EN Professional smart WiFi weather station Solight TE92WIFI

Operating Instructions

Dear customer, thank you for purchasing our product. If you want it to serve you safely and fully, please read these instructions carefully and follow them. This will avoid misuse or damage. Avoid unauthorized use of this appliance and always respect all rules regarding the handling of electrical appliances. Keep the operating instructions for future reference.

Parameters:

- Automatic time calibration from the network
- Calendar to 2099
- Optional language for the name of the day of the week: English, German, French, Spanish, Italian, Dutch, Danish, Portuguese, Norwegian, Swedish, Polish, Finnish, Czech, Czech, Hungarian and Slovak
- Two alarm clocks
- Automatic snoozefunction (can be turned off or set to 5-60min)
- Temperature:
  - Internal temperature measurement ranges: -20°C (-4°F) to 50°C (122°F)
  - Outdoor temperature ranges: -40°C (-40°F) to 70°C (158°F)
- Humidity:
  - Indoor and outdoor humidity measurement range: 20% to 95%
  - 5 levels of indoor and outdoor comfort display based on temperature and humidity data
- Air pressure:
  - Air pressure measurement range: 600 to 1100 hPa (17.72 to 32.48 inHg or 450 to 825.1 mmHg)
- Precipitation
  - Precipitation measurement range: 0 to 9999 mm (0-393.6 inches)
- The Wind
  - Wind speed measurement range: 0 to 180 km/h (0 to 111 mph)
  - Wind direction measurement range: 0 to 359 degrees
  - Display of 12 degrees Beaufort scale
- TVOC air quality measurement
  - Maximum range displayed for TVOC concentration measurement: 0~9.999 mg/m3
  - Call for concentration level 8 TVOC
- Wireless outdoor sensor :
  - frequency 433,92MHz
  - Range 100 metres in open space
- Light and UV index:
  - Maximum light intensity display range: 0 to 128 klux (0 to 1378 kfc)
  - Maximum UV index display range: 0 to 15 levels
  - 5 levels of sunshine index
- Record temperature, humidity, wind speed, precipitation and light intensity
- Display of sensible temperature, wind chill, heat index and dew point temperature
- Connecting to a Wi-Fi network, connecting to the Tuya Smart app
- Upload the detected meteorological data (temperature, humidity, wind speed, etc.) to the mobile app for displaying statistics
- Weather forecast
- 4 display backlight levels
- Power supply:

Weather station:

Power adapter: DC 5V / 1A

Battery: 2 x LR6 AA 1.5V

Measuring console:

Battery: 3 x LR6 AA 1.**5V**

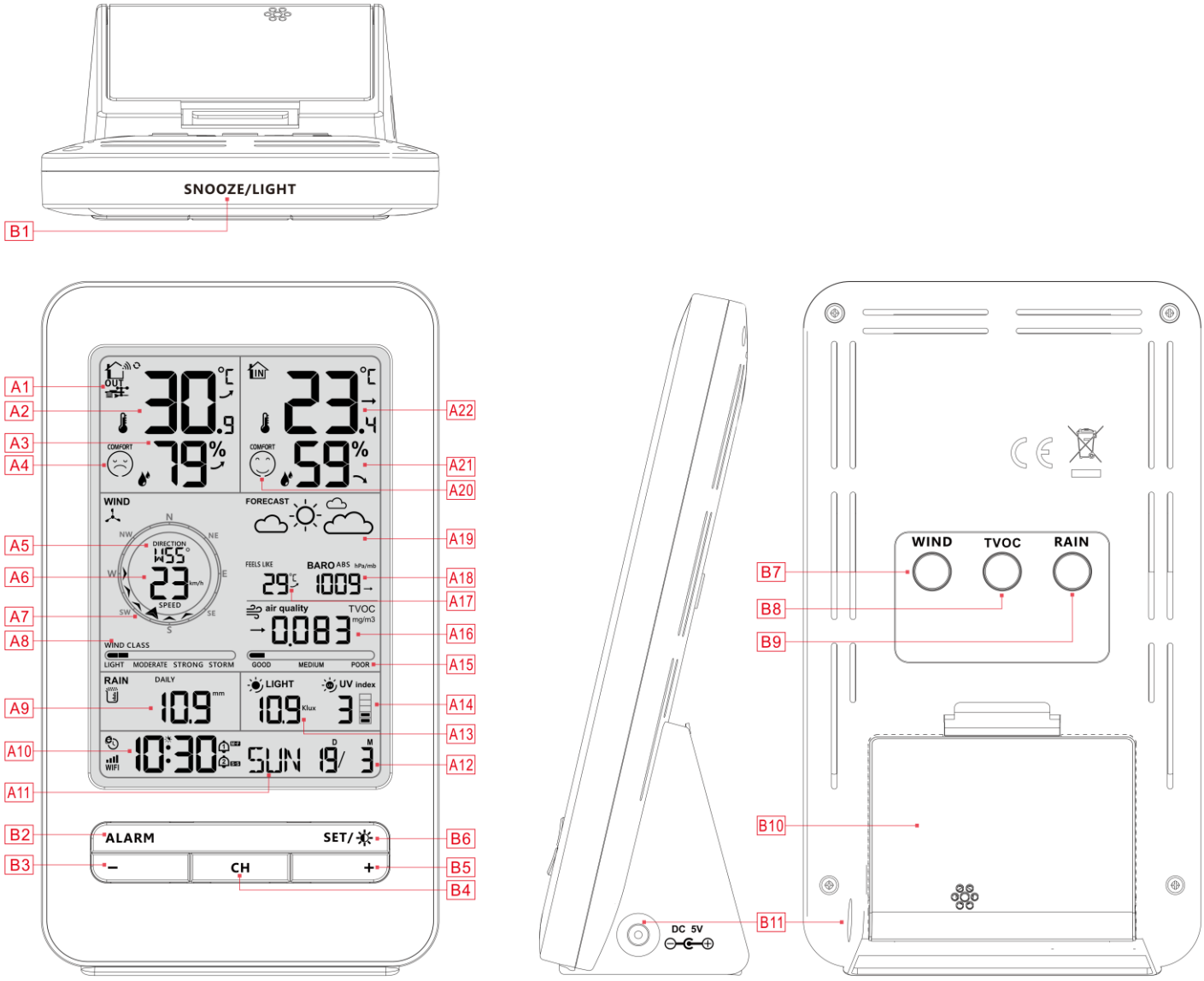
Wireless sensor:

Battery: 2 x LR6 AAA 1.5V

Note: The wireless sensor can operate at temperatures from -30 °C to +70 °C. Select the correct battery according to the temperature limit of the wireless sensor: The alkaline zinc-manganese battery can operate at -20°C to +60°C.

