Wireless Weather Station
Model: BAR816HG

USER MANUAL

CONTENTS

EN

INTRODUCTION

Thank you for selecting the Oregon Scientific™ Wireless Weather Station (BAR816HG). This powerful device bundles time keeping, weather monitoring, indoor and outdoor temperature and humidity readings, barometric pressure trends and altitude adjustment, into a single tool you can use from the convenience of your home.

In this box, you will find:

- Main unit
- Remote sensor (RTGR328N)
- Batteries

**NOTE** The main unit is compatible with the following sensors:

THGR228N, THGR328N, THR228N, THR328N, THWR288.

Additional sensors are sold separately. Please contact your local retailer for more information.

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.

PRODUCT OVERVIEW

FRONT VIEW
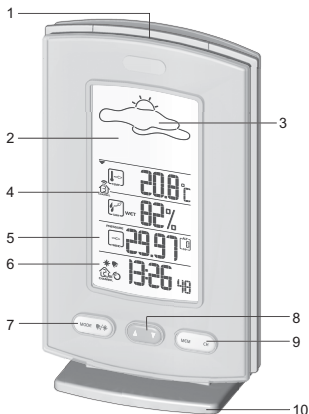
1. **SNOOZE / LIGHT:** Activate 8-minute snooze or backlight
2. LCD display
3. **Weather Forecast Area:** Animated weather forecast
4. **Temperature / Humidity Area:** Readings and trend lines; sensor channel number
5. **Barometer Area:** Barometric pressure readings and trend lines
6. **Clock / Alarm / Calendar Area:** Radio-controlled clock; alarms; calendar
7. **MODE:** Switch areas; change settings / display

   / **:** View alarm status; set alarm
8. **:** Increase setting; toggle between display modes

   : Decrease setting; toggle between display modes
9. **MEM:** View current, maximum and minimum temperature / humidity readings and historical barometer readings

   CH: Switch remote sensor display
10. Table stand
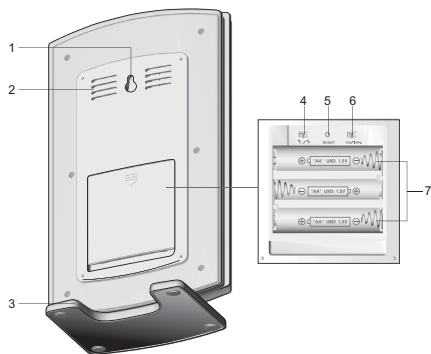
1. Wall mount
2. Ventilation holes
3. Table stand
4. °**C / °F** switch
5. **RESET** button
6. **mb / inHg** switch
7. Battery compartment (cover off)

TABLE STAND AND WALL MOUNT

To fix the table stand on to the base of the main unit:

To mount the unit on the wall:

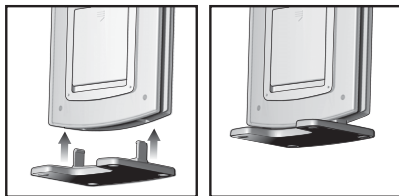**Weather Forecast Area**
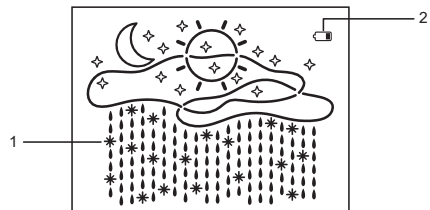
1. Weather display
2. Low battery icon for main unit

Temperature / Humidity Area
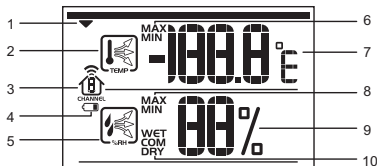
1. Selected Area icon
2. Temperature trend
3. Channel number (1-5) / reception status
4. Low battery icon for remote sensor
5. Humidity trend
6. MAX / MIN temperature
7. Temperature - °C / °F
8. MAX / MIN humidity
9. Humidity
10. Comfort levels

Barometer Area

1. Barometric pressure trend
2. Barometric pressure reading
3. Barometric pressure history

   e.g., -1 means barometric pressure value one hour ago,

   -2 means 2 hours ago etc
4. Barometric unit

Clock / Alarm / Calendar Area

1. Pre-Alarm / Alarm display or setting
2. Pre-Alarm is set
3. Channel with RF clock reception is locked
4. RF clock reception icon
5. Daily Alarm is set
6. Offset time-zone
7. Time / date / calendar

