

EXHAUST VACUUM OPERATING & MAINTENANCE MANUAL

WET & DRY 2 MOTOR VACUUM WITH EXHAUST OUTLET

Read safety & operating instructions
before commencing operation.
These operations must be read
and adhered to before operating
this machine.



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GUARDA
WORK HARD. BREATHE EASY.

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**WARNING:**

The Exhaust Vacuum maintenance should only be completed by a qualified person licensed to work on electrical appliances. Read all the warnings and follow the instructions in this manual.

**WARNING:**

The Exhaust Vacuum is designed to extract and blow poisonous exhaust gases out to a well-ventilated outdoor area. Therefore the seal around the vacuum motors and the condition of the blow hoses is very important.

**WARNING:**

Carbon Monoxide Hazard. The end of the exhaust hose must always be placed outside in a well ventilated area.



Guarda Systems cannot be held responsible for any damage or injury to persons or property due to the incorrect use of the vacuum and/or by not following the instructions as specified in this manual.

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1. INTRODUCTION

Your new Guarda Exhaust Vacuum is designed specifically with an exhaust port so that it can be used in a system with the Guarda saws which are engineered to remove fumes, slurry and dust. The Guarda Exhaust Vacuum also comes with a full range of accessories designed to make your cleaning task an easy one. To get the best from your machine we suggest you follow the operating and maintenance details contained in this document.

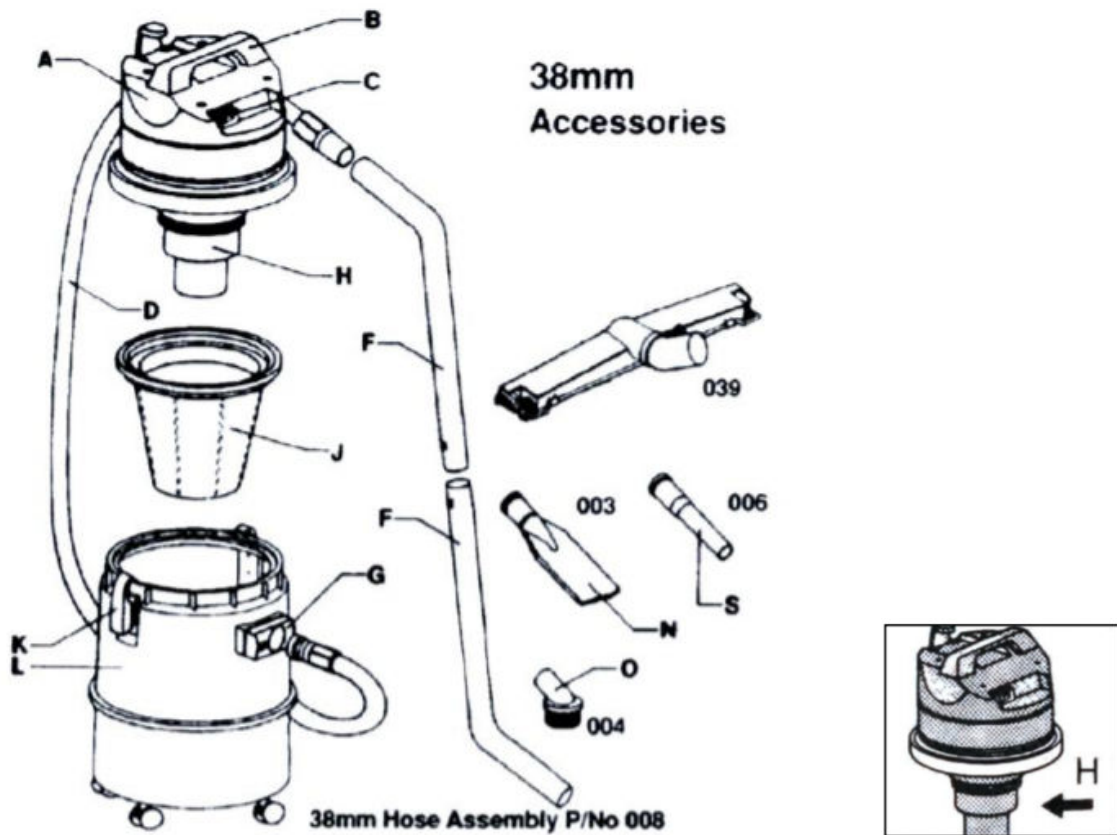
2. SAFETY MANAGEMENT PROCEDURES

These instructions must be read and adhered to before operating this machine. Failure to do so may result in injury to the operator, nearby persons, or damage to property, or to this machine.

