

Comfort 5000/5E LCD Art. 1759

Premium 6000/6E LCD Inox Art. 1760

D Betriebsanleitung
Hauswasserautomat

GB Operating Instructions
Electronic Pressure Pump

F Mode d'emploi
Station de pompage

NL Gebruiksaanwijzing
Elektronische hydrofoorpomp

S Bruksanvisning
Pumpautomat

DK Brugsanvisning
Husvandværk

FI Käyttöohje
Painevesipumppu

N Bruksanvisning
Trykkpumpe

I Istruzioni per l'uso
Pompa ad intervento automatico

E Instrucciones de empleo
Estación de bombeo

P Manual de instruções
Bomba de pressão

PL Instrukcja obsługi
Hydrofor

H Használati utasítás
Háztartási automata szivattyú

CZ Návod k obsluze
Domácí vodní automat

SK Návod na obsluhu
Domáci vodný automat

GR Οδηγίες χρήσης
Συσκευή παραγωγής νερού
οικιακής χρήσης

RUS Инструкция по эксплуатации
Автоматический напорный
насос

SLO Navodilo za uporabo
Hišna vodni avtomat

HR Upute za uporabu
Kućni automat za vodu

SRB Uputstvo za rad
BIH Hidropak

UA Інструкція з експлуатації
Помпа напірна автоматична

RO Instrucțiuni de utilizare
Hidroforul Electronic

TR Kullanma Kılavuzu
Konut suyu hidroforları

BG Инструкция за експлоатация
Помпа с електронен пресостат
за високо налягане

AL Manual përdorimi
Automati i ujit i shtëpisë

EST Kasutusjuhend
Pump-veeautomaat

LT Eksploatavimo instrukcija
Buitinis automatinis slėgimo
siurblys

LV Lietošanas instrukcija
Elektroniskais ūdens sūkņis

GARDENA Electronic Pressure Pump

Comfort 5000/5E LCD /

Premium 6000/6E LCD Inox



Translation of the original German operating instructions.

Please read the operating instructions carefully and observe the notes given. Use these operating instructions to familiarise yourself with the product, the proper use and the safety instructions.



Never operate the product when you are tired, ill or under the influence of alcohol, drugs or medicine.

This product may be used under supervision, or if instruction regarding the safe use of the product has been provided and the resulting dangers have been understood, by children aged 8 and above, as well as by persons with physical, sensory or mental disabilities or a lack of experience and knowledge. Children must not be allowed to play with the product. Cleaning and user maintenance must not be performed by children without supervision. The use of this product by young people under the age of 16 is not recommended.

→ Keep these operating instructions in a safe place.

Contents:

1. Area of application of your GARDENA Electronic Pressure Pump	19
2. Safety Instructions	20
3. Function	21
4. Initial Operation	22
5. Operation	23
6. Menu settings	25
7. Putting into Storage	27
8. Maintenance	28
9. Troubleshooting	29
10. Available accessories	33
11. Technical Data	34
12. Service/Warranty	34

1. Area of application of your GARDENA Electronic Pressure Pump

Correct use:

GARDENA Electronic Pressure Pumps have been designed for private use around the house and garden. Electronic Pressure Pumps are predominantly used for operating watering systems and systems in private gardens.

When using the pump for pressure intensification, the maximum permissible internal pressure of 6 bar (on the delivery side) must not be exceeded. The delivery pressure to be increased and the pump pressure have to be added together.

- Example: pressure at the tap = 1.0 bar, maximum pressure of the Electronic Pressure Pump Comfort 5000/5E LCD = 4.5 bar, total pressure = 5.5 bar.

Liquids pumped:

The GARDENA Electronic Pressure Pump can be used for pumping rainwater, tap water and chlorinated swimming pool water.

Please note:



The GARDENA Electronic Pressure Pump is not suitable for continuous operation (e.g. industrial applications, continuous circulating operation). Corrosive, easily combustible, aggressive or explosive liquids (such as gasoline, petroleum or nitrothinner), saltwater and food intended for consumption must not be pumped. The temperature of the liquid must not exceed 35 °C. Before the beginning of the frost period, the Electronic Pressure Pump must be drained and placed in frost-proof storage (see 7. Putting into Storage).

2. Safety Instructions

Electrical safety



DANGER! Electric shock!

Risk of injury due to electric shock!

→ **Always unplug your pump before filling, after operation, before troubleshooting and before carrying out any maintenance work.**

Caution: Following (DIN VDE 0100-702), the use of the pump is only permissible if the pump is operated via a residual-current device (FI switch).

The pump must be located on solid, even ground, protected from flooding. Take care that the pump cannot fall into water.

As an additional safety device an approved safety switch can be used.

→ Please ask your electrician for his advice.

When connecting the pump to the water supply system, the country-specific sanitary regulations must be observed to prevent water not of drinking water quality being drawn back in.

Extension cables

Data indicated on the type plate must match the technical data of the mains supply.

Following DIN VDE 0620 the power cable as well as any extension cable must not have a smaller diameter than rubber sheathed cables described with letter symbols H07 RNF.

Protect the power cable from heat, oil and sharp edges.

→ Do not use the power cable for carrying the pump or for unplugging.

In Austria

In Austria the electrical connection must satisfy the ÖVE-EM 42, T2 (2000)/1979 § 22 to § 2022.1. This requires that pumps used for swimming pools and garden ponds may only be powered through an isolating transformer.

→ Please ask your electrician for his advice.

In Switzerland

In Switzerland portable devices that are used outdoors must be connected through a residual-current device.

General Information



Risk of injury due to hot water!

If the electronic control is defective or if the water supply on the intake side of the pump fails, any water remaining in the pump may heat up, generating a risk of injuries caused by hot water on leakage.

→ **Disconnect the pump from the mains via the main circuit breaker, let the water cool (approx. 10 – 15 min.) and secure the water supply on the intake side before putting into operation again.**

Visual check

→ Before operating the pump, first make a visual check to ensure there is no damage to the pump (especially regarding power cable and plug).

A damaged pump must not be used.

→ In case of damage, please have the pump checked by our GARDENA Service Centre or by an authorised electrician.

Safety in operation

Protect the pump from rain. Do not use the pump in a wet or moist area.

In order to avoid dry-running of the pump, take care that the end of the suction hose is always submerged into the water.

→ Before each operation, fill the pump to overflowing with approx. 2 to 3 l of water to be pumped!

Very fine sand can pass through the integrated filter (mesh size 0.45 mm) and cause accelerated wear in the hydraulic parts.

→ For sandy water, you should additionally use the GARDENA pump pre-filter, art. no. 1730 (mesh size 0.1 mm).

When using the pump for domestic water supply, please adhere to the local water and sewerage regulations. In addition observe the regulations of DIN 1988.

→ If necessary, contact your local water authority.

Warning! This pump produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this pump.

