

## **MFJ-1764, MFJ-1765, MFJ-1766**

### **MFJ Dual Band (2 & 6 Meter) 5/8 Wave Super Gain Antenna**

#### **Instruction Manual**

Thank you for purchasing the MFJ Dual Band 5/8 Wave Super-Gain™ Antenna. This antenna is designed to operate both the 2-meter (144 to 148 Mhz) and the 6-meter (50 to 54 Mhz) bands.

Two versions of this antenna are available:

**MFJ-1764:** Single 5/8 wave Super-Gain antenna. This model is shipped partially assembled. The following parts are supplied:

- 2 pieces Elements
- 1 piece Chassis assembly
- 1 piece Clamp assembly

**MFJ-1766:** Two 5/8 wave Super-Gain antennas. This model is shipped partially assembled. The following parts are supplied:

- 4 pieces Elements
- 2 pieces Chassis assembly
- 3 pieces Clamp assembly
- 1 piece Direct feed splitter/cable harness

**MFJ-1765:** Direct feed splitter/cable harness assembly. This harness is shipped pre-assembled with mounting bracket. A mounting clamp is also supplied. MFJ-1765 is used to feed two 5/8 wave Super-Gain antennas. It can be purchased separately for those who have two MFJ-1764s and wish to feed both MFJ-1764s together for additional gain.

#### **Assembly Instructions**

Refer to Figure 1 to assemble the 5/8 Wave Super-gain antenna.

1. Locate the ceramic insulators on the chassis assembly. A screw has been installed in each insulator to hold it in place for shipping. Hold the insulator together, carefully remove the screw, note the location of the nuts. These nuts will be used to install the elements.

Make sure that the flanged nut is screwed onto the element. Note that the flange part of the nut **MUST** face toward the insulator. See Figure 1.

After removing the "holding" screw, insert the element into the insulator and through the lug on the inside. Secure the element by screwing the other nut (taken from the "holding" screw (onto the end of the element inside the chassis. See Figure 1.

Repeat steps 1, 2, and 3 to install the other element.

If you have purchased the MFJ-1766, you will have to assemble another Chassis assembly. Use the same instruction as in step 1 thru 4.

## **Installation Instructions**

### **MFJ-1274: Single 5/8 Wave Super-Gain Antenna**

The Super-Gain antenna can be mounted on any 1" to 1-1/2" tubular mast. The mast may be a conductive (metal) or a non-conductive material.

For optimum performance the antenna should be mounted as high as possible. However, if the mast itself is located at a high elevation, such as a hill or mountain, the need for a tall mast will not be as critical.

The antenna may be mounted horizontally or vertically. The antenna should be mounted horizontally for SSB and mounted vertically for FM operation.

Once you have mounted the antenna, connect the feedline to the SO-239 on the antenna chassis assembly.

### **MFJ-1766: Dual 5/8 wave Super-Gain antenna**

If you are installing two 5/8 wave Super-Gain antennas, you may stack each Super-Gain antenna on top of each other on the same mast. Each antenna must be separated by a distance of 12 feet (antenna mount-to-antenna mount). See Figure 2. You may also install the two antennas horizontally. Again separate them by 12 feet.

Install the cable harness (MFJ-1765) in between the two antennas. Connect one of the coax cables with PL-259 to one antenna and the other cable to the other antenna.

Connect your antenna feedline to the SO-239 on the cable harness bracket.

## **Tuning Instruction**

The 5/8 wave Super-gain antenna is pre-tuned at the factory for minimum SWR at mid-band to operate on 144-148 MHz and also on 50-54 MHz. However, if further fine tuning is needed, the elements may be screwed in or out to obtain minimum SWR for the desired operation frequency.