



Engine-powered Pressure Washer

User Manual



Users are advised to read the user manual carefully before use

Common Troubleshooting

The pressure washer does not draw water after starting

The valves inside the pressure washer pump may stick together during storage, causing difficulties in opening. To resolve this, connect the inlet hose to a tap and briefly start the pressure washer to flush out the valves with water.



Note: Ensure the spray gun is open during this process or detach the pressure washer hose from the pump outlet to facilitate water flow.

Low water pressure

- ① Check if the pressure adjustment handle can be rotated clockwise to prevent pressure loss due to handle looseness.
- ② Ensure a pressure washer nozzle is installed on the spray gun to generate pressure effectively.

Inconsistent water pressure or failure to draw water

- ① Check if the inlet filter is dirty, affecting water intake.
- ② Look for air bubbles in the inlet hose or leaks in the pipeline causing air intake.
- ③ Ensure the inlet filter is fully immersed in water.
- ④ Verify the inlet hose for knots or deformities hindering water flow.
- ⑤ Inspect the pump body for leaks.



Note: If issues persist, connect the inlet hose to a tap to troubleshoot further. If problems persist, internal pump faults might be the cause, requiring pump disassembly for inspection.

Engine fails to start

- ① Check if there is fuel in the tank.
- ② Verify the engine oil level is correct. An engine with low oil levels, especially if equipped with an oil alarm, will not start.
- ③ If the engine is cold or has just been refueled for the first time, the engine may require the air damper to be adjusted.

Safety Instructions

This manual is an instruction manual for the use and maintenance of the pressure washer. Before using the pressure washer, please read this manual carefully. Our company will not be responsible for any damage or safety accidents caused by customers not following the instructions in this manual.

01 Operators and assistants of the pressure washer should wear the following personal protective clothing and equipment: waterproof, non-slip boots, waterproof work clothes, waterproof gloves, safety goggles, ear protection.

02 The design of this machine is only suitable for approved detergents by the manufacturer. The use of other detergents or chemicals may have adverse effects on the safety of the machine.

03 Pressure washer pump jet water is very dangerous. Pressure washer pump jet water should not be sprayed on people, animals, live electrical equipment, or the machine itself.

04 Do not use the machine when other persons are present unless they are wearing protective clothing.

05 Do not aim the pressure washer pump jet water at yourself for cleaning clothes or shoes.

06 Children or untrained personnel should not use the pressure washer.

07 Pressure washer pump hoses, accessories, and fittings are crucial for the safety of the machine. Only use accessories recommended by the manufacturer.

08 Ensure the machine's safety by using only original spare parts provided by the manufacturer or approved by the manufacturer. Using unauthorized parts will void the warranty.

09 Do not use the machine if its parts, or any accessories are damaged or worn.

10 The pressure washer should not be left unattended. If no operator is present, be sure to turn off the machine.



Not following the instructions below may cause serious injuries to personnel, environmental damage, and equipment damage.



Explosion Hazard - Do not use the pressure washer to spray flammable liquids.



Ensure the pressure washer is used in a well-ventilated environment. Prevent the accumulation of flammable gases and do not refuel and diesel in enclosed spaces. Any fuel spills should be promptly cleaned up.



During winter use, if the water pump or pipes freeze, wait for them to completely thaw before use to prevent damage to the pressure washer pump. It is advisable to inject antifreeze into the pressure washer pump during winter storage.

Safety Precautions for Use

When operating the equipment in hazardous areas (such as gas stations), pay attention to relevant safety regulations. Operating this equipment in spaces with explosion hazards is prohibited. All electrical components within the work area must be waterproof. The operating lever of the handheld spray gun must not jam. If there is a long working gap, the equipment should be turned off. When refueling engine equipment, be careful not to splash fuel onto hot surfaces!

When running the equipment indoors, ensure adequate ventilation and exhaust of fumes (poisoning hazard). Do not block the exhaust outlet. Ensure there is no exhaust emission near the engine intake. If spills from the engine, do not use the pressure washer; instead, move the equipment to another location to prevent ignition.

Engine fuel should not be stored, poured, or used near open flames or equipment such as stoves, boilers, or hot water boilers, which can trigger sparks or cause spark formation. Do not use inappropriate fuels as they may cause hazards. Keep flammable items and materials at least 2 meters away from the muffler.



