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# X-SENSE



**STH0A**

## User Manual

**Smart Thermometer Hygrometer**  
**Model: STH0A**

F800004000007 V1.1

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Español/Italiano/Nederlands:  
Scan QR code to check more details.

## English

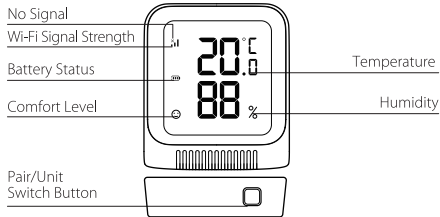
This user manual contains important information regarding the operation of your smart thermometer hygrometer. Ensure you read this user manual fully before installing and operating the device. If you are installing this device for use by others, you must leave this manual (or a copy of it) with the end user.

## Introduction

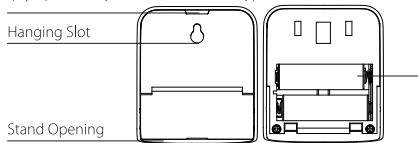
This smart thermometer hygrometer features a clear display for viewing temperature, humidity, and comfort levels directly on the screen, or you can check these details via the app. It also sends alarm notifications through the app when connected to the base station. Reliable and user-friendly, it is ideal for homes, greenhouses, and more.

## Product Overview

### Thermometer Hygrometer



Back Cover Opening  
(pry open with your thumb or a slot-type screwdriver)



**Wi-Fi Signal Strength:** The signal strength between the thermometer hygrometer and the base station.

**No Signal:** The thermometer hygrometer is disconnected from the base station.

**Pair/Unit Switch Button:** Double-press to enter Wi-Fi pairing mode; single-press to switch between Fahrenheit (°F) and Celsius (°C).

### Comfort Levels:

Icons	Human Body's Comfort Levels (Default)	Customize Comfort Levels (Set via App)
😊	$30\% \leq \text{Humidity} \leq 60\%$ $68^{\circ}\text{F} (20^{\circ}\text{C}) \leq \text{Temperature} \leq 78.8^{\circ}\text{F} (26^{\circ}\text{C})$	Meets the values you set in Screen Comfort Settings under Customize Comfort Levels.
😞	In other cases	In other cases

## Package Contents



Thermometer Hygrometers



AA Batteries (pre-installed)



User Manual

## Device Setup

### Download the X-Sense Home Security App



Download on the  
Apple App Store



GET IT ON  
Google Play

*Note: Make sure your smartphone supports iOS 11 and higher, or Android 8.0 and higher.*

To download the **X-Sense Home Security** App, scan the QR code or search for “**X-Sense Home Security**” in the Apple App Store or Google Play. Sign up with a valid email address. If you already have an account, make sure the app is updated to the latest version.

### Before connecting devices, make sure that:

1. You know your Wi-Fi network name and password.
2. You are connecting your device using a 2.4 GHz Wi-Fi network (incompatible with 5 GHz Wi-Fi network).
3. Make sure the Bluetooth on your phone is turned on.

**Note: When the device is configured via Wi-Fi, make sure your mobile phone and device are as close to the router as possible, which can speed up device configuration.**

### Connect the Thermometer Hygrometer to the Base Station

The thermometer hygrometer can be connected to the base station through the wireless network. When the device is connected to the base station, you will receive push notifications wherever you are to stay informed of the device status.

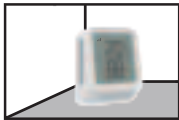
**Note: Before adding devices to the system, make sure the base station has been successfully added to the app.**

1. Tap “⊕”, select “Thermo-hygrometers” from the product list, then choose “STH0A”. Tap “Next” to proceed to the pairing page.
2. Enter a name for the thermometer hygrometer. Then, select the room in which it is installed and tap “Next.”
3. Remove the back cover from the device, take out the battery insulating film, and make sure the battery polarities are correctly aligned. Tap “Next.”
4. Follow the prompts on the page by quickly pressing the Pair/Unit Switch Button twice on the device until the signal icon on the screen flashes rapidly, indicating that the device is waiting to connect to the base station.
5. Tap “Next” to add the device. You will hear “Ready to add the device.”
6. After successfully connected, you will hear “Device added” and the “Device added” page will appear. Then you can find the thermometer hygrometer in the device list.

