

4/10/2012

# PW2750 HOT WATER HI PRESSURE WASHER INSTRUCTION MANUAL



READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.

This manual provides important information on proper operation & maintenance. Every effort has been made to ensure the accuracy of this manual. These instructions are not meant to cover every possible condition and situation that may occur. We reserve the right to change this product at any time without prior notice.

IF THERE IS ANY QUESTION ABOUT A CONDITION BEING SAFE OR UNSAFE,  
DO NOT OPERATE THIS PRODUCT!

DO NOT RETURN THIS PRODUCT TO THE RETAILER - CONTACT CUSTOMER SERVICE.

If you experience a problem, have questions or need parts for this product, visit our website

<http://www.buffalotools.com> or call Customer Service at 1-888-287-6981, **Monday-Friday,**

**8 AM - 4 PM Central Time.** A copy of the sales receipt is required.

FOR CONSUMER USE ONLY – NOT FOR PROFESSIONAL USE.

KEEP THIS MANUAL, SALES RECEIPT & APPLICABLE WARRANTY FOR FUTURE REFERENCE.

## FEATURES:

- Recoil Start
- Regulator Hose Included
- Power: 6.5 HP
- EPA Approved
- 3400 RPM
- 85,000 BTU max
- 15-75 PSI Inlet Pressure
- Working Pressure 2750 PSI @ 3 GPM
- Max Add Temp 140 Degrees F/ 60 Degrees C
- Max Temp 158 Degrees F/70 Degrees C
- 35 Ft Length Hose
- 0.13 GPM Detergent
- Fuel type- Liquid Propane Gas Water Heater
- Propane Tank Not Included
- Fuel Type- Gasoline Engine
- Engine requires High Detergent Motor Oil, SAE 5W-30 oil - 30 ounces (0.9 Liters)
- Pump requires Air Compressor Oil, SAE Grade 30 oil - 10 ounces (0.3 Liters)
- 3.8 Quart Gasoline Engine
- High-pressure tube 10m/ Water inlet hose 3m



## THIS ENGINE MEETS U.S. EPA EMISSION STANDARDS UNDER 40 CFR 1054.625 .

The emission-related warranty is valid for two (2) years. Keep the purchase receipt and mail in the product registration card for proof of purchase. NB Corp limits emission-related warranty repairs to authorized service centers for owners located within 100 miles of an authorized service center. For owners located more than 100 miles from an authorized service center, NB Corp will, in its sole discretion, either pay for shipping costs to and from an authorized service center, provide for a service technician to come to the owner to make the warranty repair, or pay for the repair to be made at a local non-authorized service center. The provisions of this paragraph apply only for the contiguous states, excluding the states with high-altitude areas identified in 40 CFR part 1068, Appendix III.

## STOP! IMPORTANT SAFETY INSTRUCTIONS

Read the manual before using this tool. If you have any questions regarding the hazard and safety notices listed in this manual and/or on this tool, call 1-888-287-6981, Monday - Friday, 8 AM - 4 PM Central Time.

### **⚠ DANGER**

**Carbon Monoxide Gas:** When in operation, the exhaust from this tool contains poisonous carbon monoxide gas. Carbon monoxide gas is both odorless and colorless AND may be present even if you do not see or smell gas. Breathing this poison gas can lead to headaches, dizziness, drowsiness, loss of consciousness and eventually death.

- Use this tool ONLY outdoors in non-confined areas.
- Keep at least several feet of clearance on all sides to allow proper ventilation for this tool.

### **⚠ WARNING**

**Gasoline & Propane (LPG):** This tool may emit highly flammable and explosive vapors, which can cause severe burns or even death. A nearby open flame can lead to an explosion even if not directly in contact the fuel.

- Do not operate this tool near open flame.
- Always operate this tool on a firm, level surface.

**This fuel is highly flammable and explosive. Handling fuel can result in serious injury or burns.**

- Before starting, inspect your LPG tank and NG pipeline and valve for damage or leaks, attach only approved tanks that have been properly filled by an approved station, DO NOT light or smoke cigarette.

Replace the hose at the first sign of a leak or if age-cracking becomes apparent.

