

INSTRUCTIONS FOR USE OF BATTERY CHARGER AND STARTING DEVICE

900 Ampere / 12-24 Volt

FEATURES

- 3-phase electrical power (follow the values shown on the unit)
- 12-24V Battery charger and starting device
- Max. slow charging current: 100A
- Max. fast charging current: 100A (charging time to be adjusted through the timer)
- 12V and 24V starting current: 900 A
- Max. electrical input on charge: 3,3 KW
- Max. electrical input on starting: 26 KW

WARNING

As the unit is provided with forced ventilation, before starting it, move it away from wall or from anything which may hamper its ventilation.

To avoid accumulation of dangerous gas, charge the batteries in a ventilated area.


Batteries must be charged without cell caps.

The electrolyte level must be a few millimeters higher than the lead plates in the batteries cells.


HOW TO USE IT

- 1) Set switch knob (10) on «OFF».
 - 2) Set timer knob (8) on «OFF».
 - 3) Check whether the terminal strip (placed on the base 29 inside the unit) is connected according to mains voltage.
 - 4) Connect mains supply cable to mains (provided with ground).
 - 5) Connect clamps to battery: red (+) clamp to positive terminal post - black (-) clamp to negative terminal post.
- ATTENTION: CARRY OUT THIS OPERATION CAREFULLY

BATTERY CHARGER

- A) Set switch (9) knob (21) on position 1 (12 or 24V) according to the voltage of the battery to be charged.
- B) Set switch knob (10) on  position 12/24V.

SLOW CHARGE

- C) Set timer knob (8) on  position.
- D) Turn switch knob (21) to adjust charging current, never exceed 100A.

E) For finding out the required charging current value, proceed as follows:

regular charging current = capacity in Ah divided by 10
max. charging current = capacity in Ah divided by 5,5

Example: 80 Ah battery/20 hours rating

$80 : 10 = 8A$ regular charging current


$80 : 5,5 = 15A$ max charging current.

During the charging time the battery electrolyte must not exceed 40°C.

The battery is charged when:

- b the voltage reaches 2,7-2,8V in each element
- a The electrolyte density keeps constant during two hours at the values mentioned in TECHNICAL NOTES.

FAST CHARGE BY MEANS OF THE TIMER

F) Turn timer knob (8) on  position and stop it on the charging time you wish (1 hour maximum). When the charging time is over, the machine automatically stops.


G) Turn switch knob (21) to adjust charging current. Never exceed 100A.

H) Fast charging current must not exceed the Ah capacity of the battery. Example: in a 42 Ah battery, at the beginning, the charging current may build up to 40A and will drop later during the charging. THROUGH THE TIMER ADJUST CHARGING TIME TO THE MINIMUM NECESSARY. During

fast charging the battery temperature may reach 45°C for a short time.

FAST CHARGING OF OLD BATTERIES OR BATTERIES IN BAD CONDITIONS IS NOT ADVISABLE.

STARTING DEVICE

- I) Set switch knob (10) on  position 12V or 24V according to motor-vehicle electrical system.
- L) Turn motor-vehicle ignition key and press remote control push (11) as long as it is necessary to start engine.

CHECKING

DISCONNECT THE UNIT

If the unit fails to operate, it is necessary

- 1) to ensure that wall socket has electrical voltage
- 2) to ensure that clamps are making good contact with battery posts
- 3) to ensure that batteries are in good state
- 4) to check fuses placed inside fuse holder (33-34) and fuse (30) which are fixed on the base (29) inside the unit.

TECHNICAL NOTES

To check the state of charge in the batteries it is necessary to use a hydrometer. The following values refer to 25°C temperature.

Fully charged battery 1,28 Kg/L = 32 Bé - Half charged battery 1,2 Kg/L = 24,5 Bé - Flat battery 1,12 Kg/L = 16 Bé.

When several batteries have to be charged, connection in series is preferable - providing their voltages and capacities allow it (Fig. 1).

SERIES CONNECTIONS TO BE PREFERRED



Fig. 1

CONNECTIONS TO BE USED ONLY, IF NECESSARY

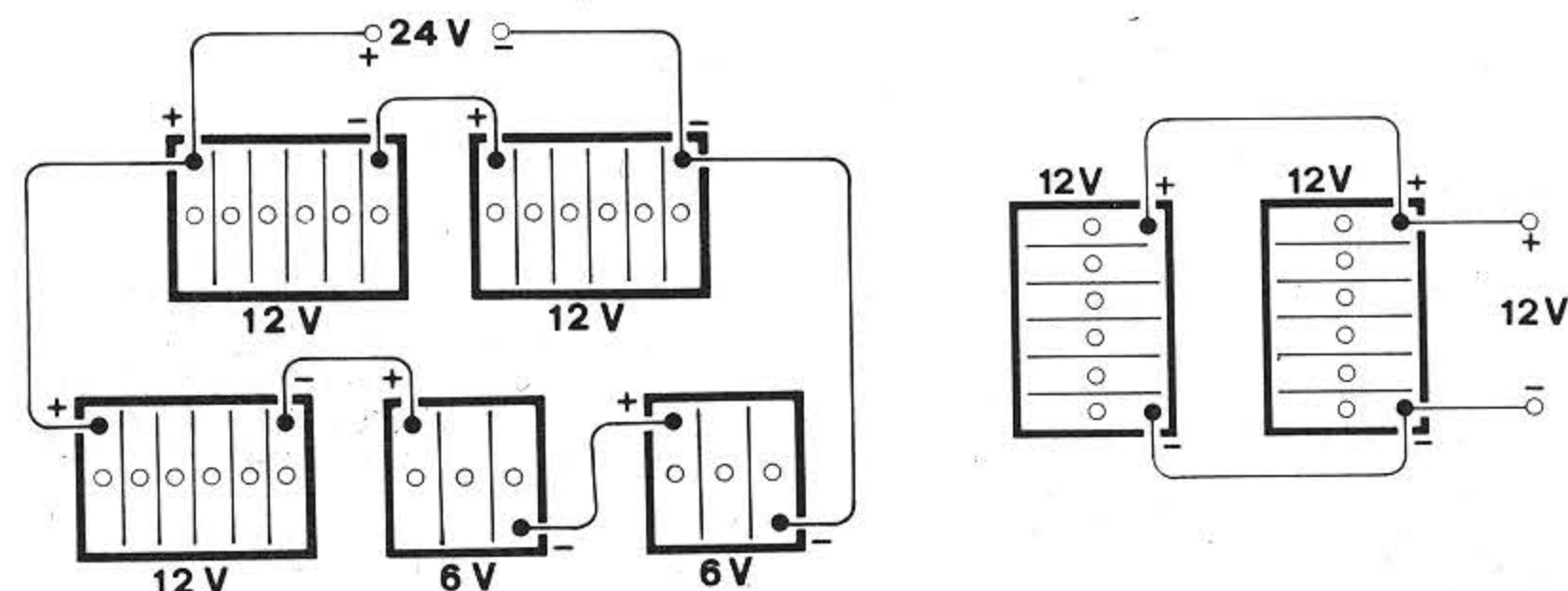


Fig. 2