

SEALEY

PRESSURE WASHER, 220BAR, 510L/HR,

5.8HP PETROL

MODEL NO: PWM2500.V3

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instructions



Wear eye protection



Wear ear protection



Wear protective gloves



Wear safety footwear



Wear protective clothing



Hot surfaces



DO NOT direct jet against yourself, other persons, animals, electrical equipment or the machine itself

▲ DANGER

Using an engine indoors WILL KILL YOU IN MINUTES. Exhaust fumes contains carbon monoxide, a poisonous gas you cannot see or smell.

NEVER use in the home or in partly enclosed areas such as garages.

ONLY use outdoors and far from open windows, doors, and vents.

Avoid other engine hazards.
READ MANUAL BEFORE USE

1. SAFETY

- CAUTION:** Read the instructions before using the machine. This manual should be kept with the machine and passed on if it is sold.
- ✓ Machines shall not be used by children. Children should be supervised to ensure that they do not play with the machine.
 - ✓ This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge. **This machine MUST be attended during operation.**
 - ✓ The appliance shall be disconnected from its power source during cleaning, service and when replacing parts and, if that the removal of the plug is foreseen, it shall be clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed.
 - **WARNING!** Risk of explosion **DO NOT** spray flammable liquids.
 - **WARNING!** High pressure cleaners shall not be used by children or untrained personnel.
 - **WARNING!** To ensure machine safety, use only original spare parts from the manufacturer or approved by the manufacturer.
 - **WARNING! DO NOT** use the machine if a supply cord or important parts of the machine are damaged, e.g. Safety devices, high pressure hoses, trigger gun.
 - **WARNING! RISK OF FLUID INJECTION.** This washer operates at fluid pressures and velocities high enough to penetrate human and animal flesh. If there is an occurrence of fluid injection seek medical help immediately.
 - ✓ Ensure you comply with the water supply company regulations before connecting to the mains. If you are connecting to the mains drinking water supply ensure you have a back flow preventer valve installed.
 - ✓ The water supply hose must be reinforced and have an internal diameter of 13mm (1/2"). The minimum water supply rate must be at least equal to the cleaner capacity. The water temperature must not exceed 50°C and the pressure must not exceed 10bar/145psi.
 - **WARNING!** Use the washer on a flat, level surface, in a horizontal position. Failure to do so will invalidate your warranty.
 - ✓ Keep all persons and animals at a safe distance from the hose working area. It is difficult to give an exact safe distance as it will depend upon your circumstances. We recommend at least 15 metres (16 yards). Also ensure other persons are aware before you start to depress the washer trigger.
 - × **DO NOT** use the washer if you are tired or under the influence of alcohol, drugs or intoxicating medication.
- 1.1. SPECIFIC PRESSURE WASHER SAFETY WARNINGS!**
- ▲ **DANGER** indicates a hazard which, if not avoided, will result in death or serious injury.
 - **WARNING!** indicates a hazard which, if not avoided, could result in death or serious injury.
 - ▲ **CAUTION** indicates a hazard which, if not avoided, could result in minor or moderate injury.
 - **WARNING! POISONOUS GAS HAZARD.** Engine exhaust contains carbon monoxide, a poisonous gas that could kill you in minutes. You CANNOT smell it, see it, or taste it. Even if you do not smell exhaust fumes, you could still be exposed to carbon monoxide gas. Some chemicals or detergents could be harmful if inhaled or ingested, resulting in death, serious injury, nausea, fainting or poisoning.
 - ✓ **ONLY** operate this product outside and far away from windows, doors, and vents to reduce the risk of carbon monoxide gas from accumulating and potentially being drawn towards occupied spaces.
 - × **DO NOT** run this product inside homes, garages, basements, crawlspaces, sheds, or other partially-enclosed spaces even if using fans or opening doors and windows for ventilation. Carbon monoxide can quickly build up in these spaces and can linger for hours, even after this product has shut off.
 - ✓ **ALWAYS** place this product downwind and point the engine exhaust away from occupied spaces. If you start to feel sick, dizzy, or weak while using this product, shut it off and get to fresh air **IMMEDIATELY**. See a doctor. You may have carbon monoxide poisoning.
 - ✓ Use a respirator or mask whenever there is a chance that vapours may be inhaled when using chemicals.
 - ✓ Starter cord kickback (rapid retraction) will pull hand and arm toward engine faster than you can let go which could result in serious injury i.e. broken bones, fractures, bruises, or sprains.

- ✓ When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.
 - ✗ NEVER start or stop engine with electrical devices plugged in and turned on.
- Fuel and its vapours are extremely flammable and explosive which could cause burns, fire, or explosion resulting in death or serious injury and/or property damage.
- 1.1.1. **WHEN ADDING OR DRAINING FUEL**
- ✓ Turn engine OFF and let it cool at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
 - ✓ Fill or drain fuel tank outdoors.
 - ✗ **DO NOT** overfill tank. Allow space for fuel expansion. If fuel spills, wait until it evaporates before starting engine. Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources. Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.
 - ✗ **DO NOT** light a cigarette or smoke.
- 1.1.2. **WHEN STARTING EQUIPMENT**
- ✓ Ensure spark plug, muffler, fuel cap, and air cleaner are in place. **DO NOT** crank engine with spark plug removed.
- 1.2. **WHEN OPERATING EQUIPMENT**
- ✗ **DO NOT** operate this product inside any building, carport, porch, mobile equipment, marine applications, or enclosure.
 - ✗ **DO NOT** tip engine or equipment at angle which causes fuel to spill.
 - ✗ **DO NOT** stop engine by moving choke control to "Start" position.
- 1.3. **WHEN TRANSPORTING, MOVING OR REPAIRING EQUIPMENT**
- ✓ Transport/move/repair with fuel tank EMPTY or with fuel shut off valve OFF. **DO NOT** tip engine or equipment at angle which causes fuel to spill. Disconnect spark plug wire.
- 1.4. **WHEN STORING FUEL OR EQUIPMENT WITH FUEL IN TANK**
- ✓ Store away from furnaces, stoves, water heaters, clothes dryers, or other appliances that have pilot light or other ignition source because they could ignite fuel vapours.
- 1.5. **WHEN STARTING WASHER**
- ✓ Ensure spark plug, exhaust, fuel cap and air cleaner are in place.
 - ✗ **DO NOT** crank engine with spark plug removed.
 - ✓ Use a ground fault circuit interrupter (GFCI) in any damp or highly conductive area such as metal decking or duct work.
 - ✗ **DO NOT** operate in rain or wet weather. **DO NOT** use whilst standing in water, while barefoot, or while hands or feet are wet.
 - ✗ **NOT** to be used by unqualified persons or children.
 - ✓ Exhaust heat/gases could ignite combustible structures or damage fuel tank causing a fire resulting in death or serious injury and/or property damage.
 - ✓ Contact with muffler area could cause burns resulting in serious injury. **DO NOT** touch hot parts and AVOID hot exhaust gases.
 - ✓ Allow equipment to cool before touching.
- 1.6. **MAINTENANCE**
- ✓ Replacement parts must be the same and installed in the same position as the original parts.
 - ✓ Unintentional sparking could cause fire or electric shock resulting in death or serious injury.
- 1.6.1. **WHEN ADJUSTING OR MAKING REPAIRS TO YOUR PRESSURE WASHER**
- ✓ Disconnect the spark plug wire from the spark plug and place the wire where it cannot contact spark plug.
 - ✗ **DO NOT** check for spark with spark plug removed.
 - ✓ Starter and other rotating parts could entangle hands, hair, clothing, or accessories resulting in serious injury.
 - ✗ NEVER operate pressure washer without protective housing or covers.
 - ✗ **DO NOT** wear loose clothing, jewellery or anything that could be caught in the starter or other rotating parts.
 - ✓ Tie up long hair and remove jewellery.
- 1.7. **CONNECTION TO WATER MAINS**
- ✓ The new hose-sets supplied with the appliance are to be used and old hose-sets should not be reused.
 - ✓ Keep all persons and animals at a safe distance from the hose working area. It is difficult to give an exact safe distance as it will depend upon your circumstances. We recommend at least 15 metres (16 yards). Also ensure other persons are aware before you start to depress the washer trigger.
- 1.8. **PPE**
- ✓ Appropriate PPE for high pressure cleaners in operation to be worn while operating the equipment .
- 1.9. **KICKBACK FORCES**
- ✓ There is a danger of kickback force and sudden torque on the spray assembly when opening the trigger gun.
- 1.10. **OIL FIRED MACHINES: NO PRIMARY SAFETY CONTROL**
- ✓ This machine must be attended during operation.
- 1.11. **CLEANING AGENTS**
- WARNING!** This machine has been designed for use with cleaning agent supplied or recommended by the manufacturer. The use of other cleaning agents or chemicals may adversely affect the safety of the machine.
- 1.12. **HIGH PRESSURE JET**
- WARNING!** High pressure jets can be dangerous if subject to misuse. The jet must not be directed at persons, live electrical equipment, or the machine itself.
 - WARNING! DO NOT** use this machine within range of persons unless they wear protective clothing.
 - WARNING! DO NOT** direct the jet against yourself or others in order to clean clothes or foot-wear.
- 1.13. **HIGH PRESSURE HOSES**
- ✓ High pressure hoses, fittings, and couplings are important for the safety of the machine. Use only hoses, fittings, and couplings recommended by the manufacturer.
- 1.14. **ENGINE POWERED**
- WARNING! DO NOT** use combustion engine powered machine indoors unless adequate ventilation conforms to local standards in force.
 - WARNING!** Ensure that any exhaust emissions are not in the vicinity of air intakes.

