

LTV-WSDTH01 TROUBLESHOOTING

We are weather enthusiasts like you and know proper running equipment is important. These FAQs provide valuable information on setup, positioning, and troubleshooting your station. We recommend Adobe Reader version 10 or greater available at: <http://get.adobe.com/reader>

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POWER UP

- Your Wind/TH sensor comes fully charged. Be sure to remove the Isolation Tab from the battery and move the ON/OFF switch to ON.
- Your LTV-WSDTH01 Wind/TH sensor comes with a ML2032 rechargeable battery. This is charged by the solar panel on the front of the sensor to extend sensor life up to 3 years.

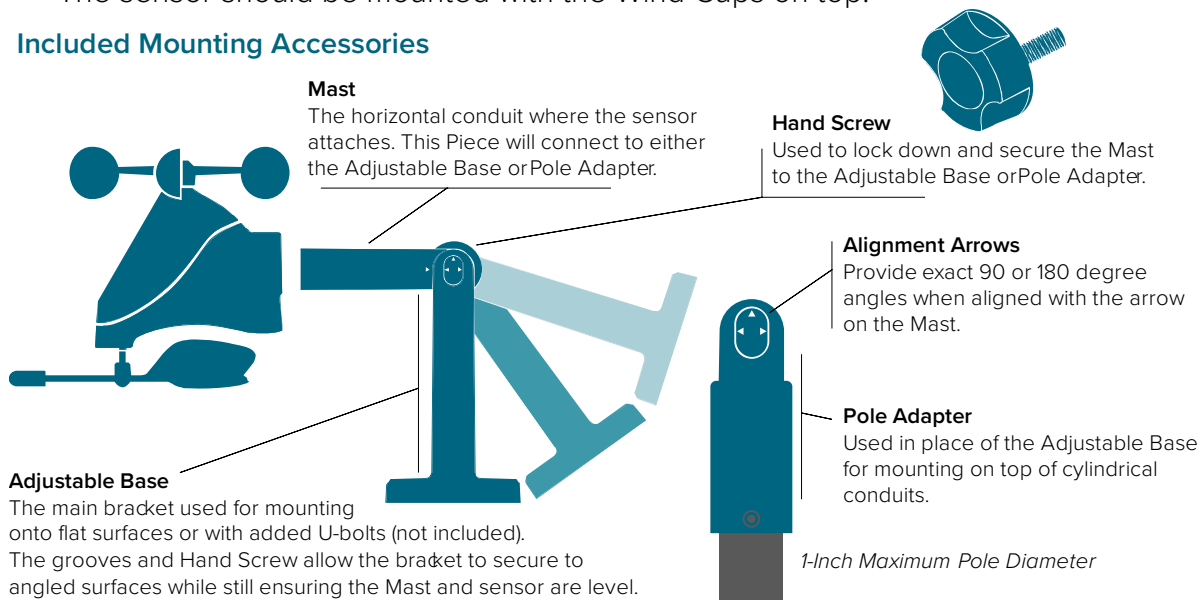
IMPORTANT: The ML2032 battery and the CR2032 battery are not interchangeable. **Using the incorrect battery can potentially damage your sensor.**

MOUNTING: WHERE DO I MOUNT/POSITION MY SENSORS?

LTV-WSDTH01:

- General Wind Sensor mounting video: http://bit.ly/wind_sensor_mounting
- Ensure the sensor is mounted level with the Solar Panel facing directly to the south. This will help optimize battery life and transmit correct wind direction readings.
- Ideally, the Breeze Pro Sensor should be mounted on the tallest object in your area. Avoid positioning the sensor in line or below eaves, rooflines, trees, or other objects that may obstruct wind readings.
- Make sure all screws on the Mounting Bracket, Winds Cups, Wind Vane, and Battery Compartment are securely fastened.
- The sensor should be mounted with the Wind Cups on top.

Included Mounting Accessories



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.

