

# INSTRUCTIONS FOR CHARGERS MGX MEMORY CHARGER

The battery chargers of the MGX series are controlled by an internal microprocessor that enables automatic recharging of batteries and stores the behaviour of the battery charger during its use.

This device has been developed for a professional use. For best results and safety, the user is required to read, follow and keep these instructions carefully. The manufacturer is not responsible for any damage due to improper use.

## BATTERY

The battery voltage has to correspond to the MGX rated voltage (see rating data, for example 24V).

A label on the MGX indicates the correct rechargeable battery type. Check that it matches the features of your battery. If necessary, it is possible to change the programming in order to adapt the MGX to your battery. Make contact with the supplier in order to carry out this change.

## INSTALLATION

To ensure maximum safety, installation has to be carried out as indicated by the manufacturer.

Any work on the charger must be carried out by qualified and authorized technical personnel.

**WARNING:** There is risk of electric shock inside the box.

After unpacking be sure that the device is in perfect condition; in case of doubt, do not use it and contact the supplier.

It is better to install the MGX indoors, in a room free of humidity, acids or dust, with room temperature between 0 - 40°C. During use do not obstruct the ventilation holes. Any overheating of the MGX will reduce the output current; if overheating continues, charging will be stopped (see SPECIAL SIGNALS).

## ELECTRICAL SUPPLY

Be sure the rating data of the battery charger is compatible with the mains power supply (single-phase, voltage, frequency, power). Plug into a socket equipped with protections that comply with local standard regulations. If you have to use an extension cable, contact the manufacturer for correct technical information. The replacement of the supply cable has to be carried out only by qualified personnel.

## BATTERY CONNECTION

Respect the polarity: red wire to + and black wire to -.

Do not use extension cables without the manufacturer's approval.

## USE

Connect the battery and the power supply cable. LEDs light up for 2 seconds (PAN. 1), then only the RED LED stays on (PAN. 2). If this does not happen, check the connection on the battery and supply.

The MGX is unable to activate the charging if the voltage of the battery is lower than 0.3 V/Cell (i.e., 3.6V for a 24V battery). If everything is functioning properly the charger performs the whole charge and stops with the GREEN STOP LED illuminating (PAN. 3). The time of charge depends on the discharge level, the battery type and the programmed charge cycle. For lead acid, gel or AGM batteries, 80% discharged, the whole recharge lasts 10-14 hours.

Shorter times are possible if the battery is less than 80% discharged. Longer times are possible if the battery is more than 80% discharged.

## SPECIAL SIGNALS

When the microprocessor detects a problem, it stops charging and signals this by flashing the two LEDs (PAN. 4). The different possible problems are:

- overheating: the thermal conditions interrupt the current in order to avoid damage
- defective battery: the voltage trend shows a possible failure of the battery
- incorrect battery: the battery has a higher voltage than the charger (36V battery on a 24V charger).

In order to determine the kind of problem it is necessary to read the internal MGX data memory (see DATA MEMORY section).

If the two LEDs remain lit (connecting the battery) (PAN. 6), means an internal problem has occurred. Only the manufacturer can solve this problem.

## CHARGE INTERRUPTION

Power failures interrupt charging and all LEDs go out (PAN. 5); when the power supply is resumed charging starts again at the point it was interrupted. If charging has to be interrupted for any reason, switch off the charger first disconnecting the mains supply and then the cables connected to the battery.

Never disconnect the battery if the charger is supplying current, as the resulting spark could ignite the gases produced by the battery and cause an explosion. For best charging, disconnect the battery only when the microprocessor indicates

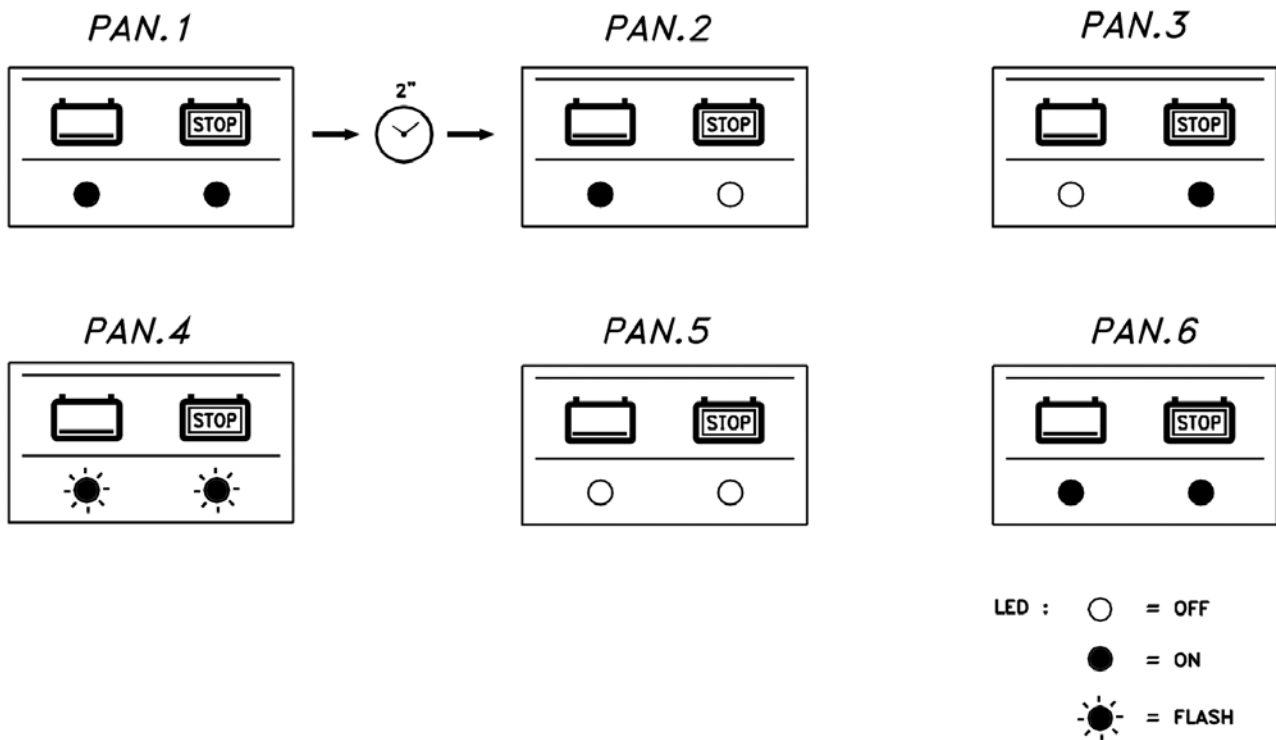


FIG.1

