

Operating Instructions

_____ High Pressure Washer

_____ HDR-K 46-16 SW



HDR-K 46-16 SW

HDR-K SERIES

Imprint

Product identification

High Pressure Washer	Item number
HDR-K 46-16 SW	7101461

Manufacturer

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Indications regarding the operating instructions

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Subject to technical modifications and error.

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1 Introduction

With the purchase of the CLEANCRAFT high pressure cleaner you have made a good choice.

Read the operating instructions carefully before commissioning.

This manual provides information about the proper commissioning, the intended use as well as the safe and efficient operation and maintenance of the high-pressure cleaner.

The operating instructions are an integral part of the appliance. They must always be kept at the place of use of the high-pressure cleaner. In addition, the local accident prevention regulations and general safety regulations for the area of use of the high-pressure cleaner apply.

Illustrations in these operating instructions are for basic understanding and may differ from the actual design.

1.1 Copyright

The contents of these instructions are protected by copyright and are the sole property of Stürmer Maschinen GmbH. Their use is permitted within the scope of the use of the high-pressure cleaner.

Any other use is not permitted without the written consent of the manufacturer.

Passing on and reproduction of this document, utilisation and communication of its contents are prohibited unless expressly permitted.

Violations will result in liability for damages.

We register trademark, patent and design rights to protect our products, insofar as this is possible in individual cases. We emphatically oppose any infringement of our intellectual property.

1.2 Customer service

Please contact your dealer if you have questions concerning your the high-pressure cleaner or if you need technical advice. They will help you with specialist information and expert advice.

Germany:

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Repair service:

Fax: 0049 (0) 951 96555-111
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Spare part orders:

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We are always interested in valuable experience and knowledge gained from using the application-which then could be shared and be valuable to develop our products even further.

1.3 Limitation of liability

All information and notes in these operating instructions were summarised while taking applicable standards and rules, the state-of-the-art technology and our long-term knowledge and experiences into consideration.

In the following cases the manufacturer is not liable for damages:

- Non-observance of the operating instructions,
- Inappropriate use
- Use of non-expert and non-professional personnel,
- Unauthorised modifications
- Technical changes,
- Use of not allowed spare parts.

The actual scope of delivery may deviate from the explanations and presentations described here in case of special models, when using additional ordering options or due to latest technical modifications.

The obligations agreed in the delivery contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations at the time of the conclusion of the contract are applicable.

2 Safety

This section provides an overview of all important safety packages for the protection of operating personnel as well as for safe and fault-free operation. Other task-based safety notes are included in the paragraphs of the individual phases of life.

2.1 Symbol explanation

Safety instructions

The safety notes in these operating instructions are highlighted by symbols. The safety notes are introduced by signal words which express the concern of the risk.



DANGER!

This combination of symbol and signal words indicates an imminently dangerous situation which may lead to death or severe injury if not avoided.

WARNING!

This combination of symbol and signal words indicates a potentially dangerous situation which may lead to death or severe injury if not avoided.

CAUTION!

This combination of symbol and signal words indicates a potentially dangerous situation which may lead to slight or minor injury if not avoided.

ATTENTION!

This combination of symbol and signal words indicates a possibly dangerous situation which may lead to property and environmental damages if they are not avoided.



NOTE!

This combination of symbol and signal words indicates a potentially dangerous situation which may lead to material or environmental damage if not avoided.



Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for an efficient and trouble-free operation.

To reduce the risks of personal injury and damage to property and to avoid dangerous situations, the safety instructions given in these operating instructions must be observed.

2.2 Obligations of the operating company

The operating company is the person who operates the the high-pressure cleaner for business or commercial reasons by herself, or leaves it to a third party for use or application, and who bears the legal product responsibility for the protection of the user, the staff or for third parties.

Obligations of the operating company

If the the high-pressure cleaner is used for commercial purposes, the operating company of the the high-pressure cleaner must comply with the legal working safety regulations.

Therefore, the safety notes in this operating manual, as well as the safety, accident prevention and environment protection regulations applying for the area of application of the the high-pressure cleaner must be met. The following applies in particular:

- The operating company must be informed about the applying industrial safety regulations and further analyse hazards resulting from the special working conditions at the place of use of the the high-pressure cleaner. She must implement these in form of operating manuals for the operation of the the high-pressure cleaner.
- During the entire lifetime the the high-pressure cleaner, the operating company must verify whether the operating manuals prepared by her correspond to the current status of the regulations, and must adapt these if necessary.
- The operating company must unambiguously regulate and determine the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operating company must ensure that all persons who work with the the high-pressure cleaner, have read and understood this manual. Furthermore she must instruct the staff in regular intervals and in-form them about the hazards.
- The operator must provide the necessary protective equipment to the staff and order the use of the necessary protective equipment in a binding way.

Furthermore the operating company is responsible to keep the the high-pressure cleaner always in a technically flawless state. Thus, the following applies:

- The operator must ensure that the maintenance intervals described in this manual are kept.
- The operator must have all safety devices checked regularly for their good working order and their integrity.

2.3 Requirements to staff

Qualifications

The different tasks described in this manual represent different requirements to the qualification of the persons entrusted with these tasks.



WARNING!

Danger in case of insufficient qualification of the staff!

Insufficiently qualified persons cannot estimate the risks while using the high-pressure cleaner and expose themselves and others to the danger of severe or lethal injuries.

- Have all works only performed by qualified persons.
- Keep insufficiently qualified persons out of the working area.

Only persons reliable working procedures can be expected from, are allowed to perform all works. Persons the responsiveness of which is affected by e. g. drugs, alcohol or medication, are not allowed to work with the machine.

The qualifications of the personnel for the different tasks are mentioned below:

Operator

The operator is instructed by the operating company about the assigned tasks and possible risks in case of improper behaviour. Any tasks which need to be performed beyond the operation in the standard mode must only be performed by the operator if it is indicated in these instructions and if the operating company expressly commissioned the operator.

Electrically qualified person

Electrically qualified person is due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, in a position to carry out work on the electrical systems and to independently recognize and avoid possible dangers.

Qualified personnel

Due to their professional training, knowledge and experience as well as their knowledge of relevant regulations the specialist staff is able to perform the assigned tasks and to recognise and avoid any possible dangers themselves.

Manufacturer

Certain works may only be performed by specialist personnel of the manufacturer. Other personnel is not authorized to perform these works. Please contact our customer service for the execution of all arising work.

2.4 Personal protective equipment

The personal protective equipment serves to protect persons against impairments of safety and health while working. The staff member has to wear personal protective equipment while performing different tasks on and with the machine which are indicated in the individual paragraphs of these instructions.

The personal protective equipment is explained in the following paragraph:



Ear protection

Ear protection protects the ears from hearing damage caused by noise.



Safety glasses

The face mask protects the face from flying around parts.



Protective clothes

Protective clothes are made of a tightly fitted fabric without the protruding parts of low tear strength.



Protective gloves

The protective gloves serve to protect the hands against sharp components as well as against friction, abrasions or deep injuries.



Safety boots

Safety boots protect the feet from being crushed, falling parts and slipping over on slippery ground.



Breathing protection

Use the breathing protection!

