Notice to Installer: Instructions must remain with installation.

ZT0324_ECb
1123
Supersedes
0619

Trusted. Tested. Tough ®

Register your Zoeller Pump Company Product on our website: http://reg.zoellerpumps.com/

ZOELLER® PUMP COMPANY

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961
Tel: (502) 778-2731 • 1 (800) 928-PUMP

50 Hz

Visit our website:
www.zoellerpumps.com

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

INSTALLATION INSTRUCTIONS

49 / 70 / 72 / 86 / 88 / 222 / 422 / 423

PREINSTALLATION CHECKLIST - ALL INSTALLATIONS

1. Inspect all materials. Occasionally, products are damaged during shipment. If the unit is damaged, contact your dealer before using. **Do Not** remove the test plugs from the pump.
2. Carefully read all the literature provided to familiarize yourself with specific details regarding installation and use before attempting the installation. These materials should be retained for future reference.

⚠ WARNING

SEE BELOW FOR LIST OF WARNINGS

1. **Make sure there is a properly grounded receptacle available.** All pumps are furnished with provisions for proper grounding to protect you against the possibility of electrical shock. **(SEE WARNING BELOW)**
2. Make certain that the receptacle is within the reach of the pump's power supply cord. DO NOT USE AN EXTENSION CORD. Extension cords that are too long or too light do not deliver sufficient voltage to the pump motor. But, more important, they could present a safety hazard if the insulation were to become damaged or the connection end were to fall into the sump.
3. **Make sure the pump electrical supply circuit is equipped with fuses or circuit breakers of proper capacity.** A separate branch circuit is recommended, sized according to governing electrical code for the current shown on the pump nameplate.
4. **Testing for ground.** As a safety measure, each electrical outlet should be checked for ground using a circuit analyzer which will indicate if the power, neutral and ground wires are correctly connected to your outlet. If they are not, call a qualified licensed electrician.
5. **FOR YOUR PROTECTION, ALWAYS DISCONNECT PUMP FROM ITS POWER SOURCE BEFORE HANDLING. DO NOT UNDER ANY CIRCUMSTANCES REMOVE THE GROUND PIN.** The 3-prong plug must be inserted into a mating 3-prong grounded receptacle. If the installation does not have such a receptacle, it must be changed to the proper type, wired and grounded in accordance with the governing electrical code and all applicable local codes and ordinances.
6. Installation and servicing of electrical circuits and hardware should be performed by a qualified licensed electrician.
7. Pump installation and servicing should be performed by a qualified person.

⚠ CAUTION

SEE BELOW FOR LIST OF CAUTIONS

1. Check to be sure your power source is capable of handling the voltage requirements of the motor, as indicated on the pump name plate.
2. The installation of automatic pumps with variable level float switches or nonautomatic pumps using auxiliary variable level float switches is the responsibility of the installing party. Care should be taken that the tethered float switch will not hang up on the pump apparatus or pit peculiarities and is secured so that the pump will shut off. It is recommended to use rigid piping and fittings and the pit be 18" or larger in diameter.
3. **Information - vent hole purpose.** It is necessary that all submersible sump and sewage pumps capable of handling various sizes of solid waste be of the bottom intake design to reduce clogging and seal failures. If a check valve is incorporated in the installation, a vent hole (approx. 5 mm) must be drilled in the discharge pipe below the check valve and pit cover to purge the unit of trapped air. Trapped air is caused by agitation and/or a dry basin. Vent hole should be checked periodically for clogging. You may not want to drill one. If you choose not to drill a vent hole, be sure the pump case and impeller is covered with liquid before connecting the pipe to the check valve and no inlet carries air to the pump intake. NOTE: THE HOLE MUST ALSO BE BELOW THE BASIN COVER AND CLEANED PERIODICALLY. Water stream will be visible from this hole during pump run periods.
4. Dewatering and sump pumps (models 49,70,72,86,88) are not designed for use in pits handling raw sewage.
5. This product is intended for dewatering service and intermittent application and not for continuous run application, such as circulation and fountains pump. When using the non- automatic type pump, it should be monitored. Pumps can't be run dry.
6. Maximum operating temperature for standard model pumps must not exceed 104 °F (40 °C).
7. Pump not intended for continuous run application, misapplication may reduce pump life.
8. Model 72 features an air vent opening in the pump housing to prevent air locking. It is normal for water to flow through this opening. It is not a leak.

