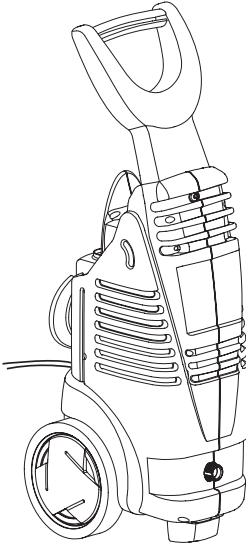


Electric Pressure Washer

Operating Instructions

Model: PW0501400



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**Carefully read and understand these instructions
before operating this pressure washer**

REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.

Safety and Warning Information

Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

⚠ DANGER *Danger indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.*

⚠ WARNING *Warning indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.*

⚠ CAUTION *Caution indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.*

NOTE: Information that requires special attention.

Important Safety Instructions SAVE THESE INSTRUCTIONS

⚠ WARNING

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

1. Read all instructions before using the product.
2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
3. ALWAYS disconnect power before disassembling or repairing the unit.
4. Follow all safety codes as well as the Occupational Safety and Health Act (OSHA).
5. Ensure safety devices are operating properly before each use. DO NOT remove or modify any part of the gun or unit.
6. Know how to stop this product and bleed pressure quickly. Be thoroughly familiar with the controls.
7. Stay alert - watch what you are doing.

8. Do not operate the product when fatigued or under the influence of alcohol or drugs.
9. Keep operation area clear of all persons.
10. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
11. Follow the maintenance instructions specified in the manual.
12. This product shall be connected to a power supply receptacle protected by a ground fault circuit interrupter (GFCI).
13. If product is provided with a GFCI, be sure to inspect cord and GFCI prior to use. Any repair or replacement of the power cord must be performed by a qualified (licensed or certified) electrical technician.

⚠ WARNING *The power cord on this product contains chemicals, including lead, known to the State of California to cause [cancer and] birth defects or other reproductive harm. WASH HANDS AFTER HANDLING!*

⚠ WARNING *Risk of injection or severe injury. Keep clear of nozzle. Do not discharge streams at persons. This product is to be used only by trained operators. Always remove lance from gun before cleaning debris from tip.*

- Keep clear of nozzle. NEVER direct high pressure spray at any person, animal or self.
- Always wear ANSI Z87.1 approved safety glasses or goggles and protective clothing when operating or performing maintenance.
- Never put hand or fingers over the spray tip while operating the unit.
- Never try to stop or deflect leaks with any body part.
- Always engage the trigger safety latch in the safe position when spraying is stopped even if only for a few moments.
- Always follow detergent manufacturer's label recommendations for proper use of detergents. Always protect eyes, skin and respiratory system from detergent use.

Safety and Warning Information (Continued)

⚠WARNING

SERVICING OF A DOUBLE-INSULATED APPLIANCE

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means are provided for a double-insulated product, nor should grounding means be added to the product. Servicing a double-insulated product requires extreme care and knowledge of the system, and should be done only by qualified service personnel. Replacement parts for a double-insulated product must be identical to the original parts. A double-insulated product is marked with the words “Double Insulation” or “Double Insulated”. Product may also be marked with symbol shown in Figure 1.



Figure 1 - Double Insulated symbol

⚠WARNING *Do not use pressure that exceeds the operating pressure of any of the parts (hoses, fittings, etc.) in the pressurized system. Ensure all equipment and accessories are rated to withstand the maximum working pressure of the unit.*

⚠WARNING *Explosion hazard.*

- NEVER spray flammable liquids or use pressure washer in areas containing combustible dust, liquids or vapors.
- Never operate this machine in a closed building or in or near an explosive environment.

⚠WARNING *Do not spray electrical apparatus and wiring.*

- Never disconnect the high pressure discharge hose from the machine while the system is pressurized. To depressurize machine, turn power and water supply off, then press gun trigger 2-3 times.
- Never permanently engage the trigger mechanism on the gun.
- Never operate the machine without all components properly connected to the machine (handle, gun/wand assembly, nozzle, etc.).

