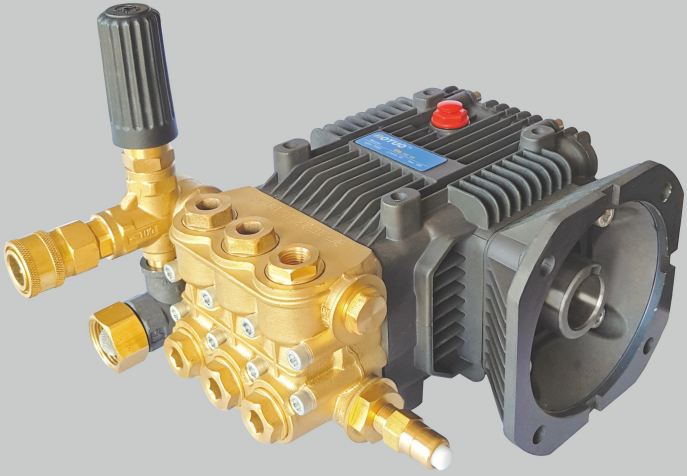
OPERATION MANUAL



IMPORTANT

Please make certain that the person who is to use this equipmenl

Carefully reads and understands these instructions before operating

TABLE OF CONTENTS

SAFETY GUIDELINES /DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. Please read the manual and attend to these sections.

!DANGER **indicates an imminent 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.**

!NOTE **used without the safety alert symbol indicating potentially hazardous situation which, if not avoid, may result in property damage.**

ALWAYS REFER TO THE MANUALS SUPPLIED WITH THIS UNIT

IMPORTANT SAFETY INSTRUCTIONS

!WARNING Read operation manual. Do not operate equipment until you have read operation manual for safety. Assembly,operation,and maintenance instructions.

Hazard **! DANGER** RISK OF EXPLOSION OR FIRE  	
WHAT CANHAPPEN	**HOW TO PREVENT IT**
● Spilled gasoline and it's vapors can become ignited from cigarette sparks, electrical arcing,exhaust gases, and hot englne components such as the sllencer.	● Shut off engine and allow it to cool before adding fuel to the tank. ● Use care in filling tank to avoid spilling fuel. ● Move washer pump away from fueling area before starting engine.
Heat will expand fuel in the tank which could result in spillage and possible fire explosion.	Keep maximum fuel level 1/2 below top of tank to allow for expansion.
● Operating the washer pump in an explosive environment could result in a fire.	● Operate and fuel equipment in well ventilated zones free from obstructions.Equip zone with fire extinguisher suitable for gasoline fires.
● Materials placed against or near the washer pump can interfere with its proper ventilation causing overheating and possible ignition ofthe materials.	● Never operate washer pump in an area containing dry brush or weeds.
● Silencer exhaust heat can damage painted surfaces, melt any material sensitive to heat (such as siding, plastic, rubber, or vinyl) and damage live plants.	● Always keep washer pump a minimum of five feet away from surfaces (such as houses, automobiles, or live plants) that could be damaged from muffler exhaust heat.
● Improperly stored fuel could lead to accidental ignition, Improperly secured fuel could get into the hands of children or other unqualified persons.	● Store fuel in an approved container in a secure location away from work area.
● Use of acids, toxic or corrosive chemicals, poisons, insecticides, or any kind of flammable solvent with this product could result in serious injury or death.	● Do not spray flammable liquids.

Hazard ! DANGER RISK TO BREATHING 	
WHAT CANHAPPEN	**HOW TO PREVENT IT**
● Breathing exhaust fumes will cause serious injury even death!	● Operate washer pump in a well ventilated area. ● Avoid enclosed areas such as garages, basements,etc. ● Never operate unit in a location occupied by humans or animals.
● Some cleaning fluids contain substances that could cause injury to skin, eyes, or lungs.	● Use only cleaning fluids specifically recommended for washer pump. Follow manufactures recommendations. do not use chlorine bleach or any other corrosive compound.