6

THERMO•HYGRO•
RF CLOCK

SENSOR

433MHz CABLE FREE

ALL WEATHER
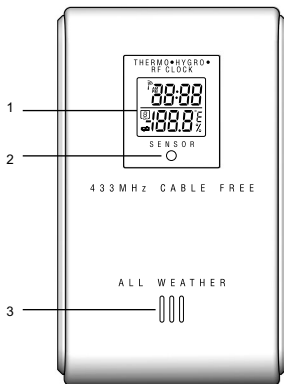
1. LCD display
2. LED status indicator
3. Ventilation duct
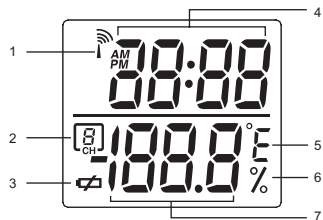
1. Signal reception
2. Channel number
3. Low battery icon
4. Time
5. Temp (°C or °F)
6. Humidity %
7. Temp / Humidity

1
2
3
4
5
6

7

8
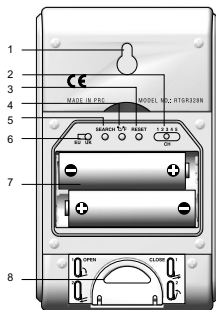
1. Wall mount
2. **CHANNEL** switch (1-5)
3. **RESET**
4. °**C /** °**F**
5. **SEARCH**
6. **EU / UK** radio signal format switch
7. Battery compartment
8. Fold-out stand

GETTING STARTED

BATTERIES

Batteries are supplied with this product:

- Main unit   3 x UM-3 (AA) 1.5V
- Remote unit   2 x UM-3 (AA) 1.5V

Insert batteries before first use, matching the polarity as shown in the battery compartment. For best results, install batteries in the remote sensor before the main unit. Press **RESET** after each battery change.

To install the main unit batteries:
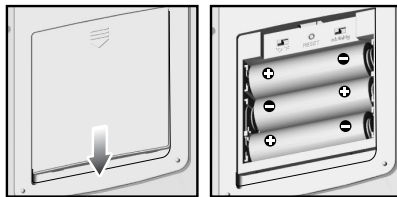
NOTE Do not use rechargeable batteries.

 shows when batteries are low.

8

NOTE It is recommended that you use alkaline batteries with this product for longer performance.

UNIT	LOCATION
Main	Weather Forecast Area
Remote	Temperature / Humidity Area

CHANGE SETTINGS

1. Press **MODE** to switch between Areas. ▼ indicates the selected Area.
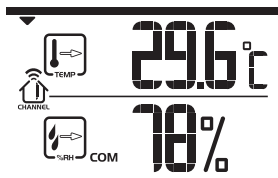
2. Most Areas have alternate display options (for example, Clock / Calendar). Press ▲ or ▼ to switch options, or ◔ / ✳ to switch between clock and alarm.
3. Press and hold **MODE** for 2 seconds to enter setting mode.
4. Press ▲ or ▼ to change settings.
5. Press **MODE** to confirm.

REMOTE SENSOR

This product is shipped with the RTGR328N Thermo / Hygro Sensor. The main unit can collect data from up to 5 Thermo / Hygro Sensors. The main unit is compatible with the following sensors:

THGR228N, THGR328N, THR228N, THR328N, THWR288.

(Additional sensors are sold separately. Contact your local retailer for more information.)

The RTGR328N Sensor collects temperature and humidity readings, and signals from official time-keeping organizations for the radio-controlled clock.

SET UP THERMO / HYGRO SENSOR (RTGR328N)

1. Open the battery compartment with a small Phillips screwdriver.
2. Insert the batteries.
3. Set the channel and radio signal format. The switches are located in the battery compartment.

SWITCH	OPTION
Channel	If you are using more than one sensor, select a different channel for each sensor.
Radio Signal Format	EU (DCF) / UK (MSF)

4. Press **RESET**. Then set the temperature unit.

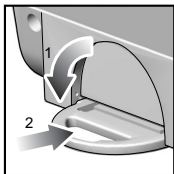| SWITCH	OPTION
Temp	°C / °F

5. Close the battery compartment.

To fold out the stand:

For best results:

• Insert the batteries and select the unit, channel, and radio signal format before you mount the sensor.

• Place the sensor out of direct sunlight and moisture.

• Do not place the sensor more than 70 metres (230 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.

NOTE The transmission range may vary and is subject to the receiving range of the main unit.

You may need to experiment with various locations to get the best results.

SENSOR DATA TRANSMISSION

Data is sent from the sensor(s) every 60 seconds. The reception icon shown in the Temperature / Humidity Area indicates the status.

