

## WEATHER STATION WS-9170U-IT

### *Instruction Manual*

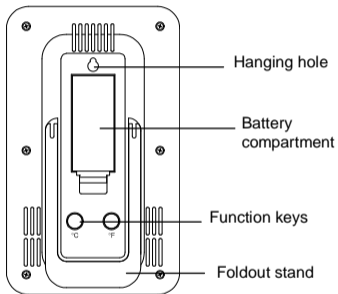
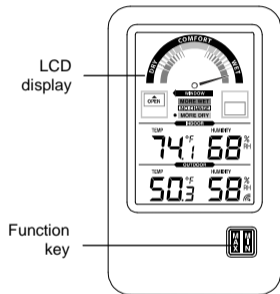
Congratulations on purchasing this state-of-the-art weather station as an example of excellent design and innovative technology. This thermo-hygrometer checks indoor temperature/humidity and outdoor temperature/humidity with wireless transmission. To promote a healthy living environment, it features a comfort level indicator and a ventilation tip – opening or closing the window to help improve the indoor ambient condition.

**This product offers:**



*INSTANT TRANSMISSION* is the state-of-the-art new wireless transmission technology, exclusively designed and developed by LA CROSSE TECHNOLOGY. *INSTANT TRANSMISSION* offers you an immediate update (every 4 seconds!) of all your outdoor data measured from the transmitters: follow your climatic variations in real-time!

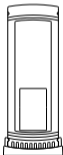
## THE WEATHER STATION



## FEATURES

- Indoor comfort level indicator (DRY, COMFORT, WET)
- Indoor ambient change indicator (MORE WET, NO CHANGE, MORE DRY)
- OPEN/CLOSE window advice
- Indoor and outdoor temperature display in °F / °C with MIN/MAX records
- Indoor and outdoor humidity display in %RH with MIN/MAX records
- Manual reset of all MIN/MAX records
- Low battery indicators
- Wall mounting or table standing (foldout stand)

## Outdoor Thermo-hygro Transmitter



- Remote transmission of outdoor temperature and humidity to weather station by 915MHz signal
- Water-resistant casing
- Wall mounting case

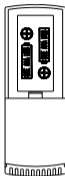
## SET UP

**Note:** This weather station receives only one outdoor transmitter.

### IMPORTANT

- **Do not mix old and new batteries.**
  - **Do not mix alkaline, standard, or rechargeable batteries.**
1. First, insert the batteries into the thermo-hygro transmitter and place 5-10 feet from the weather station.
  2. Within 30 seconds, insert batteries into weather station. Once the batteries are in place, all segments of the LCD will light up briefly. Then the indoor temperature, humidity and comfort level indicator will be displayed. If these are not displayed after 60 seconds, remove the batteries and wait for at least 60 seconds before reinserting them.
  3. After inserting the batteries, the weather station will start receiving data from the transmitter. The outdoor temperature, humidity and the signal reception icon should then be displayed on the weather station. If this does not happen after 3 minutes, the batteries will need to be removed from both units and reset from step 1.
  4. Allow the weather station and transmitter to sit 5-10 feet apart for 15 minutes to establish a good connection.
  5. In order to ensure successful 915 MHz transmission after the initial set up, maintain an open air distance, no more than 330 feet (100 meters) between the final position of the weather station and the transmitter (see notes on “915 MHz Reception” and “Positioning”).

## INSTALL AND REPLACE BATTERIES IN THE OUTDOOR TRANSMITTER




The thermo-hygro transmitter uses 2 x AAA, IEC LR3, 1.5V batteries. When batteries need to be replaced, the low battery icon  will appear on the **OUTDOOR** section of the LCD.

To install and replace the batteries, please follow the steps below:

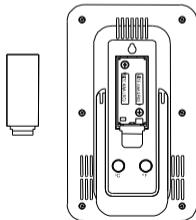
1. Remove the battery compartment cover at the back of the transmitter.
2. Insert the batteries, observing the correct polarity (see marking).
3. Replace the battery compartment cover on the unit.

