

Owner's Manual

HVE3000 Flood Pumper and Inline Booster

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The high-efficiency HVE3000 can be used both as a flood pumper to quickly remove excess liquid water for flood remediation and as an inline truckmount booster to extend the effective vacuum hose length for carpet extraction and cleaning.

Patents: <http://www.LBpatents.com>

READ AND SAVE THESE INSTRUCTIONS

SAFETY INSTRUCTIONS

WARNING



WARNING! Do not alter or modify your HVE3000 in any way. Use only replacement parts authorized by Dri-Eaz Products, Inc. or Sapphire Scientific, Inc. Modifications or use of unapproved parts could create a hazard and will void your warranty. Contact your authorized Dri-Eaz or Sapphire distributor for assistance.

WARNING! Do not operate unit in standing water. Electric shock hazard. Unit must be grounded.

GROUNDING INSTRUCTIONS

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 of electric shock. This appliance 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.

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.

WARNING! Unplug unit before opening cover for cleaning or servicing.

- Inspect the power cord before use. If cord is damaged, do not use. Always grasp the plug (not the cord) to unplug.
- To keep power cords from pulling out of the unit, be sure to insert the plugs firmly into the sockets and engage the cords in the cord clips provided on the back of unit.
- When using both power cords, each cord must be connected to separate 115V/60 Hz circuits protected by Ground Fault Circuit Interrupter (GFCI) devices. Do not use adapters. Never cut off third prong. Do not use extension cords.
- Keep motor and wiring dry.
- Water may eject from the pumpout with considerable force creating hazardous conditions. Always keep outlet capped or connected to hose when unit is plugged in.
- Do not operate with water temperatures exceeding 140°F (60°C).

INTRODUCTION

The HVE3000 is a **portable flood pumper** intended for commercial use. It can be teamed with an extraction tool to remove water quickly and effectively from flooded structures. It is ideal for use in large spaces or multi-level units like hotels, schools, hospitals, factories, offices, and homes.

The HVE3000 can also be used as an **inline booster and prefilter** with a truckmount extractor to provide additional vacuum pressure on long hose runs.

Read this Owner's Manual carefully to learn how to properly operate your HVE3000. Improper use of the machine may create hazardous conditions and may void the warranty.

BEFORE YOU BEGIN

Warranty registration

Visit warranty.drieaz.com or warranty.sapphirescientific.com to register your purchase. Registration allows us to better assist you with using, maintaining or servicing your equipment, as well as to contact you in case we have important safety information concerning this product. If you determine service is required, have your equipment model, serial number and original proof of purchase available and call

your distributor for assistance with obtaining a return material authorization (RMA).

