Oregon SCIENTIFIC

Weather Station
Model: BAR990HG

USER MANUAL

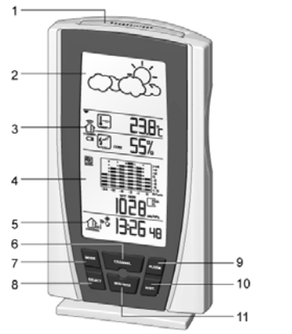
INTRODUCTION

Thank you for selecting the Oregon Scientific™ Weather Station.

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.

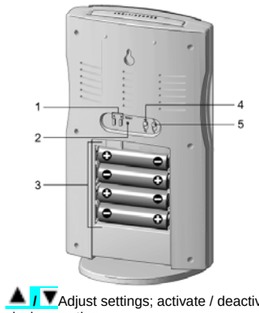
OVERVIEW

FRONT VIEW / LCD DISPLAY



1. **SNOOZE / LIGHT**: Activate 8-minute snooze or backlight
2. Weather Forecast Area
3. Temperature, Humidity and Comfort Zone Area
4. UVI and Barometer Area
5. Clock Area
6. **CHANNEL**: Switch remote sensor display
7. **MODE**: Change settings / display
8. **SELECT**: Switch areas
9. **ALARM**: View alarm status; set alarm
10. **HIST**: View historical barometer and UV readings
11. **MIN/MAX**: View current, maximum and minimum temperature / humidity / UV readings

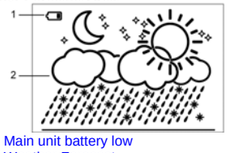
BACK VIEW



1. ▲ / ▼ Adjust settings; activate / deactivate clock reception
2. **RESET**: Reset the unit
3. **Battery compartment**
4. **°C / °F**: Select temperature unit
5. **mb / Hg**: select pressure unit

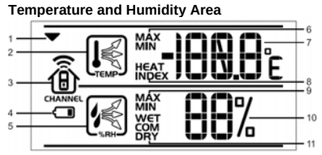
LCD

Weather Forecast Area



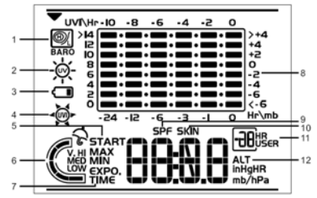
1. Main unit battery low
2. Weather Forecast

Temperature and Humidity Area



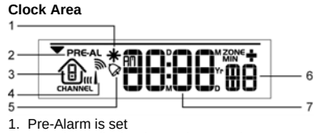
1. Selected Area icon
2. Temperature trend
3. Channel number (1-5) / reception status
4. Low battery icon for remote sensor
5. Humidity trend
6. MAX / MIN temperature
7. Temperature - °C / °F
8. Heat Index
9. MAX / MIN humidity
10. **Humidity**
11. Humidity Comfort levels

UVI / Barometer Area



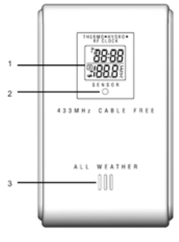
1. Barometric pressure is showing
2. UV is showing
3. Low battery icon for UV sensor
4. UVI value is showing
5. UV exposure time countdown has started.
6. UV index level
7. UV exposure time for user
8. Barometer / UV chart
9. SPF applied to user for UV exposure
10. User skin type for UV exposure
11. User no. (for UV Mode) or hour history for UV / Barometric pressure reading
12. Altitude / barometric pressure / UVI reading

Clock Area

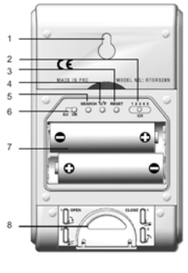


1. Pre-Alarm is set
2. Pre-Alarm display / Pre-Alarm setting
3. Channel with clock reception is locked
4. Clock reception icon
5. Daily Alarm is set
6. Offset time-zone
7. Time / date / calendar

REMOTE SENSOR

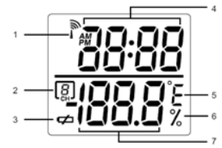


1. LCD display
2. LED status indicator
3. Ventilation duct



1. Wall mount
2. **CHANNEL:** select sensor channel
3. **RESET**
4. **°C / °F:** select temperature unit
5. **SEARCH:** search for clock reception
6. **EU / UK**: select clock signal
7. Battery compartment
8. Stand

REMOTE SENSOR LCD

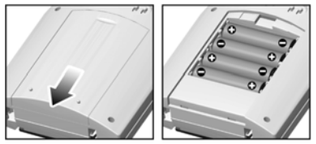


1. Signal reception
2. Channel number
3. Low battery icon
4. Time
5. Temperature unit (°C or °F)
6. Humidity %
7. Temperature / Humidity

GETTING STARTED

BATTERIES

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.



indicates main unit batteries are low.