2.5 General safety instructions

Please note the following:

- The high-pressure cleaner may only be used in its original design and with original accessories.
- The appliance may only be set up and operated on a level and solid surface.
- Never work under the influence of diseases that impair concentration, overtiredness, drugs, alcohol or medication.
- Before each use of the high-pressure cleaner, make sure that no parts are damaged. Damaged parts must be replaced immediately to avoid sources of danger.
- Keep the children and persons not familiar with the high-pressure cleaner away from their working environment.
- Malfunctions that could impair safety must be eliminated immediately.
- The high-pressure cleaner may only be operated within the specified performance limits (technical data).
- Do not overload the high-pressure cleaner! It works better and safer within the specified power range.
- Do not tamper with the control valve and safety devices.
- Before loosening the hose on the unit, release the residual pressure in the hose.
- Make sure that the high pressure hose is sufficiently relieved and that it is not damaged. Do not kink the hose.
- Operate the appliance only outdoors in dry weather. Keep live components of the appliance away from direct water jets.
- Never leave the appliance unattended. Always disconnect the mains plug from the socket when the appliance is not in use.
- It can be dangerous if the high-pressure jet is directed at tyres, tyre valves or other pressurised components. For this purpose, only use nozzle attachments with a gentle water jet and only spray the object from a distance of at least 30 cm with low spray pressure.
- Operate the high-pressure cleaner only with clear water and a cleaning agent intended for the unit. Observe the correct mixing ratio indicated on the respective product.
- The spray lever of the spray gun must be freely operable. It must not be blocked in the operating position.
- Hold the spray gun firmly when operating the lever and ensure a secure footing, as recoil may occur due to the pressure build-up.

- When using an extension cable, make sure that it has the same cable dimensions as the appliance supply cable and avoid contact of the cables with liquids or conductive surfaces.
- Always wear the necessary safety equipment (safety glasses, protective clothing, safety shoes, ear protectors, etc.). Non-slip footwear is recommended when operating the machine.
- Do not contaminate, damage, modify or remove the safety equipment.
- Use only original spare parts.
- The high-pressure cleaner must not be used for purposes for which it is not intended.
- Make sure that the electrical data indicated on the type plate corresponds to the data of the mains supply.
- OBSERVE the regulations of the local water supply company. According to the IEC 60335-2-79 standard, the appliance may only be connected directly to the public drinking water supply if a system separator according to EN 12729 type BA is installed on the water supply. The system separator can be purchased from the manufacture.

Safety instructions for operation in spray mode

- Use the appliance in well-ventilated rooms and areas.
- When using pesticides, be sure to follow the relevant safety instructions.
- Use only products approved by the competent authorities and scrupulously follow the relevant instructions provided by the respective manufacturer on the packaging of the products concerned.
- Wash the hands, face and clothes after use.

2.6 Safety labels on the high-pressure cleaner

The following safety labels and instructions are attached to the high-pressure cleaner (Fig. 1) and must be observed and followed.



Fig. 1: 1 General warning sign | 2 Keep a safe distance of 3 m from the wall | Mandatory sign (3 Use protective clothing / 4 Use mask / 5 Use hand protection / 6 Wear eye protection)

Damaged or missing safety labels on the high-pressure cleaner can lead to incorrect actions with personal injury and damage to property. The safety labels attached to the machine must not be removed. Damaged safety labels must be replaced immediately.

From the moment when the labels are not immediately recognisable and comprehensible at first sight, the machine must be taken out of operation until the new signs are attached.

2.7 Safety data sheets

You can obtain safety data sheets for dangerous goods from your specialist dealer or by calling +49 (0) 951 / 96555-0.

Specialist dealers can find safety data sheets in the download area of the partner portal.

3 Intended Use

The high-pressure cleaner is intended for outdoor use to remove stubborn dirt using clear water and biodegradable chemical cleaning agents. The device can be used in a variety of ways in the private working environment, for example to clean machines, boats, masonry, vehicles, etc..

If environmentally hazardous or poorly degradable substances are dissolved during cleaning (e.g. when cleaning vehicle engines), proper disposal of the waste water is necessary.

Intended use also includes compliance with all the information in these instructions.

3.1 Reasonably foreseeable misuse

Any use beyond the intended use or any other use is considered misuse.

Possible misuse can be:

- Use with non-approved cleaning solutions or incorrect mixing ratios.
- Installation of spare parts and use of accessories and equipment not approved by the manufacturer.
- Modifications to the appliance or the use of modified accessories.
- Non-observance of the maintenance instructions.
- Failure to observe the signs of wear and damage.
- Handling the appliance deliberately or recklessly during operation.
- Service work by untrained or unauthorised personnel.
- Misappropriation of the high-pressure cleaner.
- Use on objects susceptible to moisture.
- Use of the high-pressure cleaner on surfaces that cannot resist the set pressure of the water jet or that could be damaged.
- Use of the appliance with parameters that do not correspond to the specifications on the type plate.
- Operating the appliance without having read the operating instructions.
- Bypassing or modifying the safety devices.
- Using an incompletely assembled unit or operating the unit in a horizontal position.

Misuse of the high-pressure cleaner can lead to dangerous situations.

The company Stürmer Maschinen GmbH accepts no liability in the event of constructive and technical modifications to the device.

Claims of any kind for damage due to improper use are excluded.

3.2 Residual risks

Even if all safety instructions are observed and the high-pressure cleaner is used according to the instructions, there are still residual risks, which are listed below:

- Risk of injury to the upper limbs (e.g. hands, fingers) due to moving parts.
- Injuries due to uncontrolled recoil of the spray gun if it is not sufficiently held when actuated.
- Skin irritation or eye irritation due to contact with the cleaning agent.
- Skin and respiratory tract damage due to long-term exposure to the cleaning agent without suitable protective equipment.
- Electrical hazard due to contact with parts and high voltage (direct contact) or with parts under high voltage due to a defect of the appliance (indirect contact).
- Injuries due to tripping over cables or hose.
- Risk of injury from detached, flying parts of the object being processed.
- Risk of injury from the cutting effect of the jet.
- Risk of injury due to residual pressure.

4 Safety devices

Device switch (0 / spray mode / cleaning mode)

The device switch prevents unintentional operation of the device.

Pressure relief valve

When the lever of the gun is released, the valve opens and the water runs back to the suction side of the pump or is discharged onto the floor.



ATTENTION!

Do not make any unauthorised changes to the pressure relief valve and do not change its setting.

Overheating protection

The overheating protection switches the unit off in the event of an overload.

Locking the high pressure gun

The interlock locks the lever of the high-pressure gun and prevents unintentional starting of the appliance.

5 Technical Data

5.1 Table

Model	HDR-K 46-16 SW
Max. working pressure	107 bar
Max. pump pressure	160 bar
Flow rate max.	460 l/h
Flow rate	330 l/h
Max. water inlet temperature	50° C
Motor winding material	Aluminium
Cylinder head material	Aluminium
Pump	Aluminium
Mechanical system of the pump	Swash plate
Piston	Stainless steel
Pump control	Total Stop
Connection cable length	5 m
Supply voltage	230 V
Current type/Mains frequency	AC /50 Hz
Suction height	500 mm
Input power	2,2 kW
Total current draw	7,5 - 9 A
Motor speed	3400 min ⁻¹
Motor insulation class	F
Protection class	II
Sprayer working pressure	3 bar
Sprayer flow rate	18 l/h
High pressure hose length	8 m
High pressure hose pressure bearing	PVC Supersoft
Hose connection pump outlet/ manual spray gun	CLICK-FAST Quick coupling
Dimensions (L x W x H)	330 x 307x 790 mm
Weight	11,6 kg
Wheel-Ø	175 mm
Vibration value	< 2,5 m/s ²
Sound power level	93 dB(A)

5.2 Type plate



Fig. 2: Type plate (top), type plate of the spraying unit (bottom)

6 Transport, packaging, storage

6.1 Transport

Check the high-pressure cleaner for visible transport damage after delivery. If you discover any damage to the high-pressure cleaner, report it immediately to the transport company or the dealer.

6.2 Packaging

All used packaging materials and packaging aids are recyclable and should be taken to a materials recycling depot to be disposed of.

The delivery packaging is made of cardboard, so please dispose carefully by having it chopped up and given to the recycling collection.

The film is made of polyethylene (PE) and the cushioned parts of polystyrene (PS). Deliver these substances to a collection point for recyclable materials or to the waste disposal company which looks after your region.

6.3 Storage

Store the high-pressure cleaner in a dry, clean and frost-free environment.

