

# **EASY-KLEEN**

**PRESSURE SYSTEMS LTD.**

MANUFACTURER OF HIGH PRESSURE CLEANING EQUIPMENT

## ***Owner's Manual***

### **Modular Hot Water Heaters Gas Fired or Electric**



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# Easy-Kleen Pressure Systems

**1-800-315-5533**

**This manual contains operational information that is specific for  
The EZN and EZP, Natural Gas and Propane fired hot water heaters.**

**Read the following instructions carefully before attempting to assemble,  
install, operate or service this pressure washer. Failure to comply with these  
instructions could result in personal injury and/or property damage.**

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## **IMPORTANT SAFETY INFORMATION**

The safe operation of our pressure washing systems is the **FIRST** priority of Easy-Kleen. This will only be achieved by following the operation and maintenance instructions as explained in this manual and all other enclosed manuals.

This manual contains essential information regarding the safety hazards, operations, and maintenance associated with this machine. The manual should always remain with the machine, including if it is resold.

**ALL CAUTIONS AND SAFETY WARNINGS MUST BE FOLLOWED TO AVOID INJURY OR DAMAGE TO EQUIPMENT.**

**THIS EQUIPMENT IS TO BE USED ONLY BY TRAINED OPERATORS AND MUST ALWAYS BE ATTENDED DURING OPERATION.**



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

**1. Read the instructions in this manual carefully before attempting to assemble, install, operate or service this pressure washer. Failure to comply with the instructions could result in personal injury and/or property damage.**



**WARNING:** Use protective eyewear and clothing when operating equipment in order to avoid personal injuries.



**WARNING:** This machine exceeds 85db. Appropriate ear protection must be worn.



**WARNING:** Risk of explosion. Operate only where open flame or torch is permitted.

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

**2. Be thoroughly familiar with all controls and know how to stop the machine in the event of an emergency.**



**WARNING: Dangerous Gases**

3. If you smell gas, shut off the gas supply to the appliance, extinguish any open flame, and test all joints with a soap solution. If the odor persists, call your gas supplier immediately.



**WARNING: Keep water spray away from electrical wiring.**

4. All electrically powered equipment must be grounded at all times to prevent fatal electric shocks. Do not spray water on or near electrical components. Do not touch electrical components while standing in water or when hands are wet. Always make sure machine is disconnected from power source before servicing.



**WARNING: Risk of asphyxiation. Use this product only in a well-ventilated area.**

5. Use equipment in a well-ventilated area to avoid carbon monoxide poisoning or death. This machine must never be connected to a Type B gas vent.



**WARNING: Risk of injection or severe injury to persons. Keep clear of nozzle spray.**

6. High pressure spray can cause serious injuries. Never point pressurized spray at any person or animal. Handle the spray assembly with care.



**WARNING: Risk of injury. Hot surfaces can cause burns.**



**WARNING: Hot discharge fluid. Do not touch or direct discharge stream at persons.**



**WARNING:** Trigger gun kicks back. Hold with both hands.

7. Hold firmly to the gun and wand during start up and operation of the machine. Do not attempt to make adjustments while the trigger gun is in operation.

8. Make sure all quick coupler fittings are properly secured before operating pressure washer.



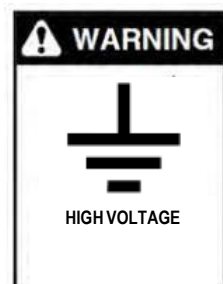
**WARNING:** Risk of injury from falls when using ladder.

9. Do not overreach or stand on anything unstable. Keep a good balance and make sure to keep a steady footing at all times.



**WARNING:** Protect from freezing.

10. It is important to keep your machine from freezing in order to keep it in its best working condition. Failure to protect your machine from freezing may cause damage to the machine and personal injuries may occur as a result.



**WARNING:** High Voltage

11. For machines with an electric motor or 120v burner – **THE MACHINE MUST BE ELECTRICALLY GROUNDED.** Must be connected to a GFCI (Ground Fault Circuit Interrupter). All Service Must be done with the machine disconnected from the supply circuit.

12. Protect high pressure hoses from sharp objects and vehicles. Inspect condition of hoses prior to use, or serious injury could occur.

13. Do not pass acids or other caustic or abrasive fluids through the pump.

**14. Do not attempt to operate this machine if fatigued or under the influence of alcohol, prescription medications, or drugs.**

**15. Some of the maintenance procedures involved in this machine require a certified technician (these steps are indicated throughout this manual). Do not attempt to perform these repairs if you are not qualified.**

**If you need further explanation of any of the information in this manual, suspend any activity involving the equipment and call our toll free number for assistance, 1-800-315-5533.**



## SPECIFICATIONS

MODEL #	MACHINE BTU/HR	BURNER RING # JETS	GAS PRESSURE W.C. (in.)	TYPE OF GAS	AIR RESTRICTION VENT OPENING @ SEA LEVEL	FLUE OUTLET DIAMETER
<b>EZN195</b>	195K	32	3.5	NG	NONE	8 in
<b>EZP195</b>	195K	32	11	LPG	NONE	8 in
<b>EZN295</b>	295K	32	3.5	NG	NONE	8 in
<b>EZN295</b>	295k	32	5	NG	NONE	8 in
<b>EZP295</b>	295K	32	11	LPG	1 + 1	8 in
<b>EZN390</b>	390K	44	3.1	NG	1 + 1/2	8 in
<b>EZP390</b>	390K	44	8	LPG	1+1	8 in
<b>EZN510</b>	510K	66	3.5	NG	NONE	10 in
<b>EZP510</b>	510K	66	11	LPG		10 in
<b>EZN560</b>	560K	33	3.7	NG	1+0	10 in
		+33				10 in
<b>EZP560</b>	560K	44	11.5	LPG	1+0	10 in
		+22				10 in
<b>EZN720</b>	720K	66	3.7	NG	1+1	10 in
<b>EZP720</b>	720K	66	11.3	LPG	1+1	10 in
<b>EZN940</b>	940k	88	3.5	NG	NONE	12 in
<b>EZP940</b>	940k	88	11.5	LPG	NONE	12 in

# **EASY-KLEEN MODULAR WATER HEATERS**

## **INTRODUCTION**

Thank you for selecting a quality EASY-KLEEN product. We are pleased to have you included among the many satisfied owners of an EASY-KLEEN SYSTEM.

