



# WATER BUG<sup>®</sup>

Electronic Water Detection Device



**This Package Contains:**

- 1 WB200 Device
- 1 W-S-U (can be placed into a condensing environment)
- 1 Mounting Kit (2 screws and 2 anchors)
- 1 Product Guide

**Features:**

- Connects to most hardwire or wireless systems
- Hardwire powered
- Connect up to six sensors wired in parallel up to 100' (30.48m) using 18-22 AWG twisted pair
- Monitors for the presence of water (distilled and deionized water cannot be detected)
- Can be used to detect for the absence of water
- Will not alarm due to condensation of humidity

**Note:**

- Test device weekly to ensure proper operation.
- Concrete can be semi-conductive. If experiencing false alarms, insulate all sensors mounted on concrete.

**Specifications:**

Current Draw	8 to 24V DC at 35mA or 12 to 24V AC at 100mA
Device Operating Temperature Range	32 to 130 °F (0 to 54.4 °C) in a non-condensing environment. Indoor use only
Output	1 Form C relay Normally Open/Normally Closed ("N.O."/"N.C.") 1 Amp at 30V DC, resistive or 1 Amp at 24V AC, resistive
Sensor (external)	Includes 1 unsupervised surface sensor (W-S-U) May be placed into a condensing environment
Max Sensor/Device Distance	1 to 2 sensors with max distance of 200' (61.0m) each 3 to 6 sensors with max distance of 100' (30.48m) each
Device Dimensions	4.10" x 2.36" x 1.18" (10.4cm x 6.0cm x 3.0cm)
Sensor Dimensions	3.0" x 2.0" x 0.88" (7.6cm x 5.1cm x 2.2cm)
Weight	2.4oz (68.0g)
Mounting	Mounting flanges (see image above)



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**Introduction:**

Thank you for your purchase of the Winland WaterBug® model WB200. The WB200 is completely electronic and is designed to detect water only (distilled, deionized water and rainwater cannot be detected). The WB200 is not a self-contained warning device. For proper operation, it must be used in conjunction with an alarm system, sounder, etc. It is designed so that the device mounts on a wall or other flat vertical surface and the remote sensors are placed in the locations where water leakage is most probable. Up to six remote sensors may be connected to one WB200. A film of moisture forming a bridge between the two metallic contacts on any remote sensor is all that is needed for the device to signal an alarm condition. The output on the WB200 is non-latching but will remain in alarm state until the moisture bridge is broken. As sensitive as the WB200 is, it will not alarm due to high humidity or condensation. The WB200 is ideal for use in homes, offices, computer rooms, document storage areas, warehouses, sump pumps and basements.

**Installation:**

Locate the area where the WB200 device is to be mounted. Using the WB200 as a guide, mark the two locations on the mounting surface where the holes will be drilled to use the case's mounting flanges. If mounting on drywall, use the two provided drywall anchors. Once the holes have been drilled, place the WB200 against the surface and drive the screws into the holes or anchors. Multiple sensors must be hooked up in parallel to the two "sensor" terminals. The remote surface sensors may be mounted securely to the floor or a wall. Mounting the sensor(s) to a vertical surface like a wall enables you to monitor an area for rising water levels. This is useful in basement sump pumps and other types of water storage and drainage systems.