3. Function

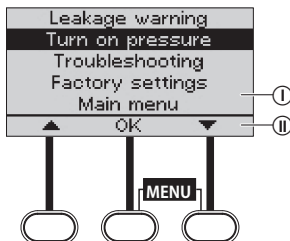
Low quantity programme:

The Electronic Pressure Pump is equipped with an electronic control which automatically turns on the pump when the cut-in pressure has fallen and automatically switches off when no more water is extracted.

The integrated small amount programme allows for trouble-free use of, for example, modern washing machines or drip irrigation systems even with low water flow.

Error diagnosis system:




The pump has an error diagnosis system which shows different fault statuses and their remedies via the display (see 9. Troubleshooting).



Display

Updated information on the operating conditions can be shown depending on the display, and various settings can be undertaken.

The display consists of a display area Ⓛ and a toolbar Ⓜ, which states the respective functions of the 3 buttons below e.g.:

Left button		Scroll menu upwards to "Leakage warning".
Centre button		Call up the "Turn on pressure" menu.
Right button		Scroll menu down to "Troubleshooting".

GB **4. Initial Operation**

Positioning of Electronic Pressure Pump:

The installation position must be firm and dry, and permit a secure mounting for the Electronic Pressure Pump.

→ Install the Electronic Pressure Pump at a safe distance (min. 2 m) from the pumping medium.

The pump must be installed in a location with an air humidity of < 80 % and sufficient ventilation in the area of the ventilation slots. It must be at a distance of at least 5 cm from the walls. No dirt contamination (e.g. sand or earth) may be sucked in through the ventilation slots.

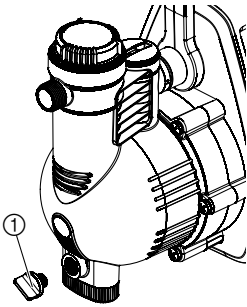
Installing the Electronic Pressure Pump:

Set up the Electronic Pressure Pump so that it is prevented from slipping and that an appropriately large collecting vessel for draining the pump or the system can be placed under the drain screw ①.

If possible, install the unit higher than the water surface. If this is not possible, install a vacuum-resistant valve between the unit and the suction hose, for example for cleaning the integrated filter.

If the system is being installed permanently, please fit suitable valves on both the intake and delivery sides.

For example, important for maintenance and cleaning work on the pump or for shutdown.



The GARDENA connection pieces on the intake and delivery sides may only be tightened by hand. When using metal connections, damage could occur on the connection thread due to inappropriate assembly. Therefore, screw on the connection fittings with the upmost care.

Connect the hose to the suction side:

Do not use any water hose snap connection system components on the intake side! A vacuum-tight suction hose must be used e.g.:

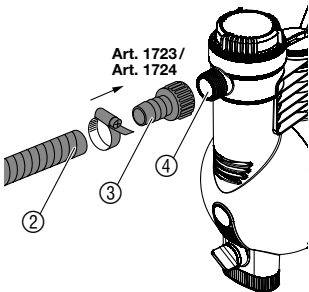
- GARDENA Suction Hose **Art. no. 1411 / 1418**
- GARDENA Bore Hole Suction Hose **Art. no. 1729.**

To reduce the pump repriming time, we recommend:

- Using a suction hose with backflow preventer, which prevents the suction hose emptying automatically when the Electronic Pressure Pump is switched off.

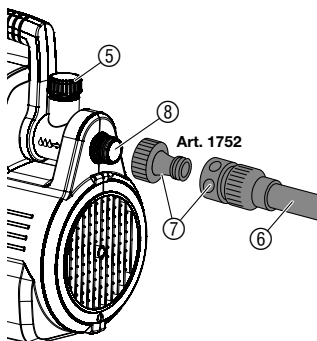
- with larger suction heads, use a suction hose with a smaller diameter (3/4").

1. Connect the vacuum resistant suction hose, sold by the metre ②, using the suction hose fitting ③ (e.g. **Art. no. 1723/1724**) with the connector on the suction side ④ and screw on airtight.
2. For suction heights exceeding 4 m also secure the suction hose (e.g. by fastening it to a wooden post).
This relieves the pump of the weight of the suction hose.



If very fine dirt is present, we recommend the use of a **GARDENA pump preliminary filter Art. no. 1730 / 1731** in addition to the integrated filter.

Connect hose to output side:



The hose can be connected either to the delivery side 33.3 mm (G 1)-thread of the 120° swivelling connection and/or of the horizontal connection. Use pressure-resistant hoses such as:

- GARDENA Garden Hose (3/4") **Art. no. 18113** with GARDENA Connection Set **Art. no. 1752**.

1. Connect the delivery hose (6) over the connection set (7) with the connector on the delivery side (8).
2. Seal the connection not required with the end cap (5) included in delivery.

If the pump is permanently installed indoors for domestic water supply, the Electronic Pressure Pump should not be connected to the domestic water pipework with rigid pipes but with flexible tubing (e.g. reinforced hoses), to reduce noise and to avoid damage to the pump caused by pressure blows.

5. Operation

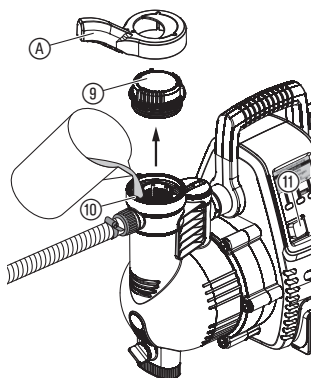
Starting the Electronic Pressure Pump:



DANGER! Electric shock!

Risk of injury due to electric shock!

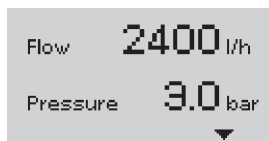
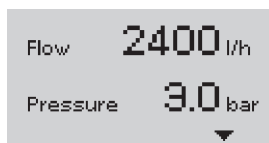
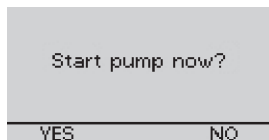
→ **Before filling the Electronic Pressure Pump, unplug the equipment from the mains.**



1. Unscrew the lid (9) of the filter chamber with the spanner (A) provided.
2. Open any shut-off devices in the delivery line (watering accessories, tap, etc.) so that air can escape before the priming procedure begins.
3. Empty any water remaining in the delivery hose so that the air can escape during filling and priming.
4. Slowly fill up the liquid to be pumped via the filler neck (10) up to the overflow (approx. 2 to 3 l), until the water level no longer drops under the suction side inlet.
5. Tighten the lid (9) of the filter chamber up to the stopper.
6. Insert mains plug into a 230 V / 50 Hz AC socket.

The specified max. self-priming suction height (see 10. Technical Data) is only achieved if the pump is filled until it overflows from the filter connection (10) and the delivery hose is held high enough during the first self-priming so that no water can escape from the pump via the delivery hose. It is not necessary to hold up the delivery hose if filled suction hoses with backflow preventer are used.

7. Change the switch (11) to I.
The switch is illuminated.



During commissioning, the display language must first be selected.

