

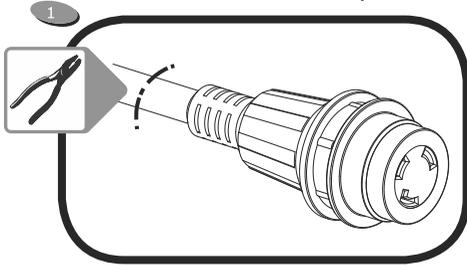
## BF50 Assembly Instructions for SmartPlug Boatside Connector

For questions, comments or concerns please call 206-285-2990 or email at info@smartplug.com

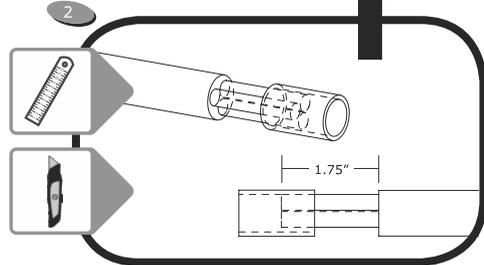
- #2 Phillips Screwdriver
- Wire Cutters
- Utility Knife
- Liquid Dish Soap
- Rag or Paper Towels



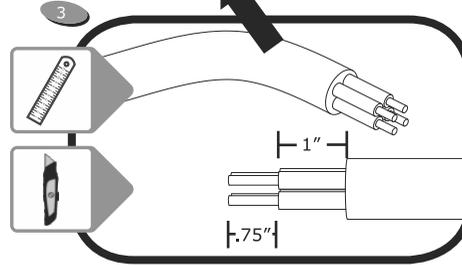
### Tools Needed



Cut female cord-end from your existing 50A cord. Inspect copper wires for corrosion. Cut back wire to expose clean bright copper. If necessary, cut back more wire until you reach bright copper.

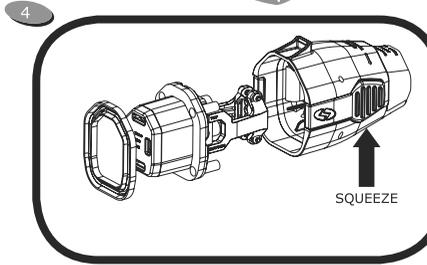


Measure 1.75" back from freshly cut cord end and use a marker to indicate cut. Lightly score the outer jacket with a utility knife and be sure not to cut any inner wires. Remove only the 1.75" segment of the outer jacket exposing the inner wire and the fibrous cord filler. Cut away all strands of filler.

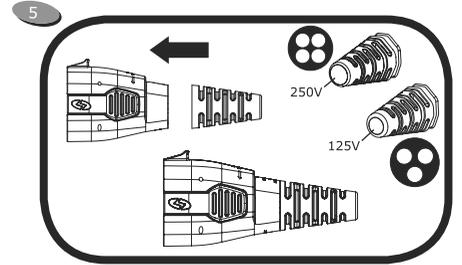


Measure and cut 0.5" of inner wire jacket from each of the individual color-coded wires.

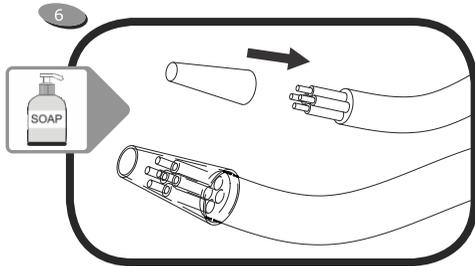
**NOTE:** Inspect all freshly exposed copper for corrosion. If corrosion is present, re-cut the cord several inches back or until you find bright copper. Then repeat steps 1-3. Set aside and continue to step 4.



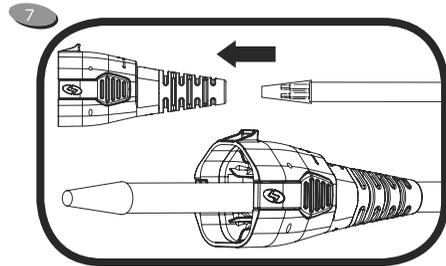
Separate the gasket and the connector face from each other by squeezing the side levers and pulling the plug face out of the plug body. Set the plug face assembly aside.



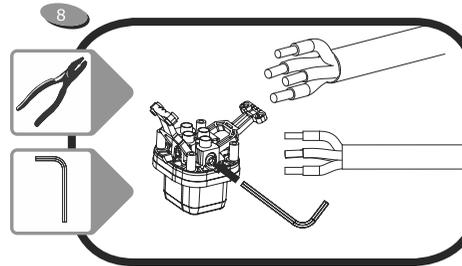
Compress flexible cord seal and force it into the opening in the rear of the plug body as shown. Look inside the plug body to inspect for proper cord seal insertion. The seal should be fully expanded and free from folds or kinks. Set assembly aside.



