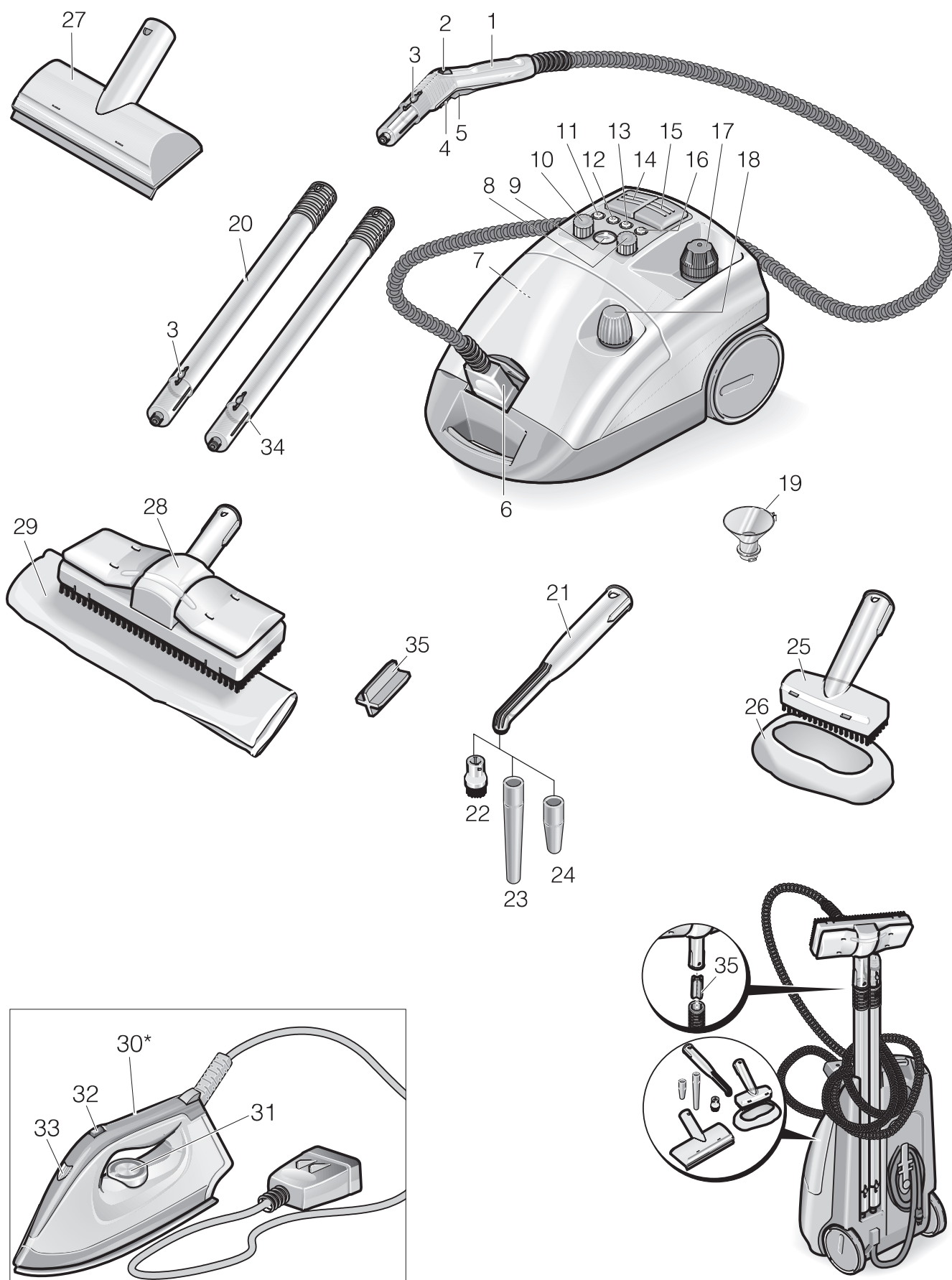




# DE 4002



# 1. Starting the unit



# 1. Starting the unit

- 1 Steam pistol
  - 2 Handwheel for steam control
  - 3 Release button
  - 4 Locking mechanism (child lock)
  - 5 Steam switch
  - 6 Modular accessory plug
  - 7 Reset button – Descaling completed
  - 8 VAPOHYDRO control knob
  - 9 Temperature indicator
  - 10 Steam control knob
  - 11 Indicator light – Descaling due (white)
  - 12 Indicator lamp –  
Low water warning, additional tank (red)
  - 13 Indicator lamp – Heater (yellow)
  - 14 Heater ON/OFF switch
  - 15 Steam supply switch
  - 16 Indicator lamp –  
Low water warning, boiler (red)
  - 17 Boiler cap with safety valve
  - 18 Tank cap
  - 19 Funnel for filling tank
  - 20 Extension tubes
  - 21 Spot nozzle
  - 22 Circular brush
  - 23 Extension
  - 24 Power nozzle (red)
  - 25 Hand nozzle
  - 26 Terry-towelling slip-on
  - 27 Window nozzle\*
  - 28 Floor nozzle
  - 29 Large wiping cloth
  - 30 Household iron \*
  - 31 Temperature control
  - 32 Steam-ironing switch
  - 33 Indicator lamp – heater for household iron
  - 34 Retaining bracket
  - 35 Floor Nozzle Storage Fitment
- \* Optional accessory

## 1.1 Unpacking the unit

- If you notice any transport damage while unpacking the unit, please report it to your dealer immediately.
- The packaging materials should not simply be disposed of as domestic refuse. Instead, the left-over packaging components should be taken to an official collection point for recycling.

## 1.2 Attaching the accessories

- Connect the modular accessory plug to the main unit. The lugs on the plug must lock into place on the cover of the main unit socket.
- Attach the required accessory (floor, hand or spot nozzle) to the steam gun. Push both parts together until the lock button on the steam gun snaps into place.
- If required, use the extension tubes. Assemble the tube sections by pushing one into the other until the button snaps into place.
- Press the release button to separate the accessories from each other.

## 1.3 Filling the boiler with water

- Remove the safety cap from the main unit.
- Using the funnel, pour a maximum of 2 litres of tap water into the boiler. Hot water shortens the heating-up time.

**Note:** With the unit standing on a level surface, the boiler can be filled up to 2 cm below the top of the filler neck.

- Do not use any detergents.
