

**RADIO-CONTROLLED PROJECTION
CLOCK WITH DIGITAL TUNING
AM/FM RADIO**

MODEL NO.: RRM968P/RRM968PU

INSTRUCTION MANUAL

INTRODUCTION

Congratulations on your purchasing the Radio-controlled projection Clock with digital tuning AM/FM radio RRM968P/RRM968PU.

The unit is a multi-functional radio-controlled clock. The RRM968P - the Central Europe model - is designed to automatically synchronize its current time and date when brought within an approximate 1500km radius of the radio signal generated from Frankfurt, Germany (DCF77). The RRM968PU - the UK model - will do the same when brought within range of the radio signal MSF-60 generated from Rugby, England.

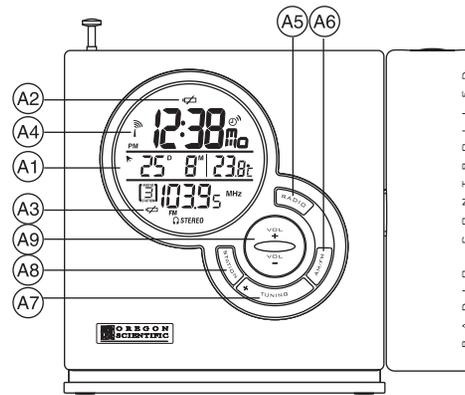
This unit featured with a projection function that allows the user to display either (1) the Current Time with Indoor Temperature or (2) the pre-set Alarm time with Indoor Temperature on the ceiling, wall or other flat surface. In addition, the Alarm status will also be projected, which is indicated by the Alarm-on icon. The image projected is in a deep red color which is easily seen in the dark.

This unit also comes with an digital tuning PLL (Phase Lock Loop) AM/FM radio with 16 user-preset stations (8 for AM and 8 for FM radio). A Radio Sleep-Timer (auto-off) function is also included.

Other favourable features include EL back-light, indoor temperature display, hourly-chime function, and user-selectable daily beep alarm with 8-minute snooze function or Wake-up-to-Radio Alarm.

KEY CONFIGURATION & FEATURES

FRONT VIEW



A1. 3-Line LCD Display

- Displays the time, date, indoor temperature and radio function



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A2. [] Battery-low indicator
 - Displays when battery power of clock is low

A3. [] Battery-low indicator
 - Displays when battery power of radio is low

A4. [] Radio-reception icon
 - Indicates the strength of the reception of clock radio signal

A5. [RADIO] BUTTON
 - Press to turn on or off the radio function

A6. [AM/FM] BUTTON
 - Press to change between AM or FM radio band (when Radio is On)

A7. [+ TUNING -] BUTTONS
 - Press to increase/ decrease the frequency setting (when Radio is On)
 - Press and hold for 2 seconds to trigger radio auto-search function (when Radio is On)

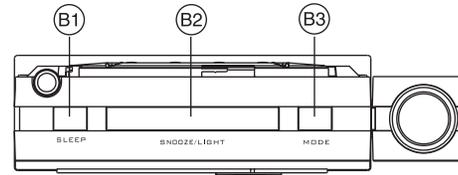
A8. [STATION] BUTTON
 - Press to switch among the 8 preset stations in the respective AM or FM radio band (when Radio is On)
 - Press and hold for 2 seconds to enter the preset radio station setting mode (when Radio is On)

A9. [VOL + & VOL -] BUTTONS
 - Press to increase / decrease the volume (when Radio is On)



- Press to increase/ decrease the values in setting modes
 - Press and hold for 2 seconds to activate/ deactivate the auto-reception of RF clock radio signal (When Radio is Off)

TOP VIEW



B1. [SLEEP] BUTTON
 - Press to turn on the radio and activate the Sleep Timer function
 - Press again to select the time period for the sleep-timer (auto-off) feature: 15, 30, 60, 90 or 120 minutes

B2. [SNOOZE/ LIGHT] BUTTON
 - Press to turn on the EL backlight and projection for 5 seconds
 - Press to change the projected image when projection is On
 - Press to stop the alarm sound and activate the 8-minute Snooze function (for Beep alarm only)

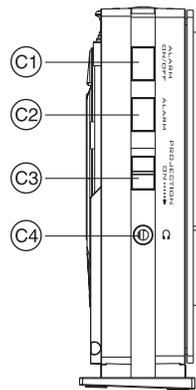
B3. [MODE] BUTTON
 - Press to toggle among the calendar clock display modes
 - Press and hold for 2 seconds to enter the clock setting mode