7 Description



Fig. 3: Description

- 1 Handle
- 2 Hose reel
- 3 Lever
- 4 Tank for chemical cleaning solution
- 5 Wheel
- 6 Water connection
- 7 Appliance switch (0 / spray mode / cleaning mode)
- 8 Gun with lock
- 9 Spiral hose

Appliance switch

- A OFF position
- B Soft cleaning (Spray mode)
- C Intensive cleaning (High pressure cleaning mode)

7.1 Scope of delivery



Fig. 4: Lieferumfang

- 1 Lance
- 2 Manual spray gun with lock
- 3 Dirt cutter nozzle
- 4 Spray gun (spray function)
- 5 Lance
- 6 Surface cleaner
- 7 High pressure nozzle
- 8 Spiral hose
- 9 High pressure hose

7.2 Accessories

Item no.	Designation
7114005	Pipe cleaning set 16m
7116001	Water filter
7115000	Washing brush
7115001	Rotating washing brush
7115007	Floor cleaning brush
7115012	2-in-1 Floor cleaning brush
7113029	Adapter plug
7113028	Adapter plug
7111010	Manual spray gun
7113023	Adjustable high pressure nozzle
7113024	Rotary nozzle
7112017	Extension steel pipe
7114017	8 mtr. High pressure hose
7114018	6 mtr. Spiral hose
7111011	Spray gun
7112019	Spay lance
7114016	8m Hose extension
7115008	Surface cleaner with detergent tank
7115010	Surface cleaner
7113026	5-in-1 Multifunctional nozzle
7113027	Foam intent
7112026	Lance extension set 1.6 m with adjustable nozzle
7114022	6 mtr. Spiral hose extension
7116000	Water filter

8 Installation



ATTENTION!

Switch off the device and disconnect it from the mains before carrying out any assembly, cleaning, adjustment, maintenance, storage or transport work.

8.1 Electrical connection

The cross-section of the extension cable must be proportional to its length. The longer it is, the larger the cross-section must be.

Use cables and plugs with IPX5 protection.

- When using an extension cable, make sure that it has the same cable dimensions as the power supply cable of the appliance and avoid contact of the cables with liquids or conductive surfaces.
- Always pull the cable out of the socket by the plug only, never by the cable. Protect the cable from damage caused by heat, oil and sharp edges.
- The supply cable must be checked for damage such as cracks or signs of age before each use. Damage must be repaired immediately
- Do not touch the plug or socket with wet hands.

8.2 Mounting

8.2.1 Mounting the dirt cutter nozzle

The dirt cutter nozzle set provides an increase in cleaning power. When using the rotor nozzle, there may be a 25% decrease in pressure compared to the pressure obtained with the adjustable nozzle. However, as it produces a circular rotating water jet, its cleaning power is greater.

8.2.2 Water connection (High pressure cleaning mode)



ATTENTION!

Suck in only filtered or clean water. The water tap must supply at least an amount of water equal to the pump's flow rate. Place the appliance as close as possible to the water connection.

Connection points

■ Water inlet with filter (INLET)

A Screw the adapter plug onto the thread (fig. 5, step 4, left) and connect the water hose ■ to the high-pressure cleaner (Fig. 5, step 4, right).

● Water outlet (OUTLET)

Connect the high-pressure hose (B5, fig. 5, step 5) to the outlet ●. Attach the opposite side of the high-pressure hose to the spray gun (B5, fig. 5, step 6).

Connection to the mains water supply

The appliance may only be connected directly to the mains drinking water supply if the supply pipe is fitted with a safety fitting in accordance with regulations. Use a fabric-reinforced water hose with a diameter of at least 13 mm and a maximum length of 25 metres.

Water suction from open tanks

Step 1: Screw the suction hose with filter onto the water inlet connection (INLET) and insert its other end into the tank up to the bottom.

Step 2: Drain the air from the device:

- Unscrew the lance.
- Switch on the device and operate the gun until bubble-free water comes out.

Step 3: Switch off the unit and screw the lance back on. The suction height must not exceed 0.5 m. It is recommended to fill the suction hose before use.

8.3 Sequence of the assembly steps

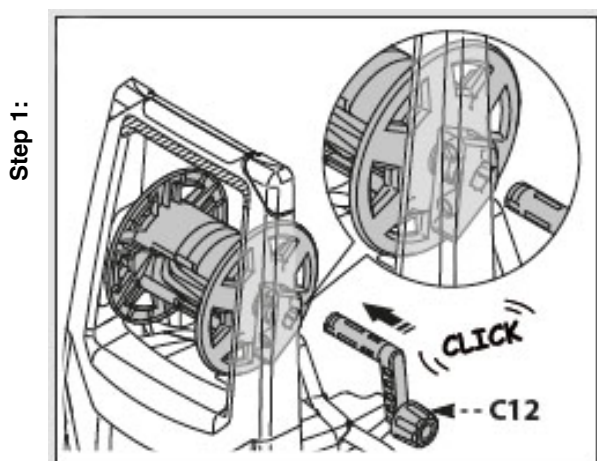


Fig. 5: Assembly

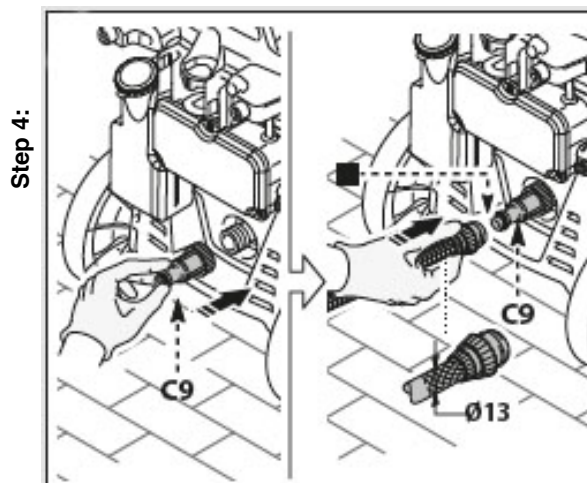
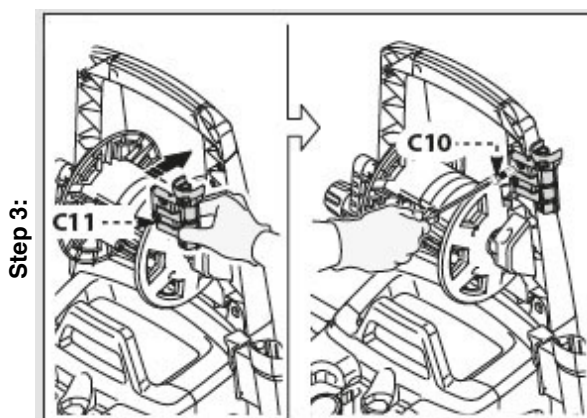
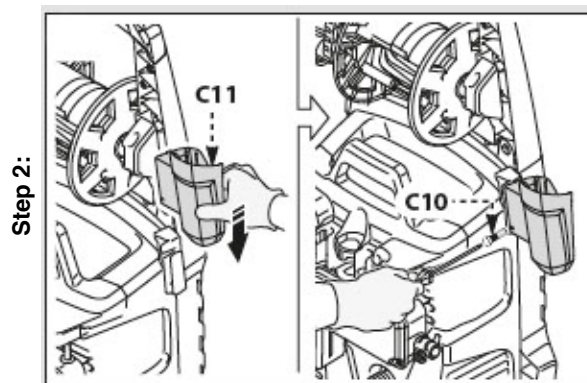
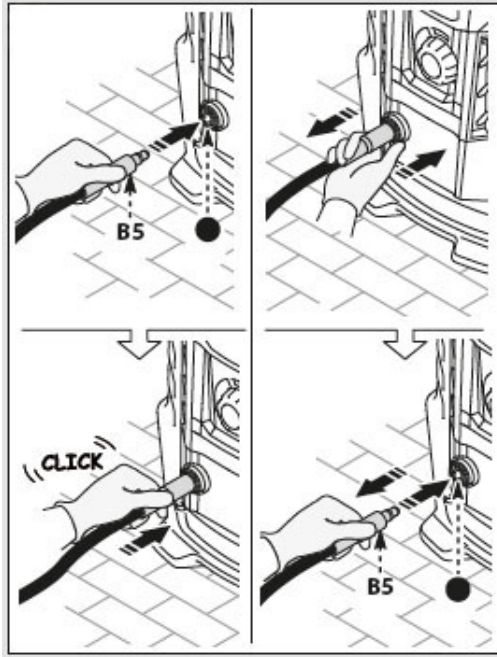
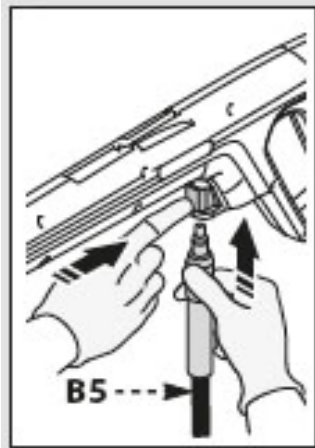