Years of engineering have gone into the development of these fine products and only top quality components and materials are used throughout. Each machine is carefully tested and inspected before leaving our plant to ensure years of dependable service.

The rest is up to you. To continue to receive satisfactory performance, remember that this machine represents a substantial investment on your part, but properly cared for and maintained it will return this investment many times. As with all mechanical equipment, your machine requires proper installation, proper operation, and maintenance as outlined in this manual.

**PLEASE READ THIS MANUAL CAREFULLY BEFORE INSTALLING AND OPERATING MACHINE. EXAMINE THE MACHINE AND CRATE CAREFULLY FOR SHIPPING DAMAGE OR MISSING PARTS. REPORT PROMPTLY ANY SHORTAGES OR DAMAGE CLAIMS TO FREIGHT CARRIER.**

Carefully review any additional manuals that have been included with your system and follow ALL ADDITIONAL OPERATING INSTRUCTIONS. They are specific for the quality components that have been used to manufacture your machine and are an integral part of the operating and maintenance procedures.

## **SCOPE**

These instantaneous Coil-type Industrial Water Heaters are designed primarily for use in conjunction with existing cold water washing systems, either as a field upgrade to a hot water washer or as integral component of a modular Hot Water system. **NOTE:** These water heaters are restricted to industrial use only and are not to be used as portable water heaters.

## **OPERATING CHARACTERISTICS**

### **MAXIMUM WORKING PRESSURE**

The water heater coils are designed to operate safely at specific working pressures (see SPECIFICATIONS for the water pressure of your model). Each water heater is equipped with a safety pressure relief valve (unloader) which prevents operation above this pressure. If the high pressure system requires a lower relieving pressure for pump and motor protection, then the unloader/bypass valve on the pumping unit should be adjusted to desired pressure rating.



## **HIGH LIMIT TEMPERATURE CONTROL**

The water heater is equipped with a “high limit control” thermostat present at 220 F. It shuts down the burner in the event of excessive outlet temperature caused by insufficient water flow through the heater coil. This control can be adjusted to desired temperature up to but not exceeding 220 F.

## **PRESSURE SWITCH**

A pressure switch is installed on the high pressure pump to prevent burner operation in the absence of water flow. When heater is used with shutoff gun pumping systems, the pressure switch controls the burner in conjunction with operation of the trigger gun.

## **FLOW SWITCH**

A flow switch is installed on the outlet of the high pressure pump and will shut off the pump and motor in the absence of water flow as well as turning it back on when flow is detected (by squeezing the wand trigger).

## **SAFETY RELIEF VALVE**

**WARNING: The safety relief valve on this unit has been factory set and is not to be adjusted. Tampering with relief valve may cause personal injury or equipment damage and will void the manufacturer warranty.**

## **INSTALLATION INSTRUCTIONS**

These water heaters are certified for installation on combustible flooring with clearance to combustible walls as follows: **6 inches at rear, 18 inches at end, and 24 inches at front.** Installations must be performed in accordance with CAN1 B149.1 and 2 Codes and UL 1766 requirements in Canada and/or prevailing state and local codes in the USA.

## **GAS SUPPLY**

**Have a qualified technician install the gas supply line to the machine.**

### **NATURAL GAS**

Run a minimum 1 inch IPS gas supply line to the heater reducing to 3/4 IPS at inlet of combination gas valve. Install a gas shutoff cock in supply line to provide for shutting off the gas for routine line maintenance or repairs. The gas supply pipe shall be a direct line from the gas burning equipment in the building.

## PROPANE

For stationary installations, run a minimum 3/4 IPS supply line as above. For portable applications, a hose and regulator assembly is included with the optional portability kit. This includes a P01 tank connector, single stage regulator and an approved supply hose for connection to a combination gas valve.

Obtain one or more 100 lb. propane tank (s) and locate near the heater. Insert the male P01 connector on the regulator into the female receptacle located on the propane tank shutoff valve and tighten firmly (L.H. thread). Open tank valve and check for gas leaks using a dish soap solution. If the machine has been left for a long period, the gas line will need to be purged; therefore, several attempts may be needed to start burner. Release knob and wait 5 minutes before lighting pilot in the normal fashion.

**Note:** Continuous outdoor operation in freezing temperatures may require several tanks manifolded together to maintain consistent vaporization of the propane. Contact your local Lp gas distributor for multiple tank requirements and manifold assembly.

## REQUIRED GAS MANIFOLD PRESSURE

See SPECIFICATIONS chart on page 6 for the requirements of your model.

Pressure tap located on automatic gas valve.

Certified for installation at 0 to 4500 Ft. altitude. Installations at over 4500 Ft. and up to 6000 Ft. require a 4% deration of input rating, achieved by a slight reduction of gas pressure regulator setting.

## VENTING REQUIREMENTS

### STATIONARY INSTALLATIONS

A draft diverter must be attached to the flue hood outlet. Use same size vent as draft hood outlet and avoid short turns. Horizontal runs are not recommended. Never use a vent pipe smaller than the draft hood. If total run is more than 25', use larger size chimney. A 90 degree elbow is equivalent to a run of 20 feet. OBSERVE CAN1 B49.1 and 2 installation code requirements. **IMPORTANT:** All venting must be in accordance with applicable federal and state laws, and local ordinances. Consult local heating contractors.



**CAUTION:** If the heater is left unused for extended periods during sub-zero weather, a column of freezing air will build up in the venting system. If the building has a negative pressure condition, some of the freezing air will be drawn over the draft hood, spilling onto the heating coil which will eventually cause it to freeze and rupture. Have an installer ensure that correct draft conditions are maintained to prevent this costly occurrence.

