

CHARGE BOX 3.6

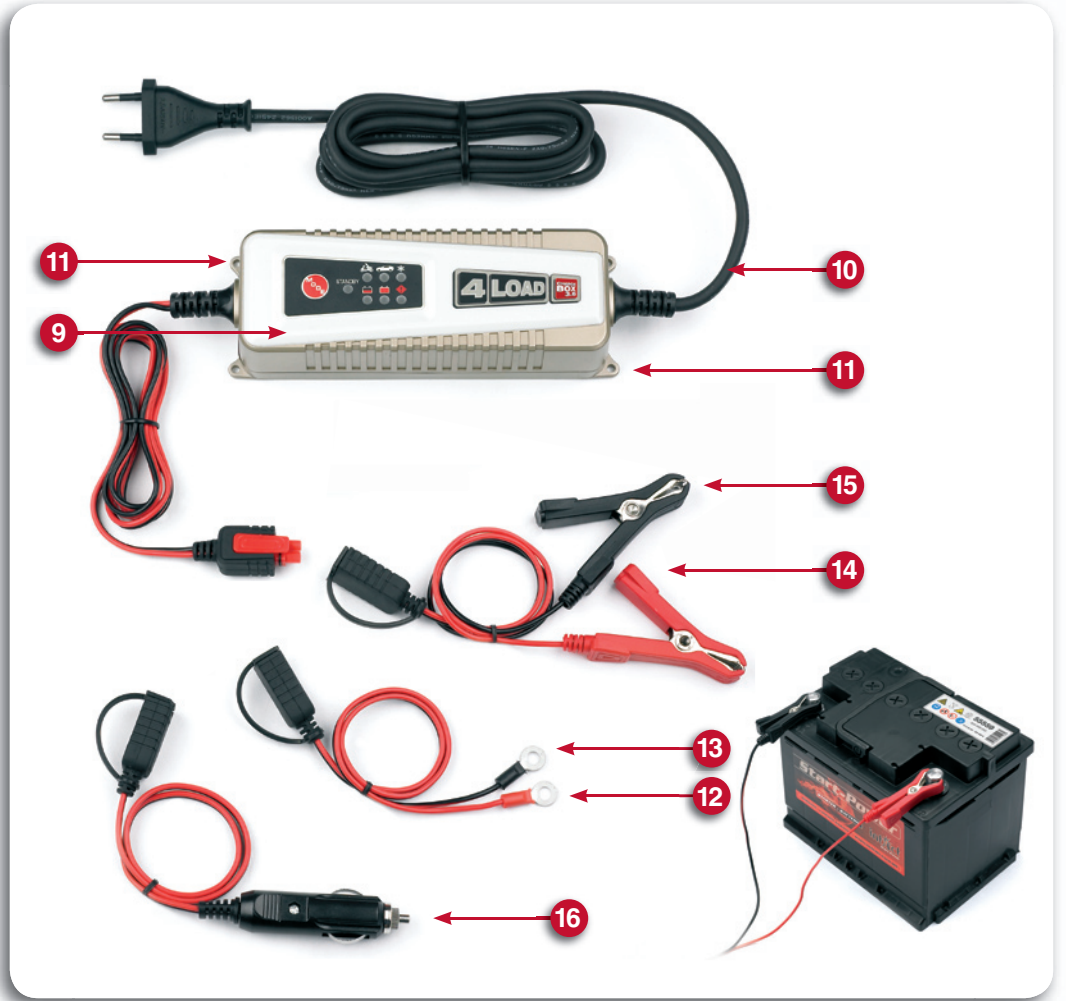
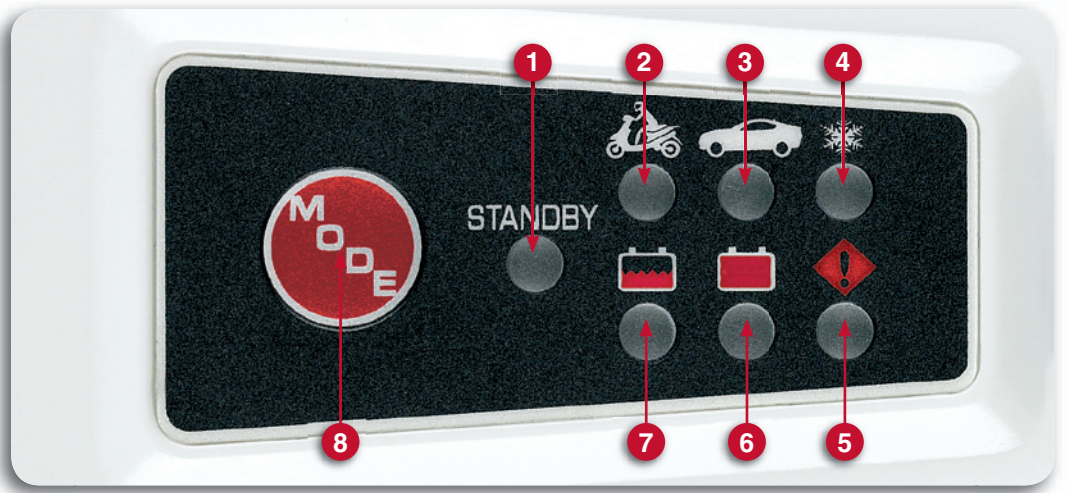
BATTERY-CHARGER 3,6 AMP



