

7000 SL Art. 1780  
7800 SL Art. 1454  
8500 SL Art. 1782

**D Betriebsanleitung**

Tauchpumpe

**GB Operating Instructions**

Submersible Pump

**F Mode d'emploi**

Pompe d'évacuation pour eaux claires

**NL Instructies voor gebruik**

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Bomba submersível

**DK Brugsanvisning**

Dykpumpe

# GARDENA Submersible Pump

## 7000 SL / 7800 SL / 8500 SL

Welcome to the garden of GARDENA ...



Translation of the original instructions from German. Please read these operating instructions carefully and observe the notes given. Use the instructions to familiarise yourself with the submersible pump, its correct use, and the notes on safety.



For safety reasons, children under 16 as well as persons not familiar with these operating instructions should not use this submersible pump.

→ Keep these operating instructions in a safe place.

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## 1. Applications Range of Your GARDENA Submersible Pump

### Intended use

GARDENA Submersible Pumps have been designed for private use around your house and garden. They are predominantly destined for drainage after flooding, transfer of liquids, draining containers, taking water from wells and shafts, draining boats and yachts as well as for water aeration and circulation for a limited period of time.

### Liquids to be pumped

Liquids which can be handled by the GARDENA Submersible Pump are the following: clean and slightly contaminated water (max. particle size 5 mm), swimming pool water (prerequisite is the recommended dosage of additives) and soapy water.

The pumps are fully submersible (waterproof sealed) and can be immersed in the liquid down to a depth of 9 m.

### Please note



**The GARDENA Submersible Pumps are not designed for continuous operation (e.g. continuous circulating operation) in a pond. Your pump's life will be shortened correspondingly by such operation.**

**Corrosive, easily combustible or explosive substances (e.g. gasoline, petroleum, nitro thinner), fats, oils, salt-water and waste water of toilets and urinals must not be pumped. The temperature of the liquid handled should not exceed 35 °C.**

## 2. For Your Safety

### **Residual-current device**

According to DIN VDE (German Electrical Engineers' Association) 0100, submersible pumps may only be used in swimming pools, garden ponds, and fountains if the pump is operated via a residual-current device with a residual-current rating of  $\leq 30$  mA. The pump must not be operated when there are persons in the swimming pool or garden pond.

For safety reasons we recommend that you always operate the submersible pump via a residual-current device (DIN VDE 0100-702 and 0100-738).

→ Please contact your electrician.

### **In Austria**

In Austria, according to ÖVE B/EN 60 555 part 1 to 3, pumps which are used in swimming pools and garden ponds, and equipped with firm power cable should be fed via an ÖVE approved isolating transformer – rated voltage must not exceed 230 V.

### **In Switzerland**

In Switzerland mobile appliances which are used outdoors, must be connected via a residual-current device.

### **Mains power**

According to DIN VDE (German Electrical Engineers' Association) 0620, mains power cables must not have a smaller cross-section than the rubber-sheathed cables of the designation H05 RN-F. The cable length must be at least 10 m.

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

→ Take care that the electrical connections are made within dry area, protected from flooding.

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

→ Don't use the power cable for plugging off.

The power cable or the float switch must not be used for mounting or relocating the pump. For submerging or lifting/securing the pump, fix a rope to the pump's carrying handle.

Extension cables must meet the requirements of DIN VDE 0620.

### **Visual check**

→ Before operating the pump, first make a visual check, if there is any damage of the pump (esp. regarding power cable and plug).

→ Observe the minimum water level and the max. delivery height (see 8. Technical Data).

A damaged pump must not be used.

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

### **Manual operation**

During manual operation, the pump must be switched off as soon as all the liquid has been pumped away.

→ Observe the pump at all times during manual operation.

### **Notes on use**

**When you purchase** your pump the swivel feet are set to the **flat suction position** (1 mm).

→ For normal operation, turn the feet 180° to 5 mm.

*The pump is lifted 5 mm.*

→ Clear the outlet line before use.

Dry-running operation causes increased wear and is to be avoided. Therefore, in manual operation the pump must be immediately unplugged when water fails to flow.

Avoid running of the pump for more than 10 min. against closed delivery side of the pump.

