



**WINLAND  
ELECTRONICS, INC.**

# WATERBUG®

**Electronic Water Detection Device**



**WB-350**

## CONTENTS

This package contains:

- 1 WB-350
- 1 Surface Probe - Unsupervised (W-S-U)
- 1 Installation/Operating Instructions Guide

## SPECIFICATIONS

Power Requirement	9VDC via alkaline battery @ 40µA (resting)
Sensitivity	Will not alarm due to high humidity or condensation.
Battery Life	One to two years (not included)
Operating Temp	32° to 140° F (0° to 60° C); non-condensing environment (indoor use only)
Output	Open Collector Transistor Output (Normally Open Circuit Only)
	25mA max collector current
	30 VDC max on trip line
Buzzer (Integrated)	83 dB @ 30 cm @ 9VDC, pulsed
Probe Options	Includes 1 Standard Unsupervised Surface Probe (W-S-U) Accepts up to 6 W-S-U wired in parallel or Accepts up to 6 Unsupervised Under Carpet Probes (W-UC-U) wired in parallel.
Max Cable Length	1-2 probes; max recommended distance of 200' (61 m) 3-6 probes; max recommended distance of 100' (30.5 m)
Probe Cable	Probes include 15" (4.6 m) cable. Extend using 22-18 AWG twisted pair.
Console Weight	14 oz (0.40 kg)
Console Dimensions	5 x 2.44 x 1.25" (12.7 x 6.2 x 3.18 cm)
Probe Dimensions	Surface: 2 x 3 x 0.88" (5.1 x 7.6 x 2.2 cm) Under Carpet: 2 x 3 x 0.18" (5.1 x 7.6 x 0.5 cm)
Mounting	Key slot
Case Material	ABS
Warranty	1 Year Limited

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## INTRODUCTION

Thank you for your purchase of the Winland WaterBug model WB-350. The WaterBug is completely electronic and is designed to detect water only (distilled and deionized water cannot be detected). For proper operation this unit must be used in conjunction with an alarm system, wireless transmitter, etc. It is designed so the control console mounts on a wall or other flat vertical surface and the remote probes are placed in the locations where water leakage is most probable. Up to six remote probes may be connected to one control console. A film of moisture forming a bridge between the two metallic contacts on any remote probe is all that is needed for the unit to signal an alarm condition.

The output on the WB-350 is non-latching, but will remain closed until the moisture bridge is broken. As sensitive as the WaterBug® is, it will not alarm due to high humidity or condensation. The WaterBug® is ideal for use in homes, offices, computer rooms, boats, etc. Several consoles may be wired together to monitor an entire complex.

**LOW BATTERY INDICATION:** The WB-350 will trip the open collector output and give an audible warning if battery voltage runs low.

## INSTALLATION

Locate the area where the WaterBug® console is to be mounted. Mark the position of the screw hole on the mounting surface. Drive the mounting screw into the wall allowing 3/16" between the screw head and the wall. Engage the key slot on the back of the console and the screw head and press down.

Multiple probes must be hooked up in parallel to terminals S and S. See Figure 1. The remote surface probes may be mounted securely to the floor or a wall. See Figure 2 and Figure 3.

Mounting the probe(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.

**Note:** WB-350 is equipped with an onboard buzzer for local annunciation and low battery warning.

## TERMINAL BLOCK CONNECTIONS

The WB-350 is powered by one 9-volt alkaline battery. To install the battery, loosen and remove the four corner screws. Insert the new battery and retighten the four corner screws. The WB-350 can be used in conjunction with virtually any type of wireless transmitter if any one of the remote probes detects water. When connecting the unit to a wireless transmitter, wire the N.O. terminal and C terminals to the input of the wireless transmitter. If your initial wiring activates the wireless transmitter when no moisture is present, reverse the leads on N.O. and C on the unit.

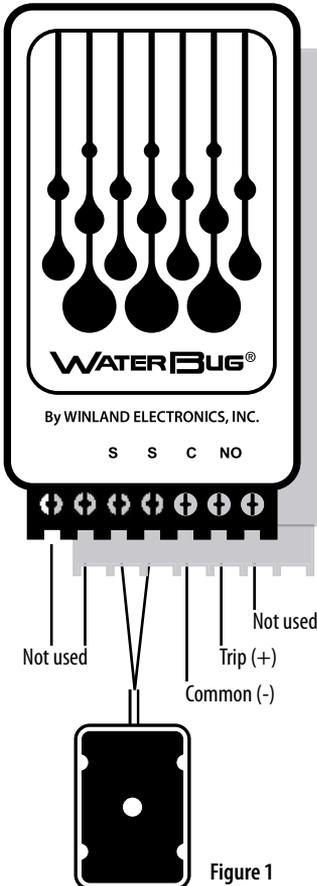


Figure 1

## TEST PROCEDURES

To test the unit's 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 console will give an audible warning and activate a connected warning device within approximately three seconds. The unit will reset automatically when the probe dries and there is no longer a water bridge between the two metallic contact points.