Hazard ! DANGER RISK OF INJURY OR PROPERTY DAMAGE WHEN TRANSPORTING OR STORING 	
WHAT CANHAPPEN	**HOW TO PREVENT IT**
● Fuel or oil can leak or spill and could result in fire or breathing hazard, serious injury or death. Fuel or oil leaks will damage carpet, paint or other surfaces in vehicles or trailers.	● If washer pump is equipped with a fuel shut-off valve, turn the valve to the off position before transportation to avoid fuel leaks. If washer pump is not equipped with a fuel shut-off valve, drain the fuel from tank before transportation. only transport fuel in an approved container, always place washer pump on a protective mat when transporting to protect against damage to vehicle from leaks. Remove washer pump from vehicle immediately upon arrival at your destination.

Hazard ! DANGER RISK OF HOT SURFACES 	
WHAT CANHAPPEN	**HOW TO PREVENT IT**
Contact with hot surfaces, such as engines exhaust components,could result in serious bum.	During operation, touch only the control surfaces of the washer pump. Keep children away from the washer pump at all times. They are too young to recognize the hazards of this product.

Hazard

! DANGER RISK OF FUILD INJECTION

WHAT CANHAPPEN	HOW TO PREVENT IT
● Your washer operates at fluid pressures and velocities high enough to penetrate human and animaI flesh, which could result in amputation or other serious injury. Leaks caused by loose fittings or damaged hoses can result in injection injuries, DO NOT TREAT FLUID INJECTION AS A SIMPLE CUT! See a physician immediately!	● Never place hands in front ofnozzle. ● Direct spray away from selfor others. ● Make sure hose and fittings are tightened and in good condition. Never hold onto the hose or fittings during operation. ● Do not allow hose to contact muffler. ● Never attach or remove lance or hose fittings while system is pressurized.
● Injuries can result if system pressure is not reduced before attempting maintenance or disassembly.	● To relieve system pressure, shut off engine, tum off water supply, and pull gun trigger until water stops flowing. ● Use only hose and accessories rated for pressure higher than your washer pump's PSI.

Hazard

! DANGER RISK OF INJURY FROM SPRAY

WHAT CANHAPPEN	HOW TO PREVENT IT
● High velocity fluid spray can cause objects to break, propelling panicles at high speed. ● Light or unsecured objects can become hazardous projecfiles.	● Always wear approved safety glasses. ● Wear protective clothing to protect against accidental spraying. ● Never point lance at people or animals. ● Always secure trigger lock when lance is not in service to prevent accidental operation. ● Never permanently secure trigger in open position.

Hazard

! DANGER RISK OF INJURY FROM SPRAY

WHAT CANHAPPEN	HOW TO PREVENT IT
● Use of acids toxic or corrosive chemicals, poiso.ns, insecticides, or any kind of flammable solvent with this product could result in serious injury or death.	● Do not use acids, gasoline, kerosene, or any other flammable materials in this product. Use only household detergents, cleaners and degreasers recommended for use in washer pump. ● Wear protective clothing to protect eyes and skin from contact with sprayed materials.

Hazard ! DANGER RISK OF UNSAFE OPERATION 	
WHAT CANHAPPEN	**HOW TO PREVENT IT**
● Unsafe operation of your wadher pump could lead to serious injury or death to you or others.	● Do not use chlorine bleach or any other corrodive compound. ● Become familiar with the operation and controls ofthe washer pump. ● Keep operating area clear ofall persons, pets and obstacles. ● Do not operate the product when fatigued or under the influence of alcohol or drugs. Stay alert at all times. ● Never defeat the safety features of this product. ● Do not operate machine with missing, broken, or unauthorized parts. ● Never leave lante unattended while unit is running.
● If proper starting procedure is not followed, engine can kickback, causing serious hand andarminjury.	● If engine does not start after two pulls, squeeze trigger of gun to relieve pump pressure, pull starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback and prevent hand or arm injury.
● The gun/lance is a powerful cleaning tool that could look like a toy to a child.	● Keep children away from the washer pump at all times.
● Reactive force of spray will cause gun/wand to move, and could cause the operator to slip or fall, or misdirect the spray. Improper control of gun/lance can result in iniury to self and others.	● Do not overreach or stand on an unstable support. Grip gun/lance firmly with both hands. Expect the gun to kick when triggered.

