Usage Guide

How to use and care for Leader Pumps

LEADER® PUMPS BY DAB

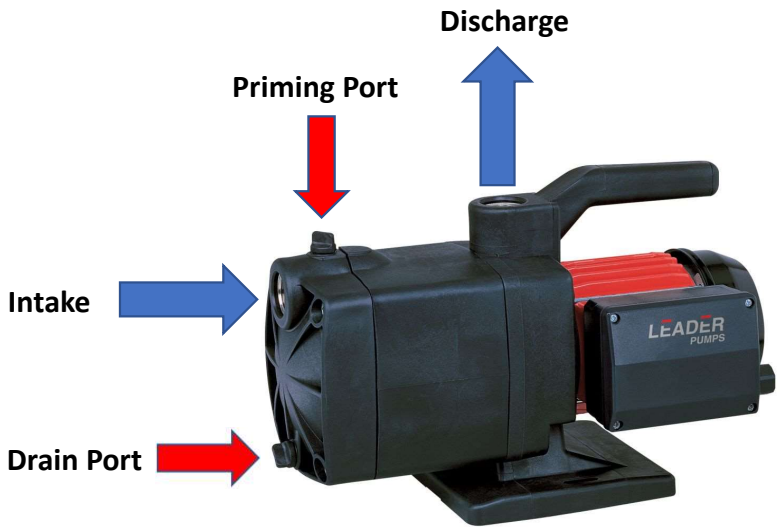
Leader Centrifugal Pumps

These include the Leader Ecotronic, Ecojet, and Ecoplus pump series. These are all non-submersible, centrifugal pumps designed to pump clean water, to boost pressure and/or flow, and may be automatic or non-automatic. The automatic series, the Ecotronic, has the red Hydrotronic controller on top. This means that the pump will start when a valve on the discharge side is opened, and stop when it is closed. The non-automatic pumps, the Ecojet and Ecoplus, will start when power is applied to the pump, and stop when power is disconnected.

Leader Centrifugal Pumps

The intake on these pumps is in the front of the pump, and the discharge is on top.

The Priming Port, which is used to fill the pump, is on top, and the Drain Port, which is used to drain the pump, is on the front bottom of the pump.



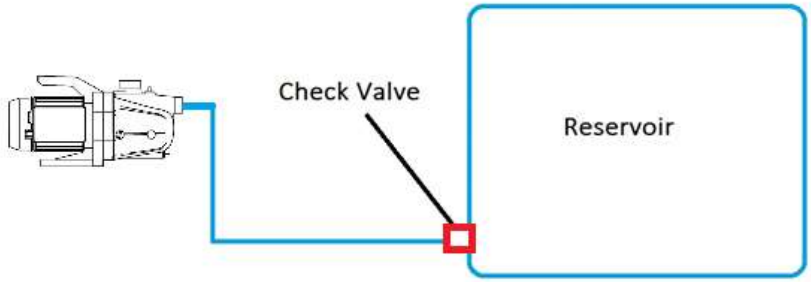
Leader Centrifugal Pumps

The Hydrotronic controller is used to make the Leader Centrifugal pumps operate automatically. They will turn on when a valve is opened on the discharge side, and turn off when that valve is closed. The Hydrotronic will not allow the pump to run if it does not have water available, so, it provides dry-run protection as well. The Ecotronic pumps have this controller installed from the factory, and the Hydrotronic can be installed on any of the non-automatic Leader Centrifugal Pumps, such as the Ecoplus or Ecojet pumps.

Leader Centrifugal Pumps

Installation

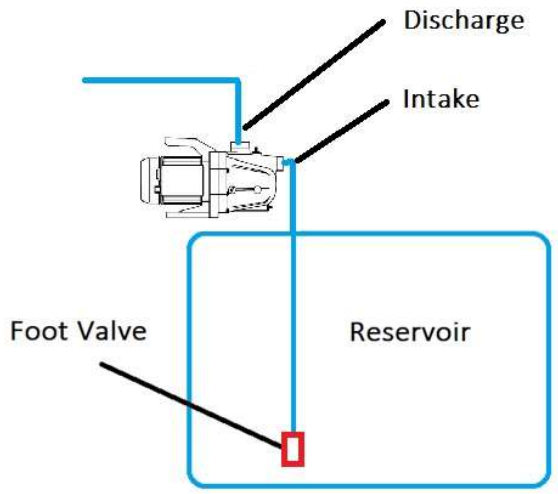
There are two basic ways to install the Leader centrifugal pumps from a reservoir – either from a discharge port on the bottom of the reservoir, or pulling from a pipe that is installed from the top of the reservoir into the bottom. If the water is being pulled from the discharge port on the bottom of the reservoir, a check valve should be used, and placed between the reservoir's discharge port and the intake piping for the pump.