8. Select the required display language using the **right** or **left button** and confirm with the **centre button** **OK**.

9. The display now reads "Start pump now?"
Press the **left button** **YES**.

10. The pump starts after approx. 2 seconds and the GARDENA sun will rotate in the display during the suction process.

11. Close the shut-off devices in the delivery pipeline again when the pump begins to continuously convey water.

The suction process may take several minutes depending on the delivery head.

12. The pump turns off automatically approx. 10 seconds after closing the shut-off device. The normal operation (Standby) has been reached.

Displays in the LC display during the different operating conditions

Suction process (GARDENA sun rotates).

The suction process runs.

The pump conveys water.

The current flow and the current pressure during operation are shown.

The Electronic Pressure Pump is ready for operation.

"Sleep mode", no water removal.



Delivery capacities (“Volume Counter”)

The total delivery capacity (since commissioning) and partial delivery capacity (“Temp. Volume”) (since last reset) are shown.

The “Volume Counter” display can be called up from the “Flow/Pressure” display or from the “Standby” display by pressing the **right button** (display for approx. 5 seconds).

Frost warning

The temperature in the pump was or is below 4 °C. Put pump out of operation (see 7. Putting into Storage).

By pressing the **right button** ▼ and then confirming with the centre button **OK**, the normal operating display can be called up again.

6. Menu settings

Various pump functions can be called up and adjusted in the main menu.

Main menu

Call up the main menu (Electronic Pressure Pump in operation):
→ Press the **centre** and **right buttons simultaneously**, until the main menu is shown in the display.

Call up the main menu (Electronic Pressure Pump not in operation):
→ Keep the **centre** and **right buttons** pressed **simultaneously**, switch on the pump and wait until the main menu is shown in the display.

As long as the main menu is opened, the Electronic Pressure Pump interrupts operation for safety reasons.



The main menu has 4 menus:

1. Language
2. Info menu
3. Settings
4. Exit

→ Select the required menu with the **left** or **right button** and call up with the **centre button**.

1. Language

The display language can be selected in the “Language” menu.

→ Select the language with the **left** or **right button** and confirm with the **centre button**.



2. Info menu

The “Info menu” has 3 submenus:

- 2.1. Overview
- 2.2. Reset
- 2.3. Main menu



2.1. Overview

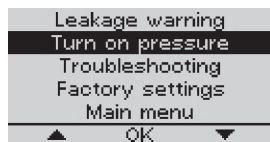
In the “Overview” submenu, the total delivery capacity, the partial delivery capacity (“Temp. Volume”), the turn on pressure, the leakage warning, the diagnosis system and the pump temperature are shown.

2.2. Reset

In the “Reset” submenu, the partial delivery capacity (“Temp. Volume”) can be reset to 0 and/or the min./max. pump temperature (Reset).

2.3. Main menu

Leads back to main menu.

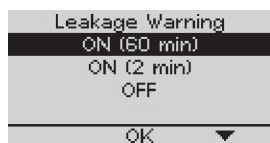


3. Settings

The “Settings” menu has 5 submenus:

3.1. Leakage warning (Low quantity programme)

In the “Leakage warning” submenu, the alert time of the leakage warning can be set. The leakage warning can be triggered after either 60 minutes or 2 minutes. The leakage warning can be switched off under “Off”.



The set leakage warning parameters have a direct influence on operation in the low quantity programme. Connecting devices (e.g. modern washing machines, drip irrigation systems, etc.) with low water consumption can be operated as follows:

Settings	Use	Operating duration
“ON (60 min)”	As Low quantity programme for consumers with low water consumption (e.g. washing machines, drip irrigation systems).	→ Up to 60 minutes (Leakage warning is, if applicable, triggered after 60 minutes).
“ON (2 min)”	As maximum protection against drip water leakages.	→ Drip water alert after 2 minutes.
“OFF”	As Small amount programme for consumers with low water consumption (e.g. washing machines, drip irrigation systems).	→ Unlimited (Note: No leakage warning in this mode).

Note: The cyclical activation and deactivation of the Electronic Pressure Pump in small amount mode is due to the system design and does not have any impact on pump life.

3.2. Turn on pressure

In the “Turn on pressure” submenu, the cut-in pressure is set to the maximum value at the factory. It can be reduced in 0.2 bar steps to 2.0 bar.

3.3. Troubleshooting

In the “Troubleshooting” menu, the troubleshooting can be switched on and off. When the troubleshooting is switched on, the most frequent causes and their remedies are shown directly in the display. When the troubleshooting is switched off, only the error code will appear on the display. Under “9. Troubleshooting”, the appropriate causes and remedies can be found.

3.4. Factory settings

All settings can be reset to the delivery status in the “Factory settings” submenu. On reset, the leakage warning is set to 60 minutes, the cut-in pressure (“Turn on pressure”) is set to the maximum value and the troubleshooting to “On”.

3.5. Main menu

Leads back to main menu.

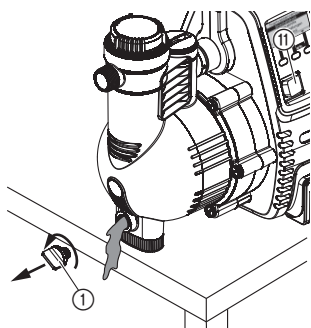
4. Exit

Closes the main menu.

The pump can now be restarted.

7. Putting into Storage

Storage / Transportation:



Disposal:
(in accordance with
RL 2012/19/EU)



If there is a risk of frost, the Electronic Pressure Pump must be emptied and stored where it will not become frozen. Store out of the reach of children.

1. Change the switch ⑪ to **O**.
2. Unplug the mains connection for the pump.
3. Open the delivery side consumer.
4. Remove the connected hoses on the pressure and suction sides.
5. Unscrew drain bolt ①.
6. Tilt the pump to the suction and pressure side until water is no longer discharged from either side.
7. Store the pump in a frost-free, dry place.

The unit must not be disposed of with normal household waste but must be disposed of in accordance with local environmental regulations.

8. Maintenance

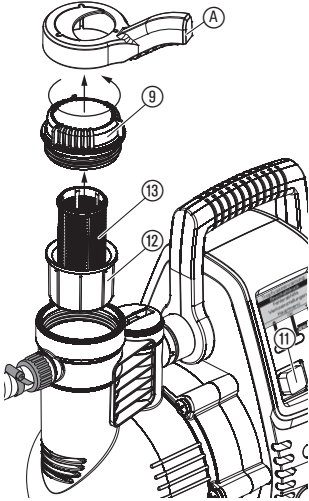


Danger! Electric shock!

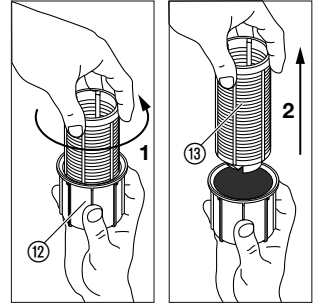
Risk of injury due to electric shock!

