

NOTE: Please read all instructions thoroughly before proceeding to installation and assembly. During assembly and installation take extreme care to avoid contacting power lines with any part of the antenna or other conductors.

#### ASSEMBLY

1. Fasten the upper clamp and attached wire (A) to the antenna 209 inches (531 cm) up from the bottom of the (B) tube at the base of the antenna.
2. Place clamp with the long insulator 58 inches (147 cm) down from clamp (A) (Hole to hole).
3. Position the center clamp halfway between the upper and lower clamps.

NOTE: All clamps for the 6 meter stub should be on the opposite side of the 15 meter stub.

4. Bring the free end of the wire down through the hole in the plastic part of the middle clamp and on through the hole in the plastic of the lower clamp. Do not cut the wire, wrap the excess wire back on itself.

#### THEORY OF OPERATION

The vertical wire from the upper clamp together with the adjacent section of the antenna form a short-circuited quarter-wave transmission line which cancels current flow. At the lower (open) end of this quarter-wave section, a very high impedance is created that effectively divorces the upper part of the antenna on six meters leaving only the lower section to radiate as a 3/4-wave monopole. Why 3/4-wave rather than 1/4-wave? Because the vertical plane pattern of the former breaks into two lobes, one at zero degrees and the other at 40 degrees, thus affording both low-angle and skywave propagation. Further, the radiation resistance of a 3/4-wave radiator is almost twice that of a 1/4-wave radiator, so for a given earth loss resistance the taller antenna should be more efficient, particularly when operated at ground level.

Adjustment for resonance or lowest SWR at a particular frequency may be made by adjusting the length of the wire or in the placement of the upper clamp along the antenna. In general, the wire may be lengthened to lower resonance or shortened a slight amount to raise it. Alternatively, the upper clamp (and the entire 6 meter assembly) may be placed higher on the antenna to lower resonance or slightly lower to raise resonance.

If the antenna is to be mounted more than a foot or so above the earth, several resonant radials may be required for low SWR operation on 6 meters.

#### Parts List

##### Part No Description

Upper Clamp with Attached Wire  
 Middle Clamp with Short Insulator  
 Lower Clamp with Long Insulator