⚠WARNING *Equipment damage.*

- ALWAYS turn water supply “ON” before turning pressure washer “ON”. Running pump dry causes serious damage.
- Do not operate the pressure washer with the inlet water screen removed. Keep screen clear of debris and sediment.
- NEVER operate pressure washer with broken or missing parts. Check equipment regularly and repair or replace worn or damaged parts immediately.
- Use only the nozzle supplied with this machine.
- Never leave the wand unattended while the machine is running.
- Never attempt to alter factory settings. Altering factory settings could damage the unit and will void the warranty.
- Always hold gun and wand firmly when starting and operating the machine.
- NEVER allow the unit to run with the trigger released (off) for more than one (1) minute. Resulting heat buildup will damage pump.
- Pressure washer is not meant to pump hot water. NEVER connect it to a hot water supply as it will significantly reduce the life of the pump.
- NEVER store the pressure washer outdoors or where it could freeze. The pump will be seriously damaged.
- Release trigger when changing from high to low pressure modes. Failure to do so could result in damage.

⚠CAUTION *Keep hose away from sharp objects. Bursting hoses may cause injury. Examine hoses regularly and replace if damaged. Do not attempt to mend a damaged hose.*

EXTENSION CORDS

⚠DANGER *If using an extension cord, use only grounded, three wire extension cords that are in good condition.*

Use of an extension cord is not recommended. If one is used, then use only wire sizes and lengths shown in chart below.

Pressure Washer

Safety and Warning Information (Continued)

Use only extension cords intended for outdoor use. These are identified by the marking “Acceptable for use with outdoor appliances; store indoors while not in use”. Use only extension cords having an electrical rating equal to or more than the rating of the product. Do not use damaged extension cords. Examine extension cord before using and replace if damaged. Do not abuse extension cord. Do not pull on the cord to disconnect. Keep cord away from heat and sharp edges. Always disconnect product from extension cord.

NOTE: Do not use 16 or 18 AWG common extension cords on this product.



Extension Cord size	Allowable length	
	25'	50'
14 AWG	Yes	No
12 AWG	Yes	Yes

REFER TO ASSEMBLY INSTRUCTIONS FOR ASSEMBLY, SET-UP AND CONNECTION PROCEDURES

⚠ WARNING To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.

⚠ DANGER Failure to follow these instructions can result in serious injury, including death.

Specifications

Model	Cleaning Power	Max. Pressure with Standard Lance	Max. Capacity	Motor Power (single phase)	Voltage	Max. Inlet Water Temp.	Unit Weight
PW0501400	2250	1500 psi	1.5 GPM	13 Amps	120V	100°F	26 lbs.

Assembly Instructions

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Assembly Instructions (Continued)

1. Assemble wheels by pushing wheels into mounting holes, as shown in Figure 1.
2. Insert handle into back of unit at an angle, as shown in Figure 2.
3. While pressing down on handle, push handle fully forward, as shown in Figure 3.
4. Attach handle to unit with enclosed screw, as shown in Figure 4.

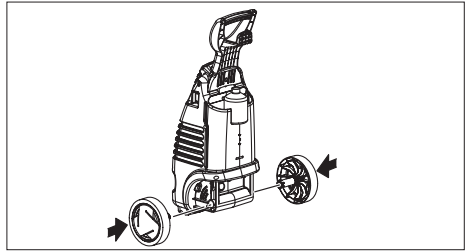


Figure 1



Figure 2



Figure 3



Figure 4

Garden Hose Connection

GARDEN HOSE CONNECTION INSTRUCTIONS

1. Attach nipple adapter to inlet fitting on the unit (this may already be attached to the pump).
2. Attach quick connect fitting to garden hose.
3. Pull side "A" of quick connect fitting towards garden hose and push onto nipple adapter.
4. Push side "A" of quick connect fitting towards nipple adapter and release.

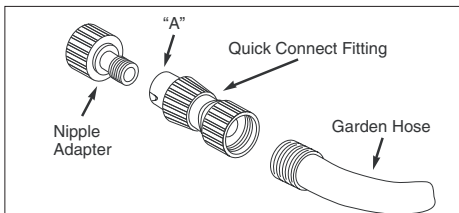


Figure 5 - Garden Hose Connection

Power Cord

1. Plug the power cord into a grounded 120V outlet and press the reset button as shown in Figure 6.
2. **THIS MUST BE DONE EACH TIME THE UNIT IS PLUGGED IN AN OUTLET.**

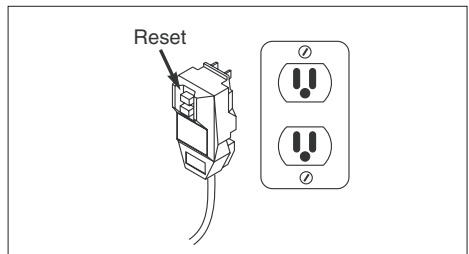


Figure 6 - Grounded plug/reset button

! IMPORTANT !

