

Wi-Fi Weather Station With 7-in-1 Professional Sensor

Model: GARNI 980 ARCUS

User Manual



TABLE OF CONTENTS

PRECAUTIONS & WARNING	3
1. INTRODUCTION	4
2. PACKAGE CONTENTS	4
3. PRE INSTALLATION	5
3.1 CHECKOUT	5
3.2 SITE SELECTION	5
4. PRODUCT OVERVIEW	6
4.1 WIRELESS 7-IN-1 OUTDOOR SENSOR GARNI 8INT	6
4.2 WEATHER STATION	7
5. SETTING UP THE WIRELESS 7-IN-1 OUTDOOR SENSOR GARNI 8INT	8
5.1 INSTALLING THE MOUNTING POLE AND BRACKET	8
5.2 INSTALLING WIND SPEED CUPS AND WIND DIRECTION VANE	9
5.3 SETTING UP RAIN COLLECTOR	10
5.4 INSTALLING THE BATTERIES	10
5.5 MOUNTING THE WIRELESS 7-IN-1 OUTDOOR SENSOR	11
5.6 POINTING THE WIRELESS 7-IN-1 OUTDOOR SENSOR TO SOUTH (OPTIONAL)	12
5.7 ADJUSTING THE 7-IN-1 WIRELESS SENSOR LEVEL	12
6. SETTING UP THE WEATHER STATION	13
6.1 POWERING UP THE WEATHER STATION	13
6.2 PAIRING THE WIRELESS 7-IN-1 SENSOR	13
6.3 RE-PAIRING SENSOR	13
7. SETUP INSTRUCTION	13
7.1 SETTING UP WI-FI CONNECTION AND WEATHER SERVER CONNECTION	13
7.2 CALIBRATION	15
7.3 WI-FI CONNECTION STATUS	18
7.4 TIME SERVER CONNECTION STATUS	18
8. CREATE AND SYNC YOUR WEATHER SERVER ACCOUNT	18
8.1 CREATE WEATHER UNDERGROUND ACCOUNT	18
8.2 CREATE YOUR WEATHERCLOUD ACCOUNT	23
8.3 VIEW YOUR WEATHER DATA IN WEATHER UNDERGROUND	25
8.4 VIEW YOUR WEATHER DATA IN WEATHERCLOUD	25
9. OPERATING INSTRUCTIONS	26
9.1 CLOCK	26
9.2 TEMPERATURE	29
9.3 PRESSURE	30
9.4 WIND	31
9.5 RAIN	31
9.6 WEATHER	32
9.7 MAX/MIN	33
9.8 HI/LO ALERT SETTING	34
9.9 BACKLIGHT	36
9.10 LOW BATTERY INDICATOR	36
9.11 FACTORY RESTART	36
9.12 CARE AND MAINTENANCE	37
10. TROUBLESHOOTING	38
11. SPECIFICATIONS	39

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.



PRECAUTIONS & WARNING



- 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 not a toy. Keep out of the reach of children.
- The console is intended to be used only indoors.
- Place the console at least 20cm from nearby persons.
- Console working temperature: -5°C ~ 50°C
- Do not ingest the battery. Chemical Burn Hazard.
- Keep new and used batteries apart. If battery door 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.
- An appliance is only suitable for mounting at height $\leq 2\text{m}$.
- This product is intended for use only with the adaptor provided.
- When disposing of this product, ensure it is collected separately for special treatment.
- The AC/DC adaptor of apparatus should not be obstructed OR should be easily accessed during intended use.
- To be completely disconnect the power input, the AC/DC adaptor of apparatus shall be disconnected from the mains.

CAUTION

- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- Battery cannot be subjected to high or low extreme temperatures, low air pressure at high altitude during use, storage or transportation.
- Replacement of a battery with an incorrect type can 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, can result in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

1. INTRODUCTION

Thank you for selecting WI-FI weather station with 7-in-1 professional sensor GARNI 980 **ARCUS**. This system gathers and automatically uploads accurate and detail weather data to Weather Underground and Weathercloud website - the famous weather service which allows weather observers to upload their local weather data with automated personal weather stations (PWS) - at which you can access and upload your weather data freely. This product offers professional weather observers or serious weather enthusiasts robust performance with a wide range of options and sensors. You will get your own local forecast, high/low, totals and averages for virtually all weather variables without using a PC/Mac.

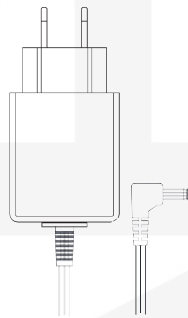
The 7-in-1 sensor which measures outdoor temperature, humidity, wind, rain, UV and Light and transmits weather data to the console. Sensor is fully assembled and calibrated for your easy installation. It sends data at a low power radio frequency to the console from up to 150m/450 feet away (line of sight)

In the console, high-speed processors are embedded to analyze the received weather data and these real-time data can be published to Wunderground.com and weathercloud.net through your home WI-FI router. The console can also synchronize with Internet time server to show high precision time and for its weather data time stamp. The inverse VA colour display shows informative weather readings with advanced features, such as high/low alert alarm, different weather index, and MAX/MIN records. With calibration and moon phase features, this system is truly a remarkably personal yet professional weather station for your own backyard.

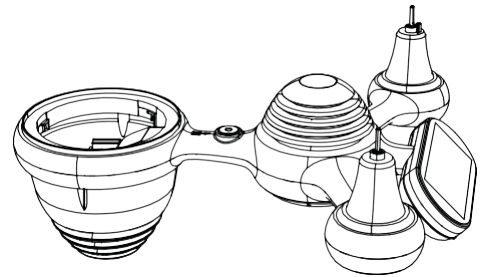
2. PACKAGE CONTENTS



1



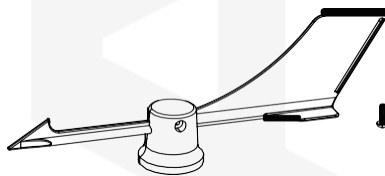
2



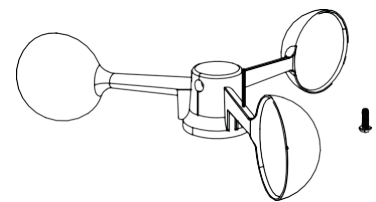
3



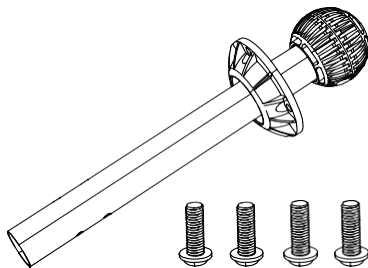
4



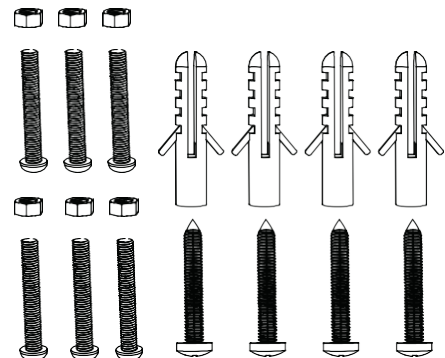
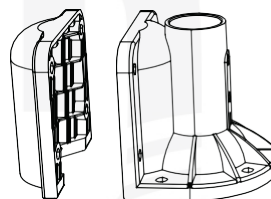
5



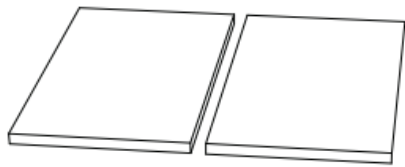
6



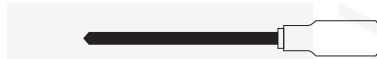
7



8



9



10



11

- | | |
|------------------------------------|-----------------------------------|
| 1 Weather station | 7 Mounting pole with 4 screws |
| 2 Adapter | 8 Mounting brackets with 6 screws |
| 3 Wireless 7-in-1 outdoor sensor | 9 Rubber pads X 2 |
| 4 Funnel | 10 Screwdriver |
| 5 Wind direction vane with 1 screw | 11 User guide |
| 6 Wind speed cups with 1 screw | |



NOTE:

- 4 extra screws for wind direction vane and wind speed cups are included.

3. PRE INSTALLATION

3.1 CHECKOUT

Before permanently install your weather station, we recommend the user to operate the weather station at a location which is easy to access to. This will allow you to get familiar with the weather station functions and calibration procedures, to ensure proper operation before installing it permanently.

3.2 SITE SELECTION

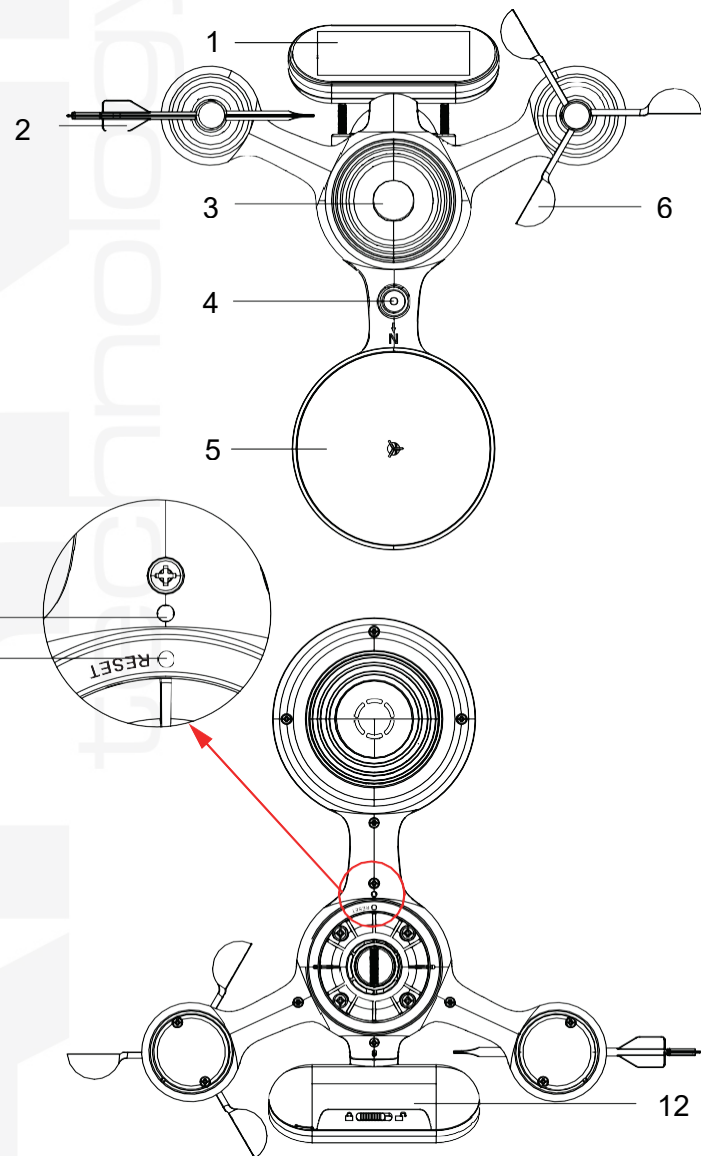
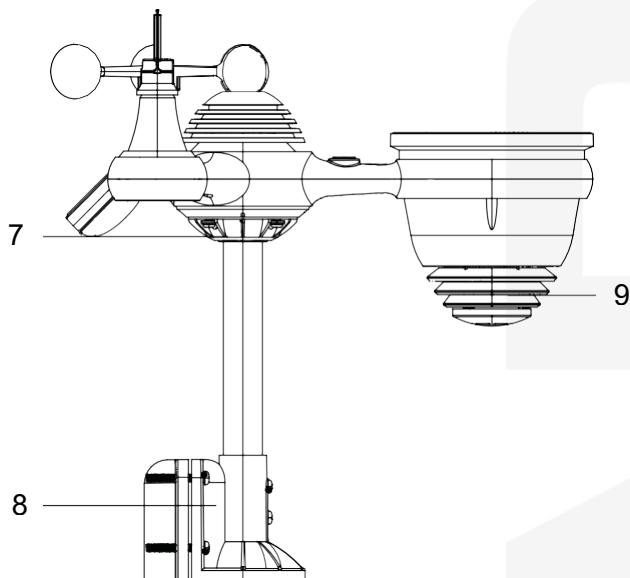
Before installing the sensor array, please consider the followings;

1. Rain gauge must be clean every few months
2. Avoid radiant heat reflected from any adjacent buildings and structures. Ideally, the sensor array should be installed at 1.5m (5') from any building, structure, ground or roof top.
3. Choose an area of open space in direct sunlight without any obstruction of rain, wind, and sunlight.
4. Transmission range between sensor array and display console could reach a distance of 150m (or 450feet) at line of sight, providing there are no interfering obstacles in between or nearby such as trees, towers, or high voltage line. Check the reception signal quality to ensure good reception.
5. Household appliance such as fridge, lighting, dimmers may pose Electro-magnetic interference (EMI), while Radio Frequency Interference (RFI) from devices operating in the same frequency range may cause signal intermittent. Choose a location at least 1-2 meter (3-5 feet) away from these interference sources to ensure best reception.

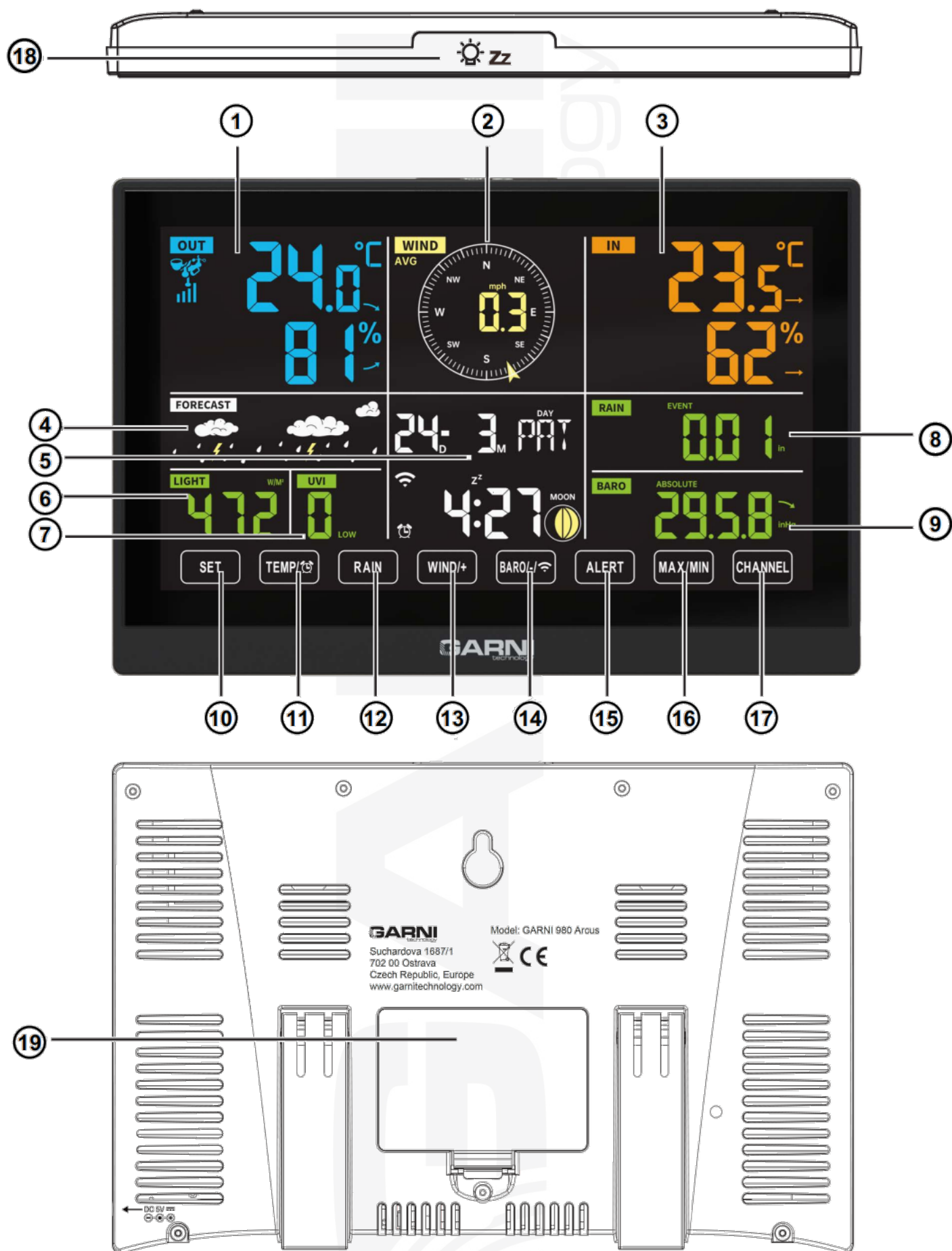
4. PRODUCT OVERVIEW

4.1 WIRELESS 7-IN-1 OUTDOOR SENSOR GARNI 8INT

- 1 Solar panel
- 2 Wind direction vane
- 3 UV/light sensor
- 4 Bubble level gradienter
- 5 Rain collector
- 6 Wind speed cups
- 7 Mounting pole
- 8 Mounting brackets
- 9 Hygro-thermo sensor
- 10 LED: Flashes when the unit transmits a reading
- 11 RESET button
- 12 Battery door



