EN METEOROLOGICAL STATION Solight TE81BK

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. The main unit should stand as close to a window as possible.

TECHNICAL DATA

Room temperature measurement	0°C to +50°C
Room humidity measurement	20% to 95%
Outdoor temperature measurement	-40°C to +60°C
Measuring outdoor humidity	20% to 95%
Power	2x AA 1.5V alkaline batteries
	AC/DC adapter 5V/1200mA
Temperature measurement accuracy	1°C
Moisture measurement accuracy	5%
Atmospheric pressure measurement range	600 hPa/mb - 1100hPa/mb

We recommend using alkaline batteries with a nominal voltage of 1.5V for proper LCD display brightness. NiMH rechargeable batteries are usually 1.2V and the LCD brightness is therefore inferior.

Main unit

If **battery powered**, open the battery cover and insert two AA alkaline batteries **(not included)**. Observe the marked polarity. On start-up, all segments of the LCD display will momentarily light up and the instrument will beep. It will then enter standard temperature and humidity measurement mode.

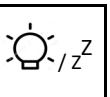
If **powered by an AC/DC adapter**, plug the power connector into the input socket on the weather station and then plug into an electrical outlet.

To reset the device, remove the batteries or unplug the adapter for at least five seconds. This will erase all settings and memory. In the case of battery power, the display will light up for eight seconds each time. If powered by an adapter, it will light continuously.

You can pair the main unit with up to three sensors. Each sensor is powered by two AA alkaline batteries (not included).

Default settings: 24-hour time format shows 00:00, pressure in mb/hPa and temperature in °C.

1. BUTTON FUNCTIONS

Function / Control								**MEM**	**on/off** 	
Standard mode	Short press	Display date/sec.	Wake-up time/date display	Switching °C/°F	Switching between sensors /cyclical sensor display mode	Turns the temperature alarm on/off	Changing the backlight intensity displays	Display of max. and min. memory temperature and humidity	Switching on/off alarm clock	Switching on the display backlight /suspending the wake-up call
	HOLD	Enter time setting mode.	Enter alarm setting mode	Activating the RCC reception mode	Activation of signal reception from sensors	Enter temperature alarm setting mode	Enter change mode: pressure/weather units	Deleting max. and min. temperature and humidity data	-----	-----
Time settings	Short press	Confirm settings	-----	One step forward	Back one step	-----	-----	-----	-----	-----
	HOLD	-----	-----	Fast forward	Accelerated posud back	-----	-----	-----	-----	-----
Setting the alarm	Short press	-----	-----	One step forward	Back one step	-----	-----	-----	-----	-----
	HOLD	-----	-----	Fast forward	Accelerated rewind	-----	-----	-----	-----	-----
Setting the temperature alarm	Short press	-----	-----	One step forward	Back one step	Switching between max. and min. temperature settings	-----	-----	-----	-----
	HOLD	-----	-----	Fast forward	Accelerated rewind	-----	-----	-----	-----	-----

2. MAIN FUNCTIONS

- 6 graphic levels for weather forecast: sunny, low cloud, cloudy, rainy, heavy rain, snowing
- RCC signal reception mode: DCF
- Calendar range: 2000-2099, date and day of the week display
- Time format 12/24 hours
- Temperature in units of °C or °F
- 3-digit display for room temperature. Measurement accuracy: +/- 1°C, measurement range 0°C + 50°C
- 2 digit display for room and outdoor humidity. Measurement accuracy: +/- 5%, measurement range 20% - 95%
- 3-digit display to show outdoor temperature. Measurement accuracy: +/- 1°C, measurement range -40°C + 60°C
- The instrument stops measuring temperature when the alarm is activated or when it is receiving an RCC signal (radio clock control signal).
- The high-frequency receiver can receive data from up to three channels (transmitters)
- Memory for maximum and minimum indoor and outdoor temperature and humidity values
- Indication of low battery of the main unit and the outdoor transmitter on the receiver displa h a symbol
- Units for measuring air pressure: mb/hPa, inHg. The pressure value is not converted to sea level. The pressure value cannot be calibrated.
- Alarm clock
- Temperature alarm for outdoor temperature
- USB output 5V, 1200 mA for power supply
- Repeat wake-up function (5 minutes)
- Daylight Saving Time (DST) function
- Moon phase display
- Environmental comfort functions
- Frost symbol indication (for t peratures -1°C to +3°C)
- The device operates at a frequency of 433.92 MHz

