WIRELESS 868 MHz TEMPERATURE STATION

Instruction Manual

Cat. No. 30.3037.IT

Thank you for choosing this wireless temperature station from TFA.

BEFORE YOU USE IT

Please be sure to read the instruction manual carefully.

This information will help you to familiarise yourself with your new device, learn all of its functions and parts, find out important details about its first use and how to operate it, and get advice in the event of faults.

Following the instruction manual for use will prevent damage to the device 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.

Please take particular note of the safety advice!
Please look after this manual for future reference.

SCOPE OF SUPPLY:

- Temperature station (basic unit)
- Outdoor transmitter
- Batteries 4 x AA, IEC LR6, 1.5V
- Instruction manual

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

- DCF-77 Radio controlled time function with manual time setting options
- DCF time reception ON/OFF
- 24 hour display
- Alarm function with snooze
- Temperature display in degree Celsius (°C)

- Indoor and outdor temperature with MIN/MAX records
- Manual reset of MIN/MAX records
- Wireless transmission at 868 MHz
- Signal reception intervals at 4 seconds
- Low battery indicator
- Wall mounting or table standing (foldout stand)

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.
- The product is not to be used for medical purpose or for public information, but is intended solely for home use.

Caution!
Risk of injury:

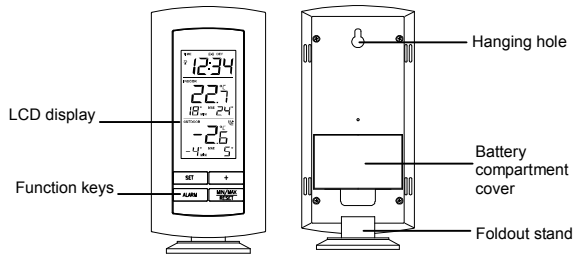
- Keep this instrument and the batteries out of reach of children.
- Batteries must not be thrown into the fire, short-circuited, taken apart or recharged. Risk of explosion!
- Batteries contain harmful acids. Low batteries should be changed as soon as possible to prevent damage caused by a leaking battery.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

! Important information on product safety!

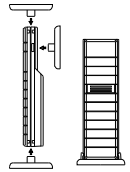
- Do not expose the instrument to extreme temperatures, vibration or shock.
- The outdoor transmitter is protected against splash water, but is not watertight. Choose a shady and dry position for the transmitter.

ELEMENTS

The temperature station



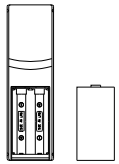
The Outdoor Temperature Transmitter



- Remote transmission of outdoor temperature to the temperature station by 868 MHz signals
- Shower proof casing
- Wall mounting and table-standing

HOW TO INSTALL AND REPLACE BATTERIES IN THE TEMPERATURE TRANSMITTER

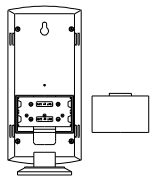
The temperature transmitter uses 2 x AA, IEC LR6, 1.5V battery. To install and replace the batteries, please follow the steps below:



1. Remove the battery compartment cover at the back of the transmitter.
2. Insert the batteries, observing the correct polarity (see marking).
3. Replace the battery compartment cover on the unit.

HOW TO INSTALL AND REPLACE BATTERIES IN THE TEMPERATURE STATION

The temperature station uses 2 x AA, IEC LR6, 1.5V batteries. When batteries will need to be replaced, the low battery icon will appear on the LCD. To install and replace the batteries, please follow the steps below:



1. Lift up the battery compartment cover.
2. Insert batteries observing the correct polarity (see marking).
3. Replace compartment cover.

Battery replacement

- Replace the batteries when the battery symbol of the temperature station appears above the indoor temperature.
- When the batteries of the transmitter are used up, the low battery icon appears above the outdoor temperature display.

Note:
In the event of changing batteries in any of the units, all units need to be reset by following the setting up procedures. This is because a security code is assigned by the transmitter at start-up and this code must be received and stored by the temperature station in the first 3 minutes of power being supplied to it.