NOTE 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

UNIT	LOCATION
Main	Weather Forecast Area
Remote sensor	Temperature, Humidity and Comfort Zone Area
UV sensor	UVI and Barometer Area

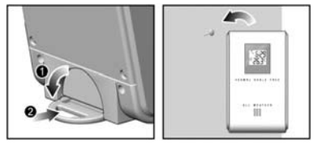
Stand / Wall Mount:

REMOTE SENSOR

SET UP SENSOR

The main unit can collect data from up to 5 Thermo / Hygro Sensors and 1 UV Sensor. (Additional sensors are sold separately. Contact your local stockist for more information.)

To set up the thermo-hygro sensor:
1. Open the battery compartment with a small Phillips screwdriver.
2. Insert the batteries.
3. Slide **CHANNEL** on the sensor to select a channel. Make sure you use a different channel for each sensor.
4. Slide **EU / UK** to your location.
5. Press **RESET**.
6. Close the battery compartment.
7. Secure the sensor in the desired location using the table stand or wall mount.



For best results:
- Place the sensor out of direct sunlight and moisture.
- 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 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

ICON	DESCRIPTION
	Main unit is searching for the sensor(s)
	A channel has been found
	Sensor 1 is sending data
and "- - .-" (Temperature / Humidity display)	The sensor cannot be found. Search for the sensor or check batteries

To search for a sensor:
1. Press **SELECT** to navigate to the Temperature, Humidity and Comfort Zone Area.
2. Simultaneously, press and hold **MEM** and **CH** for 2 seconds.

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

UV SENSOR (OPTIONAL)

Refer to the UV sensor User Manual for information on set-up.

To search for a UV sensor:
1. Press **SELECT** to navigate to UVI and Barometer Area.
2. Simultaneously, press and hold **MEM** and **CH** for 2 seconds.

CLOCK

CLOCK RECEPTION

This product is designed to synchronize its calendar and clock automatically. The sensor collects the data and transmits them to the main unit once it is brought within range of a radio signal:

- DCF-77 generated from Frankfurt, Germany for Central Europe.
- MSF-60 generated from Rugby, England.

The radio signal range is 1500km (932 miles).

CLOCK RECEPTION SIGNAL

Initial reception takes 2-10 minutes for first set up or when **RESET** is pressed. Once complete, the reception icon will stop blinking. If the signal is weak, it can take up to 24 hours to get a valid signal.

ICON	DESCRIPTION
	Connection between main unit and sensor collecting signals
	Sensor signal reception
	Main unit has contacted sensor; time is synchronised
	Main unit has contacted sensor; time is not synchronised
	Main unit has lost contact with sensor; time is synchronised
	Main unit has lost contact with sensor; time is not synchronised
	Main unit cannot contact sensor
No icon	Clock reception disabled

To enable clock signal reception:
1. Press **SELECT** to navigate to the Clock Area.
2. In clock mode, Press and hold ▲ for two seconds.

To disable clock signal reception:
1. Press **SELECT** to navigate to the Clock Area.
2. In clock mode, Press and hold ▼ for two seconds.

SET CLOCK

You only need to do this if you have disabled the clock signal reception or are out of range.

1. Press **SELECT** to navigate to the Clock Area.
2. Press and hold **MODE** for 2 seconds.
3. Press ▲ or ▼ to change the setting.
4. Press **MODE** to confirm.
5. The setting order is: time zone offset hour (+ / -23 hours),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.

DISPLAY

Press **SELECT** to navigate to the Clock Area, then press **MODE** to toggle display between:
- Clock with seconds
- Clock with day
- Clock with time-zone
- Calendar

ALARM

This product has 2 alarms: The daily alarm and a pre-alarm for snowy weather.

