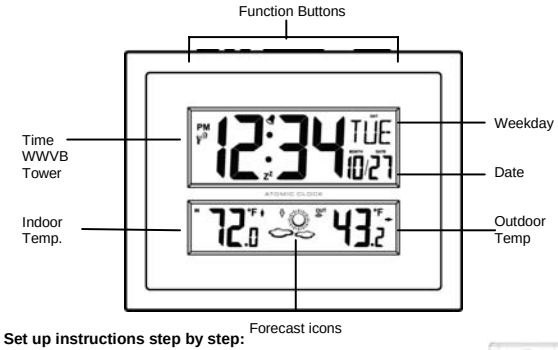
LA CROSSE®
TECHNOLOGY

Digital Atomic Wall Clock with Temperature and Forecast
RX Model: W86111 | Quick Setup Guide

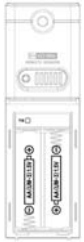
INTRODUCTION:
The Atomic Digital Wall Clock features radio-controlled time, date, forecast icons, indoor and outdoor temperature on an easy to read display. Receives signal from the Atomic Clock in Colorado, for accurate time!

ATOMIC DIGITAL WALL CLOCK:



Set up instructions step by step:

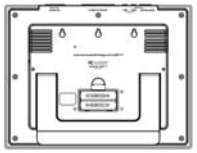
Step 1:



- Remove battery cover from the outdoor transmitter.
- Slide the battery cover down and lift off the back of the transmitter
- Insert 2 NEW AA batteries (not included) into the transmitter. Observe the correct polarity.
- Keep the LCD display and transmitter within 10 feet during setup.
- Note: Use Alkaline batteries (or Lithium for temperatures below - 20°F / -28.8°C).

Step 2:

REMOTE TEMPERATURE SENSOR
TX MODEL: TX141



- Remove battery cover from Atomic Clock, slide tab down and pull out to remove the cover.
- Insert 2 NEW AA batteries (not included) into the back of the Atomic Clock. Observe the correct polarity (see marking inside the battery compartment).Do NOT mix old and new batteries.
- The Atomic Clock will display, time (12:00) date (1/1) and indoor temperature.
- Within 3 minutes the Outdoor temperature should be displayed.

Trouble shooting:
- If after 3 minutes of waiting, the Outdoor temperature does not show up in the designated area on the display, remove batteries from both units and start the setup process again.
- For optimal reception performance, of the 433 MHz signal, the outdoor transmitter should be placed within 200 feet (60 meters) from the Indoor LCD display.

WWVB RADIO CONTROLLED TIME
The NIST radio station, WWVB, is located in Ft. Collins, Colorado and transmits the exact time 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 Atomic Digital Wall Clock. However, due to the nature of the Earth's Ionosphere, reception is very limited during daylight hours. The Atomic Digital Wall Clock 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.

WWVB RECEPTION ICON with full signal strength will appear on screen if the reception of atomic time is successful.
- The tower icon will show solid when the display has received the WWVB signal.
- No tower icon displayed. The display was unable to receive a signal at this time.
- Reposition the display for better signal reception or try again at bedtime.
- The display will start searching at UTC: 07:00 and if no reception on the first attempt they will try again at 08:00, 09:00, 10:00, and 11:00. Each attempt will be at least 2 minutes and the most will be 10 minutes.
- If there is no signal or too much interference the receiver will only be on for 2 minutes.
- If the signal is good it may catch a signal in ABOUT 2-3 minutes.
- If the signal is marginal it will try to catch a signal for up to 10 minutes.
- **Manual Search**: Hold the -/TIME button to start a manual signal search.

Note: In case the Atomic Digital Wall Clock is not able to detect the WWVB signal (disturbances, transmitting distance, etc.); the time can be manually set.

BUTTON FUNCTIONS:

Button	Press and Release Functions	Hold 2 seconds
F/°C	Move through program menu (setup) Select temperature in °C/°F	Enter program menu, set time, date, etc. (setup)
+	1 step forward (setup)	Search for outdoor Transmitter Fast advance (setup)
-	1 step backward (setup)	Fast backward (setup) WWVB Search
SNOOZE	Trigger snooze alarm (ringing)	
ALARM	Once: View Alarm Twice: Activate or Deactivate Alarm	Alarm set

