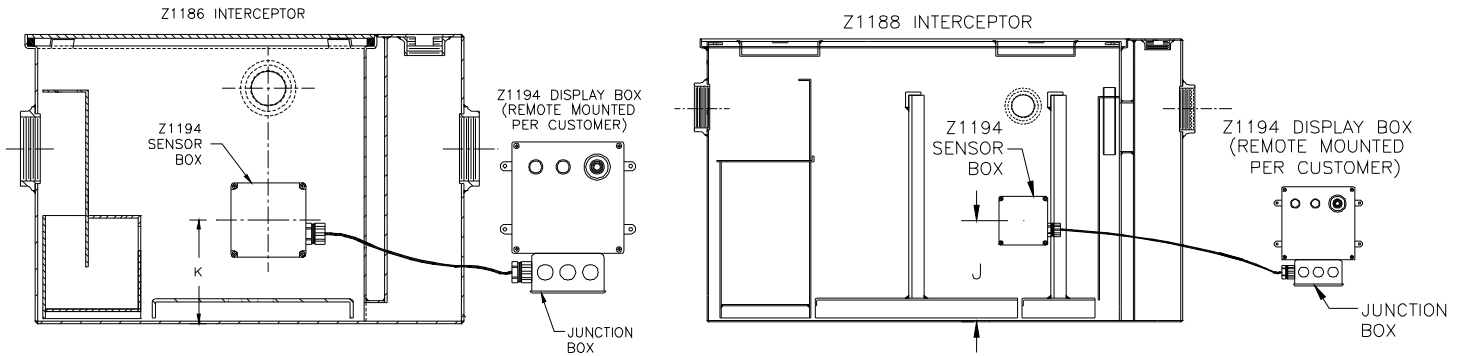




# Z1194 OIL LEVEL SENSOR FOR RETRO-FIT APPLICATIONS Operation and Maintenance Instructions



## Safety Warnings

- Do Not Apply power before you read and complete Start-Up list.
- Do Not remove electrical enclosure cover when main cover is open and electricity is on.
- Do Not expose electrical components to water or oil.
- Caution - Do Not apply power until all provisions of Personal Safety Procedure #29CFR 1910.335 and Lockout and Tag Procedure #29CFR 1910.147 are in Compliance.

## Installation

The Zurn Oil Interceptors with oil level sensors must be installed in accordance with the oil Interceptor Installation Instructions (Form #IT84) and in compliance with local codes and regulations.

All Zurn Oil Interceptors with oil level sensors are FOR ON THE FLOOR INSTALLATION ONLY.

## Variables That Might Affect Operation

Operators and users of Zurn oil interceptors must be familiar with the variables which may adversely affect the efficiency of the interceptor. These are as follows:

1. Velocity of Incoming Water...A higher velocity of water will contribute to a more turbulent mixture. This will slow the separation process and thereby reduce efficiency.
2. Ratio of oil to water...The higher the ratio of oil to water, the lower the efficiency.
3. Specific gravity (weight) of the oil...Oil with a lower specific gravity will rise to the surface much quicker, while oil with a higher specific gravity will have a tendency to linger toward the bottom, taking a longer time to surface.
4. Possible presence of detergents in the system...Oil cutting detergents will break the oil into minute particles that can pass through the interceptor.
5. Presence of large particles mixed with the oil...Particles allowed to pass into the interceptor will allow adhesion of the oil to these particles. This reduces efficiency.

Job condition variables may warrant the use of a larger size interceptor than normal sizing indicates. This will help to ensure efficient operation as variables change throughout the operation cycle. Local codes and job conditions prevail and may warrant alternate sizes.

Prior to doing any trouble shooting on a unit which appears to be malfunctioning, make certain that none of the variables which affect the operation of the unit are present.

