DECA CB5000

DECA CB5000 Class Booster 5000E 12/24V Battery Charger and Starter User Manual

1. Introduction

This manual provides essential instructions for the safe and effective operation, setup, and maintenance of your DECA CB5000 Class Booster 5000E battery charger and starter. Please read this manual thoroughly before using the device to ensure proper function and prevent injury or damage.

2. Safety Information

WARNING: Failure to follow these safety instructions may result in electric shock, fire, serious injury, or property damage.

- Always wear appropriate personal protective equipment, including eye protection and gloves, when working with batteries.
- Ensure the work area is well-ventilated to disperse explosive gases produced by batteries during charging.
- Never smoke or allow sparks or flames near the battery or charger.
- Connect and disconnect battery clamps only when the charger is switched off and unplugged from the mains power.
- Avoid touching uninsulated parts of the output connectors or battery terminals.
- Do not expose the charger to rain or excessive moisture.
- Keep children and unauthorized persons away from the charger and battery during operation.
- If the power cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid a hazard.

3. Product Overview

The DECA CB5000 Class Booster 5000E is a robust, wheeled battery charger and starter designed for 12V and 24V lead-acid batteries. It features multiple charging positions and a powerful starting current for various vehicle types.


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CLASS
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Booster
Charger

Figure 1: Front view of the DECA CB5000 Class Booster 5000E, showing its yellow casing, control panel, and wheels for portability.

Figure 2: Close-up of the control panel, displaying the analog ammeter, voltage selector (12V/24V), and charging current adjustment knobs.

4. Setup

1. **Unpacking:** Carefully remove the charger from its packaging. Inspect for any signs of damage during transit.
2. **Assembly:** Attach the wheels and handle (if not pre-assembled) according to the diagrams provided in the separate assembly guide. Ensure all fasteners are securely tightened.
3. **Placement:** Position the charger on a stable, level surface in a well-ventilated area, away from direct sunlight, heat sources, and flammable materials.
4. **Power Connection:** Ensure the charger's main switch is in the 'OFF' position. Connect the power cord to a grounded 230V AC 50-60Hz electrical outlet.

5. Operating Instructions

5.1. Battery Charging

1. **Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion. If the battery has

removable caps, check the electrolyte level and top up with distilled water if necessary.

2. **Connect to Battery:** With the charger switched OFF and unplugged, connect the RED (+) positive clamp to the positive (+) battery terminal. Connect the BLACK (-) negative clamp to the negative (-) battery terminal. For batteries installed in a vehicle, connect the negative clamp to the vehicle chassis away from the battery and fuel line.
3. **Select Voltage:** Set the voltage selector switch on the charger to match the battery voltage (12V or 24V).
4. **Select Charging Current:** Adjust the charging current knob to the desired charging position (e.g., 'Min' for slow charge, 'Max' for fast charge, or an intermediate position). Refer to your battery's specifications for recommended charging rates.
5. **Start Charging:** Plug the charger into the mains power outlet and switch the charger ON. The ammeter will indicate the charging current.
6. **Monitor:** Periodically check the ammeter. As the battery charges, the current will gradually decrease. Charging is complete when the ammeter reads near zero or stabilizes at a very low current.
7. **Disconnect:** Switch the charger OFF and unplug it from the mains. Then, disconnect the negative (-) clamp, followed by the positive (+) clamp.

5.2. Engine Starting (Booster Function)

CAUTION: Do not attempt to start an engine if the battery is frozen or severely damaged.

1. **Prepare Vehicle:** Ensure the vehicle's ignition is OFF and all accessories are turned off.
2. **Connect to Battery:** With the charger switched OFF and unplugged, connect the RED (+) positive clamp to the positive (+) battery terminal. Connect the BLACK (-) negative clamp to the vehicle chassis, away from the battery and fuel line.
3. **Select Voltage:** Set the voltage selector switch on the charger to match the vehicle's battery voltage (12V or 24V).
4. **Select Starting Current:** Set the charging current knob to the 'Max' or 'Booster' position.
5. **Start Engine:** Plug the charger into the mains power outlet and switch the charger ON. Wait approximately 60-120 seconds for the battery to receive a preliminary charge. Then, attempt to start the engine for no more than 5 seconds. If the engine does not start, wait at least 60 seconds before trying again. Do not exceed three starting attempts.
6. **Disconnect:** Once the engine starts, switch the charger OFF and unplug it from the mains. Then, disconnect the negative (-) clamp, followed by the positive (+) clamp.

