

Pressure Washers
and Accessories

“ELIMINATOR 2040 Oil Fired Series”

PN: 60370

Operators Manual

Rev1

Delco Pressure Washers - PN LIT-ElimOF-DEL

FNA
G R O U P

LIMITED WARRANTY

At DELCO® CLEANING SYSTEMS, we distribute top quality industrial / commercial / personal pressure washers that are designed for heavy-duty use, maximum reliability, durability, and long life. Our pressure washers are built for all duty applications and steady use due to higher quality levels.

The manufacturer of this product agrees to repair or replace designated parts that prove defective within the warranty period of one (1) year listed in the chart. Specific limitations/extensions and exclusions apply, and are listed in the chart on page 3. This warranty covers defects in material and workmanship and not parts failure due to normal wear; abuse; accidental damage; negligence; improper use, maintenance, and storage. To make a claim under the terms of the warranty, all parts said to be defective must be available or returned (if requested) to DELCO® CLEANING SYSTEMS designated Warranty Service Center for warranty inspection. The judgments and decisions of the Warranty Service Center concerning the validity of warranty claims are final.

These warranties pass through to the end user. As a factory authorized and trained Warranty Service Center the factory will honor the terms of all component warranties and satisfy claims of the appropriate warranty provisions.

Normal wear items include, but are not limited to, Valves and Seals, which are not covered by this warranty.

This Warranty replaces all other warranties, express or implied, including without limitation any warranties of merchantability or fitness for a particular purpose and all such warranties are hereby disclaimed and excluded by the manufacturer. The Manufacturer's warranty obligation is limited to repair and replacement of defective products as provided herein and the Manufacturer shall not be liable for any further loss, damages, or expenses – including damages from shipping, accident, abuse, acts of God, misuse, or neglect. Neither is damage from repairs using parts not purchased from the manufacturer or alterations performed by non-factory authorized personnel. Failure to install and operate equipment according to the guidelines put forth in the instruction manual shall void warranty.

This warranty does not cover the following: damage resulting from shipping (claims must be filed with freighter), accident, abuse, act of God, misuse, or neglect. Neither is damage from repairs or alterations performed by non-factory authorized personnel or failure to install and operate equipment according to the guidelines put forth in the instruction manual.

The manufacturer will not be liable to any persons for consequential damage, for personal injury, or for commercial loss.

LIMITED WARRANTY (cont)

Parts / Components

Warranty Period and Details

High Pressure Pumps

Five (5) year limited manufacturer warranty on pump workmanship and defects in material.

Lifetime on forged brass manifold.

Warranty does not apply to failures on other pump parts due to:

- Freight damage
- Freeze damage
- Damage caused by parts or accessories not obtained from / or approved by Delco
- Normal wear of moving parts or components affected by moving parts.

Engines

Covered by engine manufacturer warranty. See engine manual.

Electric Motors (if applicable)

One (1) year from date of first start up.

Burners (hot water machines)

One (1) year from date of first start up.

Hot Water Burner Coil (hot water machines)

Five (5) years from date of first start up.

Warranty only covers workmanship or defects of material.

Warranty does not apply to:

- Freeze Damage
- Over Pressure burst damage caused by improper maintenance of safety devices.

Frame

One (1) year from date of first start up.

Accessories

Ninety (90) days. Includes tips, guns, wands,

INTRODUCTION

Thank you for selecting a high pressure power washer from Delco Pressure Washers. Your pressure washer has been manufactured using the most advanced components in the pressure industry. When operated properly, our equipment has been designed and manufactured to give you years of trouble free, reliable use, with a minimal amount of regular maintenance. Your pressure washer is mechanical, as with all mechanical equipment it requires proper installation, operation and maintenance as outlined in this manual.

The Operators Manual has been written for your benefit. For your safety and the safety of others, we recommend you and all operators read and understand the contents. Should you experience any difficulty with your Delco pressure washer, please contact your nearest Delco Distributor immediately. We are aware of your investment in a Delco pressure washer, therefore, our prime concern is that you become one of our "satisfied" owners. Please feel free to send us your comments and ideas.

THANK YOU!!!

