

# Full weather station with 6-in-1 professional sensor and PC connection Model: YC9388 User Manual



# TABLE OF CONTENTS

INTRODUCTION
OVERVIEW         1           MAIN CONSOLE         1           LCD DISPLAY         2           WIRELESS 6-IN-1 WEATHER SENSOR         3
INSTALLATION AND SETUP       3         WIRELESS 6-IN-1 WEATHER SENSOR       3         MAIN CONSOLE       5         SYNC UP PC TIME       5         SET CLOCK MANUALLY       6
OTHER SETTING OF THE CONSOLE
TEMPERATURE & HUMIDITY FUNCTION & TREND       8         WIRELESS SENSOR SIGNAL RECEIVING       8         WIND       9         WEATHER INDEX       10         WEATHER FORECAST       12         BAROMETRIC PRESSURE       12         RAINFALL       13         HISTORY GRAPH.       14
MAX / MIN DATA RECORD
PAST 24 HOURS HISTORY DATA
WEATHER ALERT SETTING
POINTING THE WIRELESS 6-IN-1 SENSOR TO SOUTH
DATA LOG
PC SOFTWARE
MAINTENANCE       19         BATTERY REPLACEMENT       19         CLEANING THE RAIN COLLECTOR       19         CLEANING HYGRO-THERMO SENSOR OF WIRELESS 6-IN-1 WEATHER SENSOR       19         CLEANING THE UV SENSOR AND CALIBRATION       20
PRECAUTIONS
SPECIFICATION         21           MAIN CONSOLE         21           WIRELESS 6-IN-1 WEATHER SENSOR         23

#### INTRODUCTION

Thank you for selecting full weather station with 6-in-1 professional sensor and PC connection. This product offers professional weather observers or serious weather enthusiasts robust performance with a wide range of options and sensor. You can save your own location's weather information in your PC thought the "WEATHER TOOL" PC software.

This full weather station which transmits temperature, humidity, wind speed / direction, rainfall and UV with solar power. Also, it can support up to 7 optional wireless thermo-hygro sensor (not included), transmits your desire location's temperature & humidity records to the console. Both sensors are fully assembled and calibrated for your easy installation. They send data at a low power radio frequency to the console from up to 150m / 450 feet away (line of sight).

In the main console, a multi-function processor is embedded to analyze the received weather data and these real-time data can store in the build-in data logger instantly. The wide-viewing-angled LCD display shows informative weather readings with advanced features, such as high/ low alert alarm, different weather index, multi-functional bar chart and MAX/MIN records. With the built-in sunrise/sunset and moon phase features, this system is truly a remarkably personal yet professional weather station for your own backyard.

#### Note:

This instruction manual contains useful information on the proper use and care of this product. Please read this manual through to fully understand and enjoy its features, and keep it handy for future use.

#### OVERVIEW



- 1. [SNOOZE / LIGHT ] key
- 2. LCD display
- 3. Micro USB port
- 4. [CH] key
- 5. [GRAPH / Λ] key
- 6. [HISTORY / V] key
- 7. [MAX / MIN] key
- 8. [BARO] key

# LCD DISPLAY

- 9. [WIND] key
- 10. [ RAIN ] key
- 11. [ INDEX ] key
- 12. Alert light
- 13. Wall mounting holder
- 14. [ CLOCK SET ] key
- 15. [ SENSOR / SYNC ] key
- 16. [ °C / °F ] key

- 17. [ DATA ] key
- 18. [ TIME SYNC ] key
- 19. Battery compartment
- 20. Table stand
- 21. [ ALARM ] key
- 22. [ ALERT ] key
- 23. [ RESET ] key



Display section:

- 1. Time, calendar & moon phase
- 2. Weather forecast
- 3. Weather index
- 4. Wind direction & speed
- 5. Outdoor temperature & humidity
- 6. Indoor temperature & humidity
- 7. Multi-function historical bar chart
- 8. Barometer & Rainfall
- 9. Sunrise/sunset

#### WIRELESS 6-IN-1 WEATHER SENSOR



- 1. Wind vane
- 2. Wind cups
- 3. Antenna
- 4. Radiation shield
- 5. Hygro-thermal sensor
- 6. Pole mount hole (fit for 35 ~40mm diameter pole)

- 7. Battery door
- 8. [RESET] key
- 9. Transmission status LED
- 10. Level gradienter
- 11. Rain collector
- 12. UV sensor
- 13. Solar panel

#### INSTALLATION AND SETUP

#### WIRELESS 6-IN-1 WEATHER SENSOR

Your wireless 6-in-1 sensor measures wind-speed, wind-direction, rainfall, UV index, temperature and humidity for you. It's fully assembled and calibrated for your easy installation.

#### Pairing the wireless 6-in-1 sensor with the console



- 1. Unscrew the battery door at the bottom of the unit and insert the batteries according to the polarity information marked on the battery compartment.
- 2. Screw on tightly.
- 3. Once the batteries are installed, the transmission status LED will begin to flash.

#### NOTE:

- Ensure the battery door screw locked well.
- Ensure the transmission status LED is flashing every 12 seconds.

#### Installing the wireless outdoor sensor

Install the wireless outdoor sensor to an open location with no obstructions above and around the sensor for accurate rain and wind measurement.