Note: Pumps with the "cCSAus" mark are tested to UL Standard UL778 & CSA Standard C22.2 No. 108.

REFER TO WARRANTY ON PAGE 2.

DO NOT USE FOR PUMPING OILS, GASOLINE OR ANY PETROLEUM BY-PRODUCTS.

© Copyright 2023 Zoeller Co. All rights reserved.

LIMITED WARRANTY

Manufacturer warrants, to the purchaser and subsequent owner during the warranty period, every new product to be free from defects in material and workmanship under normal use and service, when properly used and maintained, for a period of one year from date of purchase by the end user, or 18 months from date of original manufacture of the product, whichever comes first. Parts that fail within the warranty period, one year from date of purchase by the end user, or 18 months from the date of original manufacture of the product, whichever comes first, that inspections determine to be defective in material or workmanship, will be repaired, replaced or remanufactured at Manufacturer's option, provided however, that by so doing we will not be obligated to replace an entire assembly, the entire mechanism or the complete unit. No allowance will be made for shipping charges, damages, labor or other charges that may occur due to product failure, repair or replacement.

This warranty does not apply to and there shall be no warranty for any material or product that has been disassembled without prior approval of Manufacturer, subjected to misuse, misapplication, neglect, alteration, accident or act of God; that has not been installed, operated or maintained in accordance with Manufacturer's installation instructions; that has been exposed to outside substances including but not limited to the following: sand, gravel, cement, mud, tar, hydrocarbons, hydrocarbon derivatives (oil, gasoline, solvents, etc.), or other abrasive or corrosive substances, wash towels or feminine sanitary products, etc. in all pumping applications. The warranty set out in the paragraph above is in lieu of all other warranties expressed or implied; and we do not authorize any representative or other person to assume for us any other liability in connection with our products.

Contact authorized distributors to obtain any needed repair or replacement of part(s) or additional information pertaining to our warranty.

MANUFACTURER EXPRESSLY DISCLAIMS LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OR BREACH OF EXPRESSED OR IMPLIED WARRANTY; AND ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND OF MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THE EXPRESSED WARRANTY.

Some country do not allow limitations on the duration of an implied warranty, so the above limitation may not apply to you. Some country do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from country to country.

In those instances where damages are incurred as a result of an alleged pump failure, the Homeowner must retain possession of the pump for investigation purposes.

GENERAL INFORMATION

1. These pumps are equipped with an omnidirectional mechanical float switch. The pump will turn on automatically when the water level in the sump reaches approximately the float switch "on" level and automatically turn off when the water is pumped down to the float switch "off" level. See Charts A & B for details.
2. The sump pit must be a minimum of 22" deep and 12" in diameter. The pump requires a minimum diameter of 12" so that the float switch will operate without restriction. Any smaller diameter may restrict the switch operation, resulting in pump failure.