- Always handle propane fuel and tool outdoors.
- Before transporting, turn the fuel valve to the "off" position and disconnect the spark plug.

### **⚠ WARNING**

**Hold the wand in both hands when in use.** The high pressure water is very dangerous.

# RECOGNIZE SAFETY SYMBOLS, WORDS AND LABELS

## What You Need to Know About Safety Instructions

Warning and Important Safety Instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when operating or cleaning tools and equipment.

Always contact your dealer, distributor, service agent or manufacturer about problems or conditions you do not understand.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

### **WARNING**

**Chemicals:** According to the State of California, the exhaust from this tool contains chemicals known to cause cancer, birth defects, or other reproductive harm.

### **DANGER**

**High Temperatures:** This tool produces heat when in operation. Temperatures near the exhaust can exceed 150 Degrees Fahrenheit (65 Degrees Celsius).

- Do not touch hot surfaces. Observe all warning placards on this tool denoting hot surfaces.
- Allow this tool to cool for several minutes after use before touching the engine, muffler or other areas that are hot during operation and before storing indoors.
- Hot exhaust may ignite some materials. Keep flammable materials away from this tool.
- Keep at least several feet of clearance on all sides of this tool during operation. Do not enclose this tool in any structure.

### **CAUTION**

**Usage:** Misuse of this tool can damage it or shorten its life.

- Use this tool only for its intended purpose.
- Operate this tool only on a dry, level surface.
- Allow this tool to run for several minutes before connecting any electrical devices.
- Promptly turn off any malfunctioning devices and disconnect them.
- Do not operate an excessive number of electrical devices in excess of the wattage capacity of this tool.
- Do not turn on electrical devices until *after* they are connected to this tool.
- Turn off all connected electrical devices before stopping this tool.

## **WARNING**

*The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.*

## **DANGER**

*EXHAUST CONTAINS POISONOUS CARBON MONOXIDE GAS THAT CAN BUILD UP TO DANGEROUS LEVELS IN CLOSED AREAS. BREATHING CARBON MONOXIDE CAN CAUSE UNCONSCIOUSNESS OR DEATH. Never run the generator in a closed or even partly closed area where people may be present.*

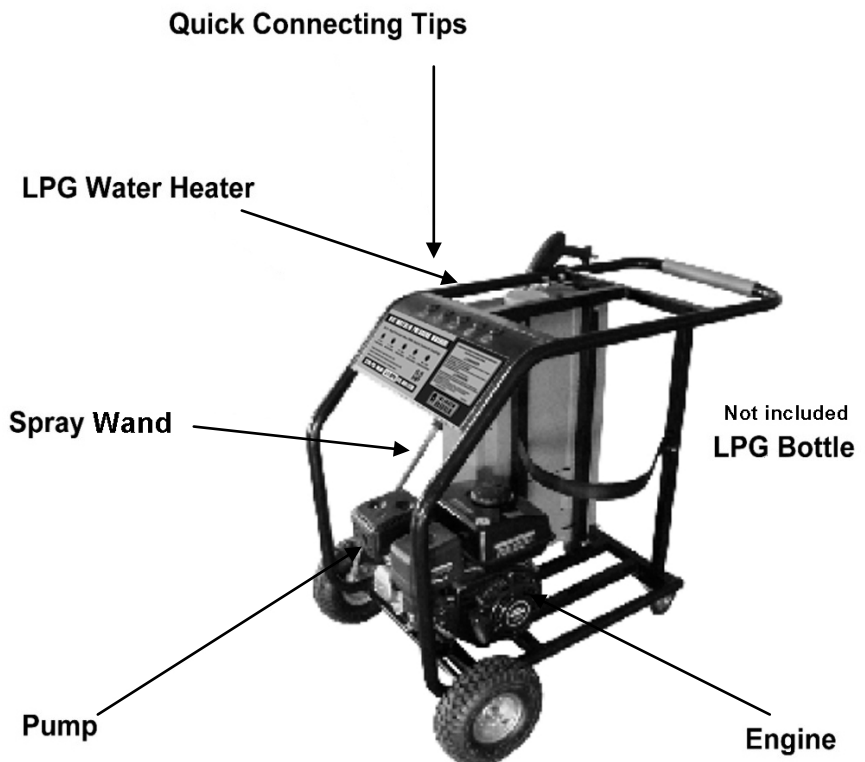
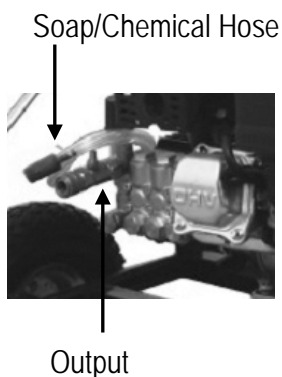
### **PACKAGE CONTENTS**

