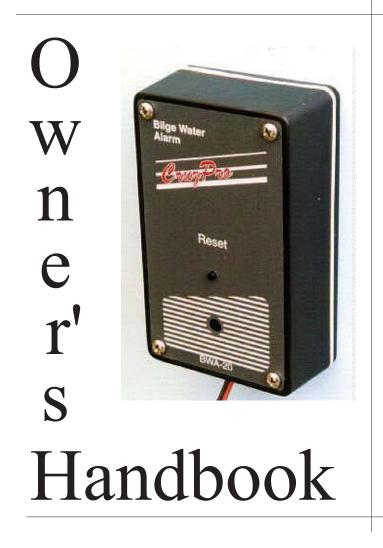
Warranty

Each unit is carefully tested and adjusted at the factory before shipping and is warranted for one full year against original defects in materials or workmanship. This warranty does not include damage to the product resulting from accident or misuse.

If the product should become defective within the warranty period, we will repair or replace it free of charge, including free return transportation, provided it is delivered prepaid to the dealer from whom it is originally purchased.

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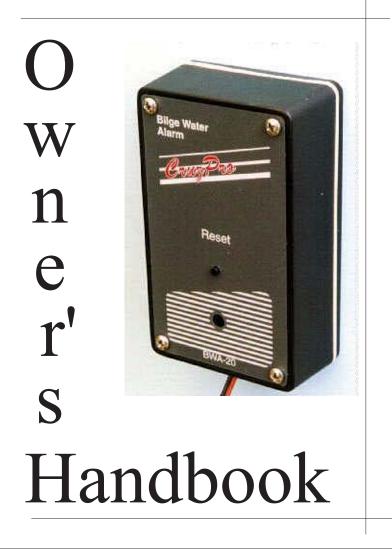


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Testing/Maintenance of the BWA-20

You should verify proper operation of the BWA-20 on a regular schedule of maintenance to prevent any problems in its operation. The simplest way to check to see that it is working properly is to fill a small container with water (salt or fresh) and submerge the electronic water sensor probe tips in the water. After about 15 seconds of continuous contact with the water, the alarm should sound.

If the contact is broken with the water for even a moment, the 15 second timer will start from the beginning. This helps prevent false alarms due to a small quantity of water sloshing in the bilge with boat motion.

If neccessary, you can clean the stainless probe tips with a mild detergent and a rag.

If the alarm sounds very briefly about twice a minute it means that the battery should be replaced.

Specifications

Operating Voltage: 9VDC battery (Alkaline recommended). Built-in low voltage alarm.

Operating temperature: 0 to 50 deg Celsius (32 to 122 deg Fahrenheit)

Size: 100 x 60 x 30 mm (4 x 2.4 x 1.2 inch).

Alarms: Built-in 85 dB audible alarm. Can be connected to optional External 105 dB Loud Alarm (LA-20).

Sensor: Solid state stainless steel and ABS plastic solid potted with polyester or epoxy resin. Five meters (sixteen feet) of cable provided.

Introduction

The BWA-20 Electronic Bilge Water Alarm uses modern electronics and a reliable solid state stainless steel water sensor to monitor your bilge for the presence of water. If the sensor detects water continuously for more than 15 seconds it sounds a built-in 85 dB audible alarm.

The alarm will continue to sound as long as the sensor detects that water is continuously present in the bilge, or until the reset button is pressed. If the alarm is silenced by the use of the reset button, the BWA-20 will automatically arm itself again as soon as the water has subsided.

The BWA-20 operates from a standard 9V transistor radio battery for one year and will run for two years (or longer) from an alkaline 9V battery. The BWA-20 has a built-in low battery warning system that warns you if the battery voltage is getting low.

The BWA-20 comes pre-wired and requires only a screwdriver to install.

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Other CruzPro Products

- Depthsounders & Speed/Temperature/Log
 - DC Volts/Amps/Amp-Hour Monitor
- AC Volts/Amps//Freq/kW Monitor
- LPG/Petrol Gas Detectors/Alarms
- Bilge Water Alarms & Bilge Pump Controllers
- Windlass Controller/Chain Counter
- Digital Fuel Gauge & Fuel Consumption Calculator
- Digital Gauge for Three Tanks /w Separate Alarms
- Smart and Manual Alternator Regulators
- Marine Security System

- RPM/Engine Hours/Elapsed Time Gauge
- Digital Oil Pressure Gauge/Alarm
- Digital Water Temperature Gauge/Alarm
- One and Three Bank Digital Volts Gauges
- Digital Amps Gauge
- Digital Clock/Watch/Race Timers/Alarms
- 8 and 16 Amp Light Dimmers / Motor Speed Controller
- Solar Panel Charge Controllers 6/8/9 & 20 Amps
- 4 & 8 Channel NMEA Combiners/RS-232 Convertors
- Engine/Exhaust Temp. Monitor & Digital Pyrometer
- Digital Clock with four 4 amp electronic timer switches

See photographs and specifications at our Internet Website: http://www.cruzpro.com Email to: info@cruzpro.com

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Installation

Sensor: Mount the water sensor at a suitable heigth in the bilge. The sensor can be aligned in any direction but for most reliable operation, the stainless probes should point straight downwards. Use the long stainless screw provided to attach the water sensor to a vertical surface.

Control unit/alarm: Remove the case front and align the case back onto any suitable surface. *Be sure that the control unit is mounted in a dry place where water will never reach it.* Using the case back as a drill guide, mark the location of the two holes with a soft pencil lead. Remove the case back and drill two 2mm (3/32 inch) holes where indicated. Mount the case back using the two stainless screws provided with the BWA-20. *Be sure the foam block glued to the inside case back is oriented towards the top.*

Battery Installation: A fresh alkaline battery is recommended and should last for several years. A regular 9V battery can be used but will require

replacement more often.

Connect the 9V battery and orient as shown in Figure 1.

Re-install the cover of the control unit on the case back. The foam block on the case back should be oriented to the top to hold the battery firmly in place. Do not tighten the case front screws too tight or you might damage the decal.

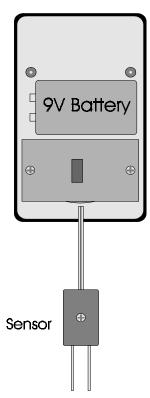


Figure 1 - Internal Diagram