2. INTRODUCTION

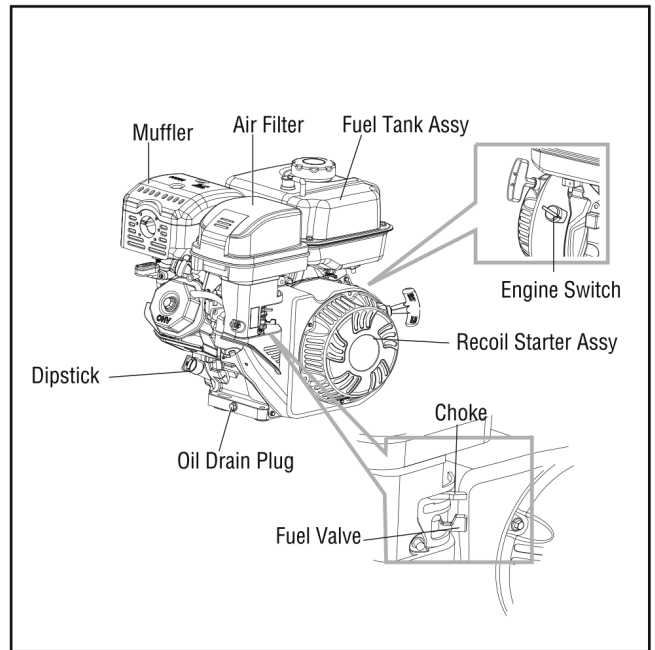
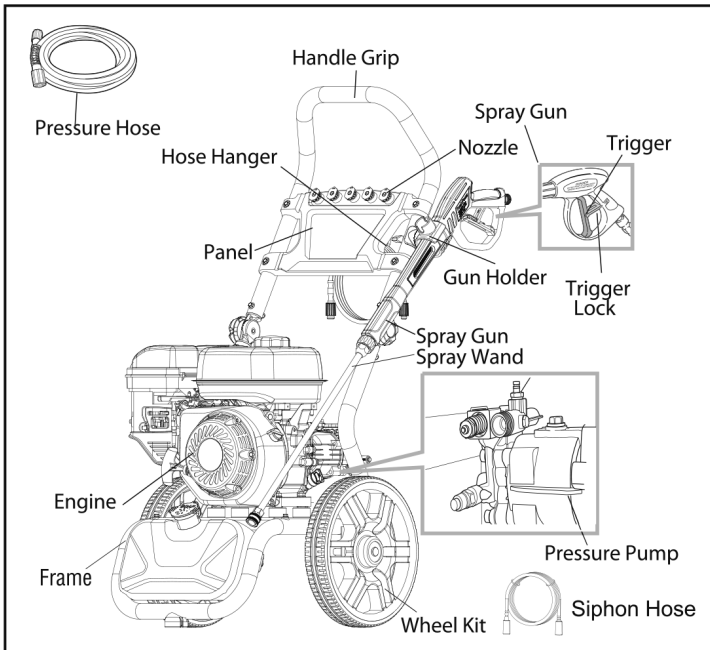
Petrol powered pressure washer with recoil starting. 7.6m Pressure hose, 1m gun and lance and interchangeable nozzles. Low pressure liquid detergent injection system with 3.7L detergent bottle. Safety latch on trigger and automatic low oil engine shutdown to reduce risk of misuse and equipment damage. Mounted on robust painted frame with two sucker feet and two solid wheels for stability and easy portability. Supplied with five quick release spray nozzles: 0°, 15°, 25°, 40° and low pressure nozzle for use with detergent.

3. SPECIFICATION

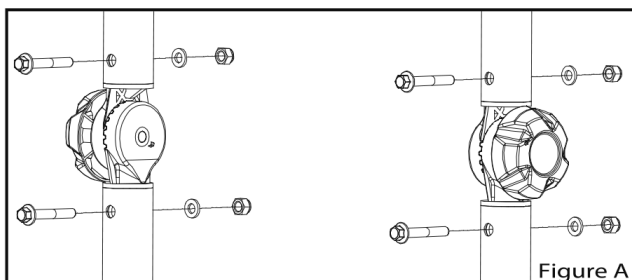
Model No:	PWM2500.V3
Engine Capacity:	209cc
Engine Power:	4.8hp
Engine Type:	4-Stroke, Single Cylinder, Petrol
Fuel Consumption:	1.4L/hr
Fuel Tank:	3.7L
Hose Length:	7.6m
Manifold Pressure:	175bar(2538psi)
Max. Inlet Temperature:	50°C
Max. Pressure:	220bar(3190psi)
Max. Inlet Water Pressure:	0.7Mpa
Min. Water Inlet Pressure:	0.15Mpa
Weight:	27.3kg
Noise Level:	111dB(A)
Nozzle:	0°, 15°, 25°, 40° & Detergent
Oil Capacity:	0.5L
Recommended Oil:	SAE 10W-30
Starting:	Recoil
Sound Pressure/Sound Power:	93.7dB(A)/107.7dB(A)
Water Flow:	510L/hr



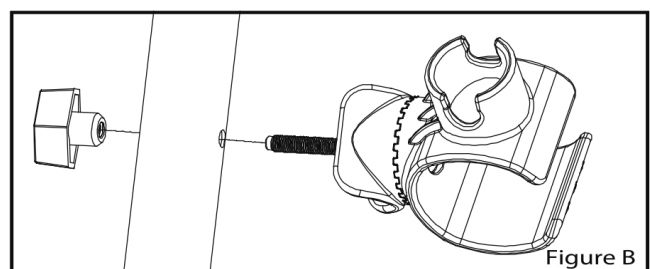
4. FEATURES



5. ASSEMBLY



Attach handle



Attach the gun holder to the handle, rotate the holder to get a comfortable angle and then tighten the knob by hand.

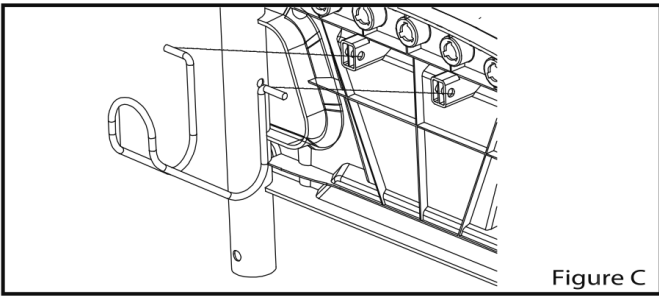


Figure C

Attach the hose holder to the panel.

