WETTERSTATION MIT SONNENSTANDS- UND MONDPHASEN-ANZEIGE
SUN-MOON WEATHER STATION
POSTE METEO SOLEIL-LUNE
ZON/MAAN-WEERSTATION
STAZIONE METEOROLOGICA SOLE-LUNA
ESTACION CLIMATOLÓGICA SOL-LUNA

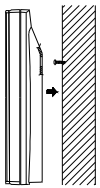
Bedienungsanleitung
Instructions manual
Notice d'emploi
Handleiding
Istruzioni d'uso
Manual de operaciones

If no reception is possible despite the observation of these factors, all system units have to be reset (see **Setting up**).

POSITIONING THE WEATHER STATION:

The Weather Station comes attached with a removable table stand, which provides the option of table standing or wall mounting.

To wall mount

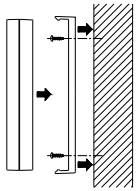


Before wall mounting, please check that the outdoor temperature values can be received from the desired locations. To wall mount:

1. Fix a screw (not supplied) into the desired wall, leaving the head extended out the by about 5mm.
2. Hang it onto the screw. Remember to ensure that it locks into place before releasing.

POSITIONING THE OUTDOOR TEMPERATURE TRANSMITTER

The Outdoor Temperature transmitter is supplied with a holder and three screws for wall mounting. Choose a sheltered place. Avoid direct rain and sunshine.
Before securing the transmitter, ensure that the 433MHz signal (outdoor temperature) is properly received.



The mounting surface can affect the transmission range. If e.g. the unit is attached to a piece of metal, it may either reduce or increase the transmitting range. For this reason, we recommend not placing the unit on any metal surfaces or in any position where a large metal or highly polished surface is in the immediate proximity (garage doors, double glazing etc.). Before securing in place, please ensure that the Weather station can receive the signal from the Outdoor Temperature transmitter at the positions that you wish to situate them.

CARE AND MAINTENANCE:

- Extreme temperatures, vibration and shock should be avoided as these may cause damage to the units and give inaccurate forecasts and readings.
- 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 units in water.
- Immediately remove all low powered batteries to avoid leakage and damage. Replace only with new batteries of the recommended type.
- Do make any repair attempts to the units. Return it to their original point of purchase for repair by a qualified engineer. Opening and tampering with the units may invalidate their guarantee.
- 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:

Temperature measuring range:		
Indoor	:	0ºC to +60ºC with 1ºC resolution +32°F to +140°F with 2°F resolution (**"OF"** displayed if outside this range)
Outdoor	:	-29.9ºC to +59.9ºC with 0.1ºC resolution -21.8°F to +139.8°F with 0.2°F resolution (**"OF.L"** displayed if outside this range)
Relative humidity measuring range:		
Indoor	:	20% to 95% with 1% resolution (**"- -"** displayed if outside this range)
Indoor temperature checking interval	:	every 15 seconds
Indoor humidity checking interval	:	every 20 seconds
Outdoor temperature reception	:	every 5 minutes
Transmitter checking interval	:	every 1 minute
Power supply:		
Weather Station	:	2 x AA, IEC LR6, 1.5V
Temperature transmitter	:	2 x AAA, IEC LR3, 1.5V
Battery life cycle (Alkaline batteries recommended)	:	approximately 12 months
Dimensions (L x W x H)		
Weather Station (without stand)	:	102 x 36 x 172mm
Outdoor temperature transmitter	:	40 x 22 x 128mm

LIABILITY DISCLAIMER

- 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 not to be used for medical purposes or for public information.
- This product is only designed to be used in the home as indication of the future weather and is not 100% accurate. Weather forecasts given by this product should be taken only as an indication and not as being totally accurate.
- 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 consent 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.

accurate compared to use in areas where the weather is stagnant most of the time (for example mostly sunny).

If the Weather Station is moved to another location significantly higher or lower than its initial standing point (for example from the ground floor to the upper floors of a house), discard the weather forecast for the next 12-24 hours. By doing this, the Weather Station will not mistake the new location as being a possible change in air-pressure when really it is due to the slight change of altitude.

