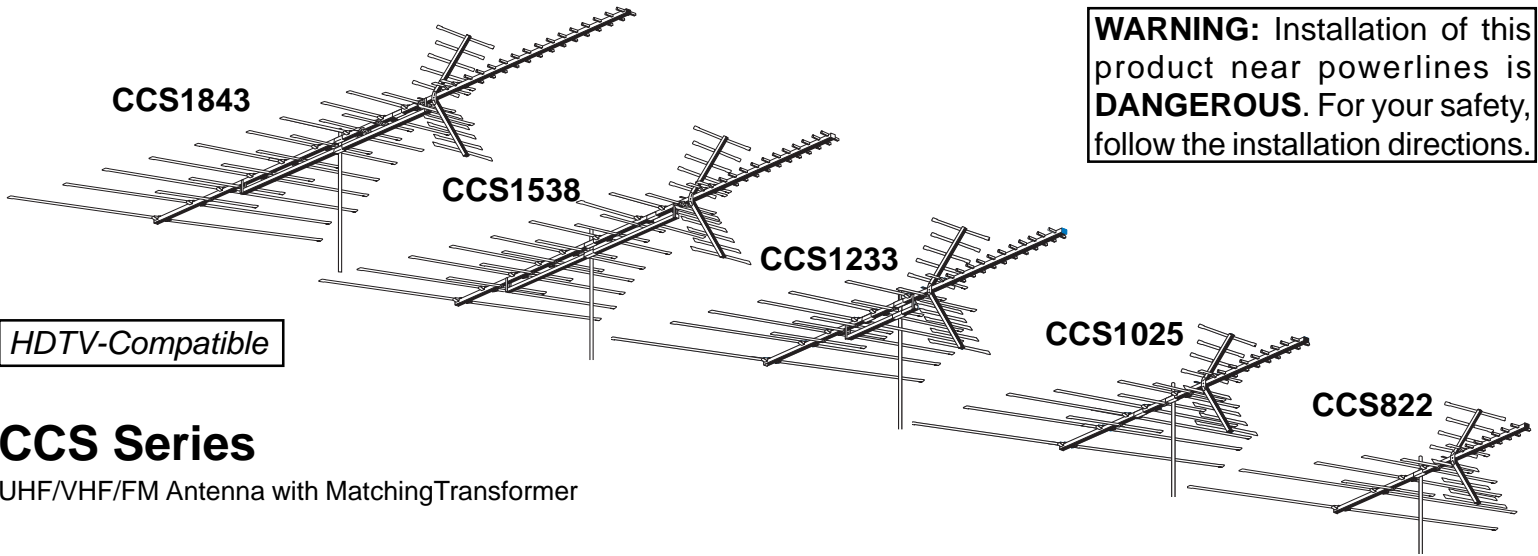


**WARNING:** Installation of this product near powerlines is **DANGEROUS**. For your safety, follow the installation directions.



## CCS Series

UHF/VHF/FM Antenna with Matching Transformer

### BEFORE YOU BEGIN

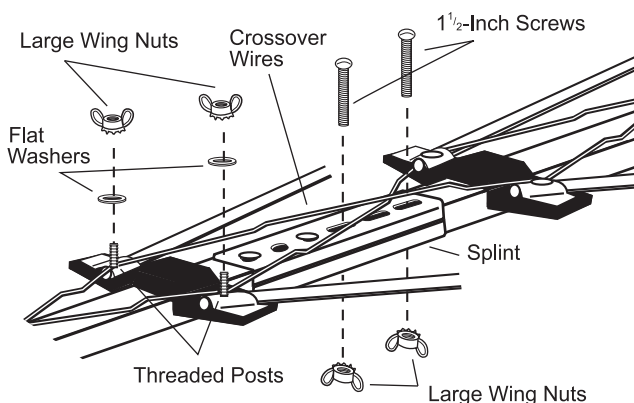
Read this manual and Consumer Product Safety Commission information. For your safety and convenience, plan each step of the installation and purchase the necessary hardware in advance. The order in which you perform the steps and the hardware required depends on the mounting and connection methods you choose.

We recommend two people assemble the entire antenna on the ground, then mount the assembled antenna on the mast. The following steps are required to assemble your antenna depending on which model you have. Look at your antenna to see which steps you will need to follow.