To insure a tight grip, apply the rubber pads provided before fastening the mounting base to the pole or post (not included).

Mounting guideline

measurements.

from the main console.



#### MAIN CONSOLE

Your main console can pairing up with the wireless 6-IN-1 outdoor weather sensor and up to 7 optional wireless hygro-thermo outdoor sensors. (Not included)

#### Powering up the main console

- 1. Remove the battery door on the back side of the main unit.
- 2. Insert 6 new AA batteries and replace the battery door.
- 3. Once the batteries are inserted, the segments of the LCD will be shown.

#### NOTE:

If no display appears on the LCD after inserting the batteries, press [ **RESET** ] key by using a pointed object.

#### Pairing of wireless 6-IN-1 weather sensor with main console

After insertion of batteries, the main console will automatically search and connect the wireless 6-IN-1 sensor (antenna blinking). Once the connection is successful, antenna mark and readings for outdoor temperature & humidity, UV index, wind speed, wind direction and rainfall will appear on the display.

#### Changing batteries and manual pairing of sensor

Whenever you changed the batteries of the wireless 6-IN-1 sensor, pairing must be done manually.

- 1. Change all the batteries to new ones in the sensor.
- 2. Press [ CH ] until the ricon appear in the Outdoor section
- 3. Press [ SENSOR / SYNC ] key.
- 4. Press [ RESET ] key on the sensor.

#### NOTE:

Pressing [ **RESET** ] key at bottom of wireless 6-IN-1 sensor will generate a new ID code for pairing purpose. So you also need to press the [ **SENSOR / SYNC** ] key on the console to repairing up the sensor.

## Pairing the wireless sensor(s) with the console

The console will automatically search and pair up your wireless sensor(s). You can also press **[SENSOR / SYNC ]** key to search the on display channel's sensor manually. Once your sensor paired up, the sensor signal strength indicator and weather information will appear on your console display.

## SYNC UP PC TIME

This unit is designed to automatically synchronize its calendar and clock when connected to the computer through USB data cable. Once connected to the computer, the unit will automatically synchronize the time instantly and 12:00am per day. You can also press the **[ TIME SYNC ]** key to sync up PC time instantly.

#### NOTE:

- PC Time sync up is according to your current PC time, so please ensure your PC time is correct. Once the PC time sync up the *c* icon will appear in the Time section.
- You can also enable or disable auto time sync function by press and hold [ TIME SYNC ] key for 8 seconds.

# SETTING CLOCK MANUALLY

- 1. In normal mode, press and hold [ CLOCK SET ] key for 2 seconds to enter clock setting.
- 2. Press  $[ \land ]$  or  $[ \lor ]$  key set hour.
- 3. Press [ CLOCK SET ] key again to enter the next setting.
- 4. The setting sequence: Hour → Minute → Second → 12/24 hour format → Year → Month → Day → M-D/D-M format → Longitude for Sunrise / Sunset → Latitude for Sunrise / Sunset → time zone for Sunrise / Sunset → Language
- 5. Press [ CLOCK SET ] key to save and exit the setting mode, or the unit will automatically exit the setting mode 60 seconds later without pressing any key.



# NOTE:

- The console indicates the specific location's sunrise & sunset time according to the time zone, latitude and longitude you entered. Please input the correct information during the clock setting mode.
- In normal mode, press [ CLOCK SET ] key to switch between year and date display.

# OTHER SETTING OF THE CONSOLE

#### MOON PHASE

The moon phase is determined by the time, date and time zone. The following table explains the moon phase icons of the Northern and Southern hemispheres. Please refer to **ORIENTING THE 6-IN-1 SENSOR TOWARDS SOUTH** section about how to setup for the Southern hemispheres.

Northern hemisphere	Moon Phase	Southern hemisphere
****	New Moon	****
* <b>@</b> *	Waxing Crescent	* <b>©</b> *
* <b>0</b> *	First quarter	* <b>®</b> *
* <b>0</b> *	Waxing Gibbous	*•*
*•*	Full Moon	*•*
*•*	Waxing Gibbous	*••*
* <b>®</b> *	Third quarter	* <b>0</b> *
* <b>©</b> *	Waxing Crescent	* <b>@</b> *

#### SETTING ALARM TIME

- 1. In normal time mode, press and hold [ALARM] key for 2 seconds until the alarm hour digit flashes to enter alarm time setting mode.
- Press [ GRAPH / A ] or [ HISTORY / V ] key to change the value. Press and hold the key for quick-adjust.
- 3. Press [ ALARM ] key again to step the setting value to Minute with the Minute digit flashing.
- 4. Press [ GRAPH / A ] or [ HISTORY / V ] key to adjust the value of the flashing digit.
- 5. Press [ ALARM ] key to save and exit the setting.

## NOTE:

- In alarm mode, the " $\bigtriangleup$  " icon will display on the LCD.
- The alarm function will turn on automatically once you set the alarm time.

## ACTIVATING ALARM AND TEMPERATURE PRE-ALARM FUNCTION

- 1. In normal mode, press [ ALARM ] key to show the alarm time for 5 seconds.
- 2. When the alarm time displays, press [ALARM] key again to activate the alarm function. Or press [ALARM] key twice to activate the alarm with ice pre-alarm function.

