ST-1200 - FAQ

Link: https://help.gpsinsight.com/troubleshooting/st-1200-faq/ Last Updated: August 6th, 2020

Questions about the ST-1200? Check out the below.

ST-1200 Frequently Asked Questions

Question	Answer
What is its GPS accuracy level?	Tests indicate that our GPS accuracy on the ST-1200 device is 2.27 from referenced point, standard deviation is 2 meters. Positioning is more accurate when the device is placed vertically. This provides roughly 4x-5x improvement over ST-1100. 20 meters is the industry standard for minimum GPS accuracy.
What level of charge comes with the unit at time of shipping? How long can it be stored without sunlight?	Devices are charged to a minimum of 7.5V or better from our distribution center which should provide 6 months or more battery life without solar recharging, so you can put units in inventory for many months before installation.
How long will the ST-1200 battery hold a charge?	The answer to how long an ST-1200 solar battery can remain fully charged varies greatly, depending upon how often it reports, how much info it is reporting, how many events it must report on any given day, and the weather for each day, or storage conditions. If you think about the use of your own cell phone, you know that it will depend on how high the usage is on the device any given day. And for a solar-charged device, it also varies with the weather. That said, if charged to a minimum of 7.5V or better from our distribution center, the ST-1200 device would remain charged for 6 months or more without solar recharging. If kept in typical outdoor conditions for an on-road trailer or container tracking, it can report GPS location every 15 minutes with little risk of the battery ever draining to a point of losing charge. Even if mounted on a container in a well-cave with little sunlight, it should still deliver 24-31 messages per day without a problem. But this will vary under adverse weather or lighting conditions. If blocked, the battery retains charge.
How often can it report without draining the battery?	In typical conditions, for an on-road trailer or container tracking, and normal exposure to sunlight, it can report GPS location every 15 minutes without any risk of battery draining. Depending upon use, it can be set for reporting every 15 minutes with a low risk of the battery draining. This will vary under adverse weather or lighting conditions.
How quickly can the GT12 solar battery recharge?	ST-1200 devices are shipped with a minimum battery voltage of 7.5v. If that level drops to below 6.5v during device use, it will kick into low battery mode until recharged to 7.0v level. During low battery mode, the device will stop reporting. A low battery will recover 7V in 12 hours or less, placed horizontally in typical lighted outdoor environments. Vertically, it will recharge in about 3 days. Time to charge a totally dead (0v) ST-1200 solar battery up to a charged level of 7v is about 17 days, in real-world conditions, with mixed sunlight levels.
Minimum battery voltage?	Acceptable battery voltage is 7.5v. Voltage falling below 6.5v is below minimum functional levels and requires recharging for the device to be operational.

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Does the device report internal battery voltage with every update?	No, if the battery voltage does not change by more than 200 mV, the ST-1200 will not report a new, qualified value. As an example, if the last reading was 8.167 and it has not dropped to nor risen to 7.967 or 8.367, then there will be no new voltage data.
How many messages can the ST-1200 store and later forward when out of cell coverage?	The ST-1200's "store and forward" capacity is 100 messages (far better than 8 messages with ST-1100s).
How tough is it?	The ST-1200 passed ruggedness tests up to IP67 levels. IP67 means the unit can be dropped into a body of water up to a meter deep for half an hour and is also resistant to dust. This means it is highly durable for the tough conditions of on-road transportation. It passed tests on shock and vibration up to levels required for rail transport.
How long will the device last?	The ST-1200 devices are built with a combination of high-quality components to provide for an autonomous self-powered operation designed to last for more than 7 years.
How is it installed and mounted?	This product was specifically designed for flexible, quick and easy installation. It can be installed using VBH, direct mount or tapping screws, mounted vertically or horizontally, on containers or trailers, including sheet and post. It is sized to fit container corrugations or trailer roof mounts, keeping the device protected as much as possible.
Where can I find Installation Instructions?	An Install Guide can be found at this link: ST-1200 Installation Guide.
How does the device report updates?	Reporting is identical to the ST-1100 and details can be found here: https://help.gpsinsight.com/troubleshooting/how-does-the-st-1100-report/
What is the default device configuration for reporting?	By default the device is configured to report updates every 15 minutes when in motion and ever 6 hours when idle. This is currently the only configuration supported.
What data does the device report?	The ST-1200 is configured to report motion-based ignition, speed, voltage, and location.
Does the device collect diagnostic data?	No, only basic PVT data is reported with this device.
What carriers are supported with this device?	The ST-1200 reports on the T-Mobile 4G/LTE network with options to roam internationally if requested through Fulfillment • Coverage includes North America (USA, Canada, & Mexico).
What do I do if the device stops reporting?	You can reset the device by following the steps provided here: https://help.gpsinsight.com/troubleshooting/my-st-1200-stopped-reporting
What do the lights mean?	The Green LED will turn solid on for 15 seconds when the device powers on, including activation from shipping mode. The Blue LED will turn solid after a reset, or will turn solid for 15 seconds when the solar panel detects light and the following conditions are met: the unit exits shipping mode (is activated) and the shipping magnet is still present.

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