LA CROSSE® TECHNOLOGY

WIRELESS **PROFESSIONAL**
WEATHER STATION

SET UP GUIDE

MODEL NUMBER: 328-1414BW
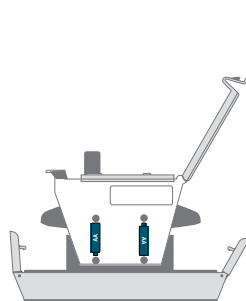
Table of Contents

Initial Setup

Power Up

Inside of Rain Sensor
Model No. **TX145R**

Bottom of Breeze Sensor
Model No. **TX145WSDTHv3**

Back of Station
Model No. **328-1414BW**

1. Remove the Rain Sensor funnel and insert 2 "AA" batteries into the Battery Compartment.

2. Install 3 "AA" batteries into the Battery Compartment of your Breeze Sensor.
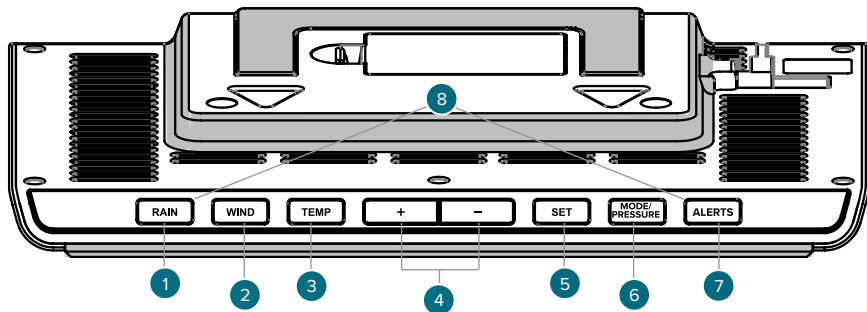
3. Insert 3 "AA" batteries into the Battery Compartment of your Weather Station

Note: It may take up to 10 minutes for your sensor data to appear on your station's screen.

Buttons

1. RAIN
Press to view Rain History. While viewing, hold the **MINUS** button to delete the history reading. Hold to search for Rain Sensor.

2. WIND
Press to view Wind Speed History. While viewing, hold the **MINUS** button to delete the history reading. Hold to search for Breeze Sensor.

3. TEMP.
Press to view Temperature and Humidity History. While viewing, hold **MINUS** button to delete the history reading. Hold to search for TH sensor.

4. PLUS/MINUS (+/-)
Use to adjust values in the Settings Menu.

5. SET
Hold to enter Settings Menu. Press to save settings and move to the next menu item.

6. MODE/PRESSURE
Press to toggle between Pressure, Rain, and autoscroll. Hold to set Pressure Value and Units.

7. ALERTS
Hold to enter Alert Settings.

8. RAIN & ALERTS
Hold together to Factory Reset your station. All history will be lost.

LCD Display Icons
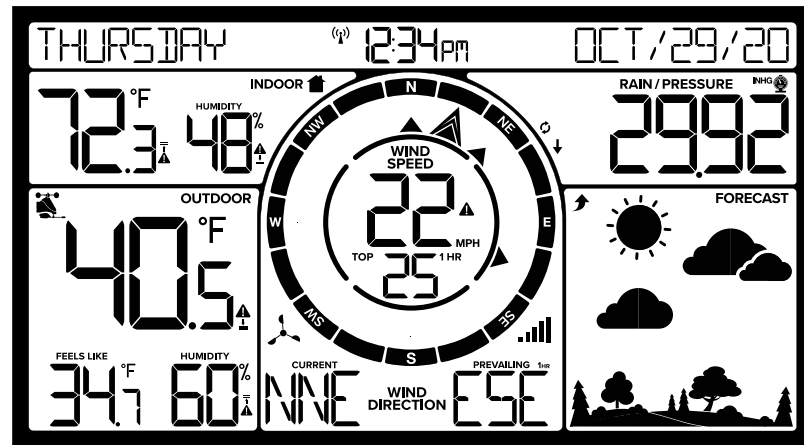
Icon	Label	Icon	Label	Icon	Label
(ᵗ)	Atomic Time	▭	Low Battery	⦿	Pressure
Breeze Sensor	Temp/Humidity	Add-on Sensor	Temp/Humidity	↑↕↓↕	Trend Arrows
Alerts		Add-on Sensor	Temp/Humidity		Rain
.ıll	Sensor Reception	▲	Prevailing Direction	♻	Autoscroll