Use the cone shaped cord install tool and cover the end of the prepared cord as shown (cord does not fit inside the cone). Apply liquid dish soap liberally on a 12" length of cord to be pulled through the cord seal.

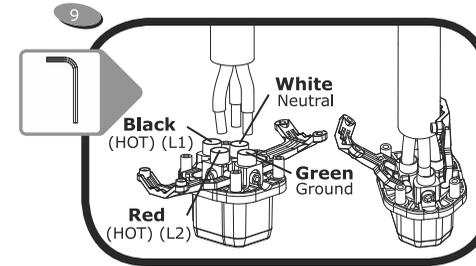


Apply soap to the inside surface of the flexible cord seal. Push lubricated cord with cord-install tool through cord seal and connector body from REAR as shown. Continue pushing cord until 6-8" of cord has moved past the front of the connector body. Remove install tool.



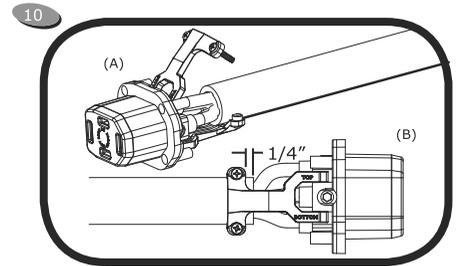
For ease of alignment, use pliers and slightly bend the ends of the conductor wires as shown. Next, use the provided hex key and loosen the set screws in the front connector assembly to allow plenty of clearance for the insertions of the copper strands into the inlet holes.

**NOTE:** If installing 3-conductor 50A/125V cable, leave protective sticker on the auxiliary power clip set screw.

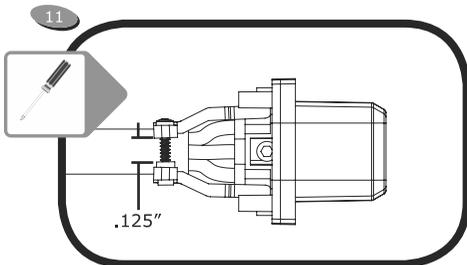


Simultaneously align and insert the individual wires into their corresponding color-coded wire guides as shown. Push all wire in as far as they will go. Make sure all copper wiring is fully captured within the bottom of the metal capture. Visually inspect through the clear plastic inlet guides. Make sure there are no stray copper strands. Use the hex key to tighten all screws to 20 in/lb.

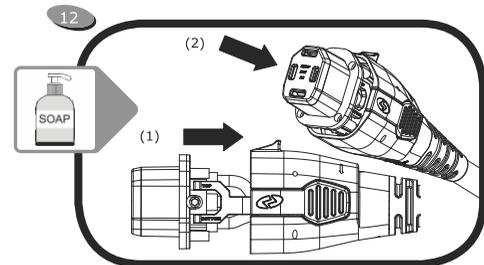
**Green Wire (Ground)**  
**Black Wire (Hot) (L1)**  
**Red Wire (Hot) (L2)**  
**White Wire (Neutral)**



Close cable clamp arms around cable jacket as shown (A) and make sure a minimum of 1/4" of cable jacket extends beyond the jaws of the cable clamps (B). Insert (2) #6 X 1.25" screws (included) and pinch the cable clamp around cable to securely retain the cable.



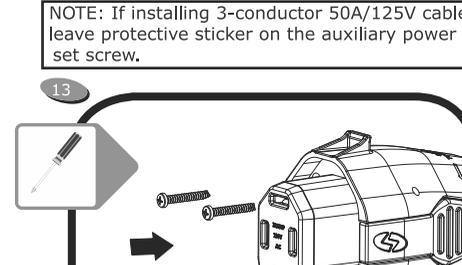
Use Phillips #2 screwdriver and tighten screws evenly about 1 turn each while alternating from one screw to the other until cable is securely compressed. Do not exceed the 14 lbs/in torque specification. Do not over tighten screws into cable clamp swing arm. A small gap as shown is acceptable, and should be even on both sides. No gap may occur for diameter cords.



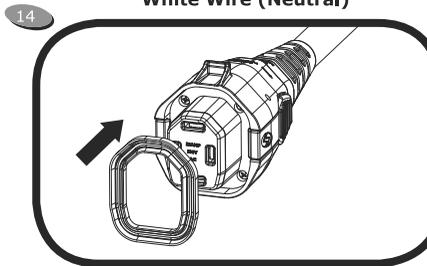
Use soap to lubricate the 6-8" of cord that was previously pulled through the flexible cord seal in step 7. Hold cord seal and connector body in one hand as shown (1) and carefully pull cord with other hand backwards until it begins to enter the connector body only.

