



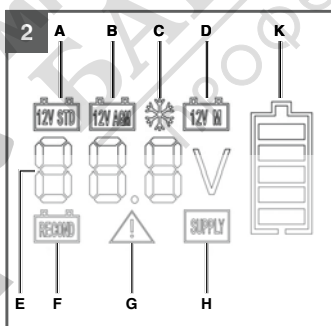
**CE-BC 4 M / CE-BC 6 M**  
**CE-BC 10 M**

DE	Originalbetriebsanleitung Batterie-Ladegerät	NL	Originele handleiding Batterijlader
EN	Original operating instructions Battery charger	ES	Manual de instrucciones original Cargador de batería
FR	Instructions d'origine Chargeur de batterie	FI	Alkuperäiskäyttöohje Akkulaturi
IT	Istruzioni per l'uso originali Carica batteria	SL	Originalna navodila za uporabo Baterijski polnilec
DA/ NO	Original betjeningsvejledning Batterilader	HU	Eredeti használati utasítás Akkumulátor-töltő készülék
SV	Original-bruksanvisning Batteriladdare	RO	Instrucțiuni de utilizare originale Aparat de încărcat baterii
CS	Originální návod k obsluze Nabíječka baterií	EL	Πρωτότυπος Οδηγός χρήσης Φορτιστικό μπαταρίας
SK	Originálny návod na obsluhu Bateriová nabíjačka		




Art.-Nr.: 10.022.25 (CE-BC 4 M)  
Art.-Nr.: 10.022.35 (CE-BC 6 M)  
Art.-Nr.: 10.022.45 (CE-BC 10 M)

I.-Nr.: 21044/21021  
I.-Nr.: 21034/21021  
I.-Nr.: 21034/21021




**3a**

**CE-BC 4 M**

	<b>80%</b>
<b>8 Ah</b>	<b>2 h</b>
<b>20 Ah</b>	<b>5 h</b>
<b>40 Ah</b>	<b>10 h</b>
<b>80 Ah</b>	<b>20 h</b>


**3b**

**CE-BC 6 M**


	<b>80%</b>
<b>12 Ah</b>	<b>2 h</b>
<b>30 Ah</b>	<b>5 h</b>
<b>60 Ah</b>	<b>10 h</b>
<b>120 Ah</b>	<b>20 h</b>

**3c**


**CE-BC 10 M**

	<b>80%</b>
<b>20 Ah</b>	<b>2 h</b>
<b>50 Ah</b>	<b>5 h</b>
<b>100 Ah</b>	<b>10 h</b>
<b>200 Ah</b>	<b>20 h</b>

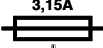
**4**



1



2



3

⊗ Vom Netz trennen, bevor Verbindungen zur Batterie geschlossen oder gelöst werden.  
**ACHTUNG:** Explosive Gase, Flammen und Funken vermeiden. Während des Ladens für ausreichende Belüftung sorgen.

⊗ Disconnect from the main supply before connecting or disconnecting the battery to or  
**IMPORTANT:** Explosive gases. Avoid flames and sparks. Provide good ventilation during the charging process.



**Danger!**

When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety instructions.

**Explanation of the warning signs on the equipment (see Fig. 4)**

- 1 = The equipment is totally insulated
- 2 = **CAUTION** - Read the operating instructions to reduce the risk of injury
- 3 = Fuse value on pcb
- 4 = Disconnect from the mains supply before connecting or disconnecting the battery to or from the charger.

**IMPORTANT:** Explosive gases. Avoid flames and sparks. Provide good ventilation during the charging process.

**1. Safety regulations**

The corresponding safety information can be found in the enclosed booklet.

**Danger!****Read all safety regulations and instructions.**

Any errors made in following the safety regulations and instructions may result in an electric shock, fire and/or serious injury.

**Keep all safety regulations and instructions in a safe place for future use.**

This equipment can be used by children of 8 years and older and by people with limited physical, sensory or mental capacities or those with no experience and knowledge if they are supervised or have received instruction in how to use the equipment safely and understand the dangers which result from such use. Children are not allowed to play with the equipment. Unless supervised, children are not allowed to clean the equipment and carry out user-level maintenance work.