Sand and other abrasive substances cause increased wear and reduce the pump's output.

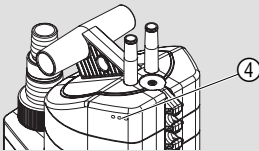
Take care that the pump is located where the inlet openings at the suction base are obstructed neither completely nor partly.

Stand the pump on a brick if using in a pond.

**Thermal motor protector**

The pump is automatically switched off on overheating by the built-in thermal motor protector. After having cooled down, the motor automatically switches on again (see 6. Trouble Shooting).

**Automatic deaerating valve**



The automatic deaerating valve eliminates any air pockets in the pump. Air escapes by the vent bores ④ and air bubbles form under water. This is not a defect of your pump, but serves to deaerate the pump.

It may take several seconds for the air to escape when the pump is immersed for the first time.

### 3. Initial Operation

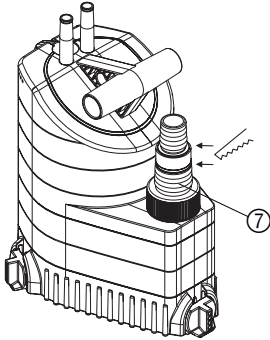
Hose diameter	13 mm (1/2") 15 mm (5/8") 19 mm (3/4")	25 mm (1")	38 mm (1 1/2")
<p>Hose connection of universal fitting ⑦</p>			

Hose connection	Cut off topmost nipple at Ⓐ.	Do not cut off any nipples.	Cut off top two nipples at Ⓒ.
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The following connection kits are required for 13 mm to 19 mm connections:  
 13 mm (1/2"): **GARDENA Pump Connection Set, Art. No. 1750**  
 15 mm (5/8"): **GARDENA Tap Connector, Art. No. (2)902**, and **Standard Hose Connector, Art. No. (2)916**  
 19 mm (3/4"): **GARDENA Pump Connection Set, Art. No. 1752**

Best results in delivery capacity are achieved when using 38 mm (1 1/2") hoses.

## Connecting the hose:



The universal fitting ⑦ allows you to connect all the hoses listed in the previous table.

1. Cut off nipples of the universal fitting ⑦, which are not needed, to match the hose connection.
2. Screw the universal fitting ⑦ onto the pump.
3. Connect the hose to the universal fitting ⑦.

We recommend that you secure 38 mm (1 1/2") and 25 mm (1") hoses additionally with a **GARDENA Hose Clip Art. No. 1591**.

For flat suction we recommend using a 13 mm (1/2") or 15 mm (5/8") hose.

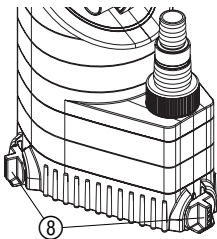
### Only for 13 mm (1/2") hose:

The universal fitting ⑦ can also be equipped with a **GARDENA Regulator Valve Art. No. 977** so that the contents of the outlet line do not flow back through the pump after pumping. The Regulator Valve can be ordered from your GARDENA dealer.

## 4. Operation

→ If the water height is lower than 3.5 cm, fill the pump before operation over the universal fitting ⑦ with water.

### Flat suction / Normal operation:



### Flat suction:

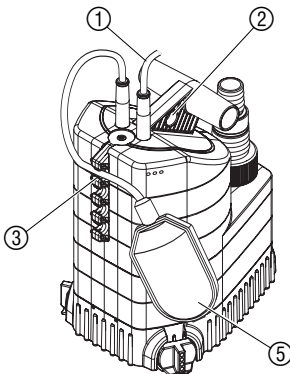
- Turn the 3 swivel feet ⑧ 180° to 1 mm.  
Flat suction up to 1 mm.

### Normal operation:

- Turn the 3 swivel feet ⑧ 180° to 5 mm.  
Flat suction up to 5 mm.

The residual water level of approx. 1 mm is only reached during flat suction in the manual operation mode. If the water level is lower than 25 mm, you can accelerate flat suction by switching the pump off and on 2 to 3 times.

### Automatic operation:



The float switch ⑤ turns the pump on automatically when the water level exceeds the cut-in height and the water is pumped out.