**CAUTION!!** - Do not pull the component completely together.

Carefully push components together until the connector internals are solidly seated. Wipe clean any excess soap.

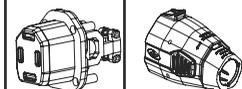


Remove cord install tool. For ease of alignment, locate and install (3) #6 X 1" screws (included) into corresponding inlet holes as shown. Use Phillips #2 and carefully screw components together **by hand only. Do not over tighten.** Max torque is: 14 to 20lbs/in.



Remove adhesive backing from seal and slip over the plug face as shown. Use blunt tool and continue pushing the seal into the assembly until it seats evenly all the way around plug face. Check for any deformation of seal and adjust fit.

### Materials Included

A. SmartPlug Face (1)	
B. SmartPlug Body (1)	
C. Flexible Cord Seal (2)	
D. Conical Install Tool (1)	
E. #6 X 1" (3)	
F. #6 X 1.25" Screw (2)	
G. Face Seal (1)	
H. Hex Key (1)	

## BM50S & BM50 Non-Metallic Inlets

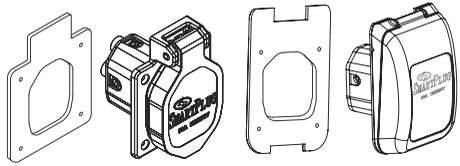
### Assembly Instructions for SmartPlug Boatside Inlet

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- Ruler/Measuring Tape
- #2 Phillips Screwdriver
- Wire Cutters
- Scissors



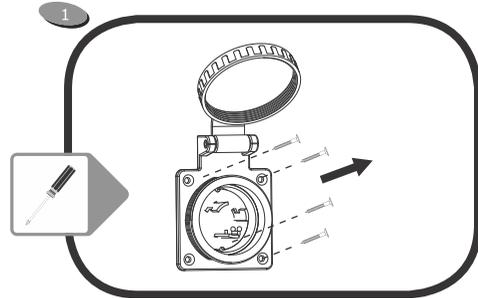
### Tools Needed



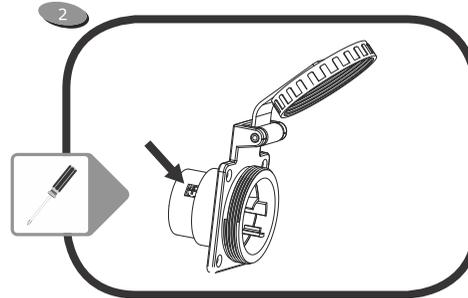
BM50S  
Stainless Steel

BM50  
Non-Metallic

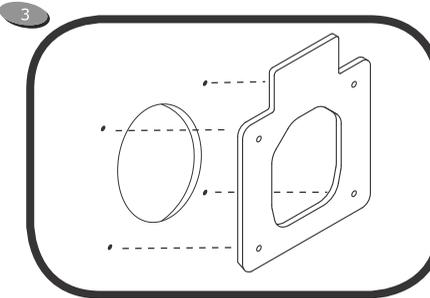
SmartPlug offers two types of inlets. These include stainless steel and non-metallic. The only difference between these products are the mounting flange and lids. The electrical components and mounting hole layout are the same for both inlets.



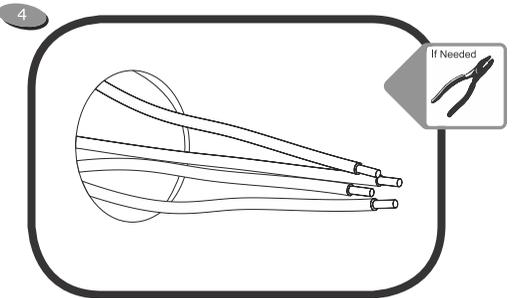
1 Remove old inlet's four mounting screws and pull out of boat. If the old inlet has a rear enclosure, loosen the strain relief clamp and remove it to access the wire connections.



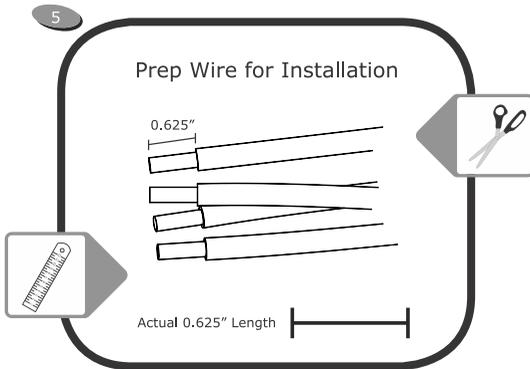
2 Loosen the screws to remove boat wires from the old inlet.



3 Test your new SmartPlug inlet for proper fit and hole alignment (some installations may require the hole to be modified to accept the new inlet) Please install the rear mounting gasket prior connecting wires to inlet.



