VENTUS W640 Smart Multi-Channel Weather Station with Wireless Sensor User Manual

**Smart multi-channel weather station
with wireless sensor
Model: W640
User Manual**

**Size: 130 x 112 x 28 mm
Art. no. W640
EAN 5705858718873**

ABOUT THIS USER'S MANUAL

This symbol represents a warning To ensure safe use, always adhere to the instructions described in this documentation

This symbol is followed by a user's tip

Contents

PRECAUTIONS

– Keeping and reading the "User manual" is highly recommended The manufacturer and supplier cannot accept any responsibility for any incorrect readings, export data lost and any consequences that occur should an inaccurate reading take place
– Images shown in this manual may differ from the actual display
– The contents of this manual may not be reproduced without the permission of the manufacturer
– Technical specifications and user manual contents for this product are subject to change without notice
– This product is not to be used for medical purposes or for public information
– Do not subject the unit to excessive force, shock, dust, temperature or humidity.
– Do not cover the ventilation holes with any items such as newspapers, curtains etc.
– Do not immerse the unit in water. If you spill liquid over it, dry it immediately with a soft, lint-free cloth.

– Do not clean the unit with abrasive or corrosive materials.
– Do not tamper with the unit's internal components. This invalidates the warranty.
– Placement of this product on certain types of wood may result in damage to its finishing for which manufacturer will not be responsible Consult the furniture manufacturer's care instructions for information
– Only use attachments / accessories specified by the manufacturer.
– This product is intended for use only with the adaptor provided: Manufacturer: Dong Guan Shi Jie Hua specified by the manufacturer that have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.
– This product is not a toy Keep out of reach of children
– The console is intended to be used only indoors
– Place the console at least 20cm from nearby persons
– This device is only suitable for mounting at height < 2m.
– When disposing of this product, ensure it is collected separately for special treatment Xu Electronics Factory, Model: HX075-0501000-AG
– The socket-outlet shall be installed near the equipment and easily be accessible
– When replacement parts are required, be sure the service technician uses replacement parts
– CAUTION! Risk of explosion if battery is replaced by an incorrect type
– Battery cannot be subjected to high or low extreme temperatures, low air pressure at high altitude during use, storage or transportation, if not, it may result in an explosion or the leakage of flammable liquid or gas
– Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion
– Do not ingest the battery, Chemical Burn Hazard.
– This product contains a coin/button cell battery If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
– Keep new and used batteries away from children
– If the battery compartment does not close securely, stop using the product and keep it away from children
– If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention
– Only use fresh batteries Do not mix new and old batteries
– Dispose of used batteries according to the instructions
– Replacement of a battery with an incorrect type that can result in an explosion or the leakage of flammable liquid or gas.

INTRODUCTION

Thank you for selecting SMART multi-channel weather station The console has WiFi module built-in and through its smart system is compatible with Tuya IOT platform Through the Smart Life App, you can view the temperature and humidity of main console and wireless sensor(s), check history records, set high / low alarm and trigger tasks in anywhere
This system come with a wireless thermo-hygro sensor and can support up to 7 additional sensors(optional) User can monitor and set multi trigger task to control other Tuya compatible device(s) according to the specific condition(s).
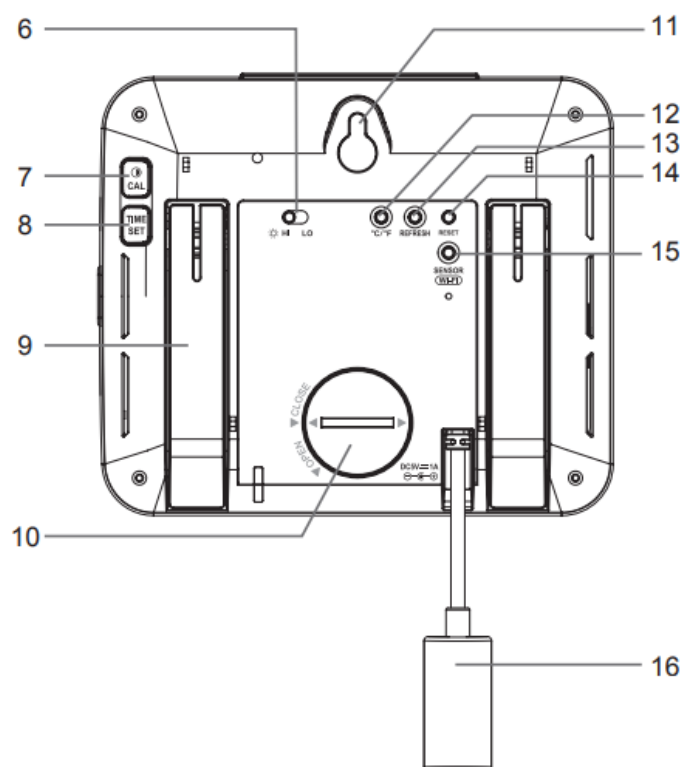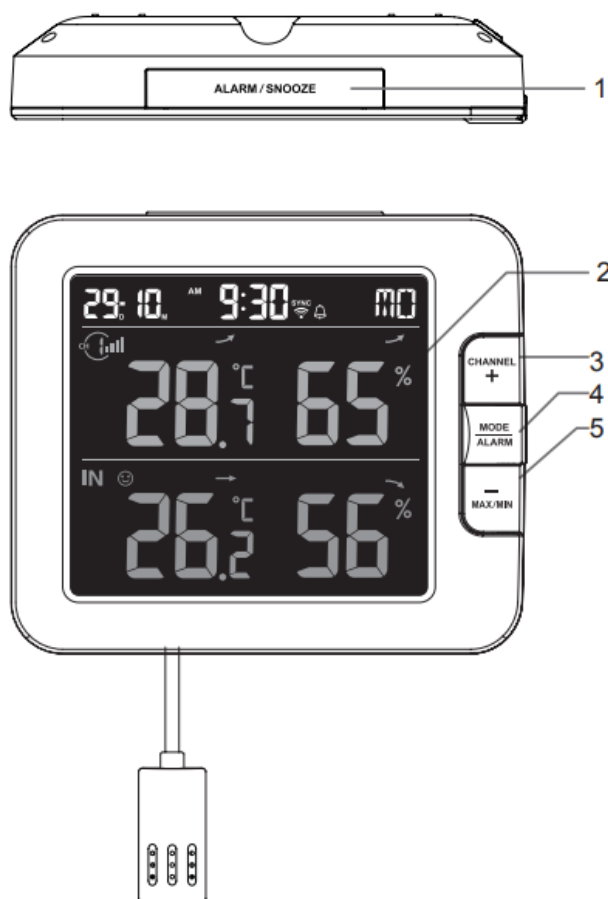The colorful LCD display shows the readings clearly and tidy, this system is a truly IoT system for you and your home
NOTE:
This instruction manual contains useful information on the proper use and care of this product Please read this manual through to fully understand and enjoy its features, and keep it handy for future use
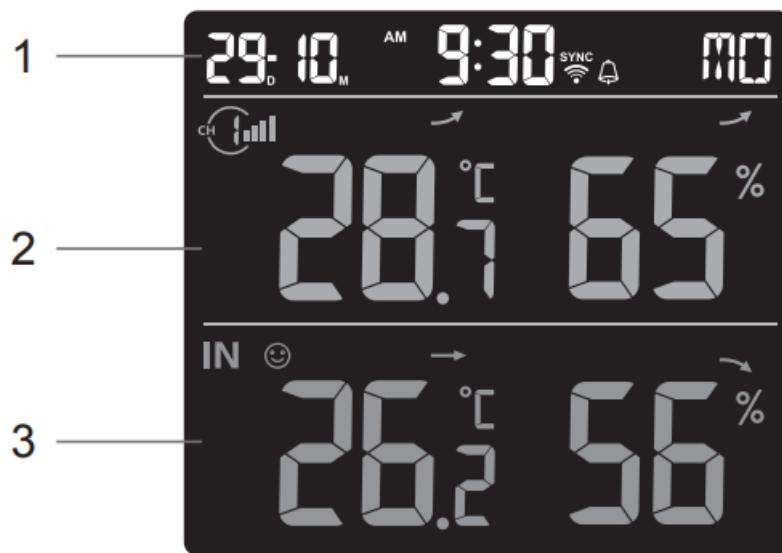
OVERVIEW

