

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 to wirelessly control and schedule your BILGE-B-DRY pump.
- The **low-profile water pickup** is designed with a replaceable filter system to minimize impact on the environment, protect the pump, and allow for improved pump efficiency.
- An **external trigger wire** and **quick disconnect harness** to run your BILGE-B-DRY pump from a helm switch, water sensor, or float switch, if needed.

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.

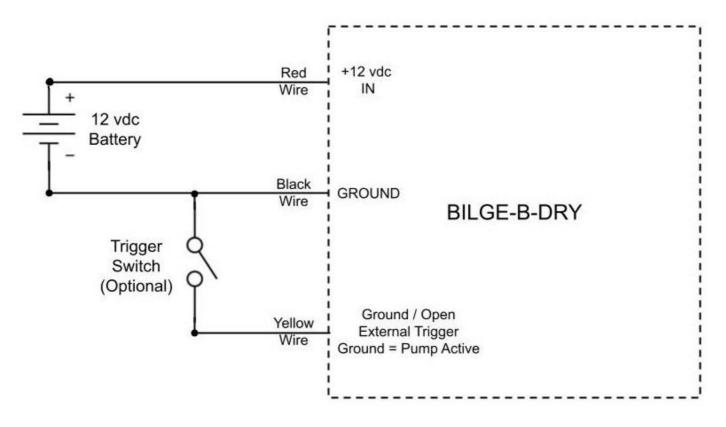


Installation Instructions

- 1) BILGE-B-DRY is equipped with three 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 <u>waterproof 3-amp inline fuse</u> 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 helm switch, water sensor, or float switch. The switch or 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 shall 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]



Wiring Diagram



- 2) Cut tubing to desired lengths. Tubing must be cut "square" to ensure a proper seal.
 - a) Insert one end of the 1/4" outer diameter (OD) 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.
- 3) 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*)
- 4) Mount the BILGE-B-DRY unit in a location where it cannot be submerged. Longer tubing can be used if needed. Use PVC or PU tubing with an OD of 1/4" for the water pickups and 3/8" OD for the water outlet.
- 5) Insert the tubing from the water pickup(s) to the input press-fit connector on the BILGE-B-DRY unit.
- 6) Insert the 3/8" OD outlet tubing into the output press-fit connector on the BILGE-B-DRY unit.
- 7) The output tubing should be routed to an existing overboard hose, shower basin, AC basin or to a dedicated overboard drain.



Single and Multi-Pump Water Flow



Mobile Application Instructions

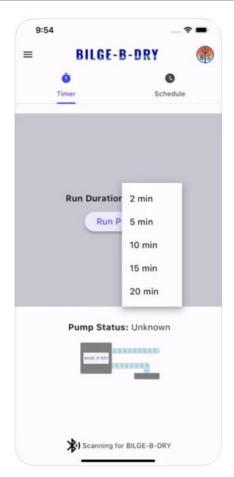
Install the "BILGE-B-DRY 3" Mobile App through the Apple Store or Google Play Store.

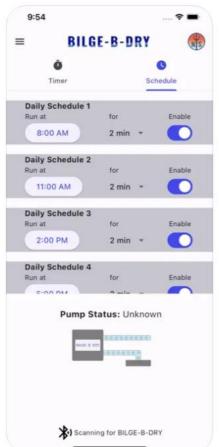
- 1. After applying power to the BILGE-B-DRY system, open the Mobile App on your smart device.

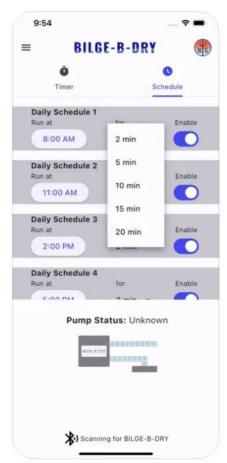
 Note: Do not open your Bluetooth settings to pair to your system. Pairing is not required and will prevent the system from connecting.
- 2. After opening the BILGE-B-DRY App on your smart device, the very bottom of the screen will indicate if "Connected to BILGE-B-DRY."
- 3. The distance to your smart 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.

<u>Note</u>: 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



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; this 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 to start the Warranty Return 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 would become oil saturated, restricting water flow. Please replace the filter material on the low-profile pickup.
 - b. Excessive pumping of oil, diesel or fuel may cause a "viscosity-lock" of the rubber diaphragm inside the pump and may require replacement of the BILGE-B-DRY pump. See next step.
 - c. Visit this video link to learn how to clear any potential debris or petroleum-based liquids. Video Link: https://youtu.be/NbdCgbLJqS0



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:
 - a. Ensure Bluetooth is enabled on your mobile device
 - b. Ensure you have NOT paired to the device. Bluetooth pairing is not required and will prevent connection.
 - c. Force close the Mobile App and restart
 - d. 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 use the <u>Warranty Return link</u> to provide a description or visit www.neptunianskyllc.com/warranty.



RETURN POLICY:

A Return Merchandise Authorization (RMA) number is required for all returns. Returned products are accepted within 30 days of purchase and must be complete in the **original packaging, unused and resalable**. Upon receipt, if the unit is resalable, we will refund your payment method minus 10% for a restocking fee. Please use the Warranty link on our website to start the return process: www.neptunianskyllc.com/warranty You will be required to use your own pre-paid label to ship back to us.

LIMITED WARRANTY RETURNS:

Neptunian Sky LLC warranties our products to be free from defects in material or workmanship for a period of one (1) year following the date of purchase, provided that the product is used as intended. Warranty Returns will be disassembled and investigated for repair or replacement depending on the nature of the failure. A prepaid return shipping label will be provided on defective items within 30 days of purchase. Return shipping labels after 31 days from date of purchase will not be provided - you are responsible for shipping. International returns are responsible for all shipping costs.

EXCLUSIONS AND LIMITATIONS:

This Limited Warranty does not cover failures due to abuse, accidental damage, pump clogging, unintended use, ingesting petroleum-based liquids (causing rubber glands to swell) 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 wiring damage will result.
- This Limited Warranty does not cover a clogged pump, oil, diesel, and/or fuel damage to the pump.
- If after inspection we determine the failure to be related to accidental damage or unintended use, we will respond with our repair program. <u>Link: Repair Program</u>



[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.