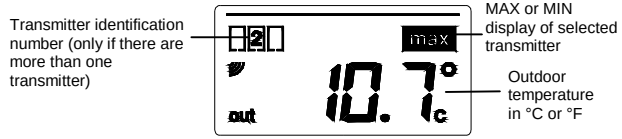
WEATHER TENDENCY INDICATOR

Working together with the weather icons are the weather tendency indicators (located on the upper left and right side of the weather icons). When the indicator points upwards, it means that the air-pressure is increasing and the weather is expected to improve, but when indicator points downwards, the air-pressure is dropping and the weather is expected to become worse.

Taking this into account, one can see how the weather has changed and is expected to change. For example, if the indicator is pointing downwards together with cloud and sun icons, then the last noticeable change in the weather was when it was sunny (the sun icon only). Therefore, the next change in the weather will be cloud with rain icons since the indicator is pointing downwards.

Note:
Once the weather tendency indicator has registered a change in air pressure, it will remain permanently visualized on the LCD.

LCD5- OUTDOOR TEMPERATURE:



The last LCD section can show the outdoor temperature, the reception indicator, the minimum or maximum reading. A number beside the temperature will also be shown if more than one transmitter has been used.

TOGGLING AND RESETTING THE OUTDOOR RECORDINGS:

1. To toggle between the outdoor current, maximum and minimum temperature data and the times they were recorded press the MAX/MIN R key:
   Once to show the maximum outdoor temperature data with the recorded time and date.
   Twice to show the minimum outdoor temperature data with the recorded time and date.
   Three times to return to the current displayed values.
2. To toggle between transmitters, press the CHANNEL key:
   Once to show transmitter 2
   Twice to show transmitter 3
   Three times to return to transmitter 1

Note: The transmitter number will only be displayed if there is more than one transmitter being used.

3. To reset the maximum and minimum outdoor temperature, and the time at which they were recorded, press and hold the MAX/MIN R key for about 3 seconds. This will reset all minimum and maximum data recorded to the displayed values for that particular transmitter.

TO EXIT THE MANUAL SETTING MODE

To exit the manual setting mode anytime during the manual setting modes, press the CHANNEL key anytime or wait for automatic timeout. The mode will return to normal time display.

OUTDOOR TEMPERATURE TRANSMITTER/433MHZ RECEPTION CHECK

The outdoor temperature is measured and transmitted every 60 seconds.
The transmission range of the Outdoor Temperature transmitter may be affected by the ambient temperature. At cold temperatures the transmitting distance may be decreased. Please bear this in mind when placing the transmitter.
To install the Transmitter outside chose a shady and dry place. Before you fix the Transmitter with the enclosed screws, check for 30 min. if the receiver is able to scan the signal from this place. Obstacles (walls, windows, trees) and interfering radio waves (PC, mobile phone, TV) can impede the reception or limit the range (25 meters maximum) considerably. In this case choose another place for the Transmitter and/or the Receiver.

If the temperature data is not being received 4 minutes after setting up (the display shows "- - -" after checking for the transmission 3 times) please check the following points:

1. The distance of the Weather 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 Weather Station onto or in the immediate proximity of metal doors or window frames.
3. Using other electrical products such as headphones or speakers operating on the same signal frequency (433MHz) may prevent correct signal transmission and reception.
4. Neighbours using electrical devices operating on the 433MHz signal frequency can also cause interference.
5. "Visibility" of weather station and transmitter (e.g. through a window) increases the range.

Note:
When the 433MHz signal is received, do not re-open the battery cover of either the transmitter or Weather 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.

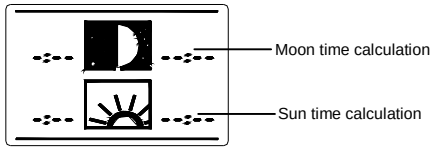
SNOOZE SETTING AND STOPPING THE ALARM:

The snooze function can be set when the alarm is ringing by pressing the MAX/MIN R key. However the snooze will only be activated when it is set other than OFF. Otherwise the snooze function will not be activated.