NOTE	ICON DESCRIPTION
$\widehat{\bigcap} \rightarrow \bigcap \rightarrow \widehat{\bigcap}$	Main unit is searching for sensors.
$\bigcap \rightarrow \widehat{\bigcap} \rightarrow \widehat{\bigcap}$	At least 1 channel has been found.
$\widehat{\underset{\text{CHANNEL}}{\bigcap}}$	Sensor 1 is sending data. (The number shows which sensor is selected.)
— shows in Temp / Humidity Area	The selected sensor cannot be found. Search for the sensor or check batteries.

10

SEARCH FOR SENSOR

To search for a Thermo / Hygro sensor, press **MODE** to navigate to the Temperature / Humidity Area. ▼ will show next to the Area. Then, press and hold **MEM CH** for 2 seconds.

NOTE If the sensor is still not found, check the batteries.

CLOCK AND CALENDAR

This product tracks the time and date based on radio-controlled signals from the RTGR328N remote sensor, or manual settings that you enter.

RADIO-CONTROLLED CLOCK

The time and date are automatically updated by radio-controlled clock signals from official time-keeping organizations in Frankfurt (Germany) and Rugby (England) unless you disable this feature. The signals are collected by the remote sensor (RTGR328N) whenever it is within 1500 km (932 miles) of a signal.

Initial reception takes 2-10 minutes, and is initiated when you first set up the unit, and whenever you press **RESET**. Once complete, the reception icon will stop blinking.

The ⌂ ◔ icon shown in the Clock Area indicates 2 factors:

•   Connection between the main unit and the sensor that collects RF signals (⫲)
•   RF signal reception (◔)

How these signals work together:

ICON	MEANING
⌂ᴄʜᴀɴɴᴇʟ◔	The unit has contact with the sensor and has synchronized the time.
⌂ᴄʜᴀɴɴᴇʟ◯	The unit has contact with the sensor but the time has not been synchronized.
⌂ᴄʜᴀɴɴᴇʟ◔	The unit has lost contact with the remote sensor but the time is synchronized.
⌂ᴄʜᴀɴɴᴇʟ◯	The unit has lost contact with the remote sensor and the time is not synchronized.
⌂ᴄʜᴀɴɴᴇʟ◯	The unit cannot reach the remote sensor.

11

NOTE To force a manual search for RF clock reception, press and hold **SEARCH** on the sensor (RTGR328N) for 2 seconds.

TURN RADIO-CONTROLLED CLOCK ON / OFF

If you wish to manually set the clock, you must first disable the radio-controlled feature. To do this, navigate to the Clock / Alarm Area. Then, press and hold ▼ on the main unit for 2 seconds. To enable it, navigate to the Clock / Alarm Area, then press and hold ▲ for 2 seconds.

RF clock enabled:

RF clock disabled:

SET CLOCK

You only need to do this if you have disabled the radio-controlled clock, or if you are too far from a RF signal.

1. Press **MODE** to navigate to the Clock Area. ▼ will show next to the Area.

2. Press and hold **MODE** for 2 seconds.

3. Select the time zone offset hour (+ / -23 hours), 12 / 24 hour format, hour, minute, year, date / month format, month, date and display language.

4. Press ▲ or ▼ to change the setting.

5. Press **MODE** to confirm.

NOTE The language options are (E) English, (F) French, (D) German, (I) Italian, and (S) Spanish. The language you select determines the weekday display.

SWITCH CLOCK DISPLAY

Press **MODE** to navigate to the Clock Area. ▼ will show next to the Area.

Press ▲ or ▼ to toggle between:

• Clock with seconds
• Clock with day
• Clock with time-zone offset
• Calendar

ALARMS

This product has 2 alarms: The Daily Alarm and a Pre-Alarm for snowy weather. The Daily Alarm can be set to go off at the same time every day. The Pre-Alarm sounds only when the Daily Alarm is activated and the recorded temperature from Channel 1 Sensor falls to 2°C (35.6°F) or below.

SET DAILY ALARM

1. Press **MODE** to navigate to the Clock Area. ▼ will show next to the Area.
2. Press ✆ / ✴ to view the alarm. (**AL** will show at the top.)
3. Press and hold ✆ / ✴ for 2 seconds.
4. Select the hour and minute. Press ▲ or ▼ to change settings.
5. Press ✆ / ✴ to confirm.
6. The Daily Alarm icon ✆ will appear when the alarm is set.

SET PRE-ALARM

The Pre-Alarm can be set to sound 15, 30, 45, or 60 minutes before the Daily Alarm. It will sound whenever the recorded temperature from Channel 1 Sensor falls to 2°C (35.6°F) or below.

