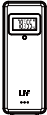# LFF

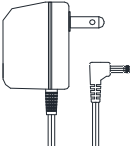## WIRELESS COLOR WEATHER STATION

Ref.: LWS200

-USER MANUAL-

PACKAGE LIST

ITEM NO	PART NAME	FIGURE	QTY
1	WEATHER STATION		1
2	OUTDOOR SENSOR		1
3	USER MANUAL		1
4	AC-AC ADAPTOR (Output : 5V AC, 0.15A)		1

IMPORTANT SAFETY INSTRUCTIONS

Please read this user manual carefully before you use this product.

	CAUTION	
	RISK OF ELECTRIC SHOCK DO NOT OPEN	
The lighting flash and arrow head within the triangle is warning sign alerting you of dangerous voltage inside the product	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICIABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	The exclamation point within the triangle is a warning sign alerting you of important instructions accompanying the product.

• Please do not expose the unit in the raining or moist environment to avoid fire hazard or electric shock.

• On the machine should not receive the water drop or the water splashes, on the machine could not lay object filled with liquid, like vase.

THE ADAPTOR MUST REMAIN EASILY ACCESSIBLE IN ORDER TO BE ABLE TO DISCONNECT THE DEVICE IN CASE OF EMERGENCY.

Note:
Please use new alkaline battery for both sensor and weather station.

1 WEATHER STATION UNIT
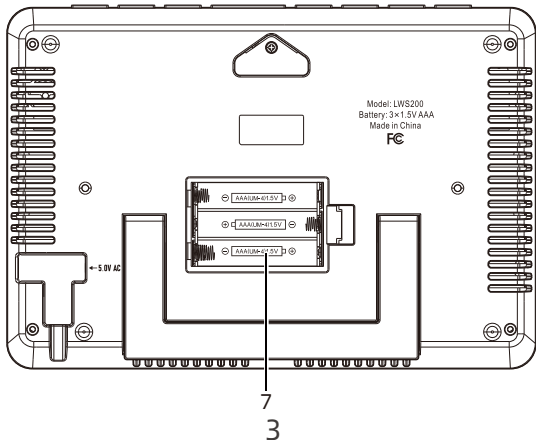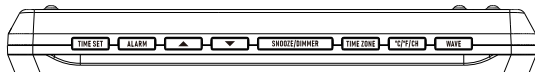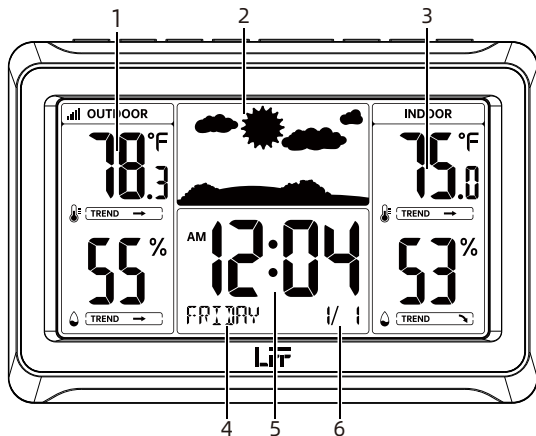
1. Outdoor temperature/humidity reading
2. Atmosphere display
3. Indoor temperature/humidity reading
4. Weekday/Time zone display
5. Time display
6. Calendar with month, date display
7. Battery compartment (3 x AAA batteries)
8. TIME SET button
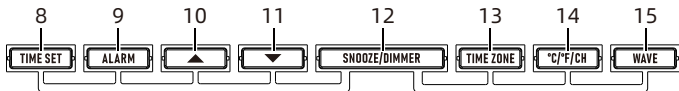9. ALARM button
10. ▲ button
11. ▼ button
12. SNOOZE/DIMMER button
13. TIME ZONE button
14. °C/°F/CHANNEL button
15. WAVE button

