

P20

Generic P20 20 Amp Lithium Battery Charger User Manual

Model: P20 (6803LBC-12/24-20)

1. IMPORTANT SAFETY INSTRUCTIONS

Please read and understand all safety information before using this battery charger. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always wear eye protection and protective clothing when working with batteries.
- Ensure the charging area is well-ventilated.
- Keep the charger away from flammable materials and liquids.
- Do not charge frozen batteries.
- Never attempt to charge severely damaged batteries.
- Disconnect the AC power before connecting or disconnecting battery leads.
- Avoid touching uninsulated battery terminals or wires.
- This charger is designed for 12V and 24V Lithium (LiFePO4) and Lead-Acid (AGM, Gel, SLA, Flooded, EFB, Wet) batteries only. Do not use for other battery types.
- Keep out of reach of children.

2. PRODUCT OVERVIEW

The Generic P20 is a versatile 20 Amp smart battery charger and maintainer designed for a wide range of 12V and 24V batteries. It features multiple charging modes, adjustable current levels, and advanced safety protections.



Image: The P20 Smart Battery Charger shown with examples of vehicles it can charge, including cars, SUVs, vans, motorcycles, motorboats, and lawn mowers.

Key Features:

- Supports 12V/24V Lithium (LiFePO4) and Lead-Acid (AGM/Gel/SLA/Flooded/EFB/Wet) batteries.
- Trickle charge and pulse repair functions.
- Four selectable charging modes: Lithium, AGM/Lead, LiFePO4, and Repair.
- Three adjustable current levels: (12V/5A, 24V/3A), (12V/10A, 24V/5A), and (12V/20A, 24V/10A).
- Temperature compensation for optimal charging in varying climates.
- Large LCD display and responsive touch panel.
- Automatic lock feature to prevent accidental touch after 10 seconds of charging.
- Multiple safety protections: overcharge, overvoltage, overcurrent, short circuit, reverse polarity, overheat, and undervoltage.
- Compact and lightweight design for portability.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x P20 12V/24V Lithium Battery Charger
- 1 x Alligator Clips Cable (2.6ft length)
- 1 x Power Cord (9.8ft length)
- 2 x Cable Lugs (Ø60mm)
- 1 x User Manual

