



WIRELESS WEATHER STATION



Ref.: LWS181



-USER MANUAL-

IMPORTANT SAFETY INSTRUCTIONS

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

 <p>The lightning flash and arrow head within the triangle is warning sign alerting you of dangerous voltage inside the product</p>	<div data-bbox="332 292 700 401">CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</div> <p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	 <p>The exclamation point within the triangle is a warning sign alerting you of important instructions accompanying the product.</p>
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- 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.

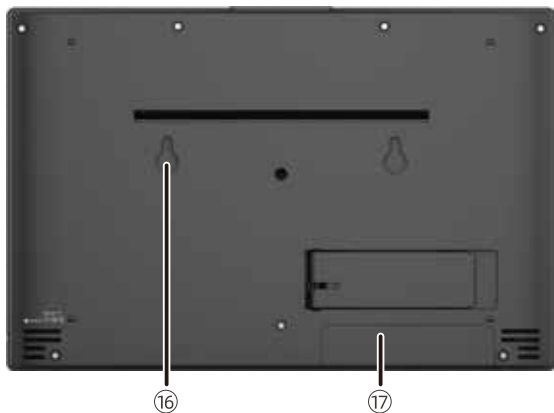
THE ADAPTOR MUST REMAIN EASILY ACCESSIBLE IN ORDER TO BE ABLE TO DISCONNECT THE DEVICE IN CASE OF EMERGENCY.

Note:

Please make sure that both the Main Unit and the Outdoor Sensor are power on within 5 minutes.

If the Main Unit is powered for over 5 minutes without the sensor on, it will not pair with the Outdoor Sensor or receive signal anymore.

1 WEATHER STATION UNIT



- ① Touch buttons on the top (for adjust the backlight)
- ② Outdoor temperature & humidity display
- ③ Current time display
- ④ "Mode" key
- ⑤ "Settings" key
- ⑥ Weather forecast display
- ⑦ "Alarm Active/Deactive" key
- ⑧ Moon Phase
- ⑨ "Channel" key
- ⑩ Atmospheric pressure and atmospheric pressure trend animation
- ⑪ "Down/-" key
- ⑫ "Up/+" key
- ⑬ Weekday
- ⑭ Month & Date
- ⑮ Indoor temperature & humidity display
- ⑯ Hanging slots
- ⑰ Battery compartment for 3 x AAA, 1.5 V batteries

2 MAIN FEATURES

- 7 functional touch buttons: MODE, SET, ALARM, CHANNEL, DOWN, UP, LIGHT, AND SNOOZE.
- Default RCC format is WWVB.
- Time display: hour, minute, second.
- Calendar display: month/day with weekday.
- 8 time zones: AST, NST, EST, CST, MST, PST, AKT, HAT.
- Moon phase function.
- 2 alarms with snooze functions.
- Indoor & Outdoor temperature display (°C/°F) & humidity with trend.
- Barometric pressure reading. (hPa, inHg)
- Pressure Trend Indicator.
- Max/Min records for indoor & outdoor temperature and humidity.
- Weather forecasting.
- Low battery indication for both weather station and sensor.
- 3-level brightness of backlight.

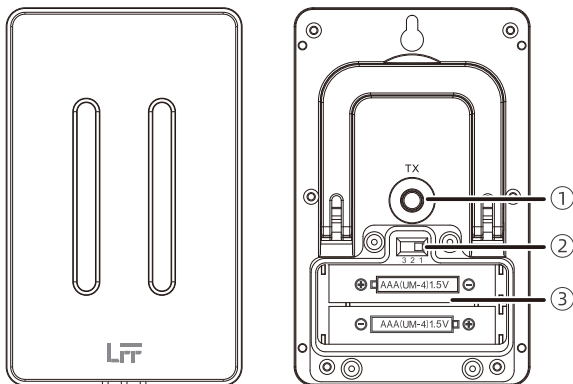
3 OUTDOOR TEMPERATURE & HUMIDITY SENSOR STATION

3.1 MAIN FEATURES

- Atomic Clock reception.
- Temperature & Humidity measurement.
- Low Battery Indication.

