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BP 3 / 4 / 5 / 7 Home & Garden



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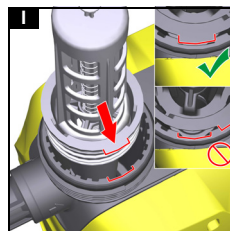
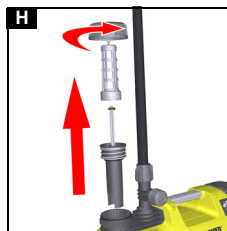
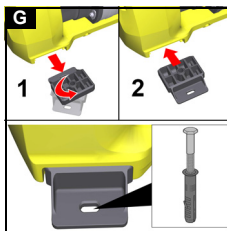
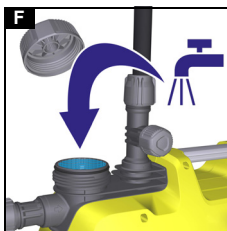
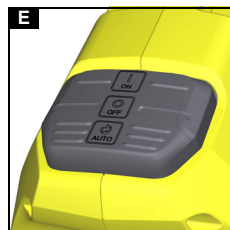
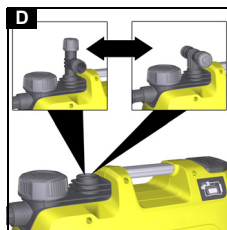
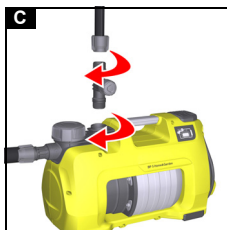
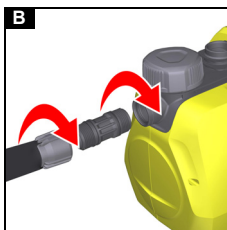
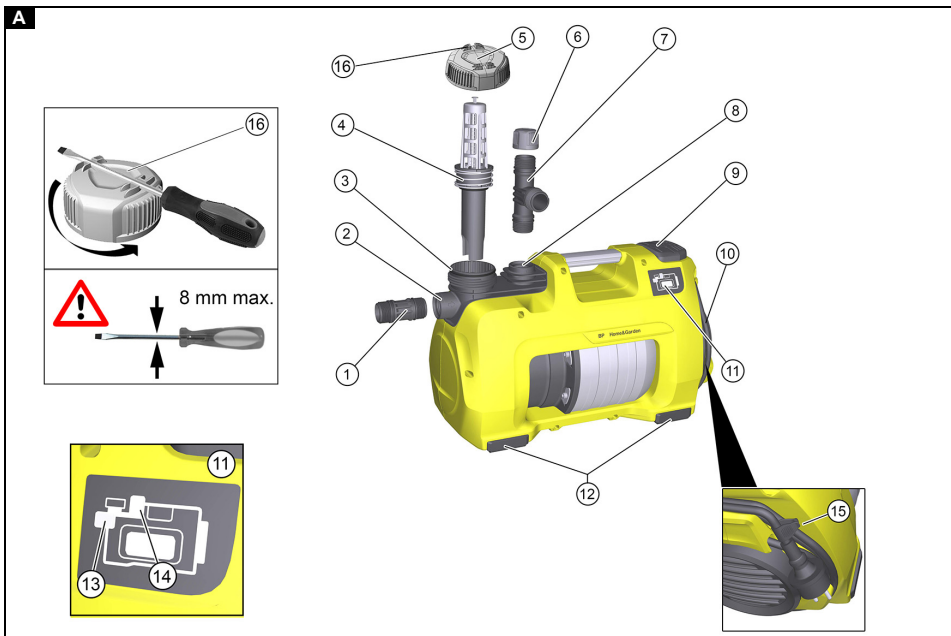
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EAC



59679610 (07/18)



EN 55014-1: 2006+A1: 2009+A2: 2011
 EN 55014-2: 1977+A1: 2001+A2: 2008
 EN 61000-3-2: 2014
 EN 61000-3-3: 2013
 EN 50581

Angewandtes Konformitätsbewertungsverfahren 2000/14/EG: Anhang V

Schallleistungspegel dB(A)

BP2 G

Gemessen: 69

Garantiert: 72

BP3 G, BP3 G Set +, BP3 H&G

Gemessen: 73

Garantiert: 76

BP4 G

Gemessen: 72

Garantiert: 75

BP4 H&G eco

Gemessen: 75

Garantiert: 78

BP5 H&G

Gemessen: 74

Garantiert: 77

BP7 H&G eco

Gemessen: 73

Garantiert: 76

Die Unterzeichnenden handeln im Auftrag und mit Vollmacht des Vorstands.


