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**Quick Setup**

Complete atomic clock setup using the below sequence as follows:

*Outdoor Transmitter:*
- Remove the four screws from the back of the outdoor transmitter.
- Insert two AA batteries into the outdoor transmitter (not included).
- Select between Celsius and Fahrenheit.
- Do not attempt to adjust the channel switch, this should be left at Channel 1 at all times.
- Press **RESET** using a thin pointed object.
- Secure screws.

*Atomic Clock:*
- Insert two AA batteries into the Atomic Clock (not included).
- Press **RESET** on the back of the unit; do not press any other buttons for ten minutes.
- Before placing the outdoor transmitter and Atomic Clock at desired locations, during initial setup, place the atomic clock as close as possible to the outdoor transmitter.
- Ten minutes after inserting the batteries into the Atomic Clock, both the indoor and outdoor temperature should show in the display of the atomic clock.
- If the time signal has not been received, set the time manually (see “Setting the time manually”, page 17).
- Program your time, select year, date, etc. (see “Setting the time manually”, page 17).
- Place outdoor transmitter and Atomic Clock at desired locations.
**INTRODUCTION**

In this package you will find:

- atomic clock (receiver)
- outdoor temperature transmitter
- instruction manual

*About these instructions*

Read these instructions carefully before using the device. Always keep the operating instructions close to hand. If you sell the equipment or give it away, make sure you also hand over these instructions.

*About the atomic clock*

This atomic clock with wireless indoor/outdoor thermometer provides the WWVB radio-controlled time, date, weekday, time zone, as well as the indoor and outdoor temperature including a memory for the maximum and minimum temperature.

Should the device not receive WWVB radio signals due to environmental conditions, you can use the device as a normal Quartz clock with the temperature data.

**ON WWVB Radio Controlled Time**

The NIST (National Institute of Standards and Technology) radio station is located in Ft. Collins, Colorado. It transmits an exact time signal continuously throughout the United States at 60 KHz frequency. The Atomic Clock with Wireless Indoor/Outdoor Thermometer can receive this WWVB signal through its internal antenna from up to 2,000 miles away. Due to the nature of the Earth's ionosphere, reception can be limited during the daylight hours. The atomic clock will search for an alternate station that derives its signal from the NIST Atomic clock in Boulder, Colorado. – For more information, visit the NIST website: [www.nist.gov](http://www.nist.gov).
SAFETY INSTRUCTIONS

Handling batteries safely

☐ The atomic clock is battery-operated. Batteries may endanger life if swallowed. For these reasons, keep the atomic clock and outdoor transmitter out of reach of children. If a battery is swallowed, please obtain immediate medical assistance.
☐ Do not insert rechargeable batteries.
☐ Replace all batteries at the same time. Use only fresh batteries. Do not mix new and old batteries.
☐ Do not mix different battery types.
☐ Always remove used batteries as they might leak. Leaking batteries might cause damage to the device.

Handling the atomic clock safely

☐ Do not immerse the atomic clock or the outdoor transmitter in water.
☐ Do not subject the product to excessive force, shock, dust, temperature, or humidity, which may result in malfunctions, shorter lifespan, damaged batteries, and damaged parts.
☐ Do not tamper with the atomic clock's internal components. Doing so will invalidate the warranty and may cause damage. This atomic clock and outdoor transmitter contain no user-serviceable parts.
☐ Do not clean the atomic clock and outdoor transmitter with abrasive or corrosive materials. They may scratch the plastic parts and corrode the electronic circuits.
☐ Though the outdoor transmitter is weather-proof, it should be placed away from direct sunlight, rain or snow.
PRODUCT OVERVIEW

