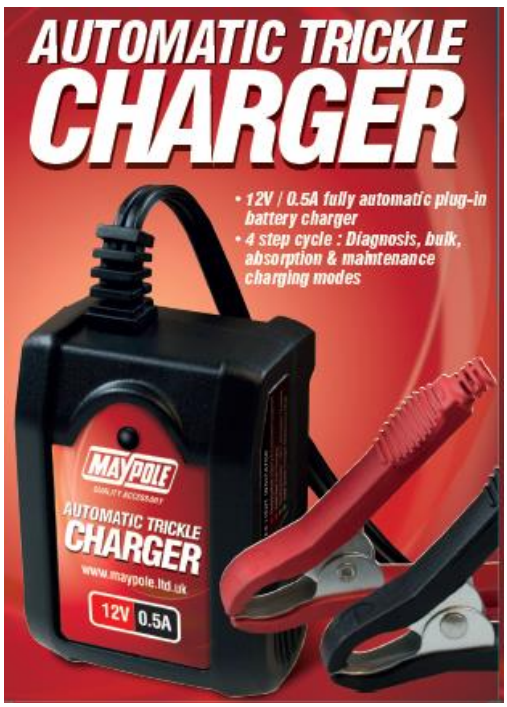

MP7402

12V Automatic Trickle Charger
Instruction and information manual

Read these instructions carefully before use in order to ensure correct and safe usage of your battery charger. Please store these instructions for future reference.

SAFETY

Ensure that charger is regularly inspected and kept in good condition. Never use the battery charger if it has been dropped or if it is damaged in any way.
WARNING: Battery charging produces explosive gases. Prevent flames and sparks. Provide adequate ventilation during charging. For indoor use only, **do not** expose to rain or any other forms liquid or moisture. **Disconnect the mains supply before making or breaking the connections to the battery.**
The charger must not be used as a DC power source or for any purposes other than those listed.

RECOMMENDED USES

This charger **must not** be used for the charging of non-rechargeable batteries.
This charger is suitable for charging and 12V lead acid, sealed lead-acid, GEL, maintenance-free and AGM batteries of capacities up to 100Ah (Ampere hours). Check with your device manufacturer if you are unsure about the suitability of this charger for use with your device.

GENERAL SAFETY

Before charging, read the instructions.
This battery charger can be used by children aged from 8 years and above, and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way, and understand the hazards involved.
Children must be supervised when using this charger and shall not play with the appliance.
Cleaning and user maintenance shall not be carried out by children without supervision.
The product casing should not be opened. There are no user-serviceable parts in this product.

GENERAL INFORMATION

1. Retain these instructions for future use.
2. Store this product in a dry place to avoid moisture damage.
3. Do not use this product if it is damaged in any way.
4. Only use this product for the purposes described in this instruction booklet. Damage resulting from incorrect usage will not be covered by your warranty.

SAFETY

The 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.

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.

BATTERY CHARGING INSTRUCTIONS

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

1. PREPARATION OF THE BATTERY

For non-sealed lead-acid batteries: Inspect the liquid levels in each cell and top up if necessary, using deionized or distilled water. To allow any gas formed the cell caps should be replaced but not tightened until charging is complete.

2. BATTERY CONNECTIONS

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:
Connect the positive charging lead (RED) to the positive post of the battery (marked + / +ve or P).
For batteries still installed in the vehicle: 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. MAINS CONNECTION - CHARGING

WARNING! DO NOT ATTEMPT TO START THE VEHICLE WITH THE CHARGER CONNECTED. THIS MAY DAMAGE YOUR BATTERY CHARGER.
Connect the charger to AC outlet and Switch on the mains power supply. Providing the battery is in an acceptable condition the charge cycle will now commence and the LED's will show charging information.
If the charger does not detect a properly connected battery, the red LED will flash until such a battery is detected. Charging will not begin while the flashing red LED is on. When the charging begins, the Charging red LED will be lit steady.
When the battery is fully charged, the charger will switch to provide a maintenance charge and may be left connected to the battery.