3.2 TX BUTTONS ON THE BACK

- ① Press and release TX button to transmit the current temperature & humidity immediately.
- ② Use the screwdriver to open the sensor cover. Select the RF channel.
- ③ Insert 2-AAA batteries into the sensor. Observe correct polarity, and properly close the compartment.



4 FIRST TIME TO USE

4.1 PAIR THE OUTDOOR REMOTE SENSOR

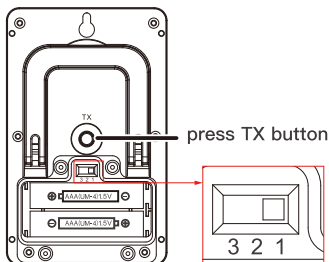
First of all, it needs to do the pairing between outdoor remote sensor and weather station. Please follow below procedure to pair the sensor.

- 1). Plug the included DC adaptor or insert 3 new “AAA” batteries (optional) into the weather station.

The screen is turned on. It starts to search sensor and register the received sensor. During RF registration, the signal strength icon will animate until the sensor signal is received or for 5 minutes if no signal available.



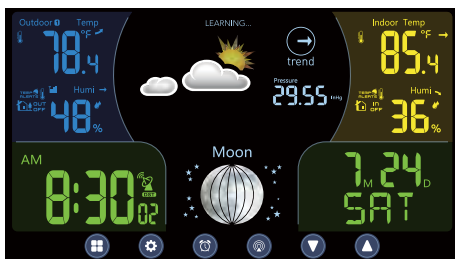
- 2). Slide the switch to CH1 of the outdoor sensor and Insert 2 new “AAA” batteries.
- 3). Press the TX button on the outdoor sensor to transmit RF Signal.



- 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). Put the outdoor remote sensor near window side to receive the atomic clock signal. (Put the sensor away from interference, such as electronic devices (TV, computer, microwave, radio, etc.)
- 7). Allow the outdoor sensor and weather station to sit together for 15 minutes to establish a strong connection.
- 8). Do not press button for 15 minutes.
- 9). When the outdoor remote sensor received the atomic clock signal, it will transmit the received atomic time to the weather station. The tower icon at the weather station lights up, meaning atomic time to be synchronized.

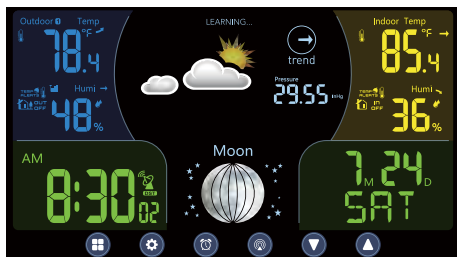


- 10). After 15 minutes, place the sensor in a shaded outdoor location.

4.2 ATOMIC CLOCK RECEPTION

The outdoor remote sensor automatically begins search WWVB signal and update the time every day at 1:00am or after resetting the sensor.

The updated time/date will be synchronized into the weather station. The WWVB tower icon will light up.

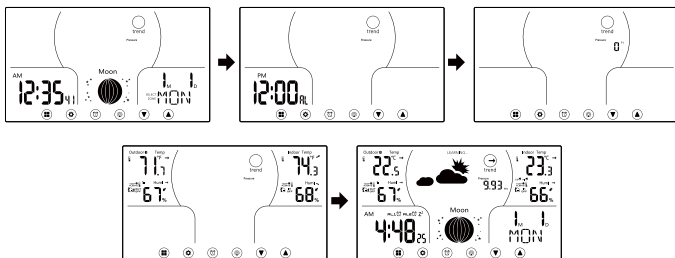


For information about WWVB, visit www.nist.gov/pml/div688/grp40/wwvb.cfm



5 SWITCH DIFFERENT MODE DISPLAYS




In Normal display, press  to switch into different modes display.