Atomic clock – front

1. AM/PM display if 12 hour mode is chosen
2. Time
3. Time zone
4. Tower icon: indicates reception of WWVB signals
5. Low battery indicator
6. Weekday or seconds
7. Temperature unit °C or °F
8. Wave icon: indicates reception of outdoor temperature from transmitter
9. Channel: Fixed to channel 1
10. Outdoor temperature
11. Indoor temperature
12. Month and day
13. Sensors for indoor temperature
1. Wall-mount recessed hole
2. RESET: Reset the atomic clock
3. DOWN (two functions):
   - press briefly: decrease the setting;
   - press 2 seconds: activate outdoor transmitter temperature search
4. UP (three functions):
   - press briefly: increase the setting;
   - press and hold while weekdays are shown: select time zone;
   - press and hold while seconds are shown: activate search for WWVB signals (lower icon appears);
5. MEMORY: Call up maximum and minimum indoor and outdoor temperature
6. °C/°F: Select temperature unit for atomic clock
7. MODE (two functions):
   - press briefly: toggle between seconds and weekdays;
   - press 2 seconds: enter setting mode
8. Battery compartment
9. Table stand
Outdoor transmitter – front

1. Channel: Fixed to Channel 1
2. Outdoor temperature
3. Low battery indicator
4. Temperature unit as selected (°C/°F, see next page)
5. LED indicator:
   - flashes once when the remote transmitter transmits the reading to the atomic clock;
   - flashes twice when the battery power extinguishes
6. Sensors for outdoor temperature
Outdoor transmitter – back

1. Wall-mount recessed hole
2. Controls field (see below)
3. Battery compartment
4. Battery compartment lid; to remove, loosen the four screws
5. RESET: Reset outdoor transmitter; use a thin pointed object to press this button
6. CHANNEL: Fixed to Channel 1
7. °C/°F: Select temperature unit for outdoor transmitter; use a thin pointed object to press this button
**OPERATION**

Inserting and replacing the batteries

**Notes**
- Place batteries in the outdoor transmitter first, then into the atomic clock.
- After taking out batteries, always wait five minutes before reinserting; otherwise start up and transmission problems may occur.
- The batteries for the atomic clock have to be replaced when a low-battery indicator appears on the indoor temperature reading line in the display of the atomic clock.
- The batteries for the outdoor transmitter have to be replaced when a low-battery indicator appears on the outdoor temperature reading line in the display of the atomic clock. Just before the battery turns flat, the LED indicator will flash twice.
- When the temperature falls below freezing, the batteries in the outdoor transmitter will have a shorter effective range.
- After inserting the batteries, do not press any button for ten minutes.

**Atomic clock**
1. Remove the battery compartment door.
2. Install two "AA" size alkaline batteries (not included), pushing the first battery with the negative pole first to the right into the compartment. Observe the polarities shown in the compartment.
3. Replace the battery compartment door.
4. Press the RESET button on the back of the unit.
**Outdoor transmitter**

1. Remove the four screws from the battery compartment with a small Phillips screwdriver.
2. Install two "AA" size alkaline batteries (not included) according to the polarities shown in the battery compartment.
3. Press RESET, using a thin pointed object (such as an unfolded paper clip) which you stick into the RESET hole.
4. Replace the battery compartment door and secure its screws.

Do not press any button for ten minutes, as the unit will take about two minutes to receive temperature data and five to eight minutes to receive WWVB time signals (see next chapter).

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**Finding and transmitting signals**

**Conditions for the signal transmission**

In order to obtain the best possible signal transmission for the outdoor temperature transmitter and for the WWVB time signals to the receiver (the atomic clock), please consider the following conditions before placing the two devices at their final position.

*For reception of outdoor transmitter signals:*

- The distance between the transmitter and the atomic clock must not be more than 100 feet. This maximum transmission range might be reduced by environmental conditions.
- The transmitter should face the atomic clock.
Minimize obstructions such as doors, walls, furniture, etc.

Though the outdoor transmitter is weather-proof, it should be placed away from direct sunlight, rain or snow.

Signals from other household devices, such as doorbells, home security systems, and entry controls, may interfere with those of this product and may cause temporary reception failure. This is normal and will not affect the general performance of the product. The transmission and reception of temperature readings will resume once the interference subsides.

Using other electrical products such as headphones or speakers operating on the same signal frequency (433 MHz) may prevent correct signal transmission and reception.

Neighbors using electrical devices operating on the 433 MHz signal frequency can also cause interference.

For reception of WWVB signals:

Make sure the atomic clock is positioned at eight feet distance from any interference source such as a TV, computer monitor, microwave, etc.

