

#### MP716 / MP730 / MP750 12V/24V Battery Chargers Instruction and information manual







Model No.	Rated Input	EN Rated Output	Peak Output	Battery Type	Battery Capacity
MP716	230V AC 50Hz 1.2A	12V DC 8 Amp 24V DC 3.5 Amp	12 Amp	12V/24V Lead-acid	30-180Ah
MP730	230V AC 50Hz 2.8A	12V DC 13 Amp 24V DC 13 Amp	20 Amp	12V/24V Lead-acid	90-250Ah
MP750	230V AC 50Hz 4.0A	12V DC 20 Amp 24V DC 20 Amp	30 Amp	12V/24V Lead-acid	120-320Ah

#### In order to ensure correct and safe usage of your battery charger, you should read these instructions carefully. Please store these instructions for future reference.

#### SAFETY

Ensure that cables are regularly inspected and kept in good condition.

Never use the battery charger if the mains lead or plug is damaged.

Never use the battery charger if the output leads or crocodile clips are damaged.

Never use the battery charger if it has been dropped or damaged in any way.

**WARNING:** Battery charging produces explosive gases. Prevent flames and sparks. Provide adequate ventilation during charging.

For indoor use and storage only, **do not** expose to rain or any other forms liquid or moisture.

The charger must not be used as a DC power source or for any purposes other than those listed.

The charger must not be used for the charging of non-rechargeable batteries.

It is not recommended that a charging battery be left unattended for long periods or overnight.

Replacement of the mains cable should only be carried out by the manufacturer, its service agent or a suitably qualified electrician / electrical technician in order to avoid a hazard. There are no user-serviceable parts in this product. Modifications or attempted repairs by unsuitable persons will render the product warranty void.

## **GENERAL SAFETY**

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Cleaning and user maintenance shall not be made by children without supervision.

# GASES

The charging process produces flammable and explosive gases - the area in which charging takes place should be kept well ventilated. Only connect and disconnect the battery leads when the mains supply is disconnected. Avoid flames or sparks! Do not smoke!

## WORKING WITH LEAD ACID BATTERIES

Use of safety goggles and gloves when working with lead acid batteries is strongly advised. Avoid contact with the electrolyte as this is acidic and is likely to cause burns to the skin or clothes. If this occurs you should rinse the affected area with plenty of water immediately. In the event of burns to the skin, medical advice should be sought if the symptoms persist.

#### DISPOSAL

In the event that this product must be disposed of, an authorised place for the recycling of electrical and electronic appliances must be sought. Contact your local authority for information concerning local Household Recycling Centres with applicable facilities.

This product must not be disposed of with general domestic waste.

#### **RECOMMENDED USES**

This product is suitable for charging 12V normal lead acid and AGM batteries. Check the battery capacity Ah (ampere hours) and the Ah (ampere hour) ratings for your particular charger. Check with your device manufacturer if you are unsure about the suitability of this charger for use with your vehicle or battery.

#### **BATTERY CHARGING INSTRUCTIONS**

Please read your vehicle manufacturer's instructions for further information and advice regarding the disconnection of the battery for charging purposes.

#### **IMPORTANT:**

Batteries store large amounts of energy. Avoid short circuits which could result in a dangerous electrical discharge that could result in personal injury and / or damage to equipment and property.

#### 1. PREPARATION OF THE BATTERY

In the case of sealed lead-acid batteries, firstly remove the caps from each cell and check the level of liquid. If it is below the recommended level, top up with ionized or distilled water.

## UNDER NO CIRCUMSTANCES SHOULD TAP WATER BE USED

To avoid battery acid splashing, the cell caps should be replaced but not tightened until charging is complete. This allows any gases formed during charging to escape. It is inevitable that some minor escape of acid will occur during charging. If your battery is permanently sealed it is unnecessary to carry out these checks

## 2. CONNECTION

To avoid sparks which could cause an explosion, the mains supply should always be disconnected before making or breaking battery connections. Connect the battery clips to the battery in the following order: **a)** Connect the positive charging lead (RED) to the positive post of the battery (marked + / +ve or P).

**b)** For vehicles with the battery still installed: Connect the negative charging lead (BLACK) to the vehicle chassis, well away from the battery, fuel line, and hot or moving parts.

**For batteries removed from the vehicle:** Connect the negative charging lead (BLACK) to the negative post of the battery (marked - / -ve or N).

After connecting the clips, rotate them slightly so as to remove any dirt or oxidization, thus ensuring a good contact.

## 3. VOLTAGE SELECTION AND CHARGING RATE

## WARNING! All selections & connections must be made before the battery charger is switched on.

#### MP716

Set the 12V/24V switch to match the voltage of the battery.

