

## 308-1451 FAQs

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## Batteries

- ✓ Half of all warranty issues can be resolved with fresh batteries of the appropriate voltage.
- ✓ We suggest name brand alkaline batteries for indoor displays such as Forecast Stations.
- ✓ Use batteries dated at least six years in advance of the current year. Batteries dated earlier than six years from now may still work, but may be unstable in performance.
- ✓ Alkaline batteries manufactured this year will have an expiration date 10 years in the future. Battery technology has improved and batteries will maintain voltage longer in storage. However, the environment the batteries reside in for the 10 years can deplete the power.

- ✓ Good name brand batteries make less noise, which reduces the chance of RF (radio frequency) interference from the battery compartment. A minimum voltage of 1.48V for each battery is necessary for proper performance.
- ✓ **Outdoor Transmitters:** Use Alkaline batteries (or Lithium for temperatures below - 20°F/- 28.8°C)
- ✓ **Indoor Displays:** Use alkaline batteries. Overpowered or underpowered batteries may cause loss of indoor readings, missing segments, dim display etc.

## Forecast Station Factory Restart

### FACTORY RESTART:

- ✓ **DISTANCE:** Bring the transmitter and Forecast Station together inside and place both 5-10 feet apart with nothing between them.
- ✓ **REMOVE POWER:** Remove batteries from the transmitter and Forecast Station.
- ✓ **DISCHARGE ELECTRICITY:** Press one of the buttons on the Forecast Station at least 20 times to clear all memory. Verify that the Forecast Station is blank before proceeding.
- ✓ **UNPOWERED 10 MINUTES:** Let the Forecast Station and transmitter sit with power removed for at least 10 minutes.
- ✓ **FORECAST STATION:** Insert fresh alkaline batteries in the Forecast Station.
- ✓ **TRANSMITTER:** Insert fresh batteries into the transmitter, observing the correct polarity.
- ✓ **PRESS TX BUTTON:** Press the TX button on the back of remote Transmitter to transmit RF (radio frequency) signal. Keep the transmitter 5-10 feet from the Forecast Station.
- ✓ **WAIT:** Wait for 5 minutes for the outdoor temperature/humidity to appear.
- ✓ **CONNECTION:** When RF (radio frequency) connection is established, the respective temperature & humidity will appear on the main unit. Allow the transmitter and Forecast Station to sit together for 15 minutes to establish a strong connection.
- ✓ **PLACE TRANSMITTER OUTSIDE:** For optimum 433MHz transmission, place the outdoor transmitter a distance of no more than 200 feet (60 meters, open air) from the Forecast Station.
- ✓ See the section on [mounting](#) and [distance/resistance/interference](#) for details on mounting the outdoor transmitter.

## Outdoor Temperature/Humidity Transmitter

### Compatible Outdoor Transmitters

- ✓ A TX14TH outdoor transmitter comes packaged with this Forecast Station.
- ✓ The TX14TH, TX14TH-LCD-G and TX14TH-LCD-B (433MHz) transmitters are compatible with this Forecast Station.

### Power Requirements

- ✓ 2-AA batteries power the outdoor transmitter.
- ✓ We recommend alkaline batteries for the transmitter.
- ✓ You may choose to use lithium batteries for temperatures below - 20°F/-28.8°C.

### Flashing Outdoor Temperature/Humidity

- ✓ The outdoor temperature/humidity reading will flash when the connection is first lost or intermittent between the Forecast Station and the outdoor transmitter.
- ✓ [Distance/Resistance](#) is generally the cause of intermittent connection or loss of connection between the transmitter and the Forecast Station.
- ✓ Check the [position](#) of the Forecast Station. Turn the Forecast Station 90 degrees towards the outdoor transmitter to provide better reception.

- ✓ Try the [quick connect](#) or [factory restart](#).
- ✓ [Batteries](#) often resolve the connection issue.

### Dashes shown For Outdoor Temperature/Humidity

- ✓ Dashes means the connection is lost between the Forecast Station and the outdoor transmitter.
- ✓ [Batteries](#) often resolve the connection.
- ✓ [Distance/Resistance](#) can cause loss of connection between the transmitter and the Forecast Station.
- ✓ Reorientation of the Forecast Station 90 degrees towards the outdoor transmitter may provide better reception by the antenna.
- ✓ Try the [quick connect](#) or [factory restart](#).