→ Pull out mains plug before undertaking any maintenance.

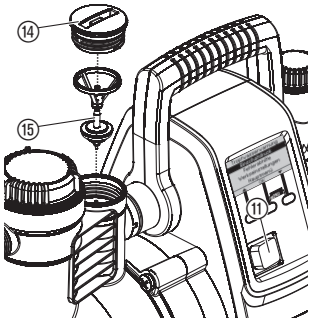
Clean built-in filter:



1. Change the switch ⑪ to **O**.
2. Disconnect mains plug.
3. If necessary, close all the shut-off devices on the intake side.
4. Unscrew the lid ⑨ of the filter chamber with the spanner ① provided.
5. Draw out filter unit ⑫ ⑬ vertically upwards.
6. Hold cup ⑫ firmly, turn filter ⑬ anti-clockwise 1 and draw out 2 (bayonet fitting).
7. Hold cup ⑫ under running water and clean the filter ⑬ e.g. with a soft brush.
8. Refit filter again in reverse order.
9. Switch Electronic Pressure Pump on again (see 5. Operation).



Cleaning the check valve:



1. Change the switch ⑪ to **O**.
2. Disconnect mains plug.
3. If necessary, close all valves on the intake side.
4. Open all tapping points so that the pressure side is depressurised. Then close the tapping points again in order to prevent the connected lines running empty via the Electronic Pressure Pump.
5. Screw out the cover ⑭ of the check valve using a suitable tool.
6. Remove the valve body ⑮ and wash it under running water.
7. Refit check valve again in reverse order.
8. Switch Electronic Pressure Pump on again (see 5. Operation).



DANGER! Electric shock!

→ Unplug the cable at the mains before troubleshooting.

Work on the electrical parts must only be carried out by GARDENA Service Centres.

Error diagnosis system

In case of a fault, the error diagnosis system shows the appropriate fault statuses and their remedies via different display images.

- ⊗ ERROR 1
- Pump not filled
- Pump blocked
- Pump outlet closed

ACTION

- ⊗ ERROR 2
- Problem on suction side
- Motor overheated

ACTION

- ⊗ ERROR 3
- Problem on suction side
- Motor overheated

ACTION

- ⊗ ERROR 4
- Small leakage warning triggered

ACTION

Problem during commissioning.

(In case of fault, display appears 30 seconds after the Electronic Pressure Pump is switched on)

Problem during commissioning.

(In case of fault, display appears 6 minutes after the Electronic Pressure Pump is switched on)

Problem during running operation.

(In case of fault, display appears 30 seconds after the Electronic Pressure Pump is switched on)

Problem during running operation.

(In case of fault, display appears, depending on the setting, 2 or 60 minutes after the Electronic Pressure Pump is switched on)

If one of the 4 errors has occurred, the most frequent causes and their remedies can be called up in the display under "ACTION".

Please note:

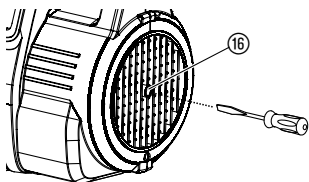
Prior to searching for a fault, the Electronic Pressure Pump must always be disconnected from the mains. However, the error display is retained even after switching the Electronic Pressure Pump off and on again, so that further remedy displays can be called up. After inspection of each suggested remedy measure, the error display can be reset by pressing "RESET" and the Electronic Pressure Pump can be restarted.

Problem	Possible Cause	Remedy
<p>⊗ ERROR 1</p> <ul style="list-style-type: none"> - Pump not filled - Pump blocked - Pump outlet closed <hr/> <p style="text-align: center;">ACTION</p>		
The pump sucks nothing up	Pump was not sufficiently filled with liquid to be pumped.	→ Fill and secure the pump so that water does not drain out on the pressure side during the suctioning process (see 5. Operation).
	Air cannot escape on the pressure side, because the pressure side outlets are closed.	→ Open the pressure side outlets (see 5. Operation).
Pump motor does not start	Thermal circuit breaker activated and the pump housing is heated.	<ol style="list-style-type: none"> 1. Change the switch to O. 2. Open possible existing shut-off device in the pressure line (release pressure). 3. Ensure sufficient ventilation and allow the pump to cool for approx. 20 min. 4. Restart the pump (see 5. Operation).
	Pump is blocked.	<p>→ Manually remove the blockage (see “loosen impellers”).</p> <p>→ Allow the pump to cool down for 20 minutes.</p>
Flow Sensor signal faulty	Flow Sensor blocked.	→ Clean Flow Sensor (see “Clean Flow Sensor”).

Problem	Possible Cause	Remedy
<div style="border: 1px solid black; padding: 5px;"> ❗ ERROR 2 - Problem on suction side - Motor overheated </div> <hr/> <div style="text-align: center; border-top: 1px solid black; padding-top: 2px;">ACTION</div>		
The pump sucks nothing up	Problem on pump side.	<ul style="list-style-type: none"> → Immerse suction hose end under water, → eliminate any leak on the suction side, → clean check valve on the suction line and check the mounting direction, → clean suction filter on the suction hose end, → clean filter lid seal and screw lid until the stopper (see 7. Maintenance), → clean fine-mesh filter in the pump.
	Suction hose deformed.	→ Use a new suction hose.
Pump motor does not start	Thermal circuit breaker activated (motor overheated).	→ Allow the pump to cool down for 20 minutes.
<div style="border: 1px solid black; padding: 5px;"> ❗ ERROR 3 - Problem on suction side - Motor overheated </div> <hr/> <div style="text-align: center; border-top: 1px solid black; padding-top: 2px;">ACTION</div>		
Water supply disrupted on the suction side	Problem on pump side.	<ul style="list-style-type: none"> → Immerse suction hose end under water, → eliminate leak on the suction side, → clean check valve on the suction line and check the mounting direction, → clean suction filter on the suction hose end, → clean filter lid washer and screw lid until the stop (see 8. Maintenance), → clean fine-mesh filter in the pump.
	Suction hose bent.	→ Use a new suction hose.
Flow Sensor signal faulty	Flow Sensor blocked.	→ Clean Flow Sensor (see "Clean Flow Sensor").
Pump motor does not start anymore	Thermal circuit breaker activated (motor overheated).	→ Allow the pump to cool down for 20 minutes.