CONSOLE

1. [ALARM/SNOOZE] key	9. Table stand
2. LCD display	10. Battery door
3. [CHANNEL / +] key	11. Wall mounting hole
4. [MODE / ALARM] key	12. [°C / °F] key
5. [MAX / MIN / –] key	13. [Refresh] key
6. [HI / LO] slide switch	14. [RESET] key
7. [/ ◑ CAL] key	15. [SENSOR / WI-FI] key
8. [TIME SET] key	16. Power jack

LCD DISPLAY

1. Time & Date

2. Temperature & humidity

3. Indoor temperature & humidity

WIRELESS THERMO-HYGRO SENSOR

1. LED indicator
2. Wall mounting holder
3. Channel slide switch
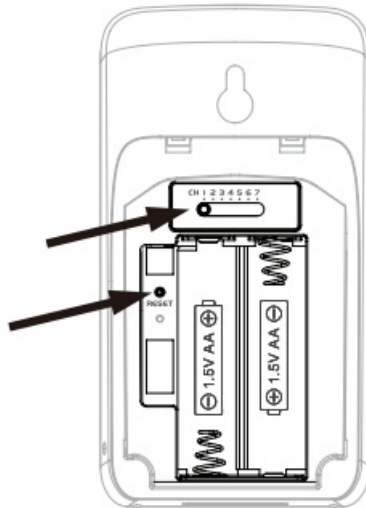4. [RESET] key
5. Battery compartment
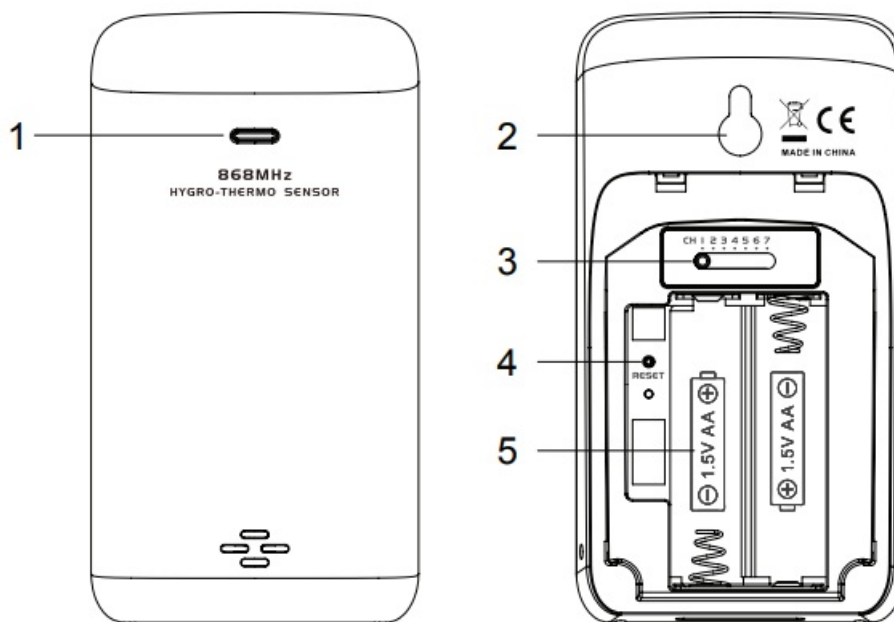
INSTALLATION AND SETUP

INSTALL WIRELESS THERMO-HYGRO SENSOR

1. Remove the battery door of the sensor.
2. Use the channel slide switch to set the channel number for the sensor (e g Channel 1)
3. Insert 2 x AA size batteries into the battery compartment according to the polarity marked on the battery compartment, and close the battery door

4. The sensor is in synchronization mode, and can be registered to the console within the next few minutes The transmission status LED will begin to flash every 1 minute.


