Digital Wireless Weather Station

OPERATING INSTRUCTION





Base unit: UN0581
Wireless sensor: UN02

If you want to know about our features or support solutions, please let us know! We really hope that owning an Unni Technology product is not only a practical experience, but also a pleasure.
Please email us at: unni_technology@hotmail.com

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Package included

- UN0581 weather station x 1
- UN02 wireless sensor x 1
- Operating instructions

Technical data

Base unit

Model: UN0581
Power supply: 3 x LR03 (AAA) / 1.5 V
Temperature measuring range: 14.2°F ~ 122°F(-9.9°C ~ 50°C)
Resolution: 0.1°F(0.1°C)
Temperature measuring accuracy: +/-0.5°F
Humidity measuring range: 1 % to 99 % relative humidity
Humidity measuring accuracy: +/- 2% with a measuring range of 20% to 80%, +/-4% with measuring range of 1% to 19% and 81% to 99%
Resolution: 1 %
Temperature and humidity data detection and sending period: every 30 seconds
Barometric and weather data detection and sending period: every 1 hour

Wireless sensor

Model: UN02
Batteries: 2 x LR6 (AA) 1.5 V
Temperature measuring range: - 40°F to 158°F(-50°C to 70°C)
Protection type: IPX4: Protection against splash water from all directions
Transmission frequency: 433 MHz
Range: max. 328 ft (100 meters) (in open area)
Temperature and humidity data detection and sending period: every 30 seconds

Note: *With the continuous development and improvement of our products, the design and technology may be changed.*

Product functions

Weather station

• Indoor temperature display in °C/°F
• Indoor and outdoor humidity display
• Outdoor temperature display in °F with up to three wireless sensors at different measurement sites (delivery includes one wireless sensor)
• Minimum/maximum display for temperature and humidity
• Outdoor humidity and temperature trend display
• Weather forecast symbols
• Low battery indicator
• Mold indicator
• Dew-point display
• Heat index

Wireless sensor

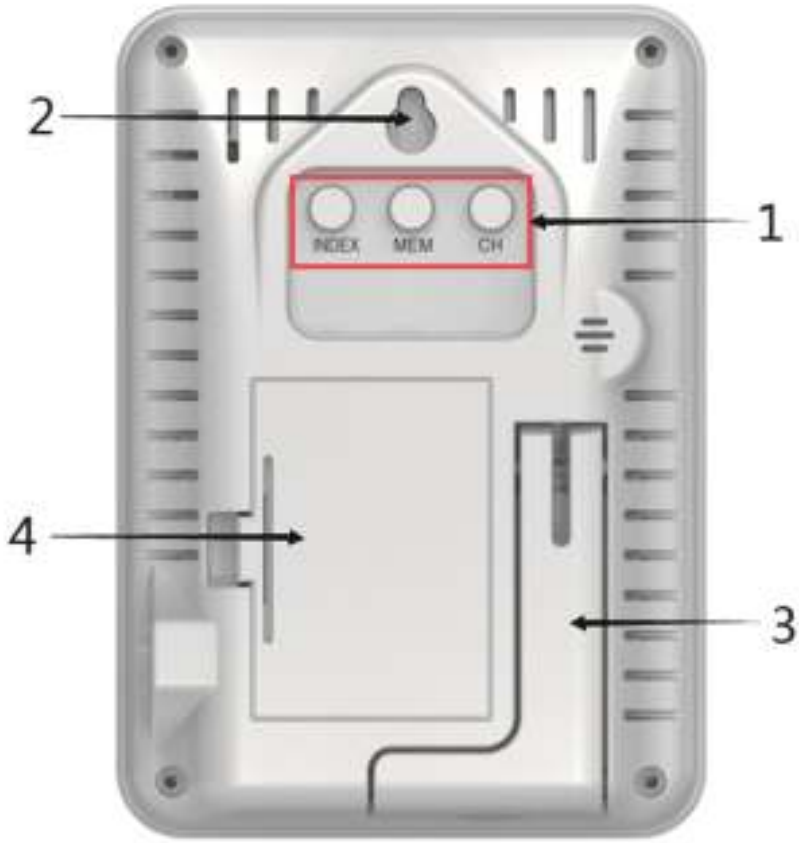
• Range of up to 328 ft (100 meters) (in open area)
• Wall mounting bracket