Q **	$\bigcirc$ *	<b>↓</b> *
Alarm off	Alarm on	Alarm with ice-alert

#### NOTE:

Once the ice pre-alert activates, the pre-set alarm will sound and alert light will flash 30 minutes earlier if the outdoor temperature is below -3°C.

When clock reach the alarm time, alarm sound will start.

Where it can be stopped by following operation:

- Auto-stop after 2 minutes alarming if without any operation and the alarm will activate again in the next day.
- By pressing [ **SNOOZE** / **LIGHT** ] key to enter snooze that the alarm will sound again after 5 minutes.
- By pressing and hold **[ SNOOZE / LIGHT ]** key for 2 seconds to stop the alarm and will activate again in the next day
- By pressing [ ALARM ] key to stop the alarm and the alarm will activate again in the next day.

# NOTE:

- The snooze could be used continuously in 24 hours.
- During the snooze, the alarm icon "  $\bigtriangleup$  " will keep flashing.

# TEMPERATURE / HUMIDITY FUNCTION & TREND

Press [ °C / °F ] key to switch between °C /°F temperature unit.

The temperature / humidity trend indicator shows the trends of changes in the forthcoming few minutes.

Arrow indicator	۲	1	7
Temperature / Humidity trend	Rising	Steady	Falling

# NOTE:

- When temperature is below -40°C, the LCD will display "Lo". If temperature is above 80°C, LCD will display "HI".
- When humidity is below 1%, LCD will display "Lo". If humidity is above 99%, LCD will display "HI".

# VIEW THE OUTDOOR CHANNEL (Optional feature with add on extra thermal hygro sensors)

This console is capable to pair with a wireless 6-in-1 sensor and up to 7 wireless thermal-hygro sensors. If you have 2 or more sensors, you can press [CH] key to switch between different wireless channels in normal mode, or press and hold [CH] key for 2 seconds to toggle auto-cycle mode to display the connected channels at 4 seconds interval.

During auto-cycle mode, press [CH] key to stop the auto cycle and display the current channel.

# WIRELESS SENSOR SIGNAL RECEIVING

corresponding channel.

- 1. In normal mode, press [ SENSOR / SYNC ] key once to start receiving the sensor signal of current on displaying channel. The signal icon will flash.
  - For example, when CH 1 is displayed, pressing [ SENSOR / SYNC ] key will start receive for CH 1 only.
- 2. The signal icon will flash until the reception succeeded. If no signal is received within 5 minutes the icon will disappear.

Y		Y.I	<b>Tull</b>	
No signal		Weak signal	Good signal	
3.	. If the signal for outdoor channel has discontinued and does not recover within 15 min,			
	the signal icon will disappear. The temperature and humidity will display "" for the			

4. If the signal does not recover within 48 hours, the "--" display will become permanent you need to replace the batteries of "--" channel's sensor(s) and then press [SENSOR / SYNC] key to pair up the sensors of each "--" channels again.

#### NOTE:

After replacing the batteries of the wireless sensor or the unit fails to receive sensor signal of a specified channel. During the failed channel is displaying, press [ SENSOR / SYNC ] key to manually receive that sensor signal again.

# **COMFORT INDICATION**

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

8	3	CO CO
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).

# WIND



## To select the wind display mode

In normal mode, press [WIND] key to switch between AVERAGE and GUST wind speed.

## To set the wind speed unit and direction display format

- 1. In normal mode, press and hold **[ WIND ]** key for 2 seconds to enter into wind speed unit mode and the unit will flash. And then press **[ GRAPH / Λ ]** or **[ HISTORY / V ]** key to change the wind speed unit in this sequence: m/s → km/h → knots → mph
- Press [ WIND ] key again to enter into wind direction display format setting mode. The wind direction reading will flash and then press [ GRAPH / A ] or [ HISTORY / V ] key to select the display format between 360° and 16-direction.
- 3. Press [ WIND ] key again to return to normal mode.

#### Wind Speed Level

Level	LIGHT	MODERATE	STRONG	STORM
Speed	0.1km/h ~19km/h	20km/h ~ 49km/h	50km/h ~ 88km/h	> 89km/h

At the WEATHER INDEX section, you can press [ INDEX ] key to view the weather index in this sequence: UV INDEX  $\rightarrow$  BEAUFORT  $\rightarrow$  WIND CHILL  $\rightarrow$  HEAT INDEX  $\rightarrow$  DEWPOINT.

# **UV Index**

The UV index reflects the UV data collected by the wireless outdoor sensor that the detectable range is 0.0~16.0.

#### To set UV index gain Sensor Manufacturing Gain

The UV sensor manufacturer may have included a gain or adjustment for a specific sensor technology or build. Please reference your 6-in-1 outdoor weather sensor battery compartment for any reference to gain adjustment. In the example in Figure 1, a gain of 1.7 must be entered into the console.

þ

Adjust UV gain on console to 1.7

FIGURE 1

- 1. In normal mode of the console, press and hold **[ INDEX ]** key for 10 seconds to enter into UV index calibration mode
- 2. Use [ GRAPH / A ] or [ HISTORY / V ] key to adjust the UV gain magnification factor
- 3. Press the [ INDEX ] key twice to confirm and exit the setting

## NOTE:

The default UV gain magnification factor is 1.0, and can be adjusted up or down in increments of 0.1.