Station Settings

1. When the station is first powered on, it will begin searching for your outdoor sensor, which should connect shortly.

2. Hold the **SET** button to enter the Settings Menu.

Settings Menu Order
- Greeting
- Language
- Beep ON/OFF
- Atomic ON/OFF
- DST:
  Automatic/Always ON/Always OFF
- Time Zone
- 12/24 Hour Time
- Hour
- Minutes
- Year
- Month
- Date
- Month/Date or Date/Month
- Fahrenheit/Celsius
- Wind Speed Units (MPH or KMH)
- Wind Direction (Letters or Degrees)
- Rainfall Inches or Millimeters

+	−		SET	ALERTS

Use the **+/-** buttons on the top of the station to adjust the values.

Press the **SET** button to confirm selection and move to next step.

You may exit the Settings Menu at any time by pressing the **ALERTS** button.

Weekday will set automatically after year, month, & date settings are adjusted.

Atomic Time Signal

- The station will begin searching for the Atomic Time Signal when first powered on.
- If the reception is not picked up right away, it will search every 2 hours until the WWVB signal is received.
- Press the **SET** button to start or stop a manual WWVB signal search.
- The WWVB tower Icon ((•)) will flash when searching, and be solid when the signal is received.
- For information about WWVB Atomic Time visit:
  bit.ly/AtomicTime

Daylight Saving Time Options

DST Automatic: Changes Spring and Fall
DST Always ON: Does not change to standard time in Fall
DST Always OFF: Does not change to DST in the Spring.

Time Zone Selection

Selectable Time Zones:
ATLANTIC, EASTERN, CENTRAL, MOUNTAIN, PACIFIC, ALASKA, & HAWAII

Pressure Settings

- Your Relative Pressure reading will come from your station's internal barometer.
- Please allow up to 10 days for automatic calibration, or program your local pressure value with the **MODE/PRESSURE** button.
- The arrows ↕ located to the left of the values represents Pressure Tendency (rising/falling).

- Hold the **MODE/PRESSURE** button to enter the Pressure Settings Menu to set your Units of Measure (INHG or HPA) and Pressure Value.

+	−

MODE/PRESSURE

Use the **+/-** buttons on the top of the station to adjust the values.

Press the **MODE/PRESSURE** button to confirm selection and move to next step or exit.
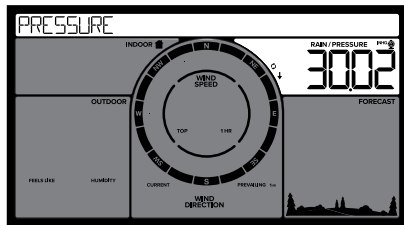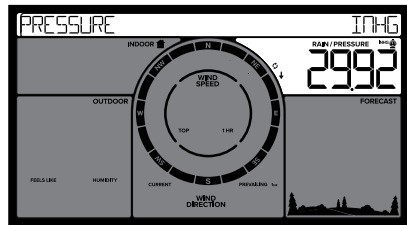
View Pressure & Rain Readings

- Pressure and Rainfall readings share the same display area on your station.

