



We Create Alternative Power Solutions

*Generating energy from the sun today,
for use tomorrow, work or play....*

Battery Precautions & Maintenance Guide

**STORING RENEWABLE ENERGY
IS AN ESSENTIAL NEED FOR
EARTH'S LONGEVITY**

The power storage revolution is here, and lithium-ion batteries is now the premier way of storing then reusing energy created by natural sources like the sun. Gathering energy from nature is not a 24 hour a day source, nor quick, hence energy storage is a must. Lithium-Ion batteries is the futuristic cell, which now powers our next generation of devices. They are the fuel powering laptops, cell phones, cars, and our favorite, electric bicycles.

e-Statica, LLC - www.e-statica.com - Santa Barbara, CA
PM001, 4/2016

PRODUCT WARRANTY

WARRANTY TERMS AND CONDITIONS

1) 1 year Warranty against workmanship or materials

e-STATICA warranties, for a period of 1 years from purchase, that e-Statica products are free of any defects in workmanship or materials that might cause inadequate performance of the Product in proper conditions of use.

Should the purchased Product fail to operate properly by the time the present Warranty is in force, due to the arising of defects on its workmanship or materials, e-Statica will be obliged, depending on the arisen defect, to repair or to replace the defective Product. The decision whether to repair or to replace the defective equipment will be held in every case only by e-Statica.

The above mentioned warranty is offered by e-Statica as a standard Warranty for all its standard Products. E-Statica reserves the right to offer extended special Warranty conditions in different countries, according to their different technical and commercial conditions. In that case, these special conditions will be stated in a separate document. The Warranty terms of this document are given by e-Statica according to the following terms and conditions:

2) See exclusions section at www.e-statica.com

3) Claiming of the Warranty Rights

Warranty rights can be claimed during the first year the present Warranty is in force and immediately after the failure detection. Any customer or end user of the e-Statica Products, that considers himself with enough good reasons to claim for the Warranty rights declared in this document, must proceed as follows:

a) Inform immediately by written document to the supplier of the Product, or to the authorized Product dealer, or to the after-sales department of e-Statica.

For that purpose, e-Statica's «Complaint Form» must be fulfilled and attached with a copy of the purchase invoice and the delivery note of the Product, showing the date of acquisition and the serial number of the Product.

b) Once the compliant form is received by e-Statica, the Sales Department will analyze it in accordance with the Warranty scope, and will inform the customer about the steps to be followed.

c) Prior written authorization from the Sales Department of e-Statica will be necessary in case the Product should be sent back to the factory. Returning of the Product must be made using the original package. Should this be not possible, e-Statica might send a new one and charge it to the customer. Damages due to bad transport conditions will not be covered by this Warranty.

d) e-Statica will try to repair its products within two weeks. Should this be not possible, e-Statica will contact the customer in order to explain the reason of the delay and to communicate the estimated time to fix the Product.

e) e-Statica reserves the right to supply a different model of the Product to cover the Warranty rights, or for any substitution, in case that the original model of Product is not manufactured anymore. All the Products replaced in case of substitution will be property of e-statica.

**Some exclusions do apply, please see the Complete
Warranty Certificate at www.e-statica.com**

BATTERY CHARGING

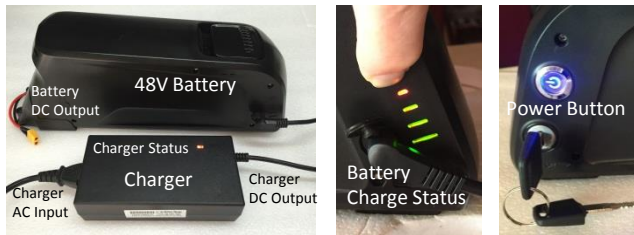
• High Power / Vehicle Battery Packs

4P/13S 52Cell (48V, 8800mAh, 422WH)

Always use supplied Charger!

