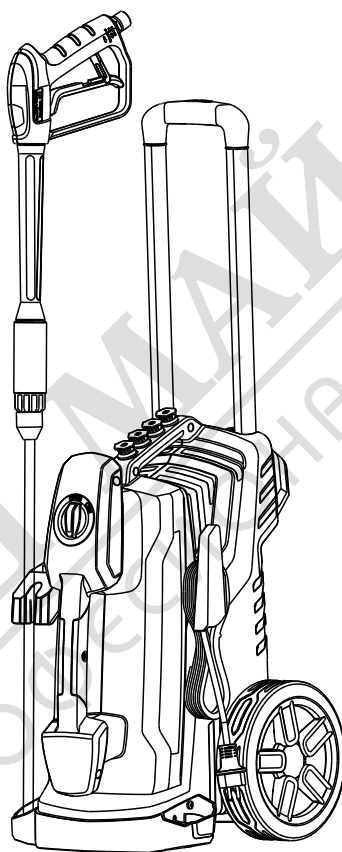




ELEKTRO MASCHINEN

HDEm 190-31



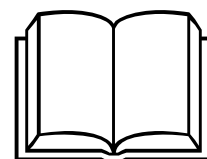
www.elektro-maschinen.com



**Lesen und verstehen Sie
die Bedienungsanleitung,
bevor Sie die Maschine
in Betrieb nehmen.**

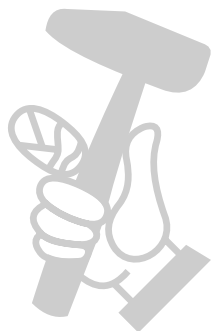
**Read and understand
the owner's manual before
operating the machine.**

**Pred uporabo stroja
preberite in razumite
navodila za uporabo.**



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IMPORTANT SAFETY TIPS

Never point the high-pressure nozzle at people or animals.
Never drink alcohol or use drugs while operating the pressure cleaner.
Never operate the pressure cleaner while standing in water.
Never touch the electrical plug with wet hands.
Never let electrical connections rest in water.
Never operate pressure cleaner without the water turned on.
Never use hot water with this pressure cleaner.

The device is intended for domestic use and for commercial use indoors and outdoors.

IMPORTANT SAFETY PRECAUTIONS



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

- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

The machines must not be used by children. Children should be supervised to ensure that they do not play with the appliance.

For commercial use

This machine must not be used by persons (including children) with reduced physical, sensory or mental skills or lack of experience and knowledge.

Not for commercial use

This machine can be used by persons with reduced physical, sensory or mental abilities

Or lack of experience and knowledge when they are supervised or safe

Use of the machine and understand the resulting dangers.

Use suitable personal protective equipment (PSA) for high-pressure cleaners in operation, Eg safety shoes, protective gloves, protective visors, hearing protection, etc.,

Operation of the appliance;

Caution: Danger of recoil forces and the suddenly occurring torque on the nozzle when the spray gun is opened;



WARNING: This machine has been developed for the use of the detergent supplied or recommended by the manufacturer. The use of other cleaning agents or chemicals can affect the safety of the machine.



Warning: High pressure jets can be dangerous if used improperly. The beam must not be directed at persons, active electrical equipment or on the machine itself.

- Do not use the appliance with people within its range of action unless they are wearing protective clothing.
- Do not point the jet at yourself or others to clean clothing or footwear.
- Disconnect the power supply before carrying out maintenance by the user.
- High pressure cleaners must not be operated by children or unskilled persons.
- To ensure the machine safety, only original spare parts from the manufacturer or use spare parts approved by the manufacturer.
- Do not use the appliance if a power cable or important parts of the appliance are damaged, e.g. Safety devices, high pressure hoses, spray gun.
- If the extension cord is used, the plug and socket must be waterproof.



- **WARNING:** Unsuitable extension cables can be dangerous, if an extension cable is used, it must be suitable for outdoor use, and the connection must be kept dry and off the ground. Use of a power cable reel which keeps the socket at least 60mm above the ground is strongly recommended.
- Switch the appliance off and disconnect it from the power supply before assembly, cleaning, adjustments, maintenance, storage and transportation.
- The electric supply connection must be made by a qualified electrician and comply with IEC 60364-1. Either a residual current device that will cut off the power supply if the leakage current to earth exceeds 30 mA for 30 ms or a ground fault interrupt device must be installed.
- **WARNING:** Do not use the machine if a connecting cable or important parts of the machine are damaged, Eg safety devices, high pressure hoses, spray gun.
The machines are not suitable for connection to portable water pipes. Connect the machine to the water supply.
- Use the device on a flat surface.
- For security reasons, make sure you have a three-month control and maintenance. Before use, make sure that the filter and the nozzle. Make sure there is no contamination. After use, make sure there is no water in the pump and hose.
- **overload protection:**
When the nozzle is stuffed or the high pressure hose is knotted, the overload protection function automatically and the machine is switched off.
After solving the fault, turn the switch back on and turn the machine back on.

