

5|2(0)5|VAPORA



## CAUTION

DO NOT USE THIS PRODUCT ON DELICATE FABRICS INCLUDING DRALON, ANY ITEMS PROTECTED BY SCOTCH GUARD OR ANY SIMILAR SUBSTANCE. BEFORE CLEANING UPHOLSTERY TEST ON A SECTION NOT NORMALLY VISIBLE. 5.960-112 (01/02)



# Before operating this unit, please read this manual thoroughly and retain it for future reference.

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### **General Safety Instructions for Steam Cleaner**



If you notice any transport damage while unpacking the unit, notify your dealer immediately.

Before you use the unit for the first time, carefully read the Operating Instructions. Always pay specific attention to these Safety Instructions.

The warning and information decals attached to the unit feature provide important details for safe operation.

In addition to the information provided in the Operating Instructions, the general safety regulations and accident prevention ordinances imposed by official authorities must be observed.

#### **Electrical Connection**

Connect the unit only to properly grounded mains receptacles supplying the voltage indicated on the rating plate.

Devices certified in compliance with Protection Class I must be operated on properly earthed power sources.

In high-humidity environments, such as bath installations, the unit may be operated only in conjunction with an approved protective ground-fault circuit interruptor. Please obtain the advice of an electrical specialist.

The unit must be operated with the power supply cord or cable as specified by the manufacturer. No substitutions are permitted. Observe the maintenance instructions. Refer to the Operating Instructions for part number and original equipment designation.

Never touch the power plug with wet hands.

The power cord and/or extension cord must not be subjected to of mechanical damage by vehicle tyres, or to lateral or longitudinal distress (squeezing, pinching or pulling).

The extension cord must have the crosssection specified in the Operating Instructions, and must be spray-water protected. The cable coupling must not be placed in water. When replacing couplings on power or extension cords, the splash protection and mechanical strength must be maintained. Observe the maintenance instructions.

#### **Operating Specifics**

Prior to each use, the unit and its attachments must be inspected for proper condition and operational safety. If the unit is found to be in unsatisfactory or unsafe condition, its use is prohibited.

Please check especially the safety catch and the electrical power connection.

The steam hose must be free of damage (scalding hazard!). A damaged steam hose must be replaced without delay. Only hoses and connecting elements approved by the manufacturer may be used.

Refer to the Operating Instructions for order number and original equipment designation.

Never fill the boiler with solvent-bearing liquids or undiluted acids! This particularly includes cleaning agents, petrol or paint thinner. EXPLOSION HAZARD! Also, do not use acetone, undiluted acids and solvents, because they attack the materials of which the unit is constructed.

In the event that the unit is used at petrol stations and in other hazardous areas, the appropriate safety regulations must be observed. Operation of the unit in explosive environments is prohibited.

The unit must be placed securely on a firm surface.

During operation, the steam control switch must not be wedged open.

Use extreme caution when filling water into the boiler while it is still hot. Sudden steam pressure could expel hot water from the boiler and cause severe scalding injury!

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#### **Cleaning of electrical appliances**

When cleaning electrical appliances (including electric cookers), they must be cut off from the mains (switch off circuit breakers or remove the fuse). Before returning them to normal operation, the appliances must be allowed to dry thoroughly.

Please observe the instructions of the respective appliance manufacturers!

Steam cleaning is prohibited on all electrical appliances, i.e., hair dryers, electrical heaters, etc. that allow direct steam contact with electrical wiring and switches. The steam could enter into the electrical components and, on condensing, cause an electrical defect.

Never touch the steam jet with your hand, or direct it at persons or animals (scalding hazard).

Materials containing asbestos and other items known to contain hazardous substances must not be steam-cleaned.

#### **Operating the Unit**

The operator may use the unit only as described in the Operating Instructions. He is obligated to observe local conditions and, while working with the unit, take into account the presence of third persons, and especially children.

The unit may be operated only by persons who have been thoroughly instructed in its use, or who have provided proof of their ability to operate the unit, and who have been expressly charged with operating the unit. The unit may not be operated by children or adolescents.

The unit must never be without supervision while it is operating.

#### Moving the Unit

The unit must be switched OFF and securely fastened while moving it between locations.

#### Maintenance

Prior to performing cleaning and maintenance procedures, and before replacing parts, the unit must be switched OFF, and the power plug must be disconnected.

Repair and service procedures may only be performed by authorised customer service depots or by experts who are thoroughly familiar with all applicable safety regulations.

#### **Accessories and Spare Parts**

Only accessories and spare parts approved by the manufacturer may be used. Original accessory and original spare parts ensure a safe a trouble-free operation of the unit.