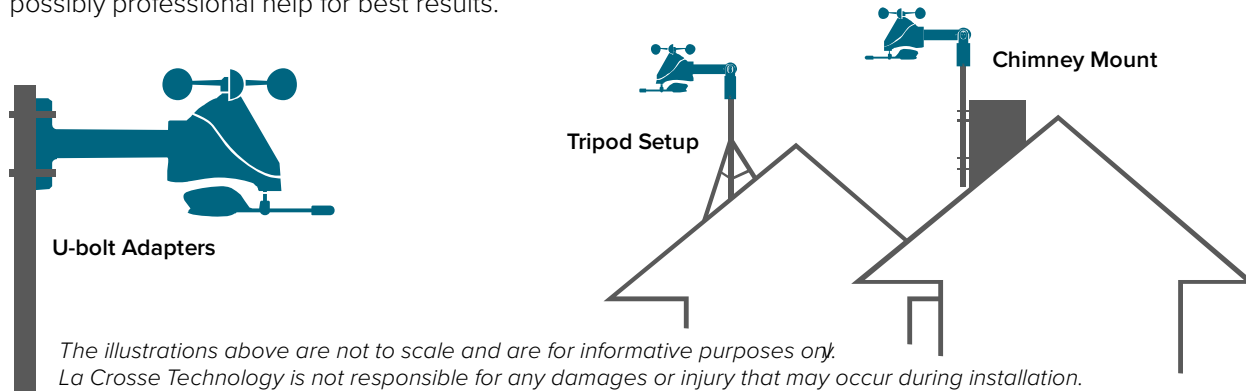
Basic Assembly

- 1A. Mount the Adjustable Base onto a flat surface using the provided four long screws.
- 1B. Secure the Pole Adapter to a cylindrical conduit using the provided two small screws.
2. Insert the Mast into the Breeze Pro 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.



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.



WHAT IS DISTANCE | RESISTANCE | INTERFERENCE?

Distance:

- The maximum transmitting range in open air is over 400 feet (121.92 meters) between each sensor and your station.
- Consider the signal path from your station to each sensor as a straight line.
- Consider the distance the station is from other electronics in the home.

Resistance:

- Each obstacle: walls, windows, vegetation, stucco, concrete, and large metal objects will reduce the effective signal range by about one-half.
- Mounting your sensors on a metal fence can significantly reduce the effective signal range.

Interference:

- Consider electronics in the signal path between the sensors and your station.
- Simple relocation of the sensors or the station may correct an interference issue.
- Windows can reflect the radio signal.
- Metal will absorb the RF (radio frequency) signal.
- Stucco held to the wall by a metal mesh will cause interference.
- Transmitting antennas from: ham radios, emergency dispatch centers, airports, military bases, etc. may cause interference.
- Electrical wires, utilities, cables, etc. may create interference if too close.

HOW OFTEN DOES MY WIND SENSOR UPDATE?

- Your Breeze Wind Sensor checks for any change in Wind Speed every 31 seconds, with samples every 3 seconds within that 31 seconds.

- Any change of 0.8km Wind Speed will cause the sensor to send the top speed for that 31 seconds.
- If there is no change in wind speed, the sensor will transmit every 3 minutes to preserve battery life.

Note:

The Breeze Pro Sensor will operate accurately at temperatures down to -40F. However, the solar panel needs to be exposed to maximum sunlight and clear of snow to maintain the internal super capacitor charge for severe cold weather operation. To extend operation during low sunlight and extreme cold the transmission interval will be reduced.

HOW OFTEN DOES MY TEMP/HUMIDITY SENSOR UPDATE?

- Your Wind/TH Sensor checks for any change every 31 seconds.
- Any change of +/- 0.5°C, or Hum +/- 2% RH will cause the sensor to send a reading.
- If there is no change in temperature or humidity, the sensor will transmit every 3 minutes to preserve battery life.

WHY ARE MY WIND CUPS NOT SPINNING?

- Check for debris or ice preventing cups from moving.
- Check mounting location. Look for obstructions that prevent the wind from reaching the sensor.
- In most cases, the wind sensor needs to be 4-6ft above the highest point on the roof in order to clear nearby obstructions and read accurately.
- A 50-foot clearance in all directions is best.
- Push down firmly on the center of the cups to reset them.
- Cups are replaceable.

CAN I REPLACE MY WIND CUPS?

Occasionally, a bad storm with hail or debris that will damage your wind cups. These are easily replaced.

Replace wind cups:

1. Loosen the screw on side of cups
2. Remove cups
3. Install new cups
4. Tighten screw

Note: The screw in the wind cups will fit on the flat side of the metal stem on the sensor.

WIND READING 0.00: WHY DO I ONLY SEE 0.00 FOR WIND SPEED?

The 0.00 means your wind sensor is connected to your station.

- Check that the cups spin freely. Something may be preventing movement.
- Are your wind cups unbroken? After a storm it is good to check this.

WIND DASHES: WHY ARE THERE DASHES FOR WIND READINGS?

Dashes indicate the connection is lost between your station and the wind sensor.

- My first thought is always to check that my [batteries](#) are good. If it has been working and now is not, low batteries are the most common connection problem.
- Is the WIND/TH sensor receiving full sunlight on the solar panel? Is the switch ON?
- Next, check your [distance, resistance and interference](#). If everything was working previously at the same location, this is likely not the issue. However sometimes there is new growth on trees or bushes that cause another barrier. Radio Frequency (RF) signal does not travel well through foliage due to the moisture content.
- Occasionally adding a new wireless electronic device to the home will cross the signal path for the sensor. If this occurs, try moving your station a few feet or turning the station 90 degrees for a better angle to receive the sensor signal.
- Press the SENSOR button until you see your sensor ID. Hold the PLUS (+) button for 3 seconds and your station will search for your individual sensor.
- If you regain connection while the sensor is mounted, great. If you do not regain connection, bring the sensor within 10 feet of the station and search again.