Lithium battery can operate at temperatures as low as -40 °C to +70 °C.

Appearance of the weather station



Part A - LCD

A1: Outdoor wireless channel

A2: Outdoor temperature

A3: Outdoor humidity

A4: Icon of outdoor comfort

A5: Wind speed value

A6: Wind direction or gusts or average wind speed

A7: Wind direction

A8: Beaufort scale

A9: Rainfall

A10: Time

A11: Day of the week

A12: Calendar

A13: Light intensity

A14: UV index

A15: TVOC comfort level

A16: TVOC concentration value

A17: Feeling temperature

A18: Air pressure

A19: Weather forecast

A20: Icon of interior comfort

A21: Indoor humidity

A22: Indoor temperature

Part B - Buttons and exterior

Network time icon

: Low battery icon

Alarm icon 1

Alarm icon 2

M-F Repeat wake-up icon Monday - Friday

S-S Repeat wake-up icon Saturday - Sunday

Alarm snooze icon

Measurement console icon

: Wireless reception icon

: Wireless channel loop icon

WIFI: WIFI icon

:WIFI signal strength indicator

Temperature | humidity | pressure - rise

Temperature | humidity | pressure - steady state

Temperature | humidity | pressure - drop

B1: Touch point "SNOOZE"

B2: "ALARM" button

B3: "-" button

B4: "CH" button

B5: "+" button

B6: "SET" and " " button

B7: "WIND" button

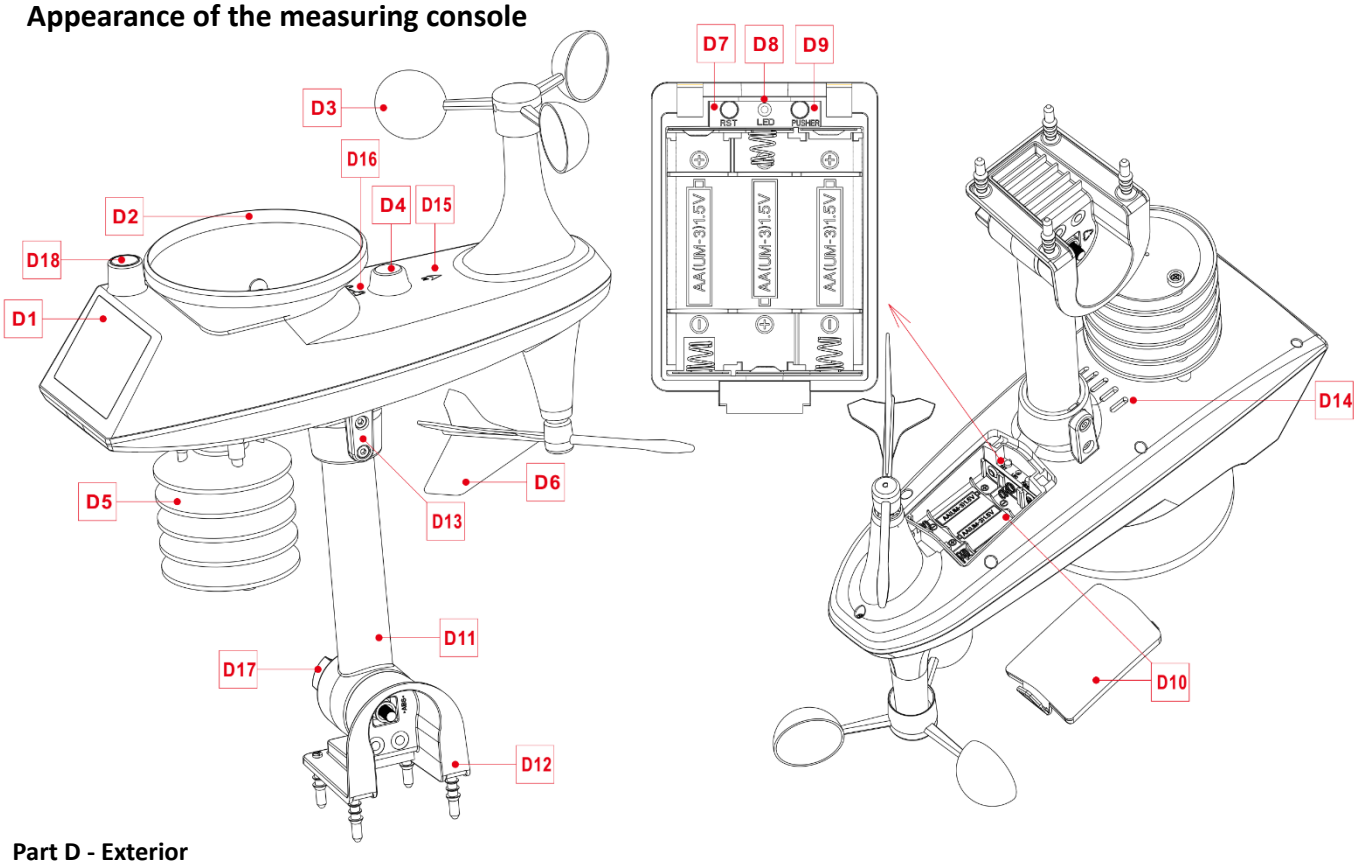
B8: "TVOC" button

B9: "RAIN" button

B10: Battery compartment

B11: Power socket

Appearance of the measuring console



Part D - Exterior

D1: Solar panel

D2: Rain funnel

D3: Wind flaps

D4: Bubble level

D5: Temperature | humidity box

D6: Directional wind vane

D7: Reset button

D8: LED indicator

D9: Manual send button