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PARTS IDENTIFICATION

FIG. A: FRONT

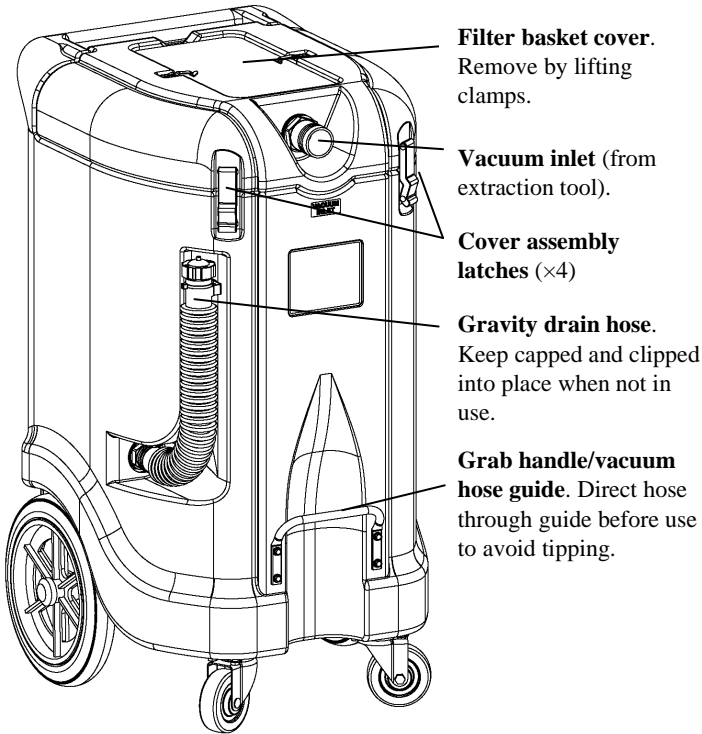


FIG. B: REAR

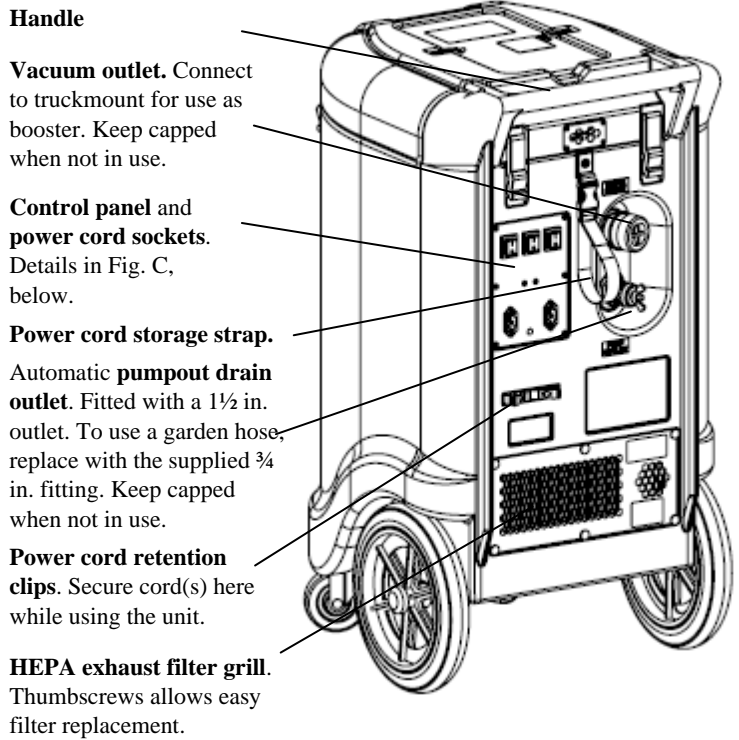
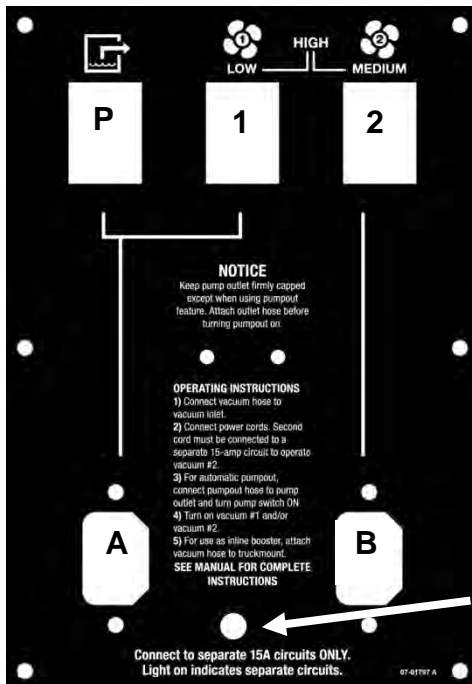


FIG. C: CONTROL PANEL DETAIL



IMPORTANT! BEFORE FIRST USE:

The grab handle/vacuum hose guide (see Fig. A) is shipped inside the filter basket (Fig. D). Remove the guide from the basket and install it as shown using the four screws provided. Do not overtighten the screws. The unit is now ready to be set up as an extractor or booster. Two Velcro straps are also enclosed in the filter basket (Fig. D). Use these straps to secure the extractor hose when not in use.

