



# MODEL 771/772

## OPERATING INSTRUCTIONS AND PARTS MANUAL

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



Conforms To UL Standard 1776

### SPECIFICATIONS

- Pump Volume At Pump Head: 3.0 GPM/180 GPH
- Pump Pressure At Pump Head: 1500 PSI
- Burner Type: (771) LP Gas Fired, 376,000 BTU/Hr.;  
(772) Natural Gas Fired, 378,000 BTU/Hr.
- Machine Voltage: 230VAC/60Hz/1Ph
- Total Machine Amperage: 13 Amps
- Machine Weight: 355 Lbs.
- Shipping Weight: 390 Lbs.
- Exhaust Stack Size: 10"
- Machine Dimensions: Length = 31.5", Width = 20", Height = 36.5"



Certified to CAN/CSA - B140.11

<b>SERIAL NUMBER:</b>	
<b>DATE PURCHASED:</b>	
<b>FOR SALES AND SERVICE, PLEASE CONTACT:</b>	

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Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

The model and serial numbers will be found on a decal attached to the pressure washer. You should record both serial number and date of purchase and keep in a safe place for future reference.

# INTRODUCTION & IMPORTANT SAFETY INFORMATION

Thank you for purchasing this Pressure Washer. 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.

**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**

READ OPERATOR'S MANUAL THOROUGHLY PRIOR TO USE.

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

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. Do not replace LP tank while machine is running.
5. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details. If your machine is rated 250 volts or less, single phase will be provided with a ground fault circuit interrupter (GFCI). If rated more than 250 volts, or more than single phase this product should only be connected to a power supply receptacle protected by a GFCI.

**DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use any type of adaptor with this product.**




**WARNING**

KEEP WATER SPRAY AWAY FROM ELECTRICAL WIRING.

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

6. 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**

RISK OF EXPLOSION: IF GAS SMELL PRESENT TURN OFF SUPPLY

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

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



**WARNING**

RISK OF FIRE. DO NOT ADD FUEL WHEN OPERATING MACHINE.

**WARNING: Risk of fire — Do not change tanks when the product is operating or still hot.**

**WARNING: Use vapor fuel only.**

7. Oil burning 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.

8. Keep operating area clear of all persons.



**WARNING**

USE PROTECTIVE EYE WEAR AND CLOTHING WHEN OPERATING THIS EQUIPMENT.

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

9. Eye, hand, and foot protection must be worn when using this equipment.

# IMPORTANT SAFETY INFORMATION



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



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

**WARNING:** This machine produces hot water and must have insulated components attached to protect the operator.



**WARNING:** Risk of injury. Hot surfaces can cause burns. Use only designated gripping areas of spray gun and wand. Do not place hands or feet on non-insulated areas of the pressure washer.

10. 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.



**WARNING:** Grip cleaning wand securely with both hands before starting. Failure to do this could result in injury from a whipping wand.

11. Never make adjustments on machine while in operation.
12. Be certain all quick coupler fittings are secured before using pressure washer.



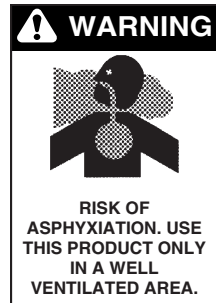
**WARNING:** High pressure developed by these machines will cause personal injury or equipment damage. Keep clear of nozzle. Use caution when operating. Do not direct discharge stream at people, or severe injury or death will result.



**WARNING:** Protect machine from freezing.

13. To keep machine in best operating conditions, it is important you protect machine from freezing. Failure to protect machine from freezing could cause malfunction of the machine and result in death, serious bodily injury, and/or property damage. Follow storage instructions specified in this manual.

14. Inlet water must be clean fresh water and no hotter than 90°F.



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

15. Avoid installing machines in small areas or near exhaust fans. Adequate oxygen is needed for combustion or dangerous carbon monoxide will result.

16. Manufacturer will not be liable for any changes made to our standard machines or any components not purchased from us.

17. The best insurance against an accident is precaution and knowledge of the machine.



**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.

18. Do not overreach or stand on unstable support. Keep good footing and balance at all times.

19. Do not operate this machine when fatigued or under the influence of alcohol, prescription medications, or drugs.

20. Follow the maintenance instructions specified in the manual.

21. Do not replace LP tank while machine is running. Serious injury could result.

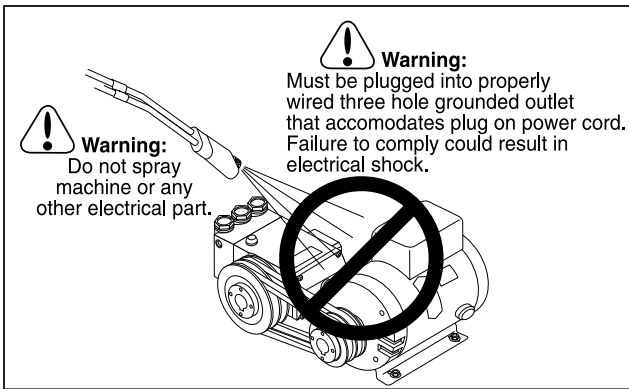
**WARNING:** Use vapor fuel only.

22. The LP models are designed to run on vapor propane fuel. Do not use liquid fuel. Have a qualified serviceman install and service your equipment.

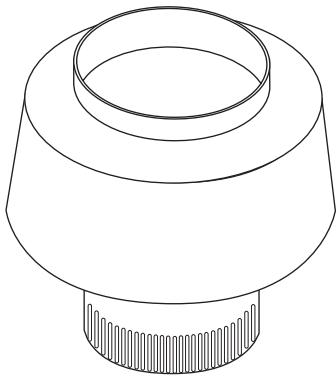
## IMPORTANT SAFETY INFORMATION

23. Never expose a spark or flame where there may be unburned gas present.
24. Install the machine 18" above the floor and about 2 feet from wall providing adequate ventilation and space.
25. When making repairs disconnect from electrical source and shut off gas valve.
26. Install this machine on non combustibile flooring.
27. Do not allow acids, caustic or abrasive fluids to pass through the pump.
28. Never run pump dry or leave spray gun closed longer than 1-2 minutes.

