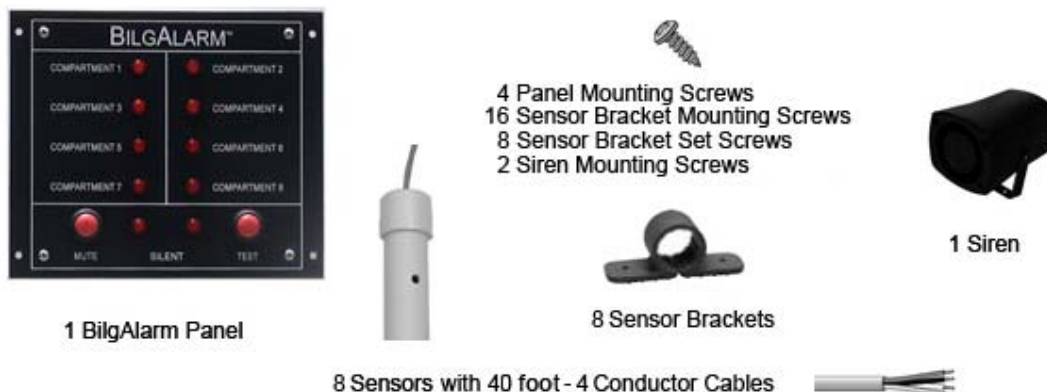


# Installation Instructions

## 8 Sensor BilgAlarm™ System Model No. BA8RTD-4W24V

The following parts are enclosed:



\*The most common installation screws are included. Since each installation is different and may require different types and lengths of wood screws, machine screws, washers, lock washers, and nuts, please purchase the screws that are applicable for your installation at your local marine store. Stainless steel screws are recommended.

## STEP 1

### Mount Control Panel, Sensors, and Siren

#### Control Panel

Carefully cut a rectangular hole (width) 5.5 inches X (height) 5.0 inches to mount the BilgAlarm™ Control Panel. Inspect carefully behind where you intend to cut to avoid damage to other equipment and provide adequate room for installation of the BilgAlarm™ Control Panel and wiring. Do not cut the hole larger than 5.5 inches X 5.0 inches. The thickness of the mounting surface must not be more than  $\frac{3}{4}$  inch. Secure the BilgAlarm™ Control Panel with 4 screws after electrical connections have been made.

#### Sensors

BilgAlarm™ Sensors are placed vertically (cable end up) where water collects, which is usually where the bilge pumps are located. Place a BilgAlarm™ Sensor 2 to 3 inches above the bilge water level at which the bilge pump normally turns on. Should the pump not turn on or is unable to handle the volume of water coming in, the BilgAlarm™ System will sound an early warning alarm. Repeat installation of the remaining BilgAlarm™ Sensors and run sensor cables back to the BilgAlarm™ Control Panel. Special mounting brackets and mounting screws are provided to attach the sensors. Set screws are provided to secure the sensors to the mounting brackets and to adjust sensor height, if desired. Screw the set screw through any side of the sensor bracket until the sensor is secure.

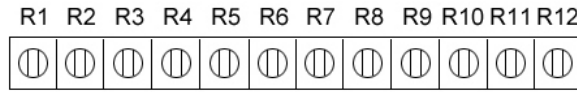
#### Siren

Mount the warning siren near the control panel in an unobstructed location. Run the leads back to the BilgAlarm™ Control Panel.

# STEP 2

## Wire Sensors, Siren to the Control Panel

Model BA8RTD-4W24V



Remote Control Panel (Optional)

