



## 5A Electronic Smart Charger (MP7425)



**Fully automatic. Suitable for 6V/12V lead acid; AGM or GEL batteries.**

### USER MANUAL

Please read and follow this operating manual and all safety instructions for the batteries to be charged before using this device.

Keep these instructions for future reference. When passing the device on to others be sure to also include all documentation. The instruction leaflet is also available on our website

[www.maypoleltd.com](http://www.maypoleltd.com)





## SAFETY

- Ensure that cables are regularly inspected and kept in good condition.
- Never use the battery charger if the mains lead, mains plug, output lead 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.
- Keep the charging area completely clear of combustible materials.
- For indoor use only, **do not** expose to rain or any other forms of liquid or moisture. The charger must not be used as a continuous DC power source or for any purposes other than those listed.
- The charger is designed to charge Lead-Acid, AGM & GEL batteries only and must not be used for the charging of non-rechargeable batteries. Never attempt to charge a frozen battery.
- There are no user-serviceable parts in this product other than a 3A fuse in the mains plug and 7.5A inline blade fuse in the output cable. Opening the case is dangerous and electrical repairs or 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. Resultant damage to the product will result in the loss of your guarantee.

## 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 must be supervised to ensure that they do not play with the appliance. Cleaning and user maintenance must not be undertaken 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!

**Cables:** Make sure the mains lead is located so that it will not be stepped on, tripped over, or otherwise subjected to damage. An extension cord should not be used unless absolutely necessary. Improper use of an extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure it is in good electrical condition.



**Short circuit:** 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. Take extra care when using tools around a battery, remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead-acid battery as a short circuit may result in severe burns or cause an explosion.

**Personal protection:** The use of safety goggles, clothing protection 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 running cold water immediately. Medical advice should be sought immediately in the event of burns to the eyes or if symptoms persist as a result of burns to the skin.

### **GENERAL INFORMATION**

Only use this product for the purposes described in this instruction booklet. Failure to do so will result in the loss of your guarantee. The manufacturer will not accept liability for damage to the charger, persons or property resulting from incorrect usage or failing to follow the instructions in this booklet.

### **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.

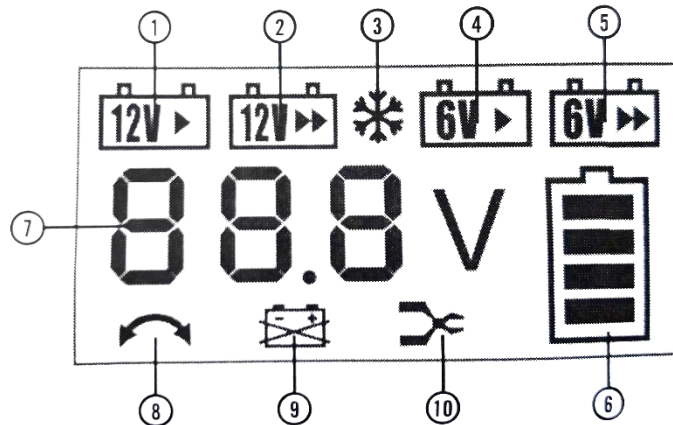
**This product must not be disposed of with general domestic waste.**

### **SCOPE OF USE**

This product is only to be used for charging 6V/12V lead-acid, sealed lead-acid, maintenance-free, AGM & GEL vehicle & leisure batteries of capacities 1.2Ah to 120Ah (Ampere hours). Consult the manufacturer of your device, battery or vehicle if you are unsure about the suitability of this charger for use with it.



## LCD DISPLAY











1. 12V slow charge (1A)
2. 12V fast charge (5A)
3. Winter mode. Suitable for 5°C or less
4. 6V slow charge (1A)
5. 6V fast charge (5A)
6. Battery level indicator. Each bar represents approximately 25%. The outline border flashes during charging. When the battery is full & during float charging the border and all 4 bars will be solid
7. Battery voltage indicator; accurate to 0.1V
8. Reverse polarity indicator
9. Bad battery indicator
10. Clamp connection indicator



