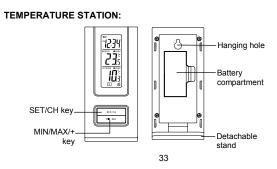
868 MHz TEMPERATURE STATION Instruction Manual

INTRODUCTION:

Congratulations on purchasing this innovative 868MHz Temperature Station which displays time, indoor temperature and up to three outdoor temperature readings. To enjoy the full benefits of this innovative product, please read this operating manual.





TEMPERATURE TRANSMITTER:



FEATURES:

- LCD clock in 12 or 24 hour time display
 Indoor and outdoor temperature reading in degrees Celsius or Fahrenheit



- Can receive up to three Outdoor transmitters •
- Indoor and outdoor temperature with Minimum and Maximum records Wireless transmission at 868 MHz •
- •
- Signal reception intervals at 4 seconds •
- Table standing or wall mountable (detachable table stand) ٠

SETTING UP:

WHEN ONE TRANSMITTER IS USED

- 1.
- First, insert the batteries in the transmitter (see "How to install and replace batteries in the Temperature transmitter" below). Within 2 minutes of powering up the transmitter, insert the batteries in the Temperature Station (see "How to install and replace batteries in the 2. Temperature station below. Once the batteries are in place, all segments of the LCD will light up briefly. Following the indoor temperature and the time as

0:00 will be displayed. If these informations are not displayed on the LCD after 60 seconds, remove the batteries and wait for at least 60 seconds before reinserting them. Once the indoor data is displayed user may proceed to the next step. After the batteries are inserted, the Temperature Station will start receiving data

- After the batteries are inserted, the Temperature Station will start receiving data signal from the transmitter. The outdoor temperature should then be displayed on the Temperature station. If this does not happen after 2 minutes, the batteries will need to be removed from both units and reset from step 1.
- In order to ensure sufficient 868 MHz transmission however, the distance between the Temperature Station and the transmitter should not be more than 100 meters (see notes on "Positioning" and "868 MHz Reception").

WHEN MORE THAN ONE TRANSMITTER IS USED

1. User shall remove all the batteries from the Temperatuire Station and transmitters and wait 60 seconds.

- 2. Insert the batteries in the first transmitter.
- Within 2 minutes of powering up the first transmitter, insert the batteries in the Temperature Station. Once the batteries are in place, all segments of the LCD will light up briefly. Following the indoor temperature and the time as 0:00 will be displayed. If these informations are not displayed on the LCD after 60 seconds, remove the batteries from both units and wait for at least 60 seconds before reinserting them.
- 4. The outdoor temperature from the first transmitter (channel 1) should then be displayed on the Temperature Station. Also, the signal reception icon will be displayed. If this does not happen after 2 minutes, the batteries will need to be removed from both units and reset from step 1.
- 5. Insert the batteries in the second transmitter as soon as the outdoor temperature reading from the first transmitter are displayed on the Temperature Station.

Note : User shall insert the batteries into the second transmitter within 45 seconds after

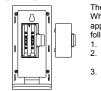
the Temperature Station displays the information of the first transmitter.

- 6. The outdoor temperature from the second transmitter and the "channel 2" icon should then be displayed on the Temperature Station. If this does not happen after 2 minutes, the batteries will need to be removed from all the units and reset from step 1.
- 7. Insert the batteries in the third transmitter as soon as the "channel 2" icon and outdoor data are displayed on the Temperature Station. Then within 2 minutes, the channel 3 outdoor data from the third transmitter will be displayed and the channel icon will shift back to "1" once the third transmitter is successfully received. If this is not happen, user shall restart the setting up from step 1.

<u>Note</u>: User shall insert the batteries into the third transmitter within 45 seconds after the Temperature Station displays the information of the second transmitter.

8. In order to ensure sufficient 868 MHz transmission however, the distance between the Temperature Station and the transmitter should not be more than 100 meters (see notes on "Positioning" and "868 MHz Reception").

HOW TO INSTALL AND REPLACE BATTERIES IN THE TEMPERATURE STATION



The Temperature Station uses 2 x AAA, IEC LR3, 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.

- 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 batteries. When batteries will need to be replaced, the low battery icon will appear on the LCD of the Temperature Station. To install and replace the batteries, please follow the steps below :

Remove the battery cover. Insert the batteries, observing the correct polarity (see marking). Replace the battery cover on the unit.