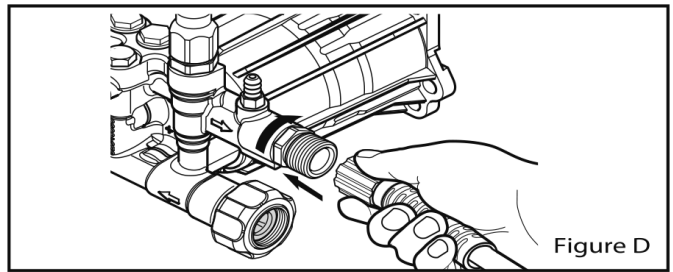


Figure D

Connect the pressure hose to the pump outlet. Tighten the nut firmly by hand.

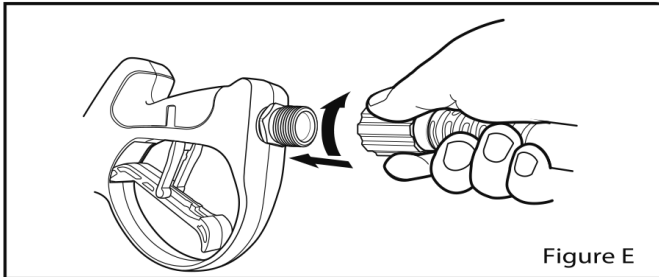


Figure E

Connect the pressure hose to the handle of the spray gun and tighten the nut firmly by hand.

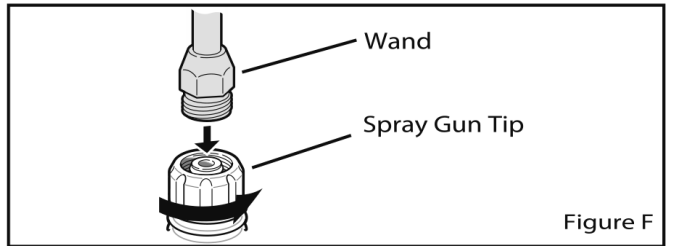


Figure F

Remove the protective cap on the wand inlet. Insert the wand into the spray gun tip and tighten the nut firmly by hand.

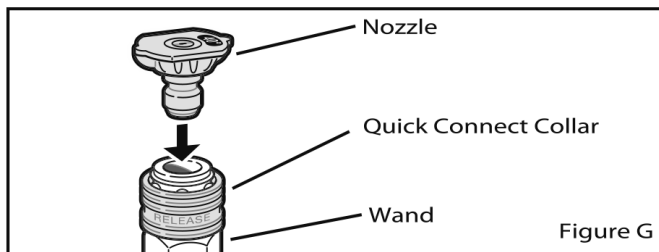


Figure G

Attach the nozzle to the wand by pulling back the quick connect collar and pushing the nozzle onto the end of the wand. Make sure the quick connect collar locks the nozzle in place.

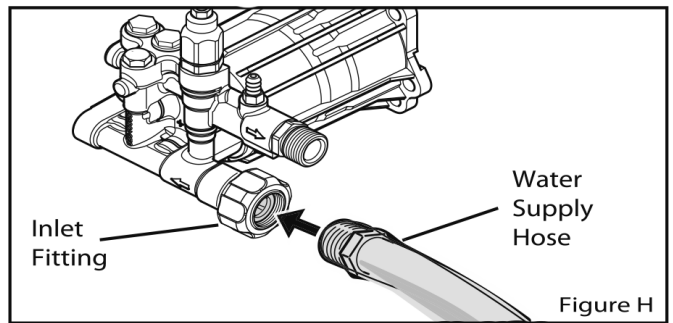


Figure H

Connect the water supply hose to the water inlet connection on the pump and tighten the inlet fitting firmly by hand. The water source must be able to provide a minimum of five gallons of clean, cold water per minute at 20PSI. Only use a 5/8" inner diameter (or larger) hose that is rated to meet this capacity.

6. SET UP

Fuel	Use fresh high quality unleaded petrol (minimum 87 octane) Run engine for 5 minutes before storage.
Oil	Engine oil: Use only SAE 10W-30, 0.6 Quart (0.681lt) non-detergent oil (supplied).
Water	Use cold water only. Self primes so can use water from a container, with a suitable hose (not supplied.) DO NOT operate pressure washer with clogged or missing water filter screen. DO NOT operate pressure washer without adequate water supply.
Pressure adjustment	Pressure setting is preset at the factory. For lowering pressure, refer to Pressure Adjustment section.
Pressure pump	Squeeze spray gun every 2 minutes while engine is running. Do not allow water to freeze in pump.
Bypass mode	Never leave unit running for more than 2 minutes without squeezing the spray gun trigger. Doing so could damage the pump and void the warranty.
Thermal relief valve	Pump is equipped with a thermal relief valve. If water overheats, this valve opens releasing a gush of water. After this, valve closes returning pump to normal operation.
Pressure hose	DO NOT allow hoses to come into contact with engine muffler during or immediately after use. DO NOT pull unit by the pressure hose.

Engine	DO NOT make adjustments or attempt maintenance without reading the manual. Run for 5 minutes before storage. Always turn on water before starting engine.
Soaps/chemicals	Only use soaps and detergents recommended by the Manufacturer.
Nozzle	Always keep nozzles unclogged. Use nozzle needle to clean them. Use ONLY detergent nozzle (black) when using chemical and cleaning solvents.
Storage or Winterising	Run clean water through inlet. Add stabiliser to any remaining fuel in the tank. DO NOT allow water to freeze in the pressure pump, spray gun, spray wand and hoses.

7. OPERATION

Read the entire "SAFETY" section at the beginning of this manual including all text under subheadings therein before setup or use of this product. Improper treatment of Pressure Washer can damage internal components and shorten the life of the unit. Failure to follow this warning will void warranty.

7.1. PRE START CHECKS

Inspect engine and equipment looking for damaged, loose and missing parts before set up and starting. If any problems are found, do not use equipment until fixed properly.

7.1.1. ADD ENGINE OIL

NOTE: Your Warranty is VOID if the engine's crankcase is not properly filled with oil before each use. Before each use, check the oil level. Engine will not start with low or no engine oil.

7.1.1.1. Move the Pressure Washer OUTSIDE and place on a flat and level surface.

7.1.1.2. Make sure the engine is stopped and is level.

7.1.1.3. Close the Fuel Valve.

7.1.1.4. Clean the top of the Dipstick and the area around. Remove the Dipstick by turning it counterclockwise, and wipe it off with a clean, lint free rag.

7.1.1.5. Place funnel in the oil reservoir.

7.1.1.6. Pour engine oil (SAE 10W-30 is recommended for general use) until oil level reaches the threads inside the oil reservoir.

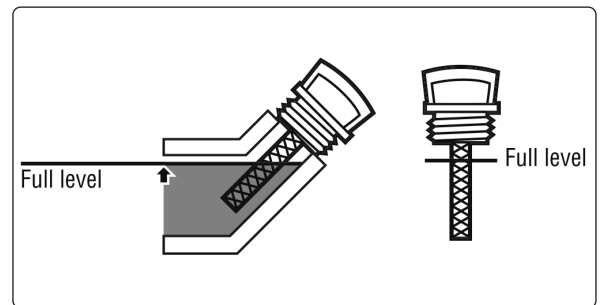
* **DO NOT** overfill.

7.1.1.7. Reinsert the Dipstick without threading it in and remove it to check the oil level. The oil level should be up to the full level as shown on right.

7.1.1.8. If the oil level is at or below the low mark, add the appropriate type of oil until the oil level is at the proper level.
(The SAE Viscosity Grade Chart in the "MAINTENANCE" section shows other viscosities to use in different average temperatures.)

7.1.1.9. Replace the dipstick and fully tighten.

NOTE: DO NOT run the engine with too little oil.
Engine will shut off if engine oil level is too low.