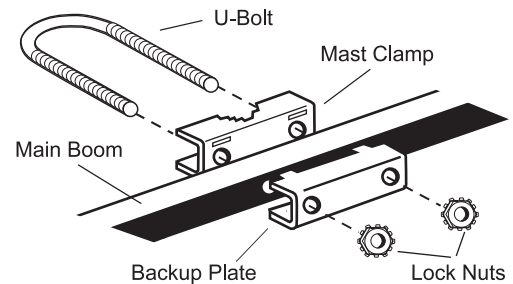
**Warning:** When you install your antenna, use extreme caution. If the antenna starts to fall, let it go! It could contact overhead power lines. If the antenna touches the power line, contact with the antenna, mast, cable, or guy wires can cause electrocution and death. Call the power company to remove the antenna. **Do not attempt to remove it yourself.**

### ASSEMBLING THE ANTENNA

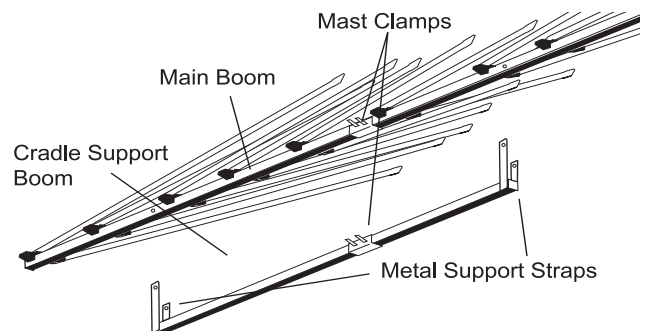
1. If your antenna has more than one main boom section, use the supplied hardware to assemble the sections as shown. If necessary, lift one end of the main boom so the wires reach the threaded posts of the next section.



2. Use the supplied hardware to loosely attach the supplied mast clamp assembly to the main boom as shown. If your antenna has a cradle support boom, attach its mast clamp assembly, facing it the same direction as the main boom's mast clamp assembly.



3. If your antenna has a cradle support boom, align its cradle straps and mast clamp holes with the main boom holes. Attach it to the main boom using the two supplied 1 1/2-inch screws and large wing nuts. Then attach the cradle boom's mast clamp assembly, facing it the same direction as the main boom's mast clamp assembly.



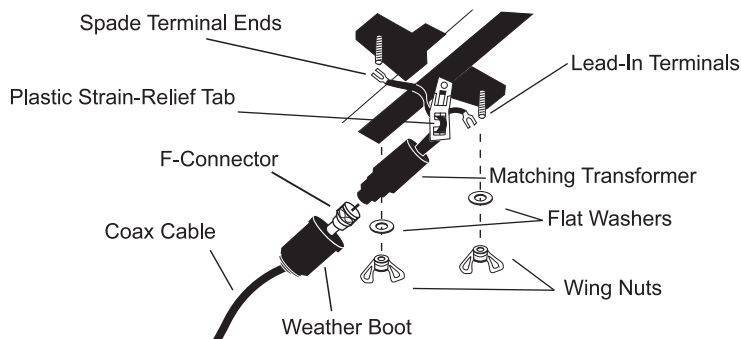
4. Press the supplied large end plugs into the ends of the main boom and cradle boom.

### CONNECTING LEAD-IN CABLE TO THE ANTENNA

We recommend RG-6 cable, and if you prepare your own cable, a quality F-connector. You can also use 300-ohm flat, twin-lead cable. **Note:** If you prepare your own cable, slide the supplied matching transformer's weather boot onto the cable before you attach the F-connector.

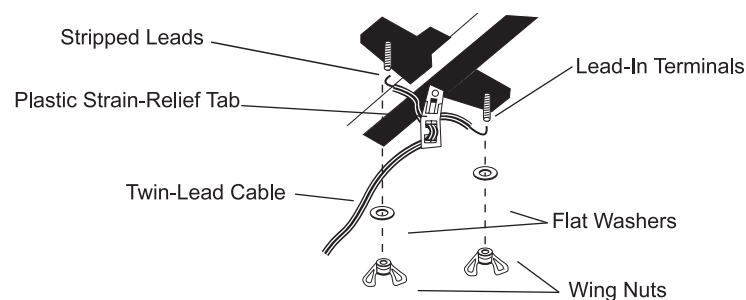
## Using Coaxial Cable

1. Thread the supplied matching transformer's spade terminal ends through the antenna's plastic strain-relief tab.
2. Slide the spade terminal ends around the antenna's lead-in terminals marked CONNECT LEAD-IN HERE. Secure them with the supplied flat washers and large wing nuts.
3. Screw the cable's F-connector onto the matching transformer. Then slip the weatherboot over the connection. **Note:** If you use a cable without a weatherboot, cover the connection with weatherproof tape.