SET DAILY ALARM

1. Press **SELECT** to navigate to the Clock Area.
2. Press **ALARM** to enter alarm mode, AL will appear.
3. Press and hold **ALARM** for 2 seconds.
4. Select the hour and minute. Press ▲ or ▼ to change settings.
5. Press **ALARM** to confirm. indicates the daily alarm is set.

SET PRE-ALARM

The pre-alarm activates a set time before the daily alarm. It will only sound if the recorded temperature from Channel 1 Sensor falls to 2°C (35.6°F) or below.

For example, if you set the daily 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 **ALARM** to switch to pre-alarm view, PRE-AL will appear.
3. Press and hold **ALARM** for 2 seconds.
4. Press ▲ or ▼ to select 15, 30, 45 or 60 minutes.
5. The pre-alarm is automatically activated when you select a time.
6. Press **ALARM** to confirm. indicates 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 / DEACTIVATE ALARMS

1. Press **SELECT** to navigate to the Clock Area, then press **ALARM** to select the daily or pre-alarm.
2. Press ▲ to activate or ▼ to deactivate the alarm.

To silence the alarm:
- Press **SNOOZE / LIGHT** to silence it for 8 minutes.

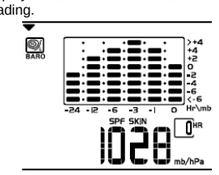
OR
- Press any other key to turn the alarm off and activate it again after 24 hours.

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 DATA

1. Press **SELECT** to navigate to the UVI / Barometer Area.
2. Press **MODE** to toggle UVI / Barometer display. indicates barometer information is displayed.
3. The bar chart display shows atmospheric changes over the past 24 hours. The lower display shows the current or historical reading.



To select the unit of measurement:
Press **mb / inHg**.

To view barometer history:
1. Press **SELECT** to navigate to the UVI / Barometer Area.
2. Press **HIST** to scroll through saved records. shows how long ago the measurement was taken.

SET ALTITUDE

To ensure barometric readings are reliable set the altitude to reflect distance from sea level at your position.

1. Press **SELECT** to navigate to the UVI / Barometer Area.
2. Press and hold **HIST** for 2 seconds.
3. Use ▲ and ▼ to set the altitude in 10 M (33 ft) increments from -100 m (-328 ft) to 2500 m (8202 ft).
4. Press **HIST** to confirm.

NOTE The maximum operating altitude for the barometer and weather forecast is 2500m (8202 ft).

WEATHER FORECAST

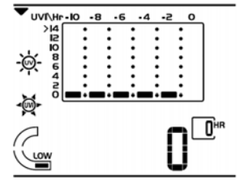
This product forecasts the next 12 to 24 hours of weather within a 30-50 km (19-31 mile) radius based on barometric pressure trend readings.

ICON	DESCRIPTION
	Clear (Day / Night)
	Partially Cloudy (Day / Night)
	Cloudy
	Rainy
	Snowy

UV MEASUREMENT

UV data is shown in the same area as the Barometer. To view UV data please purchase a compatible UV Sensor (ask your retailer for further information).

1. Press **SELECT** to navigate to the UVI / Barometer Area.
2. Press **MODE** to display UV data. indicates UV data is displayed.
3. The bar chart display shows UV Index changes over the past 24 hours. The lower display shows the current or historical reading.



NOTE Refer to the UV sensor User Manual for information.

To view UVI history:
3. Press **SELECT** to navigate to the UVI / Barometer Area.
4. Press **HIST** to scroll through saved records. shows how long ago the measurement was taken.

UV EXPOSURE TIME COUNTDOWN

To set the exposure time countdown you need set to the Skin Type and Sun Protection Factor (SPF) as follows:

1. In UVI display, press **CHANNEL** to select user 1-4.
2. Press and hold **MODE** for 2 seconds.
3. Press ▲ or ▼ to enter the setting.
4. Press **MODE** to confirm.
5. The settings order is: skin type, SPF (sun protection factor used), countdown activated / deactivated.
6. Once the countdown is activated will flash and the time remaining will appear.
7. When the countdown has reached "0", an alarm will sound for 2 minutes. Press any button to turn the alarm off. The icon will flash for 2 minutes.

