Instruction Sheet

Thermo Scientific Orion 1517 Low Level Chloride Monitor Grounding Harness

General Information

Proper grounding of the Thermo Scientific Orion 1517 low level chloride monitor is important for trouble-free operation of the instrument. The sensitivity of the monitor is approximately 60 times greater than that of a sodium monitor. Full scale input corresponds to 4 mV in the 10 ppb range, and this is measured on an offset voltage of 380 mV.

Grounding Harness Installation

Since the terminals of the ground wiring can corrode, it is recommended that the whole grounding harness be exchanged yearly as part of normal maintenance. A spare harness is included in the 1517 monitor yearly consumables kit, Cat. No. 151750.

1. Remove the existing grounding harness. Remove the old drain clip. Clean all areas of the ground connections.
2. For all connections, use the new screws, washers and fittings that come with the grounding kit. Make connections to the sample inlet/outlet fittings on the flow cell and the back panel grounds.
3. If the instrument is installed on a metal frame, ground the metal frame with frame ground wire.
4. Ground the refrigeration unit with refrigeration ground wire. Use one of the screws on the stainless steel cover of the refrigeration unit to connect the cooler ground wire.
5. It is recommended that petroleum jelly be coated on all parts of the drain clip ground only. After installing the drain ground connection, generously coat the screw, clip, drain tube and terminal. Make sure no petroleum jelly contacts the electrodes. Keep the flow cell area, tools, fingers, etc. clean.
6. Ensure all screw connections are tight.

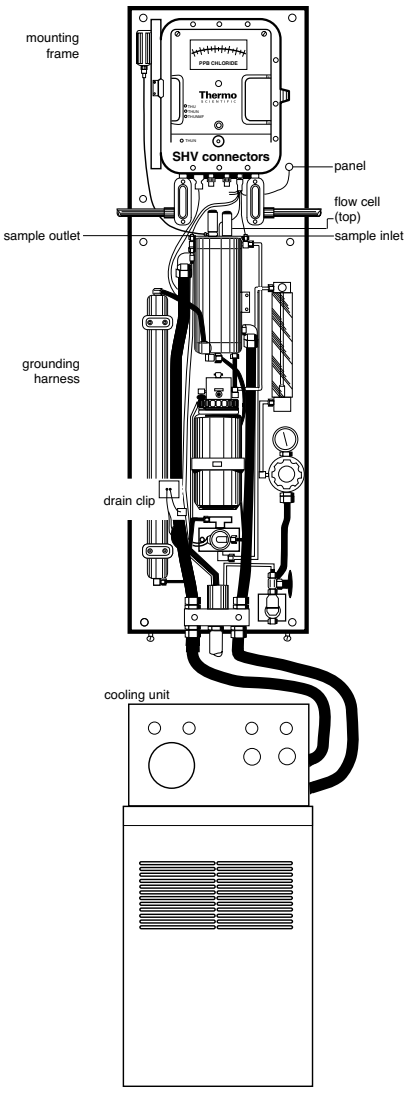

Figure 1 – Chloride Analyzer with Grounding Harness Installed

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Grounding Issues

If you have installed the ground wiring and still suspect grounding problems to be the cause of noisy and drifty readings on the 1517 monitor, try the following step-by-step procedure. Check for a stable reading after each step.

1. Set up the instrument as described in the user guide. Ensure good electrodes are used before starting to look for grounding problems.
2. Ensure that the cooling unit and the instrument are connected to the same power outlet.
3. Ensure that ground and neutral are not connected together in the power outlet. Check all power outlets are on the same line.
4. Disconnect the ground wire of the instrument from the ground.

Note: The instrument is grounded now through the cooler. If this solves the problem, hook up the instrument through an isolation transformer.

Ordering Information

Cat. No.	Description
151750	1517 monitor yearly consumables kit, includes grounding kit

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Water Analysis Instruments

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166 Cummings Center
Beverly, MA 01915 USA
Toll Free: 1-800-225-1480
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