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› Banshee 6V 12V 6Amp Smart Battery Charger User Manual

## Banshee BD03-Z6.0A-D1-27

# Banshee 6V 12V 6Amp Smart Battery Charger User Manual

Model: BD03-Z6.0A-D1-27

## 1. INTRODUCTION AND OVERVIEW

The Banshee 6V 12V 6Amp Smart Charger is a versatile battery charging and maintenance device designed for a wide range of vehicles and equipment. It is compatible with 6 Volt and 12 Volt Standard Wet/Flooded Lead Acid Batteries, 12 Volt Absorbed Glass Mat (AGM) Lead Acid Batteries, and 12 Volt LiFePO4 Batteries, with capacities ranging from 4-150Ah. This charger utilizes a microprocessor-controlled program to ensure efficient and safe charging, preventing overcharging and extending battery life.

This manual provides essential information for the safe and effective use of your Banshee Smart Charger. Please read it thoroughly before operation.

# ***SIDE VIEW***



# ***BOTTOM VIEW***



Image: Top view of the Banshee 6V 12V 6Amp Smart Charger, showcasing its compact design.

**Great for  
Motorcycles, ATVs, Lawn,  
PWCs, Auto and more!**



Image: The Banshee Smart Charger connected to a lawn mower battery, illustrating its application for various vehicles like motorcycles, ATVs, and automobiles.

## 2. SAFETY INFORMATION

Always prioritize safety when operating battery chargers. Failure to follow these instructions may result in injury or damage to property.

- **Eye Protection:** Always wear appropriate eye protection (safety glasses) when working with batteries.
- **Ventilation:** Ensure adequate ventilation in the charging area to prevent the accumulation of explosive gases.
- **No Smoking/Sparks:** Do not smoke or allow open flames or sparks near the battery or charger during operation.
- **Proper Connection:** Connect and disconnect the DC output clips only after setting the charger switch to the OFF position and unplugging the AC cord from the electrical outlet.
- **Battery Type:** Ensure the charger is set to the correct voltage and battery type before connecting.
- **Damaged Equipment:** Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged.

- **Children and Pets:** Keep the charger and battery out of reach of children and pets.

The Banshee Smart Charger incorporates multiple layers of internal protection for enhanced safety:

- **Over-Current Protection:** Prevents damage from excessive current flow.
- **Over-Charge Protection:** Automatically stops charging when the battery is full.
- **Over-Voltage Protection:** Safeguards against charging at excessively high voltages.
- **Short-Circuit Protection:** Prevents damage from accidental short circuits.
- **Over-Heating Protection:** Shuts down if internal temperatures become too high.
- **Open Circuit Protection:** Detects and responds to open circuit conditions.
- **Spark Proof:** Designed to prevent sparks during connection.
- **Reverse Polarity Protection:** Protects against incorrect battery terminal connections.

## ***MULTIPLE LAYERS OF INTERNAL PROTECTION***



***Over-Current Protection***



***Over-Charge Protection***



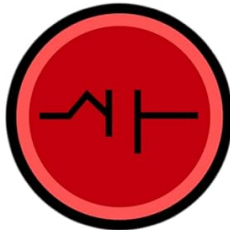
***Over-Voltage Protection***



***Short-Circuit Protection***



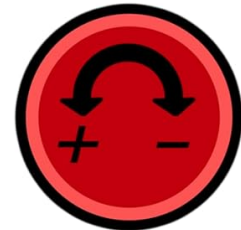
***Over-Heating Protection***



***Open Circuit Protection***



***Spark Proof***



***Reverse Polarity Protection***

Image: Visual representation of the charger's internal safety features, including protection against over-current, over-charge, over-voltage, short-circuit, over-heating, open circuit, spark, and reverse polarity.

### **3. PRODUCT FEATURES**

The Banshee Smart Charger is engineered with advanced technology to provide optimal battery care:

- **Microprocessor Controlled:** Ensures precise and efficient charging cycles.
- **Multi-Voltage Compatibility:** Supports both 6 Volt and 12 Volt batteries.
- **Multi-Battery Type Support:** Compatible with Standard Wet/Flooded Lead Acid, AGM Lead Acid, and LiFePO4 batteries.
- **Wide Capacity Range:** Charges batteries from 4Ah to 150Ah.
- **Seven Charging Modes:** Includes modes for Maintenance, Recondition/Desulfator, Supply (12V), Winter, 6V Standard, 12V Standard, 12V AGM/C, and 12V LFP.
- **Automatic Shut-off:** Prevents overcharging by automatically switching off when the battery is fully charged.
- **High-Frequency Smart Charging:** Maintains batteries at optimal charge levels.
- **Included Connectors:** Comes with both alligator clips and ring terminals for flexible connection options.
- **SAE Disconnect:** Enhances protective measures for safe charging.
- **All-Weather Performance:** Designed to operate effectively in a wide range of temperatures, from -4°F to 104°F.



Image: The Banshee Smart Charger shown with indicators for operating in temperatures as hot as 104°F and as cold as -4°F, highlighting its all-weather capability.

## 4. SETUP

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Before connecting the charger, ensure the battery terminals are clean and free of corrosion. Always connect the charger to the battery before plugging it into an AC outlet.

### 4.1 Connecting to the Battery

The Banshee Smart Charger includes two types of connectors: alligator clips and ring terminals. Choose the appropriate connector for your application.

- **Alligator Clips:** Ideal for temporary connections or batteries with easily accessible terminals.
- **Ring Terminals:** Suitable for semi-permanent installations, providing a secure connection.

