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This Operation Manual is part of this product and should be kept in a safe place for future reference. It contains important notes on setup and operation.

*NOTE: This is a combined operation manual for WH1280 and WH1281. WH1280 can receive and display the DCF radio controlled time and date (RCC function). WH1281 maintain all the functions of WH1280 but without RCC function.

1. Introduction
Thank you for purchasing this Wireless Weather Station. Designed for everyday use, the weather station will prove to be an asset of great value for your personal use in the home or office. Please read this instruction manual thoroughly to fully understand the correct operation of your weather station and benefit from its unique feature.

1.1 Package Contents
- 1x Weather station base unit
- 1x remote Sensor with mounting bracket
- Mounting Screws
- Instruction manual

1.2 Feature
1) Indoor humidity (%RH)
2) Wireless outdoor and indoor temperature (°F or °C)
3) Records min. and max. humidity
4) Records min. and max. temperature
5) Weather forecast tendency
6) Forecast icons based on changing barometric pressure
7) Radio controlled time and date with manual setting option (WH1280 only)
8) Time Zone Setting
9) 12 or 24-hour time display
10) Perpetual calendar
11) Time alarm
12) Can receive up to 3 sensors
13) LED backlight
14) Wall hanging or free standing
15) Included one transmitter
16) Synchronized instant reception
17) Low battery indicator on the receiver

2. Installation

2.1 Installing the Batteries

**Note:** Please note the polarity when inserting/replacing batteries in the unit. Failure to do so may result in permanent damage. Use good quality Alkaline Batteries and avoid rechargeable batteries.

1) Insert two AAA batteries into the remote sensor. After the remote sensor is powered up, the sensor will transmit weather data every 8s for 16 times. After this learning period is over, then the transmitter will transmit every 48s.
2) Insert two AA batteries into the weather station. When the base station is powered up, a short beep will sound and all LCD segments will light up for about 4 seconds before it enters into learning mode to learn the sensors security code. Every time the remote sensor is powered up (for example after a change of batteries), a random security code is transmitted and this code must be synchronized with the base station to receive weather data. Thus if battery change happened on remote sensor side, then the base station must be power up again to re-learn the transmitter.

3) Wait 3 minutes or until the outdoor temperature is displayed in the weather station. **Do not press any keys before outdoor sensor data received.** The wireless weather station can receive up to 3 temperature sensors. If you have purchased additional remote sensors, repeat step 1) for all extra sensors. However, ensure that you leave 10 seconds in between the reception of the last sensor and the set-up of the following sensor. The wireless weather station will number the sensors in the order of set-up, i.e. the first temperature sensor will have the temperature displayed with CH1. If only have one sensor, CH1 won’t be display.

4) After the learning mode, the base station will start the radio controlled time reception. The receiver will start RCC time reception period for 10 minutes maximum, and no weather data will be received during this period of time. If RCC signal can’t be synchronized with the base station within 1 minute, the signal search will be cancelled and will automatically resume every hour on the hour until the signal is successfully captured. Regular RF link will be established once RCC reception routine is finished.

5) Mount the units, ensuring that the receiver can still pick up the signal from the transmitter. To measure outdoor temperature, place the transmitter outdoors. It will transmit the temperature from its location.

**Note:** **DO NOT PRESS ANY KEY** on the base station until the first set of data is display on the LCD. This ensures that the base station has synchronized with the sensors and that the system is now functioning. If a key is pressed before the weather station receives the temperature signal, you will need to follow the battery installation procedure again. **Please wait 10 seconds before re-insert the battery again to make a proper reset for both transmitter and receiver.**

**Note for Radio Controlled Time:**
The time and date display is based on the signal provided by the highly accurate government operated atomic clock. The base station will continue to scan for the radio controlled time signal each day at 2:00, 8:00, 14:00 and 20:00 despite it being manually set. If reception has been unsuccessful, then the radio controlled time icon will not appear but reception will still be attempted continually. If reception has been successful, the received time and date will overwrite the manually set time and date.

