

Error Reporting, Troubleshooting and Support

For technical support and troubleshooting tips please contact GreenTech Support email: info@greentechheat.com or 855-484-2847.



PC Required, not included.

iTemp™ Wireless *Express* Sensors & USB Gateway

User's Guide



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GreenTech iTemp™ Express Quick Start

- Download GreenTech iTemp Express Software and assign wireless gateway and sensors.

Install the *iTemp™ Express* USB Gateway

Software

USB Driver Installation

From the downloads page, click on the *USB Gateway Driver* for the correct version of Windows that you are running (32 or 64 bit). The driver file should automatically start downloading. If prompted to save the file, select a location that is easily accessible and click “Save”.

When the file has completed downloading, browse to the folder where the file was saved. Double click the setup file and select “Run”. Select “Next” then follow the on-screen guide to install the drivers.

When the setup has finished, the program will automatically determine which drivers to install for your system and another guide will launch to walk you through the installation of the drivers. Click “Next” to install the drivers.

When the drivers are done installing you will see a success screen. Click “Finish” to exit the installation program.

USB Gateway Application Installation

The USB Gateway Application uses your computers internet connection to pass wireless sensor data to the iTemp online sensor monitoring and notification system. (The online system allows you to view all your sensor data, sensor status’ and configure all sensor parameters as well as setup notifications or alerts via SMS text and email.)

To install the software, click “Support” on the main navigation bar or go to

[https:// www.greentechheat.com](https://www.greentechheat.com) click on the **support tab** and scroll down to iTemp. **Click on the iTemp Express.**

From the downloads page, click on “USB Gateway Installer” to launch the web installer download. If prompted to save the file, select a location that is easily accessible and click “Save”.

When the file has completed downloading, browse to the folder where the file was saved. Double click the “GreenTech ExpressSetup.msi” file, select “Run” when prompted then follow the on-screen instructions to complete the installation.

When installation is complete the program will automatically launch. You can now begin using your wireless sensors online.

Note: The gateway application needs to be running on your computer in order for the sensor data to be transmitted to the online system. If the gateway is not running your sensor data is not being recorded online and notifications based on sensor data cannot be sent from the system.

7. Setup sensor notification(s).

The next screen will allow you to setup notifications for the sensor that was just added to the network. You have the option of using pre-configured notifications based on suggestions from our system, or you can create your own custom notification. If you choose to create your own notification, it will be available for any similar sensors that are added to your account in the future.

Or, create your own custom notification here.

Select any pre-configured notifications you want to use with your sensor.

Notifications

Build your own

[Custom Temperature Notification](#)

Preconfigured options

Low Battery - Temperature - 22854

Inactivity - Temperature - 22854

Add Selected

Custom notifications

To create a custom notification, click on the "Create your own" button. Set your custom notification settings and click "Save".

Set notification settings.

Title: Temperature 22854

Notificator Text: Temperature

Notify when sensor temperature reading is

Less Than 32 degrees Fahrenheit

Alert Between 1:00 AM and 1:00 AM

Don't Alert again for (Snooze) 60 minutes

Notificator is active

Save Cancel

Then click "save".

Records

Wireless Sensor ID:

Sensor Code:

4. Using The GreenTech iTemp™ Express Wireless Sensor System

1. Understanding The Online Interface

When you log into the online system, the default view shows all of your sensors last recorded data.

Menu System

Overview
Notifications
Manage
Reports
Sensor Maps
Support

- Shows all sensors in the account and their last readings.
- Manage sensor notifications and show all sent notifications.
- Manage networks, sensors and gateways.
- Printable account and sensor network reports.
- Visual maps to help you track sensor placement.
- Support information for using sensors and software.

View / Sort Features

This section allows you to sort the sensors being viewed and search for sensors on your account.

Sensor Overview

Displays sensors on your account with their last reading and status information. Clicking on a sensor row expands the “Sensor Detail View” allowing you to view detailed information for the selected sensor.

6. Calibrating Sensor Data

Certain wireless sensors can be calibrated for more accurate readings (ex. temperature sensors). If calibration is possible for a sensor, the “Calibrate” tab will be visible in the detail view. To calibrate a sensor, replace the last reading with the more accurate reading and click “Calibrate”. All future readings from the sensor will be based off the new calibration setting.