## **LOCATED IN CONFINED SPACE**

The confined space should have 2 permanent openings: one near the top and one near the bottom of the enclosed area. The openings need to be a minimum of one square inch per 1000 BTU's of the total input rating of all units in the enclosed area. The openings shall grant free access to the interior with sufficient passage from the outside. Consult a certified gas installer on location and installation.

**WARNING:** If you do not follow these instructions exactly, a fire or explosion may result, causing property damage, personal injury, or loss of life. Do not tamper with factory installed controls.

## **PORTABLE PROPANE APPLICATIONS**

An optional rain cap can be furnished to the flue outlet.

## **FREE AIR FOR COMBUSTION AND VENTING**

If the unit is installed in an equipment room or other enclosure, care must be taken to supply sufficient free air for combustion and ventilation. Observe CAN1 B49.1 and 2 Installation Code Requirements. Care should be taken to keep the base of the unit clear of trash or any object that could interfere with combustion air to the burner. The installer will know how and where to place a supply air duct, ensuring that the opening will not promote drafts that may blow out the pilot. Keep area around machine clear to ensure air can get to the burner.

## **COMBUSTION AIR SUPPLY**

Natural Gas or Propane is consumed; therefore, air is required for combustion, for draft hood dilution, and for ventilation.

## **BASIC CONTROLS**

The water heaters are equipped with automatic gas valves that have an electronic control with an ignitor and a thermostat. A high temperature limit protects the system against excessive outlet water temperature. A pressure switch prevents burner operation without water flow. A burner "On-Off" switch is provided for manual control.

## **OPERATING INSTRUCTIONS**

### **TO OPERATE MAIN BURNER**

Be sure water is flowing through water heater coil before turning on burner switch. Start the pumping unit involved until a steady stream of water is flowing from the spray gun.

Turn burner switch to “On” position. Burner will ignite and remain in operation as long as there is sufficient water flow to satisfy the pressure switch and temperature limit control. To shut off main burner, turn burner switch to “Off”. For complete shutdown of the water heater, turn knob on combination gas valve to “Off” position. Should the pilot outage occur, turn automatic gas valve to “Off”. Wait 5 minutes to clear combustion chamber of accumulated gas and retry.

### **CONDENSATION FROM COIL**

When cold water is being pumped through the heater coil and the burner is firing, condensation may form at times on the coil and drip down the burner compartment. This can be particularly noticeable on cold, humid days giving the false appearance of a leaking coil. A leaking coil is identified by a continuously cycling pump. With the wand trigger off, the pressure gauge should read 0 with no flow.

### **TO CHECK HEATER COILS FOR LEAKS**

Start the pumping unit and allow it to run for a few minutes with the burner “Off”. Check the burner compartment with a trouble light or flash light. If no leaks are visible, this will confirm that occasional water dripping from the coil is due to condensation of the flue gases, when the burner is firing.

## **GENERAL MAINTENANCE AND CARE**

### **WINTERIZATION**

If the water heater is likely to be exposed to freezing weather, then it should be winterized with anti-freeze. Circulation of the anti-freeze solution through the coil by means of the pump is the most fail-safe method.

### **WATER CONDITION**

Use a softener on your water system if local water is known to be high in mineral content. The advantages of soft water are very beneficial. Prevents scale buildup in heater coil, cleans better with considerably less detergent, prevents streaking on painted surfaces and glass when rinsing.

## **BURNER MAINTENANCE**

**WARNING: Repair of the burner is to be done by authorized and trained burner professionals only.**

Due to periodic condensation dripping down onto the burner a scale build up may eventually occur in the burner jet orifices.

## **BURNER REMOVAL**

Shut off the gas supply line to the water heater. Disconnect  $\frac{3}{4}$  pipe union in burner valve train. Remove the two burner retaining nuts. Turn gas cock knob on combination gas valve to “Off” position. Remove Boiler Assembly from frame.

## **TO CLEAN BURNER JETS**

Select proper size drill for type of gas involved (see SPECIFICATIONS). Hand turn jet drill to clean burner. Air blow scale from around the burner jets.

**CAUTION:** Ensure jet orifices are not changed, as this will change efficiency and safe operation of heater.

## **DESCALING HEATER COIL**

If heater coils develop excessive scale buildup they should be acidized to remove the scale. Excessive scale in heater coils will reduce efficiency of the unit and affect recovery capacity.