To connect:

1. Ensure the charger is unplugged from the AC power source.
2. Connect the positive (+) red connector to the positive (+) battery terminal.
3. Connect the negative (-) black connector to the negative (-) battery terminal.
4. For vehicles, if connecting to the chassis, connect the negative (-) clamp to a metal part of the chassis away from the battery and fuel line.
5. Once connected to the battery, plug the charger into a suitable AC electrical outlet.

# ***2 WAYS TO CONNECT***

## ***O-RINGS***



## ***CLAMPS***



Image: The two connection methods provided: O-rings for permanent attachment and clamps for temporary use, both featuring an SAE disconnect for safety.



Image: All components of the Banshee Smart Charger, including the main unit, AC power cord, alligator clips, and ring terminals, laid out for inspection.

## 5. OPERATING INSTRUCTIONS

The Banshee Smart Charger features an intuitive interface with a display and a 'MODE' button to select the desired charging program.

### 5.1 Selecting a Charging Mode

After connecting the charger to the battery and plugging it into an AC outlet, the charger will typically default to a standard mode or perform an initial battery analysis. Press the 'MODE' button to cycle through the available charging programs:

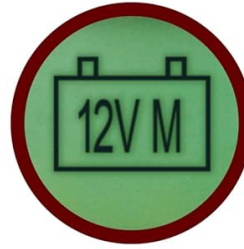
- **6V STD:** For 6 Volt Standard Wet/Flooded Lead Acid Batteries.
- **12V STD:** For 12 Volt Standard Wet/Flooded Lead Acid Batteries.
- **12V AGM/C:** For 12 Volt Absorbed Glass Mat (AGM) Lead Acid Batteries. This mode may also include a cold weather charging setting.
- **12V LFP:** For 12 Volt LiFePO<sub>4</sub> (Lithium Iron Phosphate) Batteries.
- **Maintenance (12V M):** A low-current mode to keep a fully charged battery at optimal levels, preventing

self-discharge.

- **Recondition/Desulfator (RECOND):** A specialized mode designed to recover deeply discharged or sulfated batteries by applying a controlled high-voltage pulse. Use with caution and only when necessary.
- **Supply (12V):** Provides a constant 12V power supply, useful for powering 12V accessories or maintaining vehicle electronics during battery changes.

The charger's display will indicate the selected mode, current battery voltage, and charging status. The charger will automatically switch off once the battery reaches a full charge, preventing overcharging.

## 7 CHARGING MODES



**INCLUDES:  
MAINTENANCE MODE, RECONDITION/DESULFATE MODE,  
WINTER MODE, & DC POWER SUPPLY MODE!**

Image: The charger's display showing various charging modes including 12V STD, 12V AGM/C, 12V M (Maintenance), 12V LFP (LiFePO4), 6V STD, SUPPLY, and RECOND (Recondition/Desulfate).

### 6. MAINTENANCE

Proper maintenance of your Banshee Smart Charger ensures its longevity and continued performance.

- **Cleaning:** Disconnect the charger from power and the battery before cleaning. Wipe the exterior with a soft, dry cloth. Do not use harsh chemicals or abrasives.
- **Cable Inspection:** Regularly inspect the AC power cord and DC output cables for any signs of damage,

cuts, or fraying. Do not use the charger if cables are damaged.

- **Connector Care:** Keep the alligator clips and ring terminals clean and free of corrosion.
- **Storage:** Store the charger in a cool, dry place when not in use. Avoid extreme temperatures and direct sunlight. Ensure cables are neatly coiled to prevent damage.

## 7. TROUBLESHOOTING

If you encounter issues with your Banshee Smart Charger, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Charger does not turn on.	No AC power; Faulty outlet; Damaged power cord.	Check AC outlet with another device; Ensure power cord is securely plugged in; Inspect power cord for damage.
Battery not charging.	Incorrect battery connection; Incorrect mode selected; Battery is severely discharged/damaged; Charger safety feature activated.	Verify correct polarity (+ to +, - to -); Select appropriate charging mode for your battery type; If battery is below minimum voltage, try Recondition mode (if applicable) or consult a professional; Check for error codes on display (if any) and refer to safety features.
Charger displays an error.	Reverse polarity; Short circuit; Over-temperature.	Disconnect immediately and check connections; Allow charger to cool down if it feels hot. Refer to safety features section for specific error conditions.
Charger gets warm during operation.	Normal operation; Insufficient ventilation.	Some warmth is normal. Ensure adequate ventilation around the charger. If it becomes excessively hot, disconnect and allow to cool.

If the problem persists after attempting these solutions, please contact customer support.

## 8. SPECIFICATIONS

Specification	Detail
Brand	Banshee
Model Number	BD03-Z6.0A-D1-27
Output Voltage	6 Volts / 12 Volts
Input Voltage	240 Volts (AC)
Current Rating	6 Amps
Compatible Devices	6V/12V Standard Wet/Flooded Lead Acid Batteries, 12V AGM Lead Acid Batteries, 12V LiFePO4 Batteries (4-150Ah capacity). Suitable for automobiles, motorcycles, ATVs, RVs, boats, lawn mowers, etc.

Specification	Detail
Product Dimensions (D x W x H)	2.25" x 9.38" x 3.5"
Color	Black
Manufacturer	BatteryJack
UPC	840417407425

## 9. WARRANTY AND SUPPORT

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### 9.1 Warranty Information

The Banshee 6V 12V 6Amp Smart Charger comes with a **2-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accident, unauthorized modification, or improper installation.

### 9.2 Customer Support

For technical assistance, warranty claims, or any questions regarding your Banshee Smart Charger, please contact Banshee customer support. Refer to the product packaging or the official Banshee website for the most current contact information.