

Powr-Flite®

Pulsar Delta Extractor Pulsar Delta+ Extractor OPERATOR'S MANUAL



PE310-G10-U
PE310-G15-U

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INTRODUCTION



Warranty

Within 30 days of purchase, to activate product warranty, go to: <https://www.powr-flite.com/warranty-registration>



Warning Labels

Prior to operating the unit, read and understand completely this owner's manual paying special attention to warning labels. These labels indicate a potentially hazardous situation that could result in death or serious injury if not avoided. Use only as described in this manual.



Flammability Warning

NEVER fill unit with flammable chemicals. Do NOT use in an area where flammable fumes are present.



State of California Proposition 65 Warnings

WARNING: This product contains one or more chemicals known to the state of California to cause cancer.

WARNING: This product contains one or more chemicals known to the state of California to cause birth defects or other reproductive harm.



Intended Use

Do NOT modify this unit in any way or adapt it for any other use. Modification of this unit in any way will void all warranties and could create safety hazards.

Your new Powr-Flite unit is a high quality, precision-made product. All parts used in the manufacturing of this unit have passed rigid quality control standards prior to assembly. Please safeguard the original receipt/invoice given at the time of purchase. If you experience any problems with your unit during the warranty period, the original receipt/invoice will act as proof of purchase.

Upon receipt, inspect outer box for exterior damage. Unpack all internal parts, ensure all items are present according to the owner's manual, and review components for damage.

Each unit is tested and thoroughly inspected prior to shipping. If damage is discovered, immediately notify the transportation company that delivered your machine and request an inspection. As a manufacturer, we are unable to act upon any claim for concealed damage and you must originate the claim. Be sure to keep the carton, packing inserts, and carrier's receipt until the inspector has verified your claim.

GROUNDING INSTRUCTIONS

DANGER: Improper use of the grounding plug can result in a risk of electric shock.

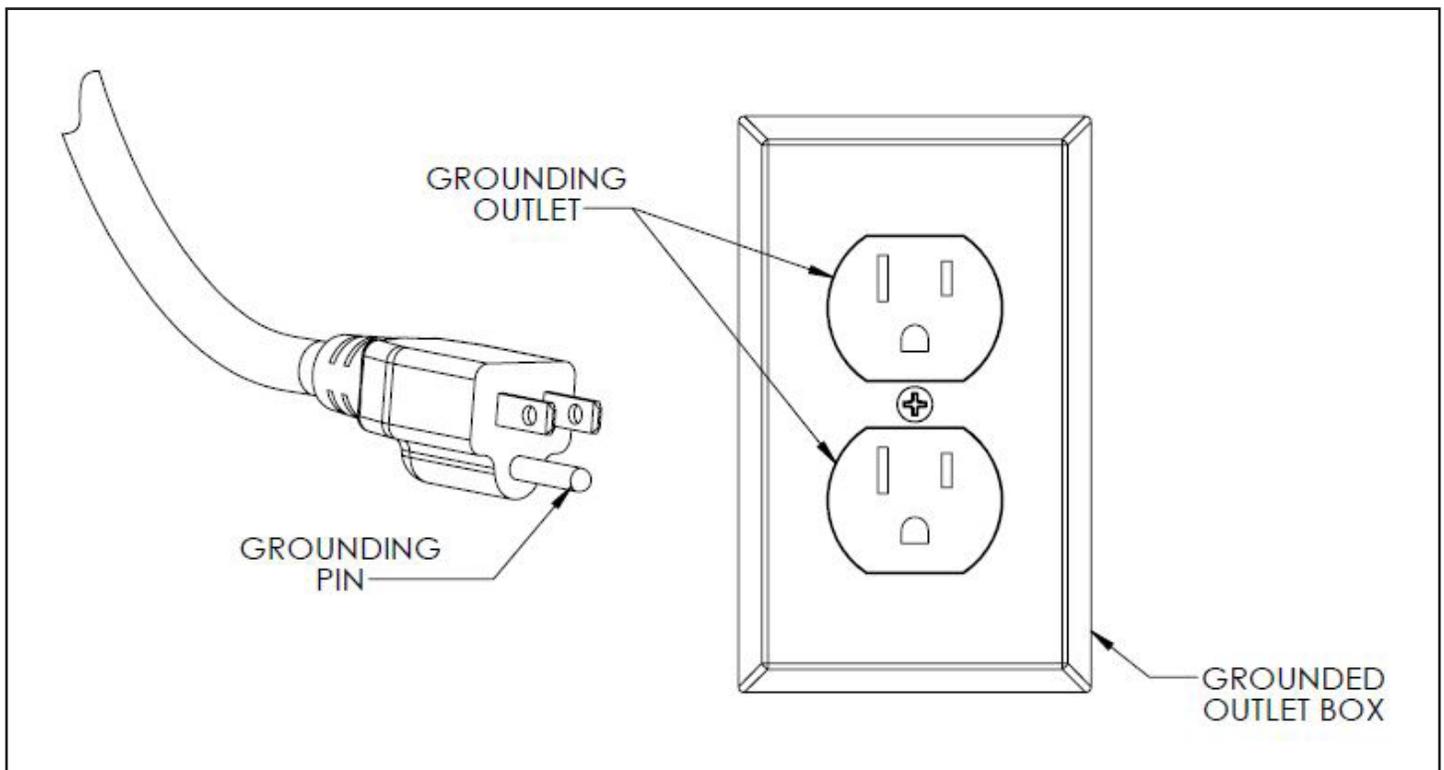
WARNING!

