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MOTOPOWER MP00205A Automatic Battery Charger User Manual

Model: MP00205A | Brand: MOTOPOWER

INTRODUCTION

The MOTOPOWER MP00205A is an advanced 12V 800mA automatic battery charger, maintainer, trickle charger, and desulfator. Designed for versatility, it is compatible with all 12-volt lead-acid batteries, including flooded, sealed maintenance-free (AGM), and gel cell types. This device features automatic desulfation and optimization, energy-saving standby mode, spark-free operation, and multi-level safety protections, ensuring reliable and safe battery maintenance.



Figure 1: The MOTOPOWER MP00205A Automatic Battery Charger, showing the main unit with its indicator lights, and the included alligator clamp and ring terminal cables.

WHAT'S IN THE BOX

- Battery Charger/Maintainer Unit
- Alligator Clamp Cable
- Ring Terminal Cable
- Instruction Manual

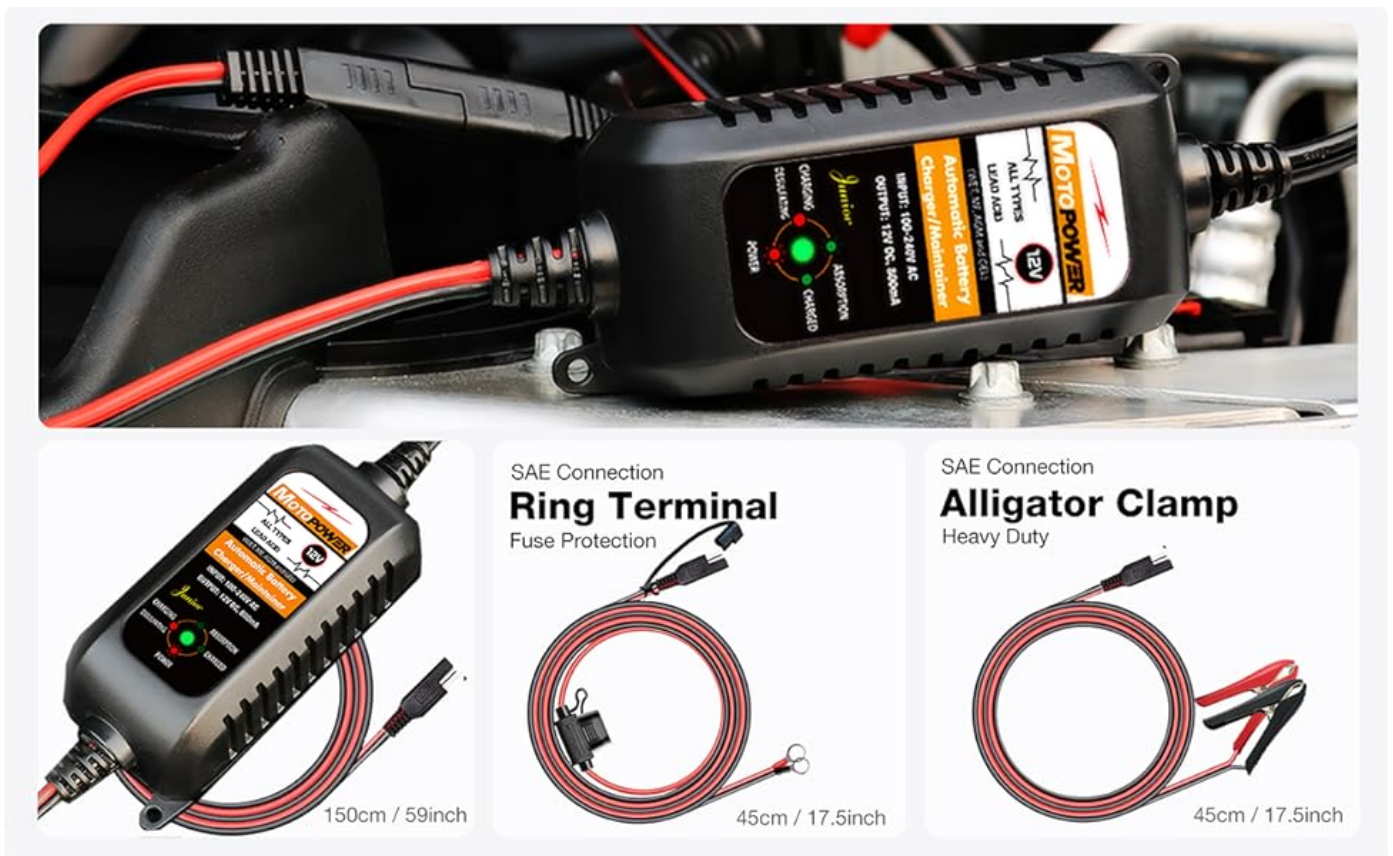


Figure 2: The various connection cables included with the charger, featuring SAE connections for easy interchangeability. This includes a ring terminal cable with fuse protection and a heavy-duty alligator clamp cable.

