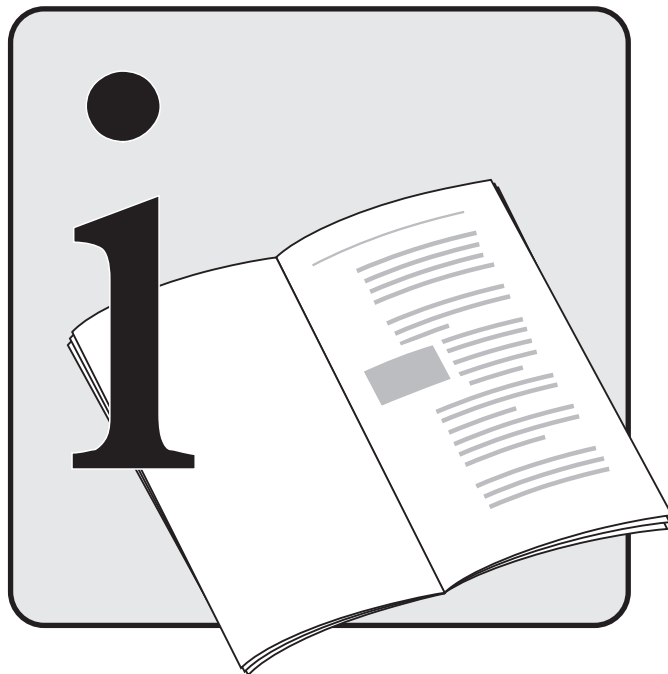




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730 MXS

# Safety instruction for high-pressure cleaners

## Before start-up please read these instructions !

Before using the machine please read the operating instructions for your unit and comply in particular with these safety instructions.

The warning and information signs attached to the unit provide important information for safe operation.

Apart from the information in the operating instructions comply with the general safety regulations and regulations for the prevention of accidents.

### Power supply

The voltage indicated on the rating plate must correspond to the voltage of the power source. We recommend that this equipment is only connected into a socket which is protected by a circuit-breaker that would be actuated by a 30 mA residual current.

Only use or replace power supply cables for this unit which correspond to the types indicated by the manufacturer. See the operating instructions for the order no. and types.

If the plug is damaged, pay attention to the following: Plugs and sockets conforming to BS 4243 or BS 196 should be used wherever practicable. Domestic pattern plugs to BS 546 should not be used. The wiring of the plug should leave more slack in the earth continuity conductor than in the other cores, so that it is not the first core to be pulled out of its terminal should the cord grip fail. Plugs which have good grips capable of maintaining a firm hold on the cable sheath should be selected. In general, additional means should be provided to relieve stress on cable terminations in the plug. For example, additional cable clamps should be fitted or a substantial chain could be used to tether the machine to a fixed point. Plugs and sockets situated near the work site or outdoors should be to class IP 55 of BS 5490 to provide adequate protection against ingress of water, etc. and cable entries require effective sealing. Rubber shrouds should be provided over cable glands.

Drip-proof (class IP X2 of BS 5490) plugs and sockets to BS 4343 are suitable for use indoors where the plug is away from the water spray area where the appliance is in use.

Never touch the mains plug with wet hands.

Do not run over, crush or pull the power supply cable or extension lead, otherwise it may be damaged. Protect the cable from heat, oil and sharp edges.

The extension lead must have a cross section in accordance with the operating instructions and be protected against splashed water. The connection must not be in water.

When replacing couplings on the power supply cable or extension lead the spray water guard and mechanical stability must remain in tact.

### Water supply

Comply with the regulations of your water supply company.

All connecting hoses must have properly sealed joints.

The high-pressure hose must not be damaged (danger of bursting). A damaged high-pressure hose must be replaced immediately. Only use hoses and connections recommended by the manufacturer.

### Application

Before use, check that the unit and operating equipment are in perfect condition and are safe to operate. Do not use the unit if it is not in perfect condition.

Never draw in solvent-containing liquids, undiluted acids or solvents! This includes petrol, paint thinners and heating oil. The sprayed vapour is highly flammable, explosive and toxic; also acetone, undiluted acids and solvents as these corrode the materials used on the unit.