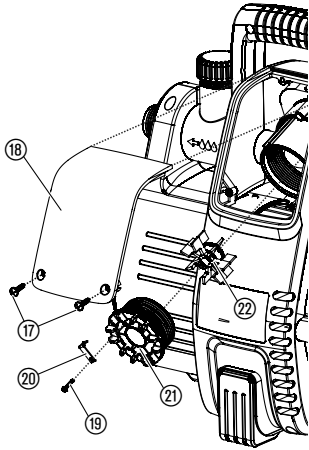
Problem	Possible Cause	Remedy
<div style="border: 1px solid black; padding: 5px;"> <p>✘ ERROR 4 - Small leakage warning triggered</p> <hr/> <p style="text-align: center;">ACTION</p> </div>		
Leakage warning activated	Leak on pressure side (e. g. dripping tap).	→ Eliminate leak on pressure side.
	Maximum operating time of set leakage warning/low quantity programme exceeded.	→ Change “Water drip alert” settings. → Increase water consumption.
	Check valve contaminated.	→ Clean check valve in pump (see 8. Maintenance).
	Flow meter contaminated.	→ Clean flow meter in pump (see 8. Maintenance).
Pump motor does not start or stops suddenly during operation	Switch is not turned to I.	→ Restart the pump (see 5. Operation).
	Mains plug not plugged in.	→ Insert mains plug into a mains socket (230 V AC).
	Power failure.	→ Check fuse and cables.
Remedy measures are not shown	Troubleshooting not activated.	→ Switch Troubleshooting to “On” (see 6. Menu settings).
No display	Power failure.	→ Check fuse and cables.
	Electrical interruption.	→ Send pump to GARDENA Service.
	Direct sun irradiation (display temperature > 65 °C).	→ The function is retained. The display appears once the temperature has dropped.

Free the impeller:



An impeller blocked by dirt can be freed again.

- Turn motor shaft ⑯ using a screw driver.
This will free the blocked impeller.

Cleaning the flow sensor:

If the flow sensor is dirty, this may result in wrong error messages (Info-LED).

1. Unscrew both screws ⑰.
2. Remove the cover ⑱.
3. Undo the screw ⑲ and detach the clip ⑳.
4. Unscrew the cap ㉑ anticlockwise (e.g. by using a screwdriver).
5. Remove the impeller ㉒ and clean it. Clean the housing of the flow sensor.
6. Re-fit the impeller ㉒ with the metal part in the mounting direction.
7. Screw the cap ㉑ into place clockwise.
8. Secure the cap ㉑ by way of the clip ㉓ using the screw ⑲.
9. First insert the cover ⑱ at the top and then tighten the two screws ⑰ at the bottom.



Further information can be found under the FAQ at www.gardena.de. For any other malfunctions please contact the GARDENA service department. Repairs must only be carried out by GARDENA service departments or specialist dealers authorised by GARDENA.

10. Available accessories

GARDENA Suction Hoses	Kink and vacuum-resistant, sold by the metre with 19 mm (3/4"), 25 mm (1") or 32 mm (5/4") diameter without fittings or in fixed lengths Art. no. 1411/1418, complete with fittings, suction filter and backflow preventer.	
GARDENA Suction Hose Fittings	For vacuum-resistant connection of the pump to the suction hose sold by the metre.	Art. no. 1723/1724
Suction Filter with Backflow Preventer	To equip suction hoses with Backflow Preventer sold by the metre.	Art. no. 1726/1727
GARDENA Pump Preliminary Filter	Recommended for pumping sandy water.	Art. no. 1730/1731
GARDENA Bore Hole Suction Hose	For vacuum-resistant connection of the pump to boreholes or pipe networks. Length 0.5 m. With 33.3 mm (G1) female thread at both ends.	Art. no. 1729
GARDENA Connection Set	Connection Set for 1/2" Pressure Hoses	Art. no. 1750
GARDENA Connection Set	Connection Set for 3/4" Pressure Hoses	Art. no. 1752

11. Technical Data

Type	Comfort 5000/5E LCD (Art. no. 1759)	Premium 6000/6E LCD Inox (Art. no. 1760)
Voltage/Frequency	230 V AC / 50 Hz	230 V AC / 50 Hz
Rated power / Standby consumption	1300 W / 1.5 W	1300 W / 1.5 W
Connection cable	1.5 m H07-RNF	1.5 m H07-RNF
Max. delivery capacity	5000 l/h	6000 l/h
Max. pressure / max. delivery head	5.0 bar / 50 m	5.5 bar / 55 m
Max. suction height	8 m	8 m
Cut-in pressure	2.0 – 3.2 ± 0,2 bar	2.0 – 3.8 ± 0.2 bar
Perm. internal pressure (delivery side)	6 bar	6 bar
Weight	13.3 kg	15.2 kg
Dimensions (L x W x H)	47 cm x 26 cm x 34 cm	47 cm x 26 cm x 34 cm
Sound power level $L_{WA}^{1)}$ (measured / guaranteed) Uncertainty $K_{WA}^{1)}$	75 dB(A) / 79 dB(A) 4 dB(A)	73 dB(A) / 77 dB(A) 4 dB(A)

¹⁾ Measuring process complying with RL 2000/14/EG

12. Service/Warranty

Warranty:

GARDENA guarantees this product for 2 years (from date of purchase). This guarantee covers all serious defects of the unit that can be proved to be material or manufacturing faults. Under warranty we will either replace the unit or repair it free of charge if the following conditions apply:

- The unit must have been handled properly and in keeping with the requirements of the operating instructions.
- Neither the purchaser or a non-authorized third party have attempted to repair the unit.

The impellers, filter and jet nozzles, which are subject to wear, are excluded from the warranty.

This manufacturer's guarantee does not affect the user's existing warranty claims against the dealer/seller.

If you have any problems with this product, please contact our Service or return the defective unit together with a short description of the problem – in case of guarantee, with a copy of the receipt – postage paid to one of the GARDENA Service Centres listed on the back of this leaflet.

D Produkthaftung

Wir weisen ausdrücklich darauf hin, dass wir nach dem Produkthaftungsgesetz nicht für durch unsere Geräte hervorgerufene Schäden einzustehen haben, sofern diese durch unsachgemäße Reparatur verursacht oder bei einem Teileaustausch nicht unsere originale GARDENA Teile oder von uns freigegebene Teile verwendet wurden und die Reparatur nicht vom GARDENA Service oder dem autorisierten Fachmann durchgeführt wird. Entsprechendes gilt für Ergänzungssteile und Zubehör.

GB Product Liability

We expressly point out that, in accordance with the product liability law, we are not liable for any damage caused by our units if it is due to improper repair or if parts exchanged are not original GARDENA parts or parts approved by us, and, if the repairs were not carried out by a GARDENA Service Centre or an authorised specialist. The same applies to spare parts and accessories.

F Responsabilité

Nous vous signalons expressément que GARDENA n'est pas responsable des dommages causés par ses appareils, dans la mesure où ces dommages seraient causés suite à une réparation non conforme, dans la mesure où, lors d'un échange de pièces, les pièces d'origine GARDENA n'auraient pas été utilisées, ou si la réparation n'a pas été effectuée par le Service Après-Vente GARDENA ou l'un des Centres SAV agréés GARDENA. Ceci est également valable pour tout ajout de pièces et d'accessoires autres que ceux préconisés par GARDENA.

