

Trouble-Shooting Section

Symptom	Possible Cause	Cure
Reduced flow	Plugged input pump	Clean out thru-hull and strainer. Close valve and clean debris from around impeller.
	Discharge line plugged with trash	Clean out hose by back-flushing.
	Low battery voltage	Check battery condition and charge if necessary
	Kinked discharge hose	If hose is kinked because of sharp bend, convert to Rule #83 hose which will not kink at bends.
	Wrong polarity	Check to see that brown wire (+) is hooked to positive battery terminal.
No water pumped	Partial airlock	Turn pump off for 15 seconds and then restart.
	Wire connections	Make sure no wire connections are corroded through.
	Blown fuse	Check fuse to see if it is the correct size. If fuse size is correct and fuse still blows, check impeller through inlet opening to be sure it is not jammed or stuck with debris.
	Airlock	Backing up your boat may cause air bubbles which will stall the pump. Turn off pump for 15 seconds to clear air and restart. Make sure pump is below water line - check to make sure the discharge hose is running continuously upward.
	Wire overheated Melted insulation	Visual check is not enough - a slight pull on each wire will tell if the wires are still joined. Check to be sure no joints are hanging down into the water.
	Combination of jammed impeller and wrong size fuse	Be sure impeller is clear of debris and is free to rotate. Reduce fuse to proper size. Replaced damaged wiring.

Congratulations

You've just purchased one of the finest quality live/baitwell pumps available in the industry. It was developed after years of experience, research, and testing by our research staff. Its motor and its shaft seals were specially designed and are manufactured by Rule Industries to give years of reliable trouble free performance.

Most early pump failures are due to improper installation and wiring. Please read and follow the instructions carefully and your pump will provide you with maximum output and the life for which it was designed.

This pump is "Ignition Protected."

PUMP	SEACOCK	DUAL PORT
209FDP	1"	YES 1/2" NPT
209B	1"	NO



The Rule Guarantee

We guarantee all our pumps to be free from factory defect or malfunction for three full years from purchase date.



www.rule-industries.com

Made in Mexico



INSTRUCTION GUIDE

1600 GPH Livewell/Baitwell Pump



Model 209B
Model 209FDP

950-0062



Engineered for life

Instructions

The Model 209FDP and 209B are designed to install directly into any valve fitting with 1" NPT Male Threads.

STEP 1 Install 1" seacock per manufacturers instruction below the waterline in boat. If installation is through the transom make sure the hole inside the boat is beneath the waterline outside the boat (otherwise the pump will not have any water).

STEP 2 Install a thru hull pickup with a filter grate to prevent debris from entering the seacock and pump. Use Sudbury elastomeric Marine Sealant on the flat surface of the thru hull where it will be in contact with the outside surface of the boat and around the threaded tube on both sides of the hull. Install the seacock and pump using teflon pipe tape or sealant on all threaded connections.

STEP 3 Wrap both ends of a 1" NPT stainless steel short nipple with teflon tape or pipe sealant, screw nipple onto 1" seacock, and hand tighten pump into nipple.

STEP 4 If the pump is mounted horizontally, the output must be pointed upward to allow air to vent.

Note: Pump must be installed below the waterline to allow for flooded suction operation.

Electrical

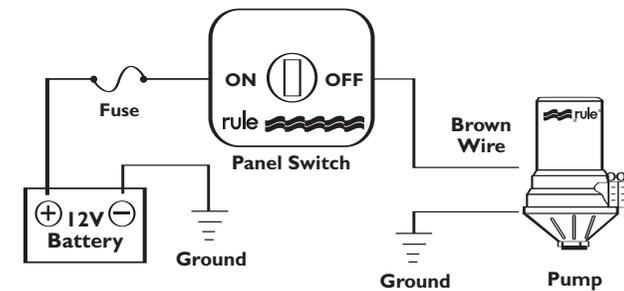
1. Wire

Normal installation requires 16 gauge wire.

2. Polarity

Brown pump wire connects to the positive (+) side of the battery. Black pump wire connects to the negative (-) side of the battery. (See below).

3. Install a 15-amp fuse and fuse holder in the positive (+) brown wire between pump and battery.



This pump is designed for use with fresh and salt water only. Use with any other medium, including particularly hazardous, caustic or corrosive substances, could result in damage to the pump, the surrounding environment and injury to persons or property, including possible exposure to hazardous substance.

This pump is for water applications only.

In order to prevent electrolysis and corroded wire connections, it is essential that all wire ends and terminals be sealed with Rule Elastomeric Marine Sealant or suitable waterproof materials and located above the highest possible water level.

Hose

1. Use 1-1/8" smooth wall hose suitable for below waterline applications.
2. Hose should run continuously upward from pump to the Livewell/Baitwell tank.
3. Use clamps to connect the hose to pump and valve.

Caution: The pump is below the waterline. Water can come into the boat through the pump if the hose is not connected tightly to the pump.

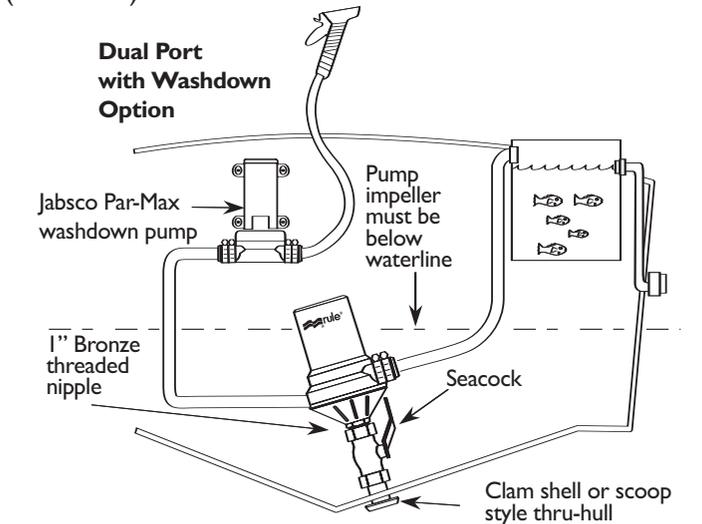
Operation

1. Open seacock
2. Turn the pump on
3. The tank will fill until water runs out the overflow pipe
4. Leave pump running for continuous exchange of water
5. When system is not in use, close seacock

Note: Reducing the water flow with an adjustable flow control valve will not damage the pump.

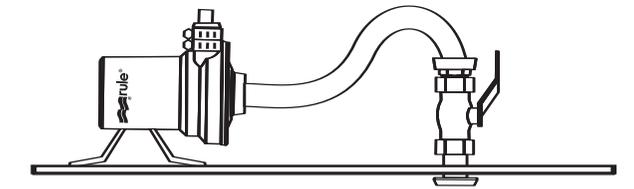
Washdown Option

Model 209FDP Only - For washdown option remove plug from 1/2" port and connect to washdown pump. (See below)



Note: For Model 209B a tee will need to be added to create an additional port for a washdown pump.

Horizontal Mounting



For horizontal mounting, discharge must be positioned upward.