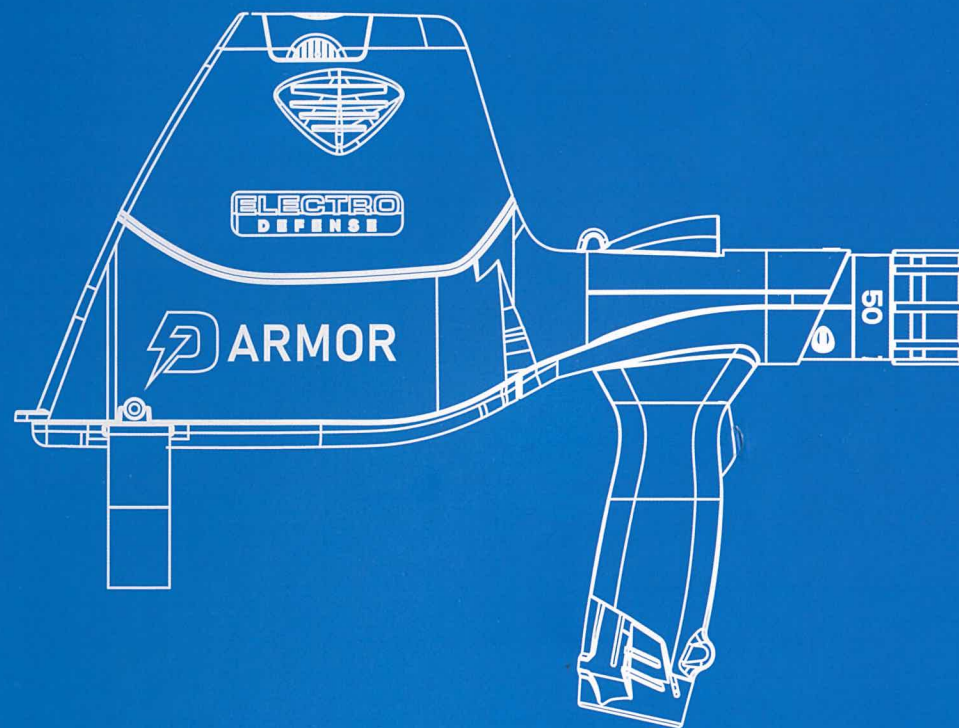


ARMOR HANDHELD ELECTROSTATIC  
SMARTSPRAYER™

ED4660



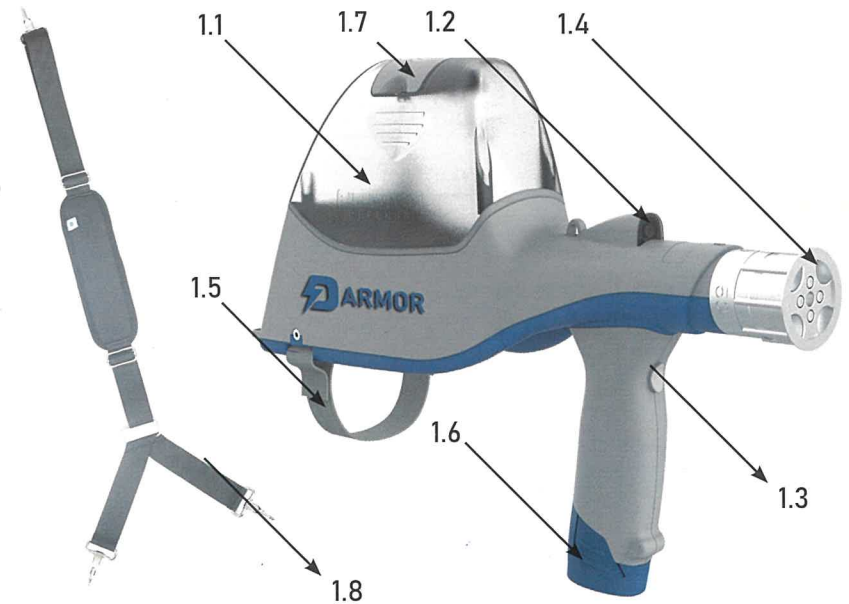
SAFETY AND OPERATING MANUAL



**ELECTRO**  
DEFENSE

# Contents

ITEMS INCLUDED	3
PRODUCT COMPONENTS	3
SAFETY INSTRUCTION	4
PRODUCT DIMENSIONS & PACKAGING	5
UNPACKING THE ARMOR	6
PREPARING THE ARMOR FOR INITIAL USE	6
ELECTRODEFENSE APP	8
NOZZLE	8
TRIGGER	9
USE ELECTROSTATIC FUNCTION	10
CHANGING NOZZLE SETTINGS DURING JOB	10
USE NORMAL FUNTCTION	10
CHANGING NOZZLE SETTINGS DURING JOB	11
EMPTYING THE TANK	11
CLEANING THE ARMOR	11
REMOVAL OF THE TANK	11
CHARGING THE BATTERY	12
TROUBLESHOOTING	13



ITEMS INCLUDED	
1	ARMOR HandHeld Electrostatic SmartSprayer™
2	12V Rapid Charge Battery
1	12V Battery Charger
1	Electrostatic Booster
1	Shoulder Strap
1	Arm Strap
PRODUCT COMPONENTS	
1.1	Corrosion resistance advanced polymer quick release reservoir tank
1.2	150 lumen micro SMD LED focus light
