

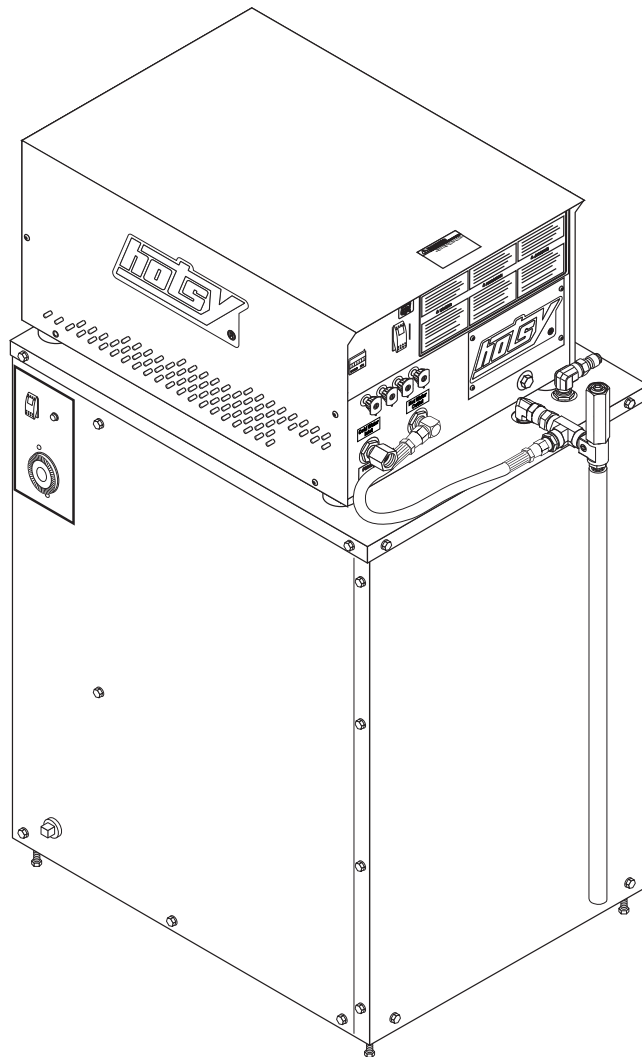
HWE

Electric Powered - Electric Heated



Operator's Manual

Pressure Washer



- MODELS:**
- HWE-4020C**
1.109-646.0
 - HWE-4030C**
1.109-647.0
 - HWE-4020F**
1.109-958.0
 - HWE-4030F**
1.109-959.0

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consult our web page at
www.hotsy.com

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8.941-225.0-AY 02/08/23

Machine Data Label

Model: _____

Date of Purchase: _____

Serial Number: _____

Dealer: _____

Address: _____

Phone Number: _____

Sales Representative: _____

Machine Data Label 2
Table of Contents 3
How To Use This Manual 4

Safety

Introduction & Safety Information 5
IMPORTANT SAFETY INFORMATION 6
Pre-Operation Check 8

Operations

Assembly Instructions 11
Detergents & General Cleaning Techniques 13
Cleaning Tips 14
Shutdown Procedures 15

Maintenance

Storage 16

Preventative Maintenance 17
Maintenance Schedule 17
Oil Change Record 17
Troubleshooting 19

Parts

Exploded View - Left Side 24
Exploded View - Right Side 25
Exploded View Parts List 26
Exploded View Parts List 28
Cabinet Exploded View - Left Side 30
Cabinet Parts List 32
Hose, Gun & Wand Assembly 34
Specifications 36
VB8 Unloader Valve Exploded View 38
VRT3 Unloader 40
HM.3 Series Pump Exploded View 42
HM.3 Series Pump Parts List Repair Kit Numbers 44

How To Use This Manual

This manual contains the following sections:

- How to Use This Manual
- Safety
- Operations
- Maintenance
- Parts List

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

Model: _____
Date of Purchase: _____
Serial Number: _____
Dealer: _____
Address: _____
Phone Number: _____
Sales Representative: _____

The model and serial numbers will be found on a decal attached to the pressure washer.

The SAFETY section contains important information regarding hazardous or unsafe practices of the machine. Levels of hazards are identified that could result in product damage, personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Preventative Maintenance
- Maintenance Schedule
- Oil Change Record
- Troubleshooting

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- **REF** – column refers to the reference number on the parts illustration.
- **PART NO.** – column lists the part number for the part.
- **QTY** – column lists the quantity of the part used in that area of the machine.
- **DESCRIPTION** – column is a brief description of the part.
- **NOTES** – column for information not noted by the other columns.

NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.

NOTE: The manual part number is located on the lower right corner of the front cover.

Introduction & Safety Information

Thank you for purchasing this Hotsy Pressure Washer. This manual covers the operation and maintenance of the HWE-4020C, HWE-4030C, HWE-4020F and HWE-4030F washers. All information in this manual is based on the latest product information available at the time of printing.

We reserve the right to make changes at any time without incurring any obligation.

Owner/User Responsibility:

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

The operator must know how to stop the machine quickly and understand the operation of all controls. Never permit anyone to operate the engine without proper instructions.

Save These Instructions

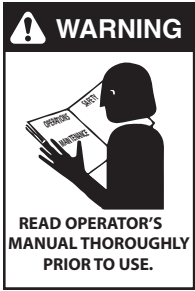
This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number. Use only identical replacement parts. This machine is to be used only by trained operators.

IMPORTANT SAFETY INFORMATION

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

AVERTISSEMENT: En utilisant cette machine, des précautions de base devraient toujours être observées, y compris ce qui suit :



WARNING: To reduce the risk of injury, read operating instructions carefully before using.

AVERTISSEMENT: Pour réduire le risque de blessures, lire attentivement les instructions de fonctionnement avant l'utilisation.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.
2. Know how to stop the machine and bleed pressure quickly. Be thoroughly familiar with the controls.
3. Stay alert — watch what you are doing.
4. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling dealer for specific details.

WARNING: Must be plugged into properly wired three hole grounded outlet that accommodates plug on power cord. Failure to comply could result in electrical shock.

AVERTISSEMENT: Doit être raccordé dans une sortie à trois trous mise à la masse et correctement câblée qui peut accueillir une fiche sur un cordon d'alimentation. Le non-respect de cette consigne pourrait causer un choc électrique.

DANGER: Keep wand, hose, and water spray away from electric wiring or fatal electric shock may result.



DANGER: Garder le jet d'eau à l'écart de tout câblage électrique ou des chocs électriques mortels pourraient survenir.

5. To protect the operator from electrical shock, the machine must be electrically grounded. It is the responsibility of the owner to connect this machine to a UL grounded receptacle of proper voltage and amperage ratings. Do not spray water on or near electrical components. Do not touch machine with wet hands or while standing in water. Always disconnect power before servicing.



WARNING: Spray gun kicks back — hold with both hands.

AVERTISSEMENT: Le pistolet pulvérisateur peut présenter un risque de retour; le tenir avec les deux mains.

6. Grip spray-gun and wand securely before starting this machine. Failure to do this could result in bodily injury from a whipping wand.



WARNING: Flammable liquids can create fumes which can ignite, causing property damage or severe injury.

AVERTISSEMENT: Des liquides inflammables peuvent produire des vapeurs qui peuvent s'enflammer, causant ainsi des dommages à la propriété ou des blessures graves.

WARNING: Risk of explosion. Do not install or operate near any flammable liquids. Do not spray flammable liquids.

AVERTISSEMENT: Risque d'explosion. Ne pas installer ou utiliser à proximité de liquides inflammables. Ne pas pulvériser de liquides inflammables.

WARNING: Before obtaining access to electric terminals, all supply circuits must be disconnected

AVERTISSEMENT: Avant d'accéder aux bornes électriques, déconnecter tous les circuits d'alimentation. .

7. Electrical appliances shall be installed only in locations where combustible dusts and flammable gases or vapors are not present. Do not store or use gasoline near this machine. This product incorporates parts that tend to produce arcs or sparks and, therefore, when located in a garage, it should be in a room or enclosure provided for the purpose, or should be 18" (45cm) or more above the floor.



WARNING: High pressure developed by these machines will cause personal injury or equipment damage. Use caution when operating.

AVERTISSEMENT: La haute pression générée par ces machines causera des lésions corporelles ou des dommages à l'équipement. Faire preuve de

prudence lors de l'utilisation. Cet équipement doit être utilisé uniquement par des opérateurs formés.

WARNING: Risk of injection or severe injury. Keep clear of nozzle. Do not direct discharge stream at persons or animals. This equipment is to be used only by trained operators. Cet équipement doit être utilisé uniquement par des opérateurs formés.

AVERTISSEMENT: Risque d'injection ou de blessures graves. Se tenir à l'écart de la buse. Ne pas diriger le débit de décharge vers des personnes ou des animaux.



WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds. To avoid personal injury, eye and foot safety devices must be worn.

AVERTISSEMENT: Un jet haute pression peut écailler la peinture ou provoquer l'émission d'autres

particules dans l'air et leur projection à hautes vitesses. Pour éviter les lésions corporelles, une protection des yeux, du visage, des mains et des pieds doit être portée lors de l'utilisation de cet équipement.

8. Always wear properly rated eye protection such as safety goggles or face shield while spraying. **(Safety glasses do not provide full protection.)**
9. Never make adjustments on machine while it is in operation.
10. Machines with spray guns should not be operated with the spray gun in the off position for extended periods of time as this may cause damage to the pump.



WARNING: Protect machine from freezing.

AVERTISSEMENT: Protéger la machine contre le gel.

11. Protect discharge hose from vehicle traffic and sharp objects.
12. To Prevent a serious injury, be certain quick coupler on discharge hose has locked before using pressure washer.
13. Before disconnecting discharge hose from hot water outlet, disconnect power supply, open spray gun to relieve back pressure in hose and use protective gloves.
14. Do not allow acids, caustic or abrasive fluids to pass through the pump.
15. Inlet water supply must be cold and clean fresh water and not hotter than 145°.
16. The best insurance against an accident is precaution and knowledge of the machine.
17. Hotsy will not be liable for any changes made to our standard machines, or any components not purchased from Hotsy.
18. To reduce the risk of injury, close supervision is necessary when a machine is used near children. Do not allow children to operate the pressure washer. **This machine must be attended during operation.**
19. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
20. Follow the maintenance instructions specified in the manual.
21. When making repairs disconnect from electrical source.
22. Do not operate this product when fatigued or under the influence of alcohol or drugs. Keep operating area clear of all persons.

CAUTION: Hot surfaces - use only designated areas of Lance (wand or gun).

ATTENTION: Les surfaces - Utiliser uniquement les zones désignées de la lance (tige ou pistolet).



WARNING: *If connection is made to a potable water system, the system shall be protected against back flow.*

AVERTISSEMENT: *Si une connexion est établie avec un réseau d'eau potable, le réseau doit être protégé contre le retour d'eau.*



WARNING: *Do not spray machine or any people, animals or electrical parts.*

AVERTISSEMENT: *Ne pas vaporiser sur la machine ou les gens, les animaux ou les pièces électriques.*



WARNING: *Be extremely careful when using a ladder, scaffolding or any other relatively unstable location. The cleaning area should have adequate slopes and drainage to reduce the possibility of a fall due to slippery surfaces.*

AVERTISSEMENT: *Faire preuve d'une extrême prudence au moment d'utiliser une échelle,*

