

Mirror Weather Station

Model: MR238

User Manual

CONTENTS

Introduction	1
Product Overview	2
Front View	2
Back View	2
VFD Display	2
Remote Sensor (RTGR328N)	3
Remote Sensor LCD Display	3
Remote Sensor Back View	3
Getting Started	4
Installing the Wall-Mount Holder	4
AC Adaptor (Main Unit)	4
VFD Display	4
Activate / Deactivate the Display	4
Remote Sensor	4
Set Up Thermo / Hygro Sensor (RTGR328N)	4
Sensor Data Transmission	5
Search for Sensor	5
Clock and Calendar	5
Radio-Controlled Clock	5
Turn Radio-Controlled Clock ON / OFF	5
Set Clock	5
Switch Clock Display	5
Alarms	5
Set Alarm	5
Activate / Deactivate Alarm	5
Snooze	5
Weather Forecast	6
Weather Forecast Icons	6
Temperature and Humidity	6
View Temperature and Humidity Area	6
Select Measurement Unit	6
Select Sensor Channel	6
Minimum / Maximum Records	6
Temperature and Humidity Trend Lines	6
Comfort Zone	6
Reset System	6
Safety and Care	6
Warnings	6
Troubleshooting	6
Specifications	7
About Oregon Scientific	7
EC-Declaration of Conformity	7

INTRODUCTION

Thank you for selecting the Oregon Scientific™ MR238 Mirror Weather Station. This powerful device bundles time keeping, weather forecasting, indoor and outdoor temperature and humidity readings into a single mirror display you can use from the convenience of your home.

In this box, you will find:

- Main unit (MR238) with wall-mount holder
- Remote sensor (RTGR328N)
- AC adaptor

NOTE The THGR328N (5-Channel) and THGR228N (3-Channel) remote sensors are also compatible with this weather station. Additional sensors are sold separately. Please contact your local stockist 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



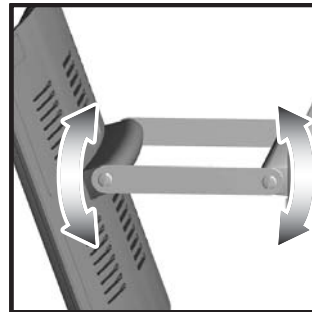
1. **ALARM ON/OFF** button – activate / deactivate alarm
2. Mirror display
3. VFD display (Vacuum Fluorescent Display)
4. **DOWN** button - decrease setting / deactivate radio-controlled clock
5. **UP** button - increase setting / activate radio-controlled clock
6. **CLOCK** button - changes settings and display
7. **LED** light-bars – turn on when the VFD display is ON
8. **SNOOZE / ACTIVATE** touch panel – snooze function / activate display
9. **CHANNEL** button - switch remote sensor display
10. **MEMORY** button - view current, maximum and minimum temperature and humidity readings
11. **ALARM** button - view alarm status; set alarm

BACK VIEW

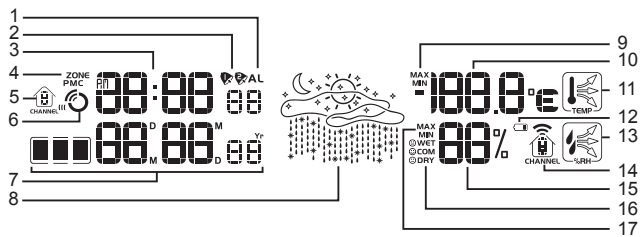


1. Stand
2. °C / °F button
3. **RESET** button
4. AC adaptor hole
5. **VFD** control switch (Display On/ Auto/ Off)

You can adjust the angle of the weather station as shown below:

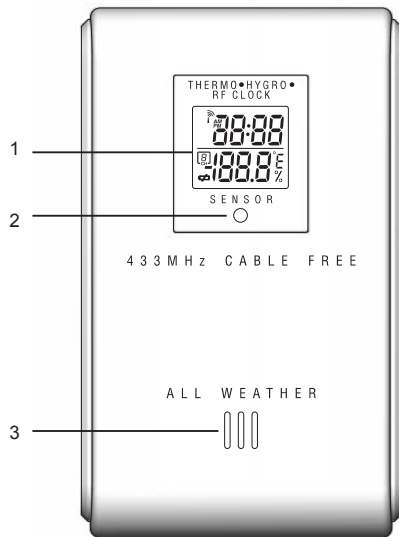


VFD DISPLAY



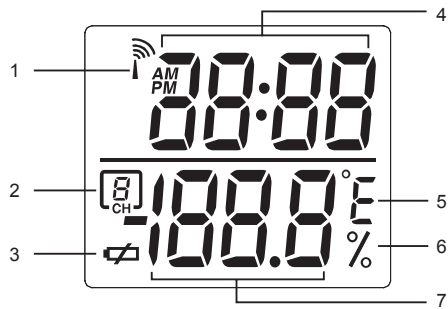
1. Alarm setting
2. Alarm is activated
3. Time
4. Offset time-zone
5. Channel number (1-5) / reception status
6. RF clock reception icon
7. Date / calendar / year
8. Weather display
9. MAX / MIN temperature
10. Temperature (°C / °F)
11. Temperature trend
12. Low battery icon for remote sensor
13. Humidity trend
14. Sensor channel number
15. Humidity
16. Comfort levels
17. MAX / MIN humidity

REMOTE SENSOR (RTGR328N)



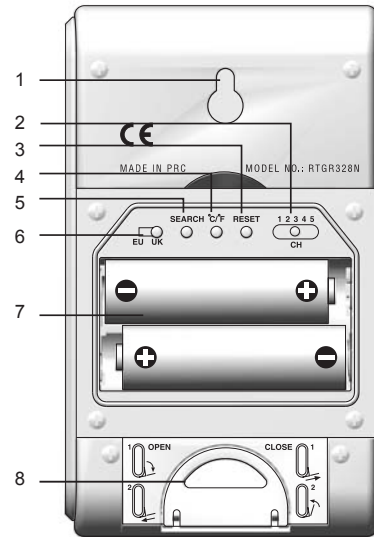
1. LCD display
2. LED status indicator
3. Ventilation duct

REMOTE SENSOR LCD DISPLAY



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

REMOTE SENSOR – BACK VIEW



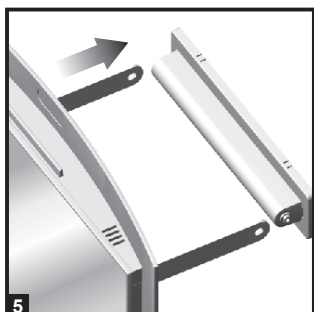
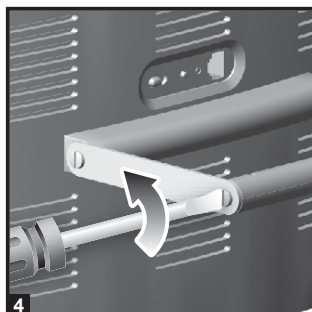
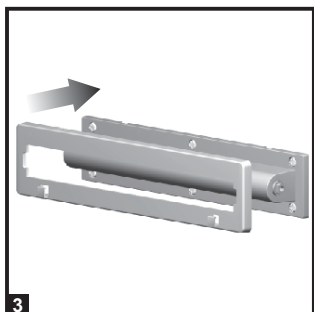
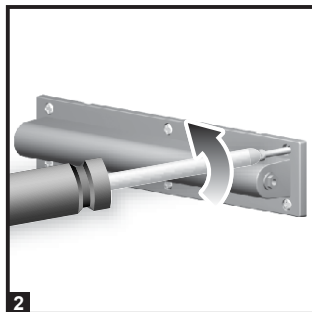
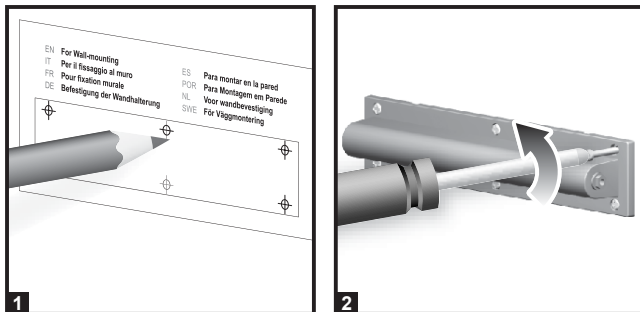
1. Wall mount
2. **CHANNEL** switch (1-5)
3. **RESET**
4. °C / °F switch
5. **SEARCH**
6. **EU / UK** radio signal format switch
7. Battery compartment
8. Fold-out stand