Please use only the original safety cover!



## 1. Equipment features

- A1 Cover on main unit socket
- A2 Safety cap
- A3 Funnel inlet for filling boiler
- B1 Control panel
- B2 Heater switch
- B3 Steam supply switch
- B4 Indicator lamp heater switch
- B5 Indicator lamp heater (orange)
- B6 Indicator lamp steam supply switch
- B7 Indicator lamp low water warning (red)
- C1 Steam gun
- C2 Release button
- C3 Steam switch
- C4 Locking mechanism (child lock)
- C5 Steam hose
- C6 Modular accessory plug
- C7 Handwheel for steam control
- D1 Extension tube
- D2 Release button
- E1 Spot nozzle
- E2 Circular brush
- F1 Hand nozzle
- F2 Terry-towelling slip-on
- G1 Floor nozzle
- G2 Retaining clips
- G3 Large floor cloth
- H1 Window nozzle
- J1 Wallpaper remover

## 2. Getting started

#### 2.1 Unpacking the cleaner

While you are unpacking the cleaner, check that all accessories have been included. If any items are missing, please contact your dealer.

If you notice any damage that has been caused in transit, please inform your dealer immediately.

Do not dispose of the packaging materials as domestic refuse. They can be recovered for use again. Take the packaging to an official collection point for recycling.

#### 2.2 Attaching the accessories

 Firmly insert the modular accessory plug (C6) into the socket (A1) above the handle on the main unit. Both lugs on the plug must lock into the cover for the main unit socket (A1). (See Fig. 1).



Fig. 1: Connecting the modular accessory plug

 Attached the required accessory – spot nozzle (E1), hand nozzle (F1) or floor nozzle (G1) – to the steam gun (C1) by pushing the tubular end of the accessory onto the steam gun (C1). Push the accessory onto the steam gun as far as necessary for the release button (C2) on the steam gun to lock into place (see Fig. 2).



Fig. 2: Attaching accessories to the steam gun (C1)

 Use the extension tubes (D1) if required. Attach one or both tubes (D1) onto the end of the steam gun. Push the required accessory onto the free end of the extension tube (D1).

 To detach the accessories, press the release button (C2 or D2) and pull the items apart.

 The circular brush (E2) can be attached to the spot nozzle (E1) to obtain better cleaning results. Line up both grooves in the circular brush (E2) with the lugs on the spot nozzle and turn the brush clockwise as far as it will go.

To detach the circular brush from the spot nozzle, turn the brush anti-clockwise and pull it off the nozzle.

Hot water can drip out of accessories while you are detaching them. Do not detach accessories while steam is being discharged danger of scalding!

#### 2.3 Filling up with water

• Unscrew the safety cap (A2) on the main unit.

 Pour a maximum of 1.6 litres of tap water into the boiler. With the cleaner standing on a horizontal surface, the boiler can be filled up to approx. 2 cm below the edge of the filler neck. Heating-up time can be shortened by using hot water.



⚠ Do not add pour any detergents or other additives into the boiler.

• Screw the safety cap back onto the cleaner (A2).

## 2.4 Switching the cleaner ON

- · Plug the cleaner into a mains socket.
- Do not switch the cleaner on if there is no water /!\ in the boiler, otherwise it could overheat. As a safety measure, the cleaner's heater switches off automatically and the low-water warning lamp (B7) illuminates. In order to be able to use the cleaner again, wait approx. 10 minutes for it to cool down and then fill the boiler with water (see 2.6 "Filling up with water").
- Switch both the steam supply switch (B3) and the heater switch (B2) to ON.

The two indicator lamps integrated into the switches (B4 and B6) should illuminate. When the orange lamp for the heater (B5) goes out again, the cleaner is ready for use.

Do not stand the cleaner upright while it is switched on, otherwise it could overheat. As a safety measure, the heater inside the cleaner is switched off automatically and the low-water warning lamp (B7) illuminates. In order to render the cleaner available for use again. position it horizontally. At the same time, the safety cap could trigger momentarily and release a shot of steam. After a short while, the indicator lamp (B7) will go out again.

• Switch off the heater (B2) before moving the cleaner.

• When you are ready to start work with the cleaner, you must first release the locking mechanism (child lock (C4)) on the steam gun (C1), otherwise you will not be able to operate the steam switch (C3). Slide the locking mechanism (C4) forwards and you will then be able to press the steam switch (C3).

*Note:* Slide the locking mechanism (C3) towards the rear to engage the child lock whenever you are not using the steam gun.

• When you press the steam switch, steam is discharged from the nozzle. Begin by pointing the steam gun at a cloth until a steady flow of steam comes out of the nozzle.