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Chairman of the Board of Management


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General notes



Read these original operating instructions and the enclosed safety instructions before using the device for the first time. Act in accordance with them.

Keep both books for future reference or for future owners.

Intended use

The requirements of EN 1717 must be observed when connecting this product to the drinking water network. Ask your sanitation specialist or a qualified specialist if necessary.

Use the device only in private households.

The constant operating pressure makes this device suitable for use in the house and garden:

- Supplying washing machines or toilets in a house, e.g. in conjunction with a water tank
- Garden watering

For notes on functionality, see chapter Functional principle of the pump in Automatic mode.

Permissible feed fluids

Permissible feed fluids:

- Processed water
- Well water
- Spring water
- Rain water
- Swimming pool water with intended dosage of additives

The temperature of the delivered liquid must not exceed 35 °C.

Improper use

Note

The manufacturer accepts no liability for possible damage caused by improper use or incorrect operation.

ATTENTION

Using the pump for increasing the existing water pipe pressure

Damage to the pump through incorrect use

Observe the technical data.

The device is not suitable for continuous pump operation (e.g. lifting system, fountain pump). The device is protected by a dry run fuse (see also chapter Dry run fuse).

Environmental protection



The packing materials can be recycled. Please dispose of packaging in accordance with the environmental regulations.



Electrical and electronic appliances contain valuable, recyclable materials and often components such as batteries, rechargeable batteries or oil,

which - if handled or disposed of incorrectly - can pose a potential threat to human health and the environment. However, these components are required for the correct operation of the appliance. Appliances marked by this symbol are not allowed to be disposed of together with the household rubbish.

Notes on the content materials (REACH)

Current information on content materials can be found at: www.kaercher.com/REACH

Accessories and spare parts

Only use original accessories and original spare parts. They ensure that the appliance will run fault-free and safely.

Information on accessories and spare parts can be found at www.kaercher.com and at the end of this manual.

Scope of delivery

The scope of delivery for the appliance is shown on the packaging. Check the contents for completeness when unpacking. If any accessories are missing or in the event of any shipping damage, please notify your dealer.

Warranty

The warranty conditions issued by our relevant sales company apply in all countries. We shall remedy possible malfunctions on your appliance within the warranty period free of cost, provided that a material or manufacturing defect is the cause. In a warranty case, please contact your dealer (with the purchase receipt) or the next authorised customer service site.
(See overleaf for the address)

Safety devices

⚠ CAUTION

Missing or modified safety devices

Safety devices are provided for your own protection. Never modify or bypass safety devices.

Dry run fuse

The device detects an absent or inadequate water supply. The pump switches off if water is not sucked and delivered within a certain time after switching on. This occurs after 4 minutes in Manual mode and after 3 minutes in Automatic mode. The "Suction side error" LED on the display lights up.

Description of the unit

The maximum amount of equipment is described in these operating instructions. Depending on the model used, there are differences in the scope of delivery (see packaging).

For the illustrations, refer to the graphics page

Illustration A

- ① Connection adapter for pumps G1
- ② Connection G1 (33.3 mm) suction line (inlet)
- ③ Filling nozzle
- ④ Pre-filter and integrated check valve
- ⑤ Cover
- ⑥ Cap, 2-way connection adapter
- ⑦ 2-way connection adapter for pumps G1
- ⑧ Connection G1 (33.3 mm) pressure line (outlet)
- ⑨ ON/OFF switch
- ⑩ Cable storage and power supply cable with plug
- ⑪ Fault display
- ⑫ Rubber feet
- ⑬ LED "Error on suction side"
- ⑭ LED "Error on pressure side"
- ⑮ Cable clip
- ⑯ Opening assistance

Startup

We recommend using only original Kärcher suction hoses, filter components and hose connections. Using components from other manufacturers can lead to malfunctions when sucking the feed fluid, especially when using bayonet connection systems.

Mobile use

Note

Even minor leaks lead to malfunctions.

Connect the suction hose

Note

We recommend using a suction hose with a backflow stop. The backflow stop reduces the re-sucking time because it prevents the suction hose from draining after water is dispensed. Do not install the backflow stop directly at the pump.