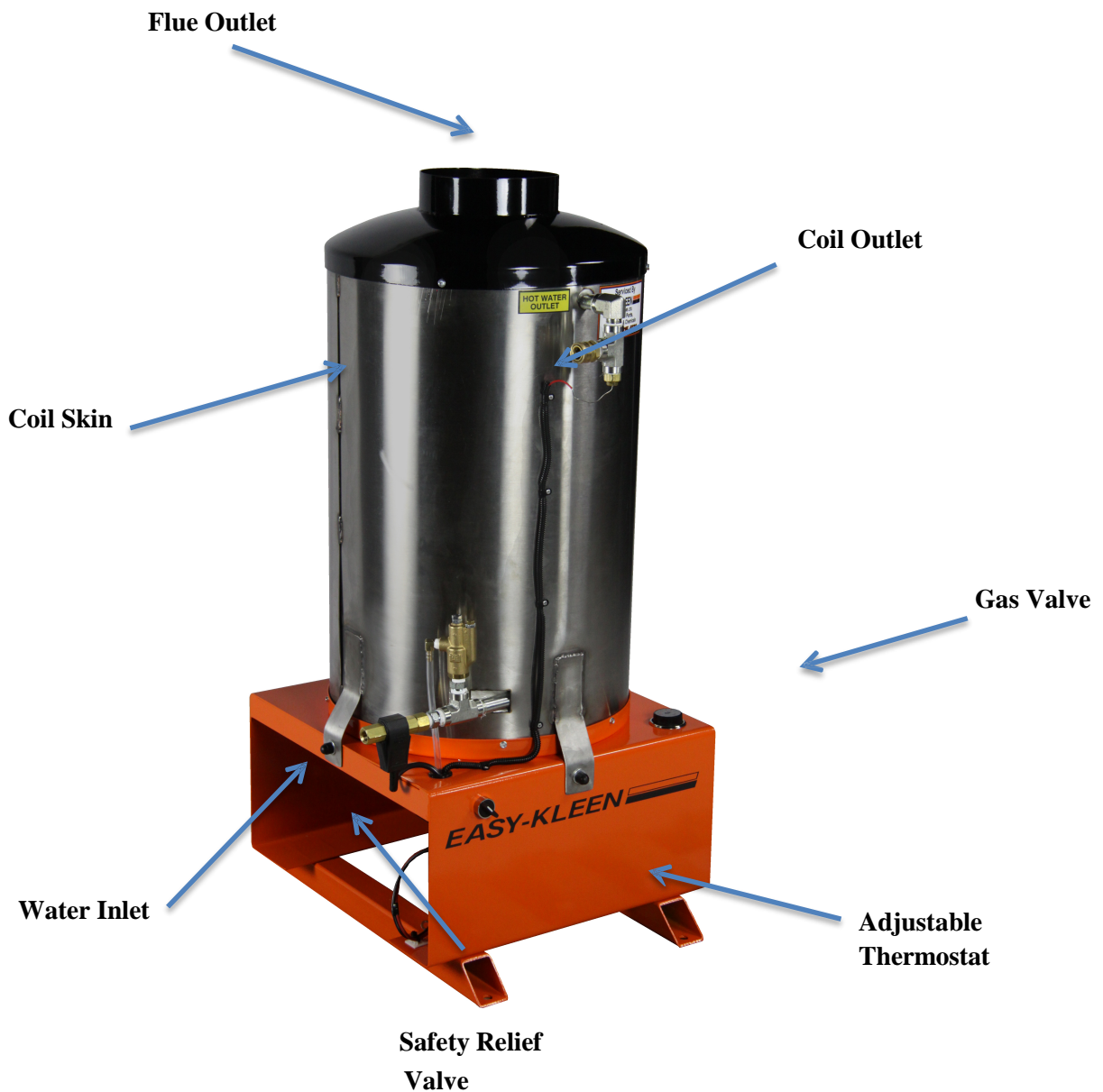
## **DESCALING PROCEDURE**

**WARNING: Coil Descaling is to be done by qualified personnel only.**

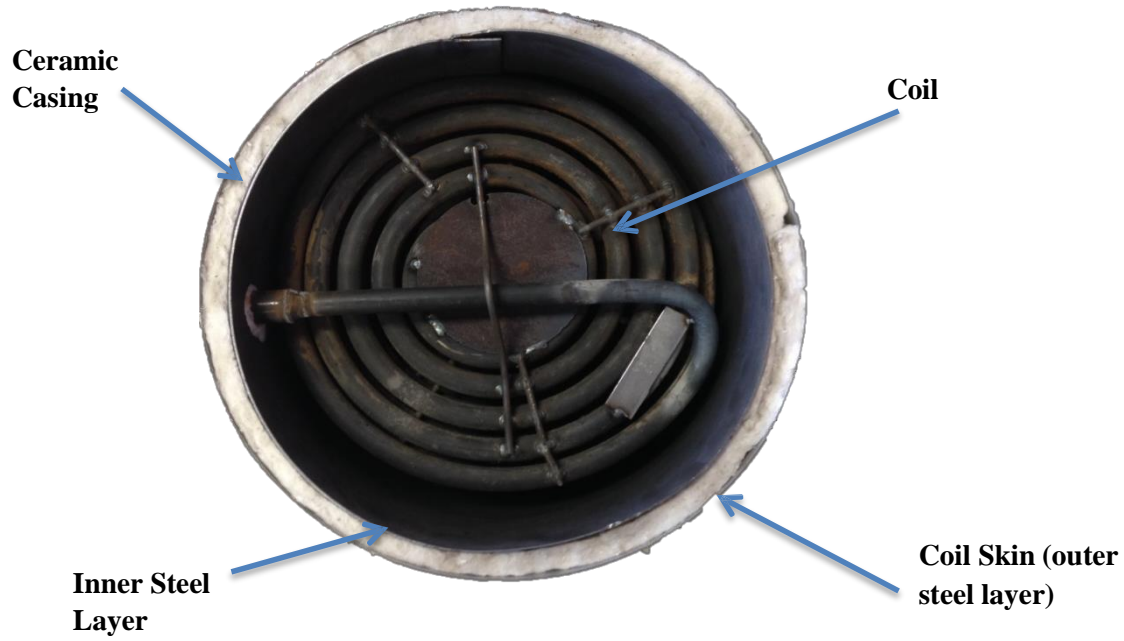
The best way to acidize the coil is with a circulation pump capable of handling acids:

1. Fill a plastic container with a suitable acid diluted with water to desired strength.
2. Connect the discharge from the circulating pump to the hot water outlet on the water heater with a suitable hose. Connect the inlet of the circulating pump to the acid container with suction hose from the pump module and use it as a return hose to the acid container. As the acid dissolves the scale it becomes neutralized, so about every five minutes add more acid to the container until all the scale has been removed from the coil. Flush out coil thoroughly with water after descaling.