SETUP

1. **Choose the Right Cable:** Select either the alligator clamp cable for temporary connections or the ring terminal cable for permanent installation on the battery terminals.
2. **Connect to Battery:**
 - For alligator clamps: Connect the RED (+) clamp to the positive battery terminal and the BLACK (-) clamp to the negative battery terminal.
 - For ring terminals: Securely attach the RED (+) ring terminal to the positive battery post and the BLACK (-) ring terminal to the negative battery post.



Figure 3: Demonstrates connecting the alligator clamps to a vehicle battery. Ensure proper polarity (red to positive, black to negative) for safe operation.

3. **Connect to Power:** Plug the charger's AC power cord into a standard 100-240V AC wall outlet. The charger will automatically begin its charging process.

OPERATING INSTRUCTIONS

The MOTOPOWER MP00205A operates automatically once connected. It features a multi-stage charging program to optimize battery health and longevity.

Charging Process Indicators:

- **Power LED (Red):** Illuminates when the charger is connected to AC power.
- **Desulfating LED (Red):** Indicates the desulfation process is active, typically for deeply discharged or sulfated batteries.
- **Charging LED (Red):** Indicates the battery is currently being charged.
- **Absorption LED (Green):** Indicates the battery is in the absorption phase, nearing full charge.
- **Charged LED (Green):** Indicates the battery is fully charged and the charger has switched to maintenance mode.



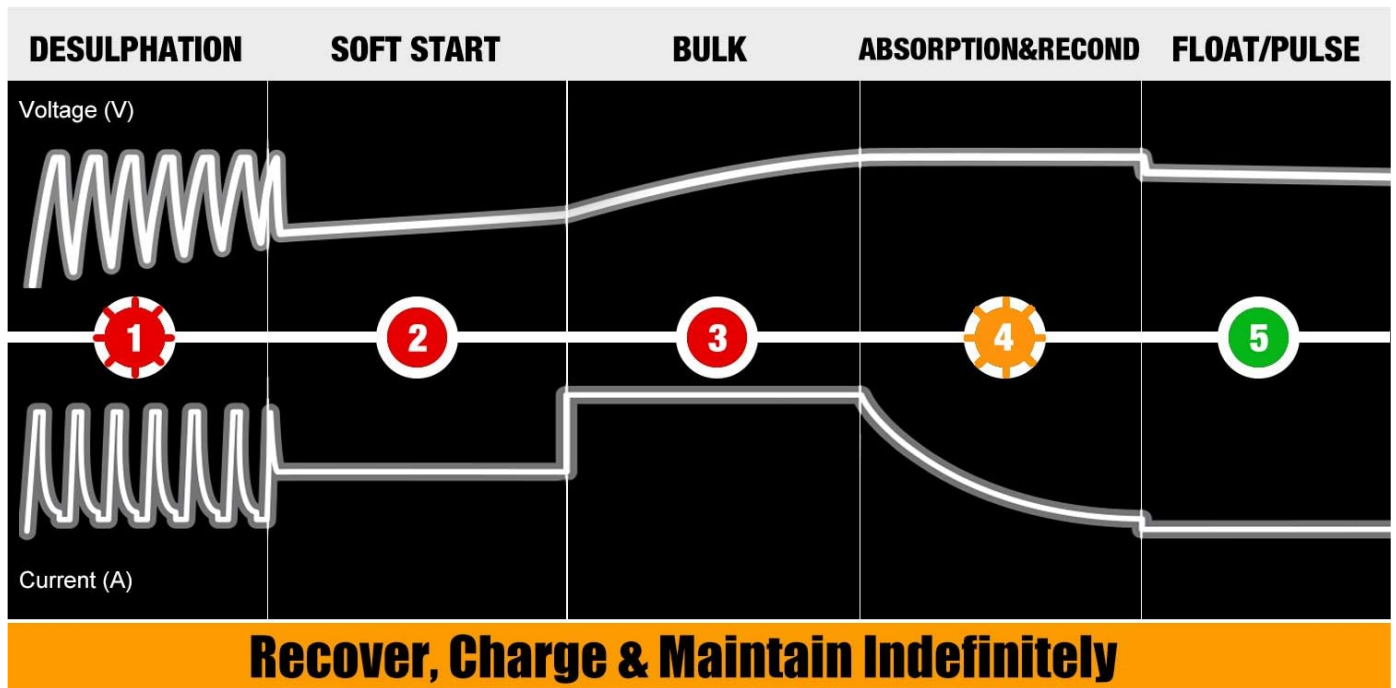
Figure 4: Close-up of the charger's indicator lights, showing the status of the charging process (Power, Desulfating, Charging, Absorption, Charged).

