# WS-7049U Wireless 433 MHz Weather Station with Forecast

# **Instruction Manual**



LA CROSSEtechnology toolsTECHNOLOGYfor home & office

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## **INVENTORY OF CONTENTS**

- 1. The indoor weather station (Figure 1).
- 2. One TX6U remote temperature sensor with mounting bracket (Figure 2).
- 3. Three each, <sup>1</sup>/<sub>2</sub>" Philips screws.
- 4. One strip double-sided adhesive tape.
- 5. Instruction manual and warranty card.



## ADDITIONAL EQUIPMENT (not included)

- 1. Two, fresh AA 1.5V batteries for indoor weather station.
- 2. Two, fresh AA 1.5V batteries for remote temperature sensor.
- 3. One Philips screwdriver for mounting.

## **QUICK SET-UP GUIDE**

## Hint: Use good quality Alkaline Batteries and avoid rechargeable batteries.

- 1. Have the indoor weather station and remote temperature sensor 3 to 5 apart.
- 2. Batteries should be out of both units for 10 minutes.
- Place the batteries into the remote temperature sensor first then into the indoor weather station.
  (All remote temperature sensors must be started before the indoor weather station)
- 4. DO NOT PRESS ANY BUTTONS FOR 10 MINUTES.

In this time the indoor weather station and remote temperature sensor will start to talk to each other and the indoor weather station will show both the indoor temperature and an outdoor temperature. If the indoor weather station does not display both temperatures after the 10 minutes please retry the set up as stated above. After both indoor and outdoor temperatures are displayed for 10 minutes you can place your remote temperature sensor outdoors and set your time.

The remote temperature sensor should be placed in a dry, shaded area. The remote temperature sensor has a range of 80 feet. Any walls that the signal will have to pass through will reduce distance. An outdoor wall or window will have 20 to 30 feet of resistance and an interior wall will have 10 to 20 feet of resistance. Your distance plus resistance should not exceed 80 ft. in a straight line.

**NOTE:** Fog and mist will not harm your remote temperature sensor but direct rain must be avoided.

To complete the set up of your indoor weather station after the 10 minutes have passed please follow the steps on pages 8 and 9.

<u>Note:</u> The remote temperature sensor transmits a signal every 3 minutes; after the batteries have been installed, the indoor weather station will search for the signal for a duration of 5 minutes. If there is no temperature reading in the OUTDOOR LCD after 5 minutes, make sure the units are within range of each other or repeat the battery installation procedure.

#### **DETAILED SET-UP GUIDE**

#### **Battery Installation**

## A. Remote Temperature Sensor

- 1. Remove the mounting bracket. The bracket snaps on and off easily.
- 2. Remove the battery cover, by sliding the cover down.
- 3. Observing the correct polarity install 2 AA batteries. The batteries will fit tightly (to avoid start-up problems make sure they do not spring free).
- 4. Replace the battery cover by sliding upwards. Be sure battery cover is on securely.

#### **B. Indoor Weather Station**

- 1. Remove the battery cover. To do this, insert a solid object in the space provided at the lower-central position of the battery cover, then push up and pull out on the battery cover.
- 2. Observe the correct polarity, and install 2 AA batteries.
- 3. Replace the battery cover.

**Note:** Immediately after the batteries have been installed, each LCD (Liquid Crystal Display) will flash and a tone will sound. Within a few seconds the indoor temperature, indoor relative humidity and the weather icons (sun and clouds) will be displayed. If not, then remove batteries for 10 seconds and reinstall. If the outdoor temperature is not displayed within four minutes, remove batteries from both units, wait 10 seconds, and reinstall.





<u>Programming Note:</u> If 30 seconds are allowed to pass or either the IN or the OUT button is pressed during programming modes, the unit will set the last information entered—the display will stop flashing and return to normal time-date readings

## A. Function Keys

There are four function buttons on the // WS-7049U. The two buttons on the front are labeled "*MIN/MAX/RESET*" and "*CH*". The two buttons on the back are labeled "*SET*" and "+".



#### **B.** Time Setting

- 1. Press and hold the "SET" button for 3 seconds
- 2. The hour digit will flash.
- 3. Press and release the "+" button to change the hour. Press the "+" button once and the hour will increase by one, twice and the hour will increase by two, etc.
- 4. Press and release the "*SET*" button to confirm the hour setting and to advance to the minute setting mode.
- 5. The minute digits should be flashing.
- 6. Press and release the "+" button to change the minutes increasing the minutes by increments of 1 with each press of the "+" button.
- 7. Press and release the "*SET*" button to confirm the minutes and complete the time setting.