D10: Battery compartment

D11: Carrier bar

D12: Fixed base

D13: Cylindrical head screws

D14: Drainage holes for rain sensor

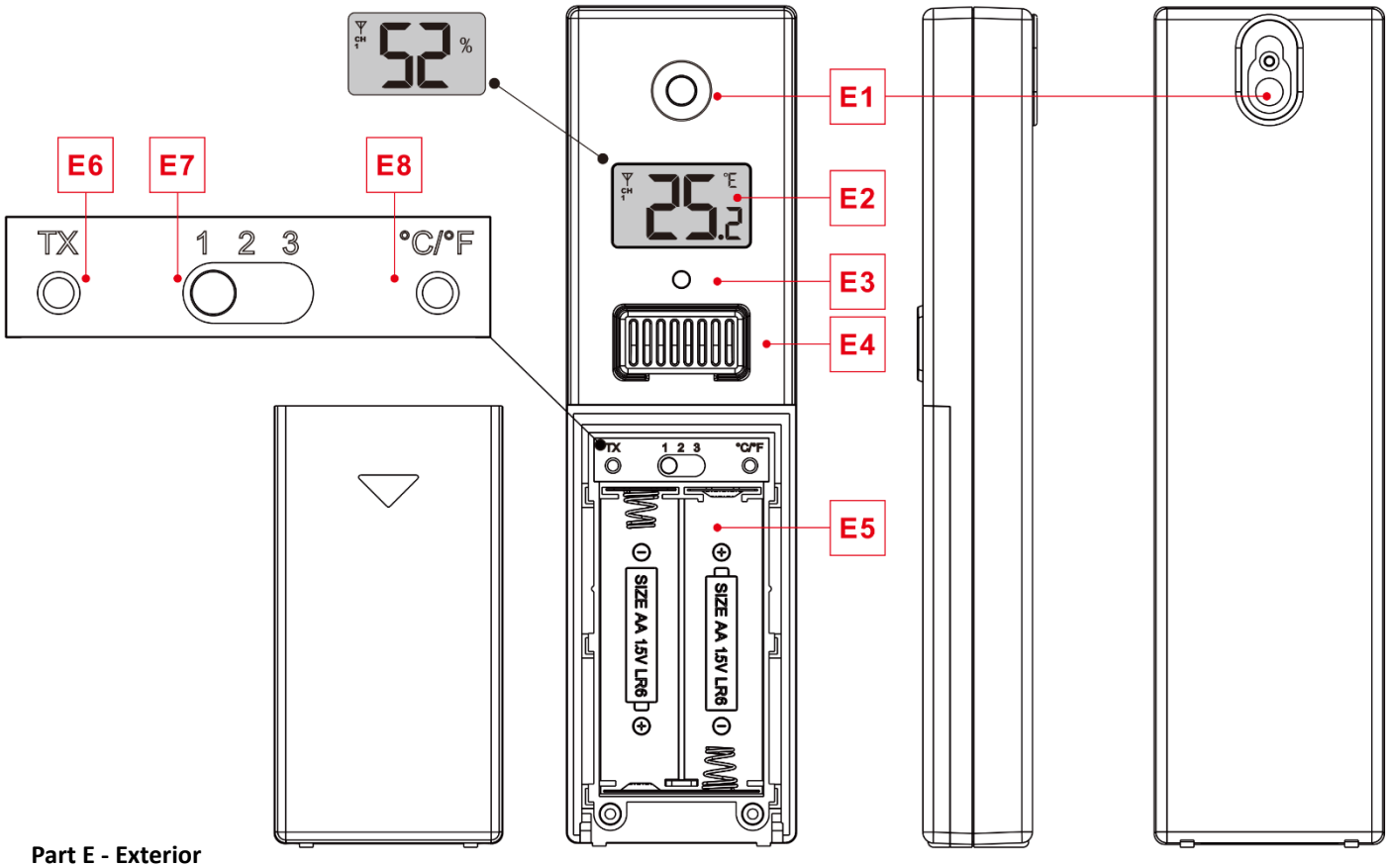
D15: northbound sign

D16: Rain Funnel Turning Mark

D17: Large nut for fixing the support rod and base

D18: Lighting and UV sensors

Wireless sensor



Part E - Exterior

E1: Hanging hole
E2: LCD display
E3: LED indicator
E4: Blinds for temperature sensing | Humidity
E5: Battery compartment
E6: Manual transmit button "TX"
E7: switch "CHANNEL 1 or 2 or 3"
E8: Reset button

Preparation of settings:

Items you will need to set up the station (not included):

1. Phillips screwdriver and hexagon socket for mounting.
2. Battery:
   2 (two) AA alkaline or lithium batteries for the weather station.
   3 (three) AA alkaline or lithium batteries for the measuring console.

- Remove the weather station and sensors from the packaging and place them together on the table.
- Place the batteries and screwdriver within easy reach of the setting point.
- After installing the batteries, keep the sensors and the weather station within 1m of each other for at least 15 minutes to allow the sensors and the station to reconnect.

Installing the Smart Life / Tuya Smart mobile app

Search Google Play (for android devices) or App Store (for iOS devices) for the Smart Life / Tuya Smart app and download it.
Once downloaded, open the app and register. Follow the instructions in the app to register.

Available on the App Store Available on the Google play

You can find a video tutorial in Czech language on YouTube by typing "Solight TE92WiFi app tutorial".

