

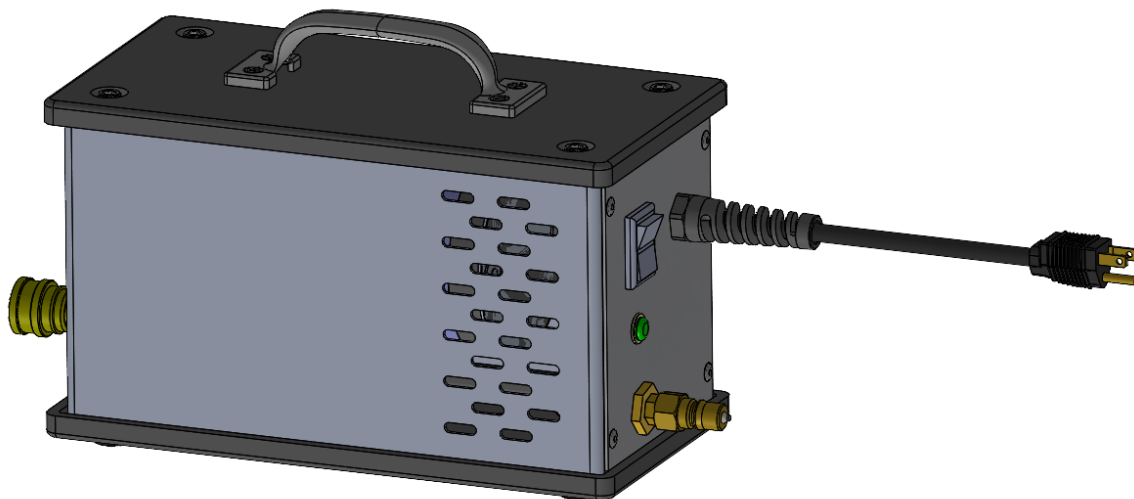
# User's Manual – Heat Force Inline Heater

<b>Description</b>	<b>Hydro-Force Heat Force Inline Heater</b>
<b>Item #</b>	<b>2645-8428</b>
<b>PID</b>	<b>282445</b>

Give your cleaning jobs a boost by dramatically increasing your water temperature with the Heat Force Inline Heater from Hydro-Force. The Heat Force easily connects to any portable extractor from a basic spotting machine up to and including the 1200 psi hard surface extractors. Simply stated, heat cleans better, and hotter water (combined with proper procedure) means better cleaning efficiency and shorter dry times.

This unit comes complete with a high pressure high temp solution hose including quick connects and a GFI power cord to ensure fast easy setup and take down. The Heat Force is compact and lightweight, and its stainless steel construction will hold up to the rigors of everyday use.

- Internal operating temperatures up to 190° F
- Lightweight at only 17 lbs with heavy duty easy grab handle
- Rubber non-marking feet so unit can be set safely on any surface.
- Stainless steel construction for durability and industrial look
- 115 VAC, 1750 W, 15A heater with industrial grade heater core.
- 25' 12 gauge power cord
- 8' high temp high pressure solution hose with quick connects
- Rocker power switch with power indicator light



## Introduction

This manual will provide users with the knowledge required to operate the Heat Force Inline Heater 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 Heat Force Inline Heater, 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 Hydro-Force Heat Force Inline Heater units manufactured by:

Aramsco

4282 South 590 West

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

Weight 16 lbs

Heater 120 VAC 60Hz 1750W

## Safety, warnings and precautions

READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE OPERATING THE HEATER.

The Hydro-Force Heat Force is intended for commercial use only. This heater is intended for providing hot water solution for the purpose of cleaning. It is not designed for providing hot water for food, cooking, or other uses.

Alteration or changes to heater may result in injury or fire. Repair and maintenance must be performed by a qualified technician. Part replacement with OEM parts only.

Do not exceed working pressure of 1200psi (8.2MPa).

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

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 heater.

This machine shall be grounded while in use to protect the operator from electric shock. The heater is provided with a three-conductor cord and a three-contact grounding type attachment plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect this wire to other than the grounding pin of the attachment plug.

This heater is for use on a nominal 120-volt circuit and has a grounding plug. Make sure that the heater is connected to an outlet having the same configuration as the plug. No plug adapter should be used with this machine.

The power cord supplied with this heater are properly sized to handle the electrical load of this machine and properly grounded as described above. Additionally, this cord is equipped with GFI protection. Any extension cords used with this machine must be similarly sized with an equal or greater load rating, grounded to assure safe operation, and have GFI protection.