📖 **NOTE:**
– If you need to re-assign the sensor channel, slide the channel slide switch to the new channel position and press [RESET] key on the sensor for the new channel number to be effective.
– Avoid placing the sensors in direct sunlight, rain or snow.
– To avoid the sensor/s and console pairing failure during new console setup, please power up the sensor(s) first, and then press [SENSOR/WiFi] key on the main unit
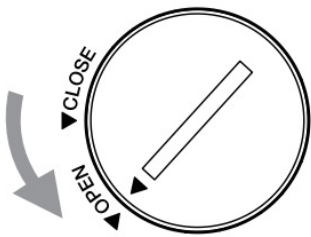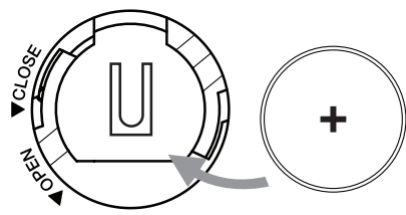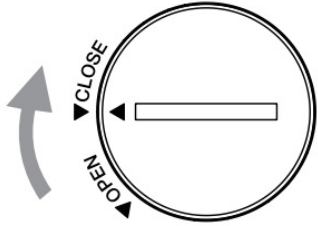
PLACING THE WIRELESS THERMO-HYGRO SENSOR
Place a screw on the wall that you wish to hang the sensor on Hang the sensor onto the screw by the wall mounting holder You can also place the sensor on a table by itself
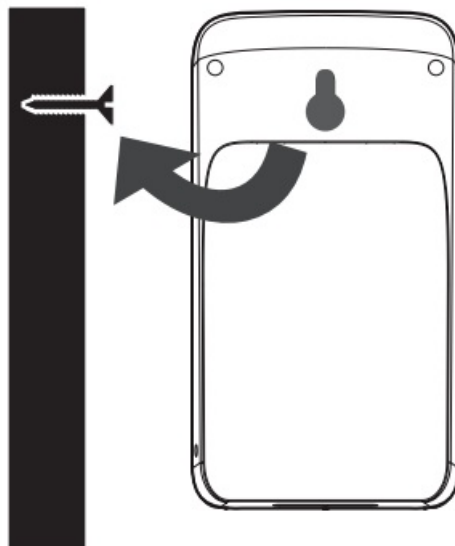
SETUP THE CONSOLE

INSTALL THE BACKUP BATTERY
Backup battery provides power to the console to retain clock time and date, max/min records and calibration value.
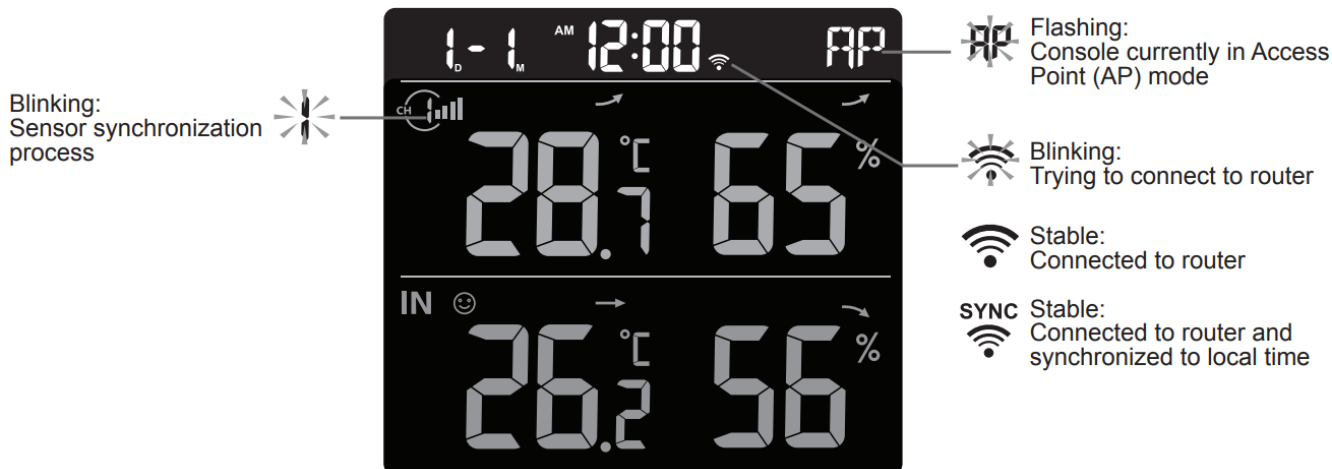
Step 1	Step 2	Step 3
Remove the console battery door with coin	Insert a new CR2032 button cell battery	Replace the battery door

NOTE:
– The backup battery can back up: Time & Date, Max/Min records and calibration value.
– The built-in memory can back up: Router setting server settings.
– Please always remove the back-up battery if the device is not going to be used for a while. Please keep in mind that even when the device is not in use, certain settings, such as the clock, calibration and records in its memory, will still drain the back-up battery

POWER UP THE CONSOLE

1. Plug in the power adapter to power up the console

2. Once the console is power up, all the segments of the LCD will be shown

3. The console will automatically enter AP mode and sensor synchronization mode automatically

Blinking:
Sensor synchronization process

AP Flashing:
Console currently in Access Point (AP) mode

Blinking:
Trying to connect to router

Stable:
Connected to router

SYNC Stable:
Connected to router and synchronized to local time

4. The wireless sensor will automatically pair up with console (about 1 minute) Upon successful synchronization, display will change from "–.-°C –%" to actual reading.