Verify that all items are included. If there are missing items, call 1-888-287-6981, Monday - Friday, 8 AM - 4 PM Central Time for customer service.

5 Assorted Quick Connects  
35 Ft. Hose  
Spray Wand

### **COMPONENTS**

Observe the locations and functions of the various components and controls.  
(LPG tank not included)



## PREPARING THE HOT WATER PRESSURE WASHER FOR USE

# STOP!

# CAUTION

The following section describes the required steps for preparing this TOOL for the first use. Failure to correctly perform these steps can damage this tool and/or shorten its life. If still unsure about how to perform any of these steps after reading this section, call 1-888-287-6981 Monday - Friday, 8 AM - 4 PM Central Time for customer service.

If this is being used for the first time, the following few steps are required to prepare it for operation:

### Add Oil to Engine

This Engine requires High Detergent Motor Oil, SAE 5W-30 engine oil to function. Engine oil is a major factor affecting engine performance and service life. When new from the package, this tool contains no oil in either the engine crankcase or pump. Add the correct quantity of oil before operating this tool for the first time. When replenishing oil for subsequent use, always determine that this tool has the correct quantity of oil.

Oil Capacity	30 ounces (0.9 Liters)
Oil Type Recommended	High Detergent Motor Oil, SAE 5W-30

To add oil:

1. Confirm that this hot water pressure washer is on a level surface.
2. Unscrew the oil filler/dipstick cap from the engine.
3. Using a funnel, add high detergent motor oil to fill the engine crankcase to the correct quantity as stated above. SAE10W-30 oil is recommended for general, all-temperature use. When the engine crankcase is full, the oil level should reach the lower lip of the oil fill opening.
4. Replace the oil filler/dipstick cap.

### Add Oil to Pump

#### ⚠ WARNING

Do not attempt to work on or service the pump, work is only to be completed by authorized service agents. Any work completed outside the service agency will void warranty. Only qualified repair personnel must perform service.

This Pump requires Air Compressor Oil, SAE Grade 30 oil to function. Oil is a major factor affecting performance and service life. When new from the package, this tool contains no oil in either the engine crankcase or pump. Add the correct quantity of oil before operating this tool for the first time. When replenishing oil for subsequent use of this tool, always determine that this tool has the correct quantity of oil.

Oil Capacity	10 ounces (0.3 Liters)
Oil Type Recommended	Air Compressor Oil, SAE Grade 30

To add oil: Remove the oil cap above the Pump. Use the observation hole to review the oil level. Do not over fill.

#### For pump:

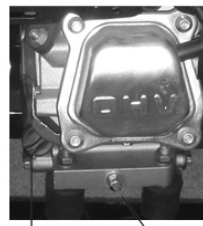


Hole for adding oil



Observation Hole

#### For engine:



Oil Fill Cap/ Dipstick  
Drain Plug

## Install All Components and Connect Propane Gas Supply Source

### **⚠ WARNING**

Sulfur, water, dust, etc. are harmful for engine. If the propane gas supply source (LPG) contains these harmful elements, user must use filter to remove sulfur, water etc. Otherwise, the engine service lifetime will be shortened.

Locate all components and install them.

Step 1: Keep LP Propane gas supply source closed.

Step 2: Fix two clips on the both ends of approved gas pipeline.

Step 3: Attached the gas pipeline to GAS INLET and gas supply source.