Warranty Terms

**The warranty period and terms are specified in the contract.
The warranty terms are void in the following cases:**

Exceeding the maximum parameters engraved on the nameplate.

Damage to the pressure washer pump due to the absence of safety valves.

Use of non-original manufacturer parts.

Damage caused by the following reasons:

- Failure to perform regular maintenance
- Running the pump without water
- Use of unauthorized mediums
- Unauthorized modifications



Disposed engine oil must be handled in a compliant manner and should not be poured directly onto the ground.



During winter use, if the pressure washer pump or pipes freeze, wait for them to completely thaw before using them. Otherwise, it could damage the pressure washer pump. It is advisable to inject antifreeze into the pressure washer pump when storing it during the winter.

Maintenance Schedule Table

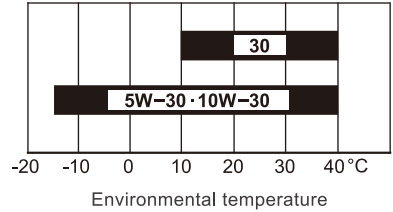
Recommended Fuel

Engines are certified to use unleaded with an octane rating of 89 or higher. Re-fuel the engine in a well-ventilated area when the engine is stopped. If the engine has been running, let it cool down first. Do not refuel the engine inside buildings, as vapors may come into contact with flames or sparks. Unleaded containing up to 10% ethanol (E-10) or 5% methanol can be used. In addition, methanol must contain solvents and preservatives.

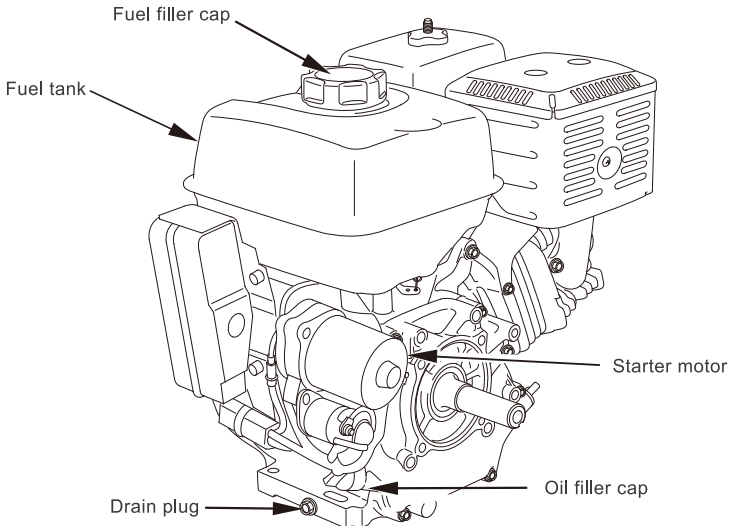
Using fuel with methanol or ethanol content higher than the mentioned limits may cause starting and/or performance issues. It may also damage metal, rubber, and plastic parts of the fuel system. Engine damage or performance issues resulting from using fuel with methanol or ethanol percentages higher than those mentioned above are not covered by the warranty.