EXTRACTION MODE SETUP

Remove water quickly and effectively from flooded structures.

1) Connect vacuum hose to vacuum inlet.

2) Connect one or two power cords depending on job requirements. The second cord must be connected to a separate 15 amp circuit.

NOTICE: The power cords of the HVE3000 should be plugged into separate GFCI-protected 115 volt outlets rated for at least 15 amps. Always plug the cord firmly into the base of the unit first and secure the cord into the cord clip.

NOTICE: Connect to two separate 15A circuits ONLY. A bright green light indicates correct connections. No light will show when using only one cord.

3) For automatic pumpout, connect hose to pumpout outlet to pump outlet and turn pump switch ON. Do not use anything smaller than a $\frac{3}{8}$ in. hose, and ensure there are no kinks in the hose. For increased pumpout performance, see "Enhancing Pumpout Performance," p. **Error! Bookmark not defined.**

NOTICE: Before turning the pump on, attach a drain hose and place the end in a suitable drain. Operating the pump without a drain hose in place may cause injury.

NOTICE: Avoid contact with water draining from the pump outlet. Water is pressurized and may exit the unit with force. Water may contain chemicals or contaminants that can be a health hazard upon contact.

4) Turn on vacuum blower(s) to LOW, MED or HIGH. The machine can operate with either one or both blowers running. For maximum vacuum performance, turn on both Blower 1 and Blower 2.

For use as truckmount extraction booster, see "Booster Mode" below.

NOTICE: Keep truckmount outlet capped when not in use.

EXTRACTION OPERATION TIP

- Place the HVE3000 as close as possible to the end of the hose run nearest the wand or other extraction tool. This position will maximize the vacuum provided by the unit.

TRUCKMOUNT BOOSTER SETUP

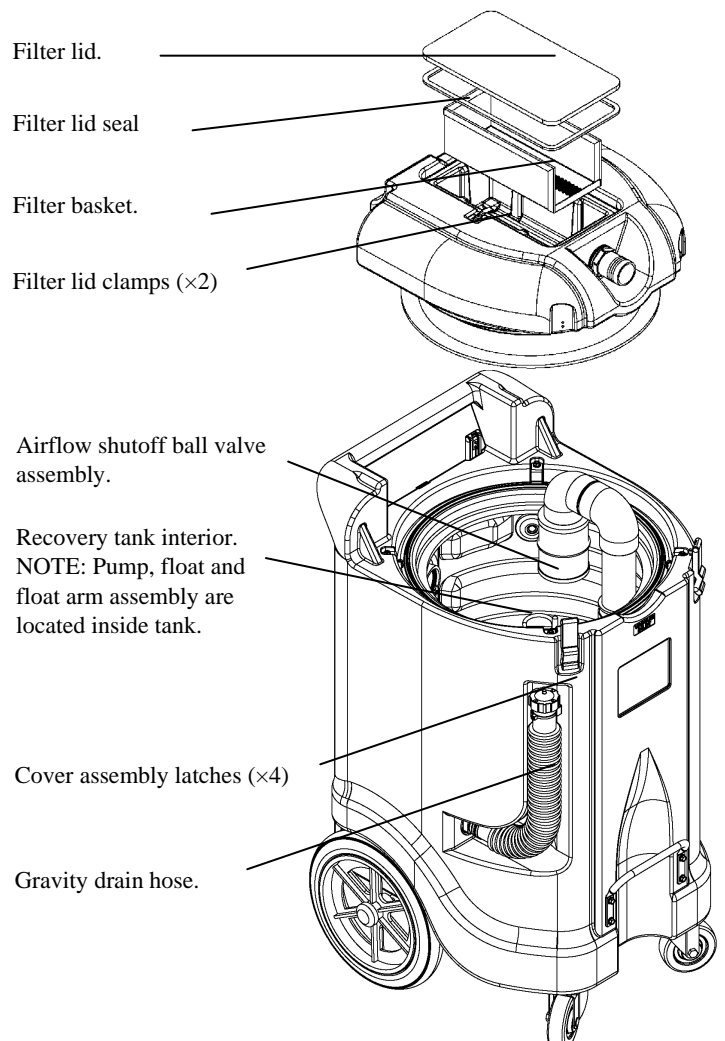
Use in conjunction with a truckmount extractor to provide additional extraction power. **The HVE3000 has been tested to boost vacuum on hose runs as long as 300 ft. (90 m). To maximize performance, we recommend using the shortest runs as possible.**