Heater will draw between 14 and 15 Amps use 20 Amp power outlets to ensure adequate electrical current.

Do not use the Heater in standing water or on wet surfaces. Do not store the heater in wet conditions.

Do not unplug power cord by pulling on the cord. Grasp the plug end when unplugging the cord. Do not pull the heater by the cord. If cord or plug is damaged, do not use cord. Replace with new cord or repair as needed before use.

Overloaded circuit may not always trip circuit breaker. Reduced voltage to a machine on an overloaded circuit will prevent components from operating properly.

Do not use a heater with excessive leakage. Internal wiring must not become wet from leaks as this may result in electrical shock. If heater is leaking internally or becomes wet disconnect electrical power before approaching or touching heater. Make proper repairs and ensure heater is dry before putting back into service.

This heater must be protected from conditions which may damage any of the components.

Freezing of water in this heater will cause serious damage. Store, transport, and use this equipment only in temperatures above freezing. (32°F or 0°C). If the heater cannot be stored or transported in a non-freezing environment, it can be guarded from freezing by running an anti-freeze solution through the incoming water lines (see instructions for doing so in the Nautilus or Olympus User's Manual). Anti-freeze solution must be completely flushed from the heater before use. Alternatively compressed air may be used connected to the heater to blow water out of heater to prevent freezing damage. Make sure to flush out antifreeze or air before turning heater on.

Solvent-based or water-based solutions containing solvents may damage components. Do not assume chemical compatibility. Contact your distributor or Hydro-Force if you have questions regarding the compatibility of your chemicals with the machine.

High pressure hoses may rupture if worn or damaged. Do not use high pressure solution hoses if hose covering is cut, bulging, or otherwise damaged. Examine high pressure solution hoses daily and replace or repair hoses as needed.

Use common sense to protect yourself and others while using this equipment.

Hose connections and other surfaces may become hot. Allow heater to properly vent or radiate excessive heat away. Do not cover heater or place in a non-vented enclosure when in use.

Keep pets and children away from the heater is in use.

Always wear appropriate work clothing and safety equipment when operating heater.

Water may be spilled, or drip during operation. Place unit in area where water will not cause damage or use drop cloth to protect surfaces.

## Set up and operation

Follow all the instructions for using your Nautilus or Olympus machine.

Make sure to place the heater on the floor on a level surface away from stairways or places that it may fall. Make sure heater is in a well-ventilated area to allow excessive heat to dissipate. Also place where any spillage or leaks do not damage flooring or put proper protection beneath the heater.

Using the 8' high pressure hose that comes with the heater connect the heater to the Nautilus or Olympus. Attach the pressure hose connection to tool that will be used to the heater.

Use the extension cord with GFI to provide power to the heater. Make sure to use a separate circuit that is used for either cord that powers the Nautilus or Olympus. The heater will need to be on a 20 Amp circuit as it may trip a 15 Amp breaker.

Turn on the solution pump on your Nautilus or Olympus machine and run solution until any air is out of the system.

To prevent damage to the heater, the heater must have water in it before it is turned ON. Connect solution hoses and run solution through heater before turning it ON.

Turn the heater on and allow to come to temperature (about 3 to 5 minutes). Light will come on when the heater switch is turned on and has power.

While the heater allows for maximum internal operating temperature of approximately 190°F, the temperature of the cleaning solution delivered to the tool will vary depending on several factors. These include the temperature of the solution being supplied to the heater, the flow rate of the solution, the length of the hose being used, and other factors.

## Shutdown

Turn the heater off before finishing each job and allow cooler solution to flow through heater. This will allow the water to cool the heater as you finish the job.

Relieve pressure in heater by turning off source and opening valve on tool to relieve pressure.