• The heater is repeatedly switched on while you are using the cleaner, in order to maintain the pressure inside the boiler. At the same time the orange indicator lamp (B5) illuminates.

#### 2.5 Regulating the volume of steam

• The amount of steam can be regulated according to requirement by adjusting the handwheel (C7) on the steam gun. When the wheel is turned forwards, a large amount of steam is discharged; when it is turned towards the rear, a small amount of steam is discharged.

*Note:* When the handwheel is set for minimum steam, it is possible that steam will continue to be discharged briefly after the steam switch (C3) has been released, until the pressure in the steam hose has dropped. You can accelerate this process by briefly turning the handwheel (C7) forwards.

#### 2.6 Refilling with water

*Note:* When the water in the boiler has been used up, the red low-water warning lamp (B7) will illuminate. The safety cap (A2) cannot be opened while there is any pressure at all in the boiler.

• Turn off the heater switch (B2) but leave the steam supply switch (B3) on.

• Press the steam switch (C3) on the steam gun (C1) and hold it pressed until steam is no longer discharged from the nozzle. There will then be no pressure inside the boiler.

• Unscrew the safety cap (A2) from the cleaner.

If the cleaner has been in continuous use for a long time, the safety cap may be hot! **Caution**: Never lift the cleaner by the handle unless the safety cap is in place!

• Pour a maximum of 1.6 litres of tap water into the boiler.

## If the boiler is still hot, there is a risk that water will be squirted back while it is being poured into the boiler and cause scalding.

• Firmly screw the safety cap (A2) back onto the cleaner. Turn on the heater switch (B2) again. When the heater indicator lamp (B5) goes out, the cleaner is ready for use again.

#### 2.7 Switching the cleaner OFF

• Switch off both the heater (B2) and steam supply (B3) switches.

• Unplug the cleaner from the mains.

• Lift up the cover on the main unit socket (A1) and pull out the modular accessory plug (C6).

• Any remaining water can be left inside the cleaner.

#### 3. Information on usage

#### 3.1 Cleaning textiles

Before you use the steam cleaner on textiles including delicate fabrics like Dralon, velvet, leather and items protected by Scotch Guard or any similar substance, you should always test that the material is resistant to steam by applying it to a section not normally visible.

Apply steam to the concealed section and then leave it to dry. Check to see that the colour and shape have not been affected before moving to a visible area. In case of doubt it is always better to consult your steam cleaner dealer.

Use only the steam gun without attachments to apply steam from 30 - 45 cm on these delicate fabrics, then wipe off with a cotton cloth.

#### 3.2 Cleaning hard surfaces



Some surfaces can change colour and texture when treated with steam. Consult the manufacturers recommendations first, and always test in a non visible place and then let it dry, to see whether changes in colour or textures occur. In case of doubt and on sensitive materials like coated or painted surfaces, wood, waxed marble etc. it is always better to ask your steam cleaner dealer for advice. If steam is applied for too long, wax, furniture polish, plastic coating or paint could be lifted off or marks could be caused. You should therefore clean these types of surface with a separate cloth to which steam has been applied or very briefly with a double layer of cloth attached to the nozzle.

#### 3.3 Cleaning glass surfaces

Do not apply steam jet directly to the sealed parts of the window round the frame, otherwise the seal could be damaged.

When the outside temperature is low, especially in winter, warm the window pane by applying a small amount of steam across the whole surface of the glass. This will even out any differences in temperature and avoid stresses in the glass. This is important because glass surfaces that are heated by varying amounts can shatter.

#### 4. How to use the accessories

#### 4.1 Steam gun (C1)

The steam gun can be used without any additional accessories.

Typical applications:

- eliminating odours and creases in clothing: hang the item of clothing up and apply steam from a distance of 10–20 cm.
- removing dust from plants: maintain a distance of 20–40 cm.
- dusting objects with a damp cloth: apply a small amount of steam to a cloth and wipe over the furniture.

#### 4.2 Spot nozzle (E1)

The closer you hold the nozzle to the object being cleaned, the easier it is to remove the dirt. Temperature and pressure are at their greatest immediately the steam is discharged from the nozzle.

#### Typical applications:

- locations that are difficult to access, such as corners and joints
- taps, drains wash-basins, WC, shower cabins
- blinds, radiators
- stainless steel, enamel surfaces
- dissolve stains Apply vinegar to stubborn stains caused by scale and leave it to soak for approx. 5 min.

#### 4.3 Floor nozzle

• Attach the floor cloth (G3) to the floor nozzle (G1). Fold the cloth lengthways and place the floor nozzle on top. Pull the ends of the cloth one after the other under the retaining clips (G2) (see Fig. 3). To remove the cloth, press down on the retaining clips (G2) and pull it out.