Pressure is displayed   Rain is displayed
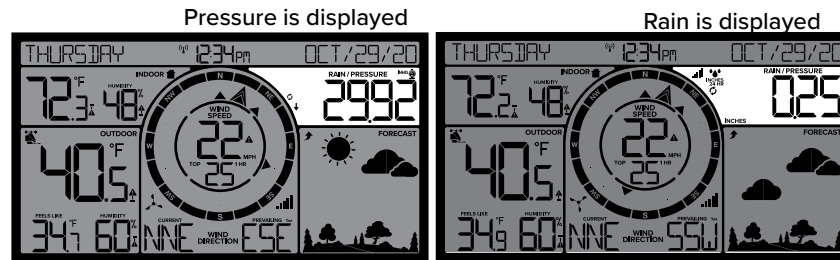
Change what is displayed: **MODE/PRESSURE**

- Press the **MODE/PRESSURE** button to toggle between Pressure and Rain readings.
- The Pressure or Rain icon will show to indicate which reading you are viewing.
- When the Autoscroll Icon is displayed, the station will toggle between current Pressure and Rain readings.

Pressure is displayed.

Rain is displayed.

Autoscroll between Pressure and Rain readings.

Pressure Trend Arrows Indicate rising or falling pressure.

Sensor Reception

View Rain Records

1. Press the **RAIN** button to view Rainfal Records.

| RAIN | + |

2. When viewing month, press the **+** (**PLUS)** button to toggle through the past 11 months' rainfall.

1 HOUR: Last one-hour rainfall (12 consecutive 5 minutes rainfall accumulated total). Example: current time is 6:49, 1HR rain is accumulated total between 5:50 and 6:49.

24 HOURS: A running total for the past 24 hours of accumulated rain. This will update at the top of each hour.

7 DAYS: Rainfall from the last 7 consecutive 24HR readings. Updates each day at midnight.

MONTH: Current Month Total (January 1-January 31). This will reset to zero and the start of each new calendar month.

YEAR: Current year (January 1-December 31). This will reset to zero at the start of each new calendar year.

TOTAL: Total rainfall since powered on or reset.

Reset Rain Records

1. Press the **RAIN** button to view indiviual Rainfall Records.
2. Hold the **- (MINUS)** button to reset the rainfall record you are viewing to zero.

| RAIN | − |

1 Year Record

1 Year Reset

Positioning the Rain Sensor

For Accurate Measurements
• Mount the Rain Sensor in an open area at least 3 feet above the ground for accurate rainfall readings.
• Ensure the sensor is level and mounted horizontally.
• Make sure the base of your Rain Sensor is not in a depression. The Rain Sensor has drainage holes in the bottom to allow it to self-empty.
• View sensor mounting video at: bit.ly/Rain_SensorMounting

Search for Rain Sensor | RAIN |

• Hold the **RAIN** button to search for the Rain Sensor.
• The Reception Indicator 📶 will animate while searching and be solid once connected.
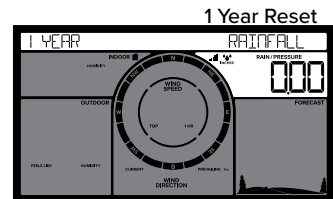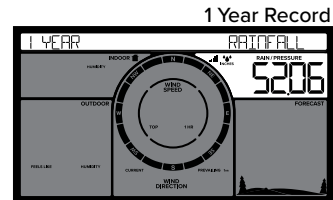
Cleaning and Storage

Cleaning Your Rain Sensor
- Leaves, grass and other debris may need to be removed periodically from the funnel of your Rain Sensor.
- Insects or dirt may also get inside your Rain Sensor and restrict the movement of the rocker.
- Open the locking tabs on the side of the Rain Sensor to remove the funnel. This allows you to clean the funnel and the inside of the Rain Sensor.