Input: Maximum Charge Voltage 54.6Vdc / 2A

Output: Voltage 48Vdc / 20A (30A Fused)



Charging Procedure:

1. Plug the charger DC output cable into the battery socket port.
2. Then plug the charger AC input cable into an AC power outlet.
3. To terminate the charge first unplug the AC power to the charger input, then remove the charger DC output cable from the battery.

Charger Status: **RED**=Charging, **GREEN**=Complete

4. Battery DC output to vehicle

Battery Charge Status: **Red** small bar=Low, **Green** large bar=Full

• Personal Power Battery Packs

1P/1S 1Cell USB (5V, 3400mAh, 17WH)

2P/1S 2Cell USB (5V, 6800mAh, 34WH)

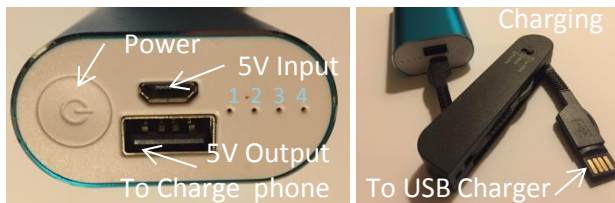
3P/1S 3Cell USB (5V, 10,200mAh, 51WH)

Solar Cell USB (5V, 8000mAh, 40WH)

Use a USB Charger (5V/1A)

Input: Maximum Charge Voltage 5Vdc / 1AMP

Output: Voltage 5Vdc / 1A



Charging Procedure:

1. Plug the large USB cable connector into either a computer USB port, or an AC USB charger port.
2. Plug the small micro cable connector into the small micro USB "Input" battery pack port.

LED Indicators Press "Power": 1=25%, 2=50%, 3=75%, 4=100% Charged

3. To charge your phone or device plug your USB cable into the "Output"

THE PRIMARY RULE TO REMEMBER: IT IS NOT NORMAL FOR YOUR BATTERY TO GET EXTREMELY HOT

The 18650 cell contains flammable organic compounds. If the battery is mishandled, it may become extremely hot causing smoke, fire, or explosion; and the battery's functionality will be seriously damaged. 18650 batteries are the most popular type of lithium-ion battery. Even though there are many safety precautions, they are surprisingly hardy and very safe to use. Each authentic cell is rigorously tested for safety at the Large battery manufacturing plants like Samsung and Panasonic, and it is our mission at e-Statica to go to great lengths to assure our batteries are authentic. Nonetheless you MUST treat your 18650 battery with respect.

THREE OF THE MOST COMMON MISTAKES PEOPLE MAKE WITH LITHIUM-ION BATTERIES

1. Exceeding your battery's maximum continuous discharge rating, in other words Too Much Current
2. Short-circuiting your battery by metal objects
3. Charging your battery with the Incorrect Charger (Wrong Voltage) or charging method (High Current)



WARNING

Please Carefully Read this Guide to assure safe handling of your battery pack. The center portion of this page outlines the Primary Safety Precautions, but always use common sense while operating / handling electrical devices. **NEVER** apply excessive force on battery connectors, it can damage the device which may lead to a short circuit battery fire.

