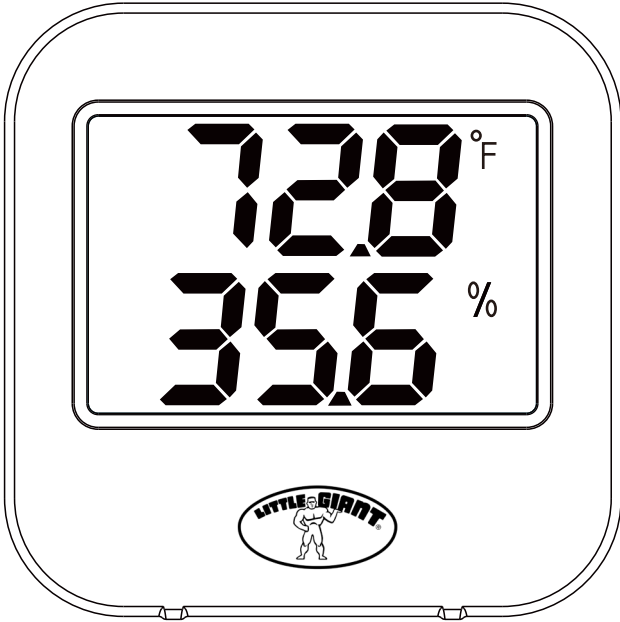




Temperature & Humidity Sensor

LG8003-UC



Installation & User Guide

Revision Aug. 21, 2026

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A Welcome!

Thank you for purchasing Little Giant® products! We appreciate you trusting Little Giant® for your smart farm and ranch automation needs. Your 100% satisfaction is our goal. If you experience any problems with your installation, with our products or if you have any questions that this manual does not answer, please contact us right away. See the Contact Us section for more info.

Thank you!

Miller Manufacturing

User Guide Conventions

The following icons are used in this guide to convey specific types of information:



Very important information
(can save you time!)



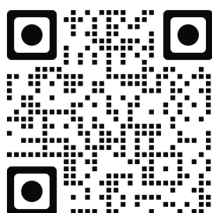
Good to know info but may not
apply to you

B Before You Begin

Visit our Temperature & Humidity Sensor support page on our website, for the latest installation guides, additional resources, information and videos by visiting:

<https://miller-mfg.com/products/temperature-and-humidity-sensor>

Or by scanning the QR code:



B Before You Begin, Continued

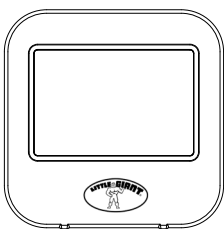


Your Temperature & Humidity Sensor connects to the internet via a Little Giant® hub, and it does **not** connect directly to your Wi-Fi or local network. In order for remote access to the device from the app, and for full functionality, a hub is required. This guide assumes the BARN-IQ™ app has been installed on your smartphone, and a Little Giant® hub is installed and online (or your location, apartment, condo, etcetera, is already served by a Little Giant® wireless network).

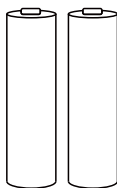


To provide years between battery changes, your sensor refreshes at least once an hour or more frequently if the SET button is pressed or if the temperature or humidity change meets refresh criteria as explained in the user guide.

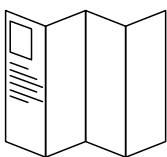
C In the Box



Temperature & Humidity Sensor



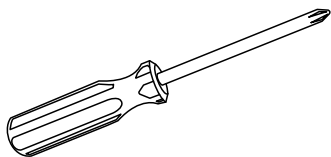
2 x AAA Batteries (Installed)



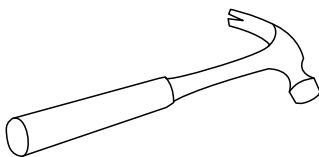
Quick Start Guide

D Required Items

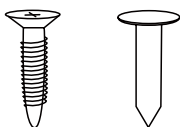
You may require these items:



Small and/or Medium Phillips
Screwdriver



Hammer



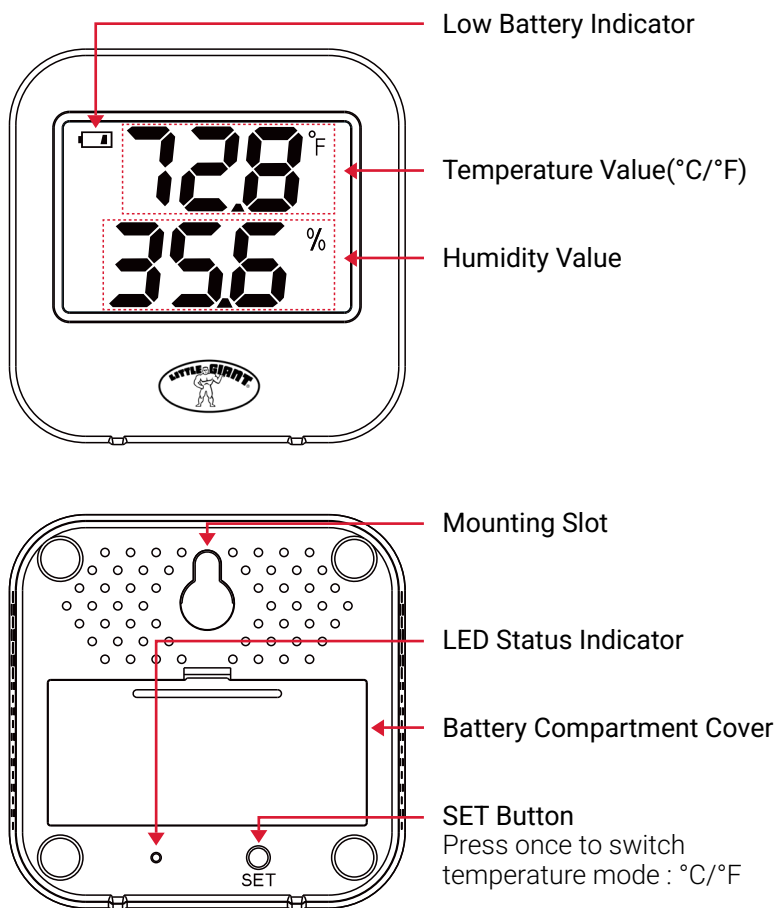
Nail or Self Tapping Screws



Double-sided Mounting Tape or
Velcro®

E

Get to Know Your Sensor



LED Behaviors



Blinking Red Once, then Green Once
Device turned on



Blinking Red And Green Alternately
Restoring to Factory Defaults



Blinking Green Once
Switching temperature mode



Blinking Green
Connecting to Cloud



Slow Blinking Green
Updating



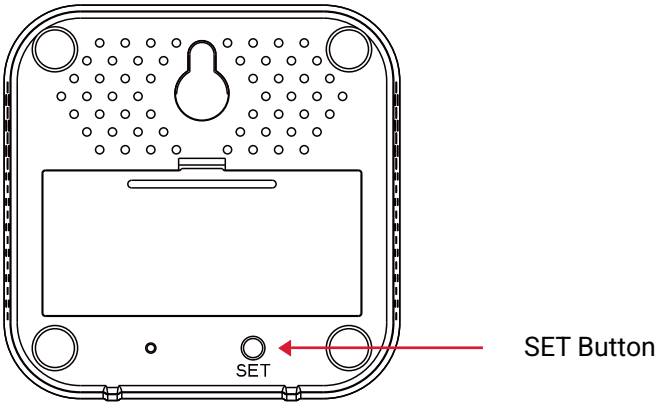
Blinking Red Once
Device alerts



Fast Blinking Red Every 30 Seconds
Batteries are low; please replace the batteries

F Power Up

Turn on the Temperature & Humidity Sensor by briefly pressing the SET button, until you see the LED flash red then green.



G Install the App

If you are new to Little Giant® Sensors, please install the app on your phone or tablet, if you have not already. Otherwise, please proceed to the next section.

Scan the appropriate QR code below or find the “BARN-IQ™ app” on the appropriate app store.



Apple phone/tablet
iOS 9.0 or higher



Android phone/tablet
6.0 or higher

Open the app and tap **Sign up for an account**. You will be required to provide a username and a password. Follow the instructions, to set up a new account. Allow notifications, when prompted.

You will immediately receive a welcome email from no-reply@miller-mfg.com with some helpful information. Please mark the miller-mfg.com domain as safe, to ensure you receive important messages in the future.

Log in to the app using your new username and password.

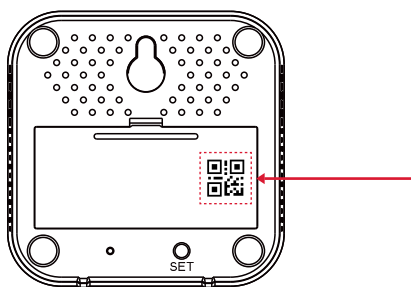
The app opens to the **Favorite** screen. This is where your favorite devices and scenes will be shown. You will be able to organize your devices by location in the **Locations** screen later.