NOTICE: Do not attempt to operate the unit with a truckmount producing vacuum pressures greater than 12 in. water (40.6 kPa). Doing so could damage the unit and will void the warranty.

NOTICE: Do not operate with water temperatures exceeding 140° F (60° C). Doing so could damage the unit and will void the warranty.

1) Connect vacuum hose to vacuum inlet.

2) Connect one or two power cords depending on job requirements. The second cord must be connected to a separate 15 amp circuit. A green light indicates the unit has been correctly connected to separate circuits.



WARNING: The power cords of the HVE3000 should be plugged into separate GFCI-protected 115 volt outlets rated for at least 15 amps. Always plug the cord firmly into the base of the unit first and secure the cord into the cord clip.

NOTICE: Connect to two separate 15A circuits ONLY. A bright green light indicates correct connections. No light will show when using only one cord.

3) Connect pumpout hose to pump outlet and turn pump switch ON. For maximum pumpout performance, we recommend using the unit with a 1½ in outlet hose. See “Maximizing pumpout performance” below.

4) Attach vacuum hose to truckmount via vacuum outlet.

5) Turn on vacuum blower(s) to LOW, MED or HIGH. The machine can operate with either one or both blowers running. For maximum vacuum pressure, turn on both Blower 1 and Blower 2.

TRUCKMOUNT BOOSTER OPERATION TIP

- Place the HVE3000 as close as possible to the end of the hose run nearest the wand or other extraction tool. This position will maximize the vacuum boost provided by the unit.

Maximizing pumpout performance

The sump pump outlet of HVE3000 is equipped with a 1½ in. barbed hose fitting for use with a 1½ in. drain hose (hose purchased separately). Because the internal pumpout system is plumbed with 1½ in. lines, use of a large-diameter drain hose will help to ensure maximum pumpout performance.

The HVE3000 may also be used with a standard garden hose. Simply replace the 1½ in. fitting with the ¾ in. reducer fitting supplied with your unit and attach the garden hose.

NOTICE: Before turning the pump on, attach a drain hose and place the end in a suitable drain. Operating the pump without a drain hose in place may cause injury.

NOTICE: Avoid contact with water draining from the pump outlet. Water is pressurized and may exit the unit with force. Water may contain chemicals or contaminants that can be a health hazard upon contact.

Airflow shut-off

The HVE3000 will automatically shut off airflow to the blowers when the recovery tank is full. This prevents water and debris from entering the motors. When the recovery tank becomes excessively dirty, or if there is too much foam in the tank, the float may not function properly. When the blowers emit a high-pitched whine, it is likely means that the ball float has engaged and that the tank is full and needs to be emptied, or that

excessive foam is present. When this occurs, check the tank and empty it if necessary, and use a defoamer any time foam is present.

MAINTENANCE

WARNING! ELECTRIC SHOCK HAZARD. Unplug the unit before performing any maintenance.

Before each use

Inspect the electrical cord for damage. Look for fraying, cuts, etc. Do not use the unit if you find any damage. Call 800-932-3030 to locate the nearest service center.

Check the filter basket and HEPA filter (Fig. D). Performance is greatly reduced when either filter is clogged.

Check the sump pump float valve (Fig. D). Remove any clogs or obstructions to the float mechanism.

Check the manual drain hose for clogs or kinks.

Check all hose fittings. Look for cracks, debris, and damaged threads or seals.