This pressure washer is equipped with a microswitch sensitive to water flow. This Instant Start/Stop switch (ISS) senses water flow in the pump. When the trigger is released, water stops flowing through the pump. The ISS then automatically turns the motor off to protect pump from overheating.

OPERATION

1. Pull trigger on gun.
2. Turn the "ON/OFF" switch to "ON".
3. Release trigger. The pressure washer motor will stop running.
4. To spray again, pull trigger and motor and pump will restart.

Note: Occasionally the motor may run for a short time to bring fresh, cool water into the pump even if trigger is released. This is part of normal operation and will not damage the unit.

⚠ WARNING *Risk of Injection.*

Unit will start spraying when trigger is squeezed if ON/OFF switch is in "ON" position. Always point gun in safe direction.

⚠ CAUTION *Always turn the "ON/OFF" switch to "OFF", then trigger gun to release hose pressure before unplugging power cord.*

NOTICE *Risk of equipment damage. Always make sure the "ON/OFF" switch on the unit is "OFF" and unit is unplugged prior to storage.*

System Connection

1. Insert lance into the gun and turn clockwise to positive stop as shown in Figure 7.
2. Ensure that the power switch is in the "OFF" position.
3. Attach the high pressure hose and gun assembly to the unit.
4. Connect garden hose as explained under **Garden Hose Connection Instructions**.
5. Plug the power cord into a grounded 120V outlet, that is on a dedicated circuit.
6. Turn water on.
7. Depress and hold the trigger on the gun for one minute to release pressure and remove any air trapped in the system.
8. Turn the "ON/OFF" switch to the "ON" position.

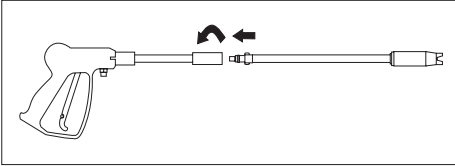


Figure 7 - Gun/Lance Connection

2. Ensure that the power switch is in the "OFF" position.

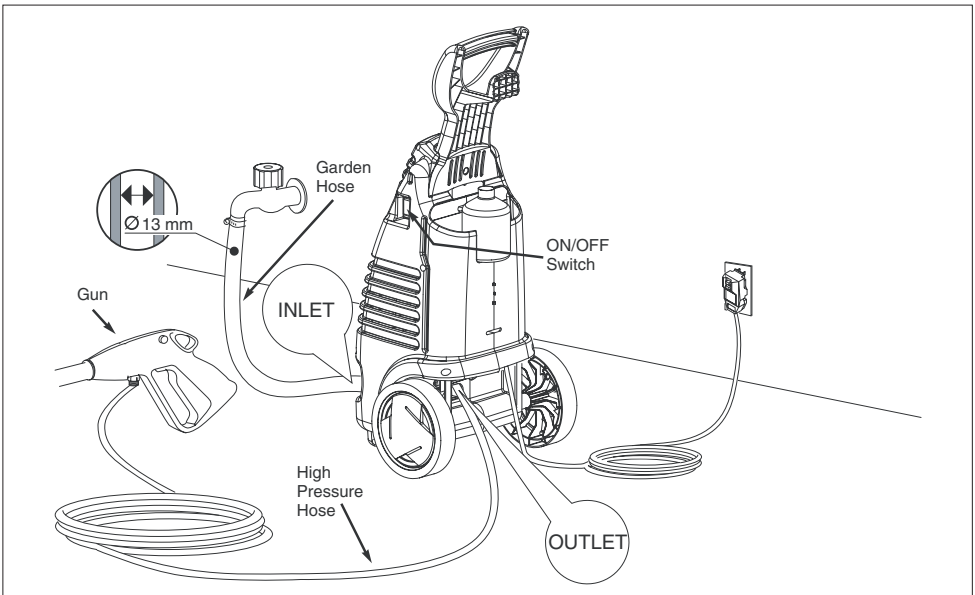


Figure 8

Pre-Operation

ADJUSTING FAN PATTERN

The angle of spray coming out of the lance may be adjusted on some lances by rotating the nozzle. This will vary the spray pattern from approximately a 0° narrow high impact stream to a 60° wide fan spray (See Figure 2).

