

PSIDE ULGD 5.0 D2

Ultimate Speed® Car Charger ULGD 5.0 E4 User Manual

Model: ULGD 5.0 D2

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Ultimate Speed® Car Charger ULGD 5.0 E4. This intelligent microprocessor-controlled device is designed for fully automatic charging of all 6V and 12V car and motorcycle batteries with capacities ranging from 1.2 Ah to 120 Ah. It features advanced diagnostic programs, multiple charging stages, and specialized charging programs to ensure optimal battery care.

2. SAFETY INSTRUCTIONS

Please read all safety instructions carefully before using the device. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always ensure the charger is disconnected from the mains power before connecting or disconnecting the battery clamps.
- Use the charger only for the specified battery types and voltages (6V or 12V lead-acid batteries, 1.2-120 Ah).
- Avoid short-circuiting the battery clamps. The device is protected against reverse polarity, short circuit, and overload, but caution is always advised.
- Do not expose the charger to rain or moisture. Operate it in a dry, well-ventilated area.
- Keep out of reach of children.
- Do not attempt to open or repair the charger. Refer all servicing to qualified personnel.
- Ensure proper ventilation during charging, as batteries can emit explosive gases.

3. PRODUCT OVERVIEW

The Ultimate Speed® Car Charger ULGD 5.0 E4 consists of the main charging unit, power cable with plug, and charging cables with battery clamps (red for positive, black for negative).



Figure 3.1: Overview of the Ultimate Speed Car Charger ULGD 5.0 E4, showing the compact red main unit with its LED display, and the attached red and black battery clamps.

3.1 LED Display Functions

The integrated LED display provides real-time information about the charging process:

- **Charging Programs:** Indicates the selected charging program.
- **Voltage Value:** Displays the current battery voltage.
- **Charge Status:** Shows the battery's charge level.
- **Reverse Polarity Warning:** Alerts if clamps are connected incorrectly.
- **Stand-by Operation:** Indicates when the charger is in standby mode.

4. SETUP

1. Ensure the charger is unplugged from the mains power outlet.
2. Connect the red positive (+) battery clamp to the positive (+) terminal of the battery.
3. Connect the black negative (-) battery clamp to the negative (-) terminal of the battery. For vehicles, connect the negative clamp to the vehicle chassis away from the battery and fuel line if the battery is still in the vehicle.
4. Plug the charger's power cable into a standard 220-240 V ~ 50 Hz mains power outlet.
5. The charger will perform a diagnostic check and display the battery status.

5. OPERATING INSTRUCTIONS

The charger features an intelligent control system with 7 charging stages and 4 selectable programs for optimal battery charging.

5.1 Charging Programs

Select the appropriate program based on your battery type and charging needs:

- **Program 1 (6V):** For 6V batteries.
- **Program 2 (12V Normal):** For standard 12V car and motorcycle batteries.
- **Program 3 (12V AGM/Gel):** For 12V AGM and Gel batteries.
- **Program 4 (12V Winter Mode):** For 12V batteries in low ambient temperatures (-20°C to +5°C).

Use the mode button on the charger to cycle through the available programs. The LED display will indicate the selected program.

5.2 Charging Process (7 Stages)

The charger automatically progresses through 7 stages to ensure a complete and safe charge:

1. **Desulphation:** Pulse charging to revive deeply discharged batteries (for 12V batteries with > 7.5V).
2. **Soft Start:** Gentle initial charge for deeply discharged batteries.
3. **Bulk Charge:** Main charging phase, delivering maximum current.
4. **Absorption:** Charging with decreasing current to reach full charge.
5. **Analysis:** Checks if the battery holds charge.
6. **Recondition:** Optional stage for deeply discharged batteries.
7. **Float/Maintenance:** Maintains full charge without overcharging, ideal for long-term connection.

6. MAINTENANCE

To ensure the longevity and optimal performance of your charger, follow these maintenance guidelines:

- Clean the charger casing with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- Inspect the cables and clamps regularly for any signs of damage or wear. Replace if necessary.
- Store the charger in a dry, cool place when not in use, away from direct sunlight and extreme temperatures.
- Ensure the charger is disconnected from both the battery and mains power before cleaning or storing.

7. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
Charger does not turn on.	No power from mains outlet; faulty power cable.	Check mains outlet with another device; inspect power cable for damage.
Reverse polarity warning on display.	Battery clamps connected incorrectly.	Disconnect charger from mains, then reconnect clamps correctly (red to positive, black to negative).
Battery not charging or charging slowly.	Incorrect program selected; battery deeply discharged or faulty; poor connection.	Ensure correct program is selected; check battery voltage (if below 7.5V for 12V, pulse charge may not initiate); clean battery terminals and clamp connections.
Overload or short circuit warning.	Internal short circuit in battery; charger overloaded.	Disconnect charger immediately. Check battery for faults. If problem persists, contact support.

8. SPECIFICATIONS

Model Number	ULGD 5.0 D2
Input Voltage	220 – 240 V ~ 50 Hz
Output Voltage	6 V / 12 V
Max. Charging Current	5 A
Battery Capacity Range	1.2 – 120 Ah
Charging Stages	7
Charging Programs	4
Ambient Temperature	-20 °C to +50 °C
Standby Power Consumption	< 1 W
Material	Plastic
Housing Dimensions (L x W x H)	Approx. 15.6 x 6.2 x 4.6 cm
Charging Cable Length (incl. clamps)	Approx. 2 m
Power Cable Length (incl. plug)	Approx. 2 m
Weight	Approx. 370 g

9. WARRANTY AND SUPPORT

This product is manufactured by ULTIMATE SPEED®. For warranty claims or technical support, please refer to the purchase documentation or contact the seller directly. As this product originates from a small or medium-sized business, specific warranty details may vary and should be confirmed with your point of purchase.