Digital Thermometer with Ice Alert and Clock
Model: RAR681

USER MANUAL

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INTRODUCTION
Thank you for selecting the Oregon Scientific™ Digital Thermometer with Ice Alert and Clock (RAR681). The main unit can support up to 3 sensors. To purchase additional sensors, please contact your local retailer.

NOTE Please keep this manual handy as you use your new product. It contains practical step-by-step instructions, as well as technical specifications and warnings you should know about.

OVERVIEW
FRONT VIEW

1. Sensor low battery warning
2. Outdoor temperature trend icon
3. Hi / lo alarm is displayed
4. Ice warning is active
5. Channel number and sensor reception status
6. Maximum / minimum outdoor temperature reading
7. Outdoor temperature reading
8. Alarm is set
9. Alarm is displayed
10. 12-hour clock
11. Indoor temperature display icon
12. Indoor temperature trend icon
13. Main unit low battery warning
14. Maximum / minimum indoor temperature reading
15. Indoor temperature reading
16. Time, alarm and date
GETTING STARTED

POWER

Insert batteries before first use, matching the polarity (+ and -).

REMOTE SENSOR (THN132N)

1. LED indicator
2. Wall mount
3. Battery compartment
4. Battery door
5. Table stand
6. CHANNEL switch

BACK VIEW

1. TEMP HI / LO : Change settings or enable / disable hi or lo temperature alarm for channel 1
2. ▲ / ▼: Increase / decrease setting
3. CHANNEL: Switch remote sensor display
4. MODE: Change settings / display
5. ALARM: View alarm status; set alarm
6. Battery compartment
7. MEM: View current, maximum and minimum temperature
8. °C / °F: Select temperature unit °C / °F
9. RESET: Reset unit to default settings

GETTING STARTED

POWER

Insert batteries before first use, matching the polarity (+ and -).
NOTE  Install batteries in the remote sensor before the main unit. Press RESET after each battery change. Do not use rechargeable batteries. We recommend that you use alkaline batteries with this product for longer usage and lithium batteries in temperatures below freezing.

shows when batteries are low.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>Indoor temperature area</td>
</tr>
<tr>
<td>Remote</td>
<td>Outdoor temperature area</td>
</tr>
</tbody>
</table>

REMOTE SENSOR

The sensor collects temperature readings approx. every 40 seconds and sends them to the main unit. The main unit can collect data from up to 3 sensors.

To set up the sensor:
1. Slide open the battery door.
2. Insert the batteries, matching the polarity (+ / -). Press RESET after each battery change.
3. Select a channel. Make sure you use a different channel for each sensor.
4. Close the battery compartment.
5. Secure the sensor in the desired location using the wall mount or table stand.

For best results:
- Place the sensor out of direct sunlight and moisture.
- Do not place the sensor more than 30 meters (100 feet) 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 close to the main unit during cold winter months as below-freezing temperatures may affect battery performance and signal transmission.

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°C (10°F). Disposable Lithium batteries have a much lower threshold for temperature with an estimated freezing range of below -30°C (-22°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).

**SENSOR DATA TRANSMISSION**

The reception icon in the outdoor temperature area shows the status.

<table>
<thead>
<tr>
<th>ICON</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Icon" /></td>
<td>Main unit is searching for the sensor(s)</td>
</tr>
<tr>
<td><img src="image2" alt="Icon" /></td>
<td>A channel has been found and sensor signal is being received</td>
</tr>
<tr>
<td><img src="image3" alt="Icon" /> and -.-.- (Outdoor temperature area)</td>
<td>The sensor cannot be found. Search for the sensor or check batteries</td>
</tr>
</tbody>
</table>

**To search for a sensor:**
Simultaneously, press and hold **MEM** and **CHANNEL** for 2 seconds.

**NOTE** If the sensor is still not found, check the batteries, obstructions, and remote unit location.

**CLOCK**

**To set the clock:**
1. Press and hold **MODE** for 2 seconds.
2. Press ▲ and ▼ to change the settings.
3. Press **MODE** to confirm.
4. The setting sequence is: 12 / 24 hour format, hour, minute, year, date / month format, month, date, and display language.

**NOTE** The language options are (E) English, (F) French, (D) German, (I) Italian and (S) Spanish.
To switch the clock display:
Press MODE to toggle between:
• Clock with seconds
• Clock with day
• Calendar

ALARMS

To set the alarm:
1. Press ALARM to view the alarm. (●) will show on the display.
2. Press and hold ALARM for 2 seconds.
3. Press ▲ or ▼ to change the hour / minute settings.
4. Press ALARM to confirm.

To activate or deactivate the alarm:
Press ALARM when in the alarm display. ⏰ appears when the alarm is set.

To silence the alarm and reset it for the next day:
Press ALARM.

TEMPERATURE

To toggle the temperature unit:
Press °C / °F.

To view outdoor sensor temperature readings:
Press CHANNEL.
• 🌞 shows which remote sensor’s data you are viewing.
• 🌠 is permanently displayed in the indoor temperature area.

To auto-scan between sensors:
Press and hold CHANNEL for 2 seconds. Each sensor’s data is displayed for 3 seconds.

To end auto-scan:
Press CHANNEL or MEM.