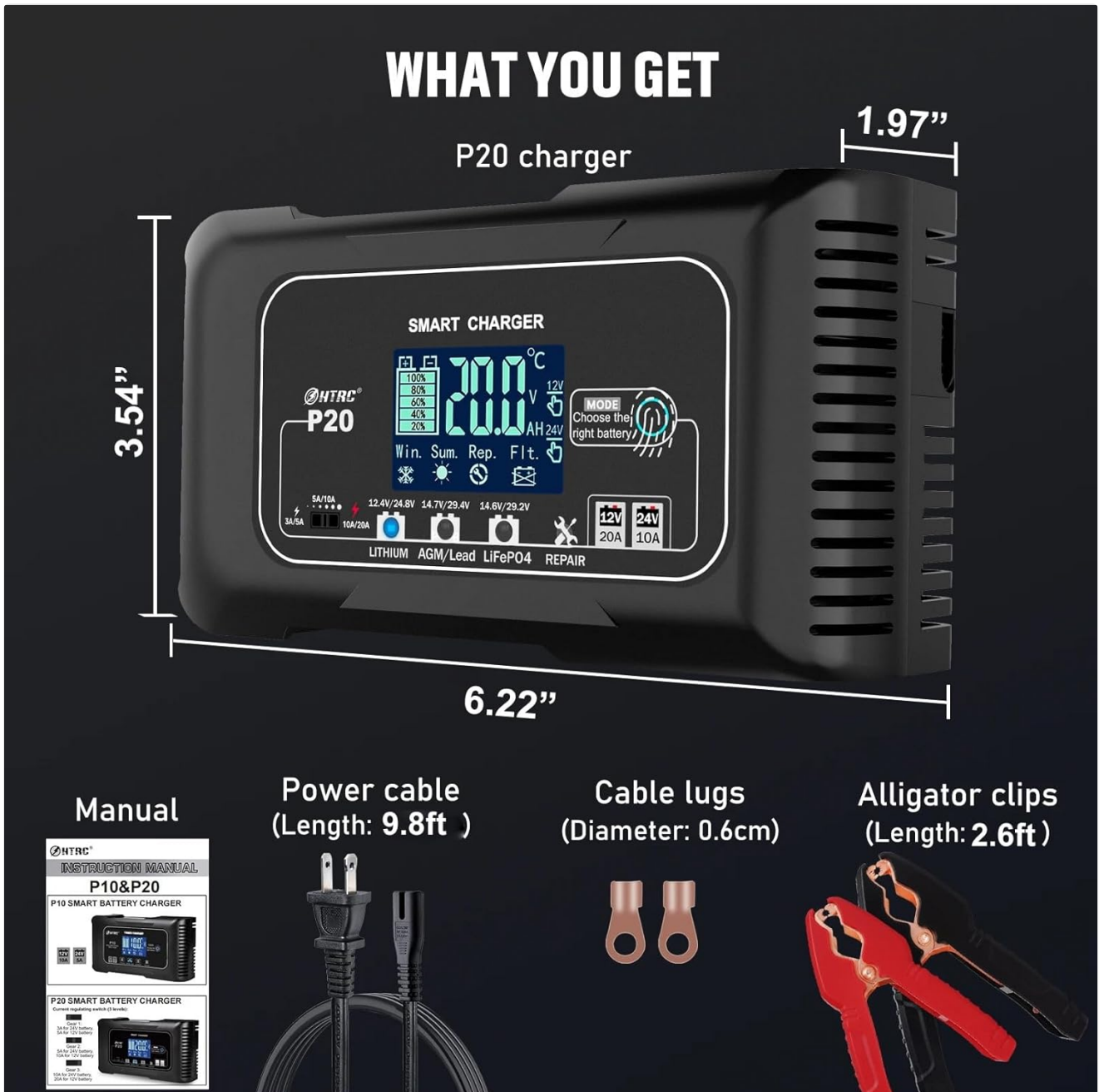


Image: Contents of the P20 charger package, including the charger, manual, power cable, cable lugs, and alligator clips, with dimensions of the charger.

4. SETUP AND CONNECTION

1. **Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion. If charging a wet cell battery, check the fluid levels and add distilled water if necessary.
2. **Connect Alligator Clips:**
 - Connect the RED (+) alligator clip to the positive (+) battery terminal.
 - Connect the BLACK (-) alligator clip to the negative (-) battery terminal.
 - Ensure a secure connection.
3. **Connect to Power:** Plug the charger's power cord into a standard 100-240V AC wall outlet. The charger will power on, and the LCD display will illuminate.

5. OPERATING INSTRUCTIONS

5.1 Selecting Charging Mode

The charger features four selectable modes. Press the 'MODE' button on the touch panel to cycle through the options:

- **LITHIUM:** For 12V/24V Lithium-ion batteries (not LiFePO4).
- **AGM/Lead:** For 12V/24V Lead-Acid batteries, including AGM, Gel, SLA, Flooded, EFB, and Wet types.
- **LiFePO4:** Specifically for 12V/24V Lithium Iron Phosphate batteries.
- **REPAIR:** For pulse repair and activation of old or underpowered batteries.

4 MODES SELECTABLE

Button One-Click Switching: LITHIUM,AGM/Lead-acid, LiFeP04 Charging Mode And REPAIR Mode



Image: The charger's display illustrating the four selectable charging modes and the 'MODE' button for switching.

Note: Always choose the correct battery type to prevent damage to the battery or charger.

5.2 Adjusting Charging Current

The charger allows you to adjust the charging current. Press the current selection button (e.g., 5A/10A/20A) to choose from three levels:

- **Low Current:** 12V/5A, 24V/3A
- **Medium Current:** 12V/10A, 24V/5A
- **High Current:** 12V/20A, 24V/10A

The system automatically adjusts the charging current based on the battery voltage to ensure optimal charging. When the battery voltage is low (e.g., a 12V battery below 11V), the system will charge at the maximum selected current.

3 LEVELS ADJUSTABLE CURRENT



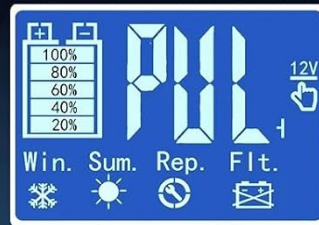
Image: Visual representation of the three adjustable current levels available on the P20 charger.