To stop the alarm, press any key during alarm ringing.

LCD2- SUN/MOON DATA AND MOON PHASES:

SUN/MOON DATA FOR SELECTED CITY

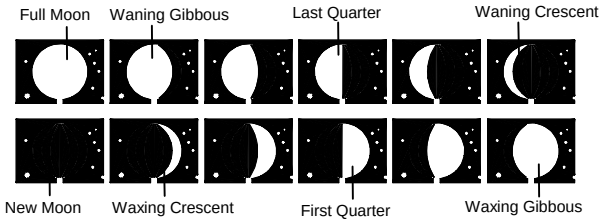


1. The sunrise/sunset and moonrise/moonset time for each of the preset city at the set date can be displayed when pressing the SUN/MOON key.
2. Use the PLUS (+) or MINUS (-) to choose any city from the list. The small dot next to the city name will start flashing. Press SET to confirm city and choose any date (year/month/day) for sun/moon calculation by using PLUS (+) or MINUS (-) key and SET key to confirm.
3. Press the SET key after selection of the day to start calculation of the sun/moon data. It will take a few seconds until the sun/moon data will be displayed. The display will return after 3 minutes to normal mode.

Note: Due to topographic variation of the landscape (hills, valleys) there might be small differences between the sunrise/sunset time displayed and the real sunrise/sunset.

MOON PHASES SYMBOL

The Moon icon of the weather station will also display all 12 Moon phases throughout the year accordingly to the set calendar.



Note:
It may happen that there is no moonrise or moonset at a certain date, consequently no moonrise or moonset time will be displayed.

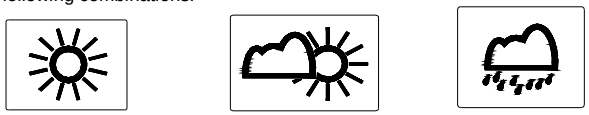
LCD3- INDOOR RELATIVE HUMIDITY AND INDOOR TEMPERATURE:

The indoor temperature and humidity data are automatically updated and displayed on the third section of the LCD.

LCD4- WEATHER FORECAST AND WEATHER TENDENCY:

WEATHER FORECASTING ICONS:

There are 3 weather icons in the fourth section of LCD which can be displayed in any of the following combinations:



Sunny **Cloudy with sunny intervals** **Rainy**

For every sudden or significant change in the air pressure, the weather icons will update accordingly to represent the change in weather. If the icons do not change, then it means either the air pressure has not changed or the change has been too slow for the Weather station to register. However, if the icon displayed is a sun or raining cloud, there will be no change of icon if the weather gets any better (with sunny icon) or worse (with rainy icon) since the icons are already at their extremes.

The icons displayed forecasts the weather in terms of getting better or worse and not necessarily sunny or rainy as each icon indicates. For example, if the current weather is cloudy and the rainy icon is displayed, it does not mean that the product is faulty because it is not raining. It simply means that the air pressure has dropped and the weather is expected to get worse but not necessarily rainy.

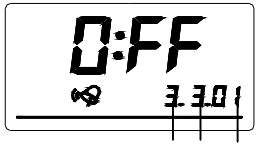
Note:
After setting up, readings for weather forecasts should be disregarded for the next 12-24 hours. This will allow sufficient time for the Weather Station to collect air pressure data at a constant altitude and therefore result in a more accurate forecast.

Common to weather forecasting, absolute accuracy cannot be guaranteed. The weather forecasting feature is estimated to have an accuracy level of about 75% due to the varying areas the Weather Station has been designed for use in. In areas that experience sudden changes in weather (for example from sunny to rain), the Weather Station will be more

5. Confirm with the SET key and enter the **Calendar setting**.

Note:
The unit will still try to receive the signal between 2:00 to 6:00 a.m. every day despite it being manually set and if the DCF reception function has been set ON. When it does receive the signal, it will change the manually set time into the received time. During reception attempts the DCF tower icon will flash. If reception has been unsuccessful, then the DCF tower icon will not appear but reception will still be attempted the following hour.