6. Maintenance

- **Cleaning:** Disconnect the charger from the mains before cleaning. Wipe the exterior with a soft, dry cloth. Do not use solvents or abrasive cleaners.
- **Cable Inspection:** Regularly inspect the power cord and battery cables for any signs of damage, cuts, or fraying. Replace damaged cables immediately through authorized service personnel.
- **Storage:** Store the charger in a cool, dry place, away from direct sunlight and extreme temperatures. Ensure cables are neatly coiled and not kinked.

7. Troubleshooting

Problem	Possible Cause	Solution
Charger does not turn on	No power from outlet; Main switch off; Internal fuse blown	Check power outlet; Ensure main switch is ON; Contact service for fuse replacement.
No charging current indicated	Incorrect battery connection; Battery fully charged; Voltage selector incorrect	Verify correct polarity; Battery may be full; Check voltage selector (12V/24V).
Engine does not start in booster mode	Battery too discharged/damaged; Incorrect connections; Engine issue	Allow more pre-charge time; Check all connections; Consult vehicle mechanic.

If troubleshooting steps do not resolve the issue, please contact DECA customer support or an authorized service center.

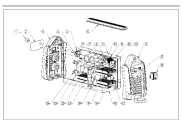
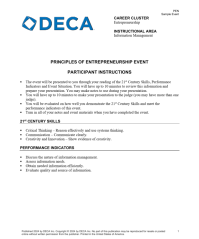
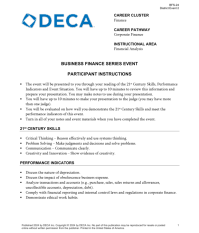
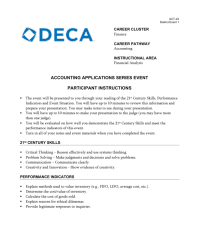
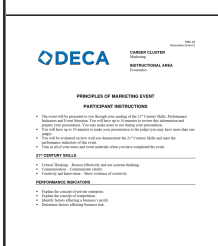
8. Specifications

Feature	Specification
Model	CB5000
Input Voltage (AC)	1ph x 230V, 50-60Hz
Power (KW)	2.3 / 11
Charging Voltage (DC)	12V / 24V
Average Charging Current	70 A
Effective Charging Current	105 A
Charging Positions	4
Starting Current (0V CC)	700 A
Starting Current (1V)	460 A
Nominal Reference Capacity (Ah 15h Min/Max)	35 / 800 Ah
Dimensions (L x W x H)	47 x 32 x 75 cm
Weight	28 kg
Certification	CE
Components Included	One charger

9. Warranty and Support

For warranty information, please refer to the warranty card included with your product or contact your retailer. For technical support, spare parts, or service inquiries, please contact DECA customer service or an authorized DECA service center. Keep your purchase receipt as proof of purchase.

Related Documents - CB5000

	DECA CLASS Booster Series Battery Chargers and Quick Starters Overview of DECA CLASS Booster Series battery chargers and quick starters, including models 4500 and 5000. Features and technical specifications for lead-acid batteries.
	DECA SIL 417 1X230V-50/60HZ W/ACC. Parts List and Diagram Detailed parts list and electrical schematic for the DECA SIL 417 1X230V-50/60HZ W/ACC. electrical unit. Includes exploded view description, component references, and manufacturer information.
	DECA Principles of Entrepreneurship Event: Participant & Judge Guide Official guide for the DECA Principles of Entrepreneurship Event, covering participant instructions, event situation, judge roles, and evaluation criteria for the Information Management instructional area.
	DECA Business Finance Series 2024: District Event 2 - Financial Analysis Role-Play Guide Participant and judge instructions for the DECA Business Finance Series 2024 District Event 2, focusing on a financial analysis role-play scenario involving COUNTY COURIER's building depreciation and reclassification. Includes performance indicators, 21st-century skills, and evaluation criteria.
	DECA Accounting Applications Series Event Guide: Participant and Judge Information Comprehensive guide for the DECA Accounting Applications Series District Event 1. Details participant instructions, event scenario at DENE COMPANY, judge roles, and evaluation criteria, including inventory valuation methods (FIFO, LIFO) and 21st Century Skills.
	DECA Principles of Marketing Event: Participant and Judge Guidelines Official guidelines for the DECA Principles of Marketing Association Event 2, covering participant instructions, event situation, judge roles, and evaluation criteria. Focuses on marketing principles, competition, and 21st-century skills.