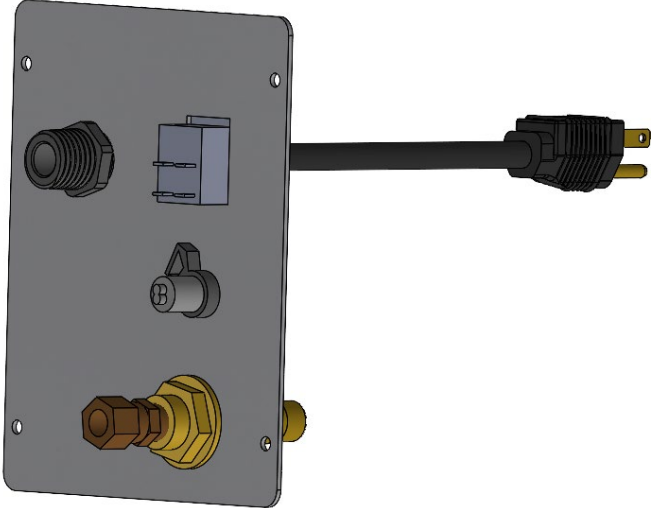
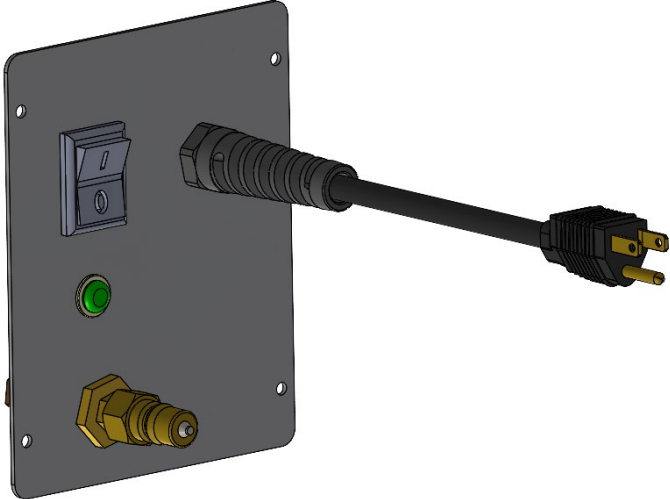
Disconnect hoses and power.

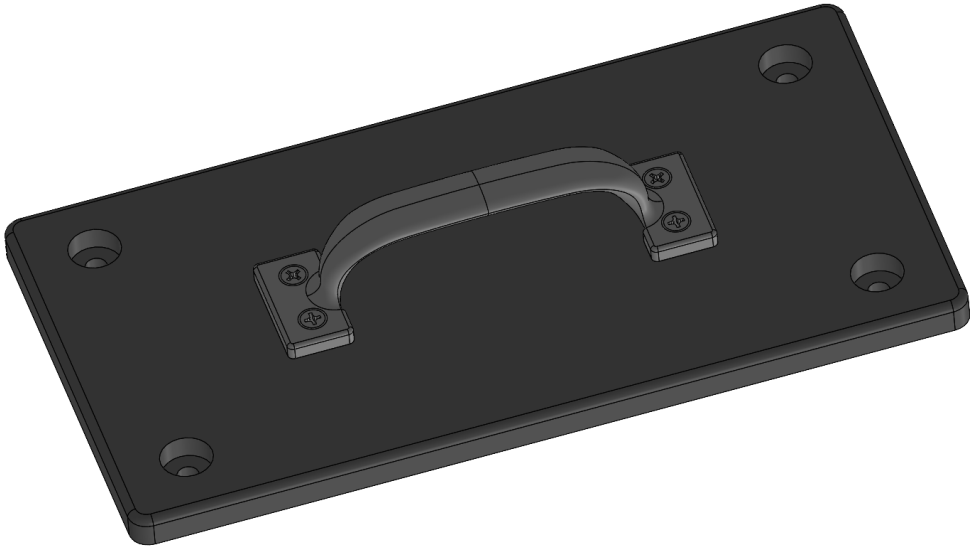
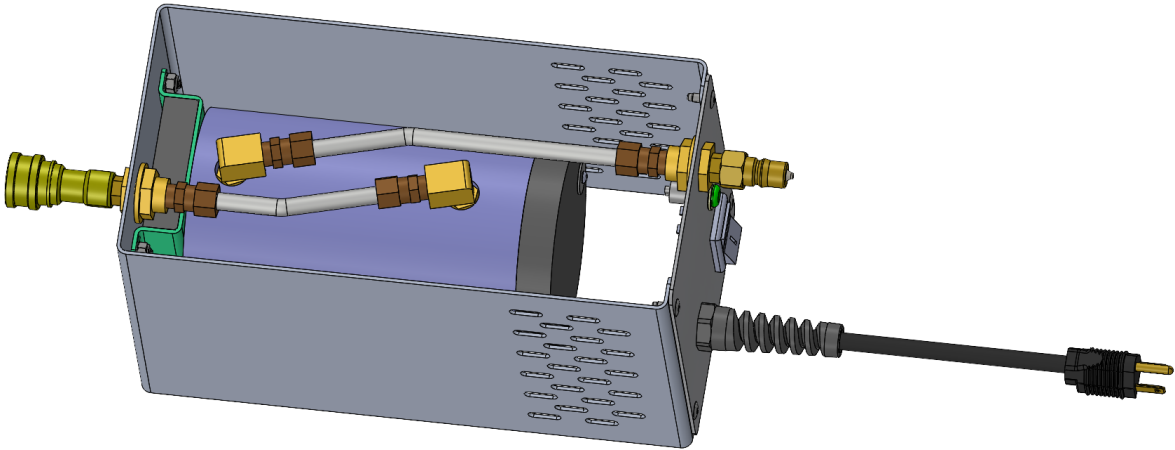
## Parts