Check ball float valve. Ensure cover screen is clean.

After each use

Clean filter basket and top cover. Release cover clamps, remove the cover, and lift out basket. Rinse basket, basket basin, and cover with water to clean. (Clean also as needed during use.)

Clean recovery tank, float valve, and airflow shutoff valve.

1. Release four cover assembly latches and lift off cover assembly (see Fig. D). With gravity drain hose directed into a suitable drain, remove any accumulated debris and wash recovery tank interior with an all-purpose detergent. Rinse interior with fresh water. Allow the unit to drain completely through the gravity drain hose.
2. Slide airflow shutoff ball valve assembly downward off of the vacuum standpipe (Fig. D; see also “Remove float ball assembly,” p. 7). Rinse valve assembly clean. Make sure the float ball moves freely inside the cage and is free of any debris. Replace ball valve assembly.
3. Wipe off pump, float, float arm assembly and tank interior with a damp cloth. Allow tank interior and cover assembly to dry completely before replacing the cover assembly.

To maintain appearance, wipe interior and exterior surfaces with a damp cloth. For deep cleaning and to add a protective shine to the exterior, use Dri-Eaz MicroGuard Cleaner and MicroGuard Protectant or a similar automotive interior treatment.

Monthly

Use an **all-purpose silicone spray** to lubricate wheels, castors and latches. Take care to wipe up any excess spray, as it may create slippery surfaces.

As needed

Replace HEPA filter. Replace when the filter is visibly dirty. To access the filter, remove the filter cover plate thumbscrews and lift off the plate. Replacement filters are sold in packs of four. Ask for Dri-Eaz part no. F503 or Sapphire part no. 20-054.

Special Maintenance Tasks

To ensure proper operation, we recommend the following maintenance based on hours of use. In excessively dusty or dirty conditions, it may be necessary to perform these tasks more frequently.

Blower motor replacement 1000 hrs

Order the motor brush replacement kit, Dri-Eaz and Sapphire part no. S506. Complete instructions are provided with the kit.

Pump Inspection and service 1000 Hrs

Tools required

- 3/8 in. nut driver or socket with a 6 in. extension and a ratchet.
- 3/32 in. socket
- 15/16 in. open end wrench
- Short handled screwdriver

Remove the cover assembly and inspect the recovery tank for any remaining water. If necessary, wipe out the tank with a towel.

Loosen hose clamp on float valve assembly and slip off assembly.



Loosen cord clamp on inside wall of tank with the 15/16 in. wrench, and pull in approximately two feet of cord or until the cord shows resistance.



Remove float ball assembly.

Note: It is not necessary to remove the float ball assembly to access the pump. However, we recommend removing the assembly and cleaning it every time you inspect and clean the pump.

To remove the float ball assembly, loosen lower the hose clamp on the float ball assembly and remove assembly.



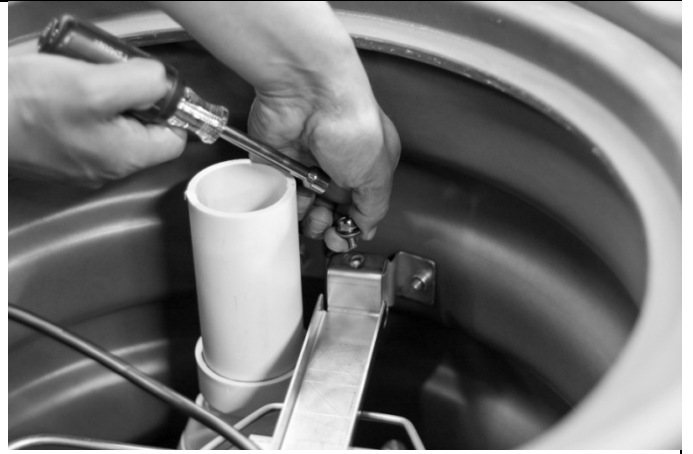
If you are servicing the float ball assembly, use a Philips screwdriver to remove the float ball housing retaining screw and remove the float ball housing. Rinse all components clean and ensure float ball moves freely inside housing. Reinstall float ball housing.