### Outdoor Temperature/Humidity Changes Constantly

- ✓ The Forecast Station can read up to three outdoor transmitters.
- ✓ Check the [channel](#) indicator. If it switches between 1, 2 or 3, your Forecast Station is reading additional transmitters.
- ✓ The circling arrow will appear below the channel indicator when the Forecast Station is set to [channel scroll](#).
- ✓ Press and release the CH button to settle on one channel.
- ✓ **Note:** When first powered up it is natural for the Forecast Station to search across all three channels for up to 15 minutes for outdoor transmitters.
- ✓ You may have an additional compatible outdoor transmitter within range.
- ✓ Occasionally a neighbor will have a compatible outdoor transmitter that is within range.

### Quick Connect

- ✓ **DISTANCE:** Bring the transmitter and Forecast Station together inside and have both units 5-10 feet apart with nothing between them.
- ✓ **FORECAST STATION:** Hold the **CH** button on the Forecast Station for 5 seconds until the temperature/humidity area starts to flash.
- ✓ **TRANSMITTER:** Remove battery cover and press and release the TX button to send the signal.
- ✓ **WAIT:** Wait for 2 minutes for the outdoor temperature/humidity to appear.
- ✓ [Factory Restart:](#) If the above procedure does not work, please try the factory reset below.

### Inaccurate Outdoor Temperature/Humidity Reading

- ✓ The outdoor transmitter reads the environment. When mounted in the home it will read inside temperature/humidity.
- ✓ When the transmitter reads high during the day but not at night it is a [positioning](#) problem.
- ✓ **Side-by-side test:** Bring the outdoor transmitter in the house and place it next to the Forecast Station for 2 hours.
- ✓ Compare indoor and outdoor temperature. The temperatures should be within 4 degrees to be within tolerance. The humidity should be within 10% to be within tolerance. See the section on [accuracy](#) for details.
- ✓ If the transmitter reads correctly when next to the Forecast Station then try a different location outside.
- ✓ Look for heat sources such as sunlight, door or window frames, or reflected heat.

## Intermittent Outdoor Temperature/Humidity

- ✓ RF (radio frequency) communication may come and go occasionally. This can be normal in some environments (e.g. moister climates). If transmitter signal is lost, please wait 2-4 hours for the signal to reconnect on its own.
- ✓ Move the outdoor transmitter to a closer location.
- ✓ **Check [Channels](#)**: Confirm that the channel selected on the outdoor transmitter matches the channel shown on the Forecast Station.
- ✓ **Freezer test**: Confirm the Forecast Station is reading the correct outdoor transmitter. Place the transmitter in the freezer for an hour and watch the temperature drop on the Forecast Station.
- ✓ **Indoor distance test**: Please complete the [Restart](#) with transmitter and Forecast Station 5-10 feet apart and inside to establish a strong connection.
- ✓ After 15 minutes if there is a reading in the outdoor temperature area, move the transmitter to another room with one wall between the transmitter and the Forecast Station. Observe to see if the temperature/humidity remains on consistently for 1-hour.
- ✓ If the temperature/humidity remains on while in the house then it is likely a [distance/resistance](#) issue. Move the transmitter to different locations outside to find a location where the temperature/humidity reading will hold.
- ✓ [Distance/Resistance](#) can cause loss of transmitter signal.
- ✓ Check [Batteries](#).

## Outdoor Transmitter Fell and No Longer Works

- ✓ If there is no physical damage to the outdoor transmitter, the fall may not have caused internal damage.
- ✓ An outdoor transmitter that has fallen into a puddle or other standing water or snow may have water damage.
- ✓ Transmitters are water resistant, not waterproof.
- ✓ A fall can shock the transmitter or the batteries in the transmitter.
- ✓ Batteries that have fallen on a hard surface may be damaged and unable to function properly.
- ✓ Complete a [Restart](#) with fresh batteries.
- ✓ Use [Batteries](#) dated at least six years in advance of the current year. Batteries dated earlier than six years from now may still work, but may be unstable in performance.

## Outdoor Transmitter Drains Batteries Quickly

- ✓ Test a new set of alkaline batteries. Write down the date of installation and the voltage of the batteries.
- ✓ When the batteries fail, please note the date and voltage again. This is helpful in determining the problem.
- ✓ Check the [distance](#) and resistance between the transmitter and Forecast Station. Transmitters at the end of the range may work while batteries are fresh but not after they drain a bit.
- ✓ Check for leaking batteries, which may damage the transmitter.
- ✓ Battery life is over 24 months when using reputable battery brands for both Alkaline and Lithium batteries.

