V115 PUMP OUT MANUAL

AC12H

REVISED: 7-23-08

Introduction

Congratulations on your purchase of the Hydro-Force V115 Pump-out. The V115 is designed to give performance combined with versatility. Years of experience, engineering, and planning have gone into the design and manufacturing of the V115. We take a great deal of pride in the V115 Pump-out; our goal is no less than your complete satisfaction.

This manual will provide users with the knowledge required to operate the V115 Pump-out safely, to understand how to properly operate and maintain the machine, and to ensure that the equipment operates at its maximum performance level.

All users must read and understand this manual completely before operating the machine.

Always maintain this manual in legible condition adjacent to the V115 Pump-out, or place in a secure location for future reference.

Any questions pertaining to the operating or servicing of this unit should be directed to your nearest Hydro-Force distributor.

This manual is written specifically for the V115 Pump-out units manufactured by:

Hydro-Force
4282 S 590 W
Salt Lake City, UT 84123
801-268-2673
801-268-3856 FAX

Information in this manual is subject to change without notice and does not represent a commitment on the part of Hydro-Force or its parent or affiliated companies.

Technical Specifications

V115 Pump-out
Height: 18-1/2”
Length: 15”
Width: 14-3/8”
Weight: 28.4lbs.
Tank Capacity: 11 gallons

Pump-out Pump: **Little Giant 115VAC 8-20 gpm**
Maximum psi 11.4 – Maximum pumping height 26 ft.

Power Draw: **5.00amps Waste Pump**

Standard Equipment
V115 Pump-out Tank Unit
Pump-out Hose: 50’ x 3/4” with male & female garden hose fittings

AH65
50’ X 3/4” Pump Out Hose

Additional / Optional Equipment

Extra Pump-Out Hose 3/4" x 50':	**AH65**
Replacement SS Filter:	**AC11S**
GFCI Protected Extension cord 12/3 x 50':	**NM4407**
Extension Cord 12/3 x 50':	**AX33**
Shockbuster - External GFCI Protector:	**AX126**
2" Cool Cuff Starter Cuff	**AH45**

AH65
50' X 3/4" PUMP OUT HOSE

AC11S
SS FILTER SCREEN

NM4407
50' X 12/3 CORD WITH GFCI

Cord color may vary.
(Black or yellow depending on vendor stock and availability.)

AX33
50' X 12/3 EXTENSION CORD

AH45
2" COOL CUFF STARTER CUFF

AX126
SHOCKBUSTER GFCI

Section

1

Safety

CAUTION! This machine is an electrical appliance. Care must be taken to reduce the risk of electrical shock.

- **READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE OPERATING THE V115 Pump-out.**
- To reduce the risk of property damage or injury, repairs to electrical systems should only be performed by experienced technicians. Contact your distributor for assistance.
- Unplug machine power cord from outlet before performing any repairs on the pump-out.
- Plug unit into grounded outlets only. Do not remove ground prong from plug. **Use of a Ground Fault Circuit Interrupting (GFCI) device will reduce the risk of electrical shock.**
- Do not use the V115 Pump-out in standing water or on wet surfaces.
- Do not store the V115 Pump-out in wet conditions.
- If V115 Pump-out is leaking, unplug power cord from outlets before approaching or touching machine.
- Do not unplug power cord by pulling on the cord. Grasp the plug when unplugging the cord.
- Do not pull the V115 Pump-out by the cord.
- If cord or plug is damaged, do not use cord. Replace with new cord or repair as needed before use.

WARNING! This machine must be protected from conditions which may damage the pump, tank, hoses and other components.

- **Freezing of water in this machine will cause serious damage**. The V115 Pump-out and hoses must be protected from freezing temperature. Store, transport, and use this equipment only in temperatures well above freezing. (32ºF or 0ºC). If you suspect the V115 Pump-out has been frozen, do not plug in or turn on machine until you are sure it has thawed completely.

- If the equipment cannot be stored or transported in a warm environment, it can be guarded from freezing by running an anti-freeze solution through the pump. The V115 Pump-out is filled at the factory with anti-freeze to eliminate damage during shipment in cold weather.

- The V115 Pump-out must not be used to pump flammable or combustible materials or used in areas where these materials may be present.

- Rinse the V115 Pump-out tank and pump with fresh water after each day's use.

- Do not allow pump to run dry. Do not by-pass the float switch to operate the pump.

- Examine the pump-out hose before each use and replace or repair hose as needed.

- Clean the V115 Pump-out tank daily to keep pump-out pump from becoming clogged.

- Keep Vacuum Filters clean and check float switch for proper operation.

- Drain V115 Pump-out tank before moving unit. Lift using only the handle or support tank from underneath.