Recommended Fuel

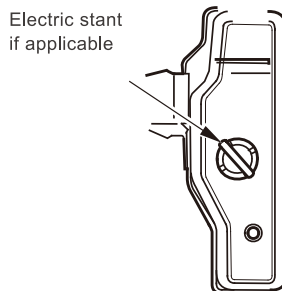
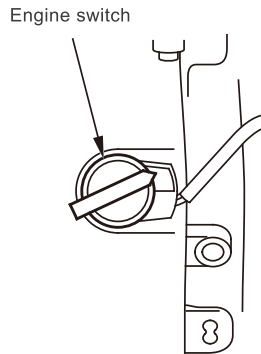
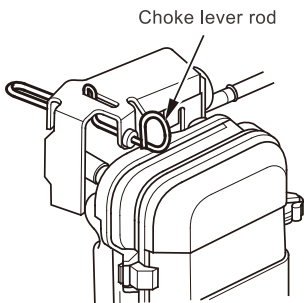
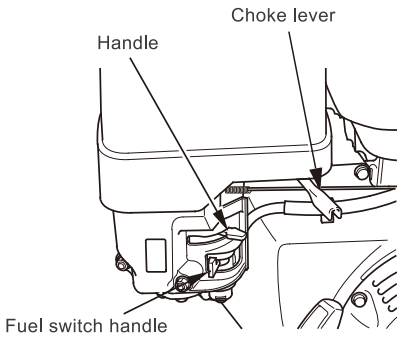
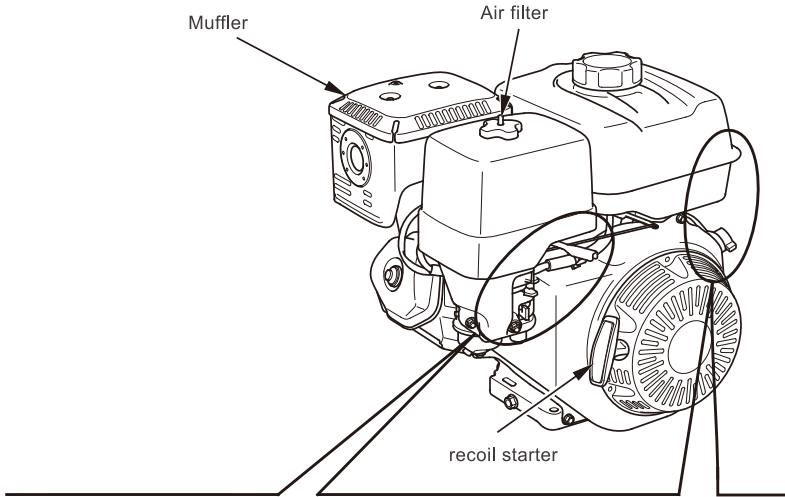
Use four-stroke engine oil that meets or exceeds API service category SE or a higher grade (or equivalent). Be sure to check the API service label on the oil reservoir to ensure that it includes the letter SE or a higher designation (or equivalent).



Engine



Maintenance Schedule Table



Maintenance Schedule Table

Pressure washer with axial pump

Pressure Washer Pump Maintenance Schedule

Item	Description	Each Use	Weekly	Every 50 Hours
Pump Oil <small>(for pump with oil replacement)</small>	Oil Level Check	√		
	Oil Change			√
Leakage Check	Water/Oil Leaks	√		
Inlet Water Filter	Check and Clean		√	
Valves	Replacement	Every 100-200 hours depending on actual usage		
Seals	Replacement	Every 100-200 hours depending on actual usage		

Engine Maintenance Schedule

Item	Description	Each Use	Every 1 Month /20 Hours	Every 3 Months /50 Hours	Every 6 Months /100 Hours	Every Year /300 Hours
Engine Oil	Oil Level Check	√				
	Oil Change		√			
Air Filter	Inspection	√				
	Cleaning			√ ①	√ ①	
	Replacement					√
Spark Plug	Inspection-Adjustment				√	
	Replacement					√

Note: √ ① If used in dusty environments, regular maintenance is essential.

Before starting any maintenance or repair, make sure the engine is turned off. To prevent accidental starting, remove the spark plug cap. This eliminates several potential dangers:

Carbon monoxide poisoning from engine exhaust.

Ensure good ventilation when operating the engine.

Ensure proper ventilation when operating the engine, and allow the engine and exhaust system to cool before touching and allow the engine and exhaust system to cool before touching.

Risk of injury from moving parts.

Be cautious when working near, and try to minimize the risk of fire or explosion. Use non-flammable solvents instead of to clean parts. Ensure that cigarettes, sparks, and open flames are kept away from all fuel-related parts.

Maintenance Schedule Table

Pressure washer with triplex plunger pump

Pressure Washer Pump Maintenance Schedule

Item	Description	Each Use	Weekly	Every 50 Hours	Every 200 Hours
Pump Oil	Oil Level Check	√			
	First Oil Change		√		
	Oil Change			√	
Leakage Check	Water/Oil Leaks	√			
Inlet Water Filter	Check and Clean		√		
Valves	Replacement				√
Seals	Replacement				√

Engine Maintenance Schedule

Item	Description	Each Use	Every 3 Months /50 Hours	Every 6 Months /100 Hours	Every Year /300 Hours
Engine Oil	Oil Level Check	√			
	Oil Change			√	
Air Filter	Inspection	√			
	Cleaning		√		
	Replacement			√	
Spark Plug	Inspection-Adjustment			√	
	Replacement				√

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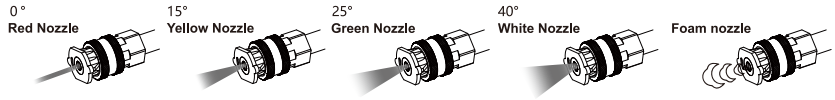
Risk of injury from moving parts.