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OPERATOR SAFETY INSTRUCTIONS


- ▲DANGER** Means: Severe bodily injury or death can occur to you or other personnel if the **DANGER** statements found on your machine or in your Owner's Manual are ignored or are not adhered to. Read and observe all **DANGER** statements found in your Owner's Manual and on your machine.
- ▲WARNING** Means: Injury can occur to you and to other personnel if the **WARNING** statements found on your machine or in your Owner's Manual are ignored or are not adhered to. Read and observe all **WARNING** statements found in your Owner's Manual and on your machine.
- ▲CAUTION** Means: Damage can occur to the machine or to others property if the **CAUTION** statements found on your machine or in your Owner's Manual are ignored or are not adhered to. Read and observe all **CAUTION** statements found in your Owner's Manual and on your machine.
- ▲DANGER:** Failure to read the Owner's Manual prior to using this machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this pressure washer.
- ▲DANGER:** Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials.
- ▲DANGER:** This machine emits carbon monoxide. Asphyxiation could occur if the unit is used in an area with poor or inadequate ventilation. Operate unit in a well-ventilated area or connect to a flue.
- ▲DANGER:** Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect hoses, fittings, and heat exchanger for leaks or fatigue before each use.
- ▲DANGER:** Filling a machine with fuel in an explosive or poorly-ventilated area can cause an explosion. Only fill the fuel tank in an open area. Do not fill the tank near open flames or while the unit is running. Do not smoke while filling the tank. Do not over-fill the tank. Wipe up any spills. Tighten the cap on the tank when finished. Use kerosene, or #1 or #2 diesel as a fuel only. **Do not use K-1 kerosene.**
- ▲DANGER:** Tampering with the machine's factory preset relief valve setting could result in a machine explosion. Do not attempt to change the settings. Discontinue use if a malfunction occurs and contact your local authorized distributor.
- ▲DANGER:** Operating a pressure washer with a malfunctioning burner or burner controls could result in a machine explosion. Inspect burner and burner control operation before each use. If you suspect a problem with the burner, discontinue use immediately and contact your local authorized Simpson distributor for assistance.
- ▲DANGER:** Failure to properly maintain the heat exchange coil can result in a steam explosion. Scale or lime build-up will act as an insulation and decrease the efficiency of the heat exchanger coil and will also cause hot spots. This can result in a weakening of the tubing which in turn may cause a rupture.
- ▲DANGER:** Operating a machine with a ground fault circuit interrupter (GFCI) that has been tampered with, or one that repeatedly trips, could result in an electrocution. Do not remove, disable, or tamper with the GFCI. If the ground fault circuit interrupter repeatedly trips, discontinue use of the machine. Contact your local authorized Simpson distributor for assistance with the GFCI.

- ▲DANGER:** Electrocutation could occur if the machine is used on a power circuit that repeatedly trips or is undersized. Have a licensed electrician check the fuse, circuit breaker or power supply, and/or contact your local authorized distributor for assistance.
- ▲DANGER:** Electrocutation could occur if maintenance and repairs are performed on a unit that is not properly disconnected from the power source. Disconnect the power supply before attempting any maintenance or service.
- ▲DANGER:** Use of this machine with a damaged power cord could result in an electrical shock. Do not use the machine if the power cord is damaged. Do not use the electrical cord to move the machine.
- ▲WARNING:** Water under high pressure can cause severe injury. Keep all persons away from the machine and the spray area. Always point the wand toward the object being cleaned.
- ▲WARNING:** Injury to the operator or bystanders could occur if the machine is operated without all of the guards being in place on the unit. When operating the machine, all guards must be in place.
- ▲WARNING:** Operating a pressure washer under high pressure without a securely fastened hose, gun and spray nozzle(s) could result in bodily injury or property damage. Make sure the spray nozzle, gun and hose are securely fastened before operating the machine. Do not remove the nozzle or disconnect the high pressure hose while the system is pressurized and/or running.
- ▲WARNING:** Machines have moving parts and hot areas that can cause injury. Keep hands, feet, and loose clothing away from the pressure washer while it is running. After use, allow an adequate amount of cool-down time before attempting to perform any maintenance or service to this unit.
- ▲WARNING:** Failure to wear safety goggles and protective clothing when operating a pressure washer reduces operator safety. Always wear safety goggles and protective clothing when the machine is running or when operating machine.
- ▲WARNING:** Operating this pressure washer without the appropriate decals could result in operator injury or damage. Make sure all labels and instructional information are fastened to the machine. Get new labels and decals from your distributor.
- ▲CAUTION:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Servicing of this unit must always be referred to an authorized distributor.
- ▲CAUTION:** Maintenance and repairs performed by unauthorized personnel will void your warranty. Servicing of this unit must always be referred to an authorized distributor.
- ▲CAUTION:** Electrical damage can occur if the machine is exposed to direct and/or over spray. Always point the wand toward the object being cleaned.
- ▲CAUTION:** Using an extension cord with your pressure washer will result in a voltage drop and loss of power. Use of an extension cord is not recommended.
- ▲CAUTION:** Use of this machine to move other objects or to climb on could result in injury or damage.
- ▲CAUTION:** Operating a pressure washer when the pump is low on oil could cause pump damage. Always check your oil before using the machine. Use SAE 30 weight oil.
- ▲CAUTION:** Operating a pressure washer with insufficient water flow can damage the pump. Water should be turned on full-force to avoid insufficient water flow.
- ▲CAUTION:** Pump damage could occur if the pressure washer is ran for more than five (5) minutes with the trigger released (closed).
- ▲CAUTION:** Your machine warranty will be voided if anything other than genuine Simpson parts are used on your pressure washer. Always use Simpson parts for replacement.