## **Beaufort Scale**

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

Beaufort Scale	Description	Wind Speed	Land Condition
	Calm	< 1 km/h	
0		< 1 mph	Calm. Smoke rises vertically
		< 1 knot	Califi. Shicke fises vertically.
		< 0.3 m/s	
1	Light air	1.1 ~ 5km/h	One also drift in dia ata a suin d dina ati an
		1 ~ 3 mph	Smoke drift indicates wind direction.
		1 ~ 3 knot	stationary
		0.3 ~ 1.5 m/s	Stationary.





		6 ~ 11 km/h	
2	1.1.1.1.1	4 ~ 7 mph	Wind felt on exposed skin. Leaves
	Light breeze	4 ~ 6 knot	rustle. Wind vanes begin to move.
		1.6 ~ 3.3 m/s	
		12 ~ 19 km/h	
	O antila han and	8 ~ 12 mph	Leaves and small twigs constantly
3	Gentie breeze	7 ~ 10 knot	moving, light flags extended.
		3.4 ~ 5.4 m/s	
		20 ~ 28 km/h	
	Madarata braaza	13 ~ 17 mph	Dust and loose paper raised. Small
4	Moderate breeze	11 ~ 16 knot	branches begin to move.
		5.5 ~ 7.9 m/s	
		29 ~ 38 km/h	
-	Encela harrier	18 ~ 24 mph	Branches of a moderate size move.
5	Fresh breeze	17 ~ 21 knot	Small trees in leaf begin to sway.
		8.0 ~ 10.7 m/s	
		39 ~ 49 km/h	Large branches in motion. Whistling
6	Otrong broose	25 ~ 30 mph	heard in overhead wires. Umbrella
0	Strong breeze	22 ~ 27 knot	use becomes difficult. Empty plastic
		10.8 ~ 13.8 m/s	bins tip over.
	High wind	50 ~ 61 km/h	
7		31 ~ 38 mph	Whole trees in motion. Effort needed
1		28 ~ 33 knot	to walk against the wind.
		13.9 ~ 17.1 m/s	
		62 ~ 74 km/h	
0	Gale	39 ~ 46 mph	Some twigs broken from trees.
0		34 ~ 40 knot	Cars veel off toau. Progress off tool
		17.2 ~ 20.7 m/s	
		75 ~ 88 km/h	Some branches break off trees,
0	Strong golo	47 ~ 54 mph	and some small trees blow over.
9	Strong gale	41 ~ 47 knot	Construction /temporary signs and
		20.8 ~ 24.4 m/s	barricades blow over.
		89 ~ 102 km/h	
10	Storm	55 ~ 63 mph	Trees are broken off or uprooted,
10	310111	48 ~ 55 knot	structural damage likely.
		24.5 ~ 28.4 m/s	
		103 ~ 117 km/h	
44	Violant storm	64 ~ 73 mph	Widespread vegetation and structural
		56 ~ 63 knot	damage likely.
		28.5 ~ 32.6 m/s	
		≥ 118 km/h	
10	Hurricopo force	≥ 74 mph	Severe widespread damage to
12		≥ 64 knot	unsecured objects are burled about
		≥ 32.7m/s	

## Wind Chill

A combination of the wireless outdoor sensor's temperature and wind speed data determines the current wind chill factor.

# Heat Index

The heat index, which is determined by the wireless outdoor sensor's temperature & humidity data, when the temperature is between  $27^{\circ}C$  ( $80^{\circ}F$ ) and  $50^{\circ}C$  ( $120^{\circ}F$ ).

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

## 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 outdoor sensor.

# WEATHER FORECAST

The built-in barometer can notice atmosphere pressure changes. 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 reflecting the weather situation for next 12~24 hours, it may not necessarily reflect the current situation.
- The **SNOWY** weather forecast is not based on the atmospheric pressure, but based on the temperature of current channel. When the outdoor temperature is below -3°C (26°F), the **SNOWY** weather indicator will be displayed on the LCD.

# 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. Since variation in atmospheric pressure greatly affected by weather, it is possible to forecast the weather by measuring the changes in pressure.



# To set the barometer unit and select the wind display mode

- 1. In normal mode, press [ BARO ] key to change the barometer unit in this sequence: hPa  $\rightarrow$  inHg  $\rightarrow$  mmHg
- In normal mode, press and hold [ BARO ] key to switch between ABSOLUTE / RELATIVE display.

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

#### To set the RELATIVE atmospheric pressure value

- 1. Obtain the atmospheric pressure data of the sea level (it is also the relative atmospheric pressure data of your home area) through the local weather service, internet or any weather information source.
- 2. In normal mode, press and hold [ BARO ] key for 2 seconds until "ABSOLUTE" or "RELATIVE" icon flashes.
- 3. Press [ GRAPH / A ] or [ HISTORY / V ] key to switch to "RELATIVE" mode.
- 4. Press [ BARO ] key once again, the "RELATIVE" atmospheric pressure digit flashes.
- 5. Press [ GRAPH / A ] or [ HISTORY / V ] key to change its value.
- 6. Press [ BARO ] key to save and exit the setting mode.

#### NOTE:

- When you change the RELATIVE atmospheric pressure value, the weather indicators will change along with it.
- The RELATIVE atmospheric pressure is based on the sea-level pressure you entered but it will change with the absolute atmospheric pressure after operating the clock for 1 hour.