Time/Calendar → Alarm → Attitude → Indoor/Outdoor temperature & humidity → Normal Display



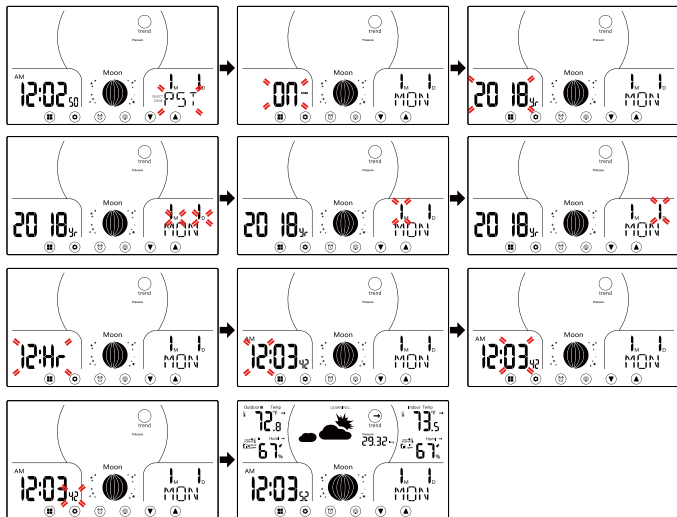
6 SET TIME ZONE, TIME, DATE etc.

In Normal display, press  once switching to the time/Calendar display. Press and hold  over 2s to enter time set mode, time zone (Default: PST) will be flashing.

Press and release  and  to adjust the values. Hold to adjust quickly. Press and release  to confirm and move to the next item.















7 SETTING ORDER

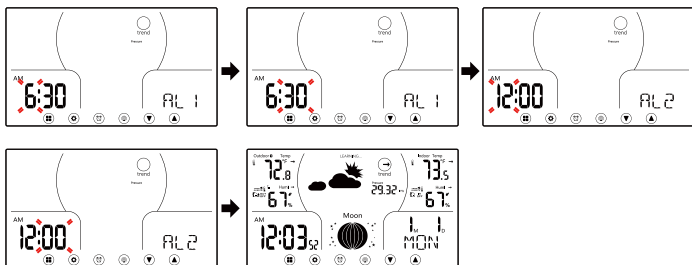
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|----------------------|--------------------|-----------|
| 1. Time Zone | 2. DST On/Off | 3. Year |
| 4. Date Format | 5. Month | 6. Day |
| 7. 12/24 Hour Format | 8. Hour | 9. Minute |
| 10. Second | 11. End of Setting | |




For the Time Zone Setting, there are 8 time zones to be selected: AST, NST, EST, CST, MST, PST, AKT, HAT. Set the Time Zone to your area for the hours to be correct.

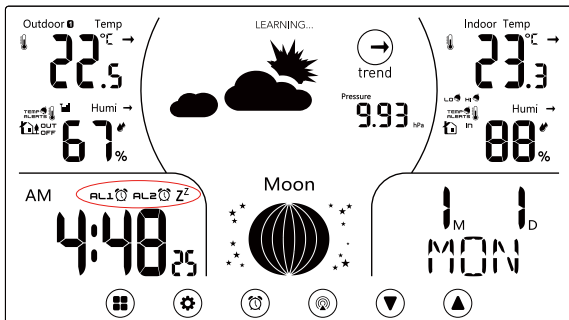
8 SET ALARM TIME

1. In Normal display, press  twice switching to the alarm time display.
2. Press and hold  over 2s to enter alarm time set mode, alarm 1 is starting to set.
3. Alarm 1 hour is flashing, press and release  and  to adjust the values. Hold to adjust quickly.
4. Press and release  to confirm and move to set alarm 1 minute.
5. Alarm 1 minute is flashing, press and release  and  to adjust the values. Hold to adjust quickly.
6. Press and release  to confirm and move to set alarm 2 hour.
7. Alarm 2 hour is flashing, press and release  and  to adjust the values. Hold to adjust quickly.
8. Press and release  to confirm and move to set alarm 2 minute.
9. Alarm 2 minute is flashing, press and release  and  to adjust the values. Hold to adjust quickly.
10. Press and release  to confirm and exit the alarm setting and return to normal display.