7. Manage Sensor Networks

To view or edit information about your wireless sensor network(s), click on “Manage” in the main navigation. This area allows you to edit network details, create new sensor networks, and manage wireless gateways and sensors for your network(s).

Note: Some buttons and features are only visible if there is more than one sensor network setup on the account, such as the network selection box in the upper right corner.

If more than one sensor network is setup on the account, you can easily move gateways and sensors from one network to another by clicking on the “Move Device” button at the far right of the device’s “Status” section.

If you clear a sensor’s data, the data history is deleted from the entire system and can not be recovered. We recommend exporting a sensor’s data history using the export function in the sensor details view (“Overview” page) before clearing the sensor’s data if you want to have a record of the data.

Setting and Editing Notification Settings

People to Notify

Start typing a name into the box and the system will automatically populate the name of a user within your sensor network. If there are already multiple users on the network, a drop down list of names will appear. Select the name of the user for the notification. If the person to be notified does not have an account on the network, you may quick add them by selecting the “Add Recipient” link and entering in their contact information.

Notification Parameters

This area allows the user to set notification parameters such as naming the notification, customizing the notification message and setting sensor conditions that will trigger the notification.

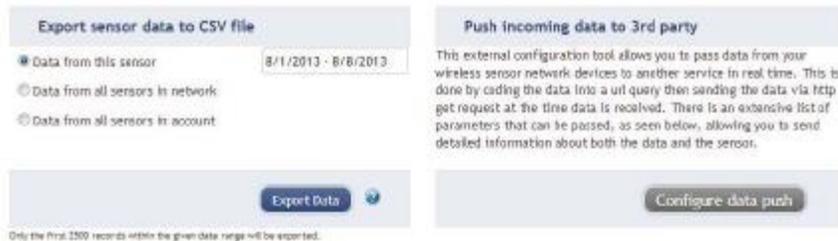
Assigned Devices

Allows you to tell the system which sensor(s) will trigger the notification being created. When a notifications is sent from the system, it will automatically include the sensor name and data that caused the notification to be sent.

A notification can be assigned to multiple sensors. Application specific notifications (ex. Temperature) can only be assigned to sensors of that application type. General notifications such as “battery status”, can be assigned to any or all sensors.

5. Exporting Sensor Data

Clicking on the “Export” tab within the sensor data window allows you to export sensor data to a comma separated value (.csv) file or send the sensor data to an external web source.



To export sensor data you must first select the date range for the data you want to export. Once the date range is selected, determine whether you want sensor data from the selected sensor only, from all sensors in the network or all sensors assigned to the account. When you are finished, click on “Export Data” at the bottom of this window. The data will be exported to a comma separated value (.csv) file format.

Note: Only the first 2,500 records within the selected date range will be exported.

You can alternately send your sensors’ incoming data to a 3rd party by clicking on the “Configure data push” button at the bottom of the window. From this area you can pass data from your wireless sensor network devices to another service in real time. This is done by coding the data into a url query then sending the data via http get request at the time data is received. There is an extensive list of parameters that can be passed, as listed in the viewed window, that allow you to send detailed information about both the data and the sensor.

To the left side of each sensor row is an indicator to help you understand the current status of the sensor.

-  Sensor is checking in and within user defined safe parameters.
-  Sensor has met or exceeded a user defined threshold or triggered event.
-  Sensor has not checked in (inactivity alert sent).
-  No sensor readings since shipping
-  No sensor readings will be recorded (Inactive)
-  Edit your sensor
-  Edit your sensor, however some fields are unavailable until pending transactions have been downloaded to the sensor

Sensor Details View

Clicking on a sensor row on the “Overview” page expands the row to include a detailed sensor view for the selected sensor.

Select a tab to change between:

- Chart* - Displays a graphical view of the selected sensor’s data.
- Notifications* - Allows you to manage notifications for the sensor.
- History* - Displays a history of the selected sensor’s data.
- Export* - Allows you to archive data by exporting as a .csv file.
- Edit* - Allows you to manage sensor settings.
- Calibrate* - Available on certain sensor types to provide more accurate data.