H Add Your Sensor to the App

1. Tap **Add Device** (if shown) or tap the scanner icon:



2. Approve access to your phone's camera, if requested. A viewfinder will be shown on the app.



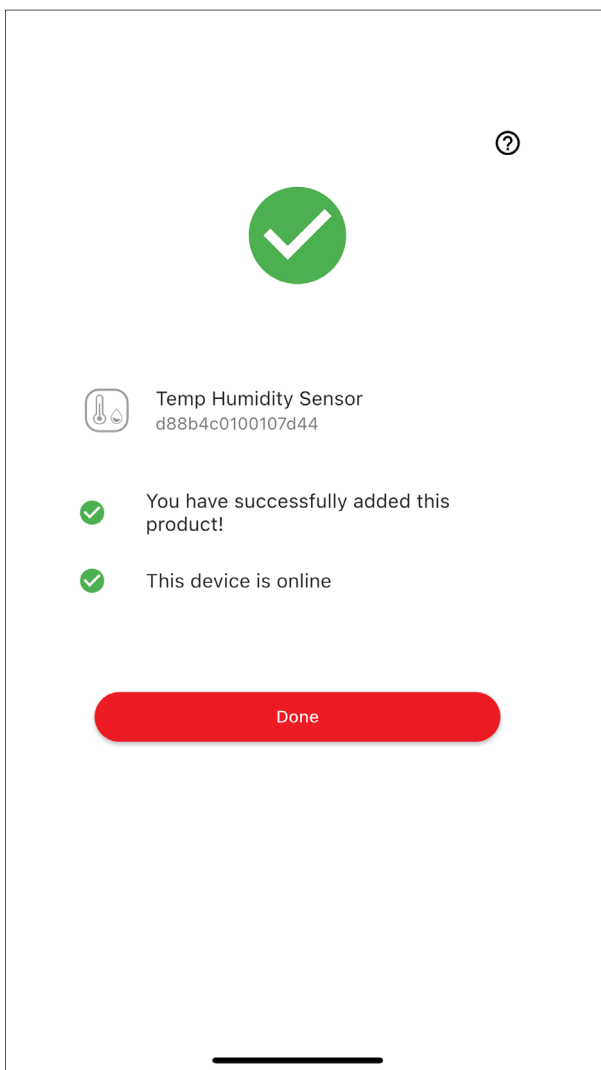
3. Hold the phone over the QR code so that the code appears in the viewfinder. If successful, the **Add Device** screen will be displayed.



Add Your Sensor to the App, Continued

4. You can change the device name and assign it to a room later. Tap **Bind device**.

5. If successful, the screen will appear as shown. Tap **Done**.





Installation

Environment Considerations:

Determine an appropriate location for your sensor.



Please note: The Temperature & Humidity Sensor can be used indoors or in a structured outdoor environment. (such as a coop, barn, beehive, etc.) It is not recommended for use in outdoor environments where it would be exposed to precipitation. Refer to the product support page for the full environmental specifications.

- If you plan to use this sensor in a freezer, ensure the sensor does not get wet during defrosting cycles.



Installation, Continued

Location Considerations:

If placing the sensor on a shelf or countertop, ensure it is a stable surface. If hanging or mounting the sensor on a wall, ensure the mounting method is secure, and the location does not subject the sensor to physical damage. The warranty does not cover physical damage

- ▶ Do not place the sensor where it may get wet
 - Do not place the sensor where it will be
- ▶ subjected to direct sunlight
- Avoid placing the sensor near HVAC grilles
- ▶ or diffusers



Installation, Continued

Install the Sensor.

1. Before installing or placing your sensor, ensure the display mode is correct for your application. To switch between Celsius and Fahrenheit display mode, briefly press the SET button (on the rear of the sensor).

2. If placing the sensor on a shelf or countertop or other stable service, place the sensor where desired, then proceed to proceed to step 5.

3. Before mounting or hanging the sensor on the wall or vertical surface, determine your desired method:

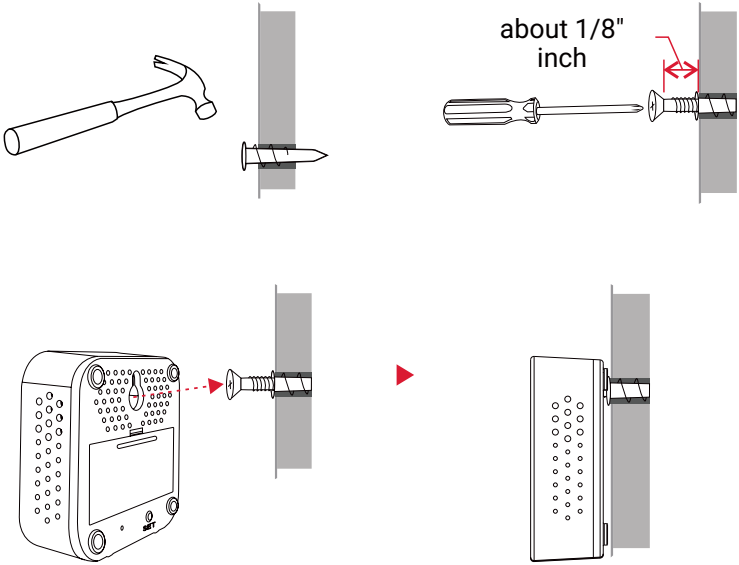
- Hang the sensor from a nail or screw or small hook.
- Hang or mount the sensor by other methods, such as 3M brand Command™ hooks.

Secure the sensor to the wall using

- mounting tape, Velcro® or similar methods. If affixing something to the rear of the sensor, be aware of the impact of covering the SET button or LED, and allow for battery replacement in the future.

I Installation, Continued

4. Mount or hang the sensor on the wall or vertical surface using your desired method. (Insert a screw into the wall, hammer a nail into the wall, etc.)

