

Temperature & RH logger

bun
hygro

user manual



Introduction

“bun hygro” or simply “bun” is a temperature and relative humidity (RH) recorder and alarm system, which measures temperature and RH in desired intervals and uploads the readings to a web-based application via your home or office Wi-Fi. It is powered by an internal ultralong-life battery (up to 25 years). Recording intervals can be flexibly adjusted from 1 minute to 2 hours, and upload intervals can vary from every minute to once a week. As an alarm system, “bun” immediately uploads the records if the measured values exceed or fall below the user-defined limits, and then then notifies the user via e-mail and SMS

“bun” can store over 16,300 records on its internal memory, and syncs them via Wi-Fi to a cloud-based application named LoggerMaster. You can easily adjust measurement and recording intervals through LoggerMaster. Please visit <https://www.loggermaster.com>.

Package contents (figure 1)

- A) “bun hygro” device (1 piece)
- B) One (1) piece of ring magnet

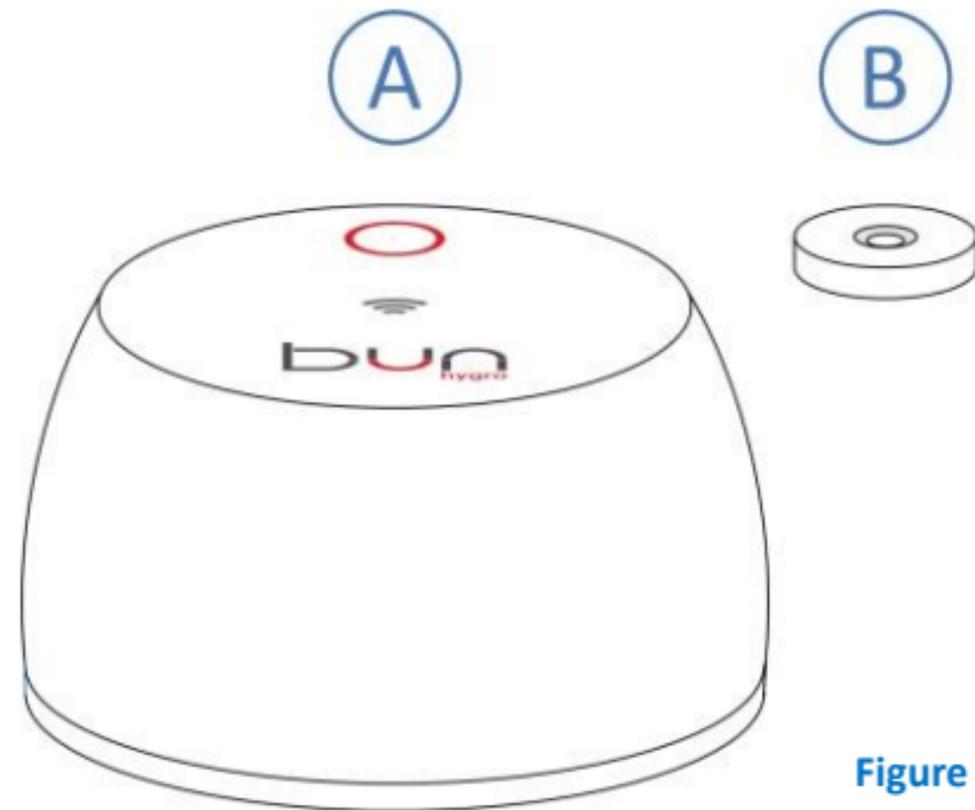


Figure 1

Product's technical specifications

Temperature measurement range:

- 40 ~ + 55 °C (internal sensor)
- 40 ~ + 130 °F
- 40 ~ + 125 °C (external sensor)
- 40 ~ + 225 °F

Measurement resolution: ± 0.3

Working temperature:

- 40 ~ + 70 °C
- 40 ~ + 130 °F

Temperature measurement accuracy:

- >5 °C = ± 0.3 °C
- <5 °C max. = ± 1 °C
- >40 °F = ± 0.55 °F
- <40 °C max. = ± 1.8 °F

Min. reading interval: 60 seconds

Working RH:

- 0 ~ 100 %

RH measurement range:

- 0 ~ 100 %

Max. reading interval: 2 hours

Storage temperature:

- 40 ~ + 75 °C
- 40 ~ + 165 °F

RH accuracy:

- >20 & <80% = $\pm 3\%$
- <20 & > 80% max.= $\pm 5\%$

Internal memory > 16,300 records

Storage RH:

- 0 ~ 100 %

Installation

Strong magnet makes it easy to mount the device to any steel surface. To mount “bun hygro” on other materials, you can easily mount the ring magnet in the package using a nail or screw on the wall and simply attach the device through its magnet to the wall-mounted magnet.

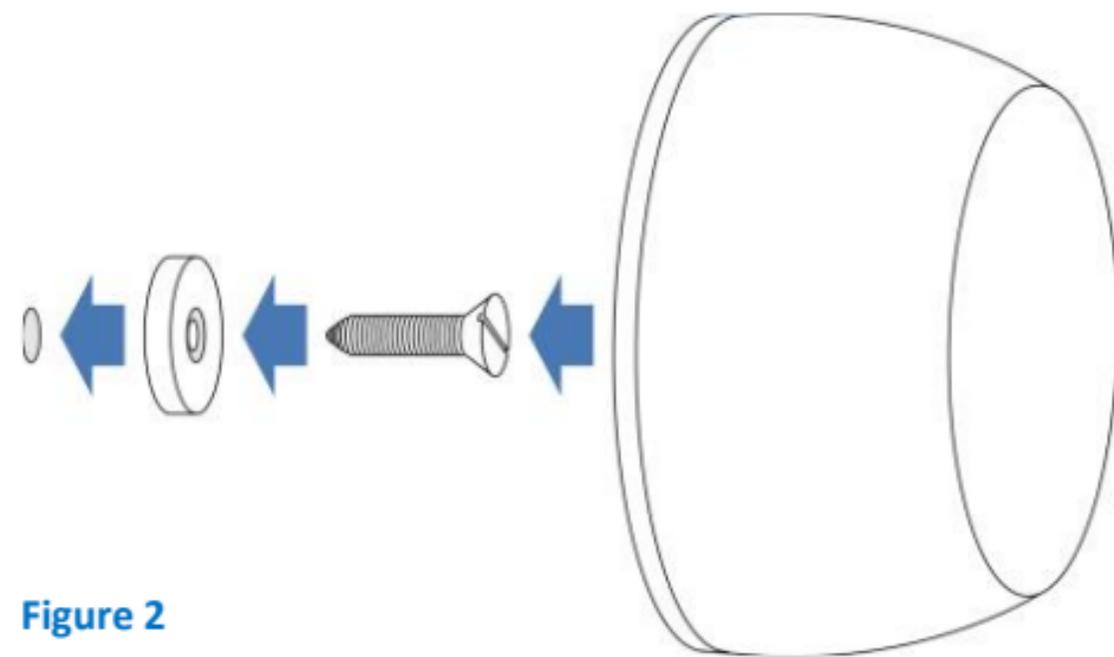


Figure 2

Operation Instructions

First steps are to create an account and claim your device as follows:

- Please visit www.loggermaster.com and create an account by following the website's instructions.

Note: Please read the loggermaster's condition of use and privacy notice very carefully. By creating an account, you agree to loggermaster's condition of use and privacy notice.

- Log into your account.
- Edit your time zone and preferred language in “my profile page” located in the top right corner beside “logout” button.
- Claim your device by clicking on “+” button in the top left corner of the webpage.
- Enter 8-digit serial number and 8-digit DUID number printed on the back of your device.