2 MAIN FEATURES

- Colorful and big digit display with super bright backlight.
- 8 functional buttons: TIME SET, ALARM, ▲, ▼, SNOOZE/DIMMER, TIME ZONE, °C/°F/CHANNEL, WAVE.
- Self setting accurate atomic time function.
- Time display: Hour, minute.
- Calendar display: Month, date and weekday written in full letters in English.
- 8 time zones: EST, CST, MST, PST, AKT, HST, AST, NST.
- Alarm with snooze function.
- Display Indoor & outdoor temperature (°C/°F) & humidity readings with trend.
- Low battery indication for both weather station and wireless sensor.
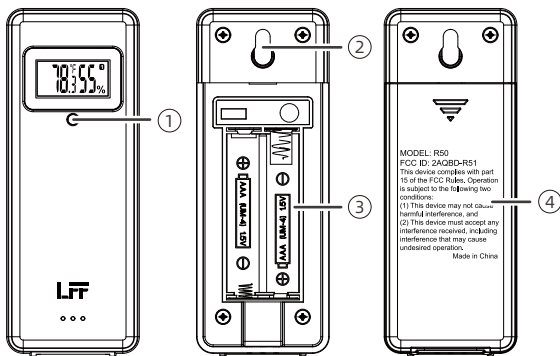- 3-level brightness of backlight.

4

3 OUTDOOR TEMPERATURE & HUMIDITY SENSOR STATION

3.1 MAIN FEATURES

• Temperature & Humidity measurement.

• Low Battery Indication.

3.2 TX BUTTONS ON THE BACK

① LED: Flashes when the unit transmits a reading

② Wall mount

③ Battery compartment: Use 2 x AAA batteries

④ Battery door

4 FIRST TIME TO USE

4.1 PAIR THE OUTDOOR REMOTE SENSOR

First of all, it needs to do the pairing between outdoor sensor and weather station. Please follow below procedure to pair the sensor.

1). Plug the included AC-AC adaptor into the weather station. (optional) insert 3 new "AAA" alkaline batteries for backup.

   The screen is turned on. It starts to search sensor and register the received sensor. During RF pairing, the signal strength icon ⏸ℓ will animate until the sensor signal is received or for 5 minutes if no signal available.
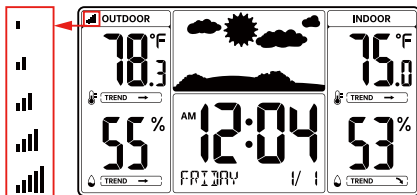
Note: If no sensors is paired, you can pair the sensor again manually by pressing and holding the ⑭【°C/°F/CH】 key over 2 seconds. Please refer to **"10 SEARCH FOR OUTDOOR SENSOR"** .
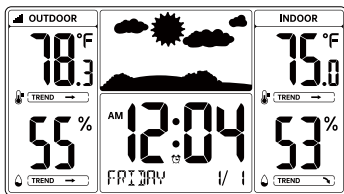
2). Insert 2 new "AAA" alkaline batteries for the wireless outdoor remote sensor.

3). The wireless remote sensor will transmit the signal and LED will flash during transmission.

4). Keep the outdoor sensor 5-10 feet from the weather station.

5). When the RF connection is established, the temperature and humidity readings will appear on the station.

6). After RF connection was established or 3 minutes pairing time, the weather station will automatically receive atomic clock signal, the RCC receiving dot icon "●" will be flashing.

6
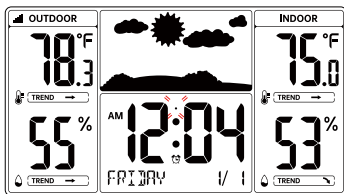
7). When the weather station detects the atomic clock signal, the signal strength indication 📶 will be indicated.
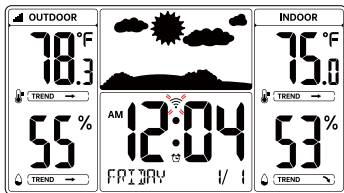
8). Put the weather station away from interference, such as electronic devices. (TV, computer, microwave, radio, etc.)

9). When the atomic clock signal is received successfully, the time and date will be updated.

