Oregon
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Cool Atomic Projection Clock with Animated Projection Model : RM818PA

User Manual

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INTRODUCTION

Thank you for selecting the Oregon Scientific™ RM818PA Cool Atomic Projection Clock with Animated Projection as your product of choice.

This device is designed to give you many years of reliable service, including the following conveniences:

- **Atomic calendar clcok**
- **Daily dual alarm with 8-minute Snooze**
- **Vibrating wake-up device (optional)**

NOTE Keep this manual handy as you use your new product. It contains practical step-by-step instructions, safety and care information, technical specifications and warnings you should know. Read the manual thoroughly, and keep it in a safe place in case you need to refer to it.

KEY FEATURES

The desktop dual-band radio-controlled clock with animated time projection features:

1. Atomic clock function.
2. Time, alarm status and animation projection on your wall or ceiling.
3. Auto-calendar from 2000 to 2099 in DM or MD format.
4. Days of the week in 5 languages (English, German, French, Italian and Spanish).
5. Daily dual alarm with 8-minute Snooze function.
6. Backlight.
7. Projection image reverse switch for 180 degrees (upside down).
8. Optional feature for wireless wake-up vibrating device.

FRONT VIEW

The Cool Atomic Projection Clock with Animated Projection features:

1. Projection Unit
- The projector can swivel 180 degrees back and to the front.
2. Main LCD Display
- Displays current time, date and atomic clock signal reception indicator
3. **SNOOZE / LIGHT** button
- Press to activate projection and backlight for 5 seconds.
4. **ALARM** button
- Press to toggle between Alarm 1, Alarm 2 and Calendar mode.
5. **ON / OFF** button
- Press to activate / deactivate the alarm function.
6. **CLOCK** button
- Press to toggle among Clock Seconds / Calendar, Clock Day-of-the-Week / Calendar, Clock-zone Offset / Calendar.

BACK VIEW

1. Battery compartment
- The unit uses 2 AAA / UM-4 1.5V batteries for power.

2. Adaptor slot

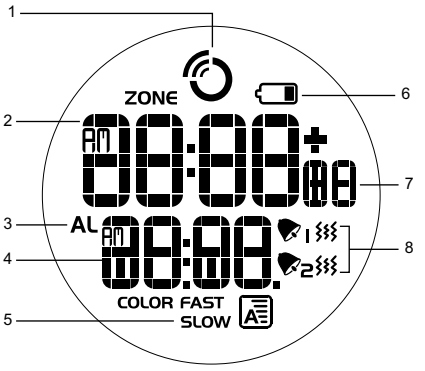
3. Reset hole
- Returns all settings to default values.

4. **UP** button
- Press and hold for 2 seconds to enable and start the Atomic clock function when in normal mode.
- Press to increase the flashing item by 1 in Setting mode.

5. **DOWN** button
- Press and hold for 2 seconds to disable the atomic clock function when in normal mode.
- Press to decrease the flashing item by 1 in Setting mode.

6. **PROJECTION ON** button
- Press to activate projection and backlight for 5 seconds.
- Press to enable continuous projection with AC adaptor connected.

LCD DISPLAY SYMBOLS



1. **Atomic Clock Reception Signal** - indicates the condition of atomic clock signal
2. **Clock Time**
3. **Alarm**
4. **Alarm Time**
5. **Animation speed** - Can select fast or slow.
6. **Low Battery** - Appears when power is low.
7. **Time Zone Indicator**
8. **Alarm-on** - Appears when alarm is activated.

SAFETY & 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.
- 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.

CARING FOR YOUR PRODUCT

To ensure you receive the maximum benefit from using this product, please observe the following guidelines:

- Cleaning - Use a damp cloth. Do not use liquid cleaning agents, benzene, thinner, or aerosols.
- Ventilation - The vents and other openings are designed for ventilation, and should not be blocked or covered.
- Blocking the vents can cause the product to overheat, and can damage the unit.
- Repair - Do not attempt to repair the product or modify the circuitry by yourself. 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.

GETTING STARTED

UNPACKING THE PRODUCT

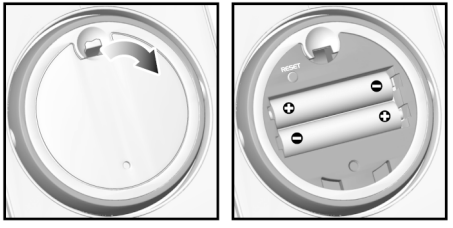
When you unpack your product, make sure to keep all the packing materials in a safe place, in case you need to later transport or return it for servicing.