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. DO NOT modify the plug provided with the appliance. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDING METHODS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk electric shock. This machine is equipped with a cord having an equipment -grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This appliance is for use on a nominal 115-volt circuit, and has a grounding plug that looks like the plug illustrated in sketch A.



A

IMPORTANT SAFETY INSTRUCTIONS

READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE USING THIS UNIT

Read and understand this owner's manual and all labels on the unit before operating. Safety is a combination of common sense, staying alert, and knowing how your unit works. Use this unit only as described in this manual. Use only manufacturer's recommended attachments. To reduce the risk of personal injury or damage to your unit use only recommended accessories.

WARNING To avoid fire, DO NOT use with a flammable or combustible liquid or floor cleaner.

WARNING To avoid electric shock, DO NOT expose to rain. Store Indoors.

When using this extractor, basic precautions should always be followed, including the following:

- 1) DO NOT leave unit when plugged in. Unplug from outlet when not in use and before servicing.
- 2) DO NOT allow unit to be used as a toy. Close attention is necessary when used around or near children.
- 3) Use only as described in this manual. Use only manufacturer's recommended attachments.
- 4) DO NOT use with damaged cord or plug. If unit is not working properly because it has been dropped, dropped into water, left outdoors, or damaged in any way, contact a service center
- 5) DO NOT handle plug or appliance with wet hands.
- 6) DO NOT put any objects into openings.
DO NOT use with any opening blocked: keep free of dust, lint, hair, or anything that may reduce air flow.
- 7) Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- 8) DO NOT pick up anything that is smoking or burning such as cigarettes, matches, or hot ashes.
- 9) DO NOT use to pick up hazardous chemicals.
- 10) Turn off all controls before unplugging.
- 11) Turn unit off immediately if foam or liquid comes from machine exhaust. Empty & clean out recovery (dirty) tank and use defoamer to correct the problem.
- 12) DO NOT use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- 13) DO NOT use where oxygen or anesthetics are used.
- 14) Replace damaged or worn parts immediately with genuine original equipment parts to maintain safety.
- 15) This unit must be connected to a properly grounded outlet only. See grounding instructions.
- 16) DO NOT use equipment out of doors or in the rain.
- 17) DO NOT use equipment near or around flammable or explosive materials, fuels, or solvents.
- 18) DO NOT allow the unit to freeze.
- 19) Anyone designated to operate this equipment must, without fail, read and thoroughly understand all instructions and precautions prior to use.
- 20) Never lift the machine by pressure regulator (on heated model).
- 21) Wear safety equipment and clothing to protect from extremely hot water.
- 22) Do not operate in standing water.
- 23) Do not operate equipment under any unsafe condition.

SAVE THESE INSTRUCTIONS

General Instructions for the PE310 Series

Follow these easy step by step instructions to ensure proper operating performance.

