# S77925 FAQS

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

# **CONTENTS**

S77925 FAQS	1
CONTENTS	1
BATTERIES: What do I need to know about batteries?	2
HARDWARE: Sensors and Station	2
What are the power requirements for this station?	2
SETUP: How do I setup my station?	2
MOUNTING: Where do I mount/position my sensor?	3
Where to I place my station?	3
TIME: Does this station have Atomic Time?	3
How do I manually set the time?	4
How Many Time Zones are available?	6
What are the Daylight Saving Time (DST) Settings?	6
WEEKDAY: How do I correct the day of the week?	6
Does this station have 12 hour and 24 hour time options?	6
How does the Comfort Meter work?	6
What are the Moon Phases?	7
FORECAST ICONS: What do the forecast icons mean?	7
Explain the Day & Night Forecast?	7
What do the Trees Show?	8
How often does the Pressure update?	8
What are the arrows by the pressure?	8
Why does the Pressure Graph blink?	8
Does this station have a backlight?	9
WHAT IS Auto Dim backlight?	9
Why doesn't the temperature/humidity readings on my station match the weather report?	9
What does a reading of "HI" or "LO" mean?	9

What does "NO" mean?	10
Why does my Temp/Humidity reading come and go?	10
What is Distance   Resistance   Interference?	10
Can I change batteries in my sensors without losing data?	11
FACTORY RESET: How do I factory reset my station?	11
How do I view my HI and LO History Readings?	11
How do I RESET History Readings?	12
How do I set Alerts?	12
Can I add sensors?	13
"NO" reading for Extra sensors?	14
History for Extra sensors?	14

## BATTERIES: WHAT DO I NEED TO KNOW ABOUT BATTERIES?

- Good fresh batteries are important for best performance in your sensors and as backup in your clock.
- Batteries with an expiration date of 2028, were manufactured in 2018.
- We recommend batteries with an expiration date 6 years in advance of the current year for best performance.
- A minimum voltage of 1.48 v per battery is required for best performance.
- Lithium batteries may be used in outdoor sensors. Alkaline batteries for the clock.

## HARDWARE: SENSORS AND STATION

Your S77925 station comes with: TX141TH-Bv3 433MHz RF.

# WHAT ARE THE POWER REQUIREMENTS FOR THIS STATION?

TX141TH-Bv3: 2 "AA" batteries

**\$77925:** 5-volt power adapter AC6: GPU280500150WAOO

Optional: 3 "AA" LR6 Batteries

## SETUP: HOW DO I SETUP MY STATION?

- 1. Insert 2-AA batteries into your Outdoor Sensor.
- 2. Insert the 5 volt power cord into an outlet, then into your Weather Station. Optional: Insert 3-AA batteries for backup.

3. Once the sensor is reading to your station, place it outside in a shaded location to protect it from the sun's heat. Allow up to 10 minutes for sensors to connect.

## MOUNTING: WHERE DO I MOUNT/POSITION MY SENSOR?

- Watch sensor mounting video: http://bit.ly/TH\_SensorMounting
- Place your thermo-hygro sensor at least 6 feet off the ground.
- For accurate temperature readings your sensor needs to be shaded from the sun and in a well ventilated area. Trapped moisture will cause inaccurate readings.
- Mount your sensor vertically to allow moisture to drain out the bottom.
- Preferred location is on a north facing wall under an eave or deck rail.
- Avoid placing near a metal roof that will cause it to read high on sunny days.
- Avoid other sources of heat such as soffit vents, and window or door frames.
- For accurate humidity readings, avoid placement near vegetation and lakes or other bodies of water when possible.
- Maximum transmission distance from your thermos-hygro sensor to your station, in open air is 330 feet (100 meters).
- Insert the mounting screw through the front of the transmitter and into the wall. Tighten the screw to snug (do not over tighten).