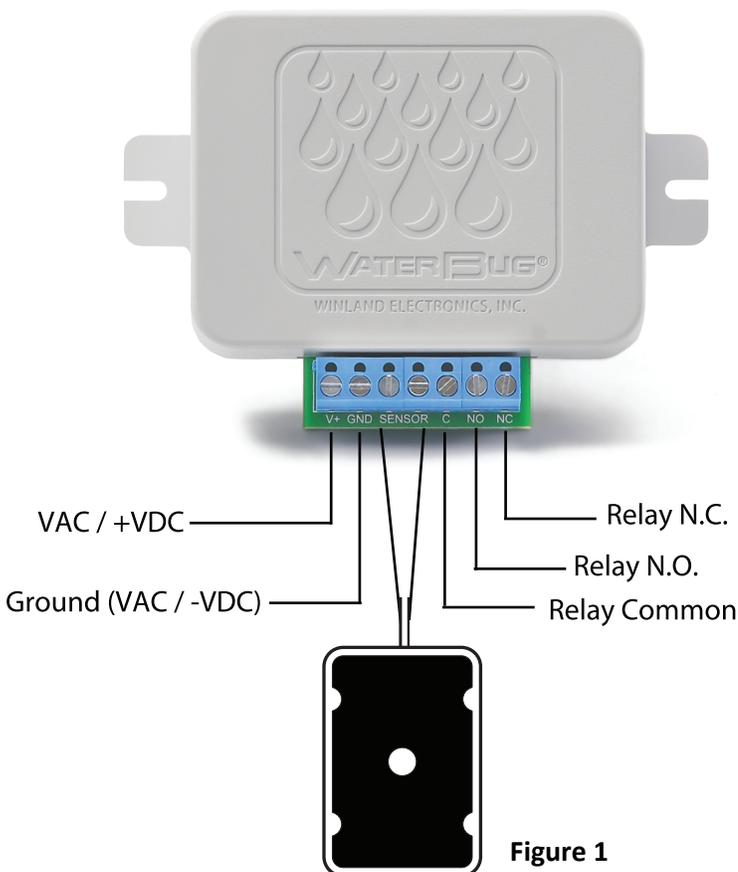
**Terminal Block Connections:**

Relay contacts are accessible on the terminal block (See Figure 1). The WB200 is in normal condition when power is applied, and no moisture is detected. It's in alarm condition when water is detected by any one of the remote sensors.

Note: When connecting DC power to the WB200 be sure to observe polarity and test to see if the WB200 is operating properly. This may be done by forming a water bridge between two of the metallic contacts located on the sensor (See Figure 2) with a moistened finger or cloth. If the WB200 is not operating properly, check the polarity of the power supply connections.

**AC** – Power input wires are interchangeable

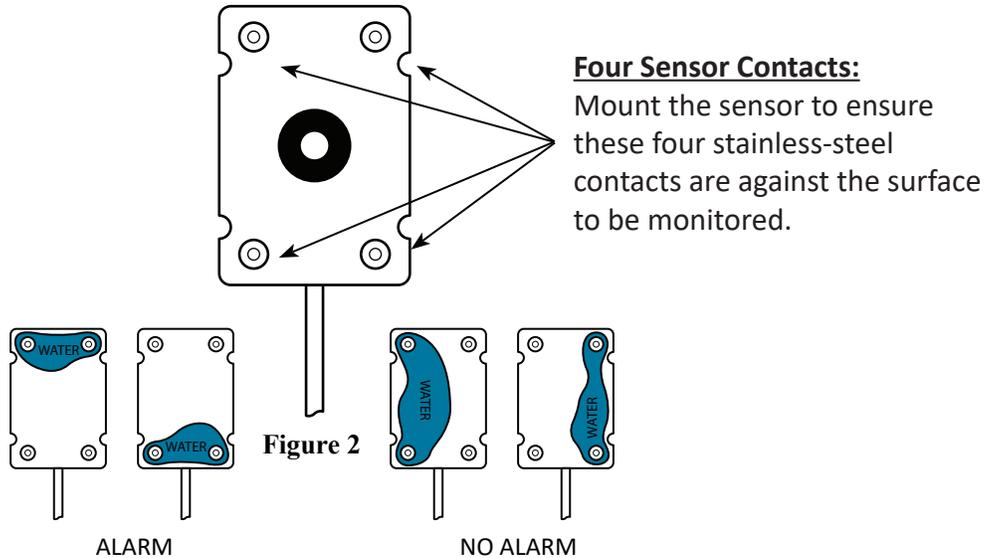
**DC** – Positive to V+ and negative to Ground



