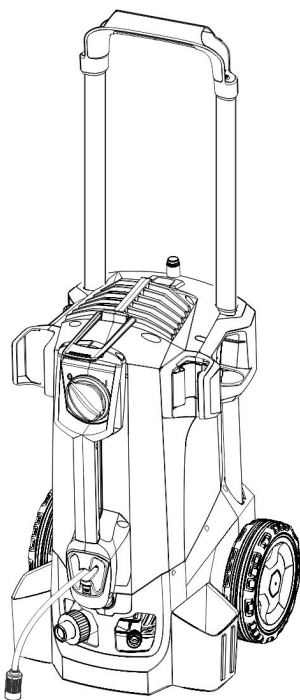


HD 1.8/13 C *Ed
HD 4/9 C

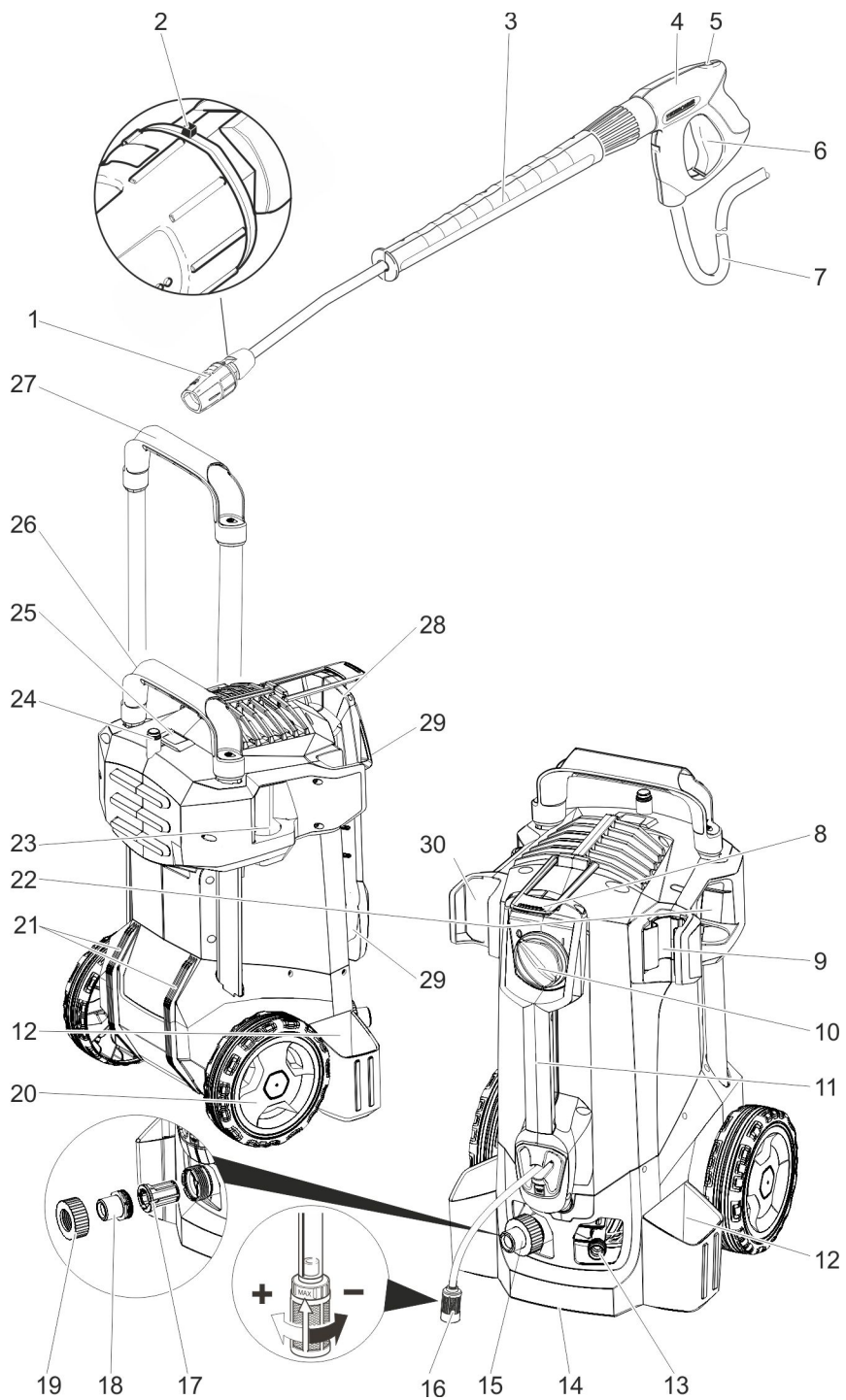


English	4
Français	16
Español	29



Register and win!
www.karcher.com/register-and-win





IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING

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

- 1 Read all the instructions before using the product.
- 2 High pressure jets can be dangerous if misused. The jet must not be directed at persons, animals, electrical devices, or the unit itself.
- 3 To reduce the risk of injury, close supervision is necessary when a product is used near children.
- 4 Know how to stop the product and bleed pressures quickly. Be thoroughly familiar with the controls.
- 5 Stay alert – watch what you are doing.
- 6 Wear safety goggles.
- 7 Do not use acids, alkaline, solvents, or any flammable material in this product. These products can cause physical injuries to the operator and irreversible damage to the machine.
- 8 Do not operate the product when fatigued or under the influence of alcohol or drugs.
- 9 Do not overreach or stand on unstable support. Keep good footing and balance at all times.
- 10 To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.
- 11 The Trigger Gun Safety Lock prevents the trigger from accidentally being engaged. This safety feature **DOES NOT** lock trigger in the ON position.
- 12 Keep operating area clear of all persons.
- 13 Close cover before operating the machine.
- 14 This appliance is intended for commercial use.
- 15 Follow the maintenance instructions specified in the manual.
- 16 This machine has been designed for use with cleaning chemicals supplied or recommended by the manufacturer. The use of other cleaning chemicals may affect the operation of the machine and void the warranty.
- 17 **HD 1.8/13 only:** This product is provided with a Ground Fault Circuit Interrupter built into the power cord plug. If replacement of the plug or cord is needed, use only identical replacement parts.
- 18 **HD 1.8/13 only:** Do not use extension cord with this product.
 - Injection hazard: equipment can cause serious injury if the spray penetrates the skin. Do not point the gun at anyone or any part of the body. In case of penetration seek medical aid immediately.
 - This system is capable of producing 1300 psi/9 MPa.

To avoid rupture and injury, do not operate this pump with components rated less than 1300 psi/9,0 MPa working pressure (including but not limited to spray guns, hose and hose connections).