OPERATING INSTRUCTIONS

NOTE: Following delivery of your pressure washer, inspect the unit for shipping damage and follow these directions:

1. Read all DANGER, WARNING, and CAUTION labels. Read the Owner's Manual that came with your machine before attempting to operate the pressure washer.
2. Fill the fuel tank with kerosene, or #1 or #2 diesel. **Do not use K-1 kerosene.**
3. Locate the unit in a convenient location.
4. Securely fasten the pressure hose connections.
5. Apply pipe sealant or tape at all connections.
6. Connect the water supply and turn it on full force.
7. Check all hose connections for leaks.
8. Check the oil level in the pump before starting the pressure washer.
9. Connect the high pressure hose to the gun.
10. Connect the extension wand to the gun.
11. Connect the power cord to an appropriately sized four-wire grounded circuit. The circuit chosen should have no other loads present and should be of the shortest possible length to the main circuit panel. **Note: Connect to GFCI protected circuit. For Delta circuits, connect the red lead of the power cord to the wild leg.**
12. Turn the machine to the "OFF" (O) position, before resetting the GFCI.
13. Point the wand towards the floor.
14. Turn the control switch to position one (I) "cold water wash". While pointing the wand toward the floor, squeeze the trigger on the gun and allow air to purge from the system. Check the system for leaks.
15. Turn the machine to the "OFF" position (O).
16. Install the nozzle(s) onto the gun.
17. Turn the control switch back to the "cold water wash" (I) position and squeeze the trigger to establish water flow.
18. Turn the control switch to position two (II) "hot water wash". The burner should automatically come on.

 **DANGER:** Operating a pressure washer that doesn't have proper water flow could result in an explosion. If water should stop flowing from the gun, turn unit off immediately and contact an authorized service person.

NOTE: On initial start-up, or if the unit runs out of fuel during use, there will be a slight hesitation as the fuel system purges air. Only under these circumstances should there be any hesitation present. After the burner lights there should be no visibly apparent smoke. If your unit is a trigger control, release the trigger. The unloader should activate and the flame should cease on the burner automatically.

19. Point the wand towards the object to be cleaned and proceed with cleaning.
20. For chemically enhanced cleaning follow this procedure:
 1. Open the metering valve.
 2. Turn the control switch to position one (I) "cold water wash". While pointing the wand toward the floor, squeeze the trigger on the gun and allow air to purge from the system. Check the system for leaks.
 3. Dial the metering valve to the desired chemical concentration.
 4. Point the wand towards the object to be cleaned, squeeze the trigger, and proceed with cleaning.
 5. To rinse with clean water, close the metering valve and continue spraying.

6. Flush the chemical feed line with fresh water after each use by placing the end of the chemical feed line into a container of clean, fresh water. Run the unit in the cold water wash position (I) until all traces of the chemical are gone.



DANGER: Allowing the detergent level to fall below the chemical feed line opening feeds air into the system which could cause a steam explosion. Air introduced into the system will cause pump damage and create steam space if the burner is on. The detergent level should never fall below the chemical feed line opening. If you should discover this condition, immediately turn the metering valve off.

21. Following hot water washing, turn the control switch to position one (I) and run cold water through the unit until the water exiting the wand is cool, or until the wand is cool to the touch. This period of time can be spent on a cold water rinse.
22. Turn the machine to the "OFF" position (O) and disconnect the power cord.
23. Turn the water supply off and disconnect all hose connections from the machine.
24. Drain hoses and wipe down the unit.
25. Store the machine, hoses, and any accessories in a dry place.

