Wireless Weather Station

User Manual

1.Getting Started

Note: Power up the sensors with battery first, and the Display Console with adapter second, don't press any button until all data is received.

1.1 Parts List

Display Console: Size: 3.7"x5.3"x1.0" (9.5x13.5x2.6cm) LCD Size: 4.4x2.5" (11.2x6.3cm)
Thermo-Hygrometer Sensor Size:2.9x2.1x0.87inch(7.5x5.3x2.2cm)

2.Battery Installation

2.1 Thermo-Hygrometer Sensor

Locate the battery door on the back of the

Thermo-hygrometer sensor, **push downwards along the arrow direction** and open the battery compartment.

Note: If the battery door is closed tightly, push harder to open the battery door (Make sure there is no water on your hands) as shown in Figure 1.

Figure 1

1. BEFORE inserting the batteries, locate the dip switches on the inside of transmitter.

The **image** displays all four switches in the OFF position (factory default setting).

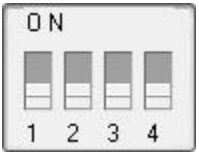


Figure 2

2. Channel Number: The weather station supports up to eight transmitters. To set each channel number (the default is Channel 1), change Dip Switches 1, 2 and 3, as referenced in Table 1.

3. Temperature Units of Measure: To change the transmitter display units of measure (°F vs. °C), change Dip Switch 4 as referenced in Table 1.

DIP SWITCH				FUNCTION
1	2	3	4	
DOWN	DOWN	DOWN	---	Channel 1
DOWN	DOWN	UP	---	Channel 2
DOWN	UP	DOWN	---	Channel 3
DOWN	UP	UP	---	Channel 4
UP	DOWN	DOWN	---	Channel 5
UP	DOWN	UP	---	Channel 6
UP	UP	DOWN	---	Channel 7
UP	UP	UP	---	Channel 8
---	---	---	DOWN	°F

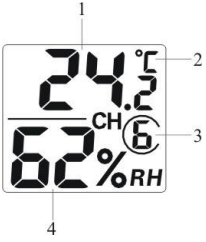
---	---	---	UP	°C

Table 1

4. Insert 2xAAA batteries. (with the negative terminal of the battery in contact with each spring). Lithium batteries are recommended for cold weather environments.

5. After inserting the new batteries, the remote sensor LED indicator will light for 4 seconds, and then flash once per 60 seconds thereafter. Each time it flashes, the remote sensor is transmitting data.

6. Verify the correct channel number (CH) and temperature units of measure (°F vs. °C) are on the display, as shown in Figure 3.



(1) temperature
(2) temperature units (°F vs. °C)
(3) channel number
(4) relative humidity

Figure 3

2.2 Display Console

1. **Power on** with adapter to keep the backlight on. The battery is a back-up option, saving console settings when powered off from adaptor.

Note: Power the console with adapter first, not the batteries, otherwise the backlight will not light on constantly.

2.Remove the battery door on the back of the display, Install 3xAAA batteries and close the door, place on the desk or mount on the wall.

1)Fold out the desk stand and see **DC jack** on the left ; as shown in Figure 4.

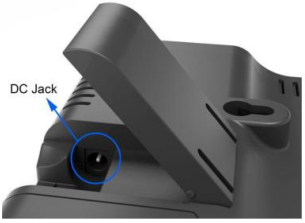


Figure 4

2) Insert the **DC plug** correctly as shown in Figure 5.

Figure 5

3) If you want to put it on a table or cabinet, opened the desk stand and turn the **DC plug** up until 90 degrees; as shown in Figure 6.

Figure 6

4) If you want to hang on the wall, turn the **DC plug** down until 0 degrees and closed the desk stand; as shown in Figure 7.

Figure 7

3.Remove the battery door on the back of the display, as shown in Figure 8. Install three AAA (alkaline or lithium) batteries. The display will beep once and layout of display will light up for a few seconds to verify all segments are operating properly.

Figure 8

Note: It is recommended to plug in the power

adapter to reduce the battery consumption and extend the service life.

