

DRAPER

EN

Original Instructions
Version 1
January 2026

6V/12V SMART

BATTERY CHARGER

32283



UK
CA CE

1.1 Product Reference

User Manual for: 6V/12V Smart Battery Charger

Stock No: 32283

Part No: SBC12

1.2 Revisions

Version 1: January 2026

First release

As our manuals are continually updated, always ensure that the latest version is used.

Please visit **drapertools.com/manuals** for the latest version of this manual and the associated parts list, if applicable.

1.3 Understanding the Safety Content of This Manual



WARNING! – Situations or actions that may result in personal injury or death.



CAUTION! – Situations or actions that may result in damage to the product or surroundings.

Important: – Information or instructions of particular importance.

1.4 Copyright © Notice

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3.1 Intended Use

This battery charger is designed to charge and maintain 6V/12V lead-acid, LFP, Gel and AGM batteries. The charger is also suitable for long-term charging and maintenance of car and motorcycle batteries which are not in use over long periods; for example, storing over the winter.

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.

3.2 Specification

Stock No.	32283
Part No.	SBC12
Rated Voltage	220 – 240V /50Hz
Maximum Input Power	195W
Battery Voltage	6V/12V
Rated Charging Current (Supply mode)	Max 12A
Charging Current	
6V STD	2A (7.3V)
12V STD/AGM/ LFP Mode	12A (12V)
Maintenance Mode	1A (14.4V)
Recond Mode	1.5A (16.5V)
RE-BMS Mode	12A (14V)
Charging Starting Voltage	1.5V
Rated Battery Capacities	4Ah to 230Ah
Protection Class	II
Protection Type	IP65
Operating Temperature	-20°C to 40°C
Suitable Battery Types	Lead acid, AGM, Calcium, EFB, LFP (12V Lithium iron phosphate only)
Output Cable (approx.)	1.5M
Input Cable (approx.)	1.5M
Net Weight	1.3kg

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.

4.1 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.
- 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 enters 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.

4.2 Charger Specific Health & Safety Precautions

- The battery charger is for indoor use **ONLY**. **DO NOT** expose to rain or wet conditions.



CAUTION! To reduce the risk of injury, only use the charger for charging Lead Acid, WET, GEL, EFB, LFP and AGM automotive type rechargeable batteries. Other types of batteries may burst causing personal injury and property damage.



WARNING!

- **NEVER** charge frozen batteries.
- **DO NOT** use the 12V charging modes (12V STD, 12V AGM, 12V LFP, MAINTAIN, RECOND), to charge 6V lead-acid or any lithium batteries.
- The 12V LFP mode is only suitable for 12V lithium iron phosphate batteries and **NOT** suitable for other lithium batteries.
- It is not intended to supply power to a low voltage electrical system other than in a starter motor application.
- **DO NOT** use for charging dry-cell batteries, these batteries may burst and cause injury to persons or damage to property.
- 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.
- **ONLY** use the clamps and accessories recommended and supplied by Draper Tools.
- **DO NOT** use this unit if the clamp leads are damaged or worn.



WARNING! Explosive gases, Prevent flames and sparks. During charging provide adequate ventilation. The battery must be placed in a well-ventilated area (for chargers for lead-acid batteries).

- 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.
- The battery terminal not connected to the chassis must 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.
- After charging, disconnect the battery charger from the mains supply. Then remove the chassis connection and then the battery connection.
- **ALWAYS** unplug the charger from the power supply after charging and before carrying out any cleaning or maintenance.

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

4.3 Connection to the Power Supply

This appliance is supplied with an approved plug and cord for your safety.

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, shall be disabled to prevent connection to a live electrical outlet.

This charger is a Class II  appliance and is designed for connection 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, use a small plain-slot screwdriver to remove the fuse cover. Ensure the substitute is of the correct rating, approved to BS 1362 and ASTA or BS Kite marked. This should only be performed by suitably qualified personnel.

ASTA  BSI 

Use of an extension lead is not recommended with this charger.

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

Follow all the instructions supplied with the extension lead.