Need parts list

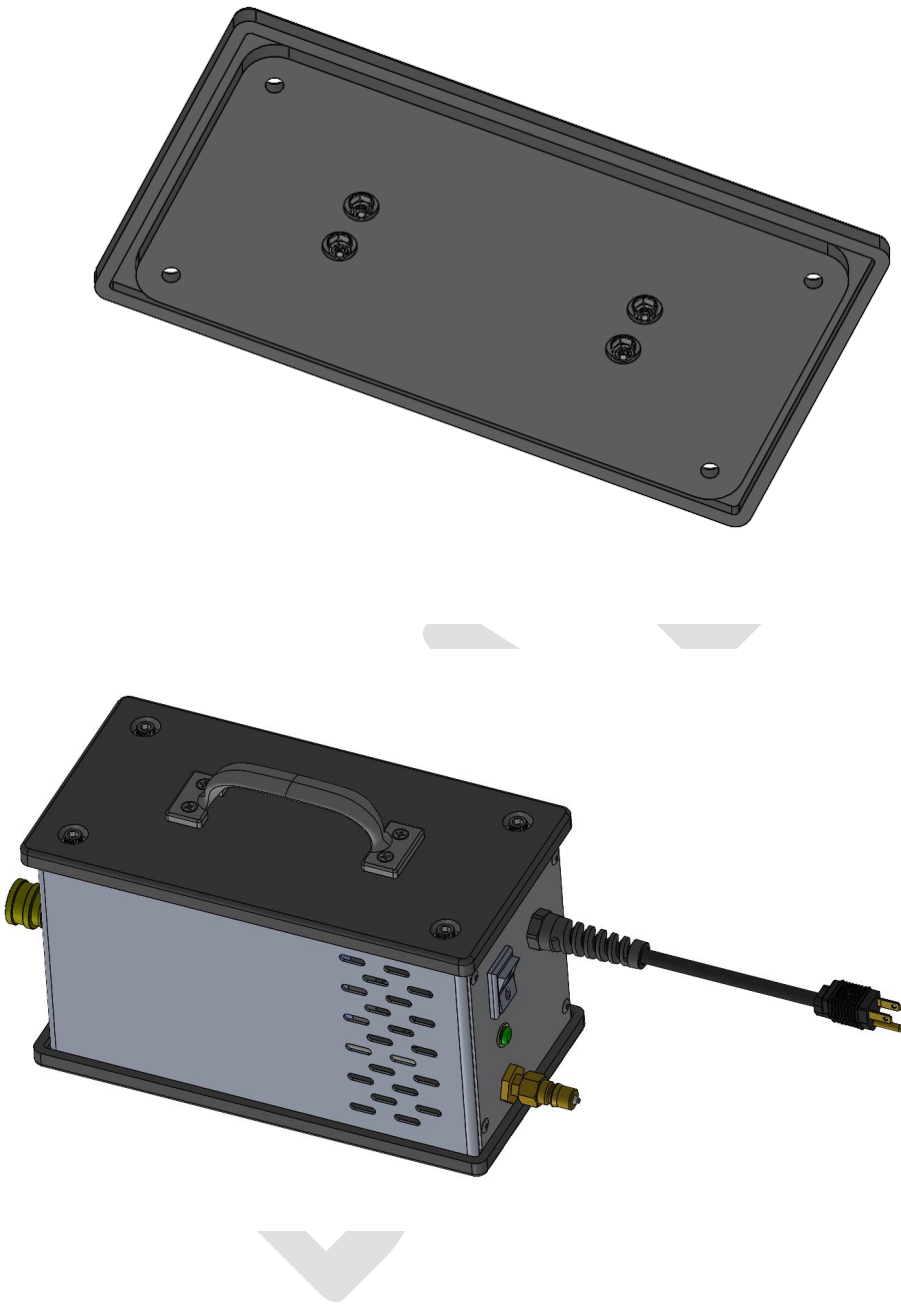
Item	Part#	Description
1	S-2672-0274	HEATER CORE - SUB ASSEMBLY
2	2693-7627	HOUSING FRAME
3	2696-7620	CONTROL PLATE
4	1658-2025	SWITCH ROCKER SINGLE
5	1643-2027	GREEN LIGHT
6	1654-3567	HOSE CLAMP BLACK
7	2694-7628	HEATER BOX TOP
8	1641-1415	ADAPTER
9	1653-0382	ELBOW 90-DEGREE STREET
10	1609-2025	STRAIN RELIEF
11	1662-2514	POWER CORD
12	1683-0679	BULKHEAD FITTING
13	1625-0324	AH101B HYDROFORCE QUICK CONNECT 1/4" FM
14	1626-0325	AH102B HYDRO FORCE QUICK CONNECT 1/4" MALE
15	2628-8821	3/8 THICK WALL STAINLESS STEEL TUBE (OD .375")
16	2629-8822	SS SOCKET HEAD SCREW
17	2622-8926	FLAT WASHER SS
18	2630-8623	BUMPER / FOOT NON-MARKING
19	2623-8927	HANDLE
20	2626-8920	PHILLIPS FLAT HEAD SCREW
21	1698-2403	WASHER FLAT SS 5/16
22	1602-2410	NUT NYLOC SS
23	2628-8922	PAN HEAD PHILLIPS SCREW SS
24	1698-2403	WASHER FLAT SS 10
25	1602-2410	NUT NYLOC SS
26	1680-0070	NIPPLE HEX
27	2629-8923	FITTING BRASS TUBE COMPRESSION
28	2630-8027	RIVET
29	1603-2219	ELECTRICAL TERM SPADE FEM
30	2634-5342	WAGO CONNECTOR
31	1642-3360	black wire 14 GA
32	1605-2211	ELECTRICAL WIRE SPLICE
33	LB301	Decal
34		8' SOL HOSE HYDRCL GRAY 1/4 With QD fittings M and FM
35	1690-1656	GFI CORD AUTO RESET