## CHARGING MODES

The **MODE** button is used to toggle through 4 different charging modes for both 6V & 12V voltages:

| MODE                    | LCD DISPLAY   | DESCRIPTION  |
|-------------------------|---|--|
| 12V slow charge         |    | Slow 12V 1A charging output. Suitable for batteries of 1.2-40Ah  |
| 12V fast charge         |    | Fast 12V 5A charging output. Suitable for batteries of 40-120Ah  |
| 12V slow charge/ winter |   | Winter 12V 1A slow charging output. Suitable for batteries of 1.2-40Ah. Recommended for batteries below 5°C or AGM batteries |
| 12V fast charge/ winter |  | Winter 12V 5A fast charging output. Suitable for batteries of 40-120Ah. Recommended for batteries below 5°C or AGM batteries |
| 6V slow charge          |  | Slow 6V 1A charging output. Suitable for batteries of 1.2-40Ah   |
| 6V fast charge          |  | Fast 6V 5A charging output. Suitable for batteries of 40-120Ah   |
| 6V slow charge/ winter  |  | Winter 6V 1A slow charging output. Suitable for batteries of 1.2-40Ah. Recommended for batteries below 5°C or AGM batteries  |
| 12V fast charge/ winter |  | Winter 6V 5A fast charging output. Suitable for batteries of 40-120Ah. Recommended for batteries below 5°C or AGM batteries  |



## SAFETY FEATURES

Short circuits, open circuits, sparking, over-heating, current overloads & over-charging.

## BATTERY CHARGING INSTRUCTIONS

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

**IMPORTANT:** This charger will only recover 6V/ 12V batteries with a minimum residual voltage of 3V. If the residual voltage is lower than above figure, the charger will not operate. For batteries with a very low voltage, disconnection from the vehicle and any load imposed may allow the standing voltage of the battery to recover and for charging to take place.

**NOTE:** This charger operates automatically and will change operating status without warning.

## PREPARATION OF THE BATTERY

Check the voltage and capacity of the battery to be charged. In the case of 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 deionized 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.

## LOCATION & CONNECTION

Maintain as much distance as is practical between the battery and charger. Some slack in the input and output leads must be maintained. Position the charger on a level, stable surface, completely free of combustible materials. Never place the charger directly above the battery being charged; gases from battery will corrode and damage the charger. **Ensure the charger leads cannot be damaged by the vehicle bodywork, sharp objects, or moving engine parts.**

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:

- 1) Connect the positive charging lead (RED) to the positive post of the battery (marked +/- +ve or P).
- 2) For negative-earth 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
- 3) 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 to remove any dirt or oxidization; ensuring a good contact.