- ☐ The packaging around the machine (plastic bags, clips, ties etc) pose a choking hazard and should be kept out of the reach of children and animals.
- ☐ This machine is not designed to be used by children or mentally disabled individuals and if used incorrectly can be harmful.
- ☐ The end of the suction hose or blow hose and/or the accessories must be kept away from your face and the faces of others at all times during operation as the suction or blow created can cause damage to the eyes, ears and mouth in particular.
- ☐ **DO NOT** use adapters or multiple sockets, without knowing the electrical input of each user.
- ☐ If any electrical extension is used, check that it corresponds to the absorbed power of the machine and that the connection of the plug with the socket is compliant and sealed.
- ☐ Take care of the electrical cable. It must be protected from water, tears and chemical agents. Do not repair the cable in case of tears, but replace it with a new one. The cable must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid further hazard.
- ☐ **DO NOT** pull cable to drag the machine into position or to remove the plug from socket.
- ☐ Disconnect from the power source by pulling the plug out only when the machine is switched off.
- ☐ **DO NOT** handle the plug with wet hands.
- ☐ Unplug the cable before servicing the machine.
- ☐ Never use flammable liquids or operate machine in or near flammable liquids, vapors or combustible dusts.
- ☐ Should the machine leak liquid or foam, make strange noise or get abnormally hot switch off the machine immediately and take it in for a service.
- ☐ **DO NOT** vacuum materials that could damage filters such as glass or metal shavings
- ☐ This machine should **NEVER** be immersed in water.
- ☐ **DO NOT** use solvent or strong detergents to clean this machine.
- ☐ Store the machine in a well cleaned state and in a cool and dry place.

3. UNPACKING AND SETTING UP

Read safety and operating instructions before commencing operation. Assembly details and information on how to carry out various cleaning operations are outlined below:



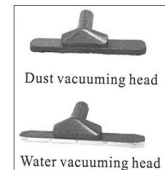
Schematic – General Tank & Tool Configuration

- ☐ Lift the machine out of the box by gently angling the box and pulling the vacuum by its carry handle
- ☐ Insert the flexible hose (D) into the tank inlet (G) and press until you hear a click as it locks into place. Unclip the two clips (K) on the side of the motor head (A) and lift the motor from the tank (L).

USING AS A CONVENTIONAL VACUUM CLEANER

- ☐ **If Dry Vacuuming:** Ensure that the cloth filter (J) and its bag support ring are fitted into the top of the tank (L), replace the motor head (A) back onto the tank and clip into place. Note: Failure to use the fabric filter during dry operation will result in motor failure due to clogging and overheating the motor thereby nullifying the motor warranty.
- ☐ **If Wet Vacuuming:** Ensure that the cloth filter and its support ring (J) have been removed and replace the motor head (A) back onto the tank and clip into place.
- ☐ Screw the top extension wand (F) into the suction hose (D)
- ☐ Fit the two piece extension wands (F&F) together.

- ❑ Select one of the following tools: Dry Floor Tool, Wet Floor Tool, Round Brush, Confined Space Tool or Crevice Tool and fit it to the lower end of wand (F).
- ❑ Your Guarda Vacuum is either a 220-240 volt 50Hz or 110-120 volt 60Hz single phase power (as notated by the product code EV220 or EV110). Check the voltage of the machine matches the voltage output of your power point then plug the machine in. Your machine is now ready to use. The suction power can be adjusted by turning 1 or 2 motors on together or independently. It is important that machine tanks be emptied regularly, preferably after each use.
- ❑ Your Guarda Vacuum comes with tools to use for vacuuming hard floors in both wet and dry applications.



WARNING:

Carbon Monoxide Hazard. The end of the exhaust hose must always be placed outside in a well ventilated area.