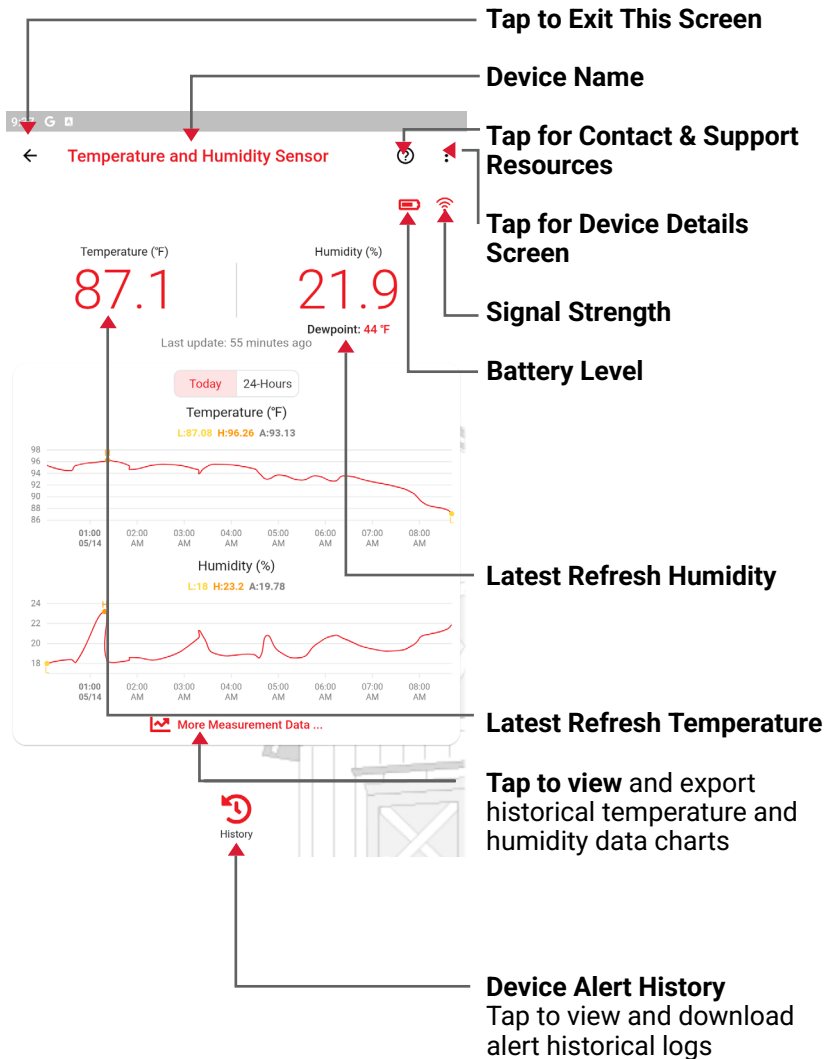


5. Allow your sensor at least one hour to stabilize and report the correct temperature and humidity to the app. Refer to the full installation & user guide for instructions on calibrating your sensor, if it does not appear to indicate the correct temperature and/or humidity.



App Functions: Device Screen

In the app, tap on your Temperature & Humidity Sensor icon. Your Temperature & Humidity Sensor main screen should be similar to the one shown below.





App Functions: Device Details Screen

Tap the three dots (in the upper right corner) to open the Temperature & Humidity Sensor **Details** screen. Your Temperature & Humidity Sensor screen should be similar to the one shown below.

The screenshot shows the 'Details' screen for a 'Temp Humidity Sensor'. The top bar is red with a back arrow, the title 'Details', and a three-dot menu icon. The main content area has a white background with red accents. The status bar at the top shows the time 4:14, signal strength, 5G, and battery level 52%.

Device Type
Temp Humidity Sensor

Device Name
(Tap to Edit)
Temp Humidity Sensor >

Location
(Tap to Edit)
Not Set >

Alert
Tap to edit Alert Settings (see Alert Settings Screen)

Calibration
Tap to calibrate the sensor (see page 22)
Device parameter calibration >

Favorite
(Red if Favorite, Tap to Edit)
Will show in favorite screen >

History
Tap to view device history
Get device activity logs >

Historical Measurement Data
Retrieve historical measurement data of the device >

State
General status of the device (Normal, Offline, Warning, etc.)
Normal

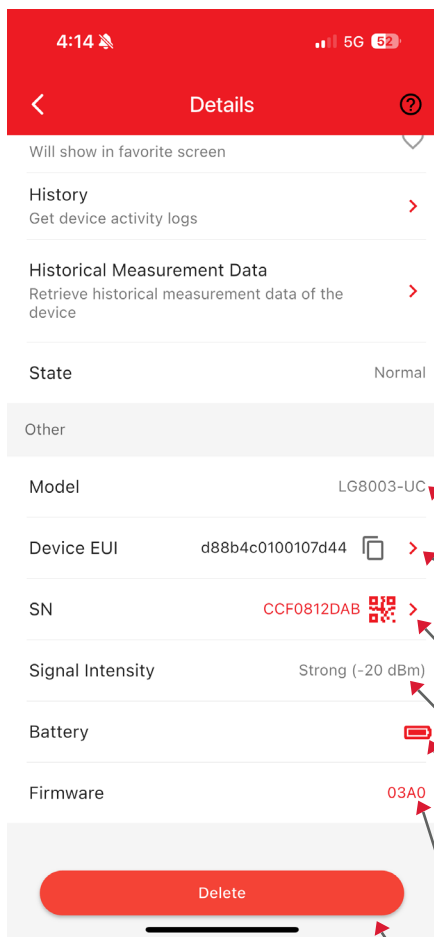
Other

Model
LG8003-UC

Device EUI
d88b4c0100107d44 >



App Functions: Device Details Screen, Continued



Model Number

Device EUI
Unique Identifier Number

Device Serial Number

Signal Intensity
(From Little Giant® Hub)

