

# Digital wireless thermo-hygrometer CONTROL

## BEFORE YOU START USING IT

- Please make sure to read the instruction manual carefully.
- This information will help you to familiarise yourself with your new device, to learn all of its functions and parts, to find out important details about its first use and how to operate it, and to get advice in the event of faults.
- Following and respecting the instructions in your manual will prevent damage to your instrument 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 non-following of these instructions.
- Please take particular note of the safety advice!
- Please keep this instruction manual for future reference.

## SCOPE OF DELIVERY

- Thermo-Hygrometer
- Wireless sensor
- Instruction manual

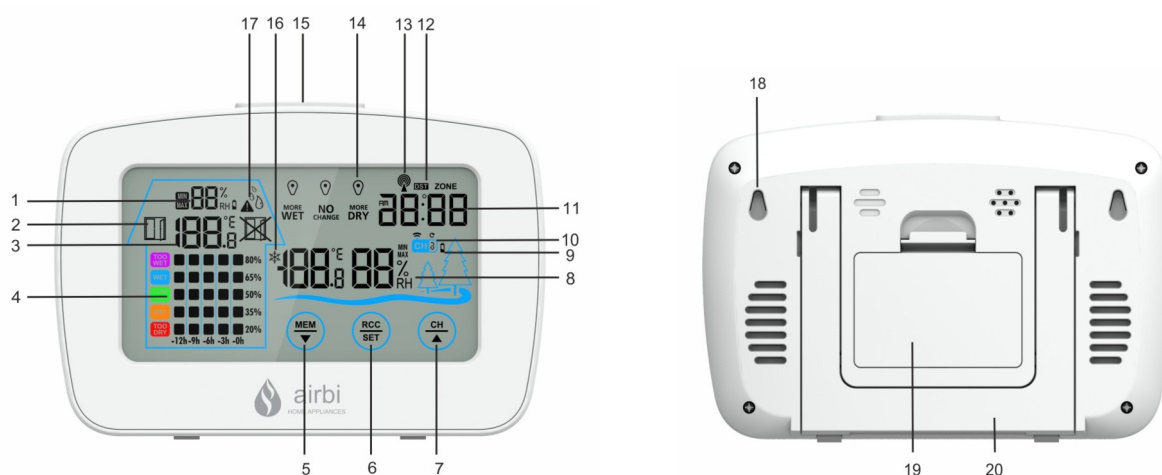
## FIELD OF OPERATION AND ALL THE BENEFITS OF THIS INSTRUMENT

- Indoor/outdoor temperature and humidity with maximum and minimum values.
- Radio controlled time.
- Expandable up to 3 wireless transmitters (max. distance 100 m in open field).
- Humidity comfort and room climate change indication. Ventilation tips. Mold and frost alert.
- Low battery indication for base and transmitter.
- Display backlight.

## FOR YOUR SAFETY

- This product is exclusively intended for the field of application described above. It should only be used as described within these instructions.
- Unauthorized repairs, modifications or changes to the product are prohibited.
- Product isn't be used for medical purpose or for public information, it is only intended for home use.
- Keep this instrument and the battery out of the reach of children.
- Batteries must not be thrown into a 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 leaking.
- Wear chemical-resistant protective gloves and glasses when handling leaking batteries.
- Do not place your product near extreme temperatures, vibrations or shocks.
- Protect it from moisture.

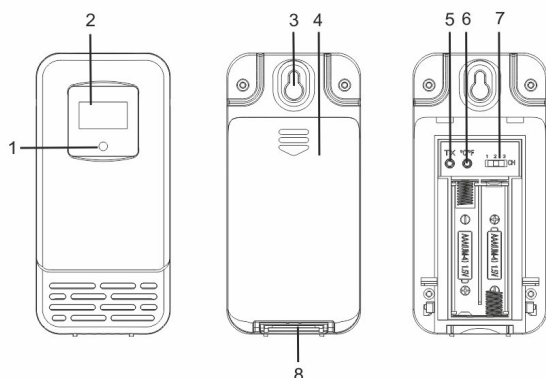
## ELEMENTS



## A - Base station

1. Indoor humidity
2. Ventilation tip indication
3. Indoor temperature
4. Humidity comfort indication
5. Button MEM / ▼
6. Button RCC / SET
7. Button CH / ▲
8. Outdoor temperature / humidity
9. Low battery indication

