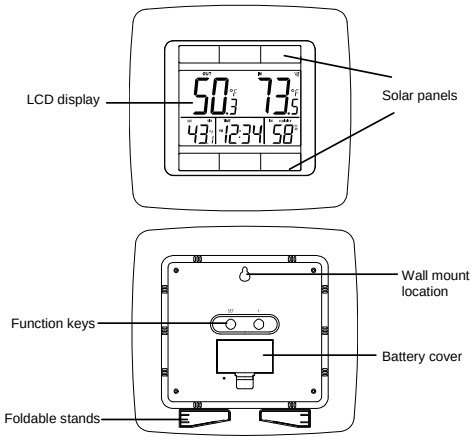
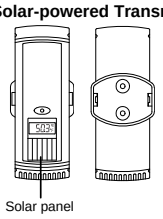
Tomorrow's Weather Today™

Model WS-8120U
Solar Wall Clock

QUICK SETUP GUIDE



Solar-powered Transmitter:



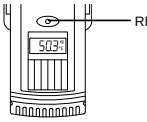
- Remote transmission of outdoor temperature to the Solar Clock by 915 MHz signals
- LCD displays outdoor temperature data
- Recharge batteries by solar-powered cells
- Wall mounting case

Note:
- The solar-powered temperature transmitter uses solar cells to charge the rechargeable batteries (2 x AAA rechargeable batteries: included).
- **Those rechargeable batteries cannot be replaced.**

SOLAR TRANSMITTER OPERATION MODES
Important:
Users need to press the reset key to activate the solar transmitter and link the transmission to the Solar Station (receiver).

It is important to allow sufficient light to reach the solar panel while activating the solar transmitter. Make sure the lights are on in the setup room and the solar panel is facing a 60W light bulb or brighter - **do not cover with hands or other objects.**

Solar transmitter RESET key:



Note: only use a small pointed pen to press the RESET key to re-active the transmitter into Normal Operation Mode.

The solar transmitter has 3 operations modes:

Normal Operation Mode:
- This mode occurs when the battery voltage is higher than 2.5V.
- The transmitter will measure and transmit the temperature data to the solar wall clock every 8 seconds.
- The environment brightness is checked every 5 seconds
- If a dark environment is detected, it will measure and transmit the temperature every 16s

- If the battery voltage is dropped lower than 2.8V, it will measure and transmit the temperature every 16s
- If battery voltage is dropped lower than 2.4V, will go into Idle mode
- If the solar transmitter is placed into a dark environment for 72 hours, will goes into Stop mode.
- If the user cover the solar cell for 10 seconds and press the reset button, "StP" will be displayed on the LCD. Then the transmitter enters STOP mode.

Idle Operation Mode:
- This mode occurs when the battery voltage drops lower than 2.4V
- LCD is turned off.
- Does not perform temperature measurement and transmission.
- The environment brightness is checked every 5 seconds
- If battery voltage is raised higher than 2.5V, will go into Normal mode
- If the solar transmitter is placed into a dark environment for 72 hours, will goes into Stop mode.

Stop Operation Mode:
- This mode occurs when the solar transmitter is placed into a dark environment for 72 hours or the user covers the solar cell for 10 seconds and presses the RESET button.
- The transmitter is in a standby state. The unit does not perform any operations and LCD is off.
- Under a bright condition, press the reset button to wake up the transmitter into normal operation mode (battery voltage is higher than 2.5V).
- This is the most power saving mode.

TO INSTALL / REPLACE BATTERY IN THE SOLAR CLOCK
The Solar Clock can use either the included 2 x alkaline rechargeable battery (charged by solar panel: included) or 2 x AA alkaline battery (non-rechargeable; not included).

INITIAL SETUP
It is very important to **follow these steps**:

1. First, remove the label covering over the battery compartment on the back.
2. Open the battery compartment, and **MAKE SURE** that the battery switch is in the **BATTERY** position (not the SOLAR position).

Battery switch in the BATTERY position

3. Now locate the battery insulator tab, and gently pull to remove it.
4. Slide the battery switch to the SOLAR position
5. Battery switch in the SOLAR position

6. Continue to section titled "**Setup After Changing/Installing the Battery in the Solar Clock** "

TO INSTALL / REPLACE BATTERY
The included alkaline rechargeable batteries should provide you with many years of service. If your batteries need to be replaced, we suggest you use 2 fully charged the AA Alkaline.
Rechargeable batteries should be fully charged before inserting into clock.
Alkaline rechargeable batteries must be used.