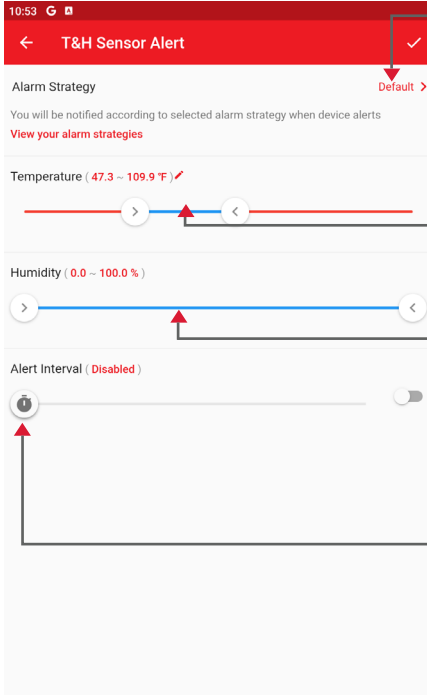
Battery Level Indicator
If red, batteries are low; replace batteries soon.

Firmware Revision
(Refer to page 34)

Remove Device From Current Account
Tap to delete the device from your Little Giant® account



App Functions: Alert Settings Screen



Alarm Strategy

Tap to edit the sensor's Alarm Strategy

Tap here to open the digital temperature alert settings

Tap the slider control and adjust the high or low alert value. The "normal" range will be displayed in blue text as a low alert value, to the high alert value.

Alert interval

Choose how often you want to be reminded after an alert.



App Functions: Chart Screen

9:59

← Brooder Temperature

Real-Time

Hourly

4/9 12:00 AM ~ 4/15 11:59 PM



Temperature (°F)

L:76.46 H:98.42 A:88.94



Humidity (%)

L:27.4 H:66.9 A:50.16



↓ Export

Tap to select real-time or hourly data

Tap to select time range

Tap to export data



App Functions: Alarm Strategy Screen

You can set up notifications in Alarm Strategy settings, make sure you have enabled App and email notification from the app->Menu->Settings->Account Settings->Advanced Settings, and verified your email address in the app.

The screenshot shows the 'Alarm Strategy' settings screen. The top bar is red with a back arrow and the title 'Alarm Strategy'. Below the title bar, there are several sections: 'Name' with a red question mark icon; 'Related Devices' with a red arrow icon; 'Enable Device Alarm' with a red bell icon and a toggle switch; 'Do Not Disturb' with a red moon icon and a toggle switch; 'Alarm Latch' with a red padlock icon and a dropdown menu; 'Send App Notification' with a red phone icon and a dropdown menu; 'Send Email' with a red envelope icon and a dropdown menu; and 'Trigger Action' with a red bell icon and a dropdown menu. A red 'Save' button is at the bottom. Annotations with arrows point to specific elements: 'Strategy Name' points to the red question mark icon; 'Related Devices' points to the red arrow icon; 'Tap to enable or disable the strategy' points to the 'Enable Device Alarm' toggle switch; 'Tap to set up DND (Do Not Disturb)' points to the 'Do Not Disturb' toggle switch; and 'Disabled' points to the 'Alarm Latch' dropdown menu.

Strategy Name
Tap to edit the name

Related Devices
Tap to add more devices (that can alert) to this strategy, a device can be related to only one strategy

Tap to enable or disable the strategy

Tap to set up DND (Do Not Disturb)

Disabled



App Functions: Alarm Strategy Screen

The screenshot shows the 'Alarm Strategy' configuration screen. At the top is a red header with a back arrow, the title 'Alarm Strategy', and a help icon. Below the header are several sections: 'Name' with a value of 'Always' and a chevron; 'Related Devices' with a value of '1' and a chevron; 'Enable Device Alarm' with a red bell icon and a toggle switch; 'Do Not Disturb' with a toggle switch; 'Alarm Latch' with a red padlock icon, the text 'Disabled', and a dropdown arrow; 'Send App Notification' with a red smartphone icon, the text 'Admin', and a dropdown arrow; 'Send Email' with an envelope icon, the text 'None', and a dropdown arrow; and 'Trigger Action' with a bell icon and the text 'Have not set any action' and a dropdown arrow. At the bottom is a large red 'Save' button. Annotations with arrows point from text boxes on the right to the 'Send App Notification' dropdown, the 'Send Email' dropdown, and the 'Trigger Action' dropdown.

