

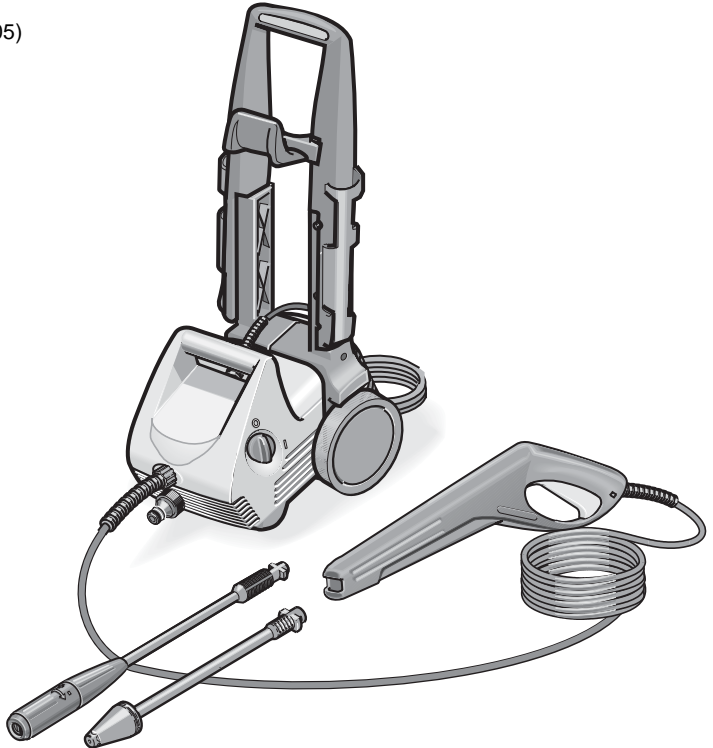


KÄRCHER

460 M



5.960-308
07/02 (2002605)



Safety Notes

Use of the unit as authorized

Use this unit exclusively for non-industrial purposes

–for cleaning machines, vehicles, buildings, tools, facades, terraces, garden implements, etc., with high-pressure water jet (if necessary with the addition of cleaning agents).

–for cleaning vehicle engines only in locations equipped with an appropriate oil separator.

–with accessories, replacement parts and cleaning agents authorized by Kärcher. Please comply with instructions supplied with the cleaning agents.

General safety notes

Never permit children and adolescents to handle the unit.

Never leave the unit unattended whilst the master switch is switched on.

Never operate the unit in potentially explosive spaces.

Do not spray any objects which contain health-endangering substances (e.g. asbestos).

Warning signs on the unit

Never direct the high-pressure jet at human beings, animals, the unit itself or at electrical parts.

Safety devices

Safety devices serve to protect against injuries and must not be changed or circumvented.

Relief valve with pressure switch

When the lever on the handgun is released the pressure switch switches off the pump and the high-pressure jet ceases. When the lever is pulled the pressure switch switches on the pump again.

Moreover, the relief valve prevents the permissible operating pressure from being exceeded.

Safety ratchet

The safety ratchet on the handgun prevents inadvertent switching on of the unit.

Environmental protection

Dispose of packaging

The packaging materials are recyclable. Please hand in the packaging for recycling.

Dispose of old equipment

In the development of this appliance careful attention has been given to its ability to be easily recycled. Nevertheless, it contains parts or substances which should not go into the household rubbish. You can obtain information from any Kärcher sales house about disposal facilities which protect the environment.