Hazard ! DANGER RISK OF ELECTRICAL SHOCK 	
WHAT CANHAPPEN	**HOW TO PREVENT IT**
● Spray directed at electrical outlets or switches. or objects connected to an electrical circuit, could result in a fatal electrical shock.	● Unplug any electrically operated product before attempting to clean it. Direct spray away from electric outlets and switches.

WASHER PUMP TECHNICAL PARAMETER

BTLN.M 1450 rpm N version Φ24mm

Typa	Output		Pressure		Power		Rotation	Plunger Dia.	Pistion stroke
	L/min	gpm	bar	psi	hp	kw	rpm	mm	mm
BM4.10	4	1	100	1500	1.5	0.75	1450	15	5
BM6.10	6	1.5	100	1500	2	1.5	1450	16	7
BM8.10	8	2	100	1500	2.5	1.8	1450	18	7
BM12.10	12	2.9	100	1500	3	2.2	1450	18	10
BM15.10	15	4	100	1500	4	3	1450	18	14
BMV12.13	12.5	3.3	130	1900	5.5	3	3400	15	7
BMV18.13	18	4.75	130	1900	6.5	4.8	3400	18	7
BMV25.13	25	6.5	130	1900	9	6.5	3400	18	10
BMV36.13	36	9.5	130	1900	13	9	3400	18	14
BMV12.15	12.5	3.3	150	2200	6.5	4	3400	15	7
BMV18.15	18	4.75	150	2200	7.5	5	3400	15	10
BMV12.18	12.5	3.3	180	2700	6.5	4	3400	15	7
BMV18.18	18	4.75	180	2700	9	6.5	3400	18	7
BMV12.20	12.5	3.3	200	2900	7.5	5	3400	15	7
BMV18.20	18	4.75	200	2900	11	8	3400	18	7
BMV15.22	15	3.96	200	3200	9	6.5	3400	15	8.5
BMV22.25	22	5.8	248	3200	13	9	3400	18	8.5

OPERATING INSTRUCTIONS

WASHER PUMP TERMINOLOGY

PSI: Pounds per square inch. the unit of measure for water pressure. also used for air pressure, hydraulic pressure, etc.

GPM: Gallons(USA) per minute, the unit of measure for the flow rate of water.

Bypass Mode: In bypass mode, the pump is recirculating water because the trigger ofthe spray gun is not pulled. If unit is left in bypass mode for more than two (2) minutes, the water temperature will rise to a dangerous level and could damage intemal components of the pump. Any damage to pump due to these causes will not be covered under warranty.

! CAUTION **Do not allow unit to operate in bypass mode for more than two minutes at any time. Overheating of pump can cause damage to pump.**

Thermal Relief Valve: In an effort to prevent extreme damage, pumps are equipped with a thermal relief valve. This valve will open when the temperature inside the pump rises too high. This valve will then release a gush of water in an effort to lower the temperature inside the pump. Immediately after this occurs, the valve will close.

Chemical Injection System: Mixes cleaners or cleaning solvents with the pressurized water to improve cleaning effectiveness.

Water Supply: All pressure washers must have a source of water. the minimum requirements for a water supply are 20 PSI and 5gallon per minute.

WASHER PUMP OPERATING FEATURES

PRESSURE REGULATOR

The pressure setting is preset at the factory to achieve opamum pressure and cleaning. if you need to lower the pressure, it can be accomplished by these methods

1. **Back away from the surface to be cleaned.** The further away you are, the less the pressure will be on the surface to be cleaned

! CAUTION **Do not attempt to increase pump pressure. A higher pressure setting than the factory set pressure may damage pump.**

2. **Reduce the speed the gasoline engine (RPM).** Slow the engine down and the water pressure will go down with it.
3. **Change to a nozzle.** This nozzle delivers a less powerful stream of water and a wider spray pattern.
4. **Adjust the pressure regulator on the pump.** Turn the pressure regulator knob counter-clockwise to lower pressure. once you have finished using your pressure washer, return the pressure regulator to its original position by turning it clockwise.

