



DRAPER[®]

12/24V

BATTERY CHARGER

52965, 52985, 53000, 53007



Stock No.52985 shown

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

1. TITLE PAGE

1.1 INTRODUCTION:

USER MANUAL FOR: 12/24V Battery Charger

Stock No: 52965, 52985, 53000, 53007

Part No: BCD18A, BCD30A, BCD40A, BCD50A

1.2 REVISIONS:

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As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: <http://drapertools.com/manuals>

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1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

Warning! – Information that draws attention to the risk of injury or death.

Important – Information that draws attention to the risk of damage to the product or surroundings.

1.4 COPYRIGHT © NOTICE:

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3. WARRANTY

3.1 WARRANTY

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact:

Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England.

Telephone Sales Desk: +44 (0) 8049 4333 or Product Help Line +44 (0) 23 8049 4344.

A proof of purchase must be provided with the tool.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covering labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. The warranty is extended to 24 months for parts only. This warranty does not apply to any consumable parts, any type of battery or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

Your Draper warranty is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the warranty period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

4. INTRODUCTION

4.1 SCOPE

This manual is intended to give the user an overview of the function and controls of this product to aid its safe and effective use. Any application other than that it was intended for, is considered misuse.

4.2 SPECIFICATION

Stock No: 52965 52985 53000 53007

Part No: BCD18A BCD30A BCD40A BCD50A

Rated input:

Rated voltage.. 230V 230V 230V 230V

Rated

frequency 50Hz 50Hz 50Hz 50Hz

Power 310W 480W 660W 730W

Rated output:

Rated 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

Suitable

battery types:Lead acid (Pb) Lead acid (Pb) Lead acid (Pb) Lead acid (Pb)

Weight

(machine only): 6.2kg 8.1kg 10kg 11.5kg

4.3 HANDLING AND STORAGE

- Care must be taken when handling this product.
 - Dropping this power tool could have an effect on its accuracy and could also result in personal injury. This product is not a toy and must be respected.
- Environmental conditions can have a detrimental effect on this product if neglected.
 - Exposure to damp air can gradually corrode components. If the product is unprotected from dust and debris, components will become clogged.
 - If not cleaned and maintained correctly or regularly, the machine will not perform at its best.

5. HEALTH AND SAFETY INFORMATION

5.1 GENERAL SAFETY INSTRUCTIONS FOR POWER TOOL USE

When using any type of power tool there are steps that should be taken to make sure that you, as the user, remain safe.

Common sense and a respect for the tool will help reduce the risk of injury.

Read the instruction manual fully. Do not attempt any operation until you have read and understood this manual.

Most important you must know how to safely start and stop this machine, especially in an emergency.

Keep the work area tidy and clean. Attempting to clear clutter from around the machine during use will reduce your concentration. Mess on the floor creates a trip hazard. Any liquid spilt on the floor could result in you slipping.

Find a suitable location. If the machine is bench mounted, the location should provide good natural light or artificial lighting as a replacement. Avoid damp and dust locations as it will have a negative effect on the machine's performance. If the machine is portable do not expose the tool to rain. In all cases do not operate power tools near any flammable materials.

Keep bystanders away. Children, onlookers and passers by must be restricted from entering the work area for their own protection. The barrier must extend a suitable distance from the tool user.

Unplug and house all power tools that are not in use. A power tool should never be left unattended while connected to the power supply. They must be housed in a suitable location, away locked up and from children. This includes battery chargers.

Do not overload or misuse the tool. All tools are designed for a purpose and are limited to what they are capable of doing. Do not attempt to use a power tool (or adapt it in any way) for an application it is not designed for. Select a tool appropriate for the size of the job. Overloading a tool will result in tool failure and user injury. This covers the use of accessories.

Dress properly. Loose clothing, long hair and jewellery are all dangerous because they can become entangled in moving machinery. This can also result in parts of body being pulled into the machine. Clothing should be close fitted, with any long hair tied back and jewellery and neck ties removed. Footwear must be fully enclosed and have a non-slip sole.