NOTE:
If no display appears when power up the console You can press [RESET] key by using a pointed object. If this process still not work, you can remove the backup battery and unplug the adaptor then re-power up the console again

RESET AND FACTORY HARD RESET
To reset the console and start again, press the [RESET] key once or remove the backup battery and then unplug the adapter. To resume factory settings and remove all data, press and hold the [RESET] key for 6 seconds

CHANGING BATTERIES AND MANUAL PAIRING OF SENSOR

Whenever you changed the batteries of the wireless sensor, re-synchronization must be done manually

1. Change all the batteries to new ones in the sensor
2. Press [SENSOR / WI-FI] key on the console to enter sensor Synchronization mode.
3. Console will re-register the sensor after its batteries are changed (about 1 minute)

ADDITIONAL WIRELESS SENSOR(S) (OPTIONAL)

The console can support up to 7 wireless sensors

1. In the new wireless sensor, slide the Channel switch to a new CH number
2. Press the [RESET] key on the new sensor
3. At the back of the console, press the [SENSOR / WI-FI] key enter sensor synchronization mode
4. Wait for the new sensor(s) to pair up with the console (about 1 minute)
5. Once the new sensor(s) are connected to the console successfully, their temperature and humidity will be shown accordingly

 NOTE:
– Channel number of the sensor must not be duplicated among the sensors Please refer to "INSTALL Wireless thermo-hygro SENSOR" for details
– This console can support different type of additional wireless sensor(s), e g soil moisture If you would like to pair up additional sensors, please check with your retailer for more detail

SENSOR(S) RESYNCHRONIZATION
Press the [SENSOR / WI-FI] key once for the console to enter sensor Synchronization mode (channel number blinking), and the console will re-register all the sensors that have already been paired to it before

REMOVE WIRELESS SENSOR
User may manually delete any sensor from the console

1. Press the [CHANNEL] key until the console shows the display of the selected sensor
2. Press and hold [REFRESH] key for 10 seconds, until its readings are reset " — , -°C — % " is shown

SMART LIFE APP

ACCOUNT REGISTRATION
The console works with Smart Life App for Android and iOS smart phone

1. Scan the QR code to go to the Smart Life download page
2. Download Smart Life from Google Play or Apple App store
3. Install the Smart Life App
4. Follow the instruction to create your own account using phone number or email
5. Once the account registration is completed, the Home Screen will be shown

Smart Life for Andriod /IPhone

https://smartapp.tuya.com/smartlife

 NOTE:

– There is no Registration code needed if email method is chosen

– The App may be subject to change without notice.

– You may be prompted to allow the App to have access to your location. This will allow the app to give you general weather information in your area The app will still work if you don' t allow access to that

CONNECT WEATHER STATION TO WIFI NETWORK

1. Press and hold the [SENSOR / WI-FI] key for 6 seconds to enter AP mode manually, indicated by blinking AP and . When the console is power up for the first time, the console will automatically enter and stay at AP mode

2. Open Smart Life App and follow the in-app instructions to connect weather station to your Wi-Fi network
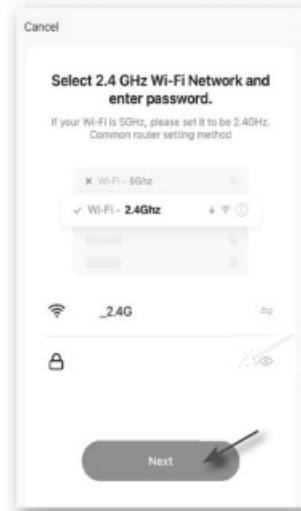
Step 1:
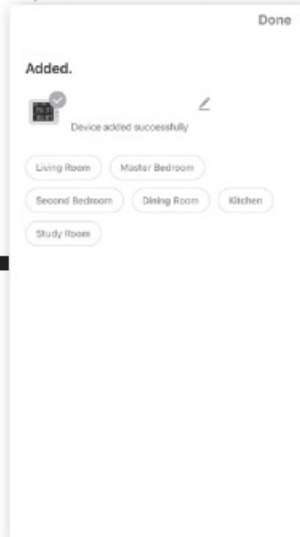At the home screen 🏠, tap the ➕ on the top right corner to add your console.
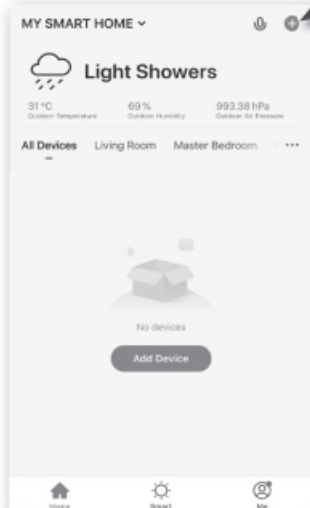
Step 2:
On "Add Manually" screen, choose "Sensors" in the left menu bar and then select "Temperature and Humidity Sensor(Wi-Fi)".
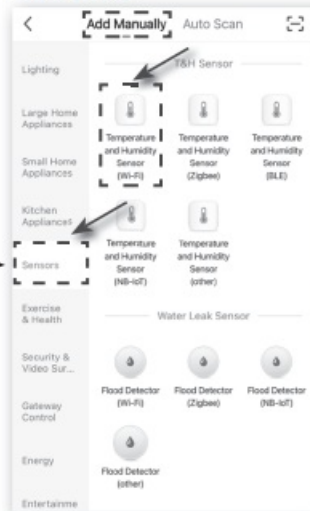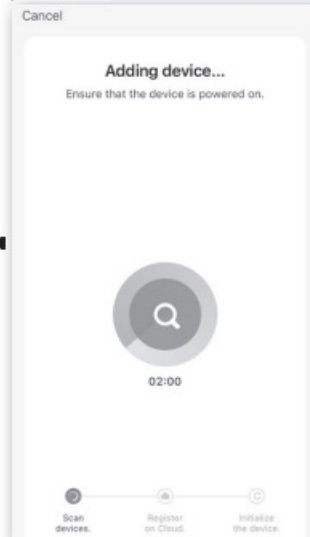
Step 3:
Make sure you select the 2.4G network and enter your Wi-Fi password then tap the "Next".
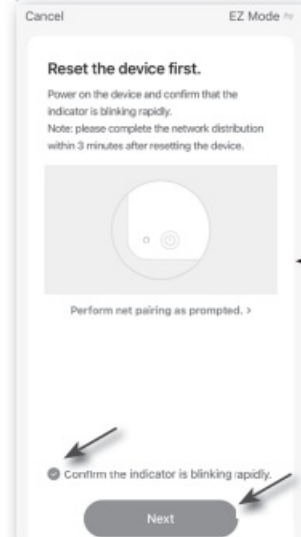
Step 6:
Once it success, the console icon will shown, and you can customize its information.

