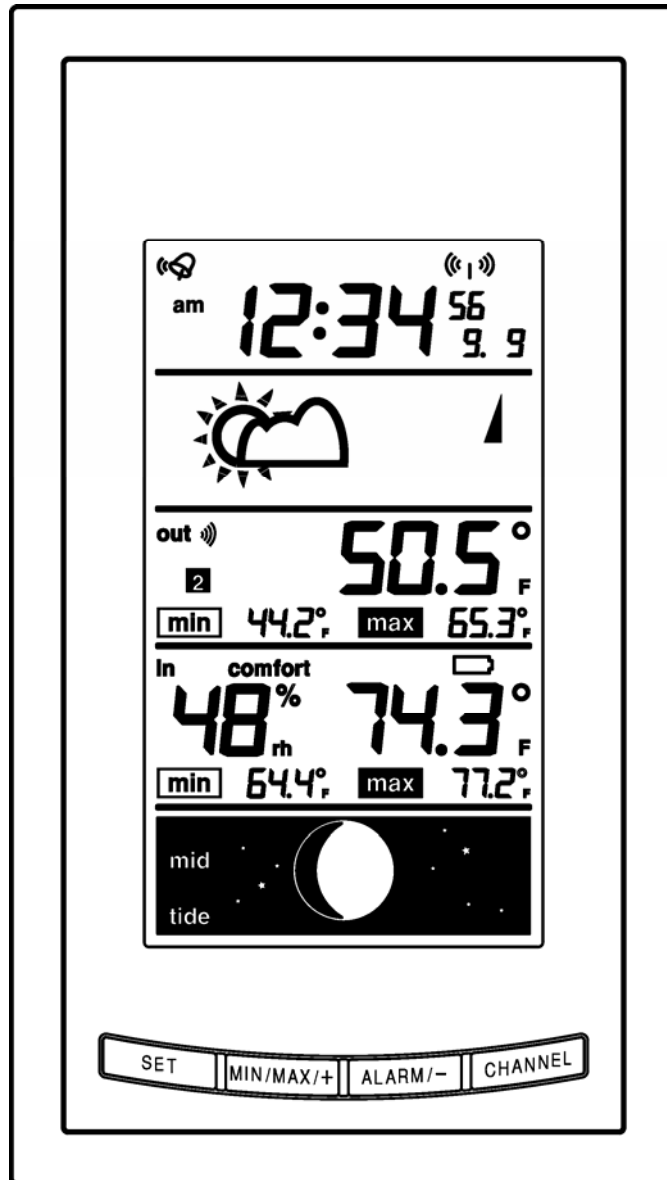


WS-9075U
Wireless 433 MHz
Radio-controlled Weather Station

Instruction Manual



LA CROSSE *tools and technology*
TECHNOLOGY *for home and office*

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INVENTORY OF CONTENTS

1. The WS-9075U weather station (Figure 1)
2. One TX6U remote temperature sensor (Figure 2)
3. Mounting hardware
4. Instruction manual and warranty card.

Figure 1

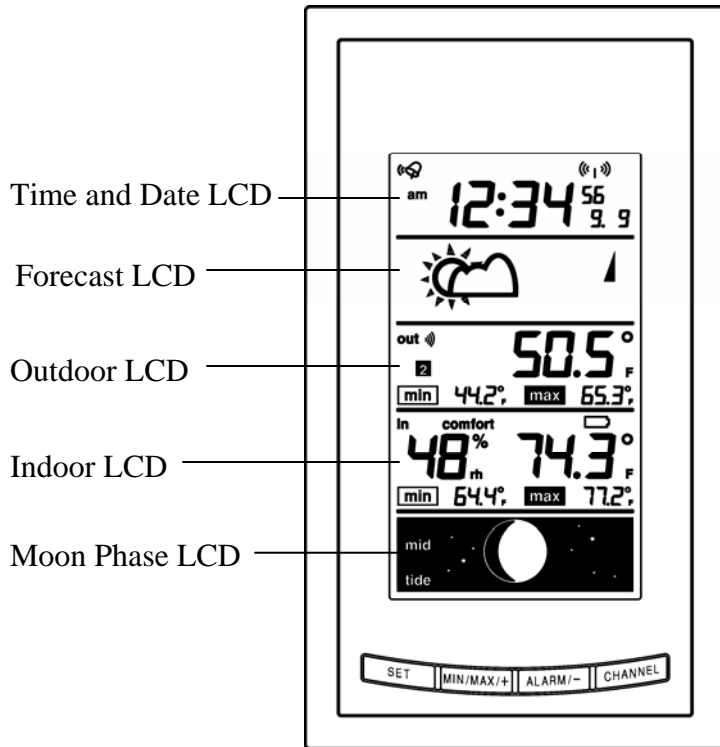
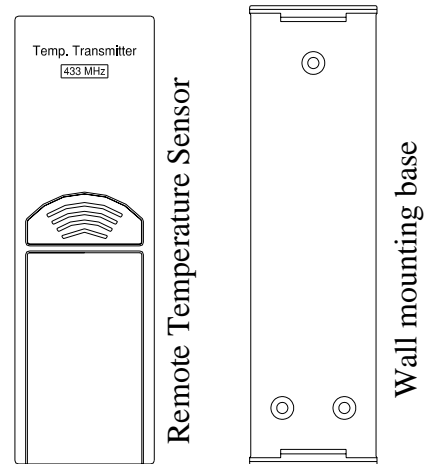


Figure 2



*LCD (Liquid Crystal Display)

ADDITIONAL EQUIPMENT (not included)

1. Three fresh AA 1.5V batteries for the indoor weather station.
2. Two fresh AA 1.5V batteries for the remote temperature/humidity sensor.
3. One Philips screwdriver for mounting.