INSTALLATION

1. For your safety, turn off the electrical power at the service entrance to avoid any possible electrical shock hazards.
2. On a replacement installation, remove the existing pump from the sump by disconnecting the discharge pipe or hose from the old pump. Depending on how your old pump is installed, unscrew clamps and discard old corrugated hose, or unscrew galvanized or plastic pipe from pump discharge. If discharge pipe cannot be removed easily, saw through the pipe about five feet above the pump discharge.
3. After removing the old pump, remove sediment, debris, and any standing water from the sump pit.
4. Place your pump in the sump and attach the discharge piping. Be sure that the pump is positioned so that the float switch moves freely without touching the wall of the sump or other obstructions.
5. Install a full flow check valve to prevent back flow which can cause the pump to cycle too frequently and result in wear and shortened motor life. Drill 3/16" vent hole in piping below the pit cover and check valve. Water stream will be visible from this hole during pump run periods. Reattach discharge piping as required.
6. Do not allow the cord to interfere with the float control motion or to drape over the pump motor. With electrician's tape, secure the cords to the discharge pipe. This will provide protection for the cords and make a neat installation.
7. Plug switch into grounded outlet and plug pump into switch plug. Restore electrical power at the service entrance. Fill sump pit with water to check automatic switch operation.
8. Install a sump cover. A cover will prevent solid matter from falling into the sump, prevent odor, and guards against accidental injury.

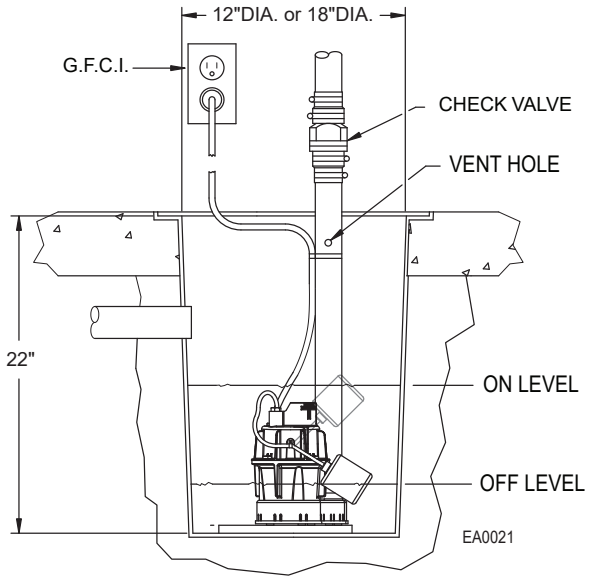
PERFORMANCE

Your pump will operate effectively pumping clear storm and drain waters. Although it will usually pass small particles suspended in water - grass, heavy mud, sand or gravel can clog the pump and reduce the pump's performance. This can usually be cleaned out by back-flushing on pump side of check valve with a garden hose through the discharge (Model 222, 422, 423 is not applied).

LU Series
OPERATION

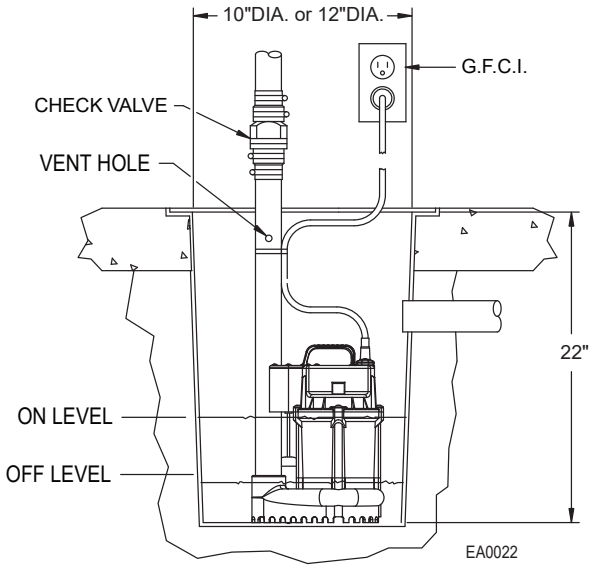
1. Set pump on hard surface in water before starting.
2. Plug power cord into properly grounded power outlet. (See recommended grounding methods on front page). Will operate continuously whether partly or fully submerged. Submersible utility pumps are intended to pump water at temperatures up to 104 ˚F (40 ˚C).
3. When the pump senses that it is no longer pumping water, the pump will shut off automatically. The pump will then turn on every three minutes for 15 seconds and then off if it does not sense any water.
4. If water is sensed after the pump begins running, the pump will continue pumping until the pump senses that it is no longer pumping water.
5. To prevent unnecessary wear, unplug the pump from the power output when not in use.

