

# WEATHER STATION WITH ATOMIC TIME (3 REMOTE SENSORS INCLUDED) Model: BA030016 USER MANUAL





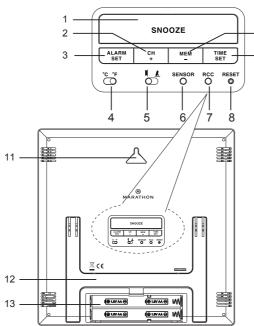




Please read this instruction manual carefully and keep it for future reference. This information will help you to familiarize yourself with your new Weather Station with Atomic Time (3 Remote Sensors Included). This product should only be used as described within these instructions. Unauthorized repairs, modifications or changes to the product are prohibited. This product is intended for home use only.

### **OVERVIEW**

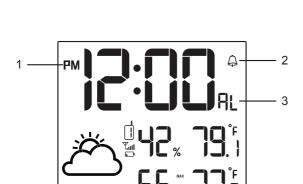
- 1. [ SNOOZE ] button
- 2. [ **CH/+** ] button
- 3. [ ALARM SET ] button
- 4. < °C/°F > slide switch
- 5. < ▮/ ▲ >Visual angle slide switch
- 6. [ SENSOR ] button
- 7. **[ RCC ]** button
- 8. [ RESET ] button
- 9. **[ TIME SET ]** button
- 10. **[ MEM/- ]** button
- 11. Wall-mounting hole
- 12. Table stand
- 13. Battery compartment



## DISPLAY

Normal time mode

- 1. AM/PM (12 Hour format)
- 2. Time
- 3. Outdoor humidity
- 4. Sensor signal indicator
- 5. Weather forecast indicator
- 6. Low battery indicator for sensor
- 7. Indoor humidity
- 8. Indoor temperature
- 9. MAX/MIN indicator
- 10. Outdoor temperature
- 11. Ice Alert on
- 12. RC signal strength indicator
- 13. DST
- 14. Time zone indicator

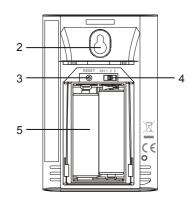


## Alarm time mode

- 1. Alarm time
- 2. Alarm icon/Alarm on
- 3. Alarm mode indicator

## TRANSMITTER





- 1. LED indicator:
- Flashes when the remote unit transmits a reading.
- 2. Wall mounting hole
- Use to affix the transmitter on the wall.
- 3. [ RESET ] button
  - Press to reset the transmitter.
- 4. [ CHANNEL ] slide switch
  - Assign the transmitter to Channel 1, 2 or 3.
- 5. Battery compartment
  - Accommodates 2 x AA size batteries.

### **GETTING STARTED**

- Remove the battery door of the clock and sensors.
- Insert 4 new AA size batteries to the clock, and 2 to the sensors according to the "+/-" polarity mark on the battery compartment.
- Replace the battery doors.
- Once the batteries are inserted, full segment of the LCD will be shown briefly.
- Press the [ RESET ] button of main unit fi rst, then press the [ RESET ] button on each transmitter.
- The main unit will automatically receive 433 MHz signal from the transmitters for the channel test within 8 seconds.
- The channel test will last for 5 minutes, at which time the RC signal reception sequence will commence automatically.

#### NOTE

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If no display appears on the LCD after inserting the batteries, press the [RESET] button by using a pointed instrument. In some cases, you may not receive the RC signal immediately, due to atmospheric disturbance. The best reception often occurs during nighttime.

### **HOW TO PAIR MAIN UNIT AND SENSOR**

- 1. Press [ CH / + ] button on main unit to select a channel.
- 2. On sensor, slide channel switch to corresponding channel. (For additional sensors, select a different channel). Press [ RESET ] button.
- 3. Press [ **SENSOR** ] on main unit to initiate the search for sensor.
- 4. Repeat sequence for additional sensors.

### **DAYLIGHT SAVING TIME (DST)**

The clock will automatically advance the time by one hour in the spring and back an hour in the fall, provided that the DST function is enabled.

DST function is set to AUTO by default.

## WIRELESS SENSOR RECEPTION

If the main unit receives wireless sensor signal successfully, the signal icon "  $\P_{\text{iill}}$  " is displayed. If it cannot receive sensor signal or signal is lost, "  $\P$  " icon is displayed.