Overview of weather station

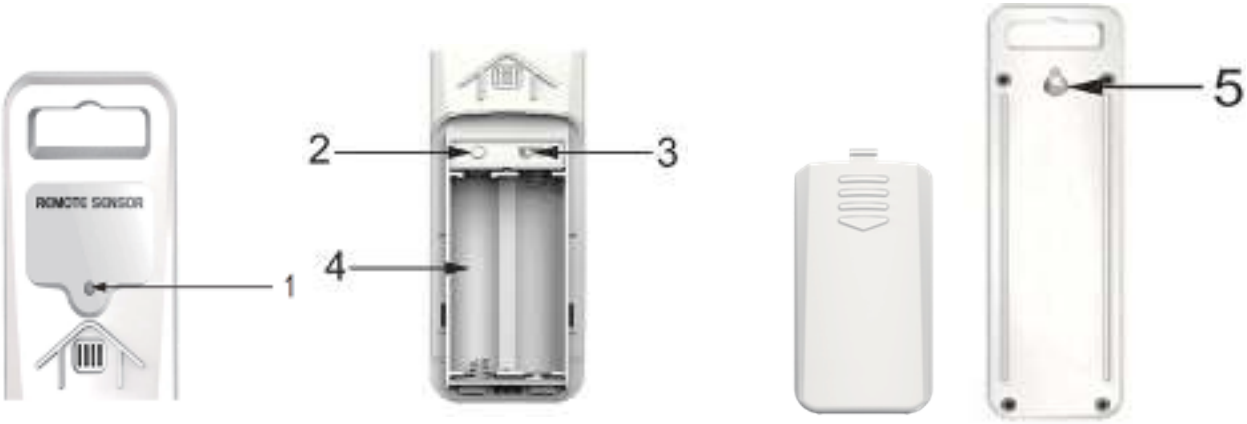


1. Illumination backlight
2. Outdoor temperature
3. Max/Min outdoor temperature/ humidity
4. Outdoor humidity
5. Outdoor humidity trend
6. Outdoor index
7. Indoor humidity
8. Max/Min indoor temperature/ humidity
9. Indoor temperature
10. Dew point
11. Low battery indicator for indoor
12. Weather forecast symbol
13. Outdoor temperature trend
14. Current channel of outdoor sensor
15. Low battery indicator for outdoor

Operating elements and parts of the weather station and wireless sensor



1	Operating buttons
	Button **INDEX** * Switch: mold indicator, dew point, heat index * Hold **INDEX** 2 Seconds: °C/°F switch, set mode for weather symbol
	Button **MEM** * Display stored MAX and MIN values
	Button **CH** * Display weather data from various wireless sensors (channel 1.2.3) * Reconnect wireless sensor connection
2	Hole for wall mounting
3	Detachable stand
4	Battery compartment



1	Red pilot light
2	TX button
3	Sliding switch 1 2 3: Set sensor number (transmission channel)
4	Battery compartment
5	Loop for hanging

Note:
If you are going to use the wireless sensor included in the package, there is no need to change the transmission channel inside the outdoor sensor.
Changing the transmission channel is only necessary when you are going to add additional wireless outdoor sensor. See " How to add extra sensors " on Page 11.

How to set up

Insert batteries

1. Insert 2x AA batteries into the wireless sensor. Pay attention to the correct polarity. While the sensor is transmitting, the red LED indicator will flash.
2. Open the battery compartment of the weather station and insert 3xAAA batteries in the correct polarity. Close the battery compartment.
(Note: The screen will turn off after 10s and you will need to touch the button to activate it.)

Switch temperature unit °C/°F and setting the weather symbol

When the weather station inserts batteries at the first time, it will enter °C/°F temperature unit switch, after that, it enters to the weather symbol setting. You can follow below steps.

1. You will see the °C/°F symbol starts flashing, the default is °F. Press INDEX button to switch °C and °F, press the MEM button to save the setting.
2. After °C/°F temperature unit switch finished, the weather symbol starts flashing, the default is half sunny. It will adjust to the correct symbol automatically. However, if you want to shorten the reception time of the weather station, you can adjust it manually by using the INDEX button.
3. Press the INDEX button repeatedly, the weather symbols will cycle from sunny, partly cloudy, overcast, rain, thunderstorm, snow and snowstorm.
4. Press the MEM button to save the setting.

Pairing the outdoor sensor with the weather station

Once the weather station is installed batteries), it will start receiving the pairing RF signals from the outdoor sensor with the same channel for 3 minutes. You can press the **CH** button on the base unit to match the correct outdoor sensor.
Generally, the outdoor sensor will connect with the base unit automatically. If it doesn't connect, please follow below steps to set:
• Ensure that the weather station is in the same channels with the outdoor sensor.
• Long press the **CH** button on the base unit to search signal from the outdoor sensor.
• The sensor receiving icon will flash when searching for the signal.
• After the sensor is connected, the icon will become stable.
• Your weather station will search for the signal each 3 minutes every hour automatically until it is connected.

