

Bosch C80-Li charger

Operating instructions



DE
EN
FR
IT
ES
PT
TR
AR
PL
HU
EL
DA
NB
SV
NL
RU
CS
RO
HR
SR
MNE
BG
UK
SK
ET
LT
LV
FI
MK
SL
SQ
CN
VI
TH
ID

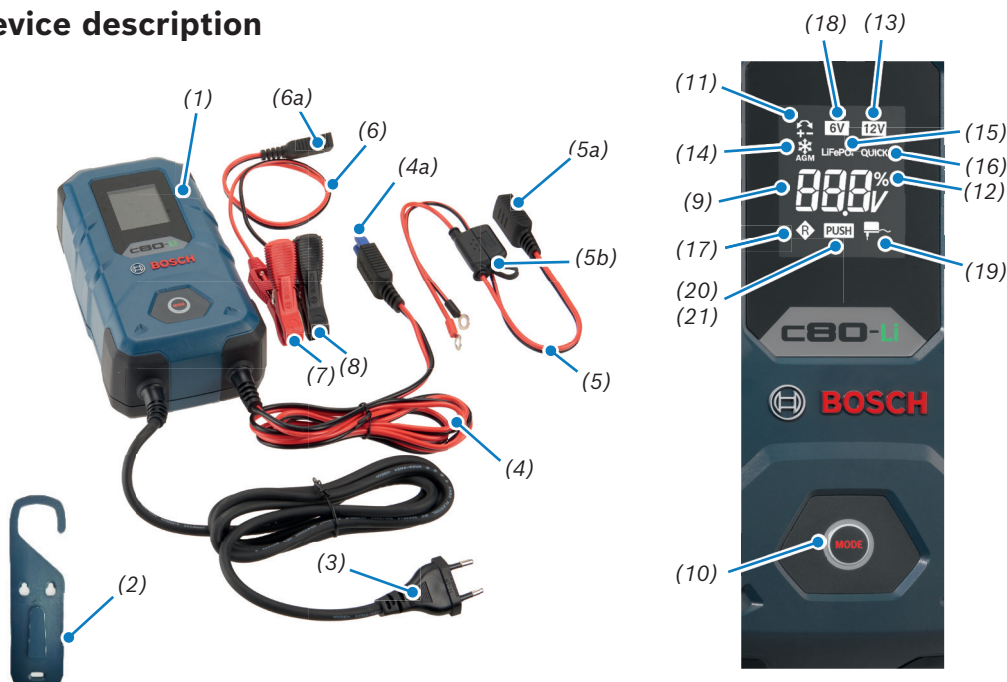


Article nos.: 0 189 921 080, 0 189 922 080

15.08.23

DE	Bedienungsanleitung	1-12
EN	Operating instructions.....	13-20
FR	Mode d'emploi	21-30
IT	Istruzioni d'uso.....	31-40
ES	Instrucciones de uso	41-50
PT	Manual de instruções.....	51-60
TR	Kullanım Kılavuzu	61-69
AR	دليل الاستعمال.....	70-79
PL	Instrukcja obsługi	80-89
HU	Használati utasítás	90-99
EL	Οδηγίες χρήσης	100-109
DA	Betjeningsvejledning.....	110-119
NB	Bruksanvisning	120-128
SV	Bruksanvisning	129-137
NL	Bedieningshandleiding	138-147
RU	Инструкция по эксплуатации	148-157
CS	Návod k obsluze.....	158-167
RO	Instrucțiuni de utilizare	168-177
HR	Upute za upotrebu	178-186
SR	Упутство за употребу.....	187-196
MNE	Uputstvo za upotrebu.....	197-205
BG	Ръководство за потребителя	206-215
UK	Інструкція з експлуатації.....	216-225
SK	Návod na obsluhu	226-234
ET	Kasutusjuhend.....	235-243
LT	Naudojimo instrukcija.....	244-252
LV	Lietošanas pamācība.....	253-261
FI	Käyttöohje	262-270
MK	Упатство за работа	271-280
SL	Navodila za uporabo	281-290
SQ	Manuali i përdorimit.....	291-300
CN	操作说明书.....	301-308
VI	Hướng dẫn vận hành	309-317
TH	คู่มือการใช้งาน	318-326
ID	Panduan pengoperasian	327-336