## Outdoor Temperature/Humidity Is Stuck or OFL

- ✓ The last outdoor reading may remain (not change) for several hours when connection is lost.
- ✓ The outdoor temperature/humidity reading will flash when the connection is first lost or intermittent between the Forecast Station and the outdoor transmitter.

- ✓ Check [Batteries](#). Overpowered or underpowered batteries can cause this reading.
- ✓ Replace outdoor transmitter.

### Fahrenheit/Celsius

- ✓ **Forecast Station:** Enter the [program menu](#) to switch from Fahrenheit to Celsius.

### MIN/MAX Temperature Readings

- ✓ This Forecast Station will show the daily minimum and maximum temperatures starting at midnight (12:00 AM).
- ✓ The Forecast Station will automatically reset the min/max temperatures at midnight (12:00 AM).
- ✓ You can manually reset the MIN/MAX data at any time.
- ✓ **View MIN/MAX data:** Press and release the MAX/MIN button to view the Maximum, Minimum, then Current Indoor and Outdoor Temperatures.
- ✓ **Multiple Transmitters:** Press and release the CH button to select the desired outdoor channel to view the Minimum and Maximum Outdoor Temperatures. Press and release the MAX/MIN button to view the Maximum, Minimum then Current Temperatures for that channel.
- ✓ **Reset all MIN/MAX data:** Hold the MAX/MIN button for 5 seconds and the Indoor and all Outdoor Minimum and Maximum Temperatures will be reset manually, to Current temperatures.

### Temperature Trend Arrows

- ✓ Arrows next to the indoor and outdoor temperature readings reflect the temperature change in the past three hours.
- ✓ UP ARROW: Temperature rising more than 2°F (1°C) over the past three hours
- ✓ RIGHT ARROW: Temperature did not change more than 2°F (1°C) over the past three hours
- ✓ DOWN ARROW: Temperature falling more than 2°F (1°C) over the past three hours

### Frost Alarm

**FROST ALARM:** ❄️ The Frost Alarm will sound when the outdoor temperature drops to 34°F (1.1 °C).

- ✓ **ACTIVATE** Press and release the TEMP ALERT button to activate the Frost Alarm on all channels (when multiple transmitters in use). The Frost Alarm icon ❄️ will appear in the outdoor temperature area when active.
- ✓ **DEACTIVATE** Press and release the TEMP ALERT button until the Frost Alarm icon no longer shows.

### Temperature Alarms

**OUTDOOR TEMPERATURE ALARMS:** A high and low outdoor temperature alarm may be set on the forecast Station.

**Note:** When multiple transmitters are in use on different channels, a high and/or low temperature may be set for each channel.

### SET TEMPERATURE ALARM CHANNEL 1:

1. Press and release the CH button to select channel 1 (when multiple transmitters in use).
2. Hold the TEMP ALERT button until the **High Temp Alert** icon  appears and the temperature will flash. Use the **+ or -** button to select your High Temp alarm value. Press and release the SET button to move to the Low Temp alarm.
3. The **Low Temp Alert** icon  will appear and the temperature will flash. Use the **+ or -** button to select your Low Temp alarm value. Press and release the SET button to confirm and exit to current temperature.
4. The Temp Alert icon  will show in the outdoor temperature area when a temperature alarm is active. When the temperature alarm sounds, the Temp Alert icon and the temperature value will flash. Press any button to silence the alarm temporarily.

**SET TEMPERATURE ALARM CHANNEL 2 or 3:** Use the CH button to select the channel. Follow steps 2-4 above to set temperature alarms on other channels.

**DEACTIVATE TEMPERATURE ALARM:** Press and release the TEMP ALERT button three times to deactivate all temperature alarms. The alert icons will disappear.

## Channels

The Forecast Station will accommodate up to three remote [outdoor transmitters](#). The channel selection (CH) button on the Forecast Station allows you to see the temperature in various locations: outdoors, baby's room, greenhouse, basement, etc.

- ✓ Press and release the CH button to view channel 1, 2 or 3 on the display when multiple transmitters are used.

**Note:** You cannot change channels if only one transmitter is connected.

**CHANNEL SCROLL-** Press and release the CH button until you see a circling arrow appear in the outdoor data area. The display will automatically rotate through the channels for all connected transmitters.

