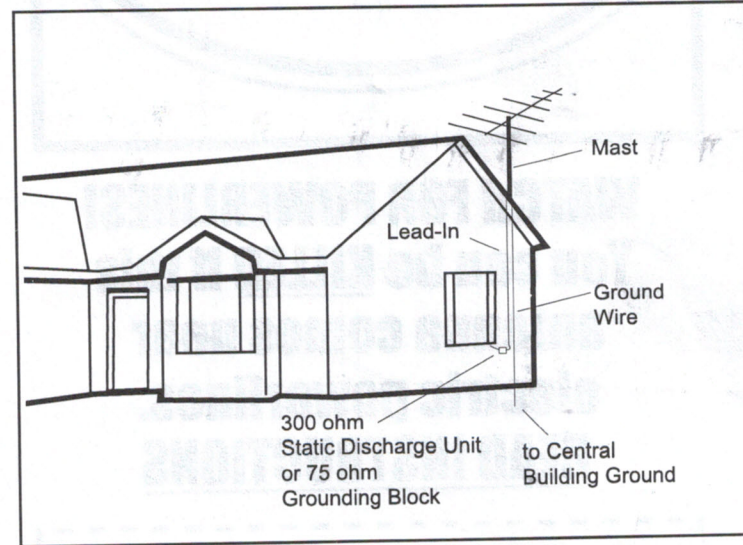
## ANTENNA GROUNDING

To protect your house and your TV/FM installation, your antenna system must be properly grounded.

- Clamp a #10 copper or #8 aluminum grounding wire to the base of the antenna mast. Using stand-offs every 4 to 6 feet, run the wire down the building in as straight a line as possible.
- Attach a 300 ohm static discharge unit (lightning arrester) or a 75 ohm grounding block to the antenna's lead-in cable as close as possible to the point where the cable enters the house.
- Attach the grounding wire to the lead-in cable's grounding unit and run the wire to the central building ground.

Acceptable central building ground points may include:

- Grounded interior metal cold water pipe within five feet of the point where IT enters the building.
- Grounded metallic service raceway
- Grounded electrical service equipment enclosure
- 8-foot grounding rod driven into the ground (only if bonded to the central building ground by #6 or heavier bonding wire)
- Other acceptable grounding electrodes that comply with sections 250 and 810 of the National Electrical Code (NEC)



## ANTENNA REMOVAL

To remove the antenna, follow the instructions for installing the antenna, but start with the last step first. That's the only safe way to remove an antenna.

## GENERAL INSTALLATION DIRECTIONS FOR MAST MOUNTED ANTENNAS

- Assemble your new antenna on the ground at the installation site. Follow the separate assembly instructions that come with it.
- Install the selected mount for your antenna.
- Attach the mast and antenna to the mount.

**Note:** If you are going to use guy wires:

- Install guy wire anchor bolts
- Estimate length of guy wires and cut them
- Attach to mast using guy wire ring
- Have a second person hold the mast upright while the guy wires are attached and tightened to the anchor bolts