**Waste disposal**

Batteries: Only dispose of these items through motor vehicle workshops, special collection points or special waste collection points. Ask your

local council.

**2. Layout and items supplied****2.1 Layout (Fig. 1)**

- 1 Function key
- 2 LCD display
- 3 Charging cable, black (-)
- 4 Charging cable, red (+)
- 5 Suspension eye
- 6 Mains power cable

**2.2 Items supplied**

- Open the packaging and take out the equipment with care.
- Remove the packaging material and any packaging and/or transportation braces (if available).
- Check to see if all items are supplied.
- Inspect the equipment and accessories for transport damage.
- If possible, please keep the packaging until the end of the guarantee period.

**Danger!**

**The equipment and packaging material are not toys. Do not let children play with plastic bags, foils or small parts. There is a danger of swallowing or suffocating!**

- Original operating instructions
- Safety instructions

**3. Proper use**

The charger is designed for charging non-maintenance-free or maintenance-free 12V lead acid batteries (wet / Ca/Ca / EFB batteries) and for lead gel and AGM batteries which are used in motor vehicles.

The 12V M charging program is suitable for trickle charging and charging of batteries with small battery capacities. The SUPPLY function enables the device to be used as a buffer power supply as well, e.g. while changing a battery or for the operation of 12V d.c. consumers (observe the max. power consumption). The RECOND program is intended to be used only for bringing lead acid batteries (not for AGM and GEL batteries) which have undergone exhaustive discharge back to life. Only use this program for a

short time and under supervision.

The equipment must not be used for charging lithium iron phosphate rechargeable batteries (e.g. LiFePO4) or other lithium rechargeable batteries. The equipment is designed for mobile use only and not for installation in caravans, mobile homes or similar vehicles. Do not expose the charger to rain or snow.

The equipment is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user / operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

#### 4. Technical data

##### CE-BC 4 M

Mains voltage: .....220-240 V ~ 50Hz  
 Max. power rating: ..... 70 W  
 Rated output voltage: ..... 12 V DC  
 Rated output current: ..... 4 A  
 Battery capacity "STD/AGM/Winter": ... 10-120 Ah  
 Battery capacity "12V M" (max. 1A): .....2-32 Ah  
 "SUPPLY" function output max.: ..... 3 A  
 "RECOND" charging program: . 15.3 V DC / 1.5 A  
 Protection class: ..... II  
 Protection type: ..... IP65

##### CE-BC 6 M

Mains voltage: ..... 220-240 V ~ 50Hz  
 Max. power rating: ..... 100 W  
 Rated output voltage: ..... 12 V DC  
 Rated output current: ..... 6 A  
 Battery capacity "STD/AGM/Winter": ... 20-150 Ah  
 Battery capacity "12V M" (max. 1A): .....2-32 Ah  
 "SUPPLY" function output max.: ..... 5 A  
 "RECOND" charging program: . 15.3 V DC / 1.5 A  
 Protection class: ..... II  
 Protection type: ..... IP65

##### CE-BC 10 M

Mains voltage: .....220-240 V ~ 50Hz  
 Max. power rating: ..... 160 W  
 Rated output voltage: ..... 12 V DC  
 Rated output current: ..... 10 A  
 Battery capacity "STD/AGM/Winter": ... 30-200 Ah  
 Battery capacity "12V M" (max. 2 A): .....3-60 Ah  
 "SUPPLY" function output max.: ..... 8 A  
 "RECOND" charging program: . 15.3 V DC / 2.5 A  
 Protection class: ..... II  
 Protection type: ..... IP65

#### 5. Operation

Before you connect the equipment to the power supply make sure that the data on the specifications label are identical to the supply voltage.