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Quick Start Guide

Pressure washer with axial pump

Instructions for Nozzle Usage



Step 1:

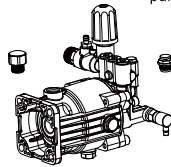
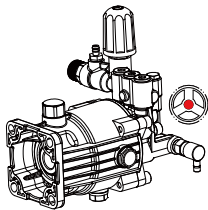
Check the engine oil level; the oil level should be within the red dot range.

Step 2:

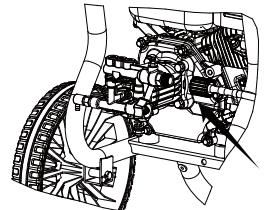
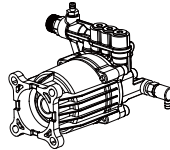
Replace the transport oil plug with a vented oil plug.

Step 3:

Connect the inlet water hose to the inlet port of the high-pressure pump.



For this type of high-pressure pump, there is no Step 1.2



Step 4:

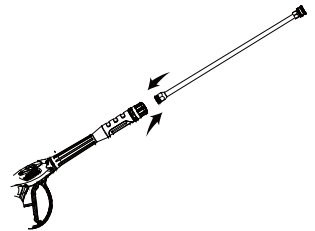
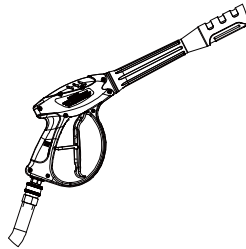
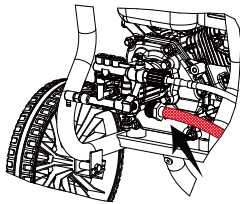
Connect the end of the garden hose (water supply hose) to the outlet fitting of the high-pressure pump.

Step 5:

Connect the pressure washer hose to the spray gun.

Step 6:

Connect the spray gun with the spray lance.



Step 7:

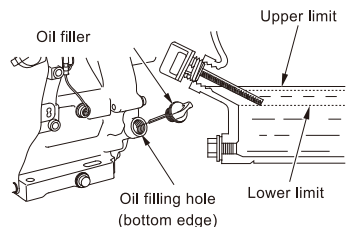
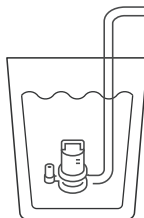
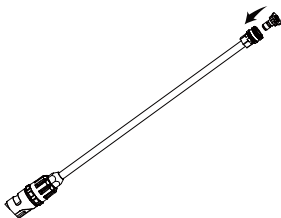
Install the nozzle on the spray gun.

Step 8:

Connect the inlet hose to the faucet. If the pump is equipped with a self-priming function, install the filter and submerge it in a water bucket.

Step 9:

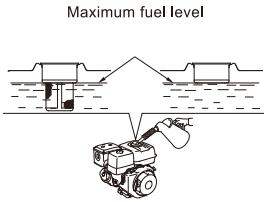
Check engine fuel level. Maximum fuel level.



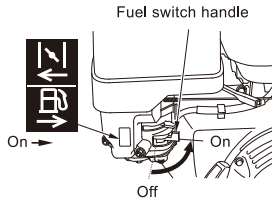
Quick Start Guide

Pressure washer with axial pump

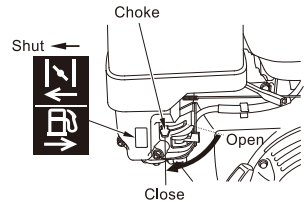
Step 10:
Check engine fuel tank.



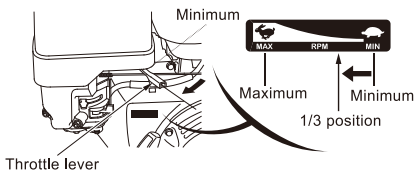
Step 11:
Turn on the water tap.



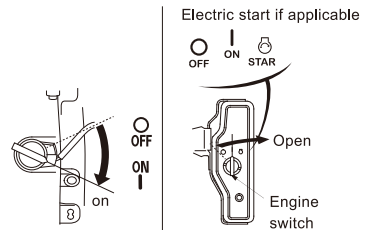
Step 12:
If you want to start a cold engine, move the choke lever to the closed position.