For example, if you set the alarm to 7:00 AM, and the Pre-Alarm to 45 minutes, the Pre-Alarm will sound at 6:15 AM provided the outdoor temperature at Channel 1 Sensor is 2°C or below.

1. Set up and activate the Daily Alarm.
2. Press ✆ / ✴ to switch to Pre-Alarm view. (**PRE-AL** will show at the top.)
3. Press and hold ✆ / ✴ for 2 seconds.
4. Press ▲ or ▼ to select 15, 30, 45 or 60 minutes. This is the amount of time the Pre-Alarm will sound BEFORE the Daily Alarm. The Pre-Alarm is automatically activated when you select a time.
5. Press ✆ / ✴ to confirm.

✴ shows when the Pre-Alarm is set.

NOTE The Daily Alarm will NOT function until the next day if the Pre-Alarm has been triggered. Also, if you deactivate the Daily Alarm, the Pre-Alarm is automatically deactivated.

ACTIVATE ALARM

Navigate to the Clock Area, then press ♥ / ✳ to switch to Daily Alarm or Pre-Alarm view. To activate or deactivate the alarm, press ▲ or ▼ .

When the alarm time is reached, the backlight will be on for 8 seconds and crescendo alarm will sound for 2 minutes. Press any key (except snooze) to silence the alarm. It will sound at the same time the next day.

SNOOZE

Press **SNOOZE/LIGHT** to temporarily disable the alarm for 8 minutes. ♥ or ✳ will blink while snooze is on.

BAROMETER

This product tracks fluctuations in barometric pressure to provide the weather forecast, and the current and past 24 hours barometric pressure history measurements are recorded by the main (indoor) unit.

VIEW BAROMETER AREA

Press **MODE** to navigate to the Barometer Area.

SELECT MEASUREMENT UNIT

Slide the **mb / inHg** switch (in the clock battery compartment), to change the display unit.

VIEW BAROMETER HISTORY

Navigate to the Barometer Area. Then press **MEM** repeatedly to scroll through the measurements. The number shown in the HR box indicates how long ago each measurement was taken (e.g. 2 hours ago, 3 hours ago, etc.).

SET ALTITUDE

Set the altitude to match how far above or below sea level you are living. This ensures that the barometric pressure readings are accurate.

1. Navigate to the Barometer Area.

2. Press and hold **MODE** for 2 seconds.

3. Press ▲ or ▼ to set the altitude in 10-metre increments (-100m to 2500m).

4. Press **MODE** to confirm.

WEATHER FORECAST

This product forecasts the next 12 to 24 hours of weather within a 30-50 km (19-31 mile) radius. The forecast is based on barometric pressure trend readings.

The top area shows an animated icon indicating the forecasted weather.

WEATHER FORECAST ICONS

ICON	DESCRIPTION
Day / Night	Clear
Day / Night	Partly cloudy
	Cloudy

ICON	DESCRIPTION
	Rainy
	Snowy

NOTE The night time icon displays from 6 PM to 6 AM. When the Channel 1 sensor records a temperature of 2°C (35.6°F) or lower, the RAINY icon becomes SNOWY.

TEMPERATURE AND HUMIDITY

The weather station can display the following information from any of the 5 remote sensors:

- Current, minimum, and maximum temperatures and relative humidity percentages.
- Comfort level indicator and trend line (rising, falling, or steady).

Data is collected and displayed approximately every 60 seconds.

VIEW TEMPERATURE AND HUMIDITY AREA

Press **MODE** to navigate to the Temperature and Humidity Areas.

Temperature data is given at the top; Humidity is below.
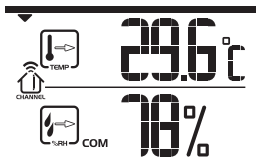
SELECT MEASUREMENT UNIT

Slide the °**C / °F** switch (inside the clock battery compartment), to the setting you want.

SELECT SENSOR CHANNEL

Press **CH** to switch between sensors 1-5.

The house icon shows the selected remote sensor.

• To auto-scan between sensors, press and hold **CH** for 2 seconds. Each sensor's data will be displayed for 3 seconds.

• To end auto-scan, press **CH** or **MEM** with the Temperature / Humidity Area selected.

 NOTE If you select a sensor that collects only temperature data, the humidity will not be shown.

MINIMUM / MAXIMUM RECORDS

• Press **MEM** repeatedly to view current, maximum and minimum records for the selected sensor.

• To clear the records, press and hold **MEM** for 2 seconds. A beep will sound to confirm that the memory has been cleared.

