

SWIMMING POOL PUMPS

**INSTALLATION GUIDE / INSTALLATIEHANDLEIDING
BEDIENUNGSANLEITUNG / GUIDE DE L'INSTALLATION
GUIA DE INSTALACION / GUIDE ALL'INSTALLAZIONE**



Customer service

HERENTALS, BELGIUM (8:30 A.M. to 4:30 P.M.) CETP
Website: www.pentairpooleurope.com

Declaration of Conformity

Standards used for showing compliance with the essential requirements in the directive 2006/42/EC:

- EN60335-1,
- EN60335-2-41



The manufacturer, Pentair has the right to modify the products without previous notice for as far as their characteristics are not really changed by this.

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IMPORTANT SAFETY PRECAUTIONS

THESE OPERATING INSTRUCTIONS CONTAIN IMPORTANT INFORMATION ON THE SAFE, PROPER AND ECONOMICAL OPERATION OF THE SWIMMING POOL PUMP. STRICT OBSERVATION OF THE OPERATING INSTRUCTIONS WILL HELP TO AVOID DANGERS, REDUCE REPAIR COSTS AND SHUT-DOWN TIMES AND INCREASE THE RELIABILITY AND WORKING LIFE OF THE PRODUCT.

SECTION 1. GENERAL INFORMATION

Check carton for any evidence of damage due to rough handling in shipment. If carton or any pump components are damaged, notify the carrier immediately.

Failure to follow the safety instructions may result in serious adverse health effects, or even serious or fatal injury. Failure to follow the safety instructions will in all cases invalidate all guarantees and liability on the part of the manufacturer.

- Avoid dry run of the pump, as long as the pump is not filled with water;
- This pump is equipped with a mechanical seal.
- Damage to shaft seal could be the cause by non-observance of instructions.
- Please follow instructions for filling up the pump according to installation and instruction manual.

SECTION 2. APPLICATION

Only to be used to circulate swimming pool water.

SECTION 3. INSTALLATION

- Install the pump as near to the pool as practical.
- Use a direct and short suction line with continuous slope in order to avoid long priming times.
- The pump should be placed on a flat solid foundation, high enough to prevent flooding of the motor.

- Install the filter and pump in a sheltered location, ensuring ventilation and adequate access for servicing.
- Do not mount electrical controls directly over pump.
- Provide adequate floor drainage to prevent flooding.
- Size all piping adequately and keep the number of elbows to a minimum.
- Independently support the pipe near the suction and discharge of the pump in order to reduce the strain on the pump.
- Avoid overtightening pipe connections. Use only pipe sealants formulated for plastics. Do not use petroleum based products. It is essential that the suction line is free of air leaks. The suction line should always be at least the same size as the suction inlet of the pump.
- Fitting a non-return valve after the pump on the installation will prevent the impeller from unwinding and is strongly recommended.

SECTION 4. START / OPERATION

Starting the pump

- Fill pump strainer with water to suction pipe level.
- Lubricate the lid O-ring with lubricant each time it is removed.
- Energize the motor, the pump will prime. The priming time depends on the suction lift and distance to the pool. Five minutes is a reasonable time.
- Pump will not lift more than 2,5 meter. If pump does not prime, see troubleshooting guide.

Maintenance

The strainer basket should be weekly removed and cleaned. Never operate the pump without its strainer basket.

Component	Check/Interval	Remarks
Warning pictograms	Visual check / Monthly	Replace if necessary
Water supply	Check lines and connections / Monthly	Replace any damage immediately
Safety devices	Visual check / Monthly	Ensure correct installation / refitting
General condition of pumps	Visual check / Half-yearly	Look out for any corrosion or damage
Cooling ribs of electric motors	Clean the cooling ribs to maintain the cooling effect / Half-yearly	
Electrical equipment	Check / Monthly	Rectify loose connections or singed cables immediately. Have all faults repaired by a qualified electrician
Preliminary filter housing	Check housing for dirt / Weekly	Remove all dirt thoroughly
O-Ring in preliminary filter cover	Visual check / Half-yearly	