Save water

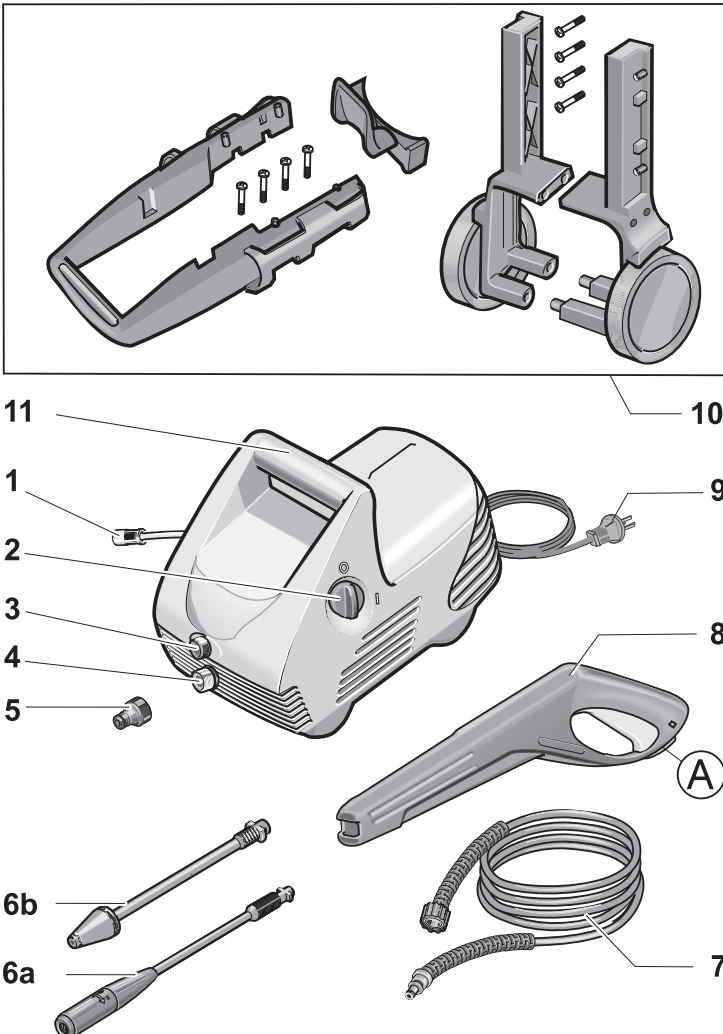
In comparison to other cleaning methods, by the use of this unit you save up to 85 % of the water otherwise needed. The unit can also be operated with rain-water (use a water filter).

Ease the burden on waste water

Please use the cleaning agents sparingly. Observe the dosage recommendations which are supplied with the cleaning agents.

Kärcher 460 M

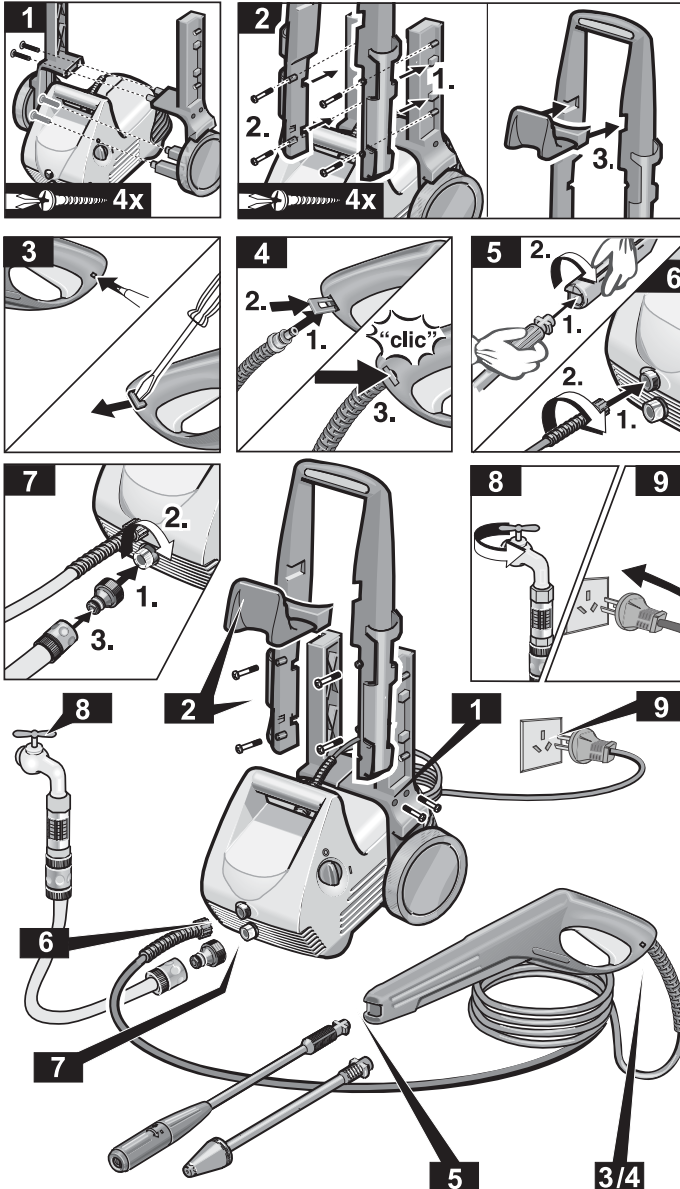
Before first use of the unit read these operating instructions and act in accordance with them. Keep these operating instructions in a safe place for later use or for a subsequent owner.