SETTING UP:

Note: **This temperature station receives only one outdoor transmitter.**

1. First, insert the batteries into the temperature transmitter. (see "**Install and replace batteries in the temperature transmitter**").
2. Immediately after and within 30 seconds, insert the batteries into temperature station (see "**Install and replace batteries in the temperature station**"). Once the batteries are in place, all segments of the LCD will light up briefly. Following the time as 0:00 and the indoor temperature will be displayed. If these are not displayed after 60 seconds, remove the batteries and wait for at least 30 seconds before reinserting them.

3. After inserting the batteries, the temperature station will start receiving data from the transmitter. The outdoor temperature and the signal reception icon should then be displayed on the temperature station. If this does not happen after 3 minutes, the batteries will need to be removed from both units and reset from step 1.
4. In order to ensure sufficient 868 MHz transmission however, this should under good conditions be a distance no more than 100 meters between the final position of the temperature station and the transmitter (see notes on "**Mounting**" and "**868 MHz Reception**").
5. Once the remote temperature has been received and displayed on the temperature station, the DCF time (radio controlled time) code reception is automatically started. This takes typically between 3-5 minutes in good conditions.

DCF RADIO CONTROLLED TIME

The time base for the radio controlled time is a Cesium Atomic Clock operated by the Physikalisch Technische Bundesanstalt Braunschweig which 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 temperature station receives this signal and converts it to show the precise time in summer or wintertime.
The quality of the reception depends greatly on the geographic location. In normal cases, there should be no reception problems within a 1,500 km radius of Frankfurt.

DCF reception is done twice daily at 02:00 and 03:00 am. If the reception is not successful at 03:00 am, then the next reception takes place the next hour and so on until 06:00am, or until the reception is successful. If the reception is not successful at 06:00 am, then the next attempt will take place the next day at 02:00 am.

If the tower icon flashes, but does not set the time or the DCF tower does not appear at all, then please take note of the following:

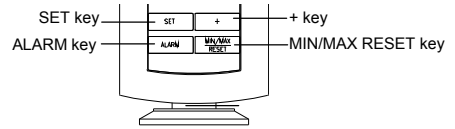
- Recommended distance to any interfering sources like computer monitors or TV sets is a minimum of 1.5 - 2 meters.
- Within ferro-concrete rooms (basements, superstructures), the received signal is naturally weakened. In extreme cases, please place the unit close to a window and/ or point its front or back towards the Frankfurt transmitter.

- During nighttime, the atmospheric disturbances are usually less severe and reception is possible in most cases. A single daily reception is adequate to keep the accuracy deviation below 1 second.

FUNCTION KEYS:

Temperature station:

The temperature station has four easy to use function keys.



SET key

- Press the key to enter manual setting modes: Time zone, Time reception ON/OFF and Manual time

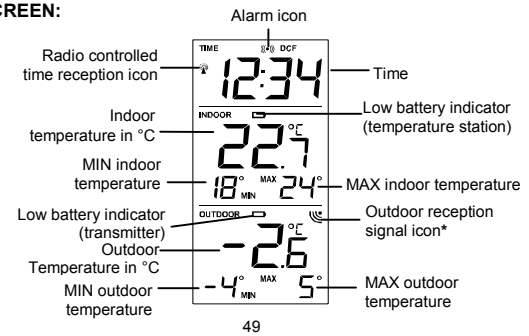
- Stop the alarm
- Exit manual setting modes

+ key
- To make adjustment for various settings
- Stop the alarm

ALARM key
- Enter the alarm setting mode
- Switch the alarm ON/ OFF
- Stop the alarm

MIN/MAX RESET key
- Press and hold to reset the MIN/MAX temperature records
- Activate the snooze
- Exit manual setting modes

LCD SCREEN:


Alarm icon
Radio controlled time reception icon
Time
Low battery indicator (temperature station)
Indoor temperature in °C
MIN indoor temperature
MAX indoor temperature
Low battery indicator (transmitter)
Outdoor reception signal icon*
Outdoor Temperature in °C
MIN outdoor temperature
MAX outdoor temperature
TIME
DCF
INDOOR
OUTDOOR
MIN
MAX

* When the outdoor signal is successfully received by the temperature station, this icon will be switched on. (If not successful, the icon will not be shown in LCD) So user can easily see whether the last reception was successful (icon on) or not (icon off).