## WHERE TO I PLACE MY STATION?

Your station is designed for flexible placement on a desk or countertop, or to position on the wall. When the stand is closed, it provides wall mounting holes.

- Position within reach of an outlet that is always active. Some outlets in living rooms and in bedrooms may only be active when the light switch is on.
- Best reception occurs when only one wall is between your station and each sensor outside.
- Position you station six feet from other electronics and wireless devices. If you suspect RF (radio frequency) interference, simply move your weather station a few feet.

## TIME: DOES THIS STATION HAVE ATOMIC TIME?

#### Yes:

- The station will search for the atomic signal at UTC 7:00, 8:00, 9:00, 10:00, and 11:00.
- If there is no WWVB reception, the station will search for the atomic time signal every 2 hours until the WWVB time is received.
- The atomic time signal icon will flash while searching. The tower icon will be solid when it has connected.
- From normal time display, press the **SET** button to search for the WWVB time signal.
- Please be sure you have selected your time zone from the list in the Settings menu.

• When the Atomic time signal is received, the station will set to the time zone selected. Default is Eastern Time.

### Reception:

- The WWVB time signal can be received up to 2,000 miles away from Boulder Colorado. However, due to the nature of the Earth's Ionosphere, reception is very limited during daylight hours. The Radio-controlled display will search for a signal every night when reception is best.
- Allow up to 5 nights for the change from Daylight Savings Time to Standard Time and vice-versa to occur, depending on your location and atmospheric conditions.

### Loss of WWVB signal, follow these steps:

- 1. Check for a **Tower Icon** showing on the display near the time. The tower icon indicates successful reception of the WWVB signal in the past 24-hours.
- 2. Check that the Weather Station is in the correct **Time Zone**. This station offers seven time zones listed in letter format (default is EST):
  - Atlantic
  - Eastern
  - Central
  - Mountain
  - Pacific
  - Alaskan
  - Hawaiian
- 3. Check that **ATOMIC** is **ON**. This must be ON to receive a WWVB atomic time signal.
- 4. Check that the **DST** indicator is **ON**. If the indicator is OFF the weather station will not change into or out of Daylight Saving Time.
- 5. Position station with front or back facing Fort Collins, Colorado so the widest part of the antenna is positioned to receive.
- For information about WWVB visit: http://bit.ly/AtomicTime

### HOW DO I MANUALLY SET THE TIME?

**Note:** Only press or hold one button at a time.

- 1. Hold the **SET** button 2 seconds to enter settings mode.
- 2. Press the **OUT/+** or **-** button to adjust the flashing values.
- 3. Hold the OUT/+ or button to adjust quickly.
- 4. Press the **SET** button to confirm adjustments and move to the next item.
- 5. Press the **LIGHT** button at any time to exit.

## **Settings Order:**

- Greeting HELLO
- Language (English, Spanish, French, German)
- Beep ON/OFF
- Atomic ON/OFF
- DST: AUTOMATIC ON/ALWAYS ON/ALWAYS OFF
- Time Zone
- 12HR/24HR
- Hour
- Minute
- Year
- Month
- Date
- Fahrenheit/Celsius
- Pressure: InHg / hPa
- Pressure number setting
- THANK YOU

