

Why does the ThunderBolt say "STORM IS LOCAL" when it reaches a distance of 8 miles?

The 8-mile warning boundary is based on the length of the typical lightning stroke (6-10 miles!) and the normal pattern of lightning activity within a storm cell. Most thunderstorms produce the highest number of strokes at the leading and trailing edges of the storm cell. Very often, the strokes produced at the leading edge of the storm are thrown forward into areas that might not even be under cloud cover. **This is the reason that up to 70% of all people injured or killed by lightning are struck with blue sky overhead!**

The ThunderBolt is designed to warn you when the danger of lightning exists, even if it still looks clear in your immediate vicinity.

ThunderBolt says "Storm is Local," but I don't see any storm. Is something wrong with the ThunderBolt?

"Storm is Local" will appear on the ThunderBolt whenever lightning activity has been detected within 8 miles. Because storm clouds may be small, and because lightning can extend far beyond the front edge and back edge of a storm, you may have clear blue sky overhead when ThunderBolt says "Storm is Local." **It is very important to seek shelter, even if the sky overhead is clear. ThunderBolt is designed to protect you from a "Bolt out of the blue."** Many lightning victims are struck when the sky overhead is clear; this is exactly what ThunderBolt is designed to protect you from.

How does ThunderBolt detect lightning?

Lightning is the flow of huge amounts of electrical current within a storm. These currents can range from several thousand amps, all the way up to 250,000 amps. (For comparison, a typical household circuit carries 10-20 amps of current.) The ThunderBolt has a high sensitivity receiver/amplifier that captures a specific frequency in the electromagnetic noise produced by these huge flows of electric current. A microprocessor then analyzes the signals received and determines the distance, along with other important information about the storm activity.

Can the ThunderBolt work inside as well as outside?

The ThunderBolt is designed to work nearly as well inside most buildings as it does outside. However, certain types of buildings with metal walls and roofs might cause a loss of sensitivity in normal storm detection. A general rule of thumb is that the ThunderBolt will operate normally in any building that allows reception of normal radio signals. If you have questions about a specific building location, check with Customer Support on the toll-free number.877-738-0330

Can the ThunderBolt work near or in a car?

Certain types of internal combustion engines produce electromagnetic noise across the operating frequency of the ThunderBolt. If the unit detects a noise level high enough to interfere with normal storm detection, it will display a HIGH LOCAL NOISE warning and instruct the user to move the ThunderBolt to a different location. This type of background noise is normally only produced by an engine when running. Operating the ThunderBolt near a vehicle with the engine off should never be a problem.

How long will the unit work on a 9 volt battery?

The ThunderBolt should operate minimum 60 hours/ as long as 90 hours on a fresh 9 volt battery, depending on the amount of storm activity detected during this period.

What is the auto shut off time?

The ThunderBolt is designed to shut off automatically after approximately 8 hours of continuous operation without any button activation. This is intended to help conserve battery life if the unit is accidentally left turned on. If the ThunderBolt is being powered by the external power adapter, this feature is disabled by the microprocessor.

Can the ThunderBolt operate in any position?

No. The ThunderBolt is designed to operate either vertically, or lying flat on a horizontal surface. The unit **will NOT perform properly** if oriented on its side. (This puts the internal antenna in the wrong orientation for signal reception.)

Can the ThunderBolt distinguish between real lightning/storm activity and false signals?

Yes. The ThunderBolt contains special software routines for detecting and minimizing false triggering from non-storm sources. These routines trigger special warning messages if the level of this background noise is too high for normal storm detection and ranging. A background noise sampling routine can be run at any time from the main menu. It should be re-run any time the unit is moved or new equipment or electronics are placed nearby.

Is there a way to tell if my batteries are low?

Yes. Remaining battery life is constantly monitored by the computer. A LOW BATTERY warning message is periodically displayed once the remaining battery life drops below approximately 3-4 hours of normal operation. The batteries should be changed as soon as possible after the warning message starts to be displayed.

HINT: You can extend the battery life by turning the tone off whenever possible.

Can the ThunderBolt be powered by an external power adapter?

Yes. The ThunderBolt may be powered by the supplied power adapter. The adapter jack is labeled "9V DC" and is located on the back of the unit above the battery compartment door. Only Spectrum-approved low-noise adapters are recommended for use with the ThunderBolt. Many "off-the-shelf" adapters produce too much noise for proper operation of the unit. Spectrum offers 120v, 220v, and 12v adapters for use with ThunderBolt.

When the ThunderBolt detects lightning or storm activity, how often is the information updated?

As the storm is tracked, the displayed range, speed, and ETA are displayed on a rotating series of text-message screens. The displayed information is updated by the microprocessor as often as new data is accumulated about the storm and its activity or every 5 seconds, whichever is the lesser time.

Should I be cautious while using the ThunderBolt around water?

Yes. Remember, the ThunderBolt is weather-resistant, but is NOT waterproof and definitely not submersible.

Never use the 120VAC or 220VAC adapter around water, inside or outside!

What is the range of ThunderBolt's storm and lightning detection?

The ThunderBolt is designed to detect and track all thunderstorm activity within 75 miles of your location. Storms producing the most lightning activity will provide the most accurate information for the ThunderBolt to detect and analyze. Certain types of very low-level storms, or storms in the earliest phases of their development will take longer to be detected and ranged.

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