- Refit the safety cap onto the main unit, and ensure that it is properly tightened.

### Additional tank

Fill the additional tank in order to prolong the time that the cleaner can be used before it requires refilling.

- Unscrew the cap on the additional tank.
- Using the funnel, pour a maximum of 2 litres of tap water into the tank.
- Screw the cap back onto the tank.

# 1. Starting the unit

## 1.4 Switching the unit ON

- Plug the unit into a mains socket, and switch it on by means of the steam supply switch and the heater switch. Indicator lamps should be illuminated.

**Note:** *The full heat rating will only be available if the modular accessory plug is connected to the main unit while it is heating up.*

- When the heater indicator lamp extinguishes, the system is ready for use.

**Note:** *Do not place the unit in an upright position while it is switched ON. Otherwise the heater will automatically switch OFF after a short interval, and the red indicator lamp (low water warning) will light up.*

- For transporting the unit, switch the heater OFF by means of the heater switch.
- When you press the steam switch, steam is expelled from the steam gun. Always direct the steam gun at a piece of cloth until the steam flows evenly out of the nozzle.
- The heater is switched on continually while the unit is in use (indicator lamp lights up), so that the pressure inside the boiler is maintained at a constant level.
- If you have switched the unit on and there is no water in the boiler, heater indicator lamp will light up initially before the low-water thermostat switches the heater off. The low-water indicator lamp will then light up.

## 1.5 Refilling the boiler with water

**Note:** *When there is no water left in the additional tank, a warning signal is sounded and the LOW WATER WARNING lamp for the additional tank illuminates.*

- Using the funnel, fill the additional tank with a maximum of 2 litres of tap water.
- When the HEATER indicator lamp extinguishes, the cleaner is ready for use again.

**Note:** *If the pump does not deliver any water, although the additional tank is full, it is a sign that the boiler requires descaling – see 3.1 Descaling the boiler.*

## 1.6 Switching the unit OFF

- Switch the unit OFF by means of switches.
- Remove the modular plug from the main unit, while lifting up the socket cover at the same time.
- Remove the plug from the mains socket.
- Any remaining water can be left inside the unit.