Normal Time Display

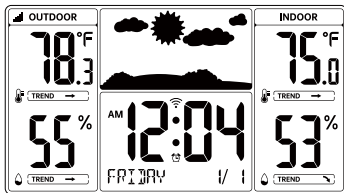10). Allow the outdoor sensor and weather station to sit together for 15 minutes to establish a strong connection.

11). Do not press button for 15 minutes.

12). After 15 minutes, place the sensor in a shaded outdoor location.

5 ATOMIC CLOCK RECEPTION

- The weather station automatically begins search WWVB signal and update the time every day at 1:00 am, 2:00 am, 3:00 am, 4:00 am, 5:00 am.
- The Atomic Time tower icon 📶 will flash while searching and will be solid when it has connected.

5.1 MANUAL RCC RECEPTION

You can receive the atomic clock signal manually. In Normal display, press and hold ⑮【WAVE】 over 2 seconds to receive the atomic clock signal manually. The RCC receiving dot icon " • " is flashing and will start atomic clock reception. When the atomic clock signal is received successfully, the time and date will be updated.
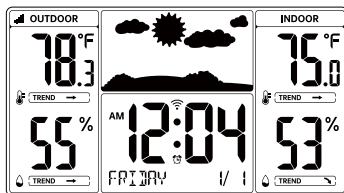
During atomic clock reception, press and release ⑮【WAVE】 button to exit atomic clock reception.

For information about WWVB, visit
www.nist.gov/pml/div688/grp40/wwvb.cfm

6 TIME SETTING

In Normal time display, press and hold ⑧【TIME SET】 over 2 seconds to enter time setting mode.
Press and release ⑩【▲】 and ⑪【▼】 to adjust the values. Hold to adjust quickly.
Press and release ⑧【TIME SET】 to confirm and move to the next item.

6.1 SETTING ORDER

1. RCC On/Off	2. DST On/Off	3. Year
4. Month	5. Date	6. 12/24 Hour Format
7. Hour	8. Minute	9. End of Setting

1.) Press and hold ⑧【TIME SET】 button entering the settings. RCC ON flashes. Press ⑩【▲】 and ⑪【▼】 to set RCC on/off. Press ⑧【TIME SET】 to select DST on/off.

8

Note: If RCC OFF is selected, you will skip DST settings and move year setting.

2.) When DST ON flashes, press ⑩【▲】 or ⑪【▼】 button to select DST on/off.
   Press ⑧【TIME SET】 to select Year.

3.) When Year flashes, press ⑩【▲】 or ⑪【▼】 to adjust the year. Press
   ⑧【TIME SET】 to select Month.

4.) When Month flashes, press ⑩【▲】 or ⑪【▼】 to adjust the month. Press
   ⑧【TIME SET】 to select date.

5.) When Date flashes, press ⑩【▲】 or ⑪【▼】 to adjust the date. Press
   ⑧【TIME SET】 to select 12/24 hour time format.

6.) When 12 Hr flashes, press ⑩【▲】 or ⑪【▼】 to adjust 12 hour or 24 hour time
   format. Press ⑧【TIME SET】 to select hour.

7.) When Hour flashes, press ⑩【▲】 or ⑪【▼】 to adjust the hours. Press
   ⑧【TIME SET】 to select minute.

8.) When Minute flashes, press ⑩【▲】 or ⑪【▼】 to adjust the minutes. Press
   ⑧【TIME SET】 to save all settings and exit the setting.

Note: If there is no valid operation within 20 seconds, it will automatically return to the normal display mode from the setting mode.

RCC On/Off	DST On/Off	Year

12/24 Hour Format	Date	Month

Hour	Minute	End of Setting

7 SET ALARM TIME

7.1 CHECK ALARM TIME

In Normal time display, press ⑨【ALARM】 to switch display alarm time (Alarm time mode).
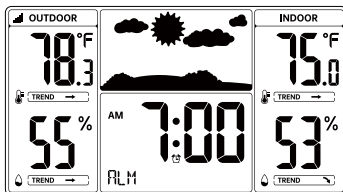
Alarm Time Mode

7.2 SETTING THE DAILY ALARMS

In Alarm time display, press and release ⑨【Alarm】 to confirm and move to the next item.
• Press and hold ⑨【Alarm】 over 2 seconds to enter alarm setting mode. Hour of Alarm starts to flash.

