

Standalone WaterAlert™ Quick Start Guide

EtherBridge™ Gateway

1. Plug the 12" long supplied Ethernet cable into the Ethernet port on the EtherBridge.
2. Plug the other end of the Ethernet cable into available 10/100 port on hub or router.
3. Plug the USB cable into the supplied 115VAC power supply or any nearby USB port.
4. The Wireless range between the gateway and any WaterAlert will normally support a three bedroom home. However there could be dead zones and the WaterAlert or EtherBridge Gateway will need to be repositioned, and possibly moved closer to each other.



Troubleshooting:

- Make sure the Ethernet cable is fully plugged in. A clicking sound should occur.
- Once power has been applied the Yellow and Green Ethernet LED's should blink then both go off.
- Once configured use the button on the Configuration; Periodic Status Report page to validate system status. See section on **EtherBridge Installation**.
- If the web page doesn't show up immediately, your router may take some time to register the name (usually 15min). If you're savvy enough, you can check your router for the new DHCP IP address.

WaterAlert Battery Installation

1. Remove the battery compartment cover from the back of the device and extend the wires and connector out from the inside.
2. Install the supplied 9V battery into the battery connector, then place the battery and wires into the compartment and replace the cover.



Pairing

1. The EtherBridge is configured through a web browser. Use a web browser to open <http://ebxxxxx/>. This is not case sensitive. The xxxxxx represents the number listed on the back of the EtherBridge.
2. Once the home page has loaded, press the button on the left side of the screen.
3. Use one of the following two options to place the WaterAlert into *pairing mode*, which will last for 30 seconds:



- A. Set off an alert. Press a **moist** finger on each of the sensor contacts on the bottom of the device, **for 2 seconds**, to put it into pairing mode. **WARNING: Pressing a finger on the sensor contacts will activate the alarm, producing a loud 85dB sound. Cover your ears or place the WaterAlert face down on a table or floor to muffle the sound.**

or

- B. Remove the battery connector from the battery for **at least 20 seconds** then replace it.

Once in pairing mode, press the button on the web page which will pair the WaterAlert to the EtherBridge. Once paired the WaterAlert will be added to the list of WaterAlerts on the Configuration page.

Configuration: EtherBridge Location

- The Location can be set to any ASCII text string up to 30 characters. Press the button to save the entry.

Configuration: Email & MMS

- This page allows the entry of an Email or MMS Email Address in order to receive the alert and the Periodic Status Report. Enter a valid Email address, up to 80 characters, and press Apply to receive alerts. If the Periodic Status Report is desired for this address select the PSR check box and press the button.
- MMS Email Addresses can be used to receive text alerts on your phone. This is usually your "phone number @ your carriers url". This can be found by a web search "carrier name Email to mms" or by contacting your carrier.

Note: See a Partial Carrier List at the end of this Document.

The screenshot shows the WaterAlert Configuration page. On the left, there are navigation buttons for Home, Config, and Admin. The main content area is titled "Configuration" and has tabs for Home, Email & MMS, and Periodic Status Report. The "EtherBridge" section shows the location set to "myHome" with an "Apply" button. Below that is a "WaterAlerts" table with columns for Bat, BtAddr, and Location. The table contains four entries: #1 (green battery icon, 95, ECFE7E1424DA, Kitchen Sink), #2 (red battery icon, 99, ECFE7E112113, Bathroom), #3 (grey battery icon, empty), and #4 (grey battery icon, empty). There are "Find" and "Apply" buttons at the bottom of the table. A note explains how to find and add a WaterAlert, and a warning states: "WARNING: Pressing a finger on the sensor contacts will activate the alarm, producing a loud 85dB sound. Cover your ears or place the WaterAlert face down on a table or floor to muffle the sound."