4.2 WEATHER STATION



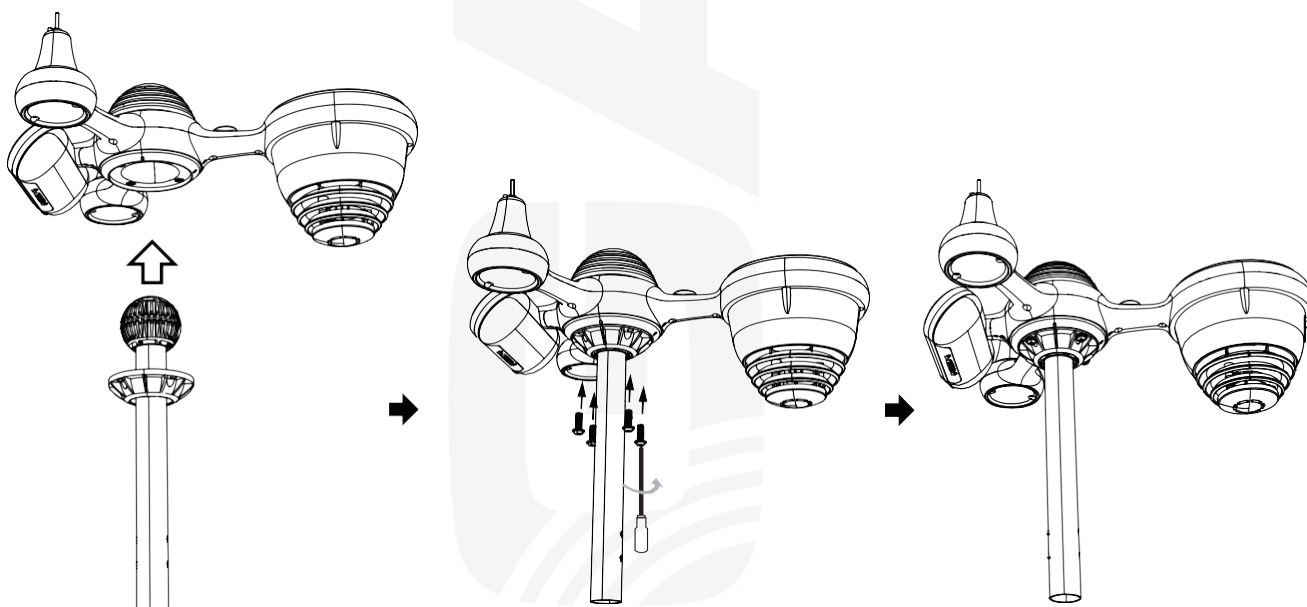
- 1 Outdoor temperature/humidity reading, weather index
- 2 Wind direction & speed
- 3 Indoor temperature/humidity reading
- 4 Weather forecast
- 5 Time & date, moon phase, Weekday
- 6 Light intensity
- 7 UV index
- 8 Rain
- 9 Barometer
- 10 SET button
- 11 TEMP/  (ALARM) button
- 12 RAIN button
- 13 WIND/+ button
- 14 BARO/-/  (Wi-Fi) button
- 15 ALERT button
- 16 MAX/MIN button
- 17 CHANNEL button
- 18  **ZZ** LIGHT/ SNOOZE button
- 19 Battery compartment (backup 3 x AAA batteries, not included)

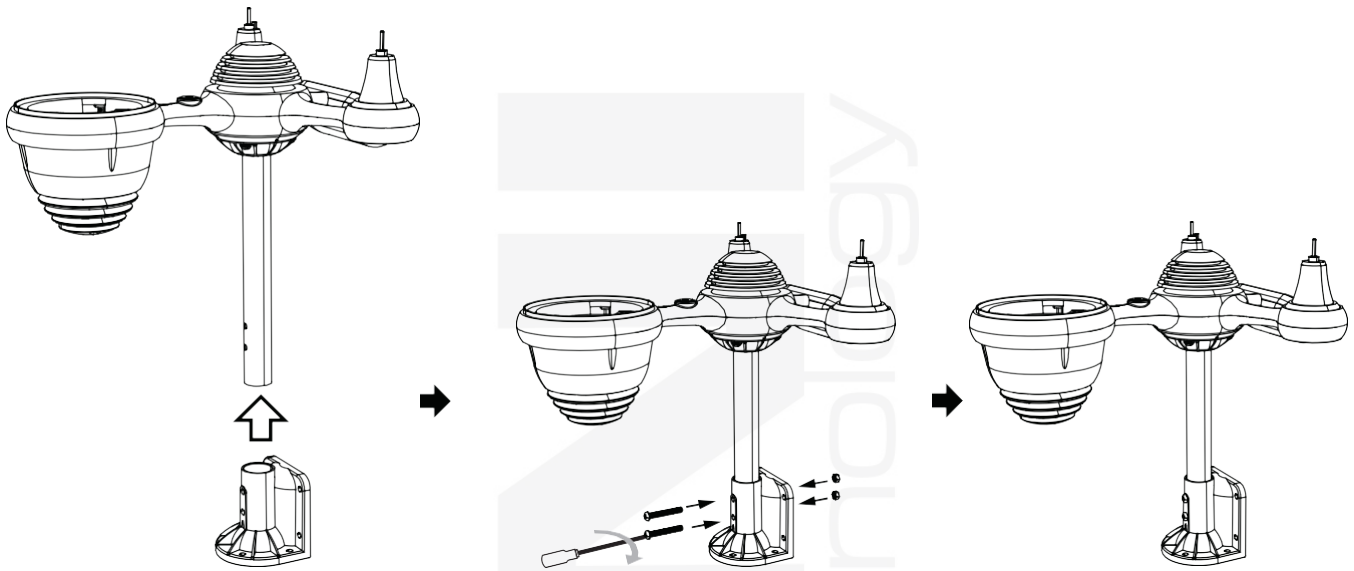
5. SETTING UP THE WIRELESS 7-IN-1 OUTDOOR SENSOR GARNI 8INT

The wireless 7-in-1 outdoor sensor measures wind speed, wind direction, rainfall, UV, light intensity, temperature, and humidity.

5.1 INSTALLING THE MOUNTING POLE AND BRACKET

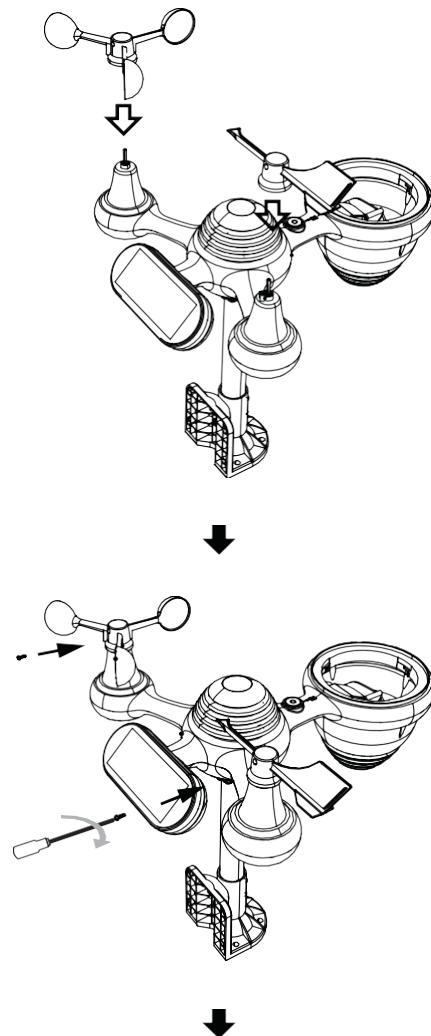
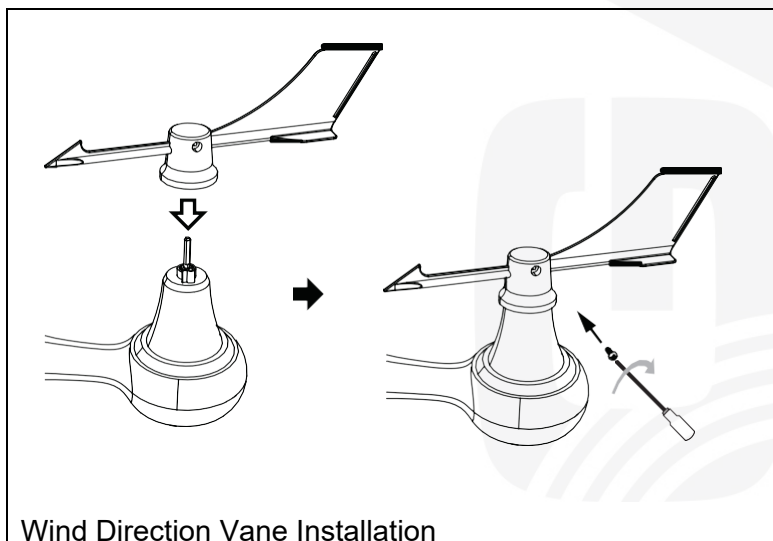
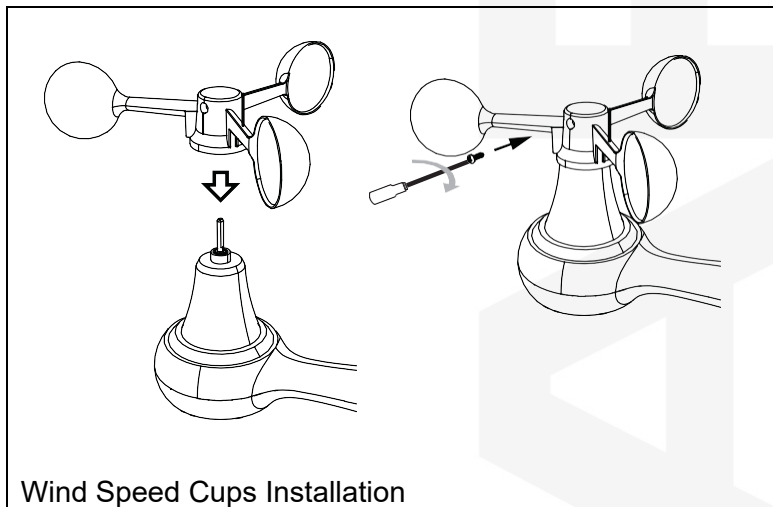
Secure the sensor onto a mounting pole and bracket (included) using the screws (included).

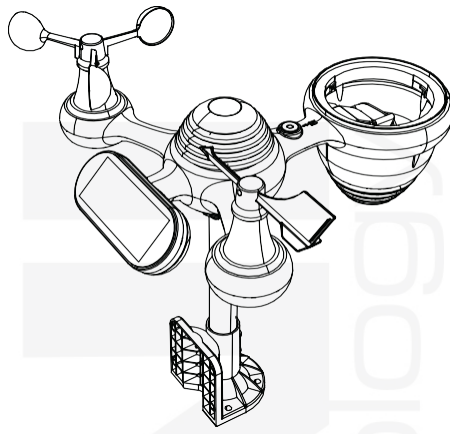




5.2 INSTALLING WIND SPEED CUPS AND WIND DIRECTION VANE

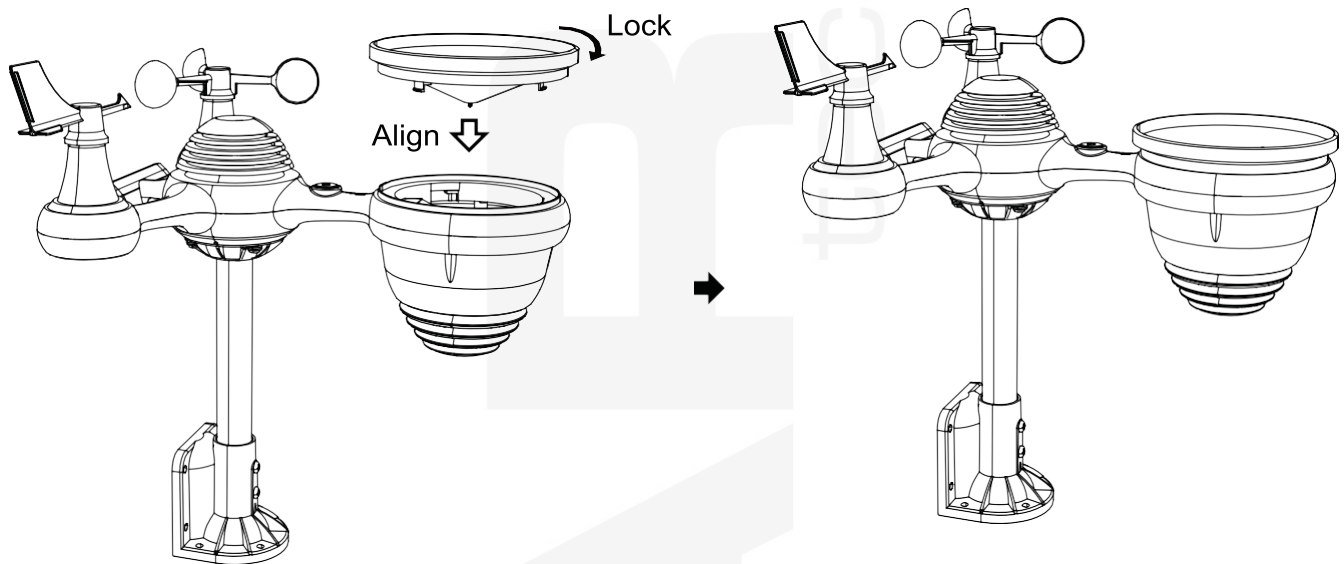
1. Align the screw holes in the wind speed cups with the flat, vertical side of the metal rod.
2. Insert the wind speed cups in the metal rod and screw on tight to lock it in place.
3. Align the screw holes in the wind direction vane with the flat, vertical side of the metal rod.
4. Insert the wind direction vane in the metal rod and screw on tight to lock it in place.





