



6V/12V

# INTELLIGENT CHARGER

33861



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.

### TITLE PAGE

#### 1.1 INTRODUCTION:

USER MANUAL FOR: 6V/12V Intelligent charger

Stock No: 33861 Part No: BCIB

#### 1.2 REVISIONS:

Date first published June 2013.

Date of revision November 2021.

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 MANUAL'S 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.

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### 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 parts/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. 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 intelligent battery charger is ideal for charging batteries of between 40-160Ah. It has a clear intuitive control method for ease of use.

#### 4.2 SPECIFICATION

| Stock no                   |  |
|----------------------------|--|
| Part no                    | BCIB   |
| Rated input                | 230V~50Hz  |
| Output voltages            | 6V/12V   |
| Output current @6V         | 8A   |
| Output current @12V        | 8A   |
|                            | 40Ah-160Ah   |
| Weight                     | 1kg  |
| Charge control method      | Microprocessor controlled                          |
| Suitable for battery types | Wet cell, AGM, Gel                                 |
| Features                   | High-frequency technology with multistage charging |
|                            | Over charge protection                             |
|                            | Short circuit protection                           |

#### 4.3 HANDLING AND STORAGE

This product should only be carried by its purpose-designed carry handle. Never carry the product by its output leads or power supply cable, to do so could cause damage to the product that would not be covered under warranty.

When the product is to be stored it should first be cleaned with a dry cloth. Then inspect the product, looking for any wear or damage. If damage is found, have it rectified at your nearest authorised Draper service centre. Once the product has been cleaned and checked for any damage, it should be returned to its carton and stored in a clean and dry environment away from dust and moisture.

### 5. HEALTH AND SAFETY INFORMATION

#### 5.1 GENERAL 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 manufacturer's information.** Follow these instructions fully to make sure no damage occurs to the vehicle or its equipment.

**Do not cover the charger.** Allow air to circulate around the charger to prevent over heating. The charger is equipped with a time-lag fuse inside. Overheating 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 firm, level 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 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.

Never attempt to charge a frozen battery.

Never attempt to charge a damaged or distorted battery.

Keep out of the reach of children.

**Wear personal protective equipment (PPE).** Batteries can contain hazardous materials so it is important to ensure that adequate hand and eye protection is worn when charging batteries.

#### 5.2 CONNECTION TO THE POWER SUPPLY

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

This charger comes supplied with a UK standard three-pin plug fitted. It is designed for connection to a domestic power supply rated at 230V AC.

Because it is constructed mostly of plastic parts, it is a Class 2 machine, meaning it is double insulated and does not require an earth connection in the power supply.

Apart from replacing the fuse in the plug, no other electrical work is recommended.

### 6. TECHNICAL DESCRIPTION

### 6.1 IDENTIFICATION



- ① Charge status LEDs.
- 2 Indicator LEDs.
- 3 6V/12V selection button.
- (4) Battery selection button.
- Charge rate selection button.

- 6 Start charging button.
- 7 Battery connection terminals.
- 8 Power supply lead with plug.
- Oarry handle.

### 6. TECHNICAL DESCRIPTION

#### 6.2 MAIN COMPONENT DESCRIPTIONS

- 1. These will illuminate to display the current charge fill capacity of the connected battery.
- 2. These will illuminate to indicate that the charger is receiving mains power, is actively charging a battery, the battery is full or that there is a fault.
- 3. This button is used to select either 6V or 12V charging output voltage. The selection must match the voltage of the battery to be charged.
- 4. Used to select battery type to be charged.
- 5. Used to select slow or fast charge rate.
- 6. Press to start charging after the correct settings are input.
- 7. Used to connect the charger to the battery.
- 8. Supplies mains voltage to the charger when plugged into domestic 230V AC socket.
- 9. Handy carry handle. Always carry the charger by this handle and never by the leads.