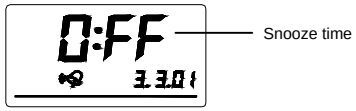
CALENDAR SETTING:



The date default of the Weather Station is 1. 1. in the year 2000. 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 starts flashing.
2. Use the PLUS (+) or MINUS (-) to set the year. The range runs from 2000 to 2099.
3. Press the SET key again to confirm and to enter the month setting. The month starts flashing.
4. Use the PLUS (+) or MINUS (-) to set the month.
5. Press the SET key again to confirm and to enter the date setting mode. The date starts flashing.
6. Use the PLUS (+) or MINUS (-) to set the date.
7. Confirm all calendar settings with the SET key and enter the **Snooze setting**.

SNOOZE SETTING

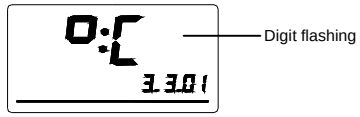


The snooze time can be set OFF to a maximum time of 30 minutes.

1. Use the PLUS (+) or MINUS (-) to set the snooze time. Each pressing of the key will increase or decrease the snooze time by 5 minutes. The snooze can also be set OFF when the “OFF” digit is be displayed.
2. Confirm with the SET key and enter the **Temperature setting**

Note:
If the snooze time has been set “OFF”, the snooze function will not be activated.

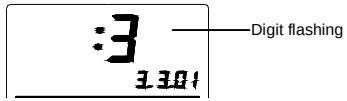
°C/°F TEMPERATURE SETTING



The temperature display can be selected to show temperature data in °C or °F. (default °C)

1. Use the PLUS (+) or MINUS (-) to toggle between “°C” or “°F”.
2. Confirm with the SET key and enter the **Weather forecasting icon sensitivity setting**.

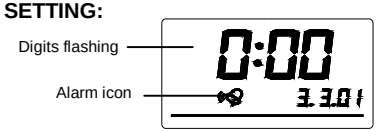
WEATHER FORECASTING ICON SENSITIVITY SETTING



For locations with rapid changes of weather conditions, the weather icons can be set to a different level for faster display of weather conditions.

1. The current sensitivity value will start flashing.
2. Use the PLUS (+) or MINUS (-) to set the weather sensitivity level. There are 3 levels of setting: 1, 2 and 3; level 1 is the most sensitive setting, level 3 is the slowest recording setting (default setting is "2").
3. Confirm with the SET key and exit the **Manual settings**.

ALARM SETTING:



The alarm time can be set when pressing the ALARM SET key.

1. Press the ALARM SET key until the alarm hour digits flash.
2. Use the PLUS (+) or MINUS (-) to set the alarm hour.
3. Press SET key to set the alarm minutes. The minute digits start flashing.
4. Confirm with the SET key and exit the **Alarm setting**.

Note:
The maximum alarm ring duration is 3 minutes. The alarm has to be activated manually again by pressing the ALARM ON/OFF key for activation. The alarm icon will be displayed on the LCD.

MANUAL SETTINGS:

The following manual settings can be changed when pressing and holding the SET key for approximately 3 seconds:

- LCD contrast setting
- City location setting
- Time zone setting
- DCF-77 ON/OFF setting
- Manual time setting
- Calendar setting
- Snooze setting
- °C/°F setting
- Weather forecasting icon sensitivity setting

LCD1- LCD CONTRAST, CITY LOCATION, TIME ZONE, DCF ON/OFF, TIME AND DATE, SNOOZE, TEMPERATURE, AND ALARM

LCD CONTRAST SETTING

The LCD contrast can be set within 8 levels, from LCD 0 to LCD7
(default setting is LCD 5):

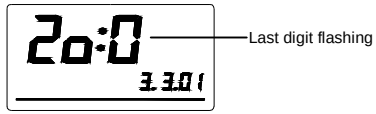
1. Press and hold the SET key for around 3 seconds until the digit start flashing.
2. Use the PLUS(+) or MINUS(-) key to view all levels of contrast.
3. Select the desired LCD contrast. Confirm with the SET key and enter in the **City location setting**.

