Defabee P3648

Defabee P3648 36V/48V Smart Golf Cart Battery Charger Instruction Manual

1. Introduction

This manual provides essential instructions for the safe and efficient operation of your Defabee P3648 36V/48V Smart Battery Charger. This charger is designed for various battery types, including Lithium, LiFePO4, and Lead-Acid (AGM/Gel/SLA) batteries, offering both 36V and 48V charging capabilities with a D Style Plug. Please read this manual thoroughly before first use and retain it for future reference.

2. Safety Information

Always prioritize safety when operating electrical equipment. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Ensure the charger is connected to a grounded outlet.
- Do not expose the charger to rain or excessive moisture.
- Operate the charger in a well-ventilated area.
- Avoid charging frozen batteries.
- Do not attempt to charge non-rechargeable batteries.
- Keep out of reach of children.
- Disconnect the power supply before making or breaking connections to the battery.
- Wear appropriate personal protective equipment, such as safety glasses and gloves.
- The charger cannot activate a completely failed battery or restore it to a new state.

3. Package Contents

Verify that all items are present in the package:

- 1 x Defabee P3648 Smart Charger
- 1 x 2M Power Cord
- 1 x 1M Clip Cable (Alligator Clips)

- 1 x 1.1M EZGO TXT Golf Cart (D Style Plug)
- 2 x Cable Lugs
- 1 x Instruction Manual (this document)



Image 3.1: Defabee P3648 Smart Charger and included accessories.



Image 3.2: Power cord, D-style plug, and alligator clips for battery connection.

4. Product Features

The Defabee P3648 Smart Charger offers advanced features for efficient and safe battery charging:

- **Dual Voltage & High Current Output:** Manually select between 36V (up to 18A) and 48V (up to 13A) for ultra-high power quick charging.
- **Wide Battery Compatibility:** Supports Lithium, LiFePO4, and Lead-Acid (AGM, GEL, EFB, MF, Flooded, VRLA, SLA) battery types.
- **9-Level Smart Charging Process:** Optimizes battery power precisely and gently through stages like desulfation, soft start, bulk charging, absorption, trickle charge, battery test, recondition, float, and maintenance.
- **Automatic Trickle Mode:** Automatically enters trickle charging when fully charged to maintain battery health.
- **Pulse Repair Function:** Helps restore lost battery performance and extend battery life by detecting sulfate and acid layers.
- **Temperature Compensation:** Automatically adjusts charging voltage based on ambient temperature to prevent overcharge and undercharge.
- **Comprehensive Protection:** Includes temperature compensation, cooling system, over current, over voltage, short circuit, and reverse connection protection.
- **LCD Display:** Large display shows charging voltage, current, internal temperature, charging percentage, and selected mode.
- **Built-in Cooling Fan:** Ensures efficient heat dissipation during operation.



Image 4.1: Overview of Defabee Smart Charger features including automatic charging, 4 modes, LCD display, multiple protection, mode button, built-in cooling fan, temperature compensation, and wide application.



Image 4.2: Detailed diagram illustrating the 9-stage smart charging process for optimal battery care.



Image 4.3: The charger's temperature adaptive feature, adjusting charging for hot (104°F/40°C) and cold (14°F/-10°C) weather conditions.