1.	Read all instructions before using the product. Save all safety instructions.
2.	Do not operate the pressure cleaner when fatigued or under the influence of alcohol or drugs.
3.	Risk of injection or injury – do not direct the high pressure water stream at any people or animals.
4.	Do not allow children to operate the pressure cleaner at any time.
5.	To reduce the risk of injury, close supervision is necessary when the pressure cleaner is used near children.
6.	Know how to stop the unit and reduce pressure immediately. Be completely familiar with the controls.
7.	Stay alert – always be aware of where you are directing the high pressure spray
8.	Keep cleaning area clear of all people.
9.	Keep good footing and balance at all times – do not overreach or stand on an unstable support.
10.	The work area should have adequate drainage to reduce the possibility of a fall due to slippery surfaces.
11.	Follow the maintenance instructions specified in the manual.
12.	To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.

13.	Adequate information about the nozzle to be used, the danger of the kickback force and the sudden torque on the spray assembly when opening the trigger gun
14.	It is recommended that the electric supply to this machine should include either a residual current device that will interrupt the supply if the leakage current to earth exceeds 30 mA for 30 ms or a device that will prove the earth circuit
15.	WARNING Do not use the machine within range of persons unless they wear protective clothing
16.	WARNING Risk of explosion – Do not spray flammable liquids
17.	WARNING High pressure hoses, fittings and couplings are important for the safety of the machine. Use only hoses, fittings and couplings recommended by the manufacturer
18.	Water that has flowed through a backflow preventer is considered non-potable.

GENERAL SAFETY PRECAUTIONS

1.	Intended for outdoor and household use only.
2.	High-pressure hose can develop leaks from wear, abuse, kinking etc. Do not use a damaged hose.
3.	Do not use the pressure cleaner in areas near combustible materials, combustible fumes, or dust.
4.	Some chemicals or detergents may be harmful if inhaled or ingested causing severe injury. Use a respirator or mask whenever there is a chance that vapors may be inhaled. Read all instructions included with the mask so you are certain the mask will provide the necessary protection against inhaling harmful vapors.
5.	Before starting the pressure cleaner in cold weather, check all of the parts of the equipment and be sure that ice has not formed. Do not store the unit anywhere that the temperature will fall below 0°C (32°F).
6.	DO NOT MAKE ANY MODIFICATIONS TO ANY OF THE COMPONENTS! Units with broken or missing parts, or without the protective housing or covers should NEVER be operated
7.	Keep the high-pressure hose connected to the pressure cleaner and the spray gun while the system is pressurized. Disconnecting the hose while the unit is pressurized is dangerous, and may cause injury.
8.	Always turn off the power disconnecter when the machine is left unattended.
9.	Keep water spray away from electrical wiring or fatal electric shock may result.
10.	Must be connected to the water supply before use, then open gun trigger and open the cleaner switch.
11.	After the machine long-stalled again before use, please dial the few motor power is in the state of the impeller, and then start the machine according to operation instruction

SYMBOLS

Comply with the instructions provided by the safety signs and symbols fitted to the appliance and in this manual.

The appliance and manual only feature the symbols relevant to the model purchased.

Check that the symbols and signs affixed to the appliance are always present and legible; otherwise, fit replacements in the original positions.



Warning - Caution - Hazard



Please read these instructions carefully before use.



E2 symbol (if symbol appears in manual) - Indicates that the appliance is intended for professional use, i.e. for experienced people familiar with the relative technical, regulatory and legislative factors and capable of performing the operations involved in using and maintaining the appliance. This appliance is not intended for use by children, persons with impaired physical, sensory or mental capabilities, or persons without the necessary experience and knowledge.



Moving parts, Do not touch.



Switch "OFF/O" position



Switch "ON/I" position



Guaranteed sound power level



Prohibition sign, informs users that local regulations may prohibit connection of the product to the drinking water supply system.



Danger sign, informs users not to direct the water jet at people, animals, electrical equipment or the product itself.



This product is rated in insulation class I, This means that it is equipped with a protective earthing conductor (only if symbol appears on appliance).



The product complies with the relevant European directives.



E1 symbol- indicates that the appliance must not be disposed of as municipal waste; it may be handed in to the dealer on purchase of a new appliance. The appliance 's electrical and electronic parts must not be reused for improper user since they contain substances which constitute health hazards.



Wear ear defenders



Wear safety goggles



Wear respiratory protection



Wear protective gloves.



Wear safety footwear



Wear protective clothing.

THIS EQUIPMENT MUST BE GROUNDED

In Malfunction or defect in the device is the ground the least resistance the current is reduced and thereby the risk of electric shock to the user. The AC power cord is connected to a suitable outlet be connected to all national standards and regulations regarding installation and grounding must comply. The operating voltage is the national power supply. If you are not sure whether the outlet is properly grounded, ask a qualified electrician or maintenance technician to check. Take no changes to the device plug. If a non-matching connector on unit be mounted, pls leave a suitable plug from a qualified electrician. Do not use this device with adapter plugs .