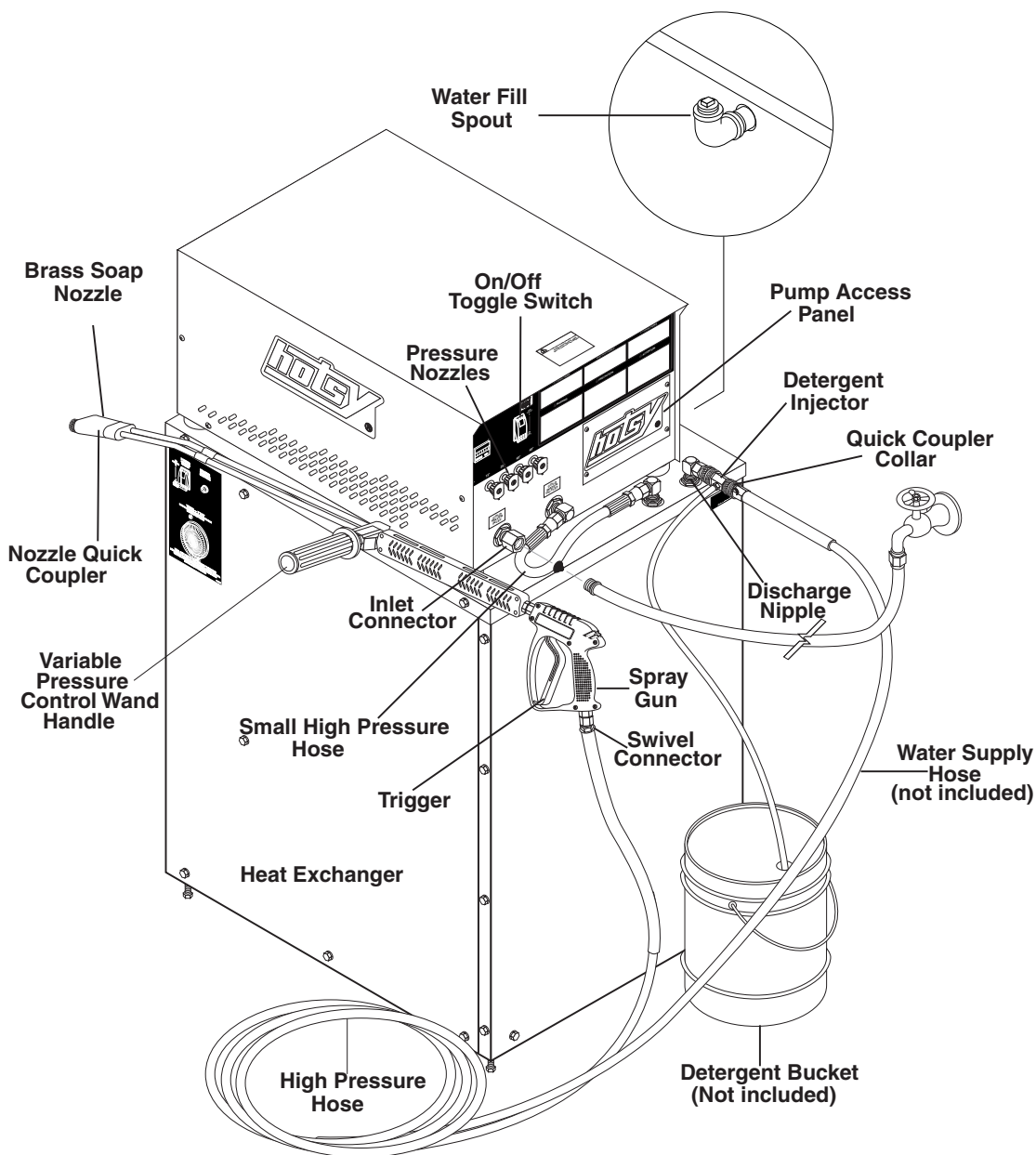
des échafaudages ou toute autre surface relativement instable. La zone de nettoyage doit avoir une pente et un drainage adéquats pour réduire la possibilité d'une chute due à une surface glissante.

Pre-Operation Check

- Heat module water level
- Pump oil (SAE 10W-40 non-foaming oil)
- Cold water supply (6 gpm • 5/8" • 20 psi)
- Proper power supply
- Hose, wand, nozzles (nozzle sizes per serial plate)
- Water filter (intact, non restrictive)
- Read installation and operation instructions



Follow the maintenance instructions specified in the manual.



Pump — Delivers a specific gpm to the high pressure nozzle which develops pressure.

Spray Gun — Controls the application of water and detergent onto cleaning surface with trigger device. Includes safety latch.

Detergent Injector — Allows you to siphon and mix detergents.

Wand — Must be connected to the spray gun.

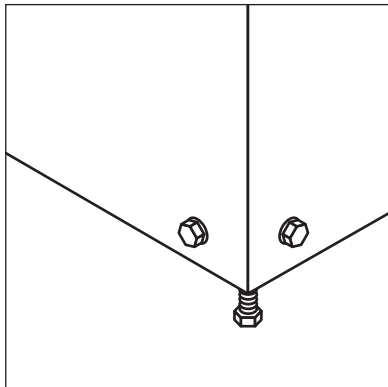
Heat Exchanger — Has a stainless steel coil suspended into an 80 gallon water tank that is heated to 180° F (84°c) by heating elements.

High Pressure Hose — Connect one end to water pump high pressure discharge nipple and the other end to spray gun.

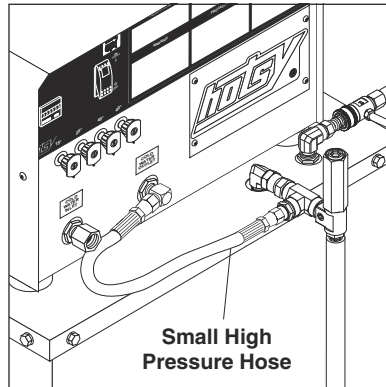
Unloader Valve — Safety device which, when the spray gun closes, prevents over pressurization (Not Shown.)

NOTE: If trigger on spray gun is released for more than 2 minutes, water will leak from the pump protector. Warm water will discharge from pump protector onto floor. This system prevents internal pump damage.

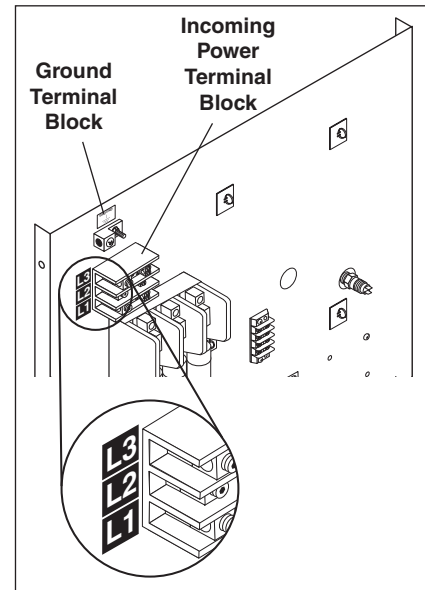
Assembly Instructions



STEP 1: Place machine in a convenient location providing ample support, drainage and room for maintenance. Remove pallet bolts and remove pallet, then re-install bolts to level machine by adjusting (machine must be level).



STEP 2: Place the pump package on top of the heat exchanger and attach the small high pressure hose to the fittings as shown.



STEP 3: Remove the hex head screws from electrical access panel. **NOTE:** bottom right screw will only loosen; access panel is designed to pivot on this screw. Once access panel is rotated out of the way, attach the electrical harness from the pressure washer to the heating module as follows:

- a. Feed pressure washer wire harness through the upper wire hole located on the side of the machine (See item 16 on Exploded View -Left Side).
- b. On the right side of the incoming power terminal block, connect the black wire to line L1, the red wire to line L2, and the white wire to line L3.
- c. Attach the green wire to the ground terminal block.

CAUTION: Have qualified electrician attach the proper supply cord to the terminal labeled L1, L2 and L3.

ATTENTION: Demander à un électricien qualifié de raccorder le cordon d'alimentation approprié à la borne étiquetée L1, L2 et L3.

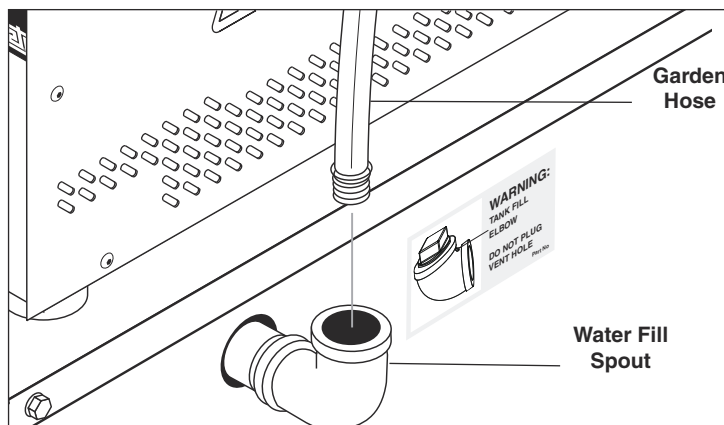
STEP 4: Do not turn power on to equipment until the heating module is filled with water, as severe damage may occur to heater elements.

Prior to shipping, a rust inhibitor was added to the hot water tank. This will mix with the added water to prevent rust build-up inside the tank.

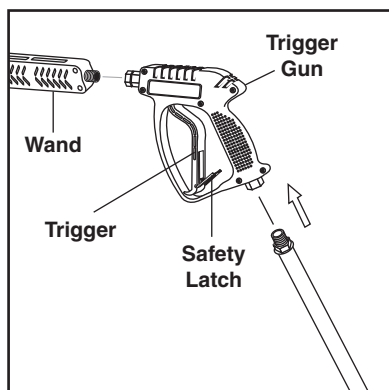
Install water fill spout (item 15, page 20, shipped loose). Spout opening should be facing up. Insert water hose and fill. Do not over fill to allow for thermal expansion. (Maximum is 80 gallons). After heater tank has been filled to the top, operate for one week and then add one quart of oil to slow evaporation. Be sure to replace spout plug, hand tight only.

Turn on main power supply to unit. Set 7 day programmable timer to desired ON/OFF time and switch machine power on, Water will heat up to operating temperature in 30 to 60 minutes. The heater will turn off automatically when 200°F is reached. Water will come out of heater fill spout due to heat expansion. However, this will stop after temperature is reached.

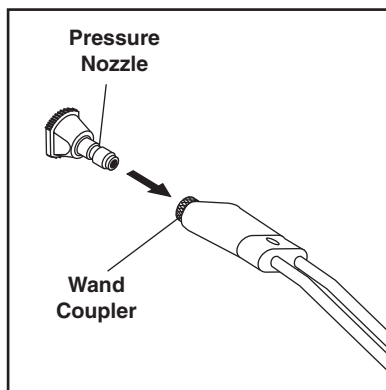
Leave main power on to the machine to ensure hot water on pump start up.



Assembly Instructions



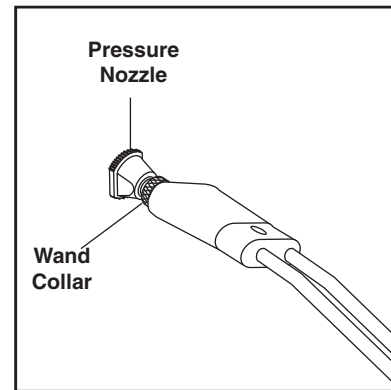
STEP 5: Attach variable pressure control wand to spray gun using Teflon tape on threads to prevent leakage. Position safety latch to prevent trigger from being pulled.



STEP 6: Pull the spring-loaded collar of the wand coupler collar back to insert your choice of pressure nozzle.

CAUTION: *Never replace nozzles without engaging the safety latch on the spray gun trigger.*

ATTENTION: *Ne jamais remplacer les buses sans d'abord mettre le dispositif de sécurité sur la détente du pistolet pulvérisateur.*



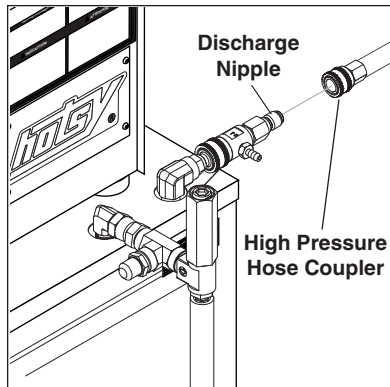
STEP 7: Release the coupler collar and push the nozzle until the collar clicks. Pull the nozzle to make sure it is seated properly.

WARNING: *These machines are designed for indoor use. Machine must be stored indoors when not in use.*

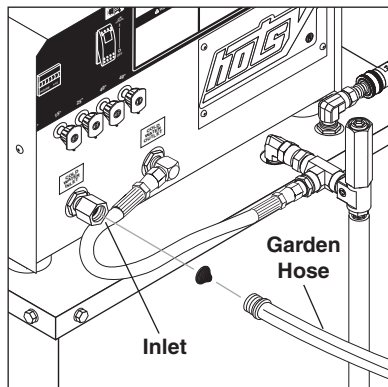
AVERTISSEMENT: *La machine doit être entreposée à l'intérieur lorsqu'elle n'est pas utilisée. Ces machines sont conçues pour une utilisation à l'intérieur.*

Operations

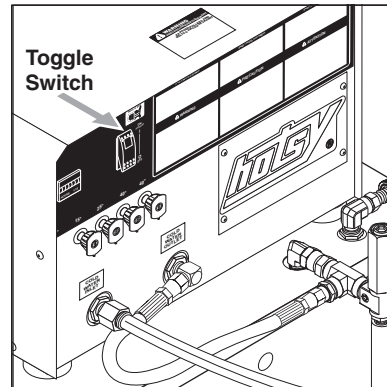
Operating Instructions



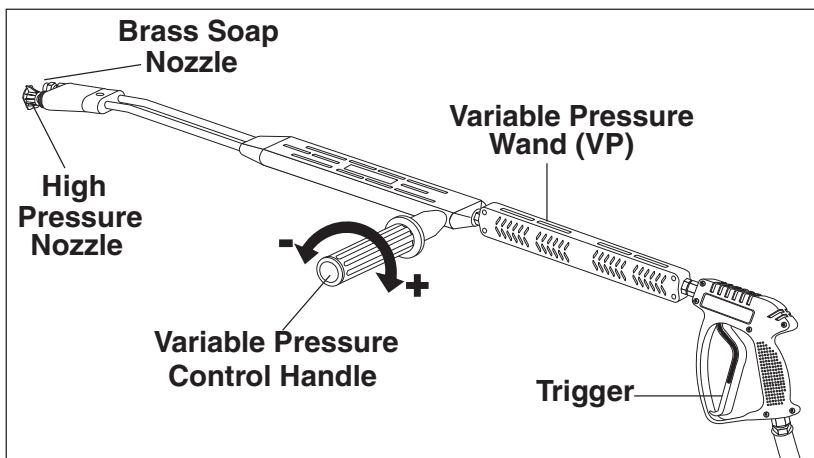
STEP 1: Connect the high pressure hose quick coupler to the discharge nipple by sliding the quick coupler collar back and inserting the quick coupler onto the discharge nipple and pushing the quick coupler collar forward to secure it. Secure desired pressure nozzle into variable pressure wand coupler.