- ✓ Press and release the CH button to lock the display into one channel.
- ✓ Then view channels individually with a press of the CH button.

## Multiple Outdoor Transmitters

To connect multiple remote transmitters to the Forecast Station:

- ✓ Remove the battery cover from all the transmitters (leave off for setup).
- ✓ Set the **first** outdoor transmitter to channel 1 and insert 2-AA batteries.
- ✓ Set the **second** outdoor transmitter to channel 2 and insert 2-AA batteries.
- ✓ Set the **third** outdoor transmitter to channel 3 and insert 2-AA batteries.
- ✓ Press and hold CH button on Forecast Station for 5-10 seconds.
- ✓ The Forecast Station will search for all outdoor transmitters.
- ✓ Press the TX button on the back of each outdoor transmitter to transmit RF signal.
- ✓ When RF (radio frequency) connection is established, the respective temperature & humidity of the selected channels will appear on the main unit.
- ✓ Allow the transmitters and the Forecast Station to stay 5-10 feet apart for 15 minutes to establish a solid connection.
- ✓ Install the battery covers on each sensor.
- ✓ After 15 minutes, place the remote transmitters in appropriate locations within range of the display.

- ✓ Press and release the CH button to view channel 1, 2 or 3 on the display when multiple transmitters are used.

### Mounting/Positioning Outdoor Transmitter

- ✓ Mount outdoor temperature/humidity transmitters vertically and under a bit of an overhang.
- ✓ Protect the outdoor transmitter from standing rain or snow, and from the overhead sun, which can cause it to read incorrectly. Generally, mounting under an eave or deck rail works well.
- ✓ Construct a small roof or box for the transmitter if you do not have an overhang. Please be sure it is well vented.
- ✓ Mount the transmitter on the North side to prevent sun from causing incorrect readings.
- ✓ Mount at least 6 feet in the air for a strong signal.
- ✓ Outdoor transmitters are water resistant but not water proof.
- ✓ Avoid more than 1 wall between the transmitter and the Forecast Station.
- ✓ Do not mount near electrical wires, transmitting antennas or other items that will [interfere](#) with the signal.
- ✓ RF (radio frequency) signals do not travel well through moisture or dirt.
- ✓ Place the outdoor transmitter and the Forecast Station in the desired shaded locations, and wait approximately 1-hour before permanently mounting the transmitter to ensure that there is proper reception.
- ✓ Do not mount the transmitter on a metal fence. This significantly reduces the effective range.

### MOUNT

- ✓ Choose a location for the transmitter that is within [range](#) of the Forecast Station and under an overhang for accuracy.
- ✓ Install one mounting screw into a wall leaving approximately ½ 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.

**Note:** Always ensure that the transmitter locks onto the screw before releasing.

### Position Forecast Station

- ✓ The Forecast Station has a wide base to sit on a desk or table.
- ✓ Choose a location 6 feet or more from electronics such as cordless phones, gaming systems, televisions, microwaves, routers, baby monitors, etc., which can prevent signal reception.
- ✓ Place within [range](#) of the outdoor transmitter.
- ✓ Be aware of electrical wires and plumbing within a wall. This will interfere with signal reception.
- ✓ 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.
- ✓ For best WWVB reception, orientate the Forecast Station with the front of the back facing Ft. Collins Colorado.

### Distance/Resistance/Interference

#### Distance:

- ✓ The maximum transmitting range in **open air** is over 200-feet (60 meters) between the outdoor transmitter and the Forecast Station.
- ✓ Consider what is in the signal path between the Forecast Station and the transmitter.

- ✓ Consider the distance the Forecast Station is located away from other electronic in the home.

#### Resistance:

- ✓ Obstacles such as walls, windows, stucco, concrete, and large metal objects can reduce the range.
- ✓ When considering the distance between the transmitter and the Forecast Station (200 feet open air) cut that distance in half for each wall, window, tree, bush or other obstruction in the signal path.
- ✓ Closer is better.
- ✓ Do not mount the transmitter on a metal fence. This significantly reduces the effective range.