NL Productaansprakelijkheid

Wij wijzen er nadrukkelijk op, dat wij op grond van de wet aansprakelijkheid voor producten niet aansprakelijk zijn voor schade ontstaan door onze apparaten, indien deze door onvakkundige reparatie veroorzaakt zijn, of er bij het uitwisselen van onderdelen geen gebruik gemaakt werd van onze originele GARDENA onderdelen of door ons vrijgegeven onderdelen en de reparatie niet door de GARDENA technische dienst of de bevoegde vakman uitgevoerd werd. Ditzelfde geldt voor extra-onderdelen en accessoires.

S Produktansvar

Tillverkaren är inte ansvarig för skada som orsakats av produkten om skadan beror på att produkten har reparerats felaktigt eller om, vid reparation eller utbyte, andra än Original GARDENA reservdelar har använts. Samma sak gäller för kompletteringsdelar och tillbehör.

DK Produktansvar

Vi gør udtrykkeligt opmærksom på, at vi i henhold til produktansvarsloven ikke er ansvarlige for skader forårsaget af vores udstyr, såfremt det sker på grund af uautoriserede reparationer eller hvis dele er skiftet ud og der ikke er anvendt originale GARDENA dele eller dele godkendt af os, eller hvis reparationerne ikke er udført af GARDENA-service eller en autoriseret fagmand. Det samme gælder for ekstra udstyr og tilbehør.

FI Tuotevastuu

Korostamme nimenomaan, että tuotevastuulain nojalla emme ole vastuussa laitteistamme johtuneista vahingoista, mikäli nämä ovat aiheutuneet epäasianmukaisesta korjauksesta tai osia vaihdettaessa ei ole käytetty alkuperäisiä GARDENA-varaosia tai hyväksymiämme osia ja korjauksen on suorittanut muu kuin GARDENA-huoltokeskus tai valtuuttamamme ammattihenkilö. Tämä pätee myös lisäksiin ja lisävarusteisiin.

I Responsabilità del prodotto

Si rende espressamente noto che, conformemente alla legislazione sulla responsabilità del prodotto, non si risponde di danni causati da nostri articoli se originati da riparazioni eseguite non correttamente o da sostituzioni di parti effettuate con materiale non originale GARDENA o comunque da noi non approvato e, in ogni caso, qualora l'intervento non venga eseguito da un centro assistenza GARDENA o da personale specializzato autorizzato. Lo stesso vale per le parti complementari e gli accessori.

E Responsabilidad de productos

Advertimos que conforme a la ley de responsabilidad de productos no nos responsabilizamos de daños causados por nuestros aparatos, siempre y cuando dichos daños hayan sido originados por arreglos o reparaciones indebidas, por recambios con piezas que no sean piezas originales GARDENA o bien piezas no autorizadas por nosotros, así como en aquellos casos en que la reparación no haya sido efectuada por un Servicio Técnico GARDENA o por un técnico autorizado. Lo mismo es aplicable para las piezas complementarias y accesorios.

P Responsabilidade sobre o produto

Queremos salientar que segundo a lei da responsabilidade do fabricante, nós não nos responsabilizaremos por danos causados pelo nosso equipamento, quando estes ocorrerem em decorrência de reparações inadequadas ou da substituição de peças por peças não originais da GARDENA, ou peças não autorizadas.

A responsabilidade tornar-se-à nula também depois de reparações realizadas por oficinas não autorizadas pela GARDENA. Esta restrição valerá também para peças adicionais e acessórios.

PL Odpowiedzialność za produkt

Zwracamy Państwu uwagę, że nie ponosimy odpowiedzialności za uszkodzenia naszych maszyn, bądź szkody spowodowane ich wadliwym funkcjonowaniem, powstałe na skutek nieprawidłowo przeprowadzonych napraw lub użycia nieoryginalnych części zamiennych. Naprawy winny być przeprowadzane tylko przez punkty serwisowe Husqvarna lub autoryzowane serwisy. Dotyczy to również części uzupełniających i oprzyrządowania.

H Termékszavatosság

Nyomatékosan utalunk arra a tényre, hogy a termékszavatossági törvény szerint nem kell jótállást vállalnunk azokra a károokra, amelyeket nem a mi készülékeink okoztak, ha ezeket álszzerűtlen javítás okozta vagy egy alkatrész kicserélésénél nem a mi eredeti GARDENA alkatrészeinket vagy általunk engedélyezett alkatrészeket használtak fel és a javítást nem a GARDENA szerviz vagy egy erre felhatalmazott szakember végezte. Hasonlóképpen érvényes ez a kiegészítő alkatrészekre és tartozékokra is.

CZ Odpovědnost za výrobek

Výslovně upozorňujeme na to, že podle zákona o odpovědnosti za výrobek neneseme odpovědnost za škody způsobené našimi přístroji, pokud byly způsobené neodbornou opravou nebo použitím jiných než našich originálních náhradních dílů GARDENA nebo námi schválených dílů a neprovedením opravy servisem GARDENA nebo autorizovaným odborníkem. Odpovídající platí i pro doplňkové díly a příslušenství.

SK Predmet záruky

Upozorňujeme dôrazne na to, že podľa zákona o poskytovaní záruk nezodpovedáme za škody spôsobené našimi výrobkami, v prípade, že boli boli vyvolané neodbornými opravami, výmenou dielcov, ktoré nepatria k originálnym dielom GARDENA alebo neboli nami schválené a rovnako boli spôsobené servisnými zásahmi, ktoré neboli vykonané servisom GARDENA alebo autorizovaným odborníkom. Rovnako to platí pre doplnky a príslušenstvo.

GR Ευθύνη για το προϊόν

Σας υπενθυμίζουμε ρητά, ότι σύμφωνα με το νόμο περί ευθύνης για τα προϊόντα δεν ευθυνόμαστε για ενδεχόμενες βλάβες που προκαλούνται από τις συσκευές μας, εφόσον οφείλονται σε μία ακατάλληλη επισκευή ή σε μια αντικατάσταση τμημάτων για την οποία δεν έχουν χρησιμοποιηθεί τα πρωτότυπα ανταλλακτικά της GARDENA ή τα από μας εγκεκριμένα ανταλλακτικά και σε περίπτωση που δεν εκτελείται η επισκευή από το Τμήμα Εξυπηρέτησης Πελατών της GARDENA ή από έναν εξουσιοδοτημένο εξειδικευμένο τεχνίτη. Το ίδιο ισχύει για εξαρτήματα και συμπληρωματικά τμήματα.

SLO Jamstvo za izdelek

Pismo poudarjamo, da po zakonu jamstva za izdelek nismo odgovorni za škodo, ki bi nastala zaradi uporabe našega izdelka, prav tako tudi ne za škodo ki bi nastala zaradi nepravilnega popravila izdelka ali pri napačni zamenjavi delov, ki niso originalni deli GARDENA ali pri uporabi z naše strani potrjenih delov, ki pa niso bili vgrajeni v servisu GARDENA ali v naši pooblašteni servisni službi. Enako velja tudi za nadomestne dele in opremo.