**Danger!** Do not charge any frozen batteries.

**Please also refer to the instructions in the owner's manuals for the car, radio, navigation system, etc.**

##### Notes on automatic charging (charging programs 12V STD, 12V AGM, 12V Winter, 12 V M only)

The charger is a microprocessor controlled automatic charger, i.e. it is suitable in particular for charging maintenance-free batteries and for the long-term charging and maintenance-charging of batteries which are not in constant use, e.g. for classic cars, recreational vehicles, lawn tractors and the like. The integrated microprocessor enables charging in several steps. The final charging step, maintenance charging, maintains the battery capacity at 95–100% and therefore keeps the battery fully charged at all times. The charging operation does not need to be monitored. However, do not leave the battery unattended if you charge it over an extended period of time, so that you can disconnect it from the mains power supply in the event of a fault in the charger.

##### 5.1 Explanation of the symbols (Fig. 2)

- A Charging a 12V battery (lead acid battery and GEL battery).
- B Charging a 12V AGM battery.
- C The recommended charging program for cold weather conditions for normal lead acid batteries (wet / Ca/Ca batteries). Micro-processorcontrolled and dependent on the charge status of the battery. The information

issued by the battery manufacturer regarding the charging temperature must be observed. **Danger!** Do not charge frozen batteries.

- D Charging a 12V battery (lead acid battery, AGM battery and GEL battery) in charge maintenance mode.
- E Charging voltage in volts, faulty battery (BAI) / fully charged (FUL) / connected with reverse polarity or short-circuit at the clamps (Err)
- F Restoration of the charging capability of discharged lead acid batteries with higher charging voltage
- G Clamps are wrongly connected (reverse polarity) or there is a short-circuit
- H Power supply, e.g. when changing a battery
- K Charge status of the battery in percent (1 increment = 25%) and charging process (increment lit = the battery has reached the charge level shown; increment in the battery symbol flashes = the battery is being charged to the next charge level; all increments are lit = the battery is fully charged).

## 5.2 Setting the charging programs (Fig. 2)

### Note:

- Press the "Mode" button (Fig. 1/Item 1) to switch to the various programs. The symbol for the applicable program will appear in the display. The batteries will be charged using the program which is displayed.
- To go to the RECOND program, press the "Mode" button for 5 seconds.
- To get back to the 12V STD program from the RECOND program or the SUPPLY function, also press the "Mode" button for 5 seconds.
- If the voltage of the battery is less than 3.5 V or more than 15 V, the battery is either not suitable for charging or it is faulty. The message "BAI" will appear in the LCD display. The "G" symbol will flash. It is also possible that other battery errors or faults can mean that the battery cannot be charged.
- If there is a short-circuit between the charging terminals while the SUPPLY function is on, the message "Lo V" will appear in the LCD display. The "G" symbol will flash.
- When the charger is disconnected from the socket outlet, the last charging program to have been set will be saved (apart from RECOND and SUPPLY) and will be the default program the next time the charger is used.
- **CE-BC 4M only:** When the charger clamps are connected to the battery, the charger draws a very small amount of electricity from the battery and the LCD display comes on

briefly. This is not a fault.

### 5.2.1 Standard charging programs

**A) 12V STD:** Charging program for lead acid batteries (wet, Ca/Ca, EFB batteries) and gel batteries. When the charger is used for the first time, 12V STD will appear in the display.

**B) 12V AGM:** Charging program for AGM batteries Press the "Mode" button → switch from the 12V STD to the 12V AGM charging program

### 5.2.2 Special charging programs

**C) Winter:** The recommended charging program for cold weather conditions for normal lead acid batteries (wet / Ca/Ca batteries). Microprocessor-controlled and dependent on the charge status of the battery. The information issued by the battery manufacturer regarding the charging temperature must be observed. **Danger!** Do not charge frozen batteries. Press the "Mode" button → switch from the 12V AGM to the "Winter" charging program

**D) 12V M:** Charging program for batteries with a low capacity (see "Technical data") and for trickle charging of all batteries listed in 3. "Proper use". Press the "Mode" button → switch from the "Winter" to the "12 M" charging program

**F) RECOND:** Charging program with higher end-of-charge voltage and constant current charging, used only for restoring the charging capability of lead acid batteries which have undergone exhaustive discharge. The RECOND process must be checked every half an hour and must never exceed a time of 4 hours. Refer to the instructions supplied by the battery manufacturer.