#### Interference:

- ✓ Consider items in the signal path between the transmitter and the Forecast Station.
- ✓ Sometime a simple relocation of the transmitter or the Forecast Station will correct the interference issue.
- ✓ Windows can reflect the radio signal.
- ✓ Metal will absorb the RF (radio frequency) signal.
- ✓ Stucco is backed by a metal mesh that holds it to the wall.
- ✓ Transmitting antennas (ham radio, emergency dispatch center, airports, military base etc.)
- ✓ Electrical wires (utilities, cable etc.)
- ✓ Vegetation is full of moisture and reduces signal.
- ✓ Dirt: Trying to receive a signal through a hill is difficult.

### Accuracy

#### Indoor Temperature

- ✓ Operating temperature range = 32 F to 122 F (0C to 50C)
- ✓ Accuracy  $\pm$  2 degrees Fahrenheit 32 F to 122 F (0C to 50C)
- ✓ Resolution = 0.1 degree F

#### Indoor Humidity

- ✓ Operating humidity range = 1% RH to 99%
- ✓ Accuracy +/- 5% RH (@25°C , 30%RH to 80%RH)
- ✓ Accuracy +/- 8% RH (@25°C , 20%RH to 29%RH ; 80%RH to 95%RH)
- ✓ Accuracy +/- 12% RH (@25°C , 1%RH to 19%RH ; 96%RH to 99%RH)
- ✓ Resolution = 1 % RH

#### Outdoor Temperature

- ✓ Operating temperature range = -40 F to 140F (-40C to 60C)
- ✓ Accuracy  $\pm$  2 degrees Fahrenheit 32 F to 122 F (0C to 50C)
- ✓ Accuracy  $\pm$ 4 degrees Fahrenheit (-40 F to 32 F (-40C to 0C) ; 122 F to 140 F (50C to 60C))
- ✓ Resolution = 1 degree F

#### Outdoor Humidity

- ✓ Operating humidity range = 1% RH to 99%
- ✓ Accuracy +/- 5% RH (@25°C , 20%RH to 90%RH)
- ✓ Accuracy +/- 8% RH (@25°C , 20%RH to 30%RH ; 80%RH to 95%RH)

- ✓ Accuracy +/-12% RH (@25°C , 1%RH to 19%RH ; 96%RH to 99%RH)
- ✓ Resolution = 1 % RH

### Barometric Pressure

- ✓ Measure range= 800mb to 1100mb 23.62 inHg to 32.48 inHg
- ✓ Resolution= 1mb
- ✓ Measuring time interval: every 12 minutes

### Forecast Station

#### How tall are the Time Numbers?

The time numbers are 0.59 inches tall.

#### Supported Time Zones

This Forecast Station offers seven time zones:

- ✓ AST=Atlantic
- ✓ EST= Eastern
- ✓ CST= Central
- ✓ MST= Mountain
- ✓ PST= Pacific
- ✓ AKT= Alaska
- ✓ HAT=Hawaiian

The Forecast Station is designed to work in North America.

#### 12-Hour or 24-Hour Time Format

- ✓ Displays the time in 12-hour or 24-hour format.
- ✓ Default is 12-hour time.
- ✓ Use the [Program Menu](#) to switch time formats.

#### Power Requirements

- ✓ The Forecast Station is powered by 3-AA alkaline batteries.

#### Indoor Comfort Statement

**COMFORT STATEMENT:** The comfort statement is based on the **indoor humidity**.

- **WET:** Humidity is above 64%
- **COMFORTABLE:** Humidity is between 43% and 64%
- **DRY:** Humidity is below 42%

#### Manually Set Time/Date: Program Menu

**PROGRAM MENU:** The SET button will move through the program menu. The **+ or -** buttons will change a value. Hold the SET button for 5 seconds to enter the program menu.