The screenshot shows the WaterAlert Configuration page with the "Email & MMS" tab selected. The main content area is titled "Configuration" and has tabs for Home, Email & MMS, Periodic Status Report, and SMTP Relay. The "Email and MMS Email Addresses" section has a sub-header "Email and MMS Email Addresses" and a note: "Water detection and low battery alerts will be immediately sent to the following email addresses:". Below this is a table with columns for "Email/MMS Address" and "PSR". The table contains four entries: #1 (123@abc.com, checked), #2 (empty, unchecked), #3 (empty, unchecked), and #4 (empty, unchecked). There is a "Save Changes" button at the bottom of the table. A note states: "Enter an Email or MMS Email Address, if needed select the PSR, and press the Save Changes Button." Another note explains: "PSR = Alerts will be sent to all addresses. Enable the PSR for the Periodic Status Report." A final note says: "Note: To receive a text message instead of an email, use your phone carrier's Email to MMS Gateway address. To find your carrier's address, do a search for 'carrier name email to mms'. A Verizon phone number of 1-222-333-4444 would be 1222333444@vzwpx.com. Run a Periodic Status Report test to verify that you can receive messages." At the bottom, there is a copyright notice: "Copyright © 2011 BlueRadios, Inc."

Configuration: Periodic Status Report

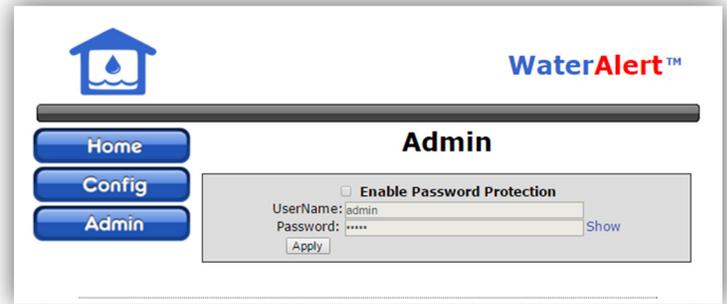
1. The Periodic Status Report for the selected Email or MMS Email Addresses can be reported Never, Daily, Weekly, or Monthly.
2. Select an option and press Apply.
3. The button can be used to validate the selected Email and MMS Email Addresses by sending a test report.
4. Reports and Alerts are sent with a UTC time tag. Where UTC is Coordinated Universal Time. UTC is not affected by Daylight Savings Time and the alerts will be sent out at the end of the day, week or month biased on the calendar and UTC time of ~ 00:00:01, NOT when the EtherBridge Gateway was plugged in. The UTC value can be converted to local time using a site like: http://www.worldtimeserver.com/convert_time_in.UTC.aspx

SMTP Relay

1. The SMTP Relay has two options, one is a factory default which is using www.sendgrid.com. The other is custom and can be any SMTP Relay.
2. All Relays limit the amount of messages that can be forwarded. Some are limited per day others are limited per month.
3. When using a Custom Relay it is best to first make sure it works in non-SSL mode then, if needed, switch over to an SSL connection.
4. We can't guarantee all SMTP Relays will work, however we have tried goDaddy (non-SSL and SSL) and Sendgrid (non-SSL) with success. You may see some formatting issues. Some of these can be solved by changing the settings at the SMTP provider. The EtherBridge SSL only supports up to 1024 encryption and some relays require 2048 when using SSL.

Admin

1. The Admin page allows a user to password protect the EtherBridge's web page. Enable Password Protection and enter a password of up to 20 characters and press the button. If the password is lost a factory reset will need to be performed.



Factory Reset

1. To Factory reset the EtherBridge remove the cover by pressing the two side tabs, and separating the bottom from the top cover (Figure 1). Inside there will be two small buttons, momentarily press the one **closest** to where the **Ethernet cable** is plugged in (Figure 2).



Figure 1



Figure 2

EtherBridge Installation

1. The EtherBridge can be installed where there is access to an Ethernet Hub or Router. Since it makes a wireless connection to the WaterAlert, they will both need to be in the same vicinity.
2. A good way to perform the installation would be to place the EtherBridge and WaterAlert within 5 feet of each other and make sure the system is working by sending out a **Test** Periodic Status Report. Then move the WaterAlert to your desired location and retest sending out the **Test** Periodic Status Report. If this fails or is intermittent move the EtherBridge closer to the WaterAlert.

WaterAlert Installation

1. The WaterAlert can be placed anywhere in the house where water leaks may occur. For example near a toilet, sink, washing machine, dishwasher, refrigerator, water heater or sump pump.