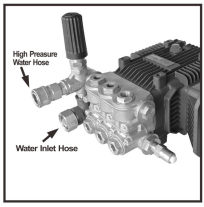
!CAUTION **Do not try to turn pressure regulator knob past the built-in stop or damage to pump will result**

HOW TO APPLY CHEMICALS AND CLEANING SOLVENTS

!WARNING **Applying chemicals or cleaning solvents is a low pressure operation.**

!NOTE Use only soaps and chemicals designed for washer pump use. **Do not use bleach.**

To apply chemicals:



1. **Press chemical hose** onto barbed fitting located near high pressure water hose connection of pump as shown.
2. **Place other end** of chemical hose with filter on it into container holding chemical/cleaning solution.

!NOTE The chemical/water ratio is 1:7, for every 7 gallons of water pumped, 1 gallon of chemical/cleaning solution will be used.

3. **Change to the low pressure nozzle.**
4. **After use of chemicals,** place chemical hose into container of clean water and draw clean water through chemical injection system to rinse system thoroughly. If chemicals remain in the pump it could be damaged.Pumps damaged due to chemicals will not be covered under warranty.

!NOTE Chemicals and soaps will not siphon when lance is in the high pressure setting.

READ AND UNDERSTAND ALL WARNINGS BEFORE STARTING UNIT

!DANGER **When using the high pressure setting, DO NOT** allow the high pressure spray to come in contact with unprotected skin, eyes, or with any pets or animals. Serious injury can occur.

Your washer operates at fluid pressures and velocities high enough to penetrate human and animal flesh, which could result in amputation or other serious injury. Leaks caused by loose fittings or worn or damaged hoses can result in injection injuries. **DO NOT TREAT FLUID INJECTION AS A SIMOLE CUT!See a physician immediately!**

!WARNING **NEVER** fill fuel tank when engine is running or hot. Do not smoke when filling fuel tank.

NEVER fill fuel tank completely. Fill tank to 1/2" below bottom of filler neck to provide space for fuel expansion. Wipe any fuel spillage from engine and equipment before starting engine.

NEVER run engine indoors in enclosed,poorly ventilated areas.Engine exhaust contains carbon monoxide,an odorless and deadly gas.

DO NOT let hoses come in contact with very hot engine muffler during or immediately after use of your washer pump. Damage to hoses from contact with hot engine surfaces will NOT be covered by warranty .

!CAUTION **NEVER** pull water supply hose to move washer pump. This could damage hose and pump inlet.

DO NOT use hot water, use cold water only.

NEVER turn water supply off while washer pump engine is running or damage to pump will result.

DO NOT stop spraying water for more than two minutes at a time. Pump operates in bypass mode when spray gun trigger is not pressed.If pump is left in bypass mode for more than two minutes internal components of the pump can be damaged.

STARTING

Prior to starting, refer to yout engine manual for proper starting procedures for your engine type.

1. **In a well ventilated outdoor area** add fresh, high quality, unleaded gasoline with a pump octane rating of 86 or higher. Do not overfill. Wipe up spilled fuel before starting the engine. Refer to Engine Owners Manual for correct procedure.
2. **Check engine oil level.** See Engine Owners Manual for correct procedure.

   !NOTE **There will be a slight amount of oil in the engine from factory testing.**
3. **Verify the filter screen** is in water inlet of pump.

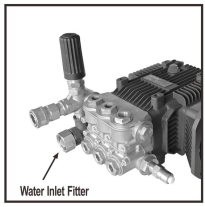
   !NOTE Cone side faces out.
4. **Connect** water source to pump inlet.

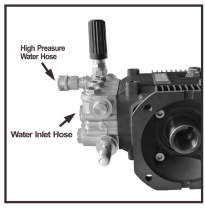
   !NOTE Water source must provide a minimum of 5 gallons per minute at 20 PSI.
5. **Connect** high pressure water hose to pump outlet.
6. **If applying a chemical or cleaning solution,** see How To Apply Chemicals/Cleaning Solvents in Operation section of this manual.
7. **Turn water source on.**

   !NOTE Failure to do so could cause damage to the pump.
8. **Start engine.** See Engine Owners Manual for correct procedure.