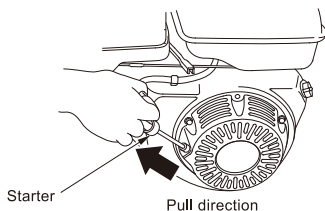
Step 13:
Move the throttle lever away from the minimum position towards the maximum position by about 1/3 of the way throttle lever.



Step 14:
Move the engine switch to the 'on' position.

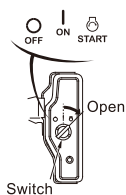


Step 15:
Gently pull the starter handle until you feel resistance, then quickly pull in the direction of the arrow as shown below. Gently return the starter handle to its original position.



Do not let the starter handle snap back towards the engine quickly, gently return the handle to prevent damage to the starter.

Step 16:
Electric start
Turn the key to the start position and hold it until the engine started.

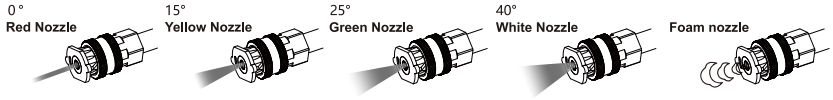


If the engine does not start within 5 seconds, release the key and wait at least 10 seconds before attempting to start the motor again.

Quick Start Guide

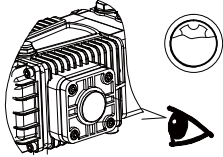
Pressure washer with triplex plunger pump

Instructions for Nozzle Usage

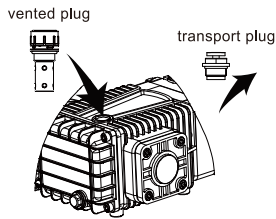


Step 1:
Check the pump oil level.

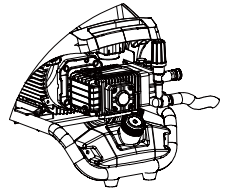
The oil level needs to be above the 1/2 mark on the oil gauge



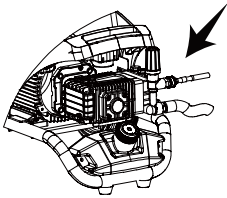
Step 2:
Replace the transport oil plug with the vented oil plug.



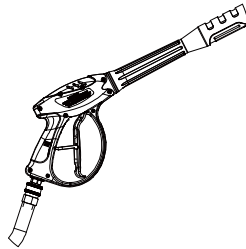
Step 3:
Connect the inlet hose to the pressure washer pump inlet.



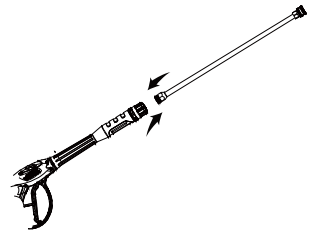
Step 4:
Connect the pressure washer hose to the pressure washer pump outlet.



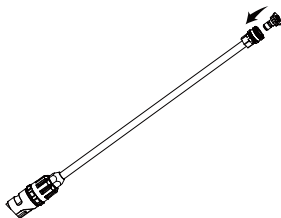
Step 5:
Connect the pressure washer hose to the spray gun.



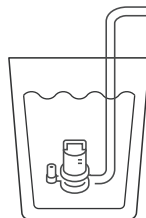
Step 6:
Connect the spray gun with the spray lance.



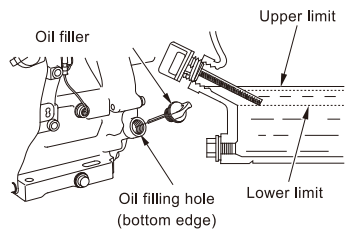
Step 7:
Install the nozzle on the spray gun.



Step 8:
Connect the inlet hose to the faucet. If the pump is equipped with a self-priming function, install the filter and submerge it in a water bucket.



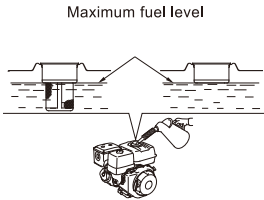
Step 9:
Check engine fuel level. Maximum fuel level.