MAINTENANCE

HOW TO CHECK THE OIL

It is critical that the oil in your machine be checked regularly. To check the oil follow this procedure:

1. Locate the oil dipstick in the plug on the top of the machine.
2. Turn the oil plug counterclockwise.
3. Wipe the dipstick with a clean cloth.
4. Screw the dipstick in. Pull it back out and check for the oil level mark. The oil level should be at the top mark.
5. If the oil is below the notch, add SAE 30 weight, non-detergent oil.
6. Put the dipstick back into the hole.
7. Turn the plug clockwise until it stops.

NOTE: Change the oil after the first 50 hours of use and then after every 500 hours of use. SAE 30 weight oil must be used.

FREEZE-UP PREVENTION

To prevent freeze-up follow these instructions:

1. Drain the float tank.
2. Remove the spray nozzle from the wand.
3. Mix antifreeze concentrate and water in a large container. Read the recommended mixing instructions given with the antifreeze.
4. Fill the float tank with the antifreeze mixture.
5. Put the end of the chemical line in the float tank. Fully open the metering valve.
6. Turn the control switch to position one.
7. Let the pump run until the antifreeze moves through the pump, coils, and pressure hose.


NOTE: The trigger on the gun must be pulled to allow antifreeze to pass through the coils, and then the trigger must be released to allow the antifreeze to pass through the bypass line.

- 8 Turn the control switch to the "O" position and close the metering valve.
9. Unplug the cord and put the machine in a dry building.

HOW TO CHECK / CLEAN THE HEAT EXCHANGE COIL

The heat exchange coil should be inspected for deposit build-up after 40 hours of use, or once a month, whichever comes first. In hard water areas a water softening system should be employed.

Scaling or liming of the coils is caused by mineral deposits from the water and occurs much faster in hard-water areas and with heavier machine usage. Lime build-up can also be caused by inferior cleaning compounds.

 DANGER: Failure to properly maintain the heat exchange coil can result in a steam explosion! Scale or lime build-up will act as an insulation and decrease the efficiency of the heat exchanger coil and will also cause "hot spots". This can result in a weakening of the tubing which can lead to a steam explosion.

HOW TO CORRECT PROBLEMS IN THE MACHINE

Problem	Cause	Action
The motor will not start	Power cord may not be connected.	Connect the power cord.
	Switch may not be turned "ON".	Turn switch to "ON".
	Ground fault circuit interrupter did not reset.	Reset the ground fault circuit interrupter.
	The power cord may be connected to a dead outlet.	Contact a licensed electrician.
	May have a defective motor, GFCI, or switch.	Contact your authorized Simpson dealer.
The motor has difficulty starting or is overheating.	The thermal overload switch tripped.	Allow motor to cool, reset thermal switch.
	Circuit may be too long, overloaded, or conductors may be undersized.	Locate the outlet nearest to the circuit panel which can be reached with the cord supplied with the machine.
	Incorrect voltage or frequency.	Check the voltage and frequency.
	The motor is wet.	Contact an authorized Simpson service person.
	The coils are limed.	Delime the coils.
The pump overheats.	The spray nozzle is obstructed.	Remove and clean the nozzle.
	The oil level is low.	Fill to the proper oil level with high quality SAE 30-weight non-detergent oil.
The pump vibrates.	The machine has been running for an extended period of time with the trigger gun off.	Immediately press the gun release lever to allow cool water to flow into the pump.
	The pump is sucking air.	Contact an authorized Simpson service person.
The pump surges when the trigger gun is off.	The pump check valves are dirty.	Contact an authorized Simpson service person.
	There is a leak.	Check all fittings. Keep fasteners tight. Contact an authorized service person.
The pump is running but the pressure is low on installation.	The unloader valve is not adjusted correctly.	Contact an authorized Simpson service person.
	The pump is sucking air.	Make sure the water supply is correct, metering valve closed, or solution above above feed line.
	The pump valves are sticking.	Contact an authorized Simpson service person.
	The unloader valve is worn.	Contact an authorized Simpson service person.
	The nozzle is not the correct size.	Replace the nozzle.
	The pump plunger packing is worn.	Contact an authorized Simpson service person.

