

# BBB86088V2 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 clock.

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## GENERAL INFORMATION

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

- Good fresh batteries are important for best performance in your sensor and as backup in your clock.
- Batteries are manufactured 10 years in advance of the date on the battery.
- We recommend batteries with an expiration date no more than 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 sensor. Alkaline batteries for your clock.

### HARDWARE: SENSOR AND CLOCK

**Your BBB86088V2 clock comes with:**

**TX141-Bv3** Temperature sensor

Your sensor operates at 433MHz RF.

Transmission range is 330 feet (100 meters) open air.

### WHAT ARE THE POWER REQUIREMENTS FOR THIS CLOCK?

**TX141-Bv3:** 2-AA batteries

**BBB86088V2:** 2-AA batteries

### SETUP: HOW DO I SETUP MY CLOCK?

1. Install batteries into your sensor.
2. Install batteries into your clock.
3. Let sensor and clock sit within 10 feet of each other for several minutes to lock the sensor signals to the display.

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

**TX141-BV3:**

- Place your temperature sensor at least 6 feet off the ground.
- For accurate temperature readings your sensor needs to be shaded from the sun in a well vented area.
- 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.
- Place your sensor in a well-vented area. Trapped moisture will cause inaccurate readings.
- Maximum transmission distance from your thermo-hygro sensor to your clock, in open air is 330 feet (100 meters).

## WHERE TO I PLACE MY CLOCK?

Your clock is designed for flexible placement on a desk or countertop, or to position on the wall.

- Best reception occurs when only one wall is between your clock and your sensor outside.
- Position you clock six feet from other electronics and wireless devices. If you suspect RF (radio frequency) interference, simply move your weather clock a few feet.
- Mount your clock near an exterior wall with the front or back facing toward Ft. Collin Colorado for best WWVB reception.

## WHAT IS DISTANCE | RESISTANCE | INTERFERENCE?

### Distance:

- The maximum transmitting range in open air is over 330 feet (100 meters) between your sensor and your clock.
- Consider the signal path from your clock to your sensor as a straight line.
- Consider the distance your clock 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 sensor on a metal fence can significantly reduce the effective signal range.

### Interference:

- Consider electronics in the signal path between the sensor and your clock.
- Simple relocation of the sensor or your clock 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 DO I MANUALLY SET THE TIME?

1. Hold the °F/°C button 3 seconds to enter settings mode.
2. Press the + or - button to adjust the flashing values, hold to adjust quickly.
3. Press the °F/°C button to confirm adjustments and move to the next item.
4. Press the SNOOZE button at any time to exit.

### Settings menu order:

- Language (English, Español, Français)
- Beep ON/OFF
- Atomic ON/OFF
- DST ON/OFF
- Time Zone

- 12/24 Hour Format
- Hour
- Minutes
- Year
- Month
- Date

1. Hold the °F/°C button 3 seconds to enter settings mode. ENGLISH will flash.
2. Use the + or – button to change language. Press the °F/°C button to confirm and move to next item.
3. BEEP ON will flash. Use the + or – button to turn Beep sound off. Press the °F/°C button to confirm and move to next item.
4. ATOMIC ON will flash. Use the + or – button to turn off if you do not want atomic time signal. Press the °F/°C button to confirm and move to next item.
5. DST ON will flash. Use the + or – button to turn off if you do not observe Day Light Saving Time. Press the °F/°C button to confirm and move to next item.
6. ZONE EST will flash. Use the + or – button to select your time zone. Press the °F/°C button to confirm and move to next item.
7. FORMAT 12Hr will flash. Use the + or – button to select 24 hour time format. Press the °F/°C button to confirm and move to next item.
8. HOUR will flash. Use the + or – button to adjust. Press the °F/°C button to confirm and move to next item.
9. MINUTES will flash. Use the + or – button to adjust. Press the °F/°C button to confirm and move to next item.
10. YEAR will flash. Use the + or – button to adjust. Press the °F/°C button to confirm and move to next item.
11. MONTH will flash. Use the + or – button to adjust. Press the °F/°C button to confirm and move to next item.
12. DATE will flash. Use the + or – button to adjust. Press the °F/°C button to confirm and exit.

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

- Yes, you can select 12 hour or 24 hour time format in the [program menu](#).

#### HOW DO I CHANGE FROM FAHRENHEIT TO CELSIUS?

- Press and release the °F/°C button to select Fahrenheit or Celsius temperature display.