# RECEPTION OF RADIO CONTROLLED SIGNAL

The time and date are radio-controlled. The current time and date are automatically synchronized with the time signal transmitted from WWVB station in Colorado.

- The clock automatically carries out 4 periodic synchronization procedures (2:00 AM, 8:00 AM, 2:00 PM and 8:00 PM daily) with the RC signal to correct any deviations from the exact time.
- Once the unit synchronizes successfully to the RC signal, the signal icon " \$\overline{\mathbb{G}}\$" will be displayed. Each synchronization process will take between 6 to 16 minutes.
- $\boldsymbol{\cdot}$  To manually start or stop the RC signal reception procedure, press the [ RCC ] button.

## NOTE

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- The strength of radio-controlled time signal from the transmitter tower may be affected by geographical location or surrounding buildings.
- Always place the unit away from interfering sources such as TV set, computer, etc.
- $\boldsymbol{\cdot}$  Avoid placing the unit on or next to metal surfaces.
- Closed areas such as airports, basements, tower blocks, or factories may not receive a strong signal.

## SIGNAL RECEPTION INDICATOR

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

🗑 or 🗑	8
No signal	Weak signal
(6)	<b>(</b>
Acceptable signal	Excellent signal

## TIME ZONE SETTING

Your clock is designed to display time for different time zones. Please refer to the SETTING THE TIME AND CALENDAR section to set your desired time zone in following order:

PST (Pacific) → MST (Mountain) → CST (Central) → EST (Eastern)

# SETTING THE TIME AND CALENDAR

- In normal time mode, press and hold [ TIME SET ] button for 3 seconds until the 12/24 Hr flashes on the display.
- $\boldsymbol{\cdot}$  Press [ CH/+ ] or [ MEM/- ] button to choose 12 or 24 Hour format.
- Press [ TIME SET ] button again until Hour digit flashes and press [ CH/+ ] or [ MEM/- ] button to adjust its value.
- Repeat the above operations to set the time and calendar in this sequence:
   12/24Hr → Hour → Minute → Second → Time Zone
- Press [ TIME SET ] button to save the setting and exit setup mode, or the clock will automatically exit after 30 seconds if no buttons are pressed.

#### NOTE:

• When setting the seconds, press [ CH/+ ] or [ MEM/- ] button to set its value to 00.

### **SETTING THE ALARM TIME**

- In normal time mode, press [ ALARM SET ] button to enter alarm time mode. Press and hold [ ALARM SET ] button for 3 seconds until the Hour digit flashes.
- Press [ CH/+ ] or [ MEM/- ] button to set its value.
- Press [ ALARM SET ] button again to advance to the Minute setting.
   Press [ CH/+ ] or [ MEM/- ] button to set its value.
- Press [ ALARM SET ] button to save and exit the setup mode, or the clock will automatically
  exit the setup mode after 30 seconds if no buttons are pressed.

#### NOTE:

After pressing [ CH/+ ] or [ MEM/- ] button, the alarm function is automatically turned on (icon " $\mbox{\ensuremath{\ensuremath{\triangle}}}$ " displayed).

### **USING THE ALARM AND SNOOZE**

- In normal time mode, press [ ALARM SET ] button to enter alarm time mode. Press [ ALARM SET ] button again to turn on the alarm (icon "\$\infty\$" displayed) or turn off the alarm function.
- If no button is pressed, the alarm will automatically stop after 2 minutes.
- Press [ SNOOZE ] button to stop the current alarm and enter snooze mode. Alarm icon will be flashing continuously. The alarm will sound again in 5 minutes. Snooze can be operated continuously for 24 hours.
- Press [ ALARM SET ] button to turn off alarm function.

### **TEMPERATURE AND HUMIDITY**

To Select Temperature Unit

Slide [ °C / °F ] switch on main unit to <°C> or <°F> position.

### To Read Outdoor Temperature and Humidity

The default displayed channel is channel 1.

- 1. In normal mode, press [ CH/+ ] button repeatedly to view readings of channel 1, 2 and 3.
- 2. Press and hold [CH/+] button for 5 seconds to enter channel auto-change. The clock will automatically rotate through each channel, switching every 4 seconds.
- 3. Press [ CH/+ ] again to return to normal time mode.