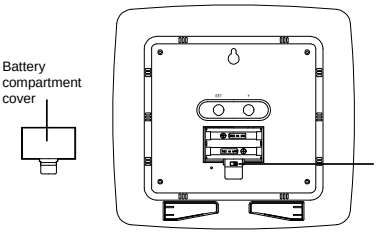
If you choose to use non-rechargeable batteries, the battery switch MUST be moved to the **BATTERY** position (not the SOLAR position). In this position, the solar cells do not charge the batteries.

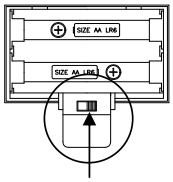
REGARDLESS OF THE TYPE OF BATTERIES INSTALLED, THE BATTERY SWITCH MUST BE IN THE BATTERY POSITION WHEN THE BATTERIES ARE INSERTED.

If rechargeable batteries are used, the Battery switch should be moved to the SOLAR position AFTER it is has been inserted.

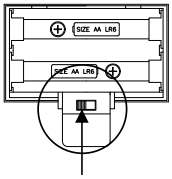
To use non-rechargeable alkaline batteries:
1. Remove the included rechargeable AA batteries from the compartment.
2. Use the switch to select the alkaline battery (see below).
3. Insert the batteries into the compartment, observing the correct polarity (see marking inside battery compartment.
4. Replace battery cover

Note: For best performance, batteries should be replaced at least once every 2 years to maintain the best running accuracy. Ensure that the batteries used are new and the correct size.





Primary Alkaline
battery switch position



Rechargeable Alkaline
battery switch position

Please help in the preservation of the environment and return used batteries to an authorized depot.

SETUP AFTER CHANGING/REPLACING THE BATTERY IN THE SOLAR CLOCK

1. After powering up the Solar Clock, all LCD segments will light up briefly and it will show the time (12:00), indoor temperature, date, and indoor humidity.
2. After the batteries are inserted, the Solar Clock will start receiving data signal from the solar transmitter. The outdoor temperature data should then be displayed on the Solar Clock. If this does not happen after 2 minutes, the batteries will need to be removed from both units and reset from step 1.
3. The distance between the Solar Clock and the transmitter should not be more than 200 feet (60m) to ensure sufficient 915 MHz transmission. (see notes on "**Positioning" and "915 MHz Reception**").

Note: When changing the battery:

1. Be careful that it does not spring free from the contacts.
2. Press any button 20 times with the battery removed.
3. Always wait at least 10 minutes after removing battery before re-inserting; otherwise start up problems may occur.

TO SET THE TIME

Note: the time will be displayed with "AM" or **"**PM**"** for the time from 12:00 until 11:59.

1. Press and hold the **SET** key for 3 seconds to enter the time setting mode.
2. The hour digits will start flashing.

3. Set the desired hours by pressing and releasing the **+** key followed by pressing the **SET** key.
4. Now the minute digits will start flashing.
5. Set the desired minutes by pressing and releasing the **+** key. If the **+** key is held, the units will increase by 5.
6. Press the **SET** key again to confirm and enter the Solar Mode setting.

SOLAR MODE

The Solar Mode is used for saving the power consumption of the rechargeable battery (Default setting ON):

1. The characters **"ON"** or **"OFF"** will start flashing. By use of the **+** key select **"ON"** or **"OFF"** to set the solar mode.
2. Press and release the **SET** key to exit the setting mode and switch back to the normal display mode.

If the solar mode setting is ON:

- The surrounding environment brightness is checked every 5 seconds
- LCD will automatically turn OFF if the environment is too dark
- LCD will automatically turn ON if the environment is bright enough
- No information will be displayed when the LCD is OFF, but all the settings and operations will remain, except for the temperature and humidity measurements.

If the solar mode setting is OFF:

- LCD will remain ON constantly.

STOP MODE

If the Solar Clock is placed in a dark environment for 72 hours continually, the clock will go to the stop mode:

- The most power saving condition.
- The Solar Clock will not perform any operation and the LCD will also be OFF.
- Users need to press any key to wake up the Solar Station and to re-activate the transmission with the solar transmitter.

VIEW MIN/MAX READINGS:

Press and release the PLUS button to view outdoor MIN/MAX readings, then indoor MIN/MAX readings then return to the normal display.