## 1.7 Transporting the unit

- If you have been working with the extension tubes and the floor nozzle, it is quite easy to transport the unit.
- Turn the heater OFF with switch, stand the unit upright, and attach the extension tube to the retaining bracket on the underside of the main unit.

## 1.8 Storing the unit

- Place the hand and spot nozzles, together with the smaller items, in the accessory compartment.
- Wind the cable around the holder on the base of the main unit. Attach the floor nozzle to one of the extension tubes, and insert both tubes into the recesses in the base of the unit.
- Ensure that the brushes are allowed to cool down without the bristles becoming deformed in the process.

## 2. Directions for use

### 2.1 Important fundamental information

To achieve satisfactory results with a steam cleaner, it is most important that the initial cleaning stage is performed thoroughly. This means that where detergents and other cleaning products have been used for many years, the immediate objective must be to strip away the layer that will have built up. By using a steam cleaner, dirt is lifted off, as described previously, and picked up by the cloth. Depending upon the amount to be cleaned off, the dirt will have been completely removed after the cleaner has been applied 1 - 2 times. The result is a floor surface that is free of streaks. The same applies when cleaning windows. The steam cleaner cannot remove large amounts of limescale directly. A description of the procedure for successfully removing these types of deposits is contained in the section concerning the cleaning of bathroom fittings.

### 2.2 Special notes on cleaning

#### **Fabrics**

Before steam-cleaning fabrics or textiles, we recommend that first of all you carry out a test on an inconspicuous part of the material. Apply plenty of steam to the test area, and then allow the material to dry out so that you can determine whether any changes in colour or shape occur.

#### **Coated or painted surfaces**

When steam-cleaning kitchen cabinets or other items of furniture, doors, parquet flooring, painted or plastic-coated surfaces, please take into account that waxes, furniture polish, plastic coatings or paint may be dissolved or lifted off if they are subjected to prolonged exposure to the steam jet. Apply only small amounts of steam directly to these types of surface, or clean them with a cloth to which the steam has been applied first.

#### **Glass surfaces / window panes**

Glass surfaces may break if they are subjected to uneven heating. Especially in the case of low exterior temperatures, you should first of all spray steam lightly over the whole glass surface in order to even out any differences in temperature and to avoid the build-up of tension on the surface of the glass. Do not apply the steam jet directly to the sealed parts of the window.

### 2.3 Regulating volume of steam with rotary knob on main unit

- If you are working with the standard accessories or the iron, you can control the volume of steam by adjusting the rotary knob on the main unit.

### 2.4 Regulating volume of steam with handwheel on steam gun

- If you are working with the standard accessories you can regulate the volume of steam with the handwheel on the steam gun. In this case the rotary knob on the main unit is inoperative.

**Note:** *If the handwheel is set for a small volume of steam, it is quite possible that steam may still be expelled from the nozzle for a short interval after the steam switch has been released and until the pressure in the steam hose has dissipated. You can release the pressure more quickly by turning the steam volume control to a higher setting.*

### 2.5 VAPOHYDRO rotary control knob

- In washrooms or tiled areas, for example, you can also flush the dirt away instead of wiping it off with the cloth. This is achieved by varying the moisture content of the steam by adjusting rotary knob on the main unit. The greater the amount of moisture in the steam, i.e. the more water there is in the steam jet, the better the washing results will be.  
If you turn the rotary knob all the way round to "+", a jet of hot water is discharged from the nozzle giving the greatest flushing effect.
- Use the VAPOHYDRO feature together with the spot nozzle, for example, for cleaning the bathroom.
- If you are working with cloths (floor nozzle, hand nozzle), set the VAPOHYDRO rotary control knob to "-", so that the steam jet contains as little moisture as possible. This improves the ability of the steam to loosen and dissolve the dirt.

**Note:** *If you turn the VAPOHYDRO rotary control knob to "+", the boiler will empty more quickly.*



## 2. Directions for use

### 2.6 Temperature indicator

- This indicator shows you whether you are working within the proper temperature range (green area).

### 2.7 Steam gun

- The steam can be used without accessories for the following cleaning jobs:
  - Deodorising clothing and removing creases from garments;
  - Dusting houseplants (maintain a distance of approx. 30 cm);
  - Damp dusting: apply small amount of steam to surface and then wipe dry with a clean cloth.