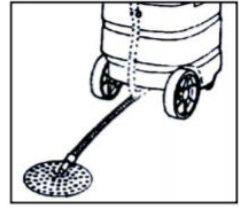
4. EMPTYING THE TANK AFTER DRY VACUUMING

Turn off and unplug your vacuum from the mains power. A build up of dust and debris in the filter bag will result in the filter becoming clogged, which in turn places excessive load on the motor and may lead to it burning out. It's therefore extremely important to empty and clean the filter bag after every use to ensure maximum operating efficiency. From time to time you should also either wash your filter bag with water. Allow it to dry.

- ❑ Debris can be emptied by removing the motor head (A) and cloth filter bag (J), gently shake the filter bag before removing it from the tank (L). If using the system as bagless then carry tank (L) to a disposal area and tip the contents of the tank into the rubbish. Also shake the dust from the filter bag into the rubbish.
- ❑ The filter bag can be removed from the filter ring and washed by hand or washing machine. Ensure the filter is thoroughly dry before refitting to the machine. Fabric filter bags should be replaced at least every 12 months.
- ❑ It is recommended that disposable filter bags be used when vacuuming fine dust. The use of such bags improves the performance of the vacuum, protects the motor and protects operators from excess dust inhalation when emptying the tank.
- ❑ To fit a paper bag filter simply push the cardboard bag support firmly over the internal tank inlet so that it sits snugly in place.
- ❑ To ensure you use the right disposable bag for your vacuum model talk to the team at Guarda, they will provide you with all the part numbers and information you need.

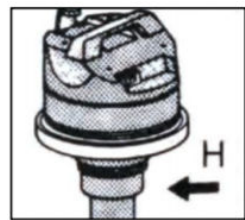
5. EMPTYING THE TANK AFTER WET VACUUMING

- ☐ Turn off and unplug your vacuum from the mains power and wheel vacuum to an appropriate disposal area. Detach head clamps (K), remove head (A) and gently tip fluid from tank. Emptying tank can be done quickly by opening the tank drain hose.
- ☐ Dry the tank thoroughly prior to re-assembly of the machine.



6. CLEANING THE FLOAT

The underside of the motor head is fitted with a float (H) which when wet vacuuming, prevents the container overfilling. The float also prevents the liquid from penetrating into the motor of the machine should the vacuum tip over. In order to keep the machine in good operational condition the float (H) must be cleaned at regular intervals. After wet vacuuming the tank, motor heads, and accessories should be cleaned and wiped dry.



7. MAINTENANCE

If foam or liquid comes from the machine exhaust, switch off machine immediately by isolating at the mains.

- ☐ Check float level device for cleanliness and correct operation.
- ☐ Empty machine after isolating at mains socket
- ☐ Dry the machine body with a cloth before re-using.
- ☐ Should the machine still leak, make strange noises or become abnormally hot stop all use and take it into an approved service agent for repair. Maintenance of electrical components should only be carried out by a certified electrician otherwise return the machine to your nearest Guarda Branch or Service Agent for repair. **Never carry out any repairs without first disconnecting the machine from the mains supply.**

8. DAILY CHECKS OR AT EACH USE

- ☐ Check for correct operation of high water level cut-off float device. Ensure float is free to operate and that the seat on the underside of the motor housing is in good condition. Ensure the float gauze cage is clean and wash out tank with clean water after use. This prevents the buildup of bacteria and unpleasant odours which can become a problem if your machine is left uncleaned for long periods of time.
- ☐ Check machine switch(s) for damage, ensure plastic switch cover is soundly in place.
- ☐ Check that the filter bag is not clogged. Replace filter bag every 12 months or when necessary in high use applications.
- ☐ Check mains cable and plug for damage.
- ☐ Check hoses, extension tubes, accessories for damage or blockage (unseen blockages sometimes occur so check thoroughly).
- ☐ Examine filter bag (replace or clean).
- ☐ Check machine for damage.

9. 1000 HOUR OR 3 MONTHLY CHECK

- ☐ Examine vacuum motors for carbon brush wear. Remove all traces of carbon with a fine dry brush. Ensure no traces of moisture are present.
- ☐ Carry out full electrical safety check.

