Pro-Tech TOOLS

CD-230, CD-730 starter trolley



Instructions for use

Translation of the original instructions

Dear customer!!!

Thank you for purchasing our product, we wish you to be satisfied with its use.

You have become the owner of a charging source. This product is characterized by maximum safety and ease of use. It is a reliable and high-performance device with quick installation and ready to use.

Although simple to operate, its operation must comply with the requirements set out in this manual and the safety regulations in force in the area where it is used.

FIRST AID RULES

Persons electrocuted - disconnect from the power source or secure with a dry insulator, the person electrocuted must be away from the power cord.

Be careful not to touch the affected person with your bare hands until they are out of reach of the power lines.

It is necessary to immediately summon help, qualified and trained personnel.

USING

All 12 V and 24 V lead-acid batteries can be charged with the CD-230 and CD-730, also batteries with bonded electrolyte. The charging source is protected by a thermal switch that disconnects the system if the transformer overheats and switches it back on when the transformer cools down.

It can charge both batteries removed from the vehicle and batteries that are not removed. The intended use of the charging sources is in garages, vehicle inspection stations, petrol stations and car dealerships.

TECHNICAL DATA:

Model	CD-230	CD-730
Supply voltage	220 V	220 V
Frequency	50 Hz	50 Hz
Rated power	460 W	1100 W
Charging voltage	12/24 V	12/24 V
Rated current	30 A	150 A
Starting current	130/200 A	400/700 A
Suitable battery capacity	30 - 300 Ah	40 - 1500 Ah
Cover	IP21S	IP21S
Insulating class	H	H
Dimensions	600 x 310 x 270 mm	670 x 360 x 300 mm
Weight	17 kg	28 kg

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SAFETY RULES:

Failure to comply with the following warnings and tampering with the design of the equipment relieves the manufacturer of the obligation to
for damage to persons, animals and property caused by his work or the equipment itself and voids warranty rights.

a) The charger is designed for indoor use only with effective ventilation. Never use the charger in the rain or store it in a damp room.

b) No smoking - smoking and the use of open flames is prohibited when using the charging source.
Avoid sparking in the immediate vicinity of the battery.
The charging source contains components such as switches and relays that can generate sparks.
The charger must be set so that sparking does not cause a hazard (recommended distance from the battery is at least 1 m).

c) Electrical precautions **- there is high voltage inside the charging source.**
For this reason, only qualified and authorized electricians may open the device.

d) The user cannot exceed the maximum parameters for which the device was created.

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

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

g) If the charging power supply is incomplete, do not drop it, do not disassemble any parts.

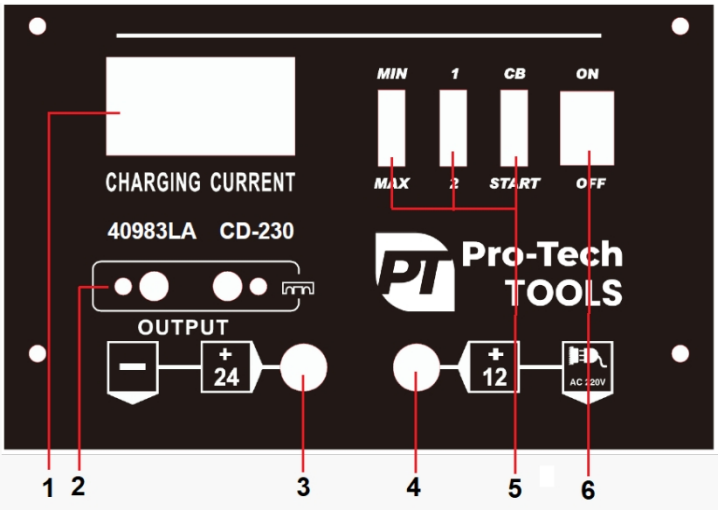
h) Keep the power cord and switches at a safe distance from splashing water or other liquids and protect them from atmospheric precipitation.

i) Do not move the charging source when it is in use.