Winter Storage Options
- Remove batteries and store in a safe place.
- Remove batteries and cover in place.
- Leave outside, uncovered. While the Rain Sensor **cannot** accurately record snowfall, when the snow melts the water will be counted as rain.
- The Rain Sensor is self-emptying, so water will not freeze inside.
- This Rain Sensor is designed for outdoor use and will withstand temperatures below freezing.
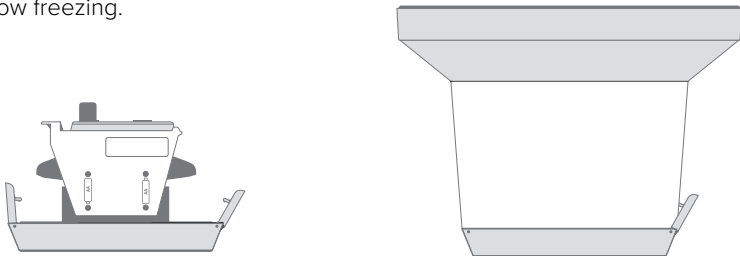
Viewing Wind Readings
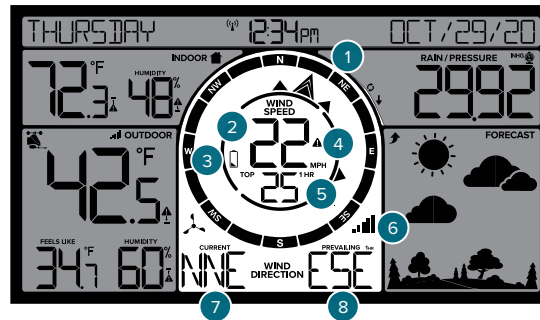
1. COMPASS ROSE
Displays cardinal direction with animated arrows (16 directions total).

2. CURRENT WIND SPEED
The top wind speed in the past 31 seconds.

3. LOW BATTERY ICON
Appears when the Breeze Sensor batteries need to be replaced.

4. WIND SPEED ALERT
Appears if a wind speed alert is set & active.

5. TOP WIND SPEED
The top wind speed in the past 60 minutes.

6. RECEPTION INDICATOR
Indicates if the station is receiving data from the sensor.

7. WIND DIRECTION
Choose between cardinal points (letters) or degrees in the Settings Menu.

8. PREVAILING DIRECTION
Prevailing Wind Direction over the past hour.

Wind Speed Records
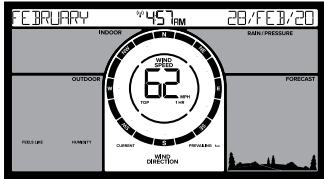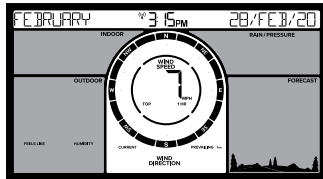
Viewing Wind Speed Records

1. Press the **WIND** button to toggle through wind speed records with time and date stamps.

> WIND

The wind speed records include: Past 24 hours, 7 days, 1 month, & 1 year.

Monthly Record

Monthly Record Reset

Reset Wind Speed Records

1. Press the **WIND** button to view wind speed records.

> WIND   —

2. Hold the **MINUS (-)** button to reset individual records to current readings.
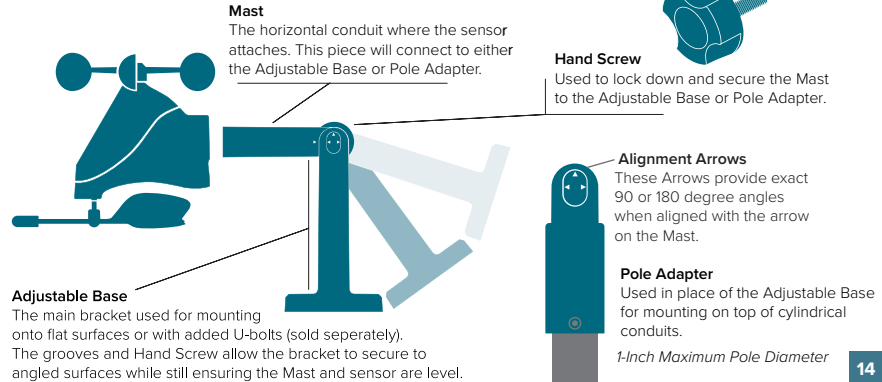

Positioning the Breeze Sensor

For Accurate Measurements

• Ensure the Breeze Sensor is is mounted level with the Solar Panel facing directly to the South. This will help optimize battery life and transmit correct wind direction.

