

AIR ALFA

CrystalView 5-in-1 Atomic Weather Station Model: AF003 User Manual



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Table of Contents

1. Introduction	4
1.1 Quick start guide	5
2. Package contents	5
3. Pre installation	5
3.1 Checkout	5
3.2 Site selection	6
3.3 Recommendation for best wireless communication	6
4. Getting started	7
4.1 Wireless 5-in-1 sensor	7
4.2 Install wireless 5-in-1 sensor array	7
4.2.1 Install rain gauge funnel and bird spikes	8
4.2.2 Install batteries	8
4.2.3 Sensor array installation	9
4.2.4 Direction alignment	10
4.3 Additional Wireless hygro-thermo sensor	11
4.3.1 Install wireless hygro-thermo sensor	11
4.4 Synchronizing additional sensor(s) (optional)	11
4.4.1 Thermo-hygro sensors	12
4.4.2 Leakage sensor	12
4.5 Setup the console	13
4.5.1 Power up the display console	13
4.5.2 Mount the console on the wall	13
4.5.3 Setup display console	14
4.5.4 Synchronizing wireless 5-in-1 sensor array	14
5. Display console functions and operation	14
5.1 Screen display	14
5.2 Console	15
5.3 Wireless signal reception	16
5.4 Normal time and calendar section	16
5.5 Atomic clock function	16
5.5.1 Signal strength indicator	16
5.5.2 Disable / enable atomic clock signal reception	16
5.6 Manually set time, date and other setting	17
5.6.1 Pointing 5-in-1 sensor to the south	18
5.7 To set the alarm time	18
5.7.1 To turn on / off alarm clock (with ice-alert function)	18
5.7.2 Alarm operation	18
5.8 Setting high / low weather alert	19
5.8.1 View weather alert value	20
5.8.2 Weather alert operation	20
5.9 Moon phase	20
5.10 Outdoor temperature and humidity	20
5.10.1 View different weather index	21
5.10.2 Feels like	21
5.10.3 Heat index	21
5.10.4 Wind chill	21
5.10.5 Dew point	21
5.11 Indoor and optional CH 1~ 7 temperature and humidity	21
5.11.1 Water leak (optional sensor function)	22
5.11.2 Comfort indication	22
5.12 Weather forecast	22
5.13 Barometric pressure	23
5.13.1 Barometric pressure display mode	23
5.14 Rain	23
5.14.1 Rainfall display mode	24
5.14.2 Rain rate level definition	24
5.14.3 To reset the total rainfall record	24
5.15 History graph	24

5.16 Wind direction	24
5.16.1 Wind speed	25
5.16.2 Wind speed display mode	25
5.16.3 Wind gust level	25
5.16.4 Wind speed level	25
5.16.5 Beaufort scale	26
5.17 Trend indicator	27
5.18 Maximum / Minimum records	27
5.18.1 MAX / MIN records	27
5.18.2 To clear the MAX / MIN records	27
5.19 Past 24 hours history data	28
5.20 Data clearing	28
5.21 Backlight	28
6. Maintenance	28
6.1 Battery replacement	28
6.2 Re-pairing the sensor array manually	28
6.3 Reset and factory reset	29
7. Troubleshooting	30
8. Specifications	30
8.1 Console	30
8.2 Wireless 5-in-1 sensor	31
8.3 Wireless thermo-hygrometer sensor	32
9. Warranty Information	32
10. FCC Statement	32

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



- 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

Warning:

- An appliance is only suitable for mounting at height $\leq 2\text{m}$. (Equipment mass $\leq 1\text{kg}$)
- This product is intended for use only with the adaptor provided:
Manufacturer: Dongguan Shijie Hua Xu Electronics Factory,
Model: HX075-0500600-AU-001.
- When disposing of this product, ensure it is collected separately for special treatment.
- The AC/DC adaptor is used as disconnect device.
- The AC/DC adaptor of apparatus should not be obstructed OR should be easily accessed during intended used.
- To be completely disconnect the power input, the AC/DC adaptor of apparatus shall be disconnected from the mains.

Caution:

- Do not ingest the battery. Chemical Burn Hazard.
- This product contains a coin/key cell battery. If the coin/key cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- 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.
- 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 the CrystalView 5-in-1 Atomic Weather Station. Designed for quick and easy setup, the pre-calibrated 5-in-1 wireless sensor captures rainfall, wind speed, wind direction, temperature, and humidity, transmitting data up to 492 feet (150 m) to your display console. The main unit synthesizes these readings into actionable insights—including rainfall history, wind categories, Heat Index, Wind Chill, and Dew Point—complemented by a built-in atomic clock for ultra-precise timekeeping.



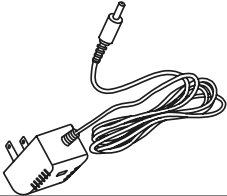
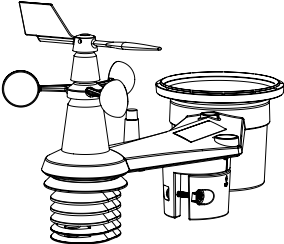
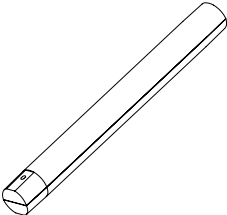
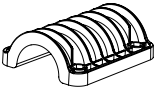
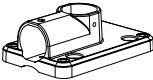
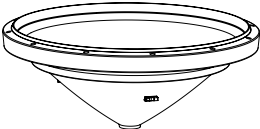
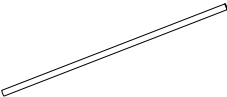
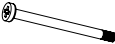
1.1 Quick start guide

The following Quick Start Guide provides the necessary steps to install and operate the weather station, along with references to the pertinent sections.

Step	Description	Section
1	Power up the 5-in-1 wireless sensor array	4.2.2
2	Power up the display console and pair with sensor array	4.5
3	Manually set time, date and unit of measure	5.6

2. Package contents

You can find the follow items in the box.

			
Weather station console	Extend wall mount holder	Power adaptor	User manual
			
Thermo-Hygro sensor	5-in-1 sensor array	Pole mounting stand	Mounting clamp
			
Plastic pole	Rain collector	Stainless steel bird spikes x12	Plastic cap
			
Hex nuts x 4	Hex nut x 2	Screws x 4	Screw x 1
			
Flat washers x 4	Rubber pad x 4		

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. Batteries must be changed every 2 to 2.5 years
3. 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.
4. Choose an area of open space in direct sunlight without any obstruction of rain, wind, and sunlight.
5. Transmission range between sensor array and display console could reach a distance of 150m (or 492 feet) 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.
6. 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.

3.3 Recommendation for best wireless communication

Effective wireless communication is susceptible to noise interference in the environment, and distance and barriers between the sensor transmitter and the console.

1. Electromagnetic interference (EMI) – these may be generated by machinery, appliances, lighting, dimmers and computers, etc. So please keep your console 1 or 2 meters away from these items.
2. Radio-frequency interference (RFI) – if you have other devices operating on 915 MHz, you might experience communication intermittent. Please re-located your transmitter or console to avoid signal intermittent problem.
3. Distance. Path loss occurs naturally with distance. This device is rated to 150m (492 feet) by line of sight (in interference free environment and without barriers). However, typically you will get 30m (100 feet) maximum in real life installation, which includes passing through barriers.
4. Barriers. Radio signal are blocked by metal barriers such as aluminum cladding. Please align the sensor array and console to get them in clear line of sight through window if you have metal cladding.

