Loading Your Brunton Charger

- **USB**: Connect the rectangular USB plug to an active (running) computer USB port. The Brunton’s charge indicator will blink green. When the battery is fully charged, all 4 blue LEDs will show and the green indicator will stop. This trickle charge mode ensures your battery will not over-charge. Charge time (from empty to full) Freedom/Restore 2-3 hrs : Inspire 3-4 hrs

- **12v DC**: Connect the rectangular USB plug to the included 12 volt adapter and then to an active (running) vehicle 12v outlet/cigarette lighter. The Brunton's charge indicator will blink green. When the battery is fully charged, all 4 blue LEDs will show and the green indicator will stop. This trickle charge mode ensures your battery will not over-charge. Charge time (from empty to full) Freedom/Restore 2-3 hrs : Inspire 3-4 hrs

- **Solar PV**: (Freedom & Restore only*). Place your Brunton into bright, direct sunlight with solar PV facing upwards and angled toward the sun. There’s no need to press any buttons or move any cables. The Brunton's charge indicator light will blink green. When the battery is fully charged, all 4 blue LEDs will show and the green indicator will stop. This trickle charge mode ensures your battery will not over-charge. Charge time (from empty to full) Freedom 20 hrs : Restore: 10 hrs.**

* The Inspire power pack will integrate with any Brunton solar array using the included USB cable or 12v adapter.
** Giving specific numbers on charge times for solar items is very complex. Many factors can affect charge times including: type of phone/device and differing power requirements, atmospheric/cloud conditions, time of year, time of day, position, shadowing, and the users position on the globe.

Maximizing Efficiency From Your Brunton Charger

- Your Brunton photovoltaic converts sunlight into electricity throughout the day, but depending on the season or the time of day, you should adjust and reposition your Brunton charger to face the sun and maximize solar power collection. The sun is typically most powerful between the hours of 11am and 2pm.

- Obstructions like cloud-cover and shade will greatly reduce effectiveness and increase charge times. Your Brunton charger is optimized for full, direct sunlight. Charging through glass or windows also greatly reduces efficiency. Glass must be clean if this method is employed. Brunton strongly discourages leaving your Brunton charger on the dashboard of your car unattended. The extreme temperatures could damage the impact Adventure-armor.

- In general, Brunton recommends you fully charge both your electronic device and your Brunton charger before leaving home. Then to ensure you always have power in reserve, keep your Brunton charger in the open by lashing it to the top of your backpack, or hanging it from the outside of your tent. This allows the sun to constantly charge and maintain your Brunton.

- Brunton recommends you store your power pack fully charged. Due to natural discharge, you should charge your power pack every 4 to 5 months.
**Powering Your USB Based Electronic Device**

- Completely connect the mini-USB cable to the input port on your electronic device. Then press the Start button. Your device should react like it is charging normally, and the light near the Start button on your Brunton will show red.
- If your device has a micro-USB input, use the included micro-USB adapter as shown and repeat as above.
- If your device has a device specific interface, you can also use the USB cable that came with your electronic device. In this case, remove the gray, attached cable from your Brunton unit completely.
  - Then connect your device using its normal USB cable, and press the Start Button to begin the charge.
- Your Brunton charger will change to a maintenance mode automatically when your electronic device is fully charged. There is no risk of over-charge.

**Checking Charge-Level Indicator**

To verify the charge level of your Brunton device, press the start/power button on the lower left side of the unit (Freedom/Restore) or the start/power button on the top of the unit (Inspire). Each blue light indicates 25% battery level increments. A single blue light means the battery somewhere between 0% and 25% capacity, and should be recharged. When all four blue lights are illuminated, the unit is between 75% and 100% charged. Remember your battery is protected from over charge.

**Specs/Safety**

- Working temperature range: -20 to 55 degrees C
- Over-charge protection.
- Discharge protection
- Output 5 volts, 1000 mA (USB): Input 5 volts, 1000 mA
- Lithium Polymer Battery-- Inspire: 3200 mAh
  - Freedom / Restore: 2200 mAh
- Solar Photovoltaic: Freedom 100mA polycrystalline
  - Restore (2) 100mA polycrystalline
- Do not short circuit, dismantle or dispose of the unit in fire.
- Do not submerge the unit in water or expose to heavy rain.
- Do not expose to temperatures greater than 60 degrees C
- Please contact local authority for the safe disposal of lithium products

**Tips & Troubleshooting**

- **My Brunton will not charge from the Sun.**
  - Make sure the solar panel is directly facing the Sun
  - Ensure there are no obstructions shading the solar panel from the Sun
  - Placing the solar panel behind UV resistant or dirty glass greatly reduces efficiency. Open air and direct sunlight is best. Clouds, air pollution and locations at higher latitudes can have a similar effect.

- **I can’t get my Brunton to charge my device.**
  - Be sure the Brunton has at least the first level of power charge (one blue light)
  - Be sure the plug/adapter is correct and inserted fully and securely
  - Be sure to press the ‘Start’ button
  - If your device has a specific USB cable, use that cable. In this case, remove the gray, attached cable from the Brunton unit completely. Then connect your device using its normal USB cable and press Start / Power button to begin the charge.