STEP 2: Connect water supply hose (garden hose) to inlet connector. Do not allow acid or abrasives to be pumped through system. Turn on water.

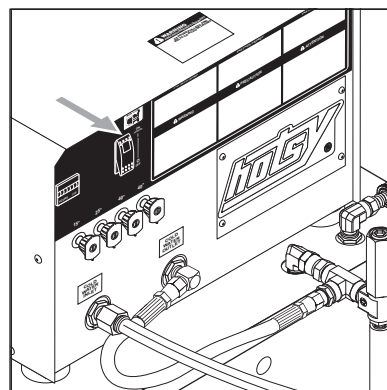


STEP 3: Place toggle switch in the ON position and then pull the trigger on the spray gun to activate a pressure switch which will then start the machine. The ON position is for auto shut down.



STEP 4: Turn the variable pressure control handle clockwise to increase pressure.

NOTE: Selection of high or low pressure is accompanied by turning the handle. High pressure nozzle must be inserted at end of wand to obtain high pressure. To apply soap read Detergents & General Cleaning Techniques section.



STEP 5: To stop machine, release the spray gun and machine will automatically stop in approximately 12 seconds. If machine is going to be unattended for long periods of time, turn water supply off and place switch in OFF position.

NOTE: When removing or replacing hoses, wand and nozzles, move switch to OFF position, open spray gun to release pressure before removing discharge hose.

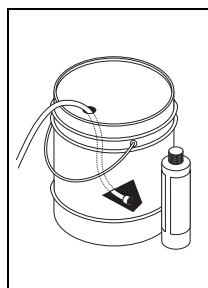
Detergents & General Cleaning Techniques



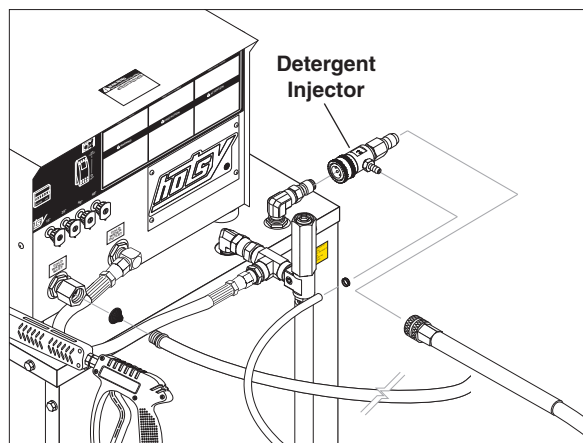
WARNING: Some detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning. The harmful elements may cause property damage or severe injury.

AVERTISSEMENT: Certains détergents peuvent être dangereux s'ils sont inhalés ou ingérés, provoquant de fortes nausées, des

évanouissements et l'empoisonnement. Les éléments dangereux peuvent causer des dommages à la propriété ou des blessures graves.

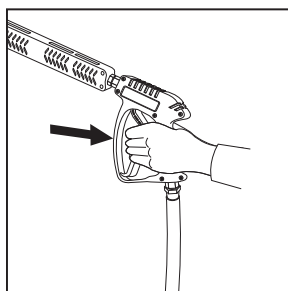


STEP 1: Use detergent designed specifically for pressure washers. Household detergents could damage the pump. Prepare detergent solution as required by the manufacturer. Fill a container with pressure washer detergent. Place the filter end of detergent suction tube into the detergent container.



STEP 2: Apply safety latch to spray gun trigger. Open variable pressure wand handle to low pressure which allows water through black detergent nozzle.

NOTE: Detergent cannot be applied during high pressure.



STEP 3: With the motor running, pull trigger to operate machine. Liquid detergent is drawn into the machine and mixed with water. Apply detergent to work area. Do not allow detergent to dry on surface.

IMPORTANT: You must flush the detergent injection system after each use by placing the suction tube into a bucket of clean water, then run the pressure washer in low pressure for 1-2 minutes.

Thermal Pump Protection

If you run your pressure washer for 3-5 minutes without pressing the trigger on the spray gun, circulating water in the pump can reach high temperatures. When the water reaches this temperature, the pump protector engages and cools the pump by discharging the warm water onto the ground. This thermal device prevents internal damage to the pump.

Operations

Cleaning Tips

Pre-rinse cleaning surface with fresh water. Place detergent suction tube directly into cleaning solution and apply to surface at low pressure (for best results, limit your work area to sections approximately 6 feet square and always apply detergent from bottom to top). Allow detergent to remain on surface 1-3 minutes. Do not allow detergent to dry on surface. If surface appears to be drying, simply wet down surface with fresh water. If needed, use brush to remove stubborn dirt. Rinse at high pressure from top to bottom in an even sweeping motion keeping the spray nozzle approximately 1 foot from cleaning surface. Use overlapping strokes as you clean and rinse any surface. For best surface cleaning action spray at a slight angle.

Recommendations:

- Before cleaning any surface, an inconspicuous area should be cleaned to test spray pattern and distance for maximum cleaning results.
- If painted surfaces are peeling or chipping, use extreme caution as pressure washer may remove the loose paint from the surface.
- Keep the spray nozzle a safe distance from the surface you plan to clean. High pressure wash a small area, then check the surface for damage. If no damage is found, continue to pressure washing.

CAUTION - Never use:

- Bleach, chlorine products and other corrosive chemicals
- Liquids containing solvents (i.e., paint thinner, gasoline, oils)
- Tri-sodium phosphate products
- Ammonia products or acid-based products

ATTENTION: Ne jamais utiliser :

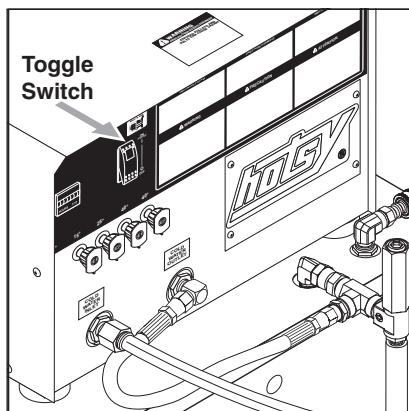
- Insecticides, pesticides ou herbicides
- Eau de Javel, produits à base de chlore et autres produits chimiques corrosifs
- Liquides contenant des solvants (c.-à-d. diluant à peinture, essence, huiles, etc.)
- Produits à base de tripolyphosphate de sodium
- Ammoniac ou produits à base d'acide

These chemicals will harm the machine and will damage the surface being cleaned.

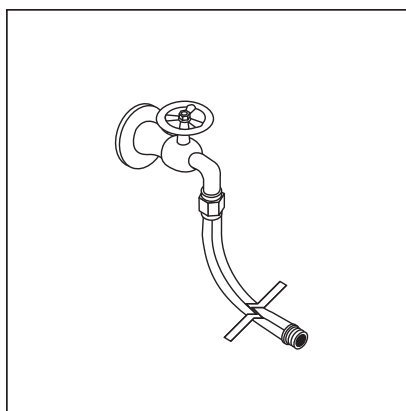
Rinsing

It will take a few seconds for the detergent to clear. Apply safety latch to spray gun. Turn variable pressure control handle to high pressure. *NOTE: You can also stop detergent from flowing by simply removing detergent siphon tube from bottle.*

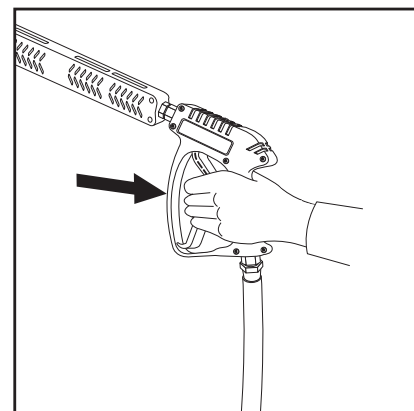
Shutdown Procedures



STEP 1: Rinse all lines (and injector) with clean water, to remove any soap residue then turn toggle switch off.



STEP 2: Turn off water supply.



STEP 3: Open spray gun to relieve remaining pressure and remove water supply hose.

In freezing conditions, disconnect water supply and open spray gun to allow water to drain, then turn off motor.

CAUTION: Do not allow pump to run longer than 5 minutes without water. Disconnect all hoses to allow water to drain.

ATTENTION: Suivre les instructions de câblage dans le présent manuel au moment de raccorder le système aux lignes de transport d'électricité. Ne pas laisser la pompe fonctionner pendant plus de X minutes sans eau.

CAUTION: With machine off, open spray gun to release pressure before removing discharge hose.

ATTENTION: Avec la machine hors tension, ouvrir le pistolet pulvérisateur pour relâcher la pression avant de retirer le tuyau de refoulement.

Maintenance

Storage

Pump Storage



CAUTION: Always store your pressure washer in a location where the temperature will not fall below 32° F (0° C). The pump in this machine is susceptible to permanent damage if frozen.

ATTENTION: Toujours entreposer la laveuse à pression dans un endroit où la température ne sera pas inférieure à 32 °C (0 °F). La pompe sur cette machine est susceptible de subir des dommages si elle est exposée au gel.

FREEZE DAMAGE IS NOT COVERED BY WARRANTY.

If you must store your pressure washer in a location where the temperature is below 32° F, you can minimize the chance of damage to your machine by draining your machine as follows:

1. Stop the pressure washer and detach supply hose and high pressure hose. Squeeze the trigger of the spray gun to drain all water from the wand and hose.
2. Restart pressure washer and let it run briefly (about 5 seconds) until water no longer discharges from the high pressure outlet.

Preventative Maintenance

This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner, have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your Hotsy dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions.

Maintenance Schedule		
Pump Oil (Non-foaming) SAE 10W-40	Inspect	Oil level daily
	Change	After first 50 hours, then every 500 hours or annually
Replace High Pressure Nozzle		Every 6 months
Replace Quick Connects		Annually
Clean Water Screen/Filter		Weekly
Replace HP Hose		Annually
Grease Motor		Every 10,000 hours
Inspect Heater Module Tank Water Level		Weekly

Oil Change Record

Check pump oil level before first use of your new Power Washer. Change pump oil after first 50 hours and every year or 500 hours thereafter. Use SAE 10W-40 non-foaming oil.

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

Maintenance

Daily:

To ensure a problem free system, simple visual checks can be performed. Check for leaks in inlet supply, pumping system, pump to heater hose, heater, spray gun(s) and high pressure hose. Check for normal operating functions and pump oil level/condition. Check nozzle condition. If badly worn or leaking conditions are found, qualified personnel should repair or replace components with new original or equivalent manufacturers parts.

Check equipment for proper operation. Nozzle spray should be uniform in flow, angle, and pressure. Clean if nozzle is plugged and replace if worn. If a heavy pulsation in the hose or spray is observed, repair of the pumping system is required.

Weekly:

After the first week of operation, it is recommended 1 quart (1 litre) of motor oil be added to the heat exchanger tank through the 1-1/4" fill pipe. This oil creates a vapor barrier and slows evaporation of water in the tank.

Check heat exchanger water level. The level must be up to the filler pipe neck. Add water if necessary. If cold water has been added, heating may cause the expanding water to escape through the filler plug. This will stop after operating temperature has been reached.

Monthly:

Check system for operation. Automatic start/stop, hot high pressure water, and smooth operation should be noted.

Change oil in pump crankcase. Note the condition of the oil when drained. If found to be creamy, water seals in pump may have to be removed and replaced.