• Ideally, the Breeze Sensor should be mounted on the tallest object in your area. Avoid positioning the sensor parallel or below eaves, rooflines, trees, or other objects that may obstruct wind readings.

• Make sure all the screws on the Mounting Bracket, Wind Cups, Wind Vane, and Battery Compartment are securely fastened.

• The Breeze Sensor should be mounted with the Wind Cups on the top.

Included Mounting Accessories

Mast
The horizontal conduit where the sensor attaches. This piece will connect to either the Adjustable Base or Pole Adapter.

Hand Screw
Used to lock down and secure the Mast to the Adjustable Base or Pole Adapter.

Alignment Arrows
These Arrows provide exact 90 or 180 degree angles when aligned with the arrow on the Mast.

Pole Adapter
Used in place of the Adjustable Base for mounting on top of cylindrical conduits.

1-Inch Maximum Pole Diameter

Adjustable Base
The main bracket used for mounting onto flat surfaces or with added U-bolts (sold seperately). The grooves and Hand Screw allow the bracket to secure to angled surfaces while still ensuring the Mast and sensor are level.
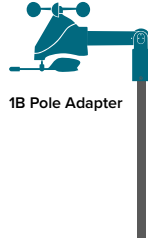
Basic Installation Options

Fence posts, poles, decks, and even mailboxes are all common mounting options due to their convenience. Many users prefer these types of locations as the data they provide is accurate from their ground level perspective. However, because wind in these spots is often affected by obstructions, the readings may differ compared to local reporting stations.
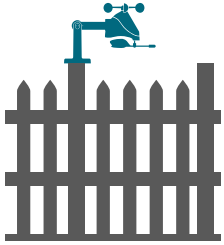
1A Adjustable Base

Basic Assembly

1A. Mount the Adjustable Base onto a flat surface using the four provided screws.

1B. Secure the Pole Adapter to a cylindrical conduit using the two provided screws.

2. Insert the Mast into the Breeze Sensor and tighten the provided screws on the sides.

3. Use the Hand Screw to attach the Mast to either the Adjustable Base or Pole Adapter. Ensure the sensor is level, facing south, and securely fastened at all mounting points.

1B Pole Adapter

Advanced Installation Options

Some advanced installation options include tripods, wall mounts, eave cross mounts, chimney mounts, and many others. Any of these can be combined with U-bolts for attachment onto a tall cylindrical conduit using our Adjustable Base. Please note that these advanced options will require additional equipment and possibly professional help for best results.
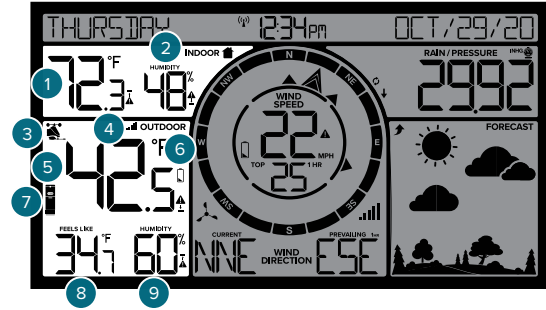
U-bolt Adapters

Tripod Setup

Chimney Mount
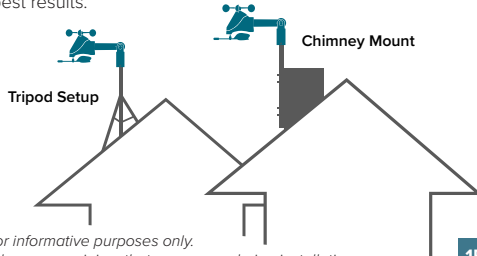
The illustrations above are not to scale and are for informative purposes only.
La Crosse Technology is not responsible for any damages or injury that may occur during installation.