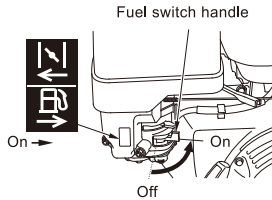
Quick Start Guide

Pressure washer with triplex plunger pump

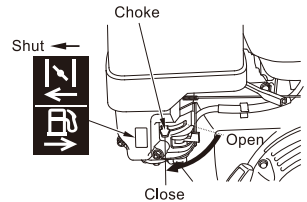
Step 10:
Check engine fuel tank.



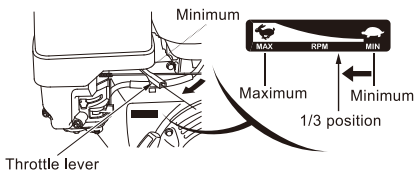
Step 11:
Move the fuel switch handle to the 'on' position.



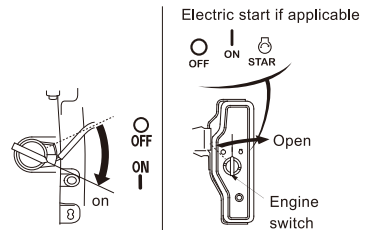
Step 12:
If you want to start a cold engine, move the choke lever to the closed position.



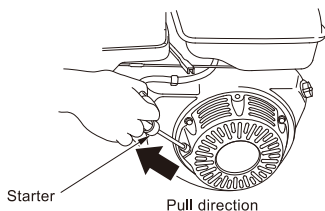
Step 13:
Move the throttle lever away from the minimum position towards the maximum position by about 1/3 of the way throttle lever.



Step 14:
Move the engine switch to the 'on' position.

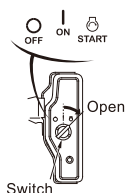


Step 15:
Gently pull the starter handle until you feel resistance, then quickly pull in the direction of the arrow as shown below. Gently return the starter handle to its original position.



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Step 16:
Electric start
Turn the key to the start position and hold it until the engine started.



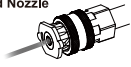
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Quick Start Guide

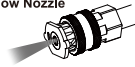
Applicable for hot water pressure washer

Instructions for Nozzle Usage

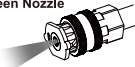
0° Red Nozzle



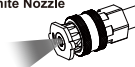
15° Yellow Nozzle



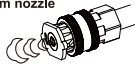
25° Green Nozzle



40° White Nozzle



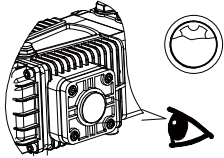
Foam nozzle



Step 1:

Check the pump oil level.

The oil level needs to be above the 1/2 mark on the oil gauge

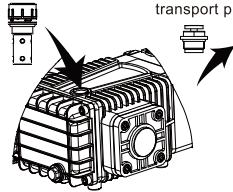


Step 2:

Replace the transport oil plug with the vented oil plug.

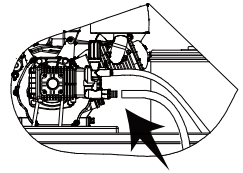
vented plug

transport plug



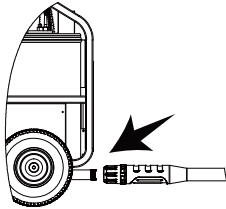
Step 3:

Connect the inlet hose to the high-pressure pump inlet.



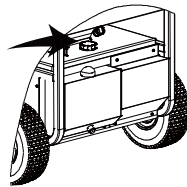
Step 4:

Connect the high-pressure hose to the hot water machine outlet.



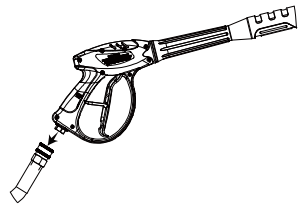
Step 5:

Fill the diesel fuel in the diesel engine.



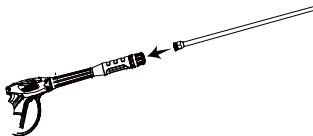
Step 6:

Connect the inlet hose to the high-pressure pump inlet port.



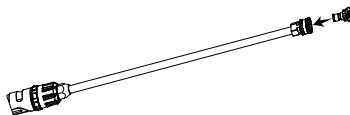
Step 7:

Assemble the spray gun with the lance.



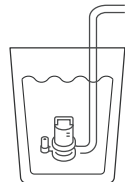
Step 8:

Install the nozzle on the spray gun.