The appropriate safety regulations must be observed when using the unit in dangerous areas (e.g. petrol stations). It is forbidden to operate the unit in potentially explosive locations. The unit must be placed on a solid base.

# Safety instruction for high-pressure cleaners

Only use detergents recommended by the manufacturer and comply with the application, disposal and warning instructions of the detergent manufacturers.

All current-conducting components in the working area must be protected against splashed water.

The gun trigger must not be jammed in position during operation.

Suitable protective clothing must be worn if necessary to protect against splashing from some parts.

Never direct the water jet at people, animals, the unit or electric components.

Vehicle tyres/tyre valves may only be cleaned from a minimum distance of 30 cm, otherwise the vehicle tyre/tyre valve could be damaged by the high-pressure jet. The first indication of this is a discoloration of the tyre. Damaged vehicle tyres/tyre valves can be deadly dangerous.

Materials containing asbestos and other materials which contain substances which are hazardous to your health must not be sprayed. Only use detergents which have been approved by the manufacturer of the unit.

Detergents must not be used undiluted. The products are safe to use as they contain no acids, alkalis or substances which are detrimental to the environment. We recommend that the detergents are kept out of the reach of children. If detergent comes into contact with the eyes wash immediately with plenty of water and if swallowed contact a doctor immediately. Do not lift up the bonnet while the motor is running.

## Operation

The operator must use the unit in accordance with the regulations. He/she must take local conditions into account and be aware of other people, especially children, when operating the unit.

The unit may only be used by authorized persons who have received training or have demonstrated their ability to operate the unit.

The unit must not be operated by children or juveniles (danger of accidents due to incorrect use of the unit).

The unit must never be left unsupervised while the motor is running.

The water jet from the high-pressure nozzle produces a recoil on the gun. You should therefore hold the gun and spray lance firmly.

## Transport

Switch off the motor and secure the unit before transporting.

## Maintenance

Switch off the unit prior to all cleaning and maintenance work and before replacing components. Pull out the mains plug if the unit is mains-operated.

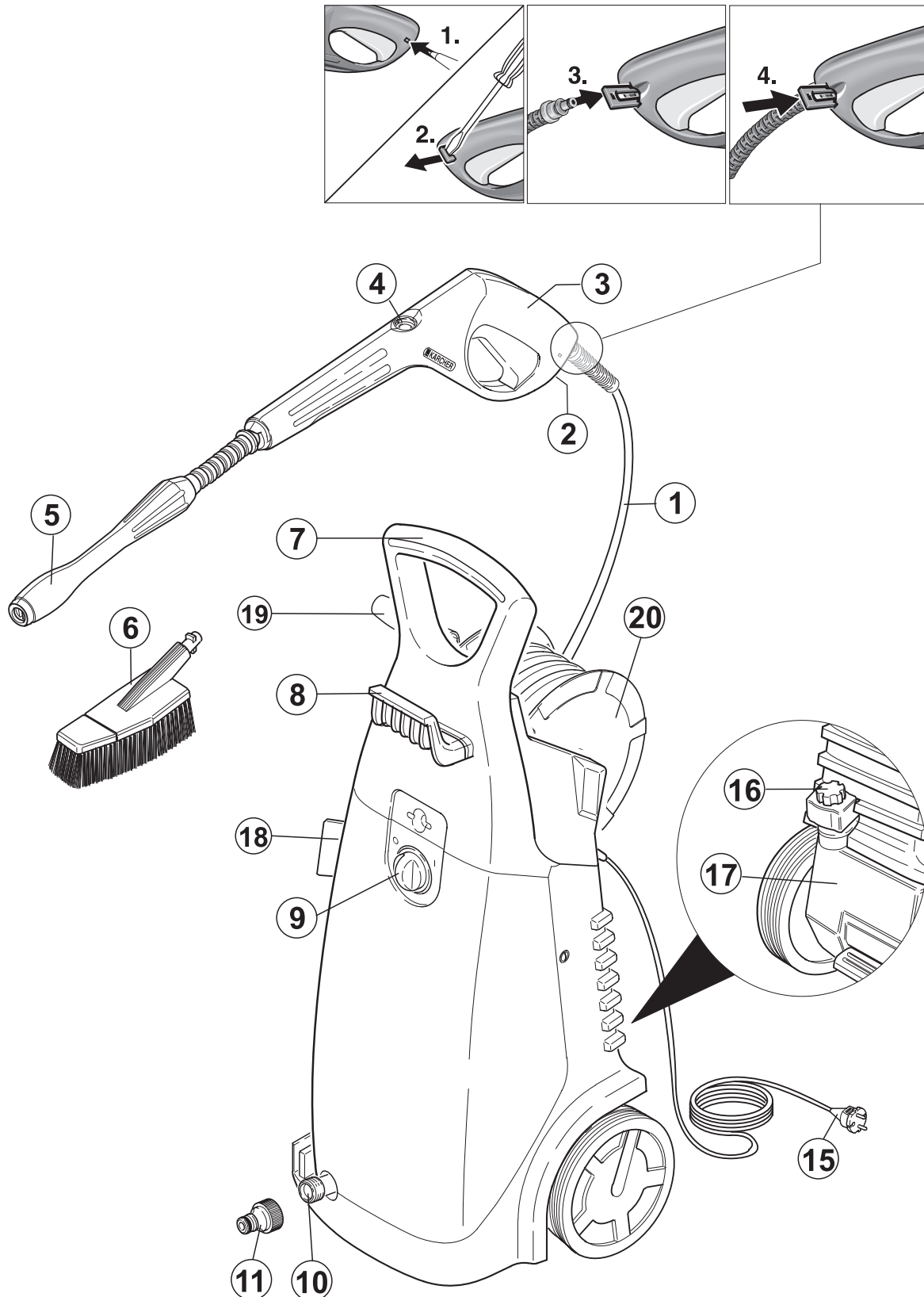
Repairs may only be carried out by authorized customer service centres or by specialists in this field who are familiar with all the relevant safety regulations.