ABOUT WWVB (Radio Controlled Time)

The NIST (National Institute of Standards and Technology—Time and Frequency Division) WWVB radio station is located in Ft. Collins, Colorado, and transmits the exact time and date signal continuously throughout the United States at 60 kHz. The signal can be received up to 2,000 miles away through the internal antenna in the Weather Station. However, due to the nature of the Earth's Ionosphere, reception is very limited during daylight hours. The weather station will search for a signal every night when reception is best. The WWVB radio station derives its signal from the NIST Atomic clock in Boulder, Colorado. A team of atomic physicists is continually measuring every second, of every day, to an accuracy of ten billionths of a second per day. These physicists have created an international standard, measuring a second as 9,192,631,770 vibrations of a Cesium-133 atom in a vacuum. For more information on the atomic clock and WWVB please see the NIST website at <http://www.boulder.nist.gov/timefreq/stations/wwvb.htm>.

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 feet apart.
2. Batteries should be out of both the indoor weather station and remote temperature sensor units for 10 minutes.
3. Place the batteries into the **remote temperature sensor** first then into the **indoor weather station**.
4. **DO NOT PRESS ANY BUTTONS FOR 15 MINUTES.**

In this time the indoor weather station and remote temperature sensor will start to talk to each other and the display will show the indoor temperature/humidity, and outdoor temperature. If the indoor weather station does not display all information after the 15 minutes please retry the set up as stated above. After all information has been displayed for 15 minutes you can place your sensors outdoors and set your time.

Important Notes on Set-up and Operation

- The remote temperature sensor should be placed in a dry, shaded area.
- Fog and mist will not harm your remote temperature sensor but direct rain must be avoided.
- The remote temperature sensor has a range of 330 feet. Any walls that the signal will have to pass through will reduce distance. An outdoor wall or window can have up to 30 feet of resistance and an interior wall can have up to 20 feet of resistance. Your distance plus resistance should not exceed 330 ft. in a straight line.
- The remote temperature sensor transmits a signal every minute. After the batteries have been installed, the indoor weather station will search for the signal for a duration of 4 minutes. If there is no temperature reading in the OUTDOOR LCD after 4 minutes, make sure the units are within range of each other, or repeat the battery installation procedure.
- If a button is pressed before the indoor weather station receives the signal from the remote temperature sensor, you will need to follow the battery installation procedure again.

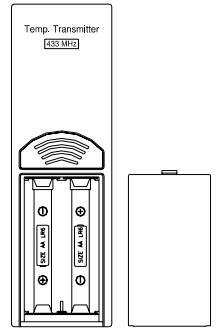
To complete the set up of your new wireless weather station after the 15 minutes have passed please follow the steps that follow in the Detailed Set-Up Guide.

DETAILED SET-UP GUIDE

BATTERY INSTALLATION

A. REMOTE TEMPERATURE SENSOR

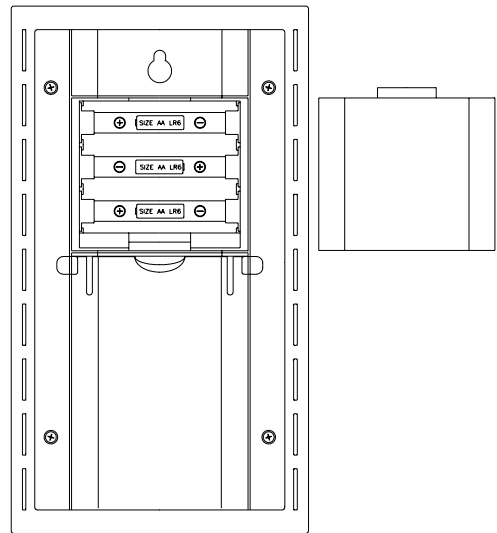
1. Remove the mounting bracket. The bracket snaps on and off easily.
2. Remove the battery cover, by sliding the cover down.
3. Observing the correct polarity install 2 AA batteries. The batteries will fit tightly (to avoid start-up problems make sure they do not spring free).
4. Replace the battery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

Note: Immediately after the batteries have been installed, the LCD (Liquid Crystal Display) will flash. Within 15 seconds the indoor temperature, indoor relative humidity, and the weather icons (sun and clouds) will be displayed. If not, remove batteries for 10 seconds and reinstall. If the outdoor temperature is not displayed within four minutes, remove batteries from both units, wait 30 seconds, and reinstall making sure to install batteries into the remote temperature sensor first. The time will show 12:00 and start searching for the WWVB signal. If it successfully receives the time signal (usually at night), it will display the correct time (default time-zone is Eastern). You will need to adjust the time zone to match your local time.



PROGRAM MODE

Programming Note: If 15 seconds are allowed to pass, or the *CHANNEL* button is pressed during the programming mode, the unit will confirm/set the last information entered—the display will stop flashing and return to normal time-date readings. If you don't leave the program mode during the programming of sections IV through XI, you can advance to step 4 of the next program setting. If you do leave the program setting (or want to program a specific setting) follow each instructional step to program that setting.

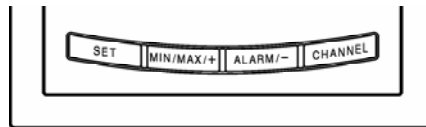
I. PROGRAMMING SEQUENCE AND DEFAULT SETTINGS

The programming sequence and default (factory) settings are as follows:

LCD Contrast	2
Time Zone	-5 (Eastern)
Daylight Saving Time	ON
Radio-controlled time reception	ON
12/24-hour time	12
Time – Hour	12
Time – Minute	:00
Year	2003
Month	1
Day	1
Temperature	°F
Forecast Sensitivity	2
Animation (Weather Icons and Stars)	ON

II. FUNCTION KEYS

The function keys are operated by pressing the key corresponding to the operation that you want to perform.