8.1 DEACTIVATE/ACTIVATE ALARM


In Normal display, press  to deactivate or activate the alarm.
The alarm icon (bell) will show when active.



8.2 ALARM SETTING ORDER

AL1 on → AL2 on → AL1 & AL2 on → AL1 & AL2 off.






9 SNOOZE

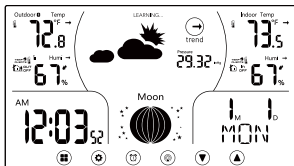
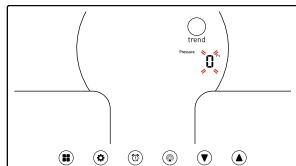
When the alarm rings, press  **Zz** button to pause the alarm for 5 minutes.
The alarm icon (bell) and Zz icon keep flashing.
Press any button except to silence alarm for 24 hours.

10 ATTITUDE SETTING FOR PRESSURE


Usually the pressure varies with the different altitude, therefore altitude setting is necessary in order to make the pressure compensation. The default altitude is 0.

10.1 TO SET THE ALTITUDE

1. In Normal display, press  three times switching to the altitude setting mode.
2. Press and hold  over 2s to enter altitude set mode, altitude value will be flashing.
3. Press and release  and  to adjust the values. Hold to adjust quickly.
4. Press and release  to confirm and exit the altitude setting and return to normal display.











Notice:

During altitude setting, press  to switch the altitude unit between ft and m. When the altitude is switched to meters, the pressure unit will change to hpa correspondingly.

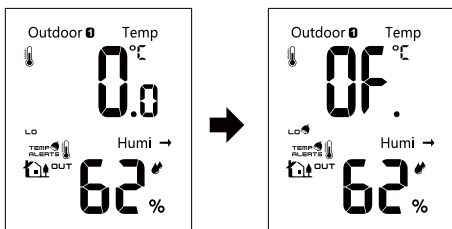
11 INDOOR & OUTDOOR TEMPERATURE ALERT

First you will arm the alert you wish to set, then you set the alert value. If an alert is not armed (OFF), you will skip that alert value and move to arm the next alert.

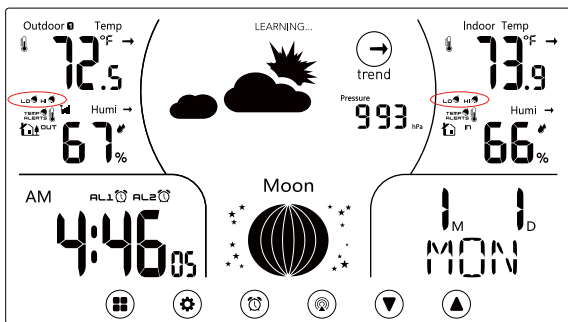
1. To set the indoor & outdoor temperature alert, in Home display, press  four times switching to the indoor & outdoor temperature/humidity display.
2. Press and hold  over 2s to enter alert set mode, outdoor low temperature alert value will be flashing.
3. Press and release  and  to adjust the values. Hold to adjust quickly.
4. Press and release  to confirm and move to set outdoor low temperature alert on/off.
5. Press and release  and  to set alert on/off.
6. Press and release  to confirm and move to next alert.

11.1 ALERT SETTING ORDER

- Outdoor LOW Temperature Value
- Outdoor LOW Temperature ON/OFF
- Outdoor HIGH Temperature Value
- Outdoor HIGH Temperature ON/OFF
- Indoor LOW Temperature Value
- Indoor LOW Temperature ON/OFF
- Indoor HIGH Temperature Value
- Indoor HIGH Temperature ON/OFF





When the corresponding alerts turn on, the alert bell icon will be shown on the display.

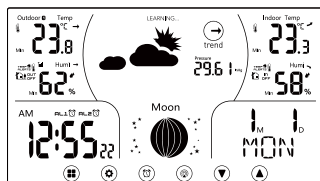
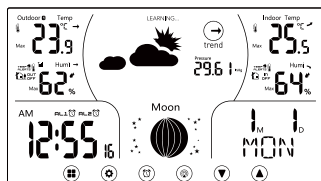


12 DAILY HI/LO DATA



All HI/LO temperature/humidity records will be reset automatically at 12:00 (midnight) when the corresponding alerts turn on, the alert bell icon will be shown on the display.

