



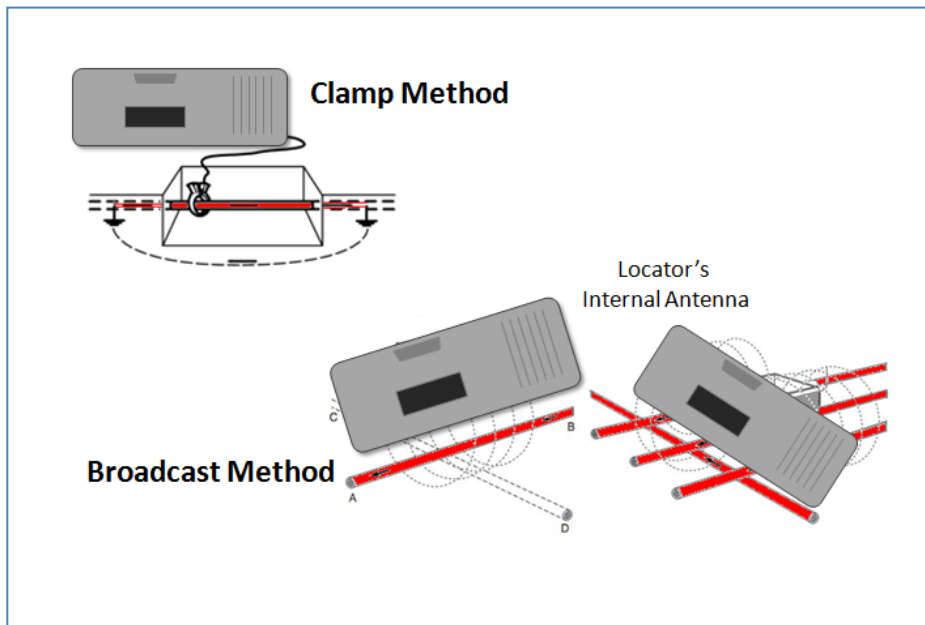
# APPLICATION NOTE

January 2017

## HOW TO GET THE MOST OUT OF THE INDUCTIVE TRACE MODE IN YOUR LOCATOR

*Several Armada Technologies locators have an “inductive tracing” mode that allows the tracking of wire, pipe and cable without direct connection. Here are some tips to help use this safe and flexible technique.*

The two inductive tracing modes are “clamp” and “broadcast”. Using the locator’s clamp it is possible to induce a tracing current in a cable by simply clamping around it. With the locator’s internal broadcast antenna a tracing current can be created in a cable by placing the locator case nearby on edge (vertical) best results.

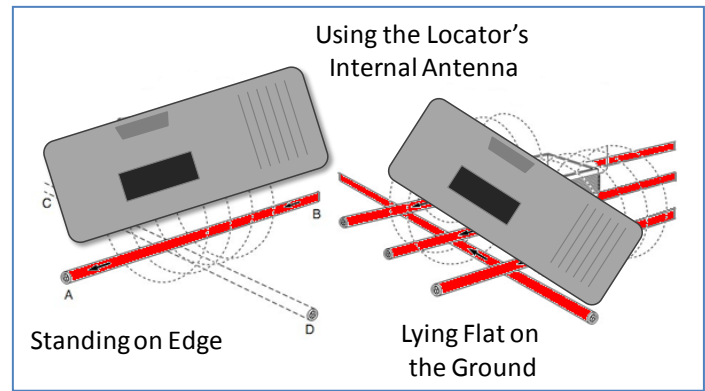


Once a tracing current has been induced in the cable, the cable path can be followed using the receiver wand. The pickup coils in the tip of the wand sense the magnetic field around the cable producing an audible tone and a meter indication on the wand control panel.