A narrow stream has high impact force on the cleaning surface and results in maximum deep cleaning in a concentrated area. However, this narrow high impact spray must be used

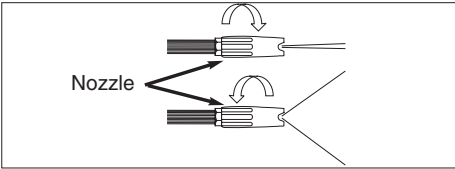


Figure 2 - Adjusting nozzle for fan pattern

cautiously, as it may damage some surfaces. A wide fan pattern will distribute the impact of the water over a larger area, resulting in excellent cleaning action with a reduced risk of surface damage. Large surface areas can be cleaned more quickly using a wide fan pattern.



Figure 3 - Narrow high impact stream



Figure 4 - Wide fan pattern

NOZZLE CLEANING INSTRUCTIONS

A clogged or partially clogged nozzle can cause a significant reduction of water coming out of the nozzle and cause the unit to pulsate while spraying.

To clean out the nozzle:

- Turn off and unplug unit.
- Turn off water supply. Relieve any pressure trapped in the hose by squeezing trigger 2-3 times.
- Separate lance from gun.
- Rotate nozzle to the narrow stream setting. This opens up the fan blades.
- Using included tip cleaner, or an un-folded paper clip, insert wire into the nozzle hole and move back and forth until debris is dislodged (See Figure 5).
- Remove additional debris by back-flushing water through the nozzle. To do this, place end of a garden hose (with water running) to end of nozzle for 30 - 60 seconds.

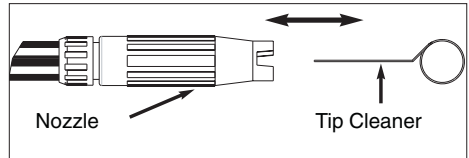


Figure 5 - Insert tip cleaner in nozzle hole and move back and forth until debris is dislodged.

Pre-Operation (Continued)

ANGLE TO THE CLEANING SURFACE

When spraying water against a surface, maximum impact is generated when the water strikes the surface "head on". However, this type of impact tends to cause dirt particles to imbed in the surface, thereby preventing the desired cleaning action.

The optimum angle for spraying water against a cleaning surface is 45 degrees.



Figure 6 - Optimum Angle to Cleaning Surface.

Spraying water against a surface at this angle provides for the most beneficial impact force combined with efficient removal of debris from the surface.

DISTANCE FROM CLEANING SURFACE

Another factor that determines the impact force of the water is the distance from the spray nozzle to the cleaning surface. The impact force of the water is increased as the nozzle is moved closer to the surface.

HOW TO AVOID DAMAGING SURFACE

Damage to cleaning surfaces occurs because the impact force of the water exceeds the durability of the surface. The impact force can be varied by controlling the three previously noted items. Never use a narrow high impact stream or a turbo/rotary nozzle on a surface that is susceptible to damage. Avoid spraying windows with a narrow high impact stream or turbo nozzle as this may cause breakage. The surest way to avoid damaging surfaces is to follow these steps:

1. Before triggering the gun, adjust the nozzle to a wide fan pattern.
2. Place the nozzle approximately 4-5 feet from and 45 degrees to the cleaning

surface, and trigger the gun.

3. Vary the fan pattern spray angle and the distance to the cleaning surface until optimum cleaning efficiency is achieved without damaging the surface.

DETERGENTS

The use of detergents can dramatically reduce cleaning time and assist in the removal of difficult stains. Some detergents have been customized for pressure washer use on specific cleaning tasks. These detergents are approximately as thick as water. The use of thicker detergents, such as dish soap, will clog the chemical injection system and prevent the application of the detergent.