- | | |
|---|--|
| 1 Detergent suction hose | 6b Spray lance with rotary nozzle |
| 2 Unit switch (ON/OFF) | 7 High-pressure hose |
| 3 High-pressure outlet | 8 Spray gun with safety ratchet (A) |
| 4 Water connection with filter | 9 Power plug |
| 5 Coupling | 10 Drawing bar |
| 6a Spray lance with pressure control | 11 Transportation handle |

Preparation

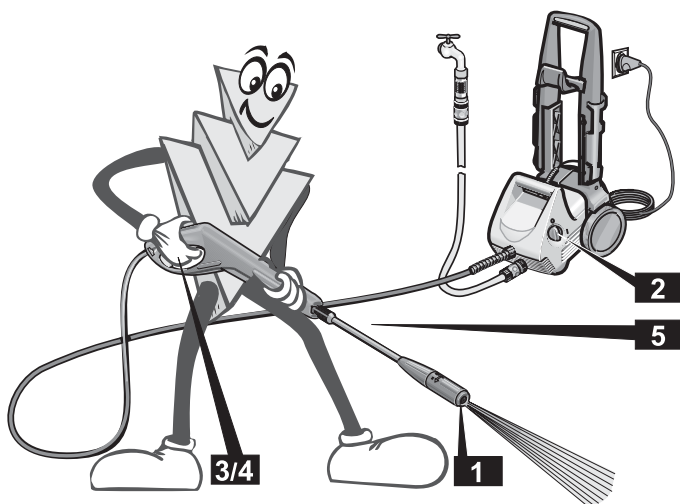
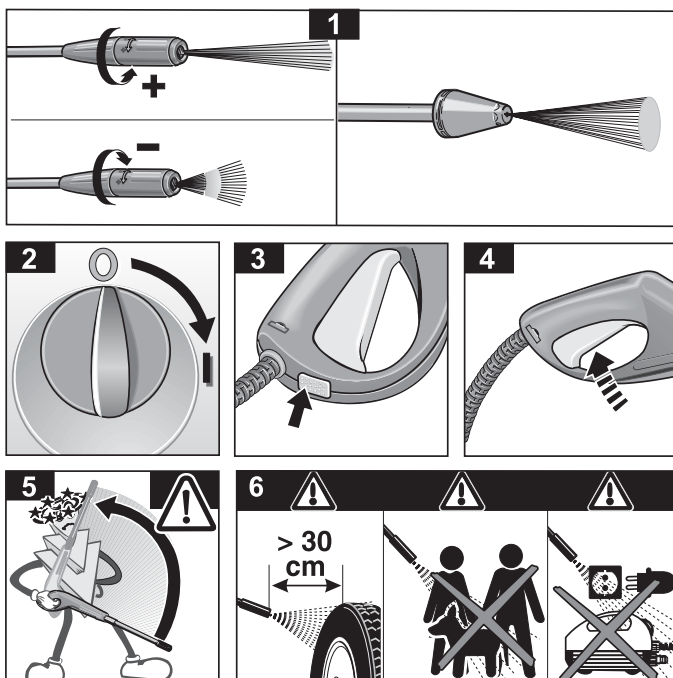
- 1** 2 Drawing bar assembly
- 3** 4 Spray gun assembly
- 5** Attach required spray lance
- 6** Screw on high-pressure hose
- 7** Connect to water inlet
- 8** Open water tap fully
- 9** Plug in power plug



For additional
information
see page 8
and following

Operation with high pressure

- 1 Set to high/low pressure
- 2 Unit switch on "1"
- 3 Release safety ratchet on handgun
- 4 Press lever
- 5 **Caution:** recoil
- 6 Safety instructions