PROGRAM MENU:
The °F/°C button will move through the program menu. The + or - button will change a value if needed..
- **WWVB ON/OFF:** Hold the °F/°C button for 5 seconds. WWVB and the word ON will flash. Press and release the **+ or -** button to turn this to OFF if you do not wish WWVB reception. Confirm with the °F/°C button and move to the next item.
- **TIME ZONE:** EST will flash. Press and release the **+ or -** button to select a different Time Zone: AST=Atlantic, EST= Eastern, CST= Central, MST= Mountain, PST= Pacific, AKT= Alaska, HAT=Hawaiian time zone. Confirm with the °F/°C button and move to the next item.
- **DAYLIGHT SAVING TIME**: DST will flash and the word ON. Press and release the **+ or -** button to turn this to OFF if you do not observe DST. Confirm with the °F/°C button and move to the next item.
- **12/24 HOUR TIME**: 12H will flash. Press and release the **+ or -** button to select 24H. Confirm with the °F/°C button and move to the next item.
- **HOUR**: The hour will flash. Press and release the **+ or -** button to select the correct hour. Confirm with the °F/°C button and move to the next item.
- **MINUTES**: The minutes will flash. Press and release **+ or -** button to select the correct minutes. Confirm with the °F/°C button and move to the next item.
- **YEAR**: The year will flash. Press and release the **+ or -** button to select the correct year. Confirm with the °F/°C button and move to the next item.
- **MONTH**: The month will flash. Press and release the **+ or -** button to select the correct month. Confirm with the °F/°C button and move to the next item.
- **DATE**: The date will flash. Press and release the **+ or -** button to select the correct date. Confirm with the °F/°C button and exit the program menu.

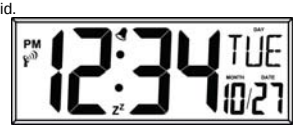
Note: The weekday will set automatically after the year month and date are set.

FAHRENHEIT/CELSIUS: Press and release the °F/°C button to select temperature readings in Fahrenheit or Celsius.

ALARM SET:
- **ALARM HOUR**: Hold the ALARM button to enter alarm time setting mode. The Alarm Hour will flash. Use the **+ or -** button to set the Hour. Press and release the ALARM button.
- **ALARM MINUTE**: The Alarm Minutes will flash. Use the **+ or -** button to set the Minutes. Press and release the ALARM button to exit.

ALARM ACTIVATION ICON
- Press and release the ALARM button once to show Alarm Time.
- With the Alarm time showing, press and release the ALARM button to activate the alarm. The alarm icon appears when alarm is activated.
- With the Alarm time showing, press and release the ALARM button to deactivate the alarm. The alarm icon will disappear when alarm is activated.

SNOOZE:
- When the alarm sounds, press the SNOOZE button to trigger snooze alarm for 10 minutes. The snooze icon **Zz** will flash when the snooze feature is active.
- To stop alarm for one day, press AL button, while in snooze mode. The alarm icon will remain solid.



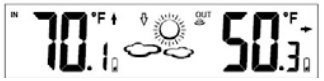
TEMPERATURE TREND ICONS:
The indoor and outdoor temperature trend indicators are updated every 30 minutes. Trends represent temperature changes over the past three hours.

Temperature rising more than 2°F (1°C) in the past three hours

Temperature did **not change** more than 2°F (1°C) in the past three hours

Temperature falling more than 2°F (1°C) in the past three hours

The temperature trend indicators are shown next to the indoor temperature and outdoor temperature readings.



OUTDOOR TRANSMITTER RECEPTION ICON:
- When the signal is successfully received from the outdoor transmitter, this icon will be solid.
- This icon will flash when searching for the outdoor transmitter signal.
- If reception is not successful, the icon will not be shown in LCD.

WEATHER FORECAST ICONS:
The unit predicts weather condition of the next 12-hours based on the change of atmospheric pressure. The weather forecast is about 70-75% correct. As weather conditions cannot be 100% correctly forecasted we cannot be responsible for any loss caused by an incorrect forecast.

SUNNY **PARTLY SUNNY** **CLOUDY** **RAINY** **STORMY**
(Raindrops will blink)

The Icons displayed Forecasts the Weather in terms of *getting better or worse* and not necessarily sunny or rainy as each icon indicates.

Note: After initial set-up, readings for Weather Forecasts should be disregarded for the next 48-60 hours. This will allow sufficient time for the weather station to collect air pressure data at a constant altitude and therefore result in a more accurate forecast.

WEATHER TENDENCY INDICATOR

Working together with the weather icons are the Weather Tendency Indicators. When the indicator points upwards, it means that the Air-pressure is increasing and the *weather is expected to improve*. When the indicator points right the pressure is holding steady. When indicator points downwards, the Air-pressure is falling and the *weather is expected to become worse*. This is *forecasting the next 12 hours in the future*.

LOW BATTERY:

- When this icon appears in the indoor (IN) reading section, replace the batteries in the Forecast Station.
- When this icon appears in the outdoor (OUT) readings section, replace the batteries in the outdoor transmitter.