CITY LOCATION SETTING

Open the left side panel on the Weather station to see the 34 preset city names list. Any city can be selected in order to view the sun/moon data (default city: Frankfurt). To select a city:

1. Open the left panel on the weather station. A list of cities can be view
2. Use the PLUS (+) or MINUS (-) to select a city. A small dot will light up next to the city name and displayed on the left side of the LCD.
3. Confirm with the SET key and enter in the **Time zone setting**.

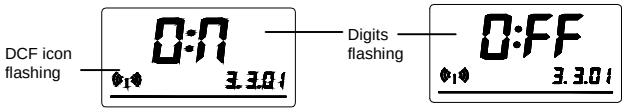
TIME ZONE SETTING:



The time zone default of the Weather Station is 0. To set a different time zone:

1. The current time zone value starts flashing.
2. Use the PLUS(+) or MINUS(-) key to set the time zone. The range runs from 0 to +9 and then runs from -9 back to 0 in consecutive 1hour intervals.
3. Confirm with the SET key and enter the **DC-77 ON/OFF setting**.

DCF-77 ON/OFF SETTING



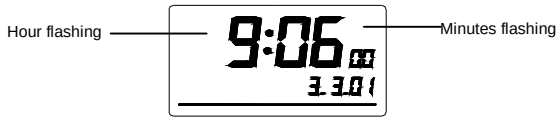
In area where reception of the DCF time is not possible, the DCF time reception function can be turn OFF. The clock will then work as a normal Quartz clock. (Default setting is ON).

1. The digit “ON” will start flashing on the LCD.
2. Use the PLUS (+) or MINUS (-) to turn OFF the time reception function.
3. Confirm with the SET key and enter the **Manual time setting**.

Note:
If the DCF time reception function is turn OFF manually, the clock will not receive any reception of the DCF time as long as the DCF OFF function is activated.
The DCF reception icon will not be displayed on the LCD.

MANUAL TIME SETTING:

In case the Weather Station cannot detect the DCF-signal (for example due to disturbances, transmitting distance, etc.), the time can be manually set. The clock will then work as a normal Quartz clock.

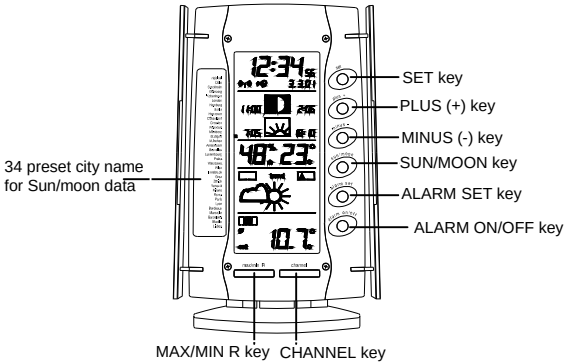


1. The hour digit will start flashing.
2. Use the PLUS (+) or MINUS (-) to set the hour.
3. Press again the SET key to set the minutes. The minute digits start flashing.
4. Use the PLUS (+) key or MINUS (-) key to set the minutes.

FUNCTION KEYS:

Weather Station:

The Weather Station has 8 easy to use function keys; 6 behind the right front panel of the Weather Station and 2 on the front:



SET key

- Press the key for 3 seconds to enter manual setting modes: LCD contrast, city location, time zone, DCF ON/OFF, manual time setting, calendar, snooze function, temperature °C or °F, and weather icon sensitivity setting
- Stop the alarm

SUN/MOON key

- Press the key for 3 seconds to enter the sun/moon setting mode
- Calculate the sun/moon time of the selected city
- Stop the alarm