Wear personal protective equipment (PPE). Dust, noise, vibration and swarf can all be dangerous if not suitably protected against. If the work involving the power tool creates dust or fumes wear a dust mask. Vibration to the hand, caused by operating some tools for longer periods must be protected against. Wear vibration reducing gloves and allow long breaks between uses. Protect against dust and swarf by wearing approved safety goggles or a face shield. These are some of the more common hazards and preventions, however, always find out what hazards are associated with the machine/work process and wear the most suitable protective equipment available.

Do not breathe contaminated air. If the work creates dust or fumes connect the machine (if possible) to an extraction system either locally or remotely. Working outdoors can also help if possible.

Move the machine as instructed. If the machine is hand held, do not carry it by the power supply cable. If the product is heavy, employ a second or third person to help move it safely or use a mechanical device. Always refer to the instructions for the correct method.

Do not overreach. Extending your body too far can result in a loss of balance and you falling. This could be from a height or onto a machine and will result in injury.

Maintain your tools correctly. A well maintained tool will do the job safely. Replace any damaged or missing parts immediately with original parts from the manufacturer. As applicable, keep blades sharp, moving parts clean, oiled or greased, handles clean, and emergency devices working.

5. HEALTH AND SAFETY INFORMATION

Wait for the machine to stop. Unless the machine is fitted with a safety brake, some parts may continue to move due to momentum. Wait for all parts to stop, then unplug it from the power supply before making any adjustments, carrying out maintenance operations or just finishing using the tool.

Remove and check setting tools. Some machinery requires the use of additional tools or keys to set, load or adjust the power tool. Before starting the power tool always check to make certain they have been removed and are safely away from the machine.

Prevent unintentional starting. Before plugging any machine in to the power supply, make sure the switch is in the OFF position. If the machine is portable, do not hold the machine near the switch and take care when putting the machine down, that nothing can operate the switch.

Carefully select an extension lead. Some machines are not suitable for use with extension leads. If the tool is designed for use outdoors, use an extension lead also suitable for that environment. When using an extended lead, select one capable of handling the current (amps) drawn by the machine in use. Fully extend the lead regardless of the distance between the power supply and the tool. Excess current (amps) and a coiled extension lead will both cause the cable to heat up and can result in fire.

Concentrate and stay alert. Distractions are likely to cause an accident. Never operate a power tool if you are under the influence of drugs (prescription or otherwise), including alcohol or if you are feeling tired. Being disorientated will result in an accident.

Have this tool repaired by a qualified person. This tool is designed to conform to the relevant international and local standards and as such should be maintained and repaired by someone qualified, using only original parts supplied by the manufacturer. This will ensure the tool remains safe to use.

5.2 ADDITIONAL SAFETY INSTRUCTIONS FOR BATTERY CHARGERS

Warning! Explosive gases. When a battery is charged it can produce hydrogen gas which is explosive. Charging should be carried out in a well ventilated area and away from sources of heat flames and sparks.

Indoor use only. This charger must not be used outside in rain or snow conditions.

Disconnect the mains cable. Before making or breaking the connection to the battery terminals, remove the plug from the power supply.

Connect the charger carefully. Make sure the red clamp is attached to the battery positive terminal. The black clamp attaches to the negative. Do not reverse the clamps or allow them to touch each other.

Refer to the vehicle manufacturers information. Follow these instructions fully to make sure no damage occurs to the vehicle or it's equipment.

Do not cover the charger. Allow air to the charger as it will overheat. The charger is equipped with a time-lag fuse inside. Over-heating will trip the fuse to prevent damage and will not reset 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 authorized service agent. Only use genuine Draper spare parts. Do not modify this product in any way.

Wear approved safety goggles (not safety glasses) and latex/nitrile gloves. 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.

5. HEALTH AND SAFETY INFORMATION

Never attempt to charge a frozen battery.

Never attempt to charge a damaged or distorted battery.