 - Before servicing, cleaning, or removal of any part, shut off power and relieve pressure.
 - Do not spray electrical apparatus and wiring.

- High Pressure. Keep clear of nozzle.
- If connection is made to a potable water system, the system shall be protected against backflow.

Owner/User Responsibility

- The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer.
- Warning information should be emphasized and understood.
- If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.
- Owner and/or user must study and maintain for future reference the manufacturers' instructions.

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ DANGER

Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if

you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use any type of adapter with this product.

CANADA

NOTE - In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code.

HD 1.8/13 only: GROUND FAULT CIRCUIT INTERRUPTER PROTECTION

The HD 1.8/13 is supplied with a Ground Fault Circuit Interrupter (GFCI) built into the power cord plug. This device provides additional protection from the risk of electric shock. If power is interrupted in the line, the GFCI will automatically re-close the circuit to the load after power is restored. Depending on the GFCI model, it may be necessary to manually operate the reset button to restore power to the GFCI load circuit. If replacement of the plug or cord is needed use identical replacement parts.

WATER SUPPLY

⚠ CAUTION

When connecting the water inlet to the water supply mains, local regulations of your water company must be observed. In some areas the unit must not be connected directly to the public drinking water supply. This is to ensure that there is no feedback of chemicals into the water supply. Direct connection via a receiver tank or backflow preventer, for example, is permitted.

Dirt in the feed water will damage the unit. To avoid this risk, we recommend fitting a water filter.

- Garden hose must be at least 1/2 inch in diameter.
- Flow rate of water supply must not fall below 2.5 GPM (gallons per minute).
- Flow rate can be determined by running the water for one minute into an empty 2,5-gallon container.
- The water supply temperature must not exceed 140°F/60°C.
- Never use the pressure washer to draw in water contaminated with solvents, e.g. paint thinners, gasoline, oil, etc.
- Always prevent debris from being drawn into the unit by using a clean water source. Use additional water filter.

