

# Digital Level Sensor Guide Tool

**User Manual** May 2019 Revision

#### EL# 29001

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## Description:

The Digital Level Sensor Guide Tool (DLS-GT) provides a support structure design to simplify installation of the Electrolab Model 2100 Digital Level Sensor. Five critical pieces comprise the complete DLS-GT tool:

- 1. Loop
- 2. 3- Aluminum Tubes (which fit together and are secured with Coupler pins)
- 3. 3" or 4" NPT Base Plate



The base plate screws into the top of the tank where the DLS 2100 is meant to be installed and acts as the anchor for the tool. The three 4' Aluminum Tubing pieces fit together to form a supportive structure and attach into the base plate. The Loop piece mounts into the top of the structure and limits the lateral travel of the DLS 2100 within the loop. Couplers pins lock each of the pieces together. When fully assembled, the guide tool is approximately 12' and the loop is approximately 18" in diameter.

## Assembly and Installation:

Complete the following installation steps in conjunction with the steps described on page one of the *Model DLS 2100 User's Guide*:

- 1. Assemble two Aluminum Tubing pieces by fitting the male end of one tube into the female end socket of the other tube. Align each piece and lock them together with coupler pins.
- 2. Attach the third Aluminum Tubing piece to the previously assembled components.
- 3. Attach the top male end of the Loop piece to the assembled Aluminum Tubing pieces and lock into place with a coupler pin.
- 4. Screw the base plate of appropriate size to fit into the tank port. For tank ports larger than 4 inches, a reducer may be installed before installing the base plate.

### **CAUTION:** Make sure at least 6 threads have been engaged before proceeding to step 5.

5. Fit the three assembled Aluminum Tubes with Loop into the female socket of the Base Plate piece. Lock the assembly in place with a coupler pin.

The DLS-GT is now ready for service and can be used to help with the installation of the DLS 2100.

## **Operation:**

Once the DLS 2100 Guide Tool has been installed and secured, it can be used to help you install the Model 2100 Digital Level Sensor.

- 1. Verify that the steps 1 through 4 in the "Installation" section of the *Digital Level Sensor Model 2100 User Manual* are complete.
- 2. Lift the sensor through the inside of the Loop piece of the fully assembled DLS Guide Tool.
- 3. Insert the bottom end of the sensor into the tank top port and lower the sensor slowly into the tank. Ensure that the float does not hang up on the port edge.
- 4. Carefully lower the DLS sensor into the tank.

**CAUTION:** Do **NOT** drop the sensor into the tank or you may damage the glass reed switches.

- 5. You may now remove the guide tool. First, remove the assembled Aluminum Tubing and Loop pieces, then unscrew and remove the Base Plate.
- 6. Once the Base Plate has been removed, continue installing the DLS2100 following step 6 of the *Digital Level Sensor Model 2100 User Manual*.

## Safety Warnings:

- Use with DLS 2100 sensors **ONLY**.
- Do **NOT** use the DLS-GT near power lines.
- Do **NOT** use the DLS-GT during lightning storms, severe wind, or extreme weather conditions.
- Do **NOT** use the Loop piece to support any vertical weight. The Loop is intended for limiting horizontal travel of the DLS 2100 sensor and is not designed to support any vertical weight.
- Do **NOT** attach more than 3 Aluminum Tubing pieces together when assembling the DLS-2100 Guide Tool.

**GENERAL SAFETY NOTE:** Make sure to follow all safety guidelines and procedures required for the premises where installation is required (proper harnesses, use of hard hat, etc.).

## **Guide Tool Specifications**

Dimensions		
Overall Length	12'- 2"	
Loop Diameter	18"	
Tube Diameter	1.90"	
Weight		
Overall Weight	22 lbs.	

## **Technical Assistance**

Installation, troubleshooting, and other technical assistance for the Digital Level Sensor Guide Tool may be obtained by contacting the manufacturer:

Electrolab, Inc. 159 Enterprise Parkway Boerne, Texas 78006 Phone: +1 (888) 301-2400 or +1 (210) 824-5364 Email: insidesales@electrolabcontrols.com