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Notice for safety.
Please give particular care to following signs.

DANGER
Electric shock risk

Improper use may lead into electric shock.

DANGER

Improper use may lead into heavy risk for persons and things.

REMARK

Improper use may cause damage to pump or installation.

ATTENTION: ***Before installing the pump please carefully read this manual. Guarantee will not be activated in case of improper use.***

CHAP.1 FEATURES

PRIOX range pumps are particularly suitable to remove dirty water with suspended solids.

PRIOX pumps are well sized and can be possibly utilized both in fixed or movable installations.

PRIOX pumps are used to transfer dirty water, waste water and sewage water.

Each pump is tested and packed very attentively.

Please ensure pump has not been damaged during transport; if this occurs please phone the dealer, within 8 days from purchasing day.

CHAP. 2 USE AND HIS LIMITATIONS

DANGER

Make sure people do not come into contact with water when the pump is connected to the mains.

REMARK
Electric shock risk

Pump cannot be used to move inflammable or dangerous liquids.

REMARK

Ensure pump never runs dry

REMARK

In the continued operation, the level of the liquid to be pumped must fully cover the pump.

MAX. TEMP.OF LIQUID:	**40°C** in continuous service to motor completely submerged.
MAX. IMMERSION HEIGHT:	**7 m** with 10 mt. of power cord
MAX. FREE PASSAGE:	**40 mm** (PRIOX 600/13 - 50 mm.)
MAX. ON/OFF CYCLES/HOUR:	**30** equally spaced

The linear meausures in chart are in millimeters **Please refer to Fig. 1**

TYPE	MIN. PRIMING LEVEL	MIN. DRAINAGE LEVEL	START LEVEL	STOP LEVEL	WEIGHT Kg.
See. Fig.	A	B	C	D	
PRIOX 250/8	180 mm	50 mm	550 mm	290 mm	9,4
PRIOX 300/9	180 mm	50 mm	550 mm	290 mm	9,6
PRIOX 420/11	180 mm	50 mm	580 mm	320 mm	11,2
PRIOX 460/13	180 mm	50 mm	580 mm	320 mm	11,7
PRIOX 600/13	180 mm	50 mm	580 mm	320 mm	12,6
PRIOX 800/18 T	180 mm	50 mm	--	--	20,2

Pump with less than **10 mt**. supply cord cannot be used in open spaces.
The min. priming level refers to completely submerged outlet. (See Pict. 1)

CHAP. 3 INSTALLATION

DANGER
Electric shock risk

When installing, please ensure pump is disconnected from electric current network.

Please use handlebar to remove or lift pump up.
Please use a non-return valve in case pump is connected to fixed installation with rigid piping; this will avoid liquid circulating when pump has been turned off; use of a pipe fitting will allow easy disconnection of pump for maintenance.
Dimensions of drain well must allow max. 30 on/off cycles/hour. (See USE AND HIS LIMITATIONS)
Please use flexible pipe connected to pump by means of plastic fitting in case of temporary use of pump.
Use a rope to immerse pump and fasten it to pump's handlebar.
PRIOX aut is equipped with a pre-rated float switch (See Pict. 1); please increase or decrease the free piece of float switch cable by making it sliding through the proper seat on the handlebar, when modifying the rating of float switch.
Pumps used besides or inside swimming pools, garden ponds or similar places may have special requirements.

REMARK

Make sure that float switch turns off pump, when at min. level of liquid.

REMARK

Make sure no obstacles stand in the way of float switch, during up/down swinging.

CHAP. 4 ELECTRIC CONNECTION

REMARK

Ensure tension and frequency of pump (read motor plate) and supply network are same.

DANGER
Electric shock risk

Installer must make sure that electric current network has ground wire conforming to current laws.

DANGER
Electric shock risk

Make sure that electric current network is provided with a high-sensitivity circuit-breaker
△=30 mA (DIN VDE 0100T739)

Single phase version

Single phase pumps are equipped with double ground contact plug at top end of supply cord ; in this case grounding is done when plugging in.

Three phase version

In this case the ground wire (yellow-green cable) of supply cord must be connected to ground wire of electric current network.
Ensure connection to electric current network by using an omnipolar-sectionned magneto thermic circuit-breaker.
This will ensure effective disconnection from electric current network.

Overload protection

PRIOX range pumps have a built-in thermal overload with automatic reset.
Further protections are not required.
PRIOX range three phase pumps can be protected by using a magneto-thermic motor protector or a contactor with thermal relay; in both cases they have to be rated conforming to nominal power showed on motor plate.
Eventual electric float switch must be connected to auxiliary connector buckles.

Rotation direction testing three phase pumps

Water head and delivery are terribly effected by wrong rotation of shaft of pump motor.
Clock wise rotation is correct (upside view of pump).
When startin the pump motor will ungergo an anti-clock wise back-kick.
In this case test is positive; on contrary case, please disconnect pump from network and inverse two phases.

CONNECTIONS DIAGRAM:

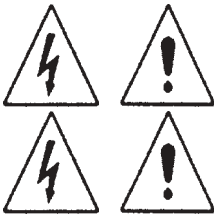
A) Single phase manual pump
B) Single phase automatic pump
C) Three phase pump

See diagrams Pict.2

See Pict. 2

1) **START** (green)	5) **SUPPLY CORD**	9) **WHITE**
2) **RUN** (red)	6) **GROMMET**	10) **LIGHT BLUE < LINE >**
3) **COMMON** (black)	7) **PLUG**	11) **BROWN < LINE >**
4) **CAPACITOR**	8) **YELLOW-GREEN**	12) **FLOAT SWITCH**

CHAP. 5 MAINTENANCE AND TROUBLE SHOOTING



DANGER
Electric shock risk

Before doing any operation, make sure pump is disconnected from electric current network.

DANGER
Electric shock risk

The power cable must be replaced by qualified personnel only.

No maintenance is required when **PRIOX** range pumps operate in normal conditions.
Occasionally maintenance of liquid ends and replacement of impeller may be required.

FAULT	POSSIBLE CAUSE	REMEDY
PUMP DOES NOT DELIVER, MOTOR DOES NOT RUN.	1) No electric current supplying. 2) Incorrect plugging in . 3) Circuit-breaker come into operation. 4) Impeller blocked. 5) Motor or capacitor damaged.	2) Verify presence of electric current supply and plug in. 3) Reinforce circuit-breaker. Please call electrician in case circuit-breaker comes again into operation. 4) Remove obstacle. 5) Call dealer.
PUMP DOES NOT DELIVER, MOTOR RUNS.	1) Filter obstructed. 2) Non return valve blocked. 3) The air vent hole on the pump body may be clogged	1) Clean filter. 2) Clean or replace valve. 3) Loose the nut that secures the stainless steel flap of the air vent hole to the pump body; see drawing no. 3 reference A. Remove the stainless steel flap. Clear the hole of any old dirt. Fit the protective flap back in. Screw back in and tighten the nut.
PUMP DELIVERS REDUCED WATER	1) Filter partially obstructed . 2) Delivery pipe partially obstructed. 3) Impeller worn off. 4) Anticlockwise rotation (three phase version).	1) Clean filter. 2) Remove obstacles. 3) Replace impeller. 4) Inverse two phases.
INTERMITTENT WORKING (SINGLE PHASE VERSION)	1) Solids obstruct impeller. 2) Too warm liquid. 3) Motor broken.	1) Remove obstacles. 3) Call dealer.