The following items should be included in this package:

- Clock unit
- Batteries (2 x UM-4 AAA-sized 1.5V)
- User manual

BATTERIES

To load the batteries:



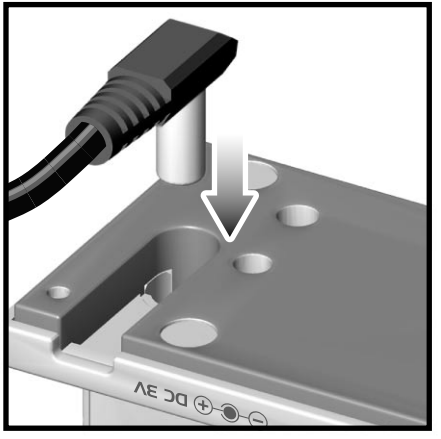
1. Locate the battery compartment.
2. Install the batteries by matching the correct polarity. Always use the correct battery type (2 x UM-4 AAA-sized 1.5V batteries).

WARNING Reversing the polarity may damage the product.

NOTE Replace the batteries whenever the low battery icon is shown , the display 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.

ADAPTOR

By plugging in the adaptor, the projector will project the time on the wall or ceiling continuously.



ATOMIC CLOCK

This product is designed to synchronize its calendar clock automatically with the U.S. atomic clock in Boulder, Colorado, once it is brought within range of the radio signal.

NOTE When the unit is receiving the signal, the atomic clock signal reception icon will start to blink Generally, complete reception takes around 2 to 10 minutes, depending on the strength of the signal.

ATOMIC CLOCK RECEPTION DESCRIPTION

STRONG SIGNAL	WEAK SIGNAL	NO SIGNAL
Strong reception of atomic clock signal.	Weak reception of atomic clock signal.	No reception of atomic clock signal.

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 if the signal is missed on a rare occasion.

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 tower, steel reinforced construction, and metal siding. Reception is ideal when placed near a window.

TURN ATOMIC CLOCK ON / OFF

To manually enable the reception of the atomic clock:

Press and hold the **UP** button for 2 seconds until the atomic clock reception symbol appears and flashes.

To manually disable the reception of the RF signal:

Press and hold the **DOWN** button for 2 seconds until the atomic clock reception symbol disappears.

SETTING THE CLOCK MANUALLY

To adjust the clock settings manually without automatic atomic clock synchronization, remember to disable the atomic clock reception first.

To set the clock manually therefore:

1. Press and hold the **DOWN** button for 2 seconds until the atomic clock reception signal disappears.
2. Press and hold the **CLOCK** button to enter the clock-setting mode. Then use the **UP** or **DOWN** button to adjust the value of each setting.

CLOCK MODE

The Clock mode has 3 types of display:

a) HH_MM_SS / Calendar

b) HH_MM_Day-of-the-Week / Calendar

c) HH-MM-ZONE OFFSET / Calendar

NOTE Press the **CLOCK** button to toggle between the three modes.

CLOCK SETTING MODE

To set the time:

1. Press and hold the **CLOCK** button for more than 2 seconds.
2. Press the **CLOCK** button two more times. (Use the **UP** and **DOWN** buttons to adjust the hour).

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HOUR-SETTING MODE

3. Press the **CLOCK** button once more to set the minutes. (Use the **UP** and **DOWN** buttons to adjust the minutes).

MINUTE-SETTING MODE

4. Press the **ALARM** button to exit the set mode.

To select the time zone:

1. Press and hold the **CLOCK** button for 2 seconds. The time-zone offset hour digits will blink. Use the **UP** and **DOWN** buttons to select your time zone (-8 / -7 / -6 / -5 represents the 4 U.S. time-zones Pacific / Mountains / Central / Eastern respectively)
2. Press the **ALARM** button to exit the set mode.

TIME ZONE SETTING MODE

To select time format:

1. Press and hold the **CLOCK** button for 2 seconds.
2. Press the **CLOCK** button once again.
3. Use the **UP** and **DOWN** buttons to select the time format (whether 12-hour to 24-hour format).
4. Press the **ALARM** button to exit the set mode.