### **Settings Menu**

- 1. Hold the SET button for 2 seconds to enter setting mode. HELLO, will show for two seconds, then automatically move to language. **ENGLISH** will show. Press the OUT/+ or button to change to another language (Español, or Français or Deutsch). Press the SET button to select Beep ON/OFF.
- 2. BEEP OFF will show. Press the OUT/+ or button to turn beep sound ON. Press the SET button to move to Atomic Time ON/OFF.
- 3. Press SET to confirm and move to the atomic time ON/OFF. **ATOMIC ON** will show. ON flashes. Use the OUT/+ or button if you do not want Atomic Time signal (OFF).
- Press SET to confirm and move to the Daylight Saving Indicator. **DST AUTOMATIC ON**will show. USE the OUT/+ or button to Select DST ALWAYS ON (DST all year) or DST
  ALWAYS OFF (Standard Time all year).
- 5. Press SET to confirm and move to the Time Zone. **EASTERN** will flash. Use the OUT/+ or button to select your time zone.
- 6. Press SET to confirm and move to 12/24 hour time. **12/24 FORMAT** will show. 12HR flashes. Press the OUT/+ or button to turn select 24 hour time format.
- 7. Press SET to confirm and move to the hour. **HOUR** will show. The hour flashes. Press the OUT/+ or button to choose the hour.
- 8. Press SET to confirm and move to the minutes. **MINUTES** will show. Minutes flash. Press the OUT/+ or button to choose the minutes.
- 9. Press SET to confirm and move to the year. The **YEAR 2020** will show. Year will flash. Press the OUT/+ or button to change the year.
- 10. Press SET to confirm and move to the month. The **JANUARY** will show. The Month will flash. Press the OUT/+ or button to change the month.
- 11. Press SET to confirm and move to the date. **DATE** will show. Date will flash. Press the OUT/+ or button to change the date.

- 12. Press SET to confirm and move to the temperature unit. **TEMP °F** will show. F will flash. Press the OUT/+ or button if you prefer °C (Celsius).
- 13. Press SET to confirm and move to pressure units. **PRESSURE** will show. **INHG** will flash. Press the OUT/+ or button to select HPA.
- 14. Press SET to confirm and move to adjust pressure number. **PRESSURE** will show. **Pressure number** will flash. Press the OUT/+ or button to adjust pressure number.
- 15. Press SET to confirm. **THANK YOU** shows for 2 seconds, then exit the setting menu.

**Note:** After 10 seconds with no button press, station returns to normal time display.

### HOW MANY TIME ZONES ARE AVAILABLE?

Seven Selectable Time Zones from:

ATLANTIC, EASTERN, CENTRAL, MOUNTAIN, PACIFIC, ALASKA, & HAWAII

## WHAT ARE THE DAYLIGHT SAVING TIME (DST) SETTINGS?

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.

## WEEKDAY: HOW DO I CORRECT THE DAY OF THE WEEK?

• The day of the week will set when the Year, Month, and Date are set. If your day of the week is incorrect, yet the month and date are correct, please go the <u>program menu</u> and check the YEAR setting.

## DOES THIS STATION HAVE 12 HOUR AND 24 HOUR TIME OPTIONS?

Yes, you can select 12 hour or 24 hour time format in the program menu.

### HOW DOES THE COMFORT METER WORK?

The Indoor Comfort Meter is based off the Indoor Humidity. The Arrow will indicate comfort level.











## WHAT ARE THE MOON PHASES?

- Moon phase is based on the Lunar calendar.
- In the settings menu, the moon phase will change as year, month and date are set.



Full Moon

Small Waxing New Moon





Gibbous

Crescent



Gibbous

Large Waxing Crescent Crescent

Large Waning Gibbous



Small Waning Last Quarter Gibbous

Large Waning



Small Waning

Crescent

FORECAST ICONS: WHAT DO THE FORECAST ICONS MEAN?

The forecast icons predict weather condition over the next 12-hours based on the change of atmospheric pressure with about 70-75% accuracy. As weather conditions cannot be 100% correctly forecasted, we are not responsible for any loss caused by an incorrect forecast.

### **Forecast Icons:**

- Sunny
- Partly Sunny
- Cloudy
- Rain
- T-Storm
- Snow

**Note:** The "snow" icon appears when the temperature is below 32°F (0°C) and the forecast is rainy or stormy.

Your station calibrates barometric pressure based on its location over time to generate an accurate, personal forecast. Please allow 7-10 days for barometer calibration. **Note**: As the Station builds memory, it will compare the current average pressure to the past forty day average pressure for increased accuracy. The longer the Station operates in one location the more accurate the forecast icons will be.