**Important!** To go to this program, the "Mode" button (Fig. 1/Item 1) must be pressed for 5 seconds.

### Warning!

- **Gassing generates explosive gas – risk of explosion! Ensure that there is good ventilation.**
- Only use the RECOND program for lead acid batteries and only as described below. Take care to avoid spilling any battery acid. Battery acid is aggressive. Read and observe the safety information.
- Never use for a battery which is of sealed design (VRLA battery such as, e.g. AGM or GEL battery). Refer to the instructions supplied by the battery manufacturer.

- Only use for batteries which are free-standing and have been taken out of the car, not while installed in your car with a connection to the car's electrical system. The higher charging voltage could damage the electrical system. Refer to and observe the operating manual for your car and/or contact the manufacturer of your car.

#### Using the RECOND charging program

- Connect the charger to a lead acid battery as described in section 5.3 and check the charging process every half hour.
- After 4 hours at the latest or as soon as the battery starts audibly gassing (bubbling), remove the charger as described in section 5.3.
- If possible, check the acid level and, if possible, top up the battery cells, if necessary just with distilled water. The acid level should ideally be between the marked max. and min. level and should be identical for all the cells. Screw the battery stoppers, if there are any, tightly in place.

#### 5.2.3 Additional function

**H) SUPPLY:** For supplying 12V d.c. voltage, e.g. when changing a battery or for operating 12V d.c. consumers.

Press the "Mode" button → switch from the RECOND to the SUPPLY function

**Warning!** Protection against swapped poles will not be available. If the poles are swapped there is a risk of damaging the charger and the battery/on-board vehicle power supply or a connected consumer. It is imperative that you make sure the polarity is correct when you connect up. Observe the maximum power consumption (see "Technical data") of the consumer.

#### Note:

- The direct voltage which is provided (shown in the display) is load-dependent and without load it is approx. 14.5 V.
- This function can be used for consumers which are operated from a vehicle's cigarette lighter.
- Refer to and observe the operating manual for your 12 V consumer.

#### 5.3 Charging the battery:

- Release or remove the battery stoppers (if fitted) from the battery.
- Check the acid level in the battery. If necessary, top up the battery with distilled water (if

possible). Important! Battery acid is aggressive. Rinse off any acid splashes thoroughly with lots of water and seek medical advice if necessary.

- First connect the red charging cable to the positive pole of the battery.
- Then connect the black charging cable to the bodywork of the vehicle away from the battery and the petrol pipe.
- **Warning!** Under normal circumstances the negative battery pole is connected to the bodywork and you proceed as described above. In exceptional cases it is possible that the positive battery pole is connected to the bodywork (positive earthing). In this case, connect the black charger cable to the negative pole on the battery. Then connect the red charger cable to the bodywork at a point away from the battery and the petrol pipe.
- After the battery has been connected to the charger, you can connect the charger to a socket (see Technical Data). You can now change the charging settings (see section 5.2).
- **Important!** Charging may create dangerous explosive gas and therefore you should avoid spark formation and naked flames whilst the battery is charging. There is a risk of explosion! It is essential that you ventilate the rooms well.
- When "FUL" appears in the LCD display (and all increments Fig. 2/Item K), charging has been completed. The charger holds the battery at 95% – 100% available battery capacity using pulsed charging. If the charger shows this after just a few minutes, this indicates that the battery capacity is low. The battery needs replacing.

#### Calculating the charging time (Fig. 3a-3c)

The charging time depends on the charge status of the battery. If the battery is fully discharged, the approximate charging time up to approx. 80% charged can be calculated using the following formula:

$$\text{Charging time/h} = \frac{\text{Battery capacity in Ah}}{\text{Amp. (charging current)}}$$

The charging current should be 1/10 to 1/6 of the battery capacity.