## RAINFALL

The **RAINFALL** section shared same display location of **BAROMETRIC PRESSURE** section in the LCD display. It shows the rainfall and rain rate information

DAILY **25.5** mm/h

## To set the rainfall unit

- 1. Press and hold [ RAIN ] key for 2 seconds to enter unit setting mode.
- 2. Press [ GRAPH / A ] or [ HISTORY / V ] key to toggle the rainfall unit between mm and in.
- 3. Press [ RAIN ] key to confirm and exit the setting.

## To select the rainfall display mode

Press [ RAIN ] key to toggle between:

- 1. HOURLY the total rainfall in the past hour
- 2. DAILY the total rainfall from midnight
- 3. WEEKLY the total rainfall of the current week
- 4. MONTHLY- the total rainfall of the current calendar month
- 5. Rate Current rainfall rate in past an hour (Update every 24 seconds)
- 6. Accumulate the total rainfall since the last reset (Show the record starting date on the display for 5 seconds)

#### To reset the accumulate rainfall record

In normal mode, press and hold [ °C / °F ] key for 2 seconds to reset the Accumulate rainfall record.

# NOTE:

- To ensure correct data, please reset the **Accumulate** rainfall when you reinstall your wireless outdoor sensor to other location

# HISTORY GRAPH

#### To view different graphs

In normal mode, press [ GRAPH / A ] key to toggle between different types of graph:

Weather variable	Unit of measure	Record time range	Graph
Barometric pressure	hPa, inHg and mmHg	Past 72 hours	BAROMETER           hPa         mmHg-72         48         24         2-9         6         3         0 Hr         hHg           hPa         mmHg-72         48         24         12         9         6         3         0 Hr         hHg           h8         651         -         -         -         +024           +8         +61         -         -         +018           +4         130         -         -         -         +018           +2         +15         -         -         -         +016           -2         -15         -         -         -         -         00           -2         -         -         -         0         -         -         -         0.018           -4         -30         -         0.018         -         -         -         -         -         -         -         -         -         -         -
Indoor temperature	°F or °C	Past 72 hours	GRAPH         M           -72         -48         -24         -2         -6         -3         0 Hr           >>10         -         -         -         -         -         -         -           +8         -         -         -         -         -         -         -         -           +6         -         -         -         -         -         -         -         -           -2         -
Outdoor temperature (According to the current channel)	°F or °C	Past 72 hours	OUT         OUT           -72 - 48 - 24 - 12 - 9 - 6 - 3 OH         -72 - 48 - 24 - 12 - 9 - 6 - 3 OH           >+10         -         -         -           +4         -         -         -         -           +4         -         -         -         -           -2         -         -         -         -           -2         -         -         -         -           -2         -         -         -         -           -2         -         -         -         -           -2         -         -         -         -         -           -2         -         -         -         -         -         -           -2         -         -         -         -         -         -         -           -2         -         -         -         -         -         -         -         -           -4         -         -         -         -         -         -         -         -           -4         -         -         -         -         -         -         -         -         -           -
Indoor humidity	%	Past 72 hours	IN         IN           %         -72 - 48 - 24 - 12 - 9 - 6 - 3 - 0 Hr           >+10         -           +8         -           +6         -           +4         -           -         -      -          -         -
Outdoor humidity (According to the current channel)	%	Past 72 hours	GRAPH HUMDTY * -72 -48 -24 -12 -9 -6 -3 0 Hr → 10
Rainfall	mm or in	Past 7 days (daily)	GRAPH RANFALL ⇒ 100 = 100 = 0 = 0

#### MAX / MIN DATA RECORD

The console can record the accumulated and daily MAX / MIN weather data with the corresponding time stamp for you to easy review.

#### To view the daily MAX / MIN



Daily max record of indoor temperature

In normal mode, press **[ MAX / MIN ]** key to check daily MAX/MIN records. The display sequence is: indoor daily MAX temperature  $\rightarrow$  indoor daily MAX temperature  $\rightarrow$  indoor daily MAX humidity  $\rightarrow$  indoor daily MIN humidity  $\rightarrow$  outdoor daily MAX temperature of current display channel  $\rightarrow$  outdoor daily MIN temperature of current display channel  $\rightarrow$  outdoor daily MAX humidity of current display channel  $\rightarrow$  outdoor daily MIN humidity of current display channel  $\rightarrow$  daily MAX average wind speed  $\rightarrow$  daily MAX gust  $\rightarrow$  daily MAX UV index  $\rightarrow$  daily MAX Beaufort  $\rightarrow$  daily MAX dew point  $\rightarrow$  daily MIN dew point  $\rightarrow$  daily MAX wind chill  $\rightarrow$  daily MIN wind chill  $\rightarrow$  daily MAX heat index  $\rightarrow$  daily MIN heat index  $\rightarrow$  daily MAX pressure  $\rightarrow$  daily MIN pressure  $\rightarrow$  daily MAX rainfall.

#### To view the accumulated MAX/MIN



Accumulated max record of indoor temperature

When daily MAX/MIN records shown, press [ **GRAPH** /  $\Lambda$  ] or [ **HISTORY** / **V** ] key to show the accumulated MAX/MIN record of the current weather data.

