RADIO CONTROLLED ALARM CLOCK WITH AIR QUALITY MONITOR

Instructions manual

Cat. No. 60.2527.10

Thank you for choosing this instrument from TFA.

Our "Big Air Monitor" shows you how used and polluted your air really is. It allows you then to ventilate in an energy efficient way and to ensure a healthy indoor climate at home or in the office.
Headaches, dizziness and fatigue are often due to an excessive concentration of volatile organic compounds from natural and artificial sources of emissions.
The air quality sensor detects more than 5,000 substances in the air which can be harmful to people, for example formaldehyde, solvents, carbon monoxide, methane or cigarette smoke.

The device displays the air quality with different levels and warns of invisible dangers!

Important!
Please keep in mind that after setting up the instrument a reliable value is displayed only after about 5 days. The sensor has to adjust itself to the actual conditions at the installation site and find a reference level.
Until this process is complete, the instrument initially shows higher values.

BEFORE YOU USE IT

Please make sure to read the instruction manual carefully.
This information will help you to familiarise yourself with your new device, to learn all of its functions and parts, to find out important details about its first use and how to operate it, and to get advice in the event of faults.
Following and respecting the instructions in your manual will prevent damage to your instrument and loss of your statutory rights arising from defects due to incorrect use.
We shall not be liable for any damage occurring as a result of not following these instructions. Likewise, we take no responsibility for any incorrect readings and for any consequences which may result from them.
Please take particular note of the safety advice!
Please keep this instruction manual for future reference.

SCOPE OF DELIVERY:

- Radio controlled alarm clock with air quality monitor
- Instruction manual

FIELD OF OPERATION AND ALL THE BENEFITS OF YOUR NEW INSTRUMENT AT A GLANCE:

- Radio-controlled clock with highest precision and manual setting option
- Alarm with snooze function
- Date display
- Air quality monitor with various levels
- Acoustic and visual alarm function
- Indoor temperature and humidity
- Backlight

FOR YOUR SAFETY:

- The product is exclusively intended for the field of application described above. The product should only be used as described within these instructions.
- Unauthorised repairs, modifications or changes to the product are prohibited.
- This product is not to be used for medical purpose or for public information; it is only intended for home use.

Caution!
Risk of injury:

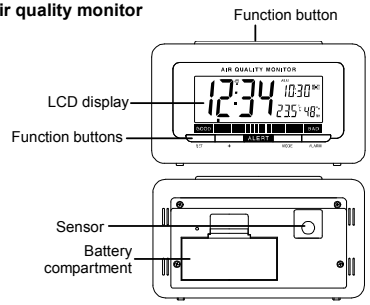
- Keep this instrument and the batteries out of the reach of children.
- Batteries must not be thrown into the fire, short-circuited, taken apart or recharged. Risk of explosion!
- Batteries contain harmful acids. Low batteries should be changed as soon as possible to prevent damage caused by a leaking battery. Never use a combination of old and new batteries together or batteries of different types. Wear chemical-resistant protective gloves and glasses when handling leaking batteries.

! Important information on product safety!

- Do not place your product near extreme temperatures, vibrations or shocks.
- Protect it from moisture.

ELEMENTS:

The air quality monitor



SETTING UP:

1. Open the battery compartment at the back of the device. Insert two new batteries 1,5V C, IEC LR14. Make sure the polarities are correct. Close the battery compartment again.
2. When the batteries are inserted, all the segments of the LCD will light up briefly and a “beep” will sound.
3. The device will now start receiving the DCF time signal. After approximate 3 to 10 minutes, the DCF time will be displayed.
4. If there is no DCF reception possible after 10 minutes, you have also the possibility to set the time manually (see: Manuel settings).

RADIO-CONTROLLED TIME RECEPTION

The time base for the radio-controlled time is a cesium atomic clock operated by the Physikalisch Technische Bundesanstalt Braunschweig. It has a time deviation of less than one second in one million years. The time is coded and transmitted from Mainflingen near Frankfurt via frequency signal DCF-77 (77.5 kHz) and has a transmitting range of approximately 1,500 km. Your radio controlled clock receives this signal, converts it to show the precise time. Changeover from summer time or winter time is automatic. The quality of the reception depends mainly on the geographic location. Normally there should be no reception problems within a 1,500 km radius around Frankfurt.