Viewing Temperature & Humidity Readings

1. INDOOR TEMPERATURE
Current Indoor Temperature.

2. INDOOR HUMIDITY
Current Indoor Humidity.

3. WIND ICON
Indicates the Temperature/ Humidity readings are from the Breeze Sensor.

4. RECEPTION INDICATOR
Indicates if the station is receiving data from the sensor.

5. OUTDOOR TEMPERATURE
Current Outdoor Temperature.

6. LOW BATTERY INDICATOR
Appears when the sensor battery needs to be replaced.

7. TH SENSOR ICON
Indicates Temperature/ Humidity readings are from add-on TH sensor.

8. "FEELS LIKE" TEMP
Based on current temperature & wind speed (heat index & wind chill).

9. OUTDOOR HUMIDITY
Current Outdoor Humidity.

Temperature & Humidity Records

View Temperature/Humidity Records

Press the **TEMP** button to toggle through temperature/humidity records with time and date stamps.

TEMP	−

Temperature/Humidity Records Order

• Outdoor High Temperature
• Outdoor Low Temperature
• Outdoor High Humidity
• Outdoor Low Humidity
• Indoor High Temperature
• Indoor Low Temperature
• Indoor High Humidity
• Indoor Low Humidity
• "Feels Like" High Temperature
• "Feels Like" Low Temperature
• Dew Point

Resetting Individual Temperature & Humidity Records

1. Press the **TEMP** button to view the individual temperature & humidity values you'd like to reset.

2. Next, hold the **MINUS (-)** button until dashes appear on the LCD.

3. This reading is now reset to your current temperature or humidity value.

"Feels Like" Temperature

This reading indicates both Wind Chill and Heat index values when conditions are met.

• **Wind Chill:** When temperature is below 50°F and there is 5 MPH sustained wind speed.
• **Heat Index:** When temperature is above 80°F.
• **Current Temperature:** When the temperature is between 51°F and 79°F the readings will remain the same as the outdoor value regardless of humidity or wind speed.

To Set Alerts

1. Hold the **ALERTS** button to enter Alert Settings.
2. Use the **+/-** buttons to Arm/Disarm Alerts, and to adjust Alert Values when flashing.
3. Press the **ALERTS** button to move to next alert.

Alert Setting Order

• High Wind Speed
• 24 Hour Rainfall
• Outdoor High Temperature
• Outdoor Low Temperature
• Outdoor High Humidity
• Outdoor Low Humidity
• Indoor High Temperature
• Indoor Low Temperature
• Indoor High Humidity
• Indoor Low Humidity

+	−	ALERTS

Alert Indicators

⚠ Wind Alert

⚠ High Alert

⚠ Low Alert

Active Alert

• When the alert value is reached, the station will beep 5 times each minute until out of the alert range.
• The flashing Alert Indicator will let you know if it is a HI or LO Alert.
• Press any button to silence the alert. The Alert Indicator will continue to flash while in the alert range.

Viewing Your Forecast Data

Seasonal Trees

The foliage scene in the forecast section changes twice per year. The dates are pre-programmed.