Figure 9

3. Display Console Features

3.1Console Set Mode

Note: The console has six buttons for easy operation: **CHANNEL/+** button, **SET** button, **SNOOZE/LIGHT** button, **ALARM** button，**MAX/MIN/-** button and **°F / °C** button.

Note: In the **SET** mode, press the [+] key or [**-**] key to change or scroll the value. Press and Hold the [+] or [**-**] key for three seconds to increase/decrease rapidly.

Note: To exit the **SET** mode, press the **SNOOZE** button at any time to exit, or wait 15 seconds for timeout.

While in Normal Mode, ***press and hold*** the ***SET*** key for at least three seconds to enter the Set Mode. The first setting will begin flashing.

Short Press ***SET*** Key to skip entering into the following features and flash.		Press the **[+] or [-]** key to set up the following features.
1	12/24 Hour Format	12 hour or 24 Hour Format
2	Hour	Hour value up or down
3	Minute	Minute value up or down
4	Date Format	M-d or d-M
5	Month	Calendar month
6	Day	Calendar day
7	Year	Calendar year
8	Weather Forecast Icon	sunny, partly cloudy, cloudy, or rainy

Table 2

Note*:* While in Normal Mode, press the **SET** button to switch the display between **WEEK** or

SECOND mode.

3.2Min/Max Mode

3.2.1 Min/Max View and Reset

1.In normal mode, press the **MIN/MAX** button to view the **MAX** values, ***press and hold*** the **MIN/MAX** button for 3 seconds to reset the **MAX** values to the current value.

2.Press the **MIN/MAX** button again to view the **MIN** values, ***press and hold*** the **MIN/MAX** button for 3 seconds to reset the **MIN** values to the current value.

3.Press the **MIN/MAX** button again, and the display will return to normal mode.

3.2.2 Min/Max 24h Clear

In normal mode, ***press and hold*** the **MIN/MAX** button for 3 seconds to switch between Clears 24h and Clears Manually.

Note: The Min/Max will clear every 24 hours

automatically in 24h clear mode.

3.3 Alarm Time Mode

3.3.1 SET Alarm Time

1.In normal mode, ***press and hold*** the **ALARM** key for three seconds to enter the alarm1 settings mode. The **alarm1** hour will begin flashing. Press the **[+]** or **[-]** key to increase or decrease the **alarm1** hour.

2.Press the ***SET*** Key to skip entering into the following alarms and flash: **Alarm1 minute, alarm2 hour and alarm2 minute.**

To adjust the alarm parameter, press the **[+]** or **[-]** key to increase or decrease the alarm setting slowly, or press and hold the **[+]** or **[-]** key for three seconds to increase or decrease the alarm setting rapidly.

3.Press **ALARM** key to turn ON (the alarm icon will appear) and OFF the alarm1 and alarm2 in ***SET*** steps.

4.To exit the **ALARM SETTING** mode at any time, press the ***SNOOZE*** button at any time to exit, or wait 15 seconds for timeout.

Note: *Alarm settings will be saved when you press the* ***SET*** *key to next steps.*

3.3.2 View Alarm Time

1. In normal mode, press the **ALARM** key to view **alarm 1** with the alarm time, and turn on the alarm(Alarm icon appear).
2. Press **Alarm** key again to view the **alarm 2** with the alarm time, and turn on the time alarm(Alarm icon appear).
3. Press **Alarm** key again to return to normal mode.

3.4 Channel Selection

The console can receive up to 8 remote thermo-hygro sensors. Press the **CHANNEL/+** button to switch the display between remote thermo-hygrometer sensors channel 1 through 8,

and scroll mode  . In scroll mode, remote thermo-hygrometer sensors channel 4 to 8 and indoor temperature humidity will be displayed in five second intervals.