USE OF EXTENSION CORDS

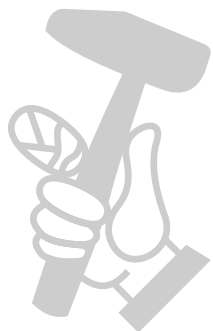
Use only 3 wire extension cord , with plugs and grounded with safety , which for the connector suitable . Use only extension cord designed for outdoor use and make it tightness with the socket .These extension cables are as follows : Noted marked "Suitable for outdoor use , When not in use , do not keep it at outdoors , Use an extension cord the rated voltage and rated current suitable for the appliance . Damaged extension cords must not be used ,Check extension cords before operation and exchange it if it damage . Use extension cords only for the intended purpose . Do not use the cable , especially when they are pulled to the plug from the AC wall outlet . Put the cable away from heat , and do not over sharp edges , always disconnect the extension cord from the wall outlet before removing the device from extension cable connector . Damaged power cables or a special cable with connector can only be replaced the manufacturer or customer service representatives

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

PROPER USE OF THE PRESSURE CLEANER

***THIS UNIT IS INTENDED FOR USE WITH COLD WATER ONLY!
DO NOT USE HOT WATER IN THIS PRESSURE CLEANER.***

1.	Operate the pressure cleaner at no more than the fluid pressure rated for the pressure cleaner. Never run the pressure cleaner without a water supply. Running the unit without a water supply will cause irreparable damage to the unit.
2.	Make sure that the water supply you use for the pressure cleaner is not dirty, sandy, and does not hold any corrosive chemical products. Using a dirty water supply will compromise the long life of the pressure cleaner.
3.	CAUTION - The pressure cleaner can be used for a variety of applications including washing cars, boats, patios, decks, garages etc. where high pressure is necessary to remove dirt and debris. High-pressure water flow can damage the work surface if not used properly! See the section titled "Operating Instructions" for more details. Always test the spray in an open area first.
4.	NEVER move the unit by pulling on the high pressure hose. Use the handle provided on the top of the unit.
5.	Always hold the high pressure gun and wand with two hands. Keep one hand on the gun/trigger, while supporting the wand with the other hand (see diagram).
6.	When dispensing detergent, the pressure cleaner applies detergent to the cleaning area at low pressure only. Once the detergent has been applied, spray the detergent off of the work area by using the adjustable nozzle.

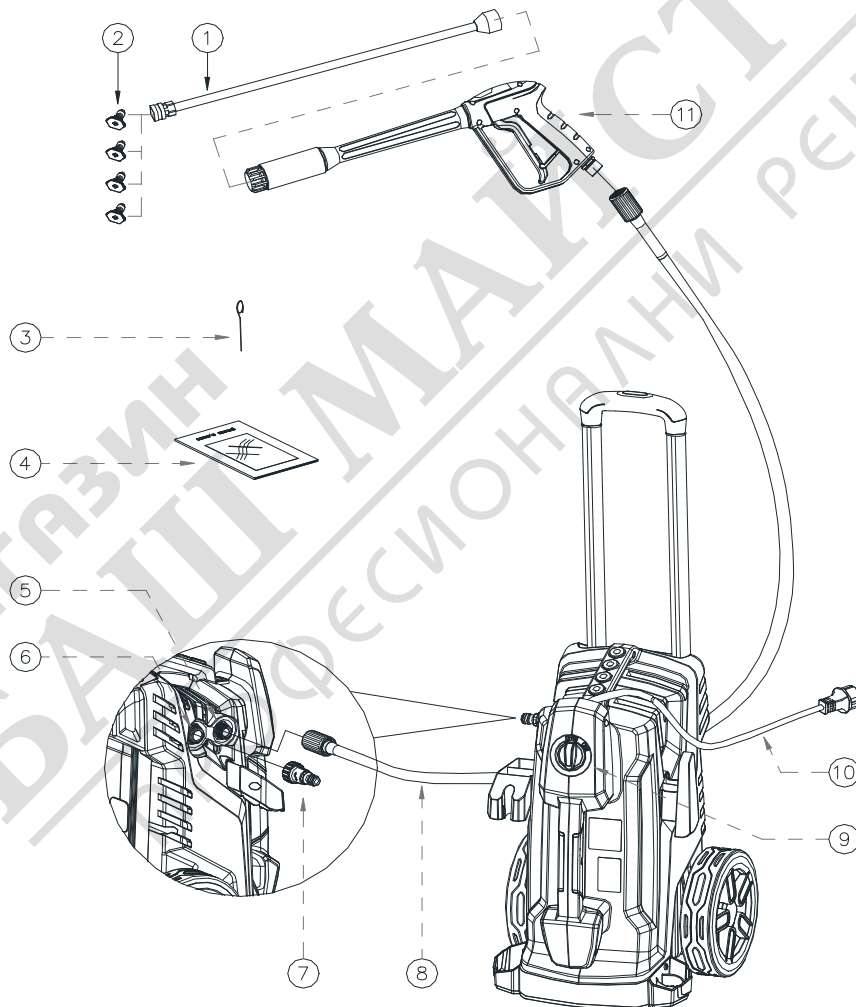


ASSEMBLY INSTRUCTIONS

Unpacking the Carton

After opening the carton, please remove all parts and check them against the following list of components that are included:

- | | | |
|------------------------------------|---|--------------------------|
| 1. Quick lance | 2. Quick connect nozzles (0 ° /25 ° /40 ° /soap nozzle) | 3. Cleaning pin |
| 4. Manual | 5. Water outlet pipe | 6. Water inlet pipe |
| 7. Water inlet connector | 8. High pressure hose | 9. ON/OFF switch |
| 10. Power cord | 11. Gun | 12. Handle (for model C) |
| 13. Accessory holder (for model C) | 14. Hose hook (for model C) | 15. Screw package |



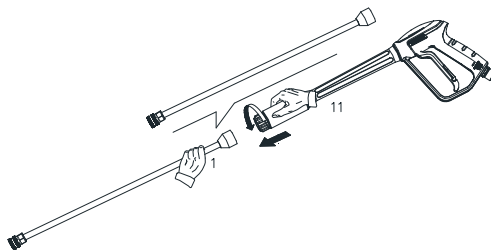
The machine is always with handle to transport.

Due to transportation and packaging, some of the accessories may be supplied disassembled.

Please follow the assembly instructions

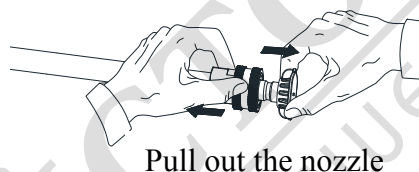
Step 1

A. When the machine is not started, Insert the lance (1) into the gun (11) . Push and turn the lance clockwise onto the gun until hand tight to lock it in place. When the pieces are joined properly, you cannot separate the two components by pulling straight out on the adjustable nozzle. All attachments must be inserted into the gun (11) for proper use.



B. Attach nozzle into the end of the lance by pressing selected nozzle into place, it will make a click sound when firmly in place . To remove nozzle, pull back on the collar on the lance and pull out the nozzle .

WARNING! Remember to change the nozzle when the gun is off, to ensure that they do not accidentally eject with force during removal.

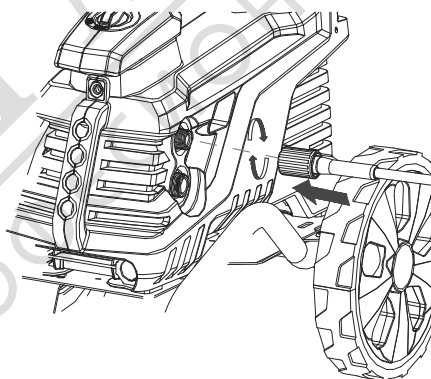


Step 2

Screw the high pressure hose onto the water outlet pipe. Push and turn (clockwise) it tight to avoid leakage. When the pieces are joined properly, you cannot separate the two components by pulling straight out from the water outlet.

CAUTION: Prior to operating the machine, please ensure that the high pressure hose has been completely uncoiled.

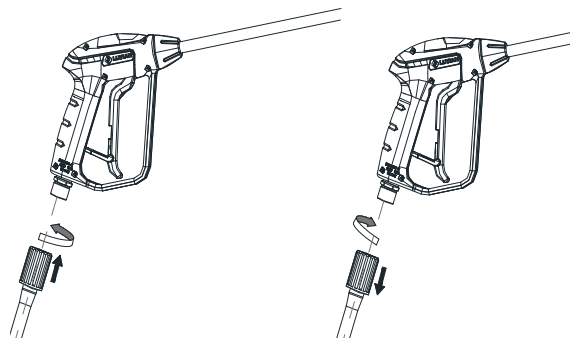
Whilst the machine is in operation, the high pressure hose **MUST NOT** loop.



Step 3

Screw the high pressure hose to the gun. Push and turn (clockwise) it tight to avoid leakage.

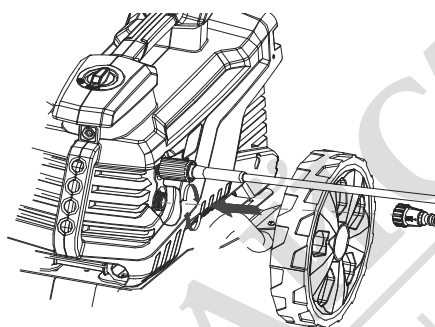
When the pieces are joined properly, you cannot separate the two components by pulling straight out from the gun . Remove (counterclockwise) rotation.