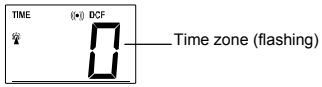
MANUAL SETTINGS:

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

- Time zone
- Time reception DCF ON/OFF
- Manual time

Press and hold the **SET** key for about 3 seconds to advance to the setting mode:

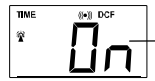
TIME ZONE SETTING:



The time zone default is "0″ hour. To set a different time zone:

1. The current time zone value starts flashing.
2. Use the **+** key to set the time zone. The range runs from 0, -1, -2…-12, 12, 11, 10… 2, 1, 0, in consecutive 1-hour intervals.
3. Confirm with the **SET** key and enter the **Time reception On/Off setting.**

TIME RECEPTION ON/OFF SETTING



flashing

In area where reception of the radio-controlled time (DCF time) is not possible, the time reception function can be turned OFF. The clock will then work as a normal Quartz clock. (Default setting is ON).

1. The digit “ON” digit will start flashing on the LCD.
2. Use the **+** key to turn OFF the time reception function if necessary.

3. Confirm with the **SET** key and enter the **Manual time setting**.

Note:
If the time reception function is turned OFF manually, the clock will not attempt any reception of the radio-controlled time (DCF time) as long as the Time Reception OFF function is activated. The Time Reception icon and the DCF icon will not be displayed on the LCD.

MANUAL TIME SETTING

In case the temperature station is not able to detect the radio-controlled time (DCF time) signal (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 start flashing in the time display section.
2. Use the **+** key to adjust the hours and then press **SET** key to go to the minute setting.
3. The minute will be flashing. Press the **+** key to just the minutes.
4. Confirm with the **SET** or MIN/MAX RESET key and exit the setting mode.

Note :
The unit will still try to receive the signal despite a manual setting. When the signal is received, the manually set time will automatically be replaced by the received time. During reception attempts, the DCF tower icon will flash. If reception has been unsuccessful, the DCF tower icon will not appear but reception will still be attempted.

ALARM SETTING

To set alarm:

1. Press and hold **ALARM** for about 3 seconds until the alarm time display flashes.
2. The hour digit will be flashing and the alarm icon will appear. Press the **+** key to adjust the hour.
3. Press **ALARM** button once and minute digit will be flashing. User shall then press **+** button to set the minute.
4. Press **ALARM** button once to confirm the setting.
5. To activate/ deactivate the alarm function, press the **ALARM** button once. The display of the alarm icon represents that the alarm is "ON".

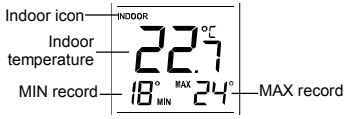
Note: The duration of alarm sounding is 85 seconds

TO ACTIVATE THE SNOOZE FUNCTION AND STOPPING THE ALARM:

1. When the alarm is sounding, press the **MIN/MAX RESET** key to activate the snooze function. The alarm will stop and re-activate after the snooze interval of 10 minutes.
2. To stop the alarm completely, press any keys other than the **MIN/MAX RESET** key.

INDOOR TEMPERATURE AND MIN/MAX RECORDS

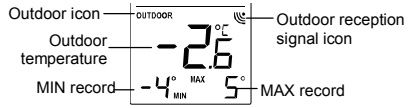
The indoor temperature and indoor MIN/MAX records are displayed on the second section of the LCD.



Note:
The MIN/MAX indoor temperature range is -9ºC to + 38ºC with 1˚C resolution.

OUTDOOR TEMPERATURE AND MIN/MAX RECORDS

The outdoor temperature and outdoor MIN/MAX records are displayed on the last section of the LCD.



Note:
The MIN/MAX outdoor temperature resolution range is -40ºC to + 60ºC with 1˚C resolution.

RESETTING THE INDOOR AND OUTDDOR MIN/MAX RECORDS

Note: **All the MIN/MAX records will be reset at the same time.**

1. In normal display mode, press and hold the **MIN/MAX RESET** key for 3 seconds. This will reset the indoor and outdoor MIN/MAX temperatures.