• Press ⑩【▲】 or ⑪【▼】 button to set required alarm hours.
  Hold ⑩【▲】 or ⑪【▼】 button to adjust alarm hours quickly.
  Press ⑨【Alarm】 to select minute of Alarm.

• When minute of Alarm flashes.

• Press ⑩【▲】 or ⑪【▼】 button to set required alarm minutes.
  Hold ⑩【▲】 or ⑪【▼】 button to adjust alarm minutes quickly.
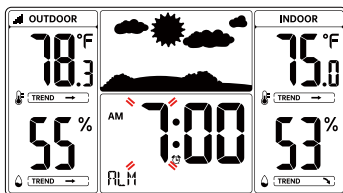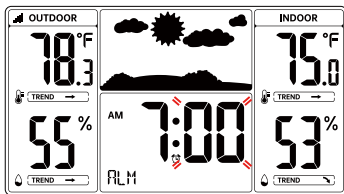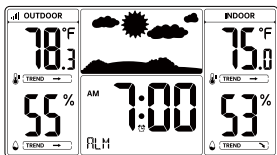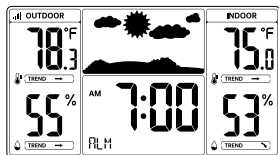• Press ⑨【Alarm】 to save all settings and exit to alarm mode.

Note: If there is no valid operation within 20 seconds, it will automatically return to the normal display mode from the setting mode.

7.3 DEACTIVATE/ACTIVATE ALARM

• In Alarm time display, press ⑨【Alarm】 to select the Alarm on or off.
• If the alarm is on, its corresponding alarm icon 🕗 will be shown on the display.

Alarm is on   Alarm is off

7.4 SWITCHING OFF THE ALARM SIGNAL

• When the alarm is ringing, press any buttons except ⑫【Snooze/Dimmer】 to stop the alarm signal. It is not necessary to reactivate the alarm. It will ring again this time next day.

7.5 SNOOZE FUNCTION

• When the alarm rings, press ⑫【Snooze/Dimmer】 button to pause the alarm. The snooze indicator icon keep flashing.
• The alarm will resume after 5 minutes.

11

8 TIME ZONE SELECTION

• In Normal time display, press TIME ZONE to select a different Time Zone. The selected time zone will be flashing for 5 seconds and return to normal time display.
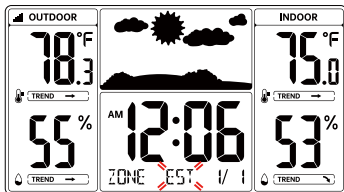
• There are total 8 time zones.
  (EST = Eastern, NST= Newfoundland, AST= Atlantic, HST= Hawaii, AKT= Alaska, PST= Pacific, MST= Mountain, CST= Central)

9 TEMPERATURE AND HUMIDITY TREND

9.1 TEMPERATURE TREND

The temperature trend indicators update with every 15 minutes and look back over the past hour.
• Change in temperature (2°F/1°C)

Temperature has risen > 1°C/2°F in the past hour	Temperature has not changed more than 1°C/2°F in the past hour	Temperature has fallen < 1°C/2°F in the past hour
➚	➡	➘

9.2 HUMIDITY TREND

The humidity trend indicators update with every 15 minutes and look back over the past hour.
• Change in humidity (3% RH)

Humidity has risen > 3% in the past hour	Humidity has not changed more than 3% in the past hour	Humidity has fallen < 3% in the past hour
↗	→	↘

10 WEATHER FORECASTING FUNCTION

- The weather symbols indicate the weather fluctuation over the next 6-12 hours, not the current weather.
- Please take the weather forecast from your local weather forecasting service into account as well as the forecast from your weather station. If there are discrepancies between the information from your device and the from the local weather forecasting service, please take the advice of the latter as authoritative.
- The weather forecast is calculated from evaluation of fluctuations in the barometric pressure and may deviate from the actual weather conditions.
- The weather station displays the following weather symbols:
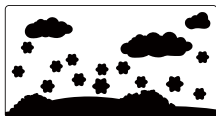
Sunny