10. Transmission channel
11. Time
12. Daylight saving time indication
13. DCF reception indication
14. Indication of climate change
15. Button LIGHT
16. Frost alert indication
17. Mold alert indication
18. Wall mounting hole
19. Battery cover
20. Stand



## B - Transmitter

1. Transmission indication
2. Display
3. Wall mounting hole
4. Battery cover
5. Button TX
6. Button °C/°F
7. Channel switch
8. Stand

## GETTING STARTED

- Place the instruments on a desk with a distance of approximately 1,5 meters. Avoid being close to possible sources of interference such as electronic devices and radio installations.
- Open the battery compartment of the transmitter.
- Set the switch to the channel 1 position.
- Insert two new AAA 1,5 V batteries, polarity as illustrated.
- Close the battery compartment carefully.
- Open the battery compartment of the base station and insert three new AAA 1,5 V batteries, polarity as illustrated.
- All segments will be displayed briefly.
- Close the battery compartment again.

## TRANSMITTER RECEPTION

- After the batteries are inserted the base station will automatically receive the measured values. The reception symbol will be flashing on the display.
- If the reception of the measured values fails, „-“ appears on the display. Check the batteries and try it again. Check if there is any source of interference.
- As soon as the base station receives the radio-controlled time, you can start the transmission reception manually. You can find more informations in paragraph *Manual transmitter search*.
- If a base station doesn't receive signal from successfully received transmitter for more than 60 minutes, it will show “-.-”. Data on display will be restored when signal is received again.

## RADIO-CONTROLLED TIME RECEPTION

- After the base station has completed searching for the transmitter, the device starts scanning the DCF signal and the DCF reception icon will be flashing.
- When the time code is successfully received after 2-10 minutes, the radio-controlled time, the DST (if applicable) and DCF symbol will be shown steadily on the display.
- If the base station is unable to synchronize with the DCF signal, you can also set the time manually or attempt reception again.
- You can restart DCF reception search manually if you press button **RCC / SET**.
- If you are in a country where the DCF signal is still being received, but the current time is different,

- you can use the time zone setting to set the weather station to the current time in your country.
- There are three different reception symbols:
  - flashing – reception is active
  - solid – reception is very good
  - no symbol – no reception / set the clock manually

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 1500km radius of Frankfurt.

#### **Therefore, please note the following steps:**

- 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.

### **OPERATION**

#### **Setting time, time format, temperature unit and time zone**

- Press and hold button **RCC / SET** to enter time setting mode. Digits of hours starts to blink.
- Press buttons **MEM / ▼** or **CH / ▲** to decrease or increase hours.
- Press button **RCC / SET** to confirm and enter next setting in sequence minutes – time format – temperature unit – time zone. Press buttons **MEM / ▼** or **CH / ▲** to adjust it.

#### **Additional outdoor transmitters**

- For having more than one external transmitter, select different channels for each sensor with the switch 1 2 3 in battery compartment of each sensor.
- If you have installed more than one transmitter, press button **CH / ▲** to toggle between transmitters CH1, CH2, CH3 or loop display (interval 5 seconds).

#### **Manual transmitter search**

- Hold button **CH / ▲** for 3 seconds. All wireless records will be cleared and LCD will display “-.-”. The base station tries to receive the measured values for 3 minutes.
- You can initiate transmission manually by pressing the **TX** button in battery compartment of sensor.

#### **Maximum and minimum values**

- Press button **MEM / ▼** to show the maximum (MAX) values of temperature and humidity. Press the button **MEM / ▼** again to show minimum (MIN) values.
- Maximum and minimum values reset every day at 0:00.
- You can also additionally reset maximum and minimum values manually. Press and hold for 3 seconds button **MEM / ▼**. Maximum and minimum values will reset to the current value. Next automatic reset will take place at 0.00.