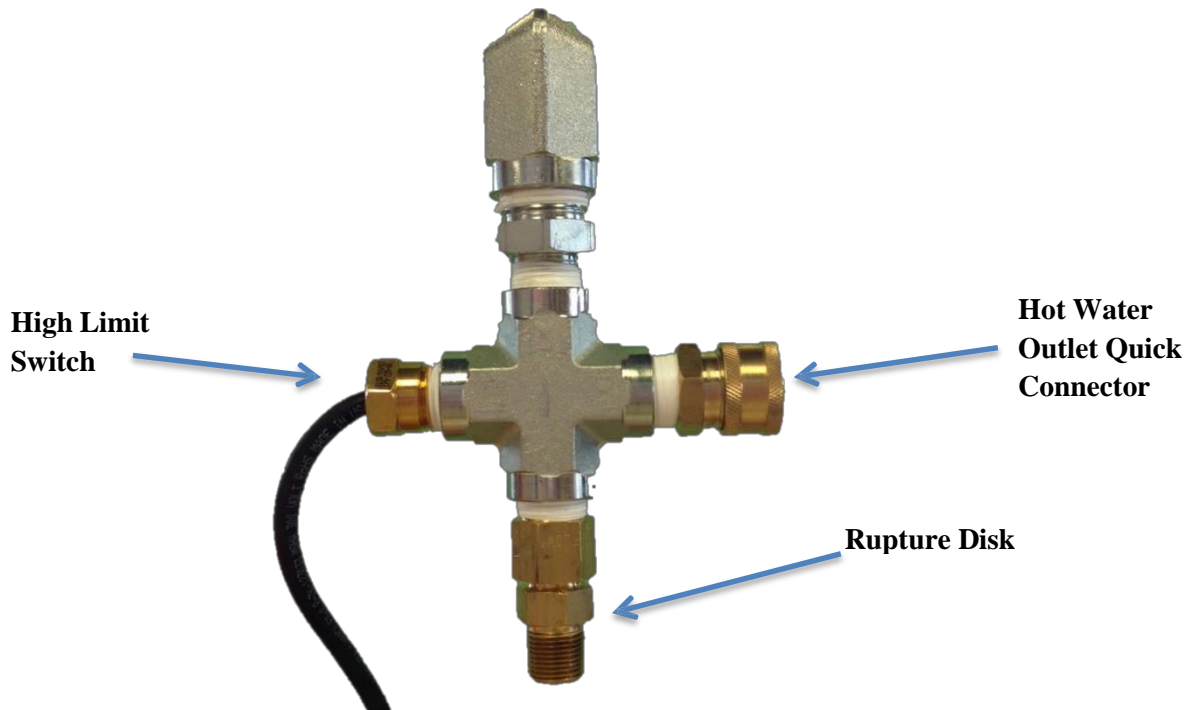
## COMPONENT IDENTIFICATION



**Hot Water Tank Interior (Top Cover Removed):**



**Coil Outlet (zoomed in view):**



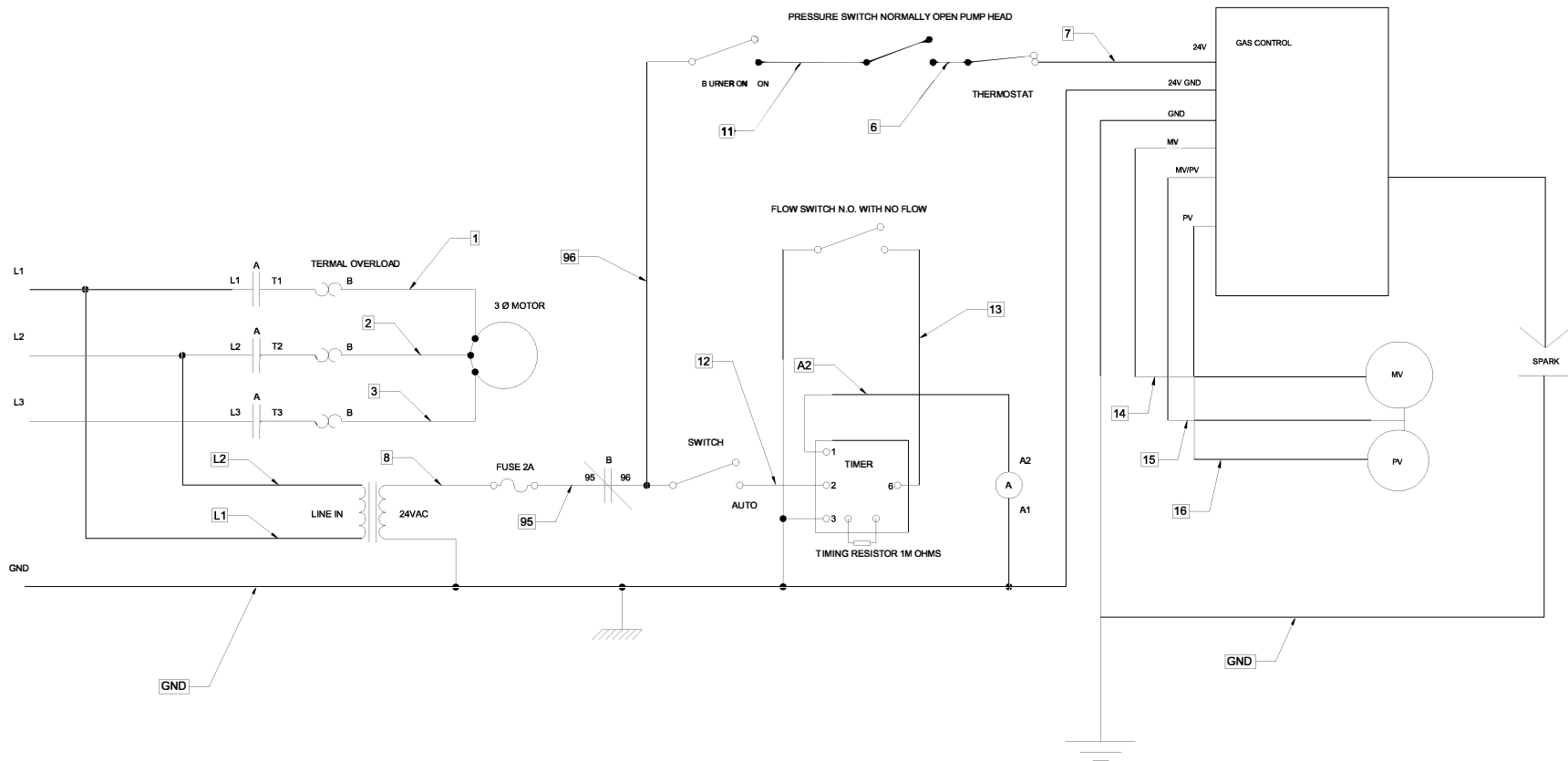
## **TROUBLE SHOOTING GUIDE - BURNER SYSTEM**