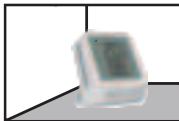
7. If you want to add multiple devices into the system, please repeat the above steps.

**NOTE:** *If you fail to add the device to the network within 60 seconds, the device will automatically exit the network configuration. To re-enter the network configuration, you need to repeat the above steps.*

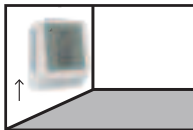
## Installation Method



**Place On a Flat Surface:** suitable for most situations.



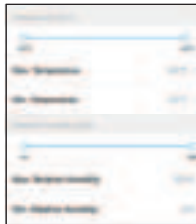
**Use the Stand:** suitable for lower installation positions.



**Hanging:** suitable for wall-mounted installations.

## Using Your Thermometer Hygrometer

**NOTE:** *The iOS user interface is shown; the Android operating system may look slightly different, but functions are the same. App content may differ from the manual due to updates.*



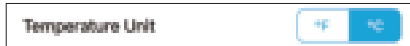
**Set the Alarm:** You can set the temperature and humidity range in the app. When the temperature and humidity level exceed this range, an app push notification will be sent immediately, and the base station will sound an alarm at the same time (You can turn off the alarm function of the base station and only choose the push notifications).

To select the temperature and humidity you want to track, use the slider or make a selection from the dropdown list.

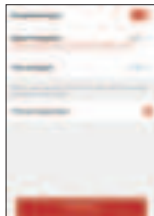


**Comfort Levels:** There are two options for comfort level—Human Body's Comfort Levels (Default) and Customize Comfort Levels. When customizing comfort levels, you can set your preferred

temperature and humidity range. The screen will display Comfortable ☺ when both temperature and humidity are within the set range; otherwise, it will display Not Comfortable ☹. You can use "Human Body's Comfort Levels" (Default) for living spaces and "Customize Comfort Levels" for environments like greenhouses and basements.



**Unit Switch:** Switch temperature units displayed in the app to Fahrenheit (°F) or Celsius (°C). If you change the temperature unit on the device's screen using the Unit Switch on top, while the device is already added to the app, the temperature unit in the app will automatically update as well.



**Export Data:** Export data in CSV format after entering your email address and confirming the date/time range. You can create a data export task by toggling “Scheduled Export” to choose from daily, weekly, and monthly.



**Device Test:** You can complete the test by tapping Device Test button in the app to make sure the device is functioning properly.

## Technical Specifications

Screen Size	2.7 inches
Power Supply	2 × AA batteries (Pre-installed, Replaceable)
Voltage	1.5 V DC
Battery Capacity	1,800 mAh
Product Life	5 years
Battery Life	1 year
Material	ABS
Alarm Volume	No sound when the temperature or humidity exceeds or falls below the set level (the base station will sound and an app push notification will be sent)
Maximum Number of Allowed Units	One base station can add up to 50 devices in total. Among them, a maximum of 10 thermo-hygrometers can be added, meaning the total number of STH51 and STH0A devices cannot exceed 10.
Operating Temperature	-4–140°F (-20–60°C)
Operating Humidity	0–99% RH
Operating Frequency	US: 902–928 MHz EU: 868.0–868.6 MHz
Max. RF Power	EU: 25 mW

Temperature Accuracy	-4–32°F (-20–0°C)	Typical accuracy: ±0.36–0.72°F (±0.2–0.4°C); Maximal accuracy: ±0.72–1.26°F (±0.4–0.7°C)
	32–140°F (0–60°C)	Typical accuracy: ±0.36°F (±0.2°C); Maximal accuracy: ±0.72°F (±0.4°C)
Humidity Accuracy	10–90% RH	Typical accuracy: ±2% RH; Maximal accuracy: ±3.5% RH
	0–10%/90 –99% RH	Typical accuracy: ±2–3% RH; Maximal accuracy: ±3.5–5% RH

**Note:** The above humidity accuracy data is measured at a constant temperature of 77°F (25°C). When the temperature changes, the accuracy may be affected.

