

PORTABLE BATTERY CHARGER

With Booster functions

12V 25A / 24V 15A FPT-250

8 - Stage Automatic Smart Battery Charger
For Lead-Acid, LiFePO4...
(AGM, GEL, SLA, WET, EFB, DEEP CYCLE... BATTERIES)



USER MANUAL
THIS MANUAL CONTAINS IMPORTANT SAFETY AND
OPERATING INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

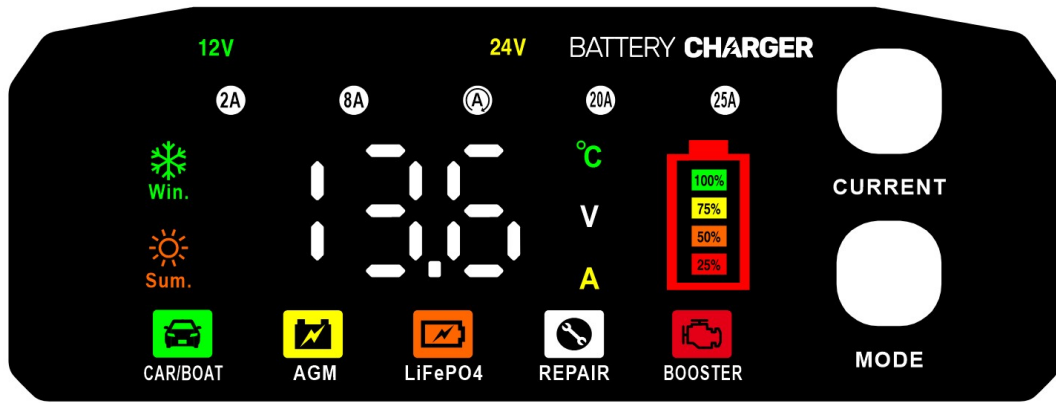
Please read this manual and follow the instructions carefully before using.

WARNING:

- The charger is designed for **12V and 24V** Lead-Acid, LiFePo4... batteries .
- Check battery manufacturer specifications before using.
- Explosive gases may emitting from battery during charging. Provide ventilation to prevent flames and sparks.
- Do not expose charger to the sun, or under high temperature environment.
- Battery acid is corrosive. Rinse immediately with water if acid comes into contact with skin or eyes.
- Do not charge a frozen or damaged battery.
- Do not charge non-rechargeable batteries.
- Do not place the charger on the battery while charging.
- 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 explosion.
- When working with a lead-acid battery, remove personal metal items such as rings, bracelets, necklaces, watch...
- Do not smoke or allow a spark or flame while charging.
- In order to reduce risk of electric shock, unplug charger from AC outlet before doing any maintenance or cleaning.
- Not for use by children or by anyone who is unable to follow instructions of this manual, unless they are supervised by an adult to ensure the proper use of charger.





MAIN FEATURES:

- High efficiency (>85%).
- Car/Boat, AGM, LiFePo4, Repair, Booster modes can selectable
- The 8-stage microprocessor controlled charging process provides the best possible application and enables efficient battery charging.
- Charging voltage adapts to temperature, that can prevent over- or under-charging of battery.
- Capable of recharging severely discharged or heavily sulfated battery.
- Reverse polarity protection, short circuit protection, over-charge protections, parks free contact.
- LED display: voltage, current, temperature etc.
- Ease of use. Clear charging status display.
- Full microprocessor controlled.
- Do not over-charge your battery even it is kept connecting in long time.