<b>Problem</b>	<b>Cause</b>	<b>Remedy</b>
1. Pilot Does Not Light	a. Gas leak in pilot feed tube	a. Check all Fittings with soap solution.
	b. Low service supply pressure	b. Ensure that gas supply meets the required pressure for your model indicated on the SPECIFICATIONS chart (page 6). Check gas supplier if not within range.
	c. Bad Electrical Ground	d. Check ground connection to pilot bracket.
2. Nuisance Pilot Outage	a. Check causes 1a, 1b, 1c, and 2b	
	b. Inadequate gas supply pipe size to machine	b. If gas regulator has to be adjusted to maximum pressure to obtain desired water temperature, this can result in pilot gas pressure to dip extremely low on burner startup. Also, excessive pressure can surge through on burner shutdown. Check 1b at burner manifold while firing.
3. No Flame at Burner	a. Manual valve on gas supply line closed	a. Open valve.
	b. Pilot not igniting	b. Light Pilot.
4. Burner Fails to Start	a. Check for loose electrical connections	a. Tighten electrical connections.
	b. Pressure switch not operating	b. Repair or replace flow switch.
	c. Limit control inoperative	c. Replace high limit control.
	d. Automatic valve inoperative	d. Replace automatic gas valve.



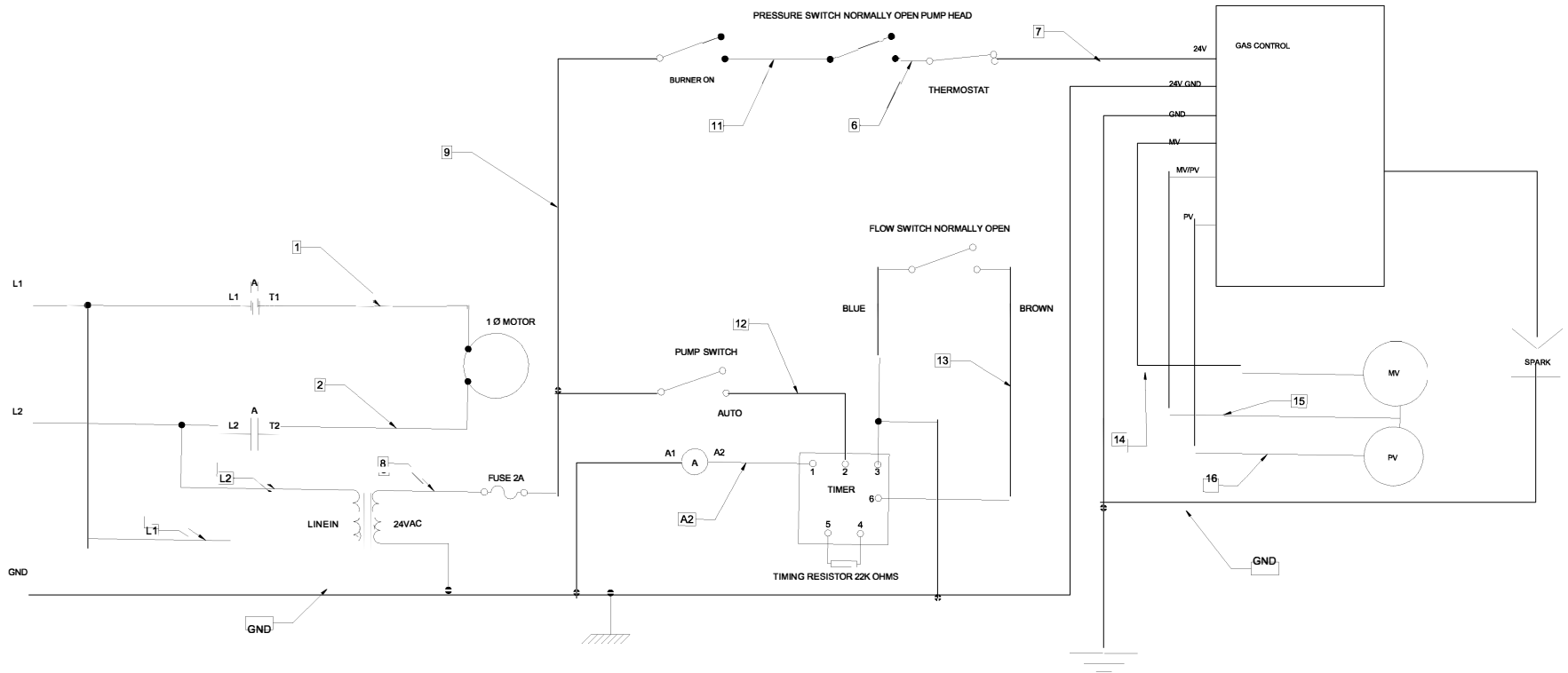
CIRCUIT DIAGRAM

AUTO START STOP 3 PHASE 560/575 AC GAS FIRED



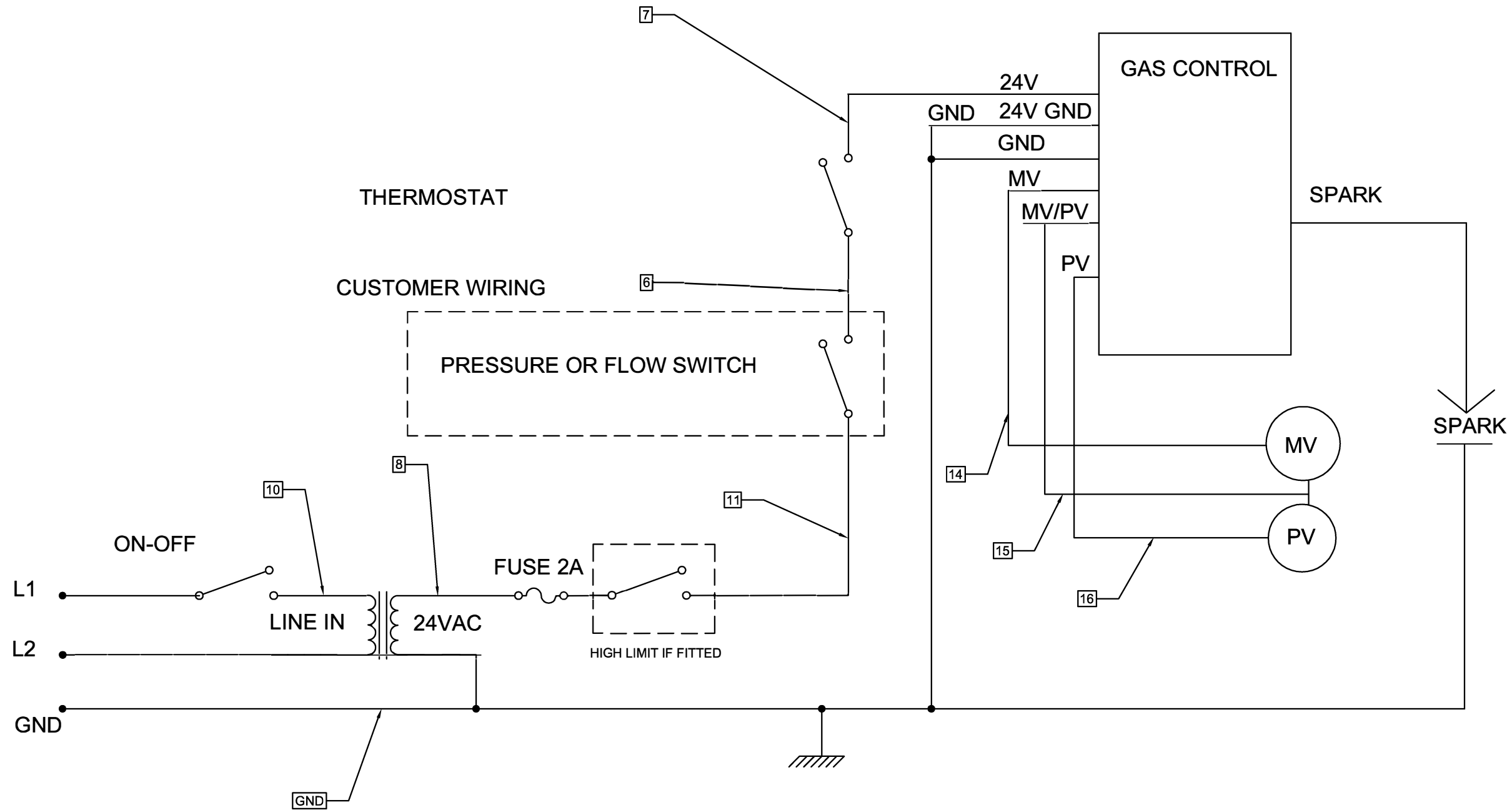
CIRCUIT DIAGRAM

AUTO START STOP SINGLE PHASE 120V AC GAS FIRED



CIRCUIT DIAGRAM

120V/240V AC GAS FIRED



# EASY-KLEEN

## PRESSURE SYSTEMS LTD.

MANUFACTURER OF HIGH PRESSURE CLEANING EQUIPMENT

AUG 1<sup>ST</sup>,  
2019

## MANUFACTURER'S WARRANTY

Thank you for your purchase of an Easy-Kleen pressure cleaning system. All original equipment are warrantied for a specific period and on the conditions set forth, that the product is free from defect in materials and workmanship as follows:

Electric Motors	1Phase	18 Months
	3 Phase	24 Months
For warranty for these items manufacturer needs to be contacted		
Oil Burners	Igniters, Fuel Solenoid, Burner Motor, Fuel Assembly, Drive Shaft, Electrodes Blower, Wheel Fuel Pump	1Year Parts
Propane / Natural Gas Burners	Burner Rings, Gas Valves, Gas Valve Control Board	1Year
Fitting	All Fittings, Brass Stainless Steel, Steel, Etc.	30 Days
Heating Coils	All Coils	1Year Replacement
	Under 5100 PSI- 5 Year Prorated	25% Year each year for 4 Years