- ✓ WWVB: **WWVB** and **ON** will flash. Press and release the + or - button to select OFF if you wish to disable the WWVB reception. Press and release the SET button to confirm and move to the next menu item.
- ✓ TIME ZONE: The **Time Zone** will flash three letters. Press and release the + or - button to select from 7 Time Zones: AST=Atlantic, EST= Eastern, CST= Central, MST= Mountain, PST= Pacific, AKST= Alaska, HAST=Hawaiian time zone. Press and release the SET button to confirm and move to the next menu item.
- ✓ DAYLIGHT SAVING TIME: **DST** and **ON** will flash. Press and release the + or - button to select OFF if you do not observe DST change. Press and release the SET button to confirm and move to the next menu item.
- ✓ 12/24-HOUR TIME: **12Hr** will flash. Press and release the + or - button to select 12-hour time. Press and release the SET button to confirm and move to the next menu item.
- ✓ FAHRENHEIT OR CELSIUS: **°F or °C** will flash. Use the + or - button to select your preference. Press and release the SET button to confirm and move to the next menu item.
- ✓ HOUR: The **Hour** will flash. Use the + or - button to set the Hour. Be sure to set the Hour correctly for AM or PM. Press and release the SET button once.
- ✓ MINUTES: The **Minutes** will flash. Use the + or - button to set the Minutes. Press and release the SET Button once to confirm and move to the next menu item.
- ✓ SECONDS: The **Seconds** will flash. Use the + or - button to clear the seconds to 00. Press and release the SET Button to confirm and move to the next menu item.
- ✓ YEAR: The **Year** will flash. Use the + or - button to set the Year. Press and release the SET button to confirm and move to the next menu item.
- ✓ MONTH: The **Month** will flash. Use the + or - button to set the Month. Press and release the SET button to confirm and move to the next menu item.
- ✓ DATE: The **numeric day** will flash. Use the + or - button to set the Date correctly.

**Note:** If no buttons are pressed for 20 seconds, set mode will time out and return to live display mode, reflecting whatever adjustments were made before it timed out

**Note:** Press the **+ or -** button once to adjust by 1 unit or hold for fast scroll adjustment

## Sunrise/Sunset Times

### CITY SELECTION-SUNRISE/SUNSET TIMES:

**Note:** Preset City abbreviations are at the end of the instruction manual and quick setup guide.

Choose the city closest to you in a north/south direction. This will provide the most accurate sunrise/sunset times as the sun moved from East to West.

**To select a city location:** Select your country, state, and then city location.

- ✓ Hold the CITY button for 5 seconds.
- ✓ **USA** will flash next to the sunrise/sunset time.
- ✓ Press and release the **+ or -** button to select USA, CAN, or MEX as your **country**.
- ✓ Press the CITY button to confirm the country and select a **state**.

**Note:** When selecting Canada or Mexico you will move directly to city selection.

- ✓ The **state** will flash. Press and release the **+ or -** button to select a **state**.
- ✓ Press the CITY button to confirm the state and select a **city**.
- ✓ The **city** location will flash.
- ✓ Press and release the **+ or -** button to select a **city** from the list at the end of this manual.
- ✓ Press the CITY button to confirm and **exit**.

After a short calculation time, the Forecast Station shows the times for sunrise and sunset, moon phase and lunar tide.

**TIP:** When DST is in effect, the Forecast Station will need to receive the WWVB time signal to make the adjustment for DST. The WWVB signal includes an embedded bit to tell the Station to adjust for DST. Until the forecast Station receives the WWVB signal for the first time, the sunrise/sunset times will be one hour off.

#### No WWVB Tower Icon

- ✓ The Forecast Station has not received a WWVB time signal in the past 24-hours.
- ✓ [Position](#) the Forecast Station for better reception.
- ✓ Be sure you have good batteries in the Weather
- ✓ Hold the + and – buttons together to send the Forecast Station on a signal search at night.
- ✓ Allow up to 5 nights to receive the time signal.

#### Dashes, OFL or Stuck Indoor Temperature/Humidity

- ✓ This is generally a power related issues.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Forecast Station.
- ✓ Press any button 20 times. Leave the Forecast Station unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.
- ✓ If the indoor temperature/humidity is still dashes or OFL, the Forecast Station may need to be replaced.

#### Inaccurate Indoor Temperature/Humidity Reading

- ✓ **Side-by-side test:** Bring the outdoor transmitter in the house and place it next to the Forecast Station for 2 hours.
- ✓ Compare indoor and outdoor temperature/humidity. The temperature should be within 4 degrees to be within tolerance. The humidity should be within 10% to be within tolerance. See the section on [accuracy](#) for details.
- ✓ Look for heat sources such as sunlight, door or window frames, or reflected heat of cold.

#### Time is off by hours

- ✓ Check to see if the [WWVB](#) Tower icon appears on the Forecast Station. If not, the Forecast Station has not received a WWVB time signal in the past 24-hours.
- ✓ Reposition the Forecast Station with the front or back facing Colorado.
- ✓ Check that the Time Zone selected correctly reflects your location. Adjust the time zone in the [Program Menu](#).
- ✓ Check that the DST indicator is correct for your location (most areas observe DST so this should be ON). Adjust the DST indicator in the [Program Menu](#).