Leader Centrifugal Pumps

Installation

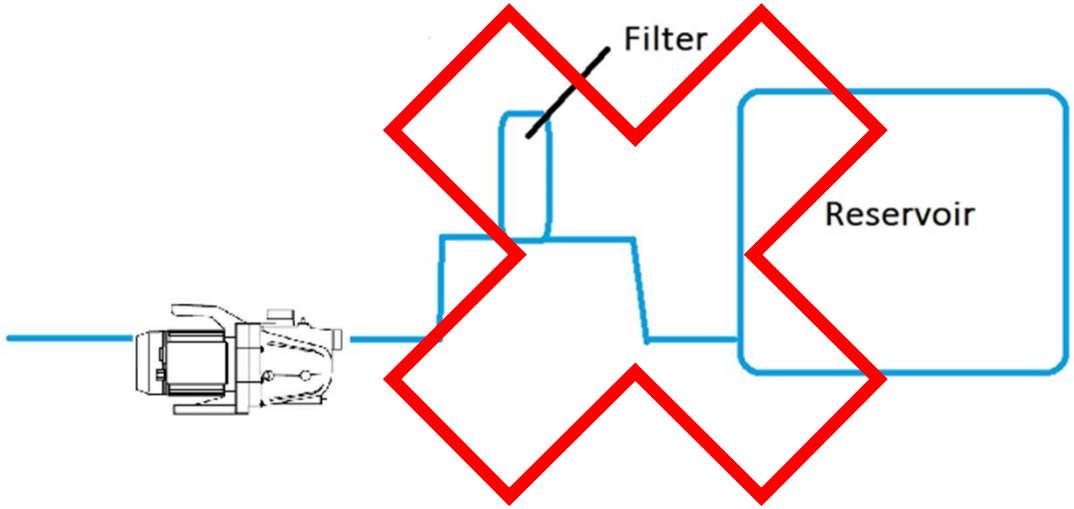
In an installation where the water is being pulled from a pipe that is dropping down into the reservoir, a foot valve should be used on the bottom of the pipe that is going down into the water. Pipe or hose should never be dropped down into the reservoir, and then directed back down the side of the reservoir to a pump that is installed on the floor. If the intake line is dropping down into the reservoir, the pump should always be installed above or on top of the reservoir, and a foot valve should always be used.



Leader Centrifugal Pumps

Installation

This is an example of an improper installation. The discharge from the reservoir must always go directly from the discharge of the reservoir to the intake of the pump, you should never create a “hump” as shown in the picture by going up (such as to a filter, or to get around an object) and then back down to the pump. This will always create an airlock, which will cause a dry run in the pump.



Leader Centrifugal Pumps

Care and Maintenance

- These pumps are designed for use with clean water, so, if you are premixing additives, the pumps must be flushed with clean water until the interior of the pumps are clean at least once per week. It is recommended that the pumps be flushed once every 24 hours with clean water.
- The motor area of the pumps (as shown by the blue box) should never, ever be splashed with water, chemicals, or any other liquid, as this can damage the motor and stop the pump.
- If the temperature where the pump is located can drop below freezing, the pump must be drained as long as freezing temperatures are present, as this can and usually will destroy the pump.

- The pumps must be filled with clean water (primed) before starting the pump. This can be done through the priming port. Do not run the pumps dry under any circumstance.

