



## Indoor / Outdoor Thermometer with Ice Alert Model: EW91

### USER MANUAL

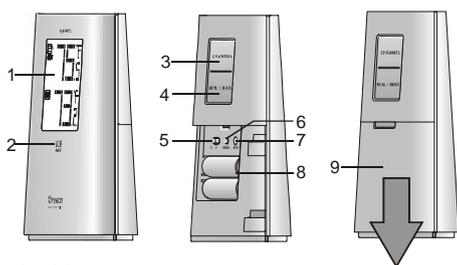
Thank you for your purchase of this Indoor / Outdoor Thermometer. Please read these instructions carefully and keep the manual well for future reference.

The receiver unit has a clear display that shows the indoor temperature, the maximum & minimum temperature records in the past 24 hours as well as the outdoor temperature measured and transmitted from the remote sensors. It is able to receive and display readings from up to 3 remote sensors.

The 433 MHz technology means no wire installation is required and you can place the sensor within 30m (100ft) from the main (indoor) unit.

### OVERVIEW

#### RECEIVER

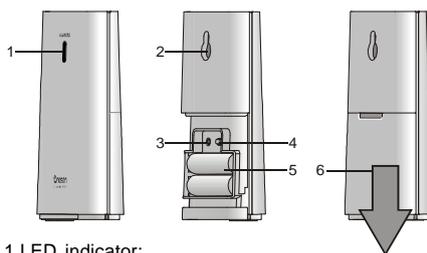


- LCD display:**
  - Displays the outdoor and indoor temperature records, the current channel and the low battery indicator.
- Ice Alert indicator light:**
  - Flashes when the outdoor temperature is between  $-2.0^{\circ}\text{C}$  ( $28^{\circ}\text{F}$ ) and  $3.0^{\circ}\text{C}$  ( $37^{\circ}\text{F}$ ).
- CHANNEL key:**
  - Press it once to turn on the backlight for 5 seconds, and press it again to switch among Channel 1, 2 and 3.
  - Press it once to turn on the backlight for 5 seconds, and then press and hold it for 2 seconds to view the channels automatically.
  - When the channels are being shown automatically, press it to exit the automatic display mode.
- MIN./MAX. key:**
  - Press it once to turn on the backlight for 5 seconds, and then press it again to show the minimum and maximum temperature records in the past 24 hours.
  - Press and hold it for 3 seconds to delete the minimum and maximum temperature records.
- $^{\circ}\text{C}/^{\circ}\text{F}$  slide switch:**
  - Slide it to switch between Celsius and Fahrenheit.
- SENSOR key:**
  - Press it once to search a sensor.
  - During the reception period, press and hold it for 3 seconds to stop the reception.
- RESET key:**
  - Press it to return all values to default values.
  - In case of malfunction, the unit may be required to reset.
- BATTERY COMPARTMENT:**
  - Accommodates 2 AAA size batteries.
- BATTERY DOOR**

#### LCD DISPLAY

- Signal indicator
  - Channel
  - Outdoor temperature
  - Low battery indicator
  - Min and Max temperature
  - $^{\circ}\text{C}$  &  $^{\circ}\text{F}$
  - Indoor temperature
- 

#### REMOTE SENSOR



- LED indicator:**
  - Flashes when the remote unit sensor a reading.
- Wall-mounting holder:**
  - Supports the sensor on the wall.
- RESET key:**
  - Press it to restart the sensor and return all values to default values.
- CHANNEL slide switch:**
  - Assign the sensor to channel 1, 2 or 3.
- BATTERY COMPARTMENT:**
  - Accommodates 2 AAA size batteries.
- BATTERY DOOR**

#### RECEPTION OF SENSOR SIGNAL

#### OPERATING THE TEMPERATURE STATION

- Remove the battery door and insert 2 new AAA size batteries as per the polarity information marked on the battery compartment.
- Press "RESET" key to restart the main unit.
- Slide " $^{\circ}\text{C}/^{\circ}\text{F}$ " switch to select between  $^{\circ}\text{C}$  and  $^{\circ}\text{F}$ .
- Slide the battery door back on.
- Press "CHANNEL" key to select the desired channel.

|  |   |
|--|---|
|  | Main unit is searching for the sensor(s) (the icon will be flashing)                                  |
|  | The sensor(s) cannot be found   |
|  | Sensor 1 has been found (the icon will be displayed, but won't flash)                                 |
|  | The sensor(s) cannot be found after operating the main unit for 15 minutes (Outdoor temperature Area) |

**Note** When the sensor signal is received, the icon "⏸" will be displayed on the LCD.

#### OPERATING THE SENSOR

- Remove the battery door and slide the "CHANNEL" switch to **CH 1**. (When using additional sensors, make sure each sensor is assigned a different **CHANNEL** number.)
- Insert 2 new AAA batteries, matching polarities (+/-).
- Press the "RESET" key
- Slide the battery door back on.

#### Note

- Place the sensor in location away from direct sunlight and rain.
- Do not place the sensor more than 30 m (100 ft) from the main (indoor) unit.
- Position the sensor so that it faces the main (indoor) unit, minimizing obstructions such as doors, walls, and furniture.
- Place the sensor in a location with a clear view to the sky, away from metallic or electronic objects.
- Position the sensor closer to the main unit during cold winter months as below-freezing temperatures may affect battery performance and signal transmission.

Tip the transmission range may vary depending on many factors. You may need to experiment with various locations to get the best results.

Standard Alkaline batteries contain significant amounts of water. Because of this they will freeze in low temperatures of approximately  $-12^{\circ}\text{C}$  ( $10^{\circ}\text{F}$ ). Disposable Lithium batteries have a much lower threshold for temperature with an estimated freezing range of below  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ).