Troubleshooting

Problem	Possible Cause	Solution
LOW OPERATING PRESSURE	Faulty pressure gauge	Install new gauge.
	Insufficient water supply	Use larger garden hose; clean filter washer at water inlet.
	Old, worn or incorrect spray nozzle	Match nozzle number to machine and/or replace with new nozzle.
	Plumbing or hose leak	Check plumbing system for leaks. Retape leaks with teflon tape.
	Faulty or misadjusted unloader valve (where applicable)	Adjust unloader for proper pressure. Install repair kit when needed.
	Worn packing in pump	Install new packing kit.
	Fouled or dirty inlet or discharge valves in pump	Clean inlet and discharge valves.
	Worn inlet or discharge valves	Replace with valve kit.
	Leaking pressure control valve (where applicable)	Rebuild or replace as needed.
FLUCTUATING PRESSURE	Valves worn	Check and replace if necessary.
	Blockage in valve	Check and clean out if necessary.
	Pump sucking air	Check water supply and suction line for air seepage at joints.
	Worn piston packing	Check and replace if necessary.
PRESSURE LOW AFTER PERIOD OF NORMAL USE	Nozzle worn	Check and replace if necessary.
	Inlet or discharge valves blocked or worn	Check and clean or replace if necessary.
	Unloader valve seat worn	Check and replace if necessary.
PUMP NOISY	Air in suction line	Check water supply connections on suction line.
	Broken or weak inlet or discharge valve springs	Check and replace if necessary.
	Foreign matter in valves	Check and clean if necessary.
	Worn bearings	Check and replace if necessary.
PRESENCE OF WATER IN PUMP OIL	Water sprayed at machine	Change oil. Direct spray away from machine.
	High humidity in air	Check and change oil twice as often.
	Piston packing worn. Oil seal worn	Check and replace if necessary.

Maintenance

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
OIL SQUIRTS OUT OF OIL CAP ON PUMP	Pump overfilled with oil	Maintain oil level at red dot on sight glass at rear of pump or at top of notch on dipstick (where applicable).
WATER DRIPPING FROM UNDER PUMP	Piston packing worn	Check and replace if necessary.
	O-Ring plunger retainer worn	Check and replace if necessary.
	Cracked piston	Check and replace if necessary.
OIL DRIPPING	Oil seal worn	Check and replace if necessary.
EXCESSIVE VIBRATION IN DELIVERY LINE	Irregular functioning of the valves	Check and replace if necessary.
SYSTEM WILL NOT START	Power, water, auto switch not on	Check and turn on.
	Motor overload tripped	Check and reset.
	Control fuse blown (2 or 3 amp)	Check and replace.
	Pressure switch faulty	Check, clean or replace.
	Timer faulty	Check and replace.
SYSTEM WILL NOT STOP	Water leak in discharge line	Repair water leak.
	Pressure switch faulty	Disconnect at timer. If unit stops, replace pressure switch.
	Timer resistor faulty	Replace timer.
SYSTEM STOPS AFTER APPROXIMATELY 10 SECONDS AND THEN RESTARTS	Faulty pressure switch	Check and replace.
	Leak in system	Fix leak.
WATER IS NOT HOT	Tank water low	Check for leaks and fill.
	Temperature or level controls faulty	Check and replace.
MOTOR "HUMS" BUT DOES NOT TURN	Electric motor single phasing	Check for blown fuse or loose power line connections.
PUMP RUNNING NORMALLY BUT LOW WATER PRESSURE	Air leak in inlet	Check water supply and possibility of air entering water connections.
	Faulty pressure unloader	Bypass pressure unloader by wiring spray gun open. If good PSI, turn machine off and replace regulator. DO NOT RELEASE SPRAY GUN WHILE BYPASSING UNLOADER.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
WATER ESCAPING FROM FILL PIPE ON HEAT EXCHANGER	Cold water added to heat exchanger	Will stop once at operating temperature.
	Ruptured coil or leaking	Check, repair or replace fittings.
UNLOADER DOES NOT GO INTO BYPASS OR WILL CYCLE ITSELF	Spray gun or hose is leaking to atmosphere	Check and repair all leaks.
	Check plunger either did not move or did not seal	Remove discharge port. Clean and inspect the check plunger. Replace the O-ring if needed.
	Actuator O-ring failure	Remove actuator plunger assembly and inspect O-ring and back-up rings. Replace if necessary.
SPIKES TOO HIGH	Slow moving actuator; this may be caused by bad O-rings either on the plunger or inside the actuator fitting.	Remove the actuator assembly to inspect the O-ring and back-up rings. The actuator assembly will have to be disassembled to inspect and/or replace the O-rings in the actuator fitting.
	Spring tension	Adjustment should stop when pressure is no longer affected by further compression of the spring.
	Hose length	Hose length can affect the amount of spike pressure. Long lengths of hose may cause high spike pressures.
SYSTEM WON'T COME UP TO PRESSURE	Water is leaking between ball and seat	Disassemble inlet fitting and check for contaminants or worn parts. Clean or replace as needed.
	O-Rings on actuator plunger are bad	Remove actuator assembly and inspect O-ring and back-up rings. Replace if necessary.
	Locknut may be improperly set	Readjust locknut. NOTE: The locknut is inside the spring on models that have the stem exposed above the spring.
	Tip/GPM combination is incorrect	Check actual GPM on unrestricted pump and size tip accordingly.
	Tip worn- the GPM may be greater than expected with a worn tip	Replace tip.
	Bad gauge - the pressure may be higher than the gauge shows	Replace gauge.

Parts

HOTSY HWE

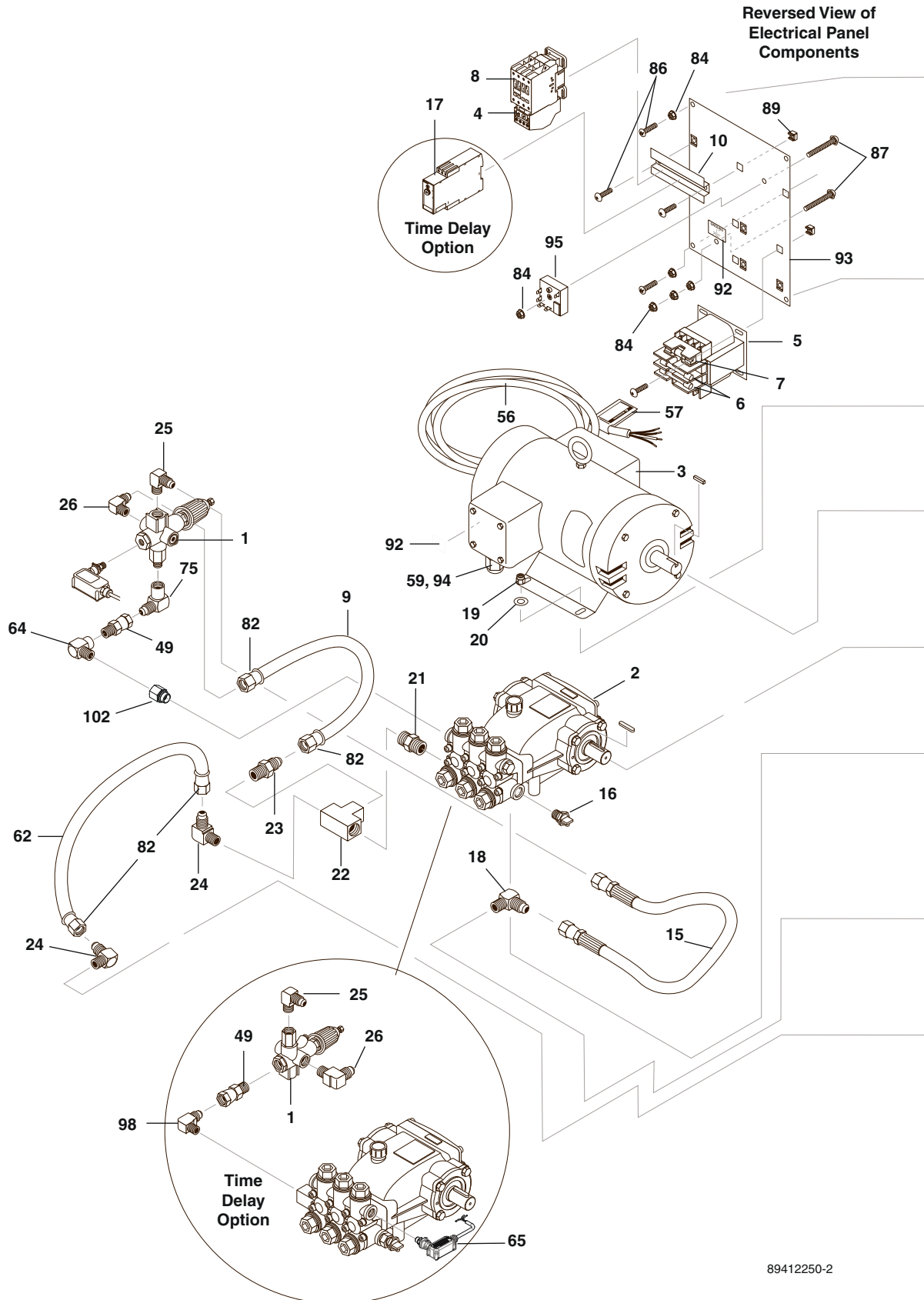
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HWE-4030C
1.109-647.0

