

BreeRainz IWR-40

BreeRainz IWR-40 Adjustable Battery Charger User Manual

Model: IWR-40 | Brand: BreeRainz



1. INTRODUCTION

The BreeRainz IWR-40/BLB-C40 is an adjustable battery charger designed for a wide range of battery types and voltages. It supports 12V, 24V, 36V, 48V, 60V, and 72V battery packs, including SLA, GEL, AGM, LiFePO4, and Li-ion batteries. This charger is suitable for various vehicles such as cars, off-road vehicles, tractors, trucks, boats, motorcycles, and lawn mowers.

This manual provides essential information for the safe and effective operation, setup, and maintenance of your BreeRainz IWR-40 battery charger. Please read it thoroughly before use.

2. SAFETY PRECAUTIONS

WARNING: Failure to follow these safety instructions may result in electric shock, fire, or serious injury.

- Read all instructions and warnings in this manual before use.
- Ensure the charger is adjusted according to the model and capacity of the battery. **DO NOT** connect to a mismatched battery.
- Always select the corresponding voltage for charging to avoid damaging the battery.
- Operate the charger in a well-ventilated area.
- Avoid contact with battery acid. Wear appropriate personal protective equipment.
- Keep out of reach of children.
- Disconnect the charger from the power outlet before making or breaking connections to the battery.
- Do not use the charger if it has been dropped or damaged.
- Ensure proper polarity when connecting to the battery: Red clamp to positive (+), Black clamp to negative (-).



Image: The BreeRainz IWR-40 charger with its accessories, highlighting important safety precautions regarding battery compatibility and voltage selection.

3. WHAT'S IN THE BOX

Upon opening the package, please verify that all components are present and undamaged:

- BreeRainz IWR-40 Battery Charger Unit
- AC Power Cord
- Battery Clamps (Red for Positive, Black for Negative)
- User Manual (This document)



Image: A visual representation of the BreeRainz IWR-40 battery charger and its included accessories: the main unit, AC power cord, and battery clamps.

4. PRODUCT OVERVIEW

Familiarize yourself with the components and controls of your BreeRainz IWR-40 battery charger:



Insulation Clamp Rubber Cover Ensure safe use.

One For Various Batteries



Lithium Battery



AGM



GEL



Flooded

Image: A detailed view of the BreeRainz IWR-40 charger, indicating its key components: (1) Power on/off switch, (2) Ammeter, (3) Level Volt switch (12V to 72V), (4) Output terminals (Black for negative, Red for positive), (5) Ampere control switch (Low-Medium-High), and (6) Voltmeter.

1. **Power On/Off Switch:** Controls the main power to the unit.
2. **Ammeter:** Displays the charging current in Amperes.
3. **Level Volt Switch:** Rotary knob to select the desired output voltage (12V, 24V, 36V, 48V, 60V, or 72V).
4. **Output Terminals:** Connect the battery clamps here. Red for positive (+), Black for negative (-).
5. **Ampere Control Switch:** Rotary knob to set the charging current to Low, Medium, or High.
6. **Voltmeter:** Displays the charging voltage in Volts.

5. SETUP

Before connecting the charger, ensure the area is well-ventilated and you have read all safety precautions.

1. **Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion. If charging a flooded lead-acid battery, check the electrolyte levels and top up with distilled water if necessary.

2. Connect Battery Clamps:

- Connect the **RED** positive (+) clamp to the positive (+) terminal of the battery.
- Connect the **BLACK** negative (-) clamp to the negative (-) terminal of the battery.

Important: Ensure a secure connection. Incorrect polarity can damage the charger, battery, or vehicle.

3. Connect to Power:

Plug the AC power cord into a standard 110V AC electrical outlet.

BreeRainz**EASY TO OPERATE**

Customized Voltage & Current

The voltage and current can be customized by simply turning the corresponding knobs. Meet your different charging needs



Current knob:
Set charge current from low - medium - high



Voltage knob:
Set charge voltage among 12V, 24V, 36V, 48V, 60V, 72V



The slower and longer you charge a lead-acid battery, the more likely it is that sulfates will be removed. So you simply choose the battery charger voltage with the "H" knob and set the battery charger to the lowest charge rate.

← Remove Sulfation From Batteries & Equalize Charging

Image: The BreeRainz IWR-40 charger connected to a vehicle battery, demonstrating proper clamp attachment.

6. OPERATING INSTRUCTIONS

The BreeRainz IWR-40 offers adjustable voltage and current settings to suit various battery charging requirements.

6.1. Setting Voltage and Current

1. **Turn On:** Flip the Power On/Off switch to the "ON" position.
2. **Select Voltage:** Turn the **Level Volt knob** to select the appropriate voltage for your battery (12V, 24V, 36V, 48V, 60V, or 72V). Refer to your battery's specifications for the correct voltage.
3. **Select Current:** Turn the **Ampere control knob** to set the desired charging current (Low, Medium, or High).

◦ **Maximum Current Output:**

- 12V: 16A (max)
- 24V: 14A (max)
- 36V: 12A (max)
- 48V: 10A (max)
- 60V: 8A (max)
- 72V: 6A (max)

4. **Monitor Charging:** Observe the Ammeter and Voltmeter to monitor the charging process.



Image: The current and voltage adjustment knobs on the BreeRainz IWR-40 charger, illustrating how to set the desired charging parameters.