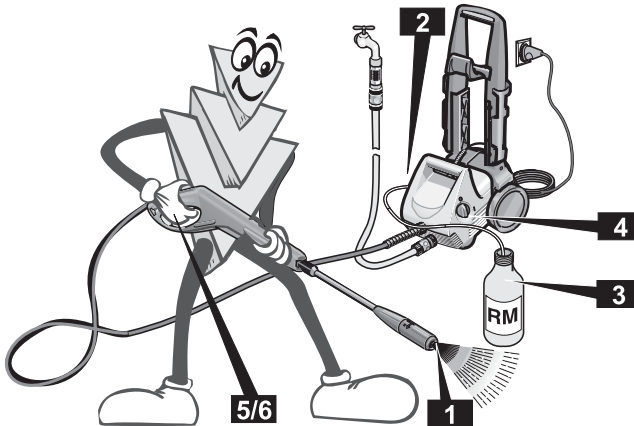
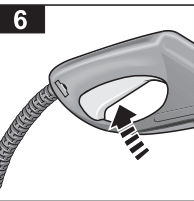
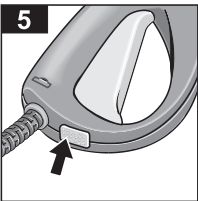
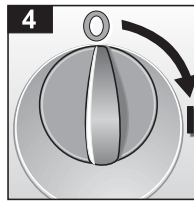
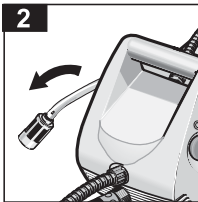
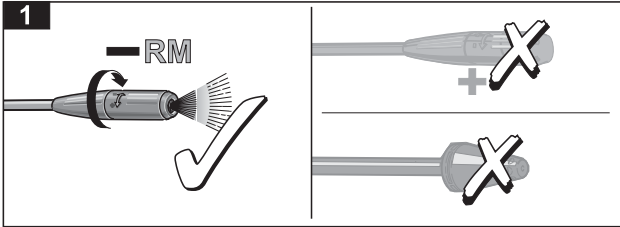


For additional
information
see page 8
and following

Operation with Detergent

- 1** Adjust to low-pressure jet
No detergent in high-pressure mode
- 2** Suspend detergent suction hose...
- 3** in detergent reservoir

- 4** Unit switch to "1"
- 5** Release safety ratchet on handgun
- 6** Press lever



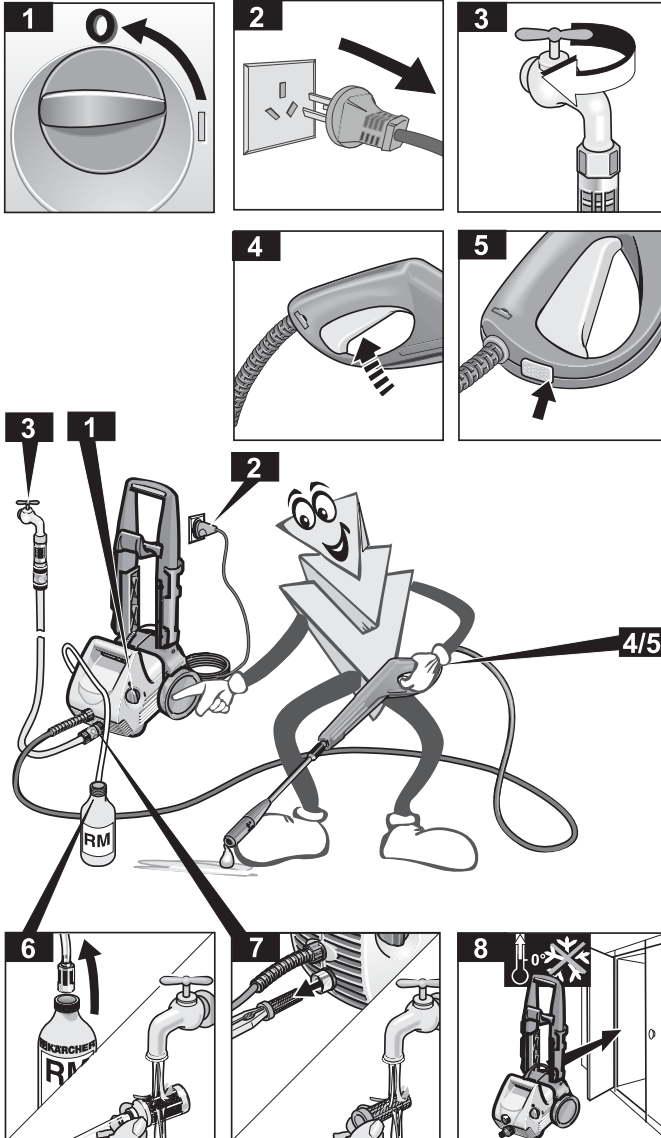
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Finishing the operation

Care, storage

- 1 Unit switch to "0"
- 2 Unplug power plug
- 3 Turn off water tap
- 4 Press lever (to de-pressurise)
- 5 Engage safety ratchet on handgun

- 6 Clean detergent filter
- 7 Clean water filter
- 8 Frost protection



For additional
information
see page 8
and following

Before first use

Assembly (page 4)

When unpacking check the contents. Inform your dealer of any damage in transportation.