2. The sensor is located on the bottom of the WaterAlert. The WaterAlert can be placed directly on the floor or mounted up to 6 feet off of the ground with the sensor extended down to the floor.
 - The WaterAlert is water resistant, but not waterproof so if it will be installed in a location where it could become submerged it is best to mount the device off of the floor.
 - If the WaterAlert is going to be installed on a concrete floor it's recommended to mount it as high as possible off of the floor for the best wireless performance.
3. To extend the sensor away from the device press the tab on the bottom and pull the sensor out along with the wires.
4. Make sure the sensor contacts sits flat against the floor.
5. Manually activate the alarm after initial installation to confirm you are within range of the wireless Gateway.



System Operation Overview

1. The EtherBridge Gateway is continuously looking for advertisement from any added WaterAlert. The advertisement includes its address, battery level and its current wet or dry state and an alert flag. For normal operation the WaterAlerts will send out the advertisement every 5 minutes for a duration of 10 seconds. However, the WaterAlert upon an alert detected by water or a short of the contacts will send out the advertisement immediately. The alert will cause the EtherBridge Gateway to send a **“WATER DETECTED”** message to each of the Email & MMS listings. If the Email is successful the alert flag will be cleared. If the Email message fails to go out for some reason then that Email will be retried two more times and then it will move on to the next Email/MMS listing. If any of the Emails are successful the alert flag from the WaterAlert will be cleared. If none are successful then the alert flag will not be cleared and the normal 5 minute cycle will show the alert flag and Emails will be sent out again.
2. The Battery level is checked every time the EtherBridge Gateway receives a WaterAlert advertisement. If the level is below 5% a **“BATTERY LEVEL ALERT”** message to each of the Email & MMS listings will be sent out for every 1% decrease since the last reported and Battery Level Alert. So there should be one at 4%, 3%, 2%, and 1%.
3. The Periodic Status Report will be sent out around 00:00:00 UTC. It will contain the WaterAlert's check in success rate for that day, the current status or Dry, Wet, Offline, and the Battery level. The check in success rate will give a good representation of how well the RF is performing in your environment. It will be cleared right after it is reported or any system reset. Pressing the Test button will also clear and reset it.
4. The check in success rate doesn't have to be perfect, since if an alert were to occur the WaterAlert will continuously advertise the event until cleared, and it should be seen by the EtherBridge. It is recommended that a value of 80% or better should suffice.
5. The EtherBridge will ping a list of time servers and if all fail to reply a system reset will be performed. As with any reset this will affect the total max daily number **“Device check in success rate”**.

Cellular Carrier Email-MMS Partial List:

The following is a partial list of Cellular Carrier Email-MMS phone numbers. If possible use the MMS number since it will have a larger text message length.

Note: You may notice some missing text with non MMS numbers. Also, not all of the following have been tested and your results may vary.

Alltel

[10-digit phone number]@message.alltel.com

Example: 1234567890@message.alltel.com

AT&T (formerly Cingular)

[10-digit phone number]@txt.att.net

[10-digit phone number]@mms.att.net (MMS)

[10-digit phone number]@cingularme.com

Example: 1234567890@txt.att.net

Nextel (now Sprint Nextel)

[10-digit telephone number]@messaging.nextel.com

Example: 1234567890@messaging.nextel.com

Sprint PCS (now Sprint Nextel)

[10-digit phone number]@messaging.sprintpcs.com

[10-digit phone number]@pm.sprint.com (MMS)

Example: 1234567890@messaging.sprintpcs.com

T-Mobile

[10-digit phone number]@tmomail.net

Example: 1234567890@tmomail.net

US Cellular

[10-digit phone number]@email.uscc.net (SMS)

[10-digit phone number]@mms.uscc.net (MMS)

Example: 1234567890@email.uscc.net

Verizon

[10-digit phone number]@vtext.com

[10-digit phone number]@vzwpx.com (MMS)

Example: 1234567890@vtext.com

Virgin Mobile USA

[10-digit phone number]@vmobl.com

Example: 1234567890@vmobl.com