



ELECTRA
BATTERY KNAPSACK SPRAYER



INSTRUCTIONS MANUAL

Dear customer,

We thank your confidence by acquiring one of our newest products. With ELECTRA you get guaranteed quality and safeness.

This equipment is specially designed to increase efficiency and to reduce effort when spraying. For a safe and proper use of this sprayer, please read carefully this instructions book, attending all recommendations and safety warnings

PRAPOPOULOS BROS S.A.

1 PROPERTIES

The ELECTRA battery knapsack is the best way of spraying without any effort and noise. This equipment has been designed for an even and efficient spraying. Only by pressing the handle you will get a precision work and constant flow, with minimum consumption and reduced maintenance. Also for your comfort, the equipment has a silent functioning. Ergonomic straps, a handle to ease transport and a lance fixer in the tank was included in the packaging.

In addition, ELECTRA SUPER provides two machines in one. By means of the selector switch, the power of the pump can be chosen. The switch in position I allows an application at a lower pressure (suitable in weed killer treatments). If you choose position II, the machine provides a high pressure spraying (needed in insecticide applications and other).

	ELECTRA	ELECTRA SUPER	
Weight	5900 gr	6400 gr	
Lance	70 cm	70 cm	
Packaging measures	405x197x576 mm 20 ud/m3		
Tank capacity	18 lt	18 lt	
Motor	12 V	12 V *	24 V **
Pump	Membrane		
Battery Autonomy	14 hr	12 hr*	3,5 hr**
Automatic recharger	230 V - 50-60 Hz (output 12 V)		

* In 1st position / ** In 2nd position

2 SET UP AND OPERATION

Before starting working, allow a complete recharge of the battery (it could have lost some energy during storage). For that, plug the recharger to the mains and connect it to the sprayer. **The red light will be off during recharge process, and it will be on when the battery is completely recharged.** The first recharge may take more time than subsequent ones.

Follow these steps to start up the sprayer:

- Connect the lance to the sprayer hose and, if necessary, install the protective hood.
- Unscrew the cap, and using the filter, pour the liquid in the tank. Screw on cap, and tighten. In some products, it is better to prepare the mixture in an appropriate mixing bowl.
- Place the sprayer in a high surface (i.e. a table), pass the straps over your shoulders and tighten them by stretching from the bottom.
- To start spraying, press the switch (REF.: 1505, 1606) with your right hand, and press the lance handle. For your comfort, it is possible to lock the handle in the 'ON' position.

IN ELECTRA MODEL, THE PUMP STOPS AUTOMATICALLY WHEN THE HANDLE IS RELEASED. IF IT DOES NOT STOP, PRESS THE HANDLE FOR SOME SECONDS UNTIL THE CIRCUIT IS FULL OF PRODUCT. WHEN FINISHING WORKING, SWITCH OFF THE EQUIPMENT.

IN ELECTRA SUPER MODEL, THE PUMP STOPS AUTOMATICALLY WHEN THE HANDLE IS RELEASED, ONLY WHEN WORKING IN POSITION II (24 V). WHEN WORKING IN POSITION I (12 V), THE PUMP DOES NOT STOP WHEN THE HANDLE IS RELEASED.

3 MAINTENANCE

3.1 TANK AND PIPES

It is recommended to clean the equipment and the pipes with clean water after every use. Pour the liquid away from the tank through the drainage hole (REF. 1514) at the bottom of the tank.

DO NOT USE DISSOLVENTS, ACIDS OR ABRASIVE PRODUCTS. DO NOT SUBMERGE THE EQUIPMENT IN WATER. DO NOT CLEAN THE MACHINE WITH PRESSURED WATER. FOR EXTERNAL CLEANING, USE ONLY A WET TOWEL.

3.2 FILTERS

The equipment has the following filters:

- Entry filter (REF. 657). Use it when filling the tank.
- Exit filter (REF. 1510). It is located at the bottom of the tank. Pull from the metallic ring to disassemble. After cleaning, just press it in its location.
- Lance filter (REF. 680). It lies inside the handle. It is easy to take it apart by unscrewing the red nut.
- Spraying nozzle filter (REF. 687).