Fig. 3: Attaching the floor cloth

- Turn the floor cloth over or replace it regularly. This will enable you to wipe up more dirt.
- Work on heavily soiled areas at a slower speed so that the steam has more time to act on the dirt.
- If there are traces of detergent or polish on the surface that you are cleaning (e.g. wax, liquid polish, etc.), this could result in streaks. As a rule these streaks disappear after the steam cleaner has been used several times.

#### Typical applications:

 all washable wall and floor coverings, e.g. stone floors, tiles and PVC floors.

#### 4.4 Hand nozzle (F1)

Pull the terry-towelling slip-on (F2) over the hand nozzle (F1).

#### Typical applications:

- smaller, washable areas, such as kitchen surfaces made from plastic, tiled walls
- windows, mirrors
- furniture fabrics
- vehicle interiors, windscreens
- bath-tubs

#### 4.5 Window nozzle (G1)

• Before you clean a glass surface with the window nozzle for the first time, go over it with the hand nozzle (F1) and terry-towelling slip-on (F2) to remove any traces of grease.

• Apply steam evenly to the glass surface from a distance of approx. 20 cm. When you have done this, push the locking mechanism on the steam gun

towards the rear (child lock) (C4) so that the steam switch (C3) cannot be pressed inadvertently. Squeegee the glass surface in straight lines from top to bottom. Wipe the rubber lip and the bottom edge of the window dry after each pass.

Typical applications:

- windows
- mirrors
- other glass surfaces

#### 4.6 Wallpaper remover (H1)

 Place the entire face of the wallpaper remover along the edge of a sheet of wallpaper. Switch on the steam supply (C3) and allow the steam to penetrate the wallpaper until it is soaked through (approx. 10 seconds).

 Move the wallpaper remover to the next section to be removed, keeping the steam switch (C3) pressed. Use a putty knife to lift the loosened wallpaper and pull it off the wall. Move the wallpaper across the wall a section at a time and pull the paper off in strips.

 The steam may not be able to readily penetrate woodchip wallpaper that has been painted over several times. In this case we recommend that you go over the wallpaper with a spiked roller before steam is applied.

#### 5. Maintenance

#### 5.1 Cleaning the boiler

Note: If you always use demineralised or distilled water, it will not be necessary to clean the boiler.

#### Rinsing out the boiler:

If your tap water is harder than 1.8 mmol/l (level II), rinse out the boiler inside the steam cleaner at least every fifth time that it has been filled with water. If the water is softer, rinse out the boiler at least every fifteenth time that it has been filled with water. Your water supply company will be able to tell you how hard the water is in your area.

 Fill the boiler with water and shake the cleaner vigorously. This will loosen any scale that has settled at the bottom of the boiler. Tilt the cleaner towards the corner with the funnel inlet (A3) and pour out the water (see Fig. 4).



Fig. 4: Cleaning the boiler

#### Descaling the boiler:

As scale also builds up on the walls of the boiler, we recommend that you descale your steam cleaner at the following intervals:

Hard	lness level	mmol/l	Descale after:
I	soft	0—1.25	100 refills
11	medium	1.25–2.5	90 refills
	hard	2.5–3.75	75 refills
IV	very hard	> 3.75	50 refills

Table 1: Descaling the boiler

 Unplug the cleaner from the mains electricity supply before you descale the boiler.

· Make sure that all traces of water are drained from the boiler (see Fig. 4).

• We recommend you use Kärcher Biological Decalcifier RM 511 to descale the boiler. This biological decalcifying agent is based on citric acid and is therefore entirely biologically degradable.

In order to avoid damage to the cleaner, only use products that have been approved by Kärcher.

· Fully dissolve the contents of one bag of Kärcher Biological Decalcifier RM 511 in one litre of warm water.

 Pour this solution into the boiler and leave it to react for approx. 8 hours.



Do not screw the safety cap (A2) onto the cleaner while you are descaling the boiler. Do not use the cleaner if there is any descaling liquid left inside the boiler.

 After the period of soaking, pour the descaling solution out of the boiler. A small amount will remain inside, therefore you should flush the boiler out with cold water two or three times in order to remove all traces of the decalcifying agent.

• The steam cleaner is now ready for use again.

#### 5.2 Care of accessories

• Allow all accessories to dry out thoroughly before you store them for use another time.

• Do not stand the floor nozzle (G1), hand nozzle (F1) and circular brush (E1) on their bristles while they are cooling down and drying out, otherwise they could become deformed.

• Floor cloth and terry-towelling slip-on have been pre-washed and can be used immediately with the steam cleaner.