# **EXPLAIN THE DAY & NIGHT FORECAST?**

- The SUN icon will show in daylight hours and the MOON icon will show during nighttime hours if the forecast is for SUNNY or PARTLY SUNNY.
- The time of the SUN or MOON showing, (7am-7pm Day, 7pm-7am Night)

### WHAT DO THE TREES SHOW?

The tree foliage will change seasonally. The dates are programmed into the weather station for automatic change.

AUTUMN

**Spring:** March 20th – June 20th

Summer: June 21st - Sept. 20th

**Autumn:** Sept. 21st – Dec 20th

Winter: Dec 21st – Mar 19<sup>th</sup>







### HOW OFTEN DOES THE PRESSURE UPDATE?

- Barometric pressure is read by the station every 12 seconds.
- Default reading is: InHg 29.92 InHg (1013 hPa)
- The pressure number is programmable in the settings menu.

### WHAT ARE THE ARROWS BY THE PRESSURE?

### These are Pressure Trend Arrows:

- Up Arrow indicates rising pressure over the past 3 hours
- Down Arrow indicates falling pressure over the past 3 hours

### WHY DOES THE PRESSURE GRAPH BLINK?

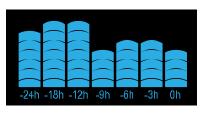
The bar chart will constantly scroll for visual interest.

This scroll feature cannot be turned off.

- The bar graph shows the recorded air pressure over the past 24-hours.
- The horizontal axis shows the hours at increments of: -24 hours, -18 hours, -12 hours, -9 hours, -6 hours, -3 hours, and 0 hours (current).
- Each bar on the bar graph represents a value of 0.03 hPa
- The "0h" on the horizontal axis indicates the current hour, thus the current air pressure also.

## Reading the bar graph:

- If the bars are rising (higher on the right than the left) then the air pressure has a rising trend, and the weather should improve.
- If the bars are dropping (lower on the right than the left) then the air pressure has a falling trend, and the weather should worsen.



## DOES THIS STATION HAVE A BACKLIGHT?

Yes, your color station has a backlight with 5 levels of intensity (OFF, 1, 2, 3, 4). Power cord use is required for this station to receive updates from the sensors.

- Press and release the LIGHT button to adjust the backlight intensity or to turn it off.
- Intensity levels: 0% (OFF) | 1.5% | 20% | 50% | 100%

## WHAT IS AUTO DIM BACKLIGHT?

### **Color Station:**

AUTO DIM allows you to set a time for your backlight to dim to level 1 and then return to level 5.

This is a handy feature to dim the backlight at the same time every night for sleep.

### **Set Auto Dim (Hour only).**

- 1. Hold the LIGHT button 2 seconds to enter dimmer set mode. **AUTO DIM OFF** will show.
- 2. Press the + or buttons to turn dimmer (ON). **AUTO DIM ON** will show.
- Press the LIGHT button to select start time (Hour) for dimmer. START TIME and the hour will flash.
- 4. Press the + or buttons to change the hour for the dimmer to be low light level.
- 5. Press the LIGHT button to select start time for dimmer to be on High light level. **STOP TIME** and the **hour** will flash.
- 6. Press the + or buttons to change the hour for the dimmer to be high light level.
- 7. Press the LIGHT button to confirm exit.

### While Auto Dim is active:

- Press and release the LIGHT button to adjust the backlight for 10 seconds. Intensity Levels: 0FF | 1.5% | 20% | 50% | 100%.
- If you change the backlight setting the station will stay on the new setting and will automatically go back to the auto dim on the next start point.

# 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.

# WHAT DOES A READING OF "HI" OR "LO" MEAN?

- If your outdoor temperature reading shows "HI" or "LO", check that your <u>batteries</u> are good.
- Overpowered or underpowered batteries can cause this reading.
- If batteries are good, replace the outdoor sensor.