7.1.2. ADD FUEL

WARNING! Fuel and fuel vapour are extremely flammable and explosive. Fire or explosion from misuse of fuel can cause severe burns and even death. Failure to use fuel as recommended in this manual will void the warranty.

7.1.2.1. Fill the fuel tank in a well-ventilated area away from ignition sources. If the engine is hot from use, shut the engine off and wait for it to cool before adding fuel.

* **DO NOT** smoke.

NOTE: DO NOT use petrol that has been stored in a metal fuel container or a dirty fuel container. It can cause particles to enter the carburettor, affecting engine performance and/or causing damage.

7.1.2.2. Move the Pressure Washer OUTSIDE and place on a flat and level surface. Clean the Fuel Cap and the area around it. Unscrew and remove the Fuel Cap. Remove the Strainer and remove any dirt and debris. Then replace the Strainer.

7.1.2.3. If needed, fill the Fuel Tank to about 25mm/1 inch under the fill neck of the Fuel Tank with 87 octane or higher unleaded petrol.

7.1.2.4. Replace the Fuel Cap.

7.1.2.5. Wipe up any spilled fuel and allow excess to evaporate before starting engine. To prevent FIRE, **DO NOT** start the engine while the smell of fuel hangs in the air.

NOTE: When adding fuel to pressure washer, observe the following:

* **DO NOT** use unapproved petrol such as E85 (85% ethanol/15% petrol).

* **DO NOT** mix oil with petrol.

* **DO NOT** modify engine to run on alternate fuels.

7.1.2.6. Turn Pressure Washer OFF and let it cool for at least two minutes before removing fuel cap. Loosen fuel cap slowly to release pressure. Keep fuel away from sparks, open flames, pilot lights, heat and other ignition sources.

* **DO NOT** light a cigarette or smoke near open flames, pilot lights, heat and other ignition sources.

* **DO NOT** light a cigarette or smoke near open fuel tank or container.

7.1.2.7. Clean area around fuel fill cap and slowly remove cap to allow any pressure to escape.

7.1.2.8. Install fuel cap and allow any spilled fuel to evaporate before starting engine.

7.1.3. LUBRICATE O RINGS Letters in brackets refer to diagram overleaf

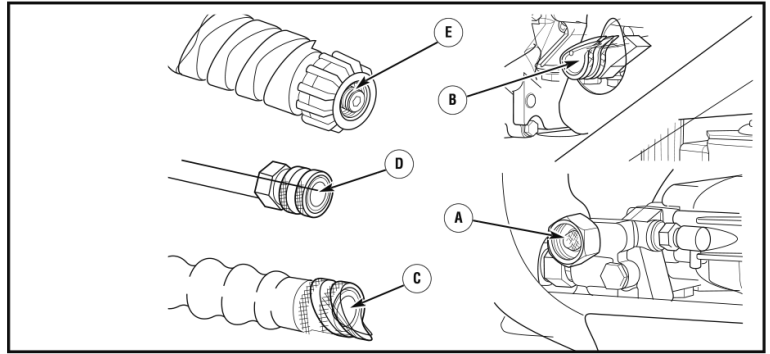
Lubrication of o-rings is extremely important for installation and operation. The use of a lubricant (petroleum or synthetic grease) during assembly helps seat o-rings properly and provides an improved seal. It also helps protect the o-ring from damage by abrasion, pinching or cutting and extends the life of the o-ring.

NOTE: ALWAYS apply a small amount of lubricant on o-rings prior to assembling the garden hose to the pump inlet (A), high pressure hose to pump outlet (B), high pressure hose (C), nozzle extension (D), and spray gun (E).

7.1.3.1. Lubricate all connections shown below, following these instructions:

Inspect and clean connecting surfaces prior to lubrication and assembly.

Use lubricants sparingly during assembly; a light film is all that is required.
Use a small brush or cotton swab to apply grease directly to o-rings.



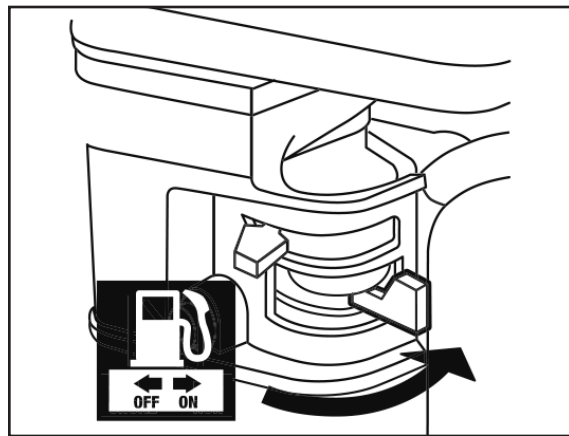
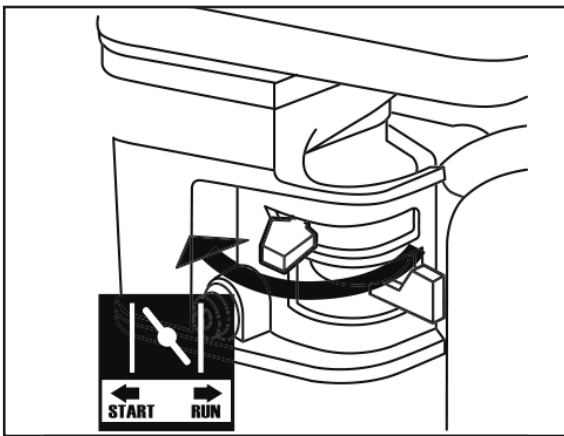
7.2. STARTING

- **WARNING!** Before starting the engine: inspect the equipment and engine. Fill the engine with the proper amount and type of both stabilizer-treated unleaded petrol and oil.
TURN ON WATER SUPPLY, REMOVE NOZZLE, POINT WAND IN SAFE DIRECTION, AND HOLD DOWN TRIGGER UNTIL ALL AIR IS RELEASED FROM THE SYSTEM, AT LEAST 30 SECONDS.

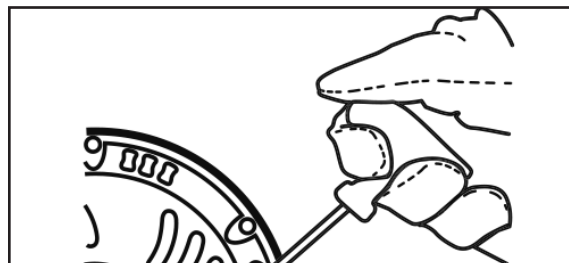
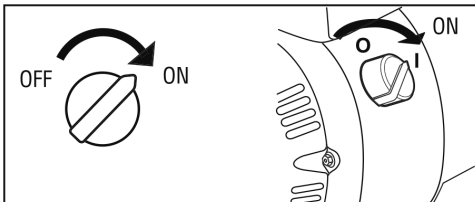
7.2.1. Then release the trigger, lock it in the safety position and replace nozzle before starting engine.

7.2.2. To start a cold engine, move the choke to the START position.

7.2.3. To restart a warm engine, leave the choke in the RUN position.



7.2.4. Move the fuel valve to the ON position.



NOTE: If engine does not start, check the engine oil level. Engine will not start with low or no engine oil.

7.2.5. Grip the starter handle of the engine loosely and pull it slowly two times to allow the petrol to flow into the engine's carburettor. Then pull the starter handle gently until resistance is felt. Allow cable to retract fully and then pull it quickly. Repeat until the engine starts.

NOTE: Moving the choke lever too fast could stall the engine.

7.3. USING DETERGENT

7.3.1. Only use the black nozzle when spraying detergent. Only use detergents specified for pressure washers.

7.3.2. Fill soap tank with detergent and close the Lid.

7.3.3. Change the nozzle in the wand to black nozzle.

7.3.4. Start the engine.

7.4. PRESSURE WASHING

- **WARNING! DO NOT** direct spray from the pressure washer at a person or an animal. The water stream could cause serious injury.
- × **DO NOT** leave pressure washer in bypass mode for more than 2 minutes at a time. Water temperature inside the pressure pump will rise to a dangerous level resulting in damage to the internal components of the pump. Failure to follow this warning will void warranty.
- × **DO NOT** run the pressure pump without the water supply connected and turned on. Damage to the pressure washer resulting from failure to follow instruction will void warranty.