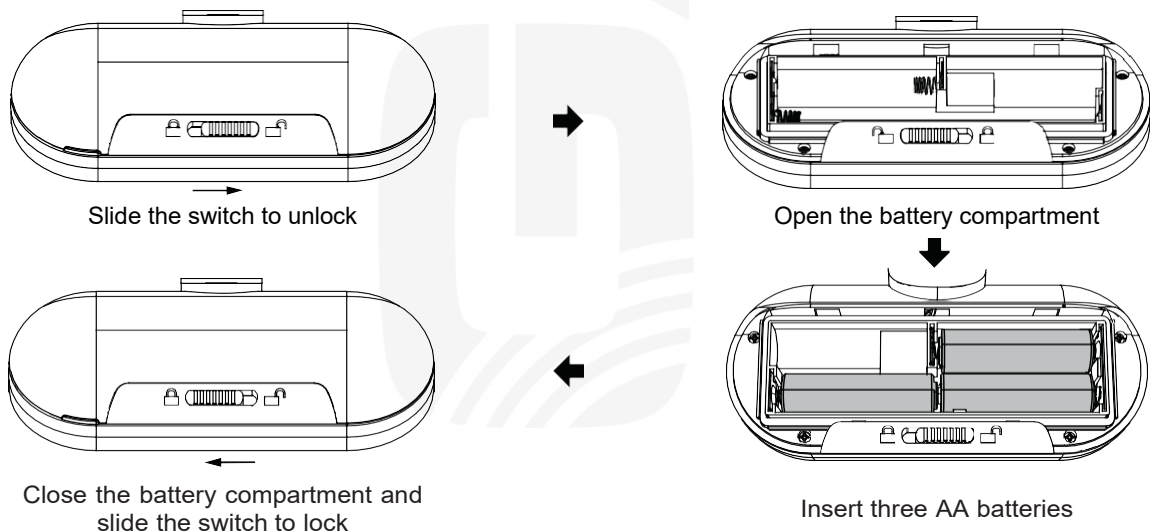
5.3 SETTING UP RAIN COLLECTOR

1. Align the notches on the funnel with the lock grooves inside the rain collector.
2. Insert the funnel in the rain collector and screw on tight to lock it in place.



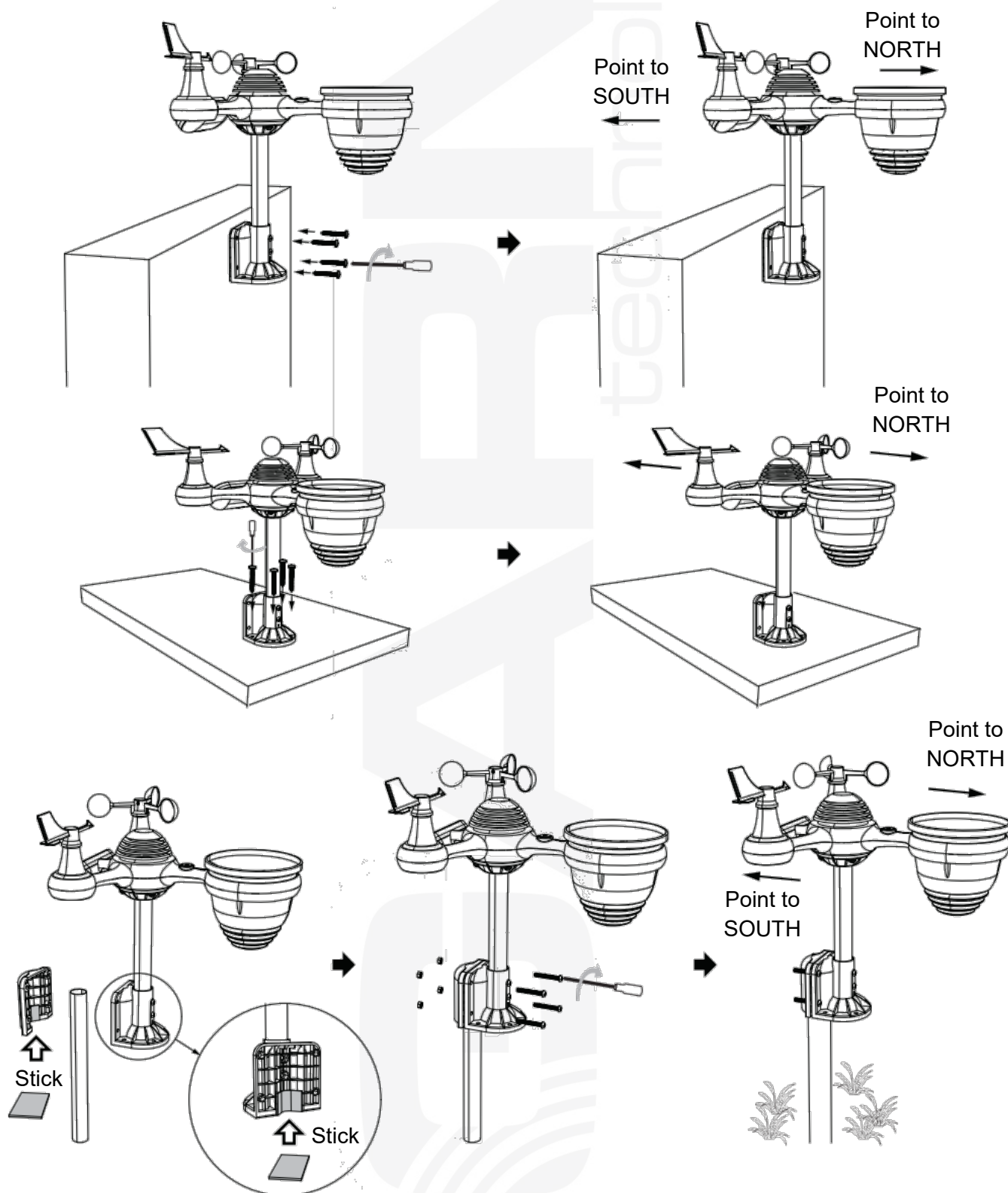
5.4 INSTALLING THE BATTERIES

1. Slide the switch to unlock the battery compartment at the bottom of the solar panel.
2. Insert three AA batteries (not included, lithium recommended) according to the +/- polarity labeled in the compartment.
3. Lock the battery compartment back onto the compartment.



5.5 MOUNTING THE WIRELESS 7-IN-1 OUTDOOR SENSOR

1. Pick a location for the 7-in-1 outdoor sensor that is open with no obstructions.
2. Tighten the mounting brackets to a surface/wall using four tapping screws (included), or tighten the mount pole to your existing mounting pole with four $\phi 5$ Bolts and M5 Nuts assembly.
3. Add rubber pads onto the mounting bracket before fastening the mounting bracket on the sensor.
4. Make sure the rain collector faces north and the solar panel faces south before fastening the screws (included).
5. Please ensure that the sensor is fixed particularly tightly, otherwise windy conditions cause the transmitter to shake and thus misread the rainfall data.



5.6 POINTING THE WIRELESS 7-IN-1 OUTDOOR SENSOR TO SOUTH (OPTIONAL)

The outdoor wireless weather sensor is calibrated to be pointed north for maximum accuracy. However, for your convenience, if you are a user located in the Southern Hemisphere, you can use the sensor with the rain collector pointing south.

1. Mount and install the wireless weather sensor with the rain collector pointing South, instead of North. (Please refer to MOUNTING THE WIRELESS 7-IN-1 OUTDOOR SENSOR.)
2. Select "STH" for south hemisphere in the clock setting mode. (Please refer to "setting the clock")

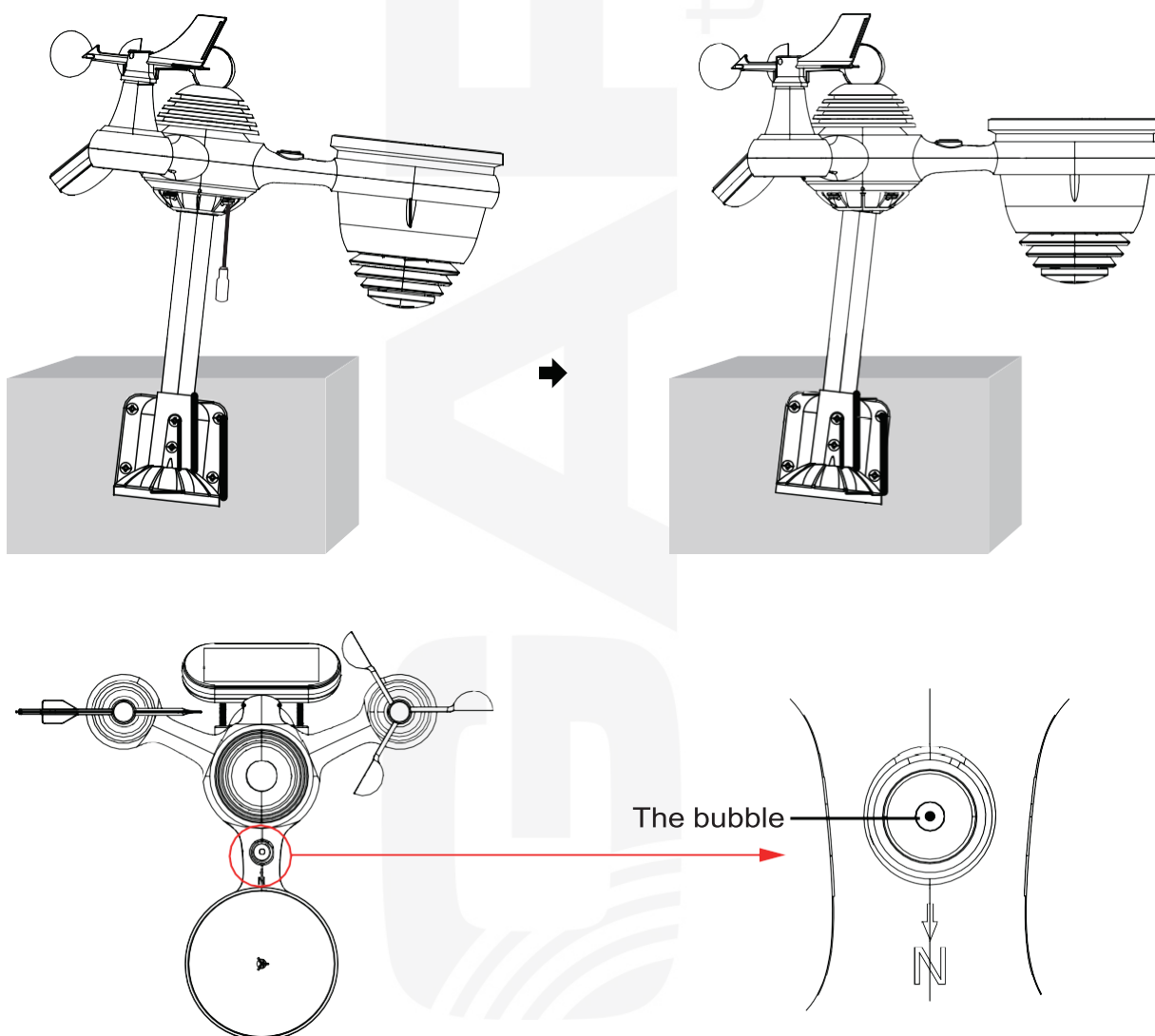


NOTE:

- Changing the hemisphere setting will automatically switch the direction of the moon phases on the display. Pointing the wireless weather sensor toward the south will allow maximum sunlight on the solar panel, especially during the winter season in the Southern Hemisphere.

5.7 ADJUSTING THE 7-IN-1 WIRELESS SENSOR LEVEL

1. Use the bubble level indicator to make sure the wireless outdoor sensor is completely level. If the sensor is not level, the rain gauge, UV and Light intensity will not measure properly.
2. To adjust the level of wireless outdoor sensor, loose the screws of the mounting pole. Adjust the level of the wireless outdoor sensor in order make sure the bubble is in the center of the bubble level indicator.
3. Tighten the screw of the mounting pole again.



6. SETTING UP THE WEATHER STATION

6.1 POWERING UP THE WEATHER STATION

1. Plug the power adapter into the power jack located in the back of the weather station. Insert 3 new AAA alkaline batteries (not included) for backup.
2. Once the weather station is turned on, it will automatically enter pairing mode.

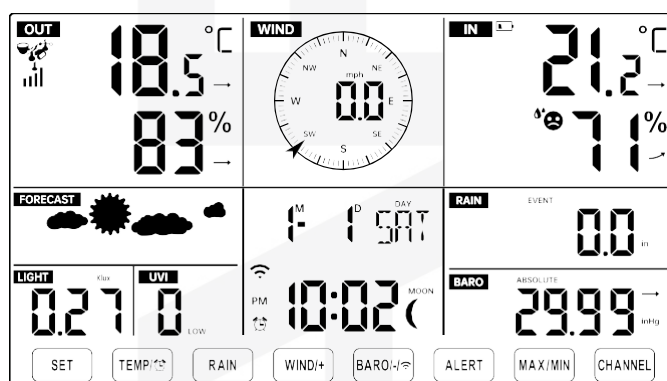


NOTE:

- The battery backup backs up the main unit settings and keeps them in case of a power outage. Once power supply is restored, the main unit will automatically reconnect to the Wi-Fi network.
- 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 will still drain the back-up battery.

6.2 PAIRING THE WIRELESS 7-IN-1 SENSOR

1. Once your weather station powers on, it should automatically search for and connect to the wireless sensors. If the weather station does not connect within the first 5 minutes, refer to the following section, "RE-PAIRING SENSOR".
2. You will see the icon  of an antenna scrolling in the temperature and humidity (outdoor) section of the display.
3. Once the pairing process completes, the antenna icon will appear solid (not flashing), and the readings for outdoor temperature and humidity, wind speed, wind direction, UV, light intensity, and rainfall will appear in their designated sections of the LCD display.



NORMAL TIME DISPLAY

6.3 RE-PAIRING SENSOR

If the connection fails or the weather station is reset, then press and hold the (17) [**CHANNEL**] button over 2 seconds to enter pairing mode, and the weather station will re-register all the sensors that have already been registered to it before, (i.e. the weather station will not lose the connection of the sensors that you'd paired up before.)

7. SETUP INSTRUCTION

7.1 SETTING UP WI-FI CONNECTION AND WEATHER SERVER CONNECTION

Press and hold (14) [**BARO**] button over 3 seconds, the weather station LCD display will show the letter "AP" that it has entered Access Point (AP) mode. At this time it will be ready for the Wi-Fi settings to be adjusted.

Use your smartphone, tablet, or computer to connect to the weather station via Wi-Fi by following these steps:

1. On PC, open your Wi-Fi network settings. On Android or iOS devices, go to settings menu and then select Connections/WI-FI to open the network settings.
2. Locate the weather station SSID from the list. It should appear as **WWS-XXXXXX** (where all the X's are integers) in the list. Tap on the SSID to connect. This step will take several seconds.
3. Once you are connected to the weather station, open up your internet or mobile web browser, and enter the following address into the address bar: **http://192.168.1.1** to access the weather station web interface. (Make sure to include the http:// or else the web browser may interpret the address as a search query). We recommend using the latest version of reputable web browsers.
4. Enter the following information into the web-interface (Figure 1). Make sure all of the information is entered prior to selecting Save. If you choose not to upload Wunder-ground.com, or upload weathercloud.net, leave the check boxes unchecked.

