

## ElectroStrainer/ClearLine Troubleshooting

### ClearVis Flow Sensor

ClearVis® Flow Sensors use ultrasonic technology to measure flow rates in real time. The sensors contain no internal mechanical parts.

ClearVis Flow Sensors are available in four sizes (1", 1.25", 1.5", and 2") and should always be installed downstream of the ElectroStrainer®/ClearLine® Canister. They are most commonly threaded directly onto the Canister outlet or plumbed in place just after the Canister. Consult the installation manual specific to the installed unit for further details.

ClearVis Flow Sensors are labeled with their model and serial numbers. They are connected to the Control Unit (or Control Head on ElectroStrainer Pro and Sport models) using a short cable with a quick-connect plug. **It is important to note that ClearVis Flow Sensors passively monitor the flow rate. They DO NOT regulate or control the flow of seawater.**



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### No Flow

The seawater pump must be ON and pumping water for the ClearVis Flow Sensor to work. Without flow, the display should always read NO FLOW (0 gpm/lpm). If the pump is running and NO FLOW (0 gpm/lpm) is displayed, use the following troubleshooting steps to check for common issues:

- Ensure the ClearVis Flow Sensor is plugged in and has a good connection. Check the plug for any damage or corrosion, which can cause the Flow Sensor to not operate correctly.
- Disconnect then reconnect the Flow Sensor Cable, ensuring the plug is fully inserted. (This can be done while the pump is ON and the system is running.) After reconnecting the plug, the power on the ElectroStrainer/ClearLine system must be cycled OFF and then ON, following the instructions in the operation manual specific to the installed unit.
- Make sure all fittings, hose clamps, and clamping hardware are tight on the ElectroStrainer/ClearLine Canister, seawater pumps, and plumbing fittings. Pay special attention to the suction side of the pump, which can cause air to enter system when the pump is running.

- Check for any leaks or air intrusion. Even small amounts of air can cause the ClearVis Flow Sensor to function improperly. If possible, visually observe the water flow, either by looking at the water discharged by the system or at any clear plumbing to see if air bubbles are present.
- Shut the system down and close all seacocks in the seawater circuit at or below the waterline. Check the sea strainer basket (ElectroStrainer or other existing sea strainer), ensuring it is clean and free of obstructions.
- Check for any blockages or obstructions in the seawater circuit. Note: It is possible for a blockage to occur after the Flow Sensor.
- Ensure the seawater intake on the bottom of the boat is not restricted.
- Reassemble the sea strainer and verify that any gaskets are properly in place and that the unit is fully sealed before opening the thru-hulls and turning the system back on.

If you are still experiencing NO FLOW (0 gpm/lpm), the ClearVis Flow Sensor may need to be replaced. Please contact ElectroSea Service at [support@electrosea.com](mailto:support@electrosea.com) or (561) 257-5739. Include the serial number and any pertinent information.

## Erratic Flow

Erratic flow may be seen when there is an excess of turbulence passing through the ClearVis Flow Sensor. Turbulence creates “noise”, which can lead to inconsistent readings or erratic flow. In extreme cases, turbulence can cause the Flow Sensor to read NO FLOW (0 gpm/lpm). Use the following troubleshooting steps to check for common causes of turbulence:

- If possible, eliminate any 90-degree fittings directly before or after the ClearVis Flow Sensor. Excess 90-degree fittings can cause water to become more turbulent. Using hose to create a loop or a sweep is a better option.
- Check for any leaks, loose fittings, or loose clamps that may cause a water leak or air intrusion. A water leak may or may not be observed, depending on where the leak is located. Pay special attention to the suction side of the pump, which can cause air to enter system when pump is running.
- Shut the system down and close all seacocks in the seawater circuit at or below the waterline. Check the sea strainer basket (ElectroStrainer or other existing sea strainer), ensuring it is clean and free of obstructions. Reassemble the sea strainer and verify that any gaskets are properly in place and that the unit is fully sealed before opening the thru-hulls and turning the system back on.
- Ensure that all plumbing is smooth and not pinched or compromised in any way.
- Check for any blockages or obstructions in the seawater circuit. Note: It is possible for a blockage to occur after the Flow Sensor.

- Bleed out any air from the seawater circuit, ensuring the sea strainer and pump have water in them before restarting the system.
- A worn down or corroded pump impeller may cause turbulence. It may be necessary to visually inspect the pump head or impeller, especially if the impeller is bronze.
- It is possible for marine growth or debris on the bottom of the boat to cause erratic flow. If necessary, inspect the hull around the area where the seawater pickup is located.

If you are still experiencing an erratic flow rate, the ClearVis Flow Sensor may need to be replaced. Please contact ElectroSea Service at [support@electrosea.com](mailto:support@electrosea.com) or (561) 257-5739. Include the serial number and any pertinent information.

***IMPORTANT: For warranty returns, ClearVis Flow Sensors must be shipped using the return label enclosed with the RMA.***