#### **Frost alert**

- If the outdoor temperature drops to value  $\leq 3^{\circ}\text{C}$ , the frost warning alert [A-15] on display appears.

#### **Mold alert**

- If the indoor humidity drops to value  $\geq 70\%$ , the mold warning alert [A-17] on display appears.

### Ventilation recommendation

- Based on the outdoor and indoor humidity values, the station recommends opening the window  or closing the window  to improve the room climate.

### Climate change

- Station uses the measured data (indoor and outdoor) to calculate the expected change in the room climate. The symbols show how ventilation will affect the room climate.



The expected increase in indoor absolute humidity will be more than 0.8 g/m<sup>3</sup>.



The expected increase or decrease in indoor abs. humidity will be within max. 0.8 g/m<sup>3</sup>.



The expected decrease in indoor absolute humidity will be more than 0.8 g/m<sup>3</sup>.

### Humidity comfort indication with history

- Based on the indoor humidity value, the station displays the current indoor humidity in five levels:

TOO WET	> 70 %
WET	61 % - 70 %
COMFORT	40 % - 60 %
DRY	30 % - 39 %
TOO DRY	< 30 %

- Station shows graphically on a timeline (now, 3 hours ago / 6 hours ago / 9 hours ago / 12 hours ago) the indoor humidity levels that were reached.

### CARE AND MAINTENANCE

- Clean your instrument with a soft damp cloth. Do not use solvents or scouring agents.
- Remove the battery if you do not use the product for a long period of time.
- Keep the instrument in a dry place.

### BATTERY REPLACEMENT

- When the battery symbol [A-9] appears on display beside a channel number, replace the batteries of the respective transmitter.
- Change the batteries of the base station, when the symbol of battery appears on display of indoor values.
- NOTE: When the batteries are changed, ID between transmitter and base station must be restored – so please always follow instructions in paragraph *Getting started* or start manual transmitter search.

### TROUBLESHOOTING

*No display on the device/incorrect indication:*

- Ensure that the battery polarity is correct.
- Change the batteries.
- Restart the base and transmitter(s).

*No transmitter reception, display “-.- --”:*

- No transmitter(s) installed.
- Change the transmitter(s) batteries.
- Start manual search for the wireless sensors according manual.
- Choose another place for the transmitter(s) and/or the base station.
- Reduce the distance between the transmitter(s) and the base station.
- Check if there is any source of interference.

*No DCF reception:*

- Press the button **RCC / SET** and start the initialisation manually.
- Wait for an attempt reception during the night.
- Choose another place for your product.
- Set the clock manually.
- Check if there is any source of interference.
- Restart the base.

If device fails to work despite these measures contact the supplier from whom you purchased it.

**WASTE DISPOSAL**

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

Never dispose of empty batteries and rechargeable batteries in household waste.

As a consumer, you are legally required to take them to your retail store or to an appropriate collection site depending on 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 labeled in accordance with the EU Waste Electrical and Electronic Equipment Directive (WEEE).

Please do not dispose of this instrument in 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****Base station**

Power consumption:	3x 1.5 V battery type AAA
Measuring range temperature:	-9,9°C...+50°C
Temperature accuracy:	+/- 1°C in 0-40°C, otherwise +/-2°C
Measuring range humidity:	20...95 % rH
Humidity accuracy:	+/- 5%
Dimensions:	152 x 104 x 22 mm
Weight:	182 g

**Wireless sensor**

RF transmission range:	Max. 100 m in open area
Transmission frequency:	433 MHz
Power consumption:	2x 1.5 V battery type AAA
Measuring range temperature:	-20°C...+60°C
Temperature accuracy:	+/- 1°C in 0-40°C, otherwise +/-2°C
Measuring range humidity:	20...95 % rH
Humidity accuracy:	+/- 5%
Dimensions:	50 x 105 x 26 mm
Weight:	52 g

Manufacturer: Bibetus, s.r.o., Loosova 1, Brno 638 00

No part of this manual may be reproduced without written consent of manufacturer. The technical data are correct at the time of going to print and may change without prior notice. The latest technical data and information about your product can be found by entering your product number on our homepage.

[www.airbi.eu](http://www.airbi.eu)