 If your temperature is fine but your humidity is reading "HI" or "LO" or dashes, your humidity may be below 10% Relative Humidity. Your sensor does not read below 10% humidity.

### WHAT DOES "NO" MEAN?

- If a sensor loses connection to the station for any reason, the station will show **NO** after 30 minutes.
- The station will search for 3 minutes every hour to reconnect with sensor.
- Hold the OUT/+ button 2 seconds to search for the sensors in the Outdoor Area
- Icon will flash while searching for sensor. Outdoor area will show dashes during the search. When sensor is received the icon will be solid.



- If no sensor received, icon disappears after 3 minutes of searching if sensor is not found.
- NO will again show in the outdoor sensor area.

# WHY DOES MY TEMP/HUMIDITY READING 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).

## If a miss happens:

- If sensor loses connection to the station for any reason, the station will show NO after 30 minutes.
- The station will search for 5 minutes every hour to reconnect with sensor.
- Be sure you have good batteries. Manually search for your sensor.

## Try this:

- Bring your sensor within 10 feet of your station and make sure it is connected to the station.
- After 15 minutes move the 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 sensor just outside.
- Continue moving the sensor back to its original location.
- If you lose connection, look for sources of <u>interference</u>.

# WHAT IS DISTANCE | RESISTANCE | INTERFERENCE?

### **Distance:**

- The maximum transmitting range in open air is over 330 feet (100 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.

## CAN I CHANGE BATTERIES IN MY SENSORS WITHOUT LOSING DATA?

We designed this station for convenience, so that a simple change of batteries does not lose data or require you to power down your station.

- When Battery Indicator shows in the Outdoor Sensor area, replace batteries in your Outdoor Sensor.
- Then hold the +/OUT button for 3 seconds and your station will search for your sensor.
- When changing the batteries in the color station, continue using the power cord. After replacing the batteries, no other action is needed. The batteries in the station only maintain time/date in the event of a power outage.

## FACTORY RESET: HOW DO I FACTORY RESET MY STATION?

### To factory reset your station:

- 1. Hold the ALERTS and LIGHT buttons together for 5 seconds.
- 2. When your station resets it will look for all sensors. Allow at least ten minutes to reacquire the sensors.

### HOW DO I VIEW MY HI AND LO HISTORY READINGS?

Your high and low temperature and humidity readings are recorded with time and date of occurrence. Each time a new high or low reading is recorded, that reading with time and date of occurrence will show.

From normal display, press and release the **HISTORY** button to view indoor and outdoor HI | LO temperature/humidity records and Feels Like and Dew Point.

### **Viewing order:**

- Outdoor HI Temp with Time/Date
- Outdoor LO Temp with Time/Date
- Outdoor HI Humidity with Time/Date
- Outdoor LO Humidity with Time/Date
- Indoor HI Temp with Time/Date
- Indoor LO Temp with Time/Date
- Indoor HI Humidity with Time/Date
- Indoor LO Humidity with Time/Date
- Outdoor Heat Index
- Outdoor Dew Point

### **Heat Index:**

Heat Index combines the effects of heat and humidity. Heat index will be the same number as the Outdoor Temperature until the outdoor temperature is above 26.7°C (80°F).

### **Dew Point Temperature:**

Dew Point Temperature is the saturation point of the air, or the temperature to which the air must cool to create condensation. The higher the dew points, the higher the moisture content of the air at a given temperature. Dew Point is lower than the actual temperature.

## HOW DO I RESET HISTORY READINGS?

## Reset History Readings (each reset individually):

- Press the HISTORY button to view individual readings.
- Hold the MINUS button for five seconds to reset the individual value.

### **HOW DO I SET ALERTS?**



## **Important:**

- Alerts are defaulted to be OFF.
- Leave an alert OFF (disarmed) press the ALERT button to skip setting that alert value.
- The alert icon will show when the alert is active.
- When armed alert value is reached, station will beep 5 times each minute, until out of alert range. The flashing alert icon will indicate it is a LO or HI alert.
- Press any button to stop the temp alert sound. The alert icon will flash while value is in alert range.