**Note:** When changing batteries in any of the units, all units need to be reset by following the setting up procedures. This is because a security code is assigned by the transmitter at start-up and this code must be received and stored by the weather station in the first 3 minutes of power supplied to it.

## INSTALL AND REPLACE BATTERIES IN THE WEATHER STATION

The weather station uses 2 x AAA, IEC LR3, 1.5V batteries. When batteries need to be replaced, the low battery icon  will appear on the **INDOOR** section of the LCD. To install and replace the batteries, please follow the steps below:

1. Lift up the battery compartment cover.
2. Insert batteries observing the correct polarity (see marking).
3. Replace compartment cover.



## BATTERY CHANGE



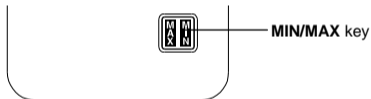
It is recommended to replace the batteries in all units on an annual basis to ensure optimum accuracy of these units.

**Please participate in the preservation of the environment. Return used batteries to an authorized depot.**

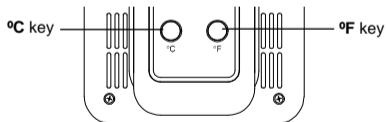
## FUNCTION KEYS

The weather station has 3 easy to use function keys: one on the front and two on the back:

### Front

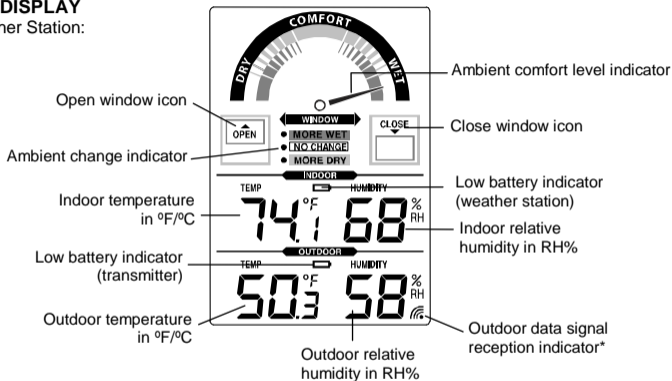


### Back



## LCD DISPLAY

Weather Station:



\* When the signal is successfully received by the wireless weather station, the outdoor transmission icon will be switched on. (If not successful, the icon will not be shown on LCD). The user can then easily see whether the last reception was successful (icon on) or not (icon off).

## COMFORT LEVEL INDICATOR

The indicator shows the comfort level of the surrounding environment based on the indoor humidity data. An arrow marks the current ambient humidity condition on the display from dry to wet in five levels:

<i>Indicator</i>	<i>Indoor Humidity</i>
<b>DRY</b>	$\leq 34\%$
<b>DRY/COMFORT</b>	35 - 40%
<b>COMFORT</b>	41 - 55%
<b>COMFORT/WET</b>	56 - 64%
<b>WET</b>	$\geq 65\%$



**Note:** the comfort indicator arrow will not be shown if the temperature is overflow (“OF.L”)

## INDOOR AMBIENT CHANGE INDICATOR

The ambient change icon shows the expected humidity changes when airflow from outside occurs in a room.




<i>Condition</i>	<i>Icon</i>
Expected humidity changes is $\geq + 5\%$	● <b>MORE WET</b>
Expected humidity changes is within $\pm 4\%$	● <b>NO CHANGE</b>
Expected humidity changes is $\leq - 5\%$	● <b>MORE DRY</b>



## OPEN / CLOSE WINDOW ADVICE

On two sides of the ambient change icons are **OPEN** and **CLOSE** window indicators. The open/close window advice is based on the ambient temperature and humidity data.