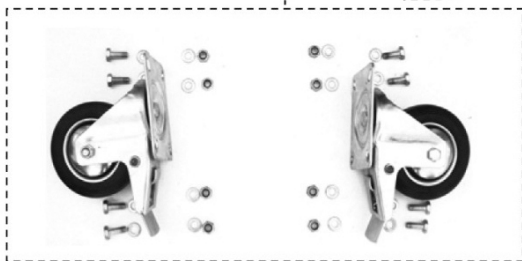
Wand, 1 piece; gun, 1 piece; Water inlet pipe, 1 piece; high pressure pipe, 1 piece; Clip, 1 piece



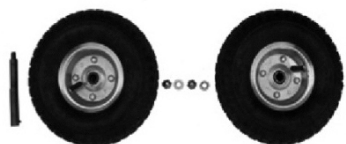
Handle, 1 pieces; Bracket, 1 pieces; Bolt M8×45 , 1 pieces; Nut M8, 3 pieces; Washer  $\phi$  8, 4 pieces



Respirator, 1 pieces



4 inch wheel, 2 pieces; Bolt M8× 18, 8 pieces; Nut M8, 8 pieces; Washer  $\phi$  8, 8 pieces



10 inch Wheel, 2 pieces; Shaft, 2 pieces; Nut M10, 2 pieces; Washer  $\phi$  10, 2 pieces;



## INSTALL THE WATER SOURCE

Connect the water inlet to running water. Install water strainer.

## ADD GASOLINE TO ENGINE

### **WARNING**

Gasoline and gasoline fumes are highly flammable and explosive. Handling fuel can result in serious injury or burns.

- Do not fill the fuel tank near a heat, sparks or an open flame. Keep gasoline away from appliance pilot lights, barbecues, electric appliances, power tools, etc.
- Do not overfill the fuel tank. Always check for fuel spills and immediately wipe them up. Spilled fuel is a fire hazard and causes environmental damage.

To add gasoline:

To ensure that this Hot Water Pressure Washer runs smoothly, use only FRESH, UNLEADED GASOLINE WITH AN OCTANE RATING OF 87 OR HIGHER. Unleaded gasoline produces fewer engine and spark plug deposits and extends the life of the exhaust system.

1. Confirm that this generator is on a level surface.
2. Unscrew fuel tank cap and set aside. (NOTE: The fuel tank cap may be tight and difficult to unscrew.)
3. Slowly add fresh, unleaded gasoline (with an octane rating 87 or higher) to the fuel tank. Be careful not to fill the fuel tank above the upper limit line. NOTE: Because gasoline can expand, do not fill the fuel tank to the very top.
4. Securely tighten the fuel tank cap and immediately wipe up any spilled gasoline with a dry cloth.

## STARTING THE ENGINE

### **WARNING**

Do not point the spray nozzle at any person or animal. Keep children clear of all work areas. Turn off the water source when installing spray nozzles or wand.

## STOP!

Before starting the engine, confirm that all the steps in the section titled, "Preparing the Hot Water Pressure Washer for Use," of this manual have been correctly completed. If unsure about how to perform any of these steps, call 1-888-287-6981, Monday - Friday, 8 AM - 4 PM Central Time for customer service.

1. Turn the gasoline fuel valve to the "on" position.
2. Move the choke lever to the "closed" position.
3. Set the engine switch to the "on" position.
4. Slowly pull on the recoil starter handle until a slight resistance is felt. Then pull briskly to start the engine. Gently return the cord into the generator to avoid damage to the starter or housing. Never allow the cord to snap back.
5. If the engine fails to start, repeat step 4. NOTE: After repeated attempts to start the engine, consult the troubleshooting guide before attempting again. If problems persist, call 1-866-460-9436, Monday - Friday, 8 AM - 4 PM Central Time.
6. Once the engine has started and runs for about a minute, move the choke lever approximately half way towards the "open" position. Wait an additional 30 seconds and then move the choke lever completely over to the "open" position.