Device description



1	Charger
2	Mounting hook
3	Mains cable with mains connection
4	Charging cable with cable plug (red and black) a Plug
5	Charging cables with ring eyelets (red and black) a Plug b Fuse
6	Charging cable with terminal clamps (red and black) a Plug
7	(+) Terminal clamp (red)
8	(-) Terminal clamp (black)
9	Standby
10	Mode selection button

11	Reverse polarity protection + -	
12	Battery capacity indication Battery capacity: Lo % Battery capacity: 25 % Battery capacity: 50 % Battery capacity: 75 % Battery capacity: 100 %	
13	Mode 1 12 V (Car Charging)	
14	Mode 2 12 V (Charging at 0-4 °C in winter, or AGM)	
15	Mode 3 12 V (LiFePO ₄)	
16	Mode 4 12 V (Quick)	
17	Mode 5 12 V (Regeneration)	
18	Mode 6 6 V (Normal)	
19	Modus 7 12V (Power supply)	
20	Mode 8 6 V Push charging	
21	Mode 9 12 V Push charging	

1 Technical data

Technical Data	
Input voltage	230 VAC / 50 Hz
Starting current	< 50 A
Rated input current	Max. 3 A (rms value)
Power input	380 watts
Nominal output voltage	DC 6 V / 12 V
Charging voltage	7.2 V / 14.4 V (± 0.25 V), 14.2 V / 14.7 V (± 0.25 V), 16.5 V (± 0.5 V), 13.6 V (± 0.5 V)
Charging current	15 A (± 10 %), 5 A (± 10 %), 20 A (± 10 %), 1.5 A (± 0.3 A), 1.5 A (± 0.5 A)
Rated output current	5 A & 15 A
Reverse flow ¹	< 5 mA (no AC input)
Degree of protection	IP65 (dustproof, watertight)
Battery type	12 V LiFePO ₄ and 6 V & 12 V Lead-Acid type (WET, EFB, GEL, AGM, open and VRLA)
Battery capacity	6 V: 14 Ah – 120 Ah, 12 V: 30 Ah – 400 Ah
Fuse (internal)	5 A
Fuse (fuse holder)	40 A
Noise level	< 50 dB(A)
Temperature	0 °C to + 40 °C
Dimensions	215 x 112 x 65.4 mm (L x W x H)

¹⁾ The reverse flow is the current that the charger consumes from the battery when no mains power is connected.

2 Safety



Before use your charger, please read all instructions carefully.

CAUTION

- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent in order to avoid a hazard.
- Disconnect the supply before making or breaking the connections to the battery.
- The battery connection, which is not connected to the vehicle body, must be connected first (+) red. The other connection must be made to the vehicle body (–) black, away from battery and fuel lines. Only then connect the battery charger to the mains supply.
- After charging, disconnect the battery charger from supply mains. Then remove the chassis connection and the battery connection, in this order, the conductor to be connected to the positive pole shall be colored red and that to be connected to the negative pole shall be colored black.

WARNING

The AC power plug must not expose to the water and have to avoid the water flows towards the supply mains to protect the users from electric shock.

WARNING

Explosion hazard and fire hazard!

Explosive gases.

- Prevent flames or sparks.
- Provide adequate ventilation during charging.



Battery

Used for 12 V 30 Ah - 400 Ah LiFePO₄ and Lead-Acid type (WET, EFB, GEL, AGM, open and VRLA), or 6 V 14 Ah - 120 Ah Lead-Acid type (WET, EFB, GEL, AGM, open and VRLA) rechargeable battery.

WARNING

Do not attempt to charge a non-rechargeable battery!



Keep children and others away from charger.

- 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.
- For indoor use only.
- Dustproof, waterproof
- Class II Construction (double insulated)



Environment friendly disposal

You can help protect the environment!

