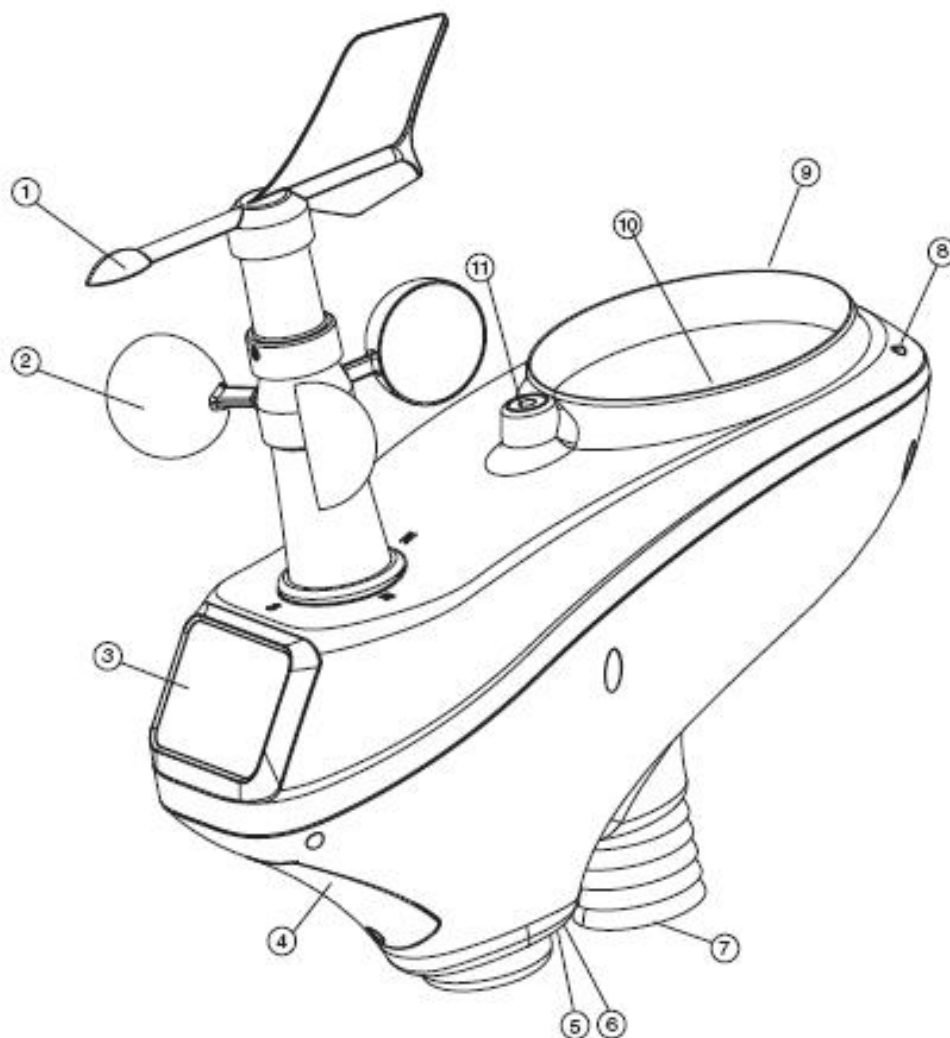


**PROFESSIONAL WIRELESS WEATHER STATION  
XC-0369**

**Operation Manual**

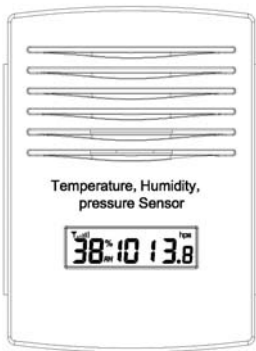
## OVERVIEW

### Outdoor sensor:

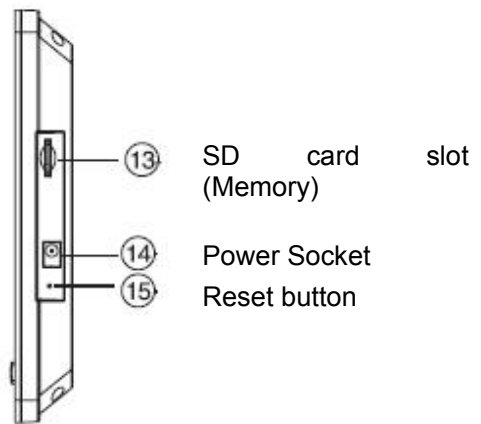
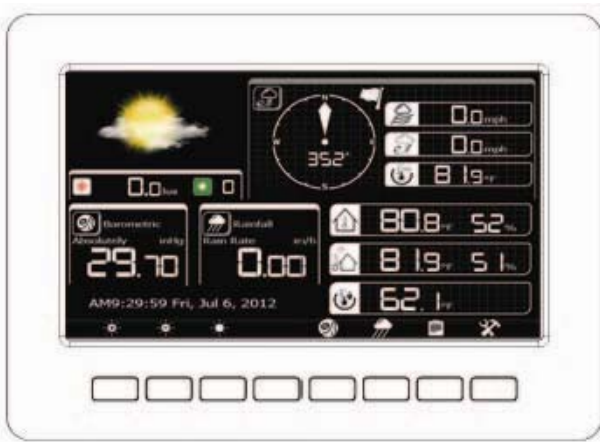


1. Wind Vane
2. Wind Speed Sensor
3. Solar panel
4. Battery compartment
5. LED Indicator: light on for 4 seconds during unit power up. Then the LED will flash once every 16 seconds (the sensor transmission update period).
6. Reset button
7. Thermo-hygro sensor
8. UV sensor
9. Light sensor
10. Rain collector
11. Bubble level

### Indoor sensor



**Display unit**



**Contents**

The weather station consists of the following parts.

QTY	Item
1	7" Colour LCD
1	Outdoor sensor(Thermo-hygrometer / Rain Gauge / Wind Speed Sensor /Transmitter)
1	Wind Vane
1	Indoor sensor
1	5V DC adaptor
1	Pole
2	Pole mounting U-bolt
4	Pole mounting clamps
4	Pole mounting nuts
1	User manual

**Introduction**

This manual will guide you step-by-step through setting up the device. Use this manual to become familiar with your professional weather station, and save it for future reference.

## **Feature**

- 7" Colour LCD
- Weather data calibration
- Time
- Date
- Wireless outdoor sensor
- Indoor temperature
- Indoor humidity
- Air pressure
- Outdoor temperature
- Outdoor humidity
- Display °C or °F
- Wind speed
- Wind direction
- UV index
- Solar powered
- Weather forecast
- Calendar
- Wind chill
- Dew point
- Min/Max memory
- Min/Max alarm
- 12/24 hour display
- Time alarm
- Wall mount
- Range 100 metres

## **Installation**

---

Before completing installation of all components of the weather station, please set up the weather station with all parts being nearby for testing to ensure all function are active.

## Outdoor sensor

### 1. Attach the wind vane

Push the wind vane into the shaft as shown in figure 1.

Tighten the set screw with the Allen Wrench (included) as shown in figure 2. Make sure the wind vane spins freely.