© Copyright 2023 Zoeller Co. All rights reserved.



Pump On / Off Levels — Chart A

Float Switch	Pump Model				
	49 / 70	86 / 88	222	422	423
On Level	11-1/4"	11-1/2"	14-9/16"	13-3/4"	18-1/8"
Off Level	4-1/8"	5"	6-7/8"	6-1/4"	7-7/8"
MIN. PIT DIA.	12"	18"	18"	18"	18"



Pump On / Off Levels — Chart B

Float Switch	Pump Model				
	72	86 / 88	222	422	423
On Level	7-1/2"	7"	9-1/2"	8-1/2"	10-13/16"
Off Level	3-15/16"	3"	5-1/2"	3-7/8"	4-5/16"
MIN. PIT DIA.	12"	10"	10"	10"	10"

© Copyright 2023 Zoeller Co. All rights reserved.

安装前务必详读说明书

Trusted. Tested. Tough.™

文件仅供参考
若有任何修改
恕不另行通知

请至美国卓勒水泵公司
官网完成您的产品注册

ZOELLER® PUMP COMPANY

50 Hz

Visit our website:
www.zoellerpumps.com

安 装 说 明 书

适用以下机型

49 / 70 / 72 / 86 / 88 / 222 / 422 / 423

安 装 前 检 查

1. 安装前请仔细检查所有零件。产品如果在运送中受损，请尽速聯络经销商。
2. 安装前仔细阅讀所有提供的文件，熟悉安装细节，并保存资料以供未來參考。

⚠ WARNING 警　　告	⚠ CAUTION 注　　意
1. 为防范使用者触电，本公司所有产品皆配有包含接地功能的电线及三插插头。为确保安全，请勿将插头的接地插销拔除，并确认将插头插入符合国内电工法规的漏电保护插座。 2. 为确保安全请勿使用延长线。加装延长线容易使水泵马达接收不到足够的电压。更重要的是，若延长线的绝缘遭破坏、或插头松脱掉入水中，将可能造成危险。 3. 请确认在供给水泵电源的电路中加装适当规格的保险丝或断路器。在此建议依照水泵铭牌上的电流值，并参照国内电工法则来选择及安装独立的断路器。 4. 请在安装前测试插座的漏电保护功能。为了安全考量，请使用符合国内电工法规的电路测试仪器来检查插座中的火线、中性线及地线是否配置正确。若发现异常，请联络合格的水电技师来为您解决问题。 5. 仅得由持有证照的合格水电技师来进行水泵安装、管路搭配及电路配线。 6. 为了保护您的安全，接触水泵前请先拔除电源。 7. 为防范触电，本产品勿用於游泳池。	1. 检查并确认使用的电源符合水泵铭牌上的规格需求。 2. 安装含自动浮球开关或外接式自动浮球开关的自动型产品时，安装者有责任确保浮球摆放於正确位置，且不会卡在水泵机组或机坑壁边，以确保本产品能正常运作。建议使用硬水管做为配管。 3. 排气孔的目的： 一般沉水型污水泵都是从底部抽水，以防止水泵阻塞和泄漏。空气会因此容易积在水泵或管路内，造成气锁。排气孔是为了将这些空气排出。因此，必须在逆止阀与机坑盖下的管路凿一排气孔（直径约5 mm），用以排出来自底部入水口的积存空气。积存的空气可能源自於水泵运作时的搅动，或於水槽乾涸时进入水泵。排气孔应定期检验，排除阻塞。本产品运转时看见水从排气孔流出，为正常现象。 4. 除了222、422 、423系列之外，此说明书上的其它产品并非被设计用来处理有污物废水。 5. 本产品仅可用於暂时性抽水用途而不得用於连续性工作、循环、喷泉或其他永久装置。非自动型水泵使用时应有人监看，不可让水泵空转。 6. 本产品可承受最高工作水温为 40 °C。 7. 本机非长时间24小时连续运转设计之产品，错误的使用方式会减少产品寿命。 8. 72型水泵运作时，水机排气孔有水泄出，属正常现象。
	备注：含有cCSAus标记的产品表示通过UL标准UL778及CSA标准C22.2编号108的测试。 保固请参阅第2页。