SETTINGS

SETUP **ADVANCED**

Language : English ▼ — Select setup UI display language

Wi-Fi Router Setup

Router Router 12345 ▼ — Select your Wi-Fi Router (SSID) from the list

Select the menu and choose your 2.4GHz WIFI Router

Password ***** 🔍 — Router Password

Weather Server Setup

WeatherUnderground

Station ID KCACANT19 — Enter your station ID

Station Key ***** 🔍 — Enter your station key/password

Upload wunderground.com ☐ — Check to confirm upload to Weather Underground server

Station ID a7d9d2a279fbbafa — Enter your station ID

Station Key ***** 🔍 — Enter your station key/password

Upload weatherCloud.net ☐ — Check to confirm upload to Weathercloud.net

Time Zone Setup

Time Zone +0.00 ▼ — Time zone setting

Time Server Setup

Server URL time.windows.com ▼ — Internet time server setting

Firmware Version: 1.0.1 **Apply** — Press Apply to confirm the setting

Figure 1



NOTE:

- Time zone Setup (default: 0h). To automatically set the time display to your time-zone, change the time zone in Time server setup section of the SETUP page from '0:00' (default) to your time zone (e.g.+1:00 for Czech Republic).
5. If all of the information you entered is correct, press "Apply" to confirm (Figure 1).



NOTES:

- When the Wi-Fi setup is complete, your computer or mobile device will return to the default Wi-Fi connection. If it does not, simply open your device's wireless network settings and manually reconnect.
- While in AP mode, you can press and hold the (14) [**BARO**/-/] button over 3 seconds to exit AP mode. The weather station will simply restore the previous AP settings.

7.2 CALIBRATION

Once you are connected via Wi-Fi to the weather station and have opened the setting page at <http://192.168.1.1>, clicking “**ADVANCED**” will open the following page (Figure 2).

SETTINGS

SETUP **ADVANCED**

Temperature Humidity %

Indoor Current offset: Current offset:

Outdoor Current offset: Current offset:

CH 1 Current offset: Current offset:

CH 2 Current offset: Current offset:

CH 3 Current offset: Current offset:

CH 4 Current offset: Current offset:

CH 5 Current offset: Current offset:

CH 6 Current offset: Current offset:

CH 7 Current offset: Current offset:

-5.0~5.0°C/ -9.0~9.0°F (Default: 0) Range: -9~9% (Default: 0)

Pressure: Select setting unit

Absolute Pressure Offset: (Default: 0) Pressure calibration section

Setting Range: -100~100hpa/ -2.95~2.95inHg/ -75~75mmHg

*Rain gain: Range: 0.5~1.5 (Default: 1.0)

*Wind speed gain: Range: 0.5~1.5 (Default: 1.0)

*Wind direction: Range: -10~10 (Default: 0°)

*UV gain: Range: 0.5~1.5 (Default: 1.0)

*Light gain: Range: 0.5~1.5 (Default: 1.0)

* Depend on the model

Rain, wind speed, wind direction, UV and light calibration use gain method

Firmware Version: 1.0.1 **Apply**

Figure 2

1. You may enter or change the offset and gain values for different measurement parameters.
2. Once you have completed your calibrations, press the “**APPLY**” button.
3. The current offset value will update to show the value that you entered (instead of the default value). If you want to change the value, you can enter a new value in the box beside the number (as in step 1). To update the value again, press “**APPLY**” button.



NOTE:

- Calibration of most parameter is not required, with the exception of Relative Pressure, which must be calibrated to sea-level to account for altitude effects.
- This model does not support additional sensors, calibration on channels CH1 to CH7 will be ignored.

Temperature

Temperature errors can occur when a sensor is placed too close to a heat source (such as a building structure, the ground or trees).

To calibrate temperature, we recommend a mercury or red spirit (fluid) thermometer. Bi-metal (dial) and digital thermometers (from other weather stations) are not a good source and have their own margin of error. Using a local weather station in your area is also a poor source due to changes in location, timing (airport weather stations are only updated once per hour) and possible calibration errors (many official weather stations are not properly installed and calibrated).

Place the sensor in a shaded, controlled environment next to the fluid thermometer, and allow the sensor to stabilize for 3 hours. Compare this temperature to the fluid thermometer and adjust the console to match the fluid thermometer.

Humidity

Humidity is a difficult parameter to measure electronically and drifts over time due to contamination. In addition, location has an adverse effect on humidity readings (installation over dirt vs. lawn for example).

Official stations recalibrate or replace humidity sensors on a yearly basis. Due to manufacturing tolerances, the humidity is accurate to $\pm 5\%$. To improve this accuracy, the indoor and outdoor humidity can be calibrated using an accurate source, such as a sling psychrometer.

Relative barometric pressure

The console displays two different pressures: absolute (measured) and relative (corrected to sea-level).

To compare pressure conditions from one location to another, meteorologists correct pressure to sea-level conditions. Because the air pressure decreases as you rise in altitude, the sea-level corrected pressure (the pressure your location would be at if located at sea-level) is generally higher than your measured pressure.

Thus, your absolute pressure may read 28.62 inHg (969 mb) at an altitude of 1000 feet (305 m), but the relative pressure is 30.00 inHg (1016 mb).

The standard sea-level pressure is 29.92 in Hg (1013 mb). This is the average sea-level pressure around the world. Relative pressure measurements greater than 29.92 inHg (1013 mb) are considered high pressure and relative pressure measurements less than 29.92 inHg are considered low pressure.

To determine the relative pressure for your location, locate an official reporting station that is very close to you and set your weather station to match the official reporting station.

Wind direction

Only use this if you improperly installed the weather station sensor array, and did not point the direction reference to true north.

1 w/m2

The default conversion factor based on the wavelength for bright sunlight is 126.7 lux / w/m2. This value is an international standard, it cannot be calibrated.

Wind

Wind speed is the most sensitive to installation constraints. The rule of thumb for properly installing a wind speed sensor is 4 x the distance of the tallest obstruction. For example, if your house is 20' tall and you mount the sensor on a 5' pole:

$$\text{Distance} = 4 \times (20 - 5)' = 60' \text{ or } = 4 \times (6.10 - 1.52) = 18.32\text{m}$$

Many installations are not perfect and installing the weather station on a roof can be difficult. Thus, you can calibrate for this error with a wind speed multiplier. Without a calibrated source, wind speed can be difficult to measure. We recommend using a calibrated wind meter (not included) and a constant speed, high speed fan.

Rain

The rain collector is calibrated at the factory based on the funnel diameter. The bucket tips every 0.01" or 0.254 mm of rain (referred to as resolution). The accumulated rainfall can be compared to a sight glass rain gauge with an aperture of at least 4" or 0.254 mm. Make sure you periodically clean the rain gauge funnel. Please see chapter "Maintenance".



NOTE:

- The purpose of calibration is to fine tune or correct for any sensor error associated with the devices margin of error. Errors can occur due to electronic variation (example, the temperature sensor is a resistive thermal device or RTD, the humidity sensor is a capacitance device), mechanical variation, or degradation (wearing of moving parts, contamination of sensors).
- Calibration is only useful if you have a known calibrated source you can compare it against, and is optional. This section discusses practices, procedures and sources for sensor calibration to reduce manufacturing and degradation errors. Do not compare your readings obtained from sources such as the internet, radio, television or newspapers. The purpose of your weather station is to measure conditions of your surroundings, which vary significantly from location to location.
- It is highly recommended to perform UV Calibration every 2 to 3 months to improve results. Over time, UV Index may alter results based on bright and strong sunlight conditions. This is why diligent UV Calibration is recommended.

7.3 WI-FI CONNECTION STATUS

When the weather station successfully connects to your Wi-Fi router, the Wi-Fi signal  will appear on the LCD display. If the Wi-Fi signal is not stable or the weather station is trying to connect to the router, the icon  will flash. If the icon disappeared, it means the weather station is not connected to the Wi-Fi router.

	
Flashing: the weather station is attempting to connect to your wireless router	Solid: the weather station has been connected to your wireless router.



NOTE:

- If you own a dual band router (2.4GHz and 5.0GHz), make sure you connect to the 2.4GHz band, otherwise it will fail to connect the weather station to Wi-Fi.

7.4 TIME SERVER CONNECTION STATUS

After the weather station has connected to the internet, it will attempt to connect to the internet time server to obtain the UTC time. Once the connection succeeds and the weather station's time has updated, the icon **"SYNC"** will appear on the LCD.

To display the correct time for your specific time zone, you will need to change the time zone in the **CLOCK** setting mode from 00 (default) to your time zone (eg. -5 for EST). If you don't know your time zone, you can look it up online.



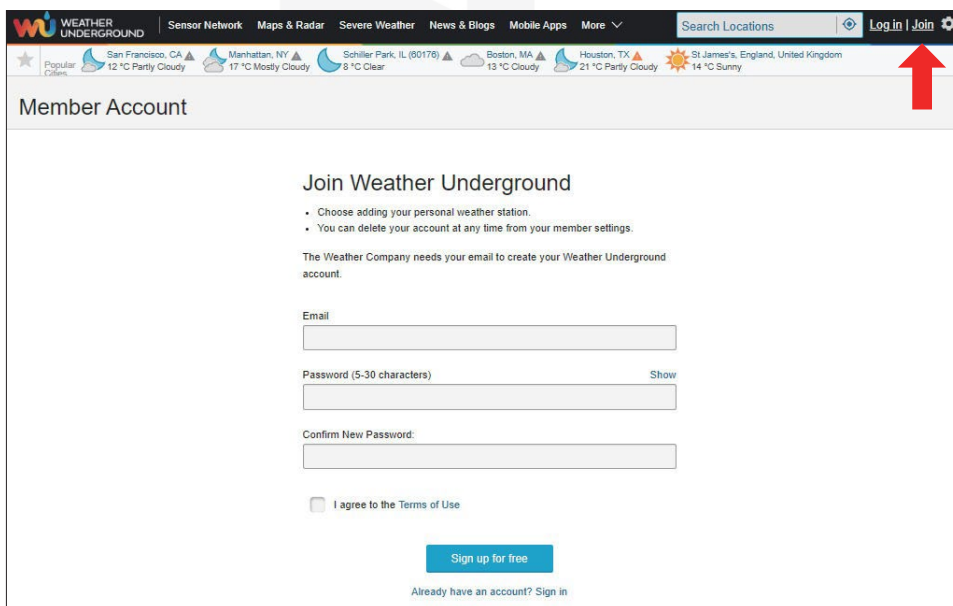
NOTE:

- The time will automatically synchronize to the internet once per an hour.

8. CREATE AND SYNC YOUR WEATHER SERVER ACCOUNT

8.1 CREATE WEATHER UNDERGROUND ACCOUNT

1. Visit: <https://Wunderground.com>, and select the **"Join"** in the upper right and corner and create a Free Account.



The screenshot shows the Weather Underground website. The top navigation bar includes links for Sensor Network, Maps & Radar, Severe Weather, News & Blogs, Mobile Apps, and More. A search bar is located on the right. A red arrow points to the 'Join' link in the top right corner. Below the navigation bar, the 'Member Account' section is visible, featuring the 'Join Weather Underground' heading and a form with fields for Email, Password (5-30 characters), and Confirm New Password. A checkbox for 'I agree to the Terms of Use' is also present, along with a 'Sign up for free' button and a link for 'Already have an account? Sign in'.

2. Enter a Username, Email and Password (means the password to log in to your Weather Underground account, not the password to your email, no privacy will be exposed). Click “Sign up for free”.

WEATHER UNDERGROUND | Sensor Network | Maps & Radar | Severe Weather | News & Blogs | Mobile Apps | More

Search Locations | Log In | Join

Member Account

Join Weather Underground

- Choose adding your personal weather station.
- You can delete your account at any time from your member settings.

The Weather Company needs your email to create your Weather Underground account.

Email:

Password (5-30 characters):

Confirm New Password:

☒ I agree to the Terms of Use

[Sign up for free](#)

Already have an account? Sign in

3. After registration is done successfully, it will shown below message.

WEATHER UNDERGROUND | Sensor Network | Maps & Radar | Severe Weather | News & Blogs | Mobile Apps | More

Search Locations | Log In | Join

Member Account

Welcome!

You are now an official Weather Underground member.

Personal Weather Stations
Join our global community connecting data from environmental sensors like weather stations and air quality monitors. Provide rich hyperlocal weather data today.
[Learn More About Weather Stations](#)

Category 6™
Keep up with the latest weather news and happenings. Check out our Category 6™ news site with update articles written by our resident meteorologist, Bob Henson.
[Read the Latest Weather News](#)

Weather Maps
Check out our extensive catalog of weather maps ranging from Radar to 12 Hour Surface Forecast.
[View Our Maps Catalog](#)

Wundermap
Our Wundermap is also one of most data rich interactive weather maps on the market today.
[Check Out Wundermap](#)

4. Click “Login” and enter the email address and password you just registered.

WEATHER UNDERGROUND | Sensor Network | Maps & Radar | Severe Weather | News & Blogs | Mobile Apps | More

Search Locations | Log In | Join

Member Account

Sign in to Weather Underground!

Email:

Password: [Forgot your password?](#)

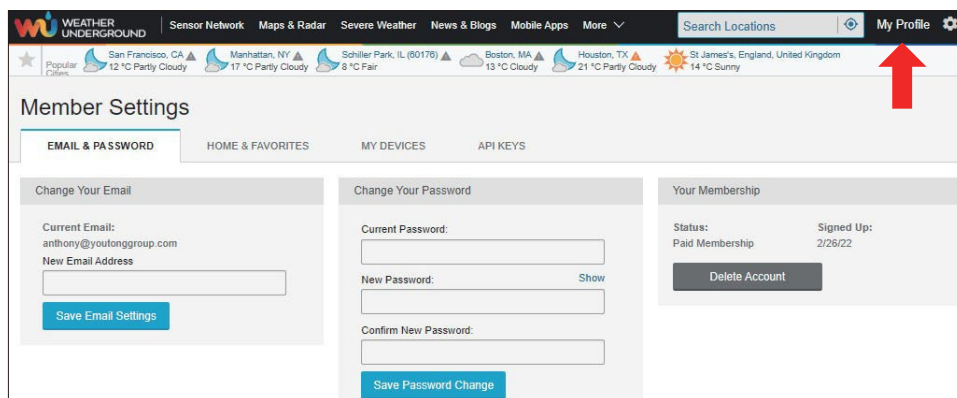
[Sign in](#)

Don't have an account? Sign up

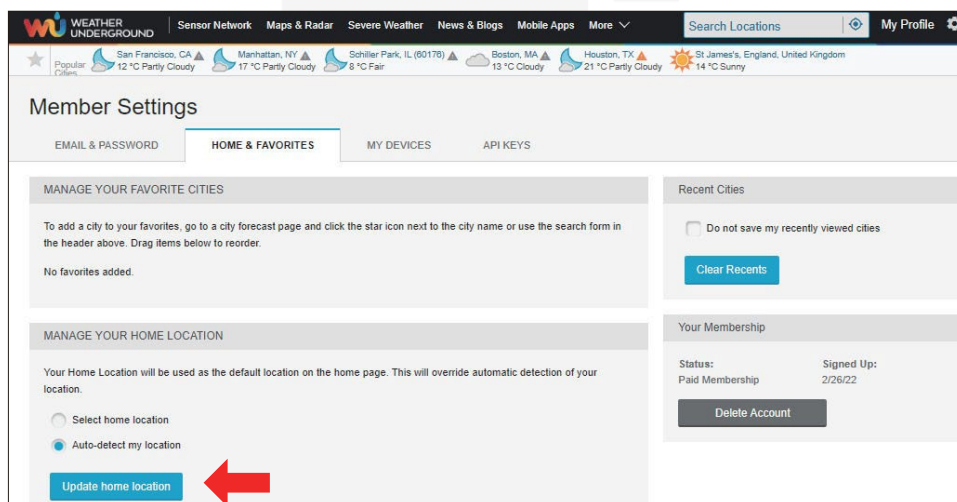
[Terms of Use](#) | [Privacy Policy](#)

Please read these terms carefully. By using Weather Underground or signing up for an account, you're agreeing to these terms.