Summer: April 1 - October 31

**Winter:** November 1 - March 31

Forecast Icons

Your station will use changes in barometric pressure to predict your weather to come in the next 12 hours. This is represented by the 6 forecast scenes below.

| SUN | PARTLY SUNNY | CLOUDY | RAIN | T-STORM | SNOW |
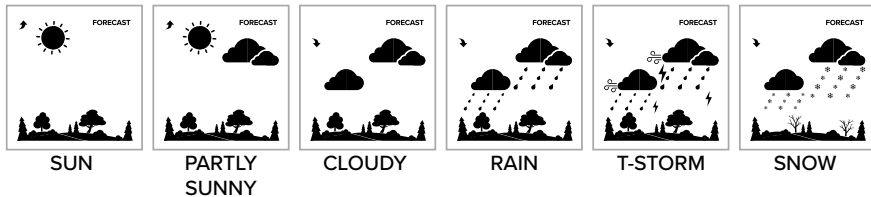
Please Note: The Forecast Icons may not represent your current weather. They are a future prediction of the weather to come over the next 12 hours.
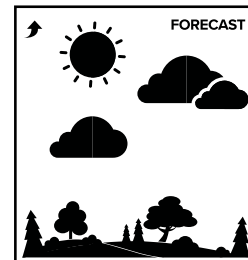
Trend Arrows

The Trend Arrows represent the change in pressure over the past 3 hours.

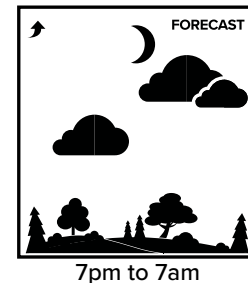Pressure is rising   Pressure is steady   Pressure is falling
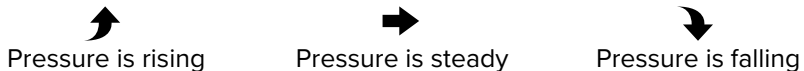
Day/Night Forecast

• From 7am to 7pm the forecast will show a Sun Icon when the forecast is Sunny or Partly Sunny.

7am to 7pm

• From 7pm to 7am the forecast will show a Moon Icon when the forecast is Sunny or Partly Sunny.

7pm to 7am

Please Note: The Moon Icon does not change to provide Moon Phase. The Moon Icon indicates nighttime only.

Add-on Temperature & Humidity Sensor

If you feel the temperature & humidity is not reading correctly from your Breeze Pro Sensor, you can add a separate sensor to your system.
**Visit:** www.lacrossetechnology.com/sensor-finder/ and enter **328-1414BW** to find a list of compatible add-on sensors.

Adding a Separate Temperature & Humidity Sensor

1. Press the **- (MINUS)** button and the Outdoor Temperature will flash.

2. Hold the **MINUS (-)** button to delete the Temperature & Humidity readings. Your station will search for a signal.

3. Install new batteries into the add-on sensor and press the **TX** button inside its battery compartment. The LED light on the sensor will flash.

4. The sensor should connect almost instantly with its data appearing on screen. The ▮ icon will appear when an add-on TH sensor is being used.

Temperature & Humidity from the Breeze Sensor
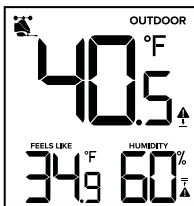
Temperature & Humidity from an add-on TH Sensor
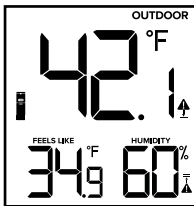
Low Battery Indicator ▯

- By Wind, replace batteries in the Breeze sensor.
- By Time, replace batteries in the Station.
- By Rain, replace batteries in the Rain sensor.
- By Outdoor Temperature, replace batteries in the Add-On TH sensor.

Sensor Search

- Hold the **RAIN** button to search for the Rain sensor.
- Hold the **WIND** button to search for the Breeze sensor.
- Hold the **TEMP** button to search for the Add-on TH sensor.

Factory Restart

- Hold the **RAIN** and **ALERTS** buttons together for several seconds to reset the station.
- All records will be lost.

Warnings

⚠ WARNING: CHOKING HAZARD—Small Parts

Not for children under 3 years old.

We're Here to Help

If you require additional support, get in touch with our friendly customer support team based in La Crosse, WI.