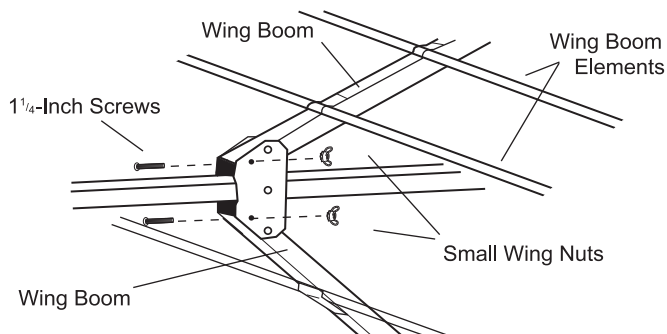
## Using Twin-Lead Cable

1. Split the twin-lead cable for a length of about 3 inches. Then strip about 1/2 inch of insulation from both leads.
2. Thread the stripped leads through the antenna's plastic strain-relief tab. Wrap each lead around one of the antenna's lead-in terminals marked CONNECT LEAD-IN HERE, and secure them with the supplied flat washers and large wing nuts.



## UNFOLDING THE ANTENNA ELEMENTS

1. Hold each wing boom and turn its elements until they snap squarely into place (perpendicular to the wing boom).
2. Press the supplied small end plugs into the ends of the wing booms.
3. Fold out the wing booms and secure them into position with the two supplied 1 1/4-inch screws and wing nuts.



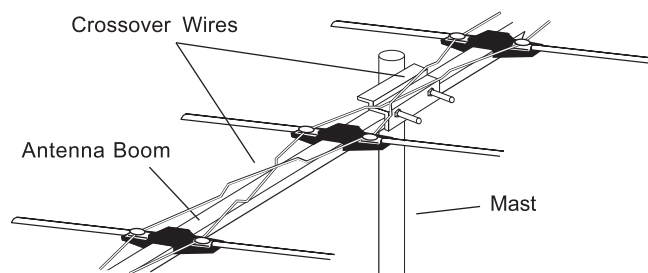
4. Hold the main boom's elements near the pivot points and pull them away from the boom until they snap into the locking plastic support insulators. **Note:** You may wait to unfold the elements until you get the antenna up on the roof.

**Caution:** Do not pull the elements near their outer ends or you could damage them. Once the elements are locked into positions, do not attempt to unlock them.

## ATTACHING TO THE MAST

We recommend you get the help of another person before you put up the mast or attach your antenna to it. How you set up your mast depends on your specific installation. Refer to the Consumer Product Safety Commission information on pages 3 and 4 of this manual for recommended methods.

1. Slide the antenna's mast clamp assemblies over the end of the mast, with the main boom on top.
2. Tighten the mast clamp assembly's lock nuts to hold the antenna in place. Do not overtighten the lock 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.
3. Set up the mast, then rotate it so the antenna's shortest ele-



ments point toward the stations you want to receive.

## ROUTING THE CABLE TO YOUR TV/VCR/FM RECEIVER

### If you use coaxial cable:

- Use plastic tape to secure the coaxial cable to the mast at about 3-foot intervals.
- Use coaxial nail clips every few feet to secure the cable between the mast and where the cable enters the house.
- Use a 75-ohm grounding block at the point where the coaxial cable enters the house. Read the Consumer Product Safety Commission information for grounding instructions.
- Use a wall-through tube to nearly route the coaxial cable through the walls.

### If you use twin-lead cable:

- Be sure the twin-lead cable remains at least 4 inches away from all metal surfaces.
- Use standoff insulators about every 4 feet. Twist the twin-lead cable about three turns between standoff insulators.
- Use a 300-ohm static discharge unit at the point where the twin-lead cable enters the house. Read the Consumer Product Safety Commission information for grounding instructions.