Note: The data shown on the chart, notification, history and export tabs is based on the date range indicated on the upper right side of the sensor detail information. To change the date range, click inside the date box.

2. Chart and History Views.

Clicking on the “Chart” or “History” tabs within the sensor detail panel allows you to view the sensor’s data history in a graphical chart format or as text.



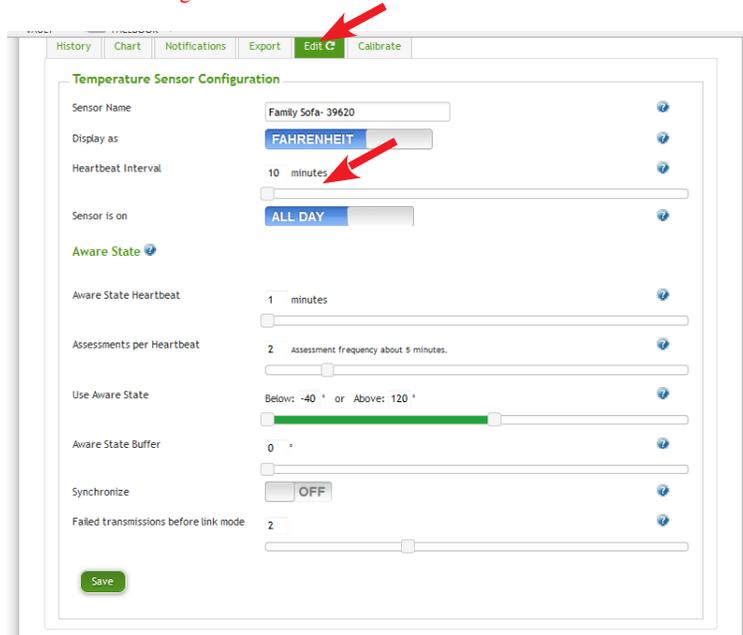


Note: To change the date range of the viewable information, click on the date range box at the top right of the sensor detail panel.

3. Configuring Sensor Settings

To edit a sensor's operation settings, click on the sensor overview row to display the details view. Click on the "Edit" tab to access the sensor configuration panel.

IMPORTANT: The default setting for sensor intervals is 120 minutes. We recommend settings of 10 minute intervals.



The sensor edit panel allows you to set the primary configurations for the sensor. Mousing over the question mark icon by each setting will provide an explanation of that setting. When you have finished making changes, press the "Save" button at the bottom of this section.

Note: Be sure to click the "Save" button anytime you make a change to any of the sensor parameters.

All changes made to the sensor settings will be downloaded to the sensor on the next sensor heartbeat (check-in). Once a change has been made and "Saved," you will not be able to edit that sensor's configurations again until the sensor has downloaded the new setting.

4. Editing and Adding Notifications

Notifications for a single sensor can be created, deleted or edited by clicking the "Notifications" tab in a sensor's detail view.



Notifications can be created, deleted or edited for any sensor or group of sensors by clicking on "Notifications" in the main menu.



The Notification List Window



To create a new notification, click on "Create new notification", then name the notification and select the type of notification you would like to create.

Class of Notification

There are four notification options available when creating a new notification.

- **Application** - Application notifications are sensor specific (i.e. water sensor = trigger alert when water present, temp sensor = trigger alert when temp is above 120F, etc.). If creating an application specific notification, you will need to choose what sensor type you are creating the alert for. The system will automatically populate a list of sensor types that are currently being used within the network. The notification you create will be based on the selected sensor type.
- **Inactivity** - Set-up "Inactivity" notifications to alert you when your sensors have stopped communicating with the servers. Failure to set up an "Inactivity" notification will result in no email/SMS txt being sent should your sensors stop communicating with the servers.
- **Low battery** - Allows users to define a battery power percentage level that will trigger an alert from the system, warning them to replace batteries.
- **Advanced Notifications** - Allows the user to set notifications based on more advanced rules, such as comparing past data points with the current one to determine if the notification should be sent.