Keep out of the reach of children.

The battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remove from the battery and fuel line. The battery charger is then to be connected to the mains.


5.3 RESIDUAL RISK

Important: Although the safety instructions and operating manuals for our tools contain extensive instructions of safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!

5.4 CONNECTION TO THE POWER SUPPLY

Caution: Risk of electric shock. Do not open.

This appliance is supplied with an approved plug and cable for your safety. 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 BS1362 and ASTA or BS Kite marked.

ASTA 

BSI 


Make sure the power supply information on the machine's rating plate are compatible with the power supply you intend to connect it to.

If a replacement plug is to be fitted this must be carried out by a qualified electrician.

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

This appliance is Class I[†] and is designed for connection to a power supply matching that detailed on the rating label and compatible with the plug fitted.

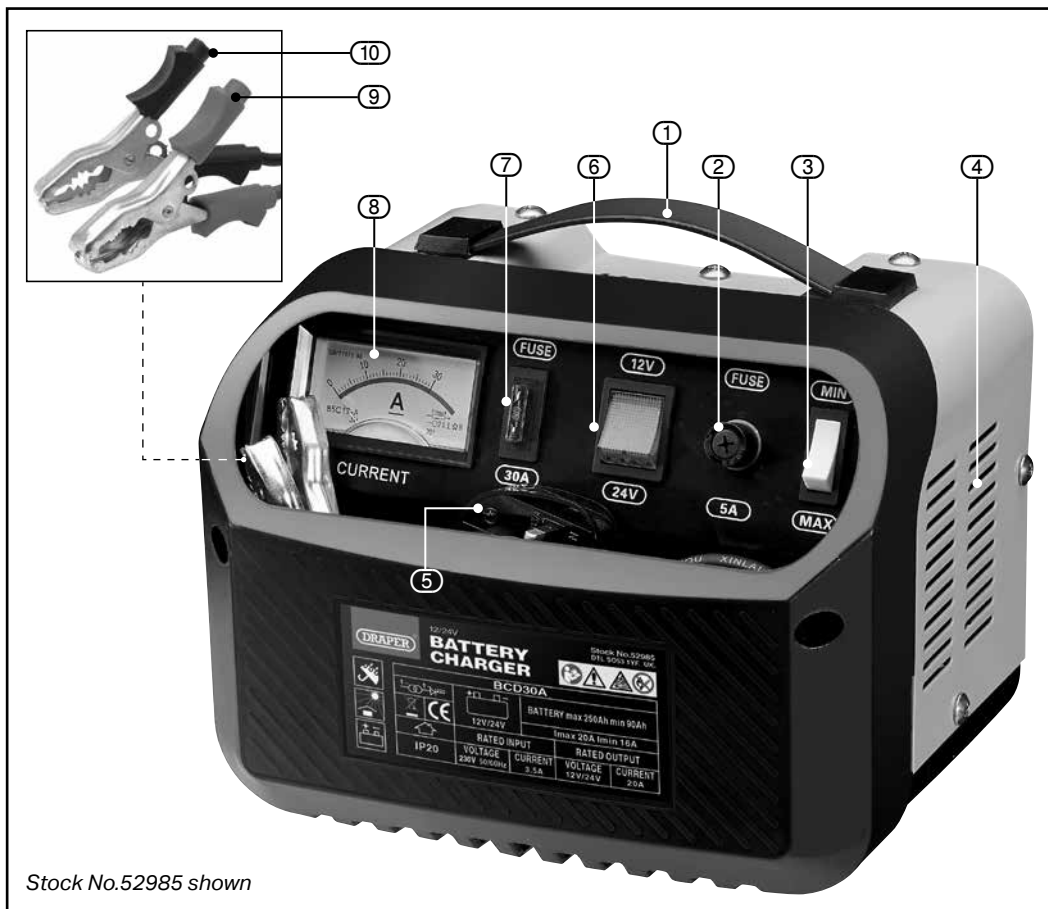
If an extension lead is required, use an approved and compatible lead rated for this appliance. Follow all the instruction supplied with the extension lead.