Gas Motors	Honda and Kohler have manufacturer's warranty. Manufacturer does not cover fuel systems.	
Lifan Motor	Contact Easy-Kleen for Warranty	1Year (for commercial use)
Frames	Limited warranty on Frames, Belt Guard, Welds due to manufacture defect.	
	Paint is not covered under the manufacturer's warranty due to the aggressive environment or natural wear.	
Plastic Tanks	Water or Fuel	1Year
Accessories/Wear Items	Unloader, Regulating Valves, Safety Valves, Jetter Valves, Check Valves, Foot Valves, Pulsation Dampeners, Trigger Guns, Rotary Nozzles, Chemical Injectors, Hose, Hose Reels, Sandblast Kits, Surface Cleaner, Water Broom, Water Strainer, Belts, Ball Valves, Swivels, Balanced Relief Valves, Accumulator Lances	90 Days
Electrical Components	Switches, Time Over Loads, Contactors, Transformer, Thermostat, Vacuum Switches, Flow and Pressure Switches, Relays, Primary Controls	90 Days
No Warranty Items	Fuel Filters, Nozzles, O- Rings, Thermo Relief Valves (Pump Seals, Valves, Plungers)	
ANY PARTS NOT LISTED ABOVE CALL FOR WARRANTY TIME FRAMES		

**NOTE\*** Due to original equipment manufacturer's requirements, Easy-Kleen is not permitted to perform warranty repairs or claims for electrical motors, gas, or diesel engines. Please contact Easy-Kleen service department for a local warranty representative.

### LIMITATIONS OF LIABILITY

Easy-Kleen liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall Easy-Kleen's liability exceed the purchase price of the product in question. Easy-Kleen makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply a warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations or specifications. Our obligation under this warranty is expressly limited at our option to the replacement or repair at our manufacturer location, is such part or parts at inspection shall disclose to have been defective. Easy-Kleen does not authorize any other party, to make any representation or promise on behalf of Easy-Kleen or to modify the terms, conditions, or limitations in any way. It is the buyer's responsibility to ensure that the installation and use of Easy-Kleen products conform to local codes. While Easy-Kleen attempts to ensure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product. THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.