- Water may be spilled, drip, or be exhausted from discharge port or hose connections during operation. Place unit in area where water will not cause damage or use drop cloth to protect surfaces.

Section 2

Operation Procedures

Knowledge of the proper operation of the V115 Pump-out is required to ensure user safety and efficient performance of the extractor.

SET UP AND OPERATION

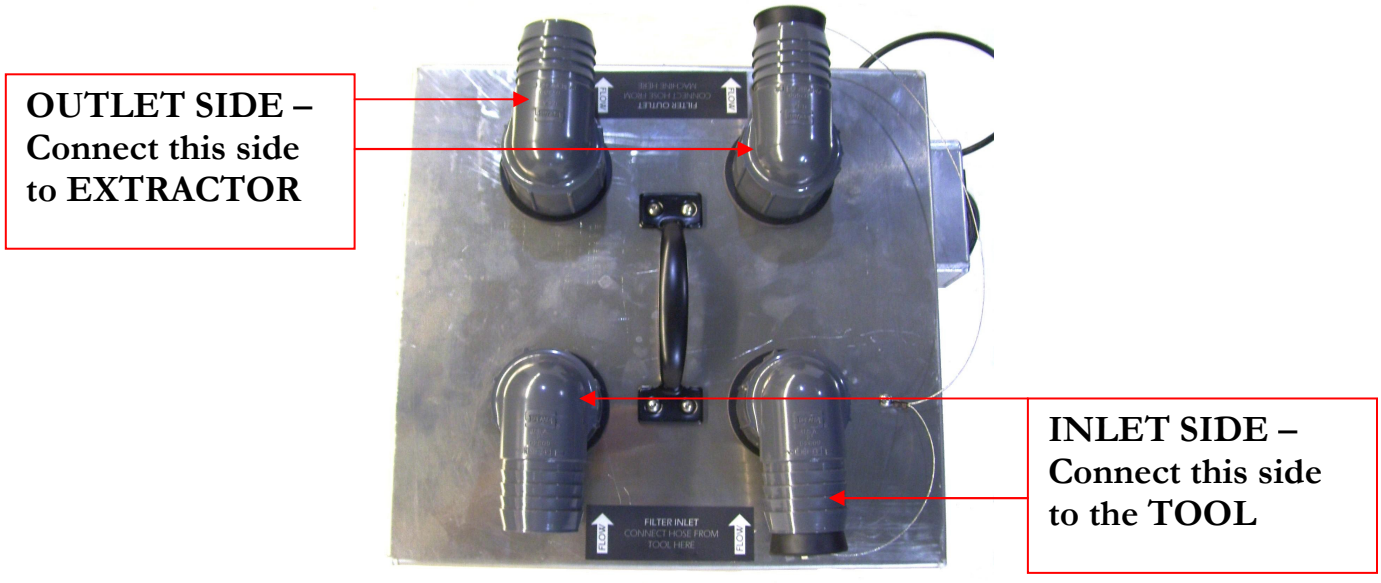
Vacuum Hose Connection:

Connect the hose cuff from the 2" vacuum hose coming from the cleaning tool to one of the 2" hose barbs on the inlet side of the V115 Pump-out. If you are using two tools the second hose can be connected to the other barb. If you are only using one tool keep the rubber stopper in the second barb. Arrows indicate the direction of the airflow from the tool to the extractor.

Connect the hose cuff from the 2" vacuum hose coming from the extractor to one of the 2" hose barbs on the outlet side of the V115 Pump-out. If you are using two tools the second hose can be connected to the other barb. If you are only using one tool keep the rubber stopper in the second barb.

For "4 to the Door" operation connect two 2" vacuum hoses to the barbs on the outlet side of the V115 Pump-out tank. A single 2" vacuum hose can run from one inlet port to the tool.

Adapters can be used to connect Cool Cuffs to the V115 Pump-out. Connect 2" Cool Cuff Starter cuffs (AH45) to the 2" hose barbs on the inlet side of the V115 Pump-out. Then connect your 2" Female Cool cuffs. Standard 2" hose cuffs can still be used on the outlet side of the V115 Pump-out.



Electrical Connection:

Plug an extension cord into an 115v AC wall outlet. Use a GFCI protected outlet, a GFCI protected cord or an external GFCI device to reduce the risk of electrical shock.
The V115 Pump-out only draws 5amps of power so most household outlets will safely handle the load.
If a circuit breaker trips during operation, reset the breaker and move the cord to another outlet as needed.

Connection of Pump-out Hose:

The pump-out hose is a 50' section of 3/4" garden hose.

- Remove the cap from the pump-out discharge port fitting on the side of the tank.
- Connect the pump-out hose to the discharge port fitting.
- Place the other end of the hose in a commode or drain connected to the sanitary sewer system.
- Secure hose end to prevent movement during pumping.