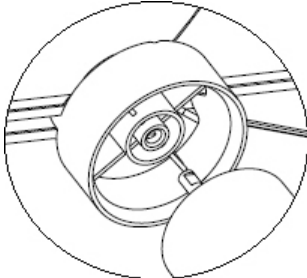


Figure 1

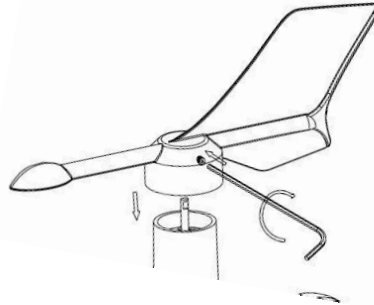


Figure 2

### 2. Insert the pole into the base, as shown in figure 3. Spin the lid onto the base as shown in figure 4.

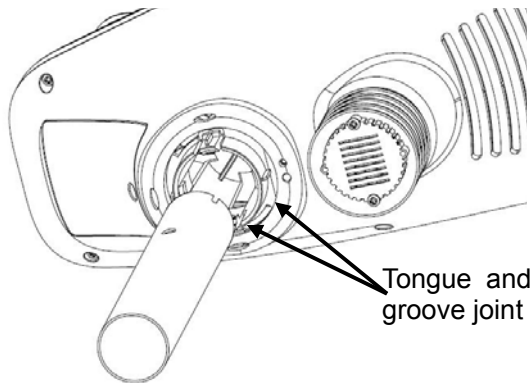


Figure 3

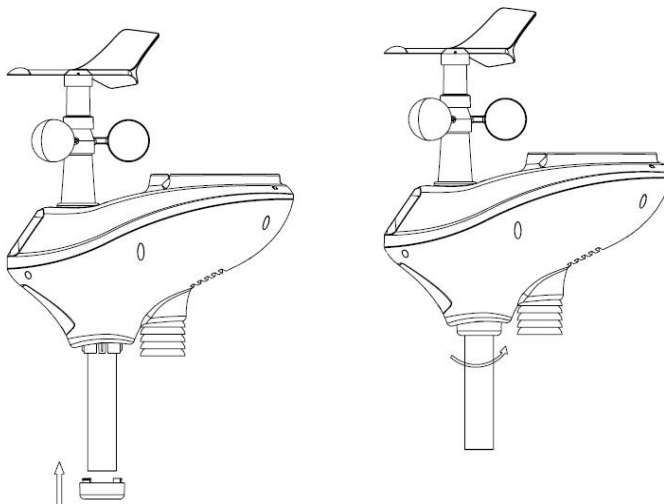


Figure 4

3. Locate the battery door on the thermo-hygrometer / rain gauge transmitter, as shown in Figure 5. Turn the set screw counter clockwise to loosen the screw to open the battery compartment. Insert 3XAA rechargeable batteries in the battery compartment. The LED indicator on the back of the transmitter will turn on for four seconds and flash normally once every 16 seconds (to indicate the sensor transmission update period).

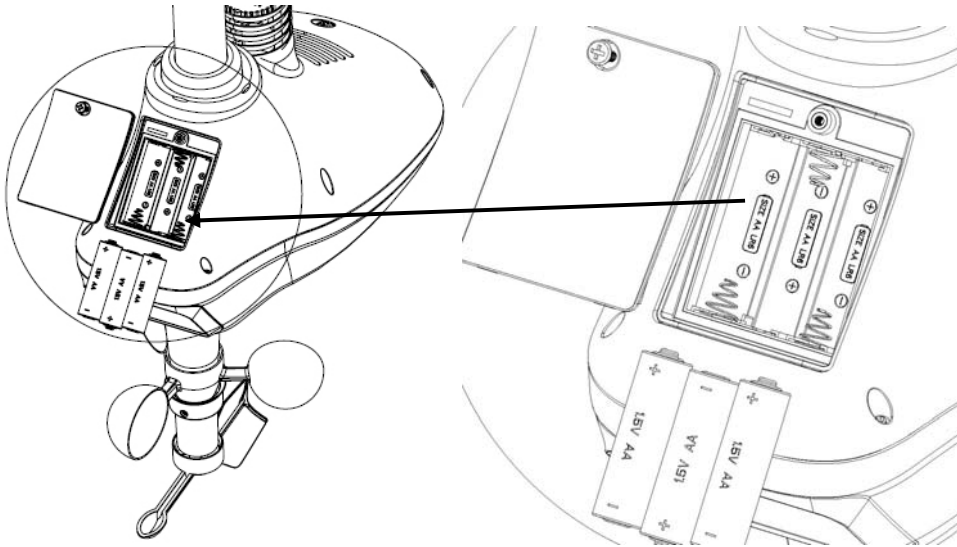


Figure 5

**Note:** If no LED lights up or is lighted permanently, make sure the battery is inserted the correct way or preform a reset. **Do not install the batteries incorrect to the polarity markings.** You can permanently damage the thermo-hygrometer.

4. Fasten the supplied mounting pole to a separate pole or bracket (purchased separately) with the two U-bolts, mounting pole brackets and nuts, as shown in Figure 6.

Tighten the mounting pole to your mounting pole with the U-Bolt assembly, as shown in Figure 7.

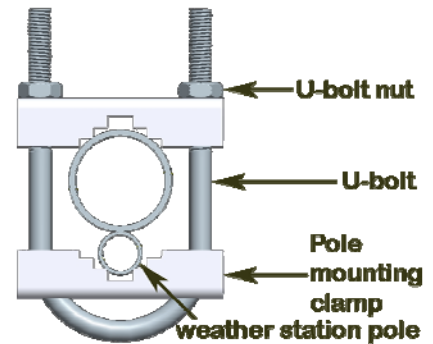


Figure 6

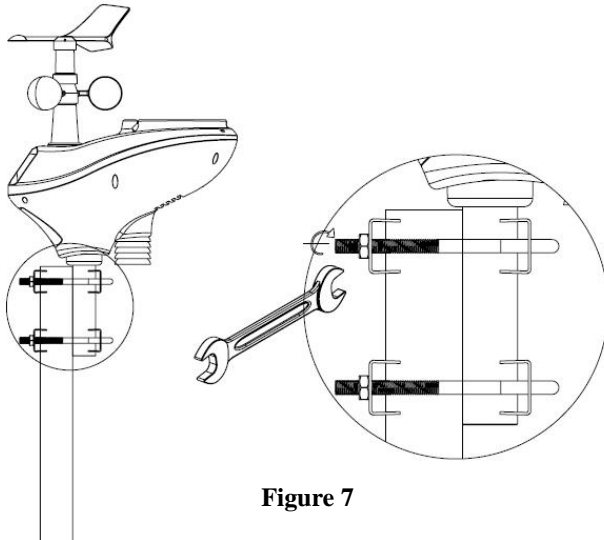
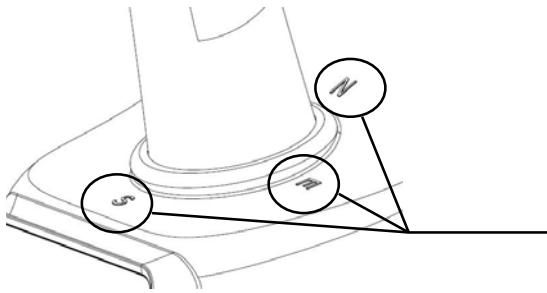
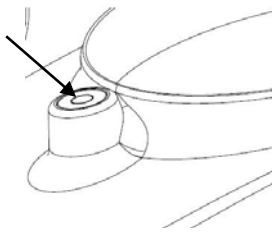


Figure 7



**Figure 8**

5. There are four letters "N", "E", "S", "W" representing the direction of North, East, South and West, show in Figure 8. Adjust the Wind direction sensor so it points towards the position of your actual location. Wind direction error will occur when the wind direction sensor is not positioned correctly during installation.