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SIDE VIEW



C1. [ALARM ON/OFF] BUTTON

- Press to turn on/off the alarm function

C2. [ALARM] BUTTON

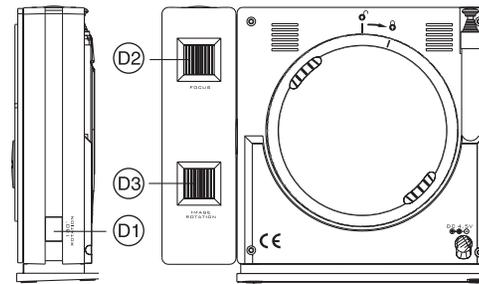
- Press to display the alarm function
- Press and hold for 2 seconds to enter the alarm-time setting mode

C3. [PROJECTION ON] BUTTON

- Slide to enable/disable continuous projection (when Adapter is connected)

C4. HEADPHONE JACK

PROJECTION UNIT



D1. [180° ROTATION] BUTTON

- Press to flip the projected image horizontally

D2. [FOCUS] KNOB

- Rotate to adjust the focus of projection

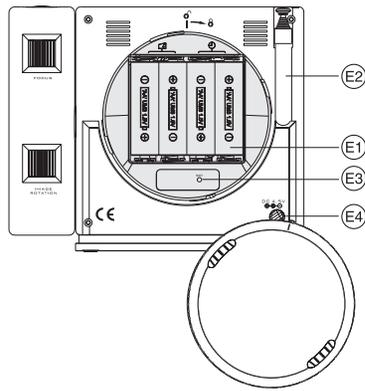
D3. [IMAGE ROTATION] KNOB

- Rotate to change the image 90° to the left or right



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BACK VIEW



E1. BATTERY COMPARTMENT

- Accommodates 4 pieces of UM-3 or AA 1.5 V batteries (2 pieces for clock function and 2 pieces for radio function)

E2. EXTENDABLE ANTENNA

- External antenna for FM radio

E3. [RESET] BUTTON

- Press to return all settings to default values

E4. 4.5 V DC JACK WITH RUBBER COVER

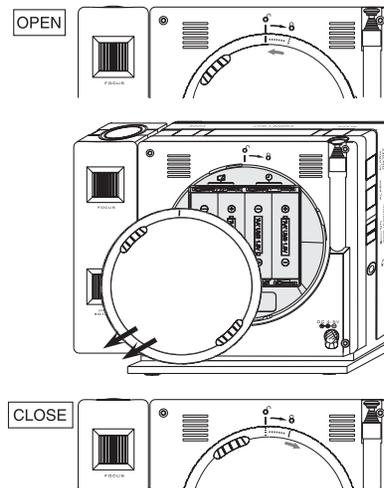
- For AC power adapter installation



BATTERY INSTALLATION

This unit can be operated by batteries or AC power alone as well as both together.

Using Battery





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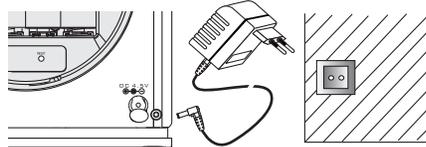
Battery Installation:

1. Remove the battery compartment door by rotating it to the direction of “” as shown
2. Insert four pieces of UM-3 or AA 1.5V batteries in accordance to the polarities.
3. Press [RESET].
4. Replace the battery compartment door by rotating it back onto the unit by following the direction of “”.

When the battery power level is low, the respective low battery indicator [] will light up. Replace the batteries or connect it with AC power adapter.

Please note if only AC adapter is connected and no battery is installed, low battery indicator [] for clock will also light up.

Using AC Power



FEATURES

Section I — Radio-Controlled Calendar Clock

ABOUT RADIO RECEPTION

After battery installation, the unit will automatically synchronize its time and date with the radio signal when it is within reception range of the signal.

When the unit is receiving radio signal, the reception icon will start to blink. The reception icon will show either strong or weak reception depending on the strength of the radio signal. A complete reception generally takes about two to ten minutes.

When the reception is complete the reception icon will stop blinking. The reception icon will show as “” for no reception or “” for successful reception.

The antenna icon indicates the quality of reception.

	STRONG
	WEAK
	NO RECEPTION
	IN PROGRESS

For best reception, place the unit away from other equipment that emit radio frequency or microwave signals such as TVs, radios, PCs or microwave ovens. Other causes for signal interference include electrical power transmission tower and/or steel reinforced concrete construction.

