Pro-Tech TOOLS

# Car Charger CBR-50




## Instructions for use

**Translation of the original instructions**

## Technical data:

| Model | CBR-50 |
|---|---|
| Supply voltage | 220 V |
| Frequency | 50 Hz |
| Rated power | 450 W |
| Charging voltage | 12/24 V |
| Rated current | 30 A |
| Starting current | 130/200 A |
| Suitable battery capacity | 30 - 300 Ah |
| Cover | IP21S |
| Insulating class | H |

## Principles of first aid

Persons exposed to electric shock - disconnect the power supply or protect yourself with a dry insulator, the affected person should be dragged away from the electric cord. Immediately call qualified and trained personnel for emergency services.

## Use

All 12 V and 24 V lead-acid batteries can be charged with this unit, even batteries with electrolyte bonding. The charger is protected by a thermal switch that disconnects the system when the transfomator shuts down and restarts after cooling down. It can charge batteries removed from the car as well as unremoved. The intended use of the charger is in garages, vehicle inspection stations, petrol stations and automotive shops.

## Safety rules

Failure to comply with the following warnings and design violations of the equipment will render the manufacturer not liable for damages caused by its work to persons, animals or property or to the equipment itself and will void warranty rights.

a) The charger is only intended for use indoors with effective ventilation, under no circumstances should the charger be used in the rain or in a wet room.

b) No smoking - do not smoke or use open flames when using the charger. Avoid sparking in the immediate vicinity of the battery. The charger contains components such as switches and relays that may generate sparks. The charger should be positioned so that the spark does not cause a hazard (recommended distance of at least 1 m from the battery).

c) There is an electrical hazard in the charger - high voltage. For this reason, it may only be opened by qualified and authorized electricians.

d) The user must not exceed the maximum parameters for which the device was designed.

e) Before switching on, make sure that the power cord and other elements of the device are in good condition.

f) Use caution when handling electrolyte, wear gloves and goggles, protective clothing is also recommended.

g) Do not start an incomplete charger, do not disassemble it.

## Charging the battery

a) Before charging, clean the battery terminals, unscrew the plugs, refill the electrolyte with distilled water to about 10 mm above the surface of the plates. The plugs must be unscrewed during charging (applies to lead accumulators).

b) Then connect the battery, paying attention to the respective position of the 12/24V button with respect to the 12V or 24V nominal voltage value and the correct polarization and sequence (for typical installations with ground to "-"): red wire **,, + "** to the positive terminal of the battery, then black wire **,, - "** to the negative terminal. The connections must provide reliable contact.

c) Before connecting the power cord plug to the voltage source, select the "MIN/BOOST" switch with the "MIN/BOOST" charging method: MIN - nominal charging, BOOST - fast charging. The rotation indicator displays the current charging current. The rectifier units are adapted to supply single-phase mains voltage 230 V, 50 Hz and are supplied with a mains cable fitted with a suitable plug approximately 2 m long. The plug must be connected to a socket with a safety pin. If the length of the cable is not sufficient for the connection, an extension cable with a thickness at least equal to the thickness of the conductors of the installed mains cable should be used. Cables for connection to the battery must not be extended due to increased voltage drops on longer cables.

d) After charging, turn off the charger, disconnect the cables from the battery (the first pole connected to the vehicle ground, usually
**,,-"**).

## Storage and maintenance

When using the charger for short periods of time, clean it with a cloth soaked in soapy water (care must be taken to ensure that no water gets into the device.) Store the battery charger in a dry place at a constant temperature using the original carton. Proper maintenance of the device is essential to ensure its effectiveness.

## Starting

a) Connect the charger to the vehicle, paying attention to the appropriate terminal because of the 12V or 24V nominal voltage and the correct polarization and sequence (for typical installations with ground (carcass) at ,,-"): red **,,+"** wire for the positive battery poles, then connect **,,-"** to the carcass. The terminals must provide a safe
Contact.

b) Set the LOAD/START switch to the start position.

c) Start the car: maximum 3 cycles of 3 seconds of operation and 120 seconds of interruption. If the car does not start during this time, wait 15 minutes before trying again.

d) Disconnect the charger.