3.4.1 Channel Search Mode

If any of the sensor communication is lost, **dashes (---)** will be displayed on the screen. To reacquire the signal:

1. If a specific channel is lost, press the ***CHANNEL/+*** button until the channel (1-8) icon flashing. ***press and hold*** the ***CHANNEL/+*** button for 3 seconds, and the remote search icon will be constantly displayed for up to 3 minutes. Once the signal is reacquired, the remote search icon will turn off, and the current value will be displayed.
2. If multiple sensor channels are lost, ***press and hold*** the ***CHANNEL/+*** button for 5 seconds (on any channel), and the remote search icon will be constantly displayed for up to 3

minutes. Once the signal is reacquired, the icon will turn off, and the current will be displayed.

3.5 C / F Mode

To switch between degrees Celsius and degrees Fahrenheit, press（do not hold）the °C/°F button while in normal mode.

3.6 Comfort Icon

The comfort icon is based on humidity ranges. The icon is displayed for indoor humidity, remote channel 1-8 humidity.

RH<45%	RH 45%~65%	RH >65%
		
Dry	Comfortable	Wet

Table 3

3.7 Rate of Change Icon

The rate of change icon detects rapid changes in temperature and humidity.

If the arrow points upward, the temp is increasing at a rate of +1.8°F(+1°C) per 30 minutes (or greater). If the arrow points downward, the temperature is decreasing at a rate of -1.8°F(-1.0°C) per 30 minutes (or less).

If the arrow points upward, the humidity is increasing at a rate of +5% per 30 minutes (or greater). If the arrow points downward, the humidity is decreasing at a rate of -5% per 30 minutes (or less).

3.8 Backlight Mode

1) When the backlight is in ON status, long press the ***SNOOZE/LIGHT*** key and the backlight will turn off.

2) When the backlight is in off status, long press the ***SNOOZE/LIGHT*** key and the backlight will turn on.

Note: If the display console is plugged into an

adapter, the backlight will remain on. It is not recommended to leave the display backlight ON for a long period of time when operating on batteries only, or the batteries will run out quickly.

3.9 Low Battery Icon

A low battery indicator icon is shown in the display window for each sensor(CH1-8). When the low battery icon appears (the battery voltage is lower than 2.4V), replace the batteries in the sensor with fresh batteries. Be sure to never mix old and new batteries, and never mix battery types such as alkaline and lithium together.

4. Sensor Operation Verification

Verify the indoor and outdoor temp match closely with the console and sensor array in the same location (about 1.5 to 3m apart). The sensors should be within 2°C/4°F (the accuracy is ±1°C/2°F). Allow about 30 minutes for both sensors to stabilize.

Verify the indoor and outdoor humidity match closely with the console and sensor array in the same location (about 1.5 to 3m apart). The sensors should be within 10% (the accuracy is ± 5%). Allow about 30 minutes for both sensors to stabilize.

5. Best Practices for Wireless Transmit

Wireless communication is susceptible to interference, distance, walls and metal barriers. We recommend the following best practices for trouble free wireless communication.

1.**Electro-Magnetic Interference (EMI).** Keep the console several feet away from computer monitors and TVs.

2.**Radio Frequency Interference (RFI).** If you have other 433 MHz devices and communication is intermittent, try turning off these other devices for troubleshooting purposes. You may need to relocate the transmitters or receivers to avoid

intermittent communication.

3.**Line of Sight Rating.** This device is rated at 50meters line of sight (no interference, barriers or walls) but typically you will get 30meters maximum under most real-world installations, which include passing through barriers or walls.

4.**Metal Barriers.** Radio frequency will not pass through metal barriers such as aluminum siding. If you have metal siding, align the remote and console through a window to get a clear line of sight.

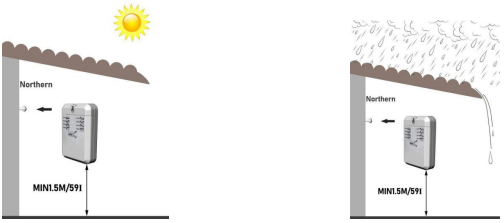
Medium	RF Signal Strength Reduction
Glass (untreated)	5-15%
Plastics	10-15%
Wood	10-40%
Brick	10-40%
Concrete	40-80%
Metal	90-100%

Table 4

6.Thermo-hygrometer Transmitter

Installation.