Leader Centrifugal Pumps

Care and Maintenance

Other Care and Maintenance tips:

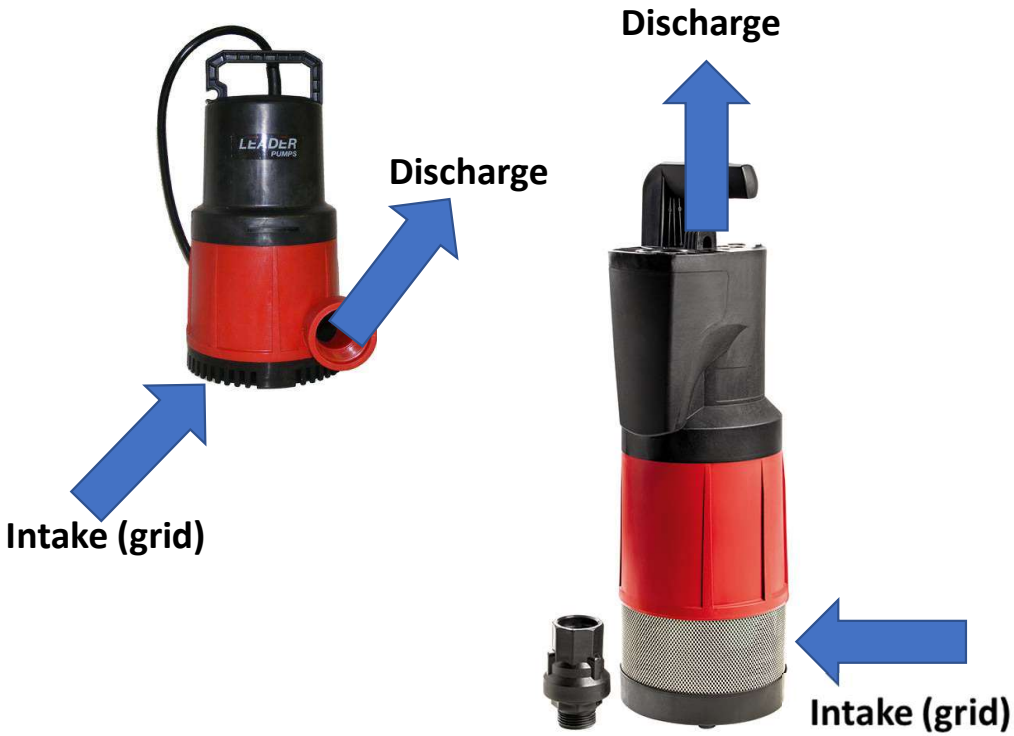
- If the pump isn't turning on, check the reset switch. It is located on the black electrical box on the side of the motor in some models (Ecoplus 240, 250, and Ecojet 120, 130). Push the reset switch in, and it will reset.
- If the pump is humming and not pumping, check to see if the shaft is stuck. Unplug the pump, and look at the back of the motor. In the center, there is a hole for a flat-head screwdriver, and the shaft has a cut for the flat-head screwdriver. Insert the screwdriver into the hole and engage the cut in the shaft, and turn it in a clockwise direction. This will free up the shaft if it is bound.
- If you need to disassemble the pump to clean it, exploded parts views can be obtained from the manufacturer, DAB Pumps.

Leader Submersible Pumps

Leader Submersible Pumps are designed to be operated fully submerged, such as inside a reservoir or tank. There are three main types, the Ecosub, Verty-Go, and the Ecodiver. The Ecosub and Verty-Go are designed for high-flow, low head/pressure operations, and the Ecodiver is designed for high head/pressure and low flow operations. The Verty-Go has an integrated float switch.

Leader Submersible Pumps

Leader Submersible pumps intake water through the bottom grid, and discharge through the discharge port, as shown on the illustration to the right.



Leader Submersible Pumps

The Verty-Go's intake is on the bottom, and the discharge is on the top, but it has an integrated float switch. The float switch can be cleaned by pushing down on the float switch compartment handle, and pulling off the cover. It can be replaced by inserting the bottom of the float switch cover and snapping it closed by pushing it toward the pump.

Leader Submersible Pumps

Care and Maintenance

- Leader Submersible pumps MUST be fully submerged, including the carry handle, when operated. The water level should be above where the red line is on the illustration to the right. Operating these pumps with the water level below the carry handle will damage the pumps.
- The pump's intake areas MUST be kept clean and free from debris of any type. The intake area is shown inside the blue boxes on the illustration to the right. These intake areas should be cleaned at least once per week to guarantee that they remain clean and free of debris.