Quick setup:

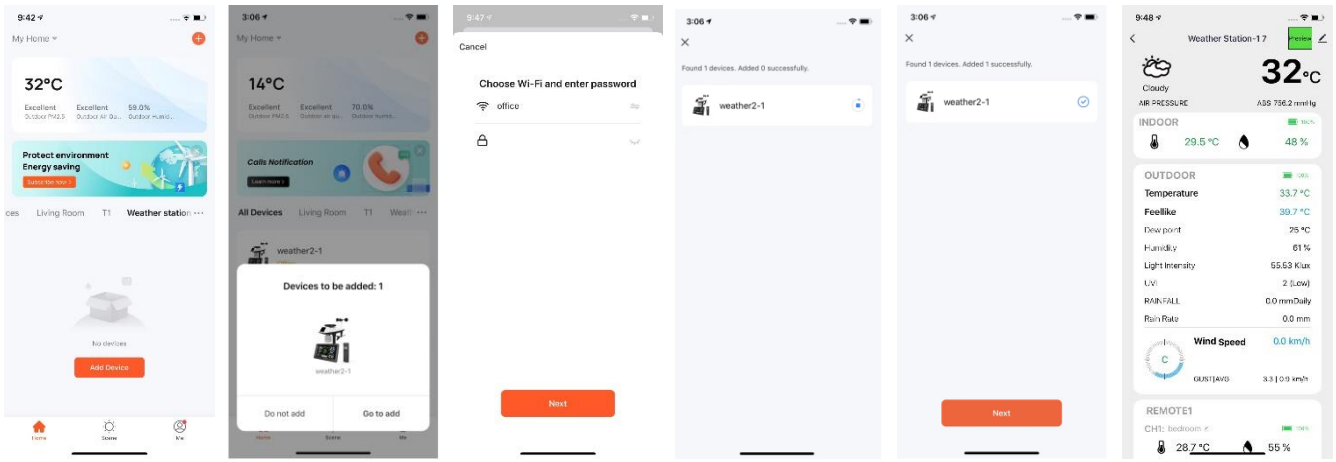
1. Insert 3 AA batteries into the measuring console.
2. Then plug the power cord into the weather station.
3. Configure the basic settings. Set the time, date, units, etc.
4. Insert 2 AA batteries into the weather station (the settings will not be lost if the power adapter is unexpectedly switched off).
5. After 5 minutes, place the outdoor sensor in an outdoor or other selected location.
6. Place the weather station in a suitable location at a minimum distance of 2.5 metres from any sources of interference such as a TV or computer monitor, radio reception is weaker in rooms with concrete walls (e.g.) In these extreme circumstances, place the weather station near a window.

Wi-Fi pairing

When the weather station is started, it automatically enters AP pairing mode and displays "00 AP". After a few seconds it changes to "01 AP" and pairing can start.

Pairing procedure:

Step1 Step2 Step3 Step 4 Step5 Step 6



1) Open the mobile app.
2) Click on the "+" in the top right corner, or click on the add device button. Wait until the device connects.
3) Fill in the Wi-Fi name and password.
4) The pairing will now take place.
5) When pairing is complete, click "Continue".
6) The weather station interface is displayed.

COMMENT:

- The device only supports 2.4GHz Wi-Fi network.
- If the device does not automatically enter pairing mode when it is first started, press and hold the "-" button for about 3 seconds.
- Once pairing is complete, the device will automatically connect to the network, automatically update the time and start searching for sensor signals. The icon will flash for approximately 3 minutes.
- After receiving a signal from the outdoor sensor, the outdoor temperature and humidity are displayed on the display of the automation weather station.

Connecting a wireless sensor

▸ The weather station can be connected to 1 wireless sensor (included) and 3 different channels of wireless temperature | humidity sensor (available for purchase).

▸ The weather station automatically finds all wireless sensors within 3 minutes of switching on and registers their ID. Each sensor generates a random ID after switching on, which is used to differentiate the sensors.

▸ In the main display interface, press the "CH" button to review the wireless sensor values on the various channels in the OUT temperature and humidity column.

Note: The channel icon (A1) displays the number of channels: CH1 | CH2 | CH3 (representing the three channels of wireless temperature and humidity sensors) | Loop mode.

- In loop mode, the channels and temperatures | humidity in the OUT column are displayed, switching to one channel every 5 seconds in the order | CH1 | CH2 | CH3. If a channel has no signal, it is automatically skipped during the loop.
- In loop mode, only temperature and humidity values are displayed, wind speed and direction, precipitation, etc. are not transferred and the values are still obtained from the wireless outdoor sensor.
- If the weather station loses the signal from the sensor or the sensor is not connected to the channel, the channel value is displayed as "--".
- If you need to add a new sensor or replace a sensor, press the "CH" button to switch to the appropriate communication and then press and hold the "CH" button for more than 3 seconds. The weather station will again search for a signal for 3 minutes and within 3 minutes a new channel sensor will be added to the weather station.
- If the low battery icon "" appears on the channel icon (position A2), replace the sensor battery on the corresponding channel. Then follow the above steps to reconnect the wireless sensor to the weather station.

Time and units settings:

- Press and hold the "" button for 3 seconds to enter time setting mode.
- Press and release the "MEM" or "WIFI" button to set the value. For quick setting, hold down the "MEM" or "WIFI" button.
- Press and release the "" button to confirm and move on to the next item.

Note: After 20 seconds without pressing any button or at any time, touch the "/ zz" button to exit the setup.

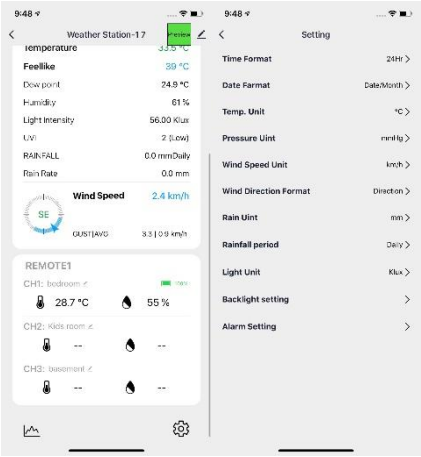
Setting order:

1. Temperature unit: °C | °F
2. Pressure unit: hPa| inHg | mmHg
3. Air pressure setting: absolute or relative
4. Wind speed unit: km/h |mph | m/s | knots
5. Selecting the degree (angle) or direction (letter) of the wind
6. Precipitation unit: mm| inch
7. Luminous units: Klux | Kfc | W/m^2
8. Hourly format: 12Hr/24Hr
9. Hours
10. Minutes
11. Calendar display format: Month/Day | Day/Month
12. Year
13. Moon
14. Date
15. Language of the week display: language selection
16. Preliminary weather forecast

Note: Name the days of the week in the following languages: English, German, French, Spanish, Italian, Dutch, Danish, Portuguese, Norwegian, Swedish, Polish, Finnish, Czech, Czech, Hungarian and Slovak.

