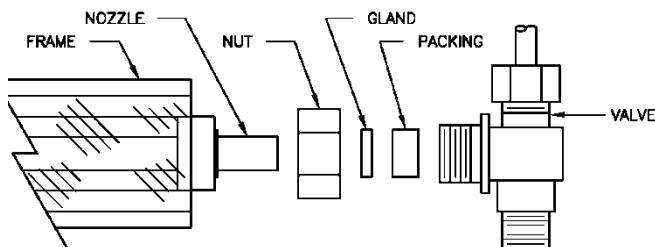


## J.G. PAPAILIAS CO., INC - INSTALLATION, OPERATION AND MAINTENANCE MANUAL - SERIES LG1-S TUBULAR LEVEL GAUGES

### INSTALLATION INSTRUCTIONS:

1. Ensure that gauge glass valves are closed if replacing an existing vessel sight glass.
2. Remove glass packing, glass packing gland, and glass packing nut from gauge glass valve set. Loosening glass packing nut might be the only operation required on some valves requiring minimal glass engagement. **Important: Loosening or removal of gauge glass valve packing nuts should be done carefully if replacing an existing pressurized vessel level gauge.**
3. Place glass packing nut, gland and packing onto 5/8" or 3/4" diameter nozzle on each end of the LG1-S "Levelguard" liquid level gauge. Push glass packing onto nozzle as far as is required for glass packing nut or packing gland to bottom out on "safeguard" gauge frame. It may be desirable to lubricate packing prior to assembly to ensure easy installation.



4. Insert upper nozzle of LG1-S Gauge into the stuffing box of installed upper gauge glass valve as far as it will go and then swing the lower end of the LG1-S Gauge over until the lower nozzle is aligned with center of the installed lower gauge glass valve's stuffing box.
5. Lower the "safeguard" nozzle down into the lower gauge glass valve stuffing box until end of gauge nozzle rests on glass stop inside valve.
6. Thread lower gauge glass valve packing nut onto valve and tighten.
7. Thread upper gauge glass valve packing nut onto valve and tighten.

### OPERATING INSTRUCTIONS:

The PAPAILIAS CO. LG1-S comes standard with a 5/8" O.D. Tubular glass sight tube installed within the gauge frame and can stand minimal shock. **To avoid thermal shock on tubular glass, connecting valves should be opened slowly to allow glass temperature and pressure to equalize with vessel.**

### MAINTENANCE INSTRUCTIONS:

Removing the LG1-S level gauge from operation should be undertaken by qualified personnel who are familiar with gauge glass valves. Removal of "safeguard" gauge sight tube is as follows:

1. Remove existing clear polycarbonate or expanded metal sight tube shield from gauge frame. This is accomplished by bending crimped portion of gauge frame away from shield so it can easily slide out.
2. Remove wire from around sight tube splicer if one exists.
3. Remove end nozzles from gauge by unthreading them from gauge frame end blocks. Use of slot in end of nozzles when unthreading is critical so that smooth surface of nozzle O.D. is not damaged.
4. Remove o-ring seal from each end of sight tube
5. Carefully remove sight tube from within gauge frame.

#### Installation of gauge sight tube is as follows:

1. Replace the 1/4" thick x  $\varnothing 1\frac{1}{8}$ " Buna-n sight tube isolator onto sight tube if applicable.
2. Place sight tube into gauge frame through existing holes in gauge frame end blocks.
3. Insert sight tube into splicer if one exists. If a Teflon shrink tube type splicer exists, it will be necessary to place a Teflon cushion o-ring between adjoining sight tubes and heat-shrink the Teflon splicer in place.
4. Place o-ring seal onto each end of sight tube.
5. Thread one nozzle into gauge frame end block and tighten.
6. Thread other nozzle into gauge frame end block and tighten.