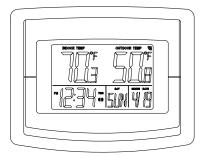
# The Weather Channel® WS-8500TWC-IT

# IT-915 MHz **Wireless Temperature Station** with Wireless Solar-Powered **Outdoor Sensor**





# **Wireless Weather Instruments** by La Crosse Technology®

La Crosse Technology, Ltd. www.lacrossetechnology.com 2809 Losey Blvd. S. La Crosse, WI 54601 Phone 608-782-1610

Page 1 of 14

## **Table of Contents**

Table of Contents
Inventory of Contents2
Features and Specifications3
Initial Set Up and Wireless Synchronization 4
TX61U-IT Sensor Power Save "STOP" Mode 5
MIN / MAX Temperature Display5
Set the Time and Date
Setting the Time Alarm7
Battery Replacement Information 8
Installation Notes
Mounting the Units10
Online Resources11
Care and Maintenance11
Troubleshooting
Warranty Information 13

## Inventory of Contents

- 1. A WS-8500TWC-IT 915 MHz Temperature Station
- A TX61U-IT 915 MHz Wireless Dislay\* in this manual)
   A TX61U-IT 915 MHz Wireless Solar-Powered
   Outdoor Temperature Sensor with built-in rechargeable battery pack (referred to as TX61U-IT sensor in this manual)
- 3. Mounting hardware for TX61U-IT sensor
- 4. Instruction manual



INSTANT TRANSMISSION is the state-of-the-art new wireless transmission sechnology, exclusively designed and developed by LA CROSSE TECHNOLOGY®. NSTANT TRANSMISSION difers you an immediate update (every 8 secondst) of all

Page 2 of 14

## Features and Specifications

## WS-8500TWC-IT Wireless Display:

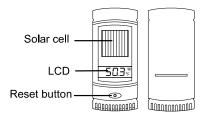
- · Wireless outdoor temperature (°F or °C)
- Indoor temperature (°F or °C)
- Min/max temperature records
- Time alarm
- 12/24 hour time
- Calendar: Month, date, day
- Multi-language calendar: English (US), French (F) or Spanish (E)
- Time Zone setting: +/- 12 Hours from GMT
- Continuous calendar up to year 2029
- Low battery indicator
- Wall hanging or free standing
- Indoor measurement range: 14.2°F to 139.8°F (-9.9°C to 59.9°C) w/ 0.1°F resolution. "OFL" displayed if outside range
- Indoor temperature update rate: Every 16 seconds
- Batteries: 2 X "AA" size 1.5V (not included)
- Battery life: Up to 24 months
- 915 MHz Wireless range:
- Up to 200 Ft. (60.96m) open air
- Dimensions: 9.14"L x 1.4"W x 7.3"H (232 x 35.5 x 184 mm)

#### TX61U-IT Wireless Solar-Powered Outdoor Sensor:

- . The TX61U-IT sensor sends the collected outdoor temperature to your existing Wireless Display by way of a 200 Ft wireless signal.
- High-efficiency modern solar panel maintains full charge with minimal light
- Stores solar power for continuous operation
- Batteries are a built-in (non-replaceable) Alkaline power cell
- Wall hanging or free standing
- Outdoor measurement range: -39.8°F to 139.8°F (-39.9°Č to 59.9°C) with 0.1°F resolution. "OFL" displayed if outside range
- Outdoor temperature update rate:
- Every 8 seconds
- 915 MHz Wireless range: Up to 200 Ft. (60.96m) open air
- Dimensions: 1.7"L x .93"W x 3.94"H
- (43 x 100 x 23.5 mm)
- Signal reception and re-synchronization: 903MHz, 915MHz and 927MHz
- Operating voltage: 2.5V or higher than 2.5V

Page 3 of 14

## Initial Set Up and Wireless Synchronization



### Step 1.

Wake Up TX61U-IT Sensor

To begin the set up process, use a paper clip to GENTLY PUSH the reset button on the TX61U-IT sensor. All LCD segments will light up briefly. The code number and the security code ("20" for example) of the model will be displayed sequentially. Next, the battery voltage will be shown on the LCD, it should be higher than 2.5V to maintain normal operation. Then the current temperature will appear on the sensor's LCD and it will start to transmit the wireless temperature signal.

Note: When the voltage of the TX61U-IT sensor is lower than 2.5V, the transmission of signal stops and "LO" is displayed on the LCD for approximately 2 seconds before the sensor enters into the "IDLE" mode. In the "IDLE" mode, the LCD turns off. The sensor will check and charge up the internal rechargeable battery automatically. When the battery voltage rises up to 2.5V, the LCD will turn on and transmission of signal will start again.

