



AQUA - TRONICS, INC.

SETTING THE STANDARD FOR SERVICE

1795 N YELLOWSTONE HWY.

IDAHO FALLS, IDAHO 83401

PHONE 208-528-8875 FAX 208-528-8877

www.aquatronics.com aquatron@aquatronics.com

CABLE IDENTIFICATION

WITH MODEL A-7, A-700, OR DIGI-7

To identify one cable from another out of a bundle is almost impossible with any cable locator unless two inductive couplers are being used.

A standard receiving antenna is uni-directional and the magnetic wave on all of the cables in a bundle will be picked up. Isolating one cable from others when they all have signal on them requires some method of isolating the signal being received to one cable at a time.

1. Transmitter: The signal must be placed on the cable under test with an Inductive Coupler. With this method, signal will be on all cables, but the signal on other cables will be less than that amount on the cable under test. This can be from a wireless or standard Inductive Coupler.
2. Receiver: A standard Inductive Coupler is plugged into the side of the Receiver where the decal says "Inductive Coupler Installed When Used As a Receiving Antenna". The Inductive Coupler will now be the receiving antenna instead of the normal internal antenna.
3. By clipping the receiving Inductive Coupler around each cable one at a time, it will be easy to find that cable that has the most signal on it. Keep the receiver sensitivity low when looking for the strongest signal. The correct sensitivity setting is low enough to where the signal can be found only on the one cable under test.

"REGARDLESS OF WHAT ANY ELECTRONIC INSTRUMENT TELLS THE OPERATOR"

NEVER CUT OR SPLICE INTO ANY CABLE UNTIL THAT CABLE HAS BEEN TESTED FOR VOLTAGE, SPIKED, AND/OR ISOLATED FROM THE SYSTEM AT BOTH ENDS AND THEN GROUNDED TO MAKE SURE THE CABLE IS SAFE TO WORK ON.

The I.C. 56 WT is the best option for applying signal to the cable. Since the battery and transmitter is built into the handle, we do not have a cable going back to a transmitter. This provides ideal safety to the operator if he will use a shotgun stick to connect the I.C. 56 WT. With no cable connected to a transmitter, it can be placed on the "ELBOW SIDE OF THE NEUTRAL TAKE OFF". By placing tone on the conductor only, the test for cable identification is even more positive. With the use of a shotgun stick, the I.C. 56 WT can be installed on a "live front panel" conductor ahead of the neutral take off point. If the I.C.56WT is connected around the conductor, very little signal will be above ground for a cable trace. Most of the signal is being shielded by the neutral; however, in the trench or at another enclosure, a positive identification can be made by placing the receiving coupler around the cable.

The Model I.C. 49 should be used as the receiving coupler. Any model coupler can be used to transmit signal onto the cable. The receiving coupler must have both sides of the core wound. If only one side is wound, the received signal will vary depending on where the conductor is placed within the loop. The I.C. 49 is wound on both sides so the conductor can be anywhere in the loop and the same signal will be displayed.