Step 4

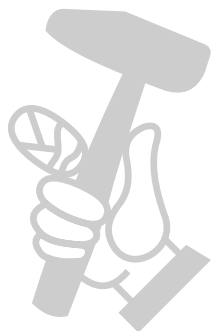
Screw the water inlet connector onto the water inlet pipe.

Note: The water inlet connector is fitted with a inlet filter . This filter must be in place to prevent impurities in the water source from entering the unit and damaging the pump.



Step 5

Connect to the power supplier, Plug the pressure washer into the power outlet.



OPERATING INSTRUCTIONS

WARNING: THIS UNIT IS INTENDED TO BE USED WITH COLD WATER ONLY! DO NOT USE HOT WATER IN THIS PRESSURE CLEANER!

WARNING: High pressure hose must not loop.



Warning-danger!

During operation the appliance must be positioned on a firm, stable surface.

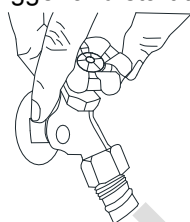


Starting Up

Warning: ALWAYS turn off the unit's motor BEFORE turning off the unit's water supply.

Serious damage could occur to the motor if the unit is run without water.

1. Turn on the water supply tap fully.
2. Unlock trigger (by pressing the safety button first and then actuate the trigger) for a few second ; let the water flow out from the nozzle.
3. Check if water leaks from joints. If water leaks, please reconnect the water hose, the spray gun or the lance to make sure each accessory are connected perfectly.
4. Connect to power supply.
5. Set the power switch at the position "ON/I".
6. Actuate the trigger and start the washer.



WARNING! Check that the supply voltage and frequency correspond to those specified on the appliance data plate. The appliance should only be connected to a mains power supply via a security breaker (Max.30mA) to cut off the electricity supply in the instance of a short circuit.

Stopping the washer

Warning: ALWAYS turn off the unit's motor BEFORE turning off the unit's water supply.

Serious damage could occur to the motor if the unit is run without water.

1. Release the trigger, the motor will stop operation.
2. Set the switch at the position " OFF/O".
3. Disconnect the plug from the socket.

WARNING! Failure to follow the above instructions may cause damage to the machine.

Changing accessories

1. Release the trigger.
2. Turn off the power switch (the position " OFF/O").
3. Disassemble the original Nozzle.
4. Mount the other Nozzles and other accessories .

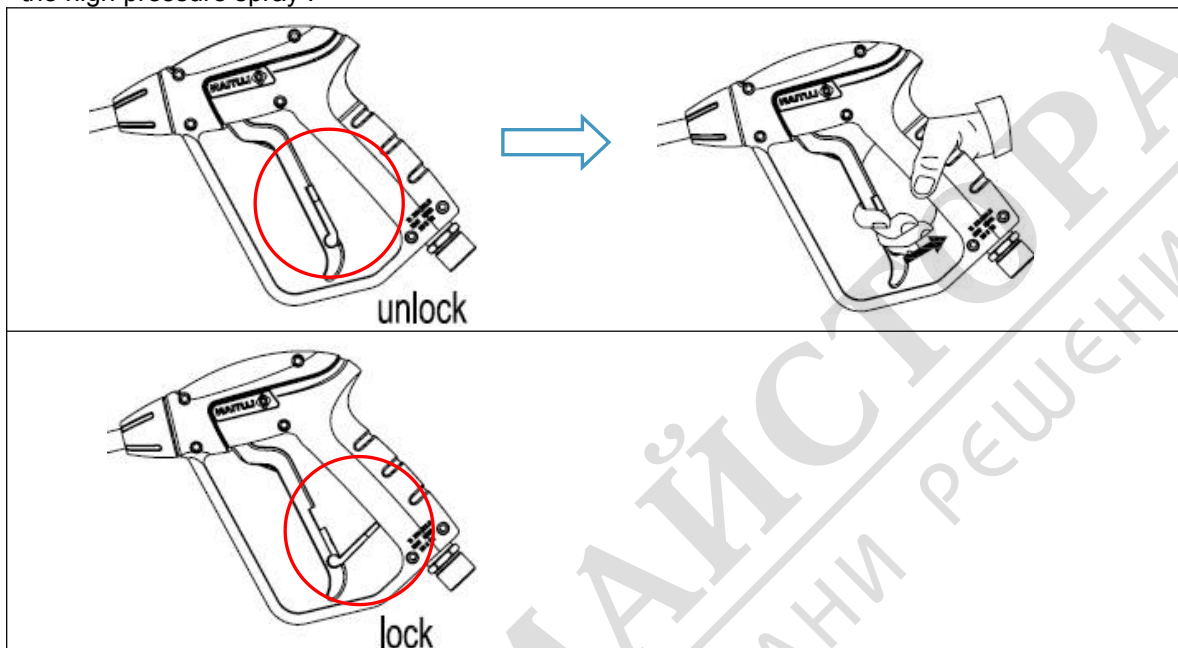
CAUTION: Never disconnect the high -pressure discharge hose from the machine while the system is still pressurized . To depressurize the unit, turn off the motor, turn off the water supply and squeeze the trigger 2-3 times.

