



## VenVolt™ 802.3at PoE+ Site Survey Battery Pack Charging and Operations Guide

The VenVolt™ is an 802.3af/at compliant battery for powering WiFi Access Points during Site Surveys. It can be operated either on its back (with the ethernet ports facing the right side of the unit) or on its side (with the ethernet ports facing up). It supports ethernet pass-through for configuring devices or other ethernet IP connectivity requirements you may think of (Meraki Cloud, gateway checking, iPerf, etc.). This Charging and Operations Guide will familiarize you with the VenVolt's features so you can be up-and-running in no time.

**Performance:** The VenVolt delivers over 6 hours of continuous run time using a fully powered Cisco 3802, with both radios turned up to the max, 1 client associated to each radio, both sending traffic to each other and to the AP. This is expected to be a 'worst case' scenario, and any deviation from this is likely to produce run time improvements.

**Display Gauge:** The gauge on front the front cap is not a 'battery charge' gauge, but rather a 'power output' gauge. Ventev recommends using the Voltage display when charging your VenVolt. Use the 'Display Cycle' button below the gauge to change the display from Percentage to Voltage numbers for a better understanding of the charge status.

***Note:** The gauge has three positions: Voltage, Percentage, and Blank. Simply press the 'Display Cycle' button repeatedly to cycle through the various displays.*

**Charging:** Charge your VenVolt before use. Charging typically takes 4-5 hours to recharge a fully discharged battery. Ensure the wall charger is fully and securely plugged into the VenVolt's charge port. When plugged in, and at full capacity, the gauge should reflect the maximum voltage of your AC adapter, indicating that the battery has completed charging and the voltage from the charger is being fully passed through. Full charge capacity is either just over 15V (for 15V chargers) or just over 18V (for 18V chargers). Both AC chargers/adapters are functionally equivalent and fully interchangeable. The 15V or 18V readings indicate that the battery is 'topped off' and at 100% capacity. When the charger is disconnected, the gauge will immediately drop to 13.4V (or so) to show available voltage.

**Operation:** The voltage gauge will float around 12V-13V during most of the day while in use. VenVolt follows a very long discharge curve, then drops off dramatically (as indicated by the chart on the back of the unit). This rapid drop-off is simply a characteristic of the LiFePo4 battery chemistry.

- Normally, no more than a half-hour of useful power remains when volts start to fall off below 11V or so. This should happen very late in the day during site surveys.
- The VenVolt supports charging while being used. This means that you can simply roll up to an AC outlet, plug the VenVolt in while it's being used and it will take a trickle charge to keep your battery up!
- At full capacity (noted above at a jump to 18.6V (or so), the VenVolt will shut off the injector to protect itself from overcharging. Stated differently, if you run the VenVolt plugged in, and powering an AP at the tippy-top of its voltage curve, you run the risk of powering off your AP. If your battery discharge indicator is at 13.4V (or so), don't bother plugging it in to keep it topped off.



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### **Additional Information:**

- The VenVolt is rated at 84WH and should be safe for carry-on and checked bags. If in doubt, carry the VenVolt with you if you're traveling on an airplane. The TSA recommends that the Master Power Switch be taped to the off position during air travel.
- Do not open/modify the VenVolt. This will void its warranty and you can compromise the power integrity (and various discharge benefits, longevity awesomeness, etc.) of the unit.
- The USB port on the front will charge cell phones, etc. - and if you have a USB-C laptop/tablet, VenVolt can keep your laptop/tablet charged during the day too!