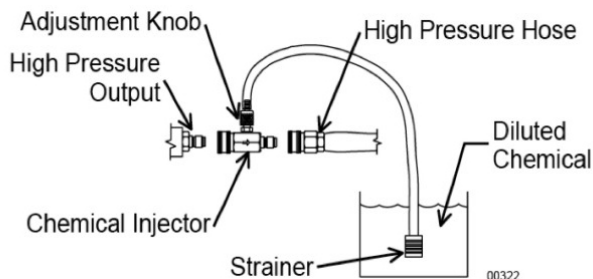
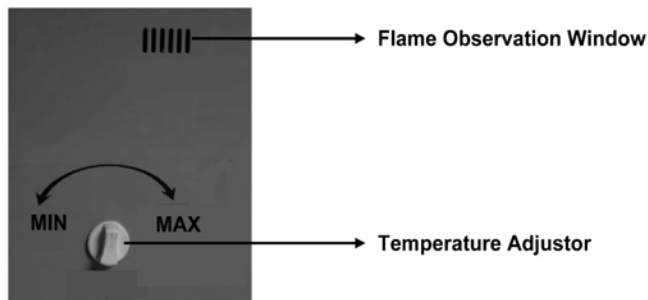
### **WARNING**

Do not attempt to work on or service the pump, work is only to be completed by authorized service agents. Any work completed outside the service agency will void warranty. Only qualified repair personnel must perform service.

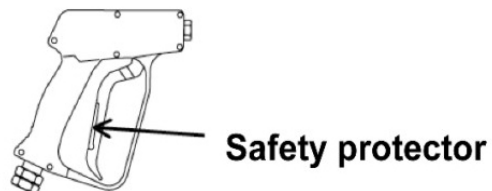
After starting the engine, you can turn on the LP fuel. Turn the water heater on. When the water is heated, trigger the gun and hot water will come out. Trigger back and the water will stop. Use different spray nozzles to adjust the water flow rate. Adjust/reduce the engine speed to increase/lower the water pressure.

As you trigger the gun, the heater will continue to heat the water to maintain constant temperature. Check the flame from the observation window. If no flame, or if water is too cold, adjust the temperature by turning the Min/Max knob.

Detergent only works in low pressure and cannot be injected under high pressure. After you install the black spray nozzle, install the injector to the pump. Then put the injector strainer into the detergent container. Detergent vs. Water ratio: 1: 10  
After use, put the injector into clean water to clean off detergent.



The Safety Protector on the wand will help ensure that a firm grip on the handle will allow high pressure water through the hose.



### **⚠ WARNING**

Do not shut off the water source when in operation, or it will cause damage to the pump.

## STOP!

If you have questions about maintenance procedures described in this manual, call 1-888-287-6981 , Monday - Friday, 8 AM - 4 PM Central Time.

### **⚠ CAUTION**

Never perform maintenance procedures while this tool is running. Allow this tool to cool before commencing any maintenance procedures. Keep heat, sparks and flame away.

### **⚠ WARNING**

Improper maintenance and/or failure to correct any problems prior to operating this tool can cause a malfunction which could cause death or serious injury. Always follow the inspection and maintenance recommendations and schedules in this manual.

### **⚠ WARNING**

Do not attempt to work on or service the pump, work is only to be completed by authorized service agents. Any work completed outside the service agency will void warranty. Only qualified repair personnel must perform service.



## Recommended Maintenance Schedule

		Each Use	Every Month or Each 20 Hrs	Every 3 Months or Each 50 Hrs	Every 6 Months or Each 100 Hrs	Every Year or Each 300 Hrs
Engine Oil	Check Level	X				
	Replace		X			
Air Filter	Check	X				
	Clean			X		
Spark Plug	Check/Clean				X	
	Clean					X

## Cleaning the Tool

Always try to use this tool in a cool dry place. If this tool becomes dirty, the exterior can be cleaned with a damp cloth, soft brush, vacuum and/or pressurized air.

Never clean this tool with a bucket of water and/or a hose as water can get inside and cause a short circuit or corrosion.

Never use gasoline to clean parts of this tool.

## Air Filter Maintenance

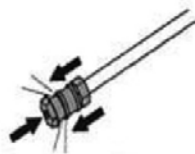
Routine maintenance of the air filter helps maintain proper airflow to the carburetor.

Occasionally verify that the air filter is free of excessive dirt. The air filter will require more frequent cleaning when operating this tool in extremely dusty areas.

