-BATTERY & CHARGING CENTRE RIGHT PRICE I EXPERT ADVICE

BATTERY POST ABUSE GUIDE

HERE'S WHAT YOU SHOULD KNOW

VISUAL INSPECTION:

The visual inspection of each Battery is to determine whether there are signs of abuse which could have contributed to the premature failure. Detailed below are reasons why the claim will be repudiated/rejected:

- 1. Terminals have been damaged, hammered, twisted, broken or driven down into the cover.
- 2. The terminals are damaged due to excess tightening.
- 3. Corroded terminals. Corroded terminals will restrict the flow of electricity which will result in the battery not working to its full potential.
- 4. Any part of the casing cracked or damaged. Any evidence of tampering with the battery in any way whatsoever.
- 5. The casing is swollen due to excessive heating as a result of overcharging or any other way.
- 6. Overcharging: This will cause the casing to swell and gassing to take place. As a result of gassing the battery could weigh less than an un-gassed battery.

Excessive heating would also cause discoloration of labels which could also start to curl. As a result of gassing there may also be a foul smell as result of losing electrolyte from the batteries gas arrestor.









Damaged terminal post.



Bent terminal post caused from the use of excessive force.

Terminal post damage caused from excessive force used when tightening post clamp.



Indent on terminal post damage caused from over tightening post clamp resulting in poor connection.



Melted terminal post caused from extreme heat.



Damaged Battery casing indented.







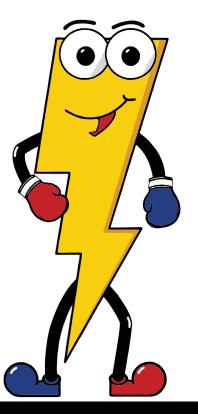


Scratched & Indented.

Damaged terminal post.



Damaged, scratched & indented terminal post. Excessive dirt build up from lack of battery care & maintenance



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BATTERY CLAIMS PROCEDURE

HERE'S WHAT YOU SHOULD KNOW

STEP 1 VISUAL INSPECTION (Batteries with a Magic Eye)

• If the battery does not have a magic eye, please go to step 2.

• All Kariba Batteries will either have a Serialized Warranty Card attached to the battery, which corresponds to an engraved serial number on the battery or a Serial Label on the casing of the battery. In addition, each battery will be DATE STAMPED when sold.

- The above warranty periods will be applicable from DATE STAMP PC15 onwards. Any product prior to this DATE STAMP, code PC15, will be honoured under the previous warranty period's requirements.
- If there is NO SERIAL ENGRAVING OR LABEL on the battery, but the battery has a DATE STAMP, for example PD12 (P = Monbat SA, D = Month of purchase- April 12 = Year), then the DATE STAMP date applies.

• If there is NO SERIAL ENGRAVING OR LABEL on the battery or the SERIAL ENGRAVING OR LABEL has been tampered with and there is no DATE STAMP on the battery or the DATE STAMP has been tampered with, then NO WARRANTY APPLIES.

• Check the casing, terminals and state-of-charge indicator (Magic Eye) for obvious damage, tampering or abuse. There will be NO WARRANTY if the casing is damaged, swollen (indicating overcharge conditions) or terminal abuse and Magic Eye has been removed or tampered with.

STEP 3 ELECTRONIC TESTER USER GUIDELINE

There are various models of Electronic Testers available. Be aware of CCA settings – SAE/BCI, IEC, DIN and EN. Kariba Batteries label ratings are SAE/ BCI standards.

- Connect tester clamps to battery terminals. Connection directly to Stud Type Stainless Steel Terminals or Dirty Terminals or Terminals with Grease/corrosion or Altered Terminals will impair readings. Good connection to lead part of posts is essential to achieve accurate results.
- Set CCA ratings select SAE/BCI setting and follows election instructions.
- The tester results and Magic Eye status after re-charging need to be collated and assessment made regarding warranty authenticity.

STEP 4 KARIBA BATTERY

• After following STEPS 1, 2 and 3 and the battery appears to be subject to a possible claim, complete the Kariba Battery Warranty Claim Request form and return to Monbat SA or Accredited Dealer for testing of battery and possible approval of warranty replacement.

THIS WARRANTY IS VOID IF FAILURE HAS RESULTED FROM ANY OF THE BELOW:

• Check COLOUR of Magic Eye after shaking the battery in order to mix electrolyte (be aware of the different types depending on the models, but procedure remains the same). If the Magic Eye indicates 'OVERCHARGED' then NO WARRANTY APPLIES.

• Check COLOUR of Magic Eye after shaking the battery in order to mix electrolyte (be aware of the different types depending on models - but procedure remains the same). If the Magic Eye indicates RED CHARGE then NO WARRANTY APPLIES and proper charging procedures should be adopted (see step 4).

• If battery Magic Eye does not display any of the above conditions, follow the guidelines in STEP 2 and STEP 3 and thereafter STEP 4 should be followed.