Problem	Cause	Action
The pressure is changing.	The pump valves are worn.	Contact an authorized Simpson service person.
	The pump valves are dirty.	Contact an authorized service person.
	The pump is sucking air.	Check the water supply. Make sure all connections are tight.
	The pump plunger packing is worn.	Contact an authorized Simpson service person.
The pressure is low after normal use.	The spray nozzle is worn.	Replace the nozzle.
	The pump check valves are worn or dirty.	Contact an authorized Simpson service person.
	The unloader valve is worn.	Contact an authorized Simpson service person.
	The pump plunger packing is worn.	Contact an authorized Simpson service person.
The pump is noisy.	There is air in the suction line.	Check the water supply. Make sure all fittings are tight.
	The valves are dirty.	Contact an authorized Simpson service person.
	The bearings are worn.	Contact an authorized Simpson service person.
	The incoming liquid is too hot.	Reduce the temperature to below 90°.
	The suction or delivery valve springs are worn.	Contact an authorized Simpson service person.
There is/has been water in the oil.	The oil seal is worn.	Contact an authorized Simpson service person.
	The humidity is high.	Contact an authorized Simpson service person.
	The plunger packing is worn.	Contact an authorized Simpson service person.
There is water dripping from under the pump.	The plunger packing is worn.	Contact an authorized Simpson service person.
	The plunger retainer O-ring is worn.	Contact an authorized Simpson service person.
Oil is dripping.	The oil seal is worn.	Contact an authorized Simpson service person.
	The spray nozzle is not the correct size.	Install a new nozzle.
The pressure is too high and is released at the unloader or pressure relief valve.	The coils are limed.	Delime the coils.
	The spray nozzle is obstructed.	Clean the nozzle.
The machine does not pick up the cleaning solution.	The metering valve is leaking air.	Tighten all fittings on the valve.
	The screen on the chemical line is dirty.	Clean the filter. Replace if damaged.
The pressure is surging.	The spray nozzle is obstructed.	Clean the nozzle.
	The spray nozzle is not the correct size.	Install a new nozzle. Use only a nozzle recommended for the machine.
The gun and the hose are vibrating.	There is an air leak.	Tighten all fittings on the suction side of the pump.
	There is not enough water.	Check the water level in the tank.
	The check valve in the pump is damaged.	Contact an authorized Simpson service person.

Problem	Cause	Action
The unloader or pressure relief valve is leaking.	The valve is not correctly adjusted.	Contact an authorized Simpson service person.
	The unloader, pressure relief valve, or seat is worn or damaged.	Contact an authorized Simpson service person.
	The nozzle is dirty.	Clean the nozzle.
	There is a restriction in the discharge hose.	Remove the nozzle and flush the line.
	There is a restriction in the coil.	Clean the coil.
The burner will not start.	The fuel tank is empty.	Fill the fuel tank with either #1 or #2 diesel, or kerosene.
	The fuel filter is dirty.	Change the fuel filter.
	The burner motor does not run.	Push the reset button on the burner motor. If the burner still does not start, contact an authorized service person.
	The burner is not turned on.	Turn the switch to the "ON" position (II).
The pressure is low.	There is an air leak.	Contact an authorized Simpson service person.
	The belts are loose.	Tighten the belts.
	The spray nozzle is worn.	Install a new nozzle.
	The water supply is too low.	Increase the water supply. Make sure the garden hose is 5/8" I.D.
	The check valves in the pump are worn or dirty.	Contact an authorized Simpson service person.
	The plunger packing is worn.	Contact an authorized Simpson service person.
	The spray nozzle is the wrong size.	Use only the nozzle recommended for the machine.
The water temperature is too low.	The fuel nozzle is dirty.	Contact an authorized Simpson service person.
	The fuel filter is dirty.	Replace the fuel filter.
	The coils are limed or sooted.	Delime or desoot the coils.
	There is water in the fuel.	Drain and replace the fuel.
	The fuel pressure is low.	Contact an authorized Simpson service person.
	The fuel pump pressure is weak.	Contact an authorized Simpson service person.
There is smoke coming from the stack.	The wrong type of fuel is being used.	Use only #1 or #2 diesel or kerosene.
	There is not enough air to the burner.	Contact an authorized Simpson service person.
	The fuel nozzle components are loose.	Contact an authorized Simpson service person.
	The coils are sooted.	Clean the soot from the outside of the coils.
	The fuel nozzle is dirty.	Contact an authorized Simpson service person.



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