**Figure 9**

***Level the sensors***

Use the bubble level on the rain sensor as a guide to ensure the sensors are level (straight).

**Indoor sensor**

Remove the battery door on the back of the sensor with a Philips screwdriver (there is only one screw, at the bottom of the unit). Insert 2 x AAA batteries as shown in Figure 10 (we recommend lithium batteries for cold weather climates, but alkaline batteries are sufficient for most climates). Ensure the polarity is followed when installing the batteries.

Replace the battery door and replace screw. Note that the temperature, humidity and pressure will be displayed on the LCD display.

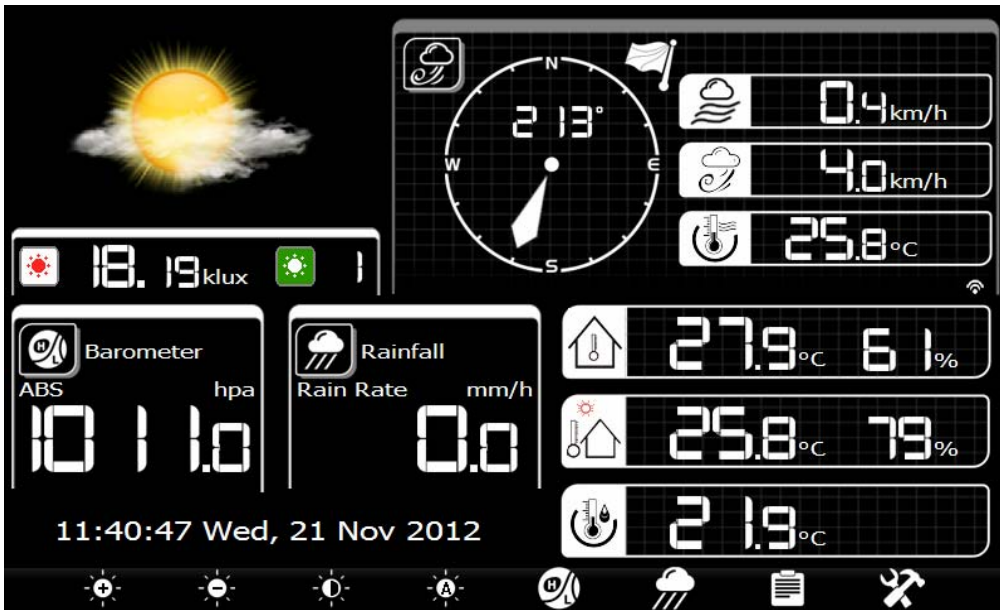


**Figure 10**

**Initial Display LCD Set Up**

Connect the power adaptor to the LCD Screen's Power Socket. Then the display will power up.

The LCD will start to register the Outdoor and Indoor sensors and receive the weather data from them. The interface as below:



**NOTE:** Both Outdoor and indoor sensors must be powered and on before turning the LCD receiver ON. If the sequence is reversed, the LCD Receiver **WILL NOT** pair with the Outdoor and Indoor Sensors.

**Memory:**

The LCD comes with built-in 38MB of memory. Once the memory becomes full on the LCD, you can insert a MicroSD Card (not included) for backing up purposes.

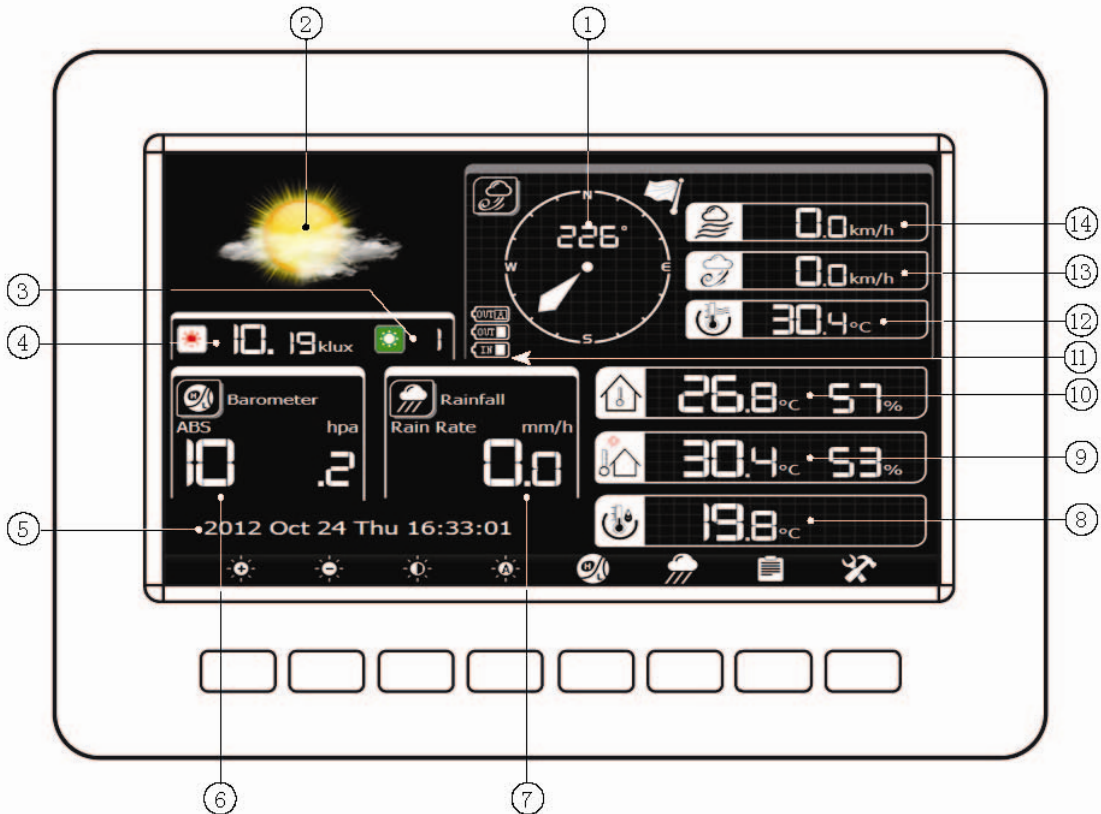
The Data saved on to the MicroSD Card will be in form of an Excel spreadsheet (.csv) displaying the history data recorded in chart form only.