It is recommended you mount the Thermo-hygrometer sensors in a shaded areas. Direct sunlight and radiant heat sources will result in inaccurate temperature readings. Although the sensor is water resistant, it is best to mount in a well protected area, such as under an eve. Use a screw or nail (not included) to affix the remote sensor to the wall, as shown in Figure 10.



Keep out of sun Keep out of rain

Figure 10

6.1 RF receiving signal prompt

No reception	Occasional	Normal

		
No signal	Weak signal	Good Signal

Table 5

7. Adjustment or Calibration

Note: The calibrated value can only be adjusted on the console. The remote sensor(s) always displays the un-calibrated or measured value.

Note: The measured humidity range is between 10 and 99%. Humidity cannot be accurately measured outside of this range. Thus, the humidity cannot be calibrated below 10% or above 99%.

The purpose of calibration is to fine tune or correct for any sensor error associated with the devices margin of error. The measurement can be adjusted from the console to calibrate to a known source.

Calibration is only useful if you have a known calibrated source you can compare it against, and is optional. This section discusses practices, procedures and sources for sensor calibration to reduce manufacturing and degradation errors. Do not compare your readings obtained from sources such as the internet, radio, television or newspapers. They are in a different location and typically update once per hour.

The purpose of your weather station is to measure conditions of your surroundings, which vary significantly from location to location.

The weather station supports up to three remote sensors. Each of the three sensors can be calibrated.

7.1 Temperature Calibration

In normal mode, press and hold the **SET** and **C/F**

keys at the same time for five seconds to enter the temperature calibration mode and the indoor temperature will begin flashing.

Press the [+] or [-] key to increase or decrease the temperature reading (in increments of 0.1). Press and hold the [+] or [-] key for three seconds to increase or decrease rapidly.

Press the **ALARM** key to reset current value.

Press the **SET** key switch to outdoor temperature channel (1 through 8). To exit the calibration mode at any time, press the **SNOOZE/LIGHT** button on the top of the display console. If no operation is performed, the calibration mode will timeout in 30 seconds.

7.2 Humidity Calibration

In normal mode, press and hold the **SET** and **Channel/+** keys at the same time for five

seconds to enter the humidity calibration mode and the indoor humidity will begin flashing.

Press the [+] or [-] key to increase or decrease the humidity reading (in increments of 1%). Press and hold the [+] or [-] key for three seconds to increase or decrease rapidly.
Press the **ALARM** key to reset current value.

Press the **SET** key switch to outdoor humidity channel (1 through 8). To exit the calibration mode at any time, press the **SNOOZE/LIGHT** button on the top of the display console. If no operation is performed, the calibration mode will timeout in 30 seconds.

Note: Humidity is a difficult parameter to measure accurately and drifts over time. The calibration feature allows you to zero out this error. To calibrate humidity, you will need an accurate source, such as a sling psychrometer or Humidipaks One Step Calibration kit.

8. Other Weather Features

8.1 Weather Forecasting

The weather forecast is an estimation or generalization of weather changes in the next 24 to 48 hours, and varies from location to location. The tendency is simply a tool for projecting weather changing conditions and is never to be relied upon as an accurate method to predict weather.

Note: The weather forecast or pressure tendency is based on the rate of change of barometric pressure. In general, when the pressure increases, the weather improves (sunny to partly cloudy) and when the pressure decreases, the weather degrades (cloudy to rain).

8.2 Weather Icons

Sunny		Pressure is rising and the previous condition is partly cloudy.
Partly Cloudy		Pressure is falling and the previous condition is sunny or Pressure is rising and the previous condition is cloudy
Cloudy		Pressure is falling and the previous condition is partly cloudy or Pressure is rising and the previous condition is rainy.
Rainy		Pressure is falling and the previous condition is cloudy

9. Specifications

9.1. Wireless Specifications

1) Line of sight wireless transmission (in open air): 330 feet (100m), 100 feet (30m) under most conditions.
2) Frequency: 433 MHz
3) Update Rate: 60 seconds