7.4.1. ALWAYS wear approved safety glasses when operating pressure washers. Spray can splash back or propel objects, including incorrectly attached accessories.

- **WARNING!** The high pressure stream of water that this equipment produces can cut through skin and its underlying tissues, leading to possible amputation. Spray gun traps high water pressure, even when the motor is stopped and water is disconnected, which can cause injury.

7.4.2. Kickback from spray gun can cause you to fall.

CAUTION Use the pressure washer only OUTSIDE in a fully VENTILATED area, place the pressure washer on surfaces able to withstand the force of the spray.

7.4.3. **SELECTING THE RIGHT NOZZLE: 0° RED 15° YELLOW 25° GREEN 40° BLACK SOAP**

- 7.4.3.1. To prevent damage to your surface and to select an appropriate nozzle size for your application, always start with lowest pressure nozzle size (green) and continue to the higher nozzle size until the best work result is achieved.
- 7.4.3.2. The pressure washer comes furnished with three spray nozzles. Each nozzle is colour coded and delivers a specific spray pattern and pressure for a particular cleaning job. The size of the nozzle determines the size of the fan spray and the pressure out of the nozzle.

NOTES: 0° Nozzle Red: This nozzle delivers a pinpoint stream of pressurized water and is extremely powerful. It covers only a small area of cleaning. This nozzle should only be directed at surfaces that can withstand high pressure such as metal or concrete.

- * **DO NOT** use this nozzle to clean wood.

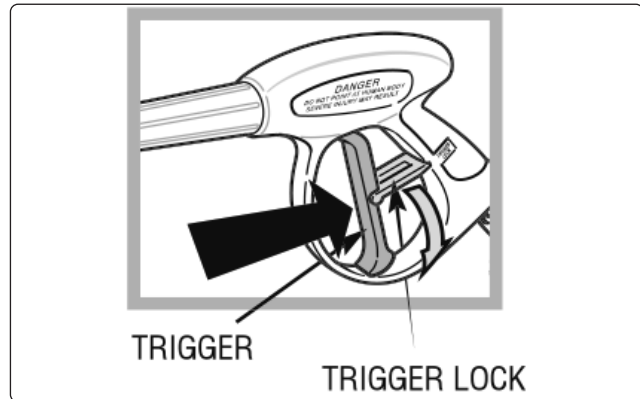
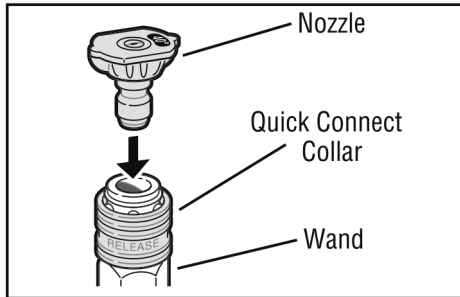
25° Nozzle Green: This nozzle delivers a 25° spray pattern for intense cleaning of larger areas. It should only be used on areas that can withstand pressure from this nozzle.

Chemical Nozzle: Black: This nozzle is used to apply special chemicals and cleaning solutions. This nozzle produces the weakest pressure stream of the three nozzles.

7.4.4. **FITTING NOZZLES TO SPRAY WAND**

- **WARNING!** Never place hands in front of nozzle. Never grasp hose or fittings during pressure washer operation.

- 7.4.4.1. Never attempt to attach or remove spray wand or hose fittings while pressure washer system is pressurized. Turn off pressure washer and lock the gun trigger before attempting to change pressure nozzles.
- 7.4.4.2. To attach, insert nozzle into female quick-disconnect spray wand and press to snap in the nozzle.
- 7.4.4.3. To detach, slide down slip ring on female quick-connect collar to eject the nozzle.



7.4.5. **USING THE SPRAY GUN**

- **WARNING!** To prevent accidental discharge of high pressure washer, the trigger lock on the trigger should be engaged whenever the pressure washer is not in use.

- 7.4.5.1. **To disengage the trigger lock:** push the lock down and into its original position.
- 7.4.5.2. **To operate the trigger:** Squeeze the trigger to start water flow through the nozzle.
- 7.4.5.3. Release the trigger to stop water flow.

7.5. **WASHING/CLEANING**

- **WARNING!** SOME ENGINE PARTS CAN BECOME EXTREMELY HOT.

- * **DO NOT** allow the pressure hose to come in contact with engine exhaust system which can cause damage to the hose.
- * Damaged hoses can burst and can cause injection injuries.

- 7.5.1. Firmly grip spray gun with both hands.
- 7.5.2. Start with a low pressure nozzle, and gradually use higher pressures as needed. Test spray the edge of the surface to be cleaned first to make sure that the stream is not too strong for the surface. If the stream damages the surface, move further away from the surface being cleaned to reduce the pressure being applied to the surface. If the stream is still too strong, lock the trigger in the safety position and change to a lower pressure nozzle.
- 7.5.3. Point the nozzle to a safe direction and squeeze the spray gun trigger to allow the pump to purge air and impurities in the system and then redirect the nozzle to the working surface.
- 7.5.4. Clean vertical and sloped surfaces from the top down.
- 7.5.5. When cleaning horizontal surfaces, occasionally use the stream to clear the area of excess water.
- 7.5.6. For most effective cleaning, keep spray nozzle from 205mm to 600cm (8 to 24 inches) away from cleaning surface. If you get spray nozzle too close, you may damage surface being cleaned.
- * **DO NOT** get closer than 150mm (6 inches when cleaning tyres.)

7.6. **PRESSURE ADJUSTMENT**

- 7.6.1. **Increase distance:** To vary the pressure on the surface being cleaned, vary the distance between spray wand and the surface being cleaned.
- 7.6.2. **Change pressure wand nozzle:** Completely shut down pressure washer and stop petrol engine.
- 7.6.3. **Change spray nozzle for desired pressure** (see Selecting The Right Nozzle above).
- 7.6.4. Restart engine.

7.7. **USING CHEMICALS AND CLEANING SOLVENTS**

NOTE: Use only soaps and chemicals designed for use with pressure washer. **DO NOT USE CHLORINE BLEACH.** Chemicals, soaps and cleaning solvents will not siphon when a high pressure nozzle is used. Only use the black (low pressure) nozzle when spraying detergents.

- 7.7.1. Fill detergent tank (NOT supplied) with prepared detergent solution and close the cap. The pressure washer will draw 4.54lt (one gallon) of detergent for every 32lt (seven gallons) of water.
- 7.8. **TO RINSE**
- 7.8.1. Replace nozzle (see Selecting The Right Nozzle). Squeeze the trigger and wait for the detergent to clear.
- 7.8.2.7. Keep the spray gun a safe distance from the area you plan to spray.
- 7.8.3.7 Apply a high pressure spray to a small area, and then check the surface for damage. If no damage is found, it is okay to continue cleaning.
- 7.8.4.7.4 Start at the top of the area to be rinsed, working down with same overlapping strokes as you used for washing and applying detergent.