**WARNING: If connection is made to portable water supply, a back flow device must be provided.**

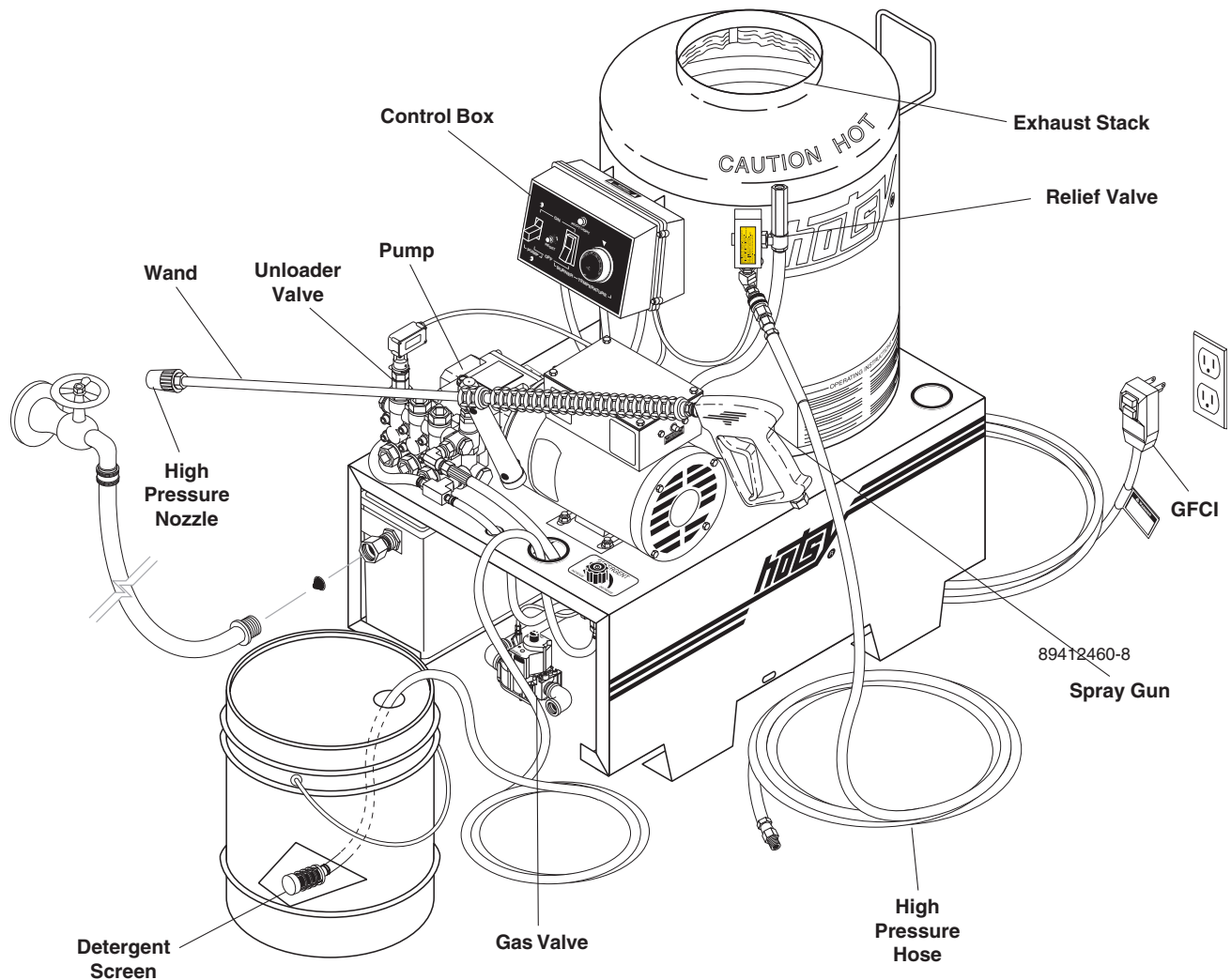


**Follow the maintenance instructions specified in the manual.**



**Example Of Down Draft Diverter For Gas Fired Machines**

# COMPONENT IDENTIFICATION



**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.

**Wand** — Must be connected to the spray gun.

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

**Relief Valve** — Secondary pressure release in the unlikely event the unloader valve fails.

**Unloader Valve** — Safety device which, when the spray gun closes, prevents over pressurization.

# ASSEMBLY INSTRUCTIONS

## Unpacking

Unpack carefully. Wear safety glasses or goggles while unpacking, assembling or operating pressure washer. If there are missing components or hidden damage, immediately contact distributor or carrier concerning discrepancies.

1. Cut strapping band from pressure washer and pallet.
2. Remove pressure washer from pallet.

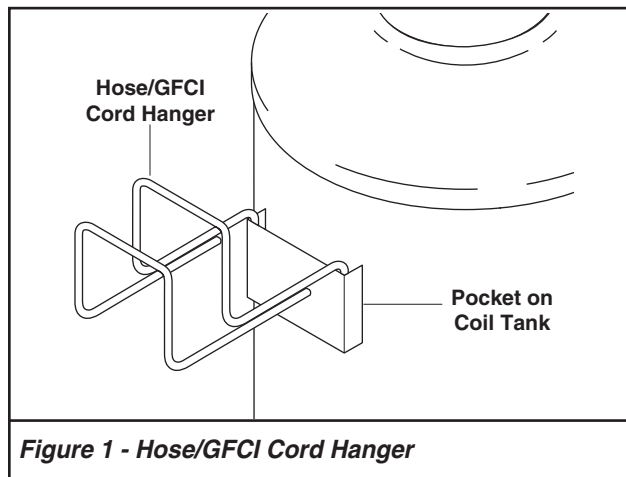
## Parts Included

- Hotsy High Pressure Washer
- High Pressure Hose
- Hose/GFCI Cord Hanger
- Wand
- Trigger Gun
- Operating Instruction and Parts Manual
- Parts Bag Containing:
  - Pressure Nozzle
  - Quick Disconnect
  - Quick Disconnect Plug

## Tools Required

- 10" Adjustable Wrench (1 ea.)
- Medium Phillips Head Screwdriver (1 ea.)
- Large Slotted Head Screwdriver (1 ea.)
- 3/16" Allen Wrench (1 ea.)
- Pipe Thread Sealing Compound For Gas Connectors
- Teflon Tape