## Accessories and spare parts

Only use accessories and spare parts which have been approved by the manufacturer. Original accessories and spare parts guarantee that the unit can be operated safely and without any breakdowns.

# 1. Starting

Please read these operating instructions before starting and strictly observe the "Safety Instructions for High Pressure Cleaners".



# 1. Starting

- 1 High-pressure hose
- 2 Safety ratchet
- 3 Spray gun
- 4 Pressure gauge
- 5 Spray lance with pressure regulator
- 6 Washing brush
- 7 Transport bracket
- 8 Holder for connection lead
- 9 Appliance switch with motor protecting switch
- 10 Water inlet connection with strainer
- 11 Coupling
- 12 High-pressure outlet
- 15 Connection lead
- 16 Detergent dosing-valve
- 17 Detergent tank
- 18 Spraygun storage clip
- 19 Crank handle
- 20 Hose reel

## Purpose

- Use the appliance to clean machines, vehicles, buildings, tools etc.
- Clean facades, terrasses, garden equipment etc. without detergent only with the high-pressure spray.
- Engines may only be cleaned at locations with appropriate oil separators (environmental protection).
- When the appliance is used at petrol stations and other dangerous areas, the appropriate safety regulations must be observed.
- We recommend the dirt blaster as a special attachment for stubborn dirt.

## Unpacking the appliance

- Please contact your dealer immediately if, on unpacking the machine, you discover damage has been caused during transportation.
- Do not simply discard the packing materials with the house-hold waste. Take the packing materials to the appropriate collection areas for recycling.

## Fitting the accessories

- Insert the hanger (8) into the slot at the carrying handle until the retainer hooks snap into place.
- Attach the crank handle on the hose reel.
- Attach the spray gun storage clip to the unit housing until the retainer hook snaps into place.
- Push the spray lance against the spring into the bayonet connector of the gun, and then rotate it through 90 ° until it clicks into place.

## Electrical Connection

- See technical data of connected values.
- Check whether the voltage shown on the rating plate corresponds to that of the power source.
- Connect the plug to the power source.

**Note:** If you are using an extension cable, it should always be completely unwound from the cable drum and have a sufficient cross-sectional area:  
10 m = 1.5 mm<sup>2</sup>, 30m = 2.5 mm<sup>2</sup>

## Water Connection

- See technical data for connected values.
- Screw the coupling (supplied with the machine) onto the inlet water connection of the machine.
- Connect a water supply hose to the machine using a suitable hose connector to match the coupling on the machine (hose and connector not supplied).
- Connect the high-pressure hose to the high-pressure outlet.

