Oregon Scientific™ Radio-Controlled Projection Clock
(RM816P / RM816PU / RM816PUL)
<u>User Manual</u>

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INTRODUCTION

Thank you for selecting the Oregon Scientific™ Radio Controlled Projection Clock as your product of choice. This device is designed to give you many years of reliable service, including the following conveniences:

• **Radio-Controlled Calendar Clock***
• **Projection of current time**
• **Weekday and Single Alarm with 8-minute Snooze Function**
• **State-of-the-Art Backlight Technology**

*Automatically synchronizes the current time and date when it is brought within range of the radio signal MSF60 generated from Rugby, England (model RM816PU) or DCF77 generated from Frankfurt, Germany for Central Europe (model RM816P).

In addition to providing step-by-step instructions for this product, this manual contains important safety and care information. Read the manual thoroughly, and keep it in a safe place in case you need to refer to it.

KEY FEATURES

Main item

Front view	Back view

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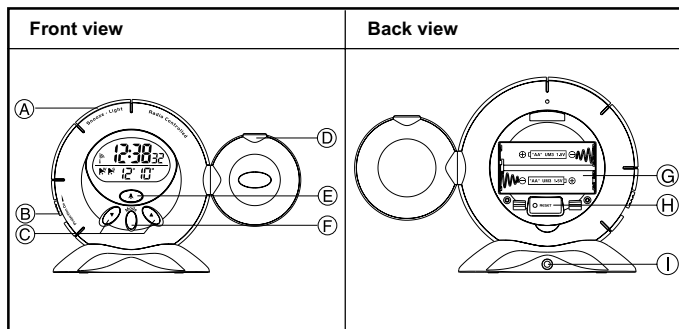
A. **[SNOOZE/LIGHT] button**
- Enables snooze function when alarm goes off
- Activates the projector and backlight for five seconds

B. **[PROJECTION ON] switch**
Enables continuous projection of time when power adaptor is connected

C. **[UP ▲] and [Down ▼] buttons**
Increases or decreases the value of a setting

D. **Swivel Projector**
For projecting the current time on walls or ceilings

E. **[ALARM] button**
Sets time for the two alarms

F. **[MODE] button**
Toggles display modes and confirms entry in clock setting mode

G. **Battery compartment**
Accommodates two (2) UM-3 or "AA" size batteries

H. **[RESET] button**
Resets unit by returning all settings to factory default values

I. **3V AC adaptor jack**

LCD display symbols

LCD display symbols
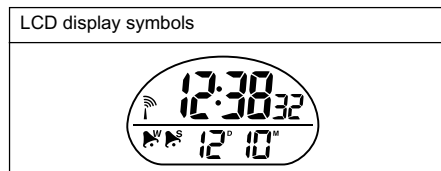
Symbol	Description	Explanation
	Two-line display	Displays the current time and calendar / alarm time
	Radio reception signal	Indicates the condition of radio reception
	Weekday Alarm icon	Appears when weekday alarm is activated
	Single Alarm icon	Appears when single alarm is activated
	Low Battery icon	Appears when power is low

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SAFETY AND CARE INSTRUCTIONS

Safety precautions

Please observe the following safety precautions when setting up and using this product.

- LCD panel – The LCD panel is made of glass and may break if the unit is dropped or impacted.
- Heat sources – Keep the product away from heat sources such as radiators, stoves, heaters, and other heat-generating products.
- Water and moisture – Do not use the product in or near water or in high moisture areas such as a bathroom.
- Power source – The product may be susceptible to power surges. It should be unplugged during severe storms or whenever you will be away for a long time. Only use the type of power source specified on the AC adaptor label. Do not overload power strips and extension cords, as this can cause a fire hazard.
- This device is intended for teenage or adult use only.

Caring for this product

To ensure you receive the maximum benefits from using this product, please observe the following guidelines.

- Cleaning – Unplug the product from the AC outlet before cleaning. Use a damp cloth. Do not clean with liquid cleaning agents, benzene, thinner, or aerosols.
- Ventilation – The vents and other openings are designed for ventilation. They should not be blocked or covered. Blocking the vents can cause the product to overheat, thus damaging the unit.
- Repair – Do not attempt to repair the product or modify the circuitry by yourself. Dangerously high voltages are contained inside the unit. Contact the retailer or a qualified repairman if the product requires servicing. Only use replacement parts that are recommended by the manufacturer.
- Do not scratch hard objects against the LCD display as this may cause damage.
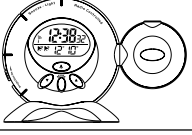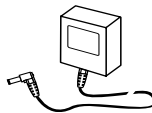
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GETTING STARTED

Unpacking the product

When you unpack your fun RF Projection clock, make sure to keep all the packing materials in a safe place, in case you need to later transport or return it for servicing.
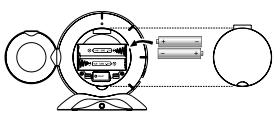
In the box, you will find:

Fun RF Projection Clock	3V AC Adaptor
2 Pieces UM-3 / AA Batteries	User Manual

Batteries

2 pieces of UM-3/ AA 1.5 V batteries are supplied with the product. They are already installed so make sure the clear plastic tab inside the battery compartment has been removed before the product will work.