To toggle between current, minimum and maximum records for the selected sensor:
Press MEM repeatedly.

To clear the records:
Press and hold MEM for 2 seconds.

TEMPERATURE TREND

Recent indoor / outdoor temperature trends are shown by the trend icon.

<table>
<thead>
<tr>
<th>RISING</th>
<th>STEADY</th>
<th>FALLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬅️</td>
<td>⏯️</td>
<td>⬅️</td>
</tr>
</tbody>
</table>

ICE WARNING

If the channel 1 sensor falls between 3°C to -2°C (37°F to 28°F), ⛄️ flashes to warn you that the temperature is approaching freezing.

NOTE The warning will automatically stop if the temperature goes outside the ice-warning range.
HI / LO TEMPERATURE ALARM

An alarm can be set to sound if the sensor set to channel 1 records above or below a temperature of your choice.

To set alarm ON / OFF:
1. Press and hold TEMP HI / LO.
2. Use ▲ or ▼ to select high temperature, press TEMP HI / LO to confirm.
3. Use ▲ or ▼ to select low temperature, press TEMP HI / LO to confirm.
4. Press to activate or deactivate the high / low temperature alarm.

To silence the hi / lo temperature alarm:
Press any key. The alarm resets automatically and will resound if the hi / lo temperature is exceeded again.

RESET

Press RESET to return the main unit to the default settings. To reset the sensor, remove and then re-insert the batteries.

PRECAUTIONS

This product is engineered to give you years of satisfactory service if you handle it carefully. Here are a few precautions:
• 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 subject the unit to excessive force, shock, dust, temperature or humidity, which may result in malfunction, shorter electronic life span, damaged battery and distorted parts.
• Do not tamper with the unit’s internal components. Doing so will invalidate the warranty on the unit and may cause unnecessary damage. The unit contains no user-serviceable parts.
• Only use fresh batteries as specified in the user’s instructions. Do not mix new and old batteries.
• Do not use rechargeable batteries.
• Remove batteries when storing the product for a long time.
• Due to printing limitations, the displays shown in this manual may differ from the actual display.
• The contents of this manual may not be reproduced without the permission of the manufacturer.
• Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

NOTE: The technical specifications for this product and the contents of the user manual are subject to change without notice.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main unit</strong></td>
<td></td>
</tr>
<tr>
<td>Dimensions (L x W x D)</td>
<td>86 x 79 x 53 (mm) 3.4 x 3.1 x 2.1 (in)</td>
</tr>
<tr>
<td>Weight</td>
<td>80 g (2.82 oz) without battery</td>
</tr>
<tr>
<td><strong>Remote unit</strong></td>
<td></td>
</tr>
<tr>
<td>Dimensions (L x W x D)</td>
<td>96 x 50 x 22 mm (3.8 x 2.0 x 0.9 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>62 g (2.22 oz) without battery</td>
</tr>
<tr>
<td><strong>Temperature unit – °C / °F</strong></td>
<td></td>
</tr>
<tr>
<td>Indoor range</td>
<td>-5°C to 50°C (23°F to 122°F)</td>
</tr>
<tr>
<td>Outdoor range</td>
<td>-30°C to 60°C (-22°F to 140°F)</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1°C (0.2°F)</td>
</tr>
</tbody>
</table>

### Power
- **Main unit**: 2 x UM-4 (AAA) 1.5V batteries
- **Remote unit**: 1 x UM-3 (AA) 1.5V battery

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

### ABOUT OREGON SCIENTIFIC

Visit our website ([www.oregonscientific.com](http://www.oregonscientific.com)) to learn more about Oregon Scientific products such as digital cameras; MP3 players; children’s electronic learning products and games; projection clocks; health and fitness gear; weather stations; and digital and conference phones. The website also includes contact information for our Customer Care department in case you need to reach us, as well as frequently asked questions and customer downloads.

We hope you will find all the information you need on our website, however if you’re in the US and would like to contact the Oregon Scientific Customer Care department directly, please visit: [www2.oregonscientific.com/service/default.asp](http://www2.oregonscientific.com/service/default.asp)
OR
Call 1-800-853-8883.

For international inquiries, please visit: [www2.oregonscientific.com/about/international.asp](http://www2.oregonscientific.com/about/international.asp)
EU-DECLARATION OF CONFORMITY

Hereby, Oregon Scientific, declares that the Digital Thermometer with Ice Alert and Clock (Model RAR681) is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

A copy of the signed and dated Declaration of Conformity is available on request via our Oregon Scientific Customer Service.

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 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 call our customer service number (listed on our website at www.oregonscientific.com), or on the warranty card for this product) for all inquiries instead.

COUNTRIES RTTE APPROVAL COMPLIED
All EU countries, Switzerland CH and Norway N
We
Name: Oregon Scientific, Inc.
Address: 19861 SW 95th Ave., Tualatin,
Oregon 97062 USA
Telephone No.: 1-800-853-8883

declare that the product
Product No.: RAR681
Product Name: Wireless Indoor / Outdoor
Thermometer
with Digital Clock
Manufacturer: IDT Technology Limited
Address: Block C, 9/F, Kaiser Estate,
Phase 1, 41 Man Yue St.,
Hung Hom, Kowloon,
Hong Kong

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.