Step 9:

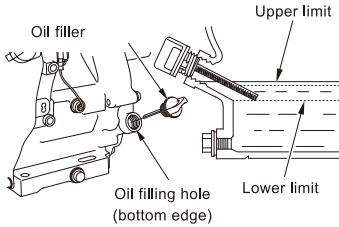
Connect the inlet hose with the filter and place it in a bucket.



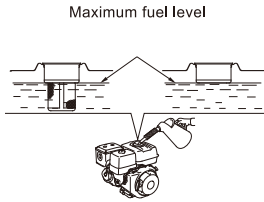
Quick Start Guide

Applicable for hot water pressure washer

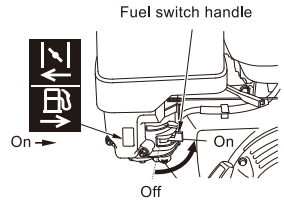
Step 10:
Check engine fuel level.
Maximum fuel level.



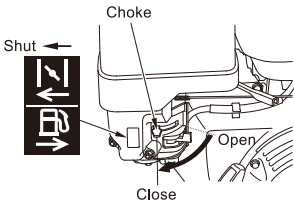
Step 11:
Check engine fuel tank.



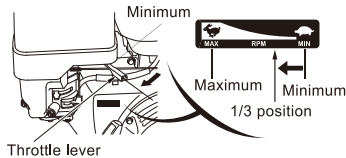
Step 12:
Move the fuel switch handle to the 'on' position.



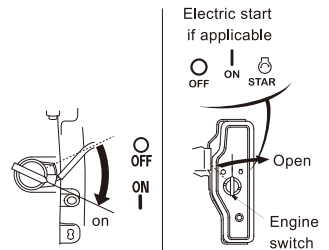
Step 13:
If you want to start a cold engine, move the choke lever to the closed position.



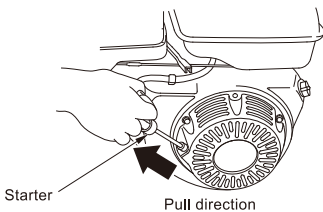
Step 14:
Move the throttle lever away from the minimum position towards the maximum position by about 1/3 of the way throttle lever.



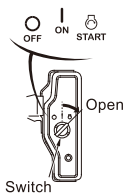
Step 15:
Move the engine switch to the 'on' position.



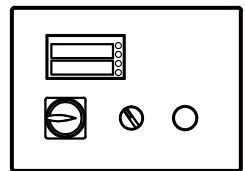
Step 16:
Gently pull the starter handle until you feel resistance, then quickly pull in the direction of the arrow as shown below. Gently return the starter handle to its original position.



Step 17:
Electric start
Turn the key to the start position and hold it until the engine started.



Step 18:
Adjust the main switch to the on position, turn on the heating switch, and use the hot water cleaning machine.



Do not let the starter handle snap back towards the engine quickly, gently return the handle to prevent damage to the starter.



If the engine does not start within 5 seconds, release the key and wait at least 10 seconds before attempting to start the motor again.

Safety Instructions

Applicable for hot water pressure washer

This manual serves as the usage and maintenance guide for the high-pressure washer. Before operating the washer, carefully read through this manual. The company will not bear any responsibility for damages to the washer or safety incidents caused by customers not following the instructions in this manual.

- 01** Do not open the electrical cabinet arbitrarily or change its internal wiring.
- 02** Never place your hand or fingers in front of the spray gun nozzle.
- 03** The equipment can release a large amount of high-pressure hot water. To avoid injuries, do not use parts that cannot withstand temperatures lower than the maximum temperature of this equipment.
- 04** Before repairing, cleaning, or disassembling any parts, turn off the gasoline engine and release the high-pressure hot water.
- 05** If any high-pressure hot water comes into contact with your skin, seek medical attention immediately.
- 06** Wear heat-resistant insulated gloves while working.
- 07** Do not spray high-pressure hot water on electrical equipment and wires.
- 08** Gasoline must be used following relevant national safety regulations.
- 09** The equipment is equipped with a pressure switch; the combustion system operates only when the water pressure reaches 40 bar.
- 10** The equipment must have sufficient working space and oxygen supply.
- 11** Battery voltage of the equipment: DC 12 V.
- 12** The equipment is equipped with a diesel combustion system; hence, there should be enough space at the bottom of the equipment to ensure an adequate supply of fresh air for the diesel combustion system. Additionally, airflow should be smooth.
- 13** Adequate ventilation indoors is essential for proper combustion during washer operation. Inadequate airflow can cause the combustion chamber to operate abnormally, leading to localized heating. This form of combustion can result in extremely high localized temperatures.