The float switch ⑤ turns the pump off again as soon as the water level falls below the cut-out height.

1. Stand the pump on a firm surface

– or –

use a rope attached through the bore hole in the carrying handle ② to immerse the pump in a well or shaft.

*During automatic operation, ensure that the float switch ⑤ can move freely.*

2. Plug the power cable ① into a mains socket.

### Adjusting the Cut-in and Cut-out Height:

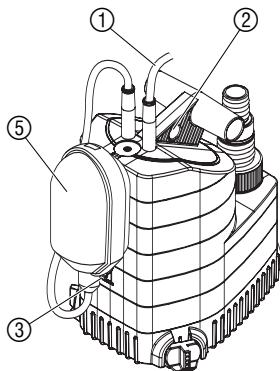
The maximum cut-in height and minimum cut-out height (see 8. Technical Data) can be adjusted.

- Push the cable of the float switch ⑤ into the float switch lock ③.  
*Do not select a cable length that is too long or short to ensure that the float switch can turn on and off properly.*

- The higher the opening of the float switch lock ③, the higher the cut-in and cut-out height.
- The shorter the length of cable between the float switch ⑤ and the float switch lock ③, the lower the cut-in height and the higher the cut-out height.

The cable length between the float switch ⑤ and the float switch lock ③ must always be at least 10 cm.

#### Manual operation:



The pump remains in constant operation because the float switch is bypassed.

1. Push the float switch ⑤ onto the float switch lock ③ with the cable downward.
2. Stand the pump on a firm surface  
– or –  
use a rope attached through the bore hole in the carrying handle ② to immerse the pump in a well or shaft.
3. Plug the power cable ① into a mains socket.

The residual water level of approx. 1 mm is only reached during flat suction in the manual operation mode.

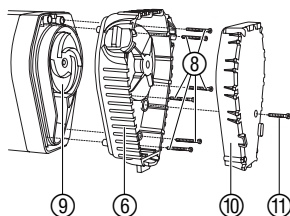
## 5. Cleaning

#### Flushing the Pump:

The pumps are virtually maintenance-free.

After having pumped chlorinated swimming pool water or other liquids leaving residues, the pump should be rinsed with clear water.

#### Cleaning the suction base and impeller:



**Warning! Electric shock!**  
Risk of injury due to electric shock.  
→ Disconnect the submersible pump from the mains before cleaning the suction base and impeller.

1. Unscrew the Phillips screw ⑪ and pull the suction base cover ⑩ off the suction base ⑥.
2. Unscrew the 4 Phillips screws ⑧ (model 8500 SL: 6 Phillips screws) and pull the suction base ⑥ off the pump.
3. Clean the suction base cover ⑩, suction base ⑥ and impeller ⑨.
4. Reinstall the suction base ⑥ and screw in the Phillips screws ⑧.

#### Tip:

It is often sufficient to simply remove the suction base cover ⑩ and clean the suction base cover ⑩ and suction base ⑥.

**For safety reasons a damaged impeller ⑨ can only be exchanged by the GARDENA Service Centre.**

## 6. Trouble-Shooting

Problem	Probable cause	Remedy
<b>Pump is running, but doesn't deliver.</b>	Air cannot escape, since pressure line is closed.	→ Open pressure line (e.g. kinked pressure pipe).
	Air locks in the suction base.	→ Wait for max. 3 minutes until the pump deaerates automatically over the vent valve. If necessary, switch off and start it again.
	Impeller clogged.	→ Disconnect plug and clean impeller (see 5. Cleaning).
	When starting the pump, water height falls below the min. water level.	→ Fill the pump over the universal fitting ⑦ with water.
<b>Pump doesn't start or suddenly stops during operation.</b>	Thermal overload switch has switched the pump off due to overheating.	→ Disconnect plug and clean impeller (see 5. Cleaning). Observe max. media temperature of 35 °C.
	No power.	→ Check fuses and electric connections.
	Dirt particles are jammed in the suction base.	→ Disconnect plug and clean suction base (see 5. Cleaning).
<b>Pump runs, but output suddenly decreases.</b>	Suction base is clogged.	→ Disconnect plug and clean suction base (see 5. Cleaning).
<b>Pump does not reach residual water height of 1 mm during flat suction.</b>	The suction base cover ⑩ is missing in the suction base.	→ Disconnect the plug from the mains and install the suction base cover ⑩ (see 5. Cleaning).