The cleaning power of detergents comes from applying them to a surface and giving the chemicals time break down the dirt and grime. The combination of chemical action and high pressure rinsing is very effective. On vertical surfaces, apply the detergent starting at the bottom and work your way upward. This will prevent the detergent from sliding down and causing streaks. High pressure rinsing should also progress from the bottom to the top. On particularly tough stains, it may be necessary to use a brush in combination with detergents and high pressure rinsing.

Pressure Washer

Operation

The following cleaning procedure will help you to organize your cleaning task, and ensure that you achieve the most beneficial results in the shortest amount of time. Remember to use the spraying/cleaning techniques previously listed.

1. Surface Preparation

Before starting a pressure washer cleaning job, it is important to prepare the surface that is to be cleaned. This is done by cleaning the area of furniture, and making sure that all windows and doors are closed tight. In addition, you should make sure that all plants and trees adjacent to the cleaning area are protected by a drop cloth. This will ensure that your plants won't be sprayed by the detergents.

2. Initial High Pressure Rinse

The next step is to spray the cleaning surface with water to clear off any dirt or grime that may have collected on the surface. This will allow your detergent to attack the deep down dirt that has worked its way into the cleaning surface. Before triggering the gun, adjust the nozzle to a wide fan pattern and slowly adjust to the desired spray pattern. This will help you avoid applying too much concentrated spray to the surface which could cause damage.

3. Detergent Application

NOTE: Use only detergents formulated for pressure washers.

NOTE: Test detergent in an inconspicuous area before use.

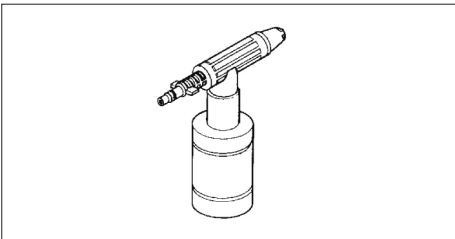


Figure 7 - Detergent application

Follow manufacturer's label directions for mixing correct concentrations of soap/detergents. The soap/detergent to water ratio through the pressure washer is approximately 5.4%.

1. Unscrew top of detergent applicator and fill applicator with detergent.
2. Replace top on applicator.
3. Remove lance from gun.
4. Attach detergent applicator to gun (See Figure 8).

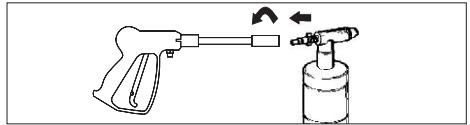


Figure 8 - Attach applicator to gun

5. Apply detergent so it thoroughly covers cleaning surface. Apply from bottom to top to prevent detergent from sliding down and streaking.
6. Allow detergent to remain on the surface for a few minutes. This is a good time to use a brush to lightly scrub heavily soiled areas.
7. Remove detergent applicator from gun and replace with the lance, or remove applicator from end of lance.
8. Rinse detergent from surface.

Note: Flush detergent applicator with clear water following each use.

4. Final Rinse

Start final rinse at bottom and work upward. Make sure you thoroughly rinse the surface and that all detergent has been removed.

5. Shutdown

1. Be sure all detergent is flushed from system.
2. Turn off motor.
3. Turn off water supply.
4. After motor and water supply are turned off, trigger gun to depressurize system.

Operation (Continued)

⚠CAUTION *NEVER turn water supply off before turning motor off. Serious damage could occur to the pump and/or motor.*

⚠WARNING *NEVER disconnect high pressure discharge hose from machine while system is pressurized. To depressurize, turn motor off, turn water supply off and squeeze gun trigger 2-3 times.*

5. After each use, wipe all surfaces of the pressure washer with a clean, damp cloth.

6. Storage

- Do not store pressure washer outdoors.
- Do not store pressure washer where it might freeze.

TIPS FOR EXTENDING THE LIFE OF YOUR PRESSURE WASHER

1. Never operate unit without water.
2. Pressure washer is not meant to pump hot water. Never connect to hot water supply - this will significantly reduce life of the pump.
3. Using detergents other than foreseen for pressure washer brand may cause damage to pump components (o-rings, seals, etc). This also applies to chemicals such as bleach, dish soap, etc.
4. Never operate unit for more than one (1) minute without spraying water. Resulting heat buildup will damage pump.
5. Before adjusting nozzle for pressure (high-to-low or low-to-high) release trigger. Failure to do so will reduce life of o-rings in lance.