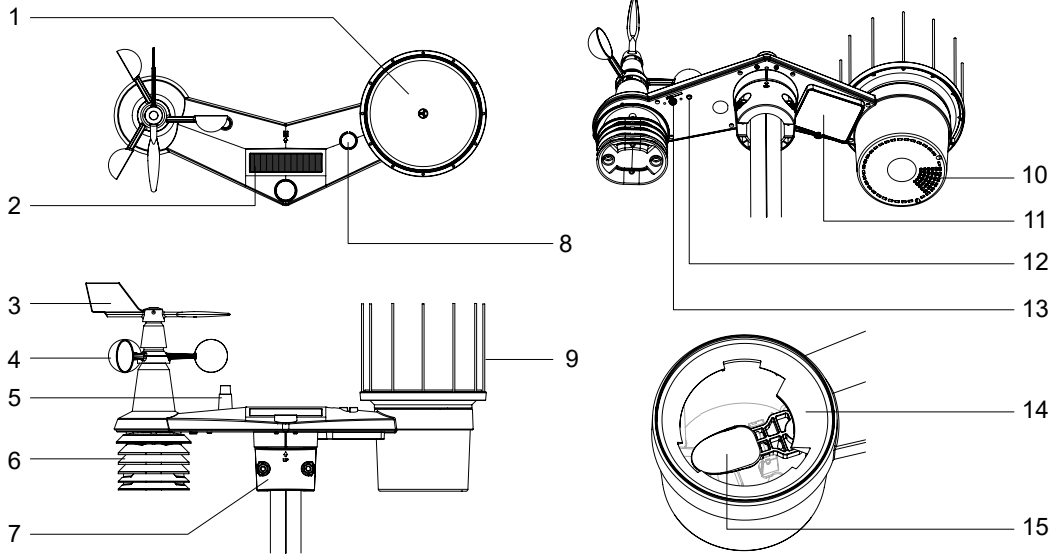
The table below show a typical level of reduction in signal strength each time the signal passed through these building materials

Materials	Signal strength reduction
Glass (untreated)	10 ~ 20%
Wood	10 ~ 30%
Plasterboard / drywall	20 ~ 40%
Brick	30 ~ 50%
Foil insulation	60 ~ 70%
Concrete wall	80 ~ 90%
Aluminum siding	100%
Metal wall	100%

Remarks: RF signal reduction for reference

4. Getting started

4.1 Wireless 5-in-1 sensor



1. Rain collector

2. Solar panel

3. Wind vane

4. Wind cups

5. Antenna

6. Radiation shield

7. Mounting clamp

8. Balance indicator

9. Bird spikes

10. Drain holes

11. Battery compartment

12. Red LED indicator

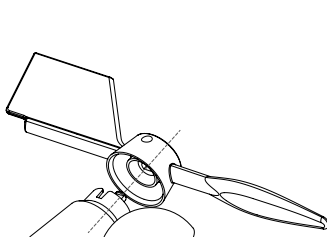
13. [RESET] key

14. Rain sensor

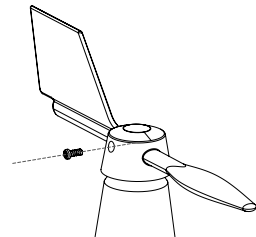
15. Tipping bucket

4.2 Install wireless 5-in-1 sensor array

With reference to photo below, **(Step 1)** locate and align the flat are on the wind vane shaft to the flat surface on the wind vane and push the vane onto the shaft. **(Step 2)** tighten the set screw with a precision screwdriver.

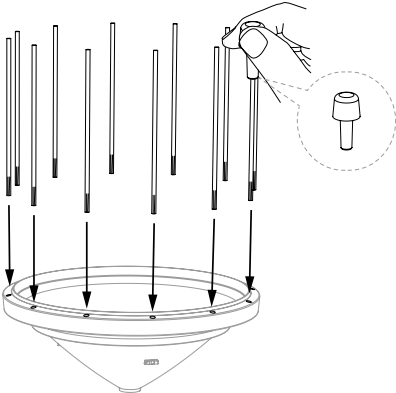
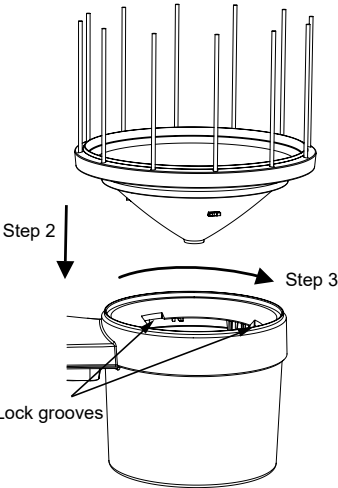


Step 1



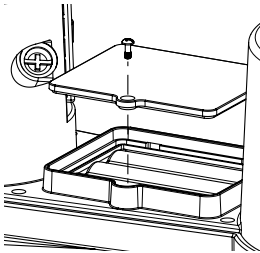
Step 2

4.2.1 Install rain gauge funnel and bird spikes

Step 1 Using the plastic cap, press each of the 12 spike pins into its hole until firmly seated.	
Step 2 Install the rain gauge funnel. Step 3 Rotate clockwise to lock the funnel to the sensor array.	

4.2.2 Install batteries

Unscrew the battery door at bottom of unit. Insert the 3 AA batteries (non-rechargeable) according to the +/- polarity indicated. The red LED indicator on the back of the sensor array will turn on, and then begin flashing every 12 seconds.



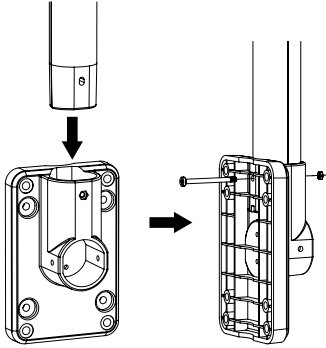
 Note:

We recommend using **non-rechargeable Lithium AA** batteries for cold weather climate, but normally Alkaline batteries are sufficient for use in most weather condition.

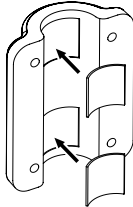
4.2.3 Sensor array installation

Plastic Mounting installation

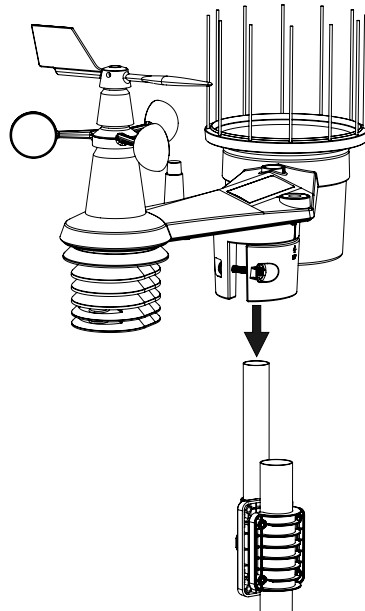
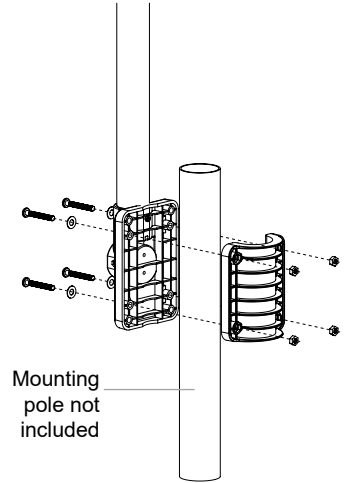
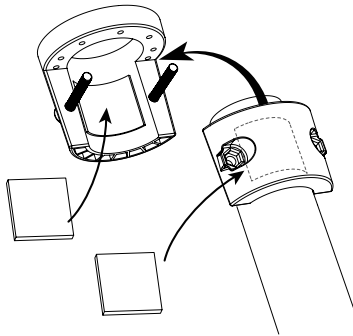
1. Fasten the plastic pole onto your fix pole with mounting base, clamp, washers, screws and nuts. Following below 1a, 1b, 1c sequences:
 - 1a. Insert the plastic pole into the hole of the mounting stand, and then secure it with the screw and nut.
 - 1c. Fasten the mounting stand and clamp together onto a fix pole with 4 long screws and nuts.



- 1b. Apply 2 rubber pads on the mounting clamp.



2. Apply 2 rubber pads on the inner sides of the mounting base and clamp of the sensor-array, and loosely fasten them together.
3. Place the sensor-array over the mounting pole and align it to North direction before fastening the screws.