TIME FORMAT SETTING MODE

To set the current date:

1. Press and hold the **CLOCK** button for 2 seconds.
2. Press **CLOCK** four more times.
3. Use the **UP** and **DOWN** buttons to select the year.
4. Press the **CLOCK** button to set the date format by using the **UP** and **DOWN** buttons.
5. Press the **CLOCK** button to set month using the **UP** and **DOWN** buttons.
6. Press **CLOCK** again to set the date, and then press **ALARM** button to exit the set mode.

DATE FORMAT SETTING MODE

MONTH SETTING MODE

YEAR-SETTING MODE

NOTE The order of the flashing items is: U.S. time-zone setting, 12 / 24hr format, hour, minute, year, DM<→MD, month, day, language, exit clock setting mode.

SELECTING A LANGUAGE

The main unit can display the weekday in five different selectable languages: English, German, French, Italian and Spanish.

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To choose a language:

1. Press and hold the **CLOCK** button for 2 seconds.
2. Press **CLOCK** eight times.
3. Use the **UP** and **DOWN** buttons to select the language.
4. Press the **CLOCK** button once more to exit the set mode.

LANGUAGE SETTING MODE

NOTE Press the **ALARM** button or the **PROJECTION ON** button to exit the Clock Setting mode. Any changed item will be effective afterward.

THE ALARM FUNCTION

BASIC FUNCTIONS

When the alarm sounds:

- The backlight will go on for 5 seconds;
- The projection will go on for 5 seconds;
- And if you have a vibration device, it will vibrate for 1.5 minutes.

To turn off the alarm sound:

- Press any button.

NOTE If you do not press any button, the alarm will automatically stop ringing after 2 minutes.

DISPLAYING THE ALARM TIME

By default, the unit's LCD screen displays the current date and month.

To display the alarm time instead:

Press the **ALARM** button.

DIFFERENT ALARM MODES

NOTE The three squiggly lines indicate "on" for the optional vibrating wake up device.

SETTING THE ALARM TIME

Press and hold the **ALARM** button for 2 seconds to enter the Alarm Setting mode.

To adjust the alarm time, make sure that the alarm time is currently displayed on the LCD screen. (To do this, press the **ALARM** button).

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To set the alarm time:

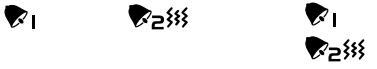
1. Press and hold the **ALARM** button for 2 seconds.
2. Adjust the hour of the alarm time by using the **UP** and **DOWN** buttons.
3. Adjust the minute of the alarm time by using the **UP** and **DOWN** buttons.
4. Press the **ALARM** button when done.
5. Select the alarm types (sound only; vibration alarm only or both) by using the **UP** and **DOWN** buttons.
6. Press the **ALARM** button when done.

The alarm time should now be displayed.

ACTIVATING / DEACTIVATING THE ALARM

To set the alarm on:

Press the **ON / OFF** button.



NOTE You will see the bell icon appear beside the date on the lower half of the LCD display. The first bell will turn on the alarm for Alarm #1. If you press the **ON / OFF** button a second time, you will activate the second alarm as well (as shown by the appearance of the second bell icon beside the date but below the bell icon for the first alarm).

THE SNOOZE FUNCTION

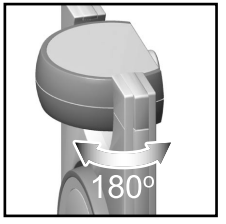
While the alarm is ringing, press the **SNOOZE / LIGHT** button to stop the Alarm sound and enable the Snooze function.

When the Snooze function is enabled, the Snooze alarm will last between 8 and 9 minutes. Also, the snooze function will be disabled if 1) the clock time is changed; 2) or the **ON / OFF** button is pressed.

NOTE When the Snooze function is enabled, the bell icon will be flashing.

THE PROJECTOR FUNCTION

ACTIVATING THE PROJECTOR



To turn on the projector:

Press the **SNOOZE** button to activate the projector for 5 seconds.

NOTE If the AC / DC adaptor is plugged, press the **PROJECTOR ON** and the projector will stay continuously on. Press the **PROJECTOR ON** button again to deactivate the continuous projection-on function.

ANIMATION SPEED SETTING

To enter to the projector setting mode:

1. Press the **PROJECTOR ON** button for 2 seconds.
2. Use the **UP** and **DOWN** buttons to select either fast or slow animation.
3. Press the **PROJECTION ON** button to confirm.

