

Attaching the Probe to the Coated Downrigger Cable

There are two methods of attaching the probe to the downrigger cable.

Method #1: Direct Connect Method –

This method requires the probe to be directly terminated to the coated cable without a snap swivel. While this method ensures the best system performance, the downside is that the probe must remain attached to the downrigger cable and removal will require cutting it from the cable.

To install the probe using method #1:

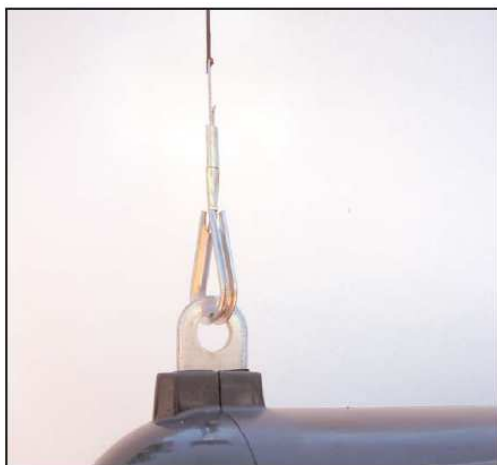
1) Strip back approximately 6" of coating from the downrigger cable. The easiest way to remove the coating is to scrape one side of the coating with a utility knife using caution not to apply so much pressure as to damage the cable, which would cause a weak spot and be prone to breakage. Then peel back the coating and cut it off.

2) Route the thimble through the upper connection tab on the probe. The upper connection tab is the tab that has a plastic boss surrounding the base of the tab as it exits the probe body. If you are unclear as to which is the upper connection tab please refer to the probe functions and features page.

3) Slide 2 silver barrel crimps onto the bare end of the coated cable then route the cable through the thimble. Slide the barrel crimps over both pieces of bare cable ensuring the barrel crimps are as close to the thimble as possible. Crimp the barrel crimps into place using a barrel crimping tool- **DO NOT USE PLIERS** This could cause the loss of the probe. Cut off excess cable to within 1/2" from the barrel crimp (see photo).

4) Apply the rubberized electrical tape. It is best if you have a helper for this step. Have your helper hold the probe in one hand and the downrigger cable in the other then have them pull the cable tight straight away from the probe as it would be in a normal trolling situation. Now apply the rubberized electrical tape. The raised boss is designed to provide a good starting point for the tape. Start wrapping the tape on the raised boss while stretching the tape somewhat. Continue wrapping until the complete connection and all bare cable are covered. You will probably only use about 1/2 of the tape that is provided in the kit so be sure to place the remainder in back in the plastic bag for use at a later date. If you do not have a helper, after the barrel crimps are installed, you may suspend the probe from the downrigger with the cannonball suspended below using the drop leader. This will hold the interconnect tight and allow you to install the rubberized electrical tape by yourself.

Note: If you are installing the probe on a Cannon downrigger with PIC or shortstop, you must leave about 1/2 of cable bare and untaped to ensure proper operation of these features. It is best to leave this bare cable exposed **above** the barrel crimps.



Properly installed probe using the direct connect method prior to installing the rubberized electrical tape. Note the two barrel crimps are installed tight up to the thimble.



Properly installed probe using the direct connect method after application of rubberized electrical tape. Note that the tape is started at the plastic boss and wrapped upward.

Method #2: Snap Swivel Interconnect Method –

This method uses a downrigger rated snap swivel (not included) to attach the probe to the coated downrigger cable. This method is much more convenient as it allows the user to quickly remove or install the probe, however we must caution you that maximum depth performance may not be achieved since part of the interconnect is left uncoated and exposed to the water. Since water conducts electricity it absorbs some of the signal which reduces the signal strength at the receiving antenna thereby reducing maximum depth performance. Additionally, reduced probe battery life can be expected as the probe will use more power since the water is absorbing some of the signal.

To install the probe using method #2:

1) Strip back approximately 6" of coating from the downrigger cable. The easiest way to remove the coating is to scrape one side of the coating with a utility knife using caution not to apply so much pressure as to damage the cable, which would cause a weak spot and be prone to breakage. Then peel back the coating and cut it off.

2) Route the thimble through a downrigger rated silver snap swivel (not included). Do not use the BLACK snap swivels (see caution below).

3) Slide 2 silver barrel crimps onto the bare end of the coated cable then route the cable through the thimble. Slide the barrel crimps over both pieces of bare cable ensuring the barrel crimps are as close to the thimble as possible. Crimp the barrel crimps into place using a barrel crimping tool****DO NOT USE PLIERS****This could cause the loss of the probe. Cut off excess cable to within 1/2" from the thimble. Do not use the black barrel crimps (see caution below).

4) Apply the rubberized electrical tape to all of the bare wire and as much of the swivel as possible. Again, stretch the tape slightly as you apply it to the connection.

Note: This installation method leaves some conductive surfaces exposed so this installation method will also work with Cannon downriggers that include PIC or shortstop features.

Tip: Some fishermen have dip coated the upper connection tab on the Depth Raider probe with liquid electrical tape and allow it to dry. They then cut a small portion of the coating away right where the swivel will ride in the upper tab. This method helps to reduce exposed conductive surfaces to the water thereby increasing maximum depth performance yet still provides the necessary electrical interconnect.

Caution: When using this method use only SILVER barrel crimps and downrigger rated silver snap swivels. The BLACK coated barrel crimps and snap swivels may not conduct electricity due to the coating and prevent the system from operating. **DO NOT USE: Cannon snap swivels or any swivels that do not provide a means for electrical contact between the bare cable and the upper probe connection tab. Do not use liquid electrical tape on the swivel. This liquid (prior to drying) can work its way into the swivel itself and prevent proper electrical contact.**

**Modifying a clincher to terminate the Depth Raider probe to coated cable.
(NOT INCLUDED)**



Directions:

- 1) Drill out the rivet in clincher and replace it with a stainless steel machine screw (10-32 x 1") and one plain stainless steel nut. Make sure nut is spun onto the machine screw until it just bumps up against the plastic. **Do not tighten nut so tight that the snap swivel will not pivot freely on machine screw. If the snap swivel does not pivot freely on the machine screw you will not achieve maximum depth performance! It may only work to 30-60 feet!**
- 2) Install coated cable onto clincher. Leave about 4" of coated cable protruding from clincher. This 4" length of cable is referred to as the tag end.
- 3) Strip 1/2" of coating from the tag end of the coated cable and crimp on an electrical ring terminal. The ring terminal must be crimped onto bare cable. **If you do not strip the end of the cable before installing the ring terminal your Depth Raider will not work past 20-30 feet!**
- 4) Place the ring terminal over the machine screw, install a locking stainless nut and tighten against 1st nut.
- 5) When finished the nuts should sandwich the ring terminal and the nuts should be very tight. However, the snap swivel should still be able to move/pivot on the machine screw. **We cannot emphasize this enough - If the snap swivel does not pivot freely on the machine screw you will not achieve maximum depth performance!**
- 6) Also note that the swivel must be silver in color. Most clinchers are now shipping with black oxide coating on the swivel. This coating is not a good electrical conductor so you must be sure to use a silver snap swivel of adequate strength.