[†]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.

Important: If using an extension lead, follow the instructions that came with your lead regarding maximum load while cable is wound. If in doubt, ensure that the entire cable is unwound. Using a coiled extension lead will generate heat which could melt the lead and cause a fire.

6. TECHNICAL DESCRIPTION

6.1 IDENTIFICATION



- ① Carry handle.
- ② Input fuse.
- ③ Power boost switch.
- ④ Ventilation grilles.
- ⑤ Mains plug and cable.
- ⑥ 12/24V Selection switch.
- ⑦ Output fuse.
- ⑧ Ammeter – output charge current.
- ⑨ Positive (Red) clamp.
- ⑩ Negative (Black) clamp.

7. UNPACKING AND CHECKING

7.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing, please contact the Draper Help Line (the telephone number appears on the Title page) and do not attempt to use the product.

The packaging material should be retained at least during the warranty period, in case the machine needs to be returned for repair.

Warning!

- Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.
- If any of the packaging is to be thrown away, make sure they are disposed of correctly, according to local regulations.

8. OPERATION

8.1 BEFORE CHARGING YOUR BATTERY

We recommend that the battery is disconnected from the vehicle, this will avoid any possible damage to the alternator.

Loss of codes for audio and security etc, can be prevented by connecting a memory saving device, or similar. Visit drapertools.com for our complete range of automotive products for further information. Check that the voltage of the battery matches that of the charger.

8.2 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 ensure 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 virtually 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 through out the charging process.

8.3 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 above section: *8.2 MAINTENANCE TYPE BATTERY*.

- i. Adjust the 12V/24V switch (6) to the appropriate setting.
- ii. Connect the red positive lead (9) to the battery positive (+) terminal.
- iii. Connect the black negative lead (10) to the battery negative (-) terminal.

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

8.4 CHARGING SEQUENCE

During the charging process the battery voltage must be continually monitored and the charging output current adjusted.

- i To begin charging set the power boost switch (3) to MIN.
- ii Connect the mains supply.
- iii Monitor the battery voltage with a suitable meter. When the voltage of the charging battery reaches 12V (or 24V accordingly) switch the power boost switch (3) to MAX.

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

- iv. When the battery reaches a full charge the input current will reduce to zero on the ammeter (8). Switch the charger off.
- v. Disconnect the mains supply before following *Section 8.3* in the reverse order.

9. MAINTENANCE AND TROUBLESHOOTING

9.1 MAINTENANCE AND STORAGE

After use, the machine should be cleaned of any dirt or grease before coiling up the leads and storing in a dry, clean environment, out of the reach of children.

9.2 TROUBLESHOOTING GUIDE

Remove the plug from the power supply before carrying out any adjustment, servicing or maintenance.

Problem	Possible Cause	Remedy
No power light when switching on (before use).	- Blown fuse.	- Check and replace with an identical fuse.
No power light whilst switched on (during use).	- Overheating caused time delay fuse to activate	- Switch off and allow time for the charger to cool. The fuse will re-set itself.
Power light with no output current.	- Over-current fuse blown	- Check fuse on front panel and replace. - Check connection polarity.

10. EXPLANATION OF SYMBOLS

10.1 EXPLANATION OF SYMBOLS



Read the instruction manual.



Warning!



Do not use near naked flames.



Warning! Risk of explosive gases.



Do not abandon into the environment.



Protect from rain.



Protect from sunlight.



Reverse polarity protection.



Class1 (earthed).



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

11. DISPOSAL

11.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not dispose of WEEE* as unsorted municipal waste.



* *Waste Electrical & Electronic Equipment.*

NOTES

CONTACTS

Draper Tools Limited

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Service/Warranty Repair Agent:

**For aftersales servicing or warranty repairs, please contact the
Draper Tools Help Line for details of an agent in your local area.**

YOUR DRAPER STOCKIST