Connection requirements

Electrical connection

The voltage shown on the rating plate must match the supply voltage. The current source must be properly earthed.

Only use splash-protected extension cable with a sufficient conductor cross-section (10 m: 3 x 1.5 mm², 30 m: 3 x 2.5 mm²) and unwind completely from the cable drum.

Connection to water line

Comply with the stipulations of the water supply company.

Only use supply hoses (not supplied) with the following dimensions:

- length at least 7.5 m
- diameter at least ½”.

See rating plate or Technical Data for connected values.

Operation

Serious danger!

Vehicle tyres and tyre valves can be damaged by the high-pressure jet and become perforated. The first sign of this is a discoloration of the tyre. When cleaning them maintain a distance of at least 30 cm.

Never grasp the power plug with wet hands. Before each use check the power cord and power plug for damage. Have a damaged power cord replaced immediately by an authorized Kärcher service point or an electrical specialist.

Before each use check the high-pressure hose for damage. Replace a damaged high-pressure hose immediately.

Danger of injury!

Owing to the water jet emerging from the high-pressure nozzle a recoil force opera-

tes on the handgun. Ensure you have a secure footing and hold the handgun and spray lance firmly.

If necessary wear protective clothing for protection against return spray.

Water supply

Caution! Impurities in the intake water damage the pump. To prevent this we expressly urge you to use the Kärcher water filter (not included, order no. 4.730-097).

The operation of the high-pressure cleaner with a closed water supply line causes damage to the pump. **Please never operate the high-pressure cleaner with a closed water supply tap.**

The unit can either be supplied from the water main or from water in an open container.

Water supply from the water main

- Connect a supply hose (not included) to the water inlet of the unit and to the water supply (e.g. water tap).
- Open the water supply.

Water supply from an open container

- Unscrew the coupling part for the water inlet.
- Screw the suction hose with filter (not included, order-no. 4.440-238) onto the water connection of the unit.
- Hang the filter in the container.
- Vent the unit before operation.
 - Unscrew the high-pressure line at the high-pressure outlet of the unit.
 - Switch on the unit and let it run until water free of bubbles emerges at the high-pressure outlet.
 - Switch off the unit and screw on the high-pressure hose again.

Preparation

- Insert power plug.
- Turn master switch to “I”.

Switching on

- Press safety ratchet on the handgun and pull the lever.

Switching off

- Release the lever.

During breaks in work and when leaving the unit secure it against inadvertent switching on by pressing the safety ratchet.

Regulate operating pressure

Raise operating pressure:

- twist spray lance in direction “+”

Reduce operating pressure:

- twist spray lance in direction “-”

Adding the cleaning agent

- Draw the cleaning agent suction hose out of the housing to the required length.
- Hang the cleaning agent metering valve in the cleaning agent container.
- Twist the spray lance in the “-” direction.

If cleaning agent has been added:

- Hang the cleaning agent metering valve in a container of clear water, switch on the unit for about one minute and flush through.

Recommended cleaning method

1. Spray the cleaning agent on the dry surface sparingly and let it react (but not dry out).
2. Wash off the loosened dirt with the high-pressure jet.

Connect accessories

Rotary nozzle (included)

for stubborn accumulations of grime – e.g. moss-covered promenade tiles or facades.

Work without cleaning agent and with the highest operating pressure.

Depending on the model the following accessories are either included in the scope of delivery or are obtainable from specialist dealers (see “Special accessories“, page 10).

- Exchange the respective accessory with the spray lance.

Finishing operations

- Unit switch to “0”.
- Draw out power plug.

Water supplied from the water main

- Close the water supply tap.
- Separate the unit from the water connection.

Water supplied from an open container

- Unscrew the suction hose with filter at the water inlet of the unit.
- Pull the lever on the handgun until the unit is without pressure.
- Press in the safety ratchet to protect the unit against inadvertent switching on.

Safekeeping

Caution! Frost can destroy an incompletely emptied unit. In the winter keep the unit in a frost-free room.

- Separate the spray lance from the handgun.
- Wind up the power cord and, for example, hang it around the handgun.

Transportation

- Switch off the unit before transporting it.
- To transport it over stairs or obstacles lift the unit at the transportation handle.
- To transport the unit over even surfaces draw it by the drawing bar.