Pressure Washer

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action(s)
Pressure washer does not start up	<ol style="list-style-type: none">1. Unit is pressurized.2. GFCI has tripped (if so equipped).3. Plug is not well connected or electric socket is faulty.4. Extension cord too long or wire size too small.5. Main voltage supply too low.6. Thermal safety switch has tripped.	<ol style="list-style-type: none">1. Squeeze trigger on gun.2. Push reset button on plug.3. Check plug, socket and fuses.4. Remove extension cord (see page 4).5. Check that main supply voltage is adequate.6. Switch off unit and allow motor to cool down.
Pump does not reach necessary pressure	<ol style="list-style-type: none">1. Water inlet filter is clogged.2. Pump sucking air from hose connections.3. Nozzle worn or not correct size.4. Unloader clogged or worn.5. Valves clogged or worn.	<ol style="list-style-type: none">1. Clean water inlet filter.2. Check that connections and locking ring are properly tightened.3. Call Customer Service.4. Call Customer Service.5. Call Customer Service.
Fluctuating pressure	<ol style="list-style-type: none">1. Pump sucking in air.2. Clogged nozzle.3. Valves dirty, worn or stuck.4. Water seals worn.	<ol style="list-style-type: none">1. Check that hoses and connections are tight.2. Clean with tip cleaner (see page 5).3. Call Customer Service.4. Call Customer Service.
Motor stops suddenly	<ol style="list-style-type: none">1. Extension cord too long or wire size too small.2. Thermal safety switch has tripped due to overheating.	<ol style="list-style-type: none">1. Remove extension cord (see page 4).2. Check that main supply voltage corresponds to specifications.
No detergent suction - units with attachable applicators	Detergent applicator clogged	<ol style="list-style-type: none">1. Clean applicator with warm water.2. Replace applicator.
Unit begins to smoke	Overheated, overloaded or damaged motor	Turn off unit and call Customer Service.

Replacement Parts List

**For Replacement Parts,
Call Customer Service**

1-800-445-1805

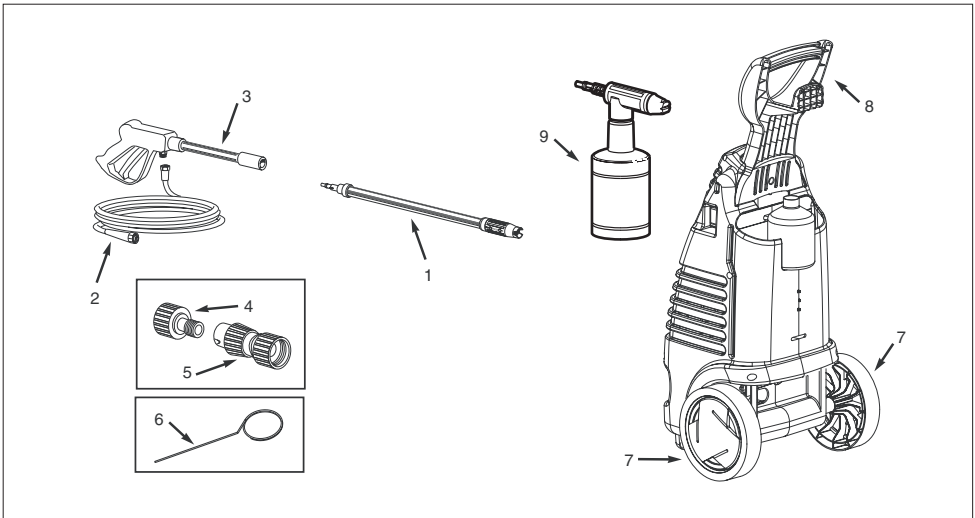
Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address any correspondence to:

Powermate Corporation
4970 Airport Road
P.O. Box 6001
Kearney, NE 68848

www.powermate.com



Ref. No.	Description	Part Number	Q.ty
1.	Adjustable lance	005-0038	1
2.	Hose	012-0134	1
3.	Gun	010-0023	1
4.	Nipple adapter	065-0106	1
5.	Quick connect fitting	036-0077	1
6.	Tip cleaner	103-0152	1
7.	Wheel	095-0059	2
8.	Handle	112-0144	1
9.	Detergent applicator	010-0024	1