1.3	Ergonomic, non-slip hand grip with button trigger switch
1.4	Anodized Aluminium no tool 4-in-1 twist nozzle
1.5	Ballistic grade nylon & high grade memory foam adjustable, arm strap
1.6	Quick release, rapid charge battery slot
1.7	Reservoir Fill-in Cap
1.8	Shoulder Strap



**DO NOT TWIST THE NOZZLE  
WHILE SPRAYING**



**CAUTION:** To avoid electrical shock, do not insert any foreign object in the nozzle. For commercial use store indoors.

## SAFETY INSTRUCTIONS

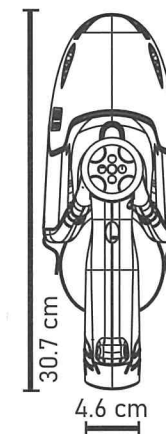
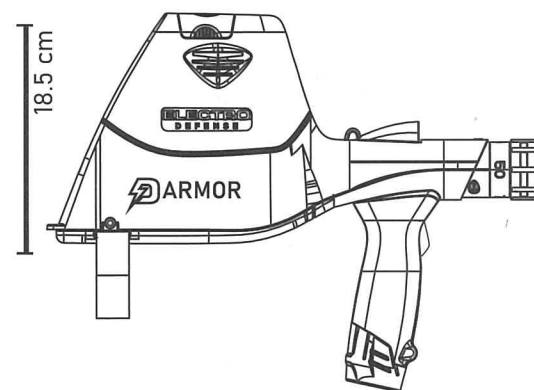
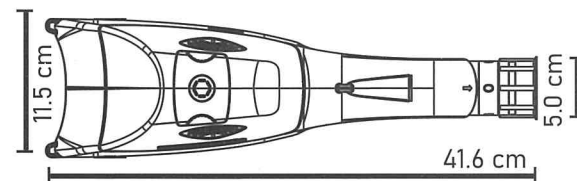
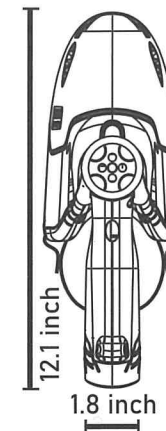
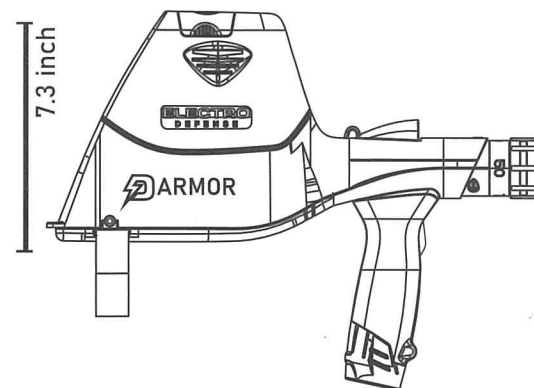
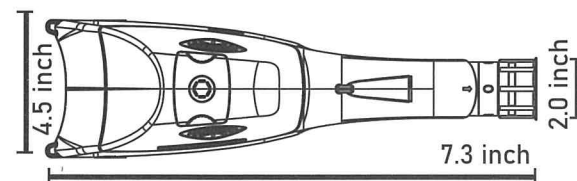
To prevent damage to your ED4660 ARMOR HandHeld SmartSprayer™ or injury to yourself or to others, please read the following safety precautions in their entirety before using this ARMOR. Keep these safety instructions where all those who use the ARMOR can read them.