RESET MIN/MAX READINGS:

Press and hold the PLUS button for 5 seconds to reset both Indoor and Outdoor MIN/MAX readings to current temperature.

DISPLAY MODES:

Press and release the SET button to change the way the temperatures are displayed on the weather station:

- Shows: Outdoor temperature in the first line on the left side.
  Shows: Indoor temperature in the first line on the right side and Indoor humidity in the second line on the right side.
- Shows: Indoor temperature in the first line on the left side and Indoor humidity in the first line on the right side.
  Shows: Outdoor temperature in the second line on the left side.

915MHZ RECEPTION CHECK FOR OUTDOOR SOLAR TRANSMITTER

The Solar Clock will receive the outdoor data every 48 seconds. If the temperature data is not being received 2 minutes after setting up (or the display shows "- - -"), then please check the following points:

1. The distance of the Solar Clock or outdoor transmitter should be at least 6 feet (2 meters) away from any interfering sources such as computer monitors or TV sets.
2. Avoid placing the receiver onto or in the immediate proximity of metal window frames.
3. Using other electrical products such as headphones or speakers operating on the same signal frequency (915MHz) may prevent correct signal transmission and reception.
4. Neighbors using electrical devices operating on the 915MHz signal frequency can also cause interference.

Note: When the 915 MHz signal is received correctly, do not re-open the battery cover of the Solar Clock, as the batteries may spring free from the contacts and force a false reset. Should this happen accidentally then reset all units (see "**TO INSTALL / REPLACE BATTERY IN THE SOLAR CLOCK**" and "**INITIAL SETUP**" above) otherwise transmission problems may occur.

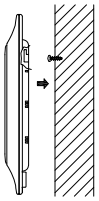
The maximum transmission range is 200 feet (60 m) from the outdoor transmitter to the Solar Clock (in open space). However, this depends on the surrounding environment and interference levels. If no reception is possible despite the observation of these factors, all system units have to be reset (see "**TO INSTALL / REPLACE BATTERY IN THE SOLAR CLOCK" and "INITIAL SETUP**").

POSITIONING THE SOLAR CLOCK:

Before permanently mounting, ensure that the Solar Clock is able to receive 915MHz signals from the desired location. In addition, the Solar Clock should be placed in a bright environment for the rechargeable batteries to be able to recharge.

There are two possible ways to mount the solar clock:

- use of the foldable table stands, or
- wall mounting



WALL MOUNTING

1. Install a mounting screw (not included) into a wall—leaving approximately 3/16 of an inch (5mm) extended from the wall.
2. Place the Solar Clock onto the screw, using the hanging hole on the backside. Gently pull the Solar Clock down to lock the screw into place.

Note: Always ensure that the Solar Clock locks onto the screw before releasing.

POSITIONING THE SOLAR TRANSMITTER:

It is important to place the solar transmitter in a bright environment for the rechargeable batteries to be able to recharge.

The solar transmitter can be placed onto any flat surface or wall mounted using the bracket which doubles as a stand or wall mount base.

To wall mount: Secure the bracket onto a desired wall using the screws and plastic anchors.

Clip the solar transmitter onto the bracket.

Note: The mounting surface can affect the transmission range. If, for instance, the unit is attached to a piece of metal, it may then either reduce or increase the transmitting range. For this reason, we recommend not to place the unit on any metal surfaces or in any position where a large metal or highly polished surface is in the immediate vicinity (garage doors, double glazing, etc.). Before securing in place, please ensure that the Solar Clock can receive the 915MHz signal from the solar transmitter at the positions that you wish to place them.

WARRANTY INFORMATION

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

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

La Crosse Technology, Ltd will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above. All replaced parts and products become the property of La Crosse Technology, Ltd and must be returned to La Crosse Technology, Ltd.

Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer. La Crosse Technology, Ltd will pay all expenses for labor and materials for all repairs covered by this warranty. If necessary repairs are not covered by this warranty, or if a product is examined which is not in need or repair, you will be charged for the repairs or examination.

The owner must pay any shipping charges incurred in getting your La Crosse Technology, Ltd product to a La Crosse Technology, Ltd authorized service center.

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

This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

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

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

For warranty work, technical support, or information contact:

La Crosse Technology
2817 Losey Blvd. S.
La Crosse, WI 54601

The complete instruction manual is available at:
www.lacrossetechnology.com/support

Le manuel d'instruction complet est disponible sur:
www.lacrossetechnology.com/support

El manual de instrucciones completo está disponible en:
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