Note

We recommend using an additional pre-filter if sandy water is to be delivered. Install the pre-filter between the suction hose and pump.

For information on the backflow stop and pre-filter, see chapter Accessories and spare parts.

1. Screw the connection adapter into the suction connection of the pump (inlet) and tighten hand-tight.

Illustration B

2. Connect a vacuum-tight suction hose.

Connecting the pressure line

1. Screw the 2-way connection adapter into the pressure connection of the pump (outlet) and tighten hand-tight.

Illustration C

The 2-way connection adapter allows simultaneous operation of 2 devices (e.g. washing machine and sprinkler). It can be installed with both outlets at the side or one outlet at the side and one outlet above.

Illustration D

2. Connect the pressure line.
3. Close the unused outlet with the cap supplied if only one outlet is used.

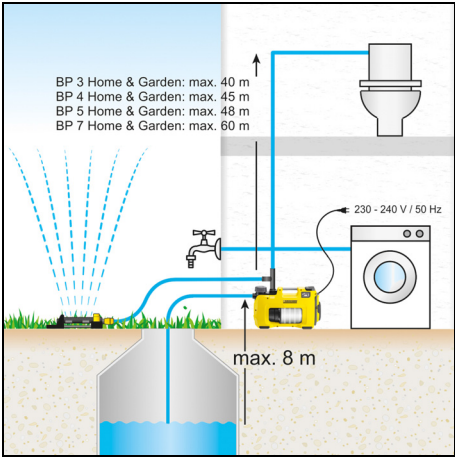
Filling the pump

1. Open and remove the filling nozzle cap, either manually or using a screwdriver shaft (max. 8 mm diameter).
2. Fill the pump via the filling nozzle, all the way to the edge.

Illustration F

3. Screw the cap tightly onto the filling nozzle, either manually or using a screwdriver shaft.
4. If present, open the stop valves in the pressure line (see chapter Pressure balance and pressure relief).

Permanent installation



1. Connect the suction hose and pressure line (see chapter Mobile use).
Use screw connections and not quick couplings in a permanent installation.
2. Fill the pump (see chapter Filling the pump).

Fastening the pump

In a permanent installation, the pump can be screwed to a suitable surface.

1. Pull out and rotate the rubber feet on both sides of the casing.

Illustration G

2. Insert the rubber feet into the casing.
3. Screw the pump tightly to a level surface using suitable screws.

Pressure balance and pressure relief

For a permanent installation we recommend installing flexible components, such as e.g. a flexible pressure equalization hose, on the pressure side (see chapter Accessories and spare parts). This has the following advantages:

- Greater flexibility in erection and commissioning
- Sound reduction since no vibration is transmitted in to the pipes of the house water system
- The pump switches less often in the case of minor leaks

We recommend installing a stop valve (not included in the scope of delivery) between the pump and pressure line to simplify draining and pressure relief in the system. Closing the stop cock prevents water from flowing out of the pressure line when the pump is drained.

If there are increased drops in pressure due to leaks in the house system the pump regularly switches on without dispensing water. In this case we recommend installing a pressure equalization container (see chapter Accessories and spare parts).

Operation

Starting operation

1. Plug the mains plug into the socket.
2. Switch the device on with the ON/OFF switch.

Illustration E

- Use the "I/On" switch setting for Manual operation.

- Use the "Auto" switch setting for Automatic mode (see also chapter Functional principle of the pump in Automatic mode).

Note

The ON/OFF switch can be conveniently operated by foot.

3. Lift the pressure hose approx. 1 m to reduce the suction time.
4. Wait until the pump simultaneously sucks and delivers.

If the water supply is too low the dry run fuse switches the device off (see chapter Dry run fuse).

Functional principle of the pump in Automatic mode

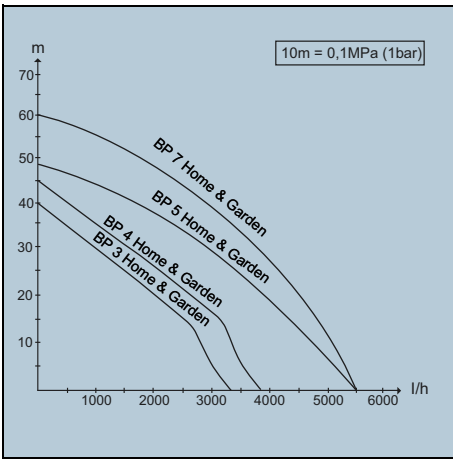
In Automatic mode, the house and garden pumps automatically maintain the pressure:

- The pump starts when water is dispensed and the pressure falls below approx. 0.13 MPa (1.3 bar).
- The pump continues running when the flow rate is greater than approx. 60 l/h.
- Pressure builds up in the system again when water dispensing stops. The pump continues running for a short after-running time and then enters standby mode.