HOW TO ENABLE OR DISABLE AUTO-RECEPTION

To disable the automatic reception of radio signal, press and hold **[VOL -]** for 2 seconds. The reception icon will disappear and the unit will stop receiving the radio signal.

To activate the signal reception again, press and hold **[VOL +]** for 2 seconds. The reception icon will appear again and start blinking to indicate auto reception of radio signal.

DISPLAY MODES SELECTION

Press **[MODE]** in the normal display mode to scroll through the calendar clock display modes:



1. Clock with Second

Calendar/Indoor Temperature



2. Clock with Weekday

Calendar/Indoor Temperature



3. Clock with Weekday

Clock (2nd Zone-time)/Indoor Temperature



4. Clock with Weekday(2nd Zone-time)

Calendar (2nd Zone-time)/Indoor Temperature

SETTING THE CLOCK AND CALENDAR MANUALLY

When the automatic radio reception is disabled, the main unit can be set manually. Set the Clock and Calendar by following the procedures below:

1. Press and hold **[MODE]** for 2 seconds. The 2nd Zone-time hour offset will start flashing.
2. Enter the hour-offset by using **[VOL +]** or **[VOL -]**. Press **[MODE]** to confirm the entry.
3. Follow the same procedures to set the 12/24-format, hour, minutes, year, "mm:dd" or "dd:mm" calendar display format, month, day, display languages and hourly chime on/off mode.
4. Press **[MODE]** to save the changes and exit the setting mode. If changes are made after the minute adjustment, the value of seconds will be reset and start from zero.
5. For the day-of-week you can select among 5 languages —English



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Language	Day-of-the-week	Affichage du jour	Wochentaganzeige				
Langues	Giorno della settimana	Día de la semana	Día de Semana				
Sprache	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Lingue	Lundi	Mardi	Mercredi	Jeudi	Vendredi	Samedi	Dimanche
Idiomas	Montag	Dienstag	Mittwoch	Donnerstag	Freitag	Samstag	Sonntag
Lingua	Lunedí	Martedì	Mercoledì	Giovedì	Venerdì	Sabato	Domenica
	Lunes	Martes	Miércoles	Jueves	Viernes	Sábado	Domingo
	Segunda	Terça	Quarta	Quinta	Sexta	Sábado	Domingo
English Anglais Englisch Inglese Inglés Inglês	E Mo Tu We Th Fr Sa Su						
French Français Französisch Francese Francés Francês	F Lu Ma Me Je Ve Sa Di						
German Allemand Deutsch Tedesco Alemán Alemão	D Mo Di Mi Do Fr Sa So						
Italian Italian Italianisch Italiano Italiano Italiano	I Lu Ma Me Gi Ve Sa Do						
Spanish Español Spanisch Spagnolo Español Espanhol	S Lu Ma Mi Ju Vi Sa Do						

(E), French (F), German (D), Italian (I) and Spanish (S).

DISPLAYING AND SETTING THE ALARM

This unit is equipped with a daily alarm. To view the preset alarm time, press [ALARM].

To set the corresponding alarm time, follow the instructions below:

1. Press and hold [ALARM] for 2 seconds in alarm display mode. The hours will blink.
2. Enter the hour by using [VOL +] or [VOL -]. Press [ALARM] to confirm the entry.
3. The Minutes will then blink.
4. Enter the minutes by using [VOL +] or [VOL -]. Press [ALARM] to confirm the entry.
5. The beep alarm [] or radio alarm icon [] will blink.
6. Select the alarm-sounding mode by using [VOL +] or [VOL -].
In Beep alarm mode, a 2-minute crescendo alarm will be turned on when the alarm time is up. In Radio alarm mode, when alarm time is up, the radio will be turned on and remained on for 2 hours unless it is manually deactivated. Press [ALARM] to confirm the entry.
7. If Radio alarm mode is being chosen, the radio will be automatically turned on and the Radio Station Number will flash. Select the radio station by using [STATION]. Please note that in this Radio Alarm mode, manual tuning cannot be used to set the station. Press [ALARM] to confirm the entry.
8. The Volume will then flash. Again, select the radio volume by



using [VOL +] or [VOL -]. Press [ALARM] to confirm the entry and exit the setting mode. Press [RADIO] to turn off the radio.

When the pre-set time arrives, beep sound / radio will be turned on. Press any key to stop the beep sound. The EL backlight and projection will also activate for 5 seconds.

To enable/disable the alarm, press [ALARM ON/OFF] when the main unit is in Alarm display mode

When [SNOOZE/LIGHT] is pressed to stop the alarm sound (only when Beep Alarm mode is selected), the unit will re-alarm again after 8 minutes. To disable the snooze function, press [ALARM] or [ALARM ON/OFF] or press and hold [SNOOZE/LIGHT] for 3 seconds when alarm goes off.

