

### STAR® EV Lithium Warranty

Manufacturer's Limited Warranty

STAR EV Corporation 378 Neely Ferry Road, Simpsonville, SC 29680, USA P: (888) 878-9988 | F: (864) 297-7010 | www.starev.com

#### **LITHIUM ION BATTERY LIMITED WARRANTY**

STAR EV Corporation ("the Manufacturer") warrants each Lithium Ion Battery, as listed below, sold by STAR EV or Authorized STAR EV Dealers, will (1) be free from defects in material and/or workmanship under normal use and (2) conform to the applicable Technical Specifications for the product.

The warranty period of the battery shall be six (6) years + (6) months from the date of manufacture. Each battery has a manufacturer code. In addition to the product warranty, the manufacturer guarantees the performance of the product to be maintained at least sixty percent (60%) of the initial battery's capacity for a period of six (6) years + (6) months, provided that the usage of the product shall have complied with the operating conditions under specification.

# **CAPACITY MEASUREMENT CONDITION**

Ambient temperature: 77°-86°F (25°-30°C)

Initial battery temperature from BMS: 77°-86°F (25°-30°C)

Charging/discharging method

- Charge: (0.2)CC/CV

Discharge: (0.2)CC \*Please reference details on specification sheet
 Current at (0.2)C Current and voltage measurement at battery DC side

The warranty temperature refers to the normal battery usage environment. If the environmental temperature is beyond this range, the warranty evaluation will be considered and warranty coverage may be negatively impacted.

If the battery complied with the operating conditions under specification and becomes unserviceable (not merely discharged) due to a defect in material and /or workmanship within the warranty period, the manufacturer shall provide (1) repair the non-conforming or defective product; Product damage which is not caused by the seller, the manufacturer shall provide chargeable service, including all the expenses such as material cost, labor cost, warehouse cost, transportation cost, customs duties, analysis cost, management cost, corporate profits, disposal expense (If necessary) and so on;

The manufacturer provides option (2) replacement with new or refurbished products. The manufacturer will replace the battery free of charge for the 0-42nd month period, the 43-54th month provide a new battery at 50% of the "current" retail price, 55-66 months provide a new battery at 60% of the "current" retail price, 67-78th month provide new battery at 70% of the "current" retail price. Buyers can choose a free replacement of a refurbished battery after 36 months when performance is equal to or higher than the defective product and guaranteed by the manufacturer to finish the warranty period.

All the above warranties except the labor cost, transportation cost, etc. This Limited Warranty is to the original purchaser of the Product and is not transferable to any other person or entity.

# **WARRANTY PERIOD**

Starting from the battery manufacturer's Date Code on the battery) The "current" Price is based on the retail sales price at the time of the warranty claim. Replacement warranty based on original purchased battery Date Code.

Product Model	Free Replacement (Months)	Repaired / 50% of the price (Months)	Repaired / 60% of the price (Months)	Repaired / 70% of the price (Months)
36V – 125AH	0 - 42	43 - 54	55 - 66	67 - 78
48V – 80AH	0 - 42	43 - 54	55 - 66	67 - 78
48V – 105AH	0 - 42	43 - 54	55 - 66	67 - 78
48V – 160AH	0 - 42	43 - 54	55 - 66	67 - 78
48V – 210AH	0 - 42	43 - 54	55 - 66	67 - 78



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Product Model	Free Replacement (Months)	Repaired / 50% of the price (Months)	Repaired / 60% of the price (Months)	Repaired / 70% of the price (Months)
72V – 230AH	0 - 42	43 - 54	55 - 66	67 - 78
72V – 460AH	0 - 42	43 - 54	55 - 66	67 - 78

#### **LITHIUM-ION WARNINGS:**

- DO NOT disassemble the battery as it may cause electric shock, injury & death
- DO NOT short-circuit the battery, use it near/in heat or water sources
- DO NOT connect the battery with undersized cables, this will cause overheating of the battery
- DO NOT damage, drop or strike the battery. DO NOT weld on the battery case

If the battery is damaged or malfunctioning, STOP using it & contact StarEV immediately

# **LITHIUM ION OPERATING GUIDELINES**

- Strongly recommended to charge the battery after each use.
- Charge the battery as soon as possible when the state of charge is less than 10%.
- Avoid discharging the battery to less than 5%.
- Strictly follow the operating temperature range below:
  - Discharge: -4° ~ 140°F (-20° ~ 60°C)
  - Charge: 32 ~ 122F (0° ~ 50°C)
  - Storage: 32 ~ 86F (0° ~ 30°C)
- Even if not being used, fully recharge the battery at least once every 3 months (Recommended to fully recharge every month)
- Fully charge the battery before leaving it for a longer period of time.
- Avoid accelerating harshly as it may cause current spikes, triggering the battery's self-protective cut-off.