## Program Mode

---

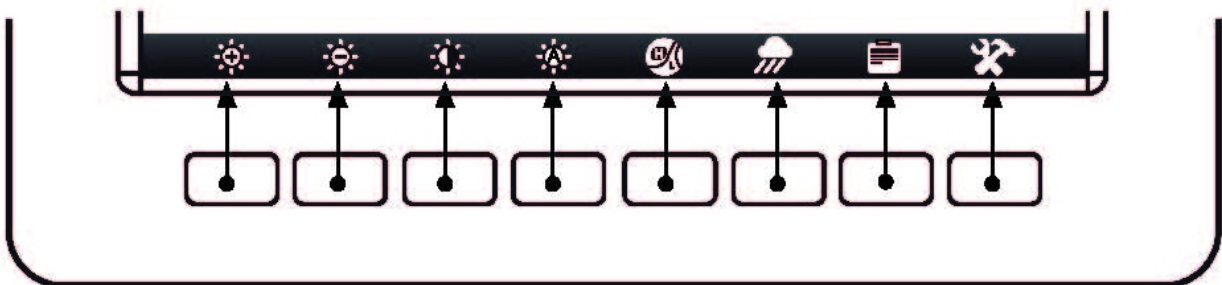


# 1. Normal display Mode











- |                        |                                   |
|------------------------|-----------------------------------|
| 1. Wind direction      | 8. Dew point                      |
| 2. Weather Forecast    | 9. Outdoor Temperature & Humidity |
| 3. UV index            | 10. Indoor Temperature & Humidity |
| 4. Light               | 11. Low battery indicator         |
| 5. Time and date       | 12. Wind chill                    |
| 6. Barometric Pressure | 13. Gust                          |
| 7. Rainfall            | 14. Wind speed                    |

Each icon in the display matches the keys on LCD case. Please press the keys for operation.

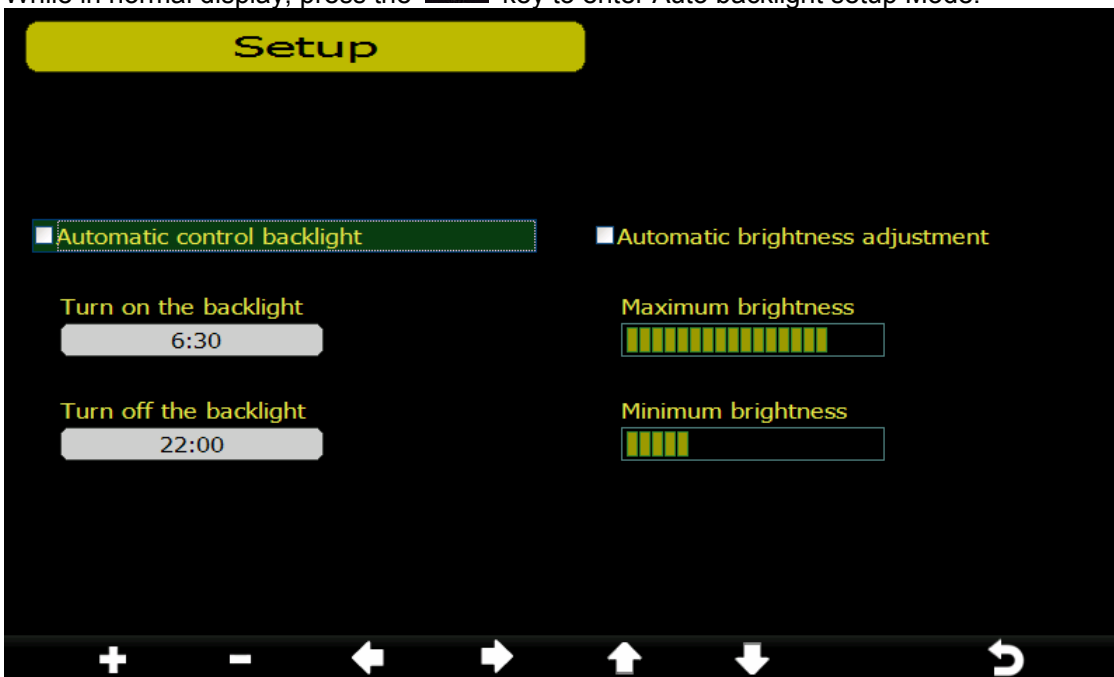


Icon	Description
------	-------------








	<b>Brightness control key</b> Press this key to enhance the brightness
	<b>Brightness control key</b> Press this key to decrease the brightness
	<b>Backlight on/off key</b> Press this key to on/off the backlight
	<b>Auto backlight control key</b> Press this key to enter the auto backlight setup mode
	<b>Pressure display key</b> Press this key to choose the display between Absolute pressure and Relative pressure.
	<b>Rain key</b> Press this key to Shift displays between Rain Rate, Rain Day, Rain Week, Rain Month, and Rain Year figures.
	<b>History key</b> Press this key to enter History Mode
	<b>Setting key</b> Press this key to enter Setting Mode


## 2. Auto backlight setup mode

While in normal display, press the  key to enter Auto backlight setup Mode.





Icon	Description
------	-------------

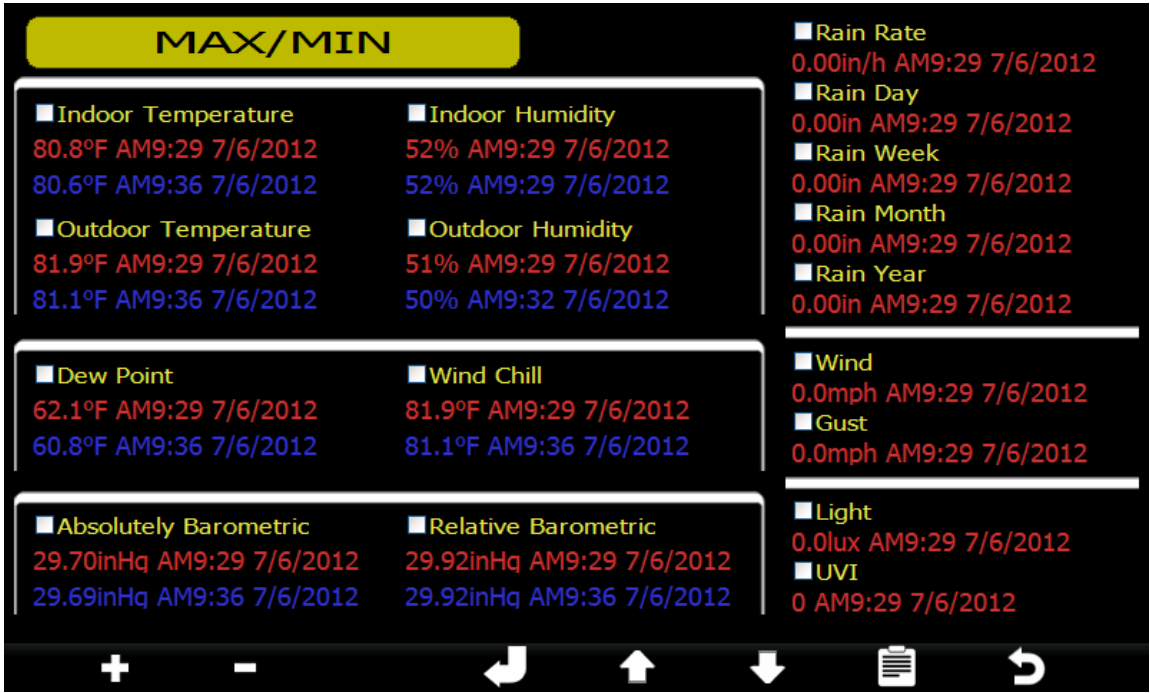
	<b>Select key</b> Press this key to select the unit or scrolls the value
	<b>Select key</b> Press this key to select the unit or scrolls the value.
	<b>Left key</b> Press this key to select the set value.
	<b>Right key</b> Press this key to select the set value.
	<b>Up arrow key</b> Press this key to change the activated option field
	<b>Down arrow key</b> Press this key to change the activated option field
	<b>Return key</b> Press this key to return to previous mode

If the auto backlight turn-on time has been set, you can press  key to turn off the backlight within the turn on time. Backlight will turn on again automatically at next turn on time. You can press any key to turn on the backlight for 60 seconds within the turn off time

### 3. History Mode

While in normal display, press the  key to enter History Mode. You can select the below sub-mode by pressing the  key.