Wireless ranges can be impacted by a variety of factors such as extremely cold temperatures. Extreme cold may temporarily reduce the effective range between the sensor and the base station. If the unit's performance fails due to low temperature, the unit will resume proper functioning as the temperature rises to within the normal temperature range (i.e. no permanent damage will occur to the unit due to low temperatures).

#### USING THE BACKLIGHT FUNCTION

In normal mode, press "CHANNEL" or "MIN./MAX." key once to activate the backlight for 5 seconds.

#### SWITCHING BETWEEN $^{\circ}\text{C}$ & $^{\circ}\text{F}$ TEMPERATURE FORMATS

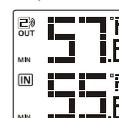
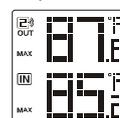
Slide " $^{\circ}\text{C}/^{\circ}\text{F}$ " switch to select between Celsius and Fahrenheit.

#### VIEWING THE MINIMUM AND MAXIMUM TEMPERATURE RECORDS

- In normal mode, press "MIN./MAX." key twice to show the minimum indoor & outdoor temperature records in the past 24 hours.
- Press it again to show the maximum temperature records.
- Press it again to exit.

**Note** Press and hold it for 3 seconds to delete the minimum and maximum temperature records.

MAX.temperature records MIN.temperature records



#### USING ICE ALERT FUNCTION

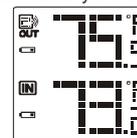
If the outdoor temperature range is  $-2.0^{\circ}\text{C}$   $\sim$   $3.0^{\circ}\text{C}$  ( $28^{\circ}\text{F}$   $\sim$   $37^{\circ}\text{F}$ ), the Ice Alert indicator light will be turned on and flash.

#### BATTERY REPLACEMENT

If the low battery indicator "" displays beside the outdoor temperature, it means that the battery power of sensor is not enough, and you should replace with 2 AAA size batteries at once.

While if the low battery indicator "" displays beside the indoor temperature, it indicates that you should replace batteries of the main unit with 2 new AAA size batteries.

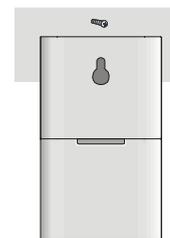
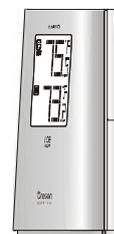
Low battery indicator



**Note** Attention! Please dispose of the used unit or batteries in an ecologically safe manner.

#### PLACEMENT OF MAIN UNIT AND SENSOR

For the sensor, place the screw on the desired wall and hang the sensor by the recessed hole in the back of it or simply place it on the desktop. For the main unit, you can just place it on the table by itself.



## SPECIFICATIONS

| TYPE                        | DESCRIPTION                                 |
|-----------------------------|---|
| <b>MAIN UNIT</b>            |   |
| L x W x H                   | 70 x 30 x 109 mm<br>(2.76 x 1.18 x 4.29 in) |
| Weight                      | 111g  |
| Signal frequency            | 433 MHz                                     |
| Temperature range           | -5°C to 50°C (23°F to 122°F)                |
| Temperature resolution      | 0.1°C (0.2°F)                               |
| Ice alert temperature range | 3°C to -2°C<br>(37°F to 28°F)               |
| Power                       | 2 x AAA 1.5V batteries                      |
| <b>REMOTE UNIT (EW-99)</b>  |   |
| L x W x H                   | 58 x 23 x 100 mm<br>(2.28 x 0.9 x 3.94 in)  |
| Weight                      | 52g   |
| Signal frequency            | 433 MHz                                     |
| Number of channel           | 3   |
| Transmission range          | 30 m (98 ft) unobstructed                   |
| Temperature range           | -20°C to 60°C (-4°F to 140°F)               |
| Power                       | 2 x AAA 1.5V batteries                      |

**Note** We recommend that you use alkaline batteries with this product for longer usage and lithium batteries in temperatures below freezing.

## PRECAUTIONS

- Do not subject the unit to excessive force, shock, dust, temperature or humidity.
- Do not cover the ventilation holes with any items such as newspapers, curtains etc.
- Do not immerse the unit in water. If you spill liquid over it, dry it immediately with a soft, lint-free cloth.
- Do not clean the unit with abrasive or corrosive materials.
- Do not tamper with the unit's internal components. This invalidates the warranty.
- Only use fresh batteries. Do not mix new and old batteries.
- Images shown in this manual may differ from the actual display.
- When disposing of this product, ensure it is collected separately for special treatment and not as normal household waste.
- Placement of this product on certain types of wood may result in damage to its finish for which Oregon Scientific will not be responsible. Consult the furniture manufacturer's care instructions for information.
- The contents of this manual may not be reproduced without the permission of the manufacturer.
- Do not dispose old batteries as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
- Please note that some units are equipped with a battery safety strip. Remove the strip from the battery compartment before first use.

**Note** The technical specifications for this product and the contents of the user manual are subject to change without notice.

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## 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.

## DECLARATION OF CONFORMITY

The following information is not to be used as contact for support or sales. Please visit our website at [www2.oregonscientific.com/service/support](http://www2.oregonscientific.com/service/support) for all inquiries.

### We

Name: Oregon Scientific, Inc.  
Address: 19861 SW 95th Ave., Tualatin,  
Oregon 97062 USA

### Declare that the product

Product No.: EW91  
Product Name: Indoor / Outdoor Thermometer with Ice Alert  
Manufacturer: IPM Concepts Limited  
Address: Block C, 9/F, Kaiser Estate,  
Phase 1, 41 Man Yue St.,  
Hung Hom, Kowloon,  
Hong Kong  
Telephone No.: 1-800-853-8883

is in conformity 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.

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