Within concrete wall rooms such as basements or office buildings, the received signal may be weakened. Try positioning the atomic clock near a window; however, avoid to place it in or near a metal window frame. In extreme cases in concrete rooms with iron structures, point the front or back of the atomic clock towards Ft. Collins, Colorado.

During night time hours, atmospheric disturbances are typically less severe and reception may be improved. A single daily reception is sufficient enough to keep the atomic clock accurate up to 1 second.

In some areas, such as New York City, there may be especially strong interferences during the day time. For this reason, it is recommended that the atomic clock be positioned near a window for better reception.
Transmitting outdoor temperature data

During an initial setup, place the atomic clock as close as possible to the outdoor transmitter.

After the batteries are installed, the outdoor transmitter will first transmit temperature readings. The atomic clock may take up to two minutes to receive the initial readings, which are sent at 45 second intervals. The LED indicator on the transmitter flashes once when it transmits the reading to the clock.

During the search, the field “OUT” in the atomic clock display will show a blinking wave icon.

Upon successful reception, the outdoor temperature will show in the display of the atomic clock. Then the unit will automatically update readings at 45-second intervals.

The field “OUT” in the display then shows a permanent wave icon, which indicates a good reception.

If no signals are received from the outdoor transmitter within two minutes, two dashes will be displayed in the field “OUT”.

In this case, or if the field “OUT” will go blank without any reason, press and hold the DOWN button on the back of the clock for two seconds to initiate another signal search.

The two dashes will also appear when the temperature goes above or below the temperature range stated in the specifications.
Transmitting WWVB time signals

The atomic clock is equipped with an internal antenna to receive the WWVB time signals from the NIST radio station in Ft. Collins, Colorado (see “ON WWVB Radio Controlled Time”, page 6).

After the atomic clock receives temperature readings from the transmitter, the WWVB time signal receiver will automatically search for the time signal. This takes about five to eight minutes.

During the search, the WWVB tower icon in the clock display will flash. When the radio signal is received, the date and time will be set automatically. Upon successful reception, the tower icon will stay permanently lit.

The atomic clock will continue to search for the WWVB time signal for every hour between 1:00 am and 4:30 am every day. After the signal has been successfully obtained, the time and date will be updated automatically. The daylight savings time is also set automatically.

After reception is established, position the outdoor transmitter and atomic clock within an effective transmission of 100 feet.

No reception of signals

☐ Ten minutes after inserting the batteries, both the indoor and the outdoor temperature should show in the display of the atomic clock. If not, remove both sets of batteries, wait five minutes and reinsert the batteries as described above.

☐ If the tower icon is not fully lit, or if the time is not set automatically, please consider the conditions for the reception of WWVB data as described above.

☐ If in eight minutes the time signal has not been received, set the time manually (see “Setting the time manually”, page 17). The atomic clock will continue to search for the WWVB time signals.

☐ You can activate a search for WWVB signals:
  – Select the display of seconds (not weekdays) with the MODE button;
  – Press and hold the UP button for two seconds; the tower will flash to indicate the search.
Manual settings and button functions

Setting the time manually

It is possible to set the time manually if no WWVB signal can be received. The device will then work as a normal Quartz clock. However, the clock will continue to search for the WWVB time signal (see "Transmitting WWVB time signals", page 16).

Avoid setting the time before the the outdoor temperature is displayed.

Time Zone

You can select between the following time zones (from West to East): Pacific, Mountain, Central or Eastern. The default setting of the time zone is Pacific.

1. If necessary, select the display of weekdays (not seconds) with the MODE button.
2. Press and hold the button UP for two seconds.
3. Keep holding until the desired time zone is selected on the display map.

Year, date, time, temperature unit

1. Press and hold the button MODE for two seconds: the "year" will flash. Select the year with the UP or DOWN button.
2. Press MODE: the "month" will flash. Select the month with the UP or DOWN button.
3. Press MODE: the "date" will flash. Select the date with the UP or DOWN button.
4. Press MODE: "12" or "24" will flash. Select the hour time format with the UP or DOWN button.
   NOTE: If you select the 12 hour format, an AM or PM, resp., will appear in the display together with the time.
5. Press MODE: the "hour" will flash. Select the hour with the UP or DOWN button.
6. Press MODE: the "minutes" will flash. Select the minute with the UP or DOWN button.
7. Press MODE: the "weekday language" will flash (EN = English, SP = Spanish, FR = French, GE = German, IT = Italian). Select the weekday language with the UP or DOWN button.