TEMP, HUMIDITY & PRESSURE TREND

TREND	RISING	STEADY	FALLING
TEMPERATURE			
HUMIDITY			
PRESSURE			

16

COMFORT ZONE

The Comfort Zone indicates how comfortable the climate is, based on current temperature and humidity measurements.

ZONE	TEMPERATURE	HUMIDITY
WET	Any	>70%
COM	20-25°C (68-77°F)	40-70%
DRY	Any	<40%

NOTE This information is shown in the Humidity Area when the current measurement is displayed.

BACKLIGHT

Press **SNOOZE / LIGHT** to illuminate the backlight for 8 seconds.

RESET SYSTEM

The **RESET** button is located in the main unit battery compartment. Press **RESET** when you change the batteries and whenever performance is not behaving as expected (for example, unable to establish radio frequency link with remote unit or radio-controlled clock).

NOTE When you press **RESET**, all settings will return to default value, and you will lose all stored information.

SAFETY AND CARE

Clean the product with a slightly damp cloth and alcoholfree, mild detergent. Avoid dropping the product or placing it in a high-traffic location.

WARNINGS

This product is designed to give you years of service if handled properly. Oregon Scientific will not be responsible for any deviations in the usage of the device from those specified in the user instructions or any unapproved alterations or repairs of the product. Observe the following guidelines:

• Never immerse the product in water. This can cause electrical shock and damage the product.

• Do not subject the main unit to extreme force, shock, or fluctuations in temperature or humidity.

• Do not tamper with the internal components.

• Do not mix new and old batteries or batteries of different types.

• Do not use rechargeable batteries with this product.

• Remove the batteries if storing this product for a long period of time.

• Do not scratch the LCD display.

NOTE The technical specification of this product and contents of this user guide are subject to change without notice. Images not drawn to scale.

TROUBLESHOOTING

PROBLEM	SYMPTOM	REMEDY
Barometer	Strange readings	Set altitude / unit
Calendar	Strange date / month	Change language
Clock	Cannot adjust clock	Disable radio-controlled clock
	Cannot auto-synch	1. Adjust batteries 2. Press **RESET** 3. Manually activate radio-controlled clock
Temp	Shows "LLL" or "HHH"	Temperature is out-of-range
Remote sensor	Cannot locate remote sensor	Check batteries

SPECIFICATIONS

Main Unit Dimensions

L x W x H	120 x 67 x 205 mm (4.7 x 2.6 x 8.1 inches)
Weight	364 grams (12.8 ounces) without battery

Remote Unit Dimensions

L x W x H	70 x 24.5 x 116 mm (2.76 x 0.96 x 4.57 inches)
Weight	108 grams (0.24 lbs) without battery

Temperature

Unit	°C or °F
Indoor Range	-5 °C to 50 °C (23 °F to 122 °F)
Outdoor Range	-20 °C to 60 °C (-4 °F to 140 °F)
Resolution	0.1 °C (0.2° F)
Memory	Min / Max

Relative Humidity

Range	25% to 95%
Resolution	1%
Memory	Min / max

Barometer

Unit	mb / hPa or inHg
Resolution	1 mb (0.03 inHg)
Altitude	-100 to 2500 metres (-328 to 8202 feet)
Display	Sunny (day / night), partly cloudy (day / night), cloudy, rainy, snowy

Remote Unit (RTGR328N)

RF frequency	433 MHz
Range	Up to 100 metres (328 feet) with no obstructions
Transmission	Approx. every 1 minute
Channel No.	1, 2, 3, 4 or 5
Unit	°C or °F

Radio-Controlled Clock

Synchronization	Auto or disabled
Clock display	HH:MM:SS
Hour format	12hr AM/PM (MSF format) 24hr (DCF format)
Calendar	DD / MM or MM / DD; Day of the week in 1 of 5 languages (E, G, F, I, S)

Alarm	Daily & Pre-Alarm; 2-minute crescendo
Snooze	8-minute snooze

Power

Main Unit

Batteries	3 x UM-3 (AA) 1.5V

Thermo / Hygro Remote Unit

Batteries	2 x UM-3 (AA) 1.5V

NOTE It is recommended that you use alkaline batteries with this product for longer performance.

ABOUT OREGON SCIENTIFIC

Visit our website (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

OR

Call 1-800-853-8883.

For international inquiries, please visit:

www2.oregonscientific.com/about/international.asp

EU-DECLARATION OF CONFORMITY

Hereby, Oregon Scientific, declares that this Wireless Weather Station (BAR816HG) 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.

$C\epsilon$

COUNTRIES RTTE APPROVAL COMPLIED

All EU countries, Switzerland $\widehat{CH}$
and Norway $\widehat{N}$