†Double insulated: This product is double insulated and does not require an earth connection to protect against electric shock from accessible conductive parts in the event of failure of the basic insulation.

4.4 Residual Risk

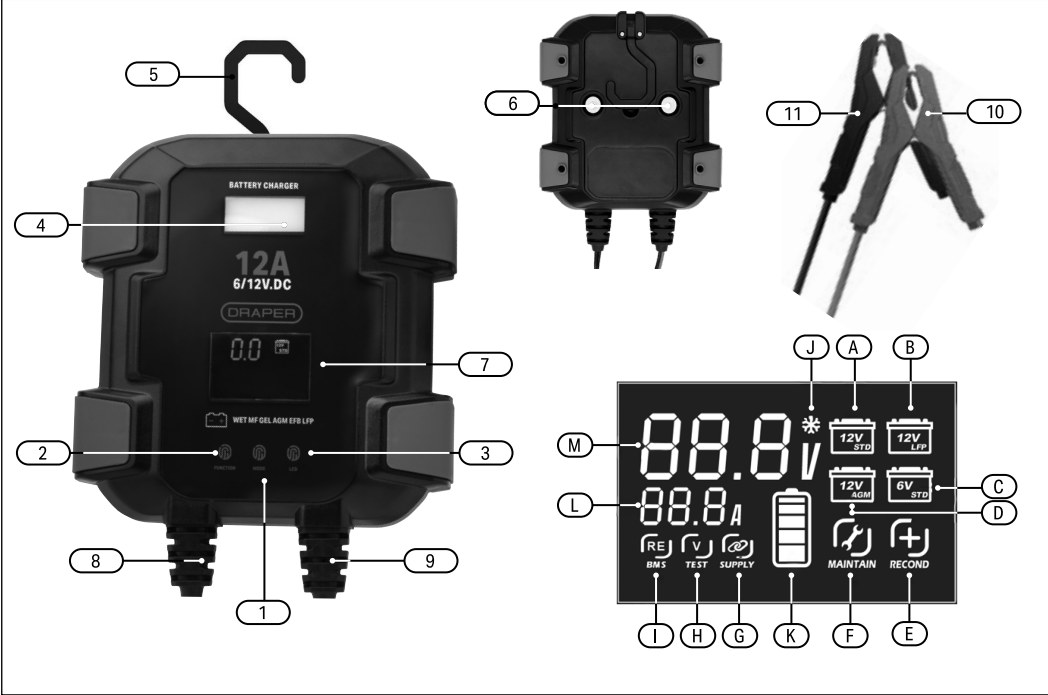
The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

5. Identification and Unpacking

Carefully remove the product from the packaging and examine it for any signs of damage that may have occurred during shipment. If any part is damaged or

missing, do not attempt to use the product. Please contact the Draper Helpline; contact details can be found at the back of this manual.

5.1 Product Overview



- | | |
|---------------------------|---------------------------------------|
| 1. Mode button | 8. Output port with quick connector |
| 2. Function select button | 9. Input power port cord and plug |
| 3. LED Light button | 10. Red positive (+) lead and clamp |
| 4. LED light | 11. Black negative (-) lead and clamp |
| 5. Hanging hook | |
| 6. 2 X Magnets | |
| 7. Display Screen | |

- (7) Display Screen**
- | | |
|-------------|-------------------------------|
| A- 12V STD | G- 12V SUPPLY |
| B- 12V LFP | H- TEST Function |
| C- 6V STD | I- RE-BMS Function |
| D- 12V AGM | J- Winter mode |
| E- RECOND | K- Charging Status Indicator |
| F- MAINTAIN | L- Charging current indicator |
| | M Battery voltage indicator |

5.2 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.

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

- Before connecting the charger to the power supply ensure that the information on the rating label matches the supply voltage.
- Refer to the instructions in the manufacturer 's manual for the car, radio and navigation systems etc.

Important: Before charging the battery:

- It is recommended that the battery is disconnected from the vehicle to avoid damage to the alternator.
- Check that the voltage of the battery matches that of the charger.