Loosen upper pump outlet hose clamp and pull the hose off the outlet.



Using the 3/8 in. socket, Remove bolts on both ends of the cross-brace. Lift off brace.



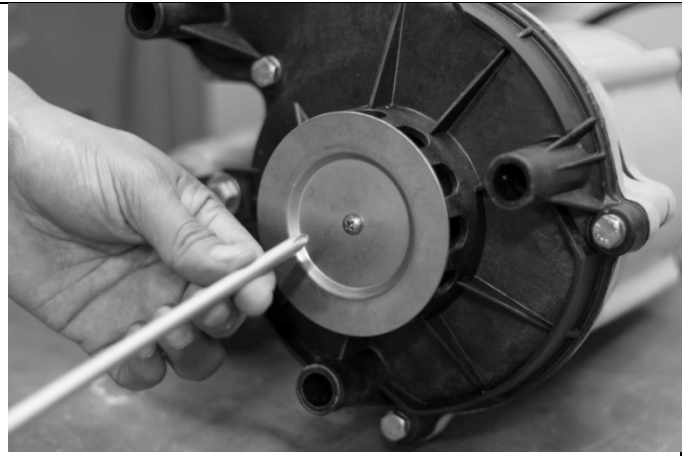
Inspect float assembly. Check float and float shaft and float switch arm for smooth operation. Clean as necessary.



Fold up the pump handle and lift out the pump for inspection. Rest the pump on a table or other stable surface placed next to the unit. There is no need to disconnect the wire harness.



Using a Philips screwdriver, remove the pump intake cover retention screw and the plate from the bottom of the pump. Clean off any debris from intake area. Replace plate when finished.



Wipe out tank with a clean rag.



Reassembly

Lower pump back into bottom of tank and fold handle down. Ensure that the pump feet are firmly seated.

Replace pump retention bracket.

Push excess power cord back through cord grip and retighten grip. The cord should be slack, but should not dangle down and interfere with the operation of the float or the float arm assembly.

Reinstall the float ball assembly.

Replace the cover assembly.

The unit is now ready to use.

SPECIFICATIONS

07-01782B
Warranty 07-01804

Model	HVE3000 High Volume Extractor
Weight	132 lbs. 60 kg
Dimensions (H × W × D)	40.2 × 22.5 × 24.8 in. 102.1 × 57.2 × 63.0 cm
Power (115V)	12A (Blower 1 + Pumpout); 13.5A (+ Blower 2)
Tank capacity	12 gal. 45 l
Maximum performance ratings:	
Blower 1 (low blower)	8 in. Hg (108 in. H ₂ O)
Blower 2 (high blower)	10 in. Hg (136 in. H ₂ O)
Both blowers	12 in. Hg (164 in. H ₂ O)
Pumpout discharge rate (1½ in. outlet)	50 gpm
Pumpout discharge rate (¾ in. outlet)	12 gpm
Safety approvals	
Specifications are subject to change without notice. Some values may be approximate.	

Warranty information is available at www.dri-eaz.com or www.sapphirescientific.com.

Be sure to visit warranty.drieaz.com or warranty.sapphirescientific.com and register your purchase to ensure you receive any important product releases.

PURCHASE / COMPRA / ACHAT

Purchase date / Fecha de compra / Date d'achat : _____

Serial number / Número de serie / Numéro de série : _____

Distributor / Distribuidor / Distributeur : _____ Tel. / Tel. / Tél. : _____

MAINTENANCE / MANTENIMIENTO / MAINTENANCE

DATE FECHA DATE	SERVICE PERFORMED SERVICIO PROPORCIONADO MAINTENANCE EFFECTUÉE	PERFORMED BY PROPORCIONADO POR EFFECTUÉE PAR