21	⊖	Black			Black	⊖	11
22	⊖	Red	Sensor 2		Sensor 1	Red	12
23	⊖	White				White	13
24	⊖	Green				Green	14
41	⊖	Black			Black	⊖	31
42	⊖	Red	Sensor 4		Sensor 3	Red	32
43	⊖	White				White	33
44	⊖	Green				Green	34
61	⊖	Black			Black	⊖	51
62	⊖	Red	Sensor 6		Sensor 5	Red	52
63	⊖	White				White	53
64	⊖	Green				Green	54
81	⊖	Black			Black	⊖	71
82	⊖	Red	Sensor 8		Sensor 7	Red	72
83	⊖	White				White	73
84	⊖	Green				Green	74
+	⊖	Red	Siren A		Siren B	Red	+
-	⊖	Black				Black	-
+	⊖	Pos	Power 24 VDC	Warning: Connect power to EITHER set of terminals, NOT both sets.	Power 24 VDC	Pos	+
-	⊖	Neg					

Only one power source is required. See installation instructions (step 3) for details before connecting to second power source.

**Sensors**  
Attach the four leads of each sensor to the appropriate sensor terminal strip. The terminals are marked for each sensor. See wiring diagram to the left. Be sure to put the proper color wire in the proper terminal strip hole. Tighten securely, but do not over tighten.

### Siren

Attach the two leads of the siren to either pair of control panel terminals, paying attention to polarity. See wiring diagram above. A strobe or a second siren may be connected to the unused terminals. Be sure to connect the red and black wires correctly. Tighten securely, but do not over tighten.

Note: Additional sirens and an optional strobe light can also be added as long as the total load does not exceed the BilgAlarm™ two ampere (2 AMP) rated output.

### Strobe Light (Optional)

Attach the two leads of the strobe light to the control panel paying attention to polarity. Connect the negative lead (black) to R6 and the positive lead (red) to R8 on the Remote Control Panel terminal strip. Use a 24VDC strobe light.

Note: The strobe light will continue to flash even when the system is muted as long as there is an alarm condition present in the bilge. If you would prefer the strobe light to stop flashing when the system is muted connect the strobe light to the siren output instead.

### **Remote Control Panel (Optional)**

Your system comes pre-wired for an optional BilgAlarm™ Remote Control Panel. This full featured remote control panel is typically installed in the master stateroom or captain's quarters and has its own audible device, usually a beeper or second siren.

## **STEP 3**

### **Connecting Power to the Control Panel & Testing System**

#### **Attach power leads (24VDC)**

Attach the power leads to either pair of control panel terminals, paying attention to polarity. See wiring diagram above. For redundancy and maximum reliability, a second power source may be connected to the unused power terminals. **WARNING:** If the two power sources have a common ground (negatives connected together), only one control panel negative power terminal should be connected.

#### **Test your system**

Test your system now by pressing and holding the test button and then pressing the mute button. To reset the mute condition, just release the test button and the alarm is reset. You can also test your system by putting a cup of water under the sensor or just placing a wet rag across the sensor electrodes.

#### **To test silently**

Press and hold the **Mute** button before depressing the **Test** button. The only sound will be a brief "chirp."

**This completes the installation of your new BilgAlarm™ Early Warning System.**

### **To the Installer:**

Below is some additional information you may find useful:

#### **Sensors**

Each sensor comes with a 40 foot cable. You may shorten it. If you would prefer a longer length, please contact our office. For reliability and longevity of the system, please don't make splices in the sensor cables, especially within the bilge area.

#### **Sensor Installation**

Sometimes it's easier to add a pull line through a span that's hard to run cables/wires. A pull line is a line that's twice as long as the span, so you can pull wires in either direction without losing the ends of the line. Secure the ends of the line so they can't be pulled through accidentally. When the task is accomplished, leave the line for the next cable pull. (Nylon clothesline works well)

### **Splicing Wire**

We offer continuous sensor cables to 1000 feet. If splicing of any wires is needed, it's best to take the time and solder the splices and then heat shrink wrap the connections or use specialized water-proof type connectors, or heat shrink crimp connectors.

**BilgAlarm™ is not liable for any sensor cable that has been spliced, altered, or changed.**

### **Remote Panel System – Optional**

You must first install this “8 Sensor BilgAlarm™ System” before installing a remote panel system. Use these instructions to install the “8 Sensor BilgAlarm™ System” and use the instructions included with the remote panel system to add it to this system.