

# TZM SERIES / E-Z MATCH TUNING

## TZM-50, 90, 150, 450, 860

The Telewave TZM Series E-Z Match is a 50-ohm reactive device designed to be permanently placed in a transmission line, for the purpose of tuning out any mis-match between the transmitter and antenna. A Dual-Pi network consisting of two variable tuning capacitors and a matching coil allow the E-Z Match to correct a VSWR mis-match of at least 2:1. Each unit is factory tuned for a 1:1 match across the specified frequency band.

### EQUIPMENT REQUIRED:

1. Transmitter capable of manual on/off keying.
2. Inline RF wattmeter with forward and reflected power capability.
3. RF adapters such as Male-Male barrel, or short jumper cable as needed.
4. Flat-blade screwdriver with 3/16" blade.

**SAFETY NOTE:** Always use the minimum transmitter power required to obtain a usable meter reading.

### TUNING THE EZ-MATCH

1. Insert the wattmeter in the line at the transmitter, or at the point where the mis-match is suspected. Use the shortest possible interconnection to the wattmeter. An RF adapter such as a Male-Male barrel is ideal. (Fig. 1)
2. Key the transmitter, and record the indicated forward and reflected power.
3. Disable the transmitter and insert the E-Z Match device inline at the output of the wattmeter. Locate the 2 variable capacitors on the side of the device. Unscrew the bronze metal dust covers if needed to access the adjustment screws. (Fig. 2)
4. Re-enable the transmitter, and adjust the variable caps on the E-Z Match for highest forward power indication, and lowest reflected power. Use caution and do not exceed the maximum VSWR tolerance of the transmitter during tuning.
5. When the best improvement is observed, disable the transmitter, remove the wattmeter from the line, and reconnect cabling including the E-Z Match. Replace dust covers if present. If no improvement is noted, the E-Z Match should be removed to allow testing of other solutions.

