



Installation & Warranty Information

Thank you for purchasing BILGE-B-DRY with mobile connectivity which includes:

- BILGE-B-DRY pump assembly
- Low-profile bilge water pickup(s) (***bracket sold separately***)
- Tubing lengths for low-profile water pickup-to-pump, and pump-to-overboard discharge

Features

- A free **Mobile App** is available for iOS and Android devices to control and schedule BILGE-B-DRY wirelessly.
- The **low-profile water pickup** is designed with a replaceable filter system to minimize impact on the environment and protect the pump.
- An **external trigger wire** to run the pump from a water sensor.

Default Operation

- BILGE-B-DRY is pre-programmed to run for two minutes upon power-up and then every 6 hours again for 2 minutes.
- Using the Mobile App is not required if you only want to run the default schedule.
- Change the schedule or run the pump on-demand with the Mobile App.
- Any changes to the schedule will be saved in the BILGE-B-DRY unit, even after disconnecting power.
- Note that the internal clock will reset to 8:00 am when power is interrupted. Connect with the Mobile App and the internal clock will be automatically set to your local time.

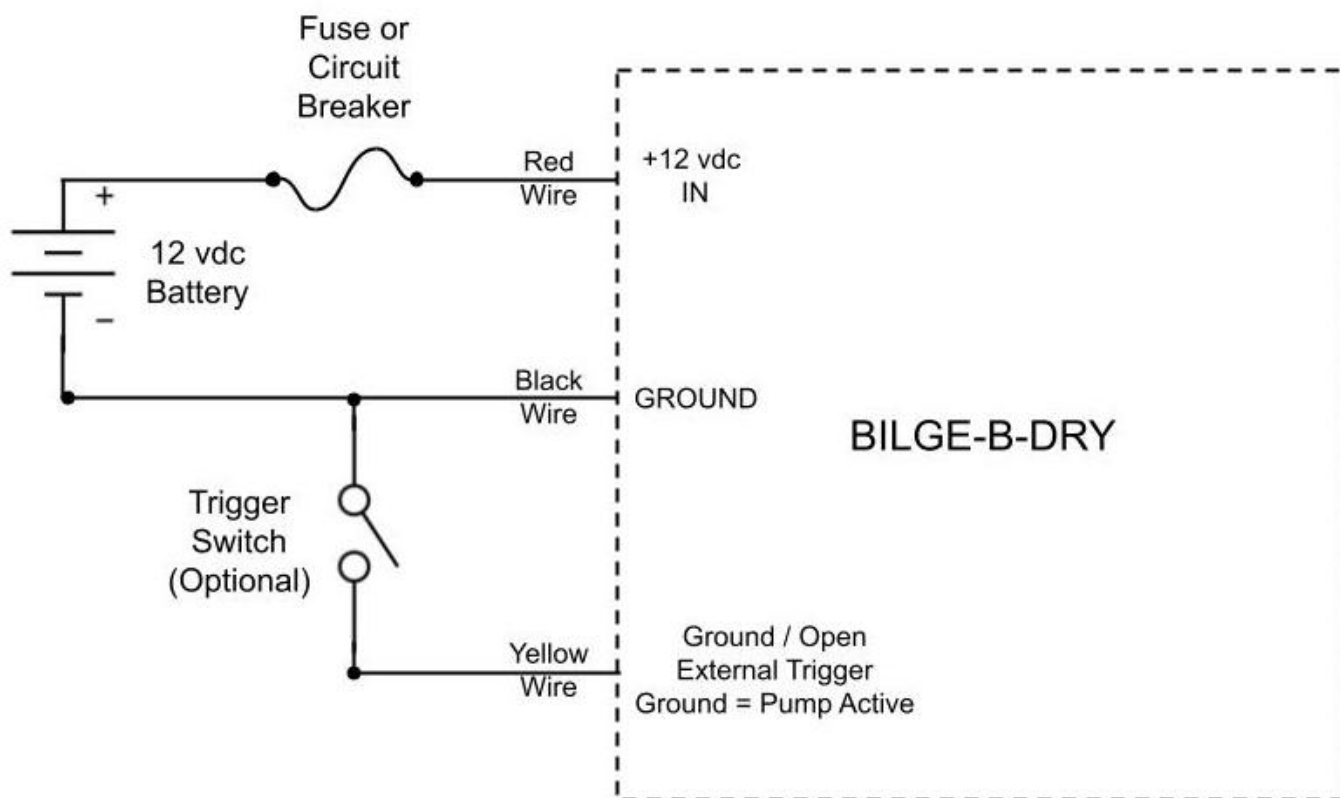


Installation Instructions

- 1) If your BILGE-B-DRY is equipped with the **three-wire electrical harness**, the harness will have three colored wires: Red (+), Black (-), and Yellow (external pump trigger). Please reference the wiring diagram below while performing the following steps:
 - a) Connect the red wire to a battery with a waterproof 3-amp inline fuse or to a panel with a circuit breaker. Install the fuse as close to the battery as possible.
 - b) Connect the black wire to ground or the negative terminal of the battery.
 - c) The yellow wire, if not used, should be capped off.
 - d) Optionally, the yellow wire can be routed to a water sensor. The sensor should connect the yellow wire to GROUND as shown in the Wiring Diagram. When GROUND is applied to the yellow wire, the pump will run.

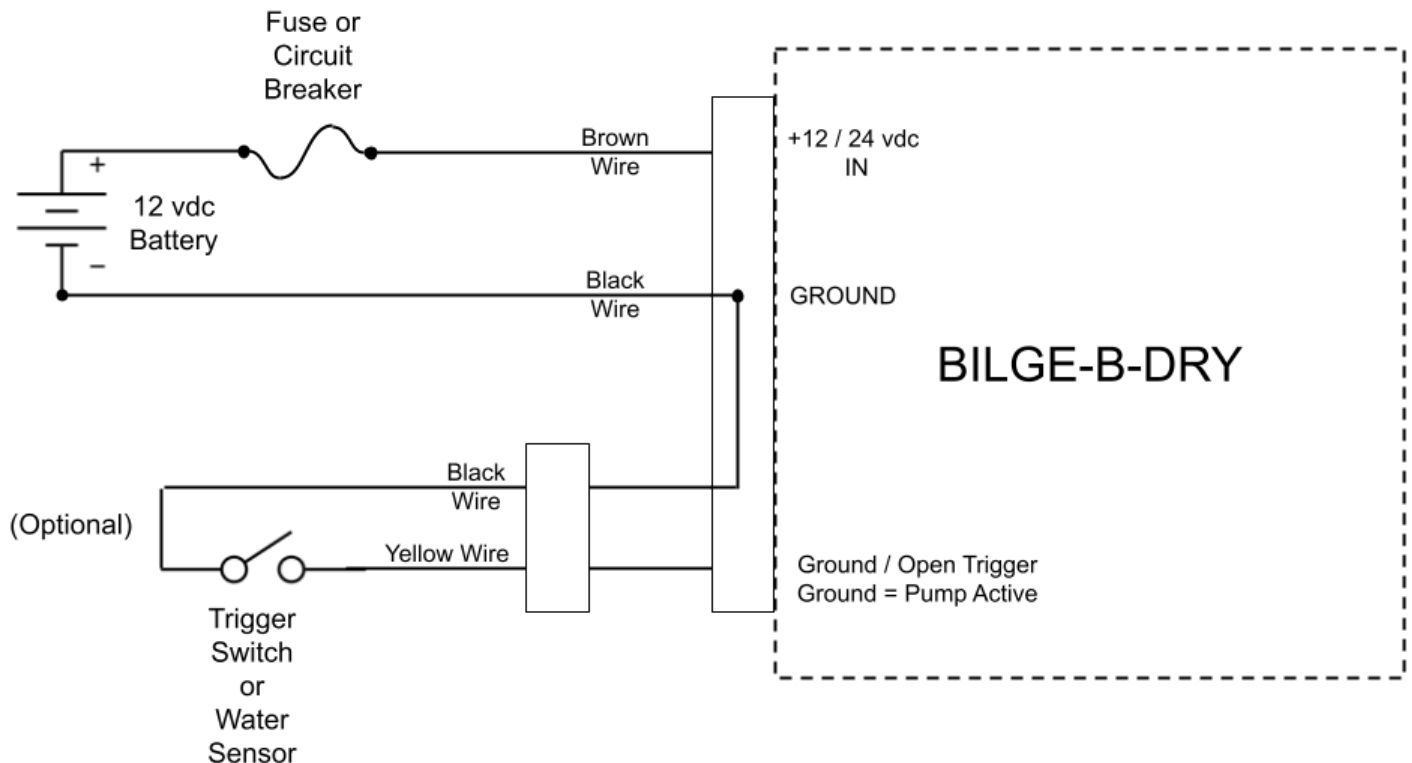
NOTE: The Yellow Wire should NOT be connected to +12 vdc or damage will result!