<p>1. IMMERSION Do not immerse the battery in liquid such as water, ocean water, soda, or beer.</p> <p>2. HIGH TEMPERATURE Do not use or place the battery near fire or high temperatures (more than 70°C).</p> <p>3. WRONG CHARGER Do not use unauthorized chargers. Max. charge should be 4.20V for most 18650s.</p> <p>4. REVERSE POLARITY Make sure the + and - poles are oriented correctly. Do not force into the mount.</p>	<p>5. DIRECT CONNECTION Do not connect the battery with AC plug (outlet) or car plugs.</p> <p>6. SHORT-CIRCUIT Do not connect the + and - terminals with conductive material. Keep out of pockets.</p> <p>7. IMPACT Avoid unnecessary impact to the battery. Keep in a hard case during transport.</p> <p>8. PENETRATION Be careful to not penetrate with a nail or strike with a hammer.</p>
<p>9. SOLDERING Do not directly solder on to the battery; the insulator could melt or damage the vent.</p> <p>10. DISASSEMBLY & RECONSTRUCTION Do not disassemble the battery. You may damage the protection circuit or worse.</p> <p>11. DEFORMATION Do not use a battery with conspicuous damage or deformation.</p> <p>12. INGESTION The battery should be kept away from infants.</p>	<p>13. STORING Do not put the battery in the microwave or other cooking appliances.</p> <p>14. MIXED USE Do not use the battery with other batteries unless they will always be used together.</p> <p>15. RUST, COLOR CHANGE Stop using battery if there is abnormal smell, heat, deformities, or discoloration.</p> <p>16. CHARGING TIME Stop charging if the battery cannot finish charging within the specified time.</p>
<p>17. LEAKAGE Do not touch leaking battery. Battery liquid in your eye will cause significant damage.</p> <p>18. TRANSPORT To prevent short-circuits or damage, tightly pack the battery in a case or box.</p> <p>19. DIRECT SUNLIGHT Do not use or leave the battery in excessive heat such as in a car in direct sunlight.</p> <p>20. STATIC ELECTRICITY Do not use battery where it generates more than 100V of static electricity.</p>	<p>21. CHARGING TEMPERATURE The charging temperature range is regulated between 10°C and 45°C.</p> <p>22. MANUAL You should read both the manual for your device and the battery charger before use.</p> <p>23. USE BY CHILDREN Parents must teach how to use the battery and system, and check back periodically.</p> <p>24. FIRST TIME USE If battery has unusual odor, heat generation, or rusts, contact vendor.</p>
<p>25. FLAMMABLE MATERIALS Do not charge or discharge near flammable materials like a bed mattress.</p> <p>26. LEAKAGE ON SKIN If leakage gets on skin or clothing, flush with water to help prevent irritation.</p> <p>27. INSULATION If wires or metal objects come out from battery, please seal and insulate them.</p> <p>28. RECYCLE Recycle battery at local battery drop-off point or contact vendor you bought from.</p>	<p>OHM'S LAW Voltage = current (amps) x resistance (ohms)</p> <p>AMPS (A) Ampere (A) is a unit of electric current.</p> <p>MILLIAMPER-HOUR (mAh) The most common battery capacity rating.</p> <p>VOLT (V) The unit of electromotive force (amps x ohms).</p> <p>WATT (W) The rate of energy consumption (volts x amps).</p> <p>PARALLEL CONNECTION Batteries are connected to increase capacity.</p> <p>SERIAL CONNECTION Batteries are connected to increase voltage.</p>

For The Latest
Product Safety Precautions
Go to www.e-statica.com

e-Statica Only Uses the Best Lithium Batteries Available

Not all Lithium Ion batteries are alike, be very cautious of Lithium batteries that offer high capacity mAh at a low price. There are many batteries that are manufactured primarily in China that are copies, and in many cases have the top manufactures name on it like Panasonic™, and Samsung™, but are inferior in both Safety and Performance.

e-Statica uses authentic Lithium Ion batteries, and also performs lot tests to confirm capacity storage performance. Our battery vendor work directly with the primary manufactures to assure authenticity.

e-Statica Carries Three Different Types of Battery Packs

1. High Power / Vehicle Battery Packs, Used for electric bikes, and larger portable power applications
4P/13S Cell (48V, 8800mAh, 422WH)
2. Personal Power Battery Packs, Used for charging cell phones, tablets, and Cameras that charge by USB cables
1P/1S Cell USB (5V, 3400mAh, 17WH)
2P/1S Cell USB (5V, 6800mAh, 34WH)
3P/1S Cell USB (5V, 10,200mAh, 51WH)
3. Solar Personal Power Battery Packs, Used for charging cell phones, tablets, and Cameras that charge by USB cables and also charge by their own solar panel
USB (5V, 8000mAh, 40WH)