ΦΙΛΤΡΟ ΕΞΟΔΟΥ
(No. 1510)

Proper maintenance of the filters is essential for a right performance of the sprayer. Clean filters periodically (after every working day) and substitute them if they have any defect.

3.3 NOZZLES

The equipment is provided with high quality nozzles. The efficiency may be diminished when using defective or non-recommended nozzles. Substitute nozzles in the mentioned cases. The maximum working pressure for ELECTRA is 1,8 bar and for ELECTRA SUPER 2,5 bar. The next illustration shows the performance of the recommended nozzles (approximate values).

	ELECTRA & ELECTRA SUPER (position I)		ELECTRA SUPER (position II)	
	CONSTANT FLOW RATE	Dosage	CONSTANT FLOW RATE	Dosage
Blue (fan nozzle)	0,7 L/min	300 L/ha	1,0 L/min	400 L/ha
Brown (fan nozzle)	1,0 L/min	400 L/ha	1,4 L/min	500 L/ha
Orange (fan nozzle)	0,35 L/min	150 L/ha	---	---
Variable (hollow cone)	0,55 L/min	---	0,7 L/min	---

3.4 BATTERY RECHARGE

The time required for a complete recharge of the battery is 12 hours (depending on the level of discharge). The recharge is finished when led is bright. Unplug the recharger. Battery does not need maintenance. In case you need a new recharger, look for an original one and respect the connection's polarities.

VERY IMPORTANT

In ELECTRA SUPER model, position I on switch must be selected to recharge the battery. The pump will automatically stop when the recharger is connected to the knapsack port.

The battery only is fully operative after some recharges. In order to optimise battery lifetime, recharge after every working day.

Use only the recharger provided with the battery. The recharger works with 220/240 V, 50-60 Hz. The recharger may become warm during recharge process; it is not malfunctioning. During large periods of inactivity, **WE RECOMMEND TO STORAGE THE BATTERY FULL**, and to recharge it once every three months.

VERY IMPORTANT

Do not fully discharge the battery. Stop working when the charge is not enough for a right spraying. If battery is fully discharged, it will be necessary to recharge it longer than 24 hours.

PLUG THE RECHARGER ONLY IN AN INNER ROOM, IN DRY PLACE AND OUT OF REACH OF CHILDREN. DO NOT USE THE RECHARGER NEAR EXPLOSIVE MATERIALS. DO NOT LEAVE THE SPRAYER OUTSIDE OR IN PLACES THAT CAN BE UNDER ZERO DEGREES

DO NOT OPEN THE BATTERY AND KEEP IT FAR FROM HOT SOURCES. WHEN THE BATTERY LIFETIME IS FINISHED, DISPOSE OF IT ONLY AT AUTHORIZED POINTS.

3.5 MOTOR AND PUMP

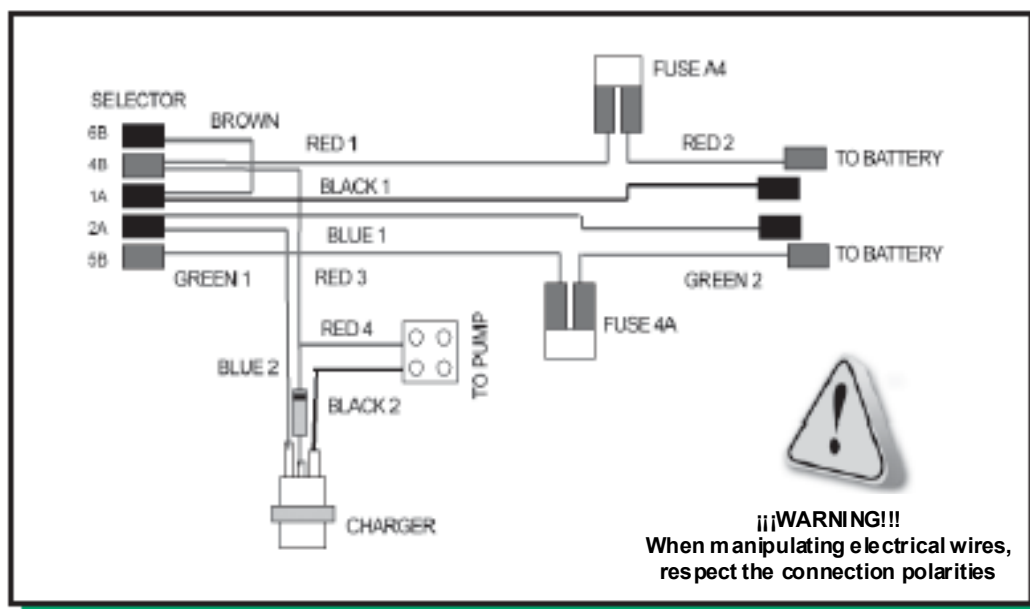
The engine, pump and pressure switch are integrated in a sole module, and no maintenance is required