Unit settings in the mobile app:

- Once the weather station is paired and connected to Wi-Fi, the weather station time is automatically calibrated and the time is automatically changed to the local current time.
- At the same time, click on the settings icon "" on the home page of the mobile app to go to the settings interface. Then click on the corresponding menu bar to set the units.



Alarm function control:

- Press and release the "⏰" button to display the time of alarm 1, press and release the button to display the time of alarm 2, press and release the button a third time to exit the display mode.
- In Alarm Time Display 1 or Alarm Time Display 2, press and release the "MEM" button to control whether the alarm function is switched on or off.

Note: When Alarm 1 or Alarm 2 is activated, the symbol "① " or "② " will be displayed. At the same time, the repetition symbol of the respective alarm "M-F " | "S-S " will be displayed. M-F is the working week Monday to Friday, S-S is the weekend Saturday to Sunday.

Note: In the app, the "M-F " icon will appear for weekdays. For the weekend, the "S-S " icon is displayed and for the whole week from Monday to Sunday, the "M-F " and "S-S " icons are displayed simultaneously.

Note: After 20 seconds without pressing any button or at any time, touch the "☼ / zZ " button to exit the setup mode.

Setting the alarm and the Snooze function:

- Press and hold the "⏰" button for 3 seconds to enter alarm setting and snooze mode.
- Press and release the "MEM " or "WIFI" button to set the value. For quick setting, hold down the "MEM " or "WIFI " button.
- Press and release the "⏰" button to confirm and move on to the next item.

Note: After 20 seconds without pressing any button or at any time, touch the "☼ / zZ " button to exit the setup.

Setting order:

1. Alarm clock 1 - hour
2. Alarm 1 - minute
3. Repeat of Alarm 1: M-F | S-S | M-S (Mon-Fri | Mon-Sun | Mon-Sat)
4. Alarm delay time 1: 5 to 60 minutes | OFF
5. Alarm clock 2 - hour
6. Alarm clock 2 - minute
7. Alarm repeat 2: M-F | S-S | M-S (Mon-Fri | Mon-Sun | Mon-Sat)
8. Alarm snooze time 2: 5 to 60 minutes | OFF

Note: The alarm is repeatedly set to M-F, the alarm function will be activated from Monday to Friday, not on Saturday and Sunday. The alarm is repeatedly set to S-S, the alarm function will be activated on Saturday and Sunday, not Monday to Friday. If the alarm is repeatedly set to display both M-F and S-S, the alarm function will be activated throughout the week.

Note: Snooze time setting range: if it is set to OFF, it means that the Snooze function is not available. The unit of wake-up time is minutes. You can set the snooze time of the alarm within the range of 5~60 min.

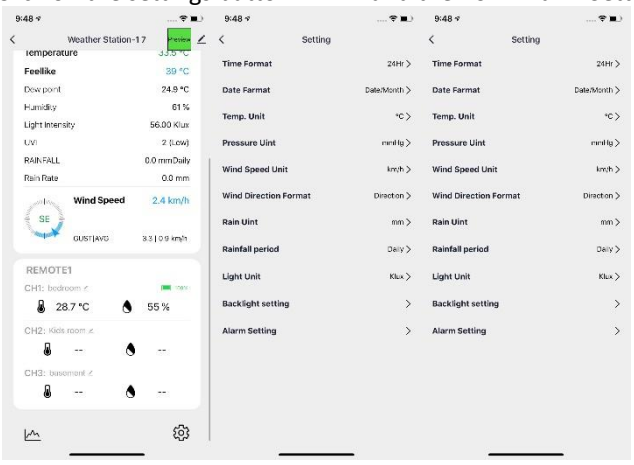
Note: If you do not deactivate the alarm by pressing any button, it will continue to sound for 1 minute. In this case, the alarm will automatically repeat after 24 hours.

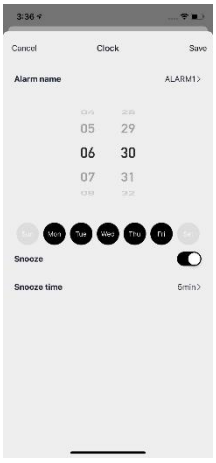
Note: The rising alarm sound (crescendo, duration: 2 minutes) changes volume 4 times.

Setting the alarm in the mobile app

Once the device has been successfully paired with the mobile app, the alarm can also be set in the mobile app.

- Click on the settings button " ⚙ " and then on "Alarm Setting". Set the alarm according to your preferences.





Turning off the alarm:

- When the alarm starts, press any button except the "☼ / zz " touch button or touch and hold the "☼ / zz " button for more than 3 seconds to stop the alarm.

Snooze function

When the alarm rings, press the "☼ / zz " button to postpone the ringing. After the snooze time has elapsed, the alarm will start ringing again. The snooze can be repeated. To end the alarm snooze, press any button except the ☼ / zz button. Alternatively, press and hold the ☼ / zz button for approx. 3 seconds.

Temperature | Humidity | Light intensity | UV index | Air pressure | Recording | Trend:

- Press and release the "WIFI" button to toggle the display of sensible temperature, dew point temperature, heat index and wind chill index. This information is obtained from the wireless outdoor sensor measurements.
- Press and release the "MEM" button to view the maximum and minimum temperature, humidity and light intensity records.