Fig 5: Assembly

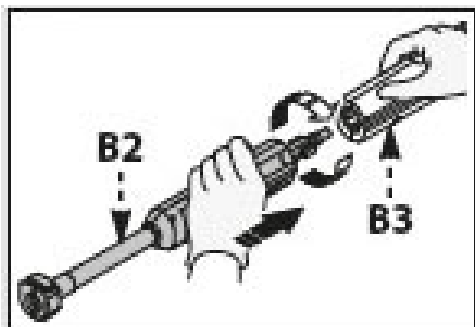
Step 5:



Step 6:



Step 7:



Step 8:

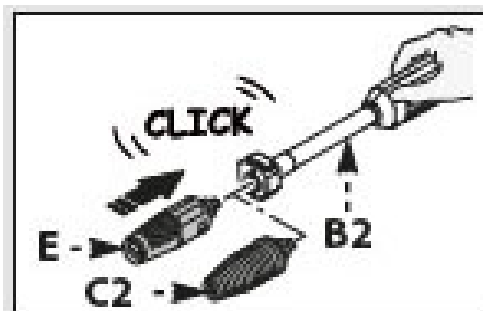
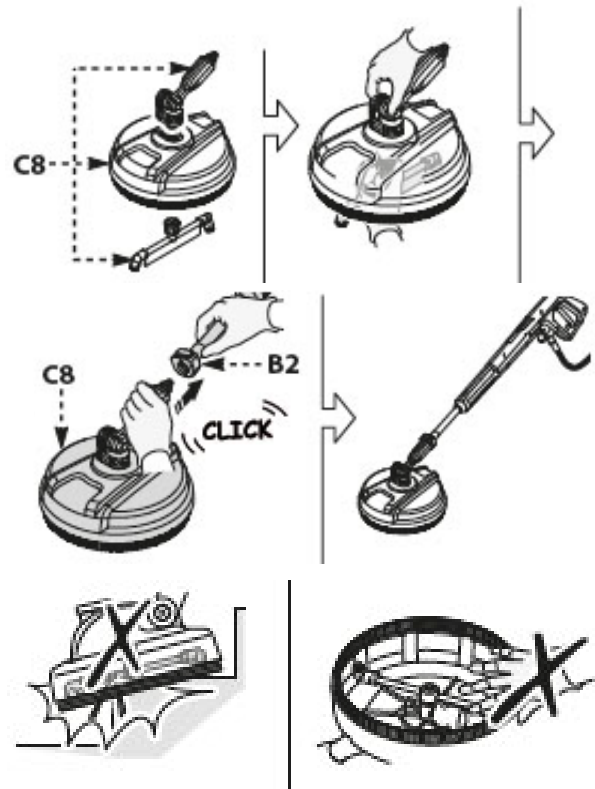


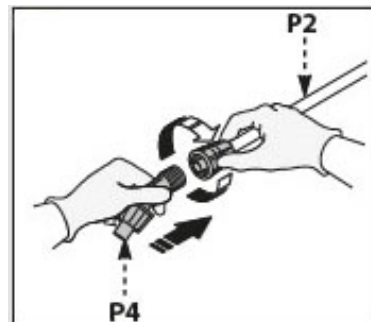
Fig. 5: Assembly

Assembly of the spraying unit

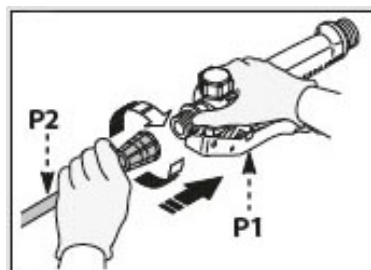
Step 9:



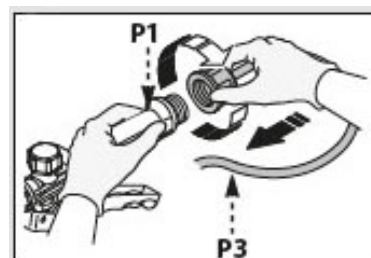
Step 10:



Step 11:



Step 12:



Step 13:

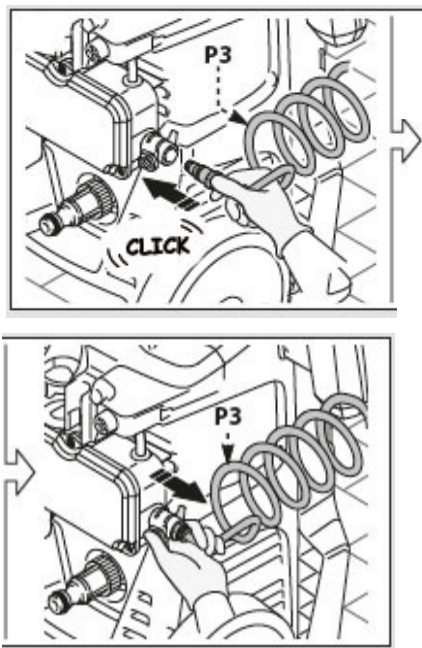


Fig. 6: Assembly of the spraying unit

Insert the plug into the socket (230 V).
The device is now ready for operation..

Regulation of the water jet

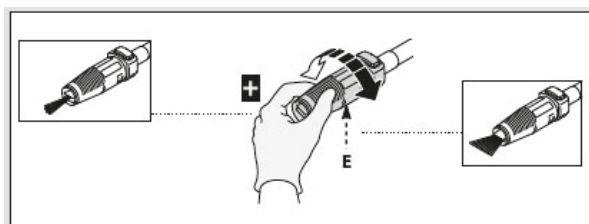


Fig. 7: Regulation of the water jet

Step 14: Adjust the intensity of the water jet at the nozzle
(pos. E, fig. 7).

Legend to figures 5, 6 and 7

- B2** Lance
- B3** Gun with lock
- B5** High pressure hose
- C2** Dirt cutter nozzle
- C8** Surface cleaner
- C9** Adapter
- C10** Screw
- C11** Bracket
- C12** Lever
- P1** Handle
- P2** Lance
- P3** Pressure line
- P4** Sprayer nozzle
- E** Nozzle head

9 Operation

9.1 Preparation (Spray mode)

- Step 1: Fill the tank (pos. B6, fig. 8).
- Step 2: Test the device with clean water before adding chemical solutions.
- Step 3: Prepare the chemical solution in a separate container.
- Step 4: Fill the solution into the tank (fig. 8).

9.2 Switch on

- Step 1: Place the device on a flat surface.
Unwind the high-pressure hose completely from the hose reel. Always use the device in an upright position.
 - Step 2: Pull the high-pressure hose completely forwards through the hose guide and insert it into the high-pressure gun or spray gun until it audibly clicks into place.
 - Step 3: Insert the mains plug of the high-pressure cleaner into a socket.
 - Step 4: Open the water tap fully (only in cleaning mode).
 - Step 5: Spray mode: Set the appliance switch (pos. H, fig. 8) to the ON / I position. Press the spray gun handle (pos. N, fig. 8) to release delivery; actuate the spray gun lock (pos. P7, fig. 8) to maintain delivery.
Cleaning mode: Release the lock on the gun (pos. D, fig. 8). Hold the lever (pos. I, fig. 8) of the gun pulled for a few seconds and then switch on the appliance with the appliance switch (ON / II).
 - When the lever is released, the dynamic pressure automatically switches off the electric motor.
 - When the lever is pulled, the pressure drop automatically switches the motor on. The pressure is built up again with a minimal delay.
- NOTE:** So that the device works properly, wait at least 4 to 5 seconds between releasing and pulling the gun lever.