1. If you are not pre-spraying the chemical on the carpet, fill up the fresh water solution tank with tap water that is 120°-135° F (49°-57° C) and approved carpet cleaning chemical following the mixing instructions for the chemical being used, into the solution tank. If using the EZ Fill hose option, remove the hose (Fig. 1) from the solution tank and connect the hose to a water faucet.
2. Attach each of the extension cords to a socket (Fig. 2) on the back of unit and twist the plug clockwise to lock it in place.
3. Plug the other end of each of the extension cord into a **separate** grounded 20 amp wall socket circuit. When this is accomplished the green indicator light (#9 Fig. 3) will be lit.
4. Attach the hose system to the unit (#6 Fig. 3) and to your carpet wand.
5. Turn the (2) vacuum switches (#3 Fig.3 and #4 Fig.3) to the “ON” position.
6. Turn the heater switch (#2 Fig.3) to the “ON” position. The Orange indicator light (#8 Fig. 3) is on any time the heater is operating.
7. Turn the pump switch (#1 Fig. 3) to the “ON” position.
8. With the solution line attached to the wand and the machine, prime the pump by squeezing the trigger on the wand releasing the water (hold wand tip over solution tank to put water back into solution tank). This will pump water into the heater and get any air out of the solution line. Let the heater heat up. This will take 3 to 5 minutes.
9. Using the pressure adjustment (#5 Fig. 3) adjust the pressure of the unit to suit your extraction task.
10. When recovery tank is full, empty by using drain hose on the front of machine. If a pail is used to empty the recovery tank, do not use the same pail to fill the solution tank as this can result in putting dirt and grit into the solution line that can plug filters, orifices, and generally degrade the solution line system (do not reuse solution).
11. To empty solution tank, detach the wand from the end of the vacuum hose and insert the vacuum hose into the solution tank. Turn the vacuum switches to the “ON” position and transfer solution to the recovery tank and dispose of as outlined in #10.

5 Amp Circuit Breaker (#7 Fig. 3)

When the pump is clogged, or for some other reason, draws excessive amps, the circuit breaker will trip. If the breaker is tripped, remove any blockage from the lines and reset the breaker.



Fig. 1



Fig. 2



Fig. 3

Maintenance

To receive reliable service from this equipment, regular daily maintenance is a requirement. Fabric cleaning, both carpet and upholstery, are very dirty environments for any equipment. The following recommendations are offered.

1. Keep the equipment clean, both inside and out.
2. Lubricate brass quick disconnects with a quality lubricant such as WD-40®.
3. Flush solution systems after use with clear, clean water. A white vinegar solution may also be used. This will counter-act hard water and alkaline deposits and aid in keeping orifices clean.
4. Do not allow fluid either in solution or recovery tank to sit overnight. The unit should be emptied and cleaned daily.
5. Clean the strainer in the solution tank (Fig. 4) daily.
6. Do not use the same receptacle (pail) to fill solution tank that has been used to remove waste water from recovery tank.
7. When the unit is not in use, leave the tank lids open.
8. At the end of each day, run the vacuum for 3 minutes with lid open.



Fig. 4

Storage of Equipment

1. Store extractor indoors in a dry area.
2. Recovery and solution tank should be empty and clean when the extractor is not in use.
3. Leave the recovery lid and drain hose open to air out the recovery tank.
4. Do not store in freezing temperature.
5. A small amount of windshield washer fluid may be left in the pump and internal solution line for protection against freezing.

Warnings

1. Do not break off or pull the grounding prong on the plug.
2. Do not attempt repair on a machine that is under warranty unless instructions to perform it by an authorized shop are obtained from the factory.
3. Do not use citrus-based (D-Limonene) cleaners in this machine.
4. Do not use cleaning chemicals in this machine except those recommended for steam-type extraction equipment. The use of any chemicals with abrasive additives voids the warranty.
5. Do not use any replacement parts except those specified on the parts list. Performance of the machine could be affected if substitutions are made.
6. Do not use water in excess of 140° F (60° C) through the pump system. It could damage the seals and polypropylene casing of the diaphragm pump.
7. Follow maintenance schedule strictly.
8. Failure to comply with the above warnings instructions will void the warranty.