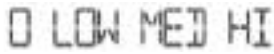
Note: *After replacing the sensor battery, you need to press and hold the CH button of the station to receive again.*

Mold indicator, dew-point display and heat index

Press the **INDEX** button to display the data.
First time press: Mold indicator
Second time press: Dew-point display
Third time press: Heat index

Mold indicator

The mold indicator ("MOLD" on the display) consists of temperature and humidity.

The indicator shows the possibility of mold growth.
Possible indicators: 

Dew-point display

The dew point (“DEW” appears on the display) is the temperature below which dew or mist forms from damp air.
Information:
-If the dew point is below 32°F(0°C), "LL.L" will appear on the display.
-If the dew point is higher than 140°F(60°C), “HH.H” will appear on the display.

Heat index

The heat index (“HEAT” on the display) consists of temperature and humidity, and displays the perceived temperature.
- When the outdoor temperature is below 80°F(26.7°C), displays “ current actual temperature ”.
- When the outdoor temperature is over 80°F(26.7°C), the value will be calculated by software.
- When the outdoor temperature is over 158°F(70°C), displays “ 158°F (70°C)”.

Daily MAX/MIN data

All MAX / MIN temperature/humidity records will reset automatically every 24h.
From normal display, press and release the **MEM** button to view:
- MAX-- indoor and outdoor temperature/ humidity records.
- MIN-- indoor and outdoor temperature/ humidity records.

You can display the measured minimum and maximum values of the current day by pressing the **MEM** button repeatedly in succession in the normal time display mode. Only the maximum values appear, then the minimum values and the current values again.

Note: *Press the MEM button to delete the highest and lowest temperature and humidity values since midnight.*

Other functions

Low battery indicator

If the batteries run too low to power the weather station, the outdoor sensor and signal transmission, the battery level indicator 11 or 15 will

appear on the display. Replace the batteries in all devices as soon as possible. Restart the weather station.

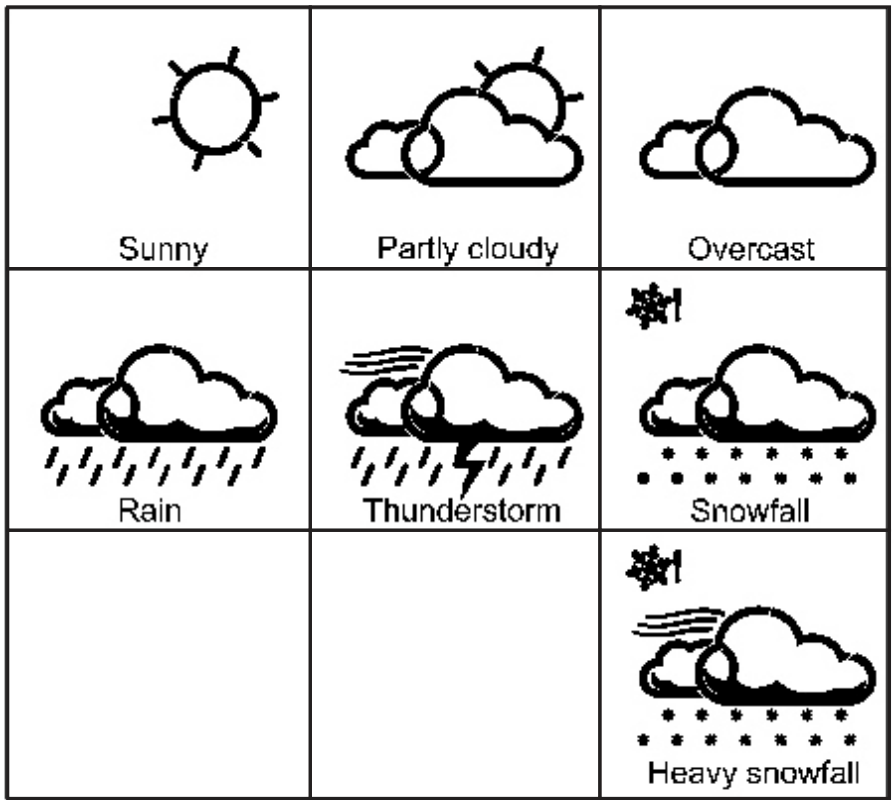
Weather trend

For the temperature and humidity values measured by the wireless sensor, the trend is displayed by an arrow:

Trend	rising	constant	falling
Temperature	▲	➤	▼
Humidity	▲	➤	▼

Weather forecast icons

• The forecast icons are determined by your station's barometric pressure reading. Please allow 7-10 days for calibration.
• 7 forecast icons use changing atmospheric pressure to predict weather conditions for the next 12-hours.
• When Outdoor temperature is below 30.2°F(-1°C) and the forecast shows RAIN or T-STORM, the station will display SNOW.
Currently displayed symbol means the forecast for the next 12 hours. It may not reflect the current state of the weather.
The accuracy of the weather forecast is around 75 %.