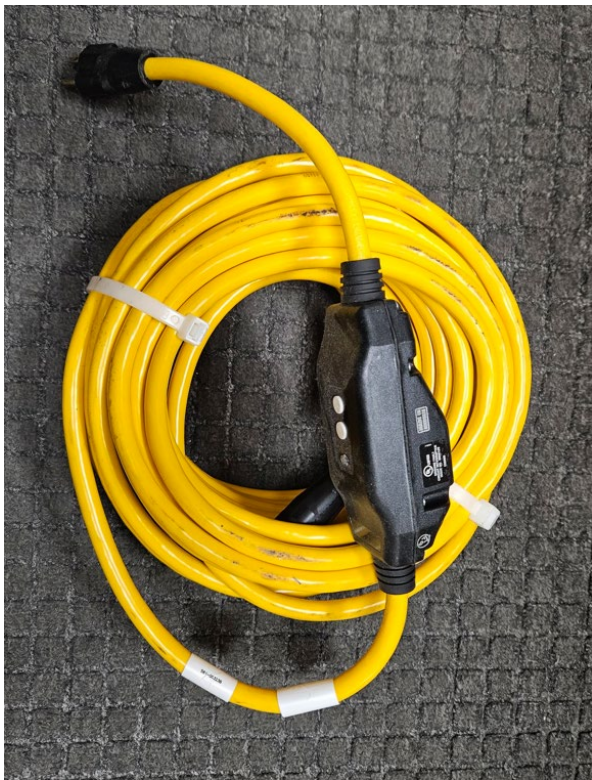
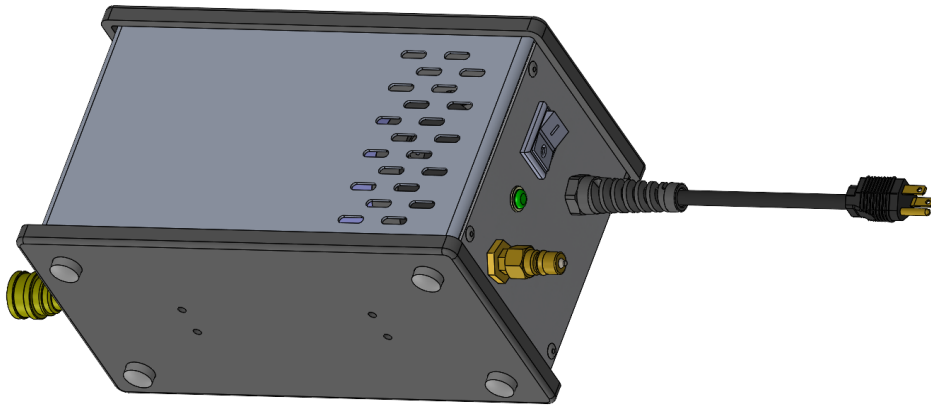
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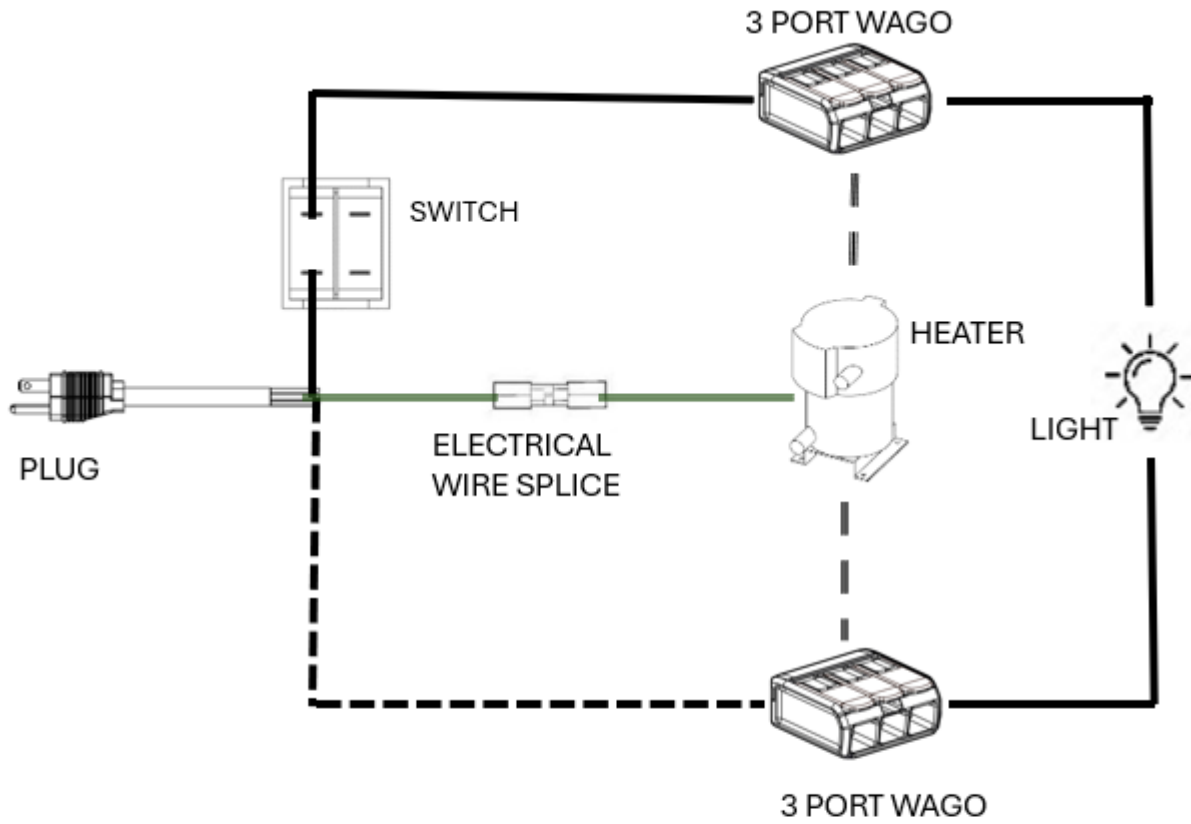








Wiring diagram



WIRE KEY

-  BLACK
-  WHITE WITH BLACK STRIPE
-  WHITE
-  GREEN OR GREEN STRIPE



## Limited Warranty

Your Heater 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.

Hydro-Force warrants the Heat Force Inline Heater 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 o-rings, valve seals, pump seals, hoses, jets, cords, batteries, or other items which require replacement as a result of ordinary usage.

To obtain warranty service for the heater, contact your distributor or Hydro-Force. If the heater 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.