#### 3.1 MAX/MIN Mode











The screenshot shows the MAX/MIN mode interface with the following data:

- Indoor Temperature:** 80.8°F AM9:29 7/6/2012, 80.6°F AM9:36 7/6/2012
- Indoor Humidity:** 52% AM9:29 7/6/2012, 52% AM9:29 7/6/2012
- Outdoor Temperature:** 81.9°F AM9:29 7/6/2012, 81.1°F AM9:36 7/6/2012
- Outdoor Humidity:** 51% AM9:29 7/6/2012, 50% AM9:32 7/6/2012
- Dew Point:** 62.1°F AM9:29 7/6/2012, 60.8°F AM9:36 7/6/2012
- Wind Chill:** 81.9°F AM9:29 7/6/2012, 81.1°F AM9:36 7/6/2012
- Absolutely Barometric:** 29.70inHg AM9:29 7/6/2012, 29.69inHg AM9:36 7/6/2012
- Relative Barometric:** 29.92inHg AM9:29 7/6/2012, 29.92inHg AM9:36 7/6/2012
- Rain Rate:** 0.00in/h AM9:29 7/6/2012
- Rain Day:** 0.00in AM9:29 7/6/2012
- Rain Week:** 0.00in AM9:29 7/6/2012
- Rain Month:** 0.00in AM9:29 7/6/2012
- Rain Year:** 0.00in AM9:29 7/6/2012
- Wind:** 0.0mph AM9:29 7/6/2012
- Gust:** 0.0mph AM9:29 7/6/2012
- Light:** 0.0lux AM9:29 7/6/2012
- UVI:** 0 AM9:29 7/6/2012






Icon	Description
------	-------------



	<b>File Select key</b> Press this key to enter the file selection mode
	<b>Page Select key</b> Press this key to enter the page selection mode.
	<b>Scroll left key</b> Press this key to view the left of the scrollable area.
	<b>Scroll right key</b> Press this key to view the right of the scrollable area.
	<b>Page up key</b> Press this key to scroll up the page you are viewing
	<b>Page down key</b> Press this key to scroll down the page you are viewing
	<b>History key</b> Press this key to select the sub-Mode
	<b>Return key</b> Press this key to return to previous mode

While in History Record Mode, press  key to enter the file selection mode:



Press  or  key to select the history file of annual data. Press  key to delete the selected file. Press  key to exit and open the selected file. Press  key to return to History record Mode.

While in History Record Mode, press the  key to enter the page selection mode:

No.	Time	Indoor Temperature (°F)	Indoor Humidity (%)	Outdoor Temperature (°F)	Outdoor Humidity (%)	Wind (mph)	Gust (mph)	Dew Point (°F)	Wind Chill (°F)	Wind Dire (°)
625	PM6:54 7/3/2012	79.2	78	79.9	74	0.0	0.0	70.9	79.9	352
626	PM6:55 7/3/2012	79.2	78	79.9	74	0.0	0.0	70.9	79.9	352
627	PM6:56 7/3/2012	79.2	78	79.9	74	0.0	0.0	70.9	79.9	352
628	PM6:57 7/3/2012	79.2	78	79.9	73	0.0	0.0	70.5	79.9	352
629	PM6:58 7/3/2012	79.2	77	80.1	73	0.0	0.0	70.7	80.1	352
630	PM6:59 7/3/2012	79.3	77	80.1	73	0.0	0.0	70.7	80.1	352
631	PM7:00 7/3/2012	79.3					0.0	70.3	80.1	352
632	PM7:01 7/3/2012	79.5					0.0	70.5	80.2	352
633	PM7:02 7/3/2012	79.5					0.0	70.5	80.2	352
634	PM7:03 7/3/2012	79.5					0.0	70.5	80.2	352
635	PM7:04 7/3/2012	79.7	76	80.4	72	0.0	0.0	70.7	80.4	352
636	PM7:05 7/3/2012	79.7	75	80.4	72	0.0	0.0	70.7	80.4	352
637	PM7:06 7/3/2012	79.7	75	80.4	71	0.0	0.0	70.2	80.4	352
638	PM7:07 7/3/2012	79.7	75	80.4	71	0.0	0.0	70.2	80.4	352
639	PM7:08 7/3/2012	79.9	75	78.8	71	0.0	0.0	68.7	78.8	352
640	PM7:09 7/3/2012	79.9	75	80.6	70	0.0	0.0	70.0	80.6	352

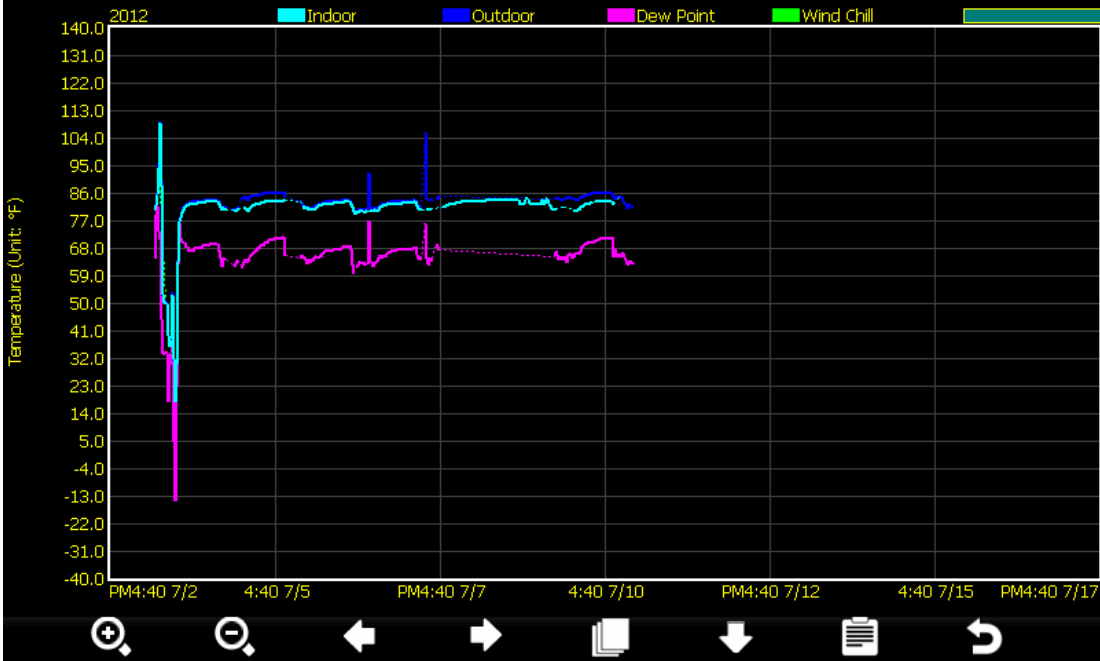
The range is 1 to 640









0040

Ok Cancel



Press or to select a digit in a number, press key or key to change the number. Press or to change the activated option field and press key or key to confirm.

