HAMMERHEAD TERMINATION ASSEMBLY GUIDE

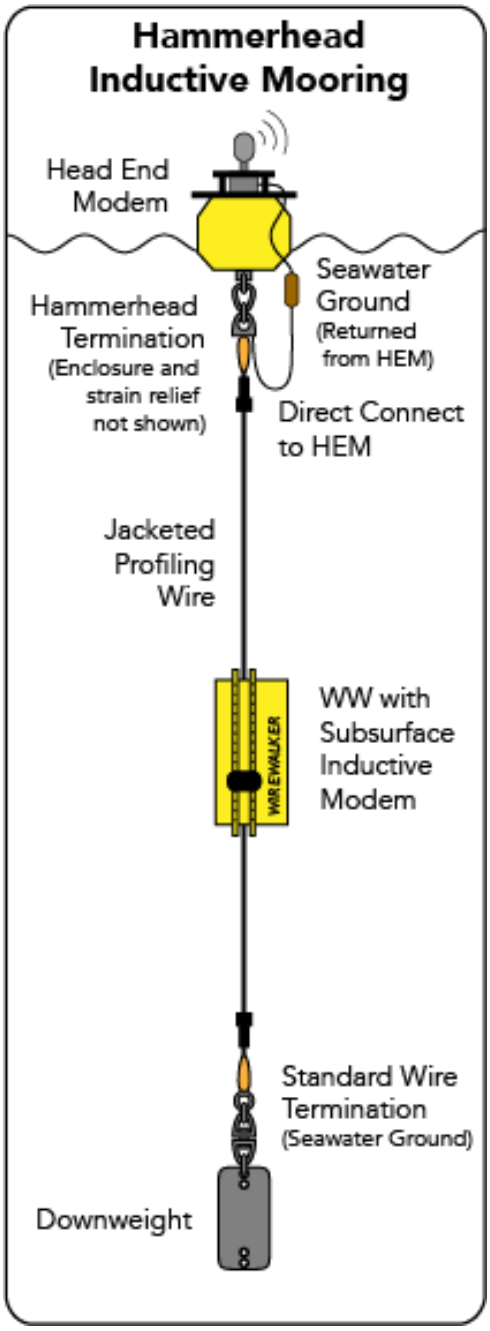
Technical Note

A WW with autonomously logging sensor package uses the profiling wire solely for its mechanical purposes. However, if real time data is required, the conductive wire also acts like an electrical cable that sends data up to a telemetry system in the surface buoy. Here, we will address some of the nuances associated with using the jacketed wire rope with a "direct connect" inductive telemetry solution; including, how to assemble the top side inductive assemblies.

First, it is important to differentiate between the types of profiling wire terminations. There are two primary types of terminations used: standard or hammerhead. Standard terminations are used for autonomous applications where telemetered data is not required.

A hammerhead termination gets its name from it's shape, and often connects directly to a head end modem. In the case of a "direct connect" inductive coupling, the termination cannot

act as a seawater ground as there is a jumper wire that, in essence, directly connects the wire into the modem itself. Since a seawater ground is still required, a seawater ground return is typically passed back into the water to an exposed anode. This method of inductive coupling is very robust and becoming standard practice on extreme weather and long term moorings. The mooring cartoon provides a visualization based on the use of a RBR*cervello*.



** Should your application require a cabled ferrite holder from the surface buoy rather than a direct connection via a hammerhead termination, please refer to the "legacy" technical note regarding Inductive Modem Termination Options.*

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ASSEMBLY INSTRUCTIONS

- Locate and layout the hammerhead and cover components.
- Wrap a small piece of electrical tape at the base of the hammerhead jumper connection and insert into the hammerhead. This better seals that connection from introducing a seawater ground.
- Tighten the set screws on the hammerhead to secure the jumper pin.
- Prep the HH cover by installing the bolts on one side of the cover. Lay on a surface with bolts facing up.
- Coat the hammerhead (and jumper plug interface) with Lanocote to further isolate it from acting as a seawater ground.
- Place HH in the cover with the jumper protruding through the appropriate hole and attach the fasteners. Tighten appropriately.
- Prep the HH strain relief by installing the bolts on one side and install the bottom of the jumper clamps.
- Lay the HH assembly onto the strain relief cover with jumper passing over the jumper clamp.
- Add the top half of the jump clamps.
- Add the top of the strain relief and attach fasteners, tighten appropriately.
- On the surface buoy, route the inductive modem cable through the buoy.
- Connect the brass seawater ground to the modem cable
- Sandwich the seawater ground and modem cable with the dogbone assembly and tighten bolts. The middle section should be over the seawater ground.
- Connect the HH shackle assembly to the surface buoy.
- The wire jumper can now be connected to the seawater ground and clamped in place by the lower clamp on the dogbone.
- For retrieval, these last two steps are all that are required to remove the wire from the buoy.

The final assembly should look like the bottom image in the photo panel to the right. Note that there is no swivel under the buoy.