

ELECTROLINE

ASSEMBLY INSTRUCTIONS

For Double and Triple Armored Electro-Mechanical Cables

Ease of installation and the ability to inspect after assembly contribute to the continued acceptance of Electroline E-M Terminations. Following these simple steps is your assurance of a durable installation. However, many factors determine the safety of any cable assembly. **PLEASE OBSERVE ALL USE AND RECOMMENDATIONS OF THE CABLE MANUFACTURER. THESE INSTRUCTIONS SHOULD BE READ AND UNDERSTOOD PRIOR TO ASSEMBLY.**

TOOLS NEEDED: *Assembly Block Hammer Screwdriver
*Plug Drivers Wrench Vise

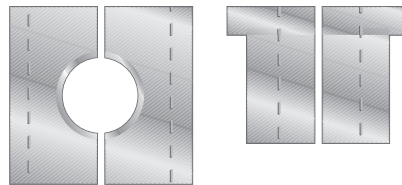
*Assembly Kits are recommended for easier and more efficient assembly of the fittings. The Assembly Block helps prevent damage to the rope during assembly. The Plug Drivers help seat the plug. Assembly Kits are available from Esmet. **(Photo 1.)**

Plug Driver



*If an Esmet Assembly Kit is not used, an Assembly Block with a hole 1/32" less than the diameter of the rope is recommended.

Assembly Block



- STEP 1:** Place Assembly Block on the cable. Position in vise with at least 12" of armor wires above vise. The conductor core may be as long as required. Twist sleeve over end of cable, against the vise jaws. **(Photo 2.)**
- STEP 2:** Apply approximately two wraps of electrical tape around the cable about 1" above the sleeve. **(Photo 2.)** The tape will maintain the position of the armor wires and prevent their crossing inside the sleeve. Next, unlay outer armor wires down to the tape. (Outer armor wires may be unlayed in subsets of 2 or 3. **(Photo 3.)**)
- STEP 3:** Place the larger of the tapered plugs over inner armor wires down to the tape. Using a plug driver, the O.D. of which is no larger than the O.D. of the plug, drive the plug thru the tape to a solid seat inside the sleeve, wedging the armor wires against the tapered sleeve. **(Photo 4.)** Trim the outer armor wires to an exposed length of about twice the cable diameter. **NOTE:** If this is a Triple Armored Cable, repeat STEPS 2 and 3.



- STEP 4:** Apply a wrap of tape around the inner armor in the same manner as the outer armor. **(Photo 5.)** Place the smaller tapered plug over the core and drive it to a solid seat thru the tape and into the sleeve. **(Photo 6.)** The inner armor wires may now be trimmed in line with the outer armor. Use caution as not to damage conductor core when driving the smaller plug.
- STEP 5:** Loosen vise to remove assembly blocks and clamp sleeve in vise. **(Photo 6.)** Slip the optional "C Plug" over the core (to protect conductors from being cut by armor wires when socket adaptor is installed). Bend armor wires towards core for ease of assembly into socket. Heat shrink tubing may be applied to further protect the conductor.
- STEP 6:** Twist socket over the ends of the wires, engage threads of the sleeve, and tighten socket securely on the sleeve. **(Photo 7.)** No more than 4 threads of the sleeve should be exposed after tightening. **Note:** due to tensile loads on the cable, further pull in or "seating" of the plugs and armor wires is to be expected. This seating action should be no more than one cable diameter. This motion must be allowed for in the length of the "pigtail" to the electrical conductor.



RECOMMENDATIONS:

1. This assembly should be proof loaded to the SWL to seat the plug and reduce loosening under vibration. Armor wires then may be trimmed to a length of one cable diameter beyond the sleeve.
2. Do not fill the assembly with an epoxy for sealing. To seal the assembly use polyurethane as it will not prevent further seating of the plugs.
3. Sleeves can be custom designed to meet special requirements or dimensions.
4. The tube protector may be trimmed to length after proof loading.
5. Certain dynamic applications may require a fastening device (i.e. set screw, lockwire, etc.) to retain the sleeve in the socket. Please contact the Factory if this condition exists.