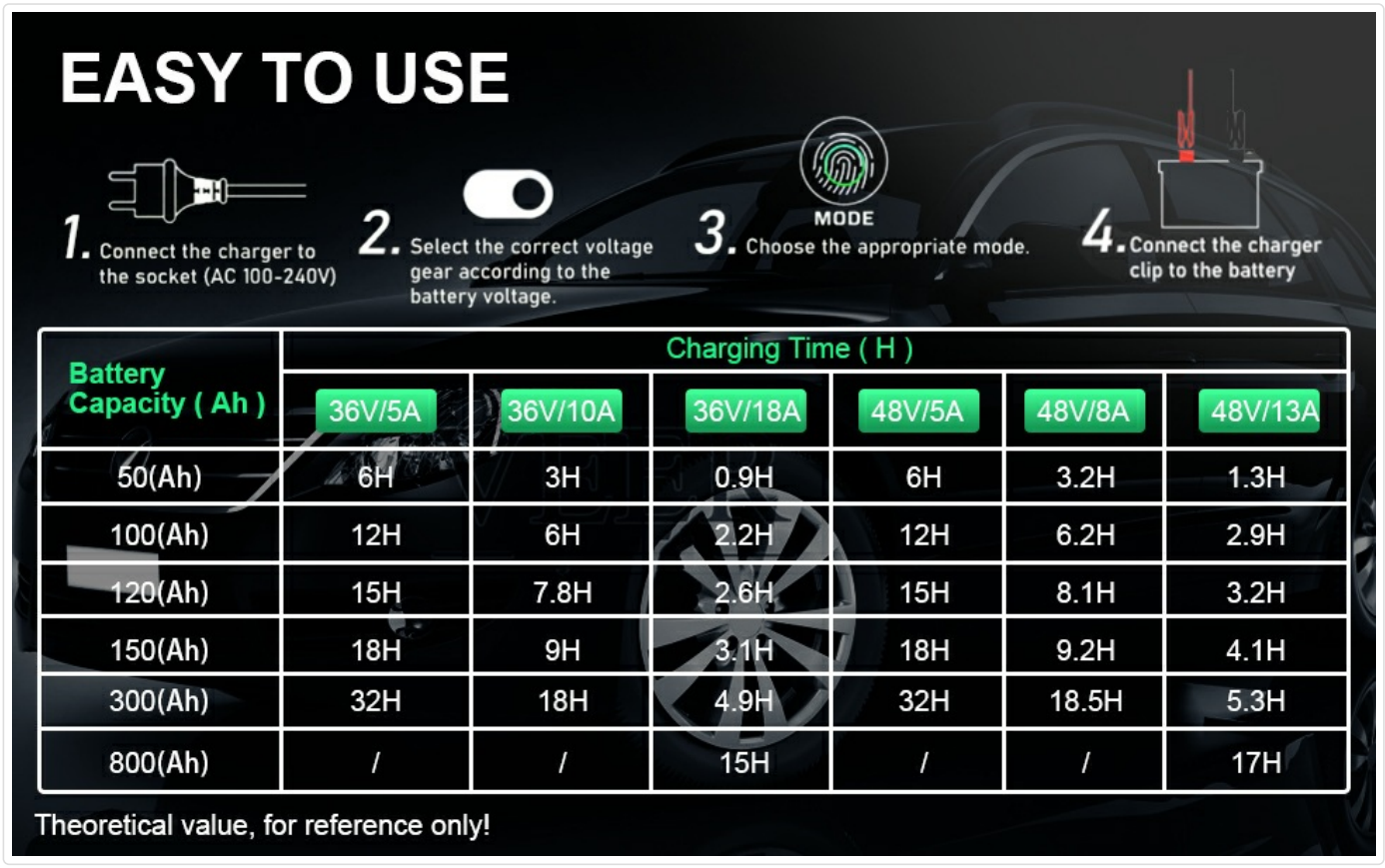


Image 4.4: Illustration of the built-in dual cooling fan for efficient heat dissipation.

5. Setup and Installation

Follow these steps to set up your Defabee P3648 Smart Charger:

1. **Connect to Power:** Plug the 2M power cord into the charger's input interface and then into a standard 100V-240V AC wall outlet.
2. **Select Voltage:** Use the voltage selector switch on the charger to choose between 36V or 48V, matching your battery's voltage.
3. **Connect to Battery:** Connect the appropriate cable (D Style Plug for golf carts or alligator clips for other batteries) to the charger's output. Then, connect the other end to your battery. Ensure correct polarity when using alligator clips (red to positive, black to negative).
4. **Power On:** Flip the red power switch on the charger to the 'ON' position.



Battery Capacity (Ah)	Charging Time (H)					
	36V/5A	36V/10A	36V/18A	48V/5A	48V/8A	48V/13A
50(Ah)	6H	3H	0.9H	6H	3.2H	1.3H
100(Ah)	12H	6H	2.2H	12H	6.2H	2.9H
120(Ah)	15H	7.8H	2.6H	15H	8.1H	3.2H
150(Ah)	18H	9H	3.1H	18H	9.2H	4.1H
300(Ah)	32H	18H	4.9H	32H	18.5H	5.3H
800(Ah)	/	/	15H	/	/	17H

Image 5.1: Visual guide for connecting the charger to power and battery, and selecting voltage.



Image 5.2: The charger automatically identifies battery voltage (36V or 48V) and supports various battery types.

