

DRAPER

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Original Instructions
Version 4 – May 2025

12/24V

BATTERY CHARGER

52965, 52985, 53000, 53007



UK
CA



1. Preface

1.1 Product Reference

User Manual for: 12/24V Battery Charger

Stock No: 52965, 52985, 53000, 53007

Part No: BCD18A, BCD30A, BCD40A, BCD50A

1.2 Revisions

Version 1: August 2020
First release

Version 2: April 2023

Version 3: July 2023

Version 4: May 2025

2. Product Introduction

2.1 Intended Use

This product is designed to charge conventional lead acid batteries. Suitable for home and infrequent light duty trade use.

Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

Read this manual in full before attempting to assemble, operate or maintain the product, and retain it for later use.

2.2 Specification

Stock No.:	52965	52985	53000	53007
Part No.:	BCD18A	BCD30A	BCD40A	BCD50A
Rated Input:				
Voltage:	230V AC	230V AC	230V AC	230V AC
Frequency:	50Hz	50Hz	50Hz	50Hz
Power	310W	480W	660W	730W
Rated Output:				
Voltage:	12/24V	12/24V	12/24V	12/24V
Current:	10 – 14A	16 – 20A	20 – 25A	25 – 30A
Battery Amperage;				
Range:	60 – 200Ah	90 - 250Ah	100 -300Ah	120 – 350Ah
Battery Type Suitable for:	(Pb) Lead acid	(Pb) Lead acid	(Pb) Lead acid	(Pb) Lead acid
Net Weight:	6.2kg	8.1kg	10kg	11.5kg
Dimensions:	290 × 250 × 245mm	290 × 250 × 245mm	330 × 330 × 250mm	330 × 330 × 250mm

3. Health and Safety Information

Important: Read all the Health and Safety instructions before attempting to operate, maintain or repair this product. Failure to follow these instructions may result in injury or damage to the user, the product or the battery.

3.1 General Health & Safety Precautions



WARNING! Prevent flames and sparks. Provide adequate ventilation during charging.

- **Indoor use only.** This battery charger must not be used outside in rain or wet conditions.
- **ALWAYS** unplug the charger from the power supply after charging and before carrying out any cleaning or maintenance.
- Connect the charger carefully. Make sure the red clip is attached to the battery positive terminal and the black clip to the negative terminal. **DO NOT** reverse the clips or allow them to touch each other.
- The battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remote from the battery and fuel line. The battery charger is then to be connected to the mains supply.
- Refer to the vehicle manufacturers information. Follow these instructions fully to ensure no damage occurs to the vehicle or it's equipment.
- **DO NOT** cover the charger. The charger is equipped with a time-lag fuse inside. Over-heating will trip the fuse to prevent damage and will not re-set until sufficiently cooled.
- **DO NOT** use the charger within the vehicle. Stand it on a level firm surface to prevent damage to the charger or vehicle.
- **DO NOT** tamper with this product. Repairs and maintenance must be carried out by an authorised service agent. **ONLY** use the clamps and accessories recommended and supplied by Draper Tools.
- **DO NOT** use this unit if the clip leads are damaged or worn.
- Do not modify this product in any way.
- Wear suitable PPE (Personal Protective Equipment) including suitable eye, face and hand protection.
- Before charging a maintenance type battery the electrolyte (battery acid) must be filled to the maximum marked levels. Never use tap water. Distilled water or electrolyte must be used.
- Never attempt to charge non-rechargeable batteries. Only charge lead acid batteries within the voltage and amp hour capacities of the charger.

- Keep out of the reach of children.
- Before plugging the charger into the power supply, check that the plug, cord and casing are in good condition. If they are damaged or any defective part/s evident, get them replaced immediately by a suitably qualified person.
- Set up the charger and cord in a safe place where it will not be knocked, tripped over or stepped on and where it is well ventilated.

3.2 Vehicle Battery Health and Safety Precautions



WARNING! Risk of explosive gases

- Working in the vicinity of lead-acid batteries is dangerous as they generate explosive gases during normal operation. Follow these instructions and those published by the battery manufacturer and the manufacturer of any other equipment to be used in the vicinity of the battery.
- Review warning markings on all these products and on the engine.
- When working near a lead-acid battery, ensure someone is within range of your voice or close enough to come to your aid.
- Never smoke or allow a spark or flame near the battery or engine.
- Take extra care not to drop a metal tool onto the battery. It could spark or short circuit the battery.
- **NEVER** charge frozen batteries.
- **NEVER** attempt to charge a damaged or distorted battery.
- Wear suitable eye and face protection.
- Have plenty of fresh water and soap nearby in case battery acid contacts eyes, skin or clothing. If acid enter eyes, wash eye under cold clean running water for at least 15 minutes and get medical attention immediately.
- Remove any metallic items such as rings, bracelets, necklaces and watches. A lead-acid battery can produce a short circuit current high enough to weld a metallic item, which may cause a severe burn.