## Step 2.

Install Batteries into Wireless Display Insert 2 new "AA", LR6 1.5 volt ALKALINE batteries into the Wireless Display according to the polarity marked on the battery compartment within 2 minutes of performing the start up process for the TX61U-IT. (Diagram on page 7)

Once the batteries are properly installed in the Wireless Display, the unit will beep and all segments of its LCD will light up briefly. Then the indoor temperature and the time (displayed as 12:00) will appear on the LCD.

Page 4 of 14

If it does not appear after 30 seconds, please reinstall the Wireless Display batteries and try again. Once the indoor data is displayed, proceed to the next step.

#### Step 3.

Wireless Temperature Reception
After the Wireless Display is powered up, it will
start receiving wireless temperature signal from
the TX61U-IT sensor. If reception is successful,
the outdoor temperature will appear on the
Wireless Display. If this does not happen after
5 minutes, please remove the batteries from
the Wireless Display, make sure the batteries
are fresh and go back to Step 1.

## Step 4.

Distance Between Units
To ensure sufficient 915 MHz wireless communication, the final distance between the Wireless Display and the TX61U-IT sensor should be no greater than 200 feet (60.96 meters) open air.

## TX61U-IT Sensor Power Save "STOP" Mode

If the TX61U-IT sensor is placed in a dark environment for 24 hours, it will enter into the "STOP" mode to save power. The LCD will turn off and it will stop transmitting the wireless temperature signal. If this happens, please press the reset button on the TX61U-IT sensor to wake it up again. Afterwards, if the voltage is higher than 2.5V, the LCD will turn on again and resume the transmission of the wireless temperature signal. However, if the voltage is lower than 2.5V, "LO" will appear on the LCD and the sensor will enter into "IDLE" mode.

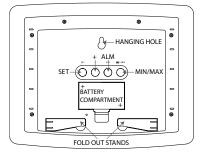
If the battery voltage is lower than 2.5V, please relocate the TX61U-IT sensor to a brighter environment in order to charge up the internal rechargeable batteries to continue normal operation.

## MIN / MAX Temperature Display

Press the MIN / MAX button to view the min and max records for IN & OUT temperature.

Page 5 of 14

## Set the Time and Date



Note: The "SET" button is used to enter SET mode. The display will exit SET mode automatically after 15 seconds of inactivity. If the display exits SET mode, press the "SET" button the indicated number of times to return to the portion of the SET mode desired.

#### 1. Set the Time Zone:

Press the "SET" button and the Time Zone display will flash. Use the "PLUS" button to select the correct Time Zone setting from the available selections below:

- -1,-2,-3: Other time zones
- -4: ATL Atlantic
- -5: EST Eastern (default setting)
- -6: CST Central
- -7: MST Mountain
- -8: PST Pacific
- -9: ALA Alaska
- -10,-11,-12,12,11,10,9,8,7,6,5,4,3,2,1: Other time zones
- 0: Greenwich Mean Time (GMT) (North American Time Zones are Negative numbers)

## 2. Set Daylight Saving Time ON/OFF:

DST should be set to "ON". This setting will not affect operation of the Wireless Display.

## 3. Set Language:

Press the "SET" button a third time and the Language Abbreviation will flash. Press the "PLUS" button to switch the Language to be displayed. The three-letter abbreviation for the

Page 6 of 14

day of the week will display in the bottom of the LCD while the setting flashes above.

- US: English (default setting)
- F: French (Français)
- E: Spanish (Español)

#### 4. Set Time - Hour:

Press the "SET" button a fourth time and the **Hours** digits will flash. Use the "PLUS" button to set the correct hour.

#### 5. Set Time - Minute:

Press the "SET" button a fifth time and the **Minutes** digits will flash. Use the "PLUS" button to set the correct minute.

#### 6. Set Date - Year:

Press the "SET" button a sixth time and the Year digits will flash. Use the "PLUS" button to set the correct year.

## 7. Set Date - Month:

Press the "SET" button a seventh time and the Month digits will flash. Use the "PLUS" button to set the correct month.

#### 8. Set Date - Date:

Press the "SET" button an eighth time and the Date digits will flash. Use the "PLUS" button to set the correct date.

## 9. Set Date - Day of Week:

Press the "SET" button a ninth time and the Day of Week abbreviation will flash. Use the "PLUS" button to set the correct day of week.

