

# LA CROSSE<sup>®</sup> TECHNOLOGY

## Radio Controlled Color Weather Station Model: WS6828 | Quick Setup Guide

La Crosse Technology introduces a Radio Controlled Color Weather Station that provides precise, real-time weather data straight from your backyard. Monitor forecast and temperature trends and set high/low temperature alerts. Animated color forecasts react to changing barometric pressure. Monitor in/out temperature and humidity with daily min/max records—all on one easy-to-read display with adjustable brightness. Wireless transmission range of over 90 meters (300 ft.) in open air, from transmitter to weather station.

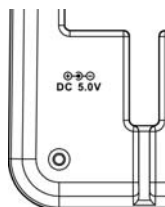
### Radio Controlled Color Weather Station



### Setup Instructions Step-by-Step

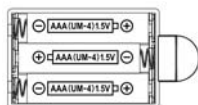
#### STEP 1:

- Insert the 5-volt A/C power adapter into the designated area on the weather station.
- Insert the A/C power adapter into a wall outlet for continuous backlight (ON/OFF), and dimmer feature.



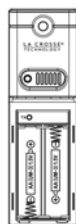
#### STEP 2: (optional battery operation)

- Remove battery cover from the weather station: slide tab left and pull out to remove the cover.
- Insert 3 AAA batteries (not included) into the back of the weather station. Observe the correct polarity (see marking inside the battery compartment).
- The weather station will light up and show, indoor temperature, humidity and time.
- (Press and release the HI/LOW/OFF button to illuminate the backlight for 10 seconds when using only battery power.)
- **Do Not Mix Old and New Batteries**
- **Do Not Mix Alkaline, Standard, Lithium or Rechargeable Batteries**



#### STEP 3:

- Ensure that the transmitter is within 3 meters (10 ft.) of the weather station.
- Remove battery cover from transmitter: slide the battery cover down and lift off the front.
- Insert 2 AA batteries (not included) into the transmitter. Observe the correct polarity.
- Within 3 minutes, the weather station will show readings in the Outdoor temperature area on the LCD.

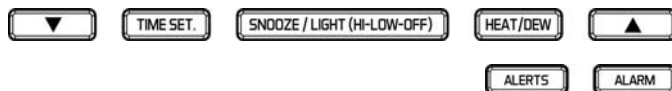


**Note:** Use Alkaline batteries (or Lithium for temperatures below - 20°F/- 28.8°C).

### Troubleshooting

- If the weather station does not show the outdoor temperature after three minutes, open the battery cover of the outdoor transmitter to reveal the TX button. Push down on the TX button for three seconds to send a wireless signal to the weather station.
- Hold the HEAT/DEW button for three seconds so the weather station searches again for the outdoor transmitter.
- If the outdoor temperature does not show up after a second attempt, remove the A/C power adapter and all batteries from both units and start the setup process again.
- For optimal 433 MHz signal reception, the outdoor transmitter should be placed within 90 meters (300 ft.) from the indoor weather station.

### Buttons



### Program Menu

Press and hold TIME SET key to enter setting mode. Use UP/DOWN keys to select desired value.

- **TIME ZONE:** Time zone will display, selected time zone will blink, press the UP or DOWN keys to set the desired time zone (setting range is 0--+12, 0--12). Confirm with the TIME SET button and move to language.
- **LANGUAGE:** Language will show, the default is FR. Press and release the UP or DOWN button to select the desired language: FR, IT, NE, ES, DA, EN. Confirm with the TIME SET button and move to hour format.
- **12/24 HOUR TIME:** 12H will flash. Press and release the UP or DOWN button to select 24H. Confirm with the TIME SET button and move to the hour.
- **HOUR:** The hour will flash. Press and release the UP or DOWN button to select the correct hour. Confirm with the TIME SET button and move to the minutes.
- **MINUTES:** The minutes will flash. Press and release the UP or DOWN button to adjust the minutes. Confirm with the TIME SET button and move to the year.
- **YEAR:** The year will flash. Press and release the UP or DOWN button to select the correct year. Confirm with the TIME SET button and move to the month.
- **MONTH:** The month will flash. Press and release the UP or DOWN button to select the correct month. Confirm with the TIME SET button and move to the date.
- **DATE:** The date will flash. Press and release the UP or DOWN button to select the correct date. Confirm with the TIME SET button and move to °F/°C.  
**Note:** The Day of the Week will set automatically when the year, month and date are set.
- **FAHRENHEIT/CELSIUS:** C/F will flash. Press and release the UP or DOWN button to select Fahrenheit or Celsius degrees. Confirm with the TIME SET button and exit.