II. SETTING THE LCD CONTRAST

1. Press and hold the *SET* button for 3 seconds.
2. “LCD” will show in the TIME LCD and the number setting will flash.



Note: There are 8 LCD contrast levels to choose from—“Lcd 0” is the lightest, and “Lcd 7” is the darkest.

3. Press and release the *MIN/MAX/+* button to select a darker level and the *ALARM/-* key to select a lighter level.
4. Press and release the *SET* button to confirm and advance to the Time Zone setting.

III. TIME ZONE SETTING

1. The time zone will flash in the DATE LCD.
2. Press and release the *MIN/MAX/+* or *ALARM/-* button to select your time zone.



Note: It is possible to select any time zone from -12 GMT to +12 GMT (for example to see the time in another country).

TIME ZONES

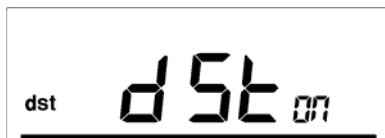
	GMT	0
	Atlantic	-4
EST;	Eastern	-5
CST;	Central	-6
MST;	Mountain	-7
PST;	Pacific	-8
ALA;	Alaska	-9
HAW	Hawaii	-10
;		

3. Press and release the *SET* button to confirm and advance to the Daylight Saving Time setting.

IV. DAYLIGHT SAVING TIME (DST) SETTING

1. “DST” will appear in the DATE LCD and either “ON” or “OFF” will flash in the TIME LCD.
2. Press and release the *MIN/MAX/+* or the *ALARM/-* key to select DST on or off.

Note: “DST OFF” indicates that the feature is off and the WWVB will not change times automatically. “DST ON” indicates that the feature is on and the WWVB will change times automatically.



Note: Some locations (Arizona and parts of Indiana) do not follow Daylight Saving Time, and should select “DST OFF”.

3. Press and release the *SET* button to confirm and advance to the radio-controlled time on/off setting.

V. RADIO-CONTROLLED TIME ON/OFF SETTING

1. “RCC” will appear in the DATE LCD and “ON” or “OFF” will flash in the TIME LCD.
2. Press and release the *MIN/MAX/+* or the *ALARM/-* key to select radio-controlled time on or off.
3. Press and release the *SET* button to confirm and advance to the 12/24-hour time setting.



VI. 12 OR 24 HOUR TIME SETTING

1. “12h” or “24h” will flash in the TIME LCD.
2. Press and release the *MIN/MAX/+* or the *ALARM/-* button to select 12 or 24-hour time format.



Note: When in the 12-hour format “P.M.” will appear to the left of the hour in the time LCD between the hours of noon and midnight.

3. Press and release the *SET* button to confirm and advance to the time setting.

VII. TIME SETTING

There are two methods by which the time and date can be set:

- A) Automatically via WWVB reception, or
- B) Manually.

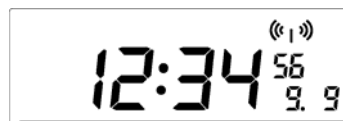
A. WWVB (Remote Control Time)

This method requires you to do nothing, except wait for the signal to be received, and to select a time zone. Reception usually takes approximately 10 minutes during optimal conditions. The best conditions for reception is at night, between midnight and 6:00 am—when there is less atmospheric interference. To keep your time as accurate as possible, the indoor weather station conducts a WWVB search every night between these hours, and overrides any manually set time. The WWVB tower icon (appearing in the TIME LCD) will flash when a signal-search is in progress and a signal is being received, and will remain steady when the signal has been received. If the WWVB time has not been received after 15 minutes of battery installation, you may manually set the time or leave the time function alone (reception will occur regardless).

B. MANUAL TIME SETTING

Note: When in the 12-hour format “P.M.” will appear to the left of the hour in the time LCD between the hours of noon and midnight.

Note: Reception of the WWVB signal will automatically set the time. The reception of the signal will override any programmed time.



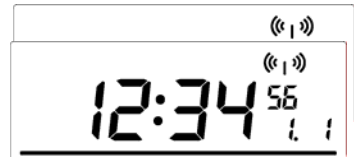
1. The hours digits will flash in the TIME LCD.
2. Press and release the *MIN/MAX/+* button to advance or the *ALARM/-* key to decrease the hours.

3. Press and release the *SET* button to confirm the hours setting and advance to the minutes setting.
4. The minutes digits will flash in the TIME LCD.
5. Press and release the *MIN/MAX/+* button to advance or the *ALARM/-* key to decrease the minutes.
6. Press and release the *SET* button to confirm and advance to the year setting.

VIII. SETTING THE YEAR, DAY AND MONTH

Note: Reception of the WWVB signal will also set the date and day. The reception of the signal will override any programmed date and day.

1. The year will flash in the DATE LCD.
2. Press and release the *MIN/MAX/+* button to advance the year or the *ALARM/-* to decrease the year.
3. Press and release the *SET* button to confirm the year and advance to the month setting.
4. The month will flash in the DATE LCD.
5. Press and release the *MIN/MAX/+* button to advance or the *ALARM/-* key to decrease the month.
6. Press and release the *SET* button to confirm the month and advance to the day setting.
7. The day of the month will flash in the DATE LCD.
8. Press and release the *MIN/MAX/+* button to advance or the *ALARM/-* key to decrease the day of the month.
9. Press and release the *SET* button to confirm and advance to the snooze setting.



IX. SELECTING °F OR °C

1. “°F” is the default setting, and should be flashing in the TIME LCD.
2. Press and release the *MIN/MAX/+* or the *ALARM/-* button to shift °F to °C and back.
3. Press and release the *SET* button to confirm your selection and to advance to the Forecast Sensitivity setting.