Note: In the event of changing batteries in any of the units, <u>all</u> units need to be reset by following the setup procedures. This is because a random 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 after power supplying.

BATTERIES REPLACEMENT & MAINTENANCE:

For best performance, batteries in all units should be replaced at least once every 2 years to maintain optimum running accuracy. Ensure that the batteries used are new of from the correct size.

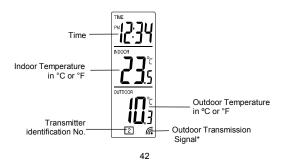


Please help in the preservation of the environment and return used batteries to an authorized depot.

LCD SCREEN

The Temperature Station's LCD is split into 3 sections and once the batteries are inserted, all the sequents will light up momentarily before displaying : 1. Time "0:00"

Indoor and outdoor temperature in degree Celsius (°C) or Fahrenheit (°F).



*When the signal is successfully received by the Temperature Station, the outdoor transmission icon will be switched on. (If not successful, the icon will not be shown on LCD) So the user can easily see whether the last reception was successful (icon on) or not (icon off). On the other hand, the short blinking of the icon shows that a reception is currently taking place.

12 OR 24 HOUR SETTING:

- After the batteries are inserted, set the time display as follow :
 Press and hold the "SET/CH" key for about 3 seconds to enter the set mode
 Either a ": 12h" or ": 24h" will appear on the LCD. If ": 12h" is displayed then the current time display is set to 12-hour time. If ": 24h" is displayed then the current time is not the 24 hour time. time is set to 24-hour time.
- To alternate between the two times display mode, simply press the "MIN/MAX/+" 3. key.

4. When the desired time display is selected, press the "SET/CH" key once more to enter the Celsius or Fahrenheit degree setting mode.

<u>Note :</u> When the time display is set to 12-hour mode, the temperature unit will be fixed to $^\circ\text{F};$ when the selected time mode is 24-hour, the temperature unit will be fixed to $^\circ\text{C}.$

CELSIUS OR FAHRENHEIT DEGREE SETTING:

- Either a "°C" or "°F" will appear on the LCD. If "°C" is displayed then the current temperature reading is set to Celsius. If "°F" is displayed then the current temperature reading is set to Fahrenheit.
- 2. To alternate between the two temperature reading modes, simply press the "MIN/MAX" key.

3. Press "SET/CH" key to confirm and enter the time setting mode.

TIME SETTING :

- TIME SETTING : Following from the Celsius or Fahrenheit degree mode.
 The Hour digit in the time section starts flashing
 Using the "MIN/MAX/+" key, to set the hours of the current time and then followed by pressing the "SET/CH" key to advance to the minute mode
 Again, using the "MIN/MAX/+" key, to set the minutes of the current time and then finally followed by pressing the "SET/CH" key to exit the setting mode. Your Temperature Station is now fully operational.

USING THE TEMPERATURE STATION :

INDOOR TEMPERATURE :

The indoor temperature is displayed on the second line of the LCD under the time. The Temperature Station's built in sensor automatically measures the temperature once the batteries are inserted.

MINIMUM AND MAXIMUM INDOOR TEMPERATURE RECORDINGS:

Indoor sign

Maximum Maximum icon

By pressing the "MIN/MAX/+" key, the current indoor and outdoor temperature will alternate between the minimum, maximum and current temperature recordings (also changes for outdoor temperature). Once a new indoor temperature high or low is reached, it will automatically set into the Temperature Station's memory.

OUTDOOR TEMPERATURE READING :

The outdoor temperature reading is displayed on the bottom line of the LCD, under the indoor temperature. The Temperature Station receives the outdoor temperature via 868 MHz frequency, if the batteries are inserted into the transmitter within the 2-1/2 minutes of the setting up time (see Setting up above).

<u>Note</u>: Should the outdoor temperature not be received within 2 minutes after inserting the batteries into a transmitter, then see "Checking 868 MHz reception" below.

MINIMUM AND MAXIMUM OUTDOOR TEMPERATURE READING:



Maximum icon

By pressing the "**MIN/MAX/+**" key, the current indoor and outdoor temperature will alternate between the minimum, maximum and current temperature recordings. Once a new outdoor temperature high or low is reached, it will automatically be set into the Temperature Station's memory.

RESETTING THE MINIMUM AND MAXIMUM READINGS :

User may reset the minimum and maximum temperature data to the current value by the following step :

Press and hold the **MIN/MAX/+** key for about 3 seconds to reset all the minimum/ maximum data of all channels and the indoor sensor to the current values in a single action.