#### To Clear the MAX/MIN records

Press and hold [ MAX / MIN ] key for 2 seconds to reset the MAX/MIN records of specify weather display section.

## PAST 24 HOURS HISTORY DATA

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

- 1. Press **[ HISTORY / V ]** 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 / V ] 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)

#### NOTE:

The LCD will also display the history data records with time & date.

## WEATHER ALERT SETTING

Weather Alert can alert you of certain weather conditions. Once the alert criterion is met, the alarm sound will activate and the LCD's alert icon will flash.

# To set alert

1. Press [ALERT] to select and display the desired weather alert reading in the sequence below:

Alert reading Sequence	Setting Range	Display Section	Default Value
Outdoor Temperature High Alert (current channel)	-40°C ~ 80°C	Outdoor temperature & humidity	40°C
Outdoor Temperature Low Alert (current channel)	-40 C ~ 80 C		0°C
Outdoor Humidity High Alert	19/ ~ 009/		80%
Outdoor Humidity Low Alert	1%~99%		40%
Indoor Temperature High Alert	40°C ~ 80°C	Indoor temperature & humidity	40°C
Indoor Temperature Low Alert	-40 C ~ 80 C		0°C
Indoor Humidity High Alert	10/		80%
Indoor Humidity Low Alert	1%~99%		40%
Wind Speed	0.1m/s ~ 50m/s	Wind direction & speed	17.2mm/h
Pressure Drop	1hPa ~ 10hPa		3hPa
Hourly Rainfall	1mm ~ 1000mm		100mm
Wind Chill Low Alert	-40°C ~ 60°C		0°C
Dew point High Alert	40°C ~ 60°C	Weather index	10°C
Dew point Low Alert	-40 C ~ 00 C		-10°C
Heat index High Alert	27°C ~ 49°C		35°C
Beaufort scale High Alert	1 ~12		6
UV index Alert	1 ~ 16		10

2. Under the current alert reading, press and hold [ALERT] key for 2 seconds to enter alert setting and the alert reading will flash.

- Press [ GRAPH / A ] or [ HISTORY / V ] key to adjust the value or press and hold the key to change rapidly.
- 4. Press [ALERT] key to save the alert reading then press [ALARM] key to toggle the regarding alert on / off.







Alert off

5. Press any key on the front side to save and back to normal mode, or it will automatically back to normal mode after 30 seconds without pressing any key.

# To silence the alert alarm:

Press [ **SNOOZE / LIGHT**] key to silence the alert alarm or let the alarm automatically turn off after 2 minutes.

# NOTE:

- Once the alert is triggered, the alarm will sound for 2 minutes and the related alert icon and readings will flash.
- If the alert alarm is automatically off after 2 minutes, the alert icon and readings will still keep flash until the weather reading is out of the alert range.
- The weather alert will sound again when the weather readings falls into the alert range again.

# POINTING THE WIRELESS 6-IN-1 SENSOR TO SOUTH

The outdoor 6-in-1 sensor is calibrated to point to North for the maximum accuracy. However, for the user's convenience (e.g. users in the Southern hemisphere), it is possible to use the sensor with the wind vane pointing to South.

- 1. Install the 6-in-1 wireless sensor with its wind meter end pointing to South. (Please refer to **INSTALLATION OF THE WIRELESS SENSOR** for mounting details)
- 2. In normal mode of the console, press and hold [ INDEX ] key for 8 seconds to enter into the UV index calibration mode, then press [ INDEX ] key again until the "N" icon appears on the weekday location to enter into the sensor orientation mode
- 3. Use [GRAPH / A] or [HISTORY / V] key to change to lower part (Southern Hemisphere).
- 4. Press [ INDEX ] key to confirm and exit.

# NOTE:

- Changing the hemisphere setting will automatically switch the direction of the moon phase on the display.
- Pointing to South allows maximum sunlight on the solar panel, especially during winter season in Southern Hemisphere

# DATA LOG

The console automatically stores the weather data in its data logger (default every 30 minutes), and user can export these data through the PC software\* (\*Please consult your local distributor for the PC software download).

TIME

#### To check data logger memory

Press the **[ DATA ]** key to briefly review the remaining number of days the console is able to record based on its current free memory available (e.g. 300 DAY). The data logger will stop recording new data once its memory is full.

## To change data interval and clear data

In normal mode, press and hold the [ DATA ] key for 2 sec to enter data logger setting mode.

 To change data interval: Press [ GRAPH / Λ ] or [ HISTORY / V ] key to select frequency of data recording (5/15/30/60 minutes), then press [ DATA ] to confirm.



DATA

Below table shown the number of days memory will allow for records:

INTERVAL (minutes)	NO. OF DAYS AVAILABLE FOR DATA LOGGING WITH MEMORY AVAILABLE
5	50
15	150
30 (DEFAULT)	300
60	600

2. To clear data: Press [ GRAPH / Λ ] or [ HISTORY / V ] key to select clear all data or not, then press [ DATA ] to confirm and exit setting.





All data selected for clear

## NOTE:

- To avoid the wrong time stamp of the data record, please reset the data logger once replace the batteries in main unit or sensor(s).
- When the data log is almost full, "DATA" icon keep flashes to remind you to transfer the data to PC for storage. Otherwise, data logger cannot log any more data when it is full.