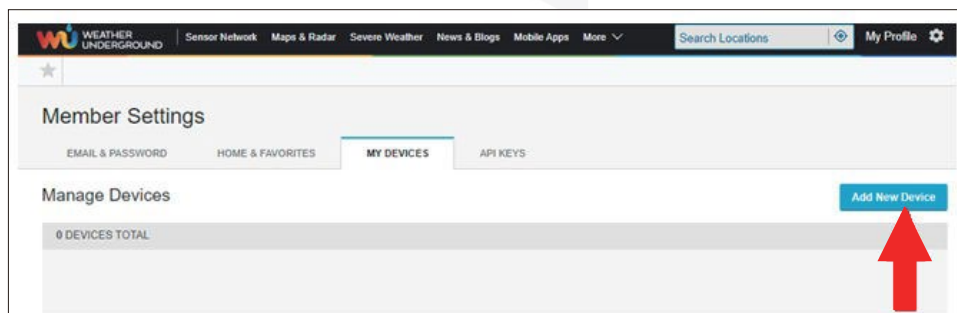
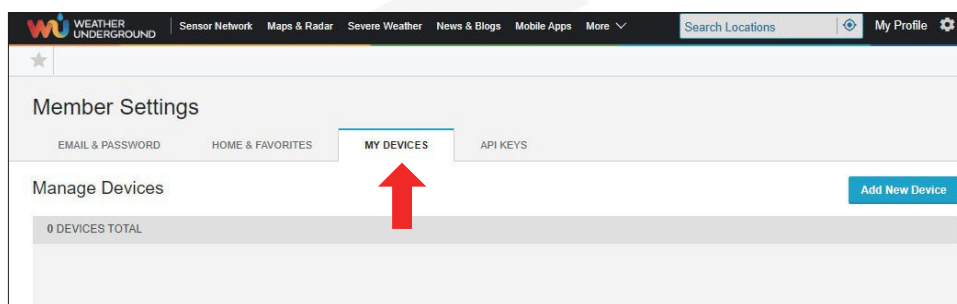
5. Click **“My profile”** and enter Member settings.



6. Click **“Update home location”**.



7. Click **“My Devices”**, and click **“Add New Device”**.



8. Select address by inputting an address or select Manual to position your address automatically. Then click **“Next”**.

WEATHER UNDERGROUND | Sensor Network | Maps & Radar | Severe Weather | News & Blogs | Mobile Apps | More | Search Locations | My Profile

Popular Cities: San Francisco, CA 53 °F Partly Cloudy | Manhattan, NY 62 °F Partly Cloudy | Schiller Park, IL (60178) 46 °F Fair | Boston, MA 55 °F Cloudy | Houston, TX 66 °F Partly Cloudy | St James's, England, United Kingdom 58 °F Sunny

Add a New PWS

TYPE LOCATION DETAILS DONE

Set Device Name & Location

50%

Device Location:

☒ Address ☐ Manual

Enter Address

Back Next

Map of the United States showing the location of the device.

WEATHER UNDERGROUND | Sensor Network | Maps & Radar | Severe Weather | News & Blogs | Mobile Apps | More | Search Locations | My Profile

Popular Cities: San Francisco, CA 53 °F Partly Cloudy | Manhattan, NY 62 °F Partly Cloudy | Schiller Park, IL (60178) 46 °F Fair | Boston, MA 55 °F Cloudy | Houston, TX 66 °F Partly Cloudy | St James's, England, United Kingdom 58 °F Sunny

Add a New PWS

TYPE LOCATION DETAILS DONE

Set Device Name & Location

50%

Device Location:

☐ Address ☒ Manual

35.324.-118.114

Your Location has been verified and added!

Elevation: 361 ft
Lat, Lon: 35.324, -118.114
Neighborhood: Canli
Time Zone: America/Los_Angeles

Back Next

Map of the United States showing the location of the device.

9. Enter the weather station information. Blanks with red (required) must be filled in.



NOTE:

- You can select "other" of the Device Hardware.

WEATHER UNDERGROUND | Sensor Network | Maps & Radar | Severe Weather | News & Blogs | Mobile Apps | More | Search Locations | My Profile

Add a New PWS

TYPE LOCATION **DETAILS** DONE

Tell Us More About Your Device

75%

Name:(Required)
Give Your Device a Name

Elevation:(Required)
361

Device Hardware:(Required)
other

Surface Type:

Height Above Ground:
Ft. Above Ground

You Make Our Forecasts More Accurate, We Respect Your Privacy
Contribute to the Weather Underground community by sharing some information about yourself and your sensor. We use this information to manage your account and to improve the experience from the Weather Underground community. We may also share certain data for commercial purposes, such as your sensor location.
[Learn more about how we take your privacy seriously](#)

(Required)
☒ I Accept ☐ I Deny

Email Preferences:
☐ I would like to receive PWS notifications.

Back Next

10. Once complete this session, click "I Accept" and "Next".

11. After registering successfully, please record your Weather Underground ID and Key information for later setup use.

WEATHER UNDERGROUND | Sensor Network | Maps & Radar | Severe Weather | News & Blogs | Mobile Apps | More | Search Locations | My Profile

Add a New PWS

TYPE LOCATION DETAILS **DONE**

Registration Complete!

100%

Congratulations! Your personal weather station is now registered with Weather Underground. [Configure Your Software](#)

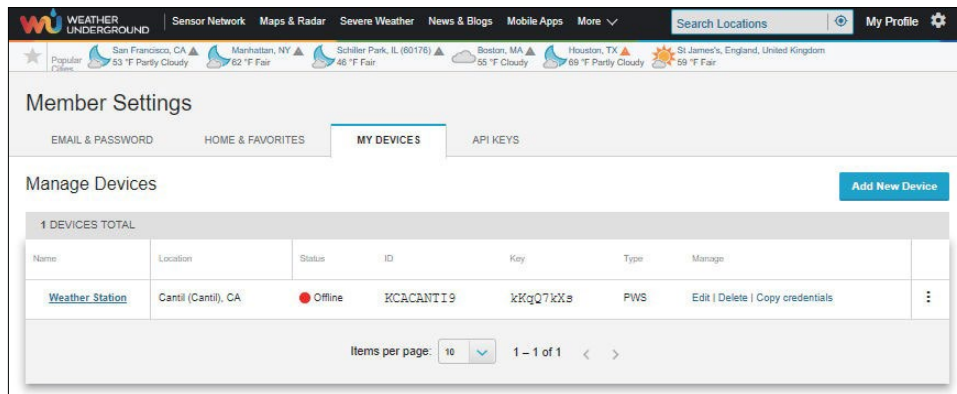
Enter the information below to your weather station software.

Your PWS
Station ID: **KCACANTI9**
Station Key: [Masked]

[Copy credentials](#)

[View Devices](#)

12. As shown below, registration is done successfully.



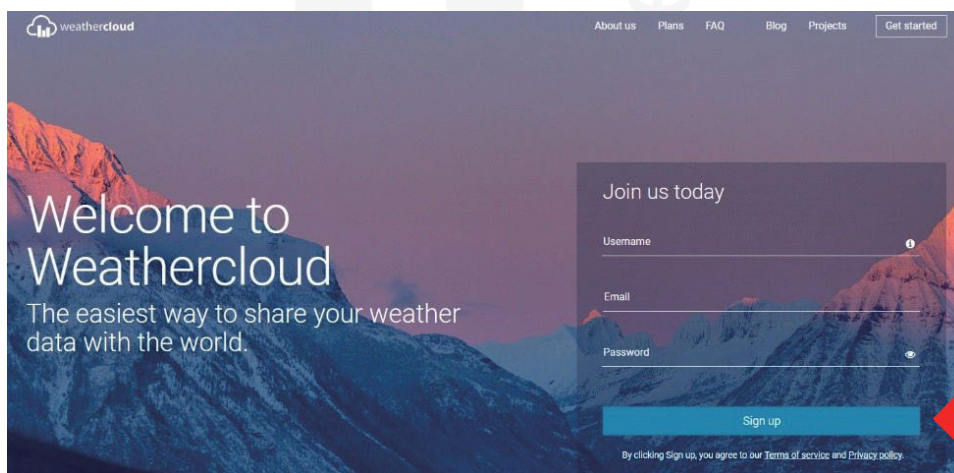
8.2 CREATE YOUR WEATHERCLOUD ACCOUNT

1. Visit Weathercloud website at <https://weathercloud.net/>, and enter a Username, Email and Password (means the password to log in to your Weathercloud account, not the password to your email, no privacy will be exposed) and click **“Sign up”**. Following the instructions to create an account.

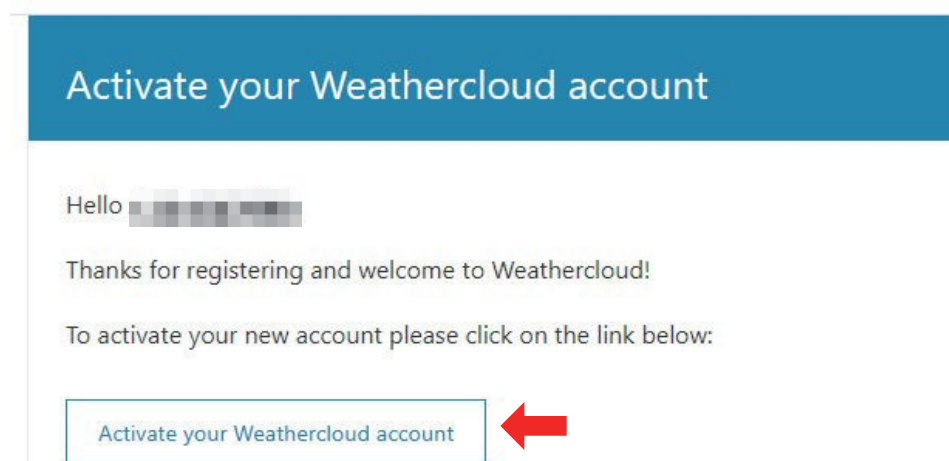


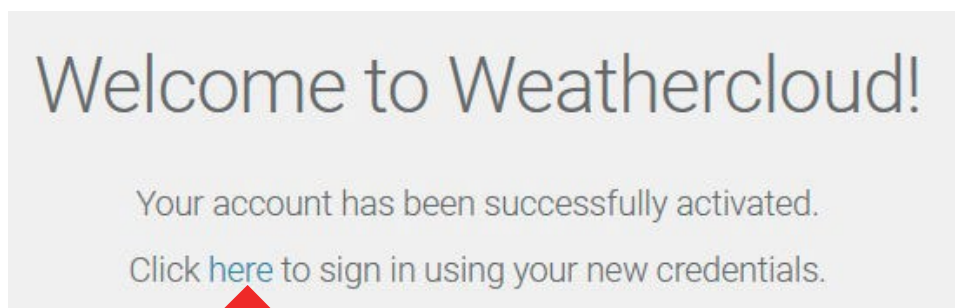
NOTE:

- This is best done on a computer desktop or laptop.



2. When it is successful, an email will be received in your registered mailbox. If you do not receive an email, you can proceed to login, see step no. 5.
3. Open your mail and log in to the web address in the mail. Click **“Activate your Weathercloud account”**.





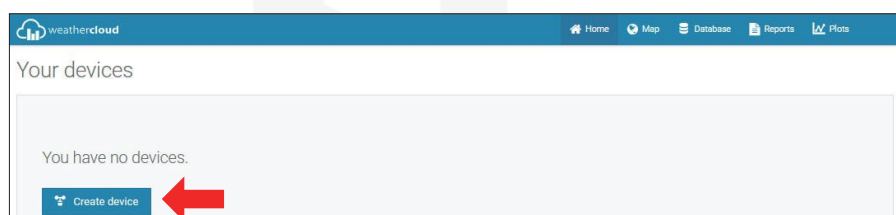
4. Click "here" to enter the homepage of the weathercloud website.
5. Enter the email address and password you just registered to enter the weathercloud website.

Sign in

☐ Remember me [Forgot your password?](#)

Not a member yet? [Sign up for free.](#)

6. Click "Create device" to add a weather station device.



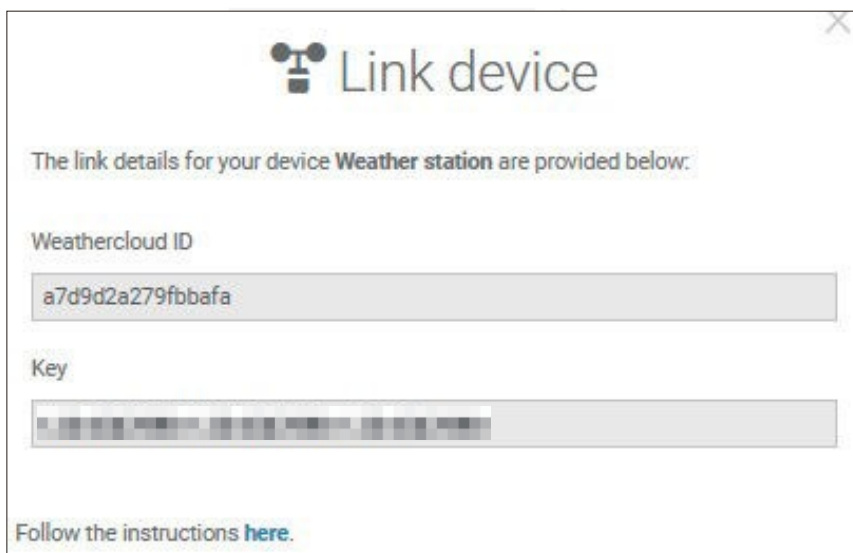
7. Enter all the requested information into the Create New Device page.
Blanks with red * must be filled in.



NOTE:

- You can select "other" of the Model number and Link type in the above blanks.
Click "Get coordinates" to identify your location of on the map, then click "Done" to confirm.

8. Once you have completed this section, click "Create".
9. After registering successfully, please record your Weathercloud ID and Key information for later setup use.



The link details for your device **Weather station** are provided below:

Weathercloud ID
a7d9d2a279fbbafa

Key
[Redacted]

Follow the instructions [here](#).

8.3 VIEW YOUR WEATHER DATA IN WEATHER UNDERGROUND

To view your weather station data live via PC or mobile web browser, visit <http://www.wunderground.com>, and then enter the Station ID you were provided during account setup in the search box. Your weather data will show up on the next page.

8.4 VIEW YOUR WEATHER DATA IN WEATHERCLOUD

1. To view your weather station data live via PC or mobile web browser, visit <http://www.weathercloud.net> and sign into the account you created.
2. Click on the tab at the top of the page titled Devices.
3. Click on the Settings menu at the top right of the page, and select the option View.
4. Click on either Current, Wind or Evolution to view your weather station's data.

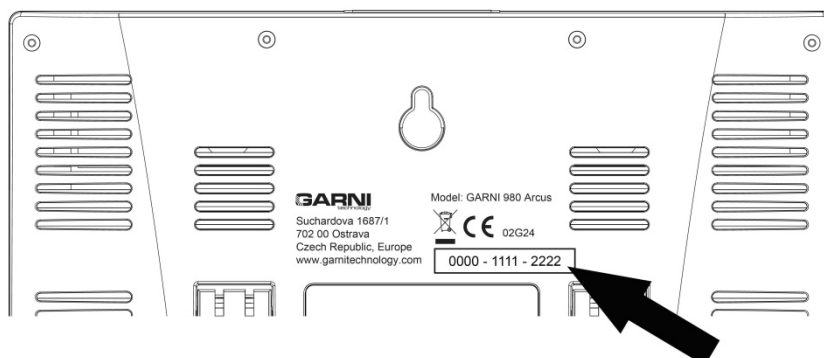
GARNI TECHNOLOGY APP

The official application "GARNI technology", which is available for free to download on Google Play (for Android) and App Store (for iOS), can also be used to view data sent to Weather Underground server.