- e) Read the notes at the end of these instructions on best practices for electrical connections.^[1]



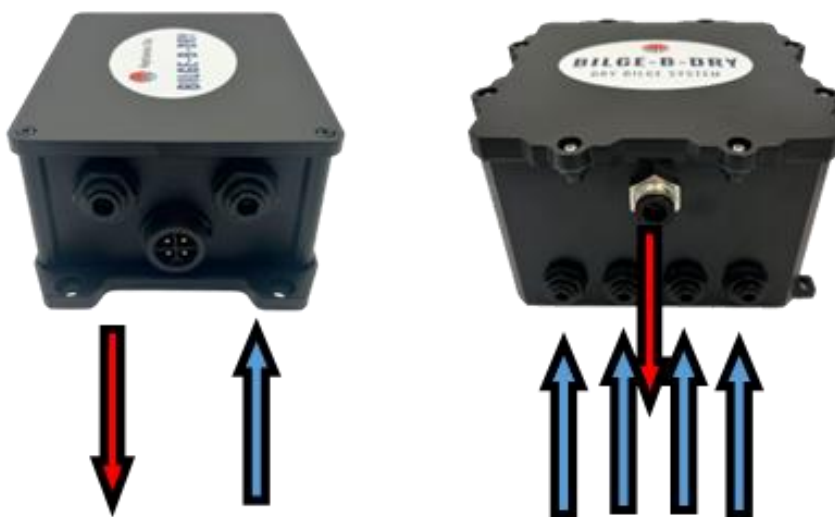


- 2) If your BILGE-B-DRY is equipped with the **four-wire electrical harness**, the harness will have two cables with two wires each. **BROWN (+)** and **Black (-)**, are for the main power feed. Please reference the wiring diagram below while performing the following steps:
- Connect the brown wire to a battery (+ terminal) with a waterproof 3-amp inline fuse or to a panel with a circuit breaker. Install the fuse as close to the battery as possible.
 - Connect the black wire to ground or the negative terminal of the battery.
 - The yellow wire, if not used, should be capped off.
 - Optionally, use the cable with the BLACK and YELLOW wire with a water sensor. When the yellow wire is grounded, it will run the pump. The black wire provides ground to one side of a sensor. Connect the yellow wire to the other side of the sensor.
 - Read the notes at the end of these instructions on best practices for electrical connections.^[1]





- 3) Cut tubing to desired lengths. Tubing must be cut “square” to ensure a proper seal.
 - a) Insert one end of the tubing into the press-fit connector on top of the low-profile water pickup.
 - b) Pressure must be applied when inserting all tubing into the press-fit connectors to a depth of 1/4” to 5/16” to ensure a proper fit. *If not fully seated, the unit will “pull/suck” air, reducing pump performance.*
 - c) Ensure the tubing ends are circular in shape and not flattened (aka out-of-round). The fittings will not seal properly if the tubing is flattened.
- 4) Place the low-profile bilge water pickup(s), with the holes facing down, flat against the bottom of the lowest location in your bilge, evaporator, basin, or the location you choose for water removal. Zip ties work well to ensure the low-profile water pickup remains in the desired location. **(bracket sold separately)**
- 5) Mount the BILGE-B-DRY unit in a location where it cannot be submerged. Longer tubing can be used if needed. *Please refer to our FAQ page on our website for information on purchasing additional tubing and tubing size.*
- 6) Insert the tubing from the water pickup(s) to the input press-fit connector on the BILGE-B-DRY unit.
- 7) Insert the outlet tubing into the output press-fit connector on the BILGE-B-DRY unit.
- 8) The output tubing should be routed to an existing overboard hose, shower basin, AC basin, main bilge pump or to a dedicated overboard drain.