10. MOTOR REPLACEMENT INSTRUCTIONS

TOOLS AND EQUIPMENT REQUIRED

- ☐ Phillips screwdriver #2
- ☐ Electrical screwdriver - flat
- ☐ Narrow scraper. 20-25mm
- ☐ Gap Filler Rod - 15mm Diameter (see photo)
- ☐ Acrylic Gap Sealant (see photo)



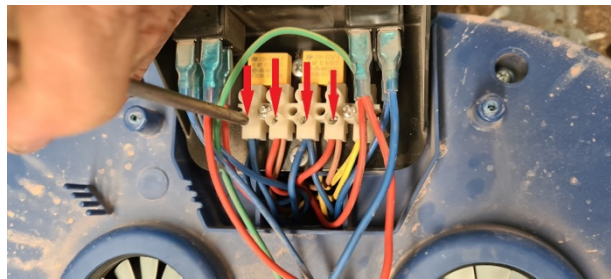
REPLACING THE MOTORS

<p>1. Looking from the top, remove all 12 screws.</p>	
<p>2. Remove the handle.</p>	
<p>3. Remove pipe and 2 x O'rings</p>	

4. Remove the grey cover by unhooking from below the switches as shown, and then lifting up.



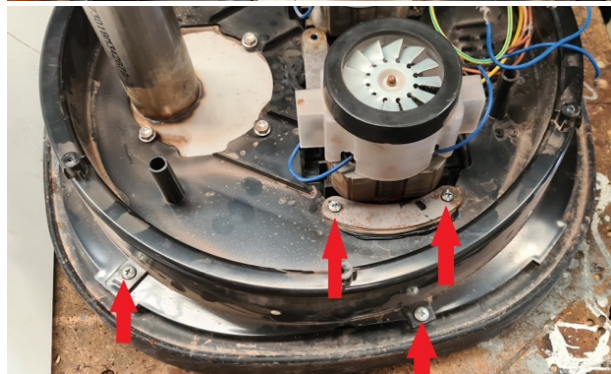
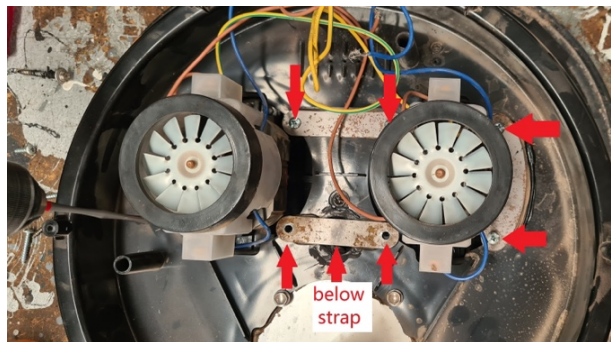
5. Undo the electrical connection to the motors with flat screwdriver.



6. Remove the blue cover.



7. Undo the 8 screws holding the motors and the 7 screws holding down the cowling.



8. Remove cowling and lift out the Motors from the base.



9. Lift out the old seal from the base.



10. Clean the residual seal glue out with a scraper.



11. Reapply the acrylic gap sealer liberally as pictured below.

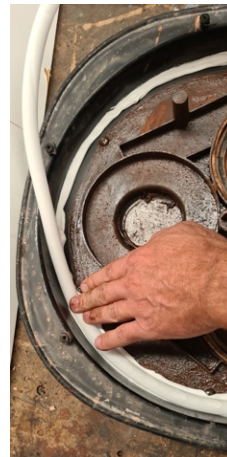




12. Insert a new 15mm diameter gap filler rod as outlined below.

a) Cut square end on filler rod.



b) Applying even pressure around the edge,



<p>c) Cut filler rod to length (5-10mm longer than fit) and</p>	
<p>d) Then push into place.</p>	
<p>13. Remove the rubber seals (these will be situated on the current motor or where the motors sit within the base/cowling) and clean these along with the base and cowling so that all surfaces are clean.</p>	
<p>14. Insert the new motor/s.</p>	
<p>15. For reassembly, follow in reverse from point 8.</p>	