3.3 Residual Risk

The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

3.4 Connection to the Power Supply



**CAUTION! Risk of electric shock.
DO NOT open**

This appliance is supplied with an approved plug and cord for your safety. The product must be installed according to national wiring regulations.

If the power supply cord is damaged, it must be replaced by Draper Tools, an authorised service agent or similarly qualified personnel in order to avoid a hazard.

The damaged or incomplete plug, when cut from the cord, must be disabled to prevent connection to a live electrical outlet.

This product is **Class I*** and is designed for connection **ONLY** to a power supply matching that detailed on the rating label and compatible with the plug fitted.

The value of the fuse fitted is marked on the pin face of the plug. Should the fuse need replacing, ensure the substitute is of the correct rating, approved to **BS 1363/A** and **ASTA** or **BS Kite marked**. This should only be performed by suitably qualified personnel.

ASTA

BSI

The fuse can be replaced by removing the cover using a small plain slot screwdriver and removing the broken fuse from its holder. This should only be performed by suitably qualified personnel.

If an extension lead is required, use an approved and compatible lead rated for this appliance.

Important: Always follow the extension lead instructions regarding maximum load while the cable is wound. If in doubt, unwind the entire cable. A coiled extension lead generates heat which could melt the lead and cause a fire.

† Earthed : This product requires an earth connection to protect against electric shock from accessible conductive parts in the event of a failure of the basic insulation.

4. Identification and Unpacking

4.1 Packaging

Keep the product packaging for the duration of the warranty period for reference should the product need to be returned for repair.

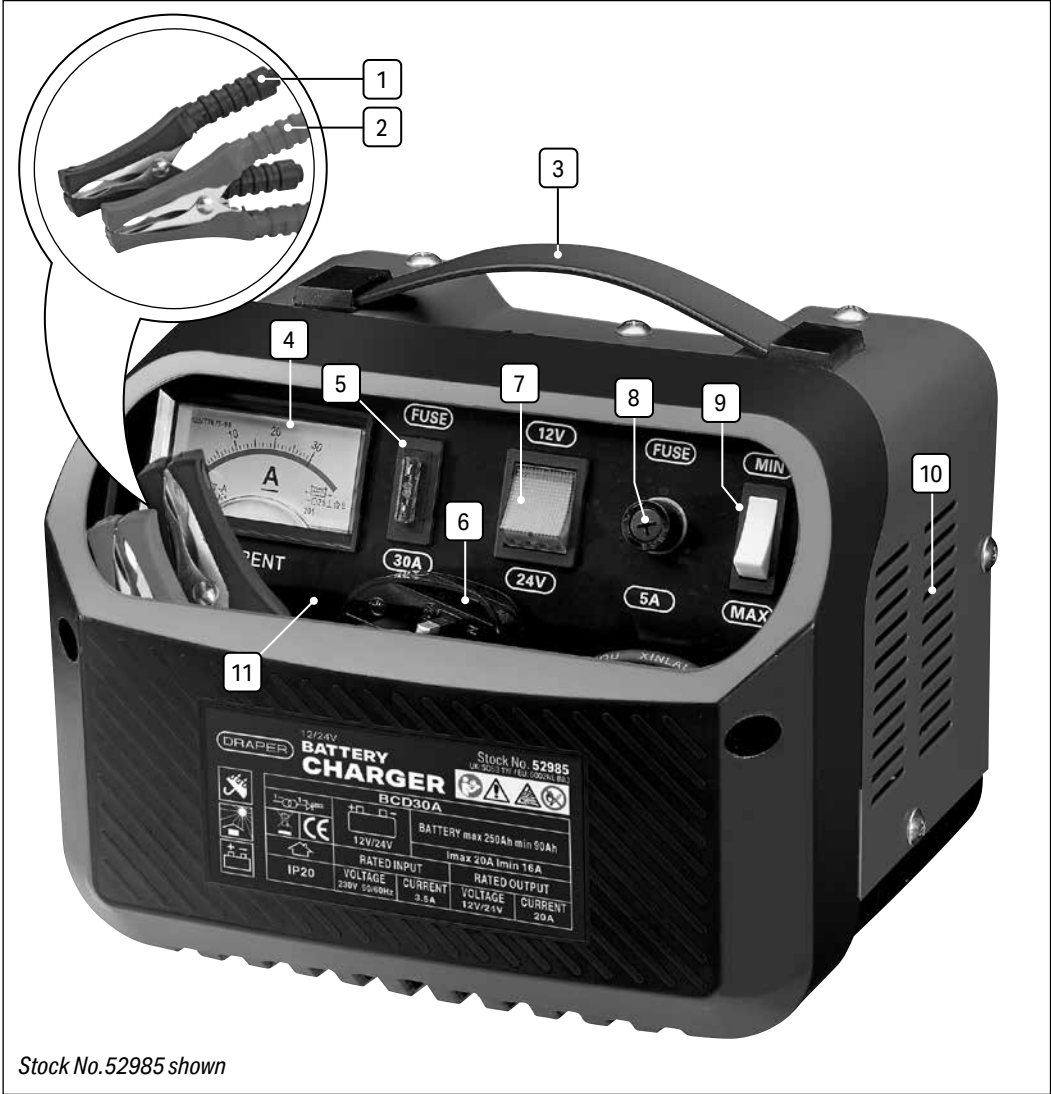


WARNING! Keep packaging materials out of reach of children. Dispose of packaging correctly and responsibly and in accordance with local regulations.