Send App Notification

Tap to select Admin to enable App push, select All, if desired for all members

Notification Settings (iOS only)

Tap to change notification tone, if desired

Send Email

Tap to select Admin to enable email notification, select All, if desired to send to all members

Trigger Action

Tap to choose trigger scene



App Functions: Automation

The Temperature & Humidity Sensor can be set up as a condition in an automation. For example, you can automatically turn on a fan if the sensor detects a high temperature. This example is shown below. The automation also sends a custom notification (via app push notification and/or email) reminding you the sensor detects high or low temperature or humidity.

3:50 G A

← Automation ✓

Name

High temp turn on fan

21/64

When

Temp Humidity Sensor

High temperature alert

+

Add More Conditions

Then

Behavior

Outdoor Energy Plug

Turn ON

Working Time

Always Working

Advanced Settings

▼

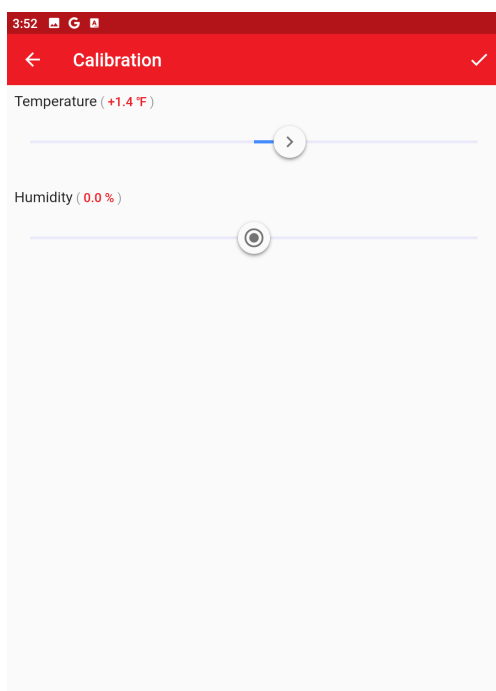
Sensor Calibration

Your Temperature & Humidity Sensor has a high-accuracy digital sensor that has been calibrated at the time of manufacture. Your sensor readings should always be accurate, but if you believe the sensor is not accurate and/or if you have a thermometer or trusted sensor, etc. that displays a different reading, you can adjust the humidity and temperature readings with a plus or minus offset of your choice. For example, if a calibrated or trusted thermometer reads 0.5 degrees higher than your sensor, you can adjust, or calibrate, the sensor reading to be 0.5 degrees higher than it normally displays.

P Sensor Calibration, Continued

How to Calibrate Your Sensor:

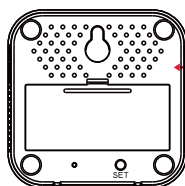
1. Open the sensor's **Details** screen and tap Calibration.
2. The Calibration screen is displayed, as shown below. To calibrate the temperature or humidity, tap and hold the associated slider bar control, then slide the control to the right, for a positive offset, or to the left, for a negative offset. The offset will be displayed with a "+" or "-" number. For example, to adjust the humidity plus 1.5 percent, tap and hold the Humidity control, and slide it slowly to the right, until "+1.5%" is displayed.



3. Tap the checkmark, to save your settings.

Q Sensor Refresh Frequency

Both temperature and humidity values refresh when one of the following conditions are met:



SET Button

a. The SET button has been pressed

b.

- When temp is over 32°F(0°C), at least 0.9°F (0.5°C) change over a period longer than 1 minute;
- When temp is between 14°F(-10°C) and 32°F(0°C), at least 2.7°F (1.5°C) change over a period longer than 1 minute;
- When temp is between 5°F(-15°C) and 14°F(-10°C), at least 3.6°F (2°C) change over a period longer than 1 minute;
- When temp is below 5°F(-15°C), at least 9°F (5°C) change over a period longer than 1 minute.



N

Sensor Refresh Frequency, Continued



c. At least 3.6°F (2°C)
change within 1 minute



d. At least 5% change
over a period longer
than 1 minute

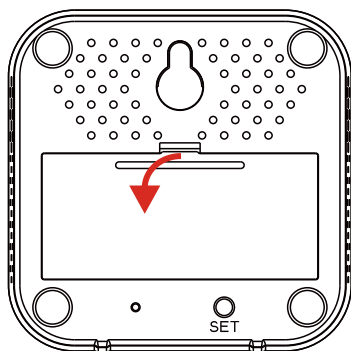


e. Device alert level
reached or restored to
normal range

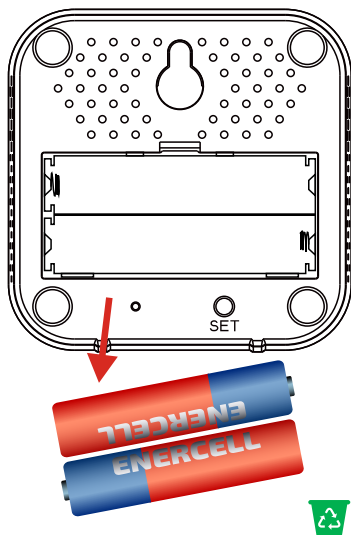
f. Otherwise, the values
will be refreshed
automatically once an
hour