#### FEATURES OF THE WS-7049U



## I. Weather Forecast

The weather forecasting feature is estimated to be 75% accurate for the next 12 to 24 hours. The weather forecast is based solely upon the change of air pressure over time. The WS-7049U averages past air-pressure readings to provide an accurate forecast—creating a necessity to disregard all weather forecasting for 12-24 hours after the unit has been set-up, reset, or moved from one altitude to another (i.e. from one floor of a building to another floor). In areas where the weather is not affected by the change of air pressure, this feature will be less accurate.

#### A. Weather Icons

There are 3 possible weather icons that will be displayed in the FORECAST LCD:



*Sunny*—indicates that the weather is expected to improve (not that the weather will be sunny).

*Sun with Clouds*—indicates that the weather is expected to be fair (not that the weather will be sunny with clouds).

*Clouds with Rain*—indicates that the weather is expected to get worse (not that the weather will be rainy).

The weather icons change when the unit detects a change in air pressure. The icons change in order from "sunny" to "partly sunny" to "cloudy" or the reverse. It will not change from "sunny" directly to "rainy", although it is possible for the change to occur quickly. If the symbols do not change then the weather has not changed, or the change has been slow and gradual.

#### **B.** Weather Tendency Arrows

- 1. Other possible displays in the FORECAST LCD are 2 weather tendency arrows one that points up (above the forecast icon) and one that points down (below the forecast icon).
- 2. These arrows reflect current changes in the air pressure.
- 3. An arrow pointing up indicates that the air pressure is increasing and the weather is expected to improve or remain good.
- 4. An arrow pointing down indicates that the air pressure is decreasing and the weather is expected to become worse or remain poor.
- 5. No arrow means the pressure is stable.

#### II. Indoor Temperature and Humidity

The current indoor relative humidity (viewed below the time) and temperature (viewed below the relative humidity) are displayed in the INDOOR LCD.

#### **III.** Outdoor Temperature

The outdoor temperature is viewed in the OUTDOOR LCD. When there is more than one remote temperature sensor unit in operation, a arrow will appear above the CH 1 2 3 area at the bottom of the LCD. This indicates which remote temperature sensor unit (1, 2 or 3) is currently displaying its data in the OUTDOOR LCD. (This feature is explained in further detail in section *V*—*Adding Remote Temperature Sensors*).

#### **IV. Minimum and Maximum Temperature Records**

The WS-7049U keeps a record of the MINIMUM and MAXIMUM temperature for both the indoor and outdoor modes.

#### A. Viewing Minimum and Maximum Temperature Records

- 1. Press and release the "MIN/MAX/RESET" button.
- 2. MAX will appear below the indoor temperature.
- 3. The maximum recorded indoor and outdoor temperatures will be displayed in their respective areas.
- 4. Press and release the "MIN/MAX/RESET" button.
- 5. MIN will appear below the indoor temperature.
- 6. The maximum recorded indoor and outdoor temperatures will be displayed in their respective areas.
- 7. Press and release the "MIN/MAX/RESET" button.
- 8. The current indoor and outdoor temperatures will be displayed in their respective areas.

# **B.** Resetting the Minimum and Maximum Temperature Records

Press and hold the "*MIN/MAX/RESET*" button for 5 seconds to reset the minimum and maximum recorded temperatures.

## V. Adding Remote Sensors (optional)

The WS-7049U is able to receive signals from 3 different remote temperature sensors. The remote temperature sensor model(s) that you choose will come with their own set of instructions. Follow these instructions for a complete guide to setting up. Following are some brief instructions for the basic set-up of remote temperature sensor units with the WS-7049U. These extra remote temperature sensors can be purchased through the same dealer as this unit, or by contacting La Crosse Technology directly. A TX6U will monitor temperature only, a TX3U will monitor temperature and display the temperature on its LCD, and the TX3UP will monitor the temperature via a probe for measuring soil or water temperatures.

**Note:** When setting up multiple units it is important to remove the batteries from all existing units in operation. Then insert batteries into all the remote temperature sensor units in numeric sequence. Second, install batteries into the indoor weather station. Transmission problems will arise if this is not done correctly and if the total time for set-up exceeds 6 minutes.

## A. Set Up of Multiple Remote Sensors

- 1. It is necessary to remove the batteries from all units currently in operation.
- 2. Remove the battery covers to all remote temperature sensor units.
- 3. Place all remote temperature sensor units in a numeric sequential order.
- 4. In sequential order, install batteries into the remote sensors.
- 5. Install batteries into the indoor weather station.
- 6. Follow the Detailed Set-Up Guide for programming and operating instructions.