Please visit **drapertools.com** for our full range of accessories and consumables.

4. Identification and Unpacking

4.2 Product Overview



- 1

Black negative (-) clip and lead
- 2

Red positive (+) clip and lead
- 3

Carry handle
- 4

Ammeter (Output charge current)
- 5

Output fuse
- 6

Mains plug and cord
- 7

12/24 Selection switch
- 8

Input fuse
- 9

Power boost switch
- 10

Ventilation grilles
- 11

Storage area

Important: Before operating this product, read and understand all the safety instructions listed in this manual.

5.1 Before Charging Your Battery

- It is recommended that the battery is disconnected from the vehicle to avoid any possible damage to the alternator.
- Connect to a memory saving device or similar device to avoid loss of codes for audio and security etc.
- Check that the voltage of the battery matches that of the charger.

5.2 Maintenance Type Battery

- Maintenance batteries have caps to access the chambers containing the plates and the electrolyte. For a battery to function correctly and to retain its working life, the level of the electrolyte must be kept up to the maximum mark inside the chambers. This is particularly important before charging.
- When topping up it is vitally important that eye protection and rubber gloves are worn.
- It is necessary to maintain the electrolyte levels with distilled water, **NEVER** use tap water.
- When adjusted, the caps should remain off throughout the charging process

5.3 Connecting the Charger to the Battery

- Before connecting the battery charger to the battery ensure that the charger and battery are on a level surface.
 - If the battery has cell filler caps loosen or remove them to assist the escape of charging gases.
 - If the battery is maintenance type, see section: **5.2 Maintenance Type Battery**.
1. Move the 12V/24V switch **[7]** to the appropriate setting.
 2. Connect the red positive lead and clip **[2]** to the battery positive (+) terminal.
 3. Connect the black negative lead and clip **[1]** to the battery negative (-) terminal.



WARNING! Double check the polarity connection before proceeding. Incorrectly setting 24V for a 12V battery will result in damage.

5.4 Charging Sequence

1. During the charging process the battery voltage must be continually monitored and the charging output current adjusted.
2. To begin charging set the power boost switch **[9]** to 'MIN'.
3. Connect the charger to the mains supply.
4. Monitor the battery voltage with a suitable meter. When the voltage of the charging battery reaches 12V (or 24V) switch the power boost switch **[9]** to 'MAX'.



WARNING! Switching to boost too soon can cause excessive charge current and the fuse will blow.

5. When the battery reaches a full charge the input current will reduce to zero on the ammeter **[4]**.
6. Switch the charger off.
7. Disconnect the mains supply before removing the clips.
8. Remove the black negative (-) clip first then the red positive (+) clip from the battery.

6. Maintenance, Storage and Disposal

Important: ALWAYS disconnect the clips and unplug from the mains supply before carrying out any cleaning or maintenance.

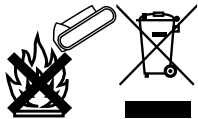
 **WARNING! Servicing should only be carried out by qualified personnel.**

- After use wipe over the charger case to remove any dirt or grease.
- Coil up the leads and place in the storage area  on the front of the charger.

- Store the charger in a dry, clean area out direct sunlight and out of the reach of children.

At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.

- **DO NOT** dispose of this product with domestic waste; most local authorities provide appropriate recycling facilities.
- **DO NOT** burn or mutilate batteries; this may release toxic or corrosive substances.



6.1 Troubleshooting

Problem	Possible Cause	Remedy
Power light does not switch on before use.	Fuse blown	Check and replace with fuse of same rating.
Power light does not switch on during use.	Overheating caused time delay fuse to activate.	Switch off and allow the charger to cool down. The fuse will reset when cooled down.
Power light with no output current.	Overcurrent fuse blown. Reversed polarity	Check fuse on front panel and replace. Check connection polarity is correct way round.

7. Warranty

Warranty period is 12 months from date of purchase -Visit [drapertools.com/warranty](https://www.drapertools.com/warranty) for more information. However, if the tools are hired out, the warranty period is 90 days from the date of purchase.



Read the instruction manual .



Warning!



Amperage



Ampere Hour



Lead Acid Battery



Reverse polarity protection



Do not incinerate or throw onto fire



Do not abandon in the environment



Product weight



Class (Earthed)



WEEE –
Waste Electrical & Electronic Equipment
Do not dispose of Waste Electrical & Electronic Equipment
in with domestic rubbish



European conformity.



UK Conformity Assessed.

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