Step 5:
There will auto scan and register your device.

Step 4:
Confirm your device is in "AP mode" and tap "Next".

Step 7:
The console will appears on your Home Screen. Tap to see the readings.

3. The console will automatically exit AP mode and return to normal operation once it's connected to Wi-Fi router

📖ℹ️ **NOTE** :
– Smart weather station can only connect to 2 4G WI-FI network
– Enable the location information in your mobile when you add your console to App

– User may press and hold [SENSOR / WI-FI] for 6 seconds to exit AP mode any time

DEVICE SCREEN OVERVIEW

The device screen can show the IN and (CH) Channel's readings, max / min records, and access to graphs, alert setting, alert history and unit conversion.

1. Temperature and humidity reading with max/min records for INDOOR
2. Temperature and humidity reading with max/min records for wireless sensor (CH1 – CH7)
3. Back to home page icon
4. Device management for advance feature and firmware update
5. View the alert history
6. Setting for alert notification
7. Change temperature unit
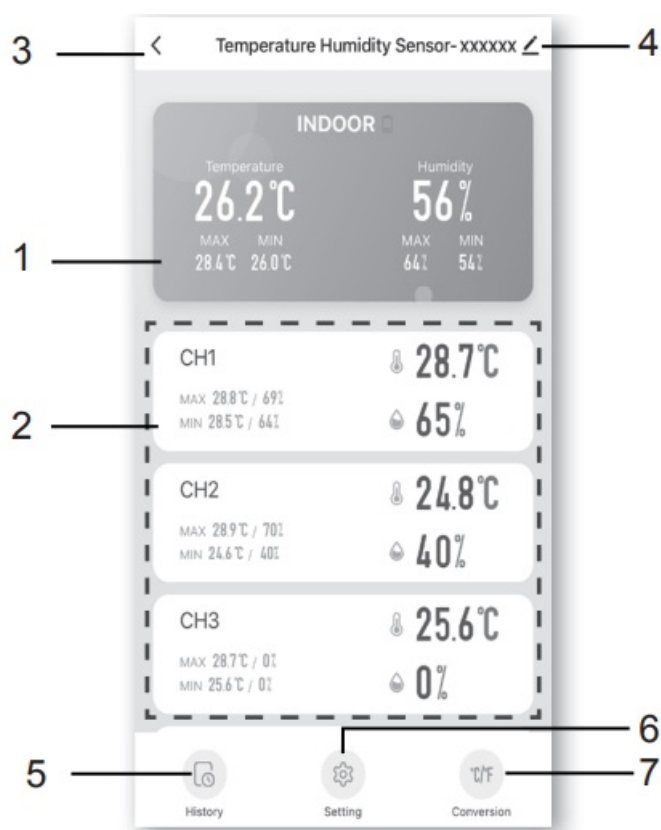
TO VIEW HISTORY GRAPH
You can view the history graph by tapping the INDOOR or CH region in "device page".

Hourly graph, tap to view "data curve" page
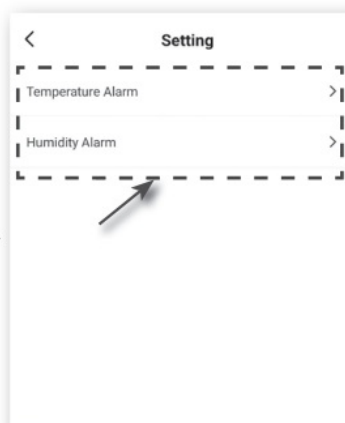
History graph

Select date
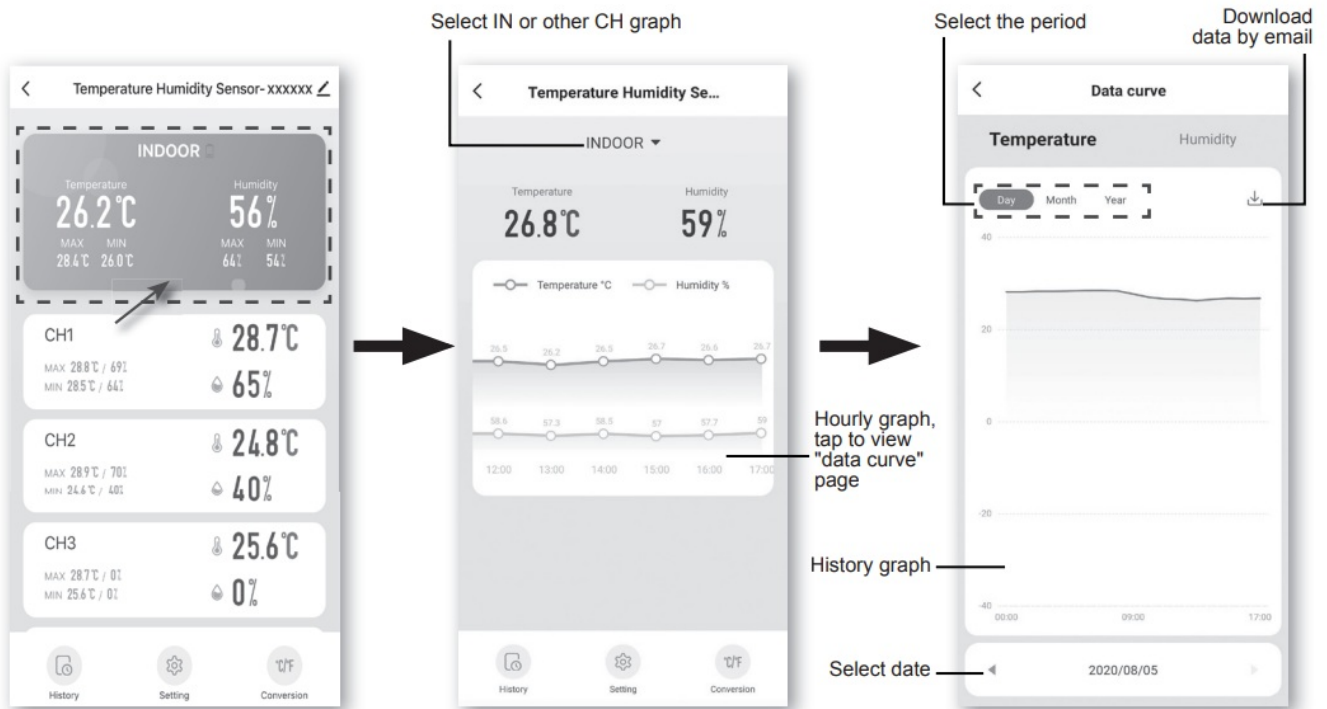
TO SET ALERT NOTIFICATION
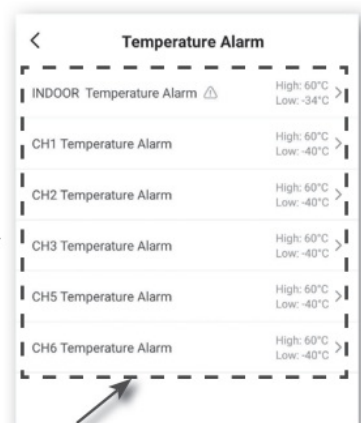You can set the temperature and humidity high / low alarm