请勿使用於油类、汽油、石油产品或含任何化学成分的液体。

© 版权所有 : 2023 Zoeller 公司。翻印必究。

保固说明

本产品的保固为自购买日起算的一年、或从工厂制造日期起算的18个月，以先到期者为准。若能证明产品的缺陷是由材料或制造过程造成，本公司将负责维修或更换。本公司保留决定是否维修或更换产品、零件或配件的权利。维修或更换期间买方所产生的费用或损失不在保固范围内。本公司无法控制的损坏不在保固范围内。

保固不适用於：

(1)未依照说明书安装、操作或维护所造成的故障或损坏。

(2)不当操作、意外或疏忽所造成故障或损坏。

(3)加装不属於本产品的零、配件。

(4)未依照当地法规进行安装所造成的危害。

(5)将产品用在非原本设计的用途上所造成的损坏。（ 例：抽取沙、碎石、水泥、泥巴、沥青、碳氢化合物及其衍生物、汽油、化学溶剂或其他有腐蚀性的液体、毛巾、女性卫生用品等。）

保固零、配件的退回 ： 在本保固之下任何修理或更换需送回本公司或其他本公司所指定的维修服务点，运费需自付。在任何情况下本公司不负担其他责任，包含资产或设备的损坏、利润损失、等.....。

本公司的责任不超过产品的实售价格。

上述为本产品唯一的保固说明，任何人的修改或另做承诺皆为无效。

在因涉嫌产品故障而招致损害的情况下,财产拥有人必须保留该产品以供调查之用。

一般说明

1. 自动型的产品配备了垂直连杆或电缆式的机械式浮球开关。当水位到达浮球开关的”启动水位”时，水泵会自动启动，当水位到达浮球开关的”停止水位”时，水泵会自动停止。详细资料见图表。
2. 电缆式浮球机坑最小深度及直径见**Chart A**，垂直连杆式浮球机坑最小深度及直径见**Chart B**。如此可让浮球开关运作不受任何限制。蓄水槽直径不足可能会限制浮球开关运作，导致水泵损坏。

安装说明

1. 为了您的安全，在安装及维修前务必先关闭电源，以避免任何可能的电击危险。
2. 在更换水泵时，请先将旧水泵从排水管卸下并从机坑中移开。端看您旧水泵如何安装，如果排水管不容易移开，请从泵浦出水口上方1.5米处锯除管子以取出旧水泵。
3. 在移除旧水泵後，请先清除机坑中泥沙、杂物和水。
4. 请将新的水泵置於机坑并连接排水管。要确保水泵在定位，浮球开关不会碰到机坑的墙壁或其他障碍物。
5. 为预防水锤作用而造成水泵损坏，请安装全流量逆止阀。请在逆止阀及蓄水槽盖的下方凿一个大约5 mm大小的排气孔，来排放水泵中的气体。在本产品运转期间，可以从排水孔看到水流出的情形。
6. 请用电工用胶带将水泵电缆线固定於出口水管上，来避免电缆线干扰浮球开关的正常运作或电缆线卡在马达外框上，以保护电缆线及确保安装的整齐性。
7. 将插头插入插座，通电源。并将蓄水槽注满水，以检查自动浮球开关是否正常运作。
8. 请安装机坑盖。以预防固体物质落入蓄水槽、防止臭气外泄和意外伤害。