### WARNING

- Do **not** attempt to service or access internal components. The ARMOR is to be serviced by a qualified representative only.
- Do **not** touch nozzle when electrostatic function is activated, to avoid electric shock.
- Do **not** use the electrostatic function while outdoors in the rain to avoid electric-shock.
- Do **not** use the ARMOR while under the influence of drugs or alcohol.
- Only use the supplied battery with the ARMOR to avoid risk of fire.
- Only use the supplied battery charger when charging the ARMOR battery to avoid risk of fire.
- Do **not** store the battery where any electrically conductive material is close to the terminals, to avoid risk of fire.
- Do **not** use flammable liquids to avoid risk of explosion or fire.
- Do **not** use the ARMOR in the presence of flammable gas that could result in fire.
- Always use personal safety equipment such as gloves, goggles, face masks when required.
- Do **not** tamper with or alter any parts of the ARMOR.
- Do **not** leave ARMOR running unattended.
- Do **not** rotate the nozzle while the pump is active and the ARMOR is spraying.
- Do **not** fill the tank without using the filter (the filter should only be removed for cleaning purposes).
- The ARMOR is not suitable for use of persons under 16 years old.
- Do **not** place the strap around the neck of an infant or child.

**IMPORTANT:** in the event of malfunction turn off immediately. Should you notice smoke or an unusual smell emitting from the ARMOR, remove the battery immediately, taking care to avoid burns. Continued operation could result in injury. After removing the battery, take the ARMOR to an authorized service centre for inspection.

## PRODUCT DIMENSIONS & PACKAGING



**PRODUCT DIMENSIONS  
PACKING DIMENSIONS AND WEIGHTS**

1. Gross weight: 2.6 kg / 5.7 lbs
2. Net weight: 1.9 kg / 4.2 lbs  
(Product, 2 batteries, 1 charger, 1 nozzle and 1 ES booster included)
3. Every 4 products are packed in an outer box.  
(43.5 cm / 1.43 ft L x 32.8 cm / 1.07 ft W x 58.5 cm / 1.92 ft H).

**USER GUIDE**

**UNPACKING THE ARMOR**

Carefully open the product packaging to find the user manual on top, inside the box. Please carefully read the user manual in full before continuing to unpack.

**PREPARING THE ARMOR FOR INITIAL USE**

The user is advised to use the ARMOR only after they have read and understood all safety and operating instructions.

**PLEASE NOTE:**

It is recommended charging the battery for two hours before initial use.

Follow the below steps when using the ARMOR for the first time:

**STEP 1**

Remove the tank cap and be sure the filter is inserted. Pour in the liquid through the filter until the tank is full. Clip the cap back on.



**STEP 2**

Insert the pre-charged battery into the handle until it clicks into position.



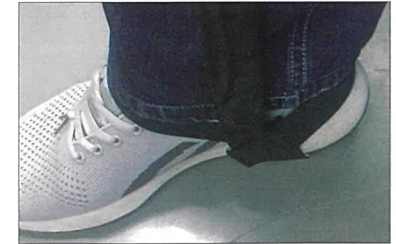
**STEP 3**

Put on all protective clothing necessary for the job, such as protective suits, visors, face masks, goggles etc. It is recommended that rubber gloves are worn when using the ARMOR.



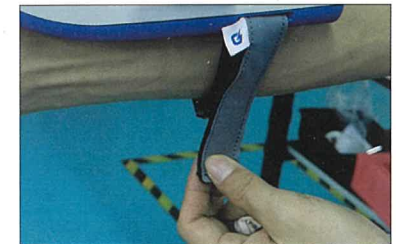
**STEP 4**

Clip the electrostatic booster strap to your shoes (warning do not wear the booster barefoot).



**STEP 5**

Securely fit the strap over your arm and shoulder adjusting the length to suit.



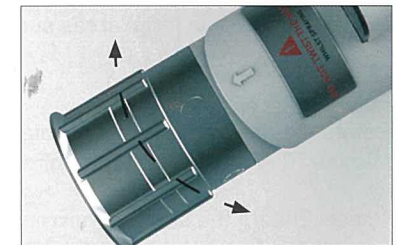
**STEP 6**

Plug in the electrostatic booster into the connector located on the right side of the ARMOR.





