

Welcome to the garden of GARDENA ...



G B 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.

 \rightarrow Keep these operating instructions in a safe place.

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1. Applications Range of Your GARDENA Submersible Pump

Intended useGARDENA Submersible Pumps have been designed for private
use around your house and garden. They are predominantly desti-
nated for drainage after flooding, transfer of liquids, draining con-
tainers, 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 pumpedLiquids which can be handled by the GARDENA Submersible
Pump are the following: clean and slightly contaminated water

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 pump is 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' Associa-tion) 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.

Mains power

According to DIN VDE (German Electrical Engineers' Associa-tion) 0620, mains power cables must not have a smaller cross-section than the rubber-sheathed cables of the designation H05 RNF. 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

→ 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. If the water level drops below the vent valve, some water flows penetrates outside through the vent valve ④.

This is not a defect of your pump, but serves to deaerate the pump.



3. Initial Operation

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4. Operation

Automatic operation:



(5) Manual operation:

5. Cleaning

Flushing the Pump:

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

To ensure that the pump draws the water out, the water to be

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

use a rope attached to the carrying handle (2) to immerse the

During automatic operation. ensure that the float switch (5)

The maximum cut-in height and minimum cut-out height (see

• The shorter the length of cable between the float switch (5)

that the float switch can turn on and off properly.

 \rightarrow 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

and the float switch lock ③. the lower the cut-in height and the

The pump remains in constant operation because the float switch

use a rope attached to the carrying handle (2) to immerse the

3. Fix float switch (5) vertically above the pump (with the cable

As long as the float switch is positioned vertically above the

pump, the pump will operate regardless of the water level.

The residual water height of approx. 5 mm is only reached

during manual operation since the float switch turns off the

pump during automatic operation before this water level is

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

Adjusting the Cut-in and Cut-out Height:

1. Stand the pump on a firm surface - or -

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

drained must be at least 45 mm deep.

level falls below the cut-out height. 1. Stand the pump on a firm surface - or -

8. Technical Data) can be adjusted.

higher the cut-out height.

pump in a well or shaft.

at the bottom).

is bypassed.

reached.

pump in a well or shaft.

can move freelv.

Cleaning the suction base and turbine:

Warning! Electric shock!

The pumps are virtually maintenance-free.

Risk of injury due to electric shock.

→ Disconnect the pump from the mains before cleaning the suction base and turbine.

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- 1. Unscrew the 3 Phillips screws (8) and pull the suction base (6) off the pump.
- 2. Clean the suction base 6 and the turbine 9.
- 3. Reinstall the suction base 6 and screw in the Phillips screws 8.

For safety reasons a damaged turbine (9) can only be exchanged by the GARDENA Service Centre.

6. Trouble-Shooting

Probable cause	Remedy
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. 60 seconds until the pump deaerates automatically over the vent valve. If necessary, switch off and start it again.
Turbine clogged.	→ Disconnect plug and clean turbine (see 5. Cleaning).
When starting the pump, water height falls below the min. water level.	→ Submerge pump deeper.
Thermal overload switch has switched the pump off due to overheating.	→ Disconnect plug and clean turbine (see 5. Cleaning).
	Observe max. media temper- ature 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. Clean- ing).
Suction base is clogged.	→ Disconnect plug and clean suction base (see 5. Clean- ing).
	Air cannot escape, since pressure line is closed. Air locks in the suction base. Turbine clogged. When starting the pump, water height falls below the min. water level. Thermal overload switch has switched the pump off due to overheating. No power. Dirt particles are jammed in the suction base.



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. Storage

Frost-free storage

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

8. Technical Data

90 W ,800 I/h .5 bar m m mm	
5 bar m m	
m m	
m	
mm	
mm	
0 m H05 RNF	
38 mm (1 1/2") / 25 mm (1") graduated nipple, option GARDENA Water hose Plug-in-system	
5 mm	
.0 kg	
5°C	
30 V / 50 Hz	
80 mm	
00 mm / 140 mm	
6 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 depth (draining in the flat position down to approx. 5 mm) is only reached during manual operation (see 4. Operation).

Performance characteristics



9. Service

Warranty

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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 turbine 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.

O Produktansvar	Vi gør udtrykkeligt opmærksom på, at i henhold til produktansvarslovgiv- ningen er vi ikke ansvarlige for skader forårsaget af produktet, hvis skaden 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 auto- riseret fagmand. Det samme gælder for ekstraudstyr og tilbehør.
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 im- proper 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 Overensstemmelse certificat

Undertegnede GARDENA Kress + Kastner GmbH, Hans-Lorenser-Str. 40, D-89079 Ulm bekræfter hermed, at enheder listet herunder, ved afsendelse fra fabrikken, er i overensstemmelse med harmoniserede EU retningslinier, EU sikkerhedsstandarder og produktspecifikationsstandarder. Dette certifikat træder ud af kraft hvis enhederne er ændret uden vor godkendelse.

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BEU Certificate of Conformity undersigned GARDENA Kress + Kastner GmbH, Hans-Lorenser-Str. 40, 079 Ulm, hereby certifies that, when leaving our factory, the unit indicated	EU direktiv: EU directives:	98/37/EC 89/336/EC 73/23/EC 93/68/EC
w is in accordance with the harmonised EU guidelines, EU standards of y and product specific standards. This certificate becomes void if the unit diffied without our approval.	CE-Mærkningsår: Year of CE marking:	2002
		Thomas Heinl
	Ulm, 10.12.2002 Ulm, 10.12.2002	Teknisk direktør Technical Dept. Manager

Type:

Type:

Beskrivelse af enhederne:

4800 S

Description of the unit:

Dykpumpe

Varenr. :

Art. No.:

Submersible Pump

1776-24

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