Automatic - Processor Controlled 4 step charging program:

Stage 1 - Diagnosis: Analysis the battery can accept charge or not, prevent charging from proceeding on the a defective battery;
Stage 2 - Bulk Mode (Constant Current): Fast speed charging, battery is 0% to 85% charged;
Stage 3 - Absorption Mode (Constant Voltage): Absorption to voltage 14.6V, battery is 85%to100% charged;
Stage 4 - Storage/Float maintenance mode: Automatic On-off Monitoring. The charger dc output will shut off and monitor a fully charged battery. If the battery falls below 12.8VDC, the charger will restart and enter into stage one.

4. Disconnection

Switch off the mains supply and unplug the charger.
Disconnect the clips, Negative (BLACK lead) –ve first, followed by the Positive (Red lead) +ve.
If the battery has been removed for charging, replace it and re-connect the cables.

FEATURES:

MP7402 is a fully automatic Micro Processor Controlled maintenance charger with indicator LED. The charge rate is 12V 500mA
The following describes LED Status Indicator light operation:
If the light is not lit, then the battery is not properly connected and /or the charger is not plugged into AC power.

RED LIGHT FLASHING	The red light flashing indicates that the battery charger has AC power available and that the microprocessor is functioning properly, if the red light continues to flash, then either the battery voltage is too low (Less than 2.0 Volts) or the output alligator clips or ring terminals are not connected correctly;
RED LIGHT ON STEADY	Whenever the red light is on steady, a battery is connected properly and the charger is charging the battery. The red light will remain on until the charger completes the charging stage.
GREEN LIGHT FLASHING	When the green light is flashing, the battery is greater than 80% charged and may be removed from the charger and used if necessary. Whenever possible, leave the battery on charger until the green light is solid.
GREEN LIGHT STEADY	When the green light burns steady, the charger is complete and the battery can be returned to service if necessary. It can also stay connected to maintain the battery for an indefinite period of time.

Protection Features:

*Short circuit, open circuit, spark proof;

*Overheating

*over current & overcharge.

POSSIBLE CHARGING PROBLEMS

PROBLEM	CAUSE	SOLUTION
Faulty Battery	The battery voltage is lower than 11V, after charging for 4 minutes; The battery voltage falls below 12V, within 2 minutes of being fully charged; Failed to reach fully charged status	Have the battery tested by a qualified technician. Replace the battery if necessary.
Battery not accepting a charge	Lack of AC input power	**Make sure** that the charger is plugged into AC outlet and the POWER LED is lit.
	Faulty connections to battery terminals	**Unplug the charger** and check the battery connection; ensure that there is a good connection at the battery terminals and/or the vehicle chassis. Ensure enough charging time was allowed to charge battery.
	Battery voltage too low	**The Red LED will continue** to flash when the battery voltage is less than 2.0V.
	Charging a very cold battery	**If the battery to be charged** is extremely cold (in temperatures below freezing 0℃), it will not accept a high rate of charge, so the initial charger rate will be slow. The rate of charger will increase as the battery warms. Never attempt to charge a frozen battery.

MAINTENANCE INSTRUCTIONS

This charger requires minimal maintenance. As with any appliance or tool, a few common sense rules will prolong the life of the battery charger.

ALWAYS BE SURE THE CHARGER IS UNPLUGGED BEFORE PERFORMING ANY MAINTENANCE OR CLEANING.

1. Store in a clean, dry place
2. Coil up the cords when not in use.
3. Clean the case and cords with a slightly damp cloth.
4. Clean any corrosion from the clamps with a solution of water and baking soda.
5. Examine the cords periodically for cracking or other damage and have them replaced if necessary.
6. WARNING: All other service should be done by qualified personnel only.

TECHNICAL SPECIFICATIONS

Protection class	Input voltage	Input current	Output	Max Lead-acid battery capacity
IP20	220-240V 50Hz	0.2A	12V / 0.5A	Max100Ah

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.**

DECLARATION OF CONFORMITY

We declare that this product conforms to the following standards EN60335-1, EN60335-2-29, EN55014, EN61000, and the following Directives 73/23 CEE, 93/68 CEE, 2004/108/EC, 2002/95/EC (ROHS),

Technical Manager

Maypole Ltd

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