Activating your device by connecting “bun hygro” to your Wi-Fi

To save battery, your device is in sleep mode. **You need to activate it before using it** as follows:

- Place a magnet on the center of your device (marked with 📶 icon) and wait for 3 seconds (figure 3). As soon as device detects the magnet “bun hygro” will beep once. Keep the magnet in position until you hear a long continues beep.
- Hearing the long beep means that “bun hygro” is in “setup” mode. Use your smart phone, computer, tablet, etc to search for open Wi-Fi network named (SSID) "bun hygro" (no password required).
- Connect to “bun hygro”, open a browser and key in 192.168.4.1 in address bar. A blue page will appear with your devices serial and DUID numbers (figure 4).

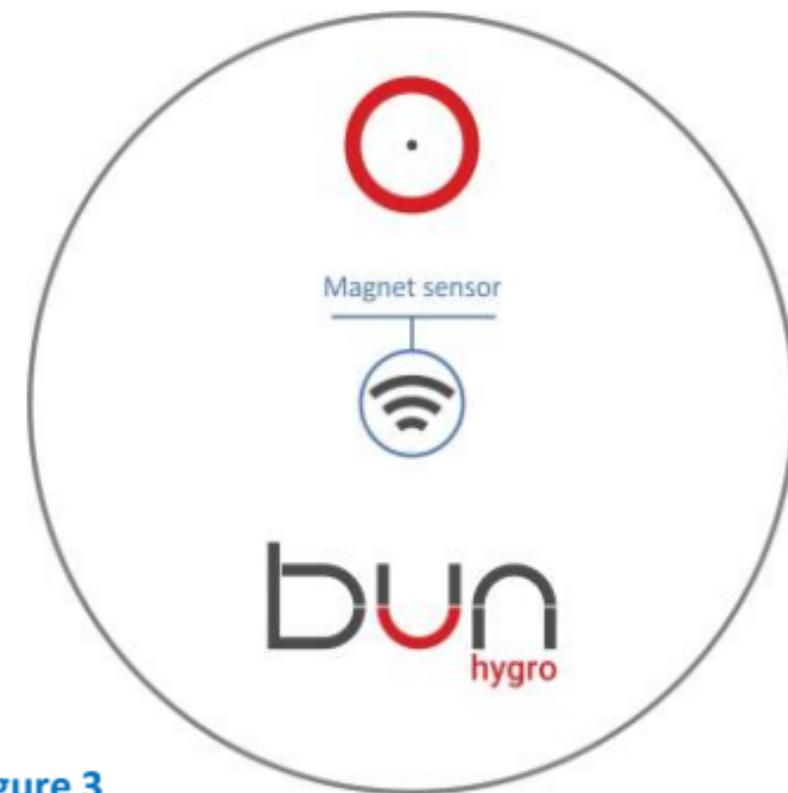


Figure 3

Key in following information in the blue page:

- Wi-Fi name (SSID) of the network that you wish to connect your device to.

Note: make sure that the device is within the range of Wi-Fi network and Wi-Fi is on. SSID is case sensitive so make sure you are typing the SSID correctly with no extra space.

- Wi-Fi password

Note: Password is case sensitive.

- Click on the connect button.

Figure 4

Welcome to your bun hygro

Your bun's Serial #: 91710157

Your bun's DUID #: 36674448

Please visit www.loggerflex.com, create an account and use your device's serial number (8 digits) and DUID (8 digits) to claim your device and get web based access to your logs and alarms.

WiFi name (SSID):

WiFi Password:

Encryption method:
WPA2

Your session will be timed out in 180 seconds

Connect

Note:

- If you fail to connect to “bun hygro” hotspot within 3 minutes, session will expire following with two (2) long beeps (like phone line busy signal: — —) and you need to trigger the hotspot with magnet again.
- If your “bun hygro” successfully connects to your Wi-Fi, it will connect to server and become activated automatically. In this case you will hear (4) short quick beeps (like:)
- If for any reason your device fails to connect to Wi-Fi or server, device will inform you by (2) long beeps (like phone line busy signal: the — —) which means you need to repeat procedure again.