When ready to begin cleaning, turn the V115 Pump-out power switch to the ON position.

- **Do not turn on waste pump switch unless pump-out hose is connected and has been routed to a proper drain.**

Pump-out Hose – AH65
3/4" id X 50' with M-F Garden Hose Fittings

DISCHARGE PORT

Connect the Female Garden Hose Fitting end of the Pump-out Hose to the pump-out discharge port fitting on the side of the tank. Place the other end of the pump-out hose in a sanitary drain.

Shutdown Procedures:

- Turn the V115 Pump-out power switch to the OFF position and disconnect the power cord.
- Disconnect the pump-out hose from the discharge port fitting and replace the cap.
- Roll up the pump-out hose toward drain to remove remaining water from hose.
- Connect ends of hose together to prevent dirty water from dripping from hose during transport.
- Disconnect the vacuum hoses.
- Clean the filter screens as needed. Replacement filter screens are available (AC11S.)
- Empty the remaining water from the tank and rinse out the tank.
- Disconnect the power cords from the outlets and from the machine.
- Roll up all hoses and cords. Collect and store V115 Pump-out, all tools, and accessories.

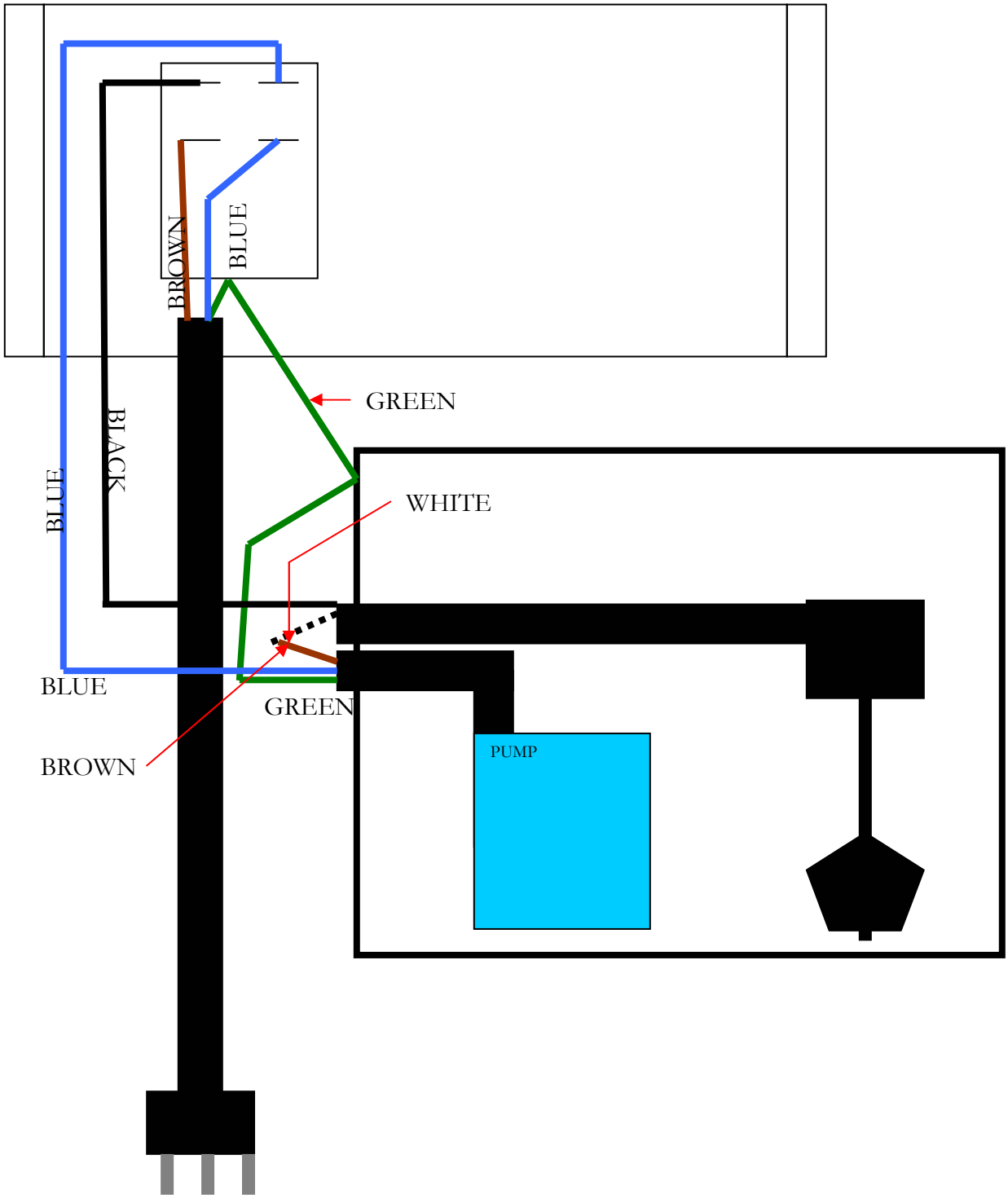
Troubleshooting

Troubleshooting – V115 Pump-out

Problem	Cause	Solution
Pump-out not working	Building circuit breaker tripped.	Reset breakers or move cords to other outlets. Repeated tripping of breaker may indicate a short circuit. Check cord and unit wiring and repair before using pump-out.*
	GFCI tripped	Reset GFCI, replace GFCI or move to other outlet Repeated tripping of GFCI may indicate a short circuit. Check cord and unit wiring and repair before using pump-out.*
	Faulty power cord	Replace cord (AX33 or NM4407)
	Faulty switches or internal wiring	Check wiring & test switch - Repair as needed * (NM5008)
	Pump-out pump faulty	Replace pump-out pump (NM5053)
	Pump-out pump clogged	Clean pump-out – Clean filter screens - Keep tank clean
	Outlet check valve stuck	Clean or replace check valve
	Discharge hose restricted	Un-kink, clean out or replace hose
	Float switch stuck	Clean switch make sure float slides up & down easily
	Float switch faulty	Replace float switch (NM5054)
*	To reduce the risk of fire electrical shock or injury repairs to wiring should only be performed by experienced service technicians. If you are not experienced in checking electrical wiring contact your nearest authorized service center to perform tests and repairs to cords, wiring and switch.	