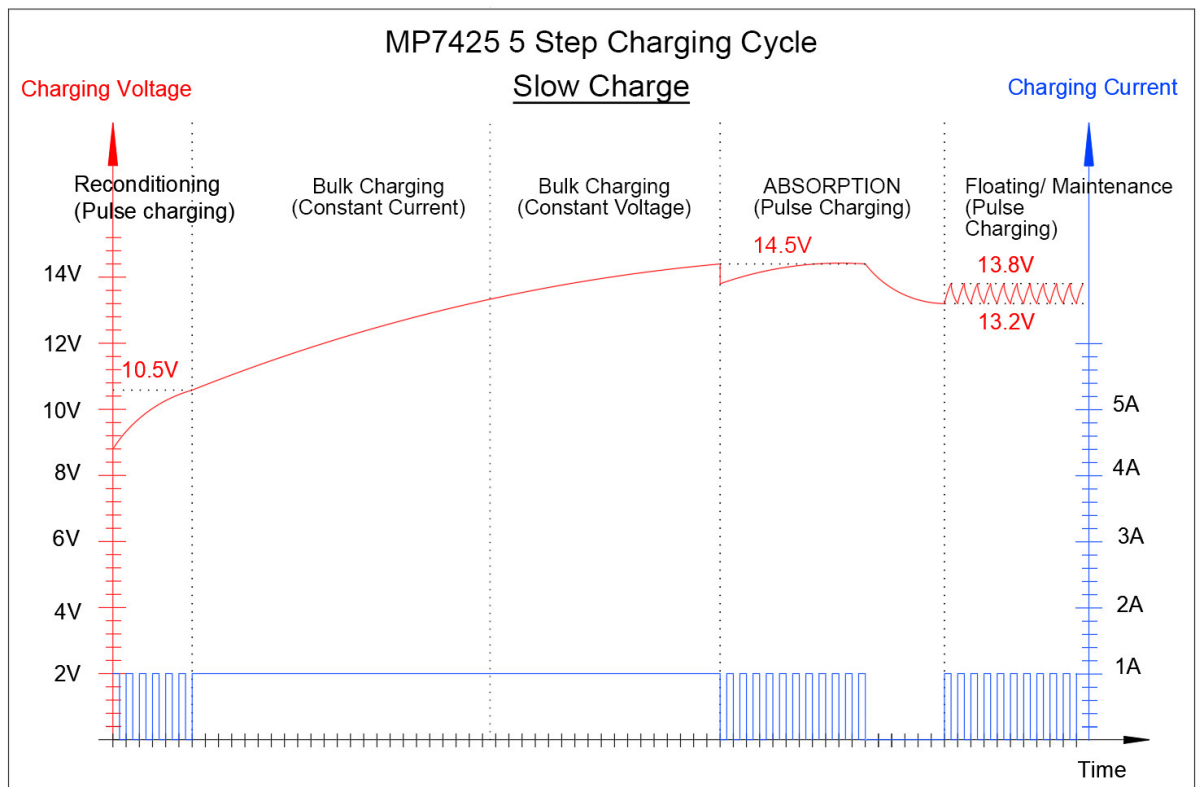
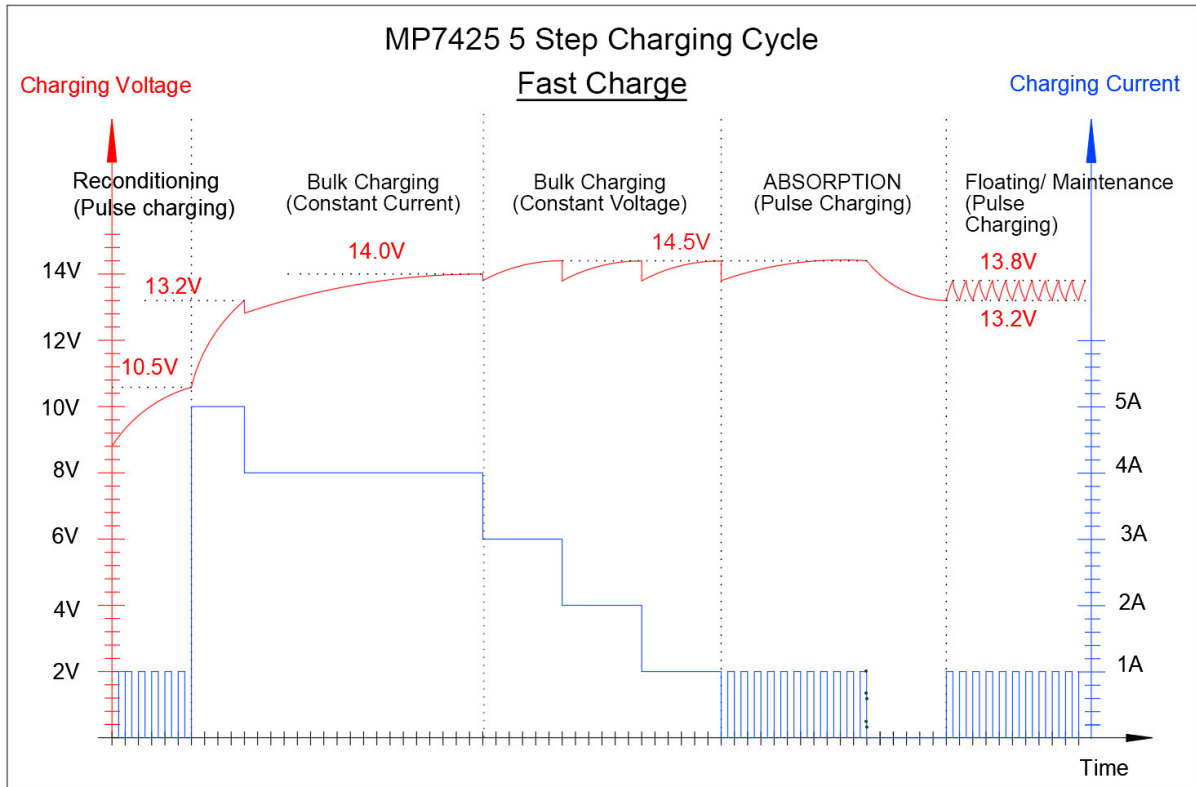
## CHARGING