Safety Instructions

Applicable for hot water pressure washer

14 Select the diesel type according to local conditions and seasonal changes. It is recommended to consistently use one type of diesel and change it when necessary. The fuel tank should be cleaned annually. If the machine is not used for an extended period (more than six months), replace the diesel.

15 Connect the water source. It is best to use a large water hose (preferably a steel wire hose) connected to the machine's water inlet. The water hose should be connected and secured, with a water temperature not exceeding 40°C.

16 Due to the cold weather in winter, the flow properties of engine oil are poor. Therefore, when using the machine in winter, adjust the throttle of the gasoline engine and the plunger pump pressure to the lowest levels during the first start of the day. Keep the gasoline engine running for 2-3 minutes, then operate at full load. The purpose is to preheat the gasoline engine and plunger pump lubricants to improve their flow properties and lubrication effectiveness. The colder the weather, the longer the preheating time should be.



There is a risk of explosion. Only use under permitted open flame conditions.



The equipment uses diesel heating. Due to the flammability of diesel, smoking is prohibited in the workplace.



As per safety production and work principles, provide a dry powder fire extinguisher at the work site.



Gasoline must be used following relevant national safety regulations.

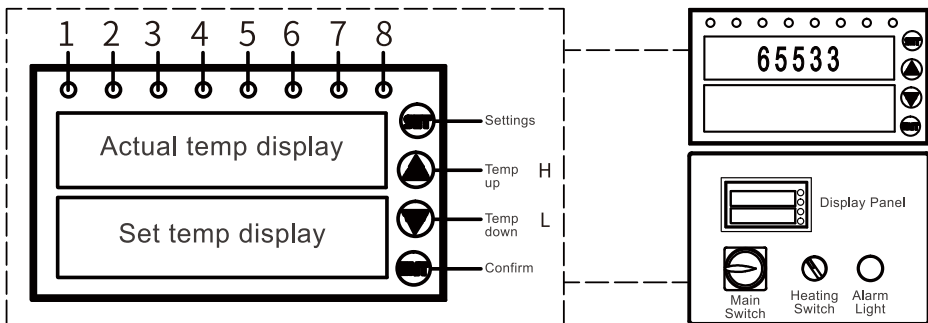


When the spray gun is closed, do not let the machine operate continuously for more than 2 minutes, as it may damage the plunger pump.

Electronic Control Box Functions

Applicable for hot water pressure washer

Electronic Control Box Functions



Description of Display Panel Indicator Lights

Indicator Lights on the Display Panel	Interpretation	Troubleshooting
Indicator Light No. 1 illuminated + Fault Alarm	Low diesel tank level	Refill with clean diesel, press "ENT" to clear the fault, then start the machine.
Indicator Light No. 2 illuminated + Fault Alarm	Heating system malfunction	Stop the machine, investigate the issue, resolve it, press "ENT" to clear the fault, then start the machine.
Indicator Light No. 3 illuminated + Fault Alarm	Diesel filter maintenance due	Replace/maintain the diesel filter as needed, press "ENT" to clear the fault, then start the machine.
Indicator Light No. 4 illuminated + Fault Alarm	Water flow sensor status	<p>Normal operational status indicated by the signal light.</p> <p>Standby Mode (Main Switch On): Light No. 8 stays on for 60 seconds then turns off if no action is taken. Other indicator lights remain off. High-pressure cold water status: Lights No. 4 and No. 8 are on. Other indicator lights remain off.</p> <p>Heating Mode: Lights No. 4, No. 5, and No. 6 are on for 15 seconds then automatically turn off. Lights No. 7 and No. 8 are on; other indicator lights remain off.</p> <p>In case of hot water machine failure: Customers should provide the displayed status of indicator lights to assist service personnel in promptly identifying and resolving issues.</p>
Indicator Light No. 5 illuminated + Fault Alarm	Heating switch status	
Indicator Light No. 6 illuminated + Fault Alarm	Igniter status	
Indicator Light No. 7 illuminated + Fault Alarm	Diesel pump status	
Indicator Light No. 8 illuminated + Fault Alarm	Blower fan status	