Note: To avoid loss of audio or security codes before disconnecting the battery connect a 6V/12V memory saver or an EOBD 16 pin diagnostic socket type.

6.1 Battery Charging Functions

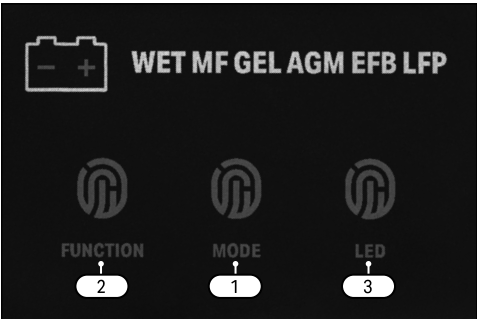


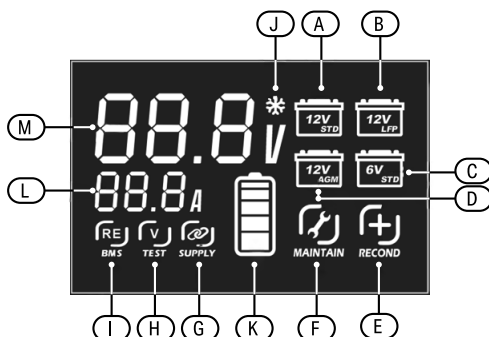
Fig. 1



Fig. 2

Symbols		Action
1	MODE	2 Options Connect the charger to the power supply without connecting to the battery. Press the ' MODE ' button to select one of the 6 charging modes: (12V STD, 12V LFP, 12V AGM, 6V STD, MAINTAIN, RECOND). Connect the charger to the battery. Press the ' MODE ' button to select between 3 available charging modes: (12VSTD,12VLFP and 12VAGM).
2	FUNCTION	Connect the battery charger to the power supply. Press the ' FUNCTION ' button to select one of the following modes: RE-BMS TEST SUPPLY
3	LED	1. Connect the charger to the power supply. Press the 'LED' light button and the light will turn on. Press again to switch off. 2. Charger connected to battery without connecting to the power supply. If the voltage of battery is higher than 12V press the 'LED' light button, the light (4) will turn on. Press again to switch off.

6.2 Display Screen Explained



Symbols		Function/Mode
A	12V Std	Up to 14.4V Charging a 12V standard lead-acid battery.
B	12V LFP	Up to 14.6V Charging a 12V LiFePO4 battery.
C	6V STD	Up to 7.3V Charging a 6V standard lead-acid battery only.
D	12V AGM	Up to 14.8V Charging a 12V AGM battery
E	RECOND	Up to 16V Recondition deeply discharged 12V batteries.
F	MAINTAIN	Up to 14.4V Maintenance charging of 12V lead-acid batteries.
G	SUPPLY	Operating as a 12V power supply. NEVER reverse connect the clamps in this mode.
H	TEST	Testing battery voltage.
I	RE-BMS	To wake up LIFEPO4 batteries Use only with lithium iron phosphate battery with BMS start function.
J	WINTER	Only applicable for 12V STD, 12V LFP, 12V AGM and 6V STD batteries. When the ambient temperature is below 5°C the winter mode will automatically activate.
K	Charging Status	Indicates the battery charging status. Each bar = 20% up to 100%.
L	Charging Current	Charging current (Amp) indicator.
M	Voltage	Battery voltage (Volt) indicator- accurate to 0.1V. Faulty battery – shows ' BAD ' Fully charged battery – shows ' FUL '

6.3 Charging the Battery

Either remove the battery from the vehicle or charge while connected.

Note: With Battery Connected to Vehicle: All loads in the vehicle must be switched off during charging.