Single and Multi-Pump Water Flow



Mobile Application Instructions

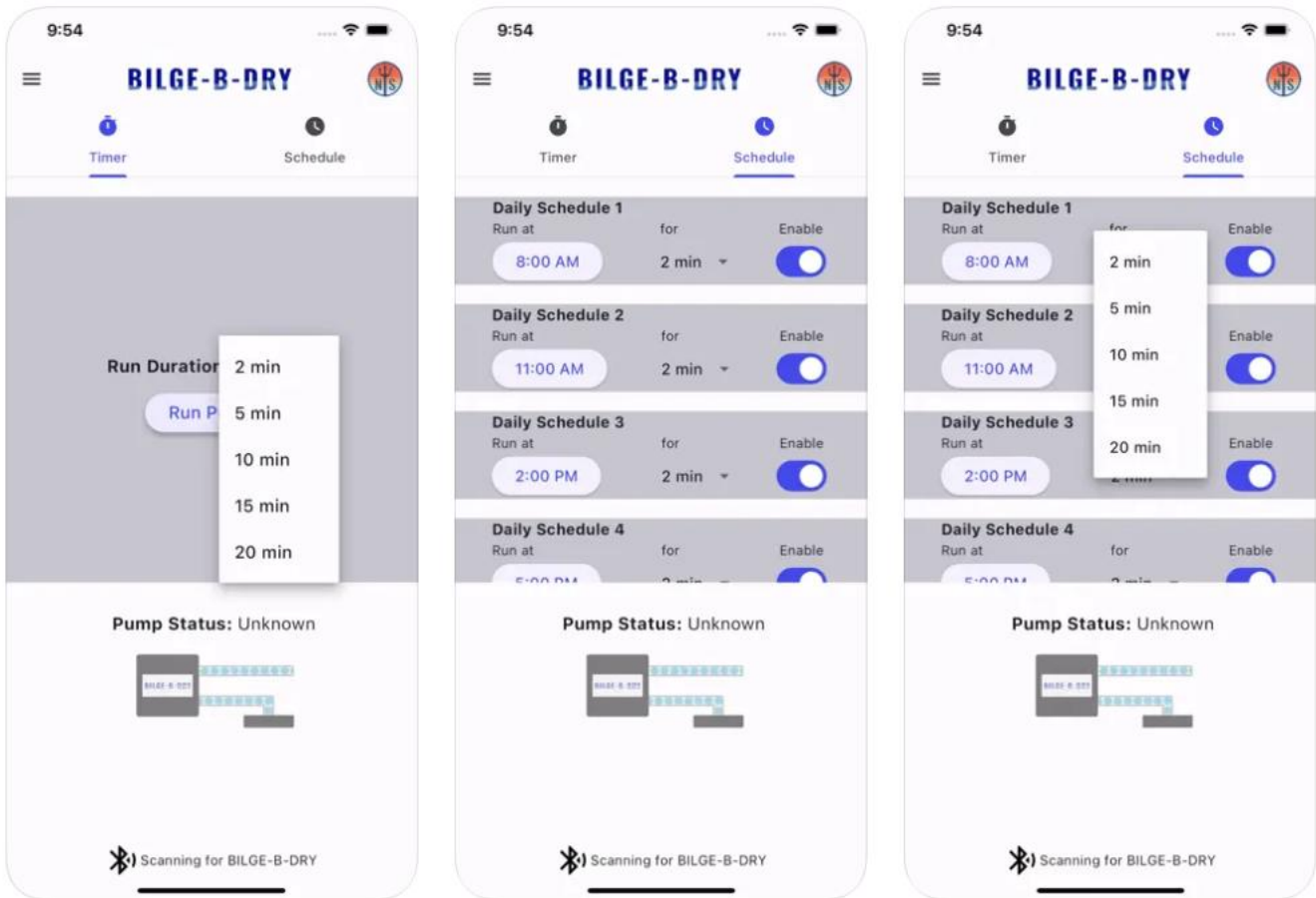
Install the “BILGE-B-DRY 3” Mobile App through the Apple Store or Google Play Store.