# **PC SOFTWARE**

This console can display live data and export the weather data to the Windows base PC through the "Weather Tool" software. Please consult your local distributor for download details or down load from www.youshiko.co.uk or send an email to : service@youshiko.co.uk.



## "Weather Tool" software icon

# To connect PC

- 1. Download Weather Tool.exe file on your windows desktop and then double click to run it.
- 2. Plug the small end of the USB cable to USB port on the console and the big end of the cable into the USB port of the PC.

If the console is connected successfully, " USB " icon will appear on display, and its time and date will be synchronized to that of PC momentarily, as indicated by the " C " icon.



Instant live data from the console will be transmitted to the dashboard screen on the PC.

Sector Weather Tool			- 🗆 🗙	
DASHBOARD	EXPORT & SETUP		English 7 ?	$\boldsymbol{\lambda} - \boldsymbol{\Box} \times \boldsymbol{\Box}$
		Last data read	at 10 /11/ 2017, 20:15AM 😡	
INDOOR 🔒	OUTDOOR	WIND	*	English <b>7</b>
Temperature	Temperature	Speed Direct	ion and and and and and and and and and an	
<b>23.5</b> °c	<b>18.5</b> °c	10 km/h		/ 2017. 20:15AM 🔂
Humidity	Humidity	Gust		
60 %	50 %	15 km/h	The manual and	In the BC software slick on
				"In the FC software, click of
CH1 ► 80	RAIN 💏	INDEX	INDEX	? Icon located at the top
Temperature	Daily Rainfall	Relative Pressure	UV Index	right hand corner for details
<b>20.2</b> °c	0.6 mm	1013 hPa	3	of operations and settings of
				"Weather Tool" program
Humidity	Rain Rate	Outdoor Dew Point	Outdoor Heat Index	weather roor program.
62 %	1.1 mm/h	<b>20.2</b> °c	<b>18.5</b> °c	
		Logger 75%	USB connected	

Dashboard page



No data selected

## **Uninstall the Weather Tool**

To uninstall the Weather Tool, just delete the Weather Tool.exe file from your PC.

# NOTE: .

- Please use the USB cable provided to connect the console to PC.
- Please keep the USB cable connected, during the data exporting to your PC.
- The Microsoft Windows and worksheet software are 3rd party softwares, the interface and operation flow maybe different in various software version.
- The USB cable will supply power to the console while in connection with the PC.

# MAINTENANCE

# BATTERY REPLACEMENT

If the low battery indicator " []" displayed in outdoor section, it indicates that the current channel wireless outdoor sensor battery power is low. You should replace all the batteries in the current channel sensor at once.





Low battery indicator for wireless sensor

# CLEANING THE RAIN COLLECTOR

- 1. Unscrew 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.



# CLEANING HYGRO-THERMO SENSOR OF WIRELESS 6-IN-1 SENSOR

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





# CLEANING THE UV SENSOR AND CALIBRATION

#### CLEAN THE UV SENSOR COVER LENS

For precision UV measurement, gentle clean the UV sensor cover lens by the pure water regularly.

#### UV SENSOR DEGRADATION

Over time, the UV sensor will naturally degrade. The UV sensor can be calibrated with a utility grade UV meter.

# PRECAUTIONS

- Keep 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.
- 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, lintfree cloth.
- Do not clean the unit with abrasive or corrosive materials.
- Do not tamper with the unit's internal components. This invalidates the warranty.
- Only use fresh batteries. Do not mix new and old batteries.
- Only use attachments / accessories specified by the manufacturer.
- Images shown in this manual may differ from the actual display.
- When disposing of this product, ensure it is collected separately for special treatment.
- 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.
- The contents of this manual may not be reproduced without the permission of the manufacturer.
- When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer that have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- Do not dispose old batteries as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
- This product is not a toy. Keep out of the reach of children.
- The main console is intended to be used only indoors.
- Technical specifications and user manual contents for this product are subject to change without notice.