#### 5.4 Fault indicator (Fig. 2/Item G)

The fault indicator will flash (light up) in the following cases:

- If the voltage of the battery is less than 3.5 V or more than 15 V. The battery is either unsuitable for charging or is defective. It is also possible that other battery errors or faults can mean that the battery cannot be charged.
- If the terminal clamps are connected to the battery terminals with the wrong polarity. The protection against swapped poles ensures that the battery and charger do not get damaged. Remove the charger from the battery and start the charging process from the beginning again. **Caution!** Protection against swapped poles is not available when the SUPPLY program is used.
- If there is a short-circuit between the two terminal clamps (the metal parts of the clamps come into contact with each other). The protection against short-circuits ensures that the battery and charger do not get damaged.

#### 5.5 Finishing charging the battery

- Pull the plug out of the socket.
- First disconnect the black charging cable from the bodywork.
- Then release the red charging cable from the positive pole on the battery.
- **Important!** In case of positive earthing, first disconnect the red charging cable from the bodywork and then the black charging cable from the battery.
- Screw or push the battery stoppers back into position (if there are any).

**Important!** If the mains plug is pulled out but the charger cables are still connected to the battery, the charger will draw off a small amount of electricity from the battery. We therefore recommend that you always completely remove the charger from the battery when not in use.

#### 6. Overload cut-out

The charger has electronic protection against overloading, short-circuits and swapped poles when the 12V STD, 12V AGM, 12V Winter and 12V M programs are used. One or more fine fuses are also fitted. If the fuse suffers a defect it must be replaced by a new fuse with the same amp value. If necessary, please contact our customer service center.

#### 7. Maintenance and care of the battery

- Ensure that your battery is always fitted securely.
- A perfect connection to the cable network of the electrical system must be ensured at all times.
- Keep the battery clean and dry. Apply a thin coating of grease to the connection terminals using an acid-free, acid-resistant grease (Vaseline).
- Check the level of the acid in batteries that are not maintenance-free versions approximately every 4 weeks and top up with distilled water if necessary.

#### 8. Cleaning, maintenance and ordering of spare parts

##### Danger!

Always pull out the mains power plug before starting any cleaning work.

##### 8.1 Cleaning

- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it with compressed air at low pressure.
- We recommend that you clean the device immediately each time you have finished using it.
- Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents; these could attack the plastic parts of the equipment. Ensure that no water can seep into the device. The ingress of water into an electric tool increases the risk of an electric shock.
- The charger should be placed in a dry room for storage. Any corrosion must be cleaned off the charging terminals.

##### 8.2 Maintenance

There are no parts inside the equipment which require additional maintenance.

### 8.3 Ordering replacement parts:

Please quote the following data when ordering replacement parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- Replacement part number of the part required

For our latest prices and information please go to [www.Einhell-Service.com](http://www.Einhell-Service.com)

## 9. Disposal and recycling

The equipment is supplied in packaging to prevent it from being damaged in transit. The raw materials in this packaging can be reused or recycled. The equipment and its accessories are made of various types of material, such as metal and plastic. Never place defective equipment in your household refuse. The equipment should be taken to a suitable collection center for proper disposal. If you do not know the whereabouts of such a collection point, you should ask in your local council offices.



## 10. Troubleshooting

If the equipment is operated properly you should experience no problems with malfunctions or faults. In the event of any malfunctions or faults, please check the following before you contact your customer services.

Fault	Possible cause	Remedy
Equipment does not charge up	<ul style="list-style-type: none"> <li>- Charger clamps connected incorrectly</li> <li>- Contact between the charger clamps</li> <li>- Battery defective</li> </ul>	<ul style="list-style-type: none"> <li>- Connect the red clamp to the positive pole and the back clamp to the bodywork</li> <li>- Prevent contact</li> <li>- Have the battery checked by an expert and replace it if necessary</li> </ul>

### Disposal



Power tools, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.

Do not dispose of power tools and batteries/rechargeable batteries into household waste!