ATTENTION!

The device can be damaged by dry running. Therefore, make sure that it is always properly supplied with water.

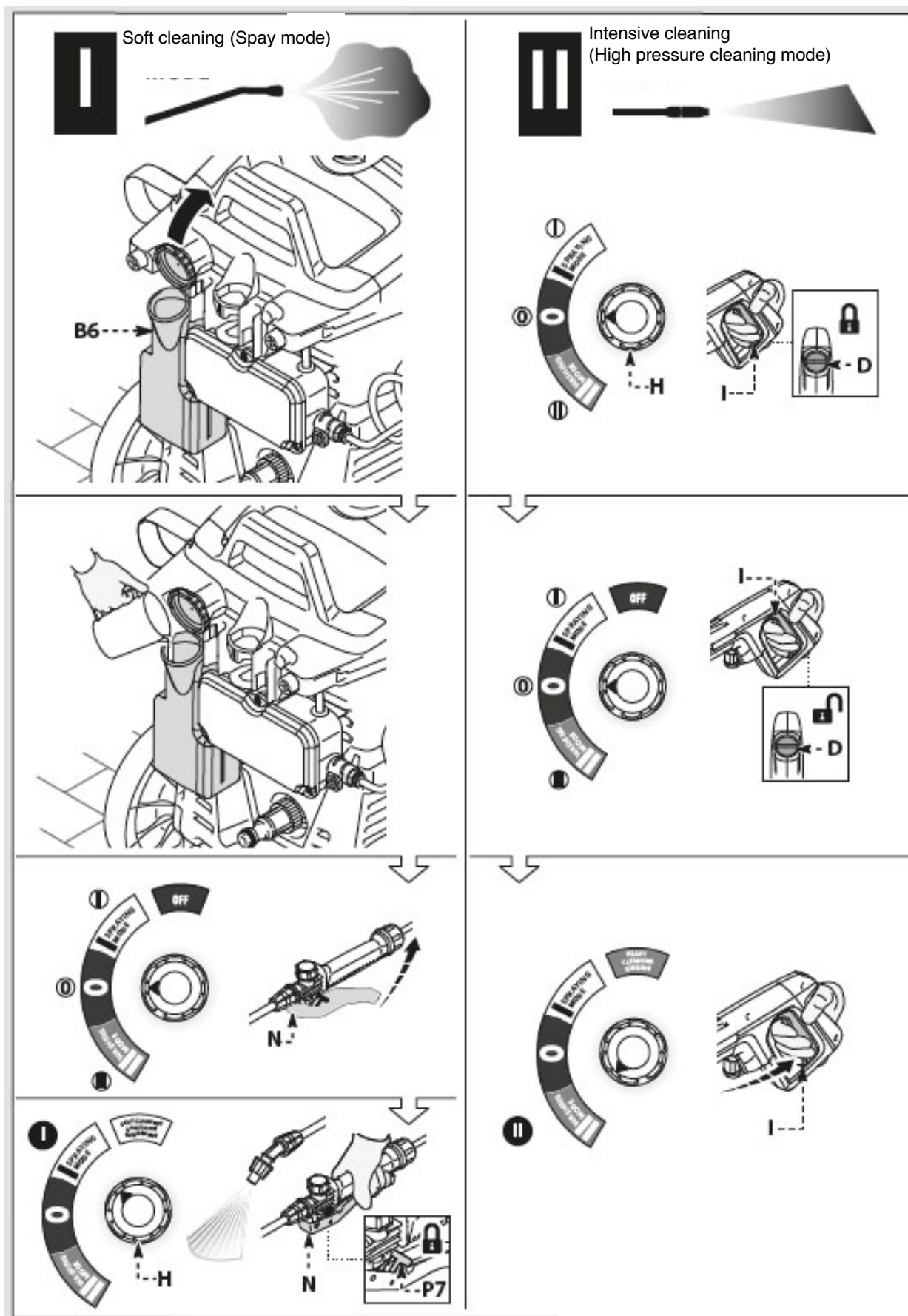


Fig. 8: Operation

9.3 Switch off

Step 1: Set the appliance switch (pos. H, fig. 8) to the OFF / 0 position.

Step 2: Close the water tap.

Step 3: Press the handle of the gun (Spray mode: pos. N, fig. 8; Cleaning mode: pos. I, fig. 8) to release the pressure from the pipes.

Step 4: Unplug the mains plug from the socket.

Step 5: Actuate the lock (pos. D, fig. 8) of the gun.

9.4 Restart

Step 1: Release the lock (pos. D, fig.8) of the gun.

Step 2: Pull the lever on the gun to vent the lines.

Step 3: Switch the appliance switch (pos. H, fig. 8) to the switch position (ON/I or ON/II).

10 Recommendations for proper use

1. Spray the detergent on the dry surfaces to loosen the dirt.
2. Work on vertical surfaces from top to bottom. Allow the detergent solution to act for 1 to 2 minutes, but do not allow the surfaces to dry. Then wash the surfaces with the high-pressure jet at a distance of at least 30 cm from top to bottom. Make sure that the cleaning water does not run onto surfaces that are not to be cleaned.
3. In some cases, the dirt can only be removed by the mechanical action of a washing brush.
4. High pressure is not always the best solution to cleaning, as it can damage some surfaces. Therefore, the needle jet of the adjustable nozzle and the rotor nozzle should not be used on sensitive, painted or pressurised parts (e.g. tyres, tyre inflation valves, etc.).
5. A good cleaning effect depends equally on the pressure and the volume of water.

11 Care, maintenance and repair



DANGER!

Danger to life due to electric shock!

There is danger to life when in contact with live components. Switched on electrical components can cause uncontrolled movements and lead to serious injuries.

Disconnect the mains plug before starting cleaning and maintenance work.

11.1 Care by cleaning

The the high-pressure cleaner should always be kept in a clean condition.

Before every use and at regular intervals, check the tightness of the screws and nuts and check the components of the device for breakage or wear.



Protective gloves

Wear suitable protective gloves for cleaning!

Cleaning the nozzle (Cleaning mode)

Step 1: Disconnect the lance (pos. E and pos. C, fig. 9) from the gun.

Step 2: Clean the nozzle hole with the tool (pos. C1, fig. 9).

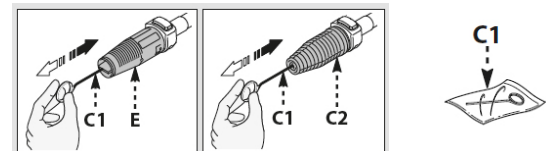


Fig. 9: Cleaning the nozzle (cleaning mode)

Cleaning the nozzle (Spray mode)

Step 1: Remove the nozzle (pos. P4, fig. 10).

Step 2: Clean the nozzle with clean water.

Cleaning the filter (Cleaning mode)

Check the suction filter (pos. L, fig. 10) before each use and clean it if necessary.

Cleaning the filter (Spray mode)

Clean the gun filter (pos. P5, fig. 10) and the tank filter (item P6, fig. 10) after each use.

Gun filter (pos. P5, fig. 10): if the jet flow rate decreases, unscrew the ring nut at the base of the handle (P1), remove the filter (P5) inside the gun, wash it with clean water and reinsert it.

Tank filter (pos. P6, fig. 10): Open the tank cap (pos. B6, fig. 10), pull out the suction hose, remove the filter (pos. P6, fig. 10), wash it with clean water and reinsert it.