**Note:**

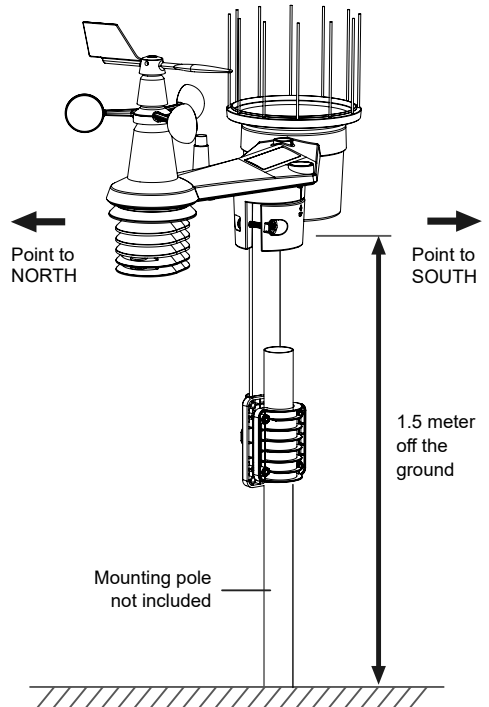
- Any metal object can attract lightning strikes, including your sensor-array mounting pole. Never install sensor-array in stormy days.
- If you want to install a sensor-array on a house or building, consult a licensed electrical engineer to ensure proper grounding. Direct lightning impact on a metal pole can damage or destroy your home.
- Installing the sensor at high location may result in personal injury or death. Perform as many initial inspections and operations as possible on the ground and in buildings or houses. Only install the sensor-array on clear, dry days.
- Ensure the sensor-array installation place is stable and no vibration.

4.2.4 Direction alignment

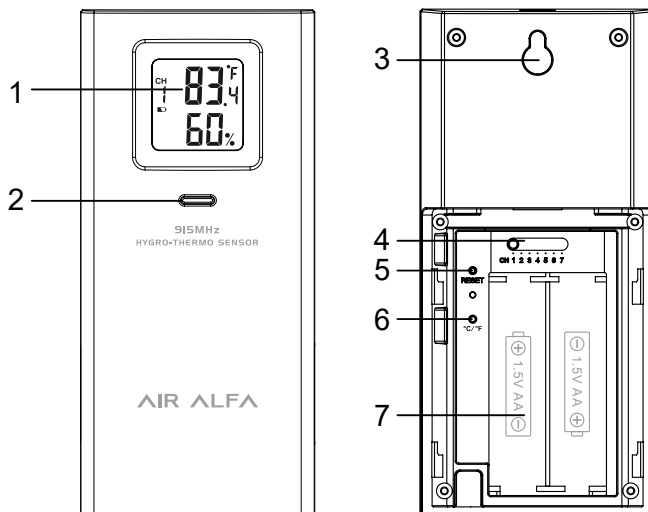
Install the wireless 5-in-1 sensor in an open location with no obstructions above and around the sensor for accurate rain and wind measurement.

Locate the North (N) marker on top of the 5-in-1 sensor and align the marker to point North upon final installation with a compass or GPS. Tighten the mounting bracket around a 30 to 40 mm diameter pole (not included) using two screw and nuts provided.

Use the bubble level on the 7-in-1 sensor to make sure the sensor is completely level for proper measurement of rainfall.



4.3 Additional Wireless hygro-thermo sensor



1. LCD display
2. Transmission status LED
3. Wall mounting holder
4. [CHANNEL] slide switch
5. [RESET]
6. [°C / °F]
7. Battery compartment

4.3.1 Install wireless hygro-thermo 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 and close the battery door according to the polarity information marked on the battery compartment.
4. The sensor is in synchronization mode, and can be registered to the console within the next few minutes. The transmission status LED



Note:

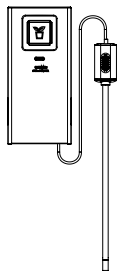
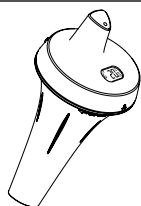
- If you need to re-assign the sensor channel, slide the channel slide switch to the new channel position. For the new channel number to be effective, press [RESET] on the sensor.
- Avoid placing this sensor in direct sunlight, rain or snow.

4.4 Synchronizing additional sensor(s) (optional)

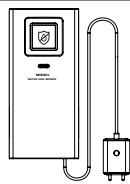
The console can support 7 wireless thermo-hygro sensors and 3 water leak sensors. Please contact your local retailer for details of different sensors.

Some of these sensors are multi-channel. Before inserting the batteries, set the channel number if channel slide switch is located at back of sensors (inside battery compartment). For their operations please refer to the manuals that come with the products.

4.4.1 Thermo-hygro sensors

Model	No. of sensor supported	Description	Image
AF3130 	Up to 7 sensors	Thermo-Hygro sensor Sensor data: CH1~7 temperature and humidity	
AF3127 		Soil Moisture and Temperature sensor Sensor data: CH1~7 soil moisture and temperature	
AF3107 		Pool sensor Sensor data: CH1~7 water temperature	

4.4.2 Leakage sensor

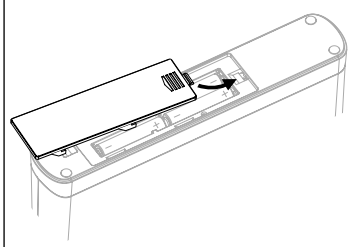
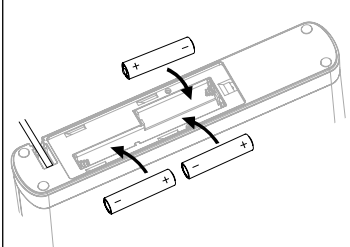
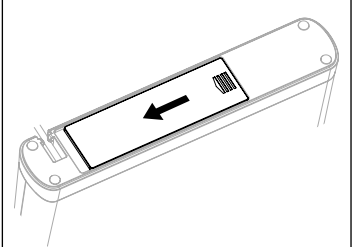
Model	Sensor(s) supported	Description	Image
AF3128	Up to 3 sensors	Water leak sensor Sensor data: CH1~3 water leak status	

4.5 Setup the console

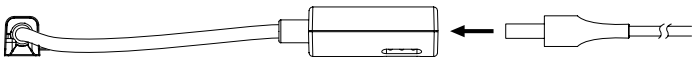
Follow the procedure to setup the console connection with wireless sensor array.

4.5.1 Power up the display console

1. Install 3 pcs AAA back-up batteries

Step 1	Step 2	Step 3
		
Remove the console battery door	Insert 3 pcs new AAA batteries	Replace the battery door

2. Connect the display console power jack to AC power with the adaptor included.

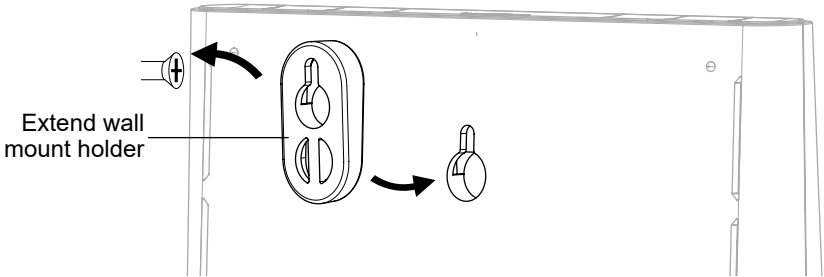


 Note:

- The backup battery can backup: Time & Date & Max / Min weather records, rainfall records and alert setting values / status.
- If no display appears on the LCD after inserting the batteries, press **[RESET]** key by using a pointed object.
- In some cases, you may not receive the signal immediately due to the atmospheric disturbance.

4.5.2 Mount the console on the wall

The unit is designed for desktop or wall mount for easy viewing. You can mount your console on the wall using either the wall mount hole or an extended wall mount holder.



4.5.3 Setup display console

Once the console is power up, all the segments will be shown before updating the indoor conditions on the normal screen display.



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 adapter then re-power up the console again.

4.5.4 Synchronizing wireless 5-in-1 sensor array

Immediately after power up the console, while still in synchronization mode, the 5-in-1 sensor array can be paired to the console automatically (as indicated by the flashing antenna ). User may also manually restart the synchronization mode by pressing the **[SENSOR]** key. Once they are paired up, the sensor signal strength indicator and weather reading will appear on your console display.