INFORMATION FOR USAGE

1. The safety button of gun

The operator need press the unlock button and then actuate the trigger to do the spray operation. When you release the trigger, it can return to the off position automatically.

When not using the pressure cleaner, press the lock button to keep from accidentally engaging the high pressure spray .



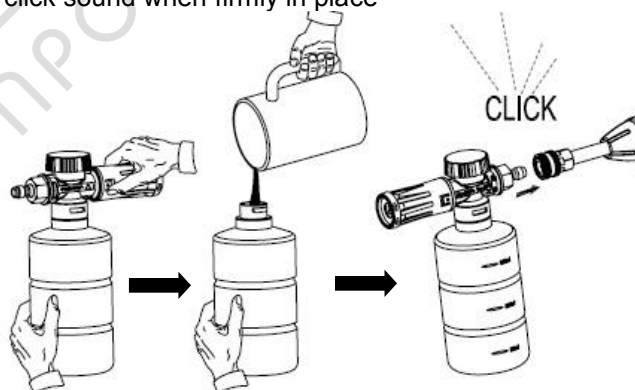
3. Hold the gun

Whenever you use the high pressure washer , we suggest you grip the in the right position, with one hand on the handle and the other on the adjustable spray nozzle.

4. Using detergent (optional)

Add detergent to the tank. Assemble the tank with detergent dispenser.

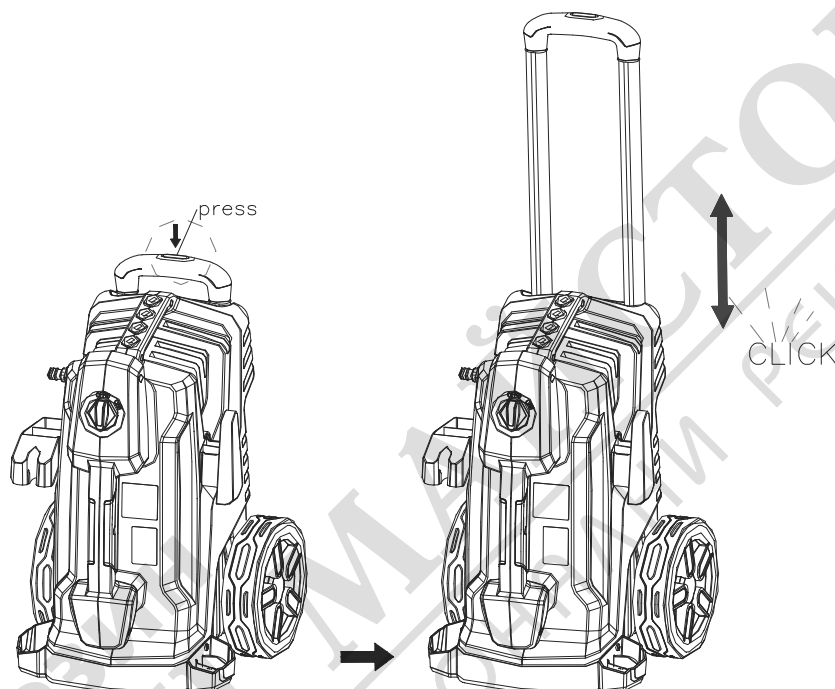
Attach the detergent nozzle's quick connector into the end of the lance by pressing into place, it will make a click sound when firmly in place



The use of detergents can dramatically reduce cleaning time and assist in the removal of difficult stains. Some detergents have been customized for pressure washer use on specific cleaning tasks. These detergents are approximately as thick as water. The use of thicker detergents, such as dish soap, will clog the chemical injection system and prevent the application of the detergent. The cleaning power of detergents comes from applying them to a surface and giving the chemicals time to break down the dirt and grime. Detergents work best when applied at low pressure.

