

# USER MANUAL

This manual is part of this product and should be kept in a safe place for future reference. It contains important notes on setup and operation.

## Introduction

Thank you for purchasing this Wireless Rain Gauge. Designed for everyday use, the weather station will prove to be an asset of great value for your personal use in the home or office. Please read this instruction manual thoroughly to fully understand the correct operation of your rain gauge and benefit from its unique feature

## Package contents

- 1x Weather station base unit
- 1x Rain Sensor
- Mounting Screw
- Instruction manual

## Function:

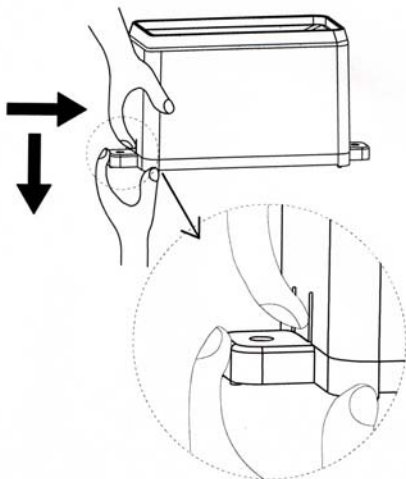
- 1) Detail display of rainfall data in 1hour, 24hour, week and total since last reset(user selectable in inch or mm)
- 2) Radio controlled Clock with manual setting option
- 3) Calendar (day-month-year display)
- 4) Indoor temperature ( $^{\circ}\text{C}$  or  $^{\circ}\text{F}$ )
- 5) Time zone setting
- 6) 12 or 24 hour time mode
- 7) Free standing

## Installation

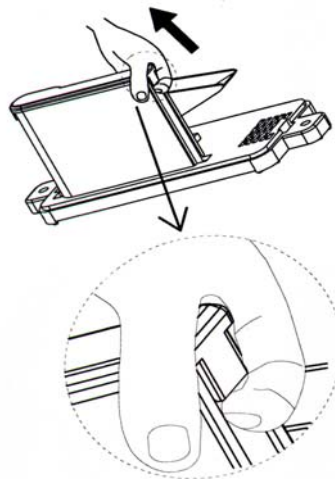
Rain Gauge battery install

**Note: please note the polarity when inserting/replacing batteries in the unit, failure to do so may result in permanent damage. Use good quality alkaline batteries and avoid rechargeable batteries.**

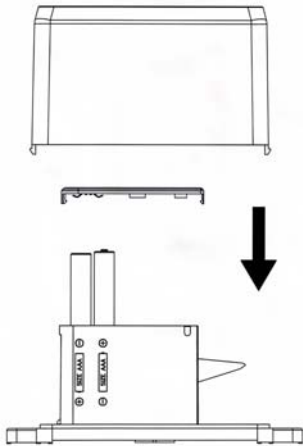
### 1) Remove Rain Gauge cover



### 2) Remove the battery cover



3) Observing the correct polarization insert 2 “AAA” Alkaline Batteries into the compartment and replace the cover.



**Note: when opening the battery cover make sure that the batteries do not spring free from the contacts since this will cause start and transmissison problem**

#### **Indoor receiver battery installs**

- 1) Insert two AA batteries into the indoor receiver. When the base station is powered up, a short beep will sound and all LCD segments will light up for about 4 seconds before it enters into learning mode to learn the sensors security code. Every time the remote sensor is powered up (for example after a change of batteries), a random security code is transmitted and this code must be synchronized with the base station to receive weather data. **Thus if battery change happened on remote sensor side, then the base station must be power up again to re-learn the transmitter.**
- 2) **Do not press any keys for 10 minutes**
- 3) The receiver will start to search time signal. If there is no time signal found within 70s, the unit will turn off the receiver. If there is time signal received, then the clock will have the radio controlled time icon flashing indicating that the clock is in the time reception progress. Normally within 10 minutes the clock should have the correct time displayed.
- 4) If no time reception is possible, then manually set the time. The clock will try to make radio controlled time reception every hour. When radio controlled time is received, the radio controlled time icon will be turned on.
- 5) If your time zone is not at UTC+1:00, then manually set the time zone so that your clock time will be updated correctly after radio controlled time is received.
- 6) If the clock can't have radio controlled time received after 24 hours, then try to put the clock in a place near window. The clock should not be placed on metal table or near monitor.

#### **Note for Radio Controlled Time:**

The time and date display is based on the signal provided by the highly accurate government operated atomic clock. The base station will continue to scan for the radio controlled time signal each day at 2:00, 8:00, 14:00 and 20:00 despite it being manually set. If reception has been unsuccessful, then the radio controlled time icon will not appear but reception will still be attempted continually. If reception has been successful, the received time and date will overwrite the manually set time and date.