GETTING STARTED

INSTALLING THE WALL-MOUNT HOLDER

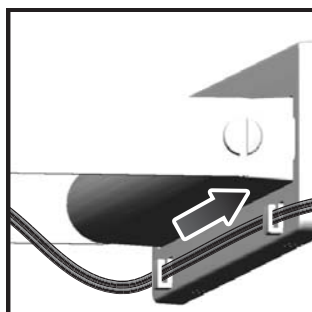
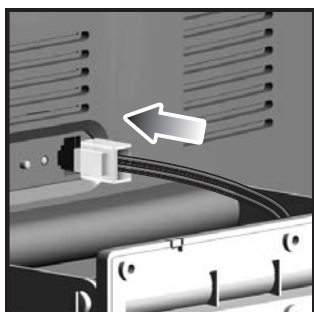
To install the wall-mount holder:

1. Use the diagram provided to mark where the 6 screws will be drilled.
2. Drill the screws into the wall to affix the wall-mount holder.
3. Put on the wall-mount cover.
4. Unscrew the bar that is in the Mirror Weather Station stand.
5. Attach the stand to the wall-mount holder and screw to affix firmly in place.
6. Adjust the angle of the mirror.



AC ADAPTOR (MAIN UNIT)

Please install the AC adaptor at the back of the unit as illustrated. (Hiding of the adaptor wire can only happen when the wall-mount holder is installed).



VFD DISPLAY

ACTIVATE / DEACTIVATE THE DISPLAY

Slide the VFD control switch at the back of the weather station to different display options:

- Display **ON** – The VFD display and the LED light bars will always be on.
- Display **OFF** – The VFD display and the LED light bars will always be off.
- Display **AUTO** – The VFD display and the LED light bars will be on when any key is pressed or the **SNOOZE / ACTIVATE** touch panel is triggered. The display and the light bars will be turned off after 30 minutes if no other keys are pressed.

REMOTE SENSOR

This product is shipped with the RTGR328N Thermo / Hygro Sensor. The main unit can collect data from up to 5 sensors (5 Thermo / Hygro Sensors). The THGR328N and THGR228N sensors are also compatible with this weather station. (Additional sensors are sold separately. Contact your local stockist 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 batteries.
3. Set the channel and radio signal format. The switches are located in the battery compartment.

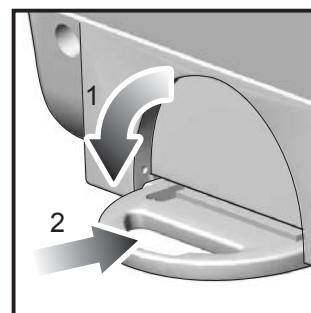
SWITCH	OPTION
Channel	If you are using more than one sensor, select a different channel for each sensor.
Radio Signal Format	EU (DCF) / UK (MSF)

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 30 metres (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.

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

SENSOR DATA TRANSMISSION

Data is sent from the sensor(s) every 60 seconds. The reception icon shown indicates the status.

ICON	DESCRIPTION
	Main unit is searching for sensors.
	At least 1 channel has been found.
	Sensor 1 is sending data. (The number shows which sensor is selected).
---	The selected sensor cannot be found. Search for the sensor or check batteries.

SEARCH FOR SENSOR

To search for the sensor, simultaneously press and hold **MEMORY** and **CHANNEL** for 2 seconds.

NOTE If the sensor is still not found, please 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.

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

How these signals work together:

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

NOTE To force a manual search for RF clock reception, press and hold **SEARCH** on the sensor 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 disable the radio-controlled feature, press and hold **DOWN** on the main unit for 2 seconds.

To enable the radio-controlled feature, press and hold **UP** for 2 seconds.

NOTE When the feature is disabled, the house icon disappears in the upper left-hand corner of the VFD display.

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 and hold **CLOCK** for 2 seconds.
2. Select the time zone offset hour (+ / -23 hours), 12 / 24-hour format, hour, minute, year, date / month format, month, day and display language.
3. Press **UP** or **DOWN** to change the setting.
4. Press **CLOCK** 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 **CLOCK** to toggle between:

- Clock with day
- Clock with time-zone offset

ALARMS

This product has 2 alarms.

SET ALARM

1. Select Alarm#1 or Alarm#2 by pressing **ALARM** once or twice (once to view Alarm#1, twice to view Alarm#2). The alarm number will show just to the right of the displayed alarm time.
2. Press and hold **ALARM** for 2 seconds.
3. Select the hour and minute. Press **UP** or **DOWN** to change settings.
4. Press **ALARM** to confirm.

The Daily Alarm icon will light up when the alarm is set.