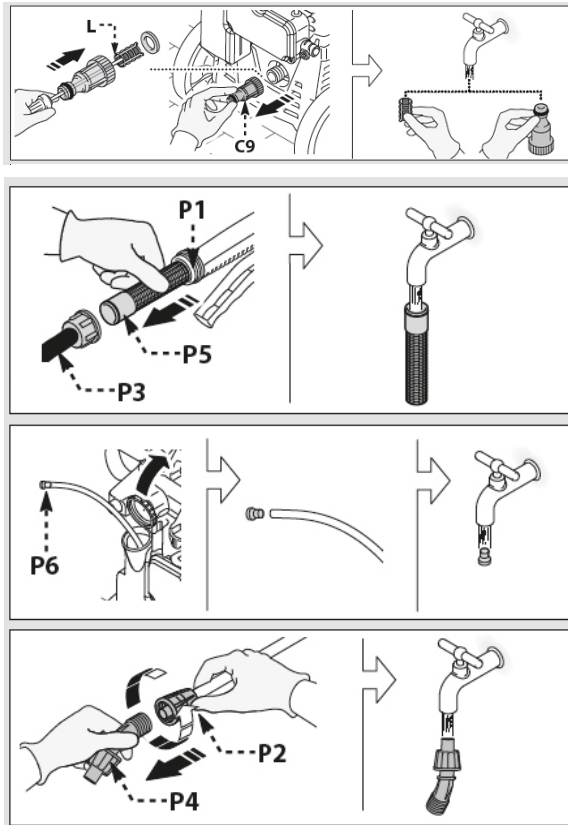


Fig. 10: Cleaning the nozzle (Spray mode) and filter

11.2 Decommissioning and storage

Before decommissioning and storing the unit during the cold season, run it with a non-aggressive and non-toxic antifreeze.

Store the unit in a dry and frost-protected place.

11.3 Maintenance and repair

Maintenance and repair work must only be carried out by qualified personnel.

If the high-pressure cleaner does not function properly, contact a specialist dealer.

All protective and safety devices must be refitted immediately after repair and maintenance work has been completed.

12 Disposal, recycling of used devices

Please take care in your own interest and in the interest of the environment that all component parts of the machine are only disposed of in the intended and permitted way.

12.1 Decommissioning

Immediately decommission disused machines in order to avoid later misuse and endangering of the environment or personal safety.

- Eliminate all environmentally hazardous operating materials from the used device.
- If required, disassemble the machine into easy-to-handle and usable components and parts.
- Dispose of machine components and operating materials by the disposal channels provided.

12.2 Disposal of electrical equipment

Please note that electrical appliances contain a variety of recyclable materials as well as environmentally harmful components.

Help to ensure that these components are disposed of separately and properly. If in doubt, please contact your municipal waste disposal service.

If necessary, enlist the help of a specialised waste disposal company for processing.

12.3 Disposal via communal recycling points

Disposal of used electrical and electronic equipment (to be used in the countries of the European Union and other European countries with a separate collection system for this equipment).



The symbol on the product or its packaging indicates that this product is not to be treated as normal household waste, but must be returned to a collection point for the recycling of electrical and electronic equipment. By contributing to the correct disposal of this product, you protect the environment and the health of your fellow human beings. Environment and health are endangered by incorrect disposal. Material recycling helps to reduce the consumption of raw materials. For more information about recycling this product, contact your local community, municipal waste management company or the store where you purchased the product.

12.4 Disposal of lubricants

Please pay attention to an environmentally friendly disposal of the used coolants and lubricants.

Observe the disposal instructions of your municipal disposal companies.

Disposal notes for used lubricants are available from the manufacturer of the lubricants. If necessary, request the product-specific data sheets.

13 Malfunctions, possible causes and measures



ATTENTION!

If any of the following faults occur, stop working with the machine immediately. Before you start trouble-shooting, switch off the machine and disconnect the mains plug. All repairs or replacement work may only be carried out by qualified and trained personnel.



NOTE!

If you are unable to rectify the problems with your machine yourself, please contact your nearest Cleancraft dealer. Please write down the following information from the machine or from the operating instructions beforehand, so that you can be helped with your problem in the best possible way.

- Model of the device
- Serial number of the device
- Year of manufacture
- Exact description of the fault

Malfunction	Possible causes	Solutions
Cleaning mode		
Pump does not reach working pressure.	Nozzle worn.	Replace nozzle.
	Water filter fouled.	Clean filter (Pos. L, Fig. 9).
	Water supply pressure low.	Turn on water supply tap fully.
	Air being sucked into system.	Check tightness of hose fittings.
	Air in pump	Switch off the appliance and keep depressing and releasing the gun trigger until the water comes out in a steady flow. Switch the appliance back on again.
	Adjustable nozzle not positioned correctly	Turn the adjustable nozzle to the (+) position.
	Thermostatic valve tripped.	Wait for correct water temperature to be restored.
	Water being sucked from an open container from a height of more than 0.5 m.	Reduce the suction height.
Pressure fluctuations of the pump	Water intake from external tank.	Connect the device to the mains water supply.
	Inlet water temperature too high.	Reduce temperature.
	Nozzle clogged.	Clean nozzle.
	Suction filter (pos. L, fig. 10) is dirty.	Clean filter.
Motor "sounds", but does not start up.	Insufficient power supply.	Check that the mains voltage corresponds to the rated voltage indicated on the type plate.
	Voltage loss due to use of extension cable.	Check the characteristics of the extension cable.
	Appliance not used for a long period of time.	Contact the customer service.
Noisy operation	Water temperature too high.	Reduce temperature (see technical data).
Oil leakage	Seals worn.	Contact the customer service.
Water leaks	Seals worn.	Have the seals replaced by an authorised service centre.
	Triggering of the free blow-off safety valve.	Contact the customer service.
The electric motor does not start	Supply voltage is missing.	Check that the mains voltage is present and that the mains plug is correctly inserted into the socket. (*)
	The device has been at a standstill for a long time.	Unlock the motor with the tool provided through the opening on the back (for models where this is provided).

Malfunction	Possible causes	Solutions
The unit starts although the lever of the gun is not pulled.	Seal in the high-pressure system or in the pump circuit is defective.	Contact the customer service.
When the lever of the gun is actuated, no water comes out (when the supply hose is connected).	Nozzle clogged.	Clean nozzle.
Spay mode		
Pump is under pressure but the liquid does not come out	Detergent is too viscous.	Dilute with water.
	Detergent line blocked or squeezed.	Clean the hose with clean water and make sure that the line is not squashed. If the problem persists, contact customer service.
	Filter or nozzles clogged.	Check and clean filters (pos. P5, Fig. 9), (pos. P6, Fig. 10) and nozzles (pos. P4, Fig. 9)..
	Gun filter not inserted correctly.	Clean the filter (pos. P5, Fig. 9) / insert it correctly.
	Tank is empty.	Fill the tank.

14 Spare parts



DANGER!

Danger of injury by the use of wrong spare parts!

Dangers may result for the user and damages as well as malfunctions may be caused by using wrong or damaged spare parts

- Only use original spare parts of the manufacturer or spare parts admitted by the manufacturer.
- Always contact the manufacturer in case of uncertainties.



NOTE!

The manufacturer warranty shall be rendered void in the event of a use of unauthorised spare parts.

14.1 Spare parts ordering

The spare parts may be purchased with the authorised dealer.

Indicate the following basic information for requests or orders of spare parts:

- Type of device
- Item No.
- Position No.
- Year of construction
- Quantity
- Required mode of dispatch (mail, freight, sea, air, express)
- Address of dispatch

Spare part orders which do not include the above indications may not be taken into consideration. If the indications regarding the mode of dispatch are missing, the product is dispatched at the discretion of the supplier.

You will find information regarding the device type, item No. and year of manufacture on the type plate fixed to the the high-pressure cleaner.

Example

The wheel for the high-pressure cleaner HDR-K 46-16 SW must be ordered. The wheel has the number 21 in the spare parts drawing 1.