Web based application (www.loggermaster.com)

- By logging into your account, you can always adjust key parameters in "my profile" including language, time zone, country, default login page (define your landing page when you log in), password, emails and phone numbers (to receive notifications)
- You can always access the list of your "bun hygro" devices by clicking on the "loggers and controllers" menu (see figure 5)
- You can see "add" and "search" icons that help you add new devices to your account or find a specific device in your list in top menu bar.

The screenshot shows the EEMS web application interface. At the top left, the text "EEMS" is visible. Below it is a vertical sidebar with icons for a water drop, a flame, a lightning bolt, and wavy lines. At the bottom of the sidebar is a red gear icon labeled "Loggers & controllers". The top navigation bar contains several icons: a plus sign, a magnifying glass, a pencil, a line graph, a document, and a folder. The main content area displays a table with the following data:

Row	Type	Title	Last reading's date	First sensor			Second sensor			Error code	Status
				Name	Last reading	Dimension	Name	Last reading	Dimension		
1	Temp & RH	91710161	9/6 2017 11:56	Temp	34.1	Celcius	RH	22	Percent	0	●
2	Temp & RH	91710165	9/6 2017 14:09	Temp	30	Celcius	RH	24	Percent	0	●

Below the table, there are several callout boxes with labels: "Add" (pointing to the plus icon), "Edit" (pointing to the pencil icon), "Details" (pointing to the document icon), "Search" (pointing to the magnifying glass icon), "Graph" (pointing to the line graph icon), "Report" (pointing to the folder icon), "My profile" (pointing to the user icon), and "Sign out" (pointing to the power icon).

Figure 5

You can select or de-select any device by clicking on its row and following four (4) new options which will appear on top menu bar if any device is selected:

Edit: By clicking on "Edit" you will access to "Device's attributes" page where you can adjust your device's parameters as follows:

- **On/Off:** By turning off your device you can suspend sending alarms and notifications from your device.

Note: In case you do not want to receive any notifications, you can switch your device to "Off" mode in "Device attributes". Your device continues to record and upload even in off mode.

- **Title:** You can change the device's name appearing in your devices list and dashboard and assign a name to temperature and RH sensor separately.
- **Reading dimension:** You can change the reading dimension for each sensor of your device according to your preference (If applicable). Like °C or °F for temperature.

- **Alarms:** you can set your device to send notifications to you via email or text message at three (3) different situations:
 - 1) If each of measured parameters (like temperature) exceeds or falls from a maximum or minimum defined threshold.
 - 2) If server does not receive any uploads for a certain defined time (in minutes) from your device.
 - 3) If an error code is sent to the device. For example in case of low battery, the device will send error number 5. Please read "error" chapter of current user manual to learn more about meanings of each error code.
- **Installation location:** It will help you to locate your device if necessary.
- **Wi-Fi settings:** You can see the name of Wi-Fi that your "bun" is connected to. Also you can set a password for open setup network name "bun hygro" so nobody else can trigger your device with a magnet and change the setup.
 - Note:* You can always change Wi-Fi settings in your device by triggering "setup" mode as well by hovering a magnet for three (3) or more continuous seconds over magnet sensor of the device (same as first time activation procedure).
- **Reading and uploading intervals.**
 - Note:* Your device's battery life will be affected by intervals of readouts and uploads. LoggerMaster web-based application will show you the estimated battery life of the device based on your settings.

Note: You can set “upload intervals” to “on demand” mode. In this mode your device will not try to connect to Wi-Fi unless you trigger "force upload" by hovering a magnet on magnet sensor of the device.

Note: Device will try to upload readouts, stored in its internal memory, before reaching its maximum records capacity (16300 records). **By reaching the maximum capacity, all records will be deleted automatically and device continues logging like before.**

Graphs: By clicking on "Graphs" icon, you will access the graphs of all previous uploaded records in any desired intervals. You can save the graph in PNG, JPG, PDF or SVG formats.