3. FUNCTIONS AND ACTIVITIES OF THE DEVICE

3.1 Time settings

Press the button i andard mode for more than 2 seconds, you will enter the time setting mode. The active segment will start flashing.
Setting order: 12/24Hr → time zone offset → hours → minutes → date format DD/MM or MM/DD → year → date setting MM/DD or DD/MM (according to date format setting) → language of days of the week (GE, FR, SP, IT, DU, DA, EN). To stop setting, press the button until the settin egments stop flashing. Press the or button to advance or reverse one step; pressing his but for a longer time allows you to advance or reverse faster.

3.2 Setting the alarm

In standard mode, press the button , the wake-up time will appear in the time display section. Press the button for mo than 2 seconds, you will enter the alarm setting mode, the main segment will start flashing. Setting order: hour → minute → output. Press the or button to advance one ep for rd or backward; holding this button for a longer time can advance forward or backward faster. The delayed wake-up value is permanently set to 5 minutes. To stop setting, move the menu button to the stage where the setting segm s stop flashing. If no button is pressed for 20 seconds, the unit exits the setup mode and saves the current set wake-up time. To turn the alarm off completely, switch the alarm switch to the **off** position.

3.3 Wake-up settings

The on/off switch is used to switch the alarm on or off. When the n is activated, the Z symbol ^{Z} will flash on the display. If you press / Z^{Z} during v -up, the wake-up will be delayed for 5 minutes. Press any other button to turn off the wake-up. The wake-up can be delayed for any length of time. When the alarm rings, the RCC signal is not received, it is restored when the alarm is switched off. The wake-up call is automatically switched off after two minutes. The wake-up time is: a) 0-10 seconds: one beep per second, b) 10-20 seconds: two beeps per second, c) after 20 seconds: three beeps per second.

3.4 Sensor switching function

In standard mode, press the button to switch bet en channels (CH1, CH2, CH3 or the option to cycle through all three channels). In the cyclic repeat mode, the display shows the symbol . In the three channel cyclic repeat display mode, the values change themselves. If less than three outdoor sensors are connected, no readings are displayed on the unconnected channels during cyclic repeat.

3.5 Sensor pairing function

First, it is necessary to set a different channel on each sensor. Open the battery cover and set the channel number 1, 2, or 3 with the positionable switch. Then insert the batteries and close the cover. The first time the weather station is switched on, the sensors are automatically paired. However, if you want to change the pai , switch the channel using the button and then hold it for more than two seconds. Pairing takes approximately three minutes. If pairing is unsuccessful, the weather station is probably out of signal range.

3.6 Temperature alarm setting function

The temperature alarm can only be set for the outdoor sensor. To enter the temperature alarm setting mode, press the button for ore than 2 seconds. The part of the display with the value for setting the maximum temperature alarm will flash first. Use the or but s to set the maximum temperature value. Press the button briefly to scroll to the lowest alarm temperature setting. Use the or buttons to s the mi num alarm temperature value. Press the button again briefly to exit the temperat alarm setting mode. The temperature alarm range is -40°C to 60°C. To activate the temperature alarm, briefly press the button , this is indicated by the ALERTS alert on e display:

When the minimum or maximum set temperature is exceeded, an alarm sounds, the over-tem value flashes and the or symbol appears. The alarm will sound for 5 seconds unless terminated earlier by any button. If the audible alarm is terminated but the temperature alarm is n eactiv , the display will still flash a temperature value that is outside the set range. The temperature alarm can be deactivated by briefly pressing the tton. If the alarm is not deactivated, the alarm will activate every minute thereafter if the temperature continues to be outside the set range.

3.7 Receiving the RCC control signal

- The RCC signal reception is started automatically after startup or reset.
- Forced RCC signal reception: press the button.