Winterizing

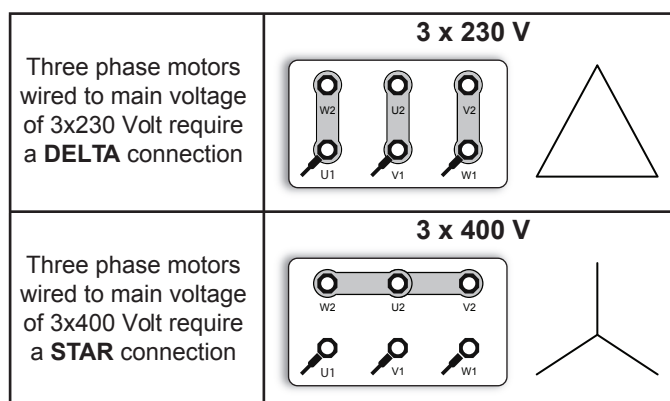
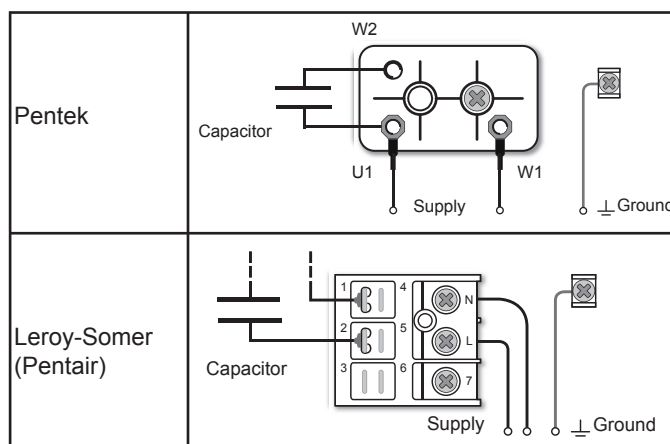
- Protect the pump from freezing.
- Remove all plugs and drain the pump and all piping.
- Store drains and plugs in the strainer basket.
- Remove the pump to a dry and warm room.
- Do not wrap the motor with plastic covering as condensation may damage the pump.
- In installations where the pump can not be drained, a 40% propyleneglycol, 60% water solution will protect to -46°C.
- Do not use other anti-freeze solutions, these are all highly toxic and will damage the pump.

SECTION 5. ELECTRICAL CONNECTION

The electrical motor must be wired by a professional according to this installation instruction and all applicable local regulations. By introduction of the pump a motor security has to be foreseen by the installation. The security has to be tuned into the nominal power of the motor.

The supply voltage should be within $\pm 5\%$ of the rated voltage, on the nameplate of the motor.

Single-phase motors should be connected at the two terminals as indicated below. Single phase wiring diagram :



Make sure that you interrupt the power supply to the cables when connecting the cables of the pump

Please remove lead wires from terminals prior to installation !

Please check the turning direction of three-phase motors following each connection. If this does not correspond to the arrow on the pump, two phase connections in the junction box must be reversed. Every motor must be permanently grounded.

Connections which do not conform to the above mentioned safety instruction are not covered by the warranty.

Section 6. Servicing

The pump is designed to operate for many years without servicing. **Always disconnect the power supply to the pump before servicing.** The replacement of the electrical motor must be done by a professional.

SECTION 7. TROUBLESHOOTING

Pump will not prime

1. No water in strainer pot
2. Strainer pot is not tight
3. Damaged O-ring
4. Water level is below skimmer
5. Strainer basket or skimmer basket is clogged
6. Closed valve in piping system
7. Air leak in suction line

Motor does not turn

1. Power switch is off
2. Circuit breaker has tripped
3. Pump is off-mode of a timer controlled circuit
4. Motor terminal connections are incorrect
5. Motor shaft is locked
6. Impeller is locked by debris

Low flow/high filter pressure

1. Filter is dirty

2. Restriction in return line

Low flow/low filter pressure

1. Strainer basket or skimmer basket is clogged

2. Clogged impeller

3. Air leak in suction line

4. Restriction in suction line

5. Reverse rotation of motor (three phase only)

Noisy pump

1. Air leak in suction

2. Foreign matter in pump housing

3. Cavitation

An illustrated spare parts list can be found at:

www.pentairpooleurope.com