**WARNING! DO NOT ATTEMPT TO START THE VEHICLE WITH THE CHARGER CONNECTED TO THE BATTERY. THIS MAY DAMAGE YOUR BATTERY CHARGER.**

- 1) Switch on the mains power supply. The LCD display will automatically illuminate and show the current battery voltage.
- 2) The charger will automatically detect the battery voltage (6V/12V). Pressing the MODE button for 3 seconds allows you to manually select the voltage (6V or 12V).
- 3) Select the appropriate charging mode by pressing the MODE button.
- 4) The charger will now automatically measure the voltage of your battery and diagnose its condition. Providing the battery is in an acceptable condition the 5 stage charge cycle will commence and the LCD display will show the charging progress.
- 5) When the battery is fully charged 4 solid bars will be displayed. The charger will switch to maintenance charge.
- 6) If the voltage of a 12V battery is lower than 10.5V or 5.2V for a 6V battery the charger will automatically go into (reconditioning) rescue mode. If the battery can be repaired within 60 minutes the 5 stage charge cycle will commence. If it cannot be repaired the BAD BATTERY indicator will be shown on the LCD display. The battery needs to be tested by a qualified technician and replace the battery if necessary.

**The 5 step automatic charging process includes:**

- 1) **Reconditioning (pulse charging)**
- 2) **Bulk charging (constant current)**
- 3) **Bulk charging (constant voltage)**
- 4) **Absorption (pulse charging)**
- 5) **Float/ maintenance charging (pulse charging)**







## WARNING

It is recommended that charging should be supervised at all times. Monitor the temperature of the battery during charging. If the temperature of the battery exceeds 40°C cease charging until the battery has cooled to a safe temperature. Failure to do so may result in the battery exploding.

## DISCONNECTING THE CHARGER

Switch off the mains supply, unplug the charger from the mains (to reduce risk of damage to the mains cable, pull by the plug rather than cable) & disconnect the clips from the battery, negative lead (BLACK) first. Then disconnect the positive lead (RED) from the battery.

For non-sealed lead-acid batteries: inspect the liquid levels in each cell and top up if 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 according to the manufacturer's instructions.




## CAR BATTERY MAINTENANCE

It is essential to keep your battery regularly charged up throughout the year, especially during the winter months. In the winter the effectiveness of your car battery is reduced by the cold. Oil is thick, engines are difficult to start and the heater, windscreen wipers and lights are all draining power. It is at this time that batteries have to be at peak power. If your battery is not regularly maintained and kept fully charged, it can cause problems and a possible breakdown.

## TECHNICAL SPECIFICATIONS

| Protection Class | Rated Input Voltage | Rated Input Current | Rated Output Current | Battery Capacity |
|------------------|---------------------|---------------------|----------------------|------------------|
| IP65             | 230V AC 50/60Hz     | 0.72A               | 6V 1A/5A; 12V 1A/5A  | 1.2Ah – 120Ah    |

## TROUBLE SHOOTING

| LCD DISPLAY   | FAULT   | ACTION  |
|---|---|---|
|  | Battery clamps reversed   | Disconnect & reconnect correctly  |
|  | Faulty battery. Battery voltage is less than 3V. Battery cannot hold charge | Have the battery tested by a qualified technician. Replace battery if necessary |
|  | Dirty or oxidised battery terminals   | Clean terminals   |



Output lead fuses should be checked and replaced as necessary (7.5A blade) in connection with all faults. Also check the fuse in the mains plug, which should only be replaced with a 3A BS 1362 fuse. Persistent fuse replacement may indicate a fault with the charger or leads. Check these before each use and do not use if worn or damaged.

## MAINTENANCE INSTRUCTIONS

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

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

1. Store in a clean, dry place to avoid moisture damage.
2. Loosely 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.

## DECLARATION OF CONFORMITY

We declare that this product conforms to the following standards:



EMC Directive 2014/30/EU  
LVD Directive 2014/35/EU  
ROHS 2011/65/EU Annex II and its amendment



Electromagnetic Compatibility Regulations 2016  
UK SI. 2016 No. 1091  
Electrical Equipment (Safety) Regulations 2016  
UK SI. 2016 No. 1091  
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012  
UK SI. 2012 No. 3032

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