HWE-4020F
1.109-958.0

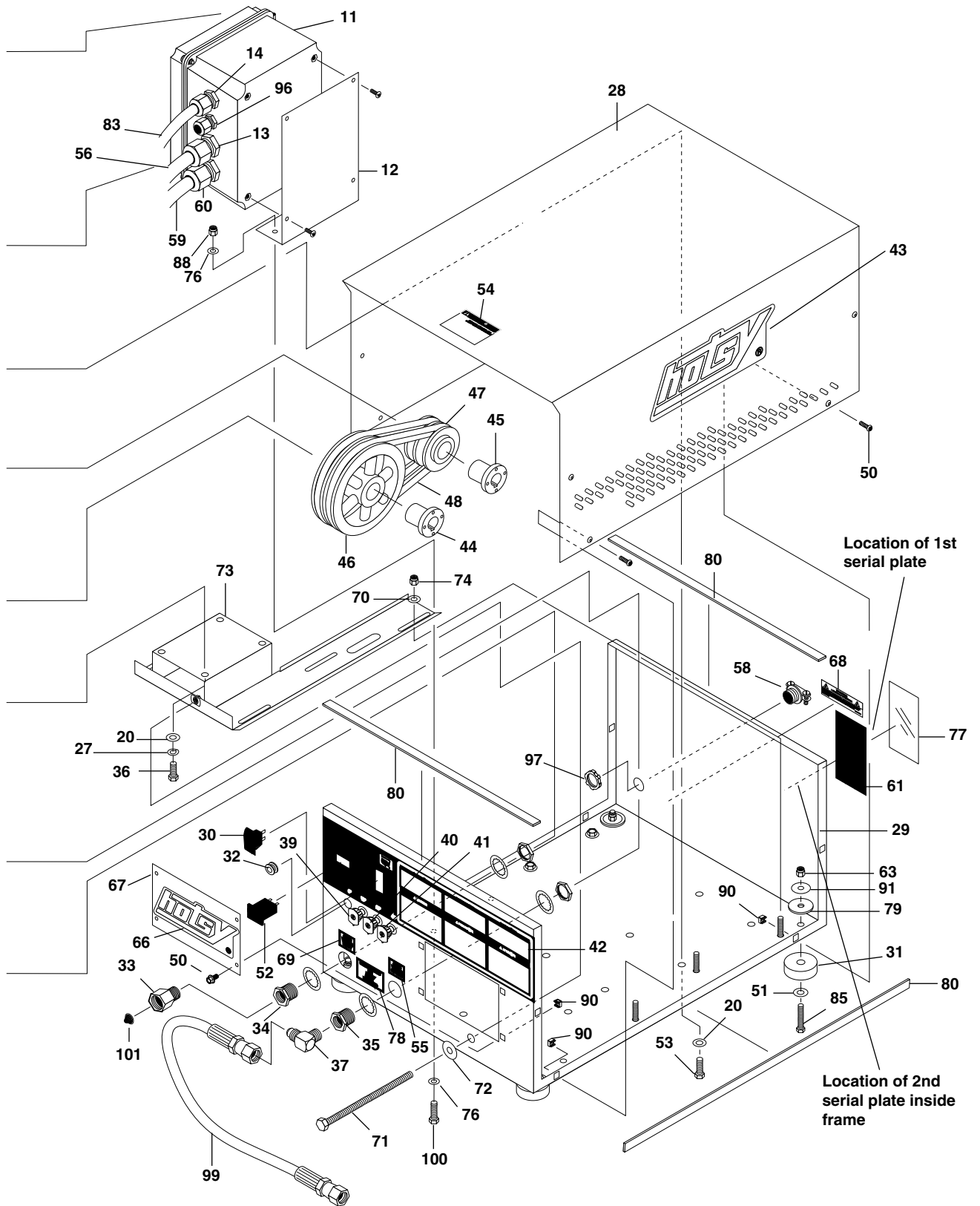
HWE-4030F
1.109-959.0

Exploded View - Left Side



89412250-2

Exploded View - Right Side



Exploded View Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
1	9.802-362.0	1	UNLOADER, PA 8 GPM@3650 PSI, VB8 +/-SWITCH	
-	8.750-298.0	1	UNLOADER, VRT3, 8 GPM @3630 PSI (TIME DELAY ONLY)	
2	-	-	PUMP	SEE SPECIFICATIONS PAGES
3	-	-	MOTOR	SEE SPECIFICATIONS PAGES
4	-	-	OVERLOAD	SEE SPECIFICATIONS PAGES
5	-	-	TRANSFORMER	SEE SPECIFICATIONS PAGES
6	-	-	FUSE	SEE SPECIFICATIONS PAGES
7	-	-	FUSE	SEE SPECIFICATIONS PAGES
8	-	-	CONTACTOR	SEE SPECIFICATIONS PAGES
9	9.802-259.0	18"	HOSE, 1/2" PUSH ON	
10	9.802-457.0	4"	DIN RAIL, 35MM	
-	-	5"	(TIME DELAY OPTION)	
11	9.802-476.0	1	BOX, PLASTIC, 10" X 8" X 6" W/LID	
12	9.803-038.0	1	BRACKET, SUPPORT FOR ELEC BOX	
13	9.802-518.0	1	STRAIN RELIEF, 3/4" LQ TITE	
14	9.802-514.0	1	STRAIN RELIEF, LT, Str, 1/2 NPT,.23-.45D	
15	8.918-424.0	1	HOSE, 3/8" X 25", 2 WIRE, PRESSURE LOOP	
16	8.757-771.0	1	PUMP PROTECTOR 1/2 BSPP X 1/4 BARB 145°	
17	8.751-306.0	1	TIMER, MULTI-FUNCTION (TIME DELAY OPTION)	
18	8.757-509.0	1	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	
19	9.802-779.0	4	NUT, 3/8" ESNA	
20	9.802-807.0	12	WASHER, 3/8", SAE, FLAT	
21	8.757-619.0	1	ADAPTER 1/2 BSPP (M) X 1/2 NPTF (M)	
22	8.757-485.0	1	TEE, 1/2", BRASS	
23	8.757-200.0	1	ADAPTER, 1/2" 45° SAE x 1/2" M-NPTF BRASS	
24	8.757-391.0	2	ELBOW, 1/2" M SAE x 1/2" NPTF (M)	
25	8.757-509.0	1	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	
26	8.757-262.0	1	ELBOW, 1/2" 45° SAE X 3/8" M-NPTF, BRASS	
27	8.718-961.0	4	WASHER, M10 SPLIT RING ZINC	
28	8.911-329.0	1	COVER, HOTSY	
29	8.911-326.0	1	BASE, HOTSY	
30	9.802-451.0	1	SWITCH, ROCKER, CARLING W/GREEN LENS	
-	9.802-452.0	1	SWITCH, ROCKER, RED FACE TIME DELAY ONLY)	

Exploded View Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
31	9.802-066.0	4	PAD, SOFT RUBBER, 50 DURO	
32	9.802-064.0	4	GROMMET, RUBBER, NOZZLE HOLDER	
33	8.757-203.0	1	SWIVEL, 1/2" M-NPTF X 3/4" GHF	
34	8.707-000.0	1	CONNECTOR, 1/2" ANCHOR	
35	8.755-033.0	1	BULKHEAD, 3/8" FXF NPT, STEEL	
36	9.802-744.0	4	BOLT, 10MM X 20MM, HH ZINC	
37	8.757-509.0	1	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	
39	8.712-346.0	1	NOZZLE, SAQCMEG 1504, YELLOW	(4030C, F)
-	8.712-354.0	1	NOZZLE, SAQCMEG 1505, YELLOW	(4020F)
-	8.712-358.0	1	NOZZLE, SAQCMEG 1505.5, YELLOW	(4020C)
40	8.712-347.0	1	NOZZLE, SAQCMEG 2504, GREEN	(4030C, F)
-	8.712-355.0	1	NOZZLE, SAQCMEG 2505, GREEN	(4020F)
-	8.712-359.0	1	NOZZLE, SAQCMEG 2505.5, GREEN	(4020C)
41	8.712-348.0	1	NOZZLE, SAQCMEG 4004, WHITE	(4030C, F)
-	8.712-356.0	1	NOZZLE, SAQCMEG 4005, WHITE	(4020F)
-	8.712-360.0	1	NOZZLE SAQCMEG 4005.5, WHITE	(4020C)
42	8.758-408.0	1	LABEL KARCHER CONTROL PANEL	
43	8.758-384.0	2	HOTSY LOGO DIE CUT LARGE	
44	-	-	BUSHING,	SEE SPECIFICATIONS PAGES
45	-	-	BUSHING	SEE SPECIFICATIONS PAGES
46	-	-	PULLEY	SEE SPECIFICATIONS PAGES
47	-	-	PULLEY	SEE SPECIFICATIONS PAGES
48	-	-	BELT	SEE SPECIFICATIONS PAGES
49	8.757-656.0	1	ADAPTER SWIVEL STEEL 1/2 JICX3/8 NPTF(M)	
50	9.802-765.0	12	SCREW, 1/4"X1/2" BH SOC ES	
-	9.802-760.0	12	SCREW, 1/4" X 1/2", BH SOC C/S, SS	STAINLESS STEEL OPTION
51	9.802-817.0	4	WASHER, 3/8" X 1" STEEL	
52	9.802-283.0	1	HOUR METER	
53	9.802-720.0	4	BOLT, 3/8" X 1", NC HH	
54	8.758-329.0	1	LABEL WARNING EXPOSED PULLEYS	
55	8.758-352.0	1	LABEL COLD WATER OUTLET	
56	8.925-722.0	1	SERVICE CORD 12/4	
57	8.758-338.0	1	LABEL WARNING SERVICE CORD	
58	9.803-279.0	1	STRAIN RELIEF, CG100-750, 1" YEL(10-4COR	
59	8.925-714.0	1	HARNESS CORD MOTOR 1700/SEA/HD 12/4	
60	9.802-518.0	1	STRAIN RELIEF, STRT, LQ TITE 3234 LARGE	
61	8.758-332.0	1	LABEL ASSEMBLED IN USA INDOOR USE	
62	9.802-259.0	12"	HOSE, 1/2" PUSH-ON	

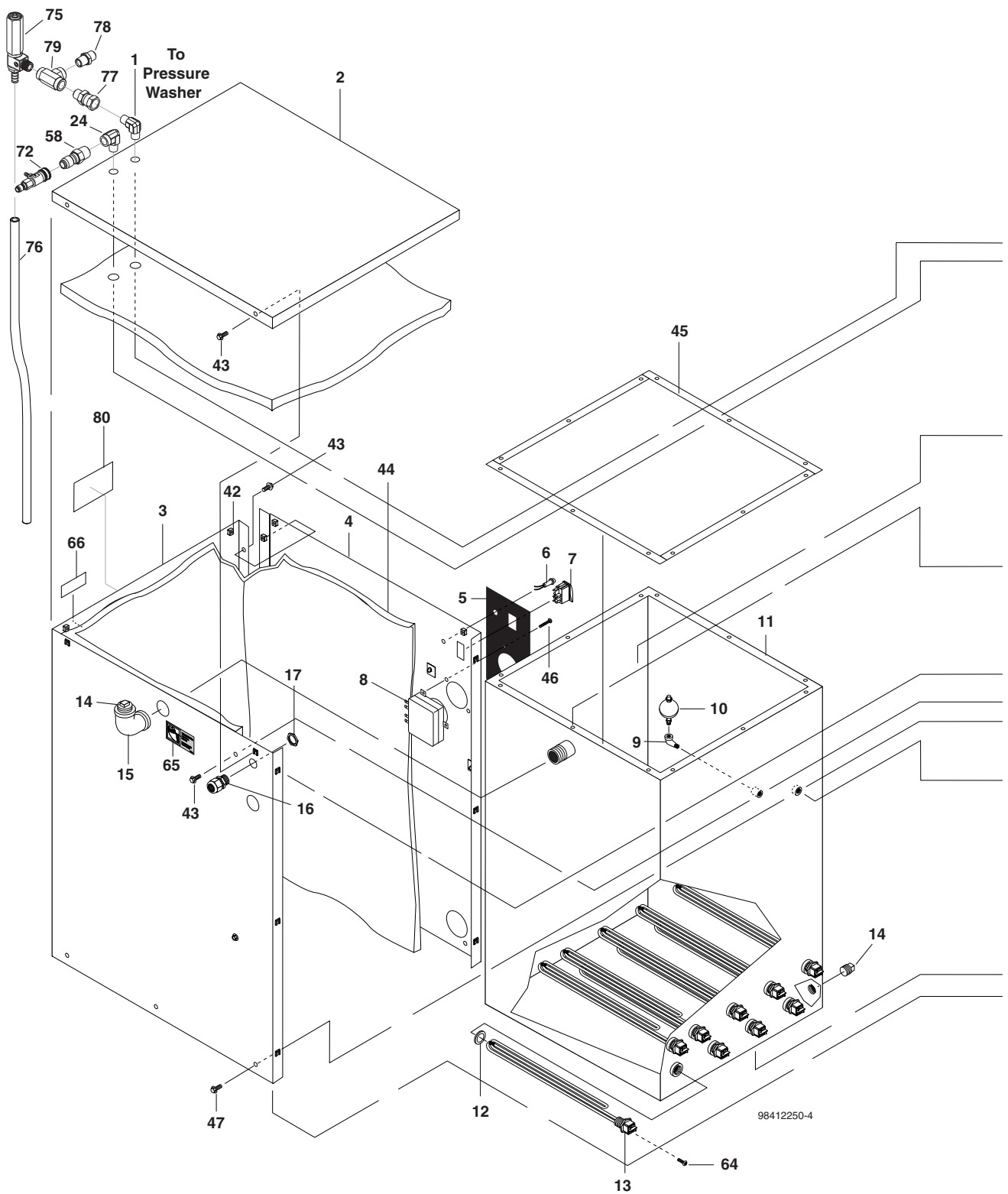
Exploded View Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
63	9.802-779.0	4	NUT, 3/8" ESNA NC	
64	8.757-340.0	1	ELBOW 3/8", STREET 90 DEG, STEEL, W/SLNT	
65	8.716-125.0	1	SWITCH, PRESSURE (TIME DELAY OPTION)	
66	8.758-385.0	1	HOTSY LOGO DIE CUT SMALL	
67	8.912-147.0	1	COVER, ACCESS HOLE	
68	8.758-331.0	1	LABEL DISCONNECT POWER SUPPLY	
69	8.758-333.0	1	LABEL COLD WATER INLET	
70	8.718-980.0	4	WASHER, 5/16" FLAT	
71	9.802-738.0	1	BOLT, 1/2" X 8" NC HH	
72	9.802-800.0	1	WASHER, 1/2" FLAT	
73	9.803-100.0	1	SLIDER ASSY, CW CABINET, WRINKLE BLACK	
74	9.802-776.0	4	NUT, 5/16" ESNA	
75	8.757-935.0	1	ADAPTER STEEL 1/2 JIC X 3/8 NPTF (F) 90°	
76	9.802-802.0	8	WASHER, 1/4" FLAT SAE ZINC	
77	8.758-330.0	1	LABEL CLEAR LEXAN 4.30" X 5.50"	
78	8.758-366.0	1	LABEL USE HOTSY DETERGENT	
79	9.802-067.0	4	BUMPER PAD	
80	9.802-073.0	7ft	WEATHER STRIPPING	
81	OPEN			
82	9.802-151.0	4	SWIVEL, 1/2" JIC FEM. PUSH-ON	
83	8.925-726.0	1	HARNESS CORD NO OPTION HOUR METER 1700	(STANDARD)
-	8.925-728.0	1	HARNESS CORD AUTO START HOUR METER 1700	(AUTO START/ STOP)
-	8.925-730.0	1	HARNESS CORD TIME DELAY HOUR METER 1700	(TIME DELAY)