#### **B.** Viewing and Operating Multiple Remote Sensors

To view the temperature of a different remote sensor unit, press and release the "*CH*" button. An arrow over one of the numbers at the bottom of the LCD will be seen.

To view the minimum/maximum temperature:

- 1. Press and release the "*CH*" button to select which remote temperature sensor to read data from (indicated by the arrow).
- 2. Press and release the "MIN/MAX/RESET" button.
- 3. The maximum recorded temperature will be displayed.
- 4. Press and release the "*MIN/MAX/RESET*" button (while "MIN" is still displayed, otherwise press the button twice).
- 5. The minimum recorded temperature will be displayed.

To reset the minimum/maximum readings

- 1. Select which remote sensor you wish to reset by pressing the "*CH*" button.
- 2. Press and hold the "*MIN/MAX/RESET*" button for 3 seconds.
- 3. The records for the selected remote sensor unit will be reset.
- **Note:** The minimum and maximum indoor temperature values will be reset when any of the remote temperature values are reset.

## MOUNTING

**Note:** To achieve a true temperature reading, avoid mounting in direct sunlight. We recommend that you mount the remote temperature sensor on a North-facing wall. The sending range is 80ft; obstacles such as walls, concrete, and large metal objects will reduce the range. Also, extreme and sudden changes in temperature will decrease the accuracy of the indoor weather station and changes in elevation will result with inaccurate weather forecasting for the next 12 to 24 hours. These changes will require a 12 to 24 hour wait before obtaining reliable data. Place both units in their desired location and wait approximately 10 minutes before permanently mounting to ensure that there is proper reception. The indoor weather station should display a temperature in the OUTDOOR LCD within 4 minutes of setting up.

#### I. THE REMOTE TEMPERATURE SENSOR

The remote temperature sensor can be mounted in two ways:

- with the use of screws, or
- using the adhesive tape.

## A. MOUNTING WITH SCREWS

- 1. Remove the mounting bracket from the remote temperature sensor.
- 2. Place the mounting bracket over the desired location. Through the three screw holes of the bracket, mark the mounting surface with a pencil.
- 3. Where marked, start the screw holes into mounting surface.
- 4. Screw mounting bracket onto the mounting surface. Ensure that the screws are flush with the bracket.

## **B. MOUNTING WITH ADHESIVE TAPE**

- 1. With a nonabrasive solution, clean and dry the back of the mounting bracket and the mounting surface to ensure a secure hold. The mounting surface should be smooth and flat.
- 2. Remove the protective strip from one side of the tape. Adhere the tape to the designated area on the back of the mounting bracket.
- Remove the protective strip from the other side of the tape. Position the remote temperature sensor in the desired location, ensuring that the indoor temperature station can receive the signal.

## II. THE INDOOR TEMPERATURE STATION

The indoor temperature station can be mounted in two ways:

- with the table stand or
- on the wall with the use of a wall hanging screw (not included).

## A. USING THE TABLE STAND

The indoor temperature station comes with the table stand already mounted. If you wish to use the tablestand all that is required is to place the indoor temperature station in an appropriate location.

## **B. WALL MOUNTING**

- 1. Remove the table stand. To do this, pull down on the stand from the rear and rotate forward.
- 2. Fix a screw (not included) into the desired wall leaving approximately 3/16 of an inch (5mm) extended from the wall.

3. Place the indoor temperature station onto the screw using the hanging hole on the backside. Gently pull the station down to lock the screw into place.

## TROUBLESHOOTING

**Problem:** The LCD is faint **Solution:** Replace batteries

**Problem:** No outdoor temperature is displayed. **Solution:** 

- 1. Remove all batteries, reinsert into remote temperature sensor first, then into the indoor temperature station.
- 2. Place remote temperature sensor closer to the indoor temperature station.
- 3. Be sure all batteries are fresh.
- 4. Place remote temperature sensor and indoor temperature station in position so the straight-line signal is not passing through more than two or three walls.

Problem: Temperatures do not match if units are placed next to each other.

## Solution:

Each temperature sensor is manufactured to be accurate to within 1 degree plus or minus and under normal conditions, so two sensors could be as much as 2 degrees different. However, the difference can be exaggerated further because the sensors are designed for different working environments. The indoor sensor is less responsive to ambient air currents because of the shielding effect of the display's case. In addition, the case can act as a heat sink to absorb and store heat from external sources (i.e. handling of the case or radiant heat). Also, the much greater range of the outdoor temperature sensor requires a different calibration curve than the indoor range. Error is usually greater at the extreme ends of a range, making it harder to compare different ranges with different curves. Under non-laboratory conditions, it is difficult to compensate for the above factors and obtain an accurate comparison.