7.9. **CLEANING TIPS**

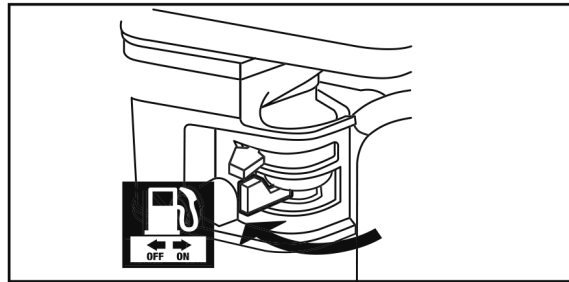
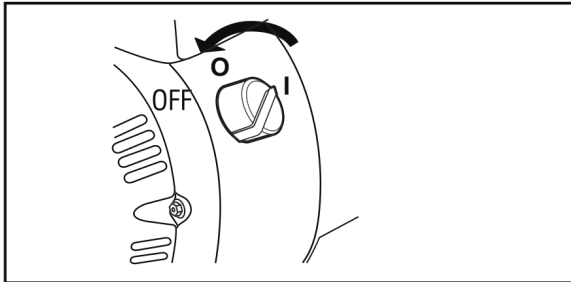
☐ **WARNING!** Never use the pressure washer water inlet to siphon detergent or wax. Leaving chemicals and cleaning solutions inside the pressure pump could damage it. Damage created by leaving soaps, chemicals and cleaning solutions inside the pump can void the warranty.

7.10. **STOPPING THE ENGINE AND PRESSURE WASHER**

☐ **WARNING!** SOME ENGINE PARTS CAN BECOME EXTREMELY HOT.

7.10.1. If you intend to disconnect the high pressure hose after completing a wash, avoid touching the engine exhaust system while disconnecting the high pressure hose from the pump.

7.10.2. **To stop the engine in an emergency, turn the Engine Switch off.**



7.10.3. **Under normal conditions, use the following procedure:**

Release the trigger on the spray gun handle.

Turn the engine switch off.

Close the fuel valve.

Turn the water supply off.

7.10.4. Squeeze the trigger to release excess pressure.

7.10.5. If pressure washer detergent has been used, run clean water through the system to eliminate detergent residue using the following procedure:

Turn off the Engine.

Fill the detergent tank (Not supplied) with clean water.

Remove the nozzle and restart the engine (following directions in starting the engine).

7.10.6. Point wand in safe direction and hold down to flush water through system until clean.

7.10.7. Turn off the engine.

8. MAINTENANCE

8.1. Regular maintenance will improve performance and extend life of pressure washer. Warranty does not cover items that have been subjected to operator abuse or negligence. Maintain pressure washer in accordance with instructions in this manual.

8.2. Maintenance will need to be made periodically to properly maintain the pressure washer. All service and maintenance should be made at least once each season. It is important that the maintenance chart below be followed.

8.3. Many maintenance procedures, including any not detailed in this manual, will need to be performed by a qualified technician for safety. If you have any doubts about your ability to safely service the equipment or engine, have a qualified technician service the equipment instead.

8.4. **ENGINE MAINTENANCE SCHEDULE**

NOTE: This maintenance schedule is intended solely as a general guide. If performance decreases or if equipment operates unusually, check systems immediately. The maintenance needs of each piece of equipment will differ depending on factors such as duty cycle, temperature, air quality, fuel quality, and other factors.

NOTE: The following procedures are in addition to the regular checks and maintenance explained as part of the regular operation of the engine and equipment.

	Items	Each Time	Every month or 20 Hrs	Every 3 months or 50 Hrs	Every 6 months or 100 Hrs	Every Year or 300 Hrs	
Brush off outside of engine			√				
Engine Oil	Check oil level	√					
	Replace				√ *		
Air Filter	Check	√					
	Clean			√	√ *		
	Replace					√ *	
Deposit Cup	Clean				√		
Spark Plug	Clean, Adjust				√ ***		
	Replace					√ *	
Spark Arrester	Clean				√		
Valve Clearance	Check, Adjust					√ **	
Fuel Tank	Clean					√ **	
Emission & Evaporation System						√ **	
Fuel Supply Line	Clean	Every two years (Replace if necessary**)					

* Recommended to be performed more often than in the schedule if operated in dusty environments.

** Recommended to be performed by qualified technician.

*** Adjust air gap to 0.6mm - 0.7mm.

8.5. PUMP MAINTENANCE

- 8.5.1. **Checking pressure pump:** The pressure pump is maintenance free. If you notice any sign of oil leakage in and around the pump, **DO NOT** operate the pressure washer.
- 8.5.2. **Cleaning nozzle:** Occasionally, the spray wand can become clogged with foreignly materials such as dirt. When this happens excessive pressure can develop. Whenever the pressure nozzle becomes partially clogged, the pump pressure will pulsate. It should be immediately cleaned.
- 8.5.2.1. Make sure pressure washer is shut and spray gun trigger is locked.
- 8.5.2.2. Remove high pressure spray nozzle from the spray wand. Using the nozzle cleaning needle (provided), remove any obstructions by inserting and carefully moving the pin back-and-forth through nozzle hole under clean running water.
- 8.5.2.3. After cleaning, remove the needle from nozzle and store for future use. Reassemble pressure nozzle to spray wand.
- 8.5.3. **Cleaning water inlet screen filter:** The water inlet screen filter should be checked periodically and cleaned if necessary.
- 8.5.3.1. Disconnect inlet water hose.
- 8.5.3.2. Remove filter by grasping end and pulling straight back.
- 8.5.3.3. Clean screen filter by flushing both sides with water.
- 8.5.3.4. Insert screen filter back inside water inlet port.

□ **WARNING! DO NOT** operate pressure washer without screen filter. Impurities entering pressure pump can cause internal damage.

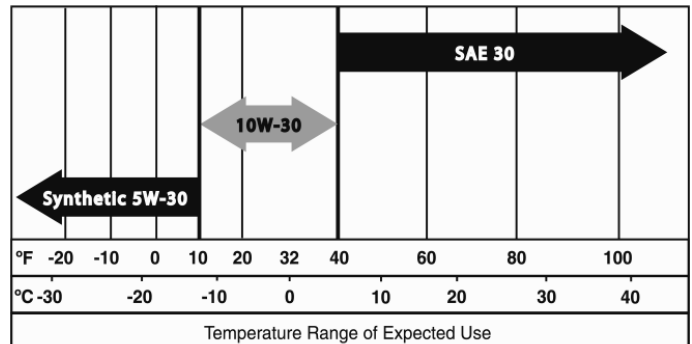
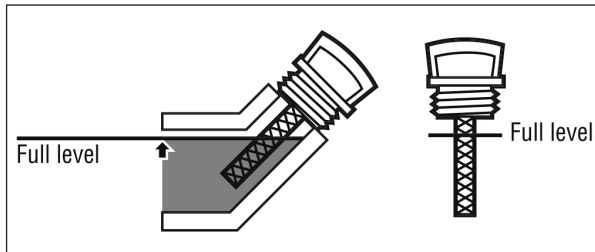
8.6. CLEANING THE PRESSURE WASHER

- 8.6.3.1. Daily or before use inspections should include areas around and underneath pressure washer looking for signs of fuel or oil leaks. Preventative maintenance should be taken if leakage is found. Clean accumulated debris from outside and inside pressure washer. Ensure all linkages, springs and other engine controls are kept clean. Inspect cooling air slots and openings on pressure washer. Openings must be kept clean and unobstructed for peak performance of pressure washer. Engine components should be kept clean to reduce risk of overheating and ignition of accumulated debris.
- 8.6.3.2. Use a damp cloth to wipe exterior surfaces clean.
- 8.6.3.3. Use a soft bristle brush to loosen caked on dirt or oil.
- 8.6.3.4. Use a shop-vacuum to pick up any loose dirt and debris.

8.7. CHANGING ENGINE OIL

CAUTION. Oil is very hot during operation and can cause burns. Wait for engine to cool before changing oil.

- 8.7.1. Make sure the engine is stopped and is level.
- 8.7.2. Close the fuel valve.
- 8.7.3. Place a drain pan (not included) underneath the crankcase's drain plug. Remove the drain plug and, if possible, tilt the crankcase slightly to help drain the oil out. Recycle used oil.
- 8.7.4. Replace the drain plug and tighten it.
- 8.7.5. Clean the top of the dipstick and the area around it. Remove the dipstick by turning it counter-clockwise, and wipe it off with a clean, lint free rag.