5. Display console functions and operation

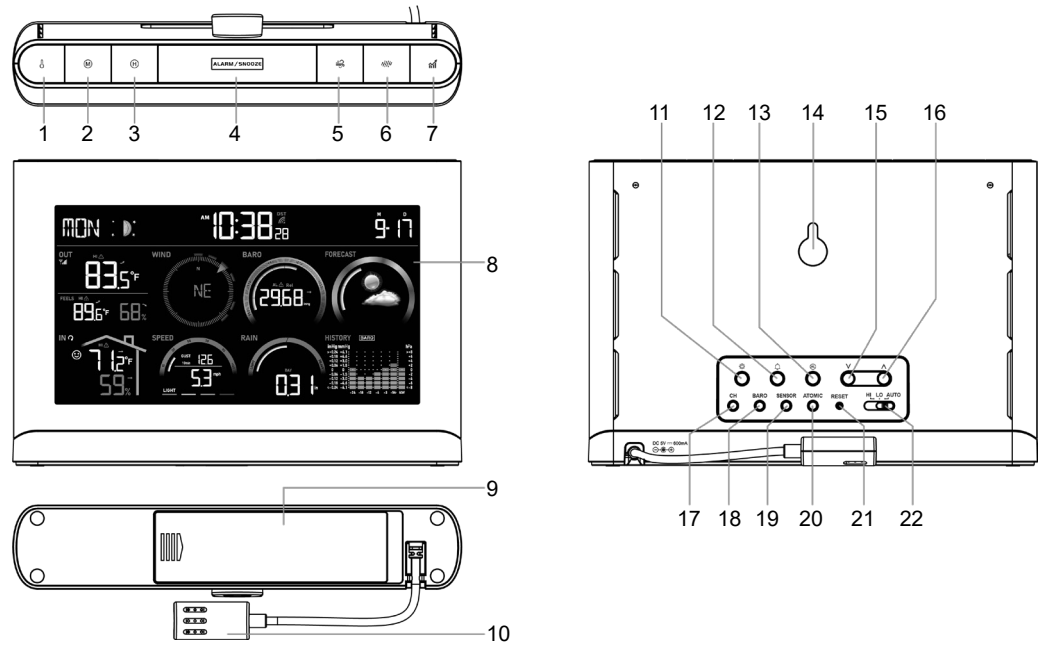
5.1 Screen display



1			
2	3	4	5
6	7	8	9

1. Time, Date and Moon phase
2. Outdoor temperature, humidity and index
3. Wind direction
4. Barometric pressure
5. Weather forecast
6. Indoor and CH temperature and humidity
7. Wind speed
8. Rain
9. History graph for rainfall and pressure

5.2 Console



No	Key / Part Name		Description
1	INDEX		Press to toggle between Dew point, Heat index and Wind chill
2	MEMORY		Press to toggle between maximum and minimum values
3	HISTORY		Press to view the past 24 hours records
4	ALARM/SNOOZE		Press to stop alarm sound
5	WIND		Press to toggle between gust, 10 minutes gust and past 12 hours gust Hold 2 seconds to toggle between average wind speed and Beaufort scale
6	RAIN		Press to toggle between rain rate and rainfall of different period
7	GRAPH		Press to toggle between barometric pressure and rainfall graph
8	Display screen		
9	Battery compartment		
10	Power jack		
11	SET		Hold 2 seconds to enter time, date and other settings
12	ALARM		Press to view and set alarm times
13	ALERT		Press to view and set alert values
14	Wall mount hole		
15	∨		Press to decrease the value
16	∧		Press to increase the value
17	CHANNEL		Press to toggle between indoor and CH1~7 temperature and humidity
18	BARO		Press to toggle between relative and absolute barometric pressure
19	SENSOR		Press to start sensor synchronization (pairing)
20	ATOMIC		Press to receive radio control clock signal
21	RESET		Press to reset the console
22	HI / LO / AUTO		Slide switch for select backlight level

5.3 Wireless signal reception

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

				
No sensor	Signal searching	Strong signal	Weak signal	Signal lost

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**] key to pair up the sensor again.

5.4 Normal time and calendar section



1. Day of the week
2. Moon phase
3. Time
4. Alarm
5. Ice pre-alert
6. Atomic clock signal and DST icon
7. Date

5.5 Atomic clock function

When the unit receives atomic clock signal, a sync-time symbol  will appear on the LCD, and synchronizes daily.

5.5.1 Signal strength indicator

The signal indicator displays signal strength in 4 levels. Wave segment flashing means time signals are being received. The signal quality could be classified into four types:

			
No signal quality	Weak signal quality	Acceptable signal quality	Excellent signal quality

Note:

- Everyday the unit will automatically search for the time signal at 2:00am, 8:00am, 2:00pm and 8:00pm.
- The strength of atomic clock signal time signal from the transmitter tower may be affected by geographical location or building around.
- Always place the unit away from interfering sources such as TV set, computer, etc.
- Avoid placing the unit on or next to metal plates.
- Closed areas such as airport, basement, tower block, or factory are not recommended.
- During receive the atomic clock signal, the LCD display backlight will become dim.
- Place the unit at least 1m from the adaptor.

5.5.2 Disable / enable atomic clock signal reception

1. Press and hold [**ATOMIC**] key 8 seconds to disable the reception.
2. Press and hold [**ATOMIC**] key 8 seconds to enable automatic ATOMIC reception.



Atomic clock signal on



Atomic clock signal off

5.6 Manually set time, date and other setting

To set the clock/calendar manually, first disable the reception by holding the ATOMIC key for 8 seconds. Then press and hold [**SET**] key for 2 seconds to enter the setting mode. Press [**√**] or [**∧**] key to adjust, and press [**SET**] key to proceed with next step of the setting. Please refer to following setting procedures.

Step	Mode	Setting procedure
[SET] +2s	12/24 hour format	Press [√] or [∧] key to select 12 or 24 hour format
[SET]	Time zone	Press [√] or [∧] key to select your location time zone PST →M ST →C ST →E ST→AST→NST.
[SET]	Time	Press [√] or [∧] key to adjust minute / hour / second
[SET]	Year	Press [√] or [∧] key to adjust year
[SET]	Date	Press [√] or [∧] key to adjust day / month
[SET]	M-D / D-M display format	Press [√] or [∧] key to select "Month / Day" or "Day / Month" display format
[SET]	Hour offset	Press [√] or [∧] key to adjust hour offset between -23 and +23 hours
[SET]	Atomic clock reception	Press [√] or [∧] key to enable or disable atomic time sync (Same as Press and hold [ATOMIC] key 8 seconds)
[SET]	DST (Daylight Saving Time)	Press [√] or [∧] key to select DST AUTO / ON / OFF - AUTO is to adjust the daylight saving time automatically based atomic clock signal - ON is add one hour on current default time - OFF is to completely turn off the DST function
[SET]	Hemisphere	Press [√] or [∧] key to select North / South hemisphere for moon phase and wireless sensor array point to direction
[SET]	Weekday language	Press [√] or [∧] key to select weekday display language
[SET]	Temperature unit	Press [√] or [∧] key to select °C or °F
[SET]	Wind speed unit	Press [√] or [∧] key to select m/s, km/h, mph or knots
[SET]	Wind direction display format	Press [√] or [∧] key to select 360 deg or 16 directions display format
[SET]	Rain unit	Press [√] or [∧] key to select mm or in
[SET]	Baro pressure unit	Press [√] or [∧] key to select hPa, mmHg or inHg
[SET]	Adjust relative Baro pressure value	Press [√] or [∧] key to select to adjust the relative baro pressure value Remark: When you change the relative atmospheric pressure value, the weather indicators will change along with it
[SET]	Exit setting mode	

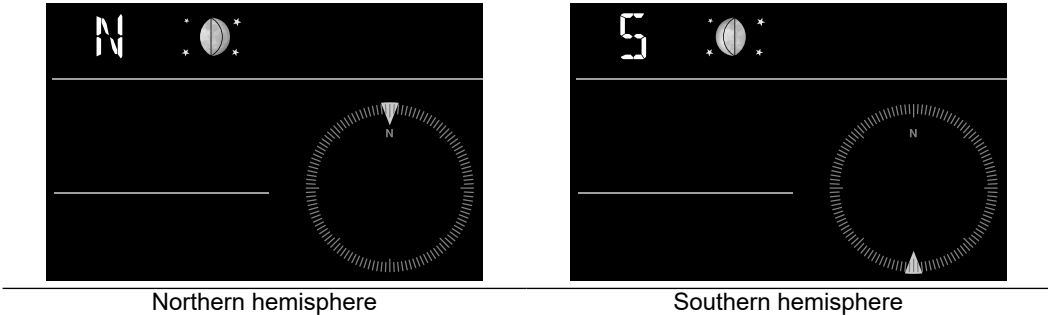


Note:

- The unit will automatically exit setting mode if no key was pressed in 60 seconds.
- During the setting, press and hold [**SET**] key for 2 seconds to exit setting anytime.