**Figure 1**

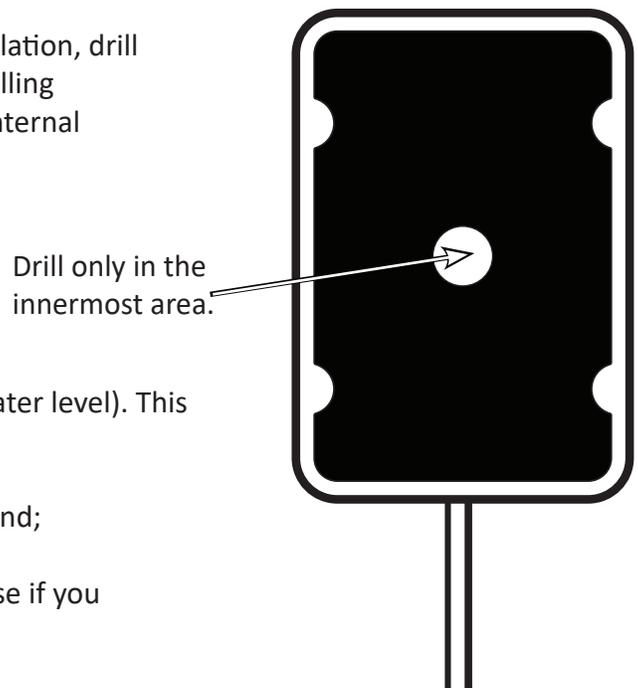
**Test Procedures:**

To test the WB200 operational status, form a water bridge between the two metallic contact points (See Figure 2) with a moistened finger or cloth. If working properly, the WB200 will activate the warning device to which it is connected within approximately three seconds. The WB200 will reset automatically when the sensor dries and there is no longer a water bridge between the two metallic contact points.



**Standard Surface Sensor Unsupervised:**

If a remote sensor is to be bolted down in a permanent installation, drill only in the innermost center recessed area (See Figure 3). Drilling anywhere other than the innermost circle may damage the internal wiring causing the W-S-U to fail.



**Monitoring For the Absence of Water:**

The WB200 can be used to monitor the absence of water (water level). This is done by:

- 1 – mounting the sensor at the desired minimum waterline and;
- 2 – using the opposite set of relay contacts that you would use if you were detecting the presence of water.

**Additional Sensors:**

Multiple sensors must be connected in parallel to the two “sensor” terminals. The WB200 accepts up to six sensors wired per device.

**TEST DEVICE WEEKLY TO ENSURE PROPER OPERATION.**

Concrete can be semi-conductive. If experiencing false alarms, insulate all sensors mounted on concrete.

## WARRANTY AND SERVICE INFORMATION

Winland Electronics, Inc. ("Winland") warrants to the original purchaser from Winland that each product of Winland's that it manufactures shall be free from defects in material and factory workmanship for a period of one (1) year from the date of purchase, when properly installed and operated under normal conditions according to Winland's instruction.

Winland's obligation under this limited warranty is limited to correcting the product without charge, at its factory any part or parts thereof which are returned, transportation charges prepaid, to the factory within one year of the date of purchase subject to Winland's examination showing to Winland's satisfaction to be covered by this warranty.

Product returns will not be accepted unless a Return Material Authorization has been issued by Winland, which is subject to purchaser's identification of the purchase order number and product serial number. UNAUTHORIZED RETURN SHIPMENT OR SHIPMENT CONTRARY TO WINLAND'S WRITTEN INSTRUCTIONS WILL VOID THIS LIMITED WARRANTY. Correction of such defects by repair, replacement, or refund of the amount paid for the product, at Winland's option, shall constitute fulfillment of all Winland's obligations under this limited warranty. Repaired and replacement parts will be warranted for the remainder of the original product warranty. Repairs not covered by this limited warranty may be offered by Winland for a charge.

This limited warranty shall not apply to any of Winland's products which have been subject to misuse, negligence, accident, or which have been repaired or altered outside of Winland's factory.

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