NOTE The order of the flashing items is speed high / slow, alarm animation on / off, exit project setting mode.

ANIMATION ON / OFF SETTING

To set the animation on:

1. Press and hold the **PROJECTION ON** button for 2 seconds.
2. Select the animation speed by using the **UP** and **DOWN** buttons.
3. Press the **PROJECTION ON** button
4. Use the **UP** and **DOWN** buttons to select "On" or "Off".
5. Press the **PROJECTION ON** button to confirm.

NOTE The animation feature will move the image of the time, alarm on/off status and alarm time in a cascading and random motion, which is pleasant to the eye.

To flip the projected time upside down:

1. Press the **SNOOZE / LIGHT** button.
2. While the projector is on, press the **SNOOZE / LIGHT** button again to flip the time.
3. To flip again, press the **SNOOZE / LIGHT** button again, etc.

THE VIBRATING DEVICE (OPTIONAL)

The vibrating wake-up device receives a signal from the main unit and performs a wake-up function by vibrating. It is designed to go under your pillow. You can purchase the device separately.

The device has a range of roughly 50 feet and has an LED meter to show data transmission and battery level.

The light on the vibration device will flash in red when the battery is low, and the light will flash in green when the battery power is full.

The switch within the vibrating device can adjust to alarm 1 or alarm 2, or both. Simply select the alarm time when you want the device to wake you up.

NOTE The vibrating device is powered by two "AA" 1.5V alkaline batteries (included). It is also compatible with rechargeable batteries (not included).

THE BACKLIGHT

The user can press the **SNOOZE / LIGHT** button at the base of the unit to enable the backlight function and the backlight will be turned on and last for 5 seconds.

THE RESET HOLE

If the clock behaves strangely or stops responding, insert and press a blunt stylus into the clock's Reset Hole. (This is located on the back of the clock. Simply insert a blunt stylus to reset the unit's settings).

TROUBLESHOOTING GUIDE

BASIC FUNCTIONS

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 servicing.

Problem: Radio antenna is not displayed on the LCD screen.

Symptom: The atomic clock signal cannot be received.

Check this: Obstacles (either electromagnetic interference or objects) are barring the signal from reaching the main unit.

Remedy: Move the unit away from any sources of interference, including other electronic devices.

Problem: Low-battery signal is displayed on the LCD screen.

Symptom: Batteries of the unit are low.

Check this: Check LCD display of the unit.

Remedy: Install new batteries into the unit.

Problem: Clock time is not correctly set.

Symptom: No atomic clock signal reception.

Check this: Electromagnetic interference or objects are barring reception. Orientation or placement of main unit is not optimum for receiving the RF signal.

Remedy: Place the main unit far away from PCs, phones, and other electronic equipment.

Problem: No alarm.

Symptom: Alarm does not sound.

Check this: Alarm is disabled.

Remedy: Turn on the alarm setting.

Problem: Operation is not normal.

Symptom: Certain functions do not perform.

Check this: Device requires reset.

Remedy: Reset the unit with a blunt stylus pressed against the Reset hole.

SPECIFICATIONS

Width x Height x Depth: 1.73 x 5.55 x 3.46 inches (44 x 141 x 88 mm)

Weight: 0.32 lbs (146g) (without batteries)

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RF FREQUENCY SYSTEM	WWVB-60
Display:	
HOUR FORMAT	**12HR AM / PM OR 24HR**

Date format User-selectable: DD-MM or MM-DD

Day-of-week display: In English, French, German, Spanish, and Italian

Clock accuracy: +/-0.5 second per day (when RF is disabled)

Alarm Duration: 2 minutes

Power supply: 2 x UM-4 / AAA 1.5V batteries

Operation temperature: 0°C to +50°C (32°F to 122°F)

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.

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 www2.oregonscientific.com/about/international/default.asp

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 to this unit 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:

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- 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 Place,
	Tualatin, Oregon 97062 USA
Telephone No.:	1-800-853-8883
Fax No.:	1-503-684-8883
	declare that the product
Product No.:	RM818PA
Product Name:	Atomic Projection Clock
Manufacturer:	IDT Technology Limited
Address:	Block C, 9/F, Kaiser Estate, Phase 1,41 Man Yue St., Hung Hom, Kowloon, Hong Kong

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