   !NOTE If the engine does not start after two pulls, pull the trigger on gun to relieve the pressure.
9. **Depress trigger on gun to start water flow.**

   !NOTE **Stand on a stable surface** and grip gun with both hands. Expect the gun to kick when triggered.
10. **Release trigger to stop water flow.**
11. **Adjust spray for the task** being performed by changing nozzle.





SHUTTING DOWN

1. **After each use,** if you have applied chemicals, place chemical hose into container of clean water and draw clean water through chemical injection system to rinse system thoroughly.

   !NOTE Failure to do so could cause damage to the pump.
2. **Turn engine off.** See engine owner's manual.

   !NOTE NEVER turn the water off with the engine running.
3. **Turn water source off.**
4. **Pull trigger on spray gun** to relieve any water pressure in hose or gun.
5. **See storage section** in this manual for proper storage procedures.

MAINTENANCE

!WARNING **When performing maintenance, you may be exposed to hot surfaces, water pressure, or moving parts that can cause serious injury or death!**

Before performing any maintenance or repair, disconnect spark plug wire, let engine cool and release all water pressure. The engine contains flammable fuel. DO NOT smoke or work near open flames while performing maintenance.

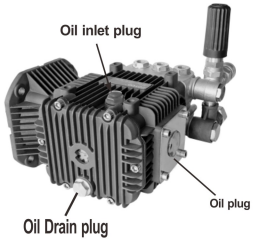
To ensure efficient operation and longer life of your washer pump,a routine maintenance schedule should be prepared and followed. Ifthe washerpump is used in unusual conditions, such as high-temperature or dusty conditions, more frequent maintenance checks will be required

ENGINE

Consult the Engine Owners Manual for the manufacturer's recommendations for any and all maintenance.

TO CHECK OIL

1. Remove oil inlet plug from pump and wipe clean.
2. Insert oil inlet plug fully into pump, then remove it.
3. Oil level is correct when oil covers the lower 1/2 inch of end of oil inlet plug.



HOW TO CHANGE PUMP OIL

1. Loosen oil inlet plug.
2. Place a container under the oil drain plug.
3. Remove oil drain plug.
4. After oil is drained replace oil drain plug. tighten securely.
5. Remove oil inlet plug and fill with recommended oil, see the pump oil chart for the correct amount and type of oil.
6. Replace oil inlet plug and tighten securely.

HOW TO CLEAN THE WATER INLET FILTER

This screen filter should be checked periodically and cleaned if necessary.

1. **Remove filter** by grasping end and removing it from water inlet of pump as shown.
2. **Clean filter** by flushing it with water on both sides.
3. **Re-insert filter** into water inlet of pump.

! NOTE **Cone side faces out.**

! NOTE **Do not operate pressure washer without filter properly installed.**

STORAGE

ENGINE

Consult the owners manual for the manufacturer's recommendations for storage.

PUMP

1. **Drain all water from high pressure water hose,** coil it, and store it in cradle of the washer pump handle.

2. **Drain all warer from gun** and lance by holding gun in a vertical position with nozzle end pointing down and squeezing trigger.Store in gun/hose holder.

3. **Store chemical hose,** high pressure water hose, so they are protected from damage, such as being run over.

It is recommeaded that you follow these steps to protect the internal seals of the washer pump when STORING THE UNIT FOR MORE THAN 30 DAYS AND/OR WHEN. FREEZING TEMPERATURES ARE EXPECTED.

4. **Obtain a funnel,** six ounces of RV antifreeze,and approximately 36 inches of garden hose with a male hose connector attached to one end.

!CAUTION **Use only RV antifreeze.Any other antifreeze is corrosive and can damage pump.**

5. **Disconnect spark plug wire.**

6. **Connect the hose** to water inlet of pump.

7. **Add RV antifreeze** to hose.

8. **Pull engine starter rope slowly several times.** until antifreeze comes out of high pressure water hose connection of pump.