#### Set Time Alarm

**SET TIME ALARM 1:** Press and release the ALARM button once to enter Alarm mode. The Alarm Time and **A1** will show.

- ✓ **HOUR:** Hold the ALARM button for 3 seconds. The Hour will flash. Use the + or - button to set the Hour. Be sure to set the Hour correctly for AM or PM. Press and release the ALARM button once.
- ✓ **MINUTES:** The Minutes will flash. Use the + or - button to set the Minutes. Press and release the ALARM button once.

**SET TIME ALARM 2:** Press and release the ALARM button **twice** to enter Alarm mode. The Alarm Time and **A2** will show. Follow the steps above to program alarm 2.

## Activate/Deactivate Time Alarm

- ✓ **ACTIVATE** Press and release the ALARM button to enter the correct Alarm mode. Press and release the + button and the alarm icon  will appear (above the time, **alarm 1**, below the time, **alarm 2**). The number in the bell icon indicates which alarm is active.
- ✓ **DEACTIVATE** Press and release the ALARM button to enter the correct Alarm mode. Press and release the + button and the alarm icon(s) will disappear indicating alarm 1 and/or alarm 2 is off.

## Snooze Alarm

- ✓ When alarm 1 or alarm 2 sounds, press the SNOOZE/LIGHT button once to activate the snooze feature for 10 minutes.
- ✓ The alarm icon  and the snooze icon **Zz** will flash when the snooze is active.
- ✓ Press any button to deactivate the snooze feature.

## Forecast Icons Inaccurate

- ✓ **WEATHER FORECAST ICONS:** (Sun, Slightly Cloudy, Cloudy, Rainy, or Snow). These icons forecast the weather in the next 12-24 hours. The forecast icons displayed, predict the weather in terms of getting better or worse and not necessarily sunny or rainy as each icon indicates.
- ✓ **NOTE:** After set up, disregard readings for weather forecasts for the next 48-60 hours. This will allow sufficient time for the forecast Station to collect air pressure data at a constant altitude and therefore result in a more accurate forecast.

## Forecast Arrows

- ✓ **WEATHER TENDENCY INDICATOR (Up or Down arrows):**
- ✓ Working together with the weather icons is the Weather Tendency Indicators. When the Indicator Points Upwards, it means that the Air-pressure is increasing and the weather is expected to improve, but when Indicator Points Downwards, the Air-pressure is falling and the weather is expected to become worse.

## Clothing Index

- ✓ **Fisherman:** The Fisherman Clothing Icon combinations display based on Outdoor Temperature from the transmitter on **channel 1 only**. The Fisherman represents CURRENT TRENDS in Temperature.

## Absolute Barometric Pressure

- ✓ The Forecast Station reads Barometric Pressure.
- ✓ The numeric pressure value adjusts automatically as the forecast Station reads changes in air pressure.
- ✓ Since this number is **absolute** pressure it may not be the same as a local reporting Station that reads in *relative* pressure.

**Note:** The pressure number **cannot** be calibrated.

- ✓ **Absolute Pressure** is measured in a vacuum without the influences of terrain, weather, water, foliage and elevation. The air pressure it would be consistent at every elevation and decrease as it went higher.

- ✓ **Relative Pressure** is a combination of air pressure and altitude. Relative air pressure will make readings in local areas relative to each other to allow for proper forecasting.

### Absolute Pressure Unit of Measure

Hold the HISTORY button for 5 seconds to switch from InHg (inches or mercury) or hPa (Hectopascal) for the numeric pressure display and the pressure graph.

- ✓ **Inches of Mercury** is common for weather reports and aviation in the United States.
- ✓ **Hectopascal** is equivalent to millibar and commonly used to measure atmospheric pressure outside the United States.

### Pressure History

#### NUMERIC HISTORY:

Press and release the HISTORY button to view the past 12-hours of numeric pressure history.

- ✓ In the small box to the right of the numeric pressure a number from 0 to -12 will appear.
- ✓ 0 is current pressure. -1 through -12 reflects the history in one-hour increments.

**Note:** The history graph and forecast icons will not change when you view pressure history.

#### 12-HOUR PRESSURE HISTORY GRAPH:

The bar chart indicates the air pressure history trend over the last 12 hours in 5 steps, 0h, -1h, -2h, -3h, -6h & -12h.