If you are charging a small battery or you only require a slower rate of charge, set the switch on the front panel to "**MIN**". If you are charging a large or leisure type battery or require a quick boost charge, set the switch to "**BOOST**".

#### MP730 and MP750

To select the output voltage appropriate for your battery (12V or 24V), unscrew the black hand-wheel of the corresponding output terminal on the front panel of the battery charger (these are labelled "+24V" and "+12V") and connect the ring terminal of the positive charging lead (RED) to the terminal post and replace the knob securely. WARNING! DO NOT touch the exposed post when the battery charger is switched on. If you are charging a small battery or you do not require a quick boost charge, set the switch on the front panel to "MIN". You can then choose between a slow or faster rate of charge by selecting "1" or "2" on the neighbouring switch. If you are charging a large or leisure type battery or require a quick boost charge, set the switch boost charge, set the switch to "BOOST". Selecting "1" or "2" makes no difference when in BOOST mode.

## 4. CHARGING

**Consider the position of the charger carefully; ensure it is used away from combustible materials.** Insert the battery charger mains plug into the mains supply (230 Volts AC only) and switch the outlet on.

# WARNING! DO NOT ATTEMPT TO START THE VEHICLE WITH THE CHARGER CONNECTED. THIS MAY BLOW THE OUTPUT FUSE OR DAMAGE YOUR BATTERY CHARGER.

Your Battery Charger should now be working and the rate of charge will be shown on the ammeter fitted on the front of the charger. When a flat battery is initially connected to the Battery Charger the charging rate should build up quickly. As the battery becomes more charged the rate of charge will drop, this is normal. The charging current will never fall to zero as the charger will continue to give a small output even when the battery is fully charged. When charging current has dropped to a low, constant level the battery is fully charged.

A charging time of *no more than 10 hours* is recommended, *at no more than 10% of the battery's ampere hour capacity*. i.e. 60 Ah battery should be charged at no more than 6Amps for no more than 10 hours. The battery charger is fitted with an internal, automatic thermal protection device, if the charger overheats due to overload, environment or for any other reason, charging will be interrupted, charging will restart automatically when the charger has cooled down. Note: With a fully charged or faulty battery connected to the charger, virtually no charge may register on the ammeter.

## ELECTROLYTE

Regularly check the specific gravity of the liquid, using a hydrometer, until a reading of "Fully Charged" or 1,250 is reached.

## 5. WHEN CHARGING IS COMPLETE

Switch off the mains supply, unplug the charger and remove the charging clips, negative (-ve / black) first. Inspect the liquid levels in each cell and top up if applicable / necessary, using the correct fluid. Now push home or tighten the caps. Any surplus fluid around the cell tops should be wiped off (this should be done with extreme care as it is acidic). If the battery has been removed for charging, replace it and re-connect the cables.

## FAULTY BATTERY CELLS / GENERAL BATTERY CARE

Batteries are usually made with six cells. One of these cells can deteriorate or get damaged. If after several hours charging your battery is still flat, you should test the battery. For non-sealed lead acid batteries; using a hydrometer (which can be purchased from most motor accessory stores), take readings from each cell by sucking up a small amount of electrolyte to check the specific gravity and condition of the cell. Put the fluid back into the cell after testing, taking care not to splash the fluid about.

If one reading is lower than the others, this could indicate a faulty cell. The battery will require replacement if one or more cells are faulty. **ALWAYS WASH OUT THE HYDROMETER AFTER USE.** 

For standard lead acid batteries, but not maintenance free, it is essential to keep the electrolyte level above the plates. **NOTE**, however that you should not overfill the battery, as the electrolyte is strongly acidic. **DO NOT USE TAP WATER**. Always use distilled or ionised water. If necessary have it checked by your garage.

It is also important to maintain the battery leads on a regular basis as loose or dirty connections on your battery terminals may prevent the vehicle from starting. Do this by removing the leads from the battery, cleaning the inside of each connector and the terminal posts on the battery. Smear the terminal posts with grease, replace the connectors and tighten firmly.

## TROUBLESHOOTING

#### SIMPLE FAULTS

- A) If the charger fails to work
- 1. Switch off immediately at the mains supply.
- 2. After switching off the mains supply, ensure that the crocodile clips are making good contact with the correct terminal posts and the correct output voltage has been selected. Ensure that the leads are not damaged.
- 3. Switch mains supply on and check again.
- B) If the charger still does not work;
- 1) Switch off immediately at the mains supply and disconnect the output leads from the battery.
- 2) Check that the output fuse and the fuse in the mains plug are intact.
- 3) Check to see that the positive and negative leads are connected to the correct terminals.

#### **DECLARATION OF CONFORMITY**

We declare that the product conforms to the following directives 73/23 CEE, 93/68 CEE, 2004/108/EC, 2002/95/EC (ROHS), EN60335-1, EN60335-2-29, EN50366

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