- Contact your distributor for additional troubleshooting assistance, to order parts, or for advice and assistance in performing necessary repairs.

V115 Pump-out Wiring Diagram



Section 3

Maintenance

Proper maintenance is required to keep the V115 Pump-out operating properly, prevent downtime and to extend the life of your equipment.

WARNING: Disconnect electrical power before performing any service or maintenance inside switch box or before testing or repairing the pump, switches or power cord. Failure to do so may result in severe personal injury or death.

CLEAN THE FILTERS:

Build-up of debris in the Stainless Steel filters will reduce the vacuum air flow and may cause a significant decrease in water recovery. A damaged filter screen will allow debris past the filter and into the pump-out tank. This debris can clog the Waste Pump and the Float Switch Assembly. Clean the filter screens after each use and replace the filters if damaged.

CLEAN THE TANK:

Build-up of fine silt and debris can damage the Waste Pump. Clean out the tank on a regular basis to extend the life of these components as well as keep the tank looking and smelling better.

- Remove the tank lid and lay the tank on its side near a drain.
- Use a hose to rinse the dirt and debris out of the recovery tank.
- Close the drain valve and spray the tank with a deodorizer or disinfectant.
- Dispose of the dirty water and debris.
- Clean the outside surface of the tank.
- Wipe off the cord and hose. Examine hose and cord after each use and repair or replace as needed.

CLEAN WASTE PUMP-OUT PUMP:

Build-up of fine silt inside the Waste Pump can clog the pump.

- After cleaning out the tank, remove the cap from the discharge port and connect the Pump-Out hose to the discharge port fitting on the side of the tank; run the hose to a drain..
- With the cord plugged in, turn the Pump-out power switch to the ON position.
- Use a hose to fill the tank to the point where the float switch turns the Waste Pump ON.
- Let the pump run until it pumps the level down to the point when the float switch shuts off the Waste Pump.
- Unplug the cord and turn the Pump-out power switch OFF.
- Disconnect the hose and place the cap on the discharge port fitting.
- Tip the tank over and drain out the remaining water. Scoop out and dispose of the debris.

Storage Prep and Freeze Protection Procedures:

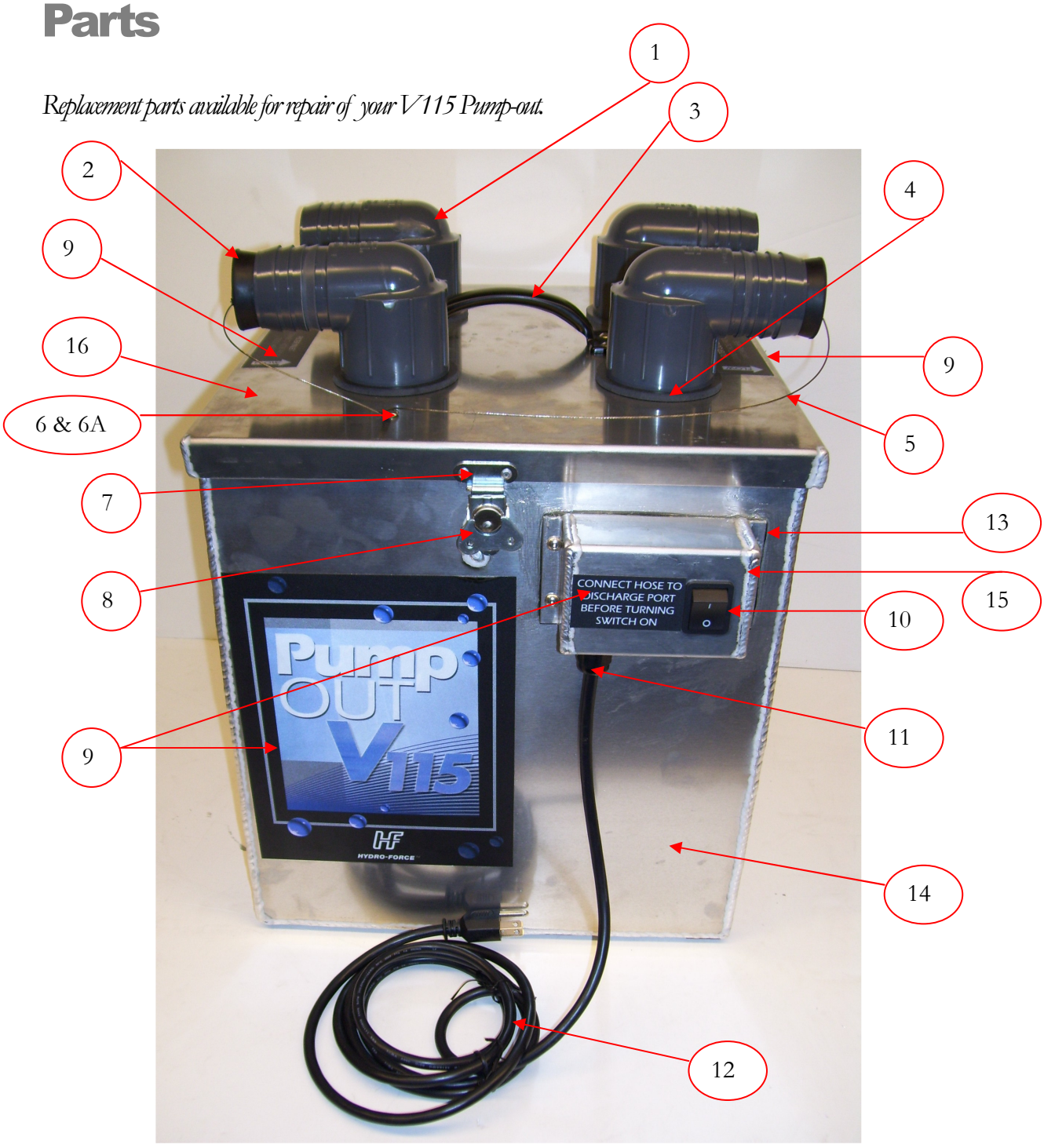
Your V115 Pump-out must be protected from freezing. Freezing can cause serious damage to the pump, and any other component containing water. If the V115 Pump-out is transported or stored in freezing temperatures, the following procedures should be performed.

1. In the Pump-out tank mix 1/2 gallon of water with 1/2 gallon of non-toxic RV anti-freeze. (Propylene glycol)
2. Remove the cap from the discharge port fitting on the side of the tank. Connect a hose to a drain or hold a bucket up to the fitting to catch the pump-out flow.
3. Remove the lid from the Pump-out. Turn the Pump-out power switch to the ON position and lift the float switch to engage the pump-out. Lower the float and turn off the Waste Pump Switch as soon as you see anti-freeze flowing from the outlet fitting or hose.
4. Drain the remaining anti-freeze solution from the tank. Remove the hose and place the cap back on the discharge port fitting and the V115 Pump-out is ready for storage.