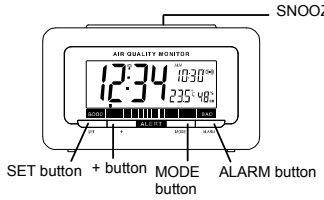
The DCF reception always takes place at 02:00 and 03:00 am. If the reception is not successful received at 03:00 am, the next attempt will be held at 02:00 am the next day.

Please take note of the following:

- The recommended distance to any interfering sources like computer monitors or TV sets is at least 1.5 - 2 meters.
- Inside Ferro-concrete rooms (basements, superstructures), the received signal is naturally weakened. In extreme cases, please place the unit close to a window to improve the reception.
- During nighttime, the atmospheric interference is usually less severe and reception is possible in most cases. A single daily reception is adequate to keep the accuracy deviation under 1 second.

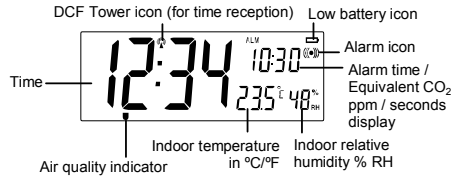
BUTTON FUNCTIONS:

The device has 5 easy-to-use buttons:



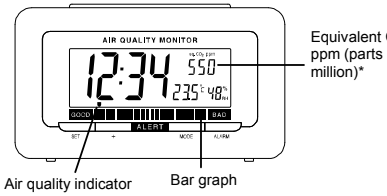
By each button press the backlight will be activated for about 10 seconds.

LCD SCREEN



- Press the **SET** button in normal mode to show the calendar for about 6 seconds.
- Press the **MODE** button in normal mode to toggle between: Equivalent CO_2 ppm display, seconds and alarm display.

AIR QUALITY INDICATOR



* The air quality value shown, after sensor conditioning, may differ +/- 250 ppm.

The air quality sensor detects more than 5,000 harmful substances in the air.
The measured values are attributed to CO_2 - equivalent units of ppm to maintain compatibility with CO_2 ventilation standards.

Note:
An Equivalent CO_2 ppm value will appear after 30 minutes after setup. The instrument initially shows higher values. The device adjusts itself to the actual conditions at the installation site and finds a reference level. A reliable value is displayed only after about 5 days located at the same place.

AIR QUALITY SYMBOL

The air quality symbol (arrow) is located on the bottom of the LCD. The bar graph measures from GOOD (green) until BAD (red) and is printed on the edge of the housing.

Levels	Equivalent CO_2 ppm
GOOD (level 1)	450 – 600ppm
Level 2	650 – 800ppm
Level 3	850 – 1000ppm
Level 4	1050 – 1200ppm
Level 5	1250 – 1500ppm
Level 6	1550 – 1800ppm
Level 7	1850 – 2100ppm
Level 8	2150 – 2400ppm
BAD (level 9)	≥ 2450ppm

MANUAL SETTINGS:

The following manual settings can be done in the setting mode:

- Time zone setting
- DCF ON/OFF setting
- 12/24 hour time setting
- Manual time setting
- Calendar setting
- Snooze function setting
- °C / °F temperature display setting
- Air quality alert setting

Press and hold the **SET** button for about 3 second to enter the setting mode:

TIME ZONE SETTING

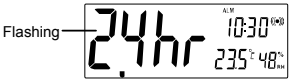
The time zone default is "0h". To set a different time zone:
1. 0h starts flashing.
2. Use the **+button** to set the time zone. The range runs from 0, 1, 2…until -12, and then from 12, 11, 10 back to 0.
3. Confirm with the **SET** button and enter the **Time reception On/Off setting**.

