

1. Overview

With CPU control and PWM technology, DL series charger has the advantages like high efficiency, good stability, low-carbon and energy-saving. Three-section charging mode --- Controlling the charging current and voltage automatically and precisely, both ensure that battery is charged fully, and not over charged. Your battery life will be protected.

2. Unpacking Inspection

Open the package case, check the items shown on Table 1 carefully to check any missing or damaged part.

Table 1. Unpacking Inspection

Item	Description	Qty
1	Charger	1
2	Operating manual	1
3	AC wire	1
4	Output fuse	2

3. Charger Model & Parameter

3.1 Model series

120W 180W 240W 360W
600W 900W _____

3.2 Rated input voltage

110V 220V 110/220V

3.3 Constant voltage

12.6V 14.4V 18.2V 29.4V 42V
43.8V 54.6V 58.4V 58.8V 71.4V
73.0V 73.5V 84.0V 88.2V _____

3.4 Floating charge voltage (For lead-acid battery)

13.5V 41.4V 82.8V _____

3.5 Constant current

0.1~10.0A 10.1~20.0A 20.1~30.0A _____

3.6 Light turn green

5-10%CC 20~30%CC _____

4. Operating Instruction

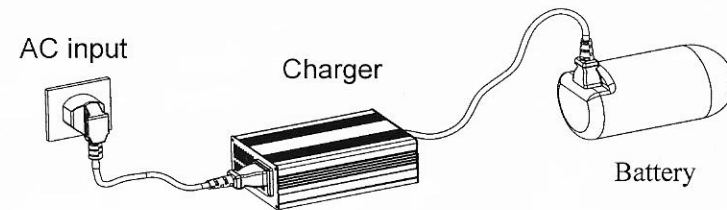


Fig 1. Connection diagram

- 4.1 Before charging, please connect the DC terminal to battery firstly, and then connect the AC terminal.
- 4.2 After charging complete, unplug the AC terminal firstly, and then unplug the DC terminal.
- 4.3 No charging or after charging complete, be sure to unplug the DC terminal and the AC terminal.
- 4.4 LED1, the power on indicator, shows red when the charger starting-up.
- 4.5 LED2, the charging status indicator, shows red during the charger is charging, shows green means the battery is charged complete.

5. Matters Need Attention

- 5.1 Don't cover the charger or intake during charging.
- 5.2 The charger should be placed where children could not touch.
- 5.3 Please charging in indoor area where good ventilation and heat dissipation is. Prohibited charging where is humid, high temperature or a flammable, explosive gas surrounding.
- 5.4 To avoid vibration damage, please don't carry the charger on the driving vehicle long time.
- 5.5 It's danger of high voltage in charger case please do not disassemble it unauthorized.
- 5.6 The losses caused by not operating according to the instruction manual operation, manufacturer does not bear any responsibility.

6. Maintenance

WARNING: Before conducting the following operations, make sure the charger is disconnected with the battery and power connection

6.1 Routine maintenance

- Clear dust on vents and fan regularly, to ensure the charger has good heat dissipation.
- Periodically wipe the case with a cloth with some alcohol.
- Do not use or store the charger in a place of humidity or high temperature.

6.2 Replace the fuse

If the charger can not charge, please confirm the output fuse is blown out. Install only replacement fuse with the identical type and specification as follows and make sure the fuse is fixed firmly in the fuse holder.

6.3 Common malfunction & Solution

Phenomenon	Cause	Solution
After connecting charger and battery, charger can not work or, LED2 shows green.	Connecting reverse, output fuse blow.	Please replace the fuse, and then connect charger and battery correctly.
	Connecting reverse, relay has no action.	
Battery isn't charged fully, but LED2 flashes between red and green.	Charger and battery is disconnected.	Reconnect charger and battery.
	Charger overheating, into thermal protection mode and standby.	Cooling charger, Charger can auto-resume to work when temperature cool down.
After connect charger to AC power, charger can not work, and two LED don't light.	Plug loose, charger does not connect to AC power.	Reconnect the AC wire, and make sure that is OK.
	Charger has damaged	Send charger back to local dealer for repair. There is high-voltage inside charger, please don't open the charger personally.

This Operating Manual covers information on safety and cautions. Please read it carefully before charging

OPERATING MANUAL