



The goBILDA® 12V battery is a 12V NiMH battery with 3000 mAh of capacity. Power can be pulled from the pack via the wire terminated in an XT30 connector (Male Housing, Female Contacts). This pack is protected from over-current by a 20A Mini Blade (ATM Series) fuse.

SUMMARY OF PRODUCT RATINGS	
Nominal Voltage	12V
Recommended Charge Rate	1A
Recommended Storage Voltage	10V
Power Connector	XT30 (MH-FC)
Wire Gauge	16AWG
Maximum Discharge Rate	30A (limited to 20A by Fuse)
Capacity	3000mAH
Fuse	20A ATM Series Mini Blade

Battery Usage Guidelines:

- **Never replace the inline 20A fuse with a higher-current fuse.**
- Do not continue to use a battery below 9V. Lower voltages may be observed momentarily when the battery is under load, but allowing the battery to drop below 9V without load applied can permanently reduce the performance of the battery.

1.1 Charging

- Do not leave charging batteries unattended.
- Monitor battery heat. If the battery or connector becomes hot while charging, immediately remove the battery from the charger and discontinue use.
- Do not charge the battery when ambient temperatures are below 0°C (32°F) or above 40°C (104°F)
- The recommended charge current is 1A. Rapid charging at up to 3A is acceptable but may degrade the battery's performance over time.
- Remove the battery from the charger once it is fully charged. Some chargers employ a trickle-charge feature that can be used to keep the battery at peak voltage for immediate use. Storing batteries at full charge can degrade their performance.

1.2 Charge Cycles

Charge cycling (sometimes called conditioning) a NiMH Battery can reduce its internal resistance and increase its performance. It is recommended to cycle a new battery before use, as well as after it is recharged from storage voltage.

Charge cycling batteries can sometimes restore performance of degraded batteries. If battery capacity or ability to provide current is noticeably reduced, it is recommended to perform a charge cycle. Some chargers can cycle NiMH Batteries automatically. Make sure to configure the charge and discharge rates according to the instructions below.

Charge cycle discharge and charge rates:

- Discharge at a rate of 0.4-0.6A until the battery reaches 10V, then let it rest for 10 minutes.
- Charge the battery to full at a rate of 1A.

1.3 Storage

Charging/discharging batteries to a storage voltage is recommended when they will be unused for more than 28 days.

- The recommended storage voltage is approximately 10V. Make sure it is above 9V.
- Store batteries in a dry environment.
- Do not store batteries where ambient temperatures may fall below -20°C (-4°F) or rise above 40°C (104°F).
- After a battery is stored, it is recommended to put it through at least one charge cycle (section 1.2).
- It is recommended to run a charge cycle once every three (3) months.
 - If a charge cycle cannot be run every three (3) months, storage voltages higher than 10V can be used to ensure that the battery voltage does not drop below 9V in storage.