R Battery Replacement

- 1 Remove the battery cover by gently prying with your fingertip or tool at the edge as shown

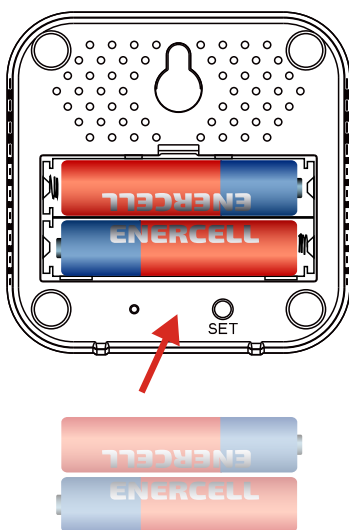


- 2 Remove the old batteries

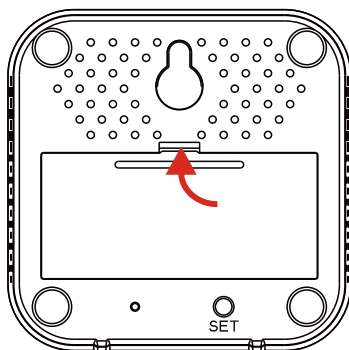


R Battery Replacement, Continued

- 3 Install two new alkaline non-rechargeable AAA batteries



- 4 Close the battery cover





Specifications

Voltage:	3V DC (2-Alkaline Non-Rechargeable AAA batteries)
Device Current Draw:	$\leq 135\text{mA}$ (operating), $\leq 40\mu\text{A}$ (standby)
Sensor Types:	Temperature, Humidity
Temperature Value Accuracy:	0.1 ($^{\circ}\text{F}/^{\circ}\text{C}$)
Humidity Value Accuracy:	0.1%
Dimensions, Imperial (L x W x D):	2.44 x 2.44 x 0.93 inches
Dimensions, Metric (L x W x D):	62 x 62 x 23.5 mm
Temperature Error (Typical):	$\pm 0.3^{\circ}\text{C}$ ($\pm 0.54^{\circ}\text{F}$)

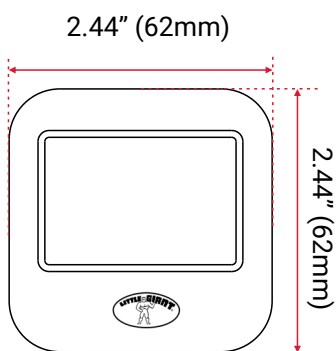


Specifications, Continued

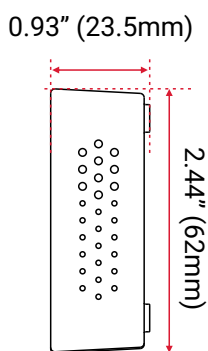
Humidity Error (Typical, @77°F (@25°C)):	10% - 90%, $\pm 2\%$ 0%-10% / 90%-100%, $\pm 3\%$
---	---

Environment:	Working Temperature: 14°F - 122°F (-10°C - 50°C) Working Humidity: $\leq 95\%$ (non-condensing)
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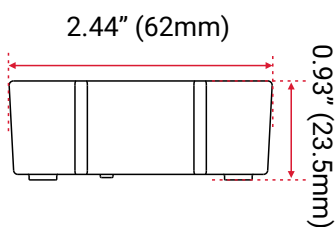
S Specifications, Continued



FRONT



SIDE

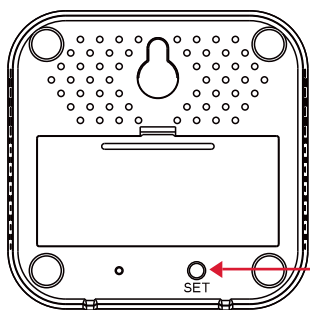


TOP

T Factory Reset

When directed by customer support, and/or as an attempt to resolve a problem with your Temperature & Humidity Sensor, it may be necessary to perform a factory reset. Factory resetting your sensor returns it to the factory default programming and settings. This is a simple process:

Hold the SET Button for 20 to 30 seconds, until the LED blinks red and green alternately, then release the button.



SET Button
Press for 20 to 30 Seconds

Factory reset is complete when the LED stops flashing.



Only deleting a device from the app will remove it from your account



Firmware Updates

Your Little Giant® products are frequently being improved, with new features and functions added over time. It is periodically necessary to make changes to your device firmware. For optimal performance of your device, and to give you access to any improvements made to your device model, these firmware updates should be installed (added to your device) when they become available.

In the **Details** screen of your device, you will see the Firmware section, as shown in the image below. A firmware update is available if it says “#### ready now” (where #### is a four-digit combination of letters and/or numbers).

Other	
Model	YS1603-UC
Device EUI	d88b4c160301c746  >
SN	5707DC86F2  >
Firmware	0356 0359 ready now.



Firmware Updates, Continued

Firmware is like settings in your sensor that define the overall operations of the sensor. These settings are added to the sensor when it is manufactured, and they are periodically updated, as needed, to add improvements, new features, new integrations, etc, to your sensor, as they become available.