Optimising the flow rate

The flow rate is further increased:

- The lower the delivery height is
- The greater the diameter of the hose used is
- The shorter the hose used is
- The smaller the pressure loss caused by the connected up accessories



Ending operation

1. Switch off the device at the ON/OFF switch.
2. Pull the mains plug out of the socket.

Observe the additional notes if the device is to be switched on after a longer standstill period (see chapter Care and service).

Transport

- Carry the device.

⚠ CAUTION

Loose cable and hoses lying on the ground

Danger of tripping

Watch out the cables and hoses when relocating the device in mobile operation.

Roll the cable onto the cable holder and secure with the cable clip.

- a Lift up the device by the carrying handle, and carry it.
- Transport the device in a vehicle.
 - a Secure the device against slipping and tipping over.

Storage

ATTENTION

Danger of frost

Incompletely emptied devices can be destroyed by frost.

Completely empty the device and accessories.

Protect the device from frost.

1. Open the pressure side water dispenser (e.g. water tap).

The device is depressurised.
2. Drain the hoses.
3. Remove the suction line and pressure line.
4. Open and remove the filling nozzle cap, either manually or using a screwdriver shaft.
5. Clean the pre-filter (see chapter Cleaning the pre-filter).
6. Turn the pump over and completely empty via the filling nozzle.
7. Install the pre-filter.
8. Install the cover.
9. Store the pump in a frost-protected place.

Care and service

The device is maintenance-free, i.e. you do not need to perform periodic maintenance work.

Pressure relief

1. Open and close the pressure valves attached for pressure relief.

The system is depressurised.

Flushing the pump

1. Flush the pump with clear water if water with additives has been delivered.

Cleaning the pre-filter

Check the pre-filter for contamination and clean if necessary.

1. Open and remove the filling nozzle cap, either manually or using a screwdriver shaft.
 2. Remove the pre-filter with integrated check valve.
- Illustration H**
3. Disconnect the check valve from the pre-filter.
 4. Clean the pre-filter and check valve thoroughly under running water.
 5. If necessary, flush any dirt residues out of the pump.
 6. Check the freedom of movement of the check valve.

ATTENTION

Use of unsuitable lubricant

Damage to the seals

Use the grease (6.288-143.0) available from Kärcher Service.

Use only grease free of mineral oil for the seals.

7. Lubricate the seals if the connections do not move freely.
8. Connect the pre-filter to the check valve.
9. Fit the pre-filter into the filling nozzle without using unnecessary force. Ensure the correct installation position (cutouts).

Illustration I

Troubleshooting guide

Malfunctions often have simple causes that you can remedy yourself using the following overview. When in doubt, or in the case of malfunctions not mentioned here, please contact your authorised Customer Service.

Pump is running, but not delivering

Air is in the pump.

1. Check for correct startup (see chapter Startup and Starting operation).

Dirt particles block the suction area.

1. Pull the mains plug out of the socket.
2. Clean the suction area.

The pre-filter is soiled.

1. Pull the mains plug out of the socket.
2. Allow the pump to cool down.
3. Clean the suction area.
4. Clean the pre-filter (see chapter Cleaning the pre-filter).
5. Flush dirt residues at the base of the filling nozzle out through the filling hole.
6. Switch on the pump.

The suction hose or the connection adapter is not correctly screwed in.

1. Check that the seals are fitted correctly.
2. Manually tighten the suction hose and connection adapter.

The pump does not start up, or stops suddenly during operation

The power supply is disconnected.

1. Check the fuses and the electrical connections.

The pre-filter is soiled.

1. Clean the pre-filter (see chapter Cleaning the pre-filter).
2. Flush dirt residues at the base of the filling nozzle out through the filling hole.

The pump is in Automatic mode and the pressure in the system is greater than 1.3 bar.

In Automatic mode, the device does not run when an internal pressure greater than 1.3 bar is present, i.e. a water column greater than 13 m works against the pump.