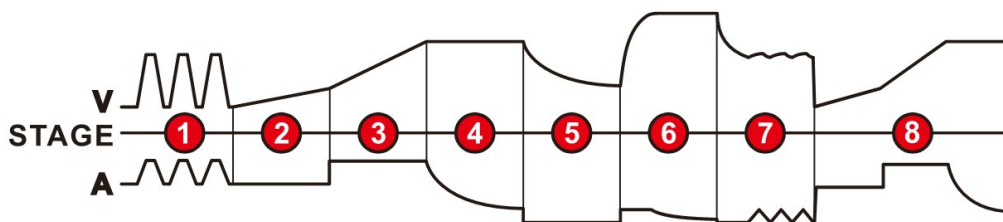


LED DISPLAY:

	Charger Inside Temperature
	Charge Voltage
	Charge Current
	Repair Mode
	Standby
	Battery Full
	Desulphation Mode Only for Car and AGM mode
	Test Mode An automatic battery test is conducted immediately after the absorption stage, it monitors the voltage for 10 minutes to determine if the battery is full or not
	End of Repair Function
	Automatic output current

 Win.	<p>Winter Mode When the temperature is below +10°C, Raise the charge voltage Only for Car mode</p>
 Sum.	<p>Summer Mode When the temperature is above +28°C, Reduce the charge voltage Only for Car mode</p>
	<p>Wrong polarity, please change the connection of the clamps</p>
	<p>Defect battery, please let the battery be checked by a mechanic and if necessary change the battery</p>
	<p>Bad connection, please check the connection between the charger and the battery</p>
<p>12V 24V</p>	<p>12V Battery or 24V Battery</p>
	<p>Battery Capacity</p>

8-STAGE CHARGING PROCESS










- 1-stage: Battery desulphation
- 2-stage: Soft start charge
- 3-stage: Bulk charge
- 4-stage: Absorption charge
- 5-stage: Battery test
- 6-stage: Recondition charge
- 7-stage: Float & maintenance charging
- 8-stage: Re-start charge after battery discharged

CHARGER MODES:

The Charger has eight (8) modes: 12V Car, 24V Car, 12V AGM, 24V AGM, 12V LiFePO4, 24V LiFePO4, REPAIR, 12V Booster

It is important to understand the differences and purpose of each charge mode. Do not operate the charger until you confirm the appropriate charge mode for your battery. Below is a brief description:

 CAR/BOAT	<p>CAR/BOAT Batteries Mode For GEL, SLA, WET, DEEP CYCLE, EFB, Calcium Batteries</p>
 AGM	<p>AGM Batteries Mode For AGM Batteries</p>
 LiFePO4	<p>LiFePo4 Batteries Mode For LiFePo4 Batteries</p>
 REPAIR	<p>Repair Mode (16 hours) An advanced battery recovery mode for repairing and storing, old, idle, damaged, stratified or sulfated. Not all batteries can be recovered, only can use on Motorcycle and Car batteries</p>
 BOOSTER	<p>Booster Mode This function is only for 12V batteries, When the "Booster" mode is selected, the charging current can reach the maximum value, and the charging time is 200S. After 200S, the display screen will show "on", then you can start the car.</p>
 MODE	<p>Charge mode select button</p>
 CURRENT	<p>Charge current select button</p>

Charge Current	2A	8A	Auto: A	20A	25A
Battery Size	6-40AH	30-150AH	45-200AH	60-300AH	75-400AH

BEGIN CHARGING:

- 1.) **Verify the voltage and chemistry of the battery.**
- 2.) Confirm that you have connected the AC power plug is plugged into an electrical outlet.
- 3.) Press the mode button to toggle to the appropriate charge mode.
- 4.) Press the current button to toggle to the appropriate charge current.
- 5.) Confirm that you have connected the battery clamps or eyelet terminal connectors properly
- 6.) The mode LED will illuminate the selected charge mode and the Charge Icon will illuminate (depending on the health of the battery) indicating the charging process has started.
- 7.) The charger can now be left connected to the battery at all times to provide maintenance charging.

TECHNICAL SPECIFICATIONS:

Model	FPT-250
Type	Smart & Automatic
AC Input	100 - 240V 50/60Hz
Output Voltage	12V / 24V Auto
Output Current	12V 25A & 24V 15A
Output Volt under No Load	The output voltage is a no-load voltage 17.0-17.5V (current<20mA). When the battery is connected, the charging mode is activated and the charger will use the standard charging voltage
Minimum Start Volt	>5.0V
Input Power With Load	Max. 350W
Input Power under No Load	3W
Cooling	Fan
Size (L*W*H)	192*216*125mm
Weight	1500g
Approval	CE / FCC / RoHS