X. SETTING THE FORECAST SENSITIVITY

Note: The forecast sensitivity can be adjusted to allow for areas that have a higher or lower sensitivity to changing air pressure (for example coastal areas have more pressure change than areas such as southern Arizona).

The numbers correspond to the amount of air pressure change necessary to trigger a change in the forecast icon. Areas that tend to have more air pressure change would set the sensitivity to 3, while areas that experience lower than normal air pressure change would set the sensitivity to 1.



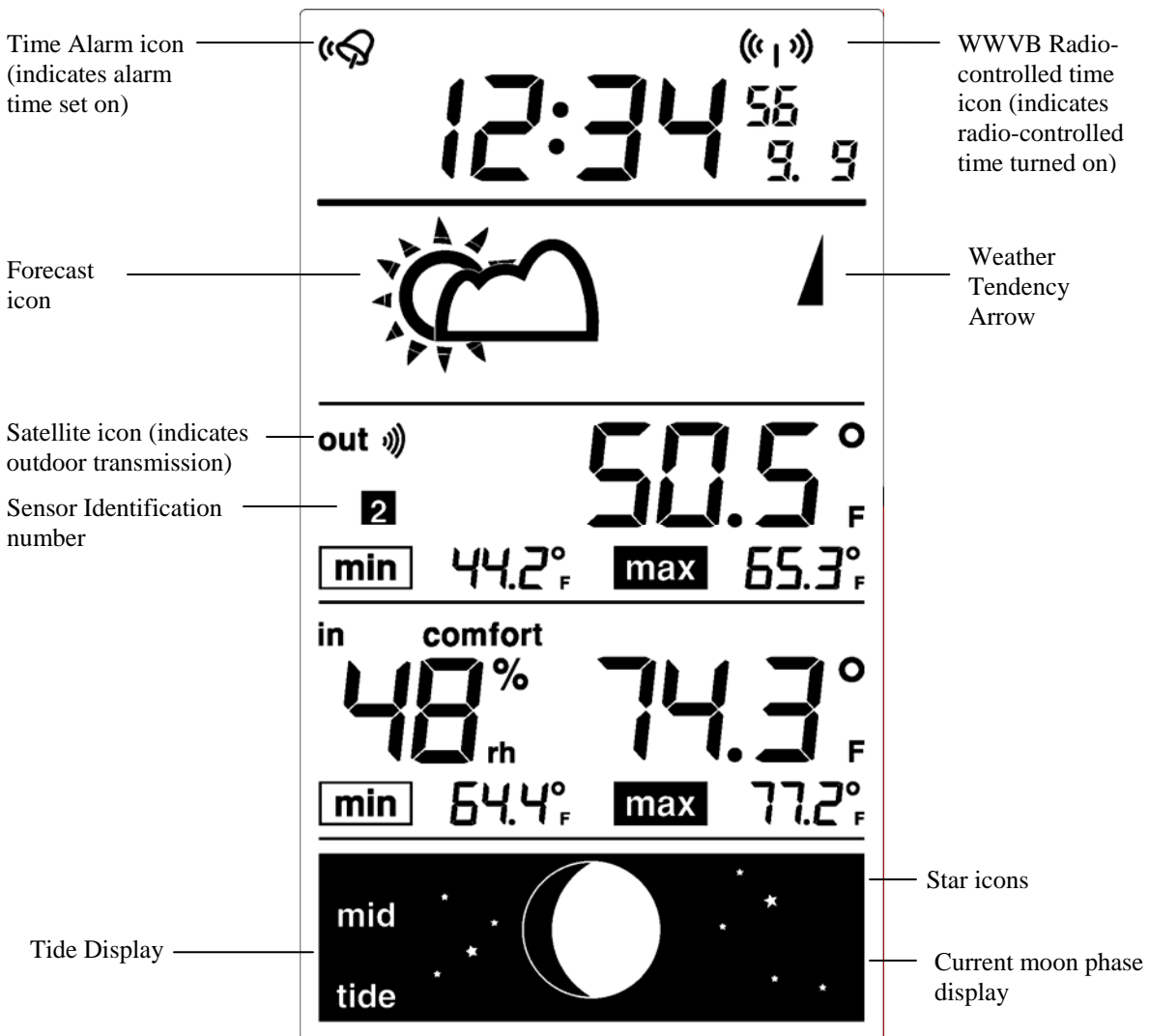
1. Either “1”, “2” or “3” will flash in the TIME LCD and the forecast icon and tendency arrows will flash in the FORECAST LCD.
2. Press and release the *MIN/MAX/+* or the *ALARM/-* to decrease the forecast sensitivity.
3. Press and release the *SET* button to confirm the forecast sensitivity and complete the programming.

XI. SETTING THE ANIMATION (FORECAST ICONS AND STARS)



1. “ON” or “OFF” will flash in the TIME LCD. If “ON” the forecast icon and tendency arrows will flash in the FORECAST LCD and the stars will flash in the MOON PHASE LCD. If “OFF”, the forecast icon, tendency arrows, and stars will not flash.
2. Press and release the *MIN/MAX/+* or the *ALARM/-* button to select the animation on or off.
3. Press and release the *SET* button to confirm the animation setting and complete the programming.

FEATURES OF THE WS-9075U



I. WEATHER FORECAST

The weather forecasting feature is estimated to be 75% accurate and is for the next 12 to 24 hours. The weather forecast is based solely upon the change of air pressure over time. The WS-9075U 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 largely affected by the change of air pressure, the sensitivity setting should be set to 1. In areas where the air pressure changes more rapidly (such as coastal areas) the sensitivity setting should be set to 3.

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).