1. Unhinge the clasps at the top and bottom of the air filter cover.
2. Remove the sponge-like elements from the casing.
3. Wipe the dirt from inside the empty air filter casing.
4. Wash the sponge-like elements in household detergent and warm water. **Do not use gasoline or a flammable solvent.**
5. Allow the sponge-like elements to dry thoroughly.
6. Soak the dry sponge-like elements in engine oil. Squeeze out any excess oil. The engine will smoke during initial startup if too much oil is left in the air filter.
7. Replace the sponge-like elements in the air filter casing (the fine element first) and replace the cover.

## INSTALLING NOZZLES

1. Connect spray lance with the trigger gun.
2. Pull quick tie-in backwards on spray lance and install the spray nozzle.



3. Loosen the quick tie-in and push it forwards until hearing the sound of click.
4. Connect hose with the trigger gun.

## HOW TO CLEAN NOZZLES

If the spray nozzle is blocked, pressure will become extremely high. and if spray nozzle is partly blocked, pressure will become unstable.



1. Stop pressure washer and shut off the water source.
2. Trigger the gun and release the pressure
3. Take off the spray wand.
4. Remove the spray nozzle and use a needle to clean.
5. Wash the wand for 30 seconds.
6. Reinstall the nozzle.
7. Reinstall the wand and trigger gun.
8. Restart the pressure washer.

## HOW TO CLEAN A STRAINER

To clean a strainer, unscrew the water inlet and take out the strainer. Wash both sides of the strainer. Reinstall. Check and wash the strainer regularly. Do NOT use the pressure washer without the strainer.

## Spark Plug Maintenance

This LP tool is more efficient than traditional gasoline tools. As such, the spark plug on this LP tool will last longer.

Please contact Customer Service if you have questions regarding the spark plug.

## STORAGE/TRANSPORT PROCEDURES

### **CAUTION**

Never place any type of storage cover on this tool while it is still hot.

When transporting or storing this tool for extended time:

- Allow tool to fully cool before moving it. A hot engine and exhaust system can burn you and ignite some materials.
- Turn the fuel valve to the "off" position.
- Disconnect the spark plug.
- Do not obstruct any ventilation openings.
- Do not drop or strike this tool while moving it.
- Store this tool in a cool dry area, free of excessive dust.

## TROUBLESHOOTING

Trouble	Cause	Solution
Pump drops oil	Oil seal broken	Tighten it
	Oil drain plug loosen	Check and reinstall
	O-ring (oil drain plug) broken	Check and change
	O-ring (respirator) broken	Check and change
	Too much oil	Check and drain out some oil

Trouble	Cause	Solution
Pump vibrates abnormally	Wrong Oil type	Drain out the wrong oil and re-fill correct one
	Respirator blocked	Clean or repair/change
	Spray nozzle blocked	Clean or repair/change

Trouble	Cause	Solution
Engine		Refer to engine owner's manual
Water heater can not be ignited	Water source is closed	Open it
	Gas source is closed	Open it
	Low water pressure	Increase the inlet water pressure to at least 0.02Mpa
	No electricity	Change dry cell

Trouble	Cause	Solution
No or low pressure at the beginning	High pressure hose broken or damaged	Change a new one
	Inlet water pressure low	Adjust inlet water pressure and flow rate
	water drop from the hose interface	Reinstall the hose
	Nozzle blocked	Clean or change
	Strainer blocked	Clean
	Gas regulator failure	Consult authorized agent/dealer
	Air going into water inlet hose	Stop the engine and shut off water source, take off the water inlet hose, turn on the water source, shut off water source till water coming out from water inlet hose steadily. Connect the water inlet hose to the pump, turn on the water source and trigger the gun to let the air go.
	Engine rotating speed low	Adjust to suitable speed
	High pressure hose too long	No longer than 30 meters

Trouble	Cause	Solution
Detergent is not sucked up	Black spray nozzle is not used	Change into black spray nozzle
	Strainer blocked	Clean
	Injector strainer is not dipped into the detergent	Put the strainer fully into the detergent
	Detergent is of high density	Dilute the detergent
	High pressure hose too long	Change a shorter one
	Injector is blocked inside	Clean or change

Trouble	Cause	Solution
No or low pressure after some time running	Seal broken	Check and change
	Pump body worn or broken	Check and change
	ceramic plunger (pump) broken	Check and repair/change
	Gas regulator broken	Check and change

Trouble	Cause	Solution
Water drop from spray lance/trigger gun interface	"O" type seal ring broken	Check and change
	interface is not sealed	Reinstall spray lance

Trouble	Cause	Solution
Pump drops water	Loose connection	Tighten it
	Piston gasket broken	Check and change
	"O" type seal ring broken	Check and change
	Pump head or hose frozen	Check and repair/change

## HIGH PRESSURE HOSE & NOZZLES

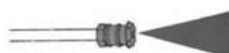
**Red spray nozzle (0°)** the highest pressure and the smallest cleaning area, only used for surface that can undertake the high pressure, such as metal or cement, but not for wood.