- 3 options of recommended actions: 'Open window', 'Close window', no action.
- Depending on the comfort level and the ambient change conditions, the 'Open window' and 'Close window' icons will be shown according to the table below:

<b>Humidity comfort level</b> 	<b>Ambient change</b> <ul style="list-style-type: none"> <li>• MORE WET</li> <li>• NO CHANGE</li> <li>• MORE DRY</li> </ul>	<b>Open window icon</b> 	<b>Close window icon</b> 
Comfort	More Dry or More Wet or No change	Off	Off
Between comfort & dry	More Dry or More Wet or No change	Off	Off
Between comfort & wet	More Dry or More Wet or No change	Off	Off
Dry	No change	Off	Off
Dry	More Wet	<b>On</b>	Off
Dry	More Dry	Off	<b>On</b>
Wet	No change	Off	Off
Wet	More Wet	Off	<b>On</b>
Wet	More Dry	<b>On</b>	Off

**Note:**

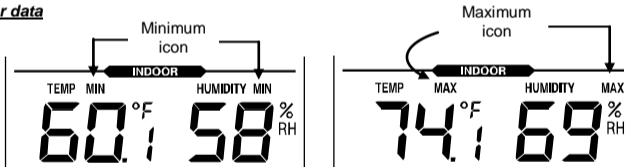
Under the following conditions, the ambient change indicator and OPEN/CLOSE window advice will not be displayed:

- Indoor and/or outdoor temperature display "OFL".
- Indoor and/or outdoor humidity display "- -".
- No outdoor transmitter signal.

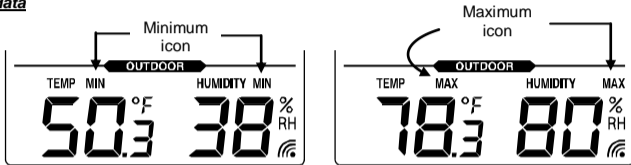
**TO VIEW MIN/MAX DATA**

Press shortly the **MIN/MAX** key several times to view sequentially the indoor minimum/maximum temperature/humidity, and outdoor minimum/maximum data.

**Indoor data**



### Outdoor data



### **TO RESET MIN/MAX DATA**

Press and hold **MIN/MAX** key for 3 seconds to reset **ALL** the indoor, outdoor temperature and humidity records to current readings.

### **TEMPERATURE DISPLAY**

Press the **°C** Key to change temperature display unit to degree Celsius.

Press the **°F** Key to display degree Fahrenheit.

## **ABOUT THE THERMO-HYGRO TRANSMITTER**

The temperature may affect the range of the thermo-hygro transmitter. At cold temperatures the transmitting distance may be decreased. Please bear this in mind when positioning the transmitter. Also the batteries may be reduced in power for the thermo-hygro transmitter.

## **CHECKING FOR 915MHz RECEPTION**

If the outdoor temperature and humidity data are not received within 3 minutes after set up (or OUTDOOR display always shows “- -” during normal operation), please check the following points:

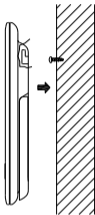
1. The distance of the weather station or transmitter should be at least 5 to 6.5 feet (1.5 -2 meters) away from any interfering sources such as computer monitors or TV sets.
2. Avoid placing the transmitter onto or in the immediate proximity of metal window frames.
3. Using other electrical products such as headphones or speakers operating on the 915MHz-signal frequency may prevent correct signal transmission or reception.
4. Neighbors using electrical devices operating on the 915MHz-signal frequency can also cause interference.

**Note:** When the 915MHz signal is received correctly, do not re-open the battery cover of either the transmitter or weather station, as the batteries may spring free from the contacts and force a false reset. Should this happen reset all units (see “**Set up**” above) otherwise transmission problems may occur.

The transmission range is around 330 feet (100 meters) from the thermo-hygro transmitter to the weather station (in open space). However, this depends on the surrounding environment and interference levels. If no reception is possible despite the observation of these factors, all system units have to be reset (see “**Set up**” above).