SKIN TYPE	TANS / BURNS	SKIN COLOUR IN UNEXPOSED AREA	EYE COLOUR
1	Never tans; always burns	Pale or milky white; alabaster	Blue
2	Sometimes tans; usually burns	Very light brown; sometimes freckles	Blue / Green
3	Usually tans; sometimes burns	Light tan, brown or olive; distinctly pigmented	Gray / Brown
4	Always tans; rarely burns	Brown, dark brown or black	Brown

NOTE Due to the many other factors that may influence the emission of and your tolerance to UV radiation, you are advised to consult your doctor or dermatologist before engaging in any activity involving extended exposures to UV rays and Oregon Scientific is not responsible for any results or consequences of relying on the product's suggestions.

TEMPERATURE AND HUMIDITY

The sensor reception icon indicates the temperature data displayed:
- for indoor temperature
- for outdoor temperature (number indicates the sensor channel displayed)

Press **SELECT** to navigate to the Temperature and Humidity Area.

To view outdoor sensors temperature / humidity readings:
Press **CHANNEL**.

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

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 **MIN / MAX**.

To toggle between minimum and maximum records for the selected sensor:
Press **MIN / MAX** repeatedly.

To clear the records:

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

TEMPERATURE AND HUMIDITY TRENDS

The trend icons are based on recent readings.

RISE	STEADY	FALL
		

COMFORT ZONE

The comfort zone assesses the climate based on the current temperature and humidity. It is shown beside the humidity display.

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

HEAT INDEX

The heat index combines temperature and humidity data to describe the actual temperature felt.

WARNING	HEAT INDEX	MEANING
Extreme danger	54.5°C / 130°F or above	Strong risk of dehydration / sun stroke
Danger	105- 129°F/ 40.5-3.9°C	Heat exhaustion likely
Extreme caution	90- 104°F / 32.2 - 40°C	Possibility of heat dehydration
Caution	80- 89°F / 26.6-31.7°C	Possibility of heat exhaustion

To display the Heat Index:

1. Press **SELECT** to navigate to the Temperature and Humidity Area.
2. Press **MODE** to reach the Heat Index display.
3. Press **CHANNEL** to select the desired channel.

BACKLIGHT

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

RESET

To return the unit to the default settings, press **RESET**.

PRECAUTIONS

This product is engineered to give you years of satisfactory service if you handle it carefully. Here are a few precautions:

- Placement of this product on wood surfaces with certain types of finishes, such as clear varnish, may result in damage to the finish. Consult the furniture manufacturer's care instructions for direction as to the types of objects that may safely be placed on the wood surface. Oregon Scientific shall not be responsible for any damage to wood surfaces from contact with this product.
- 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.
- Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
- 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.

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

TROUBLESHOOTING

Problem	Remedy
Strange barometer readings	Set the altitude / unit
Can't adjust clock setting	Disable clock signal reception
Can't receive clock signals	• Adjust batteries • Press **RESET** • Activate clock signal reception
Can't locate remote sensor	Check batteries

SPECIFICATIONS

TYPE	DESCRIPTION
MAIN UNIT	
L x W x H	120 x 86 x 188 mm (4.7 x 3.4 x 7.4 in)
Weight	376 g (13.3 oz)
Temperature unit	°C / °F
Indoor temperature range	-5°C to 50°C (23°F to 122°F)
Outdoor temperature range	-20°C to 60°C (-4°F to 140°F)
Temperature Resolution	0.1°C (0.2°F)
Indoor Humidity range	25% to 95%
Temperature Resolution	1%
Weather display	Rainy, cloudy, partly cloudy, sunny
Clock signal frequency	433 MHz
Clock display format	12 or 24 hour format
Clock display	HH:MM:SS
Alarm duration	2 minutes
Snooze	8 minutes
Channels	5
Power	4 x UM-3 (AA) 1.5 V batteries
REMOTE SENSOR (RTGR382N)	
L x W x H	70 x 25 x 116 mm (2.8 x 1.0 x 4.6 in)
Weight	108 g (3.8 oz)
Range	70 m (230 ft)
Power	2 x UM-3 (AA) 1.5 V batteries

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 the Weather Station Model: BAR990HG 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.

CE

COUNTRIES RTTE APPROVAL COMPLIED
All EU countries, Switzerland CH and Norway N

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.

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.: BAR990HG
Product Name: Weather Station
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.