## Battery Replacement

1. Pry open the battery cover from the notch at the top of the device using your thumb or a slot-type screwdriver.



2. Install the batteries. Ensure battery polarities are matched correctly.



3. Close the back cover by gently pressing it back into place until it clicks.



## Maintenance

1. The thermometer hygrometer is rated to operate in environments with temperatures ranging from -4°F to 140°F (-20°C to 60°C) and humidity from 0 to 99% RH. The recommended long-term operating temperature range is 14°F to 140°F (-10°C to 60°C).
2. Always handle this device with care and do not attempt to disassemble.
3. Do not immerse this device in water.



## Troubleshooting

Problem	Cause	Solution
The base station failed to connect to the network.	The entered Wi-Fi name and/or password are wrong.	Enter the correct Wi-Fi name and password.
	The phone Bluetooth is not turned on.	Turn on the phone's Bluetooth.
	The base station is not entering pairing mode.	Press and hold the Pair button on the base station for 5 seconds and its LED will flash yellow to enter the pairing mode.
The thermometer hygrometer cannot be connected to the base station.	The thermometer hygrometer does not enter pairing mode.	Quickly press the Pair button twice on the thermometer hygrometer to make it enter pairing mode.

The alarm volume of the base station is low.	The alarm sound is set to low.	Go to Sound Settings → Base Station Alarm Volume in the Device Settings to adjust the alarm volume.
Push notifications failed, or the app prompts show that the operation failed.	The app push notification permission is disabled.	Turn on the push notification permission on the phone.
	The device's batteries ran out.	Replace the batteries.
	Communication between the base station and the router is obstructed or the distance is too far.	Reduce obstacles between the base station and the router, such as metal doors and thick walls. The maximum allowable distance between the base station and the router in an open environment is 170 ft (50 m).
	Communication between the thermometer hygrometer and the base station is obstructed or	Reduce obstacles between the thermometer hygrometer and the base station. The maximum allowable distance between the thermometer hygrometer and

	the distance is too far.	the base station in an open environment is 1700 ft (500 m).
	The thermometer hygrometer is placed on a metal surface.	Metal surfaces can interfere with the wireless signal, causing the device to disconnect. Please avoid placing it on metal surfaces.
	The network connection of the router and the mobile phone is abnormal.	Make sure the network connection of the router and the mobile phone is normal.
The app shows that the base station is offline.	The Wi-Fi connection of the base station is disconnected.	Make sure that the router network connected to the base station is normal.
	The base station is powered off.	Make sure the power supply of the base station is connected normally.

The app shows that the thermometer hygrometer is offline.	Communication between the thermometer hygrometer and the base station is obstructed or the distance is too far.	Reduce obstacles between the thermometer hygrometer and the base station. The maximum allowable distance between the thermometer hygrometer and the base station in an open environment is 1700 ft (500 m).
	The device's batteries ran out.	Replace the batteries.
The app indicates low battery, and the thermometer hygrometer's screen shows one bar of battery.	Low battery warning.	Replace the batteries.

## FAQ

### **Can it be used in the fridge or freezer?**

Using the thermo-hygrometer in a refrigerator or freezer will shorten the battery life and affect the connection of the device in low temperature environments. The recommended ambient temperature for prolonged operation is 14–140°F (-10–60°C).

### **Can it be used in a high humidity environment for a long time?**

Since the device is not waterproof, it is not recommended to use the device in a high-humidity environment (above 80% RH water condensing) for a long period of time.

### **How do I set the temperature and humidity alarm range?**

Go to “Device Settings.” Under the “Temperature Alarm” and “Relative Humidity Alarm” settings, select the temperature and humidity you want to track by moving the slider or choosing from the dropdown list.

### **Why doesn't the thermometer hygrometer immediately display the accurate temperature when there is a significant change in the environment?**

Please note that if the thermometer hygrometer experiences a significant temperature change, such as being moved from a warm living room to a cold basement, it will need some time to adjust and provide an accurate reading.

This adjustment process can take from a few minutes to several hours, depending on the temperature and environmental conditions.

### **Why might the temperature and humidity changes on this device be slower or faster compared to other thermo-hygrometers when placed together?**

Reason 1: Testing in a refrigerator or freezer may cause the device to malfunction, as it is not designed for such extreme conditions.

Reason 2: Differences in the surrounding environment, placement, and nearby objects can significantly affect temperature and humidity readings. If you want to compare them more accurately, make sure that the conditions are consistent.