### 3.3 History graph mode

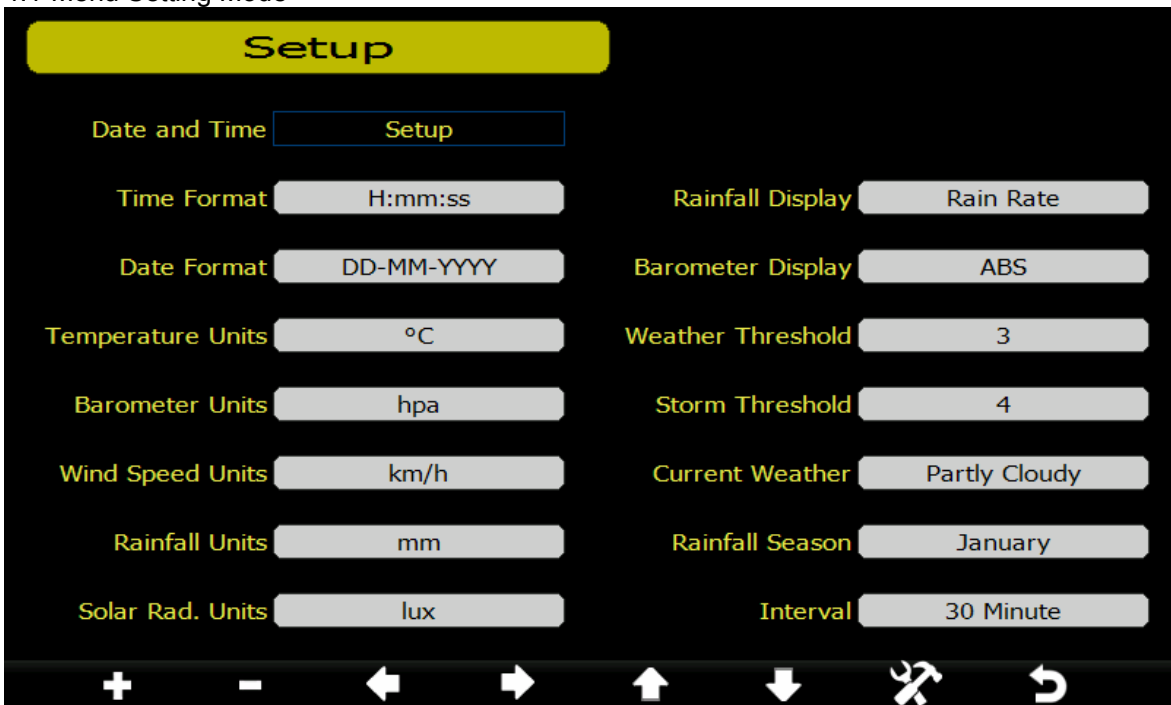










Icon	Description
	<b>Zoom In key</b>
	<b>Zoom Out key</b>
	<b>Scroll left key</b> Press this key to view the left of the scrollable area.
	<b>Scroll right key</b> Press this key to view the right of the scrollable area.
	<b>Select file key</b> Press this key to enter the file selection mode
	<b>Page down key</b> Press this key to scroll down the page you are viewing
	<b>History key</b> Press this key to select the sub-Mode
	<b>Return key</b> Press this key to return to previous mode

#### 4. Setting Mode




While in normal display, press the  key to enter Setting Mode. You can select the below sub-mode by pressing the  key

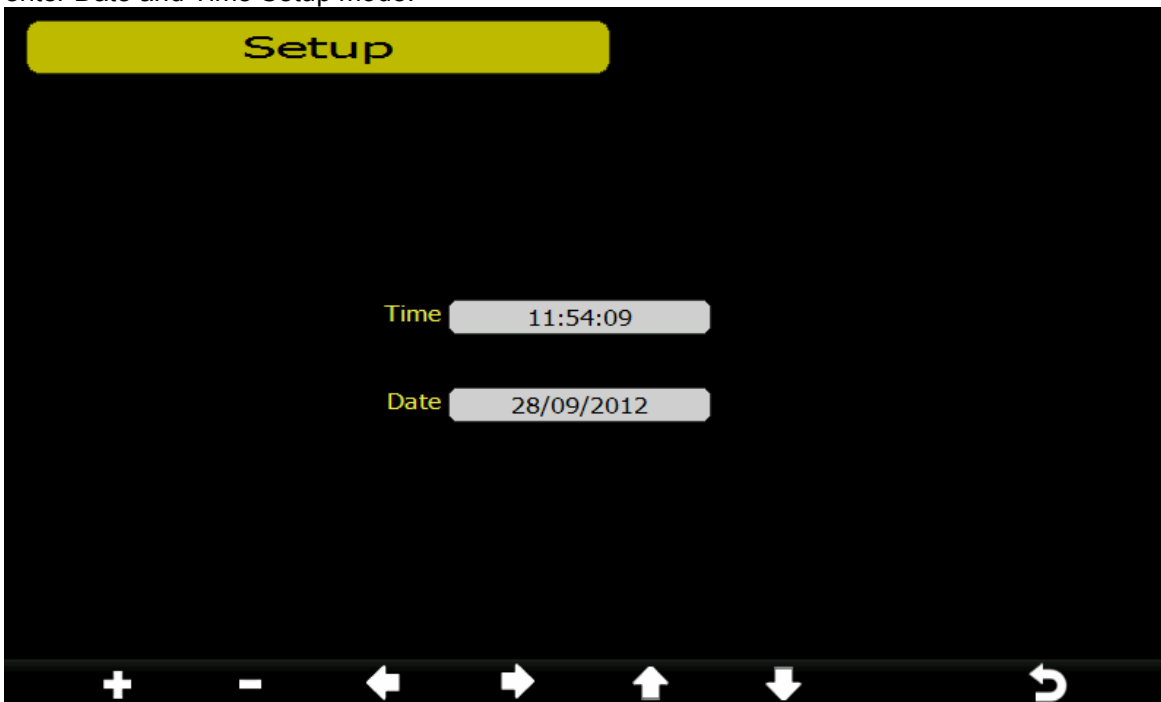
##### 4.1 Menu Setting Mode












Icon	Description
	<b>Select key</b> Press this key to select the unit or scrolls the value
	<b>Select key</b> Press this key to select the unit or scrolls the value.
	<b>Left key</b> Press this key to select the set value.
	<b>Right key</b> Press this key to select the set value.
	<b>Up arrow key</b> Press this key to change the activated option field
	<b>Down arrow key</b> Press this key to change the activated option field
	<b>Set key</b> Press this key to select the Setting sub-Mode
	<b>Return key</b> Press this key to return to previous mode

#### 4.1.1. Date and Time setting

While in Menu Setting Mode, press  key to select Date and Time Setup field, press  or  key to enter Date and Time Setup mode:












##### 1) Time setting (hour/minute/second)







Press  key to select time setting field, the hour digit turn red, press the  or  key to change the hour setting. Press  to set the minute, the minute digit turn red, press the  or  key to change the minute setting. Press  to set the second, the second digit turn red, press the  or  key to change the second setting





2) Date setting

Press  key to select Date setting field, the day digit turn red, press the  or  key to change the day setting. Press  to set the month, the month digit turn red, press the  or  key to change the month setting. Press  to set the year, the year digit turn red, press the  or  key to change the year setting

3) Time zone setting

Press  key to select Time zone setting field, press the  or  key to change the time zone setting. Press  key to select Update field, press the  or  key to update the time immediately.