TIME RECEPTION ON/OFF SETTING

In area where is no DCF reception is possible, you have also the possibility to deactivate the DCF reception manually (OFF). The clock will then work as a normal quartz clock (Default is ON).
1. The symbol “ON” and the reception symbol will start flashing on the LCD.
2. Use the **+** button to deactivate (OFF) the time reception function if necessary.
3. Confirm with the **SET** button and enter the **12/24 hour time display setting**.

Note:
If the time reception function is deactivated (OFF) manually, the clock will not attempt any reception of the radio-controlled time (DCF time) as long as the time reception will be activated (ON) again. If the time reception is deactivated (OFF) the DCF symbol disappears.

12/24 HOUR TIME DISPLAY SETTING

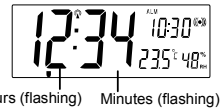


1. “12hr” or “24hr” flashes in the LCD (default is 24hr).
2. Press the **+** button to select the “12hr” or “24hr” display mode.
3. Confirm with the **SET** button and enter the **Manual time setting**.

Note:
When 24h time display is selected, the calendar format will be date and month display. When 12h time display is selected, the calendar format will be month and date display.

MANUAL TIME SETTING

In case the device is not able to attempt the radio-controlled time (disturbances, transmitting distance, etc.), the time can be manually set. The clock will then work as a normal quartz clock.

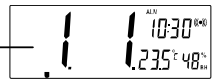


To set the clock:
1. The hour digits will be flashing in the display.
2. Use the **+** button to adjust the hours. Press the **SET** button to go to the minute setting.
3. The minute will be flashing. Press the **+** button to just the minutes.
4. Confirm with the **SET** button and enter the **Calendar setting**.

Note:
By a successfully reception of the DCF signal and if the DCF reception is activated (ON), the manually set time will be overwritten. During the reception the DCF symbol will be flashing. If the reception is not successfully received, the DCF symbol disappears. The next attempt will be held at the next full hour.

CALENDAR SETTING

The date default is 1. 1. of the year 2013. Once the radio-controlled time signals are received, the date is automatically updated. However, if the signals are not received, the date can also be set manually.



1. The year digit will be flashing. Use the **+** button, to set the year required. The range runs from 2013 to 2049 (default is 2013).
2. Press the **SET** button to enter the month setting.
3. The month digit will be flashing. Press the **+** button to set the month.
4. Press the **SE**T button to enter the day setting.
5. The day digit will be flashing. Press the **+** button to set the day.
6. Confirm with the **SET** button and enter the **Snooze setting**.

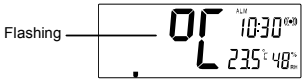
SNOOZE SETTING

The snooze time can be deactivated (OFF) or set to a maximum time of 30 minutes (default is10 minutes):

1. The snooze time digit (in minute) will be flashing. Use the **+** button to set the snooze time. The settings are: 5, 10 (default), 15, 20, 25, 30. The snooze can also be deactivated (OFF). OFF appears in the display.
2. Confirm the setting with the **SET** button and enter the **°C/°F temperature unit setting**.

Note:
If the snooze time has been set "OFF", the snooze function cannot be activated.

°C/°F TEMPERATURE UNIT SETTING



The default is °C (degree Celsius). To select °F (degree Fahrenheit):
1. Press the + button meanwhile the "C will be flashing to toggle between ""C" and ""F".
2. Confirm with the **SET** button and enter the **Air quality alert setting**.

AIR QUALITY ALERT SETTING

The air quality monitor has 3 alert settings (default OFF):
- **ALL:** LED alert light with alert sound
- **OFF: A**lert deactivated (no LED alert flashing, no alert sound)
- **LED:** LED alert flashing only

1. The setting will be flashing. Use the **+** button to set the required setting (ALL, LED, OFF).
2. Confirm with the **SET** button and **exit the manual settings**.