Cleaning agents

For trouble-free operation and for matching to the relevant cleaning task we recommend our Kärcher cleaning agents and care range. Please let us advise you or ask for information about them. Here is a small selection:

Universal cleaner Profi RM 555 ULTRA

Automobile cleaner Profi RM 565 ULTRA

House and garden cleaner

Profi RM 570 ULTRA

Boat cleaner Profi RM 575 ULTRA

Special accessories

A wide range of popular accessories are available from your local store selling Kärcher Pressure Washers

2.638-817 Underbody Lance

Extended lance with angled end and upward firing jet for cleaning under cars, gutters etc.

6.903-276 Car Wash Brush

Simple bayonet fitting attaches the brush to the hand gun, used in conjunction with RM555.

4.762-065 Rotary Wash Brush

Ideal for car bodywork and windows as the water forces the brush to rotate enhancing cleaning power.

4.760-262 Extension Lance

To add length to the standard lance.

2.637-729 Drain Kit (7.5 m Hose)

2.637-767 Drain Kit (15 m Hose)

A flexible hose with backwards firing high pressure jet to create turbulence and dislodge blockages.

2.638-792 Sandblaster

Used to remove paint, rust and cement from metallic and stone surfaces by using a combination of high pressure water and sand.

4.760-272 Flexi Lance

A lance which can be angled to any degree to clean hard to reach areas such as wheel arches etc.

2.638-791 Floor Cleaning Lance

An extended lance fitted with three shrouded high pressure nozzles to provide a wide area of cleaning power without any splash back.

4.440-238 Suction Hose and Filter

Used to provide a water supply to the unit where a mains water supply is not available by placing the kit into a water butt.

4.730-097 Water Filter

Protects pressure washer when you use dirt water

2.637-214 Water Pump Kit

9.300-051 25 Kg Grit

Care and Maintenance

Cleaning

Before long periods of storage, e.g. in winter:

- Pull out the strainer in the water inlet with flat-nose pliers and clean it under running water.

Maintenance

The unit is maintenance-free.

Help with faults

Faults often have simple causes which you can rectify yourself with the aid of the following summary. In case of doubt or of faults or remedies not mentioned here apply to the authorized customer service.

⚠ Danger of electric shock!

Repair work on the unit can only be carried out by the authorized customer service.

Appliance does not Work

- Check whether the voltage shown on the rating plate corresponds to that of the power source.

- Check the connector cable for damage.

Appliance does not reach Operational Pressure

- Vent the appliance: Allow the pump to operate without the high-pressure hose until water appears at the high-pressure outlet without any more bubbles. Then reattach the high-pressure hose.

- Clean the strainer in the water connection.

- Check the inlet water flow rate

- Check all inlet pipes to the pump for leaks or block-age.

Strong Pressure Fluctuations

- Clean the high-pressure nozzle. Remove dirt from the nozzle hole with a needle and then rinse out with water from the front.

Pump Leaks

- 10 drops per minute are permissible. In the case of more serious leakage, you

should contact the authorized customer service.

No Detergent Suction

- Clean the detergent suction hose with filter, and check for leaks.

Replacement parts

Use exclusively Kärcher original replacement parts. You will find a replacement parts summary at the end of these operating instructions.

Technical Data

Power supply

Voltage (at 1~50 Hz)	230-240 V
Connected load	1.9 kW
Supply fuses (time-lag)	10 A
Safety class	1

Water connection

Supply temperature (max.)	40 °C
Supply volume (min.)	600 l/h
Supply pressure (max.)	2-12 bar

Performance data

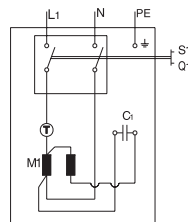
Operating pressure	120 bar
max. permissible pump pressure	130 bar
Flow volume	400 l/h
Cleaning agent metering	20 l/h
Suction height from open container (20 °C)	1 m
Recoil force of the handgun	15 N
Unit vibrations	0,8 m/s ²
Sound level	
L _{PA} (EN 60704-1)	74,5 dB(A)

Dimensions

Length	445 mm
Width	315 mm
Height	790 mm
Weight	12 kg

Circuit Diagram

- C1 Capacitor
- M1 Motor
- Q1 Switch
- T Temperature limiter
- S1 Pressure switch



Service

Guarantee

In each country the guarantee conditions issued by our responsible sales company are applicable. We clear any faults occurring in the unit free of charge during the period of guarantee providing the cause is a fault in a material or in the manufacture.

In the case of a claim under the guarantee please contact your dealer or the nearest authorized customer service point, accompanying your claim with accessories and purchase voucher.

Customer Service

In the case of questions or faults our Kärcher branches will be pleased to assist you further.

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KÄRCHER 460 M-PLUS