4) DST setting

If the state that was in the Time Zone observes DST, the option of “automatically adjust clock for Daylight Saving Change” will show on beneath the Time Zone setting. Press the  or  key to select this option.

4.1.2 Time Format setting (H:mm:ss / h:mm:ss AM / AM h:mm:ss, default H:mm:ss)

4.1.3 Date Format setting (MM-DD-YY, DD-MM-YY or YY-MM-DD format, default DD-MM-YYYY)

4.1.4 Temperature unit setting (°C / °F, default °C)

4.1.5 Barometric unit (hPa / inHg / mmHg, default hPa)

4.1.6 Wind speed unit (km/h, m/s, bft, mph, knots default: m/s)

4.1.7 Rainfall unit (mm, inch, default: mm)

4.1.8 Solar Rad. unit (lux,fc,w/m<sup>2</sup>)

4.1.9 Rainfall display (Rain Rate, Rain Day, Rain Week, Rain Month, Rain Year)

**Rain Rate:** it forecast the rain per hour base on the recently 10 minute's rainfall. For example: the rainfall of recent 10 minutes is 12mm, the rain/hour is 12mm\*6=72mm/h.

**Note:** The rain per day is reset to zero at 0:00hr every day. The rain per week is reset to zero at 0:00hr every Sunday, per month is reset to zero at 0:00hr every first day of the month. The reset of the rain per year refer to rainfall season section

4.1.10 Barometric display (Absolutely, Relative)

4.1.11 Weather threshold (2-4, default 3)

It's pressure sensitivity setting for weather forecasting. When the pressure rises over weather threshold in past 12 hours the weather upgrades (like from partly cloudy to sunny). When the pressure drops over weather threshold in past 12 hours the weather degrades (like from cloudy to raining). For areas that experience frequent changes in air pressure requires a higher level setting compared to an area where the air pressure is stagnant. For example if 4 is selected, then there must be a fall or rise in air pressure of at least 4hPa needed to change the weather forecast icons.

4.1.12 Storm threshold (3-9, default 4)

Similar to the general pressure sensitivity setting it is possible to adjust the storm threshold sensitivity form 3-9 (default 4). When there is a fall over storm threshold within 3 hours, the storm icon will appear.

4.1.13 Current weather

The five weather icons are Sunny, Partly Cloudy, Cloudy, Rainy and Storm.



Sunny



Partly Cloudy



Cloudy



Rainy



Storm

4.1.14 Rainfall season (default: January)

Rainfall season influence the annual rainfall maximum, minimum and total value. When one month was

selected, the annual rainfall and annual max/min rainfall were zero clearing at 0:00 of the first day of the selected month,

4.1.15 Storing Interval (1-240minutes)

4.2 Alarm Setting Mode

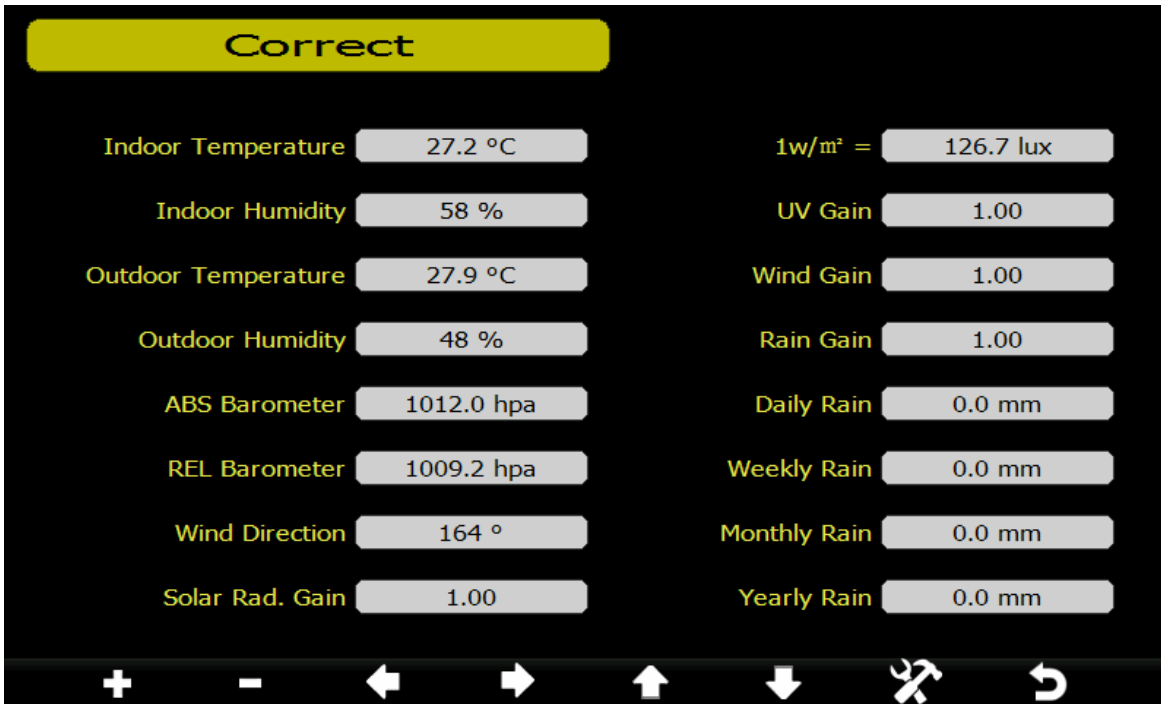


Icon	Description
	<b>Select key</b> Press this key to select the unit or scrolls the value
	<b>Select key</b> Press this key to select the unit or scrolls the value.
	<b>Left key</b> Press this key to select the set value.
	<b>Right key</b> Press this key to select the set value.
	<b>Up arrow key</b> Press this key to change the activated option field
	<b>Down arrow key</b> Press this key to change the activated option field
	<b>Set key</b> Press this key to select the Setting sub-Mode
	<b>Return key</b> Press this key to return to previous mode

The first row is high alarm value and the second row is low alarm value.

When a set weather alarm condition has been triggered, that particular alarm will sound for 120 second and the corresponding icon will flash until the weather condition doesn't meet the user set level. Press any key to mute the alarm.

