

## ISOTRON 225 INSTRUCTIONS

1. The model number for this unit is the ISOTRON 225.
2. Enclosed are the instructions for the ISOTRON 160C. Tune up and much of the assembly will be similar.
3. The first difference is, 6 Top Coil Rods (#5 on page 7). The 1/4" X 30" rods are coupled together with a Coupling Nut and one stop nut on each side of the coupling nut. Screw both rods into the coupling nut until they meet. Then tighten a regular nut on each side of the coupling nut.
4. The second difference is three (two depending on frequency) Rod Supports (#6 on page 7). The additional supports mount just above every second Coupling Nut from the coil. One is at the coil.
- \*5. The Tuning Rod (#14) may extend past the top apex. If threaded, that end of the Tuning Rod should be up. This will allow extending the Tuning Rod to lower frequency if needed. The bottom Tuning Rod Bracket (#9) should stay even with the bottom of the Tuning Rod (#14). For maximum extension the bottom bracket (#14) may need to be above the last coupling nut.
- \*Tuning Rod (#14) may be removed to raise the resonant frequency. Depending on your requested frequency this rod may not be threaded.
6. I recommend mounting the antenna in a convenient location. You can mount the antenna horizontally for this purpose. The way I do it is I clamp a mast on a stand horizontally, then I mount the antenna to it. You can use any length mast.
7. Start the assembly from the top of the antenna and work your way toward the bottom, taking note of the distances given. The first Rod Support (6) is just above the coil.
8. I have found that these medium frequency antennas come close to a 50 ohm match on a tower if you leave the grounding jumper #15 off (page 5). You should try it both ways while measuring with a bridge.
9. The Isotrons are not dependent on grounding to perform. However grounding or un-grounding can offer a wide range of resistances at resonance (20 to 200 ohms).
10. It is very important to note that the major part of the tune up is the RESONANT FREQUENCY of the antenna. If you are using a Bridge of some sort, the resistance (R) value it reads is only of value at resonance. Also the resistance reading at resonance has little affect on performance.
11. The Resistance value can be adjusted to 50 ohms. THIS SHOULD BE DONE ONLY AFTER THE RESONANT POINT IS CONFIRMED. If using the ground wire offers an R of less than 50 ohms and removing it offers much more, then a capacitor can be used in place of the wire. This can be a fixed component of up to 2000 pf.

12. A Tuner will also adjust the R of the antenna.

\*NOTE: TUNING ROD IS THREADED ON THE TOP. THIS IS IF THE 10 X 30  
CM HAT IS NEEDED. THIS ALUMINUM PLATE LOWERS THE RESOANT POINT  
ONLY.