These icons indicate the expected weather change in the next 12 to 24 hours. The icon does not give an exact prediction of the weather, however it should be viewed as a generalization of the expected weather change (for example a “sunny” icon indicates the weather is expected to improve).

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

Other possible displays in the FORECAST LCD are 2 weather tendency arrows, one that points up and one that points down (on the right side of the LCD). These arrows reflect current changes in the air pressure. An arrow pointing up indicates that the air pressure is increasing and the weather is expected to improve or remain good, an arrow pointing down indicates that the air pressure is decreasing and the weather is expected to become worse or remain poor.

II. OUTDOOR TEMPERATURE

The temperature received from the remote temperature sensor is viewed in the OUTDOOR LCD. When there is more than one remote temperature sensor unit in operation, a “boxed” number will appear to the left side of the temperature. 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 VII—*Adding Remote Temperature Sensors*).

III. INDOOR TEMPERATURE, HUMIDITY, AND COMFORT LEVEL INDICATOR

The current indoor temperature and relative humidity are displayed in the INDOOR LCD.

IV. MINIMUM AND MAXIMUM TEMPERATURE AND HUMIDITY RECORDS

The WS-9075U keeps a record of the MINIMUM and MAXIMUM and date of their occurrence, for both the indoor and outdoor modes.

A. VIEWING THE OUTDOOR TEMPERATURE RECORDS

1. Press and release the *MIN/MAX/+* button once. “min” temperature appears with the outdoor temperature, indicating that the minimum temperature and the time and date of occurrence are displayed. The minimum record will display for 30 seconds before returning to the normal display mode.
2. Press and release the *MIN/MAX/+* button again (once while “min” temperature is still displayed, twice otherwise). “max” appears with the outdoor temperature, indicating that the maximum temperature and the time and date of occurrence are displayed. The maximum record will display for 30 seconds before returning to the normal display mode.

B. VIEWING THE INDOOR TEMPERATURE AND HUMIDITY RECORDS

1. Press and release the *MIN/MAX* button once. “min” appears with the indoor temperature, indicating that the minimum temperature, and the time and date of occurrence are displayed. The minimum record will display for 30 seconds before returning to the normal display mode.
2. Press and release the *MIN/MAX/+* button again (once while “min” temperature is still displayed, twice otherwise). “max” appears with the indoor temperature, indicating that the maximum temperature and the time and date of occurrence are displayed. The maximum record will display for 30 seconds before returning to the normal display mode
3. Press and release the *MIN/MAX/+* button again (once while “max” temperature is still displayed, 3 times otherwise). “min” appears with the indoor humidity, indicating that the minimum humidity, and the time and date of occurrence are displayed. The minimum record will display for 30 seconds before returning to the normal display mode.
4. Press and release the *MIN/MAX/+* button again (once while “min” humidity is still displayed, 4 times otherwise). “max” appears with the indoor humidity, indicating that the maximum humidity and the time and date of occurrence are displayed. The maximum record will display for 30 seconds before returning to the normal display mode.
5. While “max” is still displayed, press and release the *MIN/MAX/+* button again to return to the current data display.

C. RESETTING THE MINIMUM AND MAXIMUM RECORDS

To reset the OUTDOOR records:

1. Press and release the *CHANNEL* button to select the channel record you wish to reset
2. Select either “min” or “max” records by pressing and holding the *MIN/MAX/+* button for 5 seconds.
3. The MIN/MAX records are now reset and the current time will show in the TIME LCD.

To reset the INDOOR records:

1. Press and release the *MIN/MAX/+* button 3 times to select the indoor record you wish to reset
2. Select either “min” or “max” for indoor temperature or humidity by pressing and releasing the *MIN/MAX/+* key.
3. Press and hold the *MIN/MAX/+* button for 5 seconds.
4. The MIN/MAX records are now reset and will show the current time in the TIME LCD and current indoor temperature or humidity in the INDOOR LCD.

V. OUTDOOR CHANNEL RE-LEARN MODE

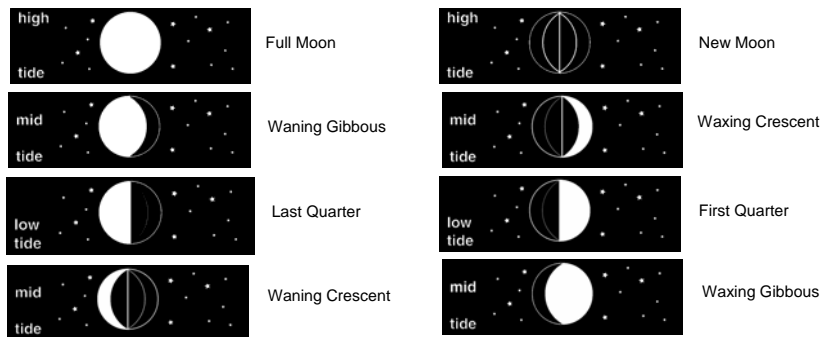
In case the temperature data in a particular outdoor channel often shows "--.-" due to low battery level or false reset of a transmitter, that transmitter can be set up again individually and the "lost" channel can be re-learned again by entering the channel re-learn mode.

To do this, after the individual temperature sensor is set:

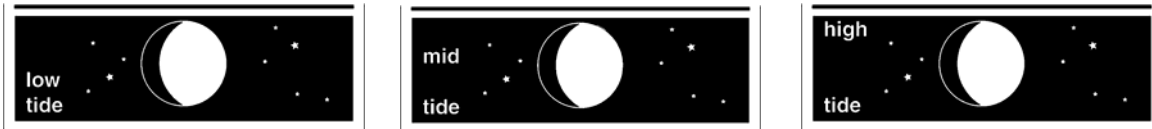
1. Press and hold the *CHANNEL* key for 6 seconds until the channel identification number flashes.
2. Press and release the *MIN/MAX/+* or the *ALARM/-* key to select the identification number for the "lost" channel
3. Press and release the *CHANNEL* key again to confirm the selected channel. The "lost" channel will resume within 2 minutes and all transmitters will work normally again.