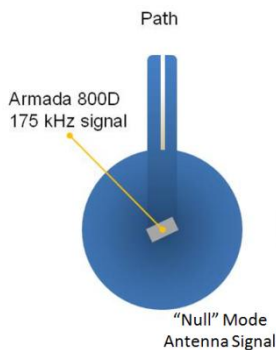
**Note: Causing a tracing current to appear in the tracked cable relies on that cable forming a ‘loop’ or circuit for the current, usually the ground. See the clamp illustration in the diagram above.**

## THE BROADCAST METHOD

Turn on the locator transmitter and receiver. Select the BROADCAST or INDUCTIVE mode on the transmitter front panel. Set the receiver wand to BROADCAST or INDUCTIVE. Both units must be in this mode. Place the open case of the transmitter vertically (on edge) in the area where you know or suspect the cable is buried.



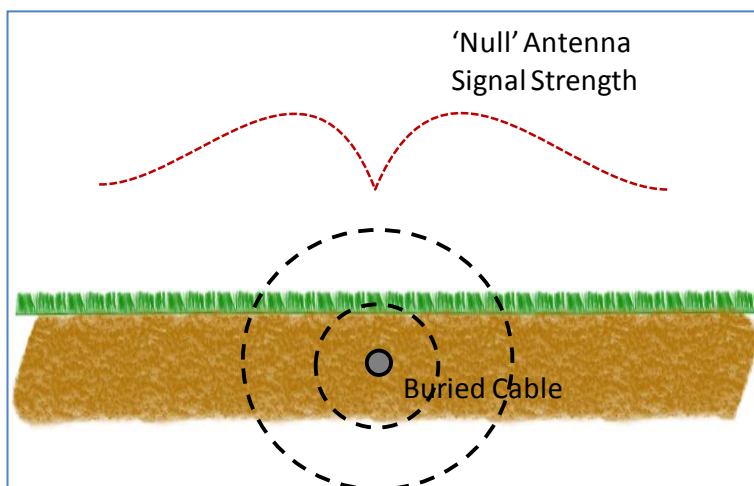
**Note: Closing the transmitter lid may shut the unit off because of the auto-shutoff tab in the lid of the transmitter. Loosen the tab in the lid by removing one screw and turning it 90 degrees to disable that function.**



The Broadcast signal 'saturates the area around the case, so it is necessary to walk away from the case until the signal disappears. Outside the saturation zone turn up the gain on the receiver and circle around until you find the cable signal. Once you have found this path it can be followed with the receiver wand for some distance. If the signal fades you can move the transmitter further along the path to keep tracking. If there are ghost paths or there is uncertainty about the path, stand the transmitter on its edge along the path. This reduces the wide-area effect of the Broadcast antenna.

**Note: The receiver wand operates with a 'NULL' pattern in the Inductive mode and is not changed even if 'PEAK' is selected on the receiver control panel.**

The 'NULL' pickup antenna pattern produces a quiet zone over the wire with tracing signal to the left and right. This configuration often improves location confidence and makes depth measurement easier.



## THE CLAMP METHOD

Turn on the locator transmitter and receiver. Select the BROADCAST or INDUCTIVE mode on the transmitter front panel. Set the receiver wand to BROADCAST or INDUCTIVE. Again, both units must be in this mode. Activate the Clamp by plugging it into the transmitter control panel.

Squeeze the clamp handles to open the jaw and place it around the cable you want to track. Stepping away from the clamp location, turn up the gain on the receiver wand and circle around until you detect the cable path and begin tracking.



**Note: For best performance orient the clamp with the wired handle closest to the tracked cable. See photo.**

Clamp performance can also be improved by wrapping a little slack cable through the jaws multiple times.

Do not disconnect the tracked cable or the 'loop' for tracing current will be lost.

Remember that the receiver wand will operate in the 'NULL' antenna mode with the quiet zone right above the cable or pipe.



### Locator Feature Guide

ARMADA MODEL	DIRECT CONNECT	INDUCTIVE CLAMP	BROADCAST
Pro800	■		■
Pro871	■	■	■
Pro900	■	■	■