HD 4/9 only: EXTENSION CORDS

Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole cord connectors that accept the plug from the product. Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with out-door appliances: store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cord before using and replace if damaged. Do not abuse extension cord and do not yank on any cord to disconnect. Keep cord away from heat and sharp edges. Always disconnect the extension cord from the receptacle before

disconnecting the product from the extension cord.

Do not use extension cord with HD 1.8/13.

SAVE THESE INSTRUCTIONS!



Please read and comply with these original instructions prior to the initial operation of your appliance and store them for later use or subsequent owners.

Contents

Device elements	EN . . . 4
Safety instructions	EN . . . 4
Proper use	EN . . . 5
Safety Devices	EN . . . 5
Environmental protection . .	EN . . . 5
Before Startup	EN . . . 5
Start up	EN . . . 6
HD 1.8/13 only: GFCI IN- STRUCTIONS	EN . . . 6
Operation	EN . . . 6
Transport	EN . . . 8
Storage.	EN . . . 9
Care and maintenance . . .	EN . . . 9
Troubleshooting	EN . . 10
Accessories and Spare Parts	EN . . 11
Warranty.	EN . . 11
Technical specifications . . .	EN . . 12

Device elements

Please unfold the front picture side

- 1 Nozzle
- 2 Marking of the nozzle
- 3 Spray lance
- 4 Trigger gun
- 5 Safety lever
- 6 Lever for trigger gun
- 7 High pressure hose
- 8 Rubber band (not with appliances with hose drum)
- 9 Spray lance holder with clamping, for transportation
- 10 Power switch
- 11 Carrying handle
- 12 Quiver for spray lance
- 13 High pressure connection
- 14 Handle
- 15 Water connection

- 16 Detergent suction hose with filter and detergent dosing
- 17 Sieve
- 18 Hose hub
- 19 Union joint
- 20 Wheel cap
- 21 Skid/parking runner
- 22 Nozzle rack for rotor nozzle (rotor nozzle is only included in the scope of delivery with model HD...Plus)
- 23 Nozzle rack for triple nozzle
- 24 Transport bracket for surface cleaner
- 25 Unlocking device push handle
- 26 Push handle, bottom (slid in)
- 27 Push handle, top (extended)
- 28 Storage compartment for hoses
- 29 Cable clamp
- 30 Spray lance holder without clamping

Colour coding

- The operating elements for the cleaning process are yellow.
- The controls for the maintenance and service are light gray.

Safety instructions

- Before first start-up it is definitely necessary to read the operating instructions and safety indications Nr. 5.951-949.0!
- Please follow the national rules and regulations for fluid spray jets of the respective country.
- Please follow the national rules and regulations for accident prevention of the respective country. Fluid spray jets must be tested regularly and the results of these tests must be documented in writing.

Symbols in the operating instructions

⚠ DANGER

Immediate danger that can cause severe injury or even death.

⚠ WARNING

Possible hazardous situation that could lead to severe injury or even death.

CAUTION

Possible hazardous situation that could lead to mild injury to persons or damage to property.

Symbols on the machine



High-pressure jets can be dangerous if improperly used. The jet may not be directed at persons, animals, live electrical equipment or at the appliance itself.

Proper use

Use this high pressure cleaner exclusively for

- Cleaning using low pressure jet and detergent (for e.g. for cleaning machines, cars, buildings, tools),
- For cleaning using high pressure jet without detergent (for e.g. for cleaning facades, terraces, garden appliances).

For stubborn soiling we recommend the use of a rotor nozzle (only included in the scope of delivery with model HD...Plus)

Safety Devices

Safety devices serve for the protection of the user and must not be put out of operation or bypassed with respect to their function.

Pressure switch

If the lever on the trigger gun is released the pressure switch turns off the pump, the high pressure jet is stopped. If the lever is pulled the pump is turned on again.

Environmental protection



The packaging material can be recycled. Please do not throw the packaging material into household waste; please send it for recycling.



Old appliances contain valuable materials that can be recycled; these should be sent for recycling. Batteries, oil, and similar substances must not enter the environment. Please dispose of your old appliances using appropriate collection systems.