Note:
If the air quality alert has been set to "ALL" or "LED":

- **Equivalent CO_2 ppm > 1500ppm:**
  LED alert will be flashing at a slower speed (1.5 seconds) and no alert sound.
- **Equivalent CO_2 ppm > 2000ppm:**
  LED alert will be flashing at faster speed (0.5 seconds) and has an alert sound. (Alert will sound only if the air quality setting has been set to ALL).

Note about the air quality alert:
- The air quality alert will sound for a maximum duration of 30 minutes. To stop the alert, press any button.
- If the clock alarm or the DCF reception occurs while the air quality is on alert mode, the air quality alert sound stops and the LED flashing will momentarily stop. It will restart once the clock alarm is stopped, or after the DCF time reception is done.

ALARM SETTING

Press the **MODE** button in normal mode to toggle to the alarm display.
1. Press and hold **ALARM** button for about 3 seconds until the alarm time display will be flashing.
2. The hour digit will be flashing. Press the **+** button to adjust the hour.
3. Press the **ALARM** button and the minute digit will be flashing. Press the **+** button to set the minute.
4. Press again the **ALARM** button to confirm the setting and exit the alarm setting.

Note:
- To activate/ deactivate the alarm function, press the **ALARM** button once in normal mode. The display of the alarm symbol represents that the alarm is activated "ON".
- The duration of alarm sounding is 180 seconds.

TO ACTIVATE THE SNOOZE FUNCTION AND STOPPING THE ALARM:

1. When the alarm is sounding, press the **SNOOZE** button to activate the snooze function. The alarm will stop and re-activate after the time interval of the snooze time pre-set by the user.
2. To stop the alarm completely, press any button except the **SNOOZE** button.

CARE AND MAINTENANCE

- Clean the instrument with a soft damp cloth. Do not use solvents or scouring agents. Protect it from moisture.
- Remove the batteries if you do not use the product for a long period of time

BATTERY REPLACEMENT

- Replace the batteries, when the battery symbol appears on the top right side of the LCD.

TROUBLESHOOTING

Problems	Solution
No indication on the device	• Ensure batteries polarity are correct • Change the batteries
No DCF reception	• Time reception setting "ON" • Choose another place for the device • Manual time setting • Wait for attempted reception during the night
Incorrect display	• Change the batteries

WASTE DISPOSAL

This product has been manufactured using high-grade materials and components which can be recycled and reused.

Never dispose of empty batteries and rechargeable batteries in household waste.

As a consumer, you are legally required to take them to your retail store or to appropriate collection sites according on national or local regulations in order to protect the environment.
The symbols for the heavy metals contained are: Cd=cadmium, Hg=mercury, Pb=lead

This instrument is labelled in accordance with the EU Waste Electrical and Electronic Equipment Directive (WEEE).
Please do not dispose of this product with other household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment, in order to ensure environmentally-compatible disposal.

SPECIFICATIONS:

Recommended temperature range:
+5ºC to +40ºC / +41ºF to 104ºF
Temperature measuring range:
Indoor : -9.9ºC to +59.9ºC with 0.1ºC resolution / 14.1ºF to +139.8ºF with 0.2ºF resolution (OFL displayed if outside this range. In degree F display, OFL will displayed when over 99.9ºF)
Relative humidity measuring range:
Indoor : 20% to 95% with 1% resolution (display "- -" if temperature is OFL, except when the temperature is 100ºF to 139.8ºF; display "19%" if < 20% and "96%" if > 95%)
Equivalent CO_2 ppm measuring range:
450ppm to 6950ppm with 50ppm resolution (display OFL > 6950ppm)
Measuring intervals:
Indoor temperature checking interval : every 16 seconds
Indoor humidity checking interval : every 16 seconds
Air quality level checking interval : every 3 minutes
Power consumption: 2 x C, IEC LR14, 1.5V
Dimensions (L x W x H): 149.4 x 49 x 83.7mm

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DECLARATION OF CONFORMITY
Herewith we declare, that this wireless transmission device does comply with the essentials requirements of R&TTE Directive 1999/5/EC.
A copy of the signed and dated Declaration of Conformity is available on request via info@tfa-dostmann.de.
www.tfa-dostmann.de
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