**Yellow spray nozzle (15°)** With a 15° cleaning angle to strengthen the cleaning effort in smaller area, only for surface that can undertake the pressure



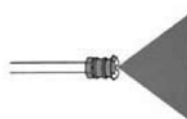
**Green spray nozzle (25°)** With a 25° cleaning angle to strengthen the cleaning effort in large area, only for surface that can undertake the pressure.



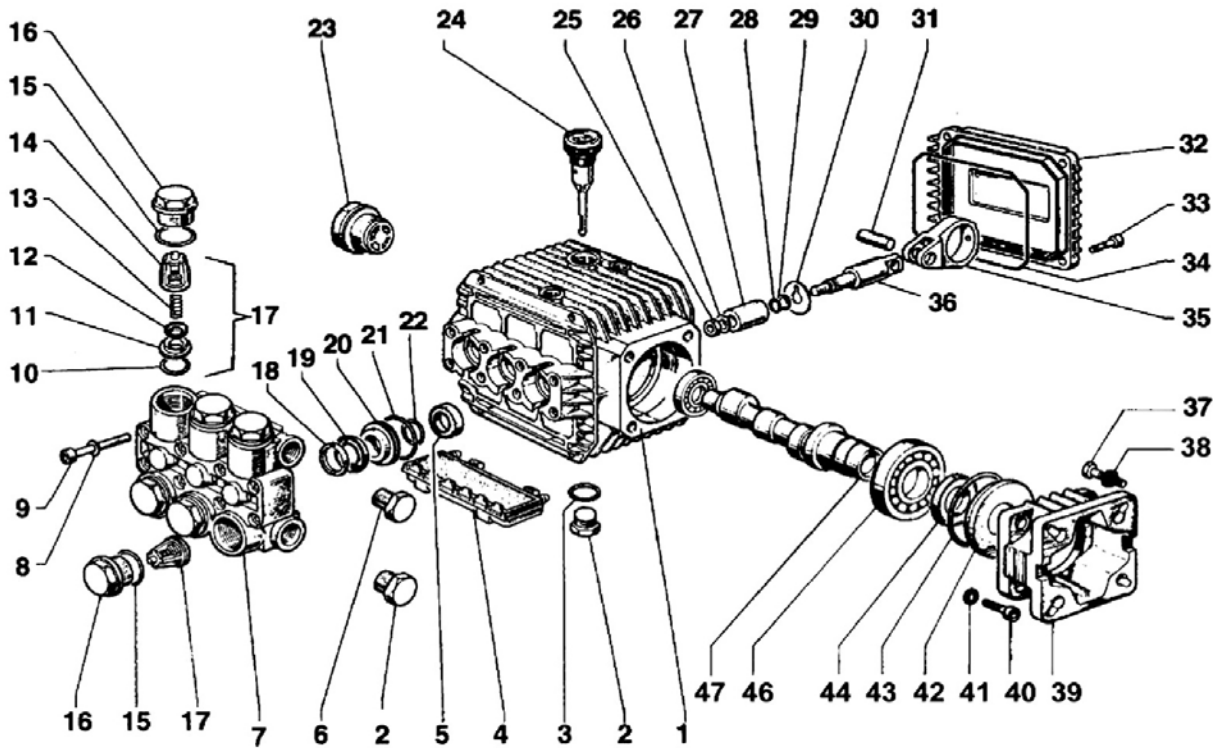
**White spray nozzle (40°)** With a 40° cleaning angle for general purpose, low pressure and larger area.