  Note: The values of sensible temperature, dew point temperature, heat index and wind chill index refer to the value detected by the wireless sensor.
- In the measured value display mode, press and hold the "WIFI " button for 3 seconds to clear the entire history of indoor/outdoor temperature, humidity, light intensity, sensible temperature, dew point temperature, temperature index, wind chill index.

  Note: The indoor/outdoor temperature/humidity is reset to the current value.

  Note: When deleting, the above values are first displayed as "--" and then the current values are saved again.

Note: After 20 seconds without pressing any button or at any time, touch the "☼ / zz " button to exit this mode.

- Indoor temperature, outdoor temperature, humidity, light intensity, sensible temperature and air pressure shows the trends of development.

  ↗ : The detected value increases.

  ↘ : The detected value is decreasing.

  → : The detected value remains unchanged.

- The UV index has 5 status indications: LOW (0 to 2), MODERATE (3 to 5), HIGH (6 to 7), VERY HIGH (8 to 10), EXTREME (11+).

Wind values | records:

- Press and hold the "⇉ " button for 3 seconds to display wind direction, maximum speed, or wind gusts.

  Note: WIND SPEED: Average speed over the last 30 seconds.

  WIND SPEED: Highest speed in the last hour.

  WIND SPEED: Average wind speed in ten minutes.

  WIND DIRECTION: Displayed in letters or degrees

  After pressing the button, only one value is displayed, to move to the next value you need to press the button again for 3 seconds.

- Viewing the history of values: press and release the "⇉ " button to view the maximum wind values for:1 hour (default) | 24 hours | 7 days | Month | Year.

  Note: 1 hour: Highest speed in the last 60 min.

  24 hours: last 24 hours

  7 days: last 7 days

  Month: defined by the calendar month, i.e. for example: 1 January - 31 January

  Year: defined by the calendar year, i.e. 1 January - 31 December.
- In wind speed history viewing mode, press and hold the "⚙" button for 3 seconds to clear the entire wind speed history.

Note: The wind speed data is reset to the current wind speed.

Note: After 20 seconds without pressing any button or at any time, touch the "☼ / zz " button to exit the mode.

Collisions | records:

▸ In the main display interface, press and hold the " " button for 3 seconds to switch to the precipitation display.

Note: Collisions: from current to past (EVENT, HOUR, DAY, WEEK, MONTH, YEAR, TOTAL)

Precipitation rate: average hourly precipitation of daily or actual precipitation.

▸ Press and release the " " button to view the collision history in order:

PER EVENT | PER HOUR | PER DAY | PER WEEK | PER MONTH | PER YEAR | TOTAL.

Remark:

EVENT: Cumulative value of the current rainfall total. If it has not rained for more than 30 minutes, this indicates the end of the current precipitation event.

PER HOUR: Total precipitation for the current hour

FOR THE DAY: Total precipitation for today

FOR THE WEEK: Total rainfall for the current week

FOR THE MONTH: Total rainfall for the current month

PER YEAR: Total rainfall in the current year

TOTAL: Cumulative value of the total operating time since the start of the weather station

▸ In rain history viewing mode, press and hold the " " button for 3 seconds to clear the entire rainfall history.

Note: Precipitation data is reset to 0 mm (in).

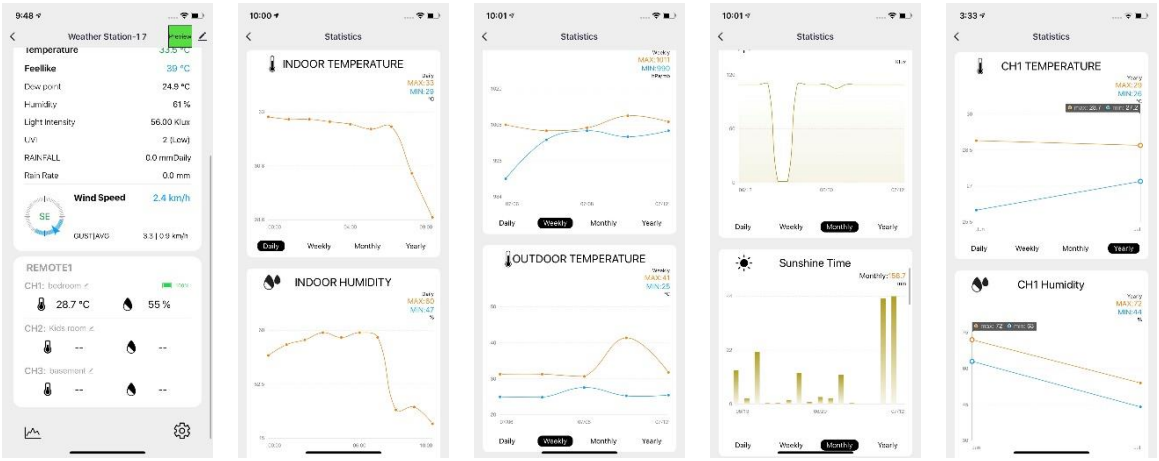
Note: After 20 seconds without pressing any button or whenever you touch the " / " button to exit the viewing mode, the weather station will resume normal time display and show the last precipitation record viewed.

▸ When displaying the precipitation totals mode, press the " " button to switch between the precipitation totals display for different time periods.

Curve recording of temperature, humidity, air pressure, wind, rain, light intensity, UV index in the mobile app.

Use the mobile app to view changes in various data recorded by the weather station in a curve chart.

Click on the " " icon on the home page to view the DAILY | WEEKLY | MONTHLY | YEARLY curve chart.



TVOC air quality measurement:

▸ When the TVOC measurement at the weather station is switched on, the internal sensors automatically enter a 5-minute pre-heat mode and the TVOC concentration value is displayed after 5 minutes.

▸ If the weather station is powered from an external source, the TVOC will continuously detect. When powered by a battery, detection will occur only once. The next detection is activated by pressing the "TVOC" button again.