1. Reduce the pressure in the system.

The pump switches on automatically when the pressure in the system drops below 1.3 bar.

The pump stops, the "Suction side error" LED lights up

The flow is interrupted, pressure is not built up.

1. Pull the mains plug out of the socket.
2. Check that sufficient water is present in the suction container (e.g. water tank).
3. Check the suction side connections for leaks.
4. Clean the pre-filter (see chapter Cleaning the pre-filter).
5. Flush dirt residues at the base of the filling nozzle out through the filling hole.
6. Switch on the pump.

The flow is too small, the dry run fuse has switched off the pump.

1. Check that sufficient water is present in the suction container (e.g. water tank).
2. Open the water tap further.

The flow rate increases.

Suction problem due to a leak or a connected water tap. The pump does not end the suction mode.

1. Open the water tap.
2. Check the system for leaks.

Install a pressure equalization container if the leaks cannot be eliminated (see chapter Accessories and spare parts).

The pump stops in Automatic mode, the "Pressure side error" LED lights up

The pump switches frequently on and off due to leaks.

1. Check the pressure side for leaks (e.g. dripping water tap).

Install a pressure equalization container if the leaks cannot be eliminated (see chapter Accessories and spare parts).

2. Switch on the pump.

The pressure is too low after switching off the pump.

The device starts again immediately and switches frequently on and off.

1. Increase the pressure at the pressure side.

- For garden applications, use a garden hose with minimum length of 5 m when the diameter is $\frac{3}{4}$ " or 15 m when the diameter is $\frac{1}{2}$ ".

- With a permanent installation, install a pressure equalization hose or pressure equalization container (see chapter Accessories and spare parts).

2. Switch on the pump.

The pump stops in Manual mode, the "Pressure side error" LED lights up

The pump runs for at least 4 minutes, although the pressure side outlet (e.g. water tap) is closed. The overheat protection switches off the device.

1. Pull the mains plug out of the socket.

2. Open the water dispenser connected to the pressure side.

The device is depressurised.

3. Switch on the pump.

The pump capacity drops or is too low.

Dirt particles block the suction area.

1. Pull the mains plug out of the socket.

2. Clean the suction area.

The pre-filter is soiled.

1. Pull the mains plug out of the socket.

2. Allow the pump to cool down.

3. Clean the suction area.

4. Clean the pre-filter (see chapter Cleaning the pre-filter).

5. Flush dirt residues at the base of the filling nozzle out through the filling hole.

6. Switch on the pump.

The suction side is leaking.

1. Check the suction side for leaks.

The maximum lifting height is exceeded or the flow rate is not optimised.

1. Observe the maximum lifting height (see chapter Technical data).

2. If necessary, select a different hose diameter or a different hose length (see chapter Optimising the flow rate).

The pressure side outlet is restricted.

1. Fully open the valve or ball tap.

The pressure side hose is kinked.

1. Eliminate the kink points in the hose.

Technical data

		BP 3 Home & Garden	BP 4 Home & Garden	BP 5 Home & Garden	BP 7 Home & Garden
Electrical connection					
Mains voltage	V	230-240	230-240	230-240	230-240
Power frequency	Hz	50	50	50	50
Nominal power	W	800	950	1000	1200
Device performance data					
Maximum flow rate	l/h	3300	3800	6000	6000
Suction height (max.)	m	8	8	8	8
Pressure (max.)	MPa (bar)	0,40 (4,0)	0,45 (4,5)	0,48 (4,8)	0,60 (6,0)
Delivery height (max.)	m	40	45	48	60
Switch-on pressure in automatic mode (max.)	MPa (bar)	0,13 (1,3)	0,13 (1,3)	0,13 (1,3)	0,13 (1,3)
Particle size (max.) of permissible feed fluids	mm	1	1	1	1
Pump type		Jet	Jet	Multistage 4-stage	Multistage 5-stage
LED type to EN 60825-1		Class 1	Class 1	Class 1	Class 1
Application instructions					
Watering (max.)	m ²	500	800	1000	1200
House supply (max.)	Persons	8	10	12	12
Watering + house supply with 4 persons (max.)	m ²	300	600	800	900
Dimensions and weights					
Weight (without accessories)	kg	10,3	10,6	12,5	13,0
Determined values to EN ISO 20361					
Sound level L _{pA}	dB(A)	61	63	61	61
	dB(A)	76	78	77	76

Subject to technical modifications.