11. TROUBLE SHOOTING

Trouble	Possible Cause	Remedy
Insufficient vacuum	Filter clogged and blocking airflow (dry vacuuming only)	Clean filter and empty tank.
	Tank full with float blocking motor inlet (wet vacuuming only)	Empty tank
	Faulty motor	Return to Guarda Service agent and have motor replaced.
	Hose or tooling are cracked and disrupting suction	Repair and replace as required
	Hose is blocked	Unblock the hose
Vacuum overheats	Filter clogged and blocking airflow (dry vacuuming only)	Clean filter and empty tank.
	Faulty motor	Return to Guarda Service agent and have motor replaced.
Float closes off	Waste water tank is full	Empty waste water tank

Guarda workshop facilities are staffed by experienced technicians providing servicing, repair and manufacturing for a range of products including vacuum cleaners, extractors, fume slurry and dust extraction equipment, pumps and more.

For more information on your product, to book in a service or repair or to order spare parts give Guarda or a Guarda distributor a call or email an enquiry to the email address below.

Email: sales@guardasystems.com

Phone: +61 (08) 9399 1644

12. SET UP FOR USE WITH EDGE POWERCUTTER



What is required?

- A) Guarda Edge Power Cutter C) Pressured Water Supply E) 38mm/1.5" Guarda Slurry Hose*
 B) Guarda Electric Exhaust Vacuum D) Power Outlet 220V/10A F) 50mm/2" Guarda Exhaust Hose**
 (Comes with Kevlar connecting hose) *(Max. length 5m/15ft) **(Max. length 60m/200ft)

Set up procedure

1) Connect Kevlar connecting hose to the Guarda Electric Exhaust Vacuum exhaust port. It has a bayonet type fitting that locks in a clockwise rotation.



2) Connect the 50mm/2" exhaust hose to the Kevlar connecting hose to exhaust the Edge engine fumes outside in a well ventilated place. You can extend the 50mm/2" Guarda Exhaust hose to a maximum of 60m/200feet.



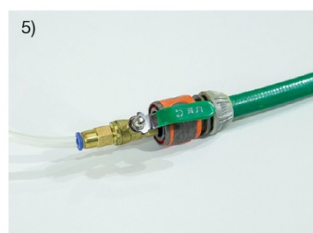
3) Connect 38mm/1.5" slurry hose to the Guarda Electric Exhaust Vacuum inlet. (hose length not to exceed 5m/15 ft between Guarda Electric Exhaust Vacuum & Edge Powercutter.



4) Connect 38mm/1.5" slurry hose to Edge Powercutter.



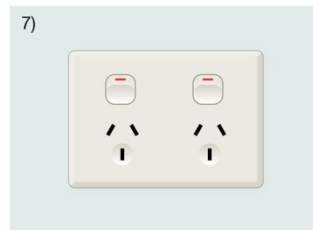
5) Connect water hose to Edge Powercutter



6) Connect water hose to pressured water supply



7) Connect Guarda Electric Exhaust Vacuum power lead to power point.



The end of the exhaust hose must be placed outside in a well ventilated area

13. HOW IT WORKS WITH EDGE POWER CUTTER

IDEAL FOR INDOOR CUTTING APPLICATIONS

Removes silica dust, slurry and exhaust fumes for safe, convenient concrete cutting indoors and out



BENEFITS COMPARISON - GUARDA VS CONVENTIONAL SAWS

	Wet Cutting	Dry Vacuum (LEV)	Guarda (water & vacuum combined)
Silica Dust (Hazardous when breathed in)	Dust contained in water mist	Residual dust released into the breathing zone. Dust present during clean up	✓ Virtually no silica dust detected in breathing zone
Slurry (must be cleaned up after cutting)	100% released onto ground and walls	N/A as no water used	✓ Virtually none (approx 99% captured)
CO fumes (Create a hazard when cutting indoors or in enclosed spaces)	Emitted from exhaust when using petrol saws	None with electric saws. Emitted from exhaust when using petrol saws	✓ Removed safely to outside area
Set up/Clean Up	Slurry clean up required	Dust clean up required	✓ Virtually no clean up required
Cost	Purchase costs can be high. Clean up and disposal costs	Purchase costs can be high especially if 3-phase power required	✓ Value for money to purchase with low operating costs

HOW IT WORKS