9. **Remove short hose** from water inlet of pump.

10. **Reconnect spark plug wire.**

TROUBLE SHOOTING GUIDE

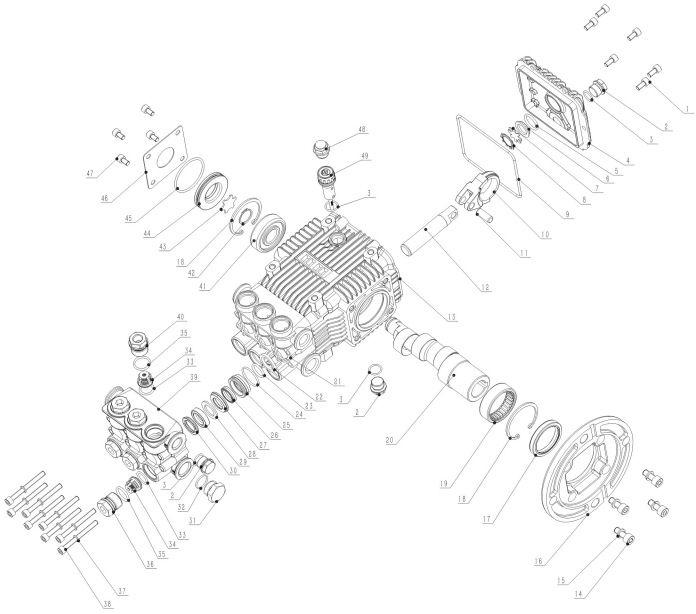
PROBLEM	CAUSE	CORRECTION
Engine will not start (see Engine Manual for further engine troubleshooting)	No fuel.	Add fuel.
	Low oil.	Add required amount of oil.
	Pressure builds up after two pulls on the recoil starter or after initial use.	Squeeze gun trigger to relieve pressure.
	Choke lever in the “no choke ” position.	Move choke to the “choke” position.
	Snark plug wire not attached.	Attach spark plug wire.
	Engine ON/OFF switch in OFF position.	Place engine ON/OFF switch in ON position.
	Choke lever in the “choke” position on a “hot” engine or an engine that has been exposed to thermal heat for a long. period of time.	Move choke to the “NO CHOKE” positione.
	Fuel valve closed.	Move fuel valve lever t o the “open” position.
No or low pressure (initial use)	Lance not in high pressure.	See how to use lance paragraph in the operation section.
	Lower warer supply.	Water supply must be at least 5.0 gal/min.
	Leak at high pressure water hose fitting.	Tighten. Apply sealant tape if necessary.
	Nozzle obstructed.	See lance paragraph in the maintenance section for the correct procedure.
	Water filter screen clogged.	Remove and clean filter.
	Air in hose.	Turn off the engine,then the water source. Disconnect the water source from the pump inlet and turn the water source on to remove all air from the hose. When there is a steady stream of water present, turn water source off. Re-connect water source to pump inlet and turn on water source. Squeeze trigger to remove remaining air.

PROBLEM	CAUSE	CORRECTION
No or low pressure (initial use)	Choke lever in the "choke" position.	Move choke to the "No choke" position.
	Throttle control lever is hot in the "Fast" position.	Move throttle control lever to the "fast" position.
	High pressure water hose is too long.	Use high pressure water hose under 50 feel.
Will not draw chemicals	Lance not in low pressure.	See How To Use Lance paragraph in the operation section.
	Chemical filter clogged.	Clean filter.
	Chemical screen not in chemical.	Ensure end of chemical hose is fully submerged into chemical.
	Chemical too thick.	Dilute chemical.Chemical should be the same consistency as water.
	Pressure hose is too long.	Lengthen water supply hose instead of high pressure water hose.
	Chemical build up in chemical injector.	Have parts cleaned or replaced.
No or low pressure (after period of normal use)	Worn seal or packing.	Check and replace.
	Worn or obstructed valves.	Check and replace.
	Worn unloader piston.	Check and replace.
Water leaking at gun/lance connection	Worn or broken o-ring.	Check and replace.
	Loose hose connecion.	Tighten.
Oil leaking at pump	Oil seals worn.	Check and replace.
	Loose oil drain plug.	Tighten.
	Worn oil drain plug o-ring.	Check and replace.
	Worn fill plug o-ring.	Check and replace.
	Pump overfilled.	Check for correct amount.
	Incorrect oil used.	Drain and fill with correct amount and type of oil.
	Vent plug is clogged.	Clean vent plug; blow air through it to remove any blockage. If problem persists, replace plug.
Pump pulsates	Nozzle obstructed.	See Lance paragraph in the maintenance section for the correct procedure.