5.6.1 Pointing 5-in-1 sensor to the south

The outdoor 5-in-1 sensor is calibrated to be pointing to North by default. However, in some cases, users may wish to install the product with the arrow pointing towards the South. Please refer to **section 5.6: Hemisphere setting**.



 Note:

Changing from hemisphere setting will automatically switch the direction of the moon phase on the display.

5.7 To set the alarm time

- 1. In normal mode, press and hold [**ALARM**] key for 2 seconds to enter alarm setting mode **HOURL** will begin to flash.
- 2. Use [**∇**] or [**∧**] key to adjust alarm time. Press [**ALARM**] key to exit.

5.7.1 To turn on / off alarm clock (with ice-alert function)

- 1. In normal mode, press [**ALARM**] key anytime to show the alarm time.
- 2. Press [**ALARM**] key again to activate the alarm.
- 3. Press [**ALARM**] key twice to activate alarm with ice-alert function.
- 4. To disable the alarm, press until the alarm icon disappears.



 Note:

Once the ice pre-alert activated, the alarm will sound 30 minutes earlier if it detects outside temperature is below -3°C.

5.7.2 Alarm operation

- 1. Press [**SNOOZE**] key to stop the current alarm and enter snooze. Alarm icon will be flashing continuously. The alarm will sound again in 5 minutes. Snooze can be operated continuously in 24 hours.
- 2. When the alarm is sounding, it will stop automatically without pressing any key in 2 minutes. Also you can Press and hold [**SNOOZE**] key for 2 seconds or press [**ALARM**] key to stop the current alarm. And the alarm will automatically sound again at the alarm time next day.

5.8 Setting high / low weather alert

In normal time mode, press and hold [**ALERT**] key for 2 seconds to enter alert setting mode. Then press [**ALERT**] key to next step. Please refer to the following setting procedures.

Step	Mode	Setting procedure
[ALERT] +2s	IN / CH temperature high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert. Press [CH] key to select the IN and CH 1~7
[ALERT]	IN / CH temperature low alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert. Press [CH] key to select the IN and CH 1~7
[ALERT]	IN / CH humidity high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert. Press [CH] key to select the IN and CH 1~7
[ALERT]	IN / CH humidity low alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert. Press [CH] key to select the IN and CH 1~7
[ALERT]	OUT temperature high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	OUT temperature low alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Dew Point low alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Heat index high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Wind chill low alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Feels like high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Feels like low alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	OUT humidity high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	OUT humidity low alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Wind speed high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Rain rate high alert	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Pressure drop alert (drop in 30 minutes)	Press [∇] or [▲] key to adjust the alert value. Press [ALARM] key to on / off the alert.
[ALERT]	Exit setting mode	

Note:

- When you turn on the weather alert, the " " icon will display on the top of reading.
- During the setting, press and hold the [**∇**] or [**▲**] key for quick-adjusting the value.

5.8.1 View weather alert value

In normal mode, press [**ALERT**] key to show the OUT temperature high alert value. Press [**ALERT**] key repeatedly to show other alert value for different parameters.

5.8.2 Weather alert operation

If you set the weather alert, and this value out of the setting range, alarm sound will start and the related weather reading will flash.

Where it can be stopped by following operation:

- Auto-stop once the value back to the range.
- By pressing the [**SNOOZE**], [**ALARM**] or [**ALERT**] key to stop the sound.

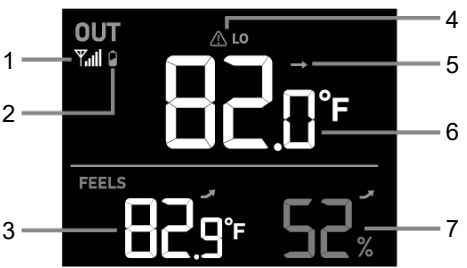
5.9 Moon phase

In the Northern hemisphere, the moon waxes (the part of the moon we see that glows after the New Moon) from the right. Hence the sun-lit area of the moon moves from right to left in the Northern Hemisphere, while in the Southern Hemisphere, it moves from left to right. Below is the table which illustrate how the moon will appear on the main unit.

Northern hemisphere	Moon Phase	Southern hemisphere
	New Moon	
	Waxing Crescent	
	First quarter	
	Waxing Gibbous	
	Full Moon	
	Waning Gibbous	
	Third quarter	
	Waning Crescent	

5.10 Outdoor temperature and humidity

1. Outdoor signal strength indicator
2. Outdoor sensor low battery indicator
3. Feels like temperature reading
4. HI / LO Alert indicator
5. Trend indicator
6. Outdoor temperature, Dew point, Heat index or Wind chill reading
7. Outdoor humidity reading



 Note:

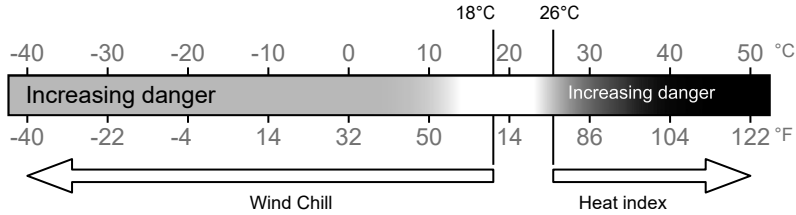
If temperature / humidity is below or above the measurement range, the reading will show "LO" or "HI" respectively.

5.10.1 View different weather index

Press [INDEX] key to switch display between Outdoor temperature, Dew point, Heat index and Wind chill readings.

5.10.2 Feels like

Feels like Temperature shows what the outdoor temperature will feel like. It's a collective mixture of Wind chill factor (18°C or below) and the Heat index (26°C or above). For temperatures in the region between 18.1°C to 25.9°C where both wind and humidity are less significant in affecting the temperature, the device will show the actual outdoor measured temperature as Feels Like Temperature.



5.10.3 Heat index

The heat index, which is determined by the wireless 5-in-1 sensor's temperature & humidity data, when the outdoor temperature is between 27°C (80°F) and 50°C (120°F).

Heat Index range	Warning	Explanation
27°C to 32°C (80°F to 90°F)	Caution	Possibility of heat exhaustion
33°C to 40°C (91°F to 105°F)	Extreme Caution	Possibility of heat dehydration
41°C to 54°C (106°F to 129°F)	Danger	Heat exhaustion likely
≥55°C (≥130°F)	Extreme Danger	Strong risk of dehydration / sun stroke

5.10.4 Wind chill

A combination of the wireless 5-in-1 sensor's temperature and wind speed data determines the current wind chill factor. Wind chill number are always lower than the air temperature for wind values where the formula applied is valid (i.e. due to limitation of formula, actual air temperature higher than 18°C with wind speed below 4.8km/h may result in erroneous wind chill reading).

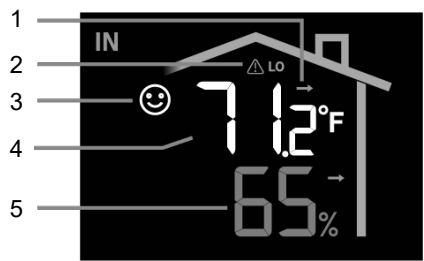
5.10.5 Dew point

The dew point is the temperature below which the water vapor in air at constant barometric pressure condenses into liquid water at the same rate at which it evaporates. The condensed water is called dew when it forms on a solid surface. The dew point temperature is determined by the temperature & humidity data from wireless 5-in-1 sensor.

5.11 Indoor and optional CH 1~ 7 temperature and humidity

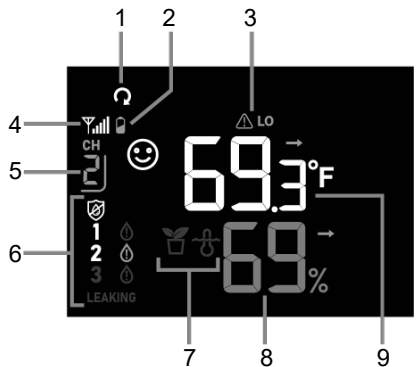
Indoor screen

- 1. Trend indicator
- 2. HI / LO Alert indicator
- 3. Comfort indicator
- 4. Indoor temperature reading
- 5. Indoor humidity reading



Thermo-hygro sensor screen (optional sensor function)

- 1. Indoor / CH 1~7 auto loop icon
- 2. Low battery indicator for CH 1~7
- 3. HI / LO Alert indicator
- 4. Sensor signal strength
- 5. CH 1~7 indicator
- 6. CH 1~3 Leakage sensor status
- 7. Sensor type icon of optional pool or soil sensor
- 8. Channel humidity reading
- 9. Channel temperature reading



5.11.1 Water leak (optional sensor function)

You can add up to 3 additional Water Leak sensors
The channel number(s) of the corresponding water leak sensor(s) added to the console will be shown.