- ✓ The columns represent the change in the measurements of "InHg" or "hPa" at specific times.
- ✓ The "0" in the middle of this scale is equal to the current pressure and each bar represents the past pressure high or low in InHg or hPa compared to the current pressure.

Read the graph from left to right.

- ✓ When the bars are rising, it means that the weather is getting better due to the increase of air pressure.
- ✓ When the bars go down, it means the air pressure has dropped. Expect the weather to get worse from the present time (**0h**).

**Note:** The bar graph will scroll continually to prevent LCD burnout.

### Moon Phase

The moon phase is divided by 6 sections, showing 12 phases of the moon.

**Note:** With the moon shown against a light colored background, the phases will show opposite to a paper calendar. The segments highlighted portray the part of the moon that is visible in the sky. For instance, the moon will be blank during a new moon and dark during a full moon.

**New Moon** occurs when the moon is between the earth and sun so the illuminated portion of the moon is on the backside facing the sun and we cannot see it. After a new moon, the illuminated (visible) portion will increase or wax until the full moon occurs.

**Full Moon** occurs when the earth, moon, and sun are in approximate alignment, with the moon and the sun on opposite sides of the earth. The illuminated portion of the moon faces the earth, giving us complete visibility of one side of the entire moon. After a full moon, the illuminated portion will decrease or wane until the new moon occurs.

**First Quarter** and **Last Quarter** moons occur when the moon is at a 90-degree angle to the earth and sun. Therefore, we see half of the moon illuminated and half is in shadow.

- ✓ **Waxing** means growing or expanding illumination and happens after a new moon.

- ✓ **Waning** means decreasing illumination and occurs after a full moon.
- ✓ **Crescent** refers to the moon being less than half-illuminated. Crescents can be waning or waxing.
- ✓ **Gibbous** describes a moon phase when more than half is illuminated. Gibbous can be waxing or waning.

## Tides

The tides reflected on this Station are the ebb and neap tides of the lunar month. Not daily high and low tides.

- ✓ When the forecast Station states high tide, the tides will be higher than usual, etc.
- ✓ When the sun, moon and earth line up at new and full phases of the moon, tides will be higher.
- ✓ When the moon is at right angles to the sun and Earth at the first and last quarter, the tides are weaker.
  - **Full & new moon** = spring tide (TIDE **HI**).
  - **Quarter** = neap tide (TIDE **LO**)
  - **Other** = mean water level (TIDE **MID**)

## Forecast Station Has Missing Segments

- ✓ This is generally a power related issue.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Forecast Station.
- ✓ Press any button 20 times. Leave the Forecast Station unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.

## Forecast Station is Dim

### Battery Operation:

- ✓ Most Forecast Stations have a gray background. Place the Forecast Station at eye level. Is it still dim?
- ✓ Forecast Stations that sit in the sunlight can develop a cloudy film over time.
- ✓ This is generally a power related issue.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Forecast Station.
- ✓ Press any button 20 times. Leave the Forecast Station unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.

## Forecast Station Has Distorted Display

- ✓ On a brand new Forecast Station check for thin plastic films of printed scratch guard that may be on the upper and lower screen of the Forecast Station. This thin piece of plastic has printed numbers for store displays.
- ✓ With all power removed the Forecast Station should be blank.
- ✓ If numbers still appear, please check for scratch guard.
- ✓ Check that the batteries are installed correctly.
- ✓ This is generally a power related issue.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Forecast Station.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.

## Forecast Station Display Is Frozen

- ✓ On a brand new Forecast Station check for thin plastic films of printed scratch guard that may be on the upper and lower screen of the Forecast Station. This thin piece of plastic has

printed numbers for store displays. This can make the Forecast Station display appear “frozen”.

- ✓ With all power removed the Forecast Station should be blank.
- ✓ If numbers still appear, please check for scratch guard.
- ✓ Check that the batteries are installed correctly.
- ✓ This is generally a power related issue.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Forecast Station.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.

#### Forecast Station is Blank: No Letters, Numbers Or Dashed Lines

- ✓ Check that the batteries are installed correctly.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Forecast Station.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.

#### *Forecast Station Drains Batteries Quickly*

- ✓ Test a new set of alkaline batteries. Write down the date of installation and the voltage of the batteries.
- ✓ When the batteries fail, please note the date and voltage again. This is helpful in determining the problem.
- ✓ Check for leaking batteries, which may damage the Forecast Station.
- ✓ Battery life is over 12 months when using reputable battery brands.
- ✓