Preparing the Battery before charging

1. Release or remove the battery stopper (if fitted/if required) from the battery.
2. Check the acid level in the battery and top up with distilled water if necessary. **NEVER** use tap water.
- **Important:** Battery acid is aggressive, wear protective gloves and safety glasses. Rinse off any acid splashes thoroughly with plenty of water and seek medical advice if necessary.
3. Connect the charging leads to the output port quick connector (8).
4. Connect the charger to a power supply to switch on and the **LED** light (4) will come on.
5. Press the '**MODE**' button (1) to select the correct charging mode for the battery type – **see 6.1 & 6.2.**
6. Then connect the clamps (10) and (11) to the battery terminals – observing the correct polarity.

With Battery removed from vehicle

- Connect the **RED** positive charger clamp (10) to the positive (+) terminal of the battery
- Then connect the **BLACK** negative clamp (11) to the negative (-) terminal of the battery.

With Battery connected to vehicle

- Connect the **RED** positive charger clamp (10) to the positive (+) terminal of the battery.
- Then connect the **BLACK** negative clamp (11) to the vehicle ground connection on either the engine or chassis, away from any fuel lines or battery vents.

Note: After connecting the clamps rotate them slightly to remove any dirt or oxidation and to ensure a good contact.

- If connected with reverse polarity or short-circuit at the clamps "**Err**" will be shown.
7. Once charging is complete unplug the charger from the power supply.
 8. Disconnect the black charging clamp first, then disconnect the red charging clamp from the positive terminal.
 9. Refit the battery stoppers back into position (if removed or released).

6.4 Memory Function

The charger has a memory function. It will automatically enter the last used charging mode when turned back on when using 12VSTD, 2VLFP or 12VAGM modes.

Important: **ALWAYS** disconnect the charger from the power supply before carrying out any maintenance or cleaning.

- Wipe over the case and cord with a slightly damp cloth and dry.
- Coil up the leads/cord when not in use.
- Clean any corrosion from the clamps with a solution of water and bicarbonate of soda.
- Examine the leads and clamps periodically for cracking or other damage and have them replaced if necessary.
- When not in use store in a safe, dry, childproof location.

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

7.1 Troubleshooting

Problem	Possible Cause	Remedy
Battery charger not working.	Not plugged into power supply.	Plug into appropriate power supply.
	Clamps and lead not connected to charger.	Connect leads to the output port connector (8).
'ERR' Battery not charging.	Battery clamps incorrectly connected/polarity reversed.	Disconnect and reconnect correctly.
	Battery voltage does not match the charging mode.	Select the correct charging mode – see 6.1 & 6.2.
'BAD'	Battery voltage too low/deep discharge.	Leave the battery to the charger for 12hours. If not fully charged replace battery.
	Battery not charging.	Battery is defective/replace.
Battery not fully charged after 24hours.	Charge current too low.	Select a higher charge rate.
Battery voltage rising too fast.	Charge current too high.	Select a lower charge rate.

Note: If the battery voltage is below 1.5V the battery cannot be recharged with this charger and should be replaced.

8. Spares, Returns and Disposal

EN

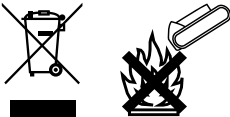
For spare parts, servicing, and repair and replacement options, please contact the Draper Tools Product Helpline for details of your nearest authorised agent.

Draper Tools will endeavour to hold any spare parts, if applicable, for seven years from the date that it sells the final matching stock item.

Any servicing or repairs carried out by unauthorised personnel or installation of spare parts not supplied by Draper Tools will invalidate your warranty.

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.



For indoor use only;
DO NOT expose to rain.



Class II construction
(Double insulated).



Protection Type.



Operating Temperature.



Reverse polarity protection.



Lead Acid Battery.



'Gel' type battery.



Absorbent Glass Mat battery.



Maintenance free battery.



Lithium Iron Phosphate battery.



WEEE – Waste Electrical & Electronic Equipment.
DO NOT dispose of Waste Electrical & Electronic Equipment in with domestic rubbish.

9. Warranty

12 months from date of purchase
visit drapertools.com for more details.

10. Explanation of Symbols



Read the instruction manual.



Warning!
Caution!



European conformity.



UK Conformity Assessed.

Contact Details

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Please contact the Draper Tools Product Helpline for repair and servicing enquiries.