ALARM SET key

- Press the key for 3 seconds to enter the alarm setting mode
- Stop the alarm

ALARM ON/OFF key

- Activate/de-activate the alarm time
- Stop the alarm

PLUS (+) key

- Increase value in all setting modes
- Increase the digits
- Stop the alarm

MINUS (-) key

- Decrease value in all setting modes
- Decrease the digits
- Stop the alarm

CHANNEL key

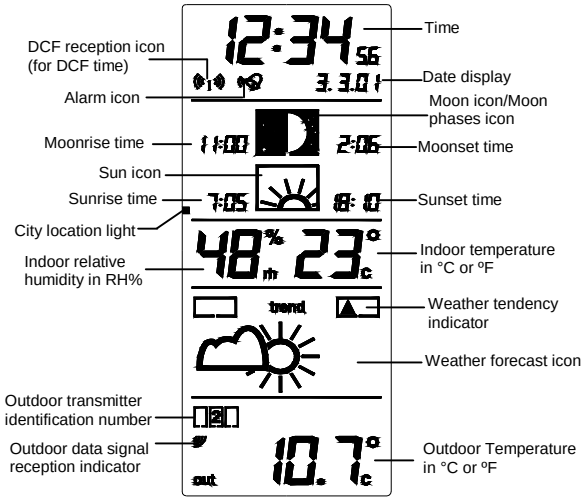
- Toggle between the outdoor transmitters 1, 2 and 3 (if more than one transmitter is used)
- Exit any set mode anytime during setting and to return to the normal display mode
- Stop the alarm during alarm ringing

MAX/MIN R key (Max/min Reset)

- Toggle between all MIN and MAX values with time and date recorded for selected outdoor transmitter
- Reset all maximum and minimum values for the selected outdoor values only
- Activate the snooze function during alarm ringing (if snooze set other than “OFF”)

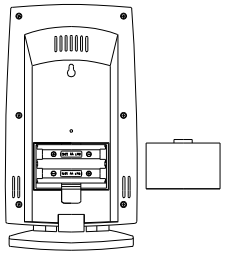
LCD SCREEN

The LCD screen is split into 5 sections displaying the informations for time and date, sun/moon data, indoor data, weather forecast, and outdoor data.



5. When all the transmitters are set up, there is a testing period, during which the reception of all transmitters is checked and the display switches quickly between all the received transmitters at random. Pressing any key will stop this process and the display will show the temperature for the first transmitter. The process also stops automatically if no keys are pressed for 4 minutes after inserting the batteries in the Weather Station.
6. Once the outdoor temperature has been received and displayed on the Weather Station, the DCF-77 time code reception is automatically started. This takes typically between 3-5 minutes in good conditions.
7. If after 10 minutes, the DCF time has not been received, use the SET key to manually enter a time initially. The clock will automatically attempt to receive the DCF time from 2:00 to 6:00 a.m. only. When DCF reception signal is successful, the received time will override the manually set time. The date is also updated with the received time. (Please refer also to notes on **"Radio controlled Time Reception"** and **"Manual Time Setting"**).

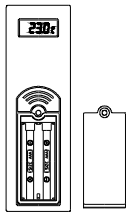
HOW TO INSTALL AND REPLACE BATTERIES IN THE WEATHER STATION



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

1. Insert finger or other solid object in the space at the bottom center of the battery compartment and lift up to remove the cover.
2. Insert batteries observing the correct polarity (see battery compartment marking).
3. Replace battery cover.

HOW TO INSTALL AND REPLACE BATTERIES IN THE OUTDOOR TEMPERATURE TRANSMITTER



The Outdoor Temperature transmitter uses 2 x AAA, IEC LR3, 1.5V batteries. To install and replace the batteries, please follow the steps below:

1. Remove the battery cover at the front side with a small screwdriver.
2. Insert the batteries, observing the correct polarity (see battery compartment marking).
3. Replace the battery 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 random security code is assigned by the transmitter at start-up and this code must be received and stored by the Weather Station in the first 4 minutes of power being supplied to it.

BATTERY CHANGE:

It is recommended to replace the batteries in all units on an annual basis to ensure optimum accuracy of these units.

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

DCF-77 RADIO CONTROLLED TIME RECEPTION:

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 Weather 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 1,500km radius around Frankfurt.