### 7. UNPACKING AND CHECKING

#### 7.1 PACKAGING

Carefully remove the charger 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 in section 6.1. If any part is damaged or missing, please contact the Draper Helpline (the telephone number appears on the Title page) and do not attempt to use the charger.

Retain the packaging material during the guarantee 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 it is disposed of correctly, according to local regulations.

### 8. PREPARING THE CHARGER

#### 8.1 INSTALLATION

- 1. When selecting a suitable location to use this charger, be sure to choose a clean, dry and tidy location.
- 2. Ensure that the charger can be placed in a stable position and that there is ample room next to the charger for the battery.
- Ensure that the charger is in good working condition before each use. Any damage or defects should be rectified immediately. The charger should not be used if there is any damage to the charger or its cables.
- 4. Once you have carried out the inspection listed above and are sure that the charger is in good condition and safe to use, connect the battery connection clamps to the battery's terminals. Ensure that the correct polarity is observed (Red+ Black-).
- 5. Plug in the charger to the mains power supply. You are now ready to set up the charger for your chosen battery.

### 9. SETTING THE CHARGER

#### 9.1 SETTING THE CHARGER

To set up the charger to charge your battery, you will need to follow the simple process detailed below:

- **STEP 1.** Once the charger is connected correctly to your battery and plugged into the mains supply, press the button marked "STEP 1" to select the correct output voltage for your battery.
- **STEP 2.** Press the button marked "STEP 2" to cycle through the battery types and select the one you wish to charge.
- STEP 3. Press the button marked "STEP 3" to select either fast charge or slow charge. The effects of the fast or slow charge settings are detailed in the table below:

| 12V battery type | Slow charge             | Fast charge               |
|------------------|-------------------------|---------------------------|
| GEL              | 2A for 5-40Ah batteries | 4A for 10-80Ah batteries  |
| AGM              | 2A for 5-40Ah batteries | 8A for 25-160Ah batteries |
| WET              | 2A for 5-40Ah batteries | 8A for 25-160Ah batteries |

**GO.** Press the "GO" button to start the charging process.

During the charging process, the charge status LEDs will illuminate as the charge progresses. All charge status lights will be fully lit, followed by the "full" indicator LED, once the battery is fully charged.

### 10. CHARGING PROCESS

#### 10.1 CHARGING PROCESS

The charging process is controlled by a microprocessor.

#### Stage 1: Bulk charge

Initially, the charger will apply the bulk charge process to the battery. When the digital sensors detect that the battery's voltage has reached a maximum safe predetermined level, the microprocessor will automatically move into the second stage of the charging process.

#### Stage 2: Absorption charge

This maintains the charge at a constant, safe voltage. During this stage of the charging process, the charging voltage remains constant while the charging current is controlled by the microprocessor to allow for the maximum internal chemical energy transfer to take place.

#### Stage 3: Top off/float charge

During this process, the charging voltage is automatically maintained to a predetermined level while the charging current is monitored and adjusted by the microprocessor for a safe and effective 100% charge.

### 11. MAINTENANCE

#### 11.1 MAINTENANCE

With only minimal maintenance, this charger will deliver years of dependable service.

Follow these simple steps to maintain the charger in an optimum condition:

- After each use, clean the battery charger clamps. Be sure to remove any battery fluid if present that will cause corrosion of the battery terminal clamps.
- Clean the outside of the charger with a soft cloth.
- Keep the charger leads loosely coiled during storage to prevent damage to the leads. Do not
  use the charger if the leads or clamps have been damaged in any way.

### 12. EXPLANATION OF SYMBOLS

### 12.1 EXPLANATION OF SYMBOLS



WEEE -

Waste Electrical & Electronic Equipment.

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



Positive.



For indoor use only.



Negative.



Read the instruction manual.

### 13. DISPOSAL

#### 13.1 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.



<sup>\*</sup> Waste Electrical & Electronic Equipment.

## **CONTACTS**

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E-mail: sales@drapertools.com

General Enquiries: (023) 8026 6355

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.

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