If no buttons are pressed in a 20 seconds period, set mode will time out and return to live display mode, reflecting whatever adjustments were made by user before timed out.

### Alarm Setting

- **ALARM HOUR:** Hold ALARM button for three seconds to enter alarm setting mode. The alarm hour will flash. Use the UP or DOWN button to set the hour. Press and release the ALARM button.
- **ALARM MINUTE:** The alarm minutes will flash. Use the UP or DOWN button to set the minutes. Press the ALARM button to exit.

### Alarm Activate/Deactivate

- Press and release the ALARM button once to show Alarm Time.
- Press and release the ALARM button repeatedly to activate or deactivate the alarm.
- The alarm icon appears when alarm is activated.




## Snooze

- When the alarm sounds, press the SNOOZE/LIGHT button to trigger snooze alarm for 10 minutes. The snooze icon **Zz** will flash when the snooze feature is active.
- To stop alarm for one day, press ALARM button, while in snooze mode. The alarm icon will remain solid.  
**Note:** The alarm is crescendo sound. When the alarm sounds, it continues for 2 minutes and then shuts off completely.

## DCF Radio-Controlled Time

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.

-  **DCF RECEPTION ICON** with full signal strength will appear on screen if the reception of DCF signal is successful. If the unit received DST (summer time) signal, it will display DST icon.
- The tower icon is solid when the weather station has received the DCF signal.
  - The tower icon will flash when searching for a signal.
  - No tower icon displayed. The weather station was unable to receive a signal at this time.
  - Reposition the weather station for better signal reception or try again at bedtime.
  - The weather station will start searching at GMT: 01:00 and if no reception on the first attempt it will try again at 02:00, 03:00, 04:00 and 05:00. Each attempt will be at least 2 minutes and the most will be 10 min. If there is no signal or too much interference the receiver will only be on for 2 minutes.
  - If the signal is good, it may catch a signal in ABOUT 2-3 minutes. If the signal is marginal it will try to catch a signal for up to 10 minutes.
  - Press and release the TIME SET button to start or stop a manual signal search. During time searching, the backlight is ON.
- Note:** In case the weather station is not able to detect the DCF signal (disturbances, transmitting distance, etc.), the time may be manually set.

## Backlight

- A/C adapter:** The backlight is on continuously, when operating the weather station with the 5-volt A/C adapter. Press and release the HI-LOW-OFF button to change the backlight brightness.
- **HI:** Brightest intensity (default).
  - **LOW:** Press and release the HI-LOW-OFF button to dim the backlight.
  - **OFF:** Press and release the HI-LOW-OFF button again, to turn the backlight off for sleep. Press again to return to full strength.
- Note:** When the backlight is OFF, press any button to activate the backlight for 10 seconds

- Battery power only:** Press and release the HI-LOW-OFF button and the backlight will show for 10 seconds.
- Note:** When the adapter is NOT in use, the HI-LOW-OFF light feature is not available.

## MAX/MIN Temperature/Humidity Data

The weather station shows daily minimum and maximum temperatures each day starting at midnight (12:00 AM). The weather station automatically resets the min/max temperatures at midnight (12:00 AM).

- **View MAX data:** Press and release the UP button once to view maximum temperature and humidity values for indoor and outdoor data.
- **Reset MAX data:** Hold the UP button for five seconds to reset maximum temperature and humidity values for indoor and outdoor data.

- **View MIN data:** Press and release the DOWN button once to view minimum temperature and humidity values for indoor or outdoor data.
- **Reset MIN data:** Hold the DOWN button for five seconds to reset minimum temperature and humidity values for indoor and outdoor data.

## Heat Index

Heat Index combines the effects of heat and humidity. This is the apparent temperature of how hot it feels to a human being.  
**Note:** Heat index will be the same number as the temperature until the temperature is above 26.7°C (80°F).

**View Heat Index:** From a normal display press the HEAT/DEW button once and Heat Index will show instead of the ambient temperature.

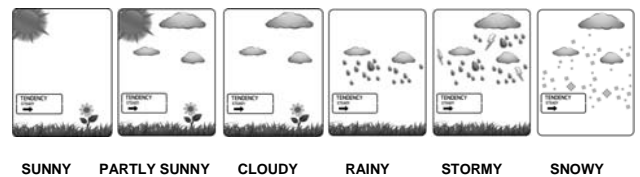
## Dew Point

Dew point is the saturation point of the air, or the temperature to which the air has to be cooled in order to create condensation.  
**Note:** Dew Point generally is lower than the temperature.

**View Dew Point:** From a normal display press the HEAT/DEW button twice and Dew Point will show instead of the ambient temperature.