Temperature alarm - If the wireless sensor measures a temperature between 33.8 °F(1°C) and 30.2°F(-1°C) , there is a risk of frost and a snowflake symbol ❄! will flash. If the temperature falls below 30.2°F (-1°C) for an extended period of time, the snowflake symbol will be constantly displayed.
Note: Even if the temperature alarm is not displayed, when the temperature is around freezing point, there is generally always a risk of frost and/or black ice. The outdoor sensor can only measure the local temperature in the place where it is installed.

How to add extra sensors

The weather station comes with one wireless sensor. However, you can operate the weather station with up to three wireless sensors. Additional wireless sensors are available in our Amazon online shop.

Note:
1. You need to set different channels for the sensor (1-3). You can set it through pull the stick on near the batteries.
2. Under the corresponding channel displayed on the base unit, press and hold the CH button until the signal icon starts to flash to receive the signal from the newly added sensor.

Where the sensor should be placed

1. Sensor can be hung/placed.
2. Better place it under the porch and eaves.
3. The maximum range of the sensor can reach 328ft in an open area.
4. Make sure that the sensor is vertical so that moisture can be drained correctly.

Note:
• Shielding building materials such as reinforced concrete reduce or prevent the radio reception between the base station and wireless sensor.
• Devices such as televisions, cordless phones, computers and fluorescent tubes can also interfere with the wireless reception.
• Do not place the base unit and wireless sensors directly on the floor. This restricts the range.
• In low temperatures in winter the battery performance of the wireless sensors can be significantly reduced. This reduces the transmitter range.

Where the weather station should be placed

• Pull out the stand and place on a flat surface.
• Or use the hanging holes on the back to mount on a wall.
• Choose a location 6 feet or more away from electronics such as cordless phones, gaming systems, televisions, microwaves, routers, etc.
• Place within range of the outdoor sensors (330 ft, 100m open air).
• Obstacles such as walls, windows, stucco, concrete, and large metal objects can reduce the range.

Resetting the weather station

If the base station appears to display incorrect values, you should reset the weather station to the factory settings.
a. Take the batteries out of the outdoor sensor and weather station.
b. Put batteries back in the outdoor sensor and weather station.
c. Put them together within a couple feet for about 20 minutes for a strong connection.

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 when it is not used for an extended period of time.
• Promptly remove expired batteries.

Safety

Read the following advice carefully and store these operating instructions in case you want to reread something later. If you give the item to someone else, give them these operating instructions as well.

• This device may be used by children over 8 years of age and over, as well as by persons with reduced physical, sensory or mental abilities, or lack of experience and / or knowledge if they are supervised or instructed regarding the safe use of the equipment and have understood the resulting hazards.
• Keep the device away from children under the age of 8.
• Cleaning and user maintenance may not be carried out by children unless they are supervised.
• Children must be supervised to make sure that they do not play with the device.
• The device must not be immersed in water or other liquids. Electric shock hazard! Do not use the device in areas where it may be wet, such as a sink.

Unpacking and checking

1. Remove the device from the packaging, remove all protective films and keep the packaging materials out of the reach of children.
2. Dispose of the materials separately according to type.
3. Check that all the items that should be included in the delivery are present and whether the weather station displays any damage.

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

Disclaimers

Manufacturer reserves the right to change specifications of the product. Manufacturer and supplier are not responsible for malfunction where interference occurs.

Trouble shooting

Problem	Possible Solution
Outdoor temperature is showing dashes Replace battery	Dashes is generally an indication of wireless interference. a. Take the batteries out of the outdoor sensor and weather station. b. Put batteries back in the outdoor sensor and weather station. c. Put them together within a couple feet for about 20 minutes for a strong connection.
Display screen not working	Check the battery polarity or battery level.
Accuracy of temperature and humidity	1. When unpacking for the first time, the weather station and sensor are sealed for a long time, and it takes 1-2 hours to balance with the current ambient temperature. 2. Keep away from heat. 3. When comparing with other thermometers, it should be placed in the same position and allowed to stand for 1-2 hours. This is very important.
Inaccurate temperature or humidity	To ensure accurate temperature measurement, place units out of direct sunlight and away from any heat sources or vents.

Warranty and support

Unni Technology, Ltd. provides a 1-year limited time warranty (from date of purchase) on this product relating to manufacturing defects in materials & workmanship.
Before returning a product, please contact our friendly customer support with questions: Unni_technology@hotmail.com