To activate the application, enter the code (eg. 0000 - 1111 - 2222) located on the back side of the weather station main unit without the dashes and spaces. Keep this code properly.

For more information please visit www.garnitechnology.com or www.garni-meteo.cz/aplikace.



NOTE:

- The application is provided free of charge and is not part of the product, which product does not depend on the application for its proper functionality in full. The manufacturer reserves the right to change the functions, specifications, appearance and provision of services of the application without prior notice.

9. OPERATING INSTRUCTIONS

9.1 CLOCK

Setting the Clock

In Normal time display, press and hold (10) [**SET**] over 2 seconds to enter time setting mode.

Press and release (13) [**WIND/+**] and (14) [**BARO/-/☼**] to adjust the values.

Hold (13) [**WIND/+**] and (14) [**BARO/-/☼**] over 2 seconds to adjust the values rapidly.

Press and release (10) [**SET**] to confirm and move to the next item.

To exit the setting mode any time, press (18) [ **LIGHT/SNOOZE**] button.

Setting Order

- | | | |
|--------------------------|--------------------|-----------------------------------|
| 1. BEEP On/Off | 2. NTP On/Off | 3. Language |
| 4. Time Zone | 5. DST On/Off | 6. M-D/D-M Date Format |
| 7. Year | 8. Month | 9. Day |
| 10. 12/24 Hour Format | 11. Hour | 12. Minute |
| 13. Temperature Unit | 14. Pressure Unit | 15. Relative Pressure Calibration |
| 16. Light Intensity Unit | 17. Rainfall Unit | 18. Wind Speed Unit |
| 19. Hemisphere | 20. End of setting | |

1. Press and hold (10) [**SET**] button entering the settings. Beep ON flashes. Press (13) [**WIND/+**] or (14) [**BARO/-/☼**] to change between Beep on and Beep off. Press (10) [**SET**] to select NTP on/off.
2. When NTP ON flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☼**] to change between NTP on and NTP off. Press (10) [**SET**] to select Language.
3. When Language flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☼**] to change between weekday languages. Press (10) [**SET**] to select time zone.



NOTE:

- There are total 8 languages for weekday display.

(CZE = Czech, DUT = Dutch, POL = Polish, ENG = English, GER = German, FRE = French, SPA = Spanish, HUN = Hungarian)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
CZE	PON	UTE	STR	CTV	PAT	SOB	NED
DUT	MAA	DIN	WOE	DON	VRI	ZAT	ZON
POL	PON	WT	SR	CZW	PT	SOB	NDZ
ENG	MON	TUE	WED	THU	FRI	SAT	SUN
GER	MON	DIE	MIT	DON	FRE	SAM	SON
FRE	LUN	MAR	MER	JEU	VEN	SAM	DIM
SPA	LUN	MAR	MIE	JUE	VIE	SAB	DOM
HUN	HE	KE	SZE	CSU	PE	SZO	VAS

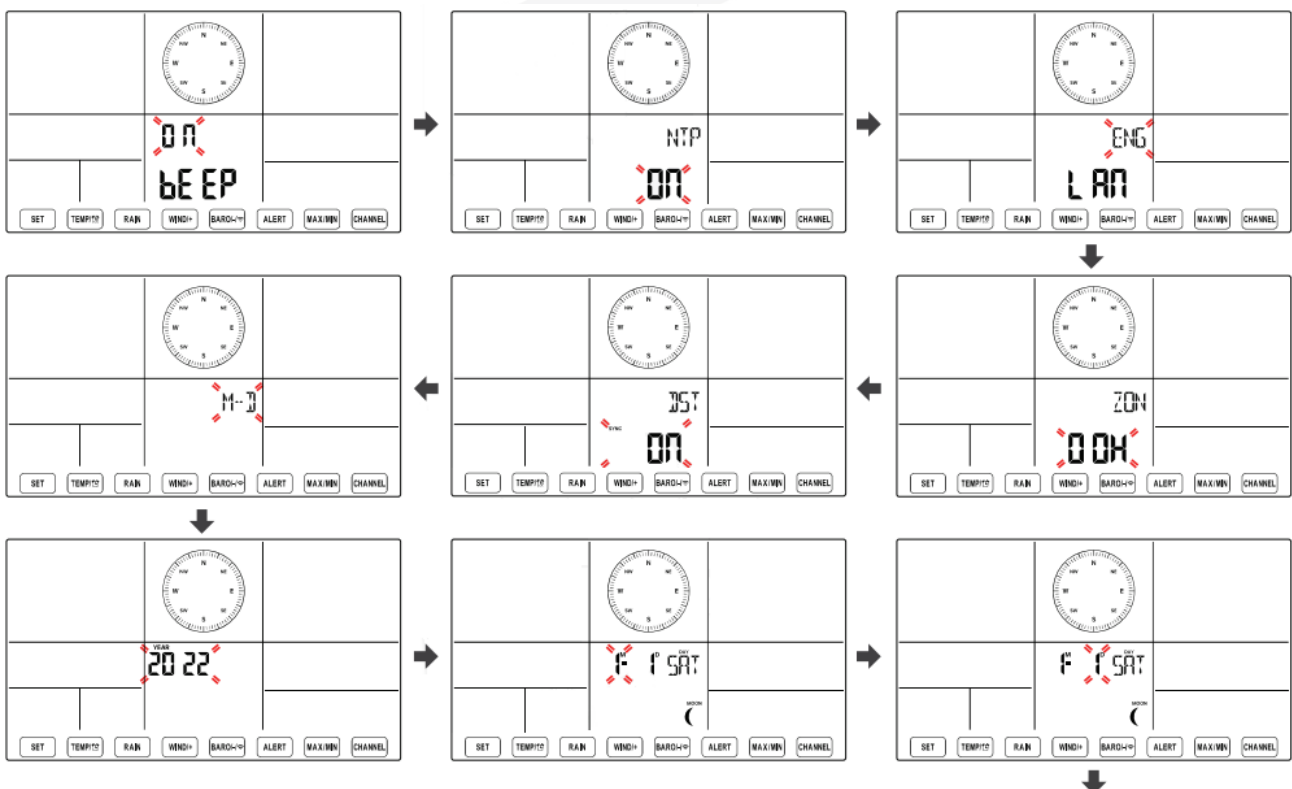
4. When Time Zone flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☼**] to set time zone. Press (10) [**SET**] to select DST on/off.
5. When DST ON flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☼**] to change between DST on and DST off. Press (10) [**SET**] to select date format.
6. When M--D flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☼**] to switch between M-D and D-M date format. Press (10) [**SET**] to select year.
7. When year flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☼**] to adjust the calendar year. Press (10) [**SET**] to select month.

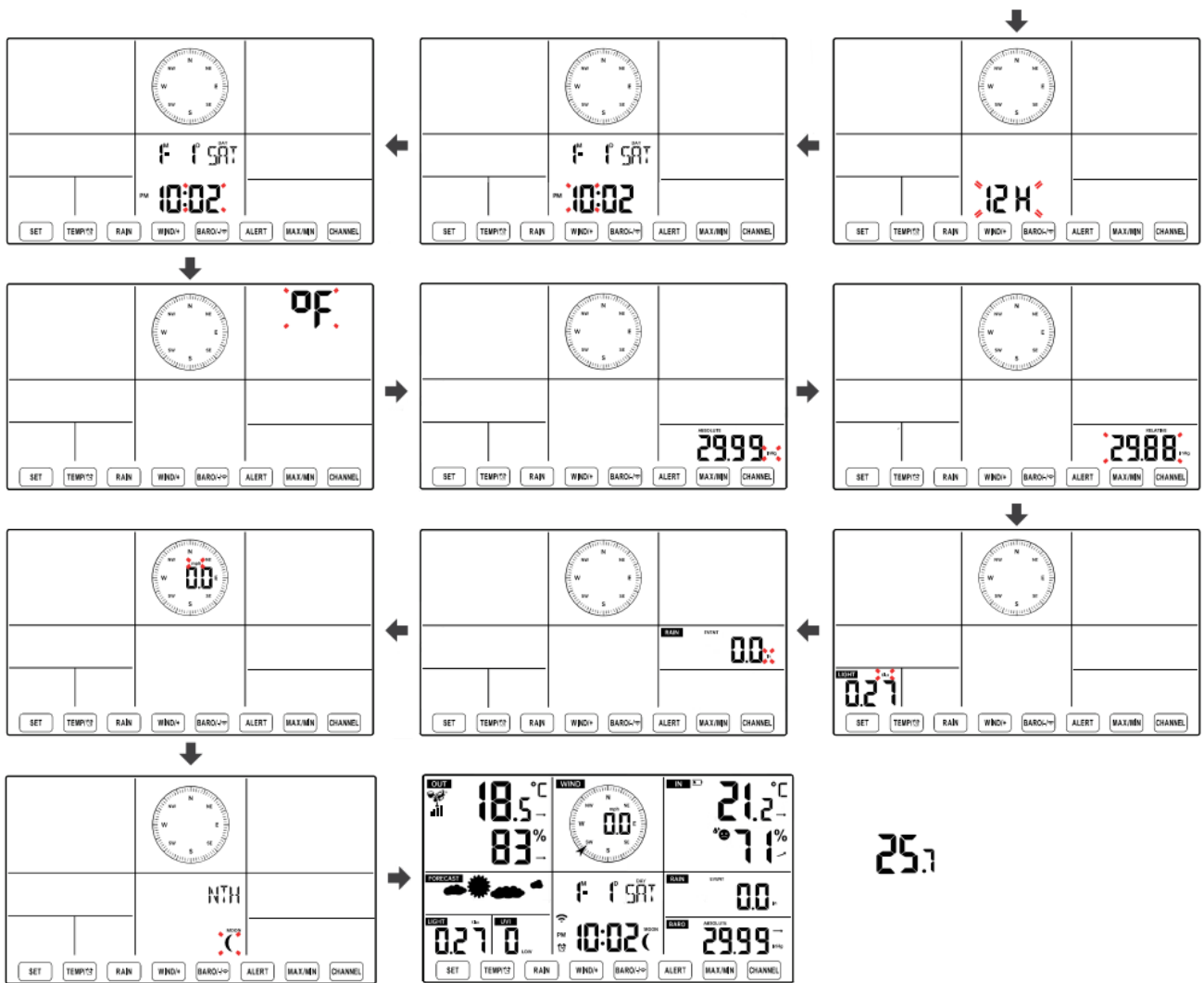
8. When month flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to adjust the calendar month. Press (10) [**SET**] to select day.
9. When Day flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to adjust the calendar day. Press (10) [**SET**] to select 12/24-hour format.
10. When 12 H flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to change between 12 hour and 24 hour format. Press (10) [**SET**] to select hour.
11. When hour flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to adjust the hour. Press (10) [**SET**] to select minute.
12. When minute flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to adjust the minute. Press (10) [**SET**] to select temperature unit.
13. When °F flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to change between °F and °C. Press (10) [**SET**] to select pressure unit.
14. When pressure unit flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to change between hPa, inHg and mmHg. Press (10) [**SET**] to select relative pressure calibration.
15. When Relative Pressure flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to adjust the relative pressure. Press (10) [**SET**] to select Light intensity unit.
16. When Light intensity unit flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to change unit between Klux, fc and w/m2. Press (10) [**SET**] to select rainfall unit.
17. When Rain unit flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to change unit between in and mm. Press (10) [**SET**] to select windspeed unit.
18. When Windspeed unit flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to change unit between in and mm. Press (10) [**SET**] to select hemisphere.
19. When NTH flashes, press (13) [**WIND/+**] or (14) [**BARO/-/☒**] to change hemisphere between NTH (northern) and STH (southern). Press (10) [**SET**] to save and exit the setting. It will return to the normal mode display.



NOTE:

- If there is no valid operation within 20 seconds, it will automatically return to the normal display mode from the setting mode. While adjusting settings, you can press (18) [**ZZ LIGHT/SNOOZE**] button to return to normal display mode.





Moon Phase

The display console calculates the moon phase according to your time, date, and time zone. The table below explains the corresponding phases and their icons for both the Northern and Southern hemispheres.

Northern Hemisphere Icons	Moon Phase	Southern Hemisphere Icons
	New Moon	
	Waxing Crescent Moon	
	First Quarter Moon	
	Waxing Gibbous Moon	
	Full Moon	
	Waning Gibbous Moon	
	Third Quarter Moon	
	Waning Crescent Moon	

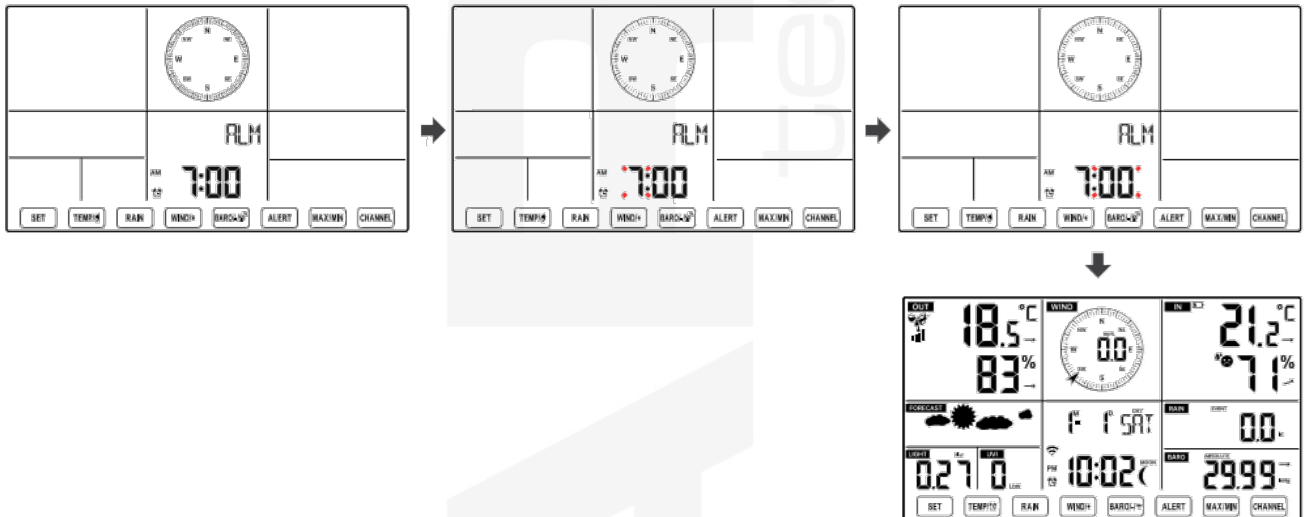
Setting the Alarm

- In normal time display, press (10) [**SET**] button to switch display alarm time (alarm time mode).
- In alarm time display, press and hold (10) [**SET**] button over 2 seconds to enter alarm setting mode. Hour of alarm starts to flash.
- Press (13) [**WIND/+**] button or (14) [**BARO/-/☺**] button to set required alarm hours. Hold (13) [**WIND/+**] button or (14) [**BARO/-/☺**] button to adjust alarm hours quickly.
- Press (10) [**SET**] button to select minute of Alarm. Minute of alarm starts to flash.
- Press (13) [**WIND/+**] button or (14) [**BARO/-/☺**] button to set required alarm minutes. Hold (13) [**WIND/+**] button or (14) [**BARO/-/☺**] button to adjust alarm minutes quickly.
- Press (10) [**SET**] button to save all settings and exit to normal display mode.



NOTE:

- If there is no valid operation within 20 seconds, it will automatically return to the normal display mode from the setting mode. While adjusting settings, you can press (18) [**☺ ZZ LIGHT/SNOOZE**] button to return to normal display mode.