#### WHY ARE THE LETTERS DST ON YOUR CLOCK?

- The letters DST will show when your clock has received the atomic time signal and Daylight Saving Time is being observed.

#### I AM NOT RECEIVING THE ATOMIC TIME SIGNAL

- Your clock receives the Atomic TimeSignal (WWVB) from Fort Collins, Colorado.

- Your clock will automatically search for the atomic time signal at UTC 7:00, 8:00, 9:00, 10:00, and 11:00.
- Hold the - button to search manually, for the atomic time signal.
- Please be sure you have selected your time zone in the program menu.
- When the Atomic time signal is received, your clock will set to the time zone selected. Default is Eastern Time.
- 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.

**For best signal reception, 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 your clock is in the correct **Time Zone**. This clock 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 your clock will not change into or out of Daylight Saving Time.
5. Batteries dated earlier than 6 years from now may still work, but may be unstable in performance.

**Note:** Without proper batteries, the antenna will have a harder time picking up the signal.

- For information about WWVB visit: <http://bit.ly/AtomicTime>

## HOW DO I SET ALARM TIME?

**Set Alarm Time:**

1. Hold the ALARM button 3 seconds to enter alarm mode. The alarm HOUR will flash.
2. Press the + or - button to adjust the flashing values, hold to adjust quickly.
3. Press the ALARM button to confirm adjustments and the alarm MINUTES will flash.
4. Press the + or - button to adjust the flashing values, hold to adjust quickly.
5. Press the ALARM button to exit.

**Activate or Deactivate alarm:**

- The alarm is active when set. From normal time display, press and release the ALARM button to deactivate or activate the alarm.
- Alarm icon (bell) will show then active.

**Snooze:**

- When your alarm sounds, press the SNOOZE button to silence alarm for 10 minutes. The alarm bell will flash.

- Press any button except SNOOZE to silence the alarm for 24 hours.

## TROUBLESHOOTING

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

- A factory reset is a great way to return your clock to “out of the box” condition.

#### To factory reset your clock:

1. Remove batteries from your sensor and your clock. Press any button on your clock 20 times to help discharge collected power.
2. Wait 15 minutes then insert batteries into the sensor and your clock and allow both pieces to sit together for 15 minutes.

### DASHES TEMPERATURE: WHY DOES MY TEMPERATURE SENSOR SHOW DASHES ON YOUR CLOCK?

Dashes indicate the connection is lost between your clock and the outdoor 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.
- 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 causing 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 clock a few feet or turning your clock 90 degrees for a better angle to receive the sensor signal.
- When you have good batteries, and good location, hold the + button for three seconds to search for your sensor. If you regain connection while the sensor is mounted, great. If you do not regain connection, bring the sensor within 10 feet of your clock and search again.

### MY TEMPERATURE READINGS ON MY CLOCK MATCH THE WEATHER REPORT?

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

### TEMP ACCURACY: WHY DOES MY TEMPERATURE SENSOR READ INCCURATELY?

- The temperature sensor reads the environment. If your sensor reads high during the day but not at night it is a [mounting](#) problem.
- **Side-by-side test:** Bring the temperature sensor in the house and place it next to your clock for 2 hours.
- Compare indoor and outdoor temperature. The temperatures should be within 4 degrees to be within tolerance.
- If the sensor reads correctly when next to your clock then try a different location outside.
- Look for heat sources such as sunlight, door or window frames, or reflected heat that may cause inaccurate readings.
- If your temperature is reading low, and location is not an issue, you may have a bad sensor.

## WHAT DOES A READING OF “HHH OR LLL” MEAN?

- If your outdoor temperature reading shows “HHH or LLL”, check that your [batteries](#) are good.
- Overpower or underpowered batteries can cause this reading.
- If batteries are good, replace the outdoor sensor.

## TEMP INTERMITTANT: WHY DOES MY TEMPERATURE 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 clocks 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 your clock for any reason, your clock will show dashes after 30 minutes.
- Your clock will search for 5 minutes every hour to reconnect with sensor.
- Be sure you have good [batteries](#).

### Try this:

- Bring your sensor within 10 feet of your clock and make sure it is connected to your clock.
- After 15 minutes move the sensor into the next room with a wall between the sensor and your clock 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 [interference](#).

## WHY AM I GOING THROUGH BATTERIES QUICKLY?

- Test a new set of [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 sensor.