Easy-Kleen reserves the right to make any changes to an Easy-Kleen product at any time without incurring any obligation with respect to any product previously, ordered, sold, or shipped.

PUMP WARRANTY TIME LINE		
Cat Pumps	Direct Drive Pumps	2 Years
	Car Wash Pumps (Including all models used in Car Wash or Portable Fresh Water Pressure Cleaning applications)	5 Years
	All other pumps not listed above	1 Year
Giant Pumps	Pressure Washer and Self- Serve Car Wash Applications	5 Years
	All other Giant Pumps, Industrial and Consumer Pumps	1 Year
	Lifetime on Manifolds due to Manufacture defects	
AR Pumps	Plunger Pumps	5 Years
	Axial Pumps	1 Year
	AR Accessories	90 Days
General Pumps	Manifolds	5 Years
	Pressure Washer Pumps	5 Years
EK Pumps	Manifolds	5 Years
	Pumps	1 Year
	Accessories	90 Days
	Manufacturer does not cover wet end of Pump Seals, Valves, and Plungers.	

### WARRANTY REPAIRS

Warranty claims must first contact Easy-Kleen's Service Department to be issued a preauthorized repair number (PARN). You will need a copy of your invoice and the equipment serial number.

If new parts are needed, they will be invoiced to you as normal. Defective parts are to be sent to us PREPAID for warranty consideration. If a part is found to be defective, a credit will be issued to cover the costs of parts. All work is to be performed at the manufacturers' place of business when returned PREPAID. This warranty will not cover labor if warranty work is conducted at the customer's place of business. Road service will be charged at the normal rate in these situations.

### WARRANTY DOES NOT COVER:

- When warranty part is warranted the warranty time frame does not re-start.
- Warranty freight cost will be covered by Easy-Kleen for the first 30 days of sale of the machine due to manufacture defect or workmanship.
- Neglect of the periodic maintenance as specified in the owner's manual.
- Improper repair or maintenance.
- Operating methods other than those indicated in the owner's manual.
- The use of non-genuine Easy-Kleen parts or accessories other than those approved by Easy-Kleen
- Exposure of chemical agents, such as: Sea Water, Sea Breeze, Salt, or other environmental phenomenon.
- Collision, fuel contamination or deterioration, neglect, unauthorized alteration or misuse.
- Warranty does not cover travel or time if a service call is needed.
- Warranty does not apply when pump or accessory is altered or used in excess of recommended speeds, pressure, temperatures, or handling fluids not suitable for pump or accessory material.
- Construction warranty does not apply to normal wear.
- Warranty does not apply to normal wear (such as but limited to seals, packing valves, plungers and sealing O-Rings), freight damage, freezing damage or damage caused by parts or accessories not supplied by Easy-Kleen.
- After 30 days freight will become chargeable.
- Warranty covers In-House Labour and Parts if manufacture defect is repaired at an Easy-Kleen approved Service Center.

### WARRANTY DOES NOT COVER DEFECTS CAUSED BY:

- Improper or negligent operation or installation, accident, abuse, misuse, neglect, unauthorized modifications, including, but not limited to, the failure of the customer to comply with recommended product maintenance schedules.
- Improper repairs
- Neglected maintenance/incorrect operation (specified in the Owner/Operator's Manual)
- Unapproved devices or attachments
- Water sediments, rust corrosion, thermal expansion, scale deposits or a contaminated water supply or use of chemicals not approved or recommended by Easy-Kleen Pressure Systems Ltd.
- Improper voltage, sudden voltage spikes or power transients in the electrical supply
- Usage which is contrary to the intended purpose of the equipment
- Natural calamities or disasters including, but not limited to, floods, fires, wind, freezing\*, earthquakes, tornados, hurricanes and lightning strikes

\*Includes damage done to components that come in contact with water as a result of freezing in a non-winterized machine.

## **Natural Gas Installation - VENTING**

Venting DANGER: DO NOT run machine indoors or in an enclosed area without proper ventilation, as exhaust fumes may be hazardous to your health.

DANGER: DO NOT operate machine in areas where flammable vapors (gasoline, solvents, etc.) may be present, as this machine may ignite the vapors.

CAUTION: All venting must be in accordance with applicable federal and state / provincial laws, and local ordinances. This machine is not to be connected to a type B gas vent.

Consult local heating contractors.

If the pressure washer is to be used in an enclosed area, a flue must be installed to vent burner exhaust to the outside atmosphere. Be sure the flue is the same size as the burner exhaust vent on the pressure washer lid. Poor draft will cause the pressure washer to soot and not operate properly.

When selecting the location for installation, beware of poorly ventilated locations or areas where exhaust fans may cause an insufficient supply of oxygen. Proper combustion can only be obtained when there is a sufficient supply of oxygen available for the amount of fuel being burned. If it is necessary to install the machine in a poorly ventilated area, outside fresh air may have to be piped to the burner and a fan installed to bring sufficient air into the machine. Locate the pressure washer so that the flue will be as straight as possible and protrude through the roof at a proper height and location to provide adequate draft. This oil fired pressure washer must have a draft regulator installed in the flue (available from most heating contractors). A draft regulator will permit proper upward flow of exhaust flue gases. Easy Kleen natural and LP gas series pressure washers that incorporate a natural draft burner assembly designed to heat water that comes from the pressure washer pump require a draft diverter and vent pipe for exhausting to the outside. Gas fired machines are to be vented through the ceiling using straight pipe or 45° elbows. Easy Kleen Discourages the use of any 90° venting elbows which restrict air flow through the burner causing poor burner conditions. If this machine is going to be installed to a 90° or extended exhaust vent run length which may restrict air flow it is recommended that a contractor install a power vent. When a contractor has found it impossible to vent through the ceiling then power venting can be calculated to help eliminate exhaust restriction on this natural draft machine. This draft inducer (power vent) must be installed by a licensed contractor who can calculate size, operation connections and associated dampeners. Easy Kleen is not a licensed contractor and as such we are unable to make recommendations for suitable make and model of power vents. It is important that the licensed contractor consult local building codes.