Step 1:
Tap the "Setting" on the bottom of the "device Screen".

Step 2:
Tap the "Temperature Alarm" or "Humidity Alarm".

Step 3:
Tap the "INDOOR" or "CH 1 ~ 7 ".

Step 4:
Set the High / Low trigger values and slide the switch to activate the alert.

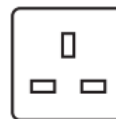## AUTOMATION WITH OTHER DEVICE USING SMART LIFE

Wireless Sensor (s)   Console   Smart Life   Smart Sockets

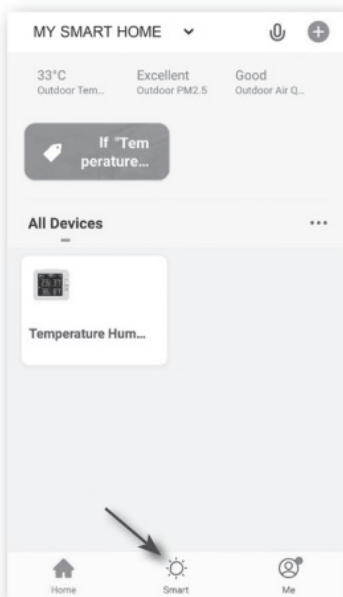Heater   Fans   Bulbs
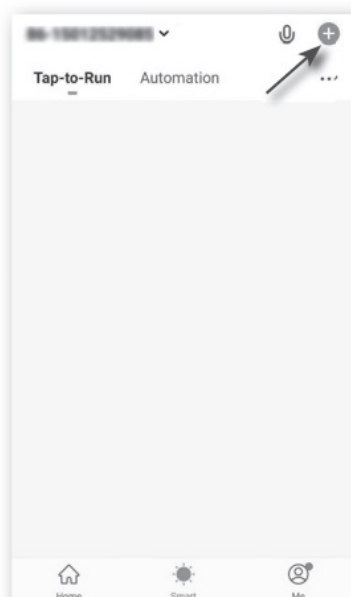
Humidifier   Dehumidifier

Smart Switch Devices

IOT APPLICATIONS

Through the Smart life App, you can create the temperature and humidity trigger conditions to control other Smart Life compatible device(s) automatically.
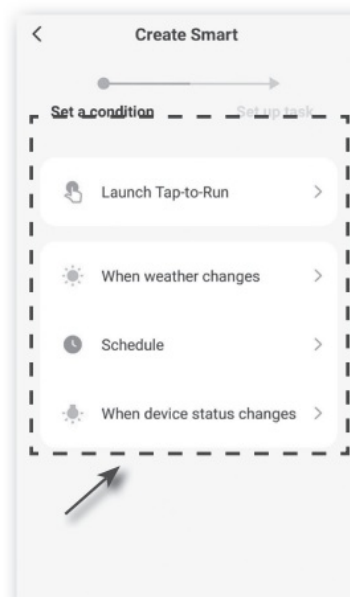

Step 1:
Tap the " Smart" icon on Home screen, and follow the instruction to set condition and task..

Step 2:
Tap the " + " icon.

Step 3:
Tap one of below tag to set different trigger condition.

ℹ️ **NOTE** :
– Any tasks required or performed by third party devices are at user's own choice and risk.
– Please note no guarantee can be assumed regarding the correctness, accuracy, uptodateness, reliability and completeness of IOT applications

OTHER FEATURE IN SMART LIFE APP

Smart Life have many advance features, please check the FAQ in the App to know more about Smart Life. Tap "Me" in home page then tap the FAQ & Feedback for more detail.
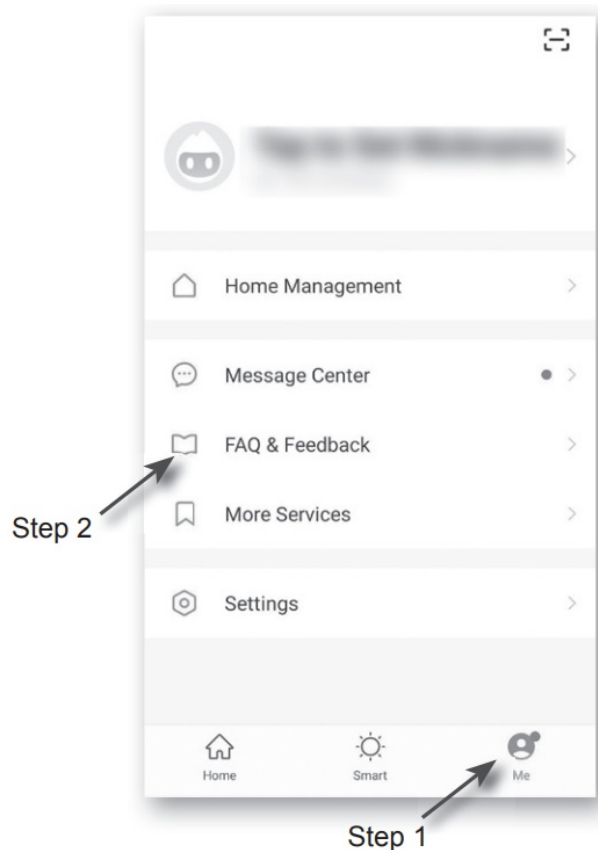
FIRMWARE UPDATE