Before Startup

Attaching the Accessories

- Attach the wheel caps.
- Mount the nozzle on the spray lance (markings on the adjustment ring at the top).
- Connect spray lance to trigger gun.
- Release the unlocking device of the push handle.
- Pull the push handle out to its end position.
- Fasten the high pressure hose to the high pressure connection.

Start up

Electrical connection

⚠ **DANGER**

- *Danger of injury by electric shock.*
- *The appliance should always be connected to the electrical mains using a plug. It is forbidden to permanently connect the appliance to the power supply. The plug is only for mains separation.*
- *The plug and coupling of the extension cable used must be watertight.*
- *Use the extension cord that has an adequate cross-section (see "Technical Data") and unwind it fully from the cable drum.*

For connection values, see type plate/technical data.

- ➔ Unwind the mains cable and place it on the floor.
- ➔ Insert the mains plug into a socket.

Water connection

Connection to the water supply

Observe regulations of water supplier.
For connection values refer to technical specifications

- ➔ Connect the supply hose (min. length 7.5 m, minimum diameter 1/2") to the water connection point of the machine and at the water supply point (for e.g. a tap).

Note

The supply hose is not included.

- ➔ Open the water supply.

Drawing in water from open reservoirs

- ➔ Screw the suction hose with filter (optional accessory) to the water connection.
- ➔ Appliance ventilation:

Unscrew the nozzle from the spray lance.

Switch on the appliance and let it run until the water exiting is bubble-free.

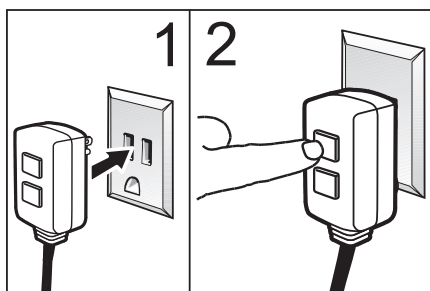
Let the appliance run for 10 seconds – then switch off the appliance switch. Repeat the procedure several times.

- ➔ Switch off the appliance and fit the nozzle again.

HD 1.8/13 only: GFCI INSTRUCTIONS

- ➔ **STEP 1:** Plug the Ground Fault Circuit Interrupter (GFCI) into a working outlet.
- ➔ **STEP 2:** Press "TEST", then press "RESET" to assure proper connection to power.

Note: The actual appearance of the GFCI may be different from this illustration.



Operation

⚠ **DANGER**

Risk of explosion!

Do not spray flammable liquids.

If the appliance is used in hazardous areas (e.g. filling stations) all of the safety provisions and operating instructions detailed in this manual must be observed.

⚠ Danger

Long hours of using the appliance can cause circulation problems in the hands on account of vibrations.

It is not possible to specify a generally valid operation time, since this depends on several factors:

- Proneness to blood circulation deficiencies (cold, numb fingers).
- Low ambient temperature. Wear warm gloves to protect hands.
- A firm grip impedes blood circulation.
- Continuous operation is worse than an operation interrupted by pauses.

In case of regular, long-term operation of the device and in case of repeated occurrence of the symptoms (e.g. cold, numb fingers) please consult a physician.

CAUTION

Clean engines only at places with corresponding oil separators (environmental safety).

High pressure operation

The appliance can be operated in a vertical or horizontal position.




NOTICE

The appliance is equipped with a pressure switch. The motor starts up only when the lever of the pistol is pulled.

- Device with hose drum:
Roll off the high pressure hose totally from the hose drum.
- Set the appliance switch to "I".
- Unlock the trigger gun and pull the lever of the gun.

Select spray type

- Close the hand spray gun.
- Turn the casing of the nozzle till the desired symbol matches the marking.

	High pressure circular spray (0°) for specially stubborn dirt
	Flat low pressure spray (CHEM) for operating using detergents or cleaning at low pressure.
	High pressure flat spray (25°) for large dirt areas

Operation with detergent

⚠ WARNING

Unsuitable detergents can cause damage to the appliance and to the object to be cleaned. Use only those detergents that have been approved by Kärcher. Observe the dosage and other instructions provided with these detergents. For considerate treatment of the environment use detergent economically.

Follow the safety instructions for using detergents.