8.8. ADDING ENGINE OIL

- 8.8.1. All oil should meet minimum American Petroleum Institute (API) Service Class SJ, SL or better. Use no special additives. Select the oil's Viscosity grade according to the expected operating temperature (also see chart).
- 8.8.2. The SAE viscosity grade chart above 40°F, use 10W-30. Between 40°F and 10°F, use 10W-30 Below 10°F, use synthetic SW-30
- 8.8.3. Turn the dipstick clockwise.

NOTE: DO NOT run the engine with too little oil. Engine will not start with low or no engine oil.

8.9. SPARK PLUG MAINTENANCE

- 8.9.1. Disconnect spark plug cap from end of plug. Clean out debris from around spark plug.
- 8.9.2. Using a spark plug wrench, remove the spark plug. Inspect the spark plug:
If the electrode is oily, clean it using a clean, dry rag.
If the electrode has deposits on it, polish it using emery paper.
If the white insulator is cracked or chipped, the spark plug needs to be replaced.

Recommended spark plugs:

NGK® BP-6ES

NHSP® /TORCH® F6TC/F6RTC

NOTE: Using an incorrect spark plug may damage the engine.

- 8.9.3. When installing a new spark plug, adjust the plug's gap to the specification on the Specifications chart. **DO NOT** pry against the electrode, the spark plug can be damaged.

- 8.9.4. Install the new spark plug or the cleaned spark plug into the engine.

Gasket-style: Finger-tighten until the gasket contacts the cylinder head, then tighten about 1/2-2/3 turn more.

Non-gasket-style: Finger-tighten until the plug contacts the cylinder head, then tighten about 1/16 turn more.

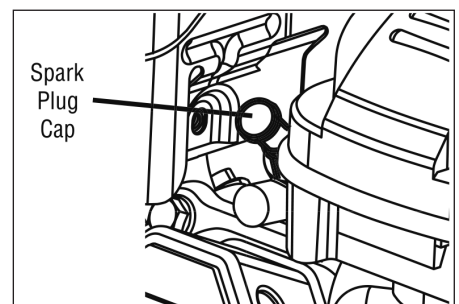
NOTE: Tighten the spark plug properly. If loose, the spark plug will cause the engine to overheat. If overtightened, the threads in the engine block will be damaged.

- 8.9.5. Apply dielectric spark plug boot protector (not included) to the end of the spark plug and reattach the wire securely.

8.10. AIR FILTER MAINTENANCE

- 8.10.1. Remove the Air Filter Cover and the air filter(s) and check for dirt. Clean as described below. Cleaning:

8.10.1.1. For paper filters:



To prevent injury from dust and debris, wear ANSI-approved safety goggles, NIOSH-approved dust mask/respirator, and heavy-duty work gloves. In a well-ventilated area away from bystanders, use pressurized air to blow dust out of the filter. If this does not get the filter clean, replace it.

8.10.1.2. For foam filters:

Wash the filter in warm water and mild detergent several times. Rinse. Squeeze out excess water and allow it to dry completely. Soak the filter in lightweight oil briefly, then squeeze out the excess oil.

Install the cleaned filter(s). Secure the air filter cover before use.

8.11. LONG-TERM STORAGE

When the equipment is to remain idle for longer than 20 days, prepare the Engine for storage as follows:

8.11.1. Cleaning: Wait for engine to cool, then clean engine with dry cloth. **NOTE: DO NOT** clean using water. The water will gradually enter the engine and cause rust damage. Apply a thin coat of rust preventive oil to all metal parts.

8.11.2. Fuel: Petrol can become stale when stored over 30 days, which will cause acid and gum deposits to form in the fuel system or crucial carburettor parts. To keep fuel fresh, add fuel stabilizer tablets to the fuel tank. Draining petrol is unnecessary if the fuel stabilizer is used according to the instructions that come with it. Run pressure washer engine for a minimum of two minutes, after stabilizer is added to fuel, to allow it to circulate throughout the engine. The engine and fuel can be stored up to 24 months.

❑ **WARNING!** TO PREVENT SERIOUS INJURY FROM FIRE: Fill tank in a well-ventilated area away from ignition sources. If the engine is hot from use, shut the engine off and wait for it to cool before adding fuel. **DO NOT** smoke.

8.11.3. Lubrication: To protect against rust formation during storage, oil the cylinder bore:

Change engine oil.

Clean out area around spark plug.

Remove spark plug and pour approximately 1/2 oz (15 ml) of clean engine oil into cylinder through spark plug hole.

Replace spark plug, but leave spark plug cap disconnected.

Pull starter handle to distribute oil in cylinder. Stop after one or two revolutions when you feel the piston start the compression stroke (when you start to feel resistance).

❑ **WARNING!** Unintentional sparking can cause fire or electrical shock. Failure to observe this warning can cause severe property damage, severe burns and even death.

Disconnect spark plug wire from spark plug and cover tip of spark plug wire with insulating tape and place wire where it cannot come in contact with spark plug or pressure washer frame.

8.11.4. Storing Accessories:

The pressure washer is equipped with places to store your accessories as shown.

Place spray gun into gun holder

Place nozzles on the nozzle panel.

Coil and tie pressure hose, and hang on the hose hanger.

8.11.5. Pump Preparation:

Disconnect the pressure hose and water supply hose from the pump.

Connect a short length of garden hose with a male hose connector on one end to the pump's water inlet connection.

Use a funnel to add approximately 178ml (six fluid ounces) of RV antifreeze to the pump. **NOTE:** Use only RV antifreeze (propylene glycol ethanol antifreeze).

Other types of antifreeze are corrosive and can damage pump.

With spark plug cap disconnected and Engine switch in OFF position, pull starter handle several times until antifreeze begins to come out of pump outlet fitting.

Remove pressure hose from pump.

8.11.6. Storage Area:

Cover and store in a dry, level, well-ventilated area out of reach of children. Storage area should also be away from ignition sources, such as water heaters, clothes dryers and furnaces.

8.11.7. Every 3 Months, to protect engine and warranty coverage:

Safely drain antifreeze, and dispose of properly.

Connect Pressure Hose and water supply hose.

Turn on water supply, remove nozzle, point wand in safe direction, and hold down trigger until all air is released from the system, for at least 30 seconds. Then release the trigger, lock it in the safety position and replace nozzle before starting engine.

Discharge nozzle in safe direction run engine for 15-20 minutes or the warranty is VOID. Turn off engine.

Discharge nozzle in safe direction, and then disconnect hoses and drain water.

Connect a short length of garden hose with a male hose connector on one end to the pump's water inlet connection.

Use a funnel to add approximately six ounces of RV antifreeze to the pump.

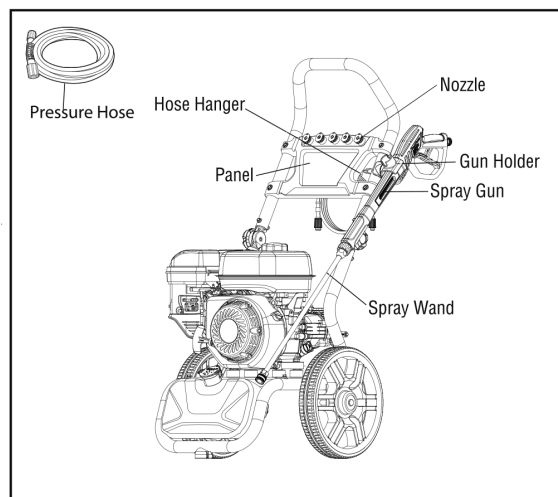
NOTE: Use only RV antifreeze. Other types of antifreeze are corrosive and can damage pump.

8.11.8. Preparation for use after storage

Slowly pull the starter cord a few times to clean oil from the cylinder or to eject any antifreeze from the pump which were added prior to storage.

Remove the spark plug from the cylinder. Wipe oil from the spark plug and return it to the cylinder and retighten.

Reconnect the spark plug wire.