1. After applying power to the BILGE-B-DRY system, open the Mobile App on your smart device.
2. After opening the BILGE-B-DRY App on your smart device, the very bottom of the screen will indicate if “*Connected to BILGE-B-DRY.*”
3. The distance to your smart device, along with engine room or bilge equipment, *could* cause interference. Consider moving around your vessel (if needed) and re-open the App to establish a connection.
4. Check pump operation by selecting *Run Pump* and/or *Stop Pump* from the Timer menu. The pump status will indicate running/not running.
5. Select the Schedule menu to set your Daily Schedule.
 - a. Tap the time to open the clock. Slide your finger around the clock to select a daily time.
 - b. Choose your run duration (minutes) from the dropdown menu.
 - c. Enable the schedule by sliding the blue dot to the right.
 - d. Choose up to five Daily Schedule options.
 - e. BILGE-B-DRY will run your Daily Schedule automatically until you choose to update or cancel your selections. The schedule will be saved in the BILGE-B-DRY unit even through power loss.

Note: The internal clock resets to 8:00AM after a power loss, so although the schedule has been saved, it may not run at the correct times of day. To update the clock after a power loss, simply connect with your Mobile App and it will update automatically.



Mobile Application Instructions



Mobile Application



Water Sensor Operation:

Our wired water sensor will sense water that is four millimeters deep. As soon as water covers the two electrical contact points, a signal is sent to your BILGE-B-DRY pump to activate the pump. The pump will continue running until the sensor no longer detects water and then run for five additional minutes to remove every last drop of water. Place the water sensor at the lowest spot where water will first start collecting. The water sensor would typically be placed next to the water pickup.

Water Sensor Mounting:

The water sensor should be placed next to your BILGE-B-DRY water pickup, at the lowest point where water will first start collecting in your bilge. The wired sensor has two stainless pins that need to be in contact with the water to trigger your BILGE-B-DRY pump. The wired sensor's cable can be zip tied to the tubing going to your pickup. Or, if you're using the stainless-steel mounting bracket to hold down the water pickup, you can run the water sensor cable in between the stainless bracket and the pickup and then place the water sensor next to the pickup.



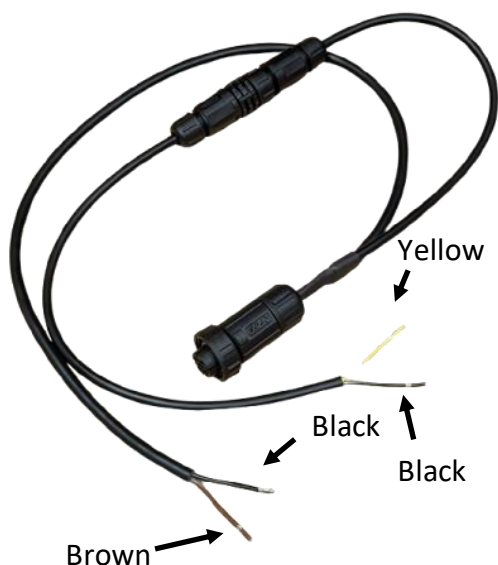
Zip Tie





Water Sensor Electrical Connection:

The BILGE-B-DRY electrical harness comes in two configurations, four wires and three wires. Please see the diagrams on the following pages for more details. The wired water sensor has two exposed wires of varying colors. One of the wires (it does not matter which one) should be connected to the yellow wire on your BILGE-B-DRY unit. The other wire on the water sensor is connected to ground.