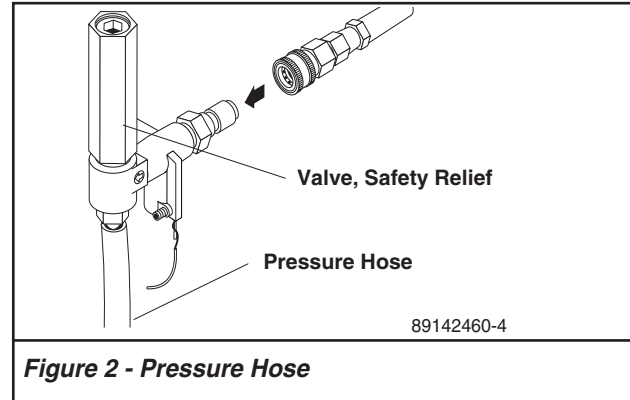
1. Install Hose/GFCI Cord Hanger on coil tank as shown in **Figure 1**.



**Figure 1 - Hose/GFCI Cord Hanger**

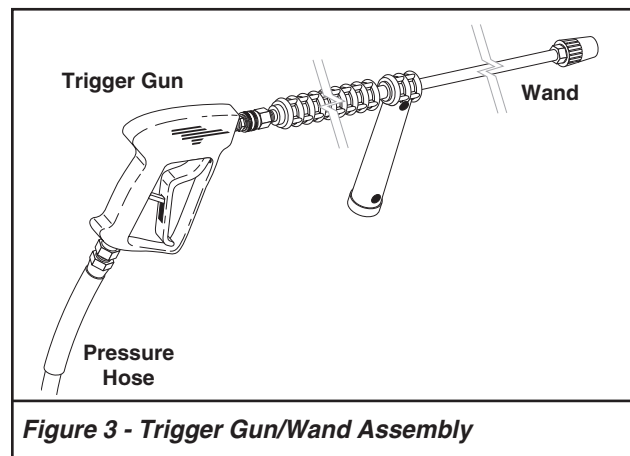
## Pressure Hose, Trigger Gun and Wand

1. When assembling, use teflon tape on all plumbing connections to prevent leakage.
2. Install the pressure hose on the pressure washer as shown in **Figure 2**.



**Figure 2 - Pressure Hose**

3. Assemble wand components as shown in **Figure 3**.



**Figure 3 - Trigger Gun/Wand Assembly**

**NOTE: The pressure nozzle is not to be installed at this time.**

4. Make sure all plumbing connections are tight.

# INSTALLATION INSTRUCTIONS

## Getting Started

**IMPORTANT:** Proper initial installation of equipment will assure more satisfactory performance, longer service life, and lower maintenance cost.

**IMPORTANT:** The use of a backflow-preventer on the water supply hose is recommended and may be required by local codes.

The pressure washer should be run on a level surface and in a protected area where it is not readily influenced by outside forces such as strong winds, freezing temperatures, rain, etc. The pressure washer should be located to assure easy access for filling of fluids, adjustments and maintenance. Normal precautions should be taken by the operator to prevent moisture from reaching the pressure washer. It is recommended that a partition be made between the wash area and the pressure washer to prevent direct spray from the wand from coming in contact with the pressure washer. Moisture reaching the equipment will reduce the pressure washer's service life. All installations should comply with the local codes covering such installations.

## 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.

**DANGER:** Some gases are heavier than air and will spill out on the floor in the time required for the safety pilot valve to close off gas supply. Therefore, always provide adequate space and ventilation around this pressure washer.

**CAUTION:** All venting must be in accordance with applicable federal and state laws, and local ordinances. 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 gas fired pressure washer must have a draft diverter installed in the flue (available

from most heating contractors). A draft diverter will permit proper upward flow of exhaust flue gases.

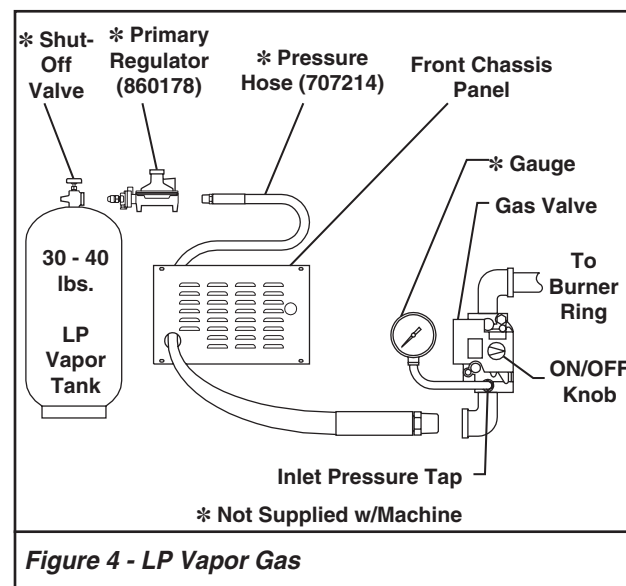
## Using LP Vapor Fuel From A Portable Bottle

**CAUTION:** Have a qualified gas service technician install and service your equipment.

The model 771 has been factory built to use LP Vapor fuel. **DO NOT USE LIQUID FUEL.**

### You will need the following items:

- LP vapor fuel tank. We recommend using a minimum 30-40 lb. bottle. Bottle must have a shut-off valve.
  - LP gas hose. Four foot long minimum, 3/4" inside diameter. Must have 3/4" male NPT thread end to attach to machine. Available through Hotsy, Part Number 707452. This hose is supplied in the 771 Portable Gear/LP Bottle Rack Kit, Part Number 280771.
  - Gas primary regulator. Controls the pressure from the gas bottle into the gas valve. Regulator must be capable of handling 376,000 BTU/Hr. with an adjustment range of 12.0 to 14.0 water column inches. Available through Hotsy, Part Number 860178.
  - Gas pressure gauge or gas manometer
  - 10" Adjustable wrench
  - Medium Phillips head screwdriver
  - Large slot head screwdriver
  - 3/16" Allen wrench
  - Pipe thread sealing compound for gas connections
1. Disconnect the machine from the power source.
  2. Remove the chassis front panel to gain access to the gas valve. Refer to **Figure 4**.