QUICK FACTS

TO FIND A LOCAL AUTHORIZED SERVICE CENTER NEAR YOU FOR REPAIRS AND SERVICE PART PURCHASES.

GAS	Use fresh high quality unleaded gas. Add stabilizer to fuel tank and run engine for 5 minutes before storage.
OIL	Pump oil: refer to owners manual supplied with this unit. Engine oil: refer to engine manual supplied with his unit. Some units are equipped with a low oil sensor and adequate oil must be added or the unit will not start.
WATER	Use only cold water. Do not operate unit with clogged or missing water filter /screen. Do not operate unit without adequate water supply to pump. Adequate water supply is a minimum of 20 PSI and 5 GPM.
PRESSURE ADJUSTMENT	The pressure setting is preset at the factory to achieve optimum cleaning. If you need to lower the pressure setting, refer to the operation manual for proper reocedure.
PUMP	Pull gun trigger every 2 minutes while engine is running. Do not allow water to freeze in pump. For cold weather or long term storage refer to the operation manual for proper procedure.
BY-PASS MODE	Never leave unit running for more than 2 minutes without pulling gun trigger, doing so could cause damage to pump and void warranty.
HOSE	Do nor allow hoses to contact the hot engine muffler during or after use. Never pull the hose to move the unit.
ENGINE	Do nor adjust or attempt maintenance without consulting engine manual or an authorized engine service center. Add stabilizer to fuel tank and run engine for 5 minutes before storage. Always rum on the water before starting the engine.
CHEMICALS/ SOAP	Use only soaps and chemicals designed for washer puma use.
NOZZLE	Keep nozzle unclogged, Refer to manual for cleaning procedures. Chemicals/soap cannot be applied in high pressure setting. Only in low setting.
MAINTENANCE SCHEDULE	Follow recommended maintenance sehedule for engine & pump. Refer to manuals.
STORAGE OR WINTERIZING	Draw clean water through chemical inlet. Add stabilizer to fuel tank and run engine for 5 minutes before storage. Do not allow water to freeze in pump, gun, lance or hoses. For cold weather or long term storage refer to the operation manual for proper procedure.



Pump Exploded View
for triplex pump

No.	Description	No.	Description	No.	Description
1	Bolt M6*12	17	Plunger Oil Seal 42*52*7	33	O-ring 15*2.4
2	3/8" Plug	18	Wahser D52	34	Checking Valve
3	O-ring 14*1.8	19	Needle Bearing HK4216	35	O-ring 18*2.5
4	Rear Cover	20	Crankshaft	36	Valve Nut
5	O-ring 20*2.65	21	Plunger Oil Seal 18*28*7	37	Washer D6
6	Oil Level	22	Support Ring	38	Bolt M6*60
7	Oil Indicator	23	O-ring 17.8*2.4	39	Cylinder Block
8	Circlip	24	O-ring 26.7*1.78	40	Valve Nut, Hole
9	O-ring 110*3	25	Guide Ring	41	Ball Bearing
10	Connecting Rod	26	Aux. Water Seal	42	Washer D20
11	Plunger Pin	27	Support Ring	43	Side Oil Indicator
12	Plunger	28	Flat Gasket	44	Side Oil Level
13	Crankcase	29	Main Water Seal	45	O-ring 47*2.65
14	Bolt M8*20	30	Support Washer	46	Plate
15	Washer	31	1/2" Plug	47	Bolt M6*10
16	F6 Flange	32	O-ring 17*2	48	Oil Plug
				49	Dipstick