### 2.8 Spot nozzle

- The spot nozzle can be attached either directly to the steam gun or via the extension tubes.
- Because the steam temperature and pressure are at their highest immediately the steam leaves the nozzle, the closer you hold the steam jet to the object to be cleaned, the better the cleaning results will be.
- You can use the spot nozzle with its various attachments for cleaning the following
  - areas that are hard to reach, such as corners, joints, etc.
  - venetian blinds, radiators
  - toilets and sanitary installations
  - stainless steel, windows, mirrors
  - taps and fittings
  - coated and enamelled surfaces
  - initial treatment of stains.
- Use the nozzle extension to reach otherwise inaccessible cracks and joints, etc.
- The power nozzle increases the velocity at which the steam is discharged from the steam gun. This makes it particularly suitable for the following, for example:
  - removing particularly stubborn dirt
  - blowing steams into corners, cracks, crevices, etc.

**Note:** *The circular brush is not suitable for cleaning sensitive surfaces.*

### 2.9 Floor nozzle

- Depending upon the actual cleaning task, the floor nozzle can be used with the extension tubes. You can use this nozzle for all large washable wall and floor surfaces. Place the floor nozzle onto the folded large cloth, and then pull the cloth under the retaining clips on each side.
- The best results for wiping up dirt are achieved when you turn the cloth over, or replace it, frequently.
- For more effective cleaning of heavily soiled surfaces, slow down your working speed to allow the steam more time to penetrate the grime.
- Any traces of detergents left on the floor surface to be cleaned may form streaks. As a rule these streaks will disappear after the steam cleaner has been applied several times.

### 2.10 Hand nozzle

- Depending upon the actual cleaning task, use the hand nozzle with the extension tubes.
- You can use the hand nozzle with the cloth for cleaning:
  - small washable surfaces
  - upholstery
  - sensitive surfaces.

### 2.11 Optional accessories

Only accessories approved by the manufacturer may be used with this unit.

#### Household iron (Order no. 6.959-262)

- Connect the modular plug on the household iron to the main unit.

#### Steam-ironing

- Rotate the VAPOHYDRO control knob right round to “–”.
- For ironing all types of fabrics the temperature control should be set at least to the \*\*\* stage. In this setting the steam discharged from the iron prevents the fabric from being overheated.
- The higher the selected temperature, the dryer and less visible is the steam; the volume of steam remains the same however.

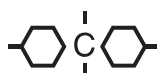
## 2. Directions for use

- As soon as the lamp on the iron extinguishes, it is ready for use.
- As soon as you press the switch, a solenoid valve in the main unit opens and steam flows out of the base of the iron. If you push the switch forwards, steam is expelled continuously; if you push the switch towards the rear, shots of steam are discharged.
- Begin by directing the steam onto a piece of cloth until water no longer comes out of the iron.
- Turn the steam volume control on the main unit to obtain the desired amount of steam.
- You can hold the iron vertically for steaming curtains, clothes, etc.

### Dry-ironing

- If you wish to iron without using steam, switch the steam supply switch on the main unit to ON, and the heater switch to OFF.
- Set the temperature dial for the desired fabric type.

Synthetic fibres



Wool



Linen



### Window nozzle (Order no. 4.130-145)

- Attach the window nozzle directly to the steam gun. Use the extension tubes if required.
- Apply steam evenly to the glass surface from a distance of approx. 20 cm. Switch off the steam supply and squeegee the glass surface in straight passes from top to bottom. Wipe the rubber lip and the bottom edge of the window dry after each pass.

### Wallpaper remover (Order no. 2.863-076)

With the wallpaper remover you can use the steam cleaner for stripping wallpaper.

#### • Procedure:

- Place the wallpaper remover with its entire surface on the edge of a sheet of wallpaper. Allow the steam to penetrate until the wallpaper is soaked through (approx. 10 sec.).
- Without switching it off, move the wallpaper remover to a new location. Use a putty knife to lift the loosened wallpaper, and pull it off completely.
- The steam may not be able to readily penetrate woodchip wallpaper that has been painted several times. In this case we recommend that you go over the wallpaper with a spiked roller before steam is applied.