Kärcher detergents ensure smooth functioning. Please consult us or ask for our catalogue or our detergent information sheets.

- Take out detergent suck hose.
- Adjust the suction volume of the detergent solution at the detergent filter.
- Suspend end of suction hose in a container filled with detergent.
- Set nozzle to "CHEM".

Recommended cleaning method

- Spray the detergent sparingly on the dry surface and allow it to react, but not to dry.
- Spray off loosened dirt with the high-pressure ray.

- Set the suction flow on the detergent filter to the maximum quantity after operation.
- Start the appliance and rinse for one minute.

Interrupting operation

- Release the lever of the trigger gun; the device will switch off.

Note:

When switching off the appliance, the water pressure is reduced by approx. 55%. This reduces the actuating force of the hand spray gun and the service life of the appliance is increased.

- Release again the lever of the trigger gun; the device will switch on again.

Turn off the appliance

- Set the appliance switch to "0".
- Disconnect the mains plug from the socket.
- Shut off water supply.
- Activate trigger gun until device is pressure-less.
- Press the safety lever of the trigger gun to secure the lever of the pistol against being released accidentally.

Storing the Appliance

- Place the spray lance with the trigger gun into the quiver for the spray lance and snap it into place in the spray lance holder.
- Wind the connection cable around the cable holder.
- Coil up the high pressure hose, hang it over the hose rack and secure it by means of the rubber band.
- Fasten the plug with the mounted clip.
- Press the unlocking device of the push handle and slide the push handle in.

Frost protection

⚠ Warning

Frost will destroy the not completely water drained device.

Store the appliance in a frost free area.

If you cannot store it in a frost-free place:

- Drain water.
- Pump in conventional frost protection agents through the appliance.

NOTICE

Use normal glycol-based anti-freezing agents for automobiles.

Observe handling instructions of the anti-freeze agent manufacturer.

- Operate device for max. 1 minute until the pump and conduits are empty.

Transport

CAUTION

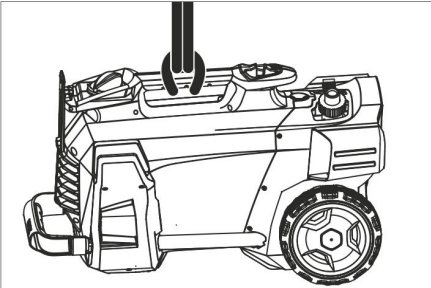
Risk of injury and damage! Observe the weight of the appliance when you transport it.

- In order to transport the appliance over longer distances, pull it behind you holding on to the push handle.
- In order to carry the appliance, hold on to the handles.
- In order to climb stairs, pull the appliance up step by step. The skids protect the casing from damage.
- When transporting in vehicles, secure the appliance according to the guidelines from slipping and tipping over.

Transport bracket for surface cleaner

- Attach the connecting piece of the surface cleaner to the bolt at the high-pressure cleaner.
- Screw on the union nut by approx. 1 rotation.

Transport by crane



- Attach the lifting device to the carrying handle of the appliance.

Safety information about cranes

⚠ DANGER

Risk of injury due to machine dropping.

- Adhere to the local accident prevention guidelines and safety notes.
- Check the carrying handle for damage prior to every transportation by crane.
- Check the lifting unit for damage prior to each transport by crane.
- Only lift the appliance using the carrying handle.
- Do not use stop chains.
- Protect the lifting device from inadvertent load release.
- Remove spray lance with hand spray gun, nozzles, surface cleaner and other loose objects prior to transportation by crane.

- Do not transport any articles on the appliance during the lifting process.
- The appliance must only be transported by properly trained crane personnel.
- Do not stand below the load.
- Ensure that no persons are present in the immediate vicinity of the crane.
- Do not leave the appliance on the crane unattended.

Storage

CAUTION

Risk of injury and damage! Note the weight of the appliance in case of storage.

This appliance must only be stored in interior rooms.

Care and maintenance

⚠ DANGER

Risk of injury by inadvertent startup of appliance and electrical shock.

First pull out the plug from the mains before carrying out any tasks on the machine.

Safety inspection/ maintenance contract

You can sign with your dealer a contract for regular safety inspection or even sign a maintenance contract. Please take advice on this matter.