ALWAYS KEEP THE MACHINE WORKING WITH CLEAN WATER FOR SOME MINUTES AFTER AN APPLICATION.



3.6 ELECTRICAL WIRING

Electrical wiring of ELECTRA SUPER



3.7 FUSES

The fuse protects the circuit from overloads and short circuits. If change is needed, disassemble the lower base of the sprayer and check if there is a blown fuse or if circuit is disconnected. Use only 4-ampere fuses.

4 SAFETY INSTRUCTIONS

Always use proper protective equipment and clothes when handling and spraying chemical products. Maintain perfect equilibrium when walking. Do not eat, drink or smoke whilst using these products. Avoid direct contact with your skin.

Only trained people should use this equipment. Read carefully instructions that appear in the packaging of chemicals. Use proper container for mixing products.

After application, clean the sprayer and pipes with clean water. Clean your hands and face, and change your clothes.

Avoid spraying in windy days or with very high temperatures. Keep children and animals away.

In case of intoxication, never leave alone the person. Clean with plenty of water all affected areas and take clothes off. Seek medical help immediately. Take with you the chemical's packaging.

DESTROY EMPTY PACKAGING ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND NATIONAL LAW. AVOID SOIL AND WATER POLLUTION.

5 CONFORMITY STATEMENT CE

According to the European Act of Machinery (89/392/CEE, 91/368/CEE) and Law 21/1992 of Industry, the manufacturer declares that this equipment has been designed and tested, and that it meets all health laws. All materials and parts have passed satisfactorily quality testing, and are ready to be assembled and used with safety.

Patras, March 2004.

6 PROBLEMS - POSSIBLE CAUSES – SOLUTIONS

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine is not working	Discharged battery	Recharge battery
	Blown fuse (REF.1506)	Replace fuse
	Broken switch (REF.1505, REF.1606)	Replace switch
	Circuit disconnected	Check circuit
	Broken motor (REF.1521)	Replace motor
No pressure	Empty tank	Fill the tank
	Discharged battery	Recharge battery
	Dirty tank filter	Disassemble filter and clean it
Motor does not stop when handle is released, or it works intermittently.	Empty tank	Fill the tank
	The tank has just been filed. There is still air in the circuit	Press the handle for a while, to fulfil the circuit
	Bad regulation of pressure switch**	Adjust sensibility of pressure switch
	Pressure switch is broken (REF.1519, REF.1586*)	Change pressure switch
	Discharged battery	Recharge battery
Motor works intermittently with the handle open.	Improper nozzle, flow is too low.	Use only recommended nozzle
Short battery autonomy	Short battery recharge	Recharge the battery completely
	Broken recharger (REF.1503)	Change recharger
	Battery out of order (REF.1497, REF.1590*)	Change battery
Irregular Spraying	Dirty nozzle	Disassemble and clean nozzle and filter
	Nozzle out of order	Change nozzle

* Mod. SUPER

** The pressure switch may not work if the nozzle is not original spare part.

VERY IMPORTANT: USE ALWAYS ORIGINAL SPARE PARTS to guarantee efficiency and safety.

ELECTRA and ELECTRA SUPER are registered trademarks of PRAPOPOULOS BROS S.A.



ΑΦΟΙ ΠΡΑΠΟΠΟΥΛΟΙ Α.Ε.
Αριστοτέλους 123, 262 35 Πάτρα
ΤΗΛ. 2610/641.642, FAX 2610/641.641

PRAPOPOULOS BROS S.A.
123 Aristotelous St., 262 35 Patras, Greece
Tel. 0030/2610/641.642, FAX 0030/2610/641.641

e-mail: info@prapopoulos.gr, www.prapopoulos.gr