Partly Sunny

Cloudy

Light Rain

Heavy Rain

Light Snow

Heavy Snow

11 SEARCH FOR OUTDOOR SENSOR

- In Normal time display, press and hold ⑭【C/F/CH】 over 2 seconds to search the outdoor temperature and humidity sensor.
- The signal strength icon 📶 will animate until the sensor signal is received, or for 5 minutes if no signal available.

12 SWITCH TEMPERATURE UNIT

In Normal time display, press and release ⑭【C/F/CH】 to interchange the temperature unit between degree Celsius and degree Fahrenheit.

13 BACKLIGHT

- When operating with the power cable, there are 3 levels of brightness for adjustment.
- Press ⑫【SNOOZE/DIMMER】 to adjust backlight.
- When operating on batteries only, the backlight will come on shortly (about 10 seconds) when ⑫【SNOOZE/DIMMER】 is pressed.

14 LOW BATTERY INDICATION

- Low battery icon 🔋 by outdoor humidity, replace batteries in the sensors.
- Low battery icon 🔋 by indoor humidity, replace batteries in the weather station.

Note: When there is low battery icon indication, it means the used battery level is low, it may affect normal functions. Please replace new alkaline batteries soon in order to keep normal function.

15 FACTORY RESTART

If there is malfunction, the Factory Restart is a great way to return your station to "out of the box" condition.

15.1 FACTORY RESTART

1.) Remove all power (batteries and AC-AC adaptor) from outdoor sensors and weather station.
2.) Leave both units without power for 10 minutes. (very important).
3.) Follow the operation **"4 FIRST TIME TO USE"** to start the pair the sensor.

16 IMPORTANT PLACEMENT GUIDELINES

- Mounting under an eave or deck rail works well.
- Mount the remote sensor on the North side where to prevent the sun from causing incorrect readings
- Be sure the outdoor sensor is mounted vertically to drain moisture.
- Mount at least 6 feet in the air for a strong RF (radio frequency) signal.
- To prevent wireless interference, place units at least 3 ft (0.9 m) away from electronic devices (TV, computer, microwave, radio, etc.).
- To maximize atomic signal reception, place the weather station away from large metallic items, thick walls, metal surfaces, or other objects that may limit radio communication.
- The maximum wireless transmission range must be within 300 feet (100m) in open air, not including walls and floors.

17 CARE AND MAINTENANCE

- Do not mix old and new batteries.
- Do not mix Alkaline, Standard, Lithium, or Rechargeable batteries.
- Always purchase the correct size and grade of battery most suitable for intended use.
- Replace all batteries of a set at the same time.
- Clean the battery contacts and also those of the device prior to battery installation.
- Ensure the batteries are installed with correct polarity (+ and -).
- Remove batteries from equipment which is not to be used for an extended period of time.
- Promptly remove expired batteries.

18 SPECIFICATIONS

Indoor	• Temperature Range: 32°F - 122°F (0°C - 50°C) • Humidity Range: 1 - 99% RH
Outdoor	• Temperature Range: -58°F - 158°F (-50°C - 70°C) • Humidity Range: 1 - 99% RH **Note:** Temperature below -4°F require Lithium batteries in the outdoor sensor • Distance: 330ft (100m) • Transmission frequency: 433MHz
Power	• Weather station primary AC-AC power: 5.0V AC, 0.15A AC-AC adaptor (included) • Battery Backup: 3 x AAA, IEC, LR3 batteries • Sensor: 2 x AAA, IEC, LR3 batteries
Dimension	• Weather station: 8.11 x 5.58 x 0.98 inches • Sensors: 1.57 x 4.09 x 1.02 inches

19 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.
2. This device must accept any interference received, including interference that may cause undesired operation.

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 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 the equipment does not 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.

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.

WIRELESS COLOR WEATHER STATION **LWS200**

LFF

Made in China