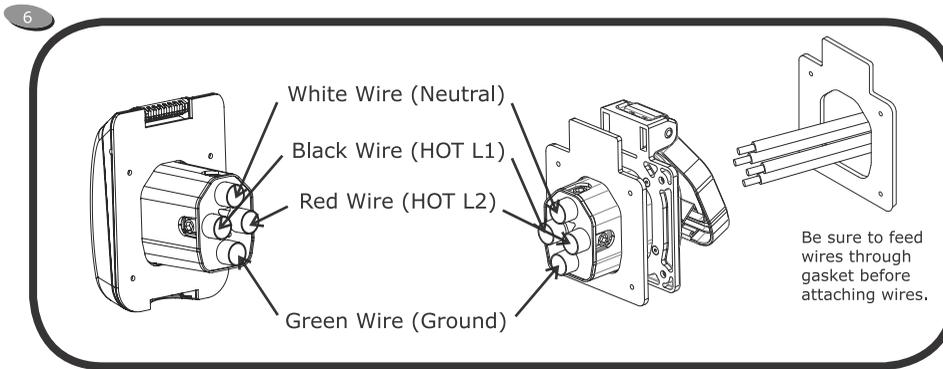
4 Examine the boat's internal wiring. Make sure the wire is clean and in good condition. If the wire is not bright copper cut it back until clean wire is exposed.



#### Prep Wire for Installation

0.625"  
Actual 0.625" Length

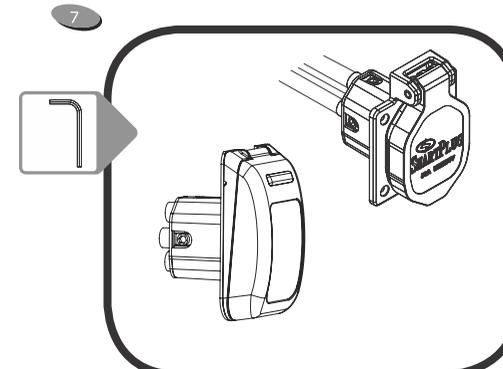
5 Strip the wire insulation back 5/8". Make sure the wire is clean and bright copper. Cut back wire until bright copper is exposed if wire is dirty.



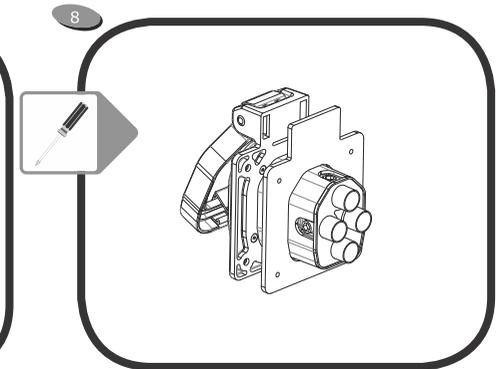
6 Remove plastic strain relief component from the back of the inlet and set aside. Loosen set screws. Twist bare copper wire strands into a tight and straight configuration. Insert the bare wires into the corresponding color-coded wire terminals.

White Wire (Neutral)  
Black Wire (HOT L1)  
Red Wire (HOT L2)  
Green Wire (Ground)

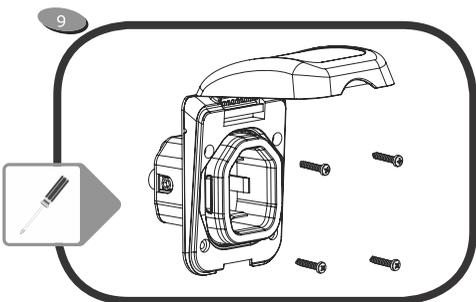
Be sure to feed wires through gasket before attaching wires.



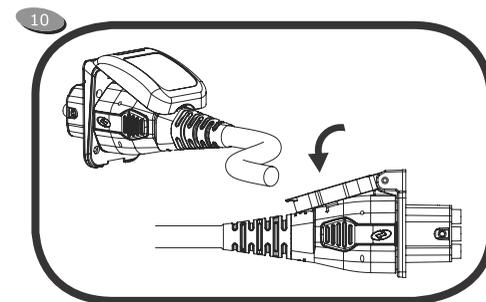
7 Make sure the wire insulation is butted up to the corresponding color-coded wire guide. Tighten set screw after each wire is inserted. Make sure there is no wire insulation inside the terminal clamp(s). Torque spec.20 in/lb. Test wires by pulling on them to make sure they are secured.



8 NOTE: Wires connected to the back of the inlet can be routed as needed.



9 Reposition the new SmartPlug inlet in the boat and mount with the original four screws from the old inlet. Use #10 screws if new ones are required.



10 Insert plug into the inlet and press down on the inlet cover.

### Materials Included