### Biological Descaler RM 511 (Order no. 6.290-239)

- 3 x 100 g powder for cleaning the boiler
- See Section 3.

**Caddy** 6.962-239

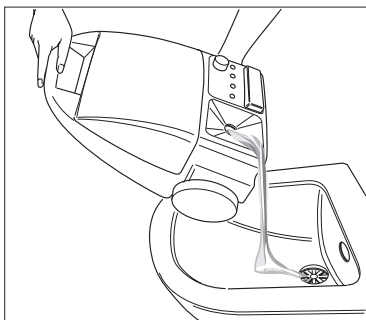
**Set of circles of bristles with brass bristles** 2.863-075

**Set of circles of bristles** 2.863-077

**Micro-fibre cloth** 6.905-921

## 3. Care, Maintenance & Troubleshooting

### 3.1 Cleaning the boiler



#### **Rinsing out the boiler**

- To clean the boiler, we recommend that you fill it with water and shake it vigorously. This should loosen any scale that has settled at the bottom of the boiler. If you now pour the water out of the boiler, the scale will be flushed out at the same time (see ill.).
- For soft water (up to 1.8 mmol/L) the boiler should be flushed out after it has been refilled 15 times, for harder water after every fifth time.

#### **Descaling the boiler**

We recommend that you descale the appliance as soon as the “Descaling due” indicator light illuminates.

- In order to remove any scale that has built up on the walls of the boiler, we recommend that you clean the boiler with KÄRCHER Biological Decalcifying Liquid RM 511. KÄRCHER Biological Decalcifying Liquid RM 511 is based on citric acid and is therefore entirely biodegradable.
- In order to avoid damaging your steam cleaner, use only products for descaling that have been officially approved by KÄRCHER.

Procedure:

- Unplug the steam cleaner from the mains electricity.
- Empty the boiler entirely of any remaining water.
- Dissolve the contents of two bags in 2 litre of warm water while continuously stirring the liquid at the same time.
- Pour the solution into the boiler, and allow to stand for approx. 8 hours.



*The safety cap must not be attached to the boiler while descaling is being carried out. Make sure that the cleaner can not be used while there is any descaling solution left in the boiler.*

- Pour the contents of the boiler out at the side (see ill.), and rinse out the boiler at least twice with cold water to ensure that no descaling solution or deposits are left inside.
- Switch on the cleaner.
- Press the reset button until the “Descaling due” light extinguishes.
- Your steam cleaner is now ready for use again. After approx. 50 operating hours, the “Descaling due” light will illuminate to show that it is time to descale the appliance once more.

**Note:** *If you use distilled water exclusively, it will not be necessary to descale the cleaner. When the “Descaling due” indicator light illuminates, just press the reset button until the light goes out.*

#### **Filter replacement**

- When using polluted water the filter can become blocked. This makes itself apparent either by extraordinarily long running times of the pump or a total functional failure. In this case the filter should be replaced.

### 3.2 What to do if there is a problem

- If the low-water warning lamp lights up because the unit has been stood upright although it still operating, follow the procedure described in the section “Refilling the boiler with water”.
- If you encounter any other problems with the cleaner, you should contact your local authorised customer service agent.



## 4. Safety devices

This steam cleaner has been fitted with various safety devices to provide multiple protection measures. The most important safety components are described below.

### 4.1 Pressure controller

The pressure controller maintains the boiler pressure at as constant a level as is possible while the cleaner is in use. The heater is switched off when the operating pressure inside the boiler reaches its maximum of 3.2 bar, and switched on again when the pressure drops as a result of steam being drawn off.

### 4.2 Low-water thermostat

As the water inside the boiler is consumed, the temperature around the heater rises. The low-water thermostat switches the heater off, and the red low-water warning lamp lights up. The heater is prevented from switching on again until the boiler has cooled down, or it has been refilled with water.

### 4.3 Safety thermostat

If the low-water thermostat fails and the cleaner overheats, then the safety thermostat switches the whole unit off. Contact your authorised KÄRCHER Customer Service agent so that the safety thermostat can be reset.

### 4.4 Safety cap

The safety cap seals off the boiler and keeps the steam pressure inside. If the pressure controller becomes defective, and the pressure inside the boiler rises above 5.5 bar, an overpressure valve opens inside the safety cap, and steam escapes into the open. Contact your authorised KÄRCHER Customer Service agent before using the cleaner again.

