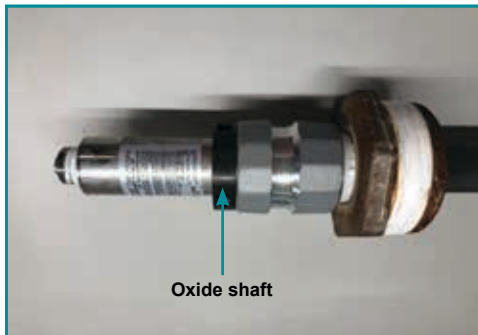


Confirm that you have all the necessary materials.

**NOTE:** Be careful, when removing the hose to maintain a 36" diameter coil or larger to prevent kinking the hose.

1



Slide the black, oxide shaft collar onto the stainless steel sleeve of the sensor, right above the cord grip/reducer assembly.

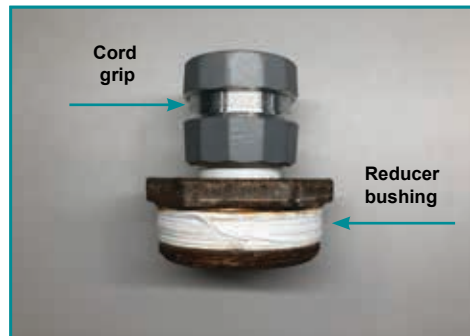
Tighten the side bolts of the shaft collar to prevent slipping.  
Replace the ground screw.

4

## Assembly Instructions for RU-Flex 2100 DLS

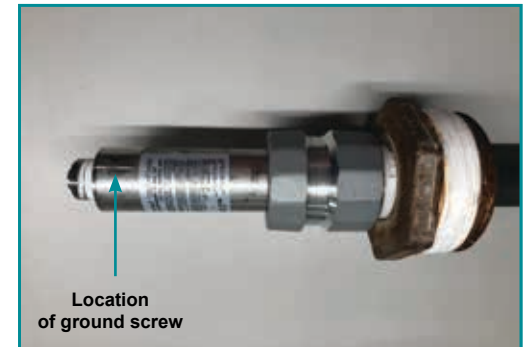
Apply thread sealant to the threads of the cord grip & the threads of the reducer bushing. Join the two components together.

2



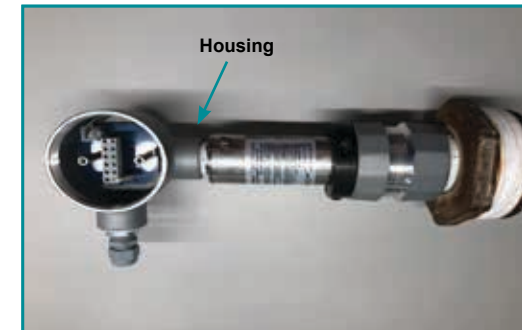
Apply thread sealant to the threaded area of the sensor flange.  
Remove pigtail from sensor housing and connect the rounded end to the top of the sensor flange.

5



Remove the ground screw from the sleeve of the sensor. Slide the cord grip/reducer bushing assembly onto the sleeve 1-foot from the top of the sensor.  
Tighten the cord grip/reducer assembly to secure it in place.

3



Feed pigtail through housing's 1-inch port. Tighten housing into the sensor flange (do not allow the wires to twist).  
Connect the associated connectors into the fuseboard.

Sensor is ready for communications test and installation.

6

\* Sensor housing pictured is a GRL housing. Housing model will vary by order.  
\*\* Thread sealant and additional tools are provided by customer.



## Pre-Installation Sensor Communications Test

### Required Equipment

- RU Flex 2100 DLS ready for installation
- HHC-1000 or Computer w/ Terminal Emulation program
- DMM (Digital Multi-Meter)
- Large pipe wrench, 24" minimum

### Communications Test:

1. Open the housing cover of the RU Flex 2100 DLS to access the fuse board.
2. Configure the HHC-1000 or computer for the Baud Rate that is marked on the DLS with masking tape. Connect the HHC-1000 or computer to the fuse board.
3. Request data from the sensor to verify that the level and temperature values are valid and the sensor is reading the location of the floats.
4. Verify there are no errors indicated.
5. Configure sensor for the proper Unit Number, Address, or Protocol.

### Special Installation Considerations

Failure to use the required weight for the RU Flex 2100 DLS will void the warranty. Some installations may require the addition of a riser to ensure the tube sits within the cord grip and prevents movement of the sensor tube. See table below.

Tank Height (A)	Port Height <sup>1</sup> (B)	Length from Bottom of Tank to Top of Port <sup>2</sup> (A+B)	Weight Required	
			tank flow	lbs.
15	3	15-3	Standard	1 x 12
			Turbulent	2 x 8
16	3	16-3	Standard	1 x 12
			Turbulent	2 x 8
20	3	20-3	Standard	1 x 12
			Turbulent	2 x 8
25	3	25-3	Standard	2 x 8
			Turbulent	(1 x 12) + (1 x 8)
30	3	30-3	Standard	2 x 8
			Turbulent	(1 x 12) + (1 x 8)
			Turbulent	(1 x 12) + (1 x 8)
35	3	35-3	Standard	(1 x 12) + (1 x 8)
			Turbulent	2 x 12
36	3	36-3	Standard	(1 x 12) + (1 x 8)
			Turbulent	2 x 12

<sup>1</sup> - All calculations were done with standard port height of 3". Adjust accordingly for longer port lengths.

<sup>2</sup> - Measurement does not account for curvature at the top of the tank. Common measurement if mounting at center of tank is a difference of 6".

## Installation in the Tank

1. Carry the assembled RU-Flex 2100 DLS and its weight separately to the top of the tank. *Do **not** attach weights on sensor until ready to install sensor in tank.*
2. Position the sensor for installation and screw the weight onto the bottom of the sensor.
3. Lower the sensor into the tank port, keeping an arch in the hose with its natural curve. Keep hands 18-inches apart to prevent bending the sensor past a safe point.
4. Uncoil the sensor onto the catwalk.
5. When the weight reaches the bottom of the tank, loosen the cord grip of the sensor to be attached to the tank port. Secure the cord grip onto the tank port.
6. Raise the sensor 1/2-inch from the bottom of the tank and allow the hose to relax.
7. Secure the cord grip by fully hand-tightening the top nut. Secure the black, oxide shaft collar clamp above the cord grip. Proceed to "Electrical connection."

## Electrical Connection

1. ***With the power disconnected***, feed the external cable to the sensor through the open port on the side of the housing. Unplug the gray, 6-position connector from the internal fuse board.
2. Install the power signal wires using the white depressor tool. It is recommended to save the white depressor tool for future use.
3. Plug the connector into the fuseboard. Route wires away from the housing threads and screw in the housing cover.

**Please note** readings of 999.99" or 000.00" indicate an error. If an error code is reported, determine the cause of the error and correct it before proceeding. Refer to the *RU Flex 2100 DLS User Guide* found online.

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