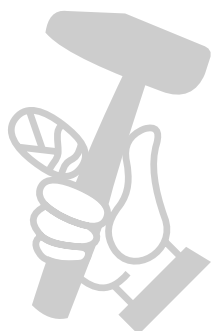
5. Telescopic handle

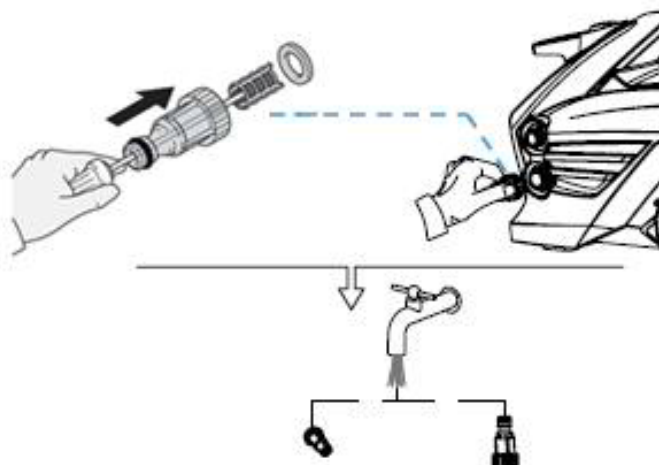
The machine features a telescopic handle. To raise or lower the handle, press the button and move the handle upwards or downwards. When a click is heard, the handle is in right position (only model B).



6. Water inlet screen

The water inlet filter must be inspected regularly, so as to avoid blockage and restriction in the water supply to the pump.





7. Quick connect nozzle

The gun is equipped with 4 kinds of quick connect nozzle(0°, 15°, 25°, 40°), 4 type of water jet shape shown as follow. Pls turn off the gun when changing nozzle, Move the stop ring of the quick connector seat on the spray gun by left hand, and install the quick connect nozzle onto spray gun quickly, loose the stop ring, and push back to original position.

0° nozzle-red : This type of nozzle produces a vertical, stratified, high-pressure jet for surface cleaning with particularly severe dirt.

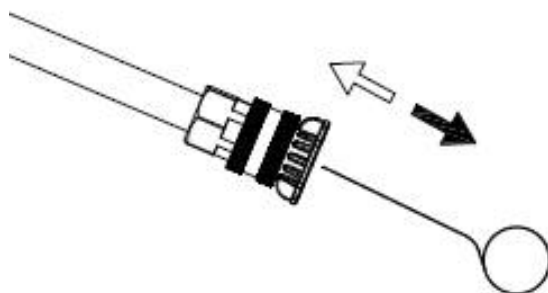
15° nozzle-yellow、 25° nozzle-green、 40° nozzle -white: These types of nozzles can produce the corresponding angle fan-shaped high-pressure jet, cleaning power, for large-scale dirt surface cleaning.

0° nozzle-red	15° nozzle-yellow	25° nozzle-green	40° nozzle -white

- **Warning:** High pressure jets can be dangerous if subject to misuse. The jet must not be directed at persons, live electrical equipment or the appliance itself.
- **Warning:** Do not direct the jet against yourself or others in order to clean clothes or foot-wear.
- **Warning:** Spray gun must be turned off when changing nozzles

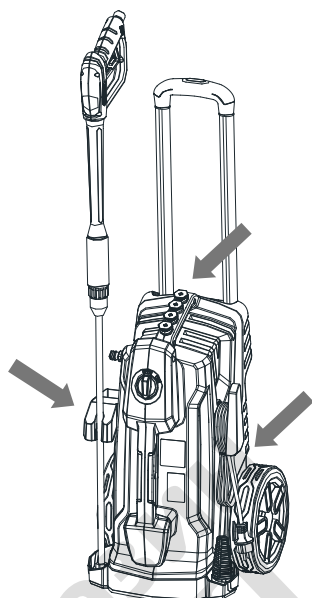
8. Cleaning pin instruction

Using included nozzle cleaner tool, insert wire into the nozzle hole and move back and forth until debris is dislodged.



9. The accessories of placing on the machine

When the machine is not in use, the accessory is placed on the machine as shown.



CLEAN-UP AND STORAGE

Shutting Down the Pressure Cleaner

**WHEN FINISHED USING THE PRESSURE CLEANER,
FOLLOW THESE STEPS TO SHUT
DOWN THE UNIT:**

- Turn the pressure cleaner to the OFF position, Unplug the power cord from the wall outlet.
- Turn off the water supply.
- Before disconnecting high-pressure hose connection, point the gun in a safe direction and discharge the high-pressure water.
- Disconnect high-pressure hose from the pressure cleaner and gun.
- Disconnect garden hose from the pressure cleaner.
- Remove quick coupler fitting from garden hose and attach to the nipple portion of the fitting installed on the pressure cleaner for storage.
- Remove excess water from the pump by tipping the unit on both sides to drain any remaining water from inlet and outlet fittings.
- Remove Water Intake Filter and flush with water to remove dirt or debris. Return filter once cleaned.
- Drain detergent reservoir and flush with running water.
- Wipe away any remaining water on all parts and fittings.
- Engage the gun safety lock.
- Store the pressure cleaner, parts, and accessories in an area with a temperature above 0°C (32°F).

