

### Model 30MRK

The 30MRK is a variable inductance that produces an additional resonance in the 10 MHz band when placed in series with the 40 meter circuit of the HF2V. As noted in the HF2V instructions, use of the 30MRK is not recommended when top loading has been added to the HF2V, as with the Butternut TLK loading kit.

#### ASSEMBLY

Please refer to the drawing below and to the HF2V pictorial page during the following steps:

1. Remove the compression clamp below the 80 meter coil. (The clamp holding the lower end of the 80 meter capacitor bracket against the lower end of section B.) Also remove the #10 hex nut, lock washer, and flat washer that hold the 80 meter capacitor bracket to the tab on the center coil clamp and remove the capacitor assembly temporarily from the antenna. Remove the small bracket from the 200 pF capacitor.
2. Locate the 67 pF capacitor and its associated bracket, and attach this unit to the 200 pF capacitor, replacing the smaller bracket. Re-install this assembly on the antenna using the #10 flat washer, lock washer, hex nut, and compression clamp.
3. Clamp the upper end of the 30MRK coil around tube G where it emerges from section B so that the coil is on the same side of the tube as the ceramic capacitors. Pass a #10 x 1-1/4" bolt through the clamp that goes around tube G and secure in place with a #10 lockwasher and wing nut. Fasten the lower 30 meter coil clamp to the upper end of section B and secure it with a #10 lockwasher and hex nut.
4. Using the #6 hardware on the 67 pF capacitor, fasten the double right-angle bent end of the aluminum shorting strip to the 67 pF ceramic capacitor. Pass the hole at the upper end of this strip over the bolt through the lower end of the 30MRK coil and the supporting strip of plastic. Use a #10 lockwasher and hex nut to fasten securely.
5. At this point it is necessary to short out approximately eight turns of the 40 meter coil to restore the resonance on that band. The braided-wire shorting strap in the 40 meter coil may be used for that purpose and the coil itself may be compressed or expanded as needed for lowest SWR at the desired frequency.
6. Since the electrical height of the HF2V on 30 meters is greater than 1/4 wavelength, the feedpoint impedance will be considerably greater than 50 ohms. A length of RG-11/U cable with a PL-259 and a PL-258 "barrel" connector at the input end and lug connections for the antenna end is provided as a matching transformer between the antenna and the main 50 ohm transmission line.

## ASSEMBLY

The 30 meter SWR should be below 1.5:1 at resonance, and the other bands should not be significantly affected. Slight coil readjustments may be needed to minimize SWR at the desired frequency. The 30 meter resonance should be quite broad and the 30 MRK may be adjusted by stretching or compressing the coil as needed for the lowest SWR on any desired frequency in the band.

The addition of the 30MRK unit will narrow the 40 meter bandwidth to approximately 220 kHz for 2:1 SWR.

The 30MRK power rating is 300 watts input to the final and should not be exceeded. The normal HF2V power rating on 40 and 80/75 meters will not be affected.

### PARTS LIST

- V00214 Shorting Strip
- V00223 Coax 75 Ohm Matching
- V00351 Coil Assembly
- V00352 Capacitor Assembly

### HARDWARE

- 1 V00131 #10 x 1" Screw
- 3 V00133 #10 Lock Washer
- 2 V00134 #10 Hex Nut
- 1 V00135 #10 Wing Nut