Reason 3: Allow some time for the data to stabilize before comparing (this may take from several minutes to a few hours, depending on environment). This device is designed for long-term, stable monitoring to ensure accuracy and has a lifespan of over 5 years. As a result, its response to temperature and humidity changes might be slightly slower compared to products designed for faster responses but with potentially less stability.

**Why does the device screen show condensation or display abnormalities, or not display at all after being used for a while in high humidity environments (such as a greenhouse)?**

The STH0A is not recommended for long-term use in extreme humidity environments with condensation, as this may cause malfunctions or damage. If you notice issues with the device in such conditions, please remove the batteries, dry both the outside of the device and the battery compartment, and place it in a well-ventilated, dry environment for at least 24 hours (keeping the battery compartment open). Afterward, reinstall new batteries. If the device still does not function properly, please replace it with a new one.

**How do I export data?**

Tap the thermometer hygrometer in the app, drag it to the bottom of the screen, and tap the "Export Data" button. You can export data for up to six months (180 days) at a time, so please adjust the time span accordingly. If you need to export data for the past year, please do so in two separate exports. Note: Only temperature and humidity data can be exported; dew point and VPD data are not supported.

**How do I calibrate the temperature and humidity?**

The device has been calibrated by precision instruments and usually does not require recalibration. If you still want to calibrate, you can go to "Device Settings" and calibrate the temperature and humidity in the "Calibration" setting.

**How do I distinguish which device in the app corresponds to the real device?**

Method 1: Write the name exactly as it shows in the app on the back of the thermometer hygrometer. This will help you easily identify each device.

Method 2: Use the testing feature in the app for differentiation. Tap the thermometer hygrometer in the app → tap the settings icon in the upper right corner → select "Device Test." The screen of the device being tested will flash slowly three times.

**FCC statement**

1. 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.
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Note: This equipment has been tested and found to comply with the limits for a Class B digital device. 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.
  - Consult the dealer or an experienced radio/TV technician for help.
3. Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.
4. The distance between user and products should be no less than 20 cm.

## **BATTERIES**

- **WARNING: KEEP NEW OR OLD USED BATTERIES OUT OF REACH OF CHILDREN.**
- In the event of a battery leaking, do not allow the liquid to come into contact with the skin or eyes. If contact has been made, wash

into contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice immediately.

- NEVER charge a battery unless it is a rechargeable battery.
- Do not mix alkaline, standard (carbon-zinc) or rechargeable (Ni-Cd; Ni-MH) batteries.
- Different types of batteries or new and used old batteries are not to be mixed. Do not mix batteries of different manufacturers, capacities, or sizes.
- Batteries must be inserted with the correct polarity. Replacement of a battery with an incorrect type can defeat the safeguard. There will be a risk of fire or explosion if a battery is replaced by an incorrect type.

## **CAUTION—RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE**

- Before using this device, please read this guide which contains important operating instructions for safe usage, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards.
- User instructions should accompany the device when transferred to other users.

## Environmental Protection



The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that all electrical and electronic products, batteries, or accumulators must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws and rules in your area.

## Simple EU Declaration of Conformity

X-Sense Electronics Co., Ltd. declares that the radio equipment type is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/53/EU and the RoHS Directive 2011/65/EU and the WEEE Directive 2012/19/EU; the full text of the EU declaration of conformity is available at the following internet address: [www.x-sense.com](http://www.x-sense.com).

## Manufacturer and Service Information

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Email: [support@x-sense.com](mailto:support@x-sense.com)

## Deutsch

Dieses Benutzerhandbuch enthält wichtige Informationen über den Betrieb Ihres intelligenten Thermometers und Hygrometers. Lesen Sie diese Bedienungsanleitung vollständig durch, bevor Sie den Gerät installieren und in Betrieb nehmen. Wenn Sie dieses Gerät zur Verwendung durch andere Personen installieren, müssen Sie diese Anleitung (oder eine Kopie davon) dem Endbenutzer überlassen.

## Einführung

Dieses intelligente Thermometer-Hygrometer verfügt über ein übersichtliches Display, auf dem Sie Temperatur, Luftfeuchtigkeit und Komfortstufen direkt auf dem Bildschirm ablesen können. Es sendet auch Alarbenachrichtigungen über die App, wenn es mit der Basisstation verbunden ist. Zuverlässig und benutzerfreundlich, ist es ideal für Haushalte, Gewächshäuser und mehr.