Winterizing and Long-Term Storage

**FOLLOW ALL OF THE ABOVE SHUT-DOWN PROCEDURES,
ADDING THE FOLLOWING STEPS....**

- After disconnecting the water supply, and before disconnecting the high-pressure hose, turn the pressure cleaner on for **2-3 seconds**, until any remaining water in the pump exits. **TURN UNIT OFF IMMEDIATELY.**

**CONTINUED USE OF THE PRESSURE CLEANER WITHOUT
WATER SUPPLY ATTACHED WILL CAUSE
SEVERE DAMAGE TO THE UNIT!**

- Always store the pressure cleaner, parts, and accessories in an area with a temperature above 0° C (32° F).

**WARNING: FAILURE TO COMPLY WITH THESE
STORAGE INSTRUCTIONS WILL RESULT IN
DAMAGE TO THE PUMP ASSEMBLY.**

Maintenance

- This pressure cleaner is supplied with a closed lubrication system, so no addition of oil is needed.
- Check all hoses and accessories for damage prior to use.
- Check the inlet filter periodically for deposits. Clean this filter regularly for maximum performance.

CLEANING TIPS

WARNING: ALWAYS TEST THE SPRAY IN AN AREA FREE AND CLEAR OF PEOPLE AND OBJECTS BEFORE YOU SPRAY AT THE INTENDED CLEANING SURFACE.

Wood and Vinyl Decks

Rinse deck and surrounding area with fresh water. If using detergent, fill the detergent reservoir and apply to the area being cleaned at low pressure. For optimal results, reduce your work area to smaller sections and clean each section one at a time. Allow the detergent to rest on the surface for a few minutes and then rinse at high pressure. **DO NOT LET THE CLEANSER DRY.** Always clean from left to right and top to bottom for best results. Rinse at high pressure **using the fan spray** keeping the tip of the spray nozzle at least 6-9 inches from the cleaning surface. Maintain a further distance from the cleaning area when using a direct spray. **Caution: For softer woods, increase the distance from the cleaning area.**

Cement Patios, Stone, and Brick

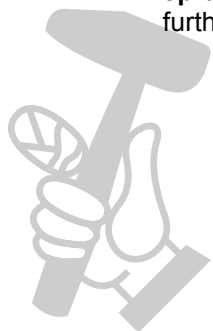
Rinse cleaning and surrounding area with fresh water. If using detergent, fill the detergent reservoir and apply to the area being cleaned at low pressure. Rinse at high pressure **using the fan spray** in a sweeping motion keeping the tip of the spray nozzle at least 3-6 inches from the cleaning surface. Maintain a further distance from the cleaning area when using a direct spray.

Cars, Boats, and Motorcycles

Rinse cleaning and surrounding area with fresh water. If using detergent, fill the detergent reservoir and apply to the area being cleaned at low pressure. To achieve the best results, clean one side at a time. Allow the detergent to rest on the surface for a few minutes, but do not let the detergent dry. Rinse at high pressure **using the fan spray** in a sweeping motion keeping the tip of the spray nozzle at least 8 inches from the cleaning surface. Maintain a further distance from the cleaning area when using a direct spray. Wipe surface dry for a polished finish.

Barbecue Grills, Power Equipment, and Garden Tools

Rinse cleaning and surrounding area with fresh water. If using detergent, fill the detergent reservoir and apply to the area being cleaned at low pressure. Allow the detergent to rest on the surface for a few minutes, but do not let the detergent dry. Rinse at high pressure **using the fan spray** keeping the tip of the spray nozzle at least 1-3 inches from the cleaning surface. Maintain a further distance from the cleaning area when using a direct spray.



TROUBLESHOOTING TIPS

WHEN THE SWITCH IS IN THE “ON” POSITION THE MACHINE WILL NOT START

PROBABLE CAUSE

Electrical socket is faulty
Voltage is inadequate
Power cord is not plugged in

SOLUTION

Check plug, socket, fuses
Check whether the voltage is adequate
Plug in power cord

THE PUMP DOES NOT REACH ADEQUATE PRESSURE OR FLUCTUATES

PROBABLE CAUSE

Water inlet filter is clogged
Pump is drawing air
Suction valves are clogged/worn
Diameter of garden hose too small
Water supply is restricted
Insufficient water supply

SOLUTION

Remove and clean filter
Tighten connections/bleed system
Clean or replace valves
Replace with ¾ inch garden hose
Check hose for kinks or leaks
Fully open water source

THE PRESSURE CLEANER HAS OR WILL NOT MAINTAIN PRESSURE

PROBABLE CAUSE

Excessive air in waterline and pump

SOLUTION

Turn unit and water supply off/
Bleed system/Hold trigger down

THE PRESSURE CLEANER MAKES EXCESSIVE NOISE

PROBABLE CAUSE

Intake is blocked
Valves are worn, dirty, or clogged
Filter is dirty

SOLUTION

Check the intake valves
Check, clean or replace valves
Check, clean, or replace filter

THE MOTOR STOPS RUNNING WHILE IN USE

PROBABLE CAUSE

Net voltage lower than suggested

SOLUTION

Check whether the voltage is adequate