### **Set Alerts:**

- 1. Press and hold the ALERTS button 2s to enter alert set mode.
- 2. Press and release the OUT/+ or button to turn alert ON/OFF
- 3. If alert is ON, the alert value is flashing. Use the OUT/+ or buttons to set. Hold the OUT/+ or buttons to scroll quickly.
- 4. Press and release ALERTS button to move to next item.
- 5. Leave an alert OFF (disarmed) and press the ALERTS button to skip setting that alert value
- 6. The alert icon will show when the alert is active.
- 7. When armed alert value is reached, station will beep 5 times each minute, until out of alert range.(1 second beep once, sound for 5 seconds, wait 55 seconds and then repeat began to ring for 5 seconds.)
- 8. The flashing alert icon will indicate if it is a LO or HI alert.
- 9. Press any button to stop the temp alert sound. The alert icon will flash while value is in alert range

### **Alert Setting Order:**

- Outdoor LOW Temperature ON/OFF
- Outdoor LOW Temperature Value -40°F-140°F (-40°C-60°C)
- Outdoor HIGH Temperature ON/OFF
- Outdoor HIGH Temperature Value -40°F-140°F (-40°C-60°C)
- Outdoor LOW Humidity ON/OFF
- Outdoor LOW Humidity Value 10%RH-99%RH
- Outdoor HIGH Humidity ON/OFF
- Outdoor HIGH Humidity Value 10%RH-99%RH
- Indoor LOW Temperature ON/OFF
- Indoor LOW Temperature Value 32°F- 122°F (0°C-50°C)
- Indoor HIGH Temperature ON/OFF
- Indoor HIGH Temperature Value 32°F- 122°F (0°C-50°C)
- Indoor LOW Humidity ON/OFF
- Indoor LOW Humidity Value 10%RH-99%RH
- Indoor HIGH Humidity ON/OFF
- Indoor HIGH Humidity Value 10%RH-99%RH

## CAN I ADD SENSORS?

This station can display data for up to 3 extra Temperature and Humidity Sensors and one Rain Sensor. These sensors will share space with the Pressure. When additional sensors are added, press the EXTRA button to cycle through Extra Sensor and Pressure data.

### **Add Extra Sensors**

1. Install batteries into your extra sensor(s).

**Note:** For Temp/Humidity sensors, be sure to select different channels (1,2,3) before you insert batteries.

- 2. Hold the EXTRA button until the Reception Indicator start a search for your sensors.
- 3. Your sensor(s) should connect within the next few minutes. Press the EXTRA button to cycle through Extra Sensor and Pressure data. The Auto Scroll Icon will appear when activated.

**Note:** To Stop the Auto Scroll continue press the EXTRA button until the icon disappears. The station will stay on the last item (sensor or pressure) displayed.

### **Purchase Extra Sensors:**

Visit <u>lacrossetechnology.com/products/S77925#parts</u> to find and purchase compatible add-on sensors.

### "NO" READING FOR EXTRA SENSORS?

- If a sensor loses connection to the station for any reason, the station will show NO after 30 minutes.
- The station will search for 3 minutes every hour to reconnect with sensor.
- Hold the **EXTRA** button 2 seconds to search for the sensors in the Extra Sensor Area
- Icon will flash while searching for sensor. Extra sensor area will show dashes during the search. When sensor is received the icon will be solid.
- If no sensor received, icon disappears after 3 minutes of searching if sensor is not found.
- **NO** will again show in the outdoor sensor area.

### HISTORY FOR EXTRA SENSORS?

When Rain sensor is added: Press HISTORY button and start with Rain History:

- 1 Hour
- 24 Hour
- 7 Days, Month
- Year
- Total
- Then view HI/LO Temperature/Humidity Records, Feels Like and Dew Point.