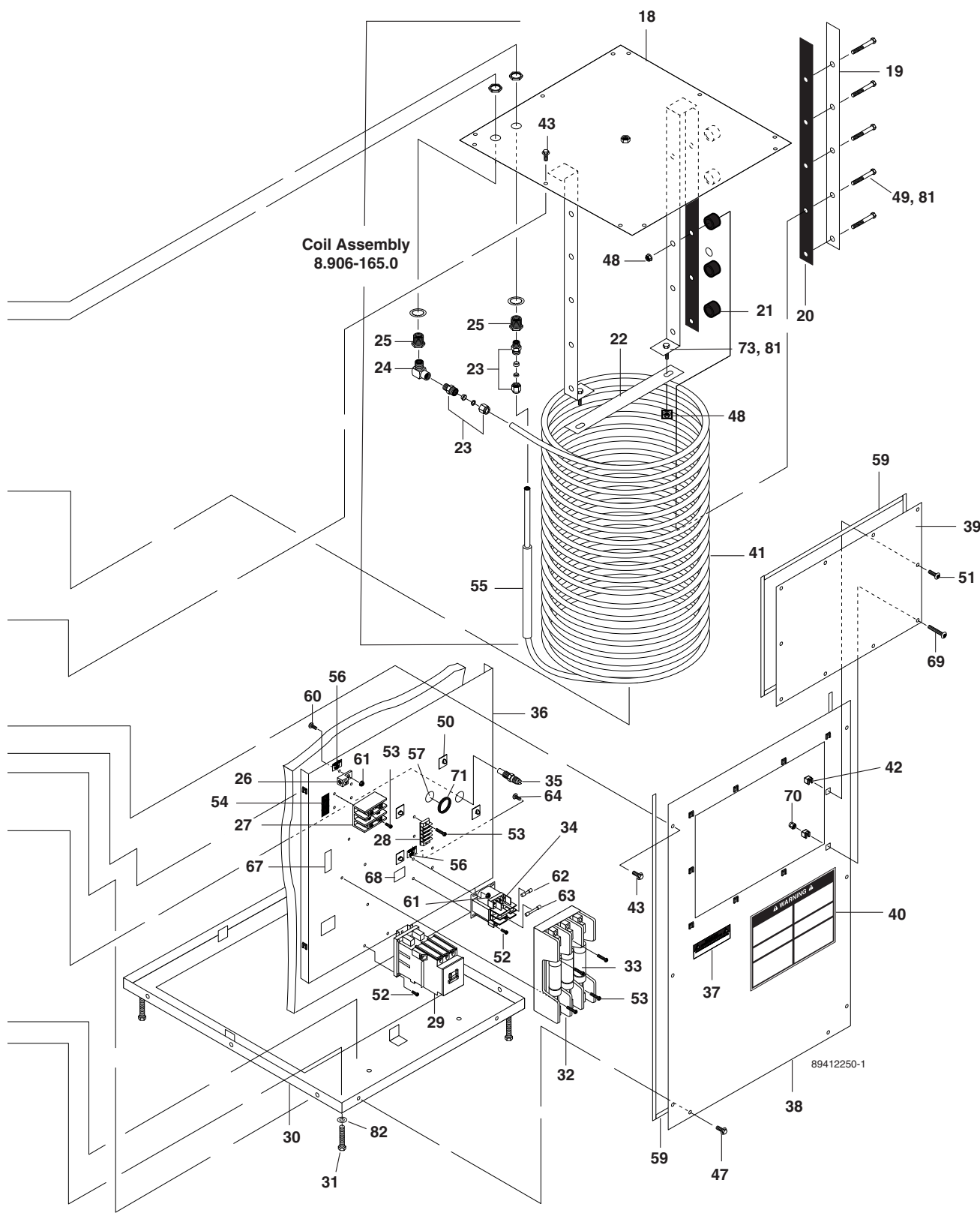
Exploded View Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
84	9.802-695.0	7	NUT, 10/32" KEPS	
85	9.802-723.0	4	BOLT, 3/8" X 1-1/2" NC HH	
86	9.802-759.0	10	SCREW, 10/32" X 1/2" BLACK	
87	9.802-762.0	1	SCREW, 10/32" X 1-1/4"	
88	9.802-773.0	2	NUT, 1/4" ESNA NC	
89	9.802-791.0	6	CAGE NUT, 10/32" X 16 GAUGE	
90	9.802-794.0	12	CAGE NUT, 1/4" X 12 GAUGE	
91	9.802-811.0	4	WASHER, 3/8" X 1-1/2" FENDER	
92	8.758-327.0	2	LABEL GROUND SYMBOL	
93	9.803-032.0	1	STANDOFF, ELECTRICAL BOX	
94	8.758-002.0	1	STRAIN RELIEF CG75-750 3/4" YELLOW	(HWE 4-2000C,F)
-	9.802-523.0	1	LOCKNUT, 3/4" CONDUIT	NOT SHOWN (HWE 4-2000C,F)
-	9.803-279.0	1	STRAIN RELIEF,CG100-750,1" YEL(10-4COR	(HWE 4-3000C,F)
-	9.803-280.0	1	LOCKNUT, 1" CONDUIT	NOT SHOWN (HWE 4-3000C,F)
95	9.802-472.0	1	TIMER, SOLID STATE,120V 5-60 MIN. ADJUST.	
96	9.802-514.0	1	STRAIN RELIEF, 1/2"	
97	9.803-280.0	1	LOCKNUT, 1" CONDUIT	
98	8.757-616.0	1	ADAPTER 1/2 JIC (M) X 3/8 BSPP (M) 90°	
99	8.918-422.0	1	HOSE, 3/8" X 20"	
100	9.802-700.0	4	BOLT, 1/4-20 X 3/4", NC HH (612937)	
101	9.804-016.0	1	FILTER SCREEN WASHER, GARDEN HOSE/30MESH	
102	8.757-184.0	1	ADAPTER, M-BSPP X F-NPTF, 06-06	

Cabinet Exploded View - Left Side



Cabinet Exploded View - Right Side



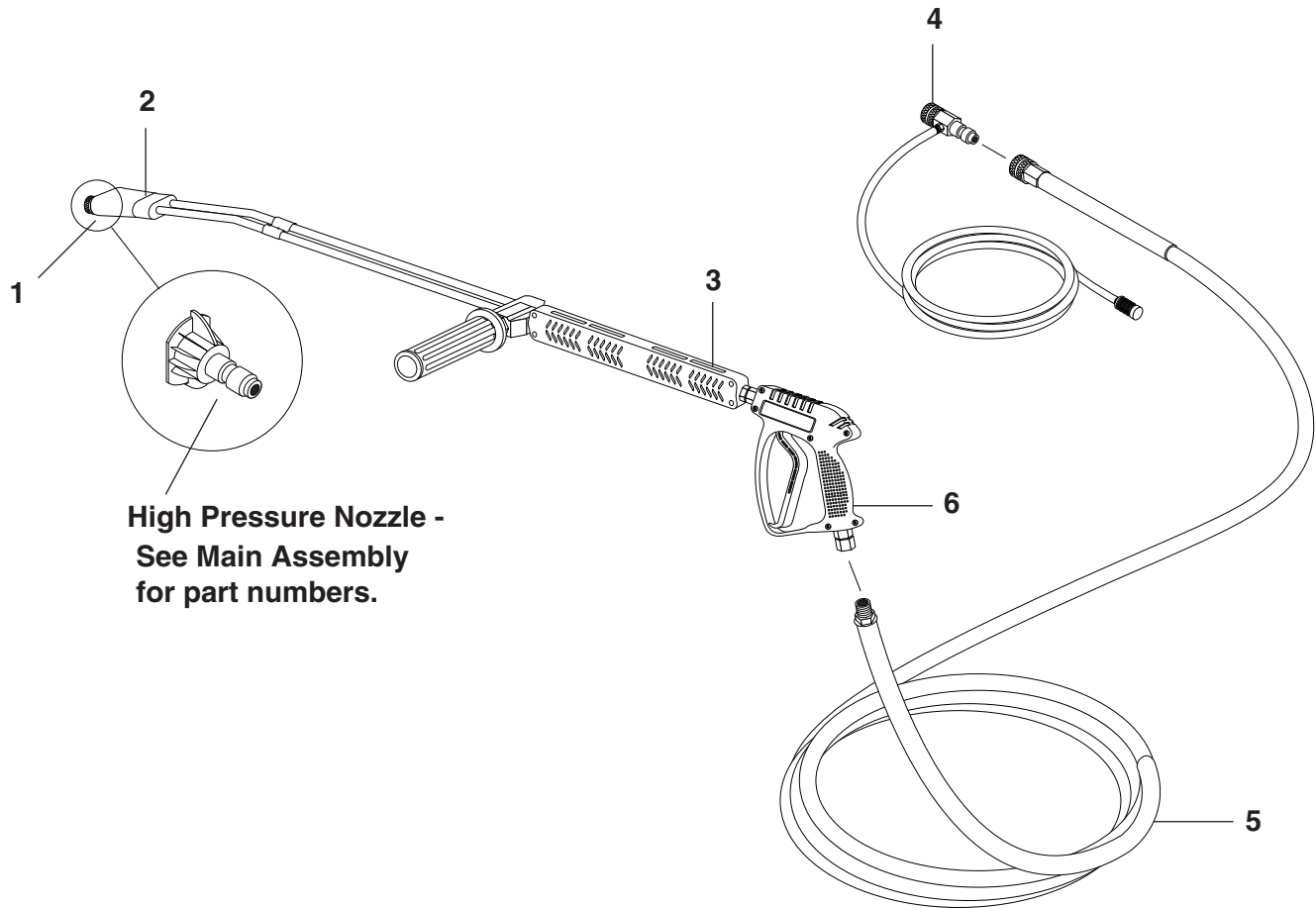
Cabinet Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.757-509.0	1	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	
2	8.913-2160	1	LID, TOP COVER	
3	8.913-218.0	1	OUTER WRAP, FILL SIDE	
4	8.913-219.0	1	OUTER WRAP, POWER SIDE	
5	8.758-427.0	1	LABEL HEATING UNIT POWER	
6	9.802-455.0	1	LIGHT, GREEN 125V	
7	9.802-451.0	1	SWITCH, ROCKER CARLING W/GREEN LENS	
8	8.716-254.0	1	TIMER, 7 DAY PIN, 120V, 20A PB873MKZ	
9	8.757-339.0	1	ELBOW, 1/4" STREET 90 DEG, STEEL W/SLNT	
10	8.716-633.0	1	SWITCH, LIMIT W/CLAMP	
11	8.913-211.0	1	TANK ASSEMBLY	
12	8.716-650.0	9	GASKET, 6000W HEATER, 2500 SERIES	
13	8.716-645.0	9	HEATER, 4500W 480V #055994-091	
-	8.751-252.0	9	HEATER, 1" SCREW PLUG 575/600V 4500W (575 VOLT MODELS)	
14	8.913-222.0	2	PLUG, 1.5" PIPE, BLACK	
15	8.913-221.0	1	ELBOW, 1-1/2" FEMALE, BLACK 90°	
16	9.802-518.0	1	STRAIN RELIEF, LARGE	
17	9.802-526.0	1	LOCKNUT, 3/4" 8465	
18	8.913-212.0	1	TANK ASSEMBLY LID	
19	8.913-213.0	2	BRACKET, COIL	
20	8.706-542.0	4	PAD, 1/4" RUBBER, COIL	
21	8.711-785.0	10	HOSE, 3/8" X 1/2" PUSH-ON	
22	8.913-214.0	1	BRACKET, COIL SPACER	
23	8.706-322.0	2	TUBE FITTING, PARKER 8MSC6N-316 1/2" SS A-LOK	
24	8.757-340.0	2	ELBOW 3/8", STREET 90 DEG, STEEL, W/SLNT	
25	8.755-033.0	2	BULKHEAD, 3/8" FXF NPT, STEEL	
26	8.716-461.0	1	TERMINAL, GROUNDING LUG, 1/0-6 COPPER WIRE	
27	8.716-122.0	1	BLOCK, POWER DISTR, 3 POL, GO63133	
28	9.802-491.0	1	BLOCK, TERMINAL, 4 POLE	
29	8.724-284.0	1	CONTACTOR, 120V	
30	8.913-210.0	1	TANK BASE ASSEMBLY	
31	8.718-696.0	4	BOLT, 1/2" X 3" NC, SS	
32	8.716-225.0	1	HOLDER, FUSE BLOCK, BUSS R60060-3CR	
33	8.730-762.0	1	FUSE, BUSS FRS-R-50, 600V 50 AMP	
34	8.716-883.0	3	TRANSFORMER, 208/230/460V- 24/115V,.050KVA	
-	9.803-668.0	1	TRANSFORMER, 550V/575/600V-115V,.050KVA (575 VOLT MODELS)	
35	8.712-179.0	1	SWITCH TH HI 84°C NC 1/2 X 1/2 SP	
36	8.913-220.0	1	ELECTRICAL PANEL	
37	8.758-331.0	1	LABEL DISCONNECT POWER SUPPLY	
38	8.913-215.0	1	PLATE, BACK COVER	
39	8.913-217.0	1	PLATE, ELECTRICAL ACCESS	
40	8.758-426.0	1	LABEL WARNING	
41	8.912-251.0	1	COIL, 1/2" O.D. SS TUBING	
42	9.802-793.0	30	NUT, CAGE 1/4" X 16 GA	