HR Odgovornost za proizvod

Izričito napominjemo da u skladu sa Zakonom o odgovornosti za proizvode nismo odgovorni za štete uzrokovane našim uređajima ako su one izazvane nestručnim popravkom ili u slučaju zamjene dijelova nisu korišteni originalni GARDENA dijelovi ili dijelovi koje smo odobrili i popravak nije izvršio GARDENA servis ili ovlašteni stručnjak. Isto vrijedi i za dodatne dijelove i pribor.

RO Responsabilitatea legala a produsului

Menționăm în mod expres ca, în concordanță cu responsabilitatea legală a produsului, nu suntem răspunzători de nici un accident provocat de produsele noastre dacă se datorează reparării necorespunzătoare sau dacă piesele de schimb nu sunt originale GARDENA sau aprobate de GARDENA, sau dacă reparațiile nu au fost efectuate de un Centru de Service GARDENA sau un specialist autorizat. Aceleași prevederi se aplică și pieselor de schimb și accesoriilor.

BG Отговорност за качество

Изрично подчертаваме, че съгласно закона за отговорност за качество, ние не носим отговорност за вредите причинени от нашите уреди, ако същите са причинени от неправилен ремонт или при подмяната на части не са използвани оригинални части на GARDENA или части одобрени от нас и ремонта не е извършен от сервиз на GARDENA или оторизиран специалист. Същото важи за допълнителните части и принадлежности.

EST Tootevastutus

Juhime teie tähelepanu sellele, et tootevastutusseaduse kohaselt ei vastuta meie seadmete poolt põhjustatud kahjude eest, kui need on tekkinud asjatundmatu paranduse tagajärjel või kui detaili vahetamisel ei kasutatud GARDENA originaalvaruosi ega meie poolt kasutada lubatud varuosia ja kui parandustöid ei ole teinud GARDENA klienditeenindusspetsialistid ega meie volitatud spetsialistid. Sama kehtib lisadetailide ja tarvikute kohta.

LT Atsakomybė už produkciją

Nurodome, kad remdamiesi Atsakomybės už produkciją įstatymu, neatsakome už nuostolius, sukeltus mūsų prietaisy, jei jie atsirado dėl netinkamo remonto, arba, jei keičiant dalis, buvo naudojamasi neoriginalios GARDENA dalys arba dalys, kurių mes neleidome naudoti, o remontą atliko ne GARDENA servisas arba neįgaliotasis specialistas. Tas pats galioja papildomoms dalims ir priedams.

LV Produkta atbildība

Mēs skaidri norādām uz to, ka saskaņā ar Produktu atbildības likumu, mēs neatbildam par mūsu iekārtu radītiem zaudējumiem, ciktāl tos ir izraisījis neatbilstošs remonts vai daļu nomaiņa ar neoriģinālām GARDENA daļām vai ne ar mūsu norādītajām detaļām un remontu nav veicis GARDENA serviss vai pilnvarots speciālists. Tas pats attiecas uz papildinošajām daļām un piederumiem.

