COUPLING CLAMP mode

In some cases, a direct bare-metal connection to a utility may be unavailable, or it may be necessary to isolate the power transferred to a single line among a close grouping of lines. In these situations, a Coupling Clamp can be used to transfer power inductively from the Transmitter to the utility, without direct connection.

For this method to work effectively, the utility should be grounded at both ends to provide a good electrical circuit path. If adequate grounding is not provided, it may be necessary to add jumpers to ground at strategic locations to improve conductivity. See Figure 12 below. Insulated utilities may have enough stray capacitance to couple the signal to ground, but are generally weaker.

For distant clamping points that are difficult to access, an extension pole and cord are recommended for use with the Coupling Clamp. The Coupling Clamp is fitted with female threading (1/4" - 20) for attachment to an extension pole and provides a hook for cable attachment.

This method requires the following components:

- TW9000 Transmitter
- Coupling Clamp

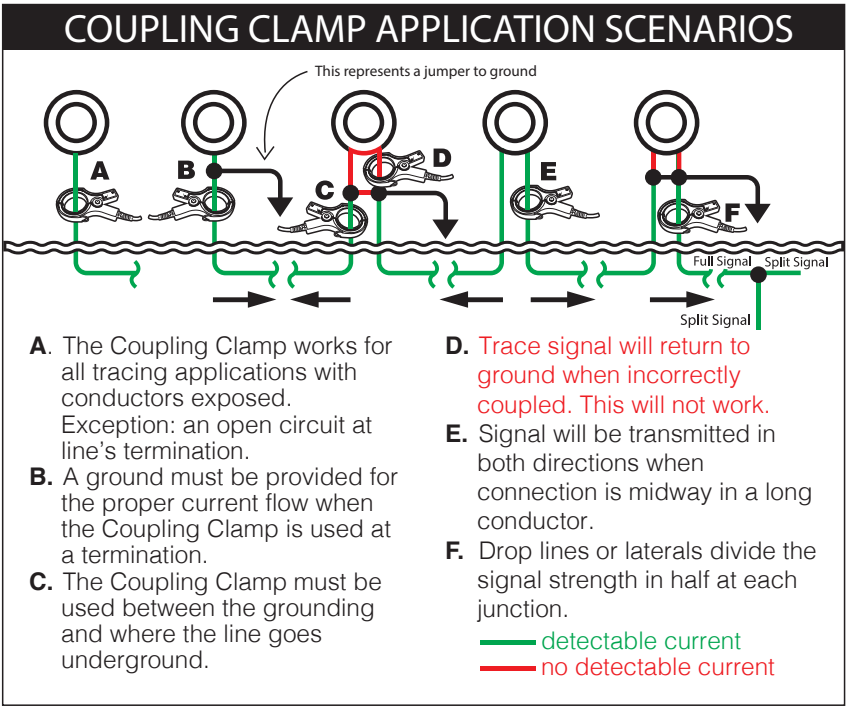

Figure 12. Coupling Clamp Scenarios

⚠ **WARNING!** Do not clamp around live (energized) UNINSULATED conductors.

Note: While Transmitter output level settings are displayed graphically on the LCD, output measurement readings using are unavailable in the Coupling Clamp mode.

To use the Coupling Clamp connection:

STEP 1. Verify that the Transmitter is powered OFF.

STEP 2. Lift up the protective cap on the accessory jack and plug in the Coupling Clamp.

STEP 3. Locate a clamping point on an exposed part of the utility that is below and between ground connections to provide a good electrical circuit path, as mentioned above. See Figure 12 on page 36.

STEP 4. Open the Coupling Clamp jaws and clamp around the utility at the location determined in Step 3. Verify that the jaws make secure contact with each other when the clamp is closed.

STEP 5. Turn the Transmitter on and view the status indicators on the display.

STEP 6. Press *f* to select the desired operating frequency.

STEP 7. Press and to adjust the output level as desired.

Improving Coupling Clamp connection:

The following guidelines are recommended to improve power transfer from the Coupling Clamp to the utility.

STEP 1. Verify that the Coupling Clamp jaws make a secure contact with each other when the clamp is closed. Clean off any debris from the contacts.

STEP 2. Make sure the accessory jack on the Transmitter is free of debris. Clean as needed.

STEP 3. Verify that the Coupling Clamp is securely plugged into the accessory jack on the Transmitter.

STEP 4. Locate a strategic point on an exposed part of the utility to insert a jumper wire to ground. See Figure 12 on page 36.

STEP 5. For insulated utilities with poor grounding, use a higher transmit frequency.