**Figure 4 - LP Vapor Gas**

3. Turn the gas valve ON/OFF knob to the OFF position.



# INSTALLATION INSTRUCTIONS

4. Use pipe thread sealing compound at all hose connections and at gauge port pipe plugs to prevent leaks. **DO NOT** use teflon plumbing tape.
5. Attach a 3/4" inside minimum diameter LP gas hose to the inlet port of the machine. Make sure you use a hose that is suitable for LP gas.
6. Install the gas pressure gauge or manometer into the gas valve inlet pressure tap. The reading at this location will indicate the incoming gas pressure from your gas bottle primary regulator.  
It is very important that the incoming gas pressure be between 12.0-14.0 water column inches (.43 - .50 PSI).

**WARNING: Maximum inlet pressure to machine 14.0 water column inches (.50 PSI).**

To control the pressure from the LP bottle you must have a primary regulator. If you purchase a regulator from Hotsy, Part Number 860178, it will be preset from the manufacturer and should not require adjustment. If your primary regulator does not produce the correct pressure range contact your local Hotsy Service Representative. After connecting the gas hose to your regulator, install the regulator on the bottle. The regulator 860178 has a POL fitting which will screw directly into an LP Vapor fuel bottle.

7. The gas pressure coming out of the gas valve and going to the burner ring has been factory set and should not require adjustment. If you replace your gas valve, you will need to adjust the new valve for a burner ring gas pressure of 11 water column inches (.39 PSI). Follow the installation and adjustment instructions provided with your replacement valve.
8. After correct pressures have been established, remove gauge and replace with pipe plug.
9. Always check new gas line connections for leaks with soapy water.
10. Reinstall the chassis front panel on the machine.

## Converting From LP to Natural Gas Fuel

**CAUTION: Have a qualified gas service technician modify, install and service your equipment.**

The Model 771 has been factory built to use LP Vapor fuel, however this model can be field converted to run on natural gas fuel. It is very important to follow these instructions when converting the unit for natural gas fuel.

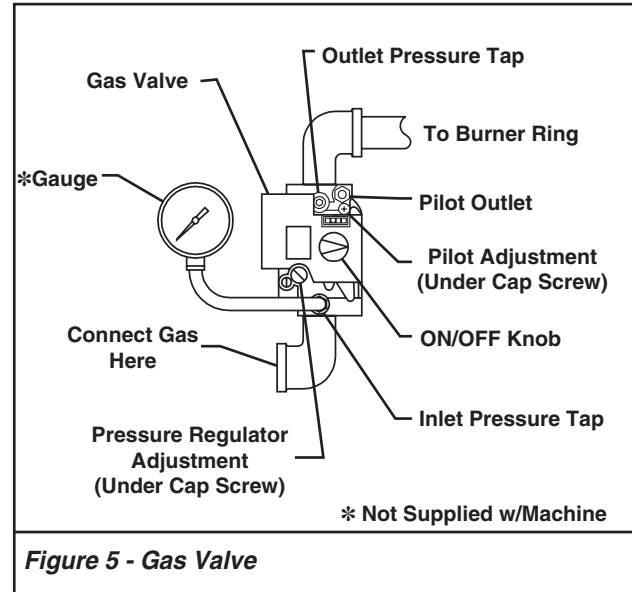
Modifications will need to be made to several components within the washer. Before starting, disconnect gas and electrical power supply from the machine.

### You will need the following items:

- Gas pressure gauge or gas manometer
- 10" Adjustable wrench
- Medium Phillips head screwdriver
- Large slot head screwdriver
- 3/16" Allen wrench
- Pipe thread sealing compound for gas connections

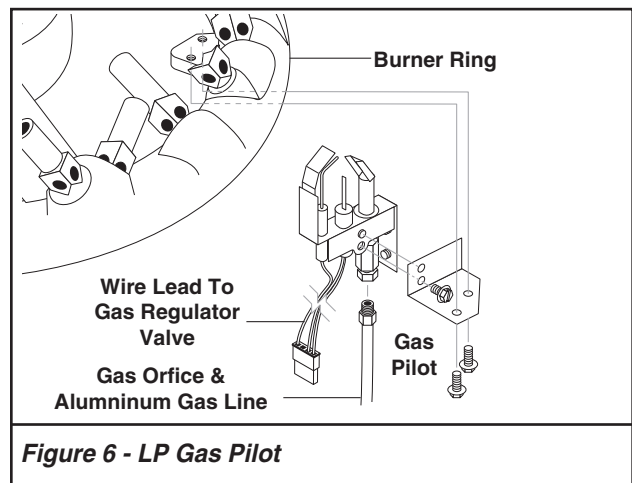
- Drill and drill bit #55 (.052)
- Natural gas orifice, Part Number 753141
- LP To Natural Gas Regulator Valve Conversion Kit Part Number 753142

1. Remove both the chassis front and rear panels from the machine to gain access to the burner assembly.
2. Turn the gas valve ON/OFF knob to the OFF position.



Refer to **Figure 5**.

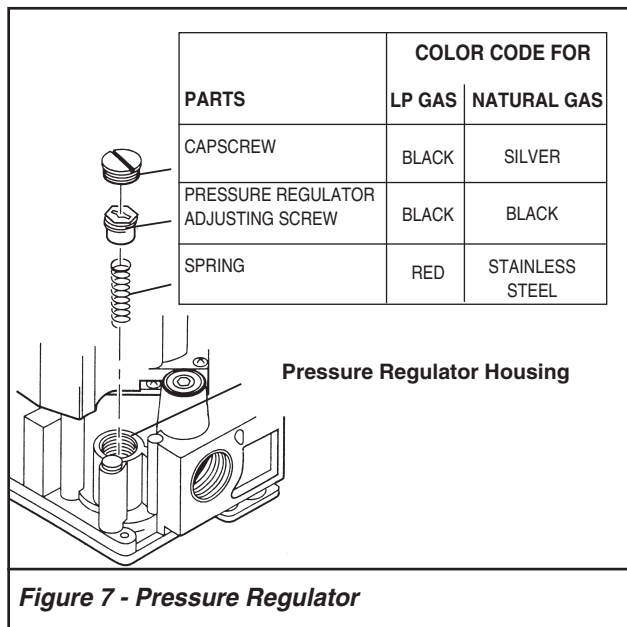
3. Disconnect the wire leads to the gas valve.
4. Remove the burner ring assembly from the machine by removing the U-bolt and the two nuts. Save all hardware for reassembly after modifications are made.
5. Disconnect the aluminum gas line from the pilot. (Refer to Burner Assembly).
6. Carefully remove the LP gas pilot from the burner ring (Refer to **Figure 6**).