868 MHz RECEPTION CHECK

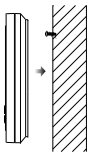
The temperature station should receive the temperature data within 3 minutes after set-up. If the temperature data is not received 3 minutes after setting up (not successfully continuously, the outdoor display shows "- - -"), please check the following points:

1. The distance of the temperature station or transmitter should be at least 1.5 to 2 meters away from any interfering sources such as computer monitors or TV sets.
2. Avoid positioning the temperature station onto or in the immediate proximity of metal window frames.
3. Using other electrical products such as headphones or speakers operating on the same signal frequency (868MHz) may prevent correct signal transmission and reception.
4. Neighbours using electrical devices operating on the 868MHz signal frequency can also cause interference.

Note:
When the 868MHz signal is received correctly, do not re-open the battery cover of either the transmitter or temperature station, as the batteries may spring free from the contacts and force a false reset. Should this happen accidentally then reset all units (see **Setting up** above) otherwise transmission problems may occur.
The transmission range is about 100 m from the transmitter to the temperature station (in open space). However, this depends on the surrounding environment and interference levels. If no reception is possible despite the observation of these factors, all system units have to be reset (see **Setting up**).

POSITIONING THE TEMPERATURE STATION:

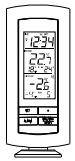
The temperature station may be hung onto wall easily or free standing.



To wall mount

Choose a sheltered place. Avoid direct rain and sunshine.
Before wall mounting, please check that the outdoor temperature values can be received from the desired locations.

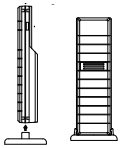
1. Fix a screw (not supplied) into the desired wall, leaving the head extended out the by about 5mm.
2. Remove the stand from the temperature station by pulling it away from the base and hang the station onto the screw. Remember to ensure that it locks into place before releasing.



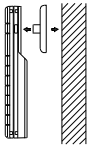
Free standing

With the foldout stand, the temperature station can be placed onto any flat surface.

POSITIONING THE TEMPERATURE TRANSMITTER:



The transmitter is supplied with a holder that may be attached to a wall with the two screws supplied. The transmitter can also be position on a flat surface by securing the stand to the bottom to the transmitter.



To wall mount:

1. Secure the bracket onto a desired wall using the screws and plastic anchors.
2. Clip the remote temperature sensor onto the bracket.

Note:
Before permanently fixing the transmitter wall base, place all units in the desired locations to check that the outdoor temperature reading is receivable. In event that the signal is not received, relocate the transmitters or move them slightly as this may help the signal reception.

CARE AND MAINTENANCE

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

MALFUNCTION

Problems	Troubleshooting
No indication on the temperature station	• Ensure batteries polarity are correct • Change batteries

No transmitter reception Display "---"	• Check batteries of external transmitter (do not use rechargeable batteries!) • Restart the transmitter and temperature station as per the manual • Choose another place for the transmitter and/or the temperature station • Reduce the distance between the transmitter and the temperature station • Check if there is any source of interference
No DCF reception	• Time reception setting “ON” • Choose another place for the temperature station • Manual time setting • Wait for attempted reception during the night
Incorrect display	• Change batteries

WASTE DISPOSAL

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

Never throw flat 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 to 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 operating temperature range : 0ºC to 50ºC

Temperature measuring range:

Indoor : -9,9ºC to +37,8ºC with 0,1ºC resolution
(**"OF.L"** displayed if outside this range)

Outdoor : -39,9ºC to +59,9ºC with 0,1ºC resolution
(**"OF.L"** displayed if outside this range)

Indoor temperature checking interval : every 16 seconds

Outdoor data reception : every 4 seconds

Power consumption:

Temperature station : 2 x AA, IEC, LR6, 1.5V

Temperature transmitter : 2 x AA, IEC, LR6, 1.5V

Battery life cycle (Alkaline batteries recommended) : Approximately 24 months

Dimensions (L x W x H) :

Temperature station : 73,4 x 25,2 x 158 mm

Temperature transmitter : 38,2 x 21,2 x 128,3 mm

TFA Dostmann GmbH & Co. KG, Zum Ottersberg 12, D - 97877 Wertheim

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
11/11