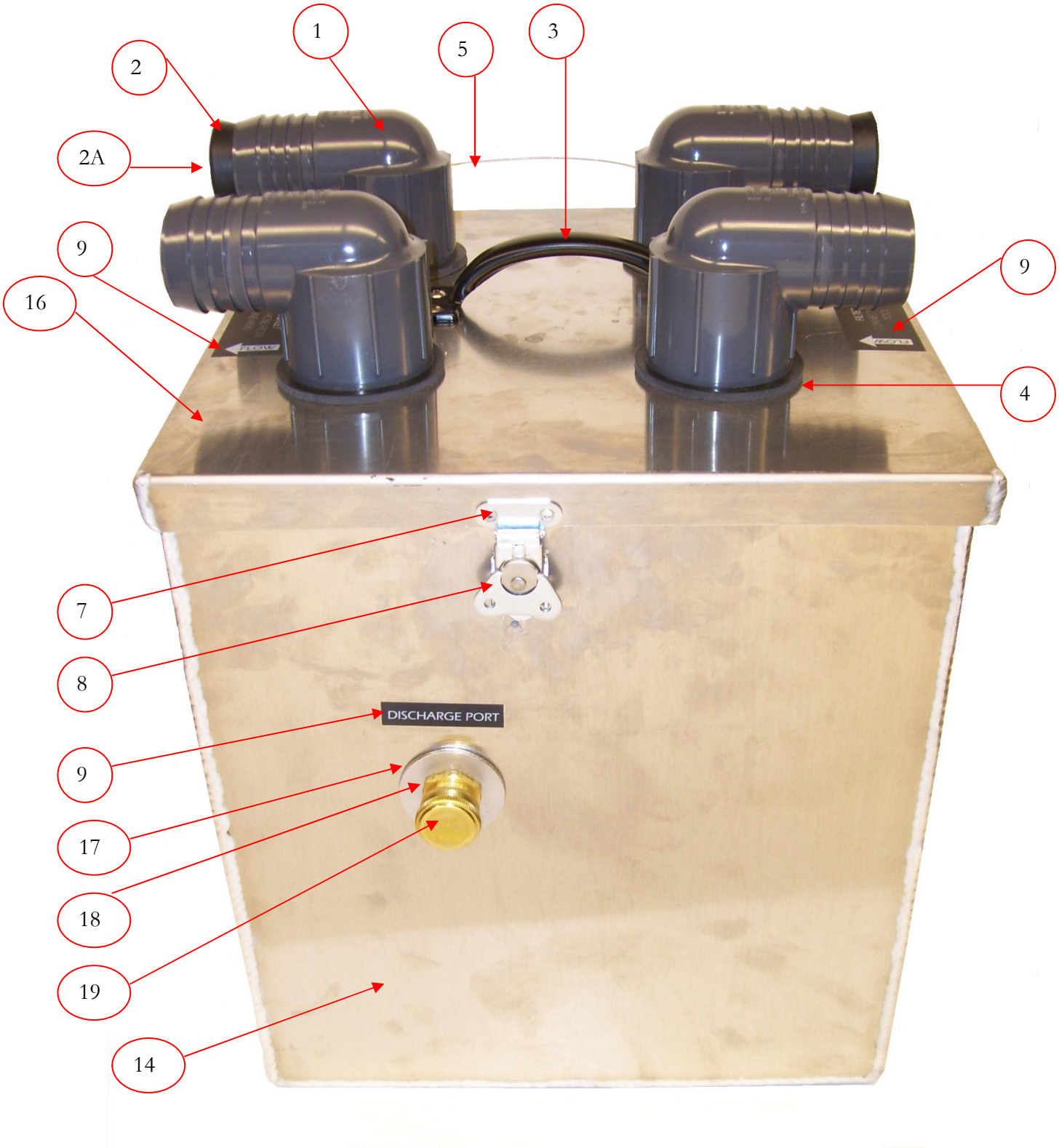
To return the V115 Pump-out to service, the anti-freeze does not need to be flushed from the machine. The small amount of remaining anti-freeze will be removed with the waste water during operation.

Parts

Replacement parts available for repair of your V115 Pump-out.