9. TROUBLESHOOTING

Engine will not start	<p>FUEL RELATED:</p> <ol style="list-style-type: none"> 1. No fuel in tank or fuel valve is in "OFF" position. 2. Low quality, stale, dirty or deteriorated petrol. 3. Choke not in START position, cold engine. 4. Carburettor not primed. 5. Dirty fuel passageways. 6. Carburettor needle stuck. Fuel can be smelled in the air. 7. Too much fuel in chamber. This can be caused by the carburettor needle sticking. 8. Intake valve stuck open or closed. 9. Clogged Fuel Filter. 	<p>FUEL RELATED:</p> <ol style="list-style-type: none"> 1. Fill fuel tank with fresh 87+ octane unleaded stabilizer-treated petrol and turn fuel valve to "ON" position. Do not use petrol with more than 10% ethanol (E15, E20, E85, etc.). 2. Drain fuel tank and carburettor; fill with fresh fuel. 3. Move Choke to START position. 4. Pull on Starter Handle to prime. 5. Clean out passageways using fuel additive. Heavy deposits may require further cleaning. 6. Gently tap side of carburettor float chamber with screwdriver handle. 7. Turn Choke to RUN position. Remove spark plug and pull the start handle several times to air out the chamber. Reinstall spark plug and set Choke to START position. 8. Replace Fuel Filter. 9. Clean.
	<p>IGNITION (SPARK) RELATED:</p> <ol style="list-style-type: none"> 1. Spark plug cap not connected securely. 2. Spark plug electrode wet or dirty. 3. Incorrect spark plug cap. 4. Spark plug cap broken. 5. Incorrect spark timing or faulty ignition system. 	<p>IGNITION (SPARK) RELATED:</p> <ol style="list-style-type: none"> 1. Connect spark plug cap properly. 2. Clean spark plug. 3. Correct spark plug cap. 4. Replace spark plug cap 5. Have qualified technician diagnose/repair ignition system.
	<p>COMPRESSION RELATED:</p> <ol style="list-style-type: none"> 1. Cylinder not lubricated. Problem after long storage periods. 2. Loose or broken spark plug. (Hissing noise will occur when trying to start.) 3. Loose cylinder head or damaged head gasket. (Hissing noise will occur when trying to start.) 4. Engine valves or tappets mis-adjusted or stuck. 	<p>COMPRESSION RELATED:</p> <ol style="list-style-type: none"> 1. Pour tablespoon of oil into spark plug hole. Crank engine a few times and try to start again. 2. Tighten spark plug. If that does not work, replace spark plug. If problem persists, may have head gasket problem, see #3. 3. Tighten head. If that does not remedy problem, replace head gasket. 4. Have qualified technician adjust/repair valves and tappets.
	<p>ENGINE OIL RELATED:</p> <ol style="list-style-type: none"> 1. Low engine oil. 2. Engine mounted on slope, triggering low oil shut down. 	<p>ENGINE OIL RELATED:</p> <ol style="list-style-type: none"> 1. Fill engine oil to proper level. Check engine oil before EVERY use. 2. Operate engine on level surface. Check engine oil level.
Engine hunts or falters	<ol style="list-style-type: none"> 1. Carburettor is running too rich or too lean. 2. Clogged or dirty fuel filter. 	<ol style="list-style-type: none"> 1. Clean or replace fuel filter 2. Clean or replace fuel filter.
Engine lacks power	<ol style="list-style-type: none"> 1. Cylinder pressure is low. 2. Dirty air filter 	<ol style="list-style-type: none"> 1. Clean or replace fuel filter. 2. Clean air filter.
Engine misfires	<ol style="list-style-type: none"> 1. Spark plug cap loose. 2. Incorrect or defective spark plug. 3. Defective spark plug cap. 4. Old or low quality petrol. 5. Incorrect compression 	<ol style="list-style-type: none"> 1. Check wire connections. 2. Re-gap or replace spark plug. 3. Replace spark plug cap. 4. Use only fresh 87+ octane stabilizer-treated unleaded petrol. Do not use petrol with more than 10% ethanol (E15, E20, E85, etc.). 5. Diagnose and repair compression. (See "Engine will not start: COMPRESSION RELATED section.)

Engine stops suddenly	<ol style="list-style-type: none"> 1. Fuel tank empty or full of impure or low quality petrol. 2. Low oil shut down. 3. Defective fuel tank cap creating vacuum. preventing proper fuel flow. 4. Faulty magneto. 5. Disconnected or improperly connected spark plug cap. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fresh 87+ octane stabilizer-treated unleaded petrol. Do not use petrol with more than 10% ethanol (E15, E20, E85, etc.). 2. Fill engine oil to proper level. Check engine oil before EVERY use. 3. Replace fuel tank cap. 4. Have qualified technician service magneto. 5. Secure spark plug cap.
Engine stops when under heavy load	<ol style="list-style-type: none"> 1. Dirty air filter 2. Engine running cold. 	<ol style="list-style-type: none"> 1. Clean or replace element. 2. Allow engine to warm up prior to operating equipment.
Engine knocks	<ol style="list-style-type: none"> 1. Old or low quality petrol. 2. Engine overloaded. 3. Incorrect spark timing, deposit build up, Worn engine, or other mechanical problems. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fresh 87+ octane stabilizer-treated unleaded petrol. Do not use petrol with more than 10% ethanol (E15, E20, E85, etc.). 2. Do not exceed equipment's load rating. 3. Have qualified technician diagnose and service engine.
Engine backfires	<ol style="list-style-type: none"> 1. Impure or low quality petrol. 2. Engine too cold. 3. Intake valve stuck or overheated engine. 4. Incorrect timing. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fresh 87+ octane stabilizer-treated unleaded petrol. Do not use petrol with more than 10% ethanol (E15, E20, E85, etc.). 2. Use cold weather fuel and oil additives to prevent backfiring. 3. Have qualified technician diagnose and service engine. 4. Check engine timing.
No pressure or low pressure	<ol style="list-style-type: none"> 1. Spray wand not set to high pressure. 2. Inadequate water supply. 3. Hose fitting leaks during high pressure. 4. Nozzle obstructed. 5. Water filter screen obstructed. 6. Defective pump. 7. Air in hose. 8. Choke lever in "CHOKE" position. 	<ol style="list-style-type: none"> 1. See "Selecting The Right Nozzle" section. 2. Water supply must be 5 GPM @ 20 PSI. 3. Tighten hose fitting. Use thread sealant tape if necessary. 4. Clean Nozzle (See "Cleaning Nozzle" section). 5. Remove and clean filter. 6. Squeeze trigger to remove air. 7. Move choke to "RUN" position.
Output pressure varies	<ol style="list-style-type: none"> 1. Not enough water supply. 2. Water inlet screen is clogged. 3. Nozzle is clogged. 4. Nozzle has mineral build up. 	<ol style="list-style-type: none"> 1. Check water supply hose for kinks, leaks, or blockage. Open tap all the way. 2. Remove inlet screen and rinse out. 3. Remove nozzle and clean. 4. Remove nozzle and clean with vinegar.
Water or oil leaking at pump	<ol style="list-style-type: none"> 1. Loose connections. 2. Worn or broken o-rings. 3. Pump head or tubes damaged from freezing. 	<ol style="list-style-type: none"> 1. Tighten connections refer to diagram after section 7.1.3.1.
No intake of detergent	<ol style="list-style-type: none"> 1. Detergent hose not properly inserted into unit. 2. Tube cracked or split. 3. Wrong Nozzle. 4. Injector turned off. 5. Injection tube strainer clogged. 6. Nozzle blocked. 7. Dried detergent in injector. 	<ol style="list-style-type: none"> 1. Push firmly into injector. 2. Replace tube. 3. Switch to Black Nozzle. 4. Turn collar counter clockwise. 5. Clean strainer. 6. Clean Nozzle. 7. Dissolve by running warm water through the injection tube. Run clean water through injector until clear.
Water leaking at spray gun/wand connection	<ol style="list-style-type: none"> 1. Worn or broken o-ring. 2. Loose hose connection. 	<ol style="list-style-type: none"> 1. Tighten hose connection



WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way.

Contact your local solid waste authority for recycling information.



REGISTER YOUR PURCHASE HERE



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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