▸ There are a total of 8 comfort levels for TVOC:

Level	1	2	3	4	5	6	7	8
TVOC	0~0.200	0.201~0.400	0.401~0.600	0.601~0.800	0.801~1.000	1.001~2.000	2.001~5.000	5.001~9.999

TVOC calibration:

- When powered from an external source and in operating mode, press and hold the "TVOC" button for more than 3 seconds to enter calibration mode. The TVOC column will display "CAL", then press and hold the "+" button for more than 3 seconds, a beep will sound and you will enter the manual calibration mode (the calibration mode will exit after 20 seconds). The TVOC column will display "CAL1" and the detection values will switch between each other. After entering the calibration mode, place the device in an air permeable environment for more than 30 minutes. The device will automatically set the best detected TVOC reading to zero and automatically save it to exit the calibration mode.

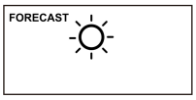
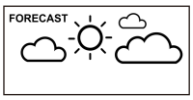
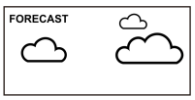
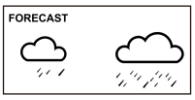
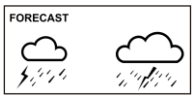
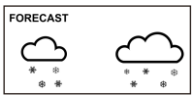
  Note: If the deviation of the values is found to be too large after a long period of use, manual calibration can be performed.

- To restore the TVOC factory calibration parameters: to restore the TVOC factory calibration parameters, long press and hold the "TVOC" button. When "CAL" appears in the TVOC column, press and hold the "-" button for more than 3 seconds and the display will change to "rESt " and automatically return to the test value, then restore the factory calibration parameters.

Weather forecast:

- The weather station calculates the weather forecast for approximately 12 hours ahead based on the barometric pressure. Of course, this forecast cannot match the forecasts of professional weather services supported by satellites and powerful computers. It provides only an approximation of the current weather trend in a small area. Please take into account the weather forecast from your local weather service as well as the forecast from your weather station. If the information from your device and the local weather forecasting service differs, please take the advice of the professional service as a guide.

- The weather station displays the following weather icons:

Sunny	Partly cloudly	Cloudy	Rain	Storm	Snowfall
					

Note: The snowflake icon will only appear if the outdoor temperature (refers to the temperature detected by the outdoor sensors) is below -4°C and the forecast would be rain or thunderstorms.

- After 7-10 days of air pressure calibration, the weather forecast will be stable with 70-75% accuracy.

Display illumination:

- If the product is powered by batteries, touch the "☼ / ZZ" button. The backlight will illuminate for 15 seconds.
- When the power adapter is connected, the battery will automatically disconnect from the power supply and the backlight will always be on. By pressing the "☼ " button to adjust the backlight brightness, you can set 5 backlight states: 4 different backlight brightness levels and backlight off. When the backlight brightness is not at the maximum level, press the "☼ / ZZ " button. The backlight will change to maximum brightness for 20 seconds.

  Note: The weather station can also set the backlight to dim automatically at night. Press and hold the "☼ " button for more than 3 seconds to enter the night mode setting.
- Press and release the "⚙" button to confirm and move on to the next item.
- Press and release the "▲ MEM " or "▼ WIFI " button to set the value. For quick setting, hold down the "▲ MEM " or "▼ WIFI " button.

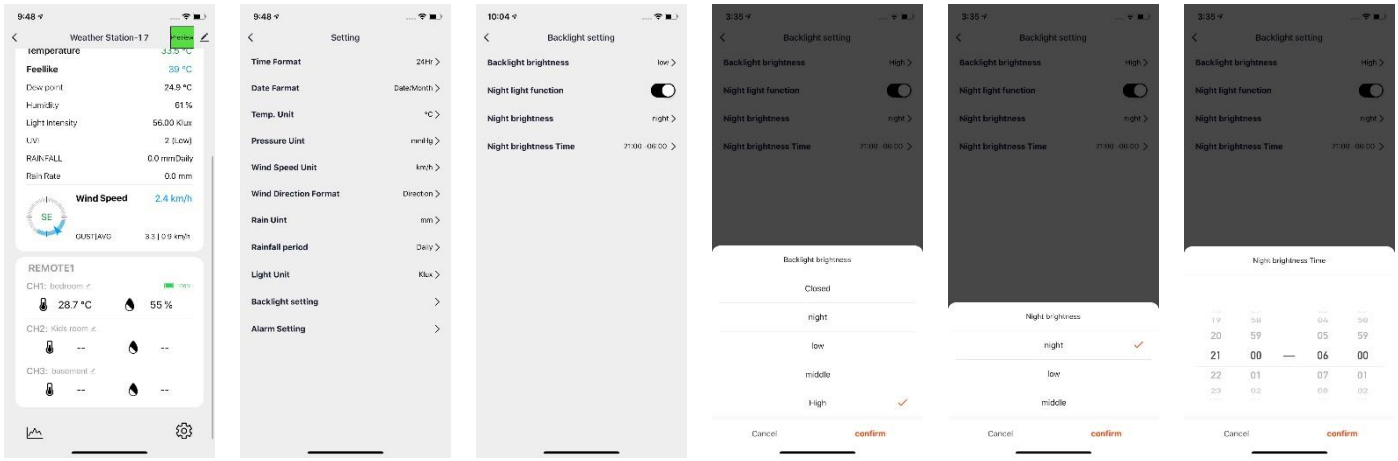
Setting order:
1. Night mode (On/Off) | **2.** Backlight brightness setting at night | **3.** Setting the HOURS to enter night mode | **4.** Setting MINUTE to enter night mode | **5.** HOUR setting to exit night mode. **6.** MINUTE setting to exit night mode.

Note: If night mode is disabled, press and release the "⚙ " button to exit directly and skip setting other items. If no button is pressed

within 20 seconds, or press "☼/ZZ " 2 times to exit setup mode.

To set the display illumination in the mobile app

, press the "⚙ " button on the main side of the device. Click on Backlight setting on the homepage of the mobile app and enter the backlight setting menu.