Charging Programs:

The charger employs a sophisticated multi-stage charging process:

- **DESULPHATION:** Detects sulfated batteries. Pulses current and voltage to remove sulfate from lead plates, restoring battery capacity.
- **SOFT START:** Tests if the battery can accept charge. Prevents charging a defective battery.
- **BULK:** Charges with maximum current until approximately 90% battery capacity.
- **ABSORPTION & RECOND:** Charges with declining and pulsing current to maximize up to 100% battery capacity.
- **FLOAT/PULSE:** Maintains the battery voltage at the proper level (approximately 13.6V) with float/pulse current.

CHARGING PROGRAMS



- **DESULPHATION** – Detects sulphated batteries. Pulsing current and voltage, removes sulphate from the lead plates of the battery restoring the battery capacity.
- **SOFT START** – Test if the battery can accept charge. Prevents charging with a defective battery.
- **BULK** – Charging with maximum current until approximately 90% battery capacity.
- **ABSORPTION & RECOND** – Charging with declining and pulsing current to maximize up to 100% battery capacity.
- **FLOAT/PULSE** – Maintaining the battery voltage at the proper level (approximately 13.6V) with float/pulse current.

Figure 5: A graphical representation of the charger's five-stage charging program, showing voltage and current curves for Desulphation, Soft Start, Bulk, Absorption & Recond, and Float/Pulse stages.

MAINTENANCE

The MOTOPOWER MP00205A is designed to maintain your battery indefinitely once fully charged. It automatically switches to a maintenance mode (Float/Pulse) to prevent overcharging and extend battery life.

- Ensure the charger remains connected to the battery and power source for continuous maintenance.
- Periodically check the battery terminals for corrosion and clean if necessary to ensure optimal connection.
- Keep the charger unit clean and free from dust or debris.

MAINTAIN AND OPTIMIZE THE BATTERY

- MAINTAIN THE BATTERY AT **13.6V**



PULSE CURRENT OPTIMIZE THE BATTERY DURING MAINTENANCE

Figure 6: The charger actively maintaining a battery at 13.6V, utilizing pulse current technology to optimize battery health during long-term storage.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Charger not turning on (No Power LED)	No AC power; faulty outlet; damaged power cord.	Check wall outlet, try another outlet. Inspect power cord for damage.
Charging LED not illuminating	Incorrect battery connection (reverse polarity); battery is already fully charged; battery is severely damaged.	Verify correct polarity (Red to +, Black to -). Check if Charged LED is on. If battery is damaged, it may not accept charge.
Desulfating LED stays on for too long	Battery is heavily sulfated.	This is normal for heavily sulfated batteries. Allow the charger to continue the process. If it persists for an unusually long time (e.g., over 24 hours) without progressing, the battery might be beyond recovery.
Charger gets warm during operation	Normal operation during bulk charging.	This is normal. Ensure adequate ventilation around the charger.

SPECIFICATIONS

- **Model Number:** MP00205A
- **Input Voltage:** 100-240V AC
- **Output Voltage:** 12V DC
- **Output Current:** 800mA
- **Compatible Battery Types:** 12-volt Lead-Acid (Wet, MF, AGM, Gel)
- **Product Dimensions:** 2"D x 4.1"W x 1.5"H
- **Item Weight:** 11.6 ounces
- **Safety Certifications:** ETL, UL, CE, FCC, RoHS
- **Features:** Automatic Desulfation, Multi-level Safety Protection (Overcharge, Short Circuit, Reverse Polarity), 24-hour Timer

WARRANTY AND SUPPORT

MOTOPOWER products are designed for reliability and performance. For any questions, technical support, or warranty inquiries, please contact MOTOPOWER customer service. Refer to the contact information provided on the product packaging or visit the official MOTOPOWER website for the most up-to-date support details.

You can also visit the MOTOPOWER Store on Amazon for more information and product resources.