9.2. Measurement Specifications

Measurement	Range	Accuracy (Resolution)
Indoor Temperature	32 to 140 °F (0°-60°C)	±2°F/±1°C (0.1 °F/°C)
Outdoor Temperature	-40 to 140 °F (-40°-60°C)	±2°F/±1°C (0.1 °F/°C)
Indoor Humidity	10 to 99 %	± 5% , only guaranteed between 20 to 90% (1%)
Outdoor Humidity	10 to 99 %	± 5% , only guaranteed between 20 to

		90% (1%)

9.3. Power Consumption

Base station (display console):

Power adaptor 5.9V/500mA(included)

3 x AAA 1.5V Alkaline or Lithium batteries (not included)

Remote sensor: 2 x AAA 1.5V Alkaline or Lithium batteries (not included)

Battery life: Minimum 12 months for remote sensor (use lithium batteries in cold weather climates less than -4 °F/-20°C)

10. Troubleshooting Guide

Wireless remote (thermometer) not reporting in to console. There are dashes (---) on the display console.
Solution

If any of the sensor communication is lost, dashes (--.-) will be displayed on the screen. To reacquire the signal, press and hold the **CH/+** button for 3 seconds, and the remote search icon will be constantly displayed. Once the signal is reacquired, the remote search icon will turn off, and the current values will be displayed.

The maximum line of sight transmit range is 165'(50m) and 100'(30m) under most conditions. Move the sensor assembly closer to the display console.

If the sensor assembly is too close (less than 5'/1.5m), move the sensor assembly away from the console.

Make sure the remote sensor LCD display is working and the transmitter light is flashing once per 60 seconds.

Install a fresh set of batteries in the remote thermometer. For cold weather environments, install lithium batteries.

Make sure the remote sensors are not transmitting

through solid metal (acts as an RF shield), or earth barrier (down a hill).

Move the display console around electrical noise generating devices, such as computers, TVs and other wireless transmitters or receivers.

Move the remote sensor to a higher location. Move the remote sensor to a closer location.

Indoor and Outdoor Temperature do not agree

Solution

Allow up to one hour for the sensors to stabilize due to signal filtering. The indoor and outdoor temperature sensors should agree within 4°F/2°C(the sensor accuracy is ±2°F/1°C).

Use the calibration feature to match the indoor and outdoor temperature to a known source.

Indoor and Outdoor Humidity do not agree

Solution

Allow up to one hour for the sensors to stabilize due to

signal filtering. The indoor and outdoor humidity sensors should agree within 10 % (the sensor accuracy is ± 5 %). Use the calibration feature to match the indoor and outdoor humidity to a known source.
Temperature sensor reads too high in the day time.
Solution
Make sure the thermo-hygrometer is mounted in a shaded area.

11. Customer Support

Urageuxy customer support is committed to providing you with best-in-class service.

For assistance, please have the model number of this product available and contact us in any of the following ways:

E-**mail :** ucweatherstation@gmail.com

12. FCC Information

This device complies with part 15 of 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.

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 this equipment does 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.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

13.Limited One Year Warranty

At Urageuxy, we warrant that all products it manufactures to be of good material and workmanship, and to be free of defects when properly installed and operated for a period of one year from the date of purchase.

The above-described warranty is expressly in lieu of all other warranties, express or implied, and all other warranties are hereby expressly disclaimed, including without limitation the implied warranty of merchantability and the implied warranty of fitness for a particular purpose.

Urageuxy expressly disclaims all liability for special, consequential or incidental damages, whether arising in tort or by contract from any breach of this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Urageuxy further disclaims all liability from personal injury relating to its products to the extent permitted by law. By acceptance of any of

Urageuxy’s products, the purchaser assumes all liability for the consequences arising from their use or misuse. No person, firm or corporation is authorized to assume for Urageuxy any other liability in connection with the sale of its products.

Furthermore, no person, firm or corporation is authorized to modify or waive the terms of this paragraph, and the preceding paragraph, unless done in writing and signed by a duly authorized agent of Urageuxy. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.