



HOBOnode Wireless Frost Alarm System

Quick Start Guide

www.onsetcomp.com

Follow the steps in this Quick Start Guide to setup a HOBOnode Wireless Frost Alarm system. Steps 1-7 should be performed in a lab/office environment to familiarize yourself with the components and perform initial setup before you deploy the system in the field.

IMPORTANT: All HOBOnode devices come with rechargeable alkaline batteries, which **can only be purchased from Onset**. The HOBOnodes and HOBOnode Repeaters (but not the HOBOnode Receiver) can also use standard AAA lithium batteries, which can be purchased from Onset.

See the *HOBOnode Outdoor Wireless System User Guide* at the following location for more details:

<http://www.onsetcomp.com/support/manuals>

Components

The HOBOnode Wireless Frost Alarm System includes:

- 1 HOBOnode Outdoor Receiver (W-RCVR-USB)
- 1 HOBOnode Wireless Temperature Sensor (W-TMB)
- Additional HOBOnodes (W-xxx) (Optional)
- HOBOnode Outdoor Repeater(s) (W-REPEATER) (Optional)

Step 1 - Download the HOBOnode Viewer utility

Download Onset's HOBOnode Viewer Utility software. You also must have Microsoft .NET version 3.5. HOBOnode Viewer and .NET can be downloaded from: http://www.onsetcomp.com/support/software_utilities

Step 2 - Run the HOBOnode Viewer Setup Wizard

Enter information in each window as required and click **Next** to proceed to the next window.

General Information - make sure you select your desired units.

Alarm/E-mail Configuration

In the Recipient Addresses box, enter the email addresses for any accounts that you want to receive alarm notifications. To have a text message sent to your cell phone, enter the email address for your cell phone number.

For a list of email addresses for various cellular providers, see *Appendix 3: Email Configuration* in the *HOBOnode Outdoor Wireless System User's Guide*.

Step 2 - Continued

Configure SMTP Settings so that e-mail can get from your PC to your mail server. If you are within a corporate network, see your Network Administrator for this information.

If you are using a private e-mail, you can get this information from your email provider. See *SMTP Settings* in Appendix 3 of the *HOBOnode Outdoor Wireless System User's Guide* for details.



After you enter all information, click here to send a test e-mail.

Step 3 - Connect HOBOnode Outdoor Receiver

Connect the HOBOnode Outdoor Receiver to the PC. Put the receiver into the base and mount vertically or lay horizontally on a desk. Make sure the antenna is pointing upward. The receiver will automatically connect to HOBOnode Viewer within approximately 1 to 2 minutes and an icon will appear in the Network Tree. Only one HOBOnode Outdoor Receiver can be connected to a single PC.

Step 4 - Set HOBOnode System Network ID

Before you activate HOBOnodes, you must set the HOBOnode Network ID for the HOBOnode Receiver to make your HOBOnode Network unique from any other HOBOnode or wireless networks that may be in the area.

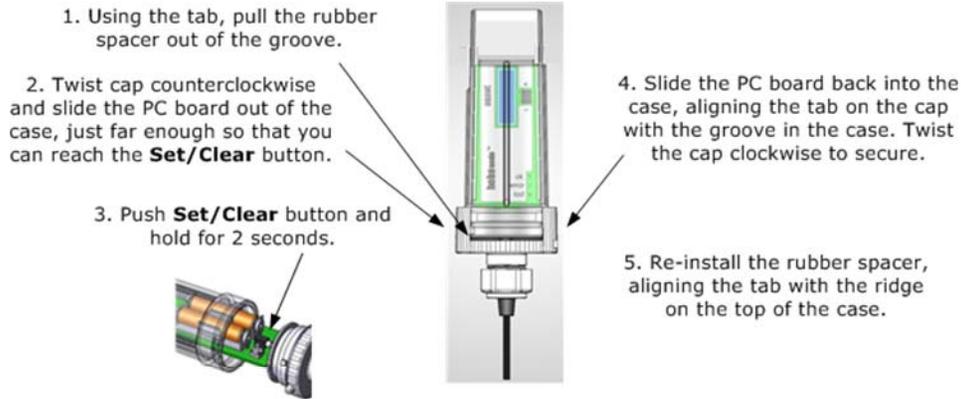
If you are setting up more than one HOBOnode network, use unique RF Channels for each. **NOTE:** This is for your HOBOnode network only and is not related to your corporate network or any other wireless or internet network.

- a. Right-click on the Receiver icon and select **Send Command > Set Network ID**
- b. Select a unique **RF Channel** (11-25) and **Unique ID** (0-4095).

Step 5 - Activate HOBOnode

You must push the **Set/Clear** button on the HOBOnode to activate it. Remove the cap and locate the brown button. Hold it down for 2 seconds. The LEDs will flash briefly to indicate that the HOBOnode is activated.

Activating HOBOnodes



Step 6 - Link HOBOnode to the HOBOnode Receiver

In HOBOnode Viewer, right-click on the Receiver icon and select **Send Command > Start Manual Search**. The receiver will search for any HOBOnodes within its range. The yellow Search LED on the receiver will blink while searching. When the HOBOnode is linked to the receiver, it will appear in the Network Tree.

If you are having trouble linking the HOBOnode to the receiver, try repositioning the HOBOnode.

Step 7 - Configure Alarms

In HOBOnode Viewer, right-click on a node icon, select **Configure Alarms**, and enter values for the alarm.

Set the parameter: *Above, Below, or Outside Range* and enter the values. Enter the Number of Data points. This is the number of consecutive readings that must be outside of the limits for the alarm to be triggered or cleared.

Check the **Email Notification** box if you want to be notified via email when the alarm trips.

Check the **Audible Alarm** box if you want to have an audible sound played through your PC when an alarm is triggered. If your PC does not have a built-in speaker, you must connect external speakers to your PC.

Step 8 - Deploy HOBOnode

To deploy the HOBOnode, attach the mounting bracket to a wall, post, or tree, then insert the HOBOnode into the bracket. Make sure the cable is hanging down and has a drip-loop.

For the fastest response to frost conditions, the sensor should NOT be mounted in a solar radiation shield.

Install the HOBOnode in a location that you expect may be most likely to experience frost first. This may change from day to day depending on factors such as wind direction.

Step 9 - Re-link HOBOnode

When the HOBOnode is deployed, go to HOBOnode Viewer and perform an Auto Search. Verify that the node is linked to the HOBOnode Receiver.

Troubleshooting

If you experience general connection problems, try assigning a different RF Channel to the HOBOnode Receiver, and then reset the HOBOnode(s) so that it re-links to the Receiver with the new Network ID. See the *HOBOnode Outdoor Wireless System User Guide* for information on resetting nodes.

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Onset Computer Corporation could void the user's authority to operate the equipment.

To comply with FCC and Industry Canada RF radiation exposure limits for general population, the HOBOnode Receiver and the HOBOnode Repeaters must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Canada

This device has been designed to operate with the antennas listed below, and having a maximum gain of 15 dBi. Antennas not included in this list or having a gain greater than 15 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

FCC Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Maximum Allowed Antenna Gain

Part	Max Gain
W-RCVR-USB	5 dBi
W-REPEATER	Local Antenna (Omni-Directional): 5 dBi
	Long Distance Antenna (Directional): 15 dBi