OUTDOOR TEMPERATURE CHANNEL 1, 2, AND 3

If more than one transmitter is used, and to alternate between the temperature readings of transmitter 1, 2, and 3, simply press the "SET/CH" key. If the reading is from transmitter 1, then the identification number "1" will be displayed in the outdoor temperature section of the LCD. The same will apply to the next transmitter and so on. However, if only one transmitter is used, no identification number will be displayed on the LCD.

CHECKING FOR 868 MHz RECEPTION:

In normal surroundings (for example away from interfering sources such as TV sets), the outdoor temperature can usually be easily received within 2-1/2 minutes. If the outdoor temperature is not displayed on the LCD after 2-1/2 minutes, then check the following : 1. The distance of the units should be at least 1.5 - 2.0 meters away from interfering

- sources such as computer monitors or TV sets.
- Avoid placing the units onto or in the immediate proximity of metal doors, window frames or structures.
- 3. Using other electrical products such as headphones and speakers that operate on the same signal (868 MHz) can prevent the transmission pick up.
- Neighbours using electrical products operating on the 868 MHz signal can also cause interference. In most severe cases, the reception is only possible once all other electrical products using the 868 MHz are switched off.

- 5. Within thick concrete rooms such as basements and tower blocks, the 868 MHz
- signal can be weakened (avoid placing near metal frames and structures).
 Transmission can be affected by exposure to extreme temperature conditions. For example, if the weather has been extremely cold (under -25°C) for an extended period of time then the transmission signal may be weakened. (Please bears this in cited by be weakened.)
- <u>Note:</u> If the outdoor temperature is still not received by the Temperature Station after checking the above list, all units should be reset.

POSITIONING TEMPERATURE STATION :

The Temperature Station comes complete with a detachable stand that gives the option of table standing or wall mounting. To wall mount :



Fix a screw into the desired wall, leaving the head extended out by about 5mm. Using the Temperature Station's hanging hole, carefully hang it

onto the screw.

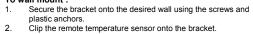
 $\underline{\textit{Note}:}$ Always make sure that the unit locks onto the screw head before releasing.

POSITIONING THE OUTDOOR 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 placed on a flat surface by securing the stand of the Transmitter.

To wall mount :



<u>Note :</u> Before securing in place, please ensure that the Temperature Station can receive the 868MHz signal from the temperature transmitter at the positions that you wish to place them. In even that the signal is not received, relocate the transmitters or move them slightly as this may

help the signal reception.

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CARE AND MAINTENANCE:

Avoid placing the units in areas prone to vibration and shock as these may cause damage.

- Avoid areas where the units can be exposed to sudden changes in temperature, i.e. direct sunlight, extreme cold and wet/moist conditions as these will lead to rapid changes in temperature which reduces the accuracy of readings. When cleaning the LCD and casing, use a soft damp cloth only. Do not use solvents or scouring agents. Do not submerge the units into water. Immediately remove all low powered batteries to avoid leakage and damage. Replace only with new batteries of the recommended size. ٠
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- Do not make any repairs to the units. Please return them to the original point of purchase for repair by a qualified engineer. Opening and tampering with the units may invalidate its guarantee. ٠

SPECIFICATIONS:

Temperature measuring range Indoor : -9.9°C to +59.9°C with 0.1°C resolution

-14.1°F to +139.8°F with 0.2°F resolution (--- displayed if outside this range) Outdoor : -39.9°C to +59.9°C with 0.1°C resolution -39.8°F to 139.8°F with with 0.2°F resolution (--- displayed if outside this range) Temperature checking intervals Indoor : Every 15 seconds Outdoor : Every 15 seconds Outdoor : Every 4 seconds Distance of transmission : up to 100 meters (Open space and free from interference) Power source: Temperature Station : 2 x AAA, IEC LR3, 1.5V batteries Transmitter : 2 x AAA, IEC LR3, 1.5V batteries Battery life for both units : Approximately 24 months (Alkaline batteries recommended)

Dimensions (L x W x H): : 58 x 23 x 125 mm : 38.2 x 21.2 x 128.3 mm Temperature Station Transmitter

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.
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- 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 unrethered and the second ٠
- quality of environment.
- As stated on the gift box and labeled on the product, reading the "User manual" is ٠

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. ٠
- This product is not to be used for medical purposes or for public information. The specifications of this product may change without prior notice. •
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- 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.