8. Press MODE: °C or °F will flash. Select the temperature unit with the UP or DOWN button.
   NOTE: You can change the temperature unit independently; see next paragraph.

9. Press MODE to save all settings and return to the regular mode.

More button functions

Changing the temperature unit
You can select between Celsius (°C) and Fahrenheit (°F).

☐ To change the the temperature unit display in the atomic clock, press the button °C/°F on the back of the unit.

☐ To change the the temperature unit display in the outdoor transmitter, open the battery compartment and stick a thin pointed object into the hole labeled °C/°F.

Maximum and minimum temperature
The maximum and minimum record of the indoor and outdoor temperature will be automatically stored in the memory. It will display the minimum, maximum and the current reading upon each press of the button MEMORY.

If no button is being pressed, the unit will revert back to the current temperature display after 15 seconds. To clear the memory, press and hold the button MEMORY for three seconds, the maximum and minimum readings will be erased.

Seconds and weekday display
By pressing the button MODE briefly, you can toggle between the display of the seconds and the weekday. The first two letters of the weekday will appear in the language chosen during the time setting.
# SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>Atomic Clock</th>
<th>Transmitter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power</strong></td>
<td>2 batteries size AA/UM3 alkaline (not included)</td>
<td>2 batteries size AA/UM3 alkaline (not included)</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>8.66(L) x 9.21(H) x 1.30(D) inches</td>
<td>2.20(L) x 4.13 (H) x 0.91(D) inches</td>
</tr>
<tr>
<td><strong>Outdoor temperature range</strong></td>
<td>-5.0°C to +50.0°C/ 23.0°F to 122.0°F</td>
<td>-20.0°C to + 70.0°C/ - 4.0 °F to 158.0 °F</td>
</tr>
<tr>
<td><strong>Temperature resolution</strong></td>
<td>0.1°C/ 0.2°F</td>
<td>0.1°C/ 0.2°F</td>
</tr>
<tr>
<td><strong>RF Transmission Frequency</strong></td>
<td>433 MHz</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum number of outdoor transmitter</strong></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>RF Transmission Range</strong></td>
<td>Maximum 100 feet</td>
<td></td>
</tr>
<tr>
<td><strong>Temperature sampling cycle</strong></td>
<td>approximately 45 seconds</td>
<td></td>
</tr>
</tbody>
</table>
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 modification 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 had 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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.
MEDION LIMITED WARRANTY

Medion warrants that the product accompanied by this limited warranty is free from manufacturing defects in material or workmanship for a period of 24 months from the date of original purchase. This warranty only applies to the original purchaser of the product. The limited warranty period also applies to any implied warranties that may exist under applicable law. Some States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This limited warranty does not apply to products that have been opened, repaired (except by Medion or its authorized service representatives), or otherwise altered. This limited warranty does also not apply to defects resulting from misuse, abuse, accident, neglect, improper maintenance or handling.

If you believe the product is defective please return it to Medion in the manner described below within the limited warranty period. If Medion determines a defect covered by this limited warranty, Medion will, at its option, repair or replace the product. This limited warranty extends to repaired products and replacement products only through the end of the original limited warranty period.

In no event shall Medion or any of its distributors or resellers be liable for incidental, indirect or consequential damages relating to the product (including any repaired product or replacement product) or its use. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

This limited warranty gives you specific legal rights, and you may have other rights which vary from State to State.

To make a claim under this limited warranty you must first contact Medion Customer Care using one of the options below to obtain a return material authorization (RMA) number. Once you have received the RMA, please return the product as instructed by the RMA. This warranty does not apply to any products returned to Medion without a RMA.

To obtain a RMA please contact Medion Customer Care at:
www.medion.com
or:
United States/Canada: 1-866-633-4660