## Weather Forecast Icons

The weather station predicts weather condition of the next 12 hours based on the change of atmospheric pressure with 70-75% accuracy.  
**Note:** As weather conditions cannot be 100% correctly forecasted we are not responsible for any loss caused by an incorrect forecast.



**Note:** The "snowy" icon appears when the temperature is below 0°C (32°F) and the forecast is rainy or stormy.

## THIS STATION LEARNS

**The weather station calibrates barometric pressure based on its location over a period of time to generate an accurate, personal forecast. Please allow 3 to 4 days for barometer calibration.**  
The forecast station samples the barometric pressure every twelve minutes. These samples are averaged hourly and daily then stored in nonvolatile memory. The three hour pressure icon change is based off of the last four average hourly readings.

**IMPORTANT:** As the weather station builds memory, it will compare the current average pressure to the past forty day average pressure for increased accuracy. The longer the weather station operates in one location the more accurate the forecast icons will be.

## Set Temperature Alert Values

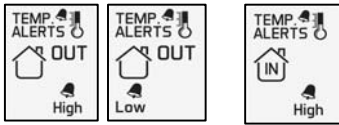
Hold the ALERTS button for five seconds, until the weather station beeps, to select and set temperature alert values.



- **OUTDOOR HIGH** alert will flash. Press the UP or DOWN button to set the alert value, and press the ALERTS button to confirm. Then press the ALERTS button again switch to OUTDOOR LOW setting.
  - **OUTDOOR LOW** alert will flash. Press the UP or DOWN button to set the alert value, and press the ALERTS button to confirm. Then press the ALERTS button again switch to INDOOR HIGH setting.
  - **INDOOR HIGH** alert will flash. Press the UP or DOWN button to set the alert value, and press the ALERTS button to confirm. Then press the ALERTS button again switch to INDOOR LOW setting.
  - **INDOOR LOW** alert will flash. Press the UP or DOWN button to choose the value, and press the ALERTS button to confirm and exit.
- Note:** After selecting temperature alert values use the next step to turn individual alerts ON or OFF.

#### Arm/Disarm Temperature Alerts

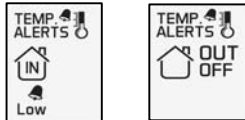
- In normal time mode, press and release the ALERT button to toggle between:



- Press the UP button to turn the selected alert ON. The alert icon appears when each alarm is activated.
- Press the DOWN button to turn the selected alert OFF.

#### Temperature Alert Sounds

- When temperature alert sounds, the corresponding alert icon will flash.
- The alert beeps once every minute, until the temperature is out of alert range.
- Press any button to stop alert. The alert symbol will still show.
- Turn alert OFF: In normal mode, hold and release the ALERT button to select the alert to turn off. With HI or LO alert selected, press the DOWN button to turn that alert OFF.



#### Temperature/Humidity Trend Indicators

The indoor and outdoor temperature trend indicators will update every 30 minutes or less. These trends represent temperature changes over the past three hours.

- Rising** (upward arrow) Temperature rose more than 1°C/2°F in the past three hours. Humidity rose more than 3% RH in the past three hours
- Steady** (rightward arrow) Temperature has **not changed** more than 1°C/2°F in the past three hours. Humidity has **not changed** more than 3% RH in the past three hours.
- Falling** (downward arrow) Temperature fell more than 1°C/2°F in the past three hours. Humidity fell more than 3% RH in the past three hours
- Humidity trend indicator** (double-headed arrow)

#### Forecast Trend Indicators

The forecast tendency indicators in the lower left corner of the forecast display indicate the rising or falling pressure trend.

- The up trending arrow indicates the pressure is rising and the weather is improving.
- The down trending arrow indicates the pressure is falling and the weather may



worsen.

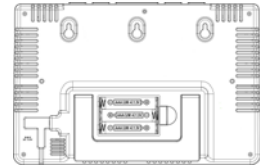
- The right arrow indicates the pressure is steady.

#### Position the Weather Station

The weather station is free standing with the fold out base stand or can be wall mounted.

##### Wall mounted:

- Fix three screws (not included) into the desired wall, leaving the head extended about 5mm (0.2 inches).
- Hang the weather station onto the screws. Ensure that it locks into place before releasing the weather station.



**Free standing:** Simply pull out the stand from the back of the weather station and place on a flat surface.



##### Position:

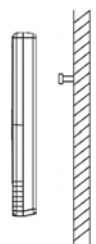
- Choose a location 2 meters (6 ft.) or more from electronics such as cordless phones, gaming systems, televisions, microwaves, routers, baby monitors, etc., which can prevent signal reception.
- Place within range of the outdoor transmitters. The maximum transmitting range in open air is 90 meters (300 ft.).
- Be aware of electrical wires and plumbing within a wall. This will interfere with signal reception.
- Obstacles such as walls, windows, stucco, concrete, and large metal objects can reduce the range.