6. Operating Instructions

Once connected, the charger will begin its smart charging process. Use the 'MODE' button to cycle through charging current options and repair mode.

1. **Initial Display:** Upon powering on, the LCD will display current battery status.
2. **Selecting Charging Current:** Press the 'MODE' button to cycle through available charging currents (e.g., 5A, 10A, 18A for 36V; 5A, 8A, 13A for 48V). Select the appropriate current for your battery's capacity.
3. **Repair Mode:** Continue pressing the 'MODE' button to access the 'REPAIR' function, indicated by 'PUL' on the display. This mode uses pulse technology to desulfate and recondition batteries.
4. **Monitoring Progress:** The LCD will show real-time charging voltage, current, internal temperature, and charging percentage.
5. **Completion:** The charger automatically switches to trickle charge or float mode once the battery is fully charged.

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Video 6.1: Demonstration of the Defabee P3648 Smart Charger's features, including voltage selection, current adjustment, and repair mode activation. This video illustrates the user interface and operational steps.

Approximate Charging Times

The following table provides theoretical charging times for reference. Actual times may vary based on battery condition and ambient temperature.

Battery Capacity (Ah)	36V Charging Time (H)			48V Charging Time (H)		
	5A	10A	18A	5A	8A	13A
50(Ah)	6H	3H	0.9H	6H	3.2H	1.3H
100(Ah)	12H	6H	2.2H	12H	6.2H	2.9H
120(Ah)	15H	7.8H	2.6H	15H	8.1H	3.2H
150(Ah)	18H	9H	3.1H	18H	9.2H	4.1H
300(Ah)	32H	18H	4.9H	32H	18.5H	5.3H
800(Ah)	/	/	15H	/	/	17H

Table 6.1: Theoretical charging times for various battery capacities and current settings.

7. Maintenance

Proper maintenance ensures the longevity and performance of your charger:

- **Cleaning:** Disconnect the charger from power and battery before cleaning. Use a dry, soft cloth to wipe the exterior. Do not use harsh chemicals or abrasives.
- **Storage:** Store the charger in a cool, dry place when not in use. Keep it away from direct sunlight and extreme temperatures.
- **Cable Inspection:** Regularly inspect power cords and connection cables for any signs of damage, fraying, or corrosion. Replace damaged cables immediately.
- **Fan Clearance:** Ensure the cooling fan vents are clear of dust and debris to maintain proper airflow.

8. Troubleshooting

If you encounter issues with your Defabee P3648 Smart Charger, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Charger does not power on	No power from outlet; Power switch off; Blown fuse	Check wall outlet; Turn on power switch; Replace fuse (if applicable)
Battery not charging	Incorrect voltage selected; Poor battery connection; Battery is completely dead	Verify voltage setting; Ensure secure connections; Note: Charger cannot revive completely dead batteries.

Problem	Possible Cause	Solution
Charger displays error code	Over-voltage, short circuit, reverse polarity, or internal fault	Disconnect, check connections, and restart. If error persists, contact support.
Slow charging	Low current setting; Large battery capacity; Cold ambient temperature	Increase current setting; Allow more time; Charger adjusts for temperature.

If the issue persists after attempting these solutions, please contact Defabee customer support.

9. Specifications

Detailed technical specifications for the Defabee P3648 Smart Charger:

- **AC Input:** 100V-240V~ 50/60Hz
- **Output Voltage:** 36V / 48V
- **Output Current:** 36V18A & 48V13A
- **Minimum Starting Voltage:** 2.0V
- **Max Power and Load:** 650W
- **Product Dimensions:** 9.1 x 2.6 x 4.4 inches (23.1 x 6.6 x 11.2 cm)
- **Item Weight:** Approximately 2.43 pounds (1.1 kg)
- **Charge Battery Type:** Lithium / LiFePO4 / Lead-Acid (AGM, GEL, EFB, MF, Flooded, VRLA, SLA)
- **Supported Battery Capacity:** 20AH-400AH
- **Plug Type:** D Style Plug (for EZGO TXT Golf Carts)
- **Color:** Black

10. Warranty and Support

Defabee is committed to providing quality products and excellent after-sales service. This product comes with a permanent after-sale service.

For any questions, technical assistance, or warranty claims, please contact Defabee customer service. Our team is available to assist you.

Contact Information: Please refer to the product packaging or the official Defabee website for the most current customer service contact details.

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