Please note that when Radio is on while Beep Alarm goes off at the same time, the Radio will be temporarily stopped until the Beep Alarm has been turned off.

NOTE ON RADIO ALARM

When the Radio Alarm is turned on, the Radio will be turned on for 2 hours. You can intervene by setting the time period for the Sleep function by pressing [SLEEP] or simply turn off the radio at any time.

HOURLY CHIME FUNCTION

When the hourly chime function is on, the indication “🔔” will be displayed and a beep sound will be given out at the beginning of

each hour. You can activate or deactivate this function by setting this in the clock and calendar setting mode (please refer to Section “SETTING THE CLOCK AND CALENDAR MANUALLY”).

Section II - Digitally-tuned PLL AM/FM Radio

HOW TO USE THE RADIO

Before you start - All radio functions can only be operated when Radio is powered on.

To turn on the radio press [RADIO]. The radio will be turned on at the last preset radio station and volume.

To change the radio frequency, press [AM/FM] to select the radio band. Then use [+TUNING -] to locate the desired radio frequency. Press once and the value will advance by 1 step. Press and hold for 2 seconds to enter the Radio Channel auto-search function.

To change the volume, use [VOL +] or [VOL -] to increase or decrease the volume. There are a total of 16 (0-15) - steps.

To toggle among the programmed stations, press [STATION].

To turn off the radio, press [RADIO].

AUTO-SEARCH FUNCTION

The unit is equipped with an Auto-Search function and can automatically search for the next clear channel. To activate this function, press and hold [+TUNING -] for 2 seconds and automatically the value of the frequency will keep increasing or





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decreasing until a clear channel is found. Once this function is activated, you can release and stop pressing the button.

3. Wait for about 5 seconds and the sleep function will be activated automatically.

HOW TO PROGRAM A PRESET STATION

This unit allows you to program up to 8 FM and 8 AM radio stations in the memory. To do so:

1. First press **[AM/FM]** to select the AM or FM frequency.
2. Select a station number by pressing **[STATION]**.
3. Locate the desired radio frequency by using **[+TUNING -]**.
4. Press and hold **[STATION]** for 2 seconds to confirm and exit the setting mode.

HOW TO USE THE SLEEP (AUTO-OFF) FUNCTION

With this Sleep function, the radio will be automatically switched off after a pre-set period of time.

1. To set the sleep function, press **[SLEEP]**. "0 min" will be displayed.
2. Press **[SLEEP]** again to select the period of time (120, 90, 60, 30 or 15 minutes)(when the function is activated the "Sleep" icon will flash).

Section III — Indoor Thermometer

DISPLAY OF INDOOR TEMPERATURE

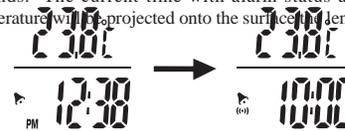
Once batteries are installed into the main unit, it will start to detect the indoor temperature and the data will be displayed. The temperature shown is in degree Celsius (°C). The unit is capable of measuring temperature within the -5°C and +50°C range. If the temperature goes above or below that, "HHH" or "LLL" will be displayed correspondingly.

Section IV — Projection

HOW TO USE THE PROJECTION

The projection makes it easier for you to read the current time or alarm time with alarm status and indoor temperature at night. To use the feature,

1. Press **[SNOOZE/LIGHT]** to turn on the projection for 5 seconds. The current time with alarm status and indoor temperature will be projected onto the surface the lens is facing.





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2. To change to view the preset alarm time instead of the current time, press [SNOOZE/LIGHT] again when projection is on.

Projector Features		
Feature	Effect	Instructions
Adjustable Projection	Rotates the projection 180°	Tilt swivel projection housing to alter the direction of projection
FOCUS Knob	Focuses projection	Rotate Dial D2 to focus projection
IMAGE ROTATION KNOB	Dial D3 rotates projection	Rotation of projection allows user to place clock in convenient
180° ROTATION BUTTON	Button D1 horizontally flips the projection 180°	Flips an image to maintain an upright position

For continuous projection, you must connect it with power adapter. When the power adapter is connected to the unit, the projection will be activated and remain so by sliding on the [PROJECTION ON►] switch.

To deactivate the feature, slide the switch back to its off position. To increase the life-time of the projection LED, it is suggested to

slide the [PROJECTION ON►] switch to the “off” position during daytime.