## Suction

- Observe the following if you are drawing water (temperature max. 40 °C) from an open container:
  1. Unscrew the union element from the water connection of the appliance, and attach a suction hose with filter (order no. 4.440-238) directly to the appliance.
  2. Allow the pump to operate without the high-pressure hose until water appears at the high-pressure outlet without any more bubbles.
  3. Then re-attach the high-pressure hose.

## 2. Operation

### Operation with high-pressure

- Open the water supply.
- Release the lever of the gun with the safety ratchet and pull the lever.
- Turn on the machine switch.

**Note:** *The machine is equipped with a pressure-operated switch. The motor starts only if the lever of the gun is pulled.*

- The working pressure can be variably adjusted by turning the spray lance on the outside (+/-). In order to avoid damage to the surface being cleaned, each time the machine is used, ensure a minimum distance of 300 mm between the surface and the spray nozzle. This distance can be reduced dependent on the type and condition of the surface being cleaned but is wholly at the discretion of the operator.
- The working pressure can be read off the pressure gauge on the spray gun.

### Operation with Detergent

- Remove the cleaning solution tank by using a screwdriver to relieve the retaining spring.
- Fill the detergent tank (max. 1 l) with detergent.
- Reinstall the cleaning solution tank in the unit.
- Set the lowest working pressure with the spray lance. No detergent can be drawn in with a high working pressure.
- Set the detergent dosing-valve to the desired dosage rate.
- We recommend that you use detergent sparingly for the sake of the environment. Observe the recommended dosage on the detergent label.
- We offer you an individual cleaning and detergent range, thereby guaranteeing fault-free work. Please allow us to advise you or order our catalogue or the detergent information sheets.

**Note:** *Only those detergents which have been approved by the appliance manufacturer may be used. Unsuitable detergents can damage the appliance and the object being cleaned.*

We recommend the following cleaning methods:

#### Step 1: Loosening dirt

Spray on detergent sparingly and leave for 1-4 minutes.

#### Step 2: Removing dirt

Spray off the loosened dirt with the high-pressure spray.

### Washing Brush

- Press the washing brush against the spring force into the bayonet connection of the gun and then turn the washing brush by 90° until you hear it lock into position.
- The washing brush is suitable only for water temperatures up to max. 40°C.

### Switching Off the Machine

- After using a detergent, the machine should be rinsed clear. To do this, set the cleaning agent metering valve to „0“ and flush the machine for approximately 1 minute with the gun open.
- Switch off the machine and disconnect the electric plug from the power socket.
- Close the water inlet and detach the machine from the water connection.
- Pull the trigger until there is no more pressure in the machine, and secure the trigger with the safety ratchet against unintentional opening.

### Moving Machine

- To facilitate moving the machine, it is equipped with a transport handle and a pair of wheels. This allows walking while holding the unit by the top handle, and rolling it — with negligible physical effort — over longer distances.
- To transport the machine over steps or obstacles, it must be lifted by the carrying handle.
- If the machine is to be transported horizontally, the cleaning solution tank must be removed first.

### Storing the Machine

- Insert the spray gun with spray lance into the handgun storage clip.
- Roll up the high-pressure hose.
- Roll up the power cord, and hang it over the power cord reel holder.
- Insert the cleaning brush into the accessory keeper.

## 3. Care and Maintenance

### Monthly or as Required

- Clean the filter in the detergent tank.
- Clean the high-pressure nozzle.  
Remove dirt from the nozzle hole with a needle and then rinse out with water from the front.
- Clean the strainer in the water connection. It can be easily removed with a flat-nosed pliers.

### Frost Protection

- Frost will destroy an machine which has not been completely emptied of water. Ideally, the machine should be stored in a frost-free room.

## 4. Troubleshooting

**Note:** *Disconnect the appliance from the power mains before all repair work. Only authorized customer service personnel may inspect electrical components.*

In this chapter, we would like to give you some hints on dealing with malfunctions yourself.

In all other cases or in the case of electrical faults, please contact the authorized customer service.

### Machine 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.
- If the motor overheats, allow it to cool down for a few minutes. Then switch back on again.