6.2. Charging Modes

- **Normal Mode:** For daily charging of depleted batteries. Set the desired voltage and current using the respective knobs.
- **"H" Mode (High Voltage Pulse Repair Mode):** This mode is designed to desulfurize lead-acid batteries and

restore their balance status and charging performance.

- To activate, select "H" on the Level Volt knob.
- It is recommended to use the "Low" rate for charging when in "H" mode for optimal desulfurization.
- The slower and longer you charge a lead-acid battery in "H" mode, the more effectively sulfates will be removed.

WHAT IS "H" MODE



"HIGH" for an emergency quick charge. "H" mode (high voltage pulse repair) to desulfurize and balance your battery, which will help restore your battery's performance. However, it is recommended to use the "low" rate for charging.

Image: An illustration detailing the "H" mode (High Voltage Pulse Repair) on the BreeRainz IWR-40, explaining its function for desulfurization and balancing battery performance.

6.3. Important Charging Notes

- This charger does **NOT** have an automatic power-off function. When the battery reaches full charge, the current will automatically slow down to 0.0 Amperes, but the unit must be manually shut down.
- Always monitor the charging process to prevent overcharging, especially with batteries that are sensitive to it.
- After charging is complete, turn off the charger, then disconnect the battery clamps (negative first, then positive).

WHAT'S IN THE BOX



Safety Precaution

1. For safety reasons, all instructions, precautions, and warnings in the installation manual here must be read and followed before use.
2. Please make sure to adjust according to the model and capacity of the battery, DO NOT to connect with a mismatched battery.
3. Please MAKE SURE to choose the corresponding voltage to charge your battery.



Image: The BreeRainz IWR-40 charger in operation, with a note emphasizing that manual shutdown is required as it lacks an automatic power-off feature.

7. MAINTENANCE

Proper maintenance ensures the longevity and safe operation of your BreeRainz IWR-40 battery charger.

- **Cleaning:** Disconnect the charger from power before cleaning. Wipe the exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the charger in a cool, dry place when not in use. Keep it away from moisture and direct sunlight.
- **Ventilation:** The charger is equipped with multiple ventilation slots and a cooling fan for effective heat dissipation. Ensure these vents are not blocked during operation to prevent overheating and extend service life.
- **Cable Inspection:** Regularly inspect the AC power cord and battery clamps for any signs of damage, fraying, or loose connections. Replace if damaged.

EFFICIENT HEAT DISSIPATION

No need to worry about overheat during charging. Equipped with multiple ventilation slots, plus a cooling fan on it for effective heat dissipation, which can extend its service life.



- ① Power on/off
- ② Ampere meter
- ③ Level volt switch :12 up to 72 Volt
- ④ Output terminal:Black(-) Red(+)
- ⑤ Ampere control switch:Lo-Med-Hi
- ⑥ Volt Amper

Image: The rear of the BreeRainz IWR-40 battery charger, highlighting its ventilation slots and integrated cooling fan designed for efficient heat dissipation during operation.

8. TROUBLESHOOTING

If you encounter issues with your BreeRainz IWR-40 charger, refer to the following common problems and solutions:

- **Charger Not Turning On:**
 - Ensure the AC power cord is securely plugged into a live outlet.
 - Check the Power On/Off switch is in the "ON" position.
 - Inspect the power cord for damage.
- **No Charging Current (Ammeter reads 0):**
 - Verify battery clamps are correctly and securely connected to the battery terminals (Red to +, Black to -).
 - Ensure the selected voltage matches the battery voltage.
 - Check if the battery is severely discharged or damaged. Some batteries may not accept a charge if their voltage is too low.
 - Confirm the Ampere control knob is set to Low, Medium, or High, not off.

- **Charger Overheating:**

- Ensure the charger's ventilation slots are not blocked.
- Operate the charger in a well-ventilated area.
- Reduce the charging current setting if possible.

- **Battery Not Fully Charging (or overcharging concern):**

- Remember, this charger requires manual shut-off. Monitor the voltmeter and ammeter. When the ammeter drops to 0.0A, the battery is fully charged, and the charger should be manually turned off.
- Ensure the correct voltage setting is selected for your battery.
- The battery itself might be faulty or have reduced capacity.

9. SPECIFICATIONS

Feature	Specification
Model	IWR-40 / BLB-C40
Input Voltage	110 Volts AC
Output Voltage (Adjustable)	12V, 24V, 36V, 48V, 60V, 72V DC
Max Output Current	12V-16A, 24V-14A, 36V-12A, 48V-10A, 60V-8A, 72V-6A
Compatible Battery Types	SLA, GEL, AGM, LiFePO4, Li-ion
Product Dimensions	13 x 10.8 x 6.3 inches (33 x 27.5 x 16 cm)
Item Weight	18.51 pounds

BreeRainz

**MODEL:
IWR-40
BATTERY CHARGER**

Charging Voltage: 12v/24v/48V/60V/72V
For SLA, GEL, AGM, LiFePO4, Li-ion Batteries




Image: A banner displaying the BreeRainz IWR-40 model and its compatible charging voltages for various battery types.

10. WARRANTY AND SUPPORT

For warranty information or technical support, please contact BreeRainz customer service through the retailer where the product was purchased or visit the official BreeRainz website. Please have your product model number (IWR-40) and purchase date available when contacting support.