#### Position the Outdoor Transmitter

Once the weather station shows the outdoor temperature/humidity, place it and the transmitter in the desired locations and wait approximately 1-hour before permanently mounting the transmitter to ensure that there is proper reception. The transmitter should be mounted vertically, in a shaded, protected area, at least 2 meters (6 ft.) from the ground to avoid damage and ensure accurate readings. The transmitter is water resistant, not waterproof and should not be placed anywhere it will become submerged in water or subject to standing water or snow. Wireless transmitting range in open air is over 90 meters (300 ft.) from outdoor transmitter to weather station.

##### Option 1:

- Install one mounting screw (not included) into a wall leaving approximately 12.7mm (1/2 of an inch) extended.
- Place the transmitter onto the screw, using the hanging hole on the backside.
- Gently pull the transmitter down to lock the screw into place.



##### Option 2:

- Insert the mounting screw (not included) through the front of the transmitter and into the wall.
- Tighten the screw to snug (do not over tighten).

To achieve a true temperature/humidity reading, mount where direct sunlight cannot reach the outdoor transmitter. Mount the outdoor transmitter on a North-facing wall or in any well shaded area. Under an eave or deck rail work well. The maximum transmitting range in open air is over 90 meters (300 ft.). Obstacles such as walls, windows, stucco, concrete, and large metal objects can reduce the range. Place the transmitter at least 2 meters (6 ft.) in the air to improve signal transmission.

#### Care and Maintenance



- **Do Not Mix Old and New Batteries**
- **Do Not Mix Alkaline, Standard, Lithium or Rechargeable Batteries**
- Do not expose the weather station to extreme temperatures, vibration or shock.

- Clean weather station with a soft damp cloth. Do not use solvents or scouring agents.
- Improper use or unauthorized opening of housing will void the warranty.
- If the unit does not work properly, change the batteries and/or check the A/C cord connection.

- This product is not a toy. Keep out of the reach of children.
- No part of this manual may be reproduced without written authorization of the manufacturer.



### Low Battery

- When this low battery icon  appears in the indoor (IN) reading section, replace the batteries in the weather station.
- When this low battery icon  appears in the outdoor (OUT) readings section, replace the batteries in the outdoor transmitter.

### 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.

### Specifications

Indoor Temperature Range: 0°C to + 50°C (+32°F to +122°F)  
 Accuracy : +/- 1°C/2°F  
 Resolution : 0.1°C  
 Humidity Range: 1%-99% RH  
 Resolution : 1% RH

Outdoor Temperature Range: -40°C to 60°C (-40°F to 140°F)  
 Accuracy : +/- 1°C/2°F  
 Resolution : 0.1°C  
 Humidity Range: 1%-99% RH  
 Resolution : 1% RH  
 Distance: Over 90 meters (300 ft.) in open air  
 RF 433MHz

### Power Requirements

Weather Station: 5-volt A/C power adapter (included)  
 Optional 3-AA, IEC, LR6 batteries (not included)  
 Transmitter: 2-AA, IEC, LR6 batteries (not included).  
 Transmitter Battery Life: Battery life is over 1 year when using reputable battery brands for both Alkaline and Lithium batteries  
 Use Alkaline batteries for temps: -29°C to 60°C (-20°F to 140°F)  
 Use Lithium batteries for temps: -40°C to -29°C (-40°F to -20°F)

Weather Station Battery Life: Over 1 year when using reputable battery brands

### Dimensions

Weather Station: 212 x 26 x 140 mm  
 (8.34" L x 1.03" W x 5.48" H)  
 Transmitter: 40 x 20 x 130 mm  
 (1.57" L x 0.79" W x 5.12" H)

### LIABILITY DISCLAIMERS

- The electrical and electronic wastes contain hazardous substances. Disposal of electronic waste in wild country and/or in unauthorized grounds strongly damages the environment.
- Please contact your local or/and regional authorities to retrieve the addresses of legal dumping grounds with selective collection.
- All electronic instruments must from now on be recycled. User shall take an active part in the reuse, recycling and recovery of the electrical and electronic waste.
- The unrestricted disposal of electronic waste may do harm on public health and the quality of environment.
- As stated on the gift box and labeled on the product, reading the "User manual" is highly recommended for the benefit of the user. This product must however not be thrown in general rubbish collection points.
- 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 designed for use in the home only as indication of the temperature.
- This product is not to be used for medical purposes or for public information.
- The specifications of this product may change without prior notice.