## 5. General information

### 5.1 Warranty

The applicable warranty conditions in different countries are issued by the respective national distributor of KÄRCHER products. During the warranty period, any malfunctions of the unit caused by a material or manufacturing defect will be repaired free of charge.

In the event of a warranty claim, please take the cleaner, with accessories and proof of purchase, to your original dealer or to the nearest authorised customer service centre.

We will not be held liable for damages occurring as a consequence of improper handling of the cleaner, or of failure to observe the Operating Instructions.

### 5.2 Recycling information

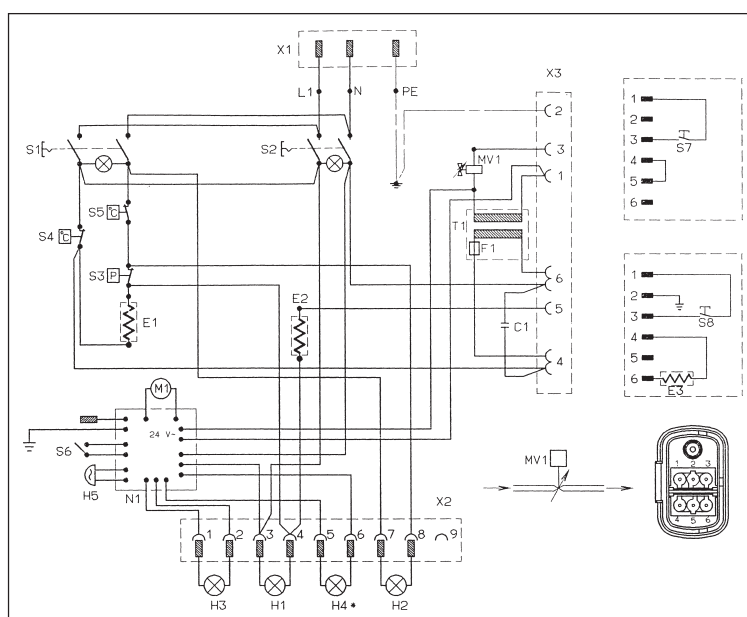
This appliance has been constructed in compliance with the Directive on Recycling, No. 2243, issued by the German Association of Engineers.

## 6. Technical specifications

Electrical connection			
Voltage	230–240	120	V
Current type	1~50/60	60	Hz
Voltage at handgun	24	24	V
Mains connection cable, Order no.	*EU 6.647-757 *CH 6.647-832 *GB 6.647-831 *AUS 6.647-833 *CSA-CDN 6.647-920 *BR 6.647-850	*CDN 6.647-791	
Performance data			
Heater power consumption	2250	1800	W
Pump	50	50	W
Max. operating pressure	3.2	3.2	bar
Permissible operating pressure	5.0	5.0	bar
Heating time	ca. 4.5	ca. 5.5	min/L water
Max. steam volume	82	75	g/min
Dimensions			
Weight without accessories	8.0	8.0	kg
Water capacity	4.0	4.0	L
Tank capacity	2.0	2.0	L
Boiler capacity	2.4	2.4	L
Width	305	305	mm
Length	480	480	mm
Height	265	265	mm