• Dirty floor cloths and terry-towelling slip-ons can be placed in a washing machine at 60 °C and dried in a tumble dryer. Do not use a liquid softener as this would impair the ability of the cloths to pick up dirt.

#### 5.3 What to do if a problem occurs

• If a problem occurs with your steam cleaner, contact your local Kärcher service agent (see enclosed address list).

## 6. Safety devices

This steam cleaner is equipped with several safety devices which provide multiple levels of safety. The most important safety devices are described below.

#### 6.1 Pressure controller

The pressure controller maintains the level of pressure inside the boiler as constant as possible. When the maximum operating pressure inside the boiler of 3.2 bar is reached, the heater is switched off. When steam is drawn off and the pressure drops, the heater is switched on again.

#### 6.2 Low-water thermostat

As the water in the boiler is used up, the temperature of the heater increases. The low-water thermostat switches the heater off and the red low-water warning lamp (B7) illuminates. The heater is prevented from switching on again until the boiler has either cooled down or has been refilled with water.

#### 6.3 Safety thermostat

If the low-water thermostat fails and the cleaner overheats, the safety thermostat will switch off the cleaner. Contact your local Kärcher service agent so that the safety thermostat can be reset.

#### 6.4 Safety cap

The safety cap seals in the steam pressure as it builds up inside the boiler. If the pressure controller is defective and the steam pressure inside the boiler rises above 5 bar, an overpressure valve opens inside the safety cap and steam is discharged into the open. Contact your local Kärcher service agent before you attempt to use the cleaner again.

## 7. General information

#### 7.1 Warranty

These Karcher products are warranted by Karcher to be free of defects in workmanship and materials under normal household use for a period of one year (12 months). For commercial, industrial or rental use, the above warranty applies for 30 days. *In the event of warranty claim, please call our toll free number.* 

#### **Customer Service**

Alfred Karcher Inc. 9000 Rochester Ave Rancho Cucamonga, CA 91729 P.O. Box 39000 Rancho Cucamonga, CA 91729 *Phone Number (toll free): 1 800 537 4129* Fax Number: 1 909 481 6694

#### 7.2 Disposal information

This appliance has been manufactured in accordance with VDI Directive 2243 concerning recycling. When the cleaner is no longer required for use, the materials used in its manufacture can be recovered for re-use.

## 8. Accessories and replacement parts

Only accessories and replacement parts approved by the manufacturer may be used with this cleaner. Original accessories and original replacement parts guarantee that the cleaner remains safe and reliable to operate.

On the last page of these operating instructions there is a picture of the cleaner with the order numbers for the individual parts.

Special accessories	Order no.
Window nozzle	4.130-115
Squeegee strip	6.273-140
Wallpaper remover	2.863-062
Circular brush set (4 pcs.) for spot nozzle	2.863-058
Circular brass-wire brush set (4 pcs.) for spot nozzle: with brass-wire bristles for removing particularly stubborn dirt	2.863-061
Cloth set I: 2 large wiping cloths, 3 terry-towelling slip-ons	6.960-019
Cloth set II: 5 terry-towelling slip-ons	6.370-990
Microfibre cloth set: 1 large wiping cloth, 1 terry-towelling slip-on that are highly absorbent and able to pick up large amounts of dirt	6.905-921
Biological decalcifier RM 511: 3 bags of 100 g each	6.290-239
Household iron	4.862-060
Ironing board with active steam extraction: for excellent ironing results with considerable time-saving	6.906-002

## 9. Technical specifications

#### **Electrical connection**

Voltage	120	V
Type of current		
Voltage in hand-gun		V

#### Performance data

Heater power consumption 1500	W
Max. operating pressure 3.2	bar
Permissible operating pressure	bar
Heating time (per litre of water) approx. 6	min
Max. steam volume 65	g/min

#### Dimensions

Weight without accessories 5.0	kg
Max. water capacity 1.6	1
Boiler capacity 2.0	1
Width	mm
Length 475	mm
Height 225	mm

### 9.1 Circuit diagram 0.088-014



- E1 Heating element, 1500 W
- H1 Indicator lamp, heater
- H2 Indicator lamp, low-water warning
- H3 Indicator lamp heater switch
- H4 Indicator lamp steam supply switch
- K Boiler
- MV1 Solenoid valve
- S1 Heater switch
- S2 Steam supply switch
- S3 Pressure switch
- S4 Low-water thermostat at bottom of boiler
- S5 Low-water thermostat
- S6 Safety thermostat
- S7 Steam switch, hand-gun
- S8 Steam switch, household iron
- SI Fuse
- T Transformer