#### **Note:**

**Please participate in the preservation of the environment by properly disposing of all used-up batteries and accumulators at designated disposal points. Never dispose of batteries in a fire as this may cause explosion, risk of fire or leakage of dangerous chemicals and fumes**

## ***Mounting***

### **Base Station**

With one foldable legs at the back of the unit, the base station can be placed onto any flat surface or wall mounted at the desired location by the hanging holes at the back of the unit. It is important to check that the radio signal can be received before permanently mounting any of the units

### **Remote Sensor**

Place the rain gauge in an appropriate location. The rain gauge has a range of 100meters. Keep in mind that 100 meters RF reception distance is for condition in open air with no obstructions, and rain gauge transmitter sitting one meter above ground. Real-world transmission range will vary depending on what is in the path of the signal. Each obstruction (roof, walls, floors, ceilings, thick trees, etc.) will effectively cut signal range.

There is a NTC type temperature sensor inside the rain box,. Under direct sunshine condition, the temperature reading can be 3-4 degrees higher than real outdoor temperature. In order to get real correct outdoor temperature, it is recommended to install the sensor in north faced places or where there is no long time exposing to direct sun light.

Program mode

The base station has two key for easy operation: **RAIN** key and **SET** key. And there are two program modes available: Rain Mode and setting mode

The setting mode will return to normal display mode while key idle 30s.

### **RAIN Mode**

While in normal mode, press **RAIN** key, 1hour rainfall record will be displayed. Press **RAIN** key again, 24hour rainfall record will be displayed. Press **RAIN** key the third time, week rainfall record will be displayed. Press **RAIN** Key the fourth time, TOTAL rainfall record will be displayed.

### **Reset Rain Data**

Press **RAIN** key for approx 2 seconds at 1hour rainfall mode, 1hour rainfall record will be reset to 0. Press **RAIN** key for approx 2 seconds at 24hour rainfall mode, 1hour and 24hour rainfall record will be reset to 0. Press **RAIN** key for approx 2 seconds at week rainfall mode, 1hour, 24hour and week rainfall record will be reset to 0. Press **RAIN** key for approx 2 seconds at TOTAL rainfall mode, 1hour, 24hour, week and TOTAL rainfall record will be reset to 0

### **Setting Mode**

While in normal mode, press the SET key to select time or calendar display. Calendar date display mode will be switched to time display after 10s when no key pressed.

While in normal mode, press the SET key for 2 seconds to enter the following setting modes in the following order :

1. \*DST on/off
2. Time Zone Setting
3. 12/24 hour format
4. Manual time setting (hours/minutes)
5. Calendar setting(in the order of year /month/ date) [after year setting, month and date position can be selected before month and date value to be set]
6. Temperature display unit degree Celsius or Fahrenheit
7. Rainfall unit mm or inch

In the setting modes, press RAIN key to select the units or scrolls the value. Holding the RAIN key for 2 second will increase digits in great steps. Press the SET key to accept the change and advance to the next setting mode. Continue to press the SET key to toggle through the setting mode until return to the normal Mode

**\*Note:** "DST OFF" indicates that the feature is off and the WWVB will not change times automatically. "DST ON" indicates that the feature is on and the WWVB will change times automatically. Some locations (Arizona and parts of Indiana) do not follow Daylight Saving Time, and should select "DST OFF".

## Troubleshooting

### *No signal from remote sensor*

There can be many reasons for this, the following steps should help you troubleshoot this problem.

- Make sure that the batteries in the remote sensor are not depleted.
- Reduce the distance between transmitter and receiver
- Remove the batteries from the base station and the remote sensor and reset the weather station in the right order as described in section 2 of this manual.
- This problem could also be a result of radio interference in your neighborhood, try relocating the sensor and the base station

### *Remote sensor drops off intermittently*

Possible interference from other sources, try relocating the sensor or the base station. Radio device operation on the same frequency can also cause interference.

### *Temperature is incorrect.*

Check/ Replace the batteries. Also make sure that the base station is not place near objects that can act as sources of heat or cold.

## Specifications

### **Outdoor data**

Transmission distance in open field: . . . . . 300feet(100m) max.  
Frequency: . . . . . 433.92MHz  
Measuring interval remote sensor: . . . . . 48 sec  
Water proof level: . . . . . IPX3  
Current: . . . . . 15mA (HF transmitting), 10uA (Standby)

### **Indoor data**

Indoor temperature range: . . . . . -15.8°F to 140°F (-9.9°C to +60°C)  
Resolution : . . . . . 0.2°F / 0.1°C

### **Power consumption**

Base station : . . . . . 2XAA 1.5V LR6 Alkaline batteries  
Remote sensor: . . . . . 2xAAA 1.5V LR03 Alkaline batteries  
Battery life : . . . . . Minimum 12 months for both sensor and receiver

## **FCC STATEMENT**

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.