7. Remove the LP gas orifice from the pilot (Refer to **Figure 6**).
8. Install natural gas orifice, Part Number 753141.
9. Carefully remove burner nozzles from burner ring.

# INSTALLATION INSTRUCTIONS

10. Enlarge the diameter of each nozzle using a #55 drill bit (.052"). Make sure the holes are drilled straight and all metal shavings are cleared from inside nozzles. Carefully reinstall the nozzles into the burner ring, do not over tighten, do not use pipe thread sealing compound.
11. Remove regulator cap screw, pressure regulator adjustment screw and spring. (Refer to **Figure 7.**)



12. Install the replacement spring, supplied in the Natural Gas Conversion Kit. (Refer to **Figure 7.**)
13. Install the new plastic pressure regulator adjustment screw. Assure that the screw top is flush with the regulator top.
14. Replace the natural gas pilot. Inspect compression fittings on aluminum gas line. If fittings are damaged, replace with compression fitting supplied with orifice kit. To replace compression fittings cut the aluminum gas line as close to the old compression fitting as possible. Install new compression fitting. Install aluminum gas line into pilot and tighten.
15. Install the burner ring assembly into the chassis and secure.
16. Connect your natural gas supply to the inlet port of the machine gas plumbing. (Refer to **Figure 5.**)

**IMPORTANT: This gas line must be provided with a shut off valve.**

17. Install the gas pressure gauge or manometer into the gas valve inlet pressure tap. This reading will indicate the incoming gas pressure from your gas supply.
18. It is very important that the incoming gas pressure be between 4.5 - 14.0 water column inches (.16 - .50 PSI). If adjustment is necessary, it must be done by a qualified gas service technician.

**WARNING: Maximum inlet pressure to machine 14.0**

**water column inches (.50 PSI).**

19. Next install the gas gauge or manometer in the outlet pressure tap port of the gas valve. (Refer to **Figure 5.**) This reading will indicate the gas pressure going to the burner ring.
20. Because of the safety features within the gas valve, adjustment of the burner ring gas pressure can only be made while the machine is running and the burner is lit. Follow the instructions under **Before Starting** and **To Start** for details to operate burner.
21. Turn pressure regulator adjustment screw clockwise to increase gas pressure. Adjust gas pressure to 3.5 water column inches. (.13 PSI).
22. Turn off the burner and pump. Shut off gas supply to the machine before removing the gas gauges or manometers. Always check new gas line connections with soapy water for leaks.
23. Install the new cap screw. (Refer to **Figure 7.**)
24. Remove LP gas label on gas valve.
25. Reinstall the chassis front and rear panels on the machine.

## Converting from Natural Gas to LP Vapor Gas

**CAUTION: Have a qualified gas service technician install and service your equipment.**

To convert back to LP vapor fuel, it is important to follow the following instructions.

Modifications will need to be made to several components within the washer. Before starting, disconnect gas and electrical power supply from the machine.

### You will need the following items:

- Gas pressure gauge or gas manometer
- 10" Adjustable wrench
- Medium Phillips head screwdriver
- Large slot head screwdriver
- 3/16" Allen wrench
- 44 gas nozzles #66 orifice Part Number 908260
- LP Vapor gas pilot Part Number 829858
- LP Vapor gas conversion kit Part Number 753138
- LP Vapor fuel tank. We recommend using a minimum 30 - 40 lb bottle. Bottle must have a shut-off valve.
- LP gas hose - four feet long minimum, 3/4" inside diameter. Must have 3/4" male NPT thread end to attach to machine. Available through Hotsy, Part Number 707432. This hose is supplied in the 771 portable gear/LP bottle Rack Kit, Part Number 280771.
- Gas primary regulator. Controls the pressure from the gas bottle into the gas valve. Regulator must be capable of handling 376,000 BTU/Hr. with an adjustment range of 12.0 to 14.0 inches Water Column.

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## INSTALLATION INSTRUCTIONS

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Available through Hotsy, Part Number 860178.

1. Refer to **Converting to Natural Gas** and follow steps 1 through 6.
2. Discard pilot and replace with LP vapor gas pilot, Hotsy Part Number 829858.
3. Carefully remove burner ring nozzles.
4. Replace the natural gas nozzles with the #66 gas nozzles. It is important to replace them as LP vapor gas is required to use smaller orifice gas nozzles than natural gas. When installing the nozzles into the burner ring, do not over tighten and do not use pipe thread sealing compound.
5. Refer to **Converting to Natural Gas** and follow steps 11 through 13 except use LP Vapor Conversion Kit instead of Natural Gas Conversion Kit. (Refer to **Figure 8.**)
6. Refer to **Converting to Natural Gas** and follow steps 14 and 15.
7. To complete LP vapor conversion reference **LP Vapor Gas From A Portable Bottle** and follow steps 4 through 11.

# OPERATION INSTRUCTIONS

## Before Starting

1. Read all manuals provided with this pressure washer. Become familiar with location and function of all operating and safety controls.

**WARNING:** Make sure all switches and controls are in the OFF position prior to plugging in electrical cord.

**DANGER:** Do not stand in water while plugging or unplugging electrical cord.

**CAUTION:** This pressure washer is equipped with a UL approved ground fault circuit interrupter (GFCI) power cord. Use UL grounded type receptacles of proper voltage and amperage ratings. Where a properly grounded receptacle is not available, it is the personal responsibility of the owner to have one installed. Always disconnect power before servicing your pressure washer.

**CAUTION:** This machine is equipped with a 35 foot long power cord protected by a ground fault circuit interrupter (GFCI). DO NOT use extension cords because of possible severe electrical shock and/or damage to the machine.

**DANGER:** This equipment is designed to run on vapor fuel. DO NOT use liquid fuel. Have a qualified serviceman install and service your equipment.

2. Connect electrical cord to an overload protected 230VAC/60Hz/1PH grounded circuit, minimum 15 ampere rated. Test the GFCI using the reset and test procedure located on the GFCI device. Do not use machine if GFCI fails test. The GFCI must be reset and tested with every use.