To load the batteries:

Diagram	Instructions
	1. Insert the batteries strictly according to the polarities shown.
	2. Press the **[RESET]** button.

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NOTE Replace the batteries whenever the low battery icon( ) is displayed, the LCD is dim, or the display does not illuminate when the power is on. Replace all the batteries at the same time – it is dangerous to mix old and new batteries.

Contact your local waste disposal authority for instructions on how to dispose of used batteries. Used batteries can be harmful to the environment, and should not be thrown out with household trash.

Connecting to an AC power source
Your product comes with an AC power adaptor. Use of the AC power adaptor is required for continuous time projection.

Once the power adaptor is in place, you can leave the projector on for a longer period of time (such as throughout the night) by sliding the **[PROJECTION ON]** switch on the side of the unit. To turn off the projector, slide the switch back.

NOTE Note that this switch can only be used with the power adaptor installed. For momentary projection, press the **[SNOOZE/LIGHT]** button.

ABOUT RADIO RECEPTION

This product is designed to synchronize its calendar clock automatically once it is brought within range of the radio signal. When the unit is receiving the signal, the Radio Reception symbol with start to blink. Generally, complete reception takes around 2 to 10 minutes, depending on the strength of the signal. The clock automatically searches for radio signal at 1AM, 2AM, 3AM, 9AM, 3PM and 7PM daily.

Radio Reception	Description
	Strong reception of radio clock signal.
	Weak reception of radio clock signal.
	No reception of radio clock signal.
	Receiving the radio signal.
	Radio Reception is disabled.

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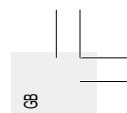
NOTE Reception can be affected by a number of factors. For best reception, place the device away from metal objects and electrical appliances. Other causes for signal interference include electrical transmission towers, steel reinforced construction, and metal siding. Reception is ideal when placed near a window.

NOTE Even though there are areas that may have more difficulty in receiving a signal, the Atomic Clock contains accurate quartz movement and will retain precise timing even if the signal is missed on a rare occasion.

ENABLING / DISABLING RADIO RECEPTION

To manually disable the reception of the RF signal, press and hold the **[DOWN ▼]** button for 2 seconds until the Radio Reception symbol completely disappears.

To enable the reception again, press and hold **[UP▲]** button for 2 seconds. The Radio Reception symbol will blink and the unit will search for the RF signal automatically.

TO MANUALLY SET THE CLOCK AND CALENDAR

Before you can manually set the clock and calendar, you must specify the current time zone you live in and the time format (12- or 24-hour).

Instructions
1. Press and hold the **[MODE]** button for 2 seconds. The time-zone offset hour digits will blink. When an offset hour has been set (e.g. +1), the time displayed will be the RF clock time plus 1 hour.
2. Enter the value by pressing the **[UP▲] or [Down▼]** buttons.
3. Confirm the entry by pressing the **[MODE]** button. The 12- or 24-hour display format will blink.
4. Repeat (2) and confirm the entry by pressing the **[MODE]** button.
5. Repeat the above procedures to set the hour, minute, year, month, day and language for day-of-week. You can select among English (E), German (D), French (F), Italian (I) or Spanish (S).

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Symbol	Language
E	English
G	German
F	French
I	Italian
S	Spanish

ALARM FUNCTION

The unit is equipped with 2 types of alarms: Weekday Alarm 🔔 and 🔔 Single Alarm.

Alarm Icon	Alarm Type	Description
🔔W	Weekday Alarm	The Weekday Alarm will sound every Mondays to Fridays according to the preset time. It is automatically disabled during weekends (Saturdays and Sundays).
🔔S	Single Alarm	The Single Alarm sounds only once according to the preset time.

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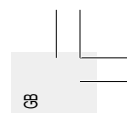
Setting the Alarm(s)

Instructions
1. Select the alarm you want to set by pressing the **[ALARM]** button.
2. Press and hold the **[ALARM]** button for 2 seconds when the selected Alarm is displayed. The hours will blink.
3. Enter the values by pressing **[UP▲] or [Down▼]**.
4. Confirm the entry by pressing the **[ALARM]** button.
5. The minutes will blink.
6. Repeat (3) and (4) to finish the setting. The alarm will be activated automatically.
7. Follow the same procedures to set and activate the Single and/or Weekday Alarm.

To deactivate the alarm:
1.   Select the alarm you want to deactivate by pressing the **[ALARM]** button.
2.   Press **[UP ▲] or [Down ▼]** to deactivate the selected Alarm. "---" will be displayed when the alarm is being deactivated.
3.   To activate the alarm again, press **[UP ▲] or [Down ▼]**

Crescendo Alarm
When the alarm goes off at the preset time, the Alarm Icon (either Weekday Alarm or Single Alarm, depending on which is enabled) will be flashing and the alarm will be audibly ringing. The alarm sound starts off gently but gradually increases in volume and intensity for 2 minutes.