When water leaking is detected, the droplet icon near the channel number of the sensor detecting the leaking will flash and the LEAKING icon will be shown.



5.11.2 Comfort indication

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

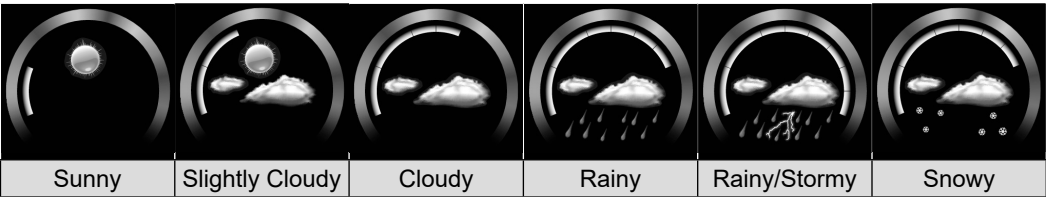
Too cold	Comfortable	Too hot

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).

5.12 Weather forecast

The built-in barometer continually monitor atmosphere pressure. Based on the data collected, it can predict the weather conditions in the forthcoming 12~24 hours within a 30~50km (19~31 miles) radius.



Note:

- The accuracy of a general pressure-based weather forecast is about 70% to 75%.
- The weather forecast is meant for the next 12 hours, it may not necessarily reflect the current situation.
- The weather icon will flash on display when the rainstorm comes.
- The **SNOWY** weather forecast is not based on the atmospheric pressure, but based on the outdoor temperature. When the outdoor temperature is below -3°C (26°F), the **SNOWY** weather indicator will be displayed on the LCD.

5.13 Barometric pressure

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. Because absolute atmospheric pressure decreases with altitude, meteorologist correct the pressure relative to sea-level conditions. Hence, your ABS pressure may read 1000 hPa at altitude of 300m, but the REL pressure is 1013 hPa.

To obtain accurate REL pressure for your area, consult your local official observatory or check weather website on internet for real time barometer conditions, and then adjust the relative pressure in **Section 5.6**.

1. Barometric pressure drop alert indicator
2. Barometer reading
3. Barometric pressure level
4. ABSOLUTE / RELATIVE indicator
5. Trend indicator



5.13.1 Barometric pressure display mode

In normal mode, press [**BARO**] key to toggle between:

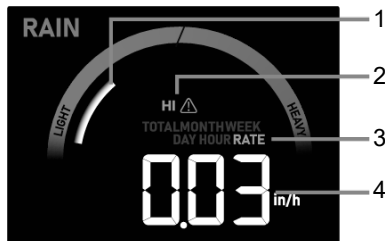
- **ABSOLUTE** the absolute atmospheric pressure of your location
- **RELATIVE** the relative atmospheric pressure based on the sea

Note:

- The default relative atmospheric pressure value is 1013 hPa (29.91 inHg), which refers to the average atmospheric pressure.
- The relative atmospheric pressure is based on the sea level, but it will change with the absolute atmospheric pressure changes after operating the clock for 1 hour.

5.14 Rain

1. RAIN rate level
2. Rain rate high alert indicator
3. Period of rainfall and rain rate indicator
4. Rainfall or rain rate reading

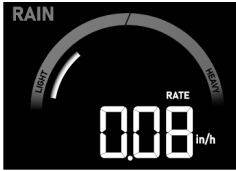
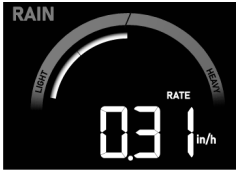
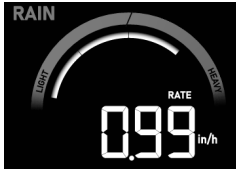


5.14.1 Rainfall display mode

In normal mode, press [RAIN] key to toggle between:

- RATE - current rainfall rate (base on 10 min rain data)
- HOUR - the total rainfall of the current hour
- DAY - the total rainfall from midnight (default)
- WEEK - the total rainfall of the current week
- MONTH - the total rainfall of the current calendar month
- TOTAL - the total rainfall since the last reset

5.14.2 Rain rate level definition

Level 1	Level 2	Level 3	Level 4
			
Light rain 0.01 ~ 0.10 in/h	Moderate rain 0.11 ~ 0.39 in/h	Heavy rain 0.4 ~ 1.97 in/h	Violent rain > 1.97 in/h

5.14.3 To reset the total rainfall record

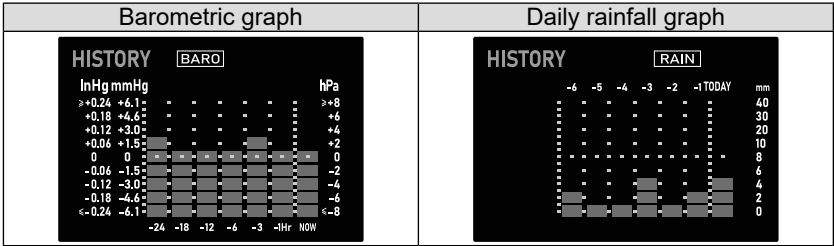
In normal mode, press and hold [RAIN] key for 6 seconds to reset all the rainfall record.

 **Note:**

Erroneous readings may occur during the installation of the 5-in-1 sensor array. Once the installation is completed and functioning correctly, it's advisable to clear all the data and start afresh.

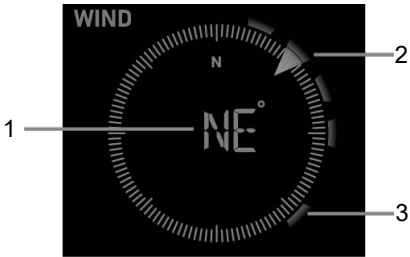
5.15 History graph

The history graph can show the past 24 hours barometric pressure or past 6 days daily rainfall records in bar chart format. Simply press [GRAPH] key to select the barometric or daily rainfall graph.



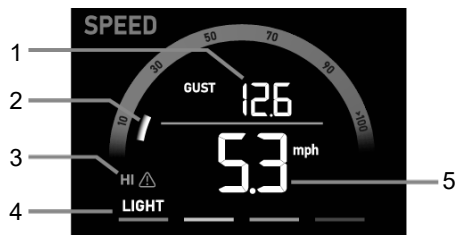
5.16 Wind direction

1. Wind direction reading (16 point or 360 degrees)
2. Real time wind direction indicator (16 points)
3. Past wind directions indicator of last 5 minutes



5.16.1 Wind speed

- 1. Gust, 10 minutes gust or past 12 hours gust reading
- 2. Wind gust levels
- 3. Average wind high alert indicator
- 4. Wind speed level
- 5. Wind speed or Beaufort scale reading



5.16.2 Wind speed display mode

In normal mode:
Press [WIND] key to toggle between: Gust → 10 minutes gust → past 12 hours gust.
Press and hold [WIND] key for 2 seconds to toggle between average wind speed and Beaufort scale reading.

5.16.3 Wind gust level

Level 1	Level 2	Level 3	Level 4
0 ~ 15km/h (0 ~ 9.3mph)	15.1 ~ 25km/h (9.4 ~ 15.5mph)	25.1 ~ 35km/h (15.6 ~ 21.7mph)	35.1 ~ 45km/h (21.8 ~ 28mph)
Level 5	Level 6	Level 7	Level 8
45.1 ~ 55km/h (28.1 ~ 34.2mph)	55.1 ~ 65km/h (34.3 ~ 40.4mph)	65.1 ~ 75km/h (40.5 ~ 46.6mph)	75.1 ~ 85km/h (46.7 ~ 52.8mph)
Level 9	Level 10	Level 11	Remark: The wind gust level chart scale is based on wind speed measured in km/h.
85.1 ~ 95km/h (52.9 ~ 59mph)	95.1 ~ 100km/h (59.1 ~ 62.1mph)	> 100km/h (> 62.1mph)	

5.16.4 Wind speed level

The wind level provides a quick reference on the wind condition and is indicated by a series of text icons.