Cabinet Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
43	9.802-754.0	32	SCREW, 1/4" X 1/2" HH NC WHIZ LOCK	
44	8.717-480.0	4	INSULATION, 1" X 24" X 48" FIBERGLASS, FOIL ONE SIDE	
45	8.706-569.0	8 ft.	GASKET, NEOP	
46	8.718-755.0	2	SCREW, 8/32" X 1-1/2", SS PHIL PH	
47	9.803-551.0	10	SCREW, 5/16" X 3/4" WHIZ	
48	8.718-887.0	12	NUT, WHIZ LOC, 5/16 FLANGE, SS	
49	8.718-639.0	10	BOLT, 5/16" X 2-1/2", NC, HH, SS	
50	8.716-533.0	9	CLAMP, TIE WRAP ADHESIVE	
51	9.802-765.0	9	SCREW, 1/4" X 1/2" BH SOC CS	
52	8.718-937.0	7	SCREW, #8 X 3/4" PHILLIPS ZINC, HEK	
53	8.718-936.0	10	SCREW, #8 X 1/2" PHILLIPS ZINC, TEK	
54	8.758-422.0	1	LABEL INCOMING LINE	
55	9.802-259.0	1 ft.	HOSE, 1/2" PUSH-ON	
56	8.758-327.0	3	LABEL GROUND SYMBOL	
57	9.802-103.0	1	BUSHING, SNAP 5/8	
58	9.802-171.0	1	NIPPLE, 3/8 X 3/8" NPT ST MALE	
59	9.802-073.0	13.375 ft.	WEATHERSTRIP, 1/8" X 1/2"	
60	8.718-803.0	1	SCREW, 10/32" X 3/4" BHSOC	
61	9.802-695.0	3	NUT, 10/32" KEPS	
62	9.802-464.0	1	FUSE, PAPER, BUSS 8/10 250V	
63	8.713-081.0	2	FUSE, CLASS R1/2 AMP	
64	9.802-759.0	19	SCREW, 10/32" X 1/2" BH SOC	
65	8.758-423.0	1	LABEL VENT ELBOW	
66	8.758-334.0	1	LABEL HOT WATER OUTLET	
67	8.758-424.0	1	LABEL CLASS RK5 50 AMP	
68	8.758-425.0	1	LABEL PRIMARY AND SECONDARY FUSE	
69	9.802-770.0	1	SCREW, 1/4" X 1", BH SOC CS	
70	9.802-773.0	1	NUT, 1/4" ESNA, NC	
71	9.802-065.0	1	GROMMET, 1-5/16" RUBBER	
72	9.802-225.0	1	DETERGENT INJECTOR ASSY, NON-ADJ. #3	
73	8.718-621.0	2	BOLT 5/16" X 1", SS	
74	8.716-707.0	30"	3/8" SHRINK TUBING	NOT SHOWN
75	8.902-433.0	1	PRESSURE RELIEVE VALVE	
76	8.711-785.0	1	3/8" PUSH-ON HOSE 3FT.	
77	8.757-656.0	1	ADAPTER SWIVEL STEEL 1/2 JICX3/8 NPTF(M)	
78	8.757-655.0	1	ADAPTER STEEL 1/2" JIC X 3/8" NPTF(M)	
79	8.757-944.0	1	TEE STEEL 3/8 NPTF (F)	
80	8.758-332.0	1	LABEL ASSEMBLED IN USA INDOOR USE	
81	9.802-805.0	12	WASHER, 5/16" FLAT, SS	
82	9.802-809.0	4	WASHER, 1/2" FLAT SAE	

Hose, Gun & Wand Assembly



Hose, Gun & Wand Assembly Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
1	9.802-165.0	1	COUPLER, 1/4" MALE	
-	9.802-096.0	1	QUICK COUPLER O-RING, SMALL	NOT SHOWN
2	9.802-286.0	1	NOZZLE ONLY, 1/8", SOAP	
3	8.711-293.0	1	WAND, SS, VP, AL344 W/COUPLER & SOAP NOZZLE	
4	8.756-797.0	1	INJECTOR, CHEMICAL, NON ADJ 0.083(2.1MM)	
5	8.719-057.0	1	HOSE, 3/8" X 50', 1 WIRE	
6	8.751-235.0	1	GUN, HOTSYS, H1050, 5000 PSI, 10.4 GPM	

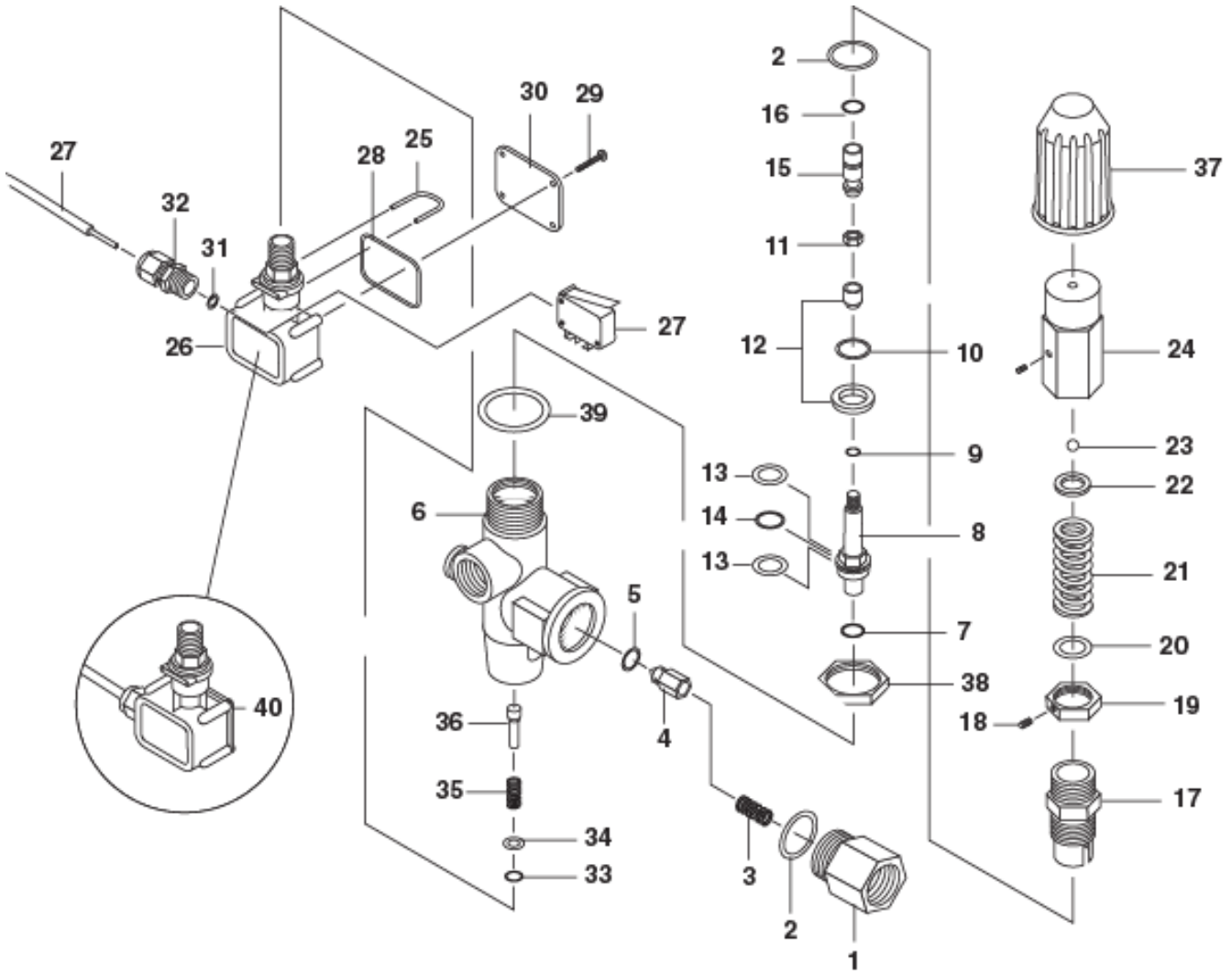
Specifications

Model #	HP	MOTOR	PUMP	PUMP PULLEY	PUMP PULLEY DESCRIPTION	MOTOR PULLEY	MOTOR PULLEY DESCRIPTION	PUMP BUSHING DESCRIPTION
HWE-4020C	6 HP	8.751-004.0	8.923-165.0	8.715-592.0	2BK80	8.715-582.0	2BK47	24 MM
HWE-4030C	7.5 HP	8.759-060.0	8.923-165.0	8.715-592.0	2BK80	9.802-386.0	2BK52H	24 MM
HWE-4020F	5 HP	8.751-009.0	8.923-165.0	8.715-592.0	2BK80	8.715-582.0	2BK47	24 MM
HWE-4030F	7.5 HP	8.759-061.0	8.923-165.0	8.715-592.0	2BK80	8.715-582.0	2BK47	24 MM

Model #	Pump Bushing	Motor Bushing	Motor Bushing #	Belt	Belt#	Contractor	Overload Fuse	Primary Fuse	Secondary	Transformer
4020C	9.802-402.0	H X 1-1/8"	9.802-400.0	BX42	8.715-703.0	8.724-268.0	8.724-312.0	9.802-462.0 (2)	9.802-463.0 (1)	8.716-883.0
4030C	9.802-402.0	H X 1-3/8"	9.802-401.0	BX43	9.802-420.0	8.724-268.0	8.724-312.0	9.802-462.0 (2)	9.802-463.0 (1)	8.716-883.0
4020F	9.802-402.0	H X 1 1/8"	9.802-400.0	BX43	9.803-420.0	8.724-268.0	8.724-303.0	9.802-462.0 (2)	9.802-463.0 (1)	9.803-668.0
4030F	9.802-402.0	H X 1 3/8"	9.802-401.0	BX43	9.803-420.0	8.724-268.0	8.724-303.0	9.802-462.0 (2)	9.802-463.0 (1)	9.803-668.0

VB8 Unloader Valve Exploded View

9.802-362.0,
8GPM@3650 PSI



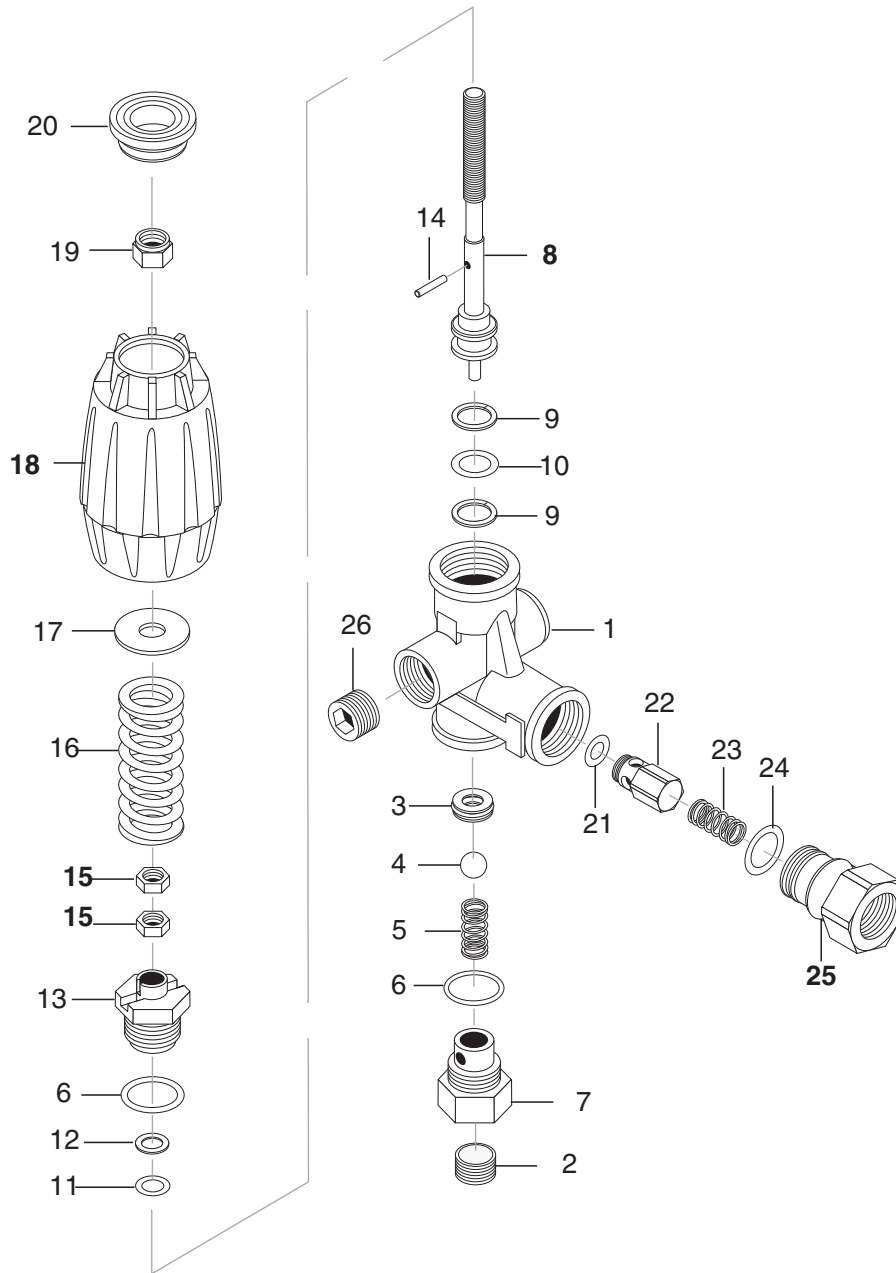
VB8 Unloader Valve Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.705-749.0	1	3/8 BSP F OUTLET FITTING	
2	8.704-218.0	2	O-RING 1.78 X 18.77 MM	*
3	60.0053.51	1	SPRING	
4	60.0052.31	1	CHECK VALVE	
5	8.704-230.0	1	O-RING 3 X 6 MM	*
6	60.1201.35	1	VB8 BRASS BODY	
7	10.3170.08	1	O-RING 2,62 X 7.6 MM	*
8	60.1206.31	1	PISTON	
9	10.3001.01	1	O-RING 1 X 4 MM	*
10	10.3066.01	1	O-RING 1.78 X 15.6 MM	*
11	60.1205.31	1	M 6 NUT	
12	60.2221.20	1	VB8/9 SEAT+SHUTTER	*
13	10.4021.00	2	BACK RING 11.4 X 15.9 MM	*
14	10.3175.00	1	O-RING 2.62 X 10.77 MM	*
15	60.1204.31	1	SPRING GUIDE	
16	10.3167.01	1	O-RING 2.62 X 5.23 MM	*
17	60.1203.31	1	PISTON HOUSING	
18	16.2100.00	1	M 4 X 4 MM DOWEL	
19	60.1704.31	1	M 22 NUT	
20	14.3719.00	1	WASHER 9 X 15 MM	
21	8.932-987.0	1	SPRING 3.2 X 33 MM	
22	60.1210.31	1	UPPER FRAME	
23	14.7421.00	1	1/4" BALL	
24	60.1209.31	1	BRASS CAP	
25	29.0087.51	1	SST CLIP	
26	29.0089.84	1	PLASTIC HOUSING	
27	8.750-169.0	1	EL.CABLE + MICRO SWITCH	
28	10.3206.01	1	O-RING 2.62 X 28.25 MM	
29	16.3020.00	2	2.5 X 12 MM SCREW	
30	29.0088.84	1	COVER	
31	10.3169.00	1	O-RING 2.62 X 6.02 MM	
32	29.0082.84	1	BLACK NUT-40 BAR	
33	10.3038.00	1	O-RING 1.78 X 3.68 MM	
34	14.3519.53	1	SST WASHER 4 X 8 MM	
35	60.2303.51	1	SPRING	
36	60.1281.31	1	PR 5 PIN	
37	60.1202.84	1	PLASTIC HANDLE (60.1290.00)	
38	14.3582.00	1	WASHER D. 30 MM (60.1290.00)	
39	60.2254.31	1	M 30 NUT (60.1290.00)	
40	8.705-930.0	1	SWITCH, PRESSURE REPLACEMENT YVB9KMSS	