After 4 minutes initial setup, the DCF tower icon in the clock display will start flashing in the lower left corner of the first section of the LCD. This indicates that the clock has detected the presence of a radio signal and is trying to receive it. When the time code is received, the DCF tower becomes permanently lit and the radio-controlled time will be displayed.
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.

SUN/MOON WEATHER STATION

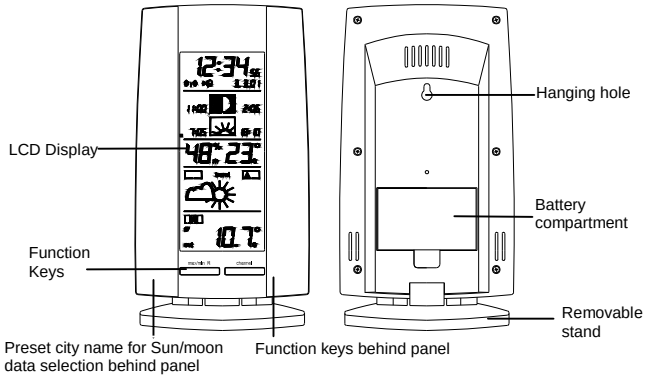
Instruction Manual

INTRODUCTION:

Congratulations on purchasing this state-of-the-art weather station as an example of innovative design and quality piece of engineering. Providing radio controlled time, date, calendar, sun/moon data, indoor temperature, indoor relative humidity, and outdoor temperature, this unit will never keep you guessing on current and future weather conditions. Operation of this product is simple and straightforward. By reading this operating manual, the user will however receive a better understanding of the Sun/moon Weather Station together with the optimum benefit of all its features.

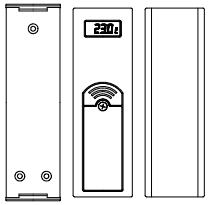
FEATURES:

The Weather Station



- DCF-77 Radio Controlled Clock with manual setting option
- DCF reception ON/OFF (user selectable)
- 24 hour time display
- Time zone option ±9 hours
- Date, month, year calendar display
- Alarm setting with snooze function
- Sunrise and sunset for any of the 34 preset cities
- Moonrise and moonset for any of the 34 preset cities
- 12 Moon phases display throughout the year
- Weather forecasting with 3 weather icons
- Weather tendency indicator
- Indoor temperature reading in °C/ºF
- Indoor humidity reading displayed as RH%
- Outdoor temperature reading (for up to 3 transmitters) in °C/ºF with minimum and maximum and time and date of recording
- LCD contrast selectable
- Low battery indicator
- Wall mounting or table standing

The Outdoor Temperature Transmitter



- Remote transmission of outdoor temperature to Weather Station by 433 MHz
- Shower proof casing
- Wall mounting case
- Mounting at a sheltered place. Avoid direct rain and sunshine

SETTING UP:

1. First, insert the batteries into the Weather Station (see "**How to install and replace batteries in the Weather Station**" above**)**. Once the batteries are in place, all segments of the LCD will light up briefly and a short signal tone will sound. Then the indoor temperature and humidity, the time as 0:00, the date as 1.1.00, the sun and moon icons, the weather icons sun and clouds will be displayed. If the indoor temperature and indoor humidity are not displayed after a few seconds, remove the batteries and wait for at least 3 minutes before reinserting them. Once the indoor data is displayed proceed to step 2.
2. Within 2 minutes and 30 seconds of activating the Weather Station, place the batteries into the transmitter (see "**How to install and replace batteries in the Outdoor Temperature transmitter**" above).
3. After inserting the batteries into the transmitter, the Weather Station will start receiving data from the transmitter. The outdoor temperature should then be displayed on the Weather Station. If this does not happen after 4 minutes, the batteries will need to be removed from both units and reset from step 1.
4. The Weather Station can receive up to 3 remote Outdoor Temperature transmitters. If you have purchased additional transmitters, repeat from step 3 for all extra transmitters. However, ensure that you leave 10 seconds in between the reception of the last transmitter and the set-up of the following transmitter. The Weather Station will number the transmitters in the order of set-up, i.e. the first transmitter will have the temperature displayed with the number 1 against it and so on.