V. MOON PHASE

There are 8 moon phases shown on the indoor weather station. Thus, when the moon icon is all white, it is a full moon.



The tide information is also indicated on the left side of the Moon Phase information automatically.



VI. TIME ALARM

To set the time alarm:

1. Press and hold the *ALARM/-* button for 3 seconds.
2. The alarm time will begin to flash in the DATE LCD.
3. Press and release the *MIN/MAX/+* button to increase the hour .

Note: When in the 12-hour mode and setting an alarm for a time between noon and midnight, "PM" will appear to the left of the alarm time in the DATE LCD.

4. Press and release the *ALARM/-* button to select the minutes
5. Press and release the *MIN/MAX/+* button to adjust the minutes.
6. Press and release the *ALARM/-* button to confirm the setting or wait for 15 seconds and the display will automatically return to the normal mode.

To activate the alarm:

1. Press and release the *ALARM/+* button to activate the alarm.
2. When the alarm icon is showing in the DATE LCD the alarm is activated.

VII. ADDING REMOTE TEMPERATURE SENSORS (OPTIONAL)

The WS-9075U 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-9075U. These extra 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 use in pools, spas, etc.

Note: When setting up multiple units it is important to remove the batteries from all existing units in operation, then to insert batteries first into all the remote temperature sensor units, and 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 4 minutes.

A. SET-UP OF MULTIPLE UNITS

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 (follow the same battery installation procedures seen in section **I. A)** of the **Detailed Set-Up Guide**).
5. Install batteries into the indoor weather station.
6. Follow the Detailed Set-Up Guide for programming and operating instructions.

B. VIEWING AND OPERATING WITH MULTIPLE REMOTE TEMPERATURE SENSOR UNITS

1. To view the temperature of a different remote temperature sensor unit, press and release the *CHANNEL* button. A shift from one “boxed” number to the next should be observed in the OUTDOOR LCD.
2. To view the Minimum/Maximum temperature: first select which remote temperature sensor to read data from (indicated by the “boxed” number), then press the *MIN/MAX/+* button. To view the readings from different transmitters, follow **IV. A. Viewing the Outdoor Temperature Records** paragraph above.
3. To reset the Minimum/Maximum readings, select first which remote temperature sensor to read data from. Press the *MIN/MAX/+* button to view the outdoor MIN/MAX records. Then follow the steps in **IV. C. Resetting the Minimum and Maximum Records** paragraph above.

MOUNTING

Note: Before permanently mounting ensure that the indoor weather station is able to receive WWVB signals from the desired location. 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. To achieve a true temperature reading, avoid mounting where direct sunlight can reach the remote temperature sensor or indoor weather station. While the remote temperature sensor is weather proof, avoid submersion in water or snow. We recommend that you mount the remote temperature sensor on an outside North-facing wall. The sending range is 330ft—obstacles such as walls, concrete, and large metal objects can reduce the range. Place both units in their desired location, and wait approximately 15 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.
- 3) 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.

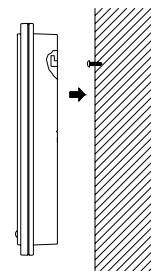
I. THE INDOOR WEATHER STATION

The indoor weather station can be mounted in several ways:

- With the use of screws
- Using its foldout stand

A. MOUNTING WITH SCREWS

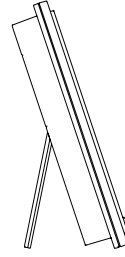
- 1) Fix a screw (not included) into the desired wall, leaving approximately 3/16 of an inch (5mm) extended from the wall.
- 2) Place the indoor weather station onto the screw using the hanging hole on the backside.
- 3) Gently pull the indoor weather station down to lock the screw into place.



B. FOLDOUT TABLE STAND:

The foldout table stand leg is located on the backside.

- 1) Pull the stand out from the bottom center edge of the weather station, below the battery compartment.
- 2) Once the foldout table stand is extended, place the weather station in an appropriate location.



TROUBLESHOOTING

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

Problem: No reception of WWVB time signal.

Solution: 1) Wait overnight for signal.

- 2) Be sure indoor weather station is at least 6 feet from any electrical devices, such as televisions, computers, or other radio-controlled clocks.
- 3) Remove batteries for five minutes, reinsert and leave the unit alone overnight without pressing buttons.
- 4) If there are still problems, contact La Crosse Technology.

Problem: Hour is incorrect (minute and date are correct).

Solution: Be sure correct time zone and daylight saving time settings are selected.

Problem: The LCD is faint.

Solution: 1) Set the LCD contrast to a higher number.

- 2) Replace the batteries

Problem: No outdoor temperature is displayed.

Solution: 1) Remove all batteries, reinsert into remote temperature sensor first, then the indoor weather station.