**Note:**
Please participate in the preservation of the environment by properly disposing of all used-up batteries and accumulators at designated disposal points. Never dispose of batteries in a fire as this may cause explosion, risk of fire or leakage.
of dangerous chemicals and fumes

2.2 Mounting

2.2.1 Base Station
With one foldable legs at the back of the unit, the base station can be placed onto any flat surface or wall mounted at the desired location by the hanging holes at the back of the unit. It is important to check that the radio signal can be received before permanently mounting any of the units.

2.2.2 Remote Sensor
Note: The temperature sensor is "weather resistant", but not "water proof". To ensure an extended life of your sensor, mount it in a semi-covered place out of the elements. An ideal location for the sensors is under the eaves. Mount the sensor 18" down from the eaves to ensure optimum performance, avoid mounting remote sensor in direct sunlight. obstacles such as walls, concrete, and large metal objects will reduce the range.

To wall mount, use 3 screws to affix the wall bracket to the desired wall, plug in the remote sensor to the bracket.

3. Overview
3.1 Base unit-LCD
The following illustration shows a normal LCD display for description purposes only.
1. Weather tendency arrow  
2. Weather forecast icon  
3. Time alarm icon  
4. DCF tower icon for time reception  
5. Time / Date  
6. MIN/MAX icon  
7. Receiver low battery indicator  
8. Indoor temperature display  
9. Indoor Humidity display  
10. MIN/MAX icon  
11. Transmitter low battery indicator  
12. Outdoor temperature display  
13. Number showing sensor unit  
14. Outdoor reception signal

3.2 LED backlight
The backlight is automatically switched ON when any key are pressed. The backlight will be switched on for approximately 5 seconds before automatically switching OFF.

3.3 Weather forecasting
The four weather icons Sunny, Partly Cloudy, Cloudy and Rainy represent the weather forecasting. There are also two weather tendency indicators to show the air pressure tendency.
Sunny  Partly Cloudy  Cloudy  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 wireless 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.

3.4 Weather tendency indicator
The weather tendency indicators arrow is located beside the weather icons to show the air pressure tendency and provide a forecast of the weather to be expected by the decreasing or increasing air pressure. The upward arrow means that the air pressure is increasing and the weather is expected to become better. The downward arrow means that the air pressure is decreasing and the weather is expected to become worse. The tendency indicator arrow will not show up while the pressure without change within 3 hours.

3.5 Pressure sensitivity setting for weather forecasting
The pressure threshold can be set to suit the user’s requirement for weather forecasting from 2-4hPa (default 3hPa). For areas that experience frequent changes in air pressure requires a higher setting compared to an area where the air pressure is stagnant. For example if 4hPa is selected, then there must be a fall or rise in air pressure of at least 4hPa before the weather station will register this as a change in weather.

3.6 Storm warning indicator
Once you have selected pressure sensitivity, storm threshold is internally calculated by adding 2hpa from your selected normal pressure sensitivity. Pressure threshold within 3 hours, the storm forecasting will be activated, rain icon and downward arrows will flash for 3 hours indicating the storm warning feature has been activated.

4. Program Mode
The base station has three keys for easy operation: CH/+ key, SET/MODE key, MIN/MAX/- key. And there are three section on the LCD: Time Mode, Indoor Temperature & Humidity Mode and Outdoor temperature mode. Press the SET/MODE key to change between the sections (arrow)

The setting mode will return to normal display mode while key idle 30s.

4.1 Time Modes
- Press the SET/MODE key to make the arrow point to TIME display section

- 6 -
Press the CH/+ key to shift the display of time, calendar (day-month-year) and alarm time.

Press the -/MIN/MAX key to on/off the alarm. If alarm is enabled, [**] will show in the TIME display section indicating the alarm function has been enabled.

Press the MODE/SET key for 3s to select the following setting in sequence:

- Time Zone Setting
  - The default time zone setting value is 0 based on Germany DCF time (GMT+1)
  - Time zone option +/- 12 hours
  - For countries not at the same time zone area of Germany, it is needed to set the correct time zone so that correct time can be displayed after radio controlled clock time is received successfully.

- 12/24 hour format
- Manual time setting (hours/minutes)
- Calendar setting (year /month /date)
- Temperature display unit degree Celsius or Fahrenheit
- Pressure threshold setting (default 3hPa)

In the above setting modes, press CH/+ key or -/min/max key change or scrolls the value. Hold the CH/+ key or -/min/max key for 3 second will increase/decrease digits in great steps.