# THE WARRANTY IS INVALIDATED IF ANY OF THE FOLLOWING OCCURS, BUT NOT LIMITED TO:

- Failure to properly install the battery
- Failure to properly store the battery as indicated
- Product used for applications other than which it was designed and intended (Example: Wrong voltage application)
- Damage due to over-tightening and stripping of the terminals
- Damage due to shipping/mishandling of the product
- Breakage, freezing, wreckage, water damage, melted or broken terminals
- Product that has been opened, modified, or tampered with
- Damage due to extreme hot/cold temperatures outside the range defined above
- Leaving the battery uncharged for more than 14 days after the state of charge is less than 10%
- Leaving the battery in an environment with temperature greater than 113°F (45°C) with state of charge less than 20% for more than 1 day
- Connecting the battery key switch circuit to any electronic device that drains power from the circuit (Example: Keypad, GPS and etc.)

#### **LITHIUM-ION STORAGE**

- Fully charge the battery before storage; Fully recharge the battery every 3 months
- For storage over one month, turn off the battery push button (if applicable), store vehicle in a dry and ventilated location with temperature between 32° ~ 86°F (0° ~ 30°C)
- DO NOT store the battery near corrosive material, fire or heat sources



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#### **WARRANTY EXCLUSIONS**

# The Manufacturer has no obligation under this Limited Warranty for Product subjected to the following conditions (including but not limited to):

- Damage caused during shipping or mishandling of the product
- Damage due to improper installation; loose terminal connections, under-sized cabling, incorrect connections (series and parallel) for desired voltage and AH requirements, reverse polarity connections or insufficient space for airflow
- Environmental damage; inappropriate storage conditions as defined by the Manufacturer; exposure to extreme hot or cold temperatures, fire or freezing, or water damage
- Damage caused during operation; by collision or over-discharging the Product as defined by the Manufacturer
  Damage due to improper maintenance or operation; lack, under, or over-charging the battery
- Product that has been modified by anyone other than a Manufacturer representative
- Tampering or removal of manufacture date codes
- · Product that was used for applications other than which it was designed and intended for
- Product that was under-sized for the application
- Product not stored in adherence to the Manufacturer's storage guidelines

This Limited Warranty does not cover a product that has reached its normal end of life due to usage which may occur prior to the Warranty Period. A battery can deliver only a fixed amount of Energy over its life which will occur over different periods of time depending on the application. The Manufacturer reserves the right to deny a warranty claim if the Product is determined, upon inspection, to be at its normal end of life even if within the Warranty Period.

# **WARRANTY DISCLAIMER**

This limited warranty is in lieu of, and the manufacturer disclaims and excludes, all other express warranties. Manufacturer further limits the duration of all, whether statutory, express, or implied warranties, including, without limitation, any warranty of merchantability or fitness for a particular purpose. The manufacturer's exclusive liability for breach of any warranty on the battery shall be to replace the battery within the warranty. In accordance with the terms of this limited warranty. In no event shall the manufacturer be liable for any loss or damage of any other kind, whether direct, incidental, consequential including Lost profits, exemplary, special, or otherwise, including any lost profits or removal, shipping, or installation expenses.

EXCEPT FOR THE WARRANTY SET FORTH ABOVE, SELLER MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE GOODS, INCLUDING ANY (A) WARRANTY OF MERCHANTABILITY; OR (B) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.

# **BREACH OF WARRANTY REMEDY**

Manufacturer will not be responsible for any expenses for transportation, installation, freight, recharging, electrical system tests, loss of time, loss of use of equipment, service calls, labor, use of rentals or other expenses which would be considered as incidental or consequential damages. The only remedy available under this warranty is Battery replacement

# **SUBMITTING A WARRANTY CLAIM**

Buyer shall contact STAR Authorized Dealer directly for any warranty claims to avoid additional product problems. The dealer must submit the warranty claim through the STAR Dealer Portal. If the battery needs to be returned for inspection, return the battery at your expense. Acceptance of the battery for inspection does not mean the manufacturer will accept the warranty claim.