WIRELESS 868 MHz TEMPERATURE STATION

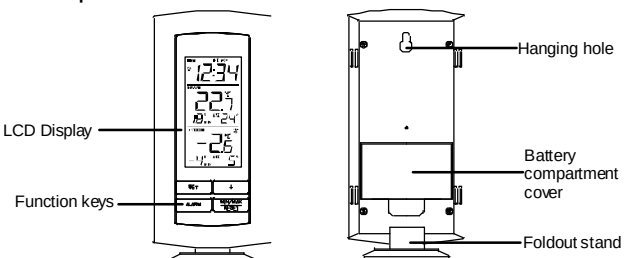
Instruction Manual

INTRODUCTION:

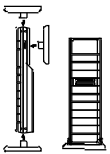
Congratulations on purchasing this temperature station with wireless 868 MHz transmission of outdoor temperature and display of indoor temperature. It is further featuring a DCF-77 radio controlled clock and alarm function. With four easy to use function keys, this innovative product is ideal for use in the home or office.

FEATURES:

The Temperature Station



- 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)



The Outdoor Temperature Transmitter

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

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 weather icon will be displayed. If these are not displayed after 60 seconds, remove the batteries and wait for at least 30 seconds before reinserting them.

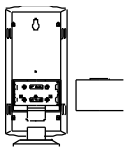
3. After inserting the batteries, the temperature station will start receiving data from the transmitter. The outdoor temperature and the signal reception icon should then be displayed on the temperature station. If this does not happen after 3 minutes, the batteries will need to be removed from both 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.

Note:

Daily DCF reception is done at 02:00 and 03:00 every day. If the reception at 03:00 is not

successful, then at 04:00 and 05:00 and 06:00 there are other tries, until one is successful. If the reception at 06:00 is still not successful, then the next try takes place at 02:00 next day.
If reception is successful, the received time will override the manually set time. (Please refer also to notes on "**DCF-77 Radio Controlled Time**" and "**Manual Time Setting**")

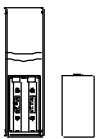
HOW TO INSTALL AND REPLACE BATTERIES IN THE TEMPERATURE STATION



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.

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.

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.

BATTERY CHANGE:

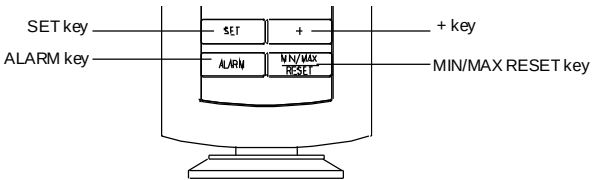
It is recommended to replace the batteries in all units regularly to ensure optimum accuracy of these units (Battery life See **Specifications** below).

Please participate in the preservation of the environment. Return used batteries to an authorised depot.

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

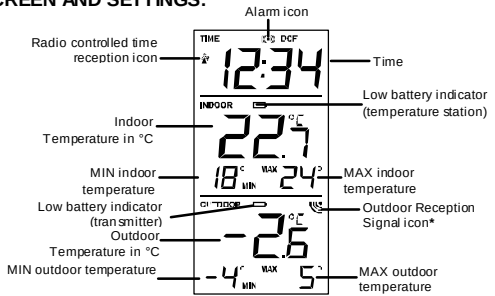
- Stop the alarm
- Exit manual setting modes

+ 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 AND SETTINGS:



* 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).

For a better display clarity, the LCD screen is split into 3 sections.

Section 1 - TIME AND ALARM

- In normal mode display of radio controlled time
- A reception tower symbol will be shown indicating that the DCF-77 time signal is scanned for (flashing) or received (steady).
  Note: The symbol will not be shown when radio time reception is not successful or when time reception function is turned off.
- In normal display, the alarm icon will be shown when the alarm is turned on. Or when the snooze function is activated, the alarm icon will be flashing.