When ordering spare parts, send a copy of the spare parts drawing (1) with the marked component (wheel) and marked position number (21) to the authorized dealer and provide the following information:

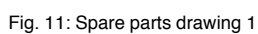
- Type of device: **HDR-K 46-16 SW**
- Item number: **7101461**
- Drawing number: **1**
- Position number: **21**

Item number of your device:

HDR-K 46-16 SW 7101461

In case of service, the following drawings shall help to identify the necessary spare parts.

Spare parts drawing 1



Parts list 1

Pos.	Description	Qty.		Pos.	Description	Qty.
1	Handle	1		24	Quick connection kit	1
2	Safety guard	1		25	TSS-Kit	1
3	Lock	1		26	Pistons + seal kit	1
4	Cover	1		27	Valves + gasket set	1
5	Cable gland	1		28	Screw set	1
6	Cable	1		29	Rotary knob	1
7	Cap	1		30	Protective device	1
8	Rod	1		31	Protective device	1
9	Switch	1		32	Accessory carrier	1
10	O-Ring seal	1		33	Protective device	1
11	Adapter	1		34	Protective device	1
12	Electric pump compl.	1		35	Bracket	1
13	Knob	1		36	Slice	2
14	Foot	1		37	Spacer	2
15	Rubber foot	1		38	Bracket	1
16	Accessory carrier	1		39	Crank	1
17	Baffle plate	1		40	Rotary knob	1
18	Baffle plate	1		41	Extension	1
19	Brush set for motor	1		42	Support	1
20	Safety guard	2		43	Spring	1
21	Wheel	2		44	Support	1
22	Housing	1		45	Blocking device	1
23	Accessory carrier	1				

Spare parts drawing 2

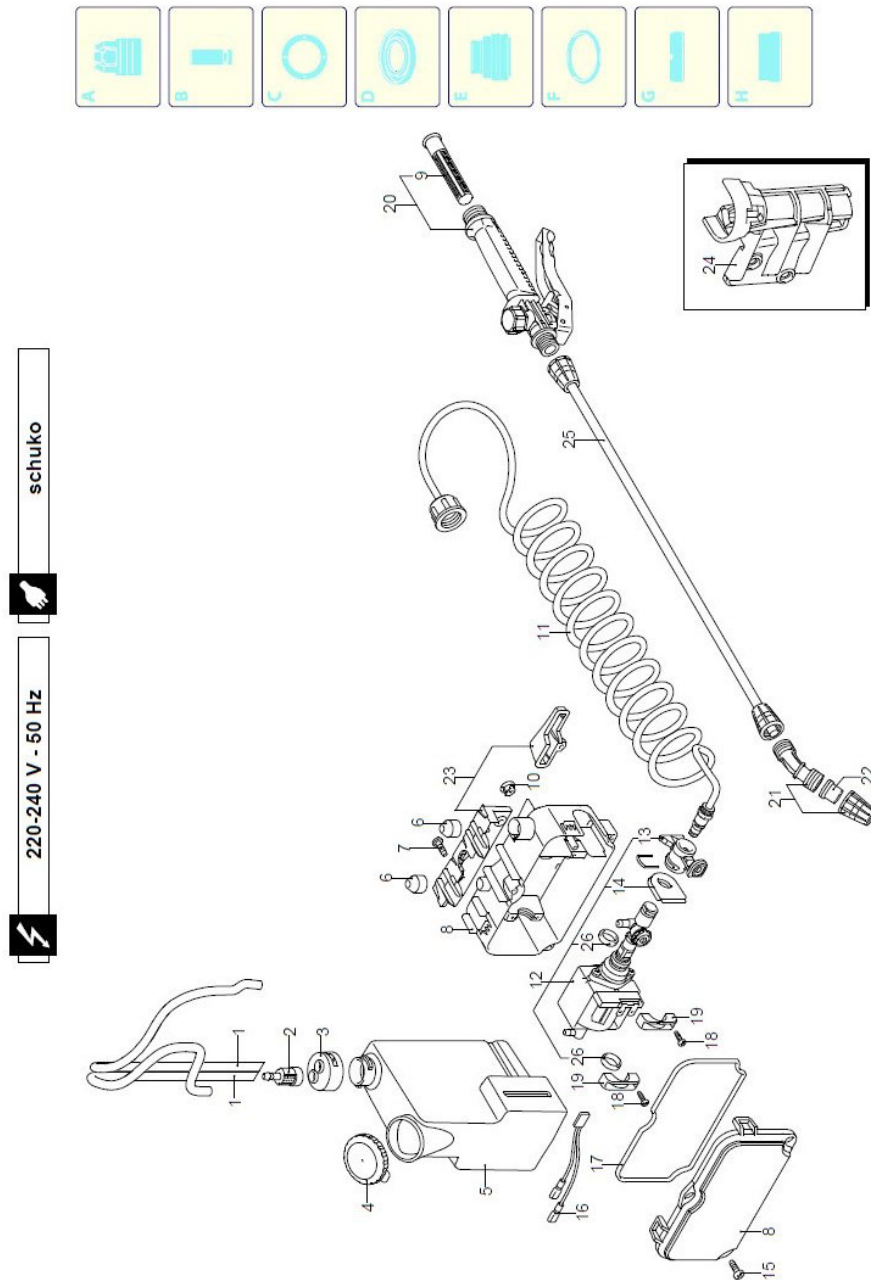


Fig. 12: Spare parts drawing 2

Parts list 2

Pos.	Description	Qty.	Pos.	Description	Qty.	Pos.	Description	Qty.
1	Pipe	2	10	Lock	1	19	Clamp	2
2	Filter	1	11	High pressure hose	1	20	Gun	1
3	Lock	1	12	Pre-assembly pump	1	21	Nozzle head	1
4	Lock	1	13	Adapter	1	22	Nozzle	1
5	Tank	1	14	Inserted part	1	23	Support	1
6	Cable bushing	2	15	Screw	3	24	Accessory carrierr	1
7	Screw	2	16	Wiring	1	25	Lance	1
8	Box	1	17	O-Ring seal	1	26	Support	2
9	Filter	1	18	Screw	4			