**Set alarm time**

1. While in normal time display mode, press the CH/+ key twice to display alarm time.
2. Press SET/ MODE key for 3s to enter alarm time setting mode.
3. Press CH/+ key or -/min/max key to adjust the alarm time. Confirm hours with SET/MODE key and switch to minutes setting. Confirm with SET/MODE.
4. Press "/-MIN/MAX" key to switch alarm on or off. If it is on, [**] is shown on the LCD.

**Canceling the alarm while sounding**

When time alarm is triggered, the alarm will sound for 120 seconds. Press any key to mute the alarm.

**4.2 Indoor Temperature & Humidity Modes**

Press the MODE key to make the arrow point to INDOOR TEMPERATURE & HUMIDITY display section.
- Press the -/MIN/MAX key to display the following values:
  ● Indoor temperature maximum
  ● Indoor temperature minimum
  ● Indoor humidity maximum
  ● Indoor humidity minimum

Reset the indoor temperature and humidity MIN/MAX value
Press the -/MIN/MAX key for 3 seconds, the above individual minimum or maximum record will be reset to current value.

4.3 Outdoor Temperature Mode
Press the SET/MODE key to make the arrow point to OUTDOOR TEMPERATURE display section

- Press and release CH/+ key to toggle between the outdoor sensor 1,2,3 (if more than 1 sensor is used)
- Press the -/MIN/MAX key to display the following values:
  ● Current channel outdoor temperature maximum
  ● Current channel outdoor temperature minimum

Reset the outdoor temperature MIN/MAX value
Press the -/MIN/MAX key for 3 seconds, the outdoor temperature minimum or maximum record will be reset to current temperature value. It is required to reset the outdoor MIN/MAX temperature records of different channels separately (if there are more than 1 wireless sensor used). In outdoor temperature mode, press the CH/+ button to select a channel. The channel ID will be displayed besides the outdoor temperature reading.

5. Troubleshooting
Q 1. No signal from remote sensor
   A There can be many reasons for this, the following steps should help you troubleshoot this problem.
      1.1 Make sure that the batteries in the remote sensor are not depleted.
      1.2 Reduce the distance between transmitter and receiver
      1.3 Remove the batteries from the base station and the remote sensor and reset the weather station in the right order as described in section 2 of this manual.
      1.4 This problem could also be a result of radio interference in your neighborhood, try relocating the sensor and the base station

Q 2. Remote sensor drops off intermittently
   A Possible interference from other sources, try relocating the sensor or the base station. Radio device operation on the same frequency can also cause interference.
Q 3 Temperature, humidity or the pressure is incorrect.
A Check/ Replace the batteries. Also make sure that the remote sensor is not
place near objects that can act as sources of heat or cold. Adjust the relative air
pressure value from a reliable source such as TV or radio

6. Specifications

<table>
<thead>
<tr>
<th>Outdoor data</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission distance in open field</td>
<td>80 meter</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>433MHz</td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>-40°C to</td>
<td>+65°C (show OFL if outside</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1 °C</td>
<td></td>
</tr>
<tr>
<td>Measuring interval remote sensor</td>
<td>48 sec</td>
<td></td>
</tr>
<tr>
<td>Water proof level</td>
<td>IPX3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indoor data</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure / temperature</td>
<td>48 sec</td>
<td></td>
</tr>
<tr>
<td>Indoor temperature range</td>
<td>-9.9°C to</td>
<td>+60°C</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1 °C</td>
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</tr>
<tr>
<td>Measuring range rel. humidity</td>
<td>20%~99%</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Alarm duration</td>
<td>120 sec</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power consumption</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base station</td>
<td>2XAA 1.5V LR6 Alkaline batteries</td>
<td></td>
</tr>
<tr>
<td>Remote sensor</td>
<td>2xAAA 1.5V LR03 Alkaline batteries</td>
<td></td>
</tr>
<tr>
<td>Battery life</td>
<td>Minimum 12 months for base station</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum 24 months for remote sensor</td>
<td></td>
</tr>
</tbody>
</table>