POSITIONING THE OUTDOOR TRANSMITTER

The remote temperature transmitter should be mounted vertically to avoid damage. Place both units in the desired shaded locations, and wait approximately 1-hour before permanently mounting the transmitter to ensure that there is proper reception. The outdoor temperature transmitter is water resistant, not waterproof and should not be placed anywhere it will become submerged in water or subject to standing water or snow.

WALL MOUNT

Choose a location for the transmitter that is within range of the Atomic Digital Wall Clock and under an overhang for accuracy.

Option 1:

- Install one mounting screw (included) into a wall leaving approximately ½ of an inch (12.7mm) extended.
- Place the transmitter onto the screw, using the hanging hole on the backside.
- Gently pull the transmitter down to lock the screw into place.

Option 2:

- Insert the mounting screw through the front of the sensor and into the wall.
- Tighten the screw to snug (do not over tighten).

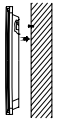
To achieve a true temperature reading, mount where direct sunlight cannot reach the outdoor transmitter. Mount the outdoor transmitter on a North-facing wall or in any well shaded area. Under an eave or deck rail work well. The maximum transmitting range in open air is 200-feet (60 meters). Obstacles such as walls, windows, stucco, concrete, and large metal objects can reduce the range. Place the transmitter at least 6 feet in the air to improve signal transmission.

POSITIONING THE CLOCK:

The Atomic Digital Wall Clock should be mounted near an exterior wall with the front or back facing toward Ft. Collin Colorado for best WWVB reception. The display should be six feet from other electronics or wireless devices in order to best receive the outdoor temperature transmitter signal.

Foldout Table Stand:
A foldout table stand is located on the back of the clock.
Pull the stand out from the bottom center edge of the atomic clock, below the battery compartment. Once the foldout table stand is extended, place the atomic clock in an appropriate location.

Wall Mount



Use a straightedge to horizontally space three screw positions on a wall to match the hanging holes on the back of the clock. Install three mounting screws (not included) into a wall within transmission range—leaving approximately 3/16 of an inch (5mm) extended from the wall. Place the atomic clock onto the screws, using the hanging holes on the backside.
Gently pull the atomic clock down to lock the screws into place.

Note: Always ensure that the atomic clock locks onto the screws before releasing.

CARE AND MAINTENANCE:

- **Do Not Mix Old and New Batteries**
- **Do Not Mix Alkaline, Standard, Lithium or Rechargeable Batteries**
- Do not expose the display to extreme temperatures, vibration or shock.
- Keep display dry.
- Clean display with a soft damp cloth. Do not use solvents or scouring agents.
- The product is not a toy. Keep it out of reach of children.
- The product is not to be used for medical purpose or for public information, but is determined for home use only.
- The specifications of this product may change without prior notice.
- Improper use or unauthorized opening of housing will void the warranty.
- If the unit does not work properly, change the batteries.

SPECIFICATIONS:

Indoor:

Temperature Range:	+32°F to +122°F (0°C to 50°C)
Interval:	About every 30 seconds

Outdoor:

Temperature Range:	-40°F to 140°F (-40°C to 60°C)
	Alkaline Batteries: -20°F to 140°F (-28.8°C to 60°C) Lithium Batteries: -40°F to 140°F (-40°C to 60°C)
	Temperatures below - 20°F (-28.8°C) require Lithium batteries in the outdoor sensor.
Distance:	200 ft. (60 meters) RF 433MHz (open air)
Interval:	About every 30 seconds

Power:

Receiver:	2-AA, IEC, LR6 batteries (not included)
Transmitter:	2-AA, IEC, LR6 batteries (not included)

Battery Life:

TX Battery Life:	Battery life is over 24 months when using reputable battery brands for both Alkaline and Lithium batteries
RX Battery Life:	Over 12 months.

Dimensions:

Receiver:	11" W x 1.1" D x 8.54" H (279 x 28 x 217 mm)
TX141 Transmitter:	5.08" H x 1.58" W x 0.83" D (129 x 40.13 x 21mm)

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 the 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.

The 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 the 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 the 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, Ltd
2817 Losey Blvd. S.
La Crosse, WI 54601

Contact Support: 1-608-782-1610
Product Registration:
www.lacrossetechnology.com/support/register

Protected under U.S. Patents:
5,978,738
6,076,044
6,597,990

The complete instruction manual is available at:
www.lacrossetechnology.com/w86111

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

Canada Statement

This device complies with Industry Canada RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio RSS-210. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER AUTHORITY TO OPERATE THE EQUIPMENT

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