Phone: 1.608.782.1610
Online: bit.ly/contact_techsupport

Our knowledgable customer support team is available Mon-Fri: 8am-6pm CST

Stay in Touch

Ask questions, watch setup videos, and provide feedback on our social media outlets.

Follow La Crosse Technology on Facebook, Instagram, YouTube, and Twitter.

California Residents

⚠ WARNING:

This product can expose you to chemicals including styrene, which is known in the State of California to cause cancer.
For more information, go to:
www.P65Warnings.ca.gov

Specifications

STATION (328-1414BW)

• **Indoor Temp. Range:** 32°F to 122°F (0°C to 50°C)

• **Indoor Humidity Range:** 10 to 99%RH

• **Relative Pressure Range:** 23.62 to 32.48 InHg (800 to 1100 hPa)

• **Power Requirements:**
  • **Primary Power:** 3 "AA" batteries (sold separately)

• **Station Dimensions:** 8.98" L x 1.00" W x 5.43" H (22.8cm L x 2.6 cm W x 13.8cm H)

• **Language Options:**
  English, Spanish, and French
  (Translation Available for Menus & Calendar)

BREEZE SENSOR (TX145WSDTHv3)

• **Wind Speed Range:** 0 to 111 mph (0 to 178 kMh)

• **Degrees of Wind Direction:** 360° with 16 Cardinal Directions

• **Outdoor Temp. Range:** -40°F to 140°F (-40°C to 60°C)

• **Outdoor Humidity Range:** 10 to 99%RH

• **Transmission Range:** 330 feet (100 meters)

• **Power Requirements:** 3 "AA" batteries (sold separately)

• **Update Interval:** Every 31 Seconds

• **Sensor Dimensions:**
  • **With Bracket:** 11.97" L x 6.25" W x 9.76" H (30.41cm L x 15.88cm W x 24.8cm H)
  • **Without Bracket:** 7.94" L x 6.25" W x 6.99" H (20.17cm L x 15.88cm W x 17.75cm H)

RAIN SENSOR (TX145R)

• **Rainfall Range:** 0-9999mm (0-393.6 in)

• **Transmission Range:** 330 feet (100 meters)

• **Power Requirements:** 2 "AA" batteries (sold separately)

• **Update Interval:** Every 45 Seconds

• **Sensor Dimensions:**
  7.16" L x 5.24" W x 5.04" H (18.2 cm L x 13.3 cm W x 12.8 cm H)

Care + Maintanence

• Do not mix old and new batteries.

• Do not mix Alkaline, Lithium, standard, or rechargeable batteries.

• Always purchase the correct size and grade of battery most suitable for intended use.

• Clean the battery contacts and also those of the device prior to battery installation.

• Ensure the batteries have with correct polarity (+ / -).

• Remove batteries from equipment that will not to be used for an extended period.

• Promptly remove expired batteries.

Warranty

La Crosse Technology, Ltd. provides a 1-year limited time warranty (from date of purchase) on this product, relating to manufacturing defects in materials and workmanship.

For full warranty details, you can visit: www.lacrossetechnology.com/support

La Crosse Technology, Ltd • 2830 S. 26th Street • La Crosse, WI 54601

Recycling & Disposal

Please consider the environment when deciding to dispose of this product. Although household electronics are generally safe to use on a daily basis, incorrect disposal can cause negative and potentially irreversible impacts on our environment.

Check with local donation centers to see if your product can be donated for future use. If disposal is the only option, federal agencies, local governments, and certified retailers may have electronic recycling programs in place. Programs may vary based on location.

Please Recycle

Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized changes or modifications to this equipment. Such changes or modifications could void the user authority to operate the equipment.

This booklet may contain errors or misprints. The information it contains is regularly checked and corrections are included in subsequent editions. We disclaim any responsibility for any technical error or printing error, or their consequences. All trademarks and patents are recognized.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

Caution!
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
1) L'appareil ne doit pas produire de brouillage;
2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.