**WARNING:** Check hoses, fittings, wand, trigger gun and fuel connections daily for signs of wear, cracks and looseness, and replace as required.

3. Connect water supply hose to the garden hose connector located on machine's front. The water faucet and supply hose must be capable of providing a minimum of 3.0 gallons per minute (GPM).
4. Connect proper gas supply. See instructions under **Using LP Vapor Fuel** and **Converting to Natural Gas**.
5. Check pump oil level.
6. If detergents are to be used, only use detergents intended for pressure washers. Follow instructions on the detergent container.

**IMPORTANT:** Before installing nozzle on initial start-up, turn on the water supply and pump switch and allow water to run from the end of the wand until clear to prevent the nozzle from clogging.

**IMPORTANT:** If the pressure washer has not been used for an extended period of time, remove the nozzle from the end of the wand and turn on water supply and pump switch. Allow water to run from the end of the wand until clear.

8. Install the pressure nozzle on end of wand, (refer to **Figure 8**).

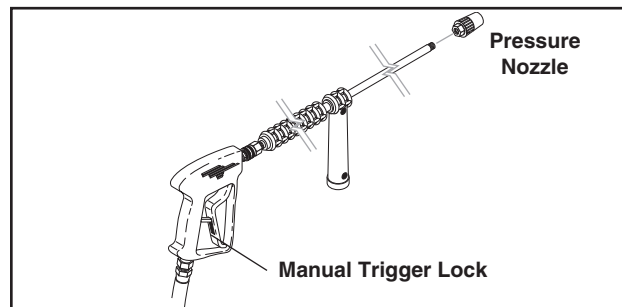


Figure 8 - Nozzle Installation/Manual Trigger Lock

**NOTE:** To prevent damage to the pressure nozzle, only place the wrench on hex area when tightening.

**IMPORTANT:** The trigger gun provided with this pressure washer is equipped with a manual trigger lock to prevent accidental operation of the trigger gun, (refer to **Figure 8**). The trigger lock should be used whenever the trigger gun is not in use.

**IMPORTANT:** Pump may require priming the first time the pressure washer is run. See step 9.

9. If you are running the machine for the first time, or the machine has been sitting for a period of time, the pump may require priming. To prime the pump, run pressure washer with only the pump switch on.

**IMPORTANT:** On initial start up or if a new gas bottle is installed it is necessary to bleed the air from the gas line before the pilot will light. Refer to step 10 for details.

10. If you are running the machine for the first time, have changed the gas bottle, or have performed maintenance to the burner assembly, there will be air in the gas line. To bleed out the air from the gas line, run pressure washer with pump and burner switch on and thermostat on highest setting. Squeeze trigger gun for 15 seconds. If the burner has not ignited, release trigger for 5 seconds and re-squeeze. If the burner has not ignited after 10 tries, see the **Troubleshooting Guide** in this manual.

## TO START

**DANGER:** Do not point wand or trigger gun at yourself or at any person. Bodily injury may result from water under high pressure.

**WARNING:** Wear eye, ear, hand, foot, and skin protection at all times while operating pressure washer.

**IMPORTANT:** The water must be turned on before starting. Running the pump dry will cause damage and void warranty.

**IMPORTANT:** Do not allow the machine to run with trigger of trigger gun released for more than 10 minutes

## OPERATION INSTRUCTIONS

at any one time or damage to pump may occur.

**WARNING:** If ignition or flame failure is experienced, discontinue use of burner at once by turning burner switch off. Have cause of failure corrected by an authorized service technician. After corrections are made, refer to **OPERATION** for start-up instructions.

1. Connect electrical cord and test GFCI device.
2. Turn on water supply.
3. Turn on gas supply.
4. Grasp wand firmly. Turn on pump switch.
5. Turn on burner switch, and adjust thermostat to desired temperature.
6. Squeeze trigger of trigger gun. The pilot will automatically ignite, quickly followed by the firing of the burner ring. If ignition does not take place within 5 to 7 seconds see **Troubleshooting Guide** in this manual. When the trigger of the trigger gun is released or thermostat setting is reached, the burner will turn off.

### To Clean

**DANGER:** Do not place hands or fingers in front of high pressure spray. Bodily injury may result.

1. Insert the detergent inlet line into the container of mixed detergent. The detergent metering valve on the chassis allows the detergent flow to be controlled.
2. Adjust the width of the pressure nozzle spray pattern to meet your cleaning needs. Adjustment is made by rotating the outer housing of the pressure nozzle, (refer to **Figure 9**). The spray pattern can be adjusted from 0 degrees solid stream to 80° fan spray. Release the trigger of the trigger gun prior to making any spray pattern adjustments.

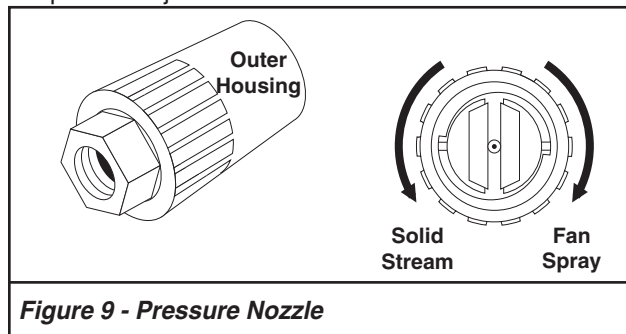


Figure 9 - Pressure Nozzle

3. Wash from the bottom to the top, using side to side motions. This washes away heavy dirt and allows the detergent to soak as you work toward the top.
4. Do not wash at a 90° angle to work (straight at it). This will allow water to splash back at you and reduces your cleaning power. Wash at a 30° to 60° angle to the work. This will allow the water to splash away from you and the water will wash the dirt away faster and easier.
5. Use the full width of the spray pattern to wash in a wide path. Overlap spray paths for complete coverage. Wash from side to side, using slow, steady motions.
6. The nozzle should be 12" to 24" from work, closer for tough areas. Be careful on painted or delicate surfaces, the pressure may damage surface if nozzle is too close.
7. Small parts should be washed in a basket so the pressure does not push them away. Larger, lightweight parts should be clamped down so the pressure does not push them away.
8. To rinse, turn the detergent metering valve clockwise. Always rinse with cold water after using detergent. Rinse from the top to the bottom to prevent detergent from dripping onto a rinsed area. For the best results, contact your Hotsy dealer to help you select the best detergent for your application.