Press the **[SNOOZE/LIGHT]** button during the ringing to temporarily stop the alarm. The alarm will sound again after 8 minutes unless another key on the clock is pressed. To stop the ringing completely the first time, press the **[ALARM]** button.

NOTE The Single Alarm will automatically disable itself after the clock has gone off at the preset time.

NOTE The Weekday Alarm will still be enabled even after the alarm has gone off.

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PROJECTION FUNCTION

Press the **[SNOOZE/LIGHT] button** and the projection of current time will be activated for approximately 5 seconds. You can swivel the projector to the front or back by 90° to facilitate the projection angle.

TROUBLESHOOTING GUIDE

This section includes a list of frequently asked questions for problems you may encounter. If your device is not operating as you think it should, check here before arranging for a service.

Problem	Symptom	Check This	Remedy
Clock time is not correctly set.	No radio signal reception.	Electromagnetic interference or objects are barring reception. Orientation or placement of main unit is not optimum for receiving radio clock signal.	Place the main unit far away from PCs, phones, and other electronic equipment and near a windowsill. Wait for at least 24 hours.
No Alarm	Alarm does not sound.	Alarm is disabled.	Turn on the alarm setting.
Operation Not Normal	Certain functions do not perform.	Device requires reset.	Reset the unit with a blunt stylus pressed against the **[RESET]** Hole.

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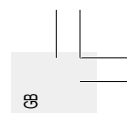
SPECIFICATIONS

Dimensions:

Width x Height x Depth   163 x 112 x 42 mm (H x W x D)

Weight   160 g (without battery)

Radio frequency:

System   DCF77 (RM816P) or MSF60 (RM816PU)

Display:

Time format   12 hr am/pm or 24hr user selectable
Time accuracy   +/- 0.5 sec per day (when RF clock function is disabled)
Date format   DD/MM (Date/Month)

Power:

Power supply   2 x LR6 / AA / UM-3 1.5v batteries

Operating environment:

Operation temperature   5° C … 45° C (41° F…113° F) at ≤85% relative humidity
Storage temperature   -5° C ….60° C (23° F … 140° F) at ≤85% relative humidity

RESETTING THE UNIT

If the clock stops responding, insert and press a blunt stylus into the clock's Reset Hole. The clock will then be reset to its original factory setting.

ADDITIONAL RESOURCES

Visit our website (www.oregonscientific.com) to learn more about your clock and other Oregon Scientific products such as hand-held organizers, digital cameras, and weather stations. The website also includes contact information for our customer service department, in case you need to reach us.

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WARNINGS

To ensure you use your product correctly and safely, read these Warnings and the entire user manual before using the product. The warnings given here provide important safety information and should be observed at all times.

⚠ **WARNINGS**

- Do not attempt to repair the product yourself. Contact the retailer or our customer service department if it requires servicing.
- Take precautions when handling all battery types. They can cause injuries, burns, or property damage as a result of contact with conducting materials, heat, corrosive materials or explosives. Remove the batteries before storing the product for long periods of time.
- The product is a precision instrument. Never attempt to take this device apart. There is a serious danger of powerful electric shocks.
- Do not immerse the device in water.
- Do not, under any circumstances, touch the exposed electronic circuitry of the device as there is a danger of electric shock should it become exposed.
- Take special care when handling a damaged LCD display, as the liquid crystals can be harmful to your health.
- Do not use or store the device, including the remote sensor, in locations that may adversely affect the product such as rain, snow, desert, and magnetic fields.
- Do not use this device in aircrafts or hospitals. The use of radio frequency products can cause malfunctions in the control devices of other equipment.
- Do not subject the product to impact or shock.
- Check all major functions when the device is unused for a long period of time. This is to ensure its full operation. Maintain a regular internal testing and cleaning of your device.
- When disposing of this product, do so in accordance with your local waste disposal regulations.

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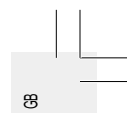
EC-DECLARATION OF CONFORMITY

This product complies with the essential requirements of Article 3 of the R&TTE 1999/5/EC Directives, if used for its intended use and that the following standard(s) has/have been applied:

Efficient use of radio frequency spectrum
(Article 3.2 of the R&TTE Directive)
applied standard(s)   **N / A**

Electromagnetic compatibility
(Article 3.1.b of the R&TTE Directive)
applied standard(s)   **ETS 300 683:1997**

Safety of information technology equipment
(Article 3.1.a of the R&TTE directive)
applied standard(s)   **EN 60950:1997**

Additional information:

The product is therefore conform with the Low Voltage Directive 73/23/EC, the EMC Directive 89/336/EC and R&TTE Directive 1999/5/EC (appendix II) and carries the respective CE marking.

VS-Villingen / Germany   August 2001
Gerhard Preis
EC representative of manufacturer

$C\epsilon$

RTTE Compliant Countries :
All EU countries, Switzerland CH
And Norway N

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