- 2) Place the remote temperature sensor closer to the display.
- 3) Be sure all batteries are fresh.
- 4) Place the remote temperature sensor and indoor weather 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 2 degree plus or minus and under normal conditions, so two sensors could be as much as 4 degrees different. However, the difference can be exaggerated further because the sensors are designed for different working environments. The indoor temperature 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 remote temperature/humidity 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-

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

Weather data measuring range:	
Indoor Temperature:	14.1°F to 139.8°F with 0.2°F resolution “OFL” displayed if outside this range
Outdoor Temperature:	-21.9°F to 157.8°F with 0.2°F resolution “OFL” displayed if outside this range
Indoor relative humidity measuring range:	1% to 99% with 1% resolution (“- .-” displayed if outside this range)
Outdoor relative humidity measuring range:	1% to 99% with 1% resolution (“- .- “ displayed if outside this range)
Weather data checking interval:	
Indoor temperature checking interval:	Every 15 seconds
Indoor humidity checking interval:	Every 20 seconds
Outdoor temperature checking interval (remote temperature sensor):	Every 1 minute
Outdoor temperature reception (indoor weather station):	Every 5 minutes
Transmission range:	330 feet / 100 meters (in open space)
Power Supply:	
Indoor weather station:	3 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 (H x W x D):	
Indoor weather station:	7.04” x 3.97” x 1.22” (179 x 101 x 31mm)
Remote temperature sensor:	1.57” x 0.85” x 5.00” (128 x 40 x 23 mm)

WARRANTY INFORMATION

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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 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 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 (transmitter)

Freq. 433.92 MHz
La Crosse Technology
Made in China
WS-9075U

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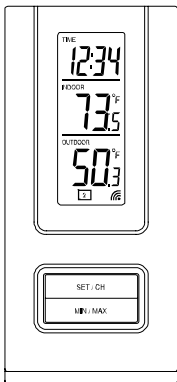
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All trademarks and patents are acknowledged.

WS-9117U

Wireless 433 MHz Temperature Station

Instruction Manual



LA CROSSE *technology tools*
TECHNOLOGY *for home & office*

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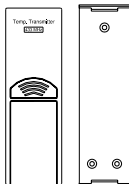
INVENTORY OF CONTENTS

1. The indoor temperature station (Figure 1)
2. The remote temperature sensor (TX6U) and mounting bracket. (Figure 2)
3. 3 each, 1/2" Philips screws.
4. One strip of double sided adhesive tape.
5. Instruction Manual and Warranty Card.

Figure 1



Figure 2



ADDITIONAL EQUIPMENT

(not included)

1. 1 Philips screwdriver.
2. 2 Fresh AAA 1.5V batteries.
3. 2 Fresh AA 1.5V batteries.

QUICK SETUP

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

1. Have the indoor temperature station and remote temperature sensor 3 to 5 feet apart.
2. Batteries should be out of both units for 10 minutes.
3. Place the batteries into the **remote temperature sensor** first then into the indoor temperature station.

(All remote temperature sensors must be started before the indoor temperature station)

4. **DO NOT PRESS ANY BUTTONS FOR 15 MINUTES.**

In this time the indoor temperature station and remote temperature sensor will start to talk to each other and the display will show both the indoor temperature and an outdoor temperature. If the indoor temperature 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 15 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 up to 20 feet of resistance and an interior wall will have up to 10 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 temperature station after the 15 minutes have passed please follow the steps below.

1. Press and hold the “*SET/CH*” button for 5 seconds.
Note: A “12h” or “24h” will appear to the left of the time. (“12h” for AM/PM, “24h” for military time)
 - a. To change between “12h” and “24h” press and release the “*MIN/MAX*” button.

- b. When you have your choice shown on the display press and release the “*SET/CH*” button once.
2. Degree Fahrenheit will now show.
 - a. To change between Fahrenheit and Celsius, press and release the “*MIN/MAX*” button.
 - b. When you have your choice shown on the display press and release the “*SET/CH*” button once.
3. An hour will now be flashing.
 - a. Press and release the “*MIN/MAX*” button until the correct hour is shown.

Note: When in the 12h mode there is “PM” displayed under

the word TIME when in the PM hours. During the AM hours this area will be blank.

b. When the correct hour is shown, press and release the “SET/CH” button once.

4. A minute will now be flashing.

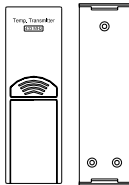
a. Press and release the “MIN/MAX” button until the correct minutes are displayed.

Press and release the “SET/CH” button once more and you are done.

DETAILED SETUP GUIDE

I. BATTERY INSTALLATION

A. REMOTE TEMPERATURE SENSOR

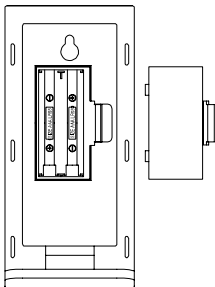


1. Remove the mounting bracket.
2. Remove battery cover
3. Observing the correct polarity, install 2 AA batteries—make sure they do not spring free, or start-up problems may occur. Replace cover.

B. INDOOR TEMPERATURE STATION

Note: After the batteries are installed, **DO NOT** press any buttons. This may interfere with the signals, causing temperatures to register incorrectly.

1. Remove the battery cover on the backside.
2. Observing the correct polarity, install 2 AAA batteries.
3. Replace battery cover.
4. Wait 15 minutes before pressing any buttons.



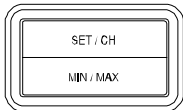
5. The indoor temperature station should now show: “-:- -” in the TIME LCD, and temperatures in the INDOOR and OUTDOOR LCD’s.



II. TIME

A. SETTING THE TIME

1. Press and hold the “*SET/CH*” button for 5 second, “12h” will appear in the TIME LCD.
2. Press and release the “*MIN/MAX*” button to select either 12h time (am/pm) or 24h time
3. Press and release the “*SET/CH*” button 2 times, the hour will flash in the upper left corner.
4. Press and release the “*MIN/MAX*” button to set the hours



5. Press and release the “*SET/CH*” button to move to the minute setting
6. Press and release the “*MIN/MAX*” button to set the minutes.
7. Press and release the “*SET/CH*” button to activate the clock.

Note: When in 12h mode, there is only a “PM” display, which appears under “TIME.” If there is no display here it is AM. Make sure you set the time accordingly.