HOW DO I CHARGE THE WIND SENSOR?

Your sensor comes fully charged. Be sure to remove the Isolation Tab from the battery and move the ON/OFF switch to ON.

If your sensor is not receiving full sunlight on the solar panel for several days, the signal may weaken or fail.

To recharge the battery:

1. Place wind sensor with solar panel in the full sun.
2. If signal is dashes, turn sensor OFF for 24 hours to allow the battery to charge.
3. After 24 hours turn sensor on and allow 10 minutes to reconnect to station.
4. If possible, place sensor in an area where the solar panel can receive full sun.

WIND AND TEMP INTERMITTANT: WHY DO MY READINGS COME AND GO?

- RF (radio frequency) communication may come and go occasionally. This can be normal in some environments (e.g. moister climates).

- If a sensor goes out, please wait 2-4 hours for it to reconnect on its own. Please be patient – these stations can reconnect on, after many hours out.
- RF (radio frequency) communication is not always 100% on. Certain temporary conditions can cause it to go out for a time (e.g. 100% humidity).
- Check that your sensor is receiving full sun on the solar panel.

If a miss happens:

- If your wind sensor loses connection to the station for any reason, the station will show dashes after 30 minutes.
- The station will search for 5 minutes every hour to reconnect with wind sensor.

Try this:

- Bring your wind sensor within 10 feet of your station and make sure it is connected to the station.
- After 15 minutes move the wind sensor into the next room with a wall between the sensor and the station for 1 hour.
- If there is no loss of signal in that hour, move the wind sensor just outside.
- Continue moving the wind sensor back to its original location.
- If you lose connection, look for sources of [interference](#).

WIND ACCURACY: WHY IS MY WIND SPEED INACCURATE?

- What are you comparing your wind speed to? Your local reporting station is miles from your location and should not be used for comparison.
- Check the unit of measure (MPH, or KMH).
- Check to see if your station receives the same repetitive wind speed recording from the sensor multiple times.
- Check that the cups turn freely.
- Check for obstructions that prevent clear wind flow to the cups.
- Check mounting. In most cases, the wind sensor needs to be 6 feet or more above the highest point on the roof in order to clear nearby obstructions and read accurately. A 50-foot clearance in all directions is best.
- It is helpful to send pictures of the sensor mounting, if you need to contact customer support.

WHY ARE THE SENSOR READINGS ON MY STATION DIFFERENT FROM THE SENSOR READINGS IN THE APP?

- The reading on your station is the “real time” reading. Your station updates as soon as it receives a new reading from the sensor.
- The App updates data every 60-90 seconds.
- Since Wind Speed changes frequently, this is the common difference you may notice between your station and your app.

WHY DOESN'T THE TEMPERATURE/HUMIDITY READINGS ON MY STATION MATCH THE WEATHER REPORT?

- Your temperature and humidity readings are from your sensor at your location. Your local reporting station can be miles away so readings will differ.

TEMP ACCURACY: WHY DOES MY THERMO-HYGRO SENSOR READ INACCURATELY?


- The thermo-hygro sensor reads the environment. Since your Temperature/Humidity readings come from the Wind/TH sensor they may occasionally be inaccurate if the sunlight hits the sensor.
- If this is a common occurrence you can purchase an LTV-TH2 sensor and replace the Temperature/Humidity Reading from the Wind/TH sensor.

HOW TO REPLACE THE TH READING FROM THE WIND TH SENSOR WITH AN LTV-TH2?

The new Wind Speed, Wind Direction Sensor with Temperature/Humidity may cause inaccurate temperature readings in some locations. Because of this, you have the option to remove the TH sensor reading (from the LTV-WSDTH01) and adding an additional TH sensor to read in the OUTDOOR area of the display.

1. Press SENSOR button once Station ID will show.
2. Press SENSOR button again ID **WTH123 THW SENSOR will show.**
3. Hold the MINUS (-) button for 5 seconds while viewing ID to delete ID WTH123.

To add a separate LTV-TH2 sensor:

- After deleting the TH sensor built into the Wind Sensor (ID: WTH123), press the SENSOR button on the station to view ID, then press the + (PLUS) button to search.
- Press the TX button on the add-on sensor.
- Sensor Icon  will show to indicate reading is coming from separate TH sensor.