Spare parts drawing 3

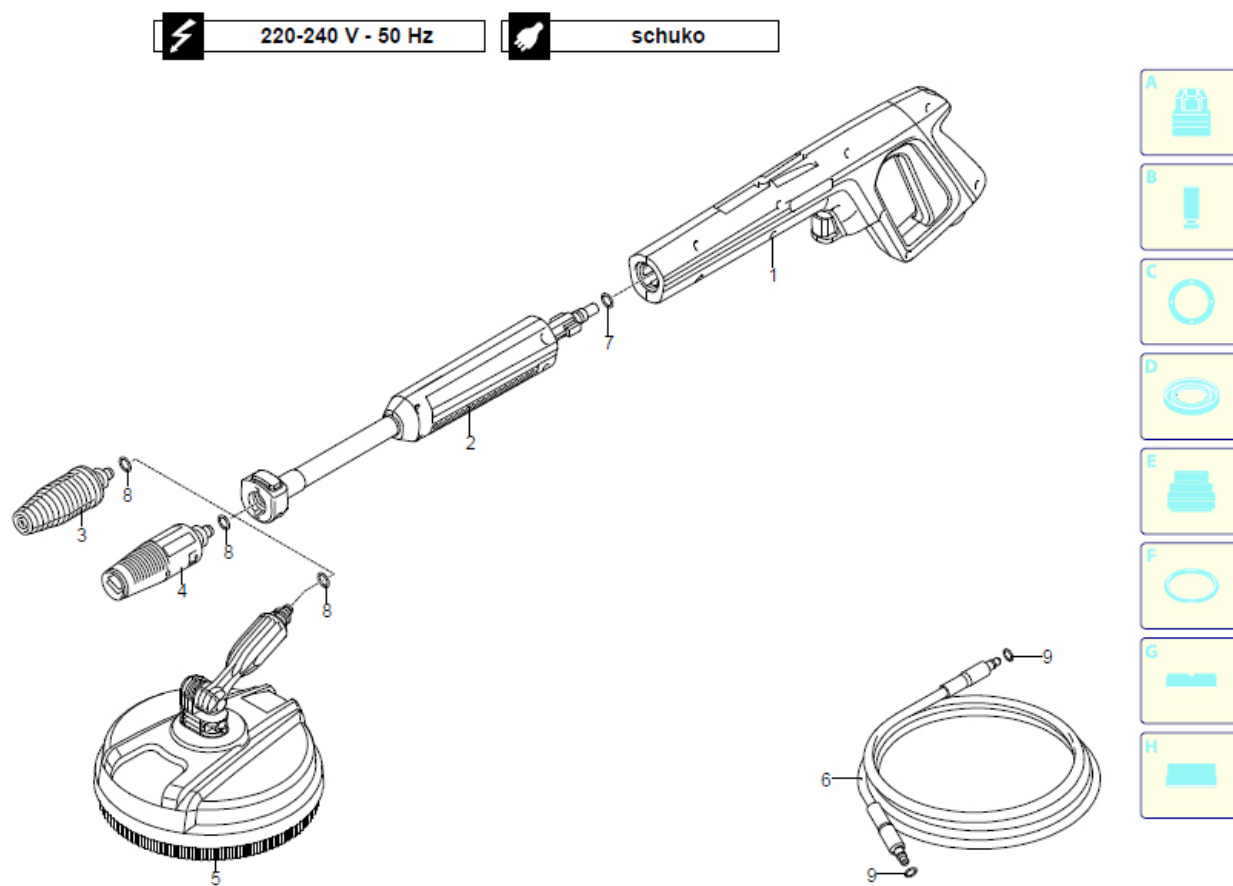


Fig. 13: Spare parts drawing 3

Parts list 3

Pos.	Description	Qty.
1	Gun	1
2	Extension	1
3	Nozzle head	1
4	Nozzle head	1
5	Brush set	1
6	High pressure hose	1
7	O-Ring seal	1
8	O-Ring seal	3
9	O-Ring seal	2

15 Electrical circuit diagram

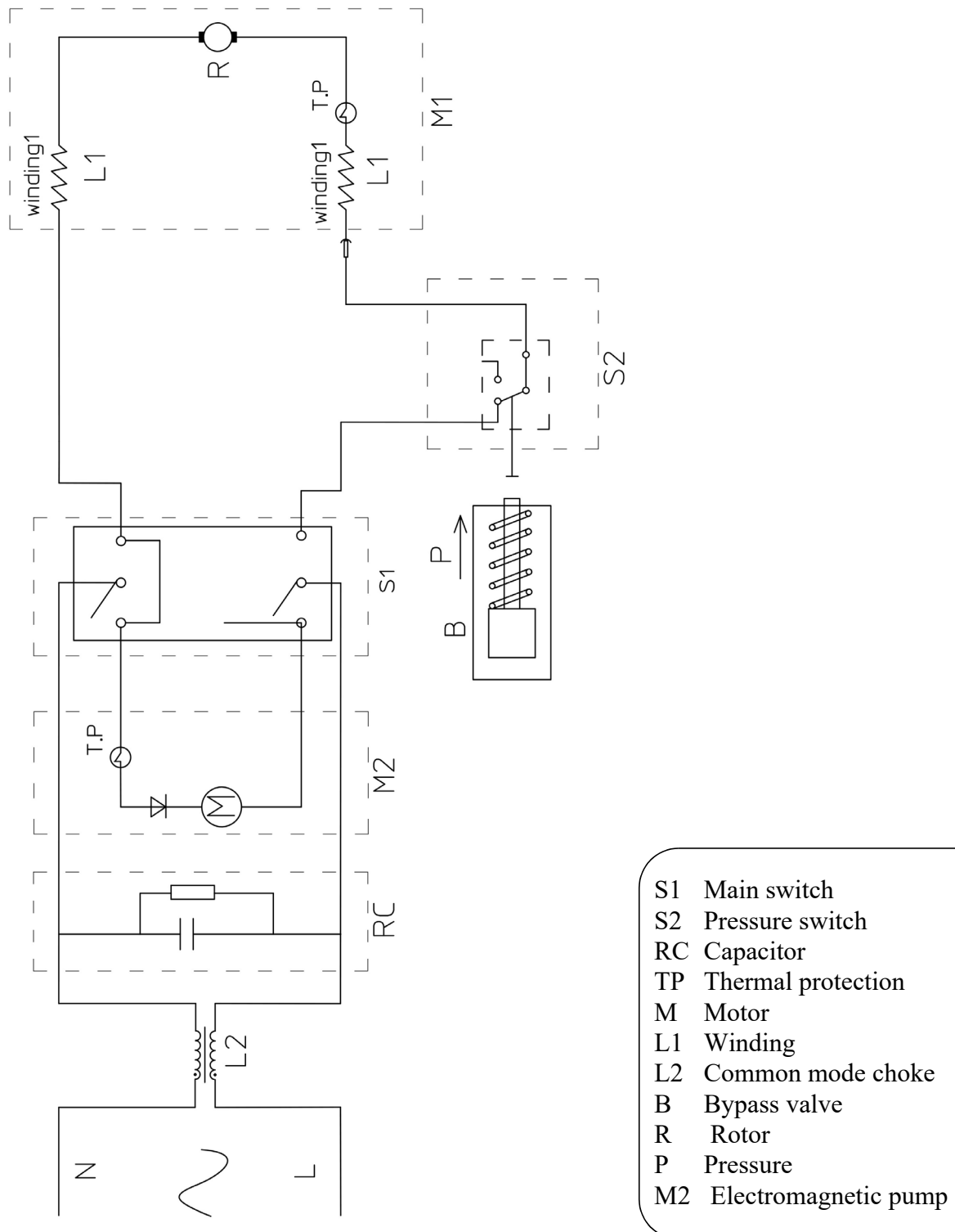


Fig. 14: Electrical circuit diagram

16 EU Declaration of Conformity

According to Machinery Directive 2006/42/EC, Annex II 1.A

Manufacturer / distributor: Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

hereby declares that the following product

Product group: Cleancraft® High Pressure Washer
Type of machine: High Pressure Washer cold water
Designation of machine: HDR-K 46-16 SW
Item number: 7101461
Serial number*: _____
Year of manufacture*: 20_____

*Fill these fields according to the information on the type plate

complies with all relevant provisions of the above Directive and the other Directives applied (hereafter) - including any amendments thereto in force at the date of the declaration..

Applicable EU Directives: 2011/65/EU RoHS Directive and the extension (EU) 2015/863
2012/19/EU WEEE Directive
2014/30/EU EMV Directive
2000/14/EG Outdoor Directive
Mitgeltende EU-Verordnungen: EGV 1907/2006 REACH-Regulation

The following harmonised standards were applied:

DIN EN 55014-1:2018-08	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
DIN EN 55014-2:2016-01	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard
DIN EN IEC 61000-3-2:2019-12	Electromagnetic compatibility - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
DIN EN 61000-3-3:2020-07	Electromagnetic compatibility - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
DIN EN IEC 61000-3-11:2021-03	Electromagnetic compatibility - Part 3-11: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems - Equipment with rated current ≤ 75 A and subject to conditional connection
DIN EN 60335-1:2020-08	Household and similar electrical appliances - Safety - Part 1: General requirements
DIN EN 60335-2-79:2015-02	Household and similar electrical appliances - Safety - Part 2-79: Particular requirements for high pressure cleaners and steam cleaners
DIN EN 62233:2008-11	Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure
DIN EN 60704-1:2010-12	Household and similar electrical appliances - Test code for the determination of airborne noise - Part 1: General requirements
DIN EN IEC 63000:2019-05	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Responsible for documentation: Kilian Stürmer, Stürmer Maschinen GmbH,
Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt
Hallstadt, 15.07.2021



Kilian Stürmer
Manager



17 Notes