Tap in the Firmware area to start the update. The sensor will update automatically, indicating the progress by percentage-complete. You may use your sensor during the update process, as the update is performed “in the background”. You may see the LED slowly blink green during the update, and the update may continue for several minutes beyond the LED turning off.



If you experience incomplete firmware updates, please update only one device at a time. If this does not resolve the problem, please contact our customer support department!

Troubleshooting

Problem:

Sensor is offline or has a low signal status.

Possible Solution:

a) Signal strength for the sensor is too low at that location. Move the sensor closer to the hub, relocate the hub closer to the sensor (if possible), or add another hub (to extend the signal range).

b) If offline, confirm the hub is powered on and connected to the internet. Otherwise, move sensor and/or hub or add a hub.

Problem:

Sensor displays temperature in F when C is needed or vice versa.

Solution:

Press the SET button briefly to toggle the display mode between C and F.

V Troubleshooting, Continued

Problem:

Sensor temperature or humidity is not accurate, compared to another sensor.

Possible Solution:

Your Temperature & Humidity Sensor does have a Calibration feature, that allows for adjusting the displayed temperature or humidity, to match that of a trusted temperature or humidity measuring device or method. See the Calibration section on page 22.

If this does not resolve the issue, please contact our customer support department (see the contact info on the last page of this guide).



We recommend checking for and performing any available firmware updates before contacting customer support. See Firmware Updates, page 34.

Warnings

Please install, operate and maintain the Temperature & Humidity Sensor only as outlined in this manual. Improper use may damage the unit and/or void the warranty.

Use only new, name brand, lithium non-rechargeable AAA batteries.

Do not use rechargeable batteries.

Do not use zinc blend batteries.

Do not mix new and old batteries.

Do not puncture or damage batteries. Leakage can cause harm on skin contact, and is toxic if ingested.

Do not dispose of batteries in fire as they may explode! Please follow local battery disposal procedures.

To avoid damaging the device, if storing the device for an extended period, remove the batteries.

Refer to Specifications (page 28) for the device environmental limitations.

Do not obstruct the openings on the housing, as they are used for temperature and humidity sensing.

Do not install or use this device where it will be subjected to high temperatures and/or open flame.

Warnings, Continued

The Temperature & Humidity Sensor can be used indoors or in a structured outdoor environment. (such as a coop, barn, beehive, etc.)

It is not recommended for use in outdoor environments where it would be exposed to precipitation.

If you plan to use this sensor in a freezer, ensure the sensor does not get wet during defrosting cycles.

- Subjecting this device to more extreme outdoor environment conditions such as direct sunlight, extreme hot or cold temperatures, rain, water, and/or excessive condensation can damage the device.

If your Temperature & Humidity Sensor does get dirty, please clean it by wiping it down with a clean, dry cloth.

Do not use strong chemicals or detergents, which may discolor or damage the exterior and/or damage the electronics, voiding the warranty.

Do not install or use this device where it will be subjected to physical impacts and/or strong vibration. Physical damage is not covered by the warranty.

Please contact Customer Service before attempting to repair disassemble or modify the device, any of which can void the warranty and permanently damage the device.

Warranty

We We offer a 1 year manufacturing defect warranty for all Little Giant® smart products. You must have proof of purchase in order to begin the process. This warranty does not apply to damage caused by misuse or neglect in the field, failure to follow installation instructions, or damage due to normal wear and tear.

In the event a product needs to be returned for a warranty claim, all returns require a, RMA # (Return Material Authorization). Contact Customer Service at 800-260-0888 for the RMA number before returning the item(s) to our facility.

Visit our product warranties page on our website for our full warranty information:

<https://miller-mfg.com/pages/product-warranties>

or by scanning the QR code:



1. Enclose a note with the product that includes your full name, full address, and phone number. In addition, the provided RMA # and possible problem.

2. Enclose proof of purchase receipt

3. Send the product and above information to:
Miller Mfg. Co., Attn: Repairs, 1450 West 13th
Street, Glencoe, MN 55336 Or call **800-260-0888**
For additional details on our warranty policy,
please visit our website Product Warranties
| Miller Manufacturing Company.

Y FCC Statement

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. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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 or more 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.



FCC Statement, Continued

- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

PRODUCT NAME:
TEMPERATURE & HUMIDITY SENSOR

PARTY:
MILLER MANUFACTURING

TELEPHONE:
800-260-0888

MODEL NUMBER:
LG8003-UC

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Z Contact Us

We are here for you, if you ever need any assistance installing, setting up or using the BARN-IQ™ app or Little Giant® Sensors!

Need help? For fastest service, please email us 24/7 at **customerservice@miller-mfg.com**

Or call us at **800-260-0888**,
Monday - Friday 7:00 AM to 5:00 PM CT.

You can also find additional support and ways to contact us at:
www.miller-mfg.com

Or scan the QR code:



Support Home Page

Finally, if you have any feedback or suggestions for us, please email us at **customerservice@miller-mfg.com**

Thank you for trusting Little Giant®



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