

MOTOBATT

BABY BOY CHARGER

SAFETY INSTRUCTIONS

FOR MOTOBATT MODELS: MBCBABY (For 6 & 12 Volt Batteries)

THIS MANUAL CONTAINS IMPORTANT SAFETY AND OPERATING INSTRUCTIONS. PLEASE SAVE THESE INSTRUCTIONS. KEEP IT WITH OR NEAR CHARGER AT ALL TIMES.

1. **WARNING** – RISK OF EXPLOSIVE GASES.
 - a. Working in the vicinity of a lead-acid battery is dangerous. Batteries generate explosive gases during normal battery operation.
 - b. For this reason it is of the utmost importance that each time before using your charger, you read and follow the instructions provided exactly.
 - c. The appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
2. To reduce risk of battery explosion, follow these instructions and those marked on the battery.
3. **NEVER** smoke or allow a spark or flame in the vicinity of the battery or engine.
4. **CAUTION** – To reduce the risk of injury, use the charger for charging a rechargeable lead-acid battery only. It is not intended to supply power to an low-voltage electrical system or to charge dry-cell batteries. Charging dry-cell batteries may cause them to burst and cause injury to persons and damage to property.
5. Do not expose charger to moisture, rain or snow. For indoor use only.
6. Use of any attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
7. To reduce risk of damage to electric plug, pull by plug housing when disconnecting the charger.
8. Study all the battery manufacturers' specific precautions such as removing or not removing cell caps while charging and recommended rates of charge.
9. Do not use the battery charger unless the battery voltage matches the output voltage rating of the charger.
10. Do not operate the charger in a closed-in area or restrict ventilation in any way.
11. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. That pins on the plug of extension cord are the same number, size, and shape as those of plug on charger.
 - b. That extension cord is properly wired and is in good electrical condition.
 - c. That wire size is large enough for AC ampere rating of the charger as specified below.

Length of Cord (Feet)	25'	50'	100'	150'
AWG Size of Cord	18	18	18	16
12. Do not operate the charger with damaged plug.
13. Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. Take it to a qualified repair station or MOTOBATT dealer.
14. Do not disassemble the charger. Take it to a qualified repair station or MOTOBATT dealer when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
15. To reduce risk of electric shock, unplug the charger from an outlet before attempting any maintenance or cleaning.

PERSONAL PRECAUTIONS

- a. Someone should be within range of your voice or close enough to come to your aid when you work near a lead-acid battery.
- b. Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- c. Wear complete eye protection and clothing protection. Avoid touching eyes while working near battery.
- d. If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters an eye, immediately flood eye with running cold water for at least 10 minutes and get medical attention immediately.
- e. **NEVER** smoke or allow a spark or flame in vicinity of battery or engine.
- f. Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause an explosion.
- g. Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead-acid battery. A lead-battery can produce a short-circuited current high enough to weld a ring or like to metal, causing a severe burn.
- h. Use the charger for charging a lead-acid battery **ONLY**. It is not intended to supply power to a low-voltage electrical system or to charge dry-cell batteries. Charging dry-cell batteries may cause them to burst and cause injury to persons and/or damage to property.
- i. **NEVER** charge a frozen battery.

PREPARING TO CHARGE

- a. If it is necessary to remove battery from vehicle to charge it, always remove grounded terminal from battery first. Make sure all accessories in the vehicle are off in order to prevent an arc.

- b. Be sure area around battery is well ventilated while battery is being charged. Explosive gas can be forcefully blown away by using a piece of cardboard or other nonmetallic material as a fan.
- c. Clean battery terminals. Be careful to keep corrosion from coming in contact with eyes.
- d. If battery is not sealed, add distilled water in each cell until battery acid reaches level specified by battery manufacturer. This helps purge excessive gas from cells. Do not overfill. For a sealed battery or a battery without cell caps, carefully follow manufacturers' recharging instructions.
- e. Study all battery manufacturers' specific precautions such as removing or not removing cell caps while charging and recommended rates of charge.
- f. Determine voltage of battery by referring to vehicle owner's manual and make sure it matches output rating of the battery charger.

LOCATE CHARGER

- a. Locate the charger as far away from battery as the DC cables permit.
- b. Never place the charger directly above or below the battery being charged. Gases or fluids from the battery will corrode and damage the charger.
- c. Never allow battery acid to drip on the charger when reading gravity or filling battery.
- d. Do not operate charger in a closed-in area or restrict ventilation in any way.
- e. Do not set a battery on top of charger.

DC CONNECTION PRECAUTIONS

Connect and disconnect DC output clips only after unplugging the charger from the electric outlet / disconnect the battery charger from supply main. Never allow clips to touch each other.