Details: You can view a detailed list of all uploaded records.

Reports: You can extract PDF reports (peak points, average, etc) for any desired interval and download detailed readings in Excel format.

IMPORTANT NOTE: Your device is semi-online. It will only sync with server when it tries to upload the readouts. If you change any setting on the website it won't be applied to the device before it syncs to server. You can enforce syncing by short magnet hover. Or device will receive new settings as soon as it syncs for next designated upload time.

Quick references

- Magnet Triggering
 - 1) Short hover: Will force the device to upload immediately (force to upload)
 - 2) Long hover (> 3 seconds): Will trigger “setup” mode and device will create a hot spot named “bun hygro”.
- Type of beeps
 - Single short beep: Magnet hover is detected.
 - Single long continues beep (like: _____): Device is in “setup” mode. Connect to Wi-Fi named "bun hygro", then go to 192.168.4.1.
 - Four (4) short beeps: Device is successfully connected to server and activated/forced uploaded.
 - Four (2) long beeps: (like phone line busy signal: — —): Device failed to execute your order and you have to try it over again.

Errors

Your device benefits from an advanced diagnosis system. Any hardware problem will appear on Loggermaster's page and dashboard. Each error condition appears with a unique code. Here are the list of errors and their meanings:

- Error # 3: Your device temperature/RH sensor is malfunctioning.
- Error # 5: Your device will run out of battery within few months. Please note the battery is not replaceable or rechargeable. Please contact us for instructions.
- Error # 9: Internal clock of the device is not working well.

Please contact our customer support in case of any errors : info@loggerflex.com.au

Diagnosis

If you have not received any readings for a while, follow these steps:

- Make sure you've added your device and followed this booklet's instructions properly to activate your device.
- Check if your battery is alive. To check this, you can quickly hover a magnet over magnet sensor of your device. Your device should respond with a short beep.
- Check if your Wi-Fi SSID and password (both case sensitive) have correctly been set in your device. You can repeat the activating procedure.
- Try to force upload by quickly hovering a magnet over magnet sensor of your device.
- Check if “bun hygro” is in the effective range of your Wi-Fi router. Try to get closer to router and then force upload.

Warnings

- Never insert any object into holes on the device.
- Do not attempt to open or repair the device.
- Very high ambient temperature cause faster battery drain.
- Do not dispose it in garbage bin but check with your local council for recycling facilities in your area.
- Do not expose to a strong magnetic field.

Terms and conditions of use

This user manual is subjected to change without notice. When permitted by law, manufacturer will not be responsible for lost profits, revenues or financial losses or indirect, special, consequential, exemplary, or punitive damages. To the extent permitted by law, the total liability of manufacturer of this device for any claims under these terms, including for any implied warranties, is limited to the amount you paid for "bun". By creating an account on www.loggermaster.com you agree with our condition of use and privacy policy.

Warranty

We value your business and always attempt to provide you with the very best of service. Should you encounter any problem, please give us an opportunity to address it before returning your device. Most technical questions can be answered through our email (info@loggerflex.com.au).

We warrant the device against defects in materials and workmanship under ordinary consumer use for 3 years from the date of original retail purchase excluding battery. During this warranty period, if a defect arises in the device and you follow the instructions for returning it, we will either repair or replace with a new or refurbished device, or refund all or part of the purchase price for the device. The foregoing warranty of your device shall extend to repaired or replaced products to the balance of the applicable period of the original warranty period.

Warranty is limited to consumer use, excluding all incidental and consequential damages caused by misuse, neglect, fire or other external causes and repair.

For specific instruction about how to obtain warranty service please contact our customer service using the contact information provided in this user manual. In general, you will need to return your device in its original packaging to the address specified by customer service with the original receipt.

Loggerflex

Loggerflex smart devices LTD.

info@loggerflex.com.au
www.loggerflex.com.au