**STEP 7**



Remove the air from the system by rotating the nozzle to the empty tank function (ensure the electrostatic function is not activated before rotating nozzle) and press the trigger once to activate the pump until all air has passed through the system and a steady flow of liquid is expelled out of the nozzle. Press the trigger again to stop the pump.



THE ARMOR IS NOW READY TO USE.

## ELECTRODEFENSE APP

1. Download the ElectroDefense User APP  from Google Play or Apple's App Store.
2. Open the ElectroDefense User App  and pair the ARMOR to your APP.
3. Scan the QR code on the backside of the ARMOR. In the APP select 'add new device' and scan the QR code to pair your ARMOR with your account.
4. Once your APP is set up and paired with your ARMOR, select the job assigned to you by your manager. Pay attention to the instruction on which nozzle setting should be used, then click 'start job' on the APP. This will allow the APP to start recording live data from your ARMOR, that will instantly synchronize with your manager's account.
5. Now your ARMOR and APP are set up and paired, follow the instructions in this section for everyday use.

More information can be found in the user manuals for ElectroDefense User APP  and/or ElectroDefense MGMT APP 

## NOZZLE

**IMPORTANT: For your safety.**

- DO NOT touch the nozzle for any reason while the Electrostatic is activated.
- DO NOT rotate the nozzle when the pump is activated.

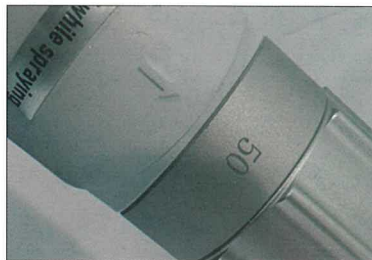
The nozzle has 3 settings:

1. 50 Micron – Fine Mist with a distance of 1.5- 2.0m (4.9-6.5ft), used indoors in small spaces such as an office.
2. 70 Micron – Medium Droplets with distance 2.0-2.5m (6.5-8.2ft) for use indoors with medium sizes areas such as hospitals.
3. 90 Micron – Spray with Large Droplets with a distance of 2.5-3.0m(8.2-9.8ft) for indoor or outdoor use in large areas such warehouses or school playgrounds.

### Rotating the Nozzle

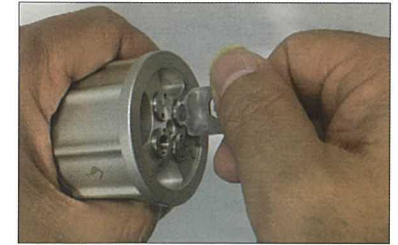
Rotate the nozzle clockwise to rotate through 50 Micron, 70 Micron and 90 Micron.

Notice: Ensure the selected micron level is in the correct position by lining up the icon with the arrow (see image). If the nozzle is not correctly aligned, the nozzle may leak, stop immediately and adjust the nozzle to the correct position.



## Cleaning the Nozzle

1. To clean the nozzle, use the tool shown here. To remove the main nozzle, rotate the mini nozzle anti-clockwise when viewed from the front.
2. Using a mini flat head screwdriver, remove the counter part of the mini nozzle and wash with water. Screw back on the counter part into the mini nozzle, then screw the micro nozzle back into the main nozzle and tighten using the suggested nozzle tool.



## TRIGGER

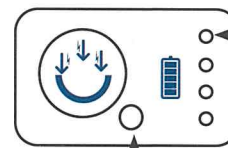
The trigger activates the pump. By pressing the trigger once, the pump will activate and the ARMOR will begin spraying. Press the trigger again to deactivate the pump to stop spraying.

### REMINDER:

Deactivate the pump by pressing the trigger before changing any nozzle settings.

### ARMOR CONTROL PANEL

The control panel located on the left hand side of the ARMOR has 2 settings. When the blue light is illuminated, the electrostatic function is, active.




Blue indicator light confirming the battery level

Blue indicator light confirming the electrostatic function setting is activated

## USE ELECTROSTATIC FUNCTION

### STEP 1

Select electrostatic function button  on the control panel.

### STEP 2

Rotate the nozzle to the desired micron setting.