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CONTROL PANEL

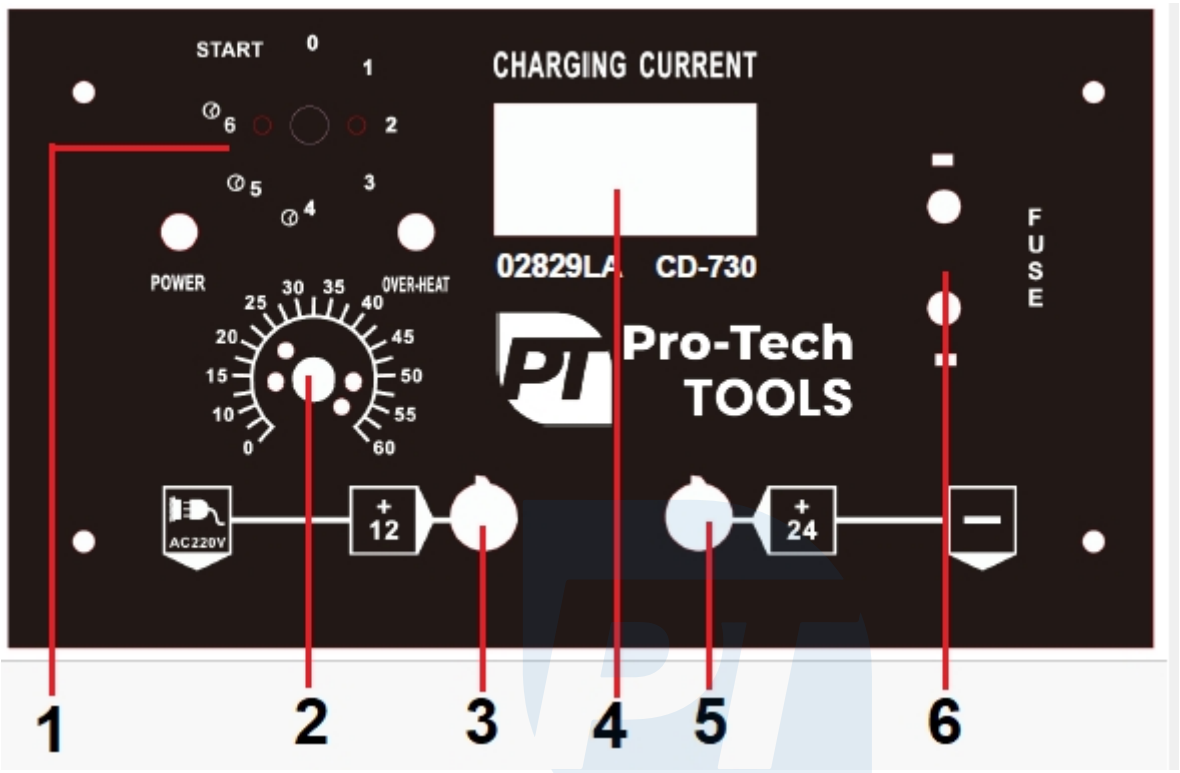
Type: CD-230



1. LCD display shows current charging current
2. Fuse cover
3. 24 V positive voltage clamp
4. 12 V positive voltage clamp
5. Output current selection buttons
   - Min. / max. a I / II
   - Start (START)
6. Main switch

WARNING: Charging current must be selected before charging, changing the parameters while the device is in operation can lead to faster wear of the switches. Before connecting the terminals, make sure that the positive terminal is screwed on tight enough to prevent arcing.

Type: CD-730



1. Rotary knob for charging stage selection and START function
2. Charging time switch
- If you select a higher charging level with a clock icon marking, select the charging time using the time switch.
3. 12V positive voltage terminal
4. LCD display shows current charging current
5. 24V positive voltage clamp
6. Fuse cover

IMPORTANT: The black ground cable is permanently connected in all types of charging sources and requires no intervention regardless of the charging voltage selection.

WARNING: If the fuse needs to be replaced, the 230 V power cable must be disconnected from the mains socket before removing the fuse cover!

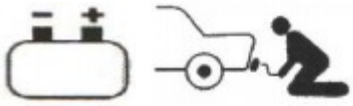
BATTERY CHARGING

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

b) The battery must then be connected, taking care to connect to the correct pole with respect to the nominal battery voltage of 12 V or 24 V and the correct polarity and sequence (in a typical installation, grounding

to "-"): red cable "+" to the positive terminal of the battery, then black cable "-" to the negative terminal. The terminals must ensure a safe contact.

c) Before connecting the power cord plug to the power source, make sure that the main switches on the front panel are set to the "OFF" position. The charging power supplies are designed to be supplied with a single-phase mains voltage of 230 V, 50 Hz and are supplied with a mains cable fitted with a suitable plug of approximately 2 m. The plug must be connected to a socket fitted with a protective pin. If the length of the cable is not sufficient for the connection, an extension cable with a cross-section at least equal to that of the fitted mains cable must be used. Cables for connection to the battery must not be extended due to increased voltage drops on longer cables.

Set the charge/start switch to the charging position.

The switch (type: 430) or rotary knob (type: 630) must be used to set the appropriate current range to charge the battery according to the principle below. The charging current should not exceed 10% of the capacity of the battery being charged. The charging time of the battery is 10-14 hours depending on the state of discharge. The density of the electrolyte in the battery to be charged should be 1,28 g/cm3.

When charging is complete, turn off the charging source, disconnect the cables from the battery (first the pole connected to the vehicle ground, usually "-").

STARTING

ATTENTION: Before attempting to start the vehicle, make sure that the vehicle supports the option of starting from a transformer-type charging source. There is a risk of damage to the vehicle electronics during starting.

a) Connect the charging source to the vehicle, making sure to connect to the correct terminal with respect to the nominal battery voltage of 12 V or 24 V and the correct polarity and sequence (in a typical installation with "-" grounding): the red "+" cable to the positive terminal of the battery, then the black "-" cable to the vehicle's ground. The terminals must ensure a safe contact.

b) Set the charge/start switch to the start position. For type 630, set the rotary knob to the start position.

c) Start starter: maximum 5 cycles of 3 seconds of operation and 120 seconds of rest. If the vehicle fails to start during this time, wait 15 minutes before trying again.

d) Disconnect the cables.