USER MANUAL



WWW.4LOAD.DE






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The following pictogrammes / symbols are used in these operating instructions:

	Read the operating instructions!	W	Watts (effective power)
	Always heed warning labels and safety instructions!	V~	Volt (AC)
	Explosive material!	A/Ah/ mA	Amps / Amp-hours / Milliamps
	Caution - Danger of electric shock! Hazardous voltage – danger to life!		Keep children and other people away from the battery charger during its operation.
	Risk of fire!		Dispose packaging and appliance in an environmentally-friendly way!

Battery charger CHARGEBOX 3.6

□ Introduction

□ For your safety



Read the directions for use through carefully.








□ Intended use

The CHARGEBOX 3.6 is suitable for the charging and trickle charging of 12 V lead-storage batteries with electrolyte solution, AGM, or gel. Operate the charger in a well-ventilated room. The manufacturer takes no responsibility for damage(s) arising out of usage that is contrary to the instructions laid down. The appliance is not meant for commercial use.

□ Scope of delivery

- 1 Charger CHARGEBOX 3.6
- 1 Charging cable with 2 connecting terminals
- 1 Charging cable with 2 cable lugs
- 1 Charging cable with 12-V plug
- 1 Storage bag (depending on model)
- 1 Directions for use

□ Description of parts

- ① “STANDBY”
- ②  “Bike”
- ③  “Car”
- ④  “High”
- ⑤  “Error”
- ⑥  “Charged”
- ⑦  “Charging”
- ⑧  “MODE”
- ⑨ Charger
- ⑩ Power cable with mains plug
- ⑪ Mounting holes
- ⑫ “+”-pole connecting cable (red)
- ⑬ “-”-pole connecting cable (black)
- ⑭ “+”-pole alligator clip (red),
incl. red mounting screw
- ⑮ “-”-pole alligator clip (black),
incl. black mounting screw
- ⑯ 12-V plug

□ Technical data

Primary

Raged input voltage:	220 - 240 V ~ 50 / 60 Hz
Starting current:	< 25 A
Rated current:	max. 0.6 A (actual value)
Power consumption:	55 W

Secondary

Rated compensating voltage:	12 V DC (nominal)
Charging voltage:	14.4 V / 14.7 V
Rated equalising current:	0.8 A / 3.6 A
Ripple**:	max. 150 mV
Reverse current*:	< 5 mA (no AC input)
System of protection:	IP 65 (dustproof, waterproof)
Battery type:	12 V lead-acid battery (AGM, GEL, MF, open and VRLA)
Battery capacity:	1.2 Ah - 120 Ah



* = Reverse current is the current that the charger uses from the battery when it is not connected to the mains current.

** = Noise figure is the nuisance value of the current and voltage.

□ Safety



Safety information

- Do not operate the appliance with a damaged cable, power cord or plug.
- ⚠ **Caution!** A damaged power cord causes danger to life by electric shock.
- If damaged, have the power cord repaired by authorised and trained technicians only!
-  Do not allow toddlers or children near the charging station without supervision! Children cannot assess the potential danger in the handling of electrical equipment.
- Children or persons who lack the knowledge or experience to use the device or whose physical, sensory or intellectual capacities are limited must never be allowed to use the device without supervision or instruction by a person responsible for their safety.
-  **Explosion hazard!** Protect yourself from a highly explosive oxyhydrogen gas reaction! Gaseous hydrogen can leak from the battery during the charging and discharging process. Oxyhydrogen gas is



an explosive mixture of gaseous hydrogen and oxygen. The result is the so-called oxyhydrogen reaction upon contact with open fire (flames, embers or sparks)! Carry out the charging or discharging procedure in a wellventilated room protected from the weather. Make sure that there are no sources of open fire (flames, embers or sparks) in the vicinity when charging or discharging batteries!



■ **Danger of explosion and fire!** Make sure that explosive and flammable substances e.g. petrol or solvents

can be ignited when using the charging station!

⚠ **Danger of chemical burns!** Protect your eyes and skin against chemical burns caused by acid (sulphuric acid) upon contact with the battery! Do not look directly at the connected battery.

-  **Wear protective goggles!**
-  **Wear protective gloves!**

If your eyes or skin come into contact with sulphuric acid, rinse the affected part of the body with plenty of clear running water and seek immediate medical assistance!