Use Magic Eye to confirm results of possible claim:

• If Magic Eye is GREEN and open circuit voltage less than 12.1V and after charge battery remains below capacity then the battery is FAULTY (DEAD CELL), **REPLACE UNDER WARRANTY.**

• If Magic Eye is WHITE/RED/BLACK, follow instructions on the battery label.

• If Magic Eye shows CHARGE, battery is GOOD and needs a charge and must be re-tested after charge.

• If Magic Eye turns GREEN and battery open circuit voltage is greater than 12.5V, then NO WARRANTY applies and return battery into service or to customer.

• If Magic Eye shows OVERCHARGED, battery has been overcharged due to alternator irregularities, malfunction problems, exposure to excessive heat or possible thermal run away – NO WARRANTY applies.

STEP 2 ELECTRICAL BATTERY TEST

Use a suitable ELECTRONIC TESTER to test the battery to confirm results relating to a possible warranty claim:

• If the Magic Eye is GREEN and the open circuit voltage is between 12.1V and 12.5V, then battery is GOOD and needs a charge. After charge, test again and if GOOD return into service.

• Abuse/Misuse. Cracked casings, damaged terminals amongst others.

• **Neglect/Excessive discharge,** evident in premature plate distortion and/or plate paste deterioration.

• **Improper Charging**, evident in premature plate distortion and/or plate paste deterioration.

Defective/Irregular Charging Voltage Regulation, Improper • **Use/Misapplication,** including incorrect over or under charging.

• Failure To keep the battery properly charged or maintained, evident in plate sulphation.

• Cycling at depths of discharge in excess of 20% of nominal capacity of the battery for more than 365 cycles. Operating the battery below 0°C or above 35°C; or use in automotive vehicles or equipment without proper operating, starting or charging systems; use of the Battery in continuous shift; overheating; overfilling; tipping over; missing or loose vent caps or visual "state - of - charge" indicators or lids/vent cap covers, if applicable; use of battery acid additives; excessive use and abnormal wear and tear during the Warranty Term (including commercial and industrial use)

• Use in a vehicle or equipment fitted with additional or non-standard/non-factory fitted electrical extras, for example, alarms, immobilizers, tracking devices, air conditioners, radios and any other electronic/electrical devices).

Environmental conditions or any other damage arising from: Inter alia, Environmental conditions or any other damage arising inter alia, accident/collision, fire, extreme heat, explosion, freezing, theft, civil commotion, labour/political unrest or rioting, Acts of God, government wars, embargoes or shortages or delays/damages or loss during transit or where Kariba Batteries reasonably determines that the Battery has been repaired or altered.

• Explosion: Application of an 'over voltage' for a long period of time (even if the charging current is minimal) causes a loss of water in the electrolyte by disassociating the water of the electrolyte into hydrogen and oxygen gases, which escape into the atmosphere with eventual drying up and/or overheating of the battery with serious damaging effects. In this regard, loss of electrolyte due to either overcharging, age of the battery, tipping over or overheating thereof, will create an excess of free explosive gas in the battery chamber and obvious eventual exposure of the plates and internal connections to the gas. In such a case, should the battery be subjected to delivery of energy, i.e. flow of current, an explosion will be generated with consequential internal and external damage, even if a minimal spark generated occurs in the exposed parts of the plates and internal connectors. Consequently, No Warranty applies in such a case.

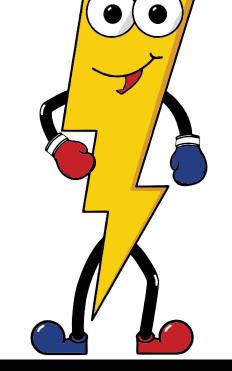
• If the Magic Eye is BLACK/WHITE and shows RECHARGE and the open circuit voltage is below 12.1V, proceed to recharge. If after recharge the open circuit voltage recovers over 12.5V and the CCA reading is lower than battery specifications this would indicate that the battery has been over-used and/or deeply discharged.

• Such CCA deficit is a typical indication of the state of health of the battery whereby the battery has been kept in a deeply discharged state for an extended period causing sulphation of the battery plates. This condition is normally irreversible. NO WARRANTY applies.

• If the Magic Eye is GREEN and the open circuit voltage between 12.1V and 12.5V, then battery needs a charge. If after recharge, the CCA readings are lower than battery specifications then the WARRANTY APPLIES, subject to the first date of purchase being stamped on the new battery and proof of purchase is provided.

• If the Magic Eye is GREEN/BLACK/WHITE and shows RECHARGE, proceed to recharge. If after recharge, the open circuit voltage does not recover and remains below 12V, this means that there is possibly a dead cell or open circuit in which case, the WARRANTY APPLIES provided the first date of purchase is stamped on the new battery and proof of purchase is provided.

E&OE - Specification may vary and are for indication purposes. *Technical specifications may vary within 5%



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