Please remember to respect the local regulations, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

The packaging is made of ecological materials which can be disposed of at local recycling facilities.

3 Operation

3.1 Before commissioning

1. Read the battery operating instructions before connecting the charger.
2. Observe the vehicle manufacturer's recommendation if the battery is still connected to the vehicle.
3. Clean the battery terminals. When doing so, do not allow the dirt to come into contact with your eyes or mouth. Wash your hands thoroughly after touching the battery terminals.
4. Ensure adequate ventilation. Hydrogen gas (electrolytic gas) may escape from the battery during charging and trickle charging.

3.2 Connecting

1. Connect the (+) terminal (red) of the charger to the (+) terminal of the battery.
2. Connect the (–) terminal (black) of the charger to the (–) terminal of the battery.
3. The (–) terminal (black) can also be connected to the car body, however well away from fuel pipes.

Note: Make sure the (+) and (–) terminals are firm.

Only then is the power cord to be connected.




3.3 Disconnecting

1. Switch the charger to standby by pressing the Mode selection button.
2. Always start by disconnecting the power cord from the mains current.
3. Disconnect the (–) terminal (black) of the charger from the (–) terminal of the battery.
4. Disconnect the (+) terminal (red) of the charger from the (+) terminal of the battery.

3.4 Overheating protection





If the unit becomes excessively hot during charging, the output power and output current is automatically reduced to avoid damaging the unit.








3.5 Standby and reverse polarity protection

Mode	Indication	Operating Instructions
Key illumination		Lights up when turned on and fully charged. Flashes while charging
LCD digital display		Power On, light up. Connect battery, battery voltage display. Charging starts, battery voltage and capacity display alternately
Reversed Hook-up Protection		Icon will flash when terminal blocks have been swapped

4 Mode selection

1. Select the required mode by pressing the mode selection button.
2. The desired mode icon will light up.
3. If there is no other operation, it will automatically enter the charging mode in 5 seconds.

Mode	Output	Indication	Operating Instructions	Supporting Battery Types
Mode 1 Car Mode	14.4 V 15 A		Press the button once to select Mode 1 ■ 12 V icon lights up	12 V WET, EFB and the majority of GEL batteries. Capacity of > 30 Ah in normal state
Mode 2 Cold/AGM Mode	14.7 V 15 A		Press the button twice to select Mode 2 ■ 12 V & snowflake/AGM icon light up	Cold state (0 - 4 °C) of 12 V WET, EFB and the majority of GEL batteries. And for many 12V AGM batteries. Capacity of > 30 Ah in normal state
Mode 3 LiFePO ₄ Mode	14.2 V 15 A		Press the button 3 times to select Mode 3 ■ 12 V & LiFePO ₄ icon lights up	12 V LiFePO ₄ batteries. Capacity of > 30 Ah in normal state
Mode 4 Quick Mode ¹	14.4 V 20 A		Press the button 4 times to select Mode 4 ■ 12 V & QUICK icon lights up	12 V WET, EFB and the majority of GEL batteries. Capacity of > 30 Ah in normal state

Mode	Output	Indication	Operating Instructions	Supporting Battery Types
Mode 5 Regeneration Mode ²	16.5 V 1.5 A		Press the button 5 times to select Mode 5 ■ 12 V & R icon lights up	Suitable for the regeneration of 12 V batteries after short-term extreme discharge. Capacity of > 30 Ah in normal state
Mode 6 6 V Mode	7.2 V 5 A		Press the button once to select Mode 6 ■ 6 V icon lights up	6 V WET, EFB and the majority of GEL batteries. Capacity of > 14 Ah in normal state
Mode 7 Power Supply Mode ³	13.6 V 5 A		Not connect any battery. Press and holding mode button for 5s to enter mode 7 ■ 12 V & power supply icon lights up	Suitable for providing back-up. Can be used to power the vehicle electronics whilst changing the 12 V battery
Mode 8 6 V Push Mode	1.5 A	 	Press and hold mode button for 5 seconds, Push icon on ■ 6 V & 12 V icon flash alternatively When flash to 6 V icon, press MODE button once more to select 6 V push mode	6 V batteries. Battery voltage icon flash when battery voltage is between 0.5 V to 3.75 V
Mode 9 12 V Push-Mode	1.5 A	 	Press and hold mode button for 5 seconds, Push icon on ■ 6V & 12V icon flash alternatively When flash to 12 V icon, press MODE button once more to select 12 V push mode	12 V batteries. Battery voltage icon flash when battery voltage is between 0.5 V to 3.75 V