■ **Protect yourself from an electric shock!** When connecting the charging station, use a screwdriver and a

- spanner with an insulated handle!
- Do not use the charging station for charging or trickle-charging a damaged or frozen battery!
- Before connecting to the mains, make sure that the mains current is equipped with standard 230 V ~ 50 Hz, PEN conductor, a 16 A fuse and a residual-current circuit-breaker!
- Only touch the pole connecting cables (“-” and “+”) in the insulated area!
- Only carry out the assembly, maintenance and servicing of the charging station when it is disconnected from the power supply!
- Do not position the charging station near a fire or subject it to heat or to long-term temperatures exceeding 50 °C! The output capacity of your charging station is automatically reduces at high temperatures.
- Do not cover the charger!
- Protect the electrical contacts of the battery against short-circuiting!
- Do not place the charging station directly on or next to the battery!

- After completing the charging and floating charge operation on a battery permanently installed in the vehicle, first disconnect the cable of the negative (minus) pole (black) of the charger from the negative (minus) pole of the battery.
- In case of malfunction or damage, immediately disconnect the charging station from the mains!
- Have the charging station repaired by authorised and trained specialists only! Please contact the service department for your country!
- Before connecting the charging station, read the information on battery maintenance in the operating instructions of the battery!
- Before connecting the charging station to a battery permanently installed in a vehicle, read the information on electrical safety and maintenance in the operating instructions of the vehicle!
- Disconnect the charger from the mains current and the battery when not in use!

□ Properties

This device is designed for the charging of a variety of SLA batteries (sealed lead-acid batteries), which are used in cars, motorbikes and some other vehicles, such as WET (with liquid electrolyte), GEL (with gel electrolyte) or AGM batteries (with electrolyte-absorbing mats). Their capacity ranges from 12V/1.2Ah to 12V/120Ah.

A special design feature of the device permits the battery to be re-charged to nearly 100% of its capacity. Furthermore, a long-term connection of the battery to the charging station can take place to keep the battery in optimal condition when not in use, without it being damaged in the process.

□ Operation

□ Connection

- Clamp the “+”-pole (red) ⑭ of the charger to the “+”-pole of the battery.
- Clamp the “-”-pole (black) ⑮ of the charger to the “-”-pole of the battery.
- Connect the power cable ⑩ to the mains current.

□ Disconnecting

- Disconnect the device from the mains current.
- Remove the “-”-pole (black) ⑮ of the charger from the “-”-pole of the battery.
- Remove the “+”-pole (red) ⑭ of the charger from the “+”-pole of the battery.

□ Selecting the charging mode

- Press the selection button “MODE” ⑧ until you get the desired charging mode/standby.

□ Bike 🏍️ (14.4V/0.8A)

Most suitable for batteries with a capacity of less than 14Ah.

□ Car 🚗 (14.4V/3.6A)

Most suitable for batteries with a capacity greater than 14Ah - 120Ah. Charging mode for open batteries, MF and for most GEL batteries.

□ High ❄️ (14.7V/3.6A)

Most suitable for batteries with a capacity greater than 14Ah - 120Ah in cold conditions. This charging mode is also designed for many AGM batteries. For a long-term charge (trickle charging) with temperatures of possibly over +5°C the car mode (14.4V/3.6A) is recommended.


Note! If the charging process goes smoothly, the LED display ⑦ will glow until the battery has been fully charged.

As soon as that has been done, the charger switches over to maintenance mode. The LED display ⑦ then goes off and the LED display ⑥ lights up.

□ Impulse charging

As soon as the charger starts the charging process, it automatically recognises the battery voltage. It changes over to impulse charging when the battery voltage is in the area of 7.5 V to 10.5 V. This impulse charging continues until the battery voltage rises to more than 10.5 V; after that the charger changes back to the charging mode selected before. This process is able to regenerate most flat, used or overcharged batteries so that they can be re-used.

□ Device protection function

As soon as an abnormal situation such as short-circuits, battery voltage below 7.5 V, open electric circuit or reversed polarity occurs, the charger switches over to STANDBY mode. If you do not make any other adjustments, the system will remain in STANDBY mode. In cases of reversed polarity, the LED display "Error"  ⑤ lights up, too. In this way, the sparks that often arise during the connection process are avoided.

□ Overheating protection

If the appliance becomes too hot during charging, the power output is automatically reduced. This protects the appliance from damage.

□ Maintenance

The appliance is maintenance-free.

□ Disposal



The packaging is wholly composed of environmentally-friendly materials that can be disposed of at a local recycling centre.



Do not dispose of electrical appliances in household waste.

□ Information

□ Servicing

- **Have your device repaired only by qualified specialist personnel using original manufacturer parts only.** This will ensure that your device remains safe to use.





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