<p>D EG-Konformitätserklärung Der Unterzeichnete Husqvarna AB, 561 82 Huskvarna, Sweden bestätigt, dass die nachfolgend bezeichneten Geräte in der von uns in Verkehr gebrachten Ausführung die Anforderungen der harmonisierten EU-Richtlinien, EU-Sicherheitsstandards und produktspezifischen Standards erfüllen. Bei einer nicht mit uns abgestimmten Änderung der Geräte verliert diese Erklärung ihre Gültigkeit.</p>	<p>H EU-Megfelelőeségi nyilatkozat Alulírott, a Husqvarna AB, 561 82 Huskvarna, Sweden igazolja azt, hogy az alábbiakban megnevezett készülékek, az általunk forgalomba hozott kivételben teljesítik a harmonizációs EU-irányelvek, az EU biztonsági szabványok és a termékre jellemző szabványok követelményeit. Ha a készülékeken a mi beleegyezésünk nélkül változtatást végeznek, akkor ez a nyilatkozat érvényét veszti.</p>
<p>GB EU Declaration of Conformity The undersigned Husqvarna AB, 561 82 Huskvarna, Sweden hereby certifies that, when leaving our factory, the units indicated below are in accordance with the harmonised EU guidelines, EU standards of safety and product specific standards. This certificate becomes void if the units are modified without our approval.</p>	<p>CZ Prohlášení o shodě EU Podepsaný Husqvarna AB, 561 82 Huskvarna, Sweden potvrzuje, že dále uvedené přístroje v námi do provozu uvedeném provedení splňují požadavky harmonizačních směrnic EU, bezpečnostních norem EU a norem specifických pro výrobek. Při námi neschválené změně přístrojů ztrácí toto prohlášení platnost.</p>
<p>F Certificat de conformité aux directives européennes Le constructeur, soussigné : Husqvarna AB, 561 82 Huskvarna, Sweden déclare qu'à la sortie de ses usines le matériel neuf désigné ci-dessous est conforme aux prescriptions des directives européennes énoncées ci-après et conforme aux règles de sécurité et autres règles qui lui sont applicables dans le cadre de l'Union européenne. Toute modification portée sur ce produit sans l'accord express de GARDENA supprime la validité de ce certificat.</p>	<p>SK EU-Vyhlasenie o zhode Nižšie uvedená firma Husqvarna AB, 561 82 Huskvarna, Sweden vyhlasuje, že uvedené zariadenia, ktoré sme uviedli na trh v ich vyhotovení spĺňajú požiadavky harmonizačných predpisov EU, bezpečnostných štandardov EU a výrobo-spezifických štandardov. Pri zmene zariadenia, ktorá nebola odsúhlasená výrobcom stráca toto vyhlásenie platnosť.</p>
<p>NL EU-overeenstemmingsverklaring Ondergetekende Husqvarna AB, 561 82 Huskvarna, Sweden bevestigt, dat de volgende genoemde apparaten in de door ons in de handel gebrachte uitvoering voldoen aan de eis van, en in overeenstemming zijn met de EU-richtlijnen, de EU-veiligheidsstandaard en de voor het product specifieke standaard. Bij een niet met ons afgestemde verandering aan de apparaten verliest deze verklaring haar geldigheid.</p>	<p>GR Δήλωση Συμμόρφωσης προς τις Οδηγίες της ΕΕ Η υπογράφουσα Husqvarna AB, 561 82 Huskvarna, Sweden δηλώνει, ότι τα εξής αναφερόμενα εκδοόμενα από την εταιρία μας προϊόντα ανταποκρίνονται σε όλες τις εναρμονισμένες προδιαγραφές της ΕΕ, στα πρότυπα ασφαλείας της ΕΕ και στα ειδικά για το προϊόν πρότυπα. Σε μία μη συμφωνημένη με την εταιρία μας τροποποίηση των συσκευών αυτή η δήλωση χάνει την ισχύ της.</p>
<p>S EU Tillverkarintyg Undertecknad firma Husqvarna AB, 561 82 Huskvarna, Sweden intygar härmed att nedan nämnda produkter överensstämmer med EU:s direktiv, EU:s säkerhetsstandard och produktspecifikation. Detta intyg upphör att gälla om produkten ändras utan vårt tillstånd.</p>	<p>SLO EU-izjava o skladnosti Podpisani proizvajalca «Husqvarna AB, 561 82 Huskvarna, Sweden» s podpisom potrjuje, da sledeče opisana naprava, ki smo jo poslali na tržišče izpolnjuje zahteve harmoniziranih standardov ES-smernica, ES-varnostnih standardov in izdelku specifičnih standardov. V primeru spremembe na napravi brez našega pisnega dovoljenja ta izjava izgubi svoj pomen in veljavnost.</p>
<p>DK EU Overensstemmelse certifikat Undertegnede Husqvarna AB, 561 82 Huskvarna, Sweden bekræfter hermed, at enheder listede herunder, ved afsendelse fra fabrikken, er i overensstemmelse med harmoniserede EU retningslinjer, EU sikkerheds standarder og produkt specifikations standarder. Dette certifikat træder ud af kraft hvis enhederne er ændret uden vor godkendelse.</p>	<p>HR Izjava o skladnosti EU-a Dolje potpisana tvrtka Husqvarna AB, 561 82 Huskvarna, Sweden ovime potvrđuje da dolje navedeni uređaji u izvedbi plaširanoj na tržište ispunjavaju zahtjeve harmoniziranih EU smjernica, EU sigurnosnih normi i normi za određene proizvode. Ova izjava postaje ništavna u slučaju izmjene uređaja koje nismo odobrili.</p>
<p>FI EY-vaatimustenmukaisuusvakuutus Allekirjoittanut Husqvarna AB, 561 82 Huskvarna, Sweden vakuuttaa, että alla mainittu laitteet täyttävät tehtaaltamme lähtießään yhdenmukaistettujen EY-direktiivien, EY-turvallisuusstandardien ja tuotekohtaisten standardien vaatimukset. Laitteisiin tehdyt muutokset, joista ei ole sovittu kanssamme, joutavat tämän vakuutuksen raukaamiseen.</p>	<p>RO UE-Certificat de conformitate Prin prezenta Husqvarna AB, 561 82 Huskvarna, Sweden, certifica faptul ca, in momentul in care produsele mentionate mai jos ies din fabrica sunt in concordanta cu directivele UE, standardele de siguranta UE si standardele specifice ale produsului UE. Acest certificat devine nul in cazul modificării aparatului fără aprobarea noastră.</p>
<p>I Dichiarazione di conformità alle norme UE La sottoscritta Husqvarna AB, 561 82 Huskvarna, Sweden certifica che il prodotto qui di seguito indicato, nei modelli da noi commercializzati, è conforme alle direttive armonizzate UE nonché agli standard di sicurezza e agli standard specifici di prodotto. Qualunque modifica apportata al prodotto senza nostra specifica autorizzazione invalida la presente dichiarazione.</p>	<p>BG ЕС-Декларация за съответствие Подписаната фирма Husqvarna AB, 561 82 Huskvarna, Sweden декларира, че описаните по-долу уреди, пуснати в продажба съгласно нашата спецификация, изпълняват изискванията на хармонизираните ЕС-директиви, ЕС-стандарти за безопасност и специфични производствени стандарти. При промяна на уреда, която не е съгласувана с нас, тази декларация губи своята валидност.</p>
<p>E Declaración de conformidad de la UE El que suscribe Husqvarna AB, 561 82 Huskvarna, Sweden declara que la presente mercancía, objeto de la presente declaración, cumple con todas las normas de la UE, en lo que a normas técnicas, de homologación y de seguridad se refiere. En caso de realizar cualquier modificación en la presente mercancía sin nuestra previa autorización, esta declaración pierde su validez.</p>	<p>EST Eli vastavusdeklaratsioon Allekirjutanut Husqvarna AB, 561 82 Huskvarna, Sweden kinnitab, et kirjeldatud seade vastab meie poolt riigusse viidud kujul ELi harmoniseeritud direktiividele, ELi ohutusstandarditele ja tootega seotud standarditele. Meiega kooskõlastamata muudatuse tegemise korral seadmel kaotab see deklaratsioon kehtivuse.</p>
<p>P Certificado de conformidad da UE Os abaixo mencionados Husqvarna AB, 561 82 Huskvarna, Sweden, por este meio certificam que ao sair da fábrica os aparelhos abaixo mencionados estão de acordo com as direttrizes harmonizadas da UE, padrões de segurança e de produtos específicos. Este certificado ficará nulo se as unidades forem modificadas sem a nossa aprovação.</p>	<p>LT ES Atitikties deklamacija Pasirašanti firma Husqvarna AB, 561 82 Huskvarna, Sweden patvirtina, kad žemiau nurodyti prietaisai ir jų modeliai, kuriuos paleidome į apyvartą, patenkina harmonizuotus ES direktyvas, ES saugumo standartus ir specifinius gaminių standartus. Atlikus bet kokį prietaiso pakeitimą, kuris nėra suderintas su mumis, ši deklaracija praranda galiojimą.</p>
<p>PL Deklaracja zgodności Unii Europejskiej Husqvarna AB, 561 82 Huskvarna, Sweden potwierdza, że poniżej określone urządzenia w wersji oferowanej przez nas do sprzedaży spełniają wymagania zharmonizowanych dyrektyw Unii Europejskiej, standardu bezpieczeństwa Unii Europejskiej i standardu specyficznego dla tego typu produktów. W przypadku zmiany urządzenia, która nie została z nami uzgodniona, niniejsza deklaracja traci moc obowiązywania.</p>	<p>LV ES-atbilstības deklarācija Parakstīstusies Husqvarna AB, 561 82 Huskvarna, Sweden, Vācija apstiprina, ka sekojoši apzīmētās iekārtas, kurās mēs izplatām, savā izpildījumā atbilst harmonizētajām ES direktīvām, ES drošības standartiem un produkta specifiskajiem standartiem. Ar mūsu neapstiprinātām izmaiņām iekārtā šī deklarācija zaudē savu derīgumu.</p>

Pumpen-Kennlinien

Performance characteristics

Courbes de performance

Prestatiegrafiek

Kapacitetskurva

Ydelses karakteristika

Pumpun ominaiskäyrä

Pumpekarakteristikk

Curva di rendimento

**Curva característica
de la bomba**

**Características de
performance**

Charakterystyka pompy

Szivattyú-jelleggörbe

Charakteristika čerpadla

Charakteristiky čerpadla

Χαρητηριστικό διάγραμμα

Характеристика насоса

Karakteristika črpalka

Obilježja pumpe

Karakteristika pumpe

Крива характеристики насоса

Caracteristică pompă

Pompa karakter eğrisi

Помпена характеристика

Fuqia e pompës

Pumba karakteristik

Siurblio charakterinė kreivė

Sūkņa raksturlīkne

Comfort 5000/5E LCD



Premium 6000/6E LCD Inox