* INCLUDED IN 8.750-168.0 VB8 REPAIR KIT

VRT3 Unloader

8.750-298.0, 8 GPM, 3630 PSI



REF	PART NO.	QTY	DESCRIPTION	NOTES
25	8.750-713.0	1	OUTLET FITTING	
18	8.750-712.0	1	KNOB, UNLOADER	
-	8.750-709.0	-	REPAIR KIT, VRT3, 2320/3630 PSI	(KIT ITEMS: 3, 4, 6, 9-12, 21, 24)

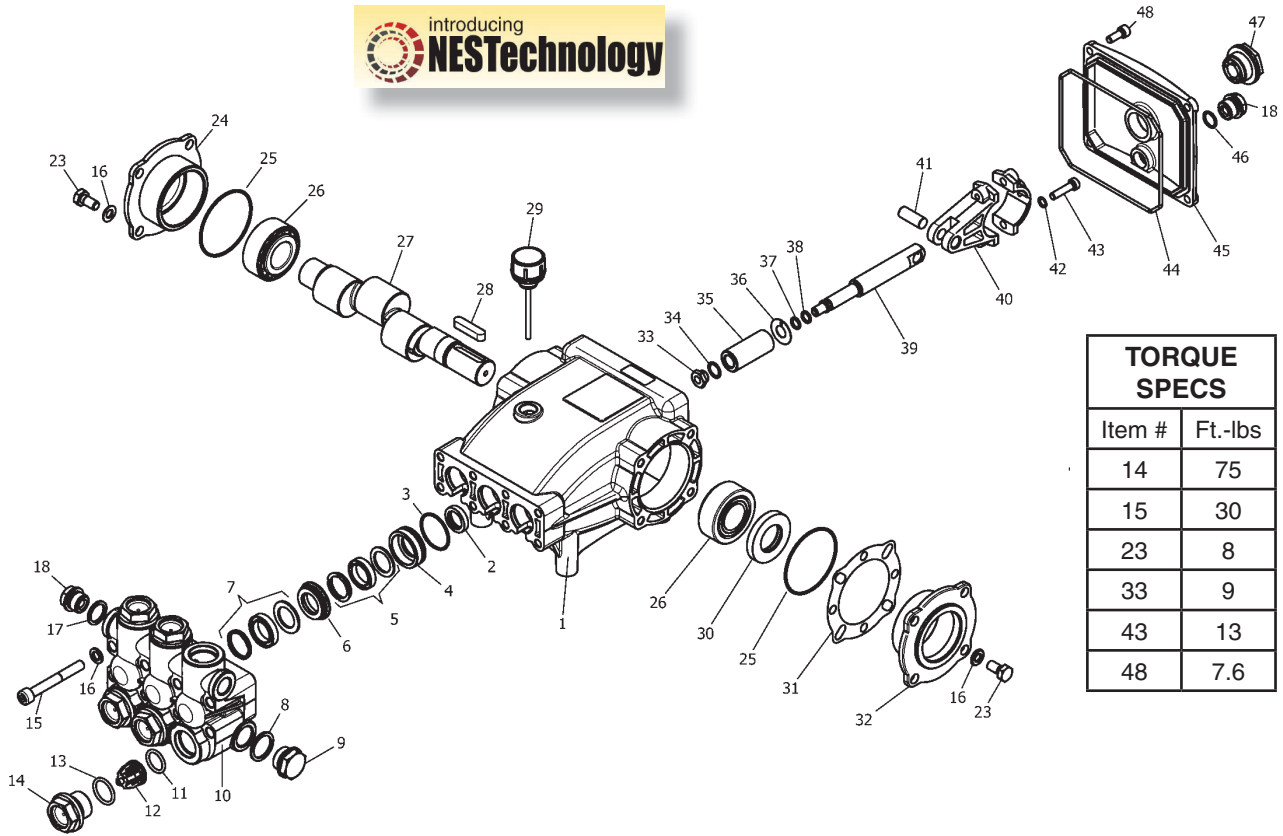
Unloader Adjustment Procedures

1. Remove lock nut (Item 19).
2. Remove adjustment knob (Item 18).
3. Loosen the two (2) nuts (Item 15), move them upward on stem (Item 8) until you see 4 or more threads below the nut.
4. Re-attach adjusting knob (Item 18).
5. Start machine. Open the trigger of the spray gun. Increase pressure by turning adjustment knob (Item 18) clockwise until pressure is at the desired operating pressure.
6. Remove the adjustment knob (Item 18), tighten the lower nut (Item 15) tightly against the upper nut (Item 15). Re-attach adjustment knob (Item 18) and screw down until contact is made with the nuts (Items 15). Screw down lock nut (Item 19) onto the stem (Item 8) until the threads cut into the nylon insert of the lock nut (Item 19).

*If adjustment knob (Item 18) **DOES NOT** make contact with upper nut (Items 15), remove adjusting knob (Item 18), re-adjust (raise) nuts (Items 15) on stem (Item 8) and re-attach adjustment knob (Item 18), then repeat step #6.

If adjustment knob (Item 18) **DOES make contact with upper nut; release the trigger of the spray gun and watch the pressure gauge for the pressure increase (“spike”). This “spike” **SHOULD NOT** exceed 500 psi above the operating pressure. If “spike” pressure exceeds the 500 psi limit, remove the adjusting knob (Item 18) and re-adjust (lower) the nuts (Items 15) on the stem (Item 8). Re-attach the adjusting knob (Item 18), then repeat step #6.

HM.3 Series Pump Exploded View



TORQUE SPECS	
Item #	Ft.-lbs
14	75
15	30
23	8
33	9
43	13
48	7.6

HM.3 Series Pump Exploded View Parts List

REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.751-216.0	1	CRANKCASE	
2	-	3	PLUNGER OIL SEAL	SEE KITS TABLE
3	-	3	O-RING Ø1.78 X 31.47	SEE KITS TABLE
4	-	3	PRESSURE RING	SEE KITS TABLE
5	-	3	U-SEAL	SEE KITS TABLE
6	-	3	INTERMEDIATE RING	SEE KITS TABLE
7	-	3	U-SEAL	SEE KITS TABLE
8	9.803-199.0	1	WASHER, COPPER	
9	9.802-926.0	1	PLUG, BRASS 1/2	
10	8.751-218.0	1	MANIFOLD HEAD	
11	-	6	O-RING Ø2.62 X 17.13	SEE KITS TABLE
12	-	6	VALVE ASSEMBLY	SEE KITS TABLE
13	-	6	O-RING Ø2.62 X 20.29	SEE KITS TABLE
14	9.802-928.0	6	VALVE PLUG	
15	9.802-938.0	8	MANIFOLD STUD BOLT	
16	9.802-884.0	16	WASHER	
17	9.803-198.0	1	COPPER WASHER 3/8	
18	9.802-925.0	2	BRASS PLUG 3/8	
23	9.802-944.0	8	HEXAGONAL SCREW	
24	8.717-210.0	1	CLOSED BEARING HOUSING	
25	9.803-192.0	2	O-RING Ø1.78 X 60.05	
26	8.933-011.0	2	TAPERED ROLLER BEARING	
27	8.751-222.0	1	CRANKSHAFT (3540)	
-	8.751-223.0	1	CRANKSHAFT (4030, 4035)	
-	8.717-063.0	1	CRANKSHAFT (4031)	
28	9.803-167.0	1	CRANKSHAFT KEY	
29	9.802-921.0	1	OIL DIP STICK	
30	9.803-140.0	1	CRANKSHAFT SEAL	
31	9.803-178.0	2	SHIM	
32	8.717-209.0	1	BEARING HOUSING	
33	-	3	PLUNGER NUT, M8	SEE KITS TABLE
34	-	3	COPPER SPACER	SEE KITS TABLE
35	-	3	PLUNGER	SEE KITS TABLE
36	-	3	COPPER SPACER	SEE KITS TABLE
37	-	3	O-RING	SEE KITS TABLE
38	-	3	TEFLON RING	SEE KITS TABLE
39	8.751-224.0	3	PLUNGER ROD (4030, 4031, 4035)	
-	8.751-225.0	3	PLUNGER ROD (3540)	
40	9.803-158.0	3	CONNECTING ROD	
41	8.751-228.0	3	CONNECTING ROD PIN	
42	9.803-218.0	6	SPRING WASHER	
43	9.803-238.0	6	CONNECTING ROD SCREW	
44	70-060009	1	O-RING, Ø2.62 X 126.67	
45	8.751-229.0	1	CRANKCASE COVER	
46	9.803-197.0	1	O-RING, Ø1.78 X 14	
47	9.803-202.0	1	SIGHT GLASS 3/4	
48	9.802-939.0	5	COVER SCREW	

HM.3 Series Pump Parts List Repair Kit Numbers

REPAIR KIT NO.	8.725-360.0	8.725-362.0	8.725-358.0	8.725-361.0	8.725-363.0	8.725-359.0
KIT DESCRIPTION	Plunger Seal 4035 18mm	Plunger Seal 4030, 4031 20mm	Plunger Seal 3540 15mm	Complete Seal Packing 4035 18mm	Complete Seal Packing 4030, 4031 20mm	Complete Seal Packing 3540 15mm
ITEM NUMBERS INCLUDED	3, 5, 7	3, 5, 7	3, 5, 7	3, 4, 5, 6, 7	3, 4, 5, 6, 7	3, 4, 5, 6, 7
NO. OF CYLINDERS KIT WILL SERVICE	3	3	3	1	1	1

HM.3 Series Pump Parts List Repair Kit Numbers

REPAIR KIT NO.	8.751-237.0	8.751-238.0	8.933-023.0	9.802-603.0	9.802-609.0
KIT DESCRIPTION	Plunger 4035 18mm	Plunger 4030, 4031 20mm	Plunger 3540 15mm	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	33, 34, 35, 36, 37, 38	33, 34, 35, 36, 37, 38	33, 34, 35, 36, 37, 38	11, 12, 13	2
NO. OF CYLINDERS KIT WILL SERVICE	1	1	1	6	3

If you need **SERVICE** on your pressure washer, contact your local Hotsy dealer or visit www.Hotsy.com. Smart phone users scan the code below to link directly to the Service Request page.



To **REGISTER** your pressure washer, please visit our Warranty Registration page at www.hotsy.com/WarrantyRegistration.aspx or scan the code below with your smart phone.



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