The console can be updated through your WI-FI network. If new firmware is available, a notification or pop up message will be shown on your mobile when you open the App. Follow the instruction in the App to do the update

During the update process, the console will show the progress status percentage at the bottom of the screen Once the update complete, the console screen will reset and back to normal mode Please ignore App update fail message, if the console can restart and show the normal screen after the update process completed

IMPORTANT NOTE:
– Please keep connecting the power during the firmware update process.
– Please make sure your console WI-FI connection is stable
– When the update process start, do not operate the console until the update is finished.
– Settings and data maybe lost during update

– During firmware update the console will stop upload data to the cloud server. It will reconnect to your WI-FI router and upload the data again once the firmware update succeed. If the console cannot connect to your router, please enter the SETUP page to setup again

– Firmware update process have potential risk, which cannot guarantee 100% success. If the update fail, please redo the above step to update again.

– If firmware update fail, press and hold the [C/F] and [REFRESH] key at the same time with 10 seconds to back to original version, then redo the update procedure again.

OTHER SETTING & FUNCTIONS OF THE CONSOLE

MANUAL CLOCK SETTING

This console is designed to obtain the local time by synchronizing with your local time. If you want to use it off line, you can set the time and date manually. During the first time startup, press and hold the [SENSOR / WI-FI] key for 6 seconds and let the console back to normal mode

1. In normal mode, press and hold [TIME SET] key for 2 seconds to enter setting

2. The setting sequence: 12/24 hour format ➡ Hour ➡ Minute ➡ Year ➡ M-D/D-M format ➡ Month ➡ Day ➡ Time sync ON/OFF ➡ weekday Language

3. Press [+] or [–] key to change the value. Press and hold the key for quick-adjust.

4. Press [TIME SET] key to save and exit the setting mode, or it will automatically exit the setting mode 60 seconds later without pressing any key

NOTE:

– In normal mode, press [TIME SET] key to switch between year and date display

– During the setting, you can back to normal model by press and hold [TIME SET] key for 2 seconds

SETTING ALARM TIME

1. In normal time mode, press and hold [MODE / ALARM] key for 2 seconds until the alarm hour digit flashes to enter alarm time setting mode.

2. Press [+] or [–] key to change the value. Press and hold the key for quick-adjust.

3. Press [MODE / ALARM] key again to step the setting value to Minute with the Minute digit flashing.

4. Press [+] or [–] key to adjust the value of the flashing digit.

5. Press [MODE / ALARM] key to save and exit the setting.

NOTE:

– In alarm mode, the " 🔔 " icon will display on the LCD

– The alarm function will turn on automatically once you set the alarm time

ACTIVATING ALARM FUNCTION

1. In normal mode, press [MODE / ALARM] key to show the alarm time for 5 seconds

2. When the alarm time displays, press [MODE / ALARM] key again to activate the alarm function.

Alarm off	Alarm on

When clock reach the alarm time, alarm sound will start
Where it can be stopped by following operation:
– Auto-stop after 2 minutes alarming if without any operation and the alarm will activate again in the next day
– By pressing [ALARM / SNOOZE] key to enter snooze that the alarm will sound again after 5 minutes
– By pressing and hold [ALARM / SNOOZE] key for 2 seconds to stop the alarm and will activate again in the next day
– By pressing [MODE / ALARM] key to stop the alarm and the alarm will activate again in the next day

NOTE:
– The snooze could be used continuously in 24 hours.
– During the snooze, the alarm icon " " will keep flashing.

WIRELESS SENSOR SIGNAL RECEIVING

1. The console display signal strength for the wireless sensor(s), as per table below:

Signal strength of wireless sensor channel			
	No signal	Weak signal	Good signal

2. If the signal has discontinued and does not recover within 15 minutes, the signal icon will disappear The temperature and humidity will display "Er" for the corresponding channel

3. If the signal does not recover within 48 hours, the "Er" display will become permanent. You need to replace the batteries and then press [SENSOR / WI-FI] key to pair up the sensor again

VIEW THE OTHER CHANNELS (OPTIONAL FEATURE WITH ADD ON EXTRA SENSORS)
This console is capable to pair with 7 wireless sensors. If you have 2 or more wireless sensors, you can press [CHANNEL] key to switch between different wireless channels in normal mode, or press and hold [CHANNEL] key for 2 seconds to toggle auto-cycle mode to display the connected channels at 4 seconds interval.

During auto-cycle mode, the icon will show on the wireless sensor channels section of the console's display Press [CHANNEL] key to stop auto cycle and display the current channel

TEMPERATURE / HUMIDITY FUNCTION

– The temperature and humidity reading are display on the Channel and indoor section
– Use the [°C / °F] key to select the temperature display unit
– If temperature / humidity is below the measurement range, the reading will show "LO" If temperature / humidity is above the measurement range, the reading will show "HI".

COMFORT INDICATION

The comfort indication is a pictorial in dication based on indoor air temperature and humidity in an attempt to determine comfort level .			
	Too cold	Comfortable	Too hot

NOTE:
– Comfort indication can vary under the same temperature, depending on the humidity.