Section 2 - INDOOR TEMPERATURE

- Display the current indoor temperature and indoor MIN/MAX records

- Display of low battery indicator (temperature station)

Section 3 - OUTDOOR TEMPERATURE

- Display the current outdoor temperature and outdoor MIN/MAX records
- A signal reception symbol will be shown indicating that receiver is receiving outdoor temperature
- Display of low battery indicator (transmitter)

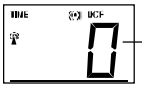
MANUAL SETTINGS:

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:



Time zone (flashing)

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".

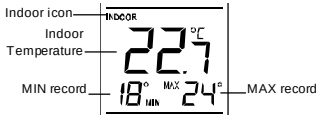
Note: The duration of alarm sounding is 85 seconds

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

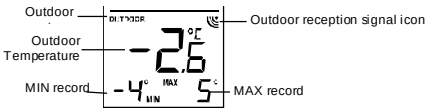
The indoor temperature and indoor MIN/MAX records are displayed on the second section of the LCD.



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.

LOW BATTERY INDICATOR

Low battery indicator is displayed on the LCD when the batteries require changing.

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:

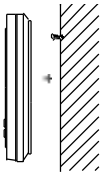
When the 868MHz signal is received correctly, do not re-open the battery cover of either the transmitter or temperature station, as the batteries may spring free from the contacts and force a false reset. Should this happen accidentally then reset all units (see **Setting up** above) otherwise transmission 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.

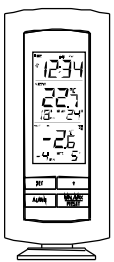


To wall mount

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.

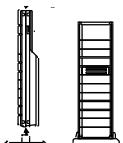
1. Fix a screw (not supplied) into the desired wall, leaving the head extended out the by about 5mm.
2. Remove the stand from the temperature station by pulling it away from the base and hang the station onto the screw. Remember to ensure that it locks into place before releasing.

Free standing

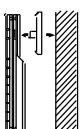


With the foldout stand, the temperature station can be placed onto any flat surface.

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:

- Extreme temperatures, vibration and shock should be avoided as these may cause damage to the unit and give inaccurate forecasts and readings.
- Precautions shall be taken when handling the batteries. Injuries, burns, or property damage may be resulted if the batteries are in contact with conducting materials, heat, corrosive materials or explosives. The batteries shall be taken out from the unit before the product is to be stored for a long period of time.
- Immediately remove all low powered batteries to avoid leakage and damage. Replace only with new batteries of the recommended type.
- When cleaning the display and casings, use a soft damp cloth only. Do not use

solvents or scouring agents as they may mark the LCD and casings.

- Do not submerge the unit in water.
- Special care shall be taken when handling a damaged LCD display. The liquid crystals can be harmful to user's health.
- Do not make any repair attempts to the unit. Return them to their original point of purchase for repair by a qualified engineer. Opening and tampering with the unit may invalidate their guarantee.
- Never touch the exposed electronic circuit of the device as there is a danger of electric shock should it become exposed.
- Do not expose the units to extreme and sudden temperature changes, this may lead to rapid changes in forecasts and readings and thereby reduce their accuracy.

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

LIABILITY DISCLAIMER:

- The electrical and electronic wastes contain hazardous substances. Disposal of

electronic waste in wild country and/or in unauthorized grounds strongly damages the environment.

- Please contact your local or/and regional authorities to retrieve the addresses of legal dumping grounds with selective collection.
- All electronic instruments must from now on be recycled. User shall take an active part in the reuse, recycling and recovery of the electrical and electronic waste.
- The unrestricted disposal of electronic waste may do harm on public health and the quality of environment.
- As stated on the gift box and labeled on the product, reading the “User manual” is highly recommended for the benefit of the user. This product must however not be thrown in general rubbish collection points.
- The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place.
- This product is designed for use in the home only as indication of the temperature and other weather data.
- This product is not to be used for medical purposes or for public information.

The specifications of this product may change without prior notice.

- This product is not a toy. Keep out of the reach of children.
  No part of this manual may be reproduced without written authorization of the manufacturer.

R&TTE Directive 1999/5/EC
Summary of the Declaration of Conformity : We hereby declare that this wireless transmission device does comply with the essential requirements of R&TTE Directive 1999/5/EC.