**Black nozzle.** For detergent only, the lowest pressure and the largest area.



## PARTS DIAGRAM

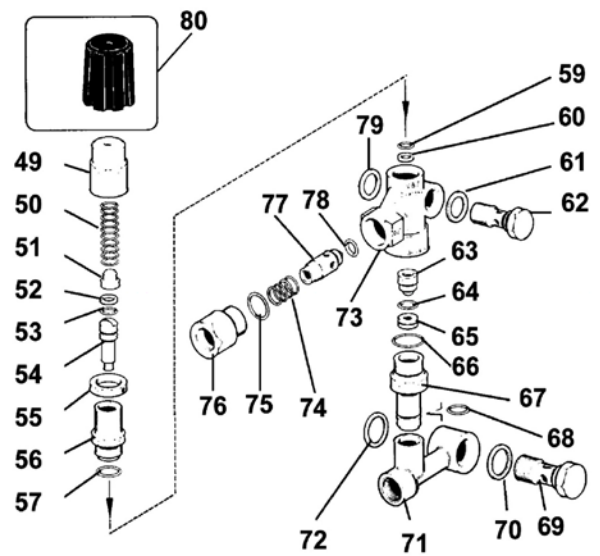


No.	Item	Name	Qty.
1	XY5501	crankcase	1
2	XY5502	embolism, 3/8	1
3	XY5503	O type ring	1
4	XY5504	baffle	1
5	XY5505	reinforced seal	3
6	XY5506	embolism, 1/4	1
7	XY5507	pump body	1
8	XY5508	thrust Washer	8
9	XY5509	flange bolt	8
10	XY5510	O type ring	6
11	XY5511	pump valve seat	6
12	XY5512	pump valve disc	6
13	XY5513	pump valve spring	6
14	XY5514	non-return valve	6
15	XY5515	O type ring	6
16	XY5516	non-return valve bolt	6
17	XY5517	non-return valve assembly	6
18	XY5518	inner seal liner	3
19	XY5519	Fluorine seal	3
20	XY5520	Seal seat	3
21	XY5521	O type ring	3
22	XY5522	O type ring	3
23	XY5523	Observation pole	1
24	XY5524	respirator	1
25	XY5525	Nut	3
26	XY5526	Bronze gasket	3
27	XY5527	Piston (15mm)	3
28	XY5528	O type ring	3
29	XY5529	Fluorine back washer	3

30	XY5530	red copper gasket	3
31	XY5531	Piston pin	3
32	XY5532	Crankcase cover	1
33	XY5533	flange bolt	4
34	XY5534	O type ring	1
35	XY5535	connecting rod	3
36	XY5536	connecting rod shaft	3
37	XY5537	bolt	4
38	XY5538	Gasket	4
39	XY5519	Connecting seat	1
40	XY5540	bolt	4
41	XY5541	gasket	4
42	XY5542	Oil seal cover	1
43	XY5543	O type seal	1
44	XY5544	Reinforced seal	1
46	XY5546	bearing	1
47	XY5547	crankshaft	1
48	XY5548	bearing	1

## PUMP DIAGRAM

No.	Item	Name	Qty.
49	XY5549	water pressure regulator	1
50	XY5550	spring	1
51	XY5551	spring washer	1
52	XY5552	Fluorine back washer	1
53	XY5553	O type ring	1
54	XY5554	Valve rod	1
55	XY5555	locknut	1
56	XY5556	Regulator joint	1
57	XY5557	O type ring	1
59	XY5559	O type ring	2
60	XY5560	Fluorine back washer	1
61	XY5561	Composite gasket	2
62	XY5562	bolt	1
63	XY5563	regulator valve core	1
64	XY5564	O type ring	1
65	XY5565	Gasket	1
66	XY5566	O type ring	2
67	XY5567	Joint bolt	1
68	XY5568	O type ring	1
69	XY5569	bolt	1
70	XY5570	composite gasket	2
71	XY5571	tee joint	1
72	XY5572	composite gasket	2
73	XY5573	relief valve	1
74	XY5574	spring	1
75	XY5575	O type ring	1
76	XY5576	quick connecting bolt	1
77	XY5577	Check valve core	1
78	XY5578	O type ring	1
79	XY5579	composite gasket	2
80	XY5580	regulator cover	1



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