III. UNITS OF TEMPERATURE MEASURE

A. SELECTING UNITS OF MEASUREMENT

1. Press and hold the “*SET/CH*” button for 5 second until “12h” or “24h” appears in the TIME LCD.
2. Press and release the “*SET/CH*” button again, “°F” will appear in the TIME LCD.

3. Press and release the “*MIN/MAX*” button to shift between °F and °C.
4. Press and release the “*SET/CH*” button twice to activate settings.

IV. FEATURES

A. MINIMUM AND MAXIMUM TEMPERATURES

1. Press and release the “*MIN/MAX*” button, “MIN” appears in the temperature LCD’s and the recorded minimum temperatures are displayed.
2. Press and release the “*MIN/MAX*” button to toggle to the maximum temperatures. The time of occurrence of the value for outdoor temperature will also flash.

B. RESETTING THE MINIMUM AND MAXIMUM TEMPERATURES

1. To reset both the minimum and maximum temperatures—press and hold the “*RESET/+*” button for 4

seconds.

C. ADDING ADDITIONAL REMOTE TEMPERATURE SENSORS (OPTIONAL)

1. The WS-9117U is able to receive signals from 3 different remote temperature sensors. Following are some brief instructions for the basic set-up of remote temperature sensor units with the WS-9117U. These extra sensors can be purchased through the same dealer as this unit, or by contacting La Crosse Technology directly. A TX6 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 use in pools, spas, etc.

Note: When setting up multiple units it is important to remove the batteries from all existing units in operation, then to insert batteries first into all the

remote temperature sensor units, and in numeric sequence. Second, install batteries into the indoor temperature station. Transmission problems will arise if this is not done correctly and if the total time for set-up exceeds 6 minutes.

2. It is necessary to remove the batteries from all units currently in operation.
3. Remove the battery covers to all remote temperature sensor units.
4. Place all remote temperature sensor units in a numeric sequential order.
5. In sequential order, install batteries (follow the same battery installation procedures seen in section “I” of the Detailed Set-Up Guide).
6. Install batteries into the indoor temperature station.
7. Follow the Detailed Set-Up Guide for programming and operating instructions.

D. VIEWING AND OPERATING WITH MULTIPLE REMOTE TEMPERATURE SENSOR UNITS

1. To view the temperature of a different remote temperature sensor unit, press and release the “*SET/CH*” button. A shift from one “boxed” number to the next should be observed in the OUTDOOR LCD.
2. To view the Minimum/Maximum temperature: first select from which remote temperature sensor to read data (indicated by the “boxed” number). Pressing and releasing the “*MIN/MAX*” button will toggle through the minimum and maximum indoor temperature, and the minimum and maximum outdoor temperature.
3. To reset the Minimum/Maximum readings, press and hold the “*MIN/MAX*” button for four seconds.

V. MOUNTING

Note: To achieve a true temperature reading, avoid mounting in direct sunlight. We recommend that you mount the remote temperature sensor on an outside North-facing wall. The sending range is 80ft; obstacles such as walls, concrete, and large metal objects will reduce the range. Place both units in their desired location before permanently mounting.

A. REMOTE TEMPERATURE SENSOR

1. Remove the mounting bracket from the remote temperature sensor
2. Mount using either screws or adhesive tape.
3. Reattach the remote temperature sensor to the mounting bracket.

B. THE TEMPERATURE STATION

1. The indoor temperature station comes with the table stand already mounted. If you wish to use the table-stand, all

that is required is to place the indoor temperature station in an appropriate location.

2. To wall mount, remove the table stand. To do this, pull down on the stand from the rear and rotate forward.
 - a) Fix a screw (not included) into the desired wall, and place the indoor temperature station onto the screw using the hanging hole on the backside. Gently pull the indoor temperature station down to lock the screw into place.

TROUBLESHOOTING

***NOTE:** For problems not solved, please contact La Crosse Technology via e-mail or phone, or visit our website, www.lacrossetechnology.com*

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, and 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 temperature sensors could be as much as 2 degrees different. However, the difference can be exaggerated further because the temperature 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). In addition, 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.

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.
- Do not subject the units to unnecessary heat or cold by placing them in the oven or freezer.
- Opening the casings invalidates the warranty. Do not try to repair the unit. Contact La Crosse Technology for repairs.

SPECIFICATIONS

Transmitting Frequency	433MHz
Measuring Temperatures	
Indoor Temperature Station: Indoor	32°F to 140°F with 0.2°F resolution. (0°C to 69.0°C with 0.1°C resolution)
Indoor Temperature Station: Outdoor	-21.8 °F to 156.2°F with 0.2°F resolution. (-29.9°C to 69.0°C with 0.1°C resolution)
Temp accuracy	+/- 1°F (+/- .5°C)
Transmitting range	Maximum 80 feet (25m) open space
Temperature check	
Indoor	Every 10 seconds
Outdoor	Two times in 10 minutes
Batteries—(Alkaline recommended)	
Remote Temperature Sensor	2 x AA, 1.5V
Indoor	2 x AAA, 1.5V

Temperature Station	
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Dimensions: (H x W x D)	
Indoor Temperature Station	5 x 2.25 x 1 in (excluding table stand) (125 x 58 x 23 mm)
Remote Temperature Sensor	5 x 1.5 x 1 in (128 x 40 x 23 mm)
Battery life	Approximately 1 year

WARRANTY INFORMATION

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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

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support@lacrossetechnology.com
(warranty work)

sales@lacrossetechnology.com
(information on other products)

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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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Freq. 433.92 MHz
La Crosse Technology
Made in China
WS-9117U

**FCC ID: OMO-01RX (Receiver),
OMO-01TX (sensor)**

**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, AND**
- 2. THIS DEVICE MUST ACCEPT INTERFERENCE
RECEIVED, INCLUDING INTERFERENCE THAT
MAY CAUSE UNDESIRE OPERATION.**