### CAUTION:

Do **not** rotate when electrostatic function is turned on or you are spraying.

### STEP 3

Connect the electrostatic booster strap to your shoe and plug the cable into the port on the right hand side of the ARMOR.

### STEP 4

Select the electrostatic function button  on the control panel.

### STEP 5


Press the trigger once to activate the pump and start spraying with the electrostatic function activated.

## CHANGING NOZZLE SETTINGS DURING JOB

### STEP 1

Press the trigger again to de-activate the pump and stop spraying.

### STEP 2

Press the electrostatic function button  on the control panel to turn off the electrostatic function.

### STEP 3

Rotate the nozzle to the desired micron size setting.

### STEP 4

Select electrostatic function button  on the control panel.

### STEP 5


Press the trigger again to activate the pump and start spraying.

## USE NORMAL FUNCTION

### STEP 1

Rotate the nozzle to the appropriate micron size setting.

### STEP 2

Check the LED screen has a green tick .

### STEP 3

Check all your straps are secure.

### STEP 4

Press the trigger again to activate the pump and start spraying.

## CHANGING NOZZLE SETTINGS DURING JOB

### STEP 1

Press again the trigger to de-activate the pump and stop spraying.

### STEP 2

Rotate the nozzle to the selected micron size setting.

### STEP 3

Press the trigger again to activate the pump and start spraying.

## EMPTYING THE TANK

The tank can be emptied by selecting the  function on the nozzle and spraying until the tank's contents are fully expelled. A small volume of fluid may remain in the tank.

## CLEANING THE ARMOR

After each job, the cleaning procedure must be completed to ensure proper care of the ARMOR and validity of the warranty.

How to clean after completing a job:

### STEP 1

Rotate the nozzle to the empty tank setting .

### STEP 2

Remove the cap at the top of the tank, and fill with water.

### STEP 3

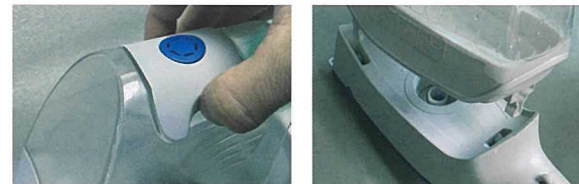
Press the trigger again to activate the pump and start spraying to flush the system

### STEP 4

Keep spraying until the tank is empty.

## REMOVAL OF THE TANK

The tank can be removed quickly by gripping the grooves on each side to lift. Reinsert the tank by slotting the tank into the connector points.



## CHARGING THE BATTERY

### NOTE:



The battery must only be charged by the ElectroDefense ARMOR charger provided.

Insert the ARMOR battery into the charger. A cooling fan will activate and an LED light will display to indicate battery charging level. Please see battery charging level LED light indication below.


Battery	LED	Action
Hot/Cold Battery	Red Flashing	Charger will begin when battery returns to 0-40C (32-104F) degree
Defective	Red Flashing	Battery Pack or Charger is defective
Charging	Green Flashing	Charging
Fully Charged	Green Flashing	Charging is complete Maintenance charging

## TROUBLESHOOTING

**Q.** There is no spray coming out when I press the trigger:

- A1. Rotate the nozzle to select a different micron size setting. It could be that just one micron size is blocked which requires cleaning.
- A2. Select the empty function  of the nozzle. There could be air in the system and requires the empty function to be activated to push through the trapped air.
- A3. Press the control panel to turn on the electrostatic function . Check the blue light is illuminated. If not, you may need to charge or change your battery.

**Q.** The electrostatic function is not working:

- A1. Check the booster is connected to your shoe the correct way and try again.
- A2. Check the booster cable is fully plugged into the connector port on the right hand side of the ARMOR.
- A3. Turn the ARMOR off and back on then select the electrostatic function  on the control panel.

**Q.** The spray is not expelled evenly :

- A1. This could be due to a blocked nozzle. Use the nozzle tool to remove the micron nozzles and clean as instructed in this manual.
- A2. Battery power may be low. Either change or charge the battery and try again.

If all the above fails please contact your service team provided to you by your ElectroDefense distributor.

## THE NEW STANDARD IN SMARTSPRAYER™ FLUID DELIVERY SYSTEMS

sales@electrodefense.com  
electrodefense.com  
1-800-627-4112