Section V — Others

BACKLIGHT

To turn on the EL backlight of the LCD Display, press [SNOOZE/LIGHT] to turn it on for 5 seconds.

HOW TO RESET THE UNIT

Press [RESET] to reset the settings when the unit is malfunctioning. When [RESET] is pressed, all settings will return to the default values and memory records will be erased.

PRECAUTIONS

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

1. Do not immerse the unit in water. If you spill liquid over it, dry it immediately with a soft, lint-free cloth.
2. Do not clean the unit with any liquid containing alcohol, detergent, abrasive or corrosive materials. They may scratch the plastic parts and corrode the electronic circuit.
3. 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.





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4. 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.
5. Only use fresh batteries as specified in the user's instructions. Do not mix new and old batteries as the old ones may leak.
6. Always read the user's instructions thoroughly before operating the unit.

To maintain good performances, do not use the units in places which are extremely hot, cold, dusty or humid. In particular, keep the units away from:

- High Humidity areas (e.g., bathroom)
- Extreme hot areas (e.g., near a heater)
- Areas exposed to direct sunlight

Note on Listening with the headphones

A headphone jack is provided so that you can listen to the radio by plugging a headphone into the jack. Remember to listen at a moderate volume to avoid hearing damage.

SPECIFICATIONS

Radio-controlled Calendar Clock

- Display format : 12- or 24-hour
- Calendar : Month/Day/Second or Month/Day/Day - of - Week
Day of Week in 5 languages:
English/ French/ German/ Italian and Spanish
- Alarm : Daily alarm in the following modes:

- (i) Crescendo Beep Alarm with 8-minute Snooze function; or
- (ii) Radio Alarm

Digital - tuning Radio

- AM band Frequency : 531 – 1602 kHz
(Step frequency: 9KHz)
- FM band Frequency : 87.5 – 108.0 MHz
(Step frequency: 0.05MHz)
- Station : 8 memories for AM/ 8 memories for FM
- Digital Volume : 16 - step (0-15)

Temperature Measurement

Main Unit

- Indoor Temperature
- Measuring Range : -5°C to +50°C (+23°F to +122°F)
- Temperature Resolution : 0.1°C (0.2°F)
- Power : - 4 pcs of AA or "UM-3" 1.5 V batteries
- 4.5 V AC Adapter (for continuous projection)
- Weight : 379g (without battery)
- Dimensions : 153 x 126 x 40mm (L x W x H)
- Note on Battery : Batteries included (if any) are for demonstration purpose only. For optimal daily-usage, application of new alkaline batteries are recommended.

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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.

EC-DECLARATION OF CONFORMITY

This product 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: 2000**

Electromagnetic compatibility

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

Applied Standards **EN 301 489-3: 2002**

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

EC Mandatory of Manufacturer



COUNTRIES RTTE APPROVAL COMPLIED

All EC countries, Switzerland 
and Norway 



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TROUBLESHOOTING GUIDE - RRM968P/ RRM968PU

Trouble	Possible Cause	Remedy
Reception icon "Antenna" is not shown	Auto-reception of clock radio signal has been disabled	Enable this function by following the instructions in the User's Manual
Displayed Temperature data is different from other measuring instruments	(1) The measurement method is different (2) The area under evaluation is different or being influenced by climate	(1) Use the same instruments with consideration of the tolerance of readings (1) Place the 2 instruments very closely for a time period (no less than 30 minutes), avoiding direct light and air movements
<ul style="list-style-type: none"> - Clock time is not correctly set; and/or - Reception icon "Antenna" displays as "No reception" 	<p>The clock radio signal is not received because:</p> <ul style="list-style-type: none"> - Electromagnetic interference exist, or the Main Unit is located within reinforced concrete wall or shadowed area location - Orientation of placement is not at optimum position for reception of clock radio signal 	<ul style="list-style-type: none"> - Locate the Main Unit far from PC, mobile phone etc and re-locate it near the window sill. Wait at least 24 hours (note: during night-time signal is less attenuate particularly after raining) - The clock radio signal is searched at 1:00, 2:00, 3:00, 9:00, 15:00, 21:00 every day automatically - To force the signal reception please refer to instructions in the User's manual
The projection LED does not go on when AC/DC adapter is installed	Projection-On button is slid to the Off-position	Slide the Projection-On button to the On-position
The unit is reset when SNOOZE button is pressed	Batteries are being discharged	Replace with new batteries

Warning:

- For other cases not listed in the above, feel free to contact our help line
- Do not dissemble the unit. This will void the warranty