From the BILGE-B-DRY four wire harness, the cable with a yellow and a black wire is for the water sensor. Connect yellow to one wire on the water sensor and black to the other. *See wiring diagram on page 3.*



From the BILGE-B-DRY three wire harness, connect the yellow wire to one of the exposed wires on the water sensor. Connect the remaining wire to ground. *See wiring diagram on page 2.*



If You Install TWO units

Wireless connectivity will not allow for connecting to multiple systems at the same time; therefore, our design is based on first-in connection followed by first-out with a delay to reconnect. (What does that mean? The last system connected will not advertise its location for 10 seconds, allowing connection to the other unit).

Example:

One unit is in your cabin bilge, the other is in your engine room bilge. Upon opening the BILGE-B-DRY Mobile App, the App will randomly connect to either the cabin or engine bilge. You will be able to schedule and run the timer for this unit only. When done, close the BILGE-B-DRY app (swipe-up) and re-open the app within 10 seconds to auto-connect to the other bilge unit for scheduling or timer operation. Each unit will now have saved your changes and will run the schedules you programmed.

Winterization

We recommend running antifreeze through the pump for 30 seconds, then allowing the pump to run dry for 2 minutes.

Frequently Asked Questions

Please see the FAQ page on our website for more information: [FAQ's | Neptunian Sky](#)



Troubleshooting

1. Verify you have power, which is visible through the clear/white gasket along the lid, directly above where the power wire enters the enclosure. The LED light may be red or green depending on the date of manufacture. Either color indicates that the unit is powered on. If the light is not visible, verify you have power on the wires connecting to the unit. If there is still no light, visit our [Warranty](#) page on our website to start the Warranty Claim process.
2. If your BILGE-B-DRY is not pumping water, it could be due to debris or petroleum.
 - a. If your bilge experienced a significant oil spill, the pickup filter could become oil saturated, restricting water flow. Please replace the filter material for the low-profile water pickup.
 - b. ****Caution: Excessive pumping of oil, diesel or fuel will cause the diaphragm and rubber valves to swell and lead to pump failure. If you know you pumped petroleum-based liquids, immediately rinse with Dawn dish soap to help prevent permanent pump damage. ****
 - c. Visit our YouTube link to learn how to clear any potential debris or petroleum-based liquids.

Video Link: [Syringe Clearing Technique](#)

IMPORTANT: You will damage the pump if attempting to clear it with compressed air!

3. If your mobile device or tablet will not connect to your BILGE-B-DRY unit:
 - a. Force close the Mobile App and restart.
 - b. If still unable to connect, remove power from your BILGE-B-DRY unit and re-apply power after 15 seconds and try again.
4. If your BILGE-B-DRY runs at different times than selected in the Schedule:
 - a. If power was disconnected from your BILGE-B-DRY, the internal clock is designed to reset to 8:00 AM. Once you connect again with the Mobile App, the internal clock will be restored to your local time.
 - b. The BILGE-B-DRY internal clock can drift over time. To update, re-connect to BILGE-B-DRY with the Mobile App and the internal clock will be updated automatically.
5. If your unit still has a problem, please visit our [Warranty](#) page on our website to start the Warranty Claim process or reach out to us via to support@neptuniansky.com.



Return Policy:

A Return Merchandise Authorization (RMA) number is required for all returns. Returned products are accepted within 15 days of purchase and must be complete in the **original packaging, unused and resalable**. If the unit is resalable, we will refund your payment method minus 15% for a restocking fee. Please send an email to support@neptuniansky.com to obtain an RMA for your unwanted return.

Limited Warranty:

Neptunian Sky LLC warrants our products to be free from defects in material or workmanship for a period of one (1) year following the original date of purchase. All Warranty Claims will be disassembled and investigated for repair. A pre-paid return shipping label will be provided on defective items **within 30 days of purchase**. You are responsible for shipping costs beyond 31 days from original purchase. International returns are responsible for all shipping costs.