#### Only for EU countries:

According to the Directive 2012/19/EU on waste electrical and electronic equipment and its transposition into national law, power tools that are no longer usable, and, according to the Directive 2006/66/EC, defective or drained batteries must be collected separately and disposed of in an environmentally correct manner.

If disposed incorrectly, waste electrical and electronic equipment may have harmful effects on the environment and human health, due to the potential presence of hazardous substances.

#### Only for United Kingdom:

According to The Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), products that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

The reprinting or reproduction by any other means, in whole or in part, of documentation and papers accompanying products is permitted only with the express consent of the Einhell Germany AG.

Subject to technical changes

## Warranty certificate

Dear Customer,

All of our products undergo strict quality checks to ensure that they reach you in perfect condition. In the unlikely event that this equipment develops a fault, please contact our service department at the address shown on this guarantee card. You can also contact us by telephone using the service number shown. Please note the following terms under which guarantee claims can be made:

1. These guarantee terms apply solely to consumers, i.e. natural persons, who do not want to use this product in connection with either their commercial or other self-employed activities. These guarantee terms regulate additional guarantee services which the undermentioned manufacturer promises to buyers of its new products in addition to their statutory rights of guarantee. Your statutory rights of guarantee are not affected by this guarantee. Our guarantee is free of charge to you.
2. The guarantee services cover only defects due to material or manufacturing faults on the new product which you have bought in the European Union from the undermentioned manufacturer and are limited to either the rectification of said defects or the replacement of the product, whichever we prefer. Please note that only equipment under the brand name "Professional" has been designed for use in commercial, trade or professional applications. For all other products the guarantee is invalidated if the equipment is used within the guarantee period in commercial, trade or industrial applications or for other equivalent activities.
3. Our guarantee does not cover:
  - Damage to the equipment caused by failure to comply with the installation/assembly instructions or by unprofessional installation; damage caused by failure to comply with the operating instructions (e.g. connection to the wrong mains voltage or current type); damage caused by failure to comply with the maintenance and safety regulations; damage caused by exposing the equipment to abnormal environmental conditions; damage resulting from poor care and maintenance.
  - Damage to the equipment caused by misuse or incorrect applications (e.g. overloading the equipment or using non-approved attachments or accessories); damage caused by foreign bodies (e.g. sand, stones, dust, ...) getting inside the equipment. Damage in transit; damage caused by force or external influences (e.g. by dropping the equipment).
  - Damage to the equipment or parts of the equipment which is owed to use-related, normal or otherwise natural wear. For example, batteries and battery packs are manufactured with a cycle limit for design-related reasons. Wear is negatively influenced in particular by load demands and charging speeds as well as exposure to heat, cold, vibration and impact.
4. The guarantee is valid for a period of 2 years starting from the purchase date of the equipment. Guarantee claims must be submitted before the end of the guarantee period and within two weeks of the defect being noticed. No guarantee claims will be accepted after the end of the guarantee period. The original guarantee period remains applicable to the equipment even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period, and no new guarantee will become active for the work performed or for any replacement parts fitted. This also applies if on-site service is used.
5. To assert your guarantee claim, register the defective equipment at: [www.Einhell-Service.com](http://www.Einhell-Service.com). You will need to provide proof of purchase of the new item of equipment. Equipment returned without such proof or without a rating plate are excluded from the guarantee services because of the lack of traceability. If the defect is covered by our guarantee, then either the item in question will be repaired immediately and returned to you or we will send you a new replacement.
6. If you have taken the equipment with you to a different EU country than where you bought it, we will arrange for a local service partner to provide the guarantee services. If you take the equipment outside the EU, the guarantee will not apply.

Of course, we are also happy to offer a chargeable repair service for any defects which are not covered or no longer covered by the scope of this guarantee. To take advantage of this service, please send the equipment to our service address. We draw attention to the restrictions of this guarantee concerning wear parts, consumables and missing parts as presented in the service information included in this operating manual.

Warrantor/ Service:

Einhell UK Ltd, Unit 10, 1st Floor, Champion's Business Park, Arrove Brook Road, Upton, Wirral, CH49 0AB