Before each use

- Check connection cable for damages (risk of electrical shock); get the damaged connection cable replaced immediately by an authorised customer service person/ electrician.
- Check the high pressure hose for damages (risk of bursting).

Please arrange for the immediate exchange of a damaged high-pressure hose.

- Check appliance (pump) for leaks. 3 drops per minute are permitted and can come out from the lower side of the appliance. Call Customer Service if there is heavy leakage.

Weekly

- Clean the sieve in the water connection.
- Clean filter at the detergent suck hose.

Clean the sieve in the water connection

- Unscrew the covering nut.
- Pull out the hose nipple with the sieve.
- Clean the sieve from the outside and rinse it.

Note:

Align the hexagon of the hose nipple in the appliance for connection.

- Insert the hose nipple with the sieve and tighten the union nut.

Troubleshooting

⚠ DANGER

- *Risk of injury by inadvertent startup of appliance and electrical shock.*
- *First pull out the plug from the mains before carrying out any tasks on the machine.*
- *Get the electrical components checked and repaired only by authorised customer service persons.*
- *Contact an authorised customer service person in case of problems not mentioned in this chapter or if you are in doubt or when you have been explicitly asked to do so.*

Appliance is not running

- Check connection cable for damages.
- Check the supply voltage.
- If the appliance is overheated: Set the appliance switch to "0". Allow machine to cool down at least for 15 minutes. Set the appliance switch to "1".
- Call Customer Service in case of electrical defects.

Pressure does not build up in the appliance

- Set nozzle to "High pressure".
- Deaerate the appliance (see "Start-up")
- Clean the sieve in the water connection.
- Check water supply level (refer to technical data).
- Clean the nozzle.
- Replace the nozzle.
- Contact Customer Service if needed.

Pump leaky

3 drops of water per minute are permitted and can leak from the bottom of the appliance.

- With stronger leak, have device checked by customer service.

Pump is vibrating

- Check suction pipes for water and detergent and ensure that they are leak-proof.
- Set the suction flow on the detergent filter to the minimum quantity.
- Deaerate the appliance (see "Start-up")
- Contact Customer Service if needed.

Detergent is not getting sucked in

- Set nozzle to "CHEM".
- Increase the suction flow at the detergent filter.
- Check/ clean detergent suction hose with filter.
- Contact Customer Service if needed.

Accessories and Spare Parts

- Only use accessories and spare parts which have been approved by the manufacturer. The exclusive use of original accessories and original spare parts ensures that the appliance can be operated safely and trouble free.
- At the end of the operating instructions you will find a selected list of spare parts that are often required.
- For additional information about spare parts, please go to the Service section at www.kaercher.com.

Warranty

The warranty terms published by the relevant sales company are applicable in each country. We will repair potential failures of your appliance within the warranty period free of charge, provided that such failure is caused by faulty material or defects in manufacturing. In the event of a warranty claim please contact your dealer or the nearest authorized Customer Service centre. Please submit the proof of purchase.

Technical specifications

Type	HD 1.8/13	HD 4/9
	US	CA
Main Supply		
Voltage	V	120
Current type	Hz	1~ 60
Connected load	A	14
Protection (slow, char. C)	A	15
Water connection		
Max. feed temperature	°F (°C)	140 (60)
Min. feed volume	GPM (l/ min)	2,5 (9,5)
Suck height from open container (20 °C)	ft (m)	1,6 (0,5)
Max. feed pressure	PSI (MPa)	145(1)
Performance data		
Working pressure	PSI (kPa)	1300 (9000)
Nozzle size	--	032
Max. operating over-pressure	PSI (MPa)	1800 (12,5)
Water flow rate	GPM (l/ min)	1,8 (6,8)
Detergent suck in	GPH (l/h)	0...6,6 (0...25)
Max. recoil force of trigger gun	N	14,76
Values determined as per EN 60355-2-79		
Hand-arm vibration value	m/s ²	<2,5
Uncertainty K	m/s ²	0,7
Sound pressure level L _{pA}	dB(A)	72
Uncertainty K _{pA}	dB(A)	3
Sound power level L _{WA}	dB(A)	88
Dimensions and weights		
Length	mm	380
Width	mm	360
Height	mm	930
Typical operating weight	lbs (kg)	55,6 (25,2)