Deactivate/Activate Alarm

- In alarm time display, press (11) [**TEMP/☺**] button to select the Alarm on or off.
- If the alarm is on, its corresponding alarm icon ☺ will be shown on the display.
- When the alarm is ringing, press any buttons except (18) [**☺ ZZ LIGHT/SNOOZE**] button to stop the alarm signal. It is not necessary to reactivate the alarm. It will ring again this time next day.

Snooze Function

When the alarm rings, press (18) [**☺ ZZ LIGHT/SNOOZE**] button to pause the alarm. The snooze indicator icon **ZZ** keep flashing. The alarm will resume after 5 minutes.

9.2 TEMPERATURE

Temperature/Humidity Trend

Tendency arrows allow you to quickly determine if temperature and humidity are rising or falling in a one-hour update period.

Temperature Trend

Temperature has risen > 1°C/2°F in the past hour	Temperature has not changed more than 1°C/2°F in the past hour	Temperature has fallen < 1°C/2°F in the past hour
		

Humidity Trend

Humidity has risen > 3% in the past hour	Humidity has not changed more than 3% in the past hour	Humidity has fallen < 3% in the past hour
		

Indoor Comfort Index

The indoor comfort displays a pictural representation based on the indoor air temperature and humidity levels to determine the approximate comfort level.

		
Too cold	Comfortable	Too hot

9.3 PRESSURE

Barometric Pressure Display

The atmospheric pressure is the pressure at any location of the earth caused by the weight of the column of air above it. One atmospheric pressure refers to the average pressure and gradually decreases as altitude increases. Meteorologists use barometers to measure atmospheric pressure. Since variation in atmospheric pressure greatly affected by weather, it is possible to forecast the weather by measuring the changes in pressure.



In normal mode, press (14) **[BARO/-/☺]** button switch between absolute and relative pressure.

Absolute	The absolute atmospheric pressure in your location.
Relative	The relative atmospheric pressure based on the sea level.

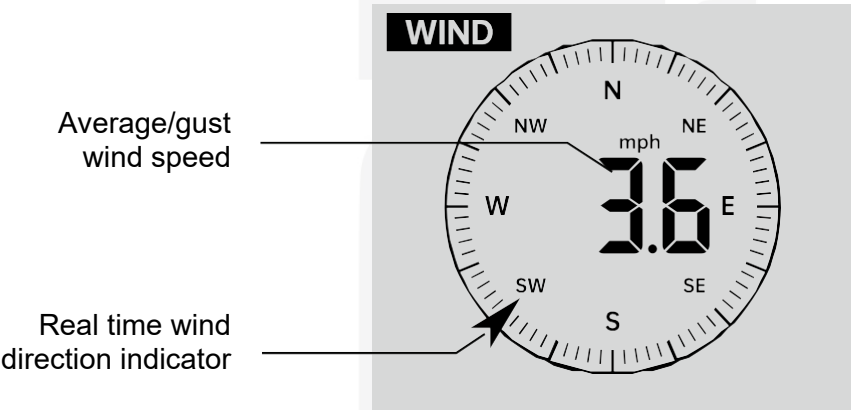
Pressure Trend

Tendency arrows allow you to quickly determine if pressure is rising and falling in a one-hour update period.

Pressure has risen > 2hpa/0.06inHg in the past hour	Pressure has not change more than 2hpa/0.06inHg in the past hour	Pressure has fallen < 2hpa/0.06inHg in the past hour
		

9.4 WIND

Wind Display



Selecting Wind Display Mode

In normal display mode, press (13) [WIND/+] button to switch between current average wind speed, gust wind speed and wind direction.

9.5 RAIN

Rainfall Display



The Rainfall shows information regarding the rainfall and rain rate.

Select the Rainfall Display Mode

In normal display mode, press (12) [RAIN] button to switch between Rain Rate, Rain Event, Rain Hourly, Rain Daily, Rain Weekly, Rain Monthly and Rain Total.

Increments of Rain Definition

Rain event	: continuous rain, and resets to zero if rainfall accumulation is less than 10mm (0.039 in) in a 24-hour period.
Rain Rate	: current rainfall rate in the past hour.
Hourly Rain	: current rainfall for the last hour
Daily Rain	: Total rainfall since midnight (00:00)

Weekly Rain	: Total rainfall for the past 7 days
Monthly Rain	: Total rainfall for the current calendar month, and reset on the first day of the Month.
Total Rain	: Total rainfall since the last reset.

Reset the Total Rainfall Record

In normal display mode, press and hold (12) **[RAIN]** button over 2 seconds to reset the rain record.



NOTE:

- Resetting the weekly rain also resets the daily rain.
- Resetting the monthly rain also resets the daily and weekly rain.
- Resetting the total rain also resets the monthly, weekly and daily rain.

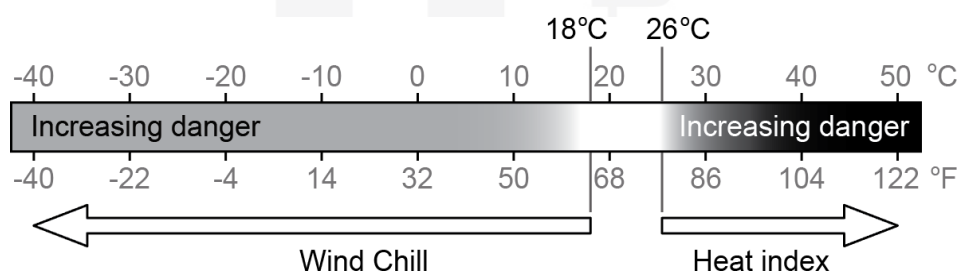
9.6 WEATHER

Weather Index

When reading the Weather Index display, you can press (11) **[TEMP/ ]** button to cycle through different weather indexes in the following order: Feels Like > Heat Index > Wind Chill > Dew Point

Feels Like

The Feels Like temperature index determines what temperature it actually feels like outside taking into account factors like outside temperature and humidity.



Heat Index

The Heat Index is determined by the wireless weather sensor's temperature and humidity readings.

Wind Chill

Wind Chill measurements are based on the combined effects of temperature and wind speed. The Wind Chill value is calculated only from the temperature values measured by the 7-in-1 outdoor unit.



NOTE:

- Only when the outdoor temperature is below 10 °C (50°F) and the wind speed is over 4.8km/h (3mph), will display the wind chill value, otherwise it will display "--.-".

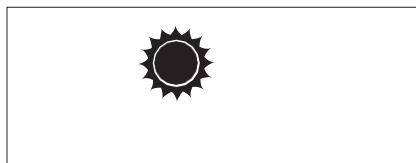
Dew Point

The dew point is the temperature at which a given parcel of humidity air must be cooled, at constant barometric pressure, for water vapor to condense into water. The condensed water is called dew. The dew point is a saturation temperature. The Dew Point temperature is determined by the temperature and humidity data from the wireless weather sensor.

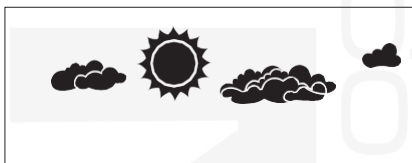
Weather Forecast

The built-in barometer can notice atmospheric pressure changes, and based on the data collected, can predict the weather conditions.

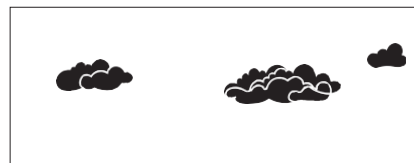
There are 6 weather icons --- Sunny, Partly Cloudy, Cloudy, Rainy, Stormy and Snowy.



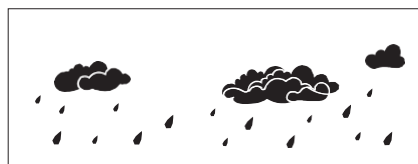
Sunny



Partly Cloudy



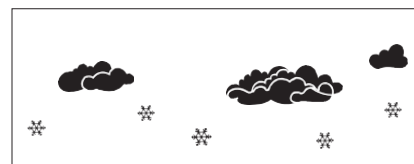
Cloudy



Rainy



Stormy



Snowy



NOTE:

- The accuracy of a general pressure-based forecast is about 65-70%. Forecasts are not guaranteed. It may not necessarily reflect the current situation

Ice Alert

When outdoor temperature is lower than 1°C/33.8°F, the snowflake icon ❄ will appear on the LCD display.

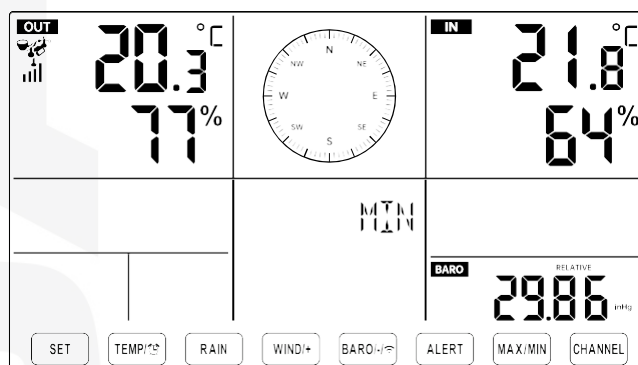
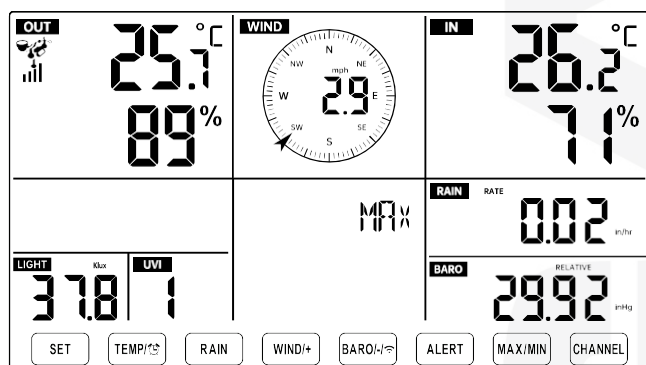
9.7 MAX/MIN

In normal display mode, press (16) [MAX/MIN] button switching between maximum and minimum value.



NOTE:

- If there is no valid operation within 10 seconds, it will automatically return to the normal display mode.



To View the Accumulated MAX/MIN

Display Feel like, Wind Chill, Heat Index, Dew Point Max/Min Values

1. When the max values are displayed, press (11) [TEMP/°] button to interchange viewing the Outdoor temperature → Feel like → Wind Chill → Heat Index → Dew Point → Outdoor temperature.
2. When the min values are displayed, press (11) [TEMP/°] button to interchange viewing the outdoor temperature → Feel like → Wind Chill → Heat Index → Dew Point → Outdoor temperature.

Display Wind Speed, Wind Gust Max Values

When the max values are displayed, press (13) [**WIND/+**] button to interchange viewing between the AVERAGE and GUST wind speeds.

Display Rain Rate, Daily Rain, Weekly Rain and Monthly Rain Max Values

When the max values are displayed, press (12) [**RAIN**] button to interchange viewing Rain Rate → Daily Rain → Weekly Rain → Monthly Rain.

Display Absolute and Relative pressure Max/Min Values

1. When the max values are displayed, press (14) [**BARO/-/☒**] button to interchange viewing between Absolute and Relative pressure.
2. When the min values are displayed, press (14) [**BARO/-/☒**] button to interchange viewing between Absolute and Relative pressure.

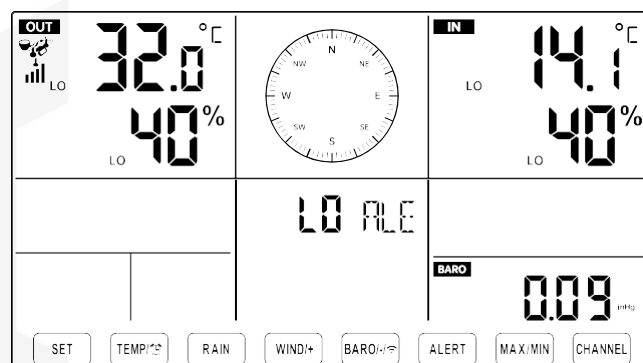
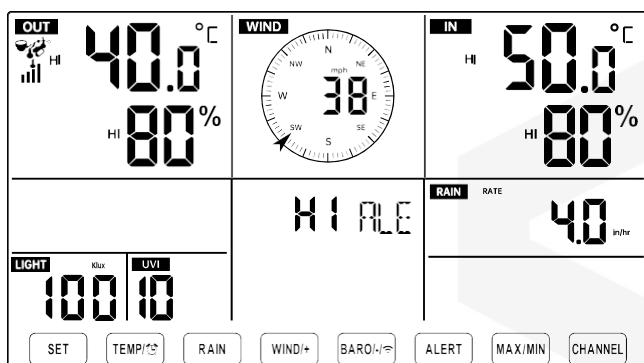
To Clear the MAX/MIN Data Record

- To clear the max value, press and hold (16) [**MAX/MIN**] button over 2 seconds while max values are displayed.
- To clear the min value, press and hold (16) [**MAX/MIN**] button over 2 seconds while min values are displayed.

9.8 HI/LO ALERT SETTING

To View the Alert Setting

- In normal display mode, press (15) [**ALERT**] button switching between Hi alert and Low alert setting value.



To Set the Alert

- In normal display mode, press and hold (15) [**ALERT**] button over 2 seconds to enter the alert setting mode.
- Press (13) [**WIND/+**] button and (14) [**BARO/-/☒**] button to adjust the value up or down, then press (11) [**TEMP/☒**] button to turn on/off the alert.
- Press (15) [**ALERT**] button to confirm and jump to next setting.
- The icon **HI** or **LO** will display when the alert is on.



High/Low Alert on



High/Low Alert off

- To exit the alert setting mode at any time, press the (18) [**zz LIGHT/SNOOZE**] button.

The Hi/Lo alert setting order is shown below:

Alert Setting Order	Setting Range	Display Section	Default
Indoor Temperature Hi Alert	-9.9°C — 50°C (-14.1°F — 122°F)	Indoor temperature & Humidity	50°C (122°F)
Indoor Temperature Lo Alert			-9.9°C (14.1°F)
Indoor Humidity Hi Alert	1% — 99%		80%
Indoor Humidity Lo Alert			40%
Outdoor Temperature Hi Alert	-40°C — 70°C (-40°F — 158°F)	Outdoor temperature & Humidity	40°C (104°F)
Outdoor Temperature Lo Alert			0°C (32°F)
Outdoor Humidity Hi Alert	1% — 99%		80%
Outdoor Humidity Lo Alert			40%
High Average Wind Speed Alert	0 - 50m/s 2 - 180 km/h 1 - 111mph 1 - 97 knots 0 - 60 bft	Wind Speed	17 m/s 62 km/h 38 mph 33 knots 20 bft
High Wind Gust alert	0 - 50m/s 2 - 180 km/h 1 - 111mph 1 - 97 knots 0 - 60 bft	Wind Speed	17 m/s 62 km/h 38 mph 33 knots 20 bft
Pressure Drop Alert	1 hpa – 10 hpa 0.03~0.3 inHg 0.7~7.5 mmHg	Barometer	3 hpa 0.09 inHg 2.2 mmHg
High Rain Rate alert	1 mm/hr – 1000 mm/hr (0.04 in/hr – 39 in/hr)	Rainfall Rate	101 mm/hr (4 in/hr)
High Daily Rain alert	1 mm – 1000 mm (0.03 in – 39.37 in)	Rainfall Rate	101 mm (4 in)
UV index High Alert	1 – 15	UV Index	10
Light Intensity High Alert	1 Klux – 200.0 Klux 7-1580 W/M² 0-185Kf	Light Intensity	100 Klux 790 W/M² 92 Kfc

To Silence the Hi/Lo Alert Alarm

Press the (18) [ **ZZ LIGHT/SNOOZE**] button on top of the display console to silence the alarm, or it will automatically turn off after one minute.



