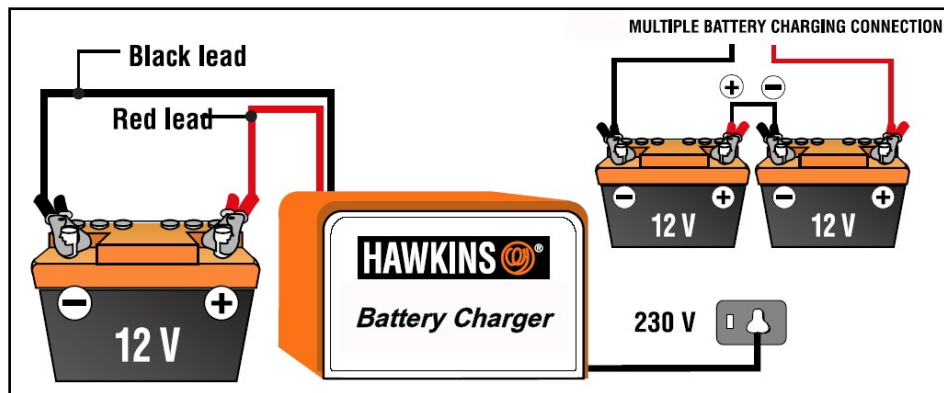


## 1. DETAILED SPECIFICATIONS:

Charger	Input Voltage	Input Current	Current Selector	Output Voltage	Output Current
AutoPro 5 12V	230Vac	0,6A	-	12Vdc	5,0Adc
AutoPro 5 24V	230Vac	1,2A	-	24Vdc	5,0Adc
AutoPro 10 12V	230Vac	0,7A	5A	12Vdc	5,5Adc
	230Vac	1,1A	10A	12Vdc	10,0Adc
AutoPro 10 12/24V	230Vac	0,7A	5A	12Vdc	5,5Adc
	230Vac	0,98A	10A	12Vdc	10,0Adc
	230Vac	1,2A	5A	24Vdc	5,5Adc
	230Vac	1,7A	10A	24Vdc	10Adc
Smart 15 12V	230Vac	0,73A	5A	12Vdc	5,5Adc
	230Vac	1,1A	10A	12Vdc	10,0Adc
Fence Pro	230Vac	0.25A	>10Ah	12Vdc	2,8Adc

Specifications may change without notice in the interests of product improvement

## 2. CONNECTION DIAGRAM:



## 3. IMPORTANT SAFETY INSTRUCTIONS:

**WARNING** – Risk of explosive gases. Working in the vicinity of a battery is dangerous. Batteries generate explosive gasses during charging. Keep the battery and charger away from open flames and sparks.

**CAUTION** – Charge only rechargeable vented / flooded, maintenance free, low – maintenance, deep cycle or leisure, sealed gel and / or recombination batteries.

Never recharge dry cell or non-rechargeable or defective batteries. These may explode and cause personal injury and property damage. If you are uncertain as to the type of battery you are attempting to charge, or the correct procedure for checking the battery's rate of charge, contact your battery supplier or battery manufacturer. **Always follow the battery manufacturer's instructions.**

Battery chargers contain switches and circuit breakers that produce arcs or sparks. Use the charger in a well ventilated room only

## 4. INSTRUCTIONS:

- Connect and disconnect battery leads only when AC supply cord is disconnected.
- Charge batteries in a dry well ventilated area only.
- Do not obstruct the flow of air through the charger cabinet.
- Never place the charger on a heated surface
- If the supply cord is damaged, it must be replaced. Do not operate the charger with a damaged cord or plug. Have the damaged cord or plug replaced immediately.
- The charger must not be exposed to liquids in any form. Use indoors only.

## 5. PERSONAL PRECAUTIONS:

- Wear complete eye protection, clothing protection and wear rubber soled shoes. When the ground is very wet or covered in snow, wear rubber boots. Avoid touching the eyes while working with batteries.
- Battery acid is corrosive. If battery acid contacts skin or clothing, wash immediately with soap and water or a solution of Bicarbonate of Soda and water. If acid enters the eye, immediately flush eye with running cold water for at least 10 minutes and then consult a doctor.
- NEVER smoke or allow a spark or flame in the vicinity of a battery or engine.
- Be careful not to drop a metal tool onto the battery. It might spark or short circuit the battery or other electrical part that may cause an explosion.
- Before working with any battery, remove any jewellery. A battery can produce a short-circuit current high enough to weld such items causing severe burns.
- NEVER charge a frozen battery – thaw it out first. Charging will then be safer and more efficient.