All enquiries: service@youshiko.co.uk Made for Youshiko in PRC



# SPECIFICATIONS

#### MAIN CONSOLE

General Specification		
Dimensions (W x H x D)	117 x 189 x 31mm (4.6 x 7.5 x 1.2in)	
Weight	480g (with batteries)	
Battery	6 x AA size 1.5V batteries (alkaline recommended)	
Weather data in console	Baro, temperature and humidity	
Operating temperature range	-5°C ~ 50°C	
Personal computer requirements for PC software		
Connection interface	USB 2.0	
Operation system of your PC	Windows XP, Windows Vista, Windows 7 or latest version (32-bit / 64-bit)	
Hard disk space	50 MB	
Display resolution	1360 x 768 (1920 x 1080 recommended)	
View or edit export data	Microsoft excel or other similar software for PC	
Weather Underground upload requirements	<ul> <li>Should able connect to Internet</li> <li>Firewall and anti virus software can set permission for the PC software</li> </ul>	
Wireless Sensor side Communication Specification		
Support sensors	1 Wireless 6-in-1 weather outdoor sensor and up to 7 optional wireless hygro-thermo outdoor sensors	
RF frequency	868MHz	
RF transmission range	150m	
Time Related Function Specif	ication	
Time display	HH: MM: SS	
Hour format	12 hour or 24 hour	
Date display	DD / MM or MM / DD	
Time synchronize method	PC time (only available when connected to Windows base PC)	
Weekday languages	EN / DE / FR / ES / IT / NL / RU	
Barometer Display & Function Specification Note: The following details are listed as they are displayed or operate on the console.		
Barometer unit	hPa, inHg and mmHg	
Measuring range	540 ~ 1100hPa (relative setting range 930 ~ 1050hPa)	
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	
Weather forecast	Sunny, Partly Cloudy, Cloudy, Rainy, Rainy / Stormy and Snowy	
Display modes	Current	
Memory modes	Historical data from last memory reset, daily Max / Min	
Alarm	Pressure change alert	
Indoor / Outdoor Temperature Display & Function Specification Note: The following details are listed as they are displayed or operate on the console.		
Temperature unit	°C and °F	
Display range	-40 ~ 80°C (-40 ~ 176°F)	
Indoor Accuracy	>40°C ± 2°C (>104°F ± 3.6°F) 0~40°C ±1°C (32~104°F ± 1.8°F) <0°C ± 2°C (<32°F ± 3.6°F)	
Outdoor Accuracy	$ 55 \sim 60^{\circ}\text{C} \pm 0.5^{\circ}\text{C} (131 \sim 140^{\circ}\text{F} \pm 0.9^{\circ}\text{F})  10 \sim 55^{\circ}\text{C} \pm 0.4^{\circ}\text{C} (50 \sim 131^{\circ}\text{F} \pm 0.7^{\circ}\text{F})  -20 \sim 10^{\circ}\text{C} \pm 1.3^{\circ}\text{C} (-4 \sim 50^{\circ}\text{F} \pm 2.3^{\circ}\text{F})  -40 \sim -20^{\circ}\text{C} \pm 1.9^{\circ}\text{C} (-40 \sim -4^{\circ}\text{F} \pm 3.4^{\circ}\text{F}) $	
Resolution	0.1°C / 0.1°F	
Display modes	Current	
Memory modes	Historical data from last memory reset, daily Max / Min	
Alarm	Hi / Lo temperature alert	
Indoor / Outdoor Humidity Display & Function Specification Note: The following details are listed as they are displayed or operate on the console.		
Humidity unit	%	
Display range	1~99%	
Indoor Accuracy	20~39% RH ±8%RH @ 25°C (77°F) 40~70% RH ±5%RH @ 25°C (77°F) 71~90% RH ±8%RH @ 25°C (77°F)	
Outdoor Accuracy	1 ~ 90% RH ± 2.5% RH @ 25°C (77°F) 90 ~ 99% RH ± 3.5% RH @ 25°C (77°F)	
Resolution	1%	
Display modes	Current	
Memory modes	Historical data from last memory reset, daily Max / Min	
Alarm	Hi / Lo Humidity Alert	
Wind Speed & Direction Display and Function Specification Note: The following detail are listed as they are displayed or operate on the console.		
Wind speed unit	mph, m/s, km/h and knots	

mpn, m/s, km/n and knots
0 ~ 112mph, 50m/s, 180km/h, 97knots
0.1mph, 0.1m/s, 0.1km/h, 0.1knots
±2.2 mph or ±10% (whichever is greater)
Gust / Average

Memory modes	Historical Data from last memory reset, daily Max Gust/ Average	
Alarm	Hi Wind Speed Alert (Average / Gust)	
Wind direction resolutions	1 degree	
Rain Display & Function Specification           Note: The following details are listed as they are displayed or operate on the console.		
Unit for rainfall	mm and in	
Accuracy for rainfall	±7%	
Range of rainfall	0 ~ 19999mm (0 ~ 787.3 in)	
Resolution	0.254mm (0.01in)	
Display modes	Current	
Memory modes	Historical Data from last memory reset, daily Max	
Rainfall display mode	Hourly / Daily / Weekly / Monthly / Total rainfall	
Alarm	Hi Hourly Rainfall Alert	
Weather Index Display & Function Specification Note: The following details are listed as they are displayed or operate on the console		
Weather index mode	UV Index, Beaufort, Wind Chill, Heat Index and Dew point	
UV index range	0 ~ 16	
Beaufort scale	0 ~ 12	
Wind Chill range	-40 ~ 18°C, wind speed > 4.8km/h	
Heat index range	26 ~ 50 °C	
Dew point range	-20 ~ 60°C	
Display modes	Current	
Memory modes	Historical Data from last memory reset, Daily Max / Min	

#### WIRELESS 6-IN-1 SENSOR

Dimensions (W x H x D)	392.5 x 326 x 144.5mm (15.5 x 12.8 x 5.7in)
Weight	1096g (with batteries)
Main power	3 x AA size 1.5V batteries (Alkaline batteries recommended)
Auxiliary power	Solar panel
Weather data	Temperature, Humidity, Wind speed, Wind direction, Rainfall and UV index
RF transmission range	150m
RF frequency (depend on country version)	868Mhz
Transmission interval	<ul> <li>12 seconds for wind speed and wind direction data</li> <li>24 seconds for temperature, humidity, UV and rain data</li> </ul>
Operating range	$-40 \sim 60^{\circ}$ C ( $-40 \sim 140^{\circ}$ F) Lithium batteries required