## POSITIONING THE WEATHER STATION

Extend the foldout stand on the back and the weather station can be placed onto any flat surface. Avoid placing near electronics.

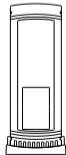


### To wall mount

Before wall mounting, please check that the outdoor temperature and humidity values can be received from the desired locations.

1. Fix a screw (not supplied) into the desired wall, leaving the head extended out by about 5mm.
2. Using the hanging hole on the back, hang the weather station onto the screw. Remember to ensure that it locks into place before releasing.

## POSITIONING THE THERMO-HYGRO TRANSMITTER



Choose a sheltered place. Avoid direct rain or sunshine.

The transmitter is supplied with a holder that may be attached to a wall with the two screws supplied. The transmitter can also be positioned on a flat surface by securing the stand to the bottom of the transmitter.

**To wall mount:**

1. Secure the bracket onto a desired wall using the screws and plastic anchors.
2. Clip the thermo-hygro transmitter onto the bracket.

**Note:** Before permanently fixing the transmitter wall base, place all units in the desired locations to check that the outdoor temperature and humidity readings are receivable. In event that the signal is not received, relocate the transmitter or move the units slightly as this may help the signal reception.

**CARE AND MAINTENANCE**

- Extreme temperatures, vibration and shock should be avoided as these may cause damage to the units and give inaccurate forecasts and readings.
- 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 units in water.
- Immediately remove all low powered batteries to avoid leakage and damage. Replace only with new batteries of the recommended type.
- Do not make any repair attempts to the units. Return it to their original point of purchase for repair by a qualified engineer. Opening and tampering with the units may invalidate their guarantee.
- Do not expose the units to extreme and sudden temperature changes, this may lead to rapid changes in forecasts and readings and thereby reduce their accuracy.

## SPECIFICATIONS

**Receiver recommended operating temperature:** +41°F to +104°F (+5°C to +40°C)

### Temperature measuring range:

Indoor : 14.1°F to 139.8°F with 0.2°F resolution  
-9.9°C to +59.9°C with 0.1°C resolution  
(“**OF.L**” displayed if outside this range)

Outdoor : -39.8°F to +139.8°F with 0.2°F resolution  
-39.9°C to +59.9°C with 0.1°C resolution  
(“**OF.L**” displayed if outside this range, “- - .-“ displayed if no transmitter signal)

### Humidity measuring range:

Indoor : 20%RH to 95%RH with 1% resolution  
(“19%” displayed if <20%, “96%” displayed if >95%,  
“- - “ displayed if indoor temperature is **OF.L**)

Outdoor : 1% RH to 99%RH with 1% resolution  
(“1%” displayed if <1%, “99%” displayed if >99%,  
“- - “ displayed if outdoor temperature is **OF.L** or no transmitter signal)

### Data checking interval:

Indoor : every 16 seconds

Outdoor : every 4 seconds

**Outdoor data transmission range** : up to 330 feet / 100 meters (open space)

### Power consumption:

Weather station : 2 x AAA, IEC LR3, 1.5V

Temperature transmitter : 2 x AAA, IEC LR3, 1.5V  
Battery life (Alkaline batteries recommended): Approx. 12 months

**Dimensions (L x W x H) :**

Weather station : 3.72" x 0.78" x 6.18" / 94.6 x 20 x 157 mm  
Temperature transmitter : 1.41" x 0.62" x 4.03" / 36 x 16 x 102.6 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 of 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.

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 not allow the exclusion of consequential or incidental damages therefore the above exclusion of limitation may not apply to you.

Contact info for warranty or technical support:

**La Crosse Technology**

2817 Losey Blvd. S.

La Crosse, WI 54601

**Product Information and Support:**



**[www.lacrossetechnology.com/9170](http://www.lacrossetechnology.com/9170)**

**Product Registration:**



**[www.lacrossetechnology.com/support/register](http://www.lacrossetechnology.com/support/register)**

**Contact Support: 1-608-782-1610**

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