### Machine does not reach Operational Pressure

- Set the spray lance to the maximum working pressure.
- Ventilate the machine. (→ Suction 2.)
- Clean the strainer in the water connection.
- Check the inlet water flow rate.
- Check all inlet pipes to the pump for leaks or blockage.

### 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

- 3 drops per minute are permissible. In the case of more serious leakage, you should contact the authorized customer service.

### No Detergent Suction

- Set the spray lance to the minimum working pressure.
- Clean the filter in the detergent tank.
- Clean the ventilation hole in the cover of the detergent tank.

## 5. General Information

### Safety Equipment

When the spray gun is closed, the overflow valve switches off the appliance via a pressure-operated switch. The overflow valve is also a safety device against exceeding the maximum allowable working pressure.

### Spare Parts

A selection of the most common spare parts numbers is listed at the end of these operating instructions.

### Guarantee

The terms of guarantee issued by our competent distribution company are valid in every country. If the appliance malfunctions in any way, we shall rectify the fault free of charge within the period of guarantee, provided the cause can be attributed to faulty material or a manufacturing error.

In the event of a claim on the guarantee, please consult your dealer with accessories and receipt of purchase or contact your nearest authorized customer service centre.

## 6. Technical Data

### Power connection

Voltage .....	240 V
Type of current .....	1~50 Hz
Connected load .....	2,8 kW
Mains fuse (slow) .....	13 A
Class .....	1

### Water connection

Supply temperature (max.) .....	60 °C
Supply rate (min.) .....	600 l/h
Supply pressure (max.) .....	12 bar
Supply hose	

– length (min.) .....	7,5 m
– diameter (min.) .....	1/2 in

Suction height from open tank at a water temperature of 20°C .....	1,5 m
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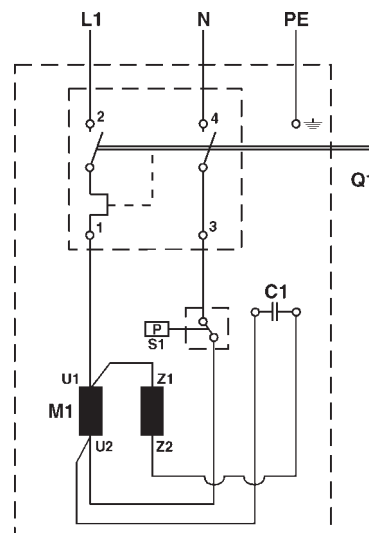
### Performance data

Rated pressure .....	20-140 bar
Flow rate .....	450 l/h
Detergent intake .....	0-40 l/h
Recoil force of hand-held spray gun at operating pressure (max.) .....	26 N
Sound pressure level (DIN 45635) .....	73 dB (A)

### Dimensions

Length .....	345 mm
Width .....	325 mm
Height .....	900 mm
Weight without accessories .....	24 kg
Detergent tank .....	1 l