### 10. Set 12 or 24 Hour Time Mode:

Press the "SET" button a tenth time and the 12 or 24 Hour Time Mode digits will flash. Use the "PLUS" button to set the time mode to either a 12 or 24 hour clock.

## 11. Set Temperature Mode - °F or °C:

Press the "SET" button an eleventh time and the Temperature Mode abbreviation will flash. Use the "PLUS" button to set the temperature mode to "F or "C.

## Setting the Time Alarm

- To turn the alarm on:
  - Press the "ALARM" button. The LCD will display the alarm icon  $(\!(\bullet)\!)$ .
- To set the Alarm Time Hour: Press and hold down the "ALARM" button for 2 seconds until the hours digits flash. Use the "PLUS" button to set the hour. Press the "ALARM" button to confirm your setting and move to setting the minutes.

Page 7 of 14

- To set the Alarm Time Minutes: The Minutes digits of the Alarm Time will flash. Use the "PLUS" button to set the minutes. You can hold the "PLUS" button in to speed up the setting of minutes by using five minute increments. Press the "ALARM" button to confirm your minutes setting and to end the setting procedure.
- To activate or deactivate the daily alarm, briefly press the "ALARM" button once. When the alarm is active the clock displays the alarm icon ((•)) below the word "TIME", when the alarm is deactivated, the alarm icon ((•)) will not display.

#### About the Time Alarm:

- After 15 seconds without pressing any button the clock switches automatically from alarm setting mode to normal clock mode.
- The alarm will sound for 85 seconds if not deactivated. You can deactivate it by pressing any button. The alarm will be repeated automatically after 24 hours
- The alarm uses 3 different patterns of tone, beginning gently and increasing in intensity, known as a "Crescendo Alarm".

## **Battery Replacement Information**

#### Wireless Display

To replace the batteries in the Wireless Display:

- Lift up the battery compartment cover and remove the batteries.
- Please take note to install the batteries with the proper polarity as it relates to the battery diagram inside the battery compartment (+). The batteries will fit tightly. To avoid start-up problems please ensure that the batteries do not spring free.
- 3. Replace compartment cover.

Please follow the "SETTING UP" steps listed in the previous section of this manual to ensure that the wireless temperature reception is successful.

TX61U-IT Wireless Solar-Powered Sensor DOES NOT have replaceable batteries.

The TX61U-IT sensor consumes solar power and automatically charges the internal Alkaline power cell. No battery replacement is needed.



Help us to keep our environment clean. Please take the used batteries to an authorized depot for recycling

Page 8 of 14

## Installation Notes

- Point the TX61U-IT solar panel toward the best available indirect light to recharge the batteries, but avoid a location in direct sun as it will cause incorrect temperature readings.
- The TX61U-IT sensor consumes solar power and uses the internal rechargeable batteries to store the collected power.
- The sensor features a high-efficiency modern solar panel that maintains a full charge with minimal indirect light; do not place in direct sun.
- Fog and mist will not harm the sensor but direct rain must be avoided.
- The TX61U-IT sensor has a wireless range of 200 feet (60.96 m). Keep in mind that the 200 ft range equates to an open air scenario with no obstructions, and that radio waves DO NOT curve around objects. The actual transmission range will vary depending on what is in the path of the signal. Each obstruction (roof, walls, floors, ceilings, thick trees, etc.) will effectively cut signal range in half.

Example: If the TX61U-IT Sensor, with a 200 feet (60.96 m) range, is mounted on an exterior wall, the signal must then pass through one exterior wall, ence interior wall, and across the 10 feet (3 m) width of the room between the 2 walls to reach the Wireless Display. The first wall will reduce the range to 100 feet (30.48 m), and the second wall will reduce the range to 50 feet (15.24 m). Factoring in the 10 foot room, this leaves a maximum of 40 feet (12. 2 m) of remaining signal range.

This allowance is typically enough for a frame wall with non-metallic siding; however certain materials can reduce range even further. Metal siding, stucco, and some types of glass can reduce signal range by as much as ½ or more, compared to the ½ reduction typical of most obstructions. It is possible to receive a signal through these materials, however maximum range will be much less due to their tendency to absorb or reflect a much larger portion of the sensor's signal.

- The TX61U-IT sensor measures and transmits signal about every 8 seconds when its battery voltage is higher than 2.5V.
- Once the reset button is gently pressed on the TX-61U sensor and the batteries are inserted into the Wireless Display immediately thereafter, the units will try to synchronize communication. If the Wireless Display fails to receive the outdoor temperature, this means that the TX61U-IT sensor is either located too close or too far from the Wireless Display.