Troubleshooting Information

ELECTRICAL SYSTEM

PROBLEM	POSSIBLE CAUSE	SOLUTION
No electrical power.	<ol style="list-style-type: none"> 1. Defective power cord. 2. Circuit breaker off or fuse blown. 	<ol style="list-style-type: none"> 1. Replace 2. Turn circuit breaker on or replace fuse. Unplug any equipment using the same circuit.
Switch is turned on. Intermittent power to motor(s).	<ol style="list-style-type: none"> 1. Faulty electrical cable. 2. Defective switches. 3. Loose terminal. 	<ol style="list-style-type: none"> 1. Repair or replace. 2. Replace. 3. Replace.
Electrical Shock	<ol style="list-style-type: none"> 1. Equipment not grounded. 	<ol style="list-style-type: none"> 1. Locate grounded outlet.

VACUUM SYSTEM

PROBLEM	POSSIBLE CAUSE	SOLUTION
Vacuum motor on, low or no vacuum at wand.	<ol style="list-style-type: none"> 1. Drain hose open. 2. Defective vacuum hose Kinks in vacuum hose. 3. Vacuum disconnected. 4. Damaged recovery tank lid. 5. Loose hose connection 6. Vacuum motor exhaust blocked. 	<ol style="list-style-type: none"> 1. Close drain hose. 2. Repair or replace hose. 3. Open machine, connect vacuum hose to recovery tank. 4. Replace tank lid. Recovery tank lid must be closed. 5. Check for leaks around clamps and cuffs vacuum motor. Replace damaged hose(s). 6. Check air flow by removing hose from machine and feel the exhaust under the machine. Remove obstruction.
Motor running and no vacuum and no exhaust from the blowport.	<ol style="list-style-type: none"> 1. Faulty vacuum motor. 2. Float activated. 3. Recovery tank full 	<ol style="list-style-type: none"> 1. Replace. 2. Clean float. 3. Empty recovery tank.
Premature activation of the recovery tank float.	<ol style="list-style-type: none"> 1. Dirty or clogged float. 	<ol style="list-style-type: none"> 1. Clean float.
Foam/dirty solution coming out of vacuum exhaust port.	<ol style="list-style-type: none"> 1. Foam bypassing float. 2. Elbow in vacuum tank is not positioned correctly. 	<ol style="list-style-type: none"> 1. Use additional defoamer. 2. The elbow should be pointed directly at the side wall of the tank.

PUMP SYSTEM

PROBLEM	POSSIBLE CAUSE	SOLUTION
Pump motor runs but no spray through jets.	<ol style="list-style-type: none"> 1. Clogged or faulty solution control valve. 2. Clogged or faulty quick disconnect on housing. 3. Punctured pump diaphragm. 4. Clogged jets 	<ol style="list-style-type: none"> 1. Check intake on valve and remove lint or other foreign material. 2. Depress plunger on solution hose against inside wall of solution tank. If solution is flowing at this point, the system is OK. If no solution flows, check the quick disconnect for lint and other foreign matter. 3. Replace with diaphragm repair kit. 4. Clean jets on wand or tool.
Uneven spray from jet. Spray weak or uneven.	<ol style="list-style-type: none"> 1. Clogged strainer in solution tank. 2. Clogged jet. 	<ol style="list-style-type: none"> 1. Unscrew strainer and remove lint and any other foreign material from screen. 2. Remove and clean.
Leaking or stuck solution valve.	<ol style="list-style-type: none"> 1. Foreign material in valve. 2. Loose brass hex nut. 3. Valve or seals worn 	<ol style="list-style-type: none"> 1. Remove brass hex plug, clean valve and replace. 2. Reseal hex and plug. 3. Replace worn parts with solution valve repair kit.
Pump motor not working.	<ol style="list-style-type: none"> 1. Loose wiring 2. Defective pump pressure switch. 3. Motor burnout 	<ol style="list-style-type: none"> 1. Tighten wiring 2. Replace with new pressure switch assembly. 3. Replace pump motor
Pump pressure low	<ol style="list-style-type: none"> 1. Clogged screens on strainer in solution tank. 2. Punctured pump diaphragm. 3. Pump not primed 	<ol style="list-style-type: none"> 1. Unscrew strainer remove lint and any other foreign material from screen. 2. Replace with diaphragm repair kit. 3. Plug priming hose into solution connection and place end in solution tank. Run pump for 4 minutes.
Pump pressure varies.	<ol style="list-style-type: none"> 1. Worn carbon brushes. 2. Defective pump pressure control switch. 	<ol style="list-style-type: none"> 1. Replace brushes. 2. Replace.

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Record of Purchase



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