

# STORAGE AND HANDLING OF STARTER BATTERIES



## STORAGE AND TRANSPORT OF BATTERIES

- Transport and storage in an upright position, prevent it falling over or sliding around
- Use short-circuit protection
- Storage conditions
  - Batteries are to be kept in a cool ( between 0° and +25° C) and dry place
  - Do not put batteries into the sun (show case)
  - The batteries may not be covered in dirt and the terminals must be kept clean
- Ensure FIFO – First In First Out
- Regular check of the Open Circuit Voltage (OCV)
  - **At the latest 12,50V → immediate recharge**



## BATTERY CHARGING

- At the latest on reaching the OCV 12,50V
- Note the safety instructions (charge only in a well ventilated room; avoid fire and sparks)
- The battery screws may not be opened
- **When recharging inside the vehicle avoid voltages > 15,90V**
- Take careful note of the charging characteristic
- Recommended charging conditions:
  - Charge current: 10% of capacity
  - Charge voltage at +25° C (observe temperature compensation):
    - o AGM: 14,40 - 14,80V voltage-constant
    - o Conventional: 14,40V - max. 16V
  - Charge time: ca. 12 - 24 hours

## RESALE OF BATTERIES

- **No resale of batteries with an open circuit voltage < 12,60V!**
- Inform the customer about the correct handling of batteries and about the Banner tips how to avoid a premature battery failure

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## BATTERY INSTALLATION AND REMOVAL

- Follow the vehicle instructions
- Voltage interruptions can result in data loss. The Banner Memory Saver provides assistance
- **Install batteries with the highest possible open circuit voltage. Never install batteries with an OCV below 12,50V**
- If necessary use a degassing tube

## Banner TIPS TO AVOID A PREMATURE BATTERY FAILURE

- Battery types with the largest capacity should be installed. Replace only with original dimensions: wherever feasible, batteries with a height of 190mm should be refit. Employ Banner's installation recommendations – the "Book of Power" and the Battery Search on [www.bannerbatterien.com](http://www.bannerbatterien.com)
- For the expected life time of a battery the capacity is essential more important than the cold cranking power. The lower the depth of discharge the higher is the cycling capability and life time → the choice of the replacement battery should therefore focus primarily on the capacity and not after cold cranking power.
- Especially by irregular driving patterns an external, compensatory charging twice a year results in an extremely extended life time.
- By additional power consumers which are not integrated into the vehicle concept we re - commend the use of the Running Bull AGM as an alternative.

**A discharged or premature worn out battery is NOT a legitimate claim in terms of warranty.**

Hereby I confirm the acknowledgement and compliance of the above policy prescriptions for Banner Batterien

Customer, Date, Signature

Banner, Date, Signature