- a. Attach clips to battery posts and twist or rock back and forth several times to make a good connection. This tends to keep clips from slipping off terminals and helps to reduce risk of sparking.
1. **Follow these steps when battery is installed in a vehicle.** A spark near battery may cause a battery explosion. To reduce risk of a spark near battery:
 - a. Position DC cords to reduce risk of damage by hood, door, or any moving engine parts.
 - b. Stay clear of fan blade, belts, pulleys, and other parts that can cause injury to persons.
 - c. Check polarity of battery posts. A positive (pos, p+) battery post may have a larger diameter than a NEGATIVE (NEG, N, -) post.
 - d. Determine which post of battery is grounded (connected) to the chassis. If negative post is grounded to the chassis (as in most vehicles), see item (e). If positive post is grounded to the chassis, see item (f).
 - e. For a negative-grounded vehicle, connect the POSITIVE (RED) clip from the battery charger to the POSITIVE (POS, P, +) ungrounded post of battery first. Connect the NEGATIVE (BLACK) clip from the battery charger to the vehicle chassis remote from the battery and fuel line. Do not connect the clip to carburetor, fuel lines, or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
 - f. For a positive-grounded vehicle, connect the NEGATIVE (BLACK) clip from the battery charger to NEGATIVE (NEG, N, -) ungrounded post of battery first. Connect the POSITIVE (RED) clip from the battery charger to the vehicle chassis remote from the battery and fuel line. Do not connect the clip to carburetor, fuel lines, or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
 - g. Connect charger AC supply plug to an electric outlet.
 - h. When disconnecting the charger, unplug the charger / disconnect the battery charger from supply main; remove clip from vehicle chassis, and then remove clip from battery terminal.
 - i. See operating instructions for length of charge information.
 2. **Follow these steps when battery is outside the vehicle.** A spark near the battery may cause a battery explosion. To reduce risk of a spark near battery:
 - a. Check polarity of battery posts. A POSITIVE (POS, P, +) battery post may have a larger diameter than a NEGATIVE (NEG, N, -) post.
 - b. Attach at least a 1.8m long 0.75mm² insulated battery output cable of charger to a NEGATIVE (NEG, N, -) battery post.
 - c. Connect the POSITIVE (RED) clip from the battery charger to the POSITIVE (POS, P, +) post of battery.
 - d. Position yourself and the free end of cable as far as away from battery as possible, then connect NEGATIVE (BLACK) clip from the battery charger to free end of cable.
 - e. Do not face battery when making final connection.
 - f. Connect charger AC plug to electric outlet.
 - g. When disconnecting the charger, always do so in reverse sequence of connecting procedure and break first connection while standing as far away from battery as practical.
 - h. A marine (boat) battery must be removed and charged on shore. To charge it on boat requires equipment specially designed for marine use.

OPERATING INSTRUCTIONS - This price point charger is suitable for use as a battery charger for small (2 to 20AH) batteries and a maintainer only for larger PowerSports batteries up to 50AH. Includes basic 3 step charging process with an automatic shut off, maintenance mode. It is suitable for charging small AGM, Gel and conventional PowerSports and small SLA batteries.

AUTOMATIC 3 Step Charging and Maintenance— Your MOTOBATT BABY BOY CHARGER features a basic 3 step charging process with automatic shut off and maintenance mode. It is completely automatic and can be left on the battery. Once the unit shuts off it will monitor the battery and begin charging again if the battery voltage drops to a point where it needs to be recharged. Unlike other chargers at this price range it does monitor the battery once the battery has been fully charged. For charging larger batteries (above 20AH) and for fully microprocessor controlled, maintenance and recovery features use MotoBatt Little Boy (3-45AH), Big Boy (3-60AH) or Fat Boy (4-100AH) or either the 2 or 4 Bank products.

1. Bulk Charge Phase:

The bulk charge phase gives the battery constant current taking the battery up to 80% of its capacity.

2. Absorption Phase:

In the absorption phase the battery is given constant voltage while the current is reduced until the battery is 100% charged. Once the battery is charged the charger will shut off completely without ongoing monitoring.

3. Maintenance Phase:

In the maintenance phase charge is discontinued and the battery is monitored for proper full charge voltage. The charger will come on again as needed to keep battery at full charge while in storage.

NOTE: If the charger is left connected to a battery for long periods of time, check water levels periodically as directed by the battery manufacturer to ensure electrolyte is maintained at the proper level.

STATUS INDICATOR LIGHTS – Bi-color LED for showing the charge indications.

Indications	Description
No light	1. AC wall power is connected but no battery is detected. 2. Reverse polarity connect, please check the battery connection.
Red light on	Normal charging has started.
Green light on	Battery is full, charging is discontinued.
Red and Green light flash.	The battery voltage selector is not matched to actual battery voltage.
Red light flashes	The battery is under 4.0V, the charger is delivering the pulse current to recover.

6/12V SLIDE SELECTOR SWITCH

NOTE: To switch between 6V and 12V selection, the charger must be disconnected from AC wall power before switching.

- Push switch to 6V position for 6V battery type selection
- Push switch to 12V position for 12V battery type selection.

TROUBLE SHOOTING CHECK LIST

LIGHT DOES NOT TURN ON WHEN CONNECTED TO AC WALL POWER:

No battery is detected, the charger will not work unless it detects a battery, please check the terminal connection for tight connection and for proper polarity on a 6 or 12V battery.

RED LIGHT IS ON BUT BATTERY DOES NOT CHARGE PROPERLY:

The battery may be defective, take battery to the dealer to be tested.

RED/GREEN LIGHT FLASH ALTERNATELY

The charger is sensing an incorrect charging voltage selection for battery type being charged. unplug from AC wall power and check for and/or select output voltage to match 6 or 12V battery being charged.

Technical Specifications:

Model : Part # MBCBABY - BABY BOY Charger

Input: Auto-switching 100-240 Vac 50 / 60 Hz

Output: Select 6VDC/12VDC 500mA

Max. Output: 7.4V / 14.7V

Output Cables: 4' 26AWG Black/White Cable Lead

Lug / Clamp Cable Length: 21" 26AWG Black/White Cable Lead

Reverse Polarity Protection: Yes

***Battery Capacity:** Charging - 2 to 20 Ah, Maintenance - up to 50 Ah

Short Circuit Protection: Yes

Spark Proof: Yes

Limited Warranty: 1 Year

***Charger Selection and Use**

Charge and maintenance capacity ranges are suggested only as a guide for battery charger selection and application based on varied customer charging and maintenance requirements. Please be sure to follow safety and use information in user guide for correct product application and use.