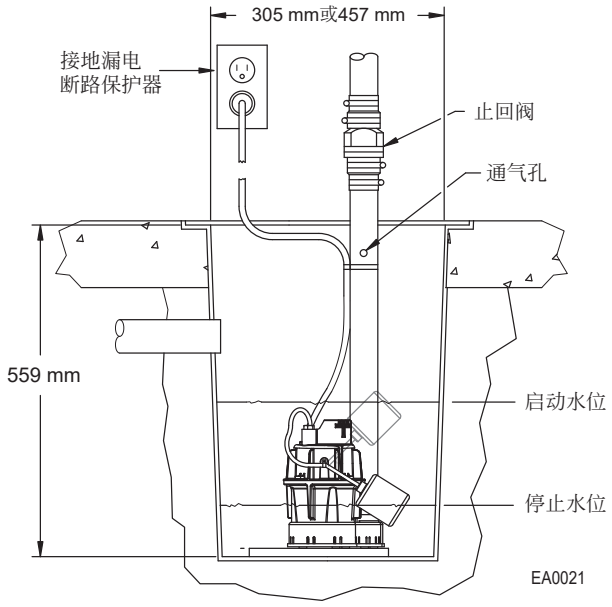
使用说明

本产品适用使用於清水、雨水或清澈的排水沟。虽然水中微小的悬浮物 – 杂草、泥巴、沙子和砾石等等，可能阻塞水机，造成性能降低，但只要从出水口用清水将杂物冲回，就能恢复流道的畅通。

LU 系列
操作说明

1. 请在使用前将本产品放在水中坚硬的平地上。
2. 将插头插入有接地功能的插座。(请参照说明书第一页的接地方法)。本产品可以在部分或完全沉水的情况下持运转。本产品可承受最高工作温度为40 °C
3. 当泵浦抽不到水时，会自动停止，之後每三分钟会自动启动15秒，直到再次抽到水为止。
4. 当泵浦感应到水时会持续抽水，直到抽到泵浦最低排水高度为止。
5. 为防止不必要的磨损，若不需要本产品运作，记得将插头拔掉。

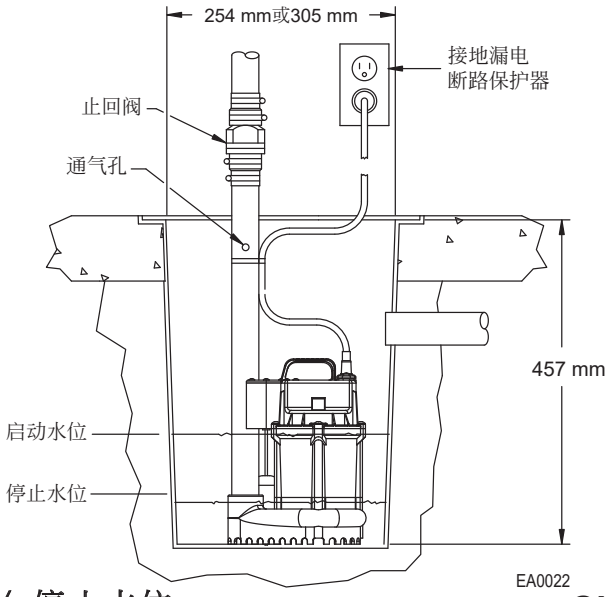
© 版权所有 : 2023 Zoeller 公司。翻印必究。



水泵启动 / 停止水位

Chart A 单位:mm

浮球	型 号				
	49 / 70	86 / 88	222	422	423
启动点	286	292	370	350	460
停止点	105	127	175	159	200
机坑最小直径	12″ (305 mm)	18″ (457 mm)	18″ (457 mm)	18″ (457 mm)	18″ (457 mm)



水泵启动 / 停止水位

Chart B 单位:mm

浮球	型 号				
	72	86 / 88	222	422	423
启动点	190	178	241	215	275
停止点	100	76	140	98	110
机坑最小直径	12″ (305 mm)	10″ (254 mm)	10″ (254 mm)	10″ (254 mm)	10″ (254 mm)

© 版权所有 :2023 Zoeller 公司。翻印必究。