– There is no comfort indication when temperature is below 0°C (32°F) or over 60°C (140°F).
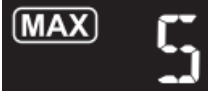
TREND INDICATOR
The trend indicator shows the temperature or humidity trends of changes based on later 15 minutes

Rising	Steady	Falling

MAX / MIN DATA RECORD
The console can record MAX / MIN readings both daily and since last reset

Daily MAX reading	Daily MIN reading	MAX reading since last reset	MIN reading since last reset

TO VIEW MAX / MIN

1. In normal mode, press [MAX / MIN] key on the front side, to check the daily MAX records of current channel and indoor
2. Press [MAX / MIN] key again to check the daily MIN records of current channel and indoor
3. Press [MAX / MIN] key again to check the accumulative MAX records
4. Press [MAX / MIN] key again to check the accumulative MIN records.
5. Press [MAX / MIN] key again and back to normal mode
6. User can also check records of different sensor by pressing [CHANNEL] key

TO RESET THE MAX/MIN RECORDS
Press and hold [MAX / MIN] key for 2 seconds to reset the current on display MAX or MIN records
NOTE:
The LCD will also display the " MAX " / " MIN "icon, when showing the record(s).

CALIBRATION
To calibrate the temperature and humidity:

1. In normal mode, press and hold [/ CAL] key for 2 seconds to enter the calibration mode as below

2. Press [+] or [–] key to select IN or any Channels

3. Press [MODE / ALARM] key to select between: Temperature ➤ Humidity

4. While temperature or humidity is blinking, press [+] or [–] key to adjust the offset value.

5. When finished, press [MODE / ALARM] to proceed with next calibration by repeating process 2 – 4 above.

6. Press [/ ⏾CAL] key to return to normal mode

BACK LIGHT
The main unit back light can be adjusted, using the [HI / LO] sliding switch to select the appropriate brightness:
– Slide to the [HI] position for the brighter back light
– Slide to the [LO] position for the dimmer back light

SET LCD DISPLAY CONTRAST
In normal mode, press [⏾/ CAL] key to adjust LCD contrast for best viewing on table stand or wall mounted

MAINTENANCE

BATTERY REPLACEMENT

When low battery indicator " 🔋 " is displayed in CH section of the LCD display, it indicates that the current channel sensor battery power give wireless sensor shown is low respectively. Please replace with new batteries

TROUBLESHOOT

Problems	Solution
Indoor wireless sensor is intermittent or no connection	1 Make sure the sensor is within the transmission range 2 Make sure the channel displayed match to the channel selection on sensor 3 If it still not work, reset the sensor and resynchronize with console.
No WI-FI connection	1 Check for WI-FI symbol on the display, it should be alway on 2 Make sure you connect to 2 4G band but not 5G band of your WIFI router
Temperature or humidity not accurate	1 Do not place your console or sensor close to the heat source 2 If the sensor still not accurate adjust the value in calibration mode.

SPECIFICATIONS

CONSOLE
General Specification

Dimensions (W x H x D)	130 x 112 x 27 5mm (5 1 x 4 4 x 1 1 in)
Weight	220g (with batteries)
Main power	DC 5V, 1A adaptor
Backup battery	CR2032
Operating temperature range	-5˚C ~ 50˚C
Operating Humidity range	10~90% RH
Support sensors	– 1 Wireless Thermo-hygro sensors (included) – Support Up to 7 Wireless Thermo-hygro sensors (optional)
RF frequency (Depend on country version)	915Mhz (US version) / 868Mhz (EU or UK version) /917Mhz (AU version)

Time Related Function Specification

Time display	HH: MM
Hour format	12hr AM / PM or 24 hr
Date display	DD / MM or MM / DD
Time synchronize method	Through the server to get the local time of the console location
Weekday languages	EN / DE / FR / ES / IT / NL / RU

In Temperature

Temperature unit	°C and °F
Accuracy	<0°C or >40°C ± 2°C (<32°F or >104°F ± 3.6°F) 0~40°C ±1°C (32~104°F ± 1.8°F)
Resolution	°C / °F (1 decimal place)

In Humidity

Humidity unit	%
Accuracy	1 ~ 20% RH ± 6.5% RH @ 25°C (77°F) 21 ~ 80% RH ± 3.5% RH @ 25°C (77°F) 81 ~ 99% RH ± 6.5% RH @ 25°C (77°F)
Resolution	1%

WI-FI Communication Specification

Standard	802 11 b/g/n
Operating frequency :	2.4GHz
Supported router security type	WPA/WPA2, OPEN, WEP (WEP only support Hexadecimal password)

APP Specification

Support App	– Tuya smart – Smart Life
Supported platform of App	Android smart phone iPhone

WIRELESS THERMO-HYGRO SENSOR

Dimensions (W x H x D)	60 x 113 x 39 5mm (2 4 x 4 4 x 1 6in)
Weight	130g (with batteries)
Main power	2 x AA size 1.5V batteries (Lithium batteries recommended)
Weather data	Temperature and Humidity
RF transmission range	150m
RF frequency (depend on country version)	915Mhz (US) / 868Mhz (EU, UK) / 917Mhz (AU)
Transmission interval	60 seconds for temperature and humidity
Operating range	-40 ~ 60°C (-40 ~ 140°F) Lithium batteries required
Operating humidity range	1 ~ 99% RH

CH (wireless sensor) Temperature

Temperature unit	°C and °F
Accuracy	5.1 ~ 60°C ± 0.4°C (41.2 ~ 140°F ± 0.7°F) -19.9 ~ 5°C ± 1°C (-3.8 ~ 41°F ± 1.8°F) -40 ~ -20°C ± 1.5°C (-40 ~ -4°F ± 2.7°F)
Resolution	°C / °F (1 decimal place)

CH (wireless sensor) Humidity

Humidity unit	%
Accuracy	1 ~ 20% RH ± 6.5% RH @ 25°C (77°F) 21 ~ 80% RH ± 3.5% RH @ 25°C (77°F) 81 ~ 99% RH ± 6.5% RH @ 25°C (77°F)
Resolution	1%

Imported by / Importeret af
NSH NORDIC A/S
Virkefeltet 4
DK-8740 Braedstrup
Made in PRC

Documents / Resources

VENTUS W640 Smart Multi-Channel Weather Station with Wireless Sensor [pdf] User Manual
W640 Smart Multi-Channel Weather Station with Wireless Sensor, W640, Smart Multi-Channel Weather Station with Wireless Sensor, Smart Multi-Channel Weather Station, Multi-Channel Weather Station, Weather Station, Station