- When the signal reception is switched on, a three-minute synchronisation will start. No functions can be entered during the synchronization period, the weather station does not take any measurements during this time, and the USB power output is also disabled.
- Automatic signal reception every day.
- Automatic reception will take place at the following times of the day: 1:00, 2:00 and 3:00. In case of errors, the signal is retried at 4:00 and 5:00. If the signal is successfully received at 4:00, the reception is not repeated for that day. If the signal is not successfully received at 4:00, it shall be repeated at 5:00 and shall not be repeated for that day, regardless of the success rate. The process of receiving the control signal takes 7 minutes.
- The icon will flash in RCC reception mode.
- If the signal is weak or the instrument is unable to detect the correct signal, the tower symbol will flash but the radio symbol will not be displayed.
- If the control signal has been successfully received, the full RCC receive icon lights up and the instrument exits receive mode.
  - To exit receive mode, press the button briefly.
  - If the control signal cannot be received for three days, an attempt will be made at 1:00 a.m. the next day.
  - If the alarm is activated in the RCC signal reception mode, the device will exit the reception mode and enter the wake-up mode.
  - When a DST signal is received, the display will show the DST icon.
  - After resetting, the RCC and DST symbols disappear.

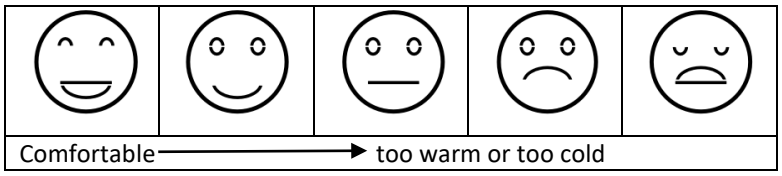
3.8 Lighting up the display

If the weather station is powered by batteries, pressing the touch sensor /Z will light up the display for 15 seconds. If the display backlight is weak, replace the batteries. When powered by an adapter, the display is constantly lit. The intensity of the display backlight can be changed using the button. Four different display backlight intensities can be set and the display is switched off.

3.9 Monthly phase

Depending on the correct setting of the current year, month and day, the phase of the Moon's exposure to the Sun is displayed. The moon phases are displayed in sixths.

3.10 Feeling comfort function

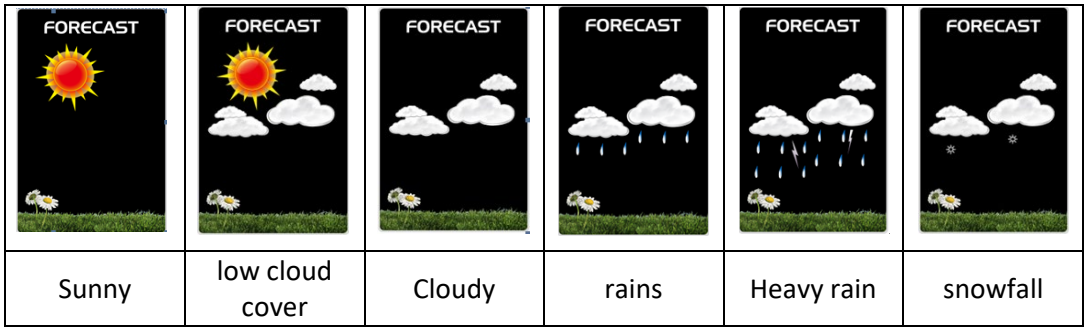


The sensory comfort function is based on temperature, pressure and humidity measurements. Based on these measurements, the station determines the expected perception of the indoor environment from five options (see figure).

3.11 Weather forecast function

The weather station produces a weather forecast for the next 12 hours. The measurement is based on monitoring the evolution of atmospheric pressure. The forecast information is indicative only. This weather station cannot be compared with professional equipment or with satellite or computer technology. For an objective forecast, please consult official sources.

Six levels of graphical weather forecasts:



***Note**: Weather forecasts can be accurate under natural ventilation conditions; errors occur when the instrument is placed in a room or in an air-conditioned environment.*

Three levels of temperature and humidity development:

Temperature/humidity tends to increase
Temperature/humidity has a constant value
Temperature/humidity tends to decrease

3.12 Changing pressure units and weather forecast settings

Press and hold the button for two seconds to enter the settings for changing atmospheric pressure units (the pressure units will flash). Use the up and down arrows to change between **hPa/mb** and **inHg**. Press the button briefly again to enter the weather forecast settings (the graphical weather icons will flash). Use the up and down arrows to set the graphical icon that most accurately represents the current weather condition. Briefly press the button to confirm this status.

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 at https://www.solight.cz/documents/te81_prohlášení declaration of conformity.pdf
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, Czech Republic.