Exclusions & Limitations:

This Limited Warranty does not cover failures due to abuse, accidental damage, dropping, pump clogging, unintended use, freeze damage, ingesting and pumping petroleum-based liquids or when repairs have been made or attempted by anyone other than Neptunian Sky LLC or our authorized partners.

- The warranty is **VOID** if the enclosure screws have been removed, as internal wiring damage will occur.
- This Limited Warranty does not cover a clogged pump (when included pickup filter is not used) or diaphragm rubber failure due to oil, diesel, gasoline, transmission fluid or hydraulic fluid (petroleum-based liquids).
- The Limited Warranty does not cover a damaged control board (PCB) due to an installation error (reverse polarity – visible upon inspection).
- If, after inspection, we determine the failure to be outside of the scope of our Limited Warranty as defined above, we will respond with our BILGE-B-DRY repair options. Please see our affordable repair options using the following link: [BBD-Repair](#)

Warranty Claim Process:

ALL failed units must be shipped to our facility for inspection and repair. If you need a new unit quicky, please reach out to us via support@neptuniansky.com for further assistance.

Please review the Installation Instructions in this guide before submitting your Warranty Claim for troubleshooting tips and to ensure a successful installation.

Please submit your Warranty Claim via our online Warranty Claim Form on our website. We will respond within 24 hours with our return address for your failed unit: [Warranty](#)



[1] Notes on proper electrical connections

American Boat and Yacht Council (ABYC) standards state that “current-carrying conductors shall be routed as high as practicable above the bilge water level and other areas where water may accumulate. If conductors must be routed in the bilge or other areas where water may accumulate, the connections shall be watertight (11.14.4.1.5).” Wires run in engine spaces need to be “75°C” rated.

Per ABYC (E-11.16.3.7) “solder shall not be the sole means of mechanical connection in any circuit.”

Per ABYC (11.14.3.8) “solderless crimp-on connectors shall be attached with the type of crimping tools designed for the connector used, and that will produce a connection meeting the requirements of E-11.14.3.3.”

When attaching a wire to a terminal screw, always use a ring terminal (preferred) or captive spade terminal rather than bare wires or a non-captive spade terminal.

Crimp connectors are recommended but only when using a quality crimp tool that was designed for the specific connector being used.

The connections should be sealed using heat shrink tubing with adhesive to prevent corrosion and water ingress.

Wires should **NOT** be joined with wire nuts or by twisting together and covering with electrical tape.

Guideline for proper wiring gauge selection for installation

Total Approx. Circuit Amperes	Wire Gauge (For Length In Feet)											
	3	5	7	10	15	20	25	30	40	50	75	100
12VDC												
1	18	18	18	18	18	18	18	18	18	18	18	18
1.5	18	18	18	18	18	18	18	18	18	18	18	18
2	18	18	18	18	18	18	18	18	18	18	16	16
3	18	18	18	18	18	18	18	18	18	18	14	14
4	18	18	18	18	18	18	18	18	16	16	12	12
5	18	18	18	18	18	18	18	18	16	14	12	12
6	18	18	18	18	18	18	16	16	16	14	12	10
7	18	18	18	18	18	18	16	16	14	14	10	10
8	18	18	18	18	18	16	16	16	14	12	10	10
10	18	18	18	18	16	16	16	14	12	12	10	10
11	18	18	18	18	16	16	14	14	12	12	10	8
12	18	18	18	18	16	16	14	14	12	12	10	8
15	18	18	18	18	14	14	12	12	12	10	8	8
18	16	16	16	16	14	14	12	12	10	10	8	8
20	16	16	16	16	14	12	10	10	10	10	8	6
22	14	16	14	14	12	12	10	10	10	8	6	6
24	14	14	14	14	12	12	10	10	10	8	6	6
30	12	12	12	12	10	10	10	10	10	6	4	4
40	10	8	8	8	8	8	8	8	6	6	4	2
50	8	8	8	8	8	8	8	8	6	6	2	2