5.3 Repair Mode

The Repair Mode uses pulse technology to help repair and activate old, low-voltage, or idle batteries. This mode is suitable for batteries that have been unused for a long time or are showing signs of reduced performance.

REPAIR MODE

Repair and activate old batteries
and underpowered batteries



Low voltage



Idle for a long time



Old batteries

Image: The charger in Repair Mode, indicated by 'PUL' on the display, demonstrating its use for low voltage, idle, and old batteries.

5.4 Temperature Compensation

The P20 charger is equipped with temperature compensation. It automatically adjusts the charging voltage based on the ambient temperature to prevent overcharging in hot conditions (e.g., 104°F/40°C) and undercharging in cold conditions (e.g., 14°F/-10°C). This feature helps extend battery service life.

TEMPERATURE ADAPTIVE

Automatically adjust the charging voltage according to the ambient temperature to prevent overcharge and undercharge.

 **104°F/40°C**
HOT WEATHER

Avoids over-charging in hot weather.



 **14°F/-10°C**
COLD WEATHER

Avoids under-charging in cold weather.



Image: The charger's temperature adaptive feature, showing how it adjusts for hot and cold weather to optimize charging.

5.5 Automatic Lock Feature

To prevent accidental changes to settings during charging, the touch panel automatically locks after 10 seconds of inactivity. To unlock, simply touch the screen again.

Lock to prevent accidental touch

Automatically lock after 10 seconds of charging



Image: The automatic lock feature of the P20 charger, indicated by a lock icon on the display, preventing unintended input.

6. MAINTENANCE

- **Cleaning:** Disconnect the charger from power and the battery before cleaning. Wipe the exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the charger in a cool, dry place when not in use. Ensure cables are neatly coiled and not kinked.
- **Cable Inspection:** Regularly inspect the power cord and alligator clips cable for any signs of damage, such as cuts or frayed insulation. Replace if damaged.

7. TROUBLESHOOTING

Common Questions:

- **Q: What is the maximum charging current, and can it be reached?**

A: The system automatically adjusts the charging current based on the battery voltage to ensure optimal charging. When the battery voltage is low (e.g., a 12V battery below 11V), the system charges the battery at the maximum current selected.

- **Q: Will the LiFePO4 battery be fully charged?**

A: After a LiFePO4 battery is fully charged, there is a callback feature that turns off the power at approximately 1V below full. This is normal behavior for maintaining battery health.

Protection Features:

The P20 charger incorporates multiple protection mechanisms to ensure safe operation:

- **Overcharge Protection:** Prevents battery damage from excessive charging.
- **Overvoltage Protection:** Safeguards against voltage spikes.
- **Overcurrent Protection:** Protects against excessive current flow.
- **Short Circuit Protection:** Automatically shuts off in case of a short circuit.
- **Reverse Polarity Protection:** Prevents damage if battery connections are reversed.
- **Overheat Protection:** Shuts down if the charger's internal temperature becomes too high.
- **Undervoltage Protection:** Ensures safe operation with low voltage input.

MULTIPLE PROTECTION



Image: A visual representation of the comprehensive safety protections built into the P20 charger.

Important: Severely damaged batteries cannot be charged by this device.

8. SPECIFICATIONS

Model	P20 (Mfr Part Number: 6803LBC-12/24-20)
Input Power	Max. 280W
Input Voltage	100-240V AC, 50/60Hz
Output Voltage/Current	12V max. 20A / 24V max. 10A
Minimum Start Voltage	2V
Battery Types Supported	12V/24V Lithium (LiFePO ₄) and Lead-Acid (AGM/Gel/SLA/Flooded/EFB/Wet)

Alligator Clips Cable Length	2.6 ft
Power Cord Length	9.8 ft
Dimensions (D x W x H)	1.97" x 6.22" x 3.54" (5cm x 15.8cm x 9cm)
Net Weight	1.04 lbs (0.47 kg)

9. WARRANTY AND SUPPORT

Warranty Information:

This product is covered by a warranty that follows FBA (Fulfillment by Amazon) rules. Please refer to your purchase documentation or Amazon's return and warranty policies for specific details regarding coverage and duration.

Customer Support:

For technical assistance, troubleshooting, or warranty claims, please contact the seller directly through your Amazon order history. Provide your order number and a detailed description of the issue for prompt support.