### NOTE:

- 1. Once the channel is assigned to one sensor, you can only change it by removing the batteries or resetting the unit.
- 2. If no signals are received or the transmission is interfered, "---" will appear on the LCD.
- 3. When relocating the main unit or sensors, ensure the transmission is within the effective range; approximately 160 feet.

## VIEWING MAXIMUM AND MINIMUM RECORDS

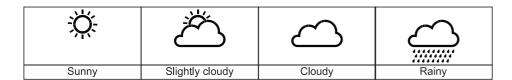
- 1. Press [ MEM/- ] button to view minimum and maximum, indoor and outdoor, temperature and humidity records.
- 2. While viewing the minimum and maximum records, press and hold [ MEM/- ] button for 3 seconds to clear both min and max records.

## NOTE:

- 1. Record value will be updated by new high or low record.
- 2. Once you re-insert batteries to the main unit, all of the values will be defaulted.

## WEATHER FORECAST

The main unit contains a built-in sensitive pressure sensor to predict the weather forecast for the next 12 to 24 hours.



## NOTE:

- 1. The accuracy of a general pressure-based weather forecast is about 70% to 75%.
- 2. The weather forecast is meant for the next 12 ~ 24 hours, it may not necessarily reflect the current conditions.

## ICE ALERT

When the outdoor temperature falls between -2°C to 3°C (28°F to 37°F), the ice alert icon will display on the LCD and flash continuously. It will disappear once the temperature is out of this range.



## TO SET THE VISUAL ANGLE

User can use < ▮ / ▲ > slide switch to set visual angle:

If the clock is placed directly on a flat surface with the table stand, choose the < A > position. If the clock is hung on the wall with the wall mounting hole, choose the < A > position.

### **BATTERY REPLACEMENT**

When the LCD becomes dim, replace with 4 new AA size batteries. If the low battery indicator " " is displayed in the outdoor window, replace the 2 AA size batteries in the sensor.

### NOTE:

- If the clock is not used for a long period of time, please remove the batteries.
- Attention! Batteries should not be exposed to excessive heat such as direct sunlight, fire or the like. Please dispose of used unit or batteries in an ecologically safe manner.

### **FCC STATEMENT**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

However, there is no guarantee that interference will not occur in a particular installation. If 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 receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.
- Consult the dealer or an experienced radio/TV technician for help.

### **SPECIFICATIONS**

Radio Controlled signal: WWVB version RF transmission frequency: 433 MHz RF transmission range: Maximum 50 meters Number of remote sensors: Up to 3 units Temperature sensing cycle: Around 60-64 seconds

### INDOOR TEMPERATURE

Displayed range: -40°F ~ 158°F ( -40°C ~ 70°C ) Operating range: 32°F ~ 113°F ( 0°C ~ 45°C ) Accuracy: 0°C ~ 40°C: +/- 1°C (+/- 2.0°F) 40°C ~ 45°C: +/- 2°C (+/- 4.0°F)

## INDOOR HUMIDITY

Operating range: 20% ~ 90% Resolution: 1% Accuracy: 20% ~ 39%: +/- 8% @ 25°C 40% ~ 70%: +/- 5% @ 25°C 71% ~ 90%: +/- 8% @ 25°C

Displayed range: 20% ~ 90%

## **OUTDOOR TEMPERATURE**

Displayed range: -40°F ~ 158°F ( -40°C ~ 70°C )

Operating range: -4°F ~ 140°F ( -20°C ~ 60°C )

Accuracy: -20°C ~ 0°C: +/- 2°C (+/- 4.0°F)

0°C ~ 40°C: +/- 1°C (+/- 2.0°F)

40°C ~ 60°C: +/- 2°C (+/- 4.0°F)

## **OUTDOOR HUMIDITY**

Displayed range: 1% ~ 99%
Operating range: 20% ~ 90%
Resolution: 1%
Accuracy: 20% ~ 39%: +/- 8% @ 25°C
40% ~ 70%: +/- 5% @ 25°C
71% ~ 90%: +/- 8% @ 25°C

## POWER

Main unit: 4 x AA size 1.5V batteries Remote sensor: 2 x AA size 1.5V batteries

# DIMENSIONS

Main unit: 224(L) x 224(H) x 23(D) mm Remote sensors (3): 65(L) x 100(H) x 35(D) mm

> Marathon Watch Company Ltd. www.MarathonWatch.com Customer Service: 1-800-822-4329