Level	LIGHT	MODERATE	STRONG	STORM
Speed	0.6 ~ 12.4mph	12.5 ~ 31mph	31.1 ~ 54.7mph	> 54.7mph

5.16.5 Beaufort scale

Beaufort scale is an international scale of wind velocities from 0 (calm) to 12 (Hurricane force).

Beaufort Scale	Description	Wind Speed	Land Condition
0	Calm	< 1 km/h	Calm. Smoke rises vertically.
		< 1 mph	
		< 1 knot	
		< 0.3 m/s	
1	Light air	1.1 ~ 5.5 km/h	Smoke drift indicates wind direction. Leaves and wind vanes are stationary.
		1 ~ 3 mph	
		1 ~ 3 knot	
		0.3 ~ 1.5 m/s	
2	Light breeze	5.6 ~ 11 km/h	Wind felt on exposed skin. Leaves rustle. Wind vanes begin to move.
		4 ~ 7 mph	
		4 ~ 6 knot	
		1.6 ~ 3.3 m/s	
3	Gentle breeze	12 ~ 19 km/h	Leaves and small twigs constantly moving, light flags extended.
		8 ~ 12 mph	
		7 ~ 10 knot	
		3.4 ~ 5.4 m/s	
4	Moderate breeze	20 ~ 28 km/h	Dust and loose paper raised. Small branches begin to move.
		13 ~ 17 mph	
		11 ~ 16 knot	
		5.5 ~ 7.9 m/s	
5	Fresh breeze	29 ~ 38 km/h	Branches of a moderate size move. Small trees in leaf begin to sway.
		18 ~ 24 mph	
		17 ~ 21 knot	
		8.0 ~ 10.7 m/s	
6	Strong breeze	39 ~ 49 km/h	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult. Empty plastic bins tip over.
		25 ~ 30 mph	
		22 ~ 27 knot	
		10.8 ~ 13.8 m/s	
7	High wind	50 ~ 61 km/h	Whole trees in motion. Effort needed to walk against the wind.
		31 ~ 38 mph	
		28 ~ 33 knot	
		13.9 ~ 17.1 m/s	
8	Gale	62 ~ 74 km/h	Some twigs broken from trees. Cars veer on road. Progress on foot is seriously impeded
		39 ~ 46 mph	
		34 ~ 40 knot	
		17.2 ~ 20.7 m/s	
9	Strong gale	75 ~ 88 km/h	Some branches break off trees, and some small trees blow over. Construction /temporary signs and barricades blow over.
		47 ~ 54 mph	
		41 ~ 47 knot	
		20.8 ~ 24.4 m/s	
10	Storm	89 ~ 102 km/h	Trees are broken off or uprooted, structural damage likely.
		55 ~ 63 mph	
		48 ~ 55 knot	
		24.5 ~ 28.4 m/s	

11	Violent storm	103 ~ 117 km/h	Widespread vegetation and structural damage likely.
		64 ~ 73 mph	
		56 ~ 63 knot	
		28.5 ~ 32.6 m/s	
12	Hurricane force	≥ 118 km/h	Severe widespread damage to vegetation and structures. Debris and unsecured objects are hurled about.
		≥ 74 mph	
		≥ 64 knot	
		≥ 32.7m/s	

5.17 Trend indicator

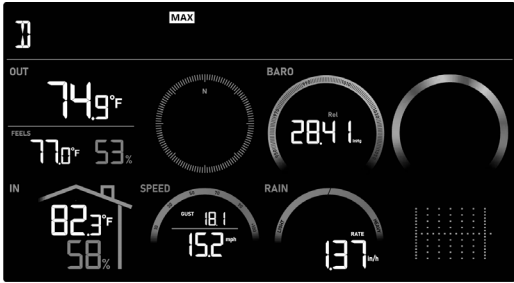
The trend indicator shows the temperature humidity and barometric pressure trends of changes in the forthcoming few minutes.

Rising	Steady	Falling

5.18 Maximum / Minimum records

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



Daily MAX record mode



Since MAX record mode

5.18.1 MAX / MIN records

In normal mode, press [MEMORY] key to display the records on screen in the following sequence: Daily MAX records → Daily MIN records → Since MAX records → Since MIN records. In MAX / MIN records mode:

- Press [INDEX] key to toggle between Outdoor temperature, Dew point, Heat Index and Wind chill.
- Press [CH] key to toggle between Indoor and CH 1 ~ 7 records.

5.18.2 To clear the MAX / MIN records

In Daily or Since MAX / MIN records mode, press and hold [MAX / MIN] key for 2 seconds to reset all the records in the corresponding mode.

5.19 Past 24 hours history data

The console automatically stores the weather data of the past 24 hours.

In normal mode, press [**HISTORY**] key to check the beginning of the current hour's weather data, e.g. the current time is 7:25 am, March 8, the display will show the data of 7:00am, March 8.

Press [**HISTORY**] key repeatedly to view older readings of the past 24 hours, e.g. 6:00am (Mar 8), 5:00am (Mar 8), ..., 10:00am (Mar 7), 9:00am (Mar 7), 8:00am (Mar 7)

In History mode:

- Press [**INDEX**] key to toggle between Outdoor temperature, Dew point, Heat Index and Wind chill.
- Press [**CH**] key to toggle between Indoor and CH 1 ~ 7 records.

5.20 Data clearing

During installation of the wireless 5-in-1 sensor, the sensors were likely to be triggered, resulting in erroneous rainfall and wind measurements. After the installation, user may clear out all the erroneous data from the Display Main Unit. Simply Press [**RESET**] key. This will clear out any data recorded before.

5.21 Backlight

The console back light brightness can be adjust by using the [**HI / LO / AUTO**] slide switch to select the appropriate brightness:

- Slide to the [**HI**] position for the brighter backlight.
- Slide to the [**LO**] position for the dimmer backlight.
- Slide to the [**AUTO**] position for the auto adjust back light that according to environment light level.

6. Maintenance

6.1 Battery replacement

When low battery indicator “” is displayed in Out section of the LCD display, it indicates that the wireless 5-in-1 sensor battery power give wireless sensor shown is low respectively. Please replace with new batteries.

6.2 Re-pairing the sensor array manually

Whenever you changed the batteries of the 5-in-1 weather sensor array or other additional sensors, re-synchronization must be done manually.

1. Change all the batteries to new ones of the wireless sensor array.
2. Press [**SENSOR**] key on the console to enter sensor synchronization mode (as indicated by the flashing antenna ).

6.3 Reset and factory reset

To reset the console and start again, Press [**RESET**] pin once or remove the backup battery and then unplug the adapter.



REPLACE THE WIND VANE
Unscrew and remove the wind vane for replacement

REPLACE THE WIND CUP

1. Unscrew and remove the top cap
2. Remove the wind cup for replacement

CLEANING THERMO-HYGRO SENSOR

1. Remove the 2 screws at the bottom of the radiation shield.
2. Gently pull out the shield.
3. Carefully remove any dirt or insects on the sensor (do not let the sensors inside get wet).
4. Clean the shield with water to remove any dirt or insects.
5. Remove the T/H module for replacement if needed.
6. Install all the parts back when they are clean and fully dried.

CLEANING THE RAIN COLLECTOR

1. Rotate the rain collector by turning it 30° anti-clockwise.
2. Gently remove the rain collector.
3. Clean and remove any debris or insects.
4. Install the collector when it is clean and fully dried.



In general, if the regular maintenance schedule in the owner's manual is followed, the user can expect a lifetime in excess of 3 years before the sensor array is completely replaced. The life expectancy of a weather station is largely influenced by its environment, see the following examples:

Coastal, swampy or wetland environments. Salt air, salt spray, and acidification are the most difficult environments for a weather station to live long. These can corrode bearings, sensor plates (temperature, humidity, etc.), mounting hardware, and other moving parts. In this environment, the expected product life is 1-3 years. Our boards are conformal coated to prevent this corrosion. Digital thermometer and hygrometer sensors rely on the changing nature of the metal's resistance, allowing corrosion to occur faster

Long-term exposure to high humidity environment. Prolonged exposure to high humidity, whether salty or acidic, can easily cause premature failure of metal parts. In a hot and dry environment, the lifespan of a weather station is known to last up to 5 years.