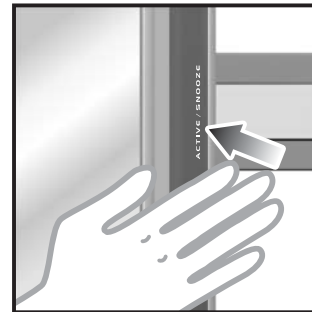
ACTIVATE/ DEACTIVATE ALARM

To activate / deactivate the alarm, press **ALARM ON / OFF**. The alarm icons will light up when the alarm is set. You can set Alarm#1, Alarm#2 or both alarms simultaneously.

NOTE When the alarm time is reached, the crescendo alarm will sound for 2 minutes. Press any key to silence the alarm. It will sound at the same time the next day.

SNOOZE

Tap on the **SNOOZE / ACTIVATE** panel to temporarily disable the alarm for 8 minutes.








NOTE The alarm icon will blink while Snooze is on.

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
	Rainy
	Snowy

NOTE The nighttime 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

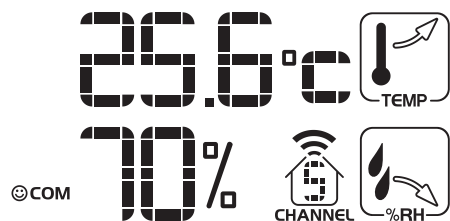
The weather station can display the following information:

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

NOTE Data is collected and displayed approximately every 60 seconds.

VIEW TEMPERATURE AND HUMIDITY AREA

Temperature data is given at the top; humidity is below.



SELECT MEASUREMENT UNIT

Press the °C / °F button to the desired setting.

NOTE The button is located at the back of the unit.

SELECT SENSOR CHANNEL

Press **CHANNEL** to switch between sensors 1-5. (The house icon shows the selected remote sensor).

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

To end auto-scan, press **CHANNEL** or **MEMORY**.

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







MINIMUM / MAXIMUM RECORDS

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

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

TEMPERATURE AND HUMIDITY TREND LINES

The trend lines are shown next to the temperature and humidity readings.

TREND	RISING	STEADY	FALLING
TEMPERATURE			
HUMIDITY			

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 just beside the humidity reading.

RESET SYSTEM

The **RESET** button is located at the back of the unit.

Press **RESET** 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 the default settings so you will lose all stored information.

SAFETY AND CARE

Clean the product with a slightly damp cloth and alcohol-free, 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.

Please 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 display.

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

TROUBLESHOOTING

PROBLEM	SYMPTOM	REMEDY
Calendar	Strange date / month	Change language
Clock	Cannot adjust clock	Disable radio-controlled clock
Temp	Cannot auto-synch	1. Press RESET 2. Manually activate radio-controlled clock
	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 330 x 42 x 207 mm
(12.99 x 1.65 x 8.15 inches)

Weight 1002 grams (2.20 lbs)

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

Outdoor Range -20 °C to 60 °C

Resolution 0.1 °C (0.2° F)

Comfort 20 °C to 25 °C

Display Sunny (day / night), partly cloudy
(day / night), cloudy, rainy, snowy

RELATIVE HUMIDITY

Range 25% to 95%

Resolution 1%

REMOTE UNIT (RTGR328N)

RF frequency 433 MHz

Range Up to 30 metres (100 feet)

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

Alarm 2-minute crescendo

MAIN UNIT

Power adapter AC adapter

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'd like to contact the Oregon Scientific Customer Care department directly, please visit: www2.oregonscientific.com/service/support

OR

Call 949-608-2848 in the US.

For international enquiries, please visit:

<http://www2.oregonscientific.com/about/international/default.asp>

EC-DECLARATION OF CONFORMITY

This product contains the approved transmitter module that complies with the essential requirements of Article 3 of the R&TTE 1999 / 5 / EC Directive, if used as intended and the following standards have been applied:

Safety of information technology equipment
(Article 3.1.a of the R&TTE Directive)
Applied Standard **EN 60950-1: 2001**

Electromagnetic compatibility
(Article 3.1.b of the R&TTE Directive)

Applied Standards
ETSI EN 301 489-1-3 (Ver.1.4.1) : 2002-08

Efficient use of radio frequency spectrum
(Article 3.2 of the R&TTE Directive)

Applied Standards
ETSI EN 300 220-3 (Ver1.1.1) : 2000-09

Additional information:

The product herewith complies with the requirements of the Low Voltage Directive 73 / 23 / EC, the EMC Directive 89 / 336 / EC and carries the CE marking accordingly.



Carmelo Cubito
Agrate Brianza (MI) / Italy January 2004
Manufacturer's EU R&TTE Representative



COUNTRIES RTTE APPROVAL COMPLIED
All EC countries, Switzerland (CH)
and Norway (N)





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Model: MR238**

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