ARCHON Industries, Inc.

Liquid Level Gauges

Model: BT-LLG

INSTALLATION & MAINTENANCE INSTRUCTION

Instruction No.: **1014.5**
Revision Issued: **03/19/12**
Approved: **Engineering Manager**
Frank Bongiorni

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Warning

ONLY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH GAUGE GLASS VALVES AND THEIR OPERATION SHOULD UNDERTAKE INSTALLATION OF THIS PRODUCT.

Danger

Failure to properly install could result in serious personal injury and property damage. Read all warnings and instructions before performing installation or maintenance. Safety glasses and gloves should be worn at all times when working with or examining water gauge glass and connections.

NOTE: Gauge is not suitable for steam-water applications.

- When making up gauge to process lines, tighten connections by placing the wrench on the hex of the nipple at the end of the gauge. Do not tighten connections by twisting gauge frame.

- If the top of the gauge is below the maximum possible liquid level or if there is a possibility of pressure or vacuum in the storage tank (other than atmospheric pressure), the vent connection on top of the gauge should be connected to the upper part of the storage tank.

- A valve should be installed between the storage tank and the level gauge.

NOTE: FAILURE TO SLOWLY BRING THE GAUGE INTO SERVICE WILL CAUSE RAPID PRESSURIZATION OF THE SIGHT TUBE WHICH COULD RESULT IN SERIOUS PERSONAL INJURY AND PROPERTY DAMAGE.

MAINTENANCE

1. During system shutdown, gauge valves should be left open to allow the gauge pressure and temperature to equalize with the vessel.

2. Should the gauge require maintenance while the vessel is in service, gauge valves should be closed completely to allow the gauge to reach ambient temperature if necessary. Liquid should be carefully drained through the drain valve on the lower gauge valve.

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NOTE: Do not proceed with any maintenance unless the gauge has been relieved of all pressure or vacuum and has reached ambient temperature. Gauge should be flushed out to remove any hazardous liquids.

SIGHT TUBE INSTALLATION INSTRUCTIONS

1. Ensue that gauge is drained and relieved of any pressure.
2. Remover level gauge from tank using a wrench on hexagon flats of packing nuts. Don not twist off using gauge frame.
3. Remove sight tube shield from gauge frame by sliding out top.
4. Loosen hexagon socket setscrew on front face of upper and lower end blocks.
5. Remove packing nuts from each end of gauge.
6. Carefully remove sight tube and seals.
7. Slide replacement sight tube into gauge frame assembly.
8. Install sight tube seal on each end of sight tube.
9. Make sure sight tube extends equal distance from each end of gauge frame.
10. Install packing nuts and tighten to 20-25 ft.-lb. of torque.
11. Tighten hexagon socket setscrews.
12. Slide sight tube shield back into gauge frame from top until top edge of sight tube shield is flush with top edge of gauge frame.
13. Install gauge back onto tank using a wrench on hexagon flats of packing nuts. Do not twist on gauge frame.
14. Reintroduce liquid back into gauge slowly and check for leaks.

Warning

Read all warnings and instructions before performing installation or maintenance. Safety glasses and gloves should be worn at all times when working with or examining water gauge glass and connections.

Danger

Improper installation or maintenance of gauge glass and connections can cause immediate or delayed breakage resulting in bodily injury and/or property damage

Use and Care

DO NOT's

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DO NOT use glass if it contains any scratches, chips, or any other visible signs of damage.
DO NOT reuse any tubular glass packing.
DO NOT subject gauge glass to bending or torsional stresses.

Use and Care

DO NOT's

DO NOT over tighten glass packing nuts.
DO NOT allow glass to touch any metal parts.
DO NOT exceed the recommended pressure of the gauge or gauge glass.
DO NOT clean the gauge or gauge glass while pressurized or in operation.

DO's

DO verify proper gauge has been supplied.
DO examine gauge glass and packing carefully for damage before installation.
DO install protective guards and utilize automatic ball checks where necessary to help prevent injury in case of glass breakage.
DO inspect the gauge glass daily, keep maintenance records, and conduct routine replacements.
DO protect glass from sudden changes in temperature such as drafts, water spray, etc.

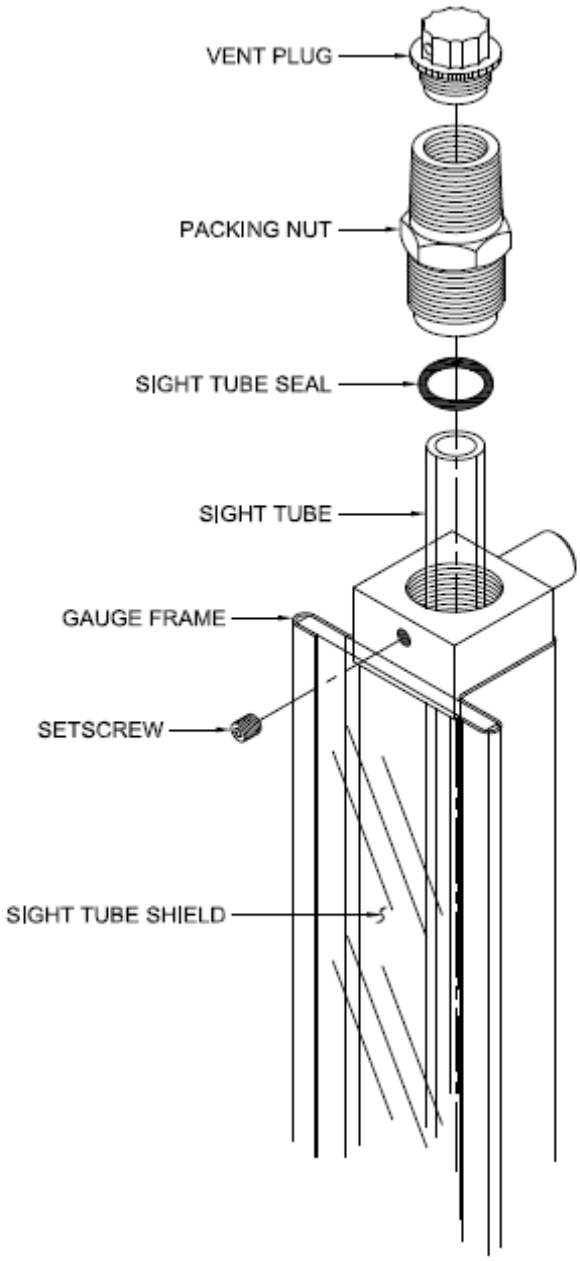

Figure 1- Assembly View

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