### To Stop

**NOTE:** If the machine is unplugged, the GFCI must be reset prior to use. Always test GFCI before each use.

1. If detergents were used, draw clean water through the detergent inlet line to purge detergent. Failure to do so may clog detergent metering valve.
2. If burner was used, turn OFF burner switch and allow pump to run cold water through coil for several minutes.
3. Turn OFF pump switch.
4. Turn OFF water supply.
5. Squeeze trigger of trigger gun to relieve system pressure.
6. Turn off main shut-off valve on gas supply.

## MAINTENANCE

### Storage

**DANGER: Do not store flammable liquids (gasoline, diesel fuel, solvents, etc.) near pressure washer, or in non-ventilated areas.**

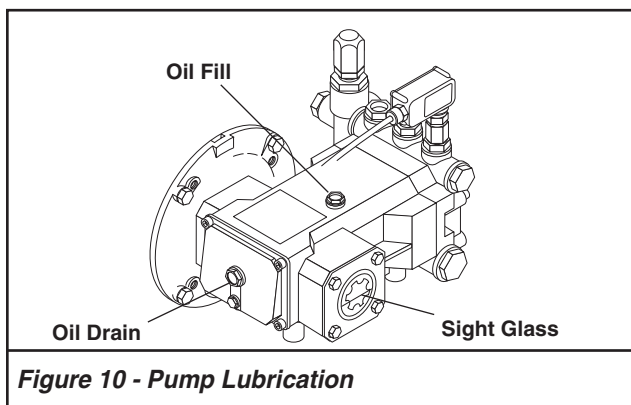
1. Protect from freezing by storing in a heated area, or by flushing the system with antifreeze (use an automotive engine antifreeze or windshield washer solvent to antifreeze). To flush the system, fill the float tank with antifreeze. Start machine and allow to run until antifreeze flows from the end of the wand. Squeeze and release the trigger gun several times to antifreeze the unloader system. Also draw antifreeze through the detergent inlet line to antifreeze the detergent system. For added protection after antifreezing, disconnect the pressure hose from machine and remove the coil drain plug (refer to **Figure 1** for location). After coil has drained, replace pressure hose and coil drain plug. If the pressure washer is not to be used for an extended length of time, it is recommended that the system be flushed with antifreeze for rust protection.

## MAINTENANCE

**WARNING: Unauthorized machine modification or use of non-approved replacement parts may cause personal injury and/or property damage and will void the manufacturer warranty.**

### Pump

**Lubrication:** To lubricate pump, use 30W non-detergent oil for pump crankcase. Crankcase must be filled to center of sight glass window found on the rear of the pump, (refer to **Figure 11**). During the break-in-period, make sure the oil is changed after the first 25 hours of operation. After that, replace oil every 3 months or 300 hours of operation, whichever comes first.



**Figure 10 - Pump Lubrication**

### Proper Pump Care

- **DO NOT** pump acids.
- **DO NOT** allow pump to run dry.
- Winterize if storing in freezing temperatures, refer to **Storage** for details.

- Use a water softener on the water system if known to be high in mineral content.
- Use only high quality detergents and follow manufacturer's mix recommendations.
- Flush the system with clean water immediately after using detergent solutions.
- Clean filter screen on detergent inlet line periodically.
- Flush the pressure washer system with antifreeze if storing for an extended period of time. Refer to **Storage** for details.

### Pump Motor

On a yearly basis, oil pump motor per instructions on motor nameplate.

**NOTE: Some motors may be equipped with permanently lubricated bearings and will not require additional lubrication.**

### Gas Burner

It is recommended that the gas burner be serviced yearly or as needed. Contact your local service center.

### Rupture Disk

If pressure from pump or thermal expansion should exceed safe limits, the rupture disk will burst, allowing high pressure to be discharged through hose to ground. When the disk ruptures it will need to be replaced.

**Caution: Inspect rupture disk annually for any obstruction.**

### Unloader Valve

**WARNING: The unloader valve on this pressure washer has been factory set and sealed and is a field nonadjustable part. Tampering with the factory setting may cause personal injury and/or property damage, and will void the manufacturer warranty. For replacement refer to Figure 21, Item 3.**

### Heating Coil

**Coil Descaling:** In hard water areas, scale buildup within the heating coil will occur. Scale deposits will decrease the water temperature rise and may eventually clog the heating coil. Contact your local service center when descaling is needed.

**Coil Desooting:** Poor grades of fuel or inadequate combustion air will cause heavy soot buildup on the outside surface of the heating coil. These deposits will insulate the coil. This will restrict the air flow through the coil, further aggravating the soot buildup. Contact your local service center when desooting is needed.

## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
<b>PRESSURE WASHER WILL NOT RUN.</b>	Pump switch in OFF position.	Place switch in ON position.
	Electric plug not fully inserted into wall receptacle.	Insert plug fully into known working receptacle.
	GFCI tripped.	Reset GFCI. Refer to instructions on GFCI.
	Fuse blown or circuit breaker tripped in electrical supply line.	Replace fuse or reset circuit breaker. Use only circuits of adequate capacity.
	Motor circuit overload tripped.	Allow sufficient time for motor to cool down. Depress red thermal protector reset button, located on pump motor.
<b>PRESSURE WASHER RUNS BUT WON'T SPRAY.</b>	Trigger of trigger gun released.	Squeeze trigger.
	Water supply not turned on.	Open water supply valve.
	Clogged nozzle.	Clean nozzle opening.
	Inlet water screen clogged.	Check screen and clean if necessary.
	Pump lost its prime.	Refer to Before Starting, Step 9.
<b>LOW SPRAY PRESSURE AT NOZZLE.</b>	Inadequate water supply.	Fully open faucet. Check for kinked or damaged hose. Use 5/8 inch minimum hose. Check for debris clogging inlet screen.
	Partially clogged or damaged nozzle.	Clean or replace.
	Air being drawn through detergent inlet line.	Refill detergent container. Ensure that pick-up screen is fully immersed.
<b>UNEVEN SPRAY PATTERN.</b>	Partially clogged or damaged nozzle.	Clean or replace.
<b>POOR OR NO DETERGENT FLOW.</b>	Inadequate detergent supply.	Refill detergent container. Ensure that pick-up screen is fully immersed.
	Detergent screen or hose clogged.	Clean. Always start with a clean detergent container.
	Detergent metering valve not opening.	Check that handle or knob is not slipping on shaft.
<b>POOR CLEANING.</b>	Improper detergent concentration or mixing.	Mix detergent per manufacturer's instructions. Ensure that powdered detergents are fully dissolved.
	Wrong detergent for the application.	Select appropriate detergent.
	Rinsing with hot water.	A final rinse with cold water will reduce water spotting.

## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
<b>BURNER WILL NOT IGNITE WHEN TRIGGER GUN IS OPEN</b>	Burner switch is off.	Turn switch on.
	Loose electrical connections.	Tighten electrical connection.
	Gas valve off.	Turn gas valve on.
	Pressure switch not operative.	Test pressure switch and replace if defective.
	Manual valve on gas supply line is closed.	Open valve.
	Low service supply pressure.	Refer to <b>Using LP Vapor Gas From A Portable Bottle</b> or <b>Converting To Natural Gas</b> , and sections on how to check and set incoming pressure.
	Air in gas line.	Refer to <b>Before Starting</b> , step 10.
	Defective pilot flame rod.	Replace.
	Defective primary regulator.	Replace.
	Defective gas valve.	Replace.
	Pump switch turned off.	Pump must be running before burner will light.
	Inadequate water supply.	Fully open faucet. Check for kinked or damaged hose. Use 5/8 inch minimum hose. Check for debris clogging inlet screen.
	Trigger of trigger gun released.	Squeeze trigger. Water must be spraying for burner to light.
Adjustable thermostat setting is too low.	Raise temperature setting.	
<b>BURNER SMOKES OR HAS OBNOXIOUS ODOR</b>	Stack restriction.	Refer to <b>Venting</b> under <b>Installation</b> .

### IMPORTANT

If the pressure washer demonstrates other symptoms or the corrective actions listed do not correct the problem, contact the local authorized Hotsy Service Center. The Hotsy Service Center can be identified by visiting [www.hotsy.com](http://www.hotsy.com) or by calling **1-800-525-1976**.

**When ordering from your dealer, please provide the following:**

**Model Number: 771/772**

**Machine Serial Number:** \_\_\_\_\_

**Component Part Number:** \_\_\_\_\_

**Description:** \_\_\_\_\_

**771/772 OPTIONAL EQUIPMENT**

\_\_\_\_\_ **280263**      **Portagear/LP Rack Kit**





## HOTSY LIMITED NEW PRODUCT WARRANTY PRESSURE WASHERS

### WHAT THIS WARRANTY COVERS

All Hotsy pressure washers are warranted by Hotsy to the original purchaser to be free from defects in materials and workmanship under normal use, for the periods specified below. This Limited Warranty is subject to the exclusions shown below, is calculated from the date of the original purchase, and applies to the original components only. Any parts replaced under this warranty will assume the remainder of the part's warranty period.

#### SEVEN YEAR PARTS AND ONE YEAR LABOR WARRANTY:

Components manufactured by Hotsy, such as frames, handles, top and bottom wraps, float tanks, fuel tanks, belt guards, and internal components on the oil-end of HOTSYS manufactured pumps. General, AR, Liberty, Comet and swash and wobble plate pumps have a one year warranty. Heating coils have a five year warranty from date of original machine purchase.

#### ONE YEAR PARTS AND ONE YEAR LABOR WARRANTY:

All other components, excluding normal wear items as described below, will be warranted for one year on parts and labor. Parts and labor warranty on these parts will be for one year regardless of the duration of the original component manufacturer's part warranty.

#### WARRANTY PROVIDED BY OTHER MANUFACTURERS:

Motors, generators, and engines, which are warranted by their respective manufacturers, are serviced through these manufacturers' local authorized service centers. Hotsy is not authorized and has no responsibility to provide warranty service for such components.

#### WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover the following items:

1. Normal wear items, such as nozzles, spray guns, discharge hoses, wands, quick couplers, seals, filters, gaskets, O-rings, packings, pistons, pump valve assemblies, strainers, belts, brushes, rupture disks, fuses, pump protectors.
2. Damage or malfunctions resulting from accidents, abuse, modifications, alterations, incorrect installation, improper servicing, failure to follow manufacturer's maintenance instructions, or use of the equipment beyond its stated usage specifications as contained in the operator's manual.
3. Damage due to freezing, chemical deterioration, scale build up, rust, corrosion, or thermal expansion.
4. Damage to components from fluctuations in electrical or water supply.
5. Normal maintenance service, including adjustments, fuel system cleaning, and clearing of obstructions.
6. Transportation to service center, field labor charges, or freight damage.

#### WHAT YOU MUST DO TO OBTAIN WARRANTY SERVICE

In order to obtain warranty service on items warranted by Hotsy, you must return the product to your Authorized Hotsy Distributor, freight prepaid, with proof of purchase, within the applicable warranty period. If the product is permanently installed, you must notify your Authorized Hotsy Distributor of the defect. Your Authorized Hotsy Distributor will file a claim with Hotsy, who must subsequently verify the defect. In most cases, the part must be returned to Hotsy freight prepaid with the claim. For warranty service on components warranted by other manufacturer's, your Authorized Hotsy Distributor can help you obtain warranty service through these manufacturers' local authorized service centers.

#### LIMITATION OF LIABILITY

Hotsy's liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall Hotsy's liability exceed the purchase price of the product in question. Hotsy 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 and specifications. Our obligation under this warranty is expressly limited at our option to the replacement or repair at a service facility or factory designated by us, of such part or parts as inspection shall disclose to have been defective. **THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.** Hotsy does not authorize any other party, including authorized Hotsy Distributors, to make any representation or promise on behalf of Hotsy, 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 Hotsy products conforms to local codes. While Hotsy attempts to assure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

**HOTSY**

[www.hotsy.com](http://www.hotsy.com)

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If you are looking for replacement parts for your Hotsy, please contact your local dealer. You can find a dealer by calling Hotsy at 800-525-1976 or by visiting [www.hotsy.com](http://www.hotsy.com).

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