4.3 Calibration Mode



Icon	Description
	<b>Select key</b> Press this key to select the unit or scrolls the value
	<b>Select key</b> Press this key to select the unit or scrolls the value.
	<b>Left key</b> Press this key to select the set value.
	<b>Right key</b> Press this key to select the set value.
	<b>Up arrow key</b> Press this key to change the activated option field
	<b>Down arrow key</b> Press this key to change the activated option field
	<b>Set key</b> Press this key to select the Setting sub-Mode
	<b>Return key</b> Press this key to return to previous mode

Solar Rad. Gain calibration (default is 1.0, adjustment range 0.75 to 1.25)

UV calibration (default is 1.0, adjustment range 0.75 to 1.25)

Wind Calibration (default is 1.0, adjustment range 0.75 to 1.25)

Rain calibration (default is 1.0, adjustment range 0.75 to 1.25)

The conversion factor for Lux converter to w/m<sup>2</sup>. (The range is 100-1000, default 126.7.)

**NOTE:** UV Calibration MUST be performed 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.

#### 4.4 Factory Settings



#### 4.4.2 Re-register indoor transmitter

Press **↑** or **↓** key to select re-register indoor transmitter. Press **+** or **-** key to popup the Message Box "Are you sure you want to register the new indoor transmitter?" Press **↑** or **↓** to select Yes or No. Press the **+** key or **-** key to confirm the selection.

#### 4.4.3 Re-register outdoor transmitter

Please reference section 4.4.2. Procedures and settings are similar to re-register indoor transmitter.

#### 4.4.4 Clear History

Please reference section 4.4.2. Procedures and settings are similar to re-register indoor transmitter.





#### 4.4.5 Clear Max/Min

Please reference section 4.4.2. Procedures and settings are similar to re-register indoor transmitter.








#### 4.4.6 Reset Factory

Please reference section 4.4.2. Procedures and settings are similar to re-register indoor transmitter.

#### 4.4.7 Backup data (requires a MicroSD card)

Press  or  key to select Backup data field, press the  or  key to enter backup mode:



Press  or  key to select the history year file. Press  key or  key to confirm the selection. Press  or  to change the activated option field. Press  key to start backup, press  key again to stop the backup. Please insert MicroSD card before start backup. The data save as excel format as default setting.

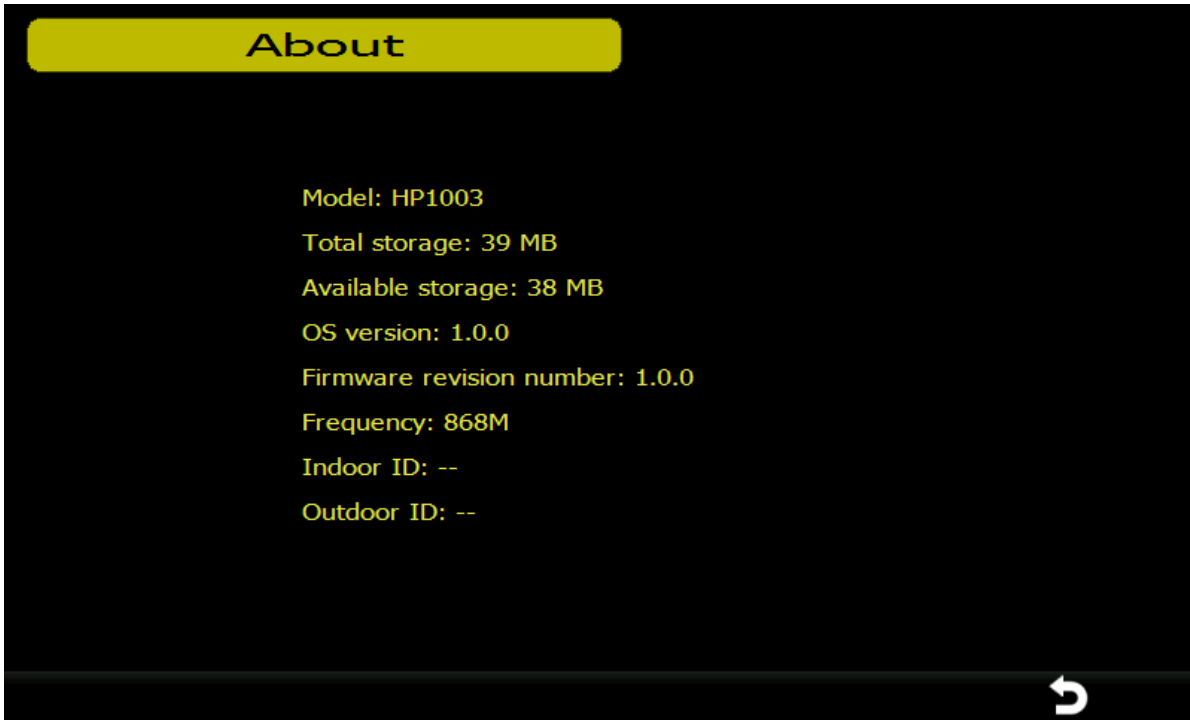


Connect the MicroSD card to a card reader once connected to a computer. Double click the removable drive icon to check for the save Excel spreadsheet (.csv).

**NOTE:** There is no limit to what capacity MicroSD card this unit can use.

Accessing the contents of the Unit.

Language (English, Chinese, Danish, Dutch, French, German, Italian, Spanish)  
4.4.8 About information



## Specifications

---

**Outdoor data**

Transmission distance in open field :	100m(330 feet)
Frequency :	433 MHz
Temperature range :	-40°C--60°C (-40°F to +140°F)
Accuracy :	+ / - 1 °C
Resolution :	0.1°C
Measuring range rel. humidity :	1%~99%
Accuracy :	+/- 5%
Rain volume display :	0 – 9999mm (show --- if outside range)
Accuracy :	+ / - 10%
Resolution :	0.3mm (if rain volume < 1000mm) 1mm (if rain volume > 1000mm)
Wind speed :	0-50m/s (0~100mph) (show --- if outside range)
Accuracy:	+/- 1m/s (wind speed< 5m/s) +/-10% (wind speed > 5m/s)
Light :	0-400k Lux
Accuracy :	+/-15%
Measuring interval outdoor sensor:	16 sec
Measuring interval indoor sensor :	64 sec

**Indoor data**

Indoor temperature range :	-40°C--60°C (-40□ to + 140□) (show --- if outside range)
Resolution :	0.1°C
Measuring range rel. humidity :	1%~99%
Resolution :	1%
Measuring range air pressure :	300-1100hPa (8.85-32.5inHg)
Accuracy :	+/-3hpa under 700-1100hPa
Resolution :	0.1hPa (0.01inHg)
Alarm duration :	120 sec

**Power consumption**

Base station :	5V DC adaptor (included)
Indoor sensor :	2xAAA alkaline batteries (not included)
Remote sensor :	3xAAA alkaline rechargeable batteries (included)

Remark: Be sure to use the supplied 1.5V rechargeable battery for solar transmitter.

Where outdoor temperature is lower than -20°C, make sure disposable lithium batteries are used to assure that the device can get enough power to maintain its function properly. Normal alkaline batteries do not work well when outdoor temperature is lower than -20 °C, the battery's discharging capability is greatly reduced.