Leader Centrifugal Pumps Troubleshooting

TROUBLESHOOTING ECOJET

Before starting to look for faults it is necessary to disconnect the power supply to the pum (take the plug out of the socket).

Solving typical problems

PROBLEM	CAUSE	CORRECTIVE ACTION
Pump does not prime	See point nr. 4 — Operation information	d) IMPORTANT Before operating for the first time, the pump must be filled to the top with fresh water through the delivery connection. The filling operation must be carried out very slowly. Wait few minutes until air comes out and fill again to the top.
The pump does not run	1. Not plugged in 2. Thermal overload or Amperometric protection tripped due to: a) Overheating (the pump ran with hot water or ran dry) b) Shaft blocked c) Impeller blocked	1. Check the plug. 2. Remedy to : a) Press the amperometric protection reset button on the pump (only ECOJET models 120 and 130) or wait until thermal protector switches back on after adequate cooling time allowed. b) Unplug the pump and with a screwdriver twist the rear shaft side. c) Unplug the pump, disassemble the pump and clean it and remove the causes of the overload / overheating switch off.
The pump runs but does not deliver	1. Air in the pump housing 2. Air bubbles in the suction line 3. Pump not primed	1Unplug the pump. Take out discharge line; shake the pump and suction pipe. Fill up pump housing with water; fit discharge line and switch on the Pump 2. Verify that suction line and fittings are fixed tight, and that foot valve is correctly mounted on suction line. 3. Read priming instructions

Leader Centrifugal Pumps Troubleshooting

TROUBLESHOOTING ECOPLUS

Before starting to look for faults it is necessary to disconnect the power supply to the pump (take the plug out of the socket).

Solving typical problems

FAULT	CAUSE	SOLUTION
1. The pump does not turn on	1)No power 2) Shaft blocked	1) Check if power is supplied to the socket and that the plug is correctly inserted 2) Remove the plug from the power socket and insert a screwdriver into the notch on the shaft (from the cooling fan side) and unblock it by turning the screwdriver
2. The pump turns but does not deliver water	1) The air inside the pump has not been completely bled. Pump casing without water 2) Entry of air from the suction pipe. 3) The suction valve is not submerged in the water -suction valve blocked -the maximum suction depth has been exceeded.	1) stop the pump, unscrew the delivery pipe, shake the pump and suction hose to remove any air bubbles. Top up with water, connect the hose and delivery pipe ensuring it is correctly sealed and start the pump again. 2) check that the joints of the suction hose have been performend correctly. Make sure that there are no counterslopes, traps, goosenecks or constrictions on the suction pipe and that the suction valve is not blocked. 3) place the suction valve in the water - clean the foot valve - clean the suction basket - check the suction depth.
3. The pump stops due to overheating caused by the opening of the thermal overheat protection.	1) The power supply does no conform to that on the rateing plate of the motor (voltage to high or to low) 2) A soild object has blocked the impeller 3) The pump has been operating with water that is too hot. 4) The pump ran dry or ran with the delivery tap closed for more than 10 minutes.	1) - 4) remove the plug, remove the cause of overheating, wait for the motor to cool down and start it again.

Leader Centrifugal Pumps Troubleshooting

TROUBLESHOOTING ECOTRONIC

Before starting to look for faults it is necessary to disconnect the power supply to the pump (take the plug out of the socket).

Solving typical problems

FAULT	CAUSE	SOLUTION
1. The red LED Flashes	Lack of water	Re-establish the regular flow of water.
2. The red LED stays on	Automatic reset attempts exceeded	Disconnect and reconnect the power supply.
3.The pump continuously stops and starts	1)the system is not air tight 2) Possible presence of foreign objects inside the device.	1)Check the system and the pump connection. 2) Disconnect the pump, dismantle the pumps electronic device and carefully rinse it buy spraying water in the inlet – with a garden hose for example.
4. The pump does not work	1)The pump is faulty. 2)The electronic device may be blocked with foreign materials or limescale.	After having disconnected the electronic device from the pump, try running the pump on its own connecting it to the mains. If the pump runs correctly, check through the outlet that the impellers inside the electronic device are turning freely. If the impellers do not turn freely, clean the electronic device by filling it with vinegar or another descaler through the outlet. If the impeller is free, contact the service centre.

Thank you for your time.

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