PARTS SHOWN ON PAGE #14		
	PART #p	**DESCRIPTION**
1	PHY052-222	**ELBOW 90° 2" FPT X 2" BARB (QTY 4)**
NS	PHY052-219	**ADAPTER 2" MPT X 2" SLIP PVC (QTY 4)**
2	PHY106-028	**PLUG VAC STOPPER (QTY 2)**
2A	NM4263	**SCREW TEK #10 X 5/8" SS (QTY 2)**
3	NA041	**HANDLE (QTY 1)**
NS	NM4061	**SCREW 10-32 X 1/2" SS BHCS (4 for Handle)**
NS	NM4081	**NUT 10-32 HEX NYLOCK SS (4 for Handle)**
4	PHY052-015	**GASKET ADAPTER ELBOW (QTY 4)**
5	NM4460	**CABLE - Sold per foot (QTY 2.5 ft)**
NS	NM4462	**CABLE CRIMPS (QTY 3)**
6	NM4061	**SCREW 10-32 X 1/2" SS BHCS (1 for Cable)**
6A	NM4081	**NUT 10-32 HEX NYLOCK SS (1 for Cable)**
7	NS121	**LATCH HOOK (QTY 2)**
8	NS120	**LATCH (QTY 2)**
NS	NS116	**RIVETS 1/8" (QTY 8)**
9	LAC12H	**LABEL SET – 5 PIECES**
10	NM5008	**ROCKER SWITCH – DPST (QTY 1)**
11	NM5051	**STRAIN RELIEF 3/8" MPT (QTY 3)**
NS	NM5239B	**NUT STRAIN RELIEF 3/8" FPT (QTY 3)**
12	NS130	**POWER CORD 16/3 X 8' (QTY 1)**
13	NM4456	**GASKET SWITCH BOX (QTY 1)**
14		**PUMP OUT TANK – ALUMINUM (QTY 1)**
NS	NM4464	**1" X 4" ADHESIVE PADS (QTY 6)**
15		**SWITCH BOX – ALUMINUM (QTY 1)**
16		**PUMP OUT LID – ALUMINUM (QTY 1)**
NS		**GASKET – Sold per Foot (QTY 5.25 ft)**
NS	PP05-008002	**ADHESIVE FOR LID GASKET – 10.3 fl oz**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DISCHARGE PORT
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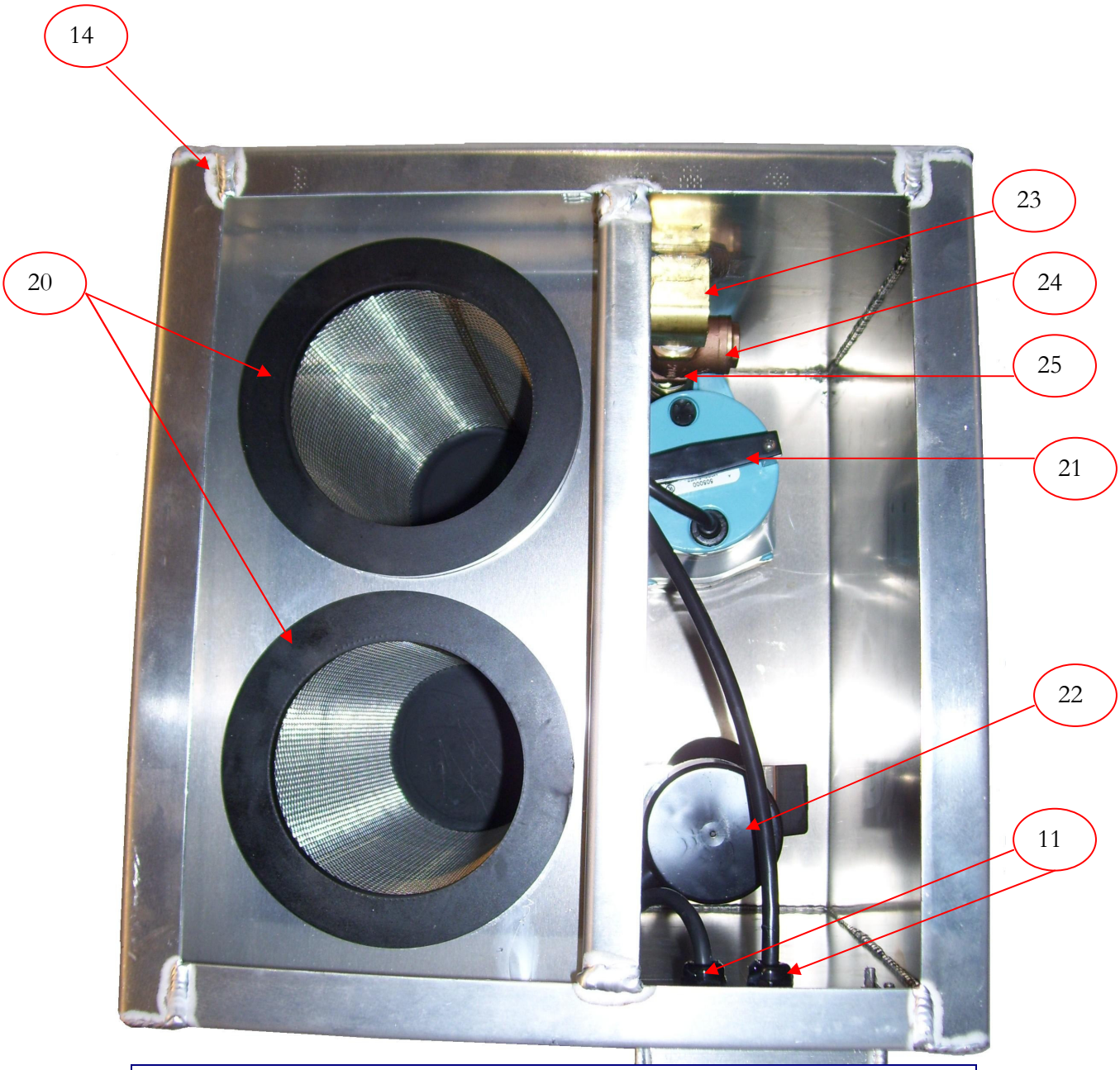
PARTS SHOWN ON PAGE #16		
	PART #	**DESCRIPTION**
1	PHY052-222	**ELBOW 90° 2" FPT X 2" BARB PVC (QTY 4)**
NS	PHY052-219	**ADAPTER 2" MPT X 2" SLIP PVC (QTY 4)**
2	PHY106-028	**PLUG VAC STOPPER (QTY 2)**
2A	NM4263	**SCREW TEK #10 X 5/8" SS (QTY 2)**
3	NA041	**HANDLE (QTY 1)**
NS	NM4061	**SCREW 10-32 X 1/2" SS BHCS (4 for Handle)**
NS	NM4081	**NUT 10-32 HEX NYLOCK SS (4 for Handle)**
4	PHY052-015	**GASKET ADAPTER ELBOW (QTY 4)**
5	NM4460	**CABLE - Sold per foot (QTY 2.5 ft)**
NS	NM4462	**CABLE CRIMPS (QTY 3)**
7	NS121	**LATCH HOOK (QTY 2)**
8	NS120	**LATCH (QTY 2)**
NS	NS116	**RIVETS 1/8" (QTY 8)**
9	LAC12H	**LABEL SET – 5 PIECES**
14		**PUMP OUT TANK – ALUMINUM (QTY 1)**
NS	NM4464	**1" X 4" ADHESIVE PADS (QTY 6)**
15		**SWITCH BOX – ALUMINUM (QTY 1)**
16		**PUMP OUT LID – ALUMINUM (QTY 1)**
NS		**GASKET – Sold per Foot (QTY 5.25 ft)**
NS	PP05-008002	**ADHESIVE FOR LID GASKET – 10.3 fl oz**
17	NM4264	**WASHER 2" X 1" SS (QTY 1)**
18	BR319	**ADAPTER MGH X 3/4" MPT (QTY 1)**
19	BR325	**CAP GARDEN HOSE (QTY 1)**
NS	BR600	**RUBBER WASHER (QTY 1)**