Page 9 of 14

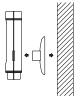
Please adjust the location of the TX61U-IT sensor and try again. If it fails again, please restart the set up procedure (see below).

## Mounting the Units

## THE TX61U-IT Sensor

The sensor can be set on a table or mounted onto a wall using the included screws

## MOUNTING WITH SCREWS



- Remove the mounting bracket from the TX61U-IT sensor.
- Place the mounting bracket over the desired location.
- Mark the mounting surface with a pencil through the two screw holes of the bracket.
- Screw the mounting bracket onto the mounting surface. Ensure that the screws are tight against the bracket.
- Insert the TX61U-IT sensor into the bracket.

#### **TABLE STANDING & OTHER MOUNTING OPTIONS**

With the mounting bracket installed at the bottom or on the top of the TX61U-IT sensor, the user can place it on any flat surface.



## IMPORTANT Note:

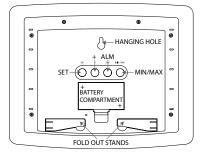
Before permanently fixing the TX61U-IT sensor wall base, place all units in the desired locations to check that the outdoor temperature readings are receivable.

Page 10 of 14

In event that the signal is not received, relocate the TX61U-IT sensor or move them slightly as this may help the signal reception.

#### THE WS-8500TWC-IT Wireless Display

The Wireless Display can be set on a table or mounted onto a wall.



### Table Standing

The two foldout table stands are located on the bottom of the back side of the Wireless Display. Pull the stands out from the center to fully extend them.

#### Wall Mounting

Select a place to mount the Wireless Display. Install a mounting screw (not included). Align the "Hanging Hole" to the mounting screw and ensure that the Wireless Display locks down into place before releasing the Wireless Display.

## Online Resources

 Visit the WT-8500TWC-IT page online at: http://www.lacrossetechnology.com/8500twc

## Care and Maintenance

- Extreme temperatures, vibration and shock should be avoided as these may cause damage to the unit and give inaccurate readings.
- Precautions shall be taken when handling the batteries. Injuries, burns, or property damage may be resulted if the batteries are in contact with conducting materials, heat, corrosive materials or explosives. The batteries shall be taken out from the unit before the product is to be stored for a long period of time.

Page 11 of 14

- Immediately remove all low powered batteries to avoid leakage and damage. Replace only with new batteries of the recommended type.
- When cleaning the display and casings, use a soft damp cloth only. Do not use solvents or scouring agents as they may mark the LCD and casings.
- Do not submerge the unit in water. Furthermore, fix all parts in place where the units are adequately protected against moisture and rain.
- Special care shall be taken when handling a damaged LCD display. The liquid crystals can be harmful to user's health.
- Do not make any repair attempts to the unit. Contact the La Crosse Technology® Warranty Department for help. Opening and tampering with the unit may invalidate their guarantee.
- Never touch the exposed electronic circuit of the device as there is a danger of electric shock should it become exposed.
- Do not expose the units to extreme and sudden temperature changes, this may lead to reduce their accuracy.

## Troubleshooting

Visit http://www.lacrossetechnology.com/8500twc

 Batteries problems are the single largest cause of customer support cases.

### Use fresh batteries

Please use plain **Alkaline** batteries in the Wireless Display that test no less than 1.48 on a voltmeter or with an expiration date that is 7 years in the future.

## o Ensure correct polarity

Ensure that the Wireless Display has fresh batteries and they are installed using the correct polarity that is listed inside the battery compartment (+).

## Sensor Location

Before permanently fixing the TX61U-IT sensor wall bracket, temporarily place the TX61U-IT and the Wireless Display in the desired location, then check that the outdoor temperature readings are being received. In event that the signal is not received, relocate the TX61U-IT sensor (respecting the 200Ft open air wireless range) or move both units slightly as this may help the signal reception.

- TX61U-IT sensor LCD is turned "OFF":
  - O Please read "Step 1" on page 5 or
  - "TX61U-IT sensor Power Save "STOP" Mode" on page 6

Page 12 of 14

## 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 or La Crosse Technology, Ltd sauthorized 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

Page 13 of 14

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 not 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, please contact:

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

Phone: 608.782.1610 Fax: 608.796.1020

# For online contact / support / e-mail: www.lacrossetechnology.com/support

For information on other products: sales@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.

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Page 14 of 14