For Normal display, press and release  to view:

- Maximum indoor & outdoor temperature & humidity.
- Minimum indoor & outdoor temperature & humidity.
- For Normal display, press and release  to reset maximum/ minimum temperature and humidity values.






13 BACKLIGHT

- When operating with the power cable, there are 3 levels of brightness for adjustment.
- Press  **zz** to adjust backlight.
- When operating on batteries only, the backlight will come on shortly (about 5 seconds) when  **zz** is pressed.

14 TEMPERATURE TREND ARROWS

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
		

15 HUMIDITY TREND ARROWS

The humidity trend indicators update with every 15 minutes and look back over the past hour.

- Change in humidity (5% RH)




Humidity has risen > 5% in the past hour	Humidity has not changed more than 5% in the past hour	Humidity has fallen < 5% in the past hour
		

16 PRESSURE READING & PRESSURE TREND ARROWS

- The real time pressure value indicates on the display.
- The historical bar chart shows the past 12 hours pressure change.

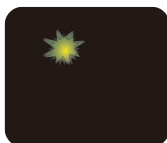
The pressure trend indicators update with every 15 minutes and look back over the past hour.

- Change in pressure (0.06 inHg/2 hPa)

Pressure has risen > 0.06 inHg/2 hPa in the past hour	Pressure has not changed more than 0.06 inHg/2 hPa in the past hour	Pressure has fallen < 0.06 inHg/2 hPa in the past hour
		

17 WEATHER FORECASTING ICONS

- The weather station offers 5 forecast icons based on barometric pressure.



Sunny



Partly Sunny



Cloudy



Light Rain



Light Snow





Heavy Rain




Heavy Snow

- When the forecast would normally be light rain or heavy rain, and the outdoor temperature is below 32°F, the forecast will show snow.

18 LOW BATTERY INDICATION

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

19 SEARCH FOR OUTDOOR SENSOR

- In Normal display, press and hold  over 2s to search the outdoor temperature/humidity sensor.
- The weather station can support up to 3 sensors with different channels 1/2/3.
- The signal strength icon will animate until the sensor(s) signal is received, or for 5 minutes if no signal available.



20 SWITCH TEMPERATURE UNIT

In Normal display, press and release  to interchange the temperature unit between degree Celsius and degree Fahrenheit.

21 SWITCH READING DISPLAY FOR THE OUTDOOR TEMPERATURE/HUMIDITY SENSOR

- In Normal display, press and release  to interchange the reading display of the outdoor temperature/humidity sensors.
- In cycle display mode, the outdoor temperature/humidity reading will be switched every 3s.

22 IMPORTANT PLACEMENT GUIDELINES

- Mounting under an eave or deck rail works well.
- Mount the remote sensor on the North side where to prevent 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 sensor 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.

23 SPECIFICATIONS

Indoor	<ul style="list-style-type: none">• Temperature Range: 14°F - 122°F (-10°C - 50°C)• Humidity Range: 1 - 99% RH
Outdoor	<ul style="list-style-type: none">• Temperature Range: -40°F - 158°F (-40°C - 70°C)• Humidity Range: 1 - 99% RH <p>Note: Temperature below -4°F require Lithium batteries in the outdoor sensor</p> <ul style="list-style-type: none">• Distance: 330ft (100m)• Transmission frequency: 433MHz

Power	<ul style="list-style-type: none"> • Weather station primary AC-DC power: 5.0V AC-DC adaptor (included) • Battery Backup: 3-AAA, IEC, LR3 batteries • Sensor: 2-AAA, IEC, LR3 batteries
Dimension	<ul style="list-style-type: none"> • Weather station: 7.5 x 0.6 x 5.1 inches • Sensor: 2.5 x 0.6 x 3.9 inches

24 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.
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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

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.

- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

WEATHER STATION

LWS181



✉ support@lfftech.com

Made in China