▸ If night mode is enabled, the "☼ " icon will be displayed. When the night mode entry time is reached, the backlight will automatically switch to the night mode brightness setting, and when the night mode exit time is reached, the backlight will return to the original brightness

▸ In the night mode, the backlight can be switched to the highest brightness for 15 seconds by pressing and releasing the "☼/ZZ " button.

Battery's dead:

▸ If the battery icon "▭" is displayed in the "Indoor sensor" column, the weather station battery must be replaced as soon as possible.

Installation instructions (measuring brackets):

▸ Install in an open area at a distance of 15 metres from obstacles in all directions.

▸ The sensor must be mounted on a stable platform or bracket that is placed 1.5 m above the ground.

▸ When installing, adjust the console body so that the solar panel faces south, otherwise the wrong wind direction will be displayed. Note the north "N" mark on the top of the sensor (Compass is required for correction. The relief "N" mark of North is identical to the "N" mark of the compass).

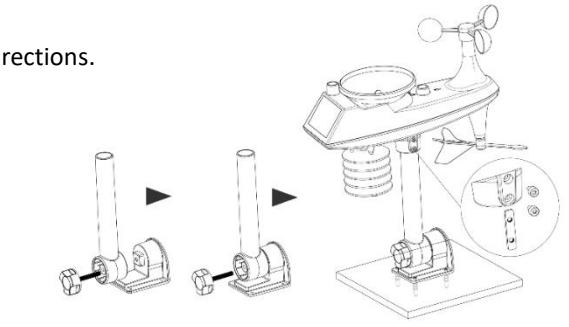
▸ When installing the sensor, use a top level to ensure the sensor is level, otherwise the accuracy of the precipitation measurement will be affected.

▸ After completing the above steps, secure the screws.

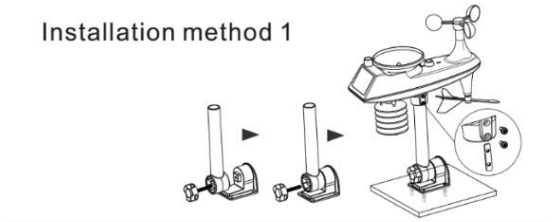
▸ When installing, it is necessary to ensure the fixing of the wind dampers and the wind direction indicator.

▸ The rain funnel should be cleaned regularly (recommended cycle 1-3 months, depending on the frequency of rain):

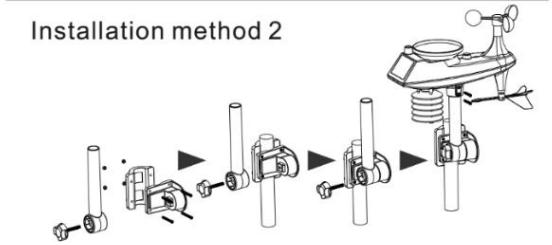
1. Remove the rainwater funnel (turn the funnel according to the illustrated direction of rotation).



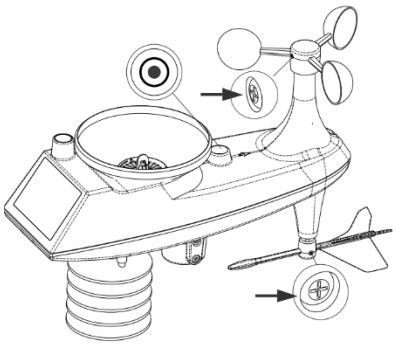
Installation method 1



Installation method 2

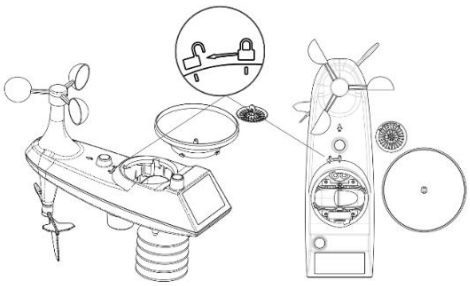


2. Gently remove dirt or insects from the rain sensor.
3. Remove debris from the rainwater funnel, especially debris from the drain.
4. Reinstall the funnel.

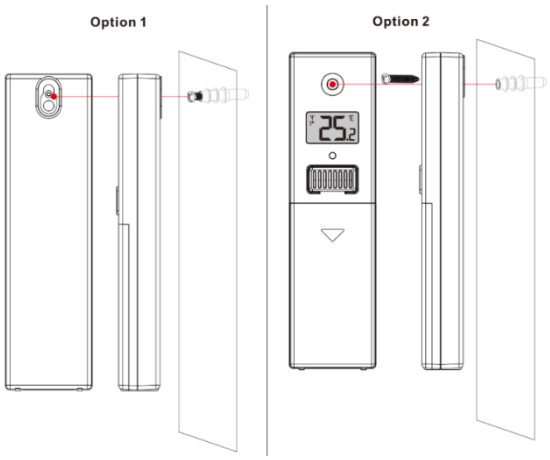


Note: Do not apply oil to the rain sensor.

Note: Make sure the console is installed within 100 meters of the weather station (100 meters is the maximum distance without obstacles). Depending on the type of obstacles between the wireless sensor and the weather station, the distance must be shortened (the signal strength decreases after passing through the obstacle), otherwise the data transmission may be interrupted.



Wireless temperature and humidity sensor installation
(not included, can be purchased)



Option 1
Insert the dowels into the pre-drilled holes and tighten the screws.
Wireless sensor for screws hang

Option 2
Insert the mounting screws through the front of the wireless sensor into the wall.
Tighten the screws so that they fit snugly (do not overtighten)

If the sensor is outdoors, orient it to the north side or any shade.
Make sure the wireless sensor is installed in a vertical position.

The product has been issued with a CE declaration of conformity in accordance with the applicable regulations. On request from the manufacturer: info@solight.cz, or downloadable from www.solight.cz.
The maximum radiated power of the device in the working frequency band 433,92MHz is 10mW (+10dbm).
Producer Solight Holding, s.r.o., Na Brně 1972, Hradec Králové 500 06.