NOTE: For problems not solved, please contact La Crosse Technology.

## MAINTENANCE AND CARE INSTRUCTIONS

- Extreme temperatures, vibration and shock should be avoided to prevent damage to the units.
- Clean displays and units with a soft, damp cloth. Do not use solvents or scouring agents. They may mark the displays and casings.
- Do not submerge in water.
- Immediately remove all low powered batteries to avoid leakage and damage.
- Opening the casings invalidates the warranty. Do not try to repair the unit. Contact La Crosse Technology for repairs.

## **SPECIFICATIONS**

Temperature measuring range:		
Indoor	32°F to 139.8°F with 0.2°F	
	resolution (0°C to 59.9°C with	
	0.1°C resolution) "OFL"	
	displayed if outside this range	
Outdoor	-21.8°F to 157.2°F with 0.2°F	
	resolution (-29.9°C to 69.9°C	
	resolution) "OFL" displayed if	
	outside this range	
Indoor relative humidity	19% to 95% with 1% resolution	
measuring range	("" displayed if outside this	
	range	
Indoor temperature checking	Every 10 seconds	
interval		
Indoor humidity checking	Every 1 minute	
interval		
Outdoor temperature checking	Every 1 minute	
interval (Remote Temperature		
Sensor)		
Outdoor temperature reception	Every 5 minutes	
(Indoor Weather Station)		
Transmission Range:	80 feet (in open space)	
Power Supply:		
Indoor Weather Station:	2 x AA, IEC LR6, 1.5V	
Remote Temperature Sensor:	2 x AA, IEC LR6, 1.5V	
Battery life cycle:	Approximately 12 months	
Recommended battery type:	Alkaline	
Dimensions (L x W x H)		
Indoor Weather Station	2.95" x 0.82" x 10.03"	
(without stand):	(81 x 30 x 145mm)	
Remote Temperature Sensor:	1.57" x 0.9" x 5.04"	
	(40 x 23 x 128 mm)	

#### WARRANTY INFORMATION

La Crosse Technology, Ltd provides a 1-year limited warranty on this product against manufacturing defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased and used in North America and only to the original purchaser of this product. To receive warranty service, the purchaser must contact La Crosse Technology, Ltd for problem determination and service procedures. Warranty service can only be performed by a La Crosse Technology, Ltd authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to La Crosse Technology, Ltd or La Crosse Technology, Ltd's authorized service center.

La Crosse Technology, Ltd will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above. All replaced parts and products become the property of La Crosse Technology, Ltd and must be returned to La Crosse Technology, Ltd. Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer. La Crosse Technology, Ltd will pay all expenses for labor and materials for all repairs covered by this warranty. If necessary repairs are not covered by this warranty, or if a product is examined which is not in need or repair, you will be charged for the repairs or examination. The owner must pay any shipping charges incurred in getting your La Crosse Technology, Ltd product to a La Crosse Technology, Ltd authorized service center. La Crosse Technology, Ltd will pay ground return shipping charges to the owner of the product to a USA address only.

Your La Crosse Technology, Ltd warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (including the lack of reasonable and necessary maintenance); (2) damage occurring during shipment (claims must be presented to the carrier); (3) damage to, or deterioration of, any accessory or decorative surface; (4) damage resulting from failure to follow instructions contained in your owner's manual; (5) damage resulting from the performance of repairs or alterations by someone other than an authorized La Crosse Technology, Ltd authorized service center; (6) units used for other than home use (7) applications and uses that this product was not intended or (8) the products inability to receive a signal due to any source of interference.. This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

LA CROSSE TECHNOLOGY, LTD WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PRODUCT. THIS PRODUCT IS NOT TO BE USED FOR MEDICAL PURPOSES OR FOR PUBLIC INFORMATION. THIS PRODUCT IS NOT A TOY. KEEP OUT OF CHILDREN'S REACH.

This warranty gives you specific legal rights. You may also have other rights specific to your State. Some States do no allow the exclusion of consequential or incidental damages therefore the above exclusion of limitation may not apply to you.

For warranty work, technical support, or information contact:

La Crosse Technology 2809 Losey Blvd. S. La Crosse, WI 54601 Phone: 608.782.1610 Fax: 608.796.1020

e-mail: support@lacrossetechnology.com (warranty work)

sales@lacrossetechnology.com (information on other products) web: www.lacrossetechnology.com

FCC DISCLAIMER

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC ID: OMO-01RX (Receiver), OMO-01TX (sensor) Freq. 433.92 MHz La Crosse Technology Made in China WS-7049U

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