Hurricanes and tropical storms can also shorten the lifespan of weather stations.

7. Troubleshooting

Problem / Symptom	Solution
Rainfall is not correct	1. Make sure the rain collector is clean for the tipping bucket to tip smoothly 2. Make sure the sensor has stable and level mounting to ensure correct tipping
Temperature reading too high in the day time	1. Place the sensor in open area and at least 1.5m off the ground. 2. Ensure that the sensor is placed away from heat generating sources or structures, such as buildings, pavement, walls or air conditioning units.
 and  (Signal lost for 15 minutes)	1. Relocate the main unit and 5-in-1 sensor closer to each other. 2. Make sure the main unit is placed away from other electronic appliances that may interfere with the wireless communication (TVs, computers, microwaves). 3. If problem continues, reset both main unit and 5-in-1 sensor.
 and  (Signal lost for 1 hour)	

8. Specifications

8.1 Console

Dimensions (W x H xD)	7.95 x 5.43 x 1.5 in (202 x 138 x 38mm)
Weight	1.14lb (515g) not include batteries
Main power	DC 5V, 600mA adaptor
Backup battery	3 x AAA size 1.5V battery
Operating temperature range	-5°C ~ 50°C (14°F to 122°F)
Operating Humidity range	RH 10 ~ 90% non-condensing
Support sensor	1 Wireless 5-in-1 sensor array
RF frequency	915MHz

Atomic clock

Synchronization	Auto or Off
Clock display	HH:MM:SS / Weekday / Date
Hour format	12hr AM / PM or 24hr
Calendar	DD / MM or MD / DD
Weekday languages	EN / FR / DE / ES / IT / NL / RU
Atomic clock signal	WWVB
DST	AUTO / ON / OFF (only available when ATOMIC is ON)

Barometer (Note: Data detected by console)

Barometer unit	hPa, inHg and mmHg
Measuring range	15.95 ~ 32.48inHg (540 ~ 1100hPa)
Accuracy	(700 ~ 1100hPa ± 5hPa) / (540 ~ 696hPa ± 8hPa) (20.67 ~ 32.48inHg ± 0.15inHg) / (15.95 ~ 20.55inHg ± 0.24inHg) (525 ~ 825mmHg ± 3.8mmHg) / (405 ~ 522mmHg ± 6mmHg) Typical at 25°C (77°F)
Resolution	1hPa / 0.01inHg / 0.1mmHg

Indoor temperature (Note: Data detected by console)

Temperature unit	°C and °F
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Accuracy	$\leq 32^{\circ}\text{F} \pm 3.6^{\circ}\text{F}$ ($\leq 0^{\circ}\text{C} \pm 2^{\circ}\text{C}$) $> 32^{\circ}\text{F} \pm 1.8^{\circ}\text{F}$ ($> 0^{\circ}\text{C} \pm 1^{\circ}\text{C}$)
Resolution	$^{\circ}\text{C} / ^{\circ}\text{F}$ (1 decimal place)
Indoor humidity (Note: Data detected by console)	
Humidity unit	%
Accuracy	1 ~ 9% RH $\pm$ 8% RH @ 77°F (25°C) 10 ~ 90% RH $\pm$ 5% RH @ 77°F (25°C) 90 ~ 99% RH $\pm$ 8% RH @ 77°F (25°C)
Resolution	1%
Outdoor temperature (Note: Data detect from wireless 5-in-1 sensor)	
Temperature unit	$^{\circ}\text{C}$ and $^{\circ}\text{F}$
Accuracy	41.2 ~ 140°F $\pm$ 0.7°F (5.1 ~ 60°C $\pm$ 0.4°C) -3.8 ~ 41°F $\pm$ 1.8°F (-19.9 ~ 5°C $\pm$ 1°C) -40 ~ -4°F $\pm$ 2.7°F (-40 ~ -20°C $\pm$ 1.5°C)
Resolution	$^{\circ}\text{C} / ^{\circ}\text{F}$ (1 decimal place)
Outdoor humidity (Note: Data detect from wireless 5-in-1 sensor)	
Humidity unit	%
Accuracy	1 ~ 20% RH $\pm$ 6.5% RH @ 77°F (25°C) 21 ~ 80% RH $\pm$ 3.5% RH @ 77°F (25°C) 81 ~ 99% RH $\pm$ 6.5% RH @ 77°F (25°C)
Resolution	1%
Wind (Note: Data detect from wireless 5-in-1 sensor)	
Wind speed unit	mph, m/s, km/h, knots
Wind speed display range	0~112mph, 50m/s, 180km/h, 97knots
Wind speed resolution	1 decimal place (mph, m/s, km/h and knots)
Accuracy	< 5m/s: +/- 0.8m/s; > 5m/s: +/- 10% (whichever is greater)
Direction resolutions	16 directions or 360 degree
Rain (Note: Data detect from wireless 5-in-1 sensor)	
Rainfall unit	mm and in
Accuracy	$\pm$ 7% or 1 tip
Range	0~393.7inches (0~9999mm)
Resolution	mm (1 decimal place), in (2 decimal place)

8.2 Wireless 5-in-1 sensor

Dimensions(W x H x D)	15.55 x 8.54 x 6.5 in (395 x 217 x 165mm) not include pole and stand
Weight	1.29 lb (583g) not include batteries, pole and stand
Main power	3 x AA size 1.5V battery (Non-rechargeable Lithium batteries recommended)
Weather data	Temperature, humidity, wind speed, wind direction and rain
RF transmission range	492 feet (150m) in open field
RF Frequency	915MHz
Transmission interval	12 seconds
Operating temperature range	-40 ~ 140°F (-40 ~ 60°C) Non-rechargeable Lithium batteries required for low temperature
Operating humidity range	1 ~ 99% RH

8.3 Wireless thermo-hygrometer sensor

Dimensions (W x H x D)	2.28 x 4.92 x 0.75 in (58 x 125 x 19 mm)
Weight	0.17 lb (79g) not include batteries
Main power	2 x AA size 1.5V batteries (Alkaline batteries recommended)
Weather data	Temperature and Humidity
RF frequency	915MHz (US)
RF transmission range	492 feet (150m) in open field
Transmission interval	60 seconds
Operating temperature range	-4 ~ 140°F (-20 ~ 60°C)
Operating humidity range	1% to 99% RH non-condensing

9. Warranty Information

AIR ALFA provides a one-year limited warranty covering defects in materials and workmanship. This warranty begins on the original date of purchase, applies only to products purchased new, and is valid exclusively for the original purchaser.

To obtain warranty service, the purchaser must contact AIR ALFA for problem determination and service instructions. Warranty service will only be performed by AIR ALFA or an authorized service center. Proof of purchase, in the form of the original dated bill of sale, must be presented upon request.

This warranty covers defects in material and workmanship, subject to the following exclusions:

1. Damage caused by accident, misuse, neglect, or lack of proper maintenance.
2. Damage resulting from failure to follow instructions in the owner's manual.
3. Damage caused by repairs or alterations performed by anyone other than an authorized AIR ALFA service center.
4. Products used for purposes other than personal use.
5. Applications or uses not intended for this product.
6. Inability to receive a signal due to interference or obstructions.

7. Damage caused by extreme acts of nature, including lightning strikes or floods.

This warranty applies only to defects within the product itself. It does not cover installation or removal costs, normal setup or adjustments, claims based on seller misrepresentation, or performance variations due to installation-related circumstances.

Service options, parts availability, and response times may vary and are subject to change at any time. In compliance with applicable laws, the Company may require you to provide additional documentation and/or complete registration requirements before warranty service can be provided.

For details on how to obtain warranty service, please contact our customer service department.

Email: airalfa.services@gmail.com

10. FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and;
- (2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If the equipment does not cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, Human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

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

The provided shielded USB cable must be used with this unit to ensure compliance with the class B FCC limits. Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Warnings:

1. Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
2. Even used batteries may cause severe injury or death.
3. Call a local poison control center for treatment information.
4. The compatible battery type: CR2032.
5. The nominal battery voltage: 3.0 VDC.
6. Non-rechargeable batteries are not to be recharged.
7. Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
8. Ensure the batteries are installed correctly according to polarity (+ and -).
9. Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
10. Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
11. Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

 WARNING

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**
- **Seek immediate medical** attention if a battery is suspected to be swallowed or inserted inside any part of the body.