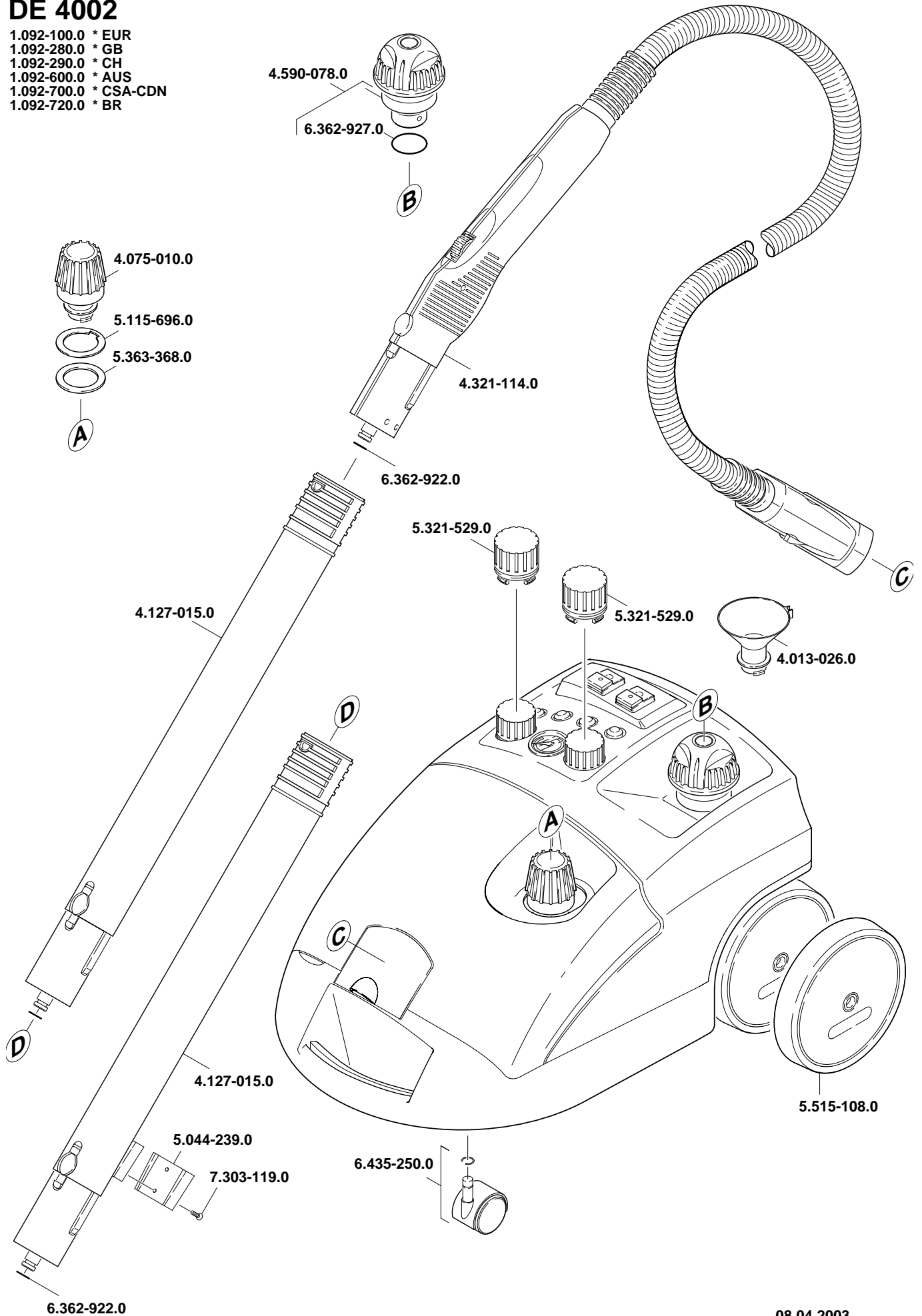
### Circuit diagram 0.087-983

- S1 Heater switch
- S2 Steam supply switch
- S3 Pressure switch
- S4 Safety thermostat
- S5 Low-water thermostat
- S6 Reset button – Descaling completed
- S7 Steam switch, steam gun
- S8 Steam switch, iron
- H1 Indicator lamp, heater
- H2 Indicator lamp, low water warning
- H3 Indicator lamp, fresh-water tank
- H4 Indicator light – Descaling due
- H5 Buzzer
- E1 Heating element, 1500 W
- E2 Heating element, 750 W
- E3 Heating element, iron, 750 W
- MV1 Solenoid valve
- M1 Pump
- N1 Electronics
- T1 Transformer
- F1 Fuse
- C1 Capacitor
- X1 Mains plug
- X2 Plug, coupling
- X3 Plug, steam supply



# DE 4002

- 1.092-100.0 \* EUR
- 1.092-280.0 \* GB
- 1.092-290.0 \* CH
- 1.092-600.0 \* AUS
- 1.092-700.0 \* CSA-CDN
- 1.092-720.0 \* BR



# DE 4002

- 1.092-100.0 \* EUR
- 1.092-280.0 \* GB
- 1.092-290.0 \* CH
- 1.092-600.0 \* AUS
- 1.092-700.0 \* CSA-CDN
- 1.092-720.0 \* BR