### Circuit Diagram

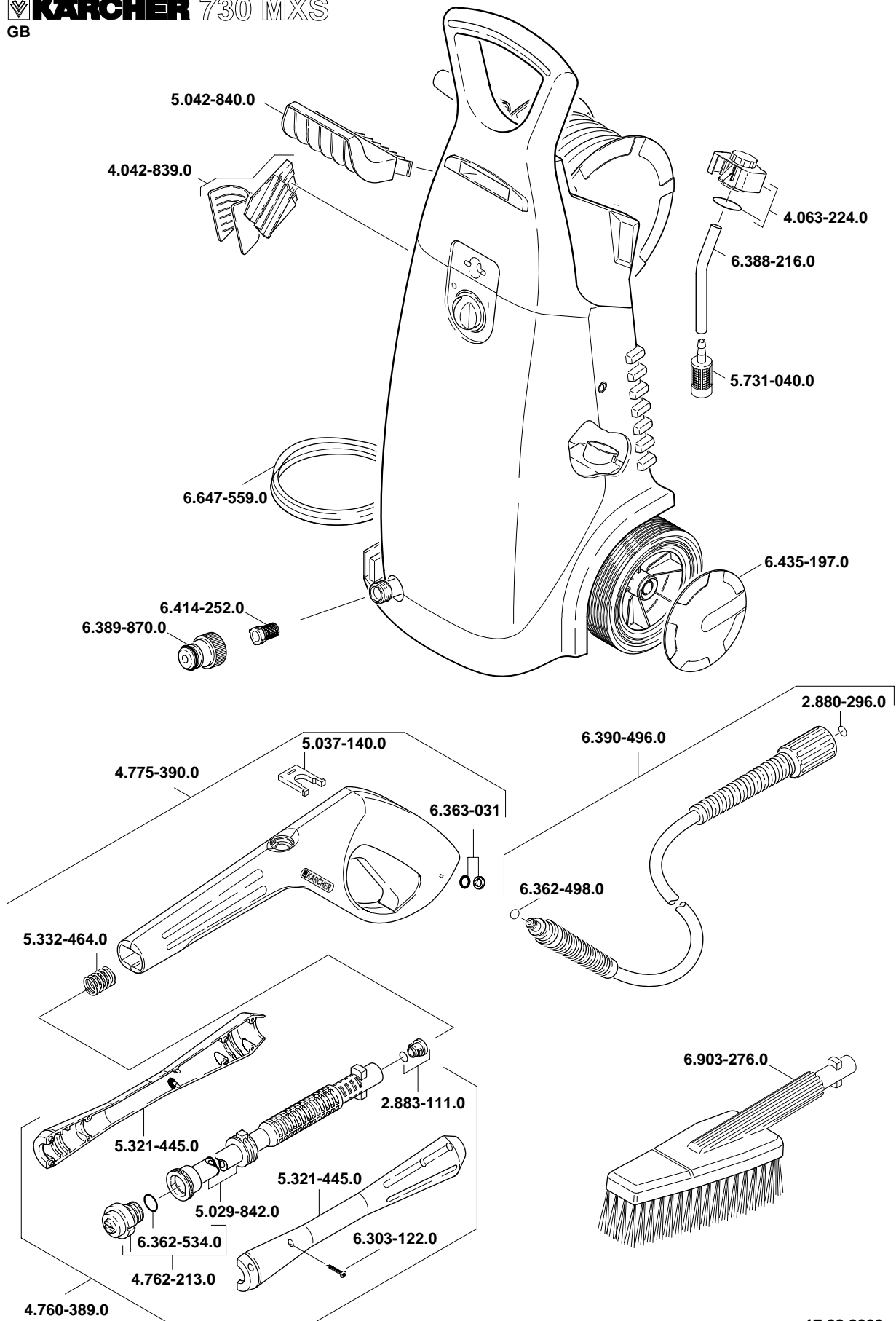


- C1 Running capacitor
- M1 Motor
- Q1 Appliance switch  
with motor protecting switch
- S1 Pressure-operated switch



# 7. Spare Parts

**KÄRCHER** 730 MXS  
GB



17.02.2000

# EU Declaration of Conformity

We hereby declare that the equipment described below conforms to the relevant fundamental safety and health requirements of the appropriate EU Directives, both in its basic design and construction as well as in the version marketed by us. This declaration will cease to be valid if any modifications are made to the machine without our express approval.

**Product:** High-pressure cleaner

**Model:** 1.034-xxx

**Relevant EU Directives:**

EU Machinery Directive (98/37/EEC).

EU Low-Voltage Equipment Directive (73/23/EEC) amended by 93/68/EEC.

EU Directive on Electromagnetic Compatibility (89/336/EEC) amended by 91/263/EEC, 92/31/EEC, 93/68/EEC.

**Harmonised standards applied:**

DIN EN 55014-1:1993

DIN EN 55014-2:1997

DIN EN 60335-1

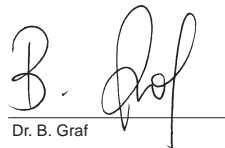
DIN EN 60335-2-79

DIN EN 61000-3-2:1995

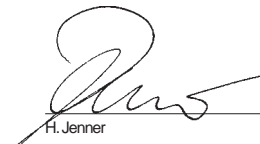
DIN EN 61000-3-3:1995

Appropriate internal measures have been taken to ensure that series-production units conform at all times to the requirements of current EU Directives and relevant standards. The signatories are empowered to represent and act on behalf of the company management.

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## Notes



<http://www.karcher.com>