

INTRODUCTION

The **Mobile Charger** is the most advanced microprocessor “Smart” charger of its type. It takes power from your car cigarette lighter socket and transfers that power to your battery.

The Mobile Charger completely controls charging of your auxiliary battery while it is in your car. The 4-stage charging profile quickly charges your auxiliary battery, then switches to “float” mode to maintain the battery charge.



IMPORTANT SAFETY AND OPERATING INSTRUCTIONS:
BEFORE USING THE CHARGER, READ ALL INSTRUCTIONS FOR CHARGER, BATTERY OR OTHER CONNECTED DEVICES.

IMPORTANT SAFETY INSTRUCTIONS

DANGER – RISK OF ELECTRIC SHOCK, BURNS, OR FIRE – The battery charger must be connected to the vehicle cigarette lighter and connected to the auxiliary battery through the cables originally supplied with the unit. Never replace, splice, or repair cables or connectors supplied with the charger.

DANGER – Lead-Acid batteries can generate explosive gases. Only charge batteries in well-ventilated areas. If charging inside the car, make sure sufficient ventilation is provided.

DANGER – Replace the Cigarette Lighter Plug fuse only with a fuse of the same rating.

CAUTION – RISK OF ELECTRIC SHOCK – Do not open. No user-serviceable parts inside.

CAUTION – RISK FROM HIGH CURRENT ARCS. RISK OF BURNS. Always be sure that the charger is disconnected from the car and battery before handling. Disconnect power directly at the power source; **DO NOT** rely on the ignition switch to remove power.

CAUTION -- Do not expose the charger or cables to rain, water spray, solvents, liquids, or any direct flow of water. Always keep clean and dry.

CAUTION – Charge only properly maintained and rechargeable **SEALED LEAD ACID BATTERIES** of the same voltage that is printed on the charger label. Charge only batteries rated between 7 and 30 Amp-Hours (24V). or 10 and 45 Amp-Hours (12V). Attempting to charge other battery types or voltages, damaged batteries, or improperly maintained batteries may cause them to burst, emit dangerous chemicals, or cause personal injury or damage.

WARNING -- The charger does not protect against faults, shorting, or overload of external wiring, vehicle wiring, or wiring to the battery being charged. All wiring to the battery must be properly protected against overloads, physical damage, and other failures. The user must ensure that wiring to the charger adheres to the same vehicle wiring standards and safety precautions required for all other vehicle wiring.

OPERATION

OPERATION IN YOUR CAR

The Mobile Charger monitors your car battery and senses whether your car is running or not. When the car is running, the full charging rate is provided. When the car is off, the Mobile Charger will continue to charge your auxiliary battery for 2-1/2 hours as long as your car battery voltage is sufficient. A 16-hour timer limits the maximum charging time when the car is running continuously (such as on a long trip).

CONNECTING THE CHARGER

Connect the charger output to the battery to be charged. Be sure the connector and pins match your battery’s charger socket (see next page). Insert the Cigarette lighter plug into the car cigarette lighter socket. The cigarette lighter socket must be rated for at least 8 Amps. **NOTE:** If the car will not be driven for an extended period of time (more than one month), you should disconnect the charger from the car and from the auxiliary battery.

MOBILE CHARGER: INSTRUCTIONS

LOCATING THE CHARGER

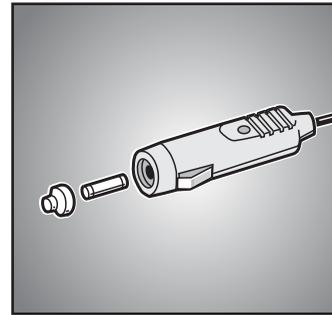
The charger should be located where air is free to move around it. The location for the charger should be in an area protected from water, moisture, dirt, and other debris. It should never be operated inside a sealed box, compartment, while covered by any object, or in a hot vehicle. Doing so may result in excess heating and reduced performance.

CHARGER INPUT PROTECTION FUSE

The charger-input fuse is inside the tip of the Cigarette Plug. It should never blow under normal conditions. However, if it does, it can easily be replaced. Firmly grab the plastic part of the Charger's cigarette lighter Plug and unscrew the metal cap on the tip. Inside is the fuse. If the fuse is blown, replace it with the same type (7 Amp AGC). If the fuse blows repeatedly, return the unit for repair.

"RESETTING" THE CHARGER

Reset the charger by unplugging either the Cigarette plug or battery connector for 5 seconds. The charger also automatically restarts when the car engine is started. If the charger has overheated due to incorrect operation, it will restart itself after cooling down.



Unscrew metal cap to change fuse



LED indicators

LED INDICATORS	
LED CONDITION	DESCRIPTION
Alternating between "Charging" and "Charge Done"	No battery is connected to the charger output, or the battery connected is completely dead (less than 1.5 Volts)
"Charging" Flashing Slowly	Pulse Charging and Testing the Battery. (May last up to 5 hours)
"Charging" Solid ON	Fast Charging. Charging the battery at maximum rate
"Charge Done" Solid ON	The battery is charged to near full capacity. The charger is now "topping off" and maintaining the battery ("Float" Mode).
BOTH LEDs are solid ON	See the Troubleshooting table below for "Both LEDs are solid ON"
Brief flash of "Charging" every 7 seconds	The battery charging is incomplete, and the 2-1/2 hour "Car off timer" timed out, or the car battery is low.
Brief flash of "Charge Done" every 7 seconds	The battery is charged to near full capacity, and the 2-1/2 hour "Car off timer" timed out, or the car battery is low.
Brief flash of BOTH LEDs every 7 seconds	The 2-1/2 hour "Car off timer" timed out when there was a Fault Condition, or the car battery was low when the charger turned on.

SPECIFICATIONS	
Operating Input Voltage & Current:	12.1V – 16V DC @ 6.0 Amps Max.
Maximum Charging Current:	2.5 A
Maximum Charging Voltage:	28.8 V
Maintenance (Float) Voltage:	27.2 V
Operating temperature range:	-25C to +70°C (will indicate fault above 70C)
LED Indicators	There are two "LED" indicators labeled "Charge Done" and "Charging". These LEDs provide information about the status of the charger, car power, and battery being charged.

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