**Attention!**

**Repairs on electrical parts should only be done by our GARDENA Service Centres.**

If you have any problems with your Pump, please contact our Service.

## 7. Storing Your Pump

### **Disposal:**

(in accordance with  
RL2002/96/EC)



Store the pump away from frost before the first frost sets in.

The product must not be added to normal household waste. It must be disposed of properly.

## 8. Technical Data

Type	7000 SL (Art. 1780)	7800 SL (Art. 1454)	8500 SL (Art. 1782)
Rated power	250 W	280 W	300 W
Max. delivery capacity	7,000 l/h	7,800 l/h	8,500 l/h
Max. pressure	0.6 bar	0.65 bar	0.7 bar
Max. delivery height	6 m	6,5 m	7 m
Max. submersion depth	9 m	9 m	9 m
Flat suction down to approx.	1 mm	1 mm	1 mm
Contaminated water with particle size of max.	5 mm	5 mm	5 mm
Power cable	10 m H05 RNF	10 m H05 RNF	10 m H05 RNF
Pump connection	38 mm (1 1/2") / 25 mm (1") graduated nipple, option GARDENA Water hose Plug-in-system		
Min. water level for operation	35 mm	35 mm	35 mm
Weight approx.	4.3 kg	4.7 kg	5.3 kg
Max. media temperature	35 °C	35 °C	35 °C
Mains voltage / mains frequency	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Min. cut-in height	175 mm	170 mm	160 mm
Min./max. cut-out height	65 mm / 140 mm	65 mm / 125 mm	50 mm / 125 mm
Noise level $L_{WA}^{1)}$	46 dB(A)	46 dB(A)	46 dB(A)

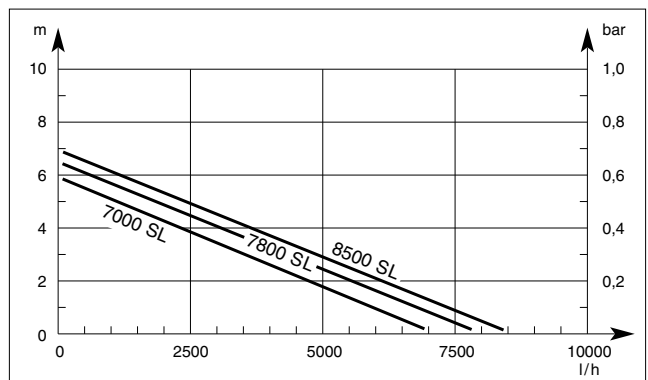
1) Measuring method according to EN 60335-1

### Cut-in / Cut-out height

The cut-in and cut-out height varies.

The residual water height (flat suction down to approx. 1 mm) is only reached during manual operation with the swivel feet ⑧ turned to 1 mm (see 4. Operation).

### Performance characteristics





## 9. Service

### 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-authorised third party have attempted to repair the unit.

The impeller is a wearing part and is not covered by the guarantee. This manufacturer's guarantee does not affect the user's existing warranty claims against the dealer/seller.

If you have any problems with your pump, please contact our Customer Service or return the defective unit together with a short description of the problem directly to one of the GARDENA Service Centres listed on the back of this leaflet.

### 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.

## EU Certificate of Conformity

The undersigned

GARDENA Manufacturing GmbH · Hans-Lorenser-Str. 40 · D-89079 Ulm

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.

**Description of the units:** Submersible Pump  
**Type:** 7000 SL / 7800 SL / 8500 SL  
**Art. No.:** 1780 / 1454 / 1782  
**EU directives:** Machinery Directive 98/37/EC : 1998  
2006/42/EC : 2006  
Electromagnetic Compatibility 2004/108/EC  
Low Voltage Directive 2006/95/EC  
Directive 93/68/EC

### Harmonised

**European standards:** EN 292-1  
EN 292-2  
EN 60335-1  
EN 60335-2-41

**Year of CE marking:** 2001

Ulm, 21.11.2001



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