PARTS SHOWN ON PAGE #18		
	PART #	**DESCRIPTION**
11	NM5051	**STRAIN RELIEF 3/8" MPT (QTY 3)**
NS	NM5239B	**NUT STRAIN RELIEF 3/8" FPT (QTY 3)**
14		**PUMP OUT TANK – ALUMINUM (QTY 1)**
NS	NM4464	**1" X 4" ADHESIVE PADS (QTY 6)**
20	AC11S	**SS FILTER SCREEN (QTY 2)**
21	NM5053	**PUMP OUT PUMP (QTY 1)**
22	NM5054	**FLOAT SWITCH ASSEMBLY (QTY 1)**
23	NM5094	**ELBOW 90° 3/4" STREET (QTY 1)**
24	NM5052	**CHECK VALVE 3/4" FPT (QTY 1)**
25	BR078	**NIPPLE 3/4" HEX (QTY 1)**

Section 4

Limited Warranty

Your V115 Pump-out is designed to give you years of reliable service. If a problem should arise use the troubleshooting section in the operation manual to diagnose and correct the problem if possible.

If you are unable to determine the cause or solution to the problem contact your distributor or Hydro-Force for assistance.

All components of the V115 Pump-out are warranted to be free of defects in material and workmanship for one year from the date of purchase.

During the warranty period, Hydro-Force will, at its option repair or replace components which prove to be defective. This warranty does not provide for replacement of complete units due to defective components. Any costs for transportation or related service labor are not covered in this warranty. Replacement parts are warranted only for the remainder of the original warranty period.

This warranty shall not apply to defects resulting from improper operation, lack of maintenance, unauthorized modification, chemical incompatibility, misuse, abuse or exposure to freezing temperature conditions. It does not cover normal wear items such as filter screens, hoses, cords or other items which require replacement as a result of ordinary usage.

To obtain warranty service for the V115 Pump-out, contact your distributor or Hydro-Force. If the unit must be returned to Hydro-Force or an authorized service center, the purchaser shall prepay shipping charges for products returned for warranty service. No returned items will be accepted by Hydro-Force without prior authorization. All returns must have a return authorization number, issued by Hydro-Force, clearly marked on the exterior of the package.

Hydro-Force makes no other warranty either expressed or implied with respect to this product.

The remedies provided herein are the purchaser's sole and exclusive remedies. In no event shall Hydro-Force be liable for any direct, indirect, special, incidental or consequential damages.

This warranty gives you specific legal rights. You may also have other rights which vary from jurisdiction to jurisdiction.