## 6. CHARGING AUTOMOBILE BATTERIES:

- Ensure that the mains supply to the charger is **disconnected** before connecting any battery terminals.
- Connect the RED clamp to the positive terminal of the battery and the BLACK clamp to the negative terminal of the battery.
- Connect the charger to the mains supply and switch ON.
- After charging, disconnect charger from mains supply first before disconnecting any battery charger clamps.

## 7. AUTOMATIC CHARGERS FUNCTIONAL INDICATORS:

Hawkins Automatic Chargers has 3 LED lights that continuously monitor and displays the state of charge of the battery.

OPERATING MODE	RED	YELLOW	GREEN
Power on	ON	OFF	OFF
Bulk Charge Phase	ON	ON	OFF
Absorption Charge Phase <sup>Note 1</sup>	ON	FLASHING	OFF
Battery Full - Float Phase	ON	OFF	ON
Fault Condition <sup>Note 2</sup>	FLASHING	OFF	OFF

During the Bulk Charge Phase, the majority of the energy is replaced until a pre-set voltage level has been reached. The charger then enters the Absorption Charge Phase <sup>Note 3</sup> where it holds the voltage constant while reducing the output current. This phase is timed to run for 1/3 of the Bulk Charge Phase. After the Absorption phase is complete, the charger then enters the Float Charge Phase where the battery is full. If the charger has not entered the Absorption Charge Phase within 18 hours, charging is terminated and the RED led will FLASH indicating a FAULT condition <sup>Note 4</sup>. If the FAULT condition occurs, please have the battery tested.

Note 1 – 4 does not apply to the Hawkins Smart 15 12V and Fence Pro chargers.

**WARNING!** – A sign of overcharging is a battery that is hot to the touch.. This is an indication of a problem battery and/or an incorrect match between the battery and charger. A hot and/or a bubbling battery must not be left unattended. If the condition persists, disconnect the charger and have the battery checked at your local automotive service centre.

**Hawkins Automatic Chargers may be left connected to a battery.**

#### 8. MAINTENANCE

Locate and operate your charger as specified in these instructions. Always keep cabinet exterior, leads and clips clean and free of corrosion. Protect from adverse weather and environment at all times.

Never disassemble your charger. If it requires repair, take it to a qualified serviceman.

This charger should not be used with damaged cords!

#### 9. BEFORE RETURNING FOR REPAIR

When a charging problem arises, make certain the battery is capable of accepting a normal charge – use a good battery to double check charger. Check all connections, the AC outlet for voltage, charger clips for correct polarity, and the quality of connections from cable to clips and clips to battery system.

**CLIPS MUST BE CLEAN.**

When a battery is very cold, partially charged or sulphated, it will not draw full rated current from the charger. This is a safety factor. It can be both dangerous and damaging to a battery to force a higher amperage into it than it can effectively use in recharging.

When the charger requires repair take it to a qualified serviceman. If the unit is still under warranty then take unit and purchase receipt together with warranty slip to your retailer.

Any automatic charger requires a minimum voltage to be present on the battery before the charger will start charging and for a 12V battery it is 10V.

#### 10. WARRANTY / REPAIRS

We warrant that this HAWKINS BATTERY CHARGER is free from defective materials and workmanship, and agree to remedy any such defect or to furnish new parts should this unit fail within two years from date of purchase. No charge will be made for parts or labour involved, subject to the following conditions. This warranty is only valid upon presentation of the purchase invoice, date of purchase clearly indicated, together with this warranty.

- Hawkins product support policy is that a standard repair charge per product line will apply, regardless what the fault is.
- Shipping costs related to any repair to and from Hawkins is for your own account.
- If it is a warranty claim, shipping the product to Hawkins is for your account, while Hawkins will pay the shipping costs returning the product to you.

#### PLEASE NOTE:

- Hawkins reserves the right to refuse repairing any product that has been modified, tampered with or in a poor condition due to misuse, damage, mishandling or operating it outside of specification. Ensuring that the product is in a condition worth repairing may save you unnecessary shipping costs.
- Products not collected within 60 days of notification will be sold to defray any expenses.



# OPERATING INSTRUCTIONS

**MODELS:**  
**AUTO PRO 5 12 & 24V**  
**AUTOPRO 10 12 & 12/24V**  
**SMART 15 12V**  
**FENCE PRO**

Hawkins manufactures and markets power solutions in the form of battery chargers and inverters since 1961. The Hawkins brand is not only the oldest, but is the market leader in the field of power solutions in South Africa.

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