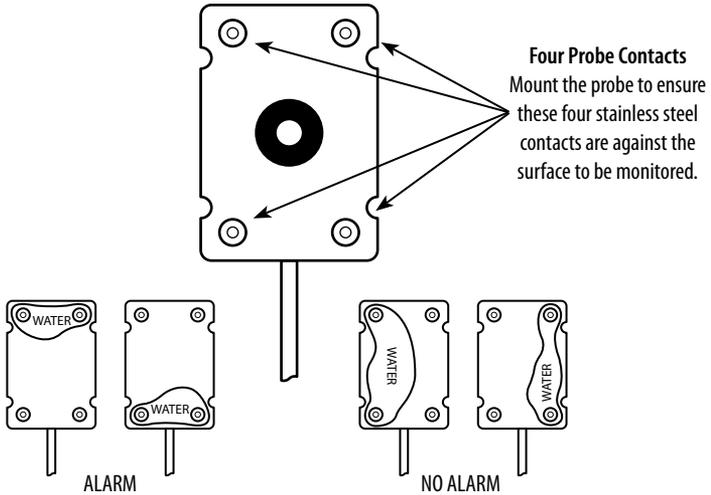


Figure 2

## Standard Surface Probe

If a remote probe 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 to the internal wiring may occur, causing the unit to fail.

## MONITORING FOR THE ABSENCE OF WATER

The WaterBug® model WB-350 should not be used to monitor for the absence of water as doing so will significantly reduce battery life.

**Note:** Use the WB-200 (hardwire version) when monitoring for the absence of water.

Drill only in the innermost area.

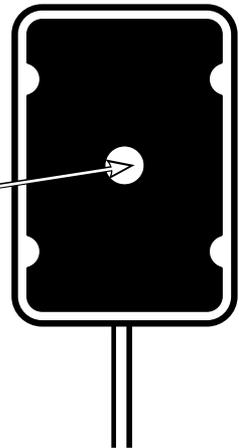


Figure 3

To insure proper operation, test weekly.

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

## PRODUCT AND ACCESSORY GUIDE



EA200-12  
EA200-24



EA400-12  
EA400-24



EA800  
EA800-ip



WB-200



WB-350



WB-800



W-S-S

W-S-S

W-S-S

W-S-S



W-UC-S

W-UC-S

W-UC-S

W-UC-S



W-S-U

W-S-U

W-S-U



W-UC-U

W-UC-U

W-UC-U

### W-S-S (Water Probe, Surface, Supervised) and W-UC-S (Water Probe, Under Carpet, Supervised)

The supervised surface probe can be connected to the EnviroAlert products as well as the WB-800. The alarm will be activated if water is present as well as if the cable is cut.

### W-S-U (Water Probe, Surface, Unsupervised) and W-UC-U (Water Probe, Under Carpet, Unsupervised)

The standard surface probe is unsupervised and can be connected to the full line of WaterBug products. No alarm will sound if the cable is cut.

## ONE YEAR LIMITED WARRANTY

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

Winland's obligation under this warranty is limited to correcting, without charge, at its factory any part or parts thereof which shall be returned to the factory, by the original purchaser, transportation charges prepaid, within one year of the date of purchase and which upon examination, shall disclose to Winland's satisfaction to have been originally defective. Correction of such defects by repair to, or supplying replacements for, defective parts shall constitute fulfillment of all Winland's obligations to purchaser under this limited warranty. Repair service performed by Winland after one year from date of purchase will be for a reasonable service charge.

This limited warranty shall not apply to any of Winland's products which have been subject to misuse, negligence or accident or which have been repaired or altered outside of Winland's factory. The warranty is void if the Product's housing or cover is removed.

Winland shall not be liable for loss, damage or expense resulting, directly or indirectly, from the use of its products or any other cause.

This warranty shall be null and void in its entirety if: (i) the product is altered or modified in any way that is not consistent with the manufacturer's instructions, or (ii) the product is used with or connected to a device: (a) that such product is not intended to be used with or connected to, (b) is not otherwise consistent with the manufacturer's instructions, or (c) is not otherwise approved by the manufacturer.

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