Note:

- 1) Quick mode only allow user operate about 5 minutes Max., and user need wait 30 minutes between 2 quick mode operation.
- 2) For regeneration mode, make sure to disconnect all connections between the battery and the vehicle electrical system.
- 3) On certain vehicles it is essential not to disconnect the vehicle electronics from the power supply on battery replacement. In such cases, the power supply mode can be used to power the vehicle electronics whilst changing the battery. If load voltage is below 7.5 V, the charger will change to standby mode. There is no reverse polarity protection in this mode.

4.1 Pulse charging

- This is an automatic charger function which cannot be selected manually.
- If the 12 V battery voltage in mode 1, 2 & 4 is between 7.5 V (± 0.5 V) and 10.5 V (± 0.5 V) at the start of charging, the charger switches automatically to pulse.
- If the 6 V battery voltage in mode 6 is between 3.75 V (± 0.5 V) and 5.25 V (± 0.5 V) at the start of charging, the charger switches automatically to pulse

4.2 Trickle loading phase

The charger has an automatic trickle charging phase with max. 1.2 A when fully charged.

4.3 Maintenance phase

When the battery is fully charged, 100% icon will light up, the charger enters maintenance phase to keep the battery capacity in full condition.

4.4 Memory function

If the charger is disconnected from the mains during charging, the unit stores the mode implemented. On re-connection to the mains and if the battery is of the same type (6 V or 12 V), the unit starts up automatically in the last mode. In the case of a different type of battery (6 V and 12 V), it switches to standby.

Caution: If the type of battery connected is different from the last memory (for example, the last time was cold/AGM mode, and you need to connect a normal WET battery this time), please manually reselect the mode to avoid overcharge and damage.

There are no memory function for mode 4 (Quick Mode), mode 5 (Regeneration mode), mode 7 (Power Supply mode) and mode 8, 9 (Push mode).

4.5 Battery detection

Once charger is connected to a 7.3 V-10.5 V battery, 6 V & 12 V icon will flash alternatively, the charger is trying to judge battery voltage. After 1-3 minutes, the charger will judge whether the battery is a 6 V or 12 V battery and it will enter corresponding 6 V mode or 12 V car mode.

4.6 Override Mode

If the charger detects that the connected battery is a 6 V battery and enters 6 V mode, but the user is very sure that it is a 12 V battery, the user can press and hold the mode button for 5 seconds to switch the charger to any 12 V charging mode.



CAUTION

Please only use this override mode if you are sure that the battery to be charged is a 12 V battery. The 12 V mode can charge the battery already from 3.75 V low voltage. Therefore, a 6 V battery could be overcharged and further dangers (increased gas leakage, explosion, fire...) for humans and animals.

4.7 Device protection function

In the event of a short circuit at the charging cable, the fuse (5b) on charging cable prevents damage to the device and the electrical system.

5 Maintenance and care

Always unplug the mains connector before cleaning the charger. The device is maintenance-free.

1. Turn off the device.
2. Use a dry cloth to clean the plastic surfaces of the device.
3. Never use solvents or other aggressive cleaning agents.
4. The devices may only be repaired by qualified personnel with original spare parts in order to maintain operational safety.
5. For 24V battery, please use C70.

For EU version:

Robert Bosch GmbH

Auf der Breit 4

76227 Karlsruhe

Phone: +49 0391 832 29671

E-Mail: kundenberatung.kfztechnik@de.bosch.com

For UK version:

Robert Bosch GmbH

Broadwater Park,

Uxbridge UB9 5HJ

Phone: 0344 892 0115

E-Mail: contact@uk.bosch.com