NOTE:

- Once the alert is triggered, the alarm will sound for one minute and the associated alert icon and weather readings will flash.
- If the alert alarm automatically shuts off after one minute instead of being manually shut off, the associated alert icon and readings will continue flashing until the reading is out of the alert range.
- The weather alert alarm will go off once the readings fall into alert range again.

9.9 BACKLIGHT

Display Backlight

With DC Adapter

The backlight can only be continuously on when the DC adapter is permanently on. When the DC adapter is disconnected, the backlight can be temporarily turned on.

Press (18) [ **ZZ LIGHT/SNOOZE**] button to adjust the backlight brightness, High, Low and Off.

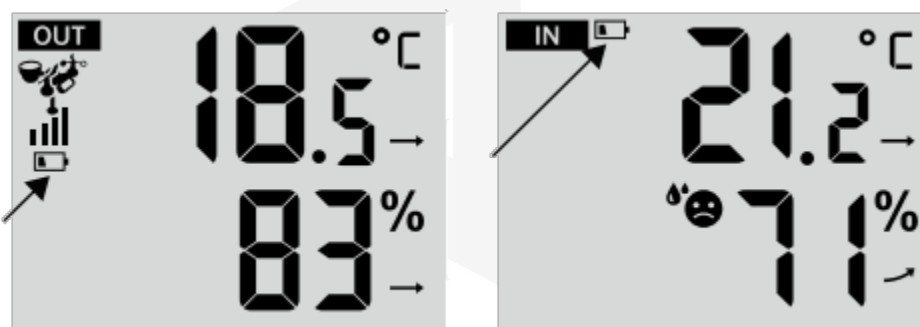
Without DC Adapter

Press (18) [ **ZZ LIGHT/SNOOZE**] button temporarily turn on the backlight for 15 seconds.

9.10 LOW BATTERY INDICATOR

If the low battery indicator icon is displayed in the outdoor temperature and humidity section or the corresponding CH section of the LCD console display, this indicates that the batteries in your wireless weather sensor(s) are running low and should be replaced. Make sure to replace all batteries at the same time.

If the low battery icon appears in the indoor temperature and relative humidity section, the main unit batteries are low and need to be replaced. Always replace all batteries.



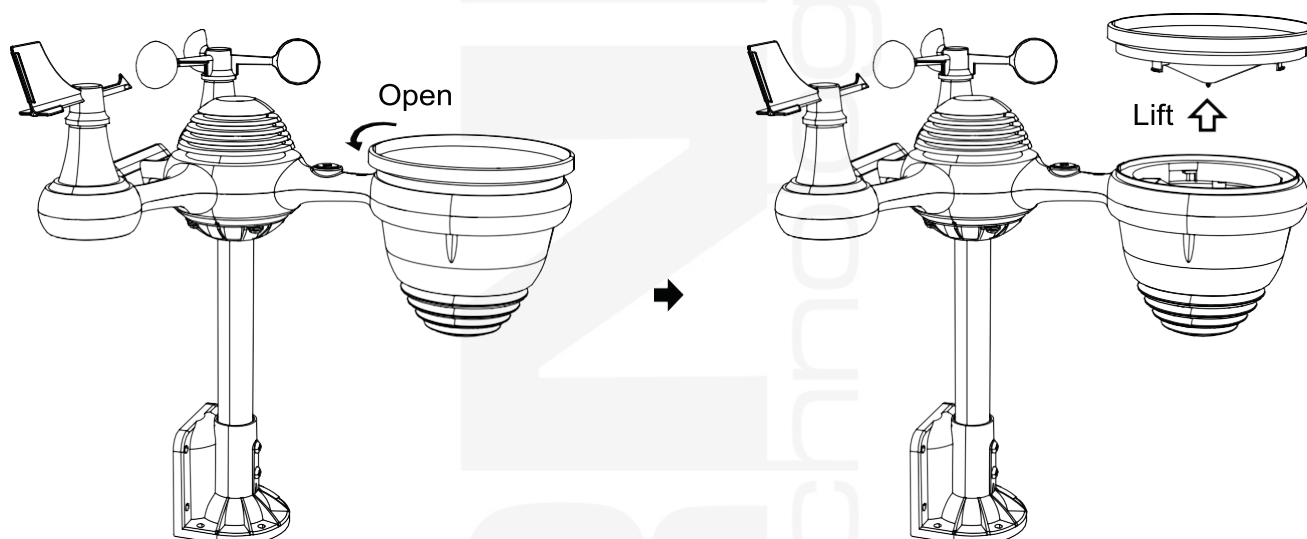
9.11 FACTORY RESTART

If there is malfunction, the Factory Restart is a great way to return your station to "out of the box" condition.

1. Remove all power (batteries and DC adapter) from outdoor sensors and main unit.
2. Follow the operation "SETTING UP THE WEATHER STATION" to start the pair the sensor.

9.12 CARE AND MAINTENANCE

1. Clean the rain gauge every 3 months. Rotate the funnel counterclockwise and lift to expose the rain gauge mechanisms, and clean with a damp cloth. Remove any dirt, debris, and insects. If bug infestation is an issue, spray the sensor lightly with insecticide.



2. Clean the Light Intensity/ UV sensor and solar panel every 3 months with damp cloth.
3. Temperature and humidity sensor maintenance:
 - a) Unscrew the rain gauge funnel counterclockwise, see above, and remove it.
 - b) Unscrew the 4 cross screws on the circular base of the tipping bucket and remove the tipping bucket and base.
 - c) After removing the tipping bucket, the three cross screws of the radiation shield will become accessible. Unscrew the screws and carefully remove the radiation shield from the underside of the integrated 7-in-1 wireless sensor.
 - d) Carefully remove all dirt and insects from the sensor (the sensor must not get wet) and radiation shield, and dry the radiation shield.
 - e) After you have cleaned the temperature and relative humidity sensor, radiation shield and rain gauge sensor, reassemble all parts one at a time.
4. When replacing the batteries, always use new, high quality batteries (lithium batteries are recommended).



NOTE:

- Please carry out all maintenance tasks away from elevated areas and have the integrated wireless sensor placed e.g. on a table.

10. TROUBLESHOOTING

Problem	Solution
Wireless sensor does not communicate the weather station	The wireless sensor may have initiated properly, and the data is registered by the weather station as invalid, and the weather station must be reset. With an open-ended paperclip, press the RESET button for 3 seconds to interrupt power supply. LED will flash every 20 seconds. If LED will not flash every 20 seconds, take out the batteries and wait 5 minute, while covering the solar panel to drain the voltage. Put batteries back in and resync the weather station and resync the weather station (Refer to RE-PAIRING SENSOR) with the wireless sensor about 10 feet (3m) away . The LED of the wireless sensor will flash every 20 seconds. If the LED is still not flashing every 20 seconds, replace the new batteries in the wireless sensor. If the batteries were recently replaced, check the polarity. If the wireless sensor is flashing every 20 seconds, proceed to the next step. There may be a temporary loss of communication due to reception loss related to interference or other location factors, Or the batteries in the integrated 7-in-1 wireless sensor have been replaced and a new pairing with the main unit has not been made. Follow the instructions in the REPAIRING THE SENSOR section.
The indoor and outdoor temperature values are not the same even when the two units are placed side by side	Allow up to one hour for the wireless sensors to stabilize due to signal filtering. The indoor and outdoor temperature sensors should agree within $\pm 2^{\circ}\text{C}$ ($\pm 4^{\circ}\text{F}$) (the sensor accuracy is $\pm 1^{\circ}\text{C}$ ($\pm 2^{\circ}\text{F}$)) Use the calibration feature to match the indoor and outdoor temperature to a known source.
Temperature sensor reads too high in the daytime	Make certain that the wireless sensor is not too close to heat generating sources or structures, such as buildings, pavement, walls, or air conditioning units.
Rain gauge reports rain when it is not raining	An unstable mounting solution (sway in the mounting pole) may result in the tipping bucket incorrectly incrementing rainfall. Make sure you have a stable, level mounting solution. (Refer to ADJUSTING THE 7-IN-1 WIRELESS SENSOR LEVEL)
Wi-Fi does not display on the weather station	Check your router for problems. 1. Check Wi-Fi symbol on the display. If wireless connectivity is successful, the Wi-Fi icon  will be displayed in the time section. 2. Make sure your modem Wi-Fi settings are correct (network name, and password). 3. Make sure the weather station is plugged into AC power. The weather station will not connect to Wi-Fi when powered by batteries only. 4. The console only supports and connects to 2.4GHz routers. If you

	own a 5GHz router, and it is a dual band router, you will need to disable the 5Ghz band, and enable the 2.4GHz band OR use a different SSID for both network. 5. The weather station does not support guest networks.
Data not reporting to www.wunderground.com or www.weathercloud.net	1. Confirm your password or key is correct. It is the password you registered on Wunderground.com. Your underground.com password cannot begin with non-alphanumeric characters (a limitation of Wunderground.com, not the weather station). Example, \$worknet is not a valid password, but worknet\$ is valid) 2. Confirm your station ID is correct. The station ID is all caps, and the most common issue is substituting and O for a 0 (or vice versa). Example, KCAPHOEM12, not KCAPH0EM12. 3. Make sure the data and time is correct on the weather station. If incorrect, you may be reporting old data, not real time data. 4. Make sure your time zone is set properly. If incorrect, you may be reporting old data, not real time data. 5. Check your router firewall settings. The weather station sends data via Port 80.

11. SPECIFICATIONS

MAIN UNIT	
General Specifications	
Dimension (W x H x D)	191.6 x 127 x 16mm (7.5 x 5 x 0.6 inch)
Weight	305 g (without batteries)
Power source	AC-DC 5V, 1A adapter (included)
Backup battery	3 x AAA battery (not included; alkaline batteries recommended; we strongly do not recommend using rechargeable batteries)
Support sensors	1 x 7-in-1 sensor (included)
Display backlight settings	2 levels of brightness and the option of turning it off completely
Wi-Fi Communication Specification	
Wi-Fi Standard	802.11 b/g/n
Wi- Fi operation frequency	2.4 GHz
Supported router security type	WPS, WEP, WPA, WPA2 Personal, WPA2 Enterprise, WPA3
Supported devices for setup UI	Build-in Wi-Fi with WAP mode smart device, including laptops, computers, smart phones and smart pads
Recommend web browser for setup UI	Latest Version of any web browser that supports HTML 5

Supported weather servers	
Supported weather servers	Weather Underground, Weathercloud
Time Function Specifications	
Time display	HH : MM
Hour format	12 hour or 24 hour
Date display	DD/MM or MM/DD
Time synchronization method	Over the internet using a UTC time server or manually
Time zones	GMT ± 12
DST	ON/OFF
Weekday languages	EN / DE / FR / ES / NL / CZ / PL / HU
Barometer Display & Function	Specifications
Barometer units	hPa, inHg and mmHg
Measuring range	600 – 1100 hPa (relative setting range 930 – 1050 hPa)
Accuracy	700 – 1100 hPa ± 5 hPa / 600 – 696 hPa ± 8 hPa 20.67 – 32.48 inHg ± 0.15 inHg / 17.72 – 20.55 inHg ± 0.24 inHg 525 – 825 mmHg ± 3.8 mmHg / 450 – 522 mmHg ± 6 mmHg Typical at 25°C (7°F)
Weather forecast	Sunny, Partly Cloudy, Cloudy, Rainy, Stormy and Snowy
Display mode	Current
Memory mode	Daily Max/ Min
Alert	Pressure change alert
Indoor/Outdoor Temperature	Display & Function Specifications
Temperature unit	°C and °F
Indoor Display range	-9.9°C – 50°C (-14.1°F – 122°F)
Outdoor Display range	-40°C – 70°C (-40°F – 158°F)
Indoor temperature accuracy	$\pm 0.6^\circ\text{C}$ (10°C ~50°C) $\pm 0.8^\circ\text{C}$ (-9.9°C ~10°C)
Outdoor temperature accuracy	$\pm 0.8^\circ\text{C}$ (10°C ~50°C) $\pm 1^\circ\text{C}$ (-9.9°C ~10°C & 50°C ~70°C) $\pm 1.5^\circ\text{C}$ (-10°C ~-40°C)
Display mode	Current
Memory mode	Daily Max/ Min
Alert	High/Low temperature alert
Indoor/Outdoor Humidity Display & Function Specifications	
Humidity unit	%

Display range	1 – 99%
In/Out accuracy	40 – 80% RH $\pm$ 5% RH @25°C (77°F) Others : $\pm$ 8% RH @25°C (77°F)
Display mode	Current
Memory mode	Daily Max/ Min
Alert	High/Low humidity alert
Wind Speed and Direction Display & Function Specifications	
Wind Speed unit	mph, m/s, km/h, knots
Display range	0 -112mph, 50m/s, 180km/h, 97 knots
Speed accuracy	<5m/s: $\pm$ 0.5m/s, >5m/s : $\pm$ 10% (whichever is greater)
Display mode	Gust/Average
Memory mode	Daily Gust/Average
Alert	High Wind Speed Alert (Gust/Average)
Wind direction	16 directions
Rain Display & Function Specifications	
Unit of rainfall	mm, in
Range of rainfall	0 – 12999 mm (0 – 511.7 in)
Accuracy of rainfall	$\pm$ 7%
Display mode	Current
Memory mode	Daily Max
Rainfall display mode	Hourly/ Daily/ Weekly/ Monthly/ Total Rainfall
Alert	High Daily Rainfall alert
UV Index Display & Function Specifications	
Display range	0 - 16
Display mode	Current
Memory mode	Daily Max
Alert	High UVI alert
Light Intensity Display & Function Specifications	
Light Intensity unit	Klux, Kfc and W/m ²
Display range	0 – 200 Klux
Display mode	Current
Memory mode	Daily Max
Alert	High Light intensity alert
Weather Index Display & Function Specifications	
Weather Index mode	Feels like, wind chill, heat index and dew point

Display mode	Current
Memory mode	Daily Max/Min
WIRELESS 7-IN-1 OUTDOOR SENSOR - GARNI 8INT	
Dimension (W x H x D)	408 x 350 x 367mm (16 x 13.8 x 14.4inch)
Weight	830 g (without batteries)
Main power	3 x AA 1.5V batteries (not included; lithium batteries recommended; we strongly do not recommend using rechargeable batteries)
Backup power	Solar power
Solar panel performance	0.5 W
Weather data	temperature, humidity, wind speed, wind direction, rainfall, UVI and light intensity
Type of sensor used to measure temperature and relative humidity	SENSIRION
RF frequency	868 MHz
RF transmission range	150m (492ft)
Max RF power	7 dBm (5 mW)
Transmission interval	Every 20 seconds for UV, light intensity, wind speed, temperature, humidity and rain data and wind direction data
Operation temp	-40°C – 60°C (-40°F – 140°F)

DISPOSAL

Dispose of this product in accordance with waste disposal regulations. Electrical equipment must not be disposed of with mixed waste, but must be disposed of in designated areas, ie in collection yards or collection points.



DECLARATION OF CONFORMITY

Company GARNI technology a.s. declares that the type of radio device - the weather station model GARNI 980 Arcus - complies with Directive 2014/53 / EU. The full text of the EU Declaration of Conformity is available on the following website: www.garni-meteo.cz

Instruction translated, edited and processed:



Copying this manual or its parts is forbidden without the author's permission.

www.garnitechnology.com

www.garnitechnology.cz

www.garni-meteo.cz

Ver. 02G24

The services of GARNI technology app and of servers Weather Underground and Weathercloud are subject to change.