## Operating Instructions

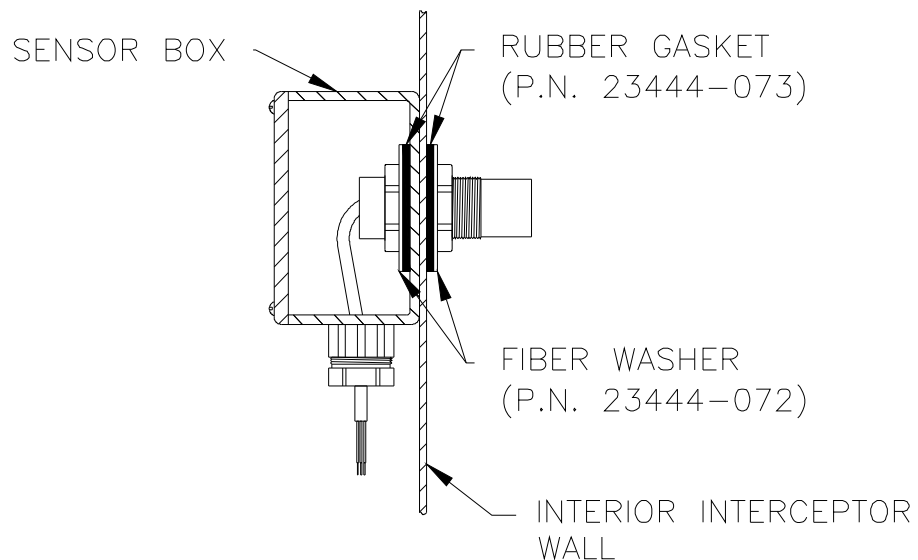
### Installation Instructions

1. Install the Oil interceptor in accordance with the installation instructions (Form #IT84).
2. Remove the steel nipple from the draw-off tube assembly and replace it with a plug so that the draw-off assembly is no longer operational.
3. Using the chart below, locate and drill a 1¼" hole in the side of the interceptor approximately 2½" over from the draw-off fitting, towards the inlet.

Z1186	
Flow Rate G.P.M.	K-Dim. Inches
10	5 7/16
15	5 7/16
20	6 5/8
25	7 3/4
35	7 3/4
50	9 1/16

Z1188	
Flow Rate G.P.M.	J-Dim. Inches
75	10
100	15 3/8
125	15 11/16
150	17 5/16
200	21 1/16
250	27 13/16
300	32
350	35 5/16
400	39 5/16
450	40 3/8
500	43 3/16

4. Remove the four cover securing screws of the sensor box and remove the cover
  5. Unscrew the nut that holds the sensor to the box.
  6. With the sensor still inside the box, place the sensor through the 1¼" hole, orienting the box so that the conduit connection faces the required direction.
  7. Place a second rubber gasket and fiber washer over the sensor on the inside of the interceptor wall. Secure the sensor with the nut that was removed in step 5.
  8. Replace the cover back on the sensor box and secure with the four screws provided.
- Note: A bead of silicon sealant may be placed between the sensor box and the outside wall of the interceptor for additional protection against leaks.



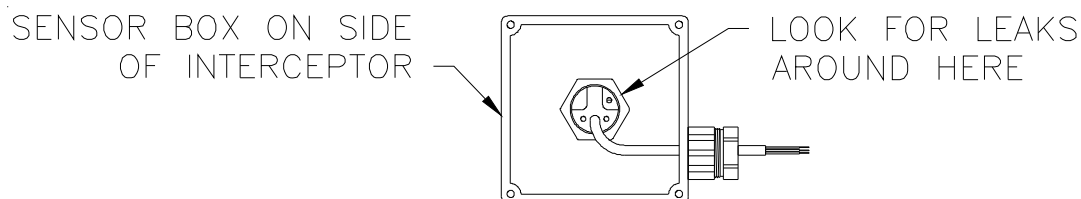
### Wiring Instructions

1. After the Display Box is mounted in the desired location, remove the smaller junction box cover.
2. Locate the two bundles of three wires each inside.
3. One bundle has white, black, and green wires in it. These three wires are to be connected to the dedicated 100 to 240 VAC at 47 to 63 Hz GFCI service.

4. The other bundle has blue, white, and brown wires in it. These wires are to be connected to the same colored wires from the sensor inside the Sensor box on the interceptor.
5. All wires should be run in conduit, and in compliance with local codes.

### Start Up List

1. Be sure that power is OFF (circuit breaker in off position).
2. Make sure that all connections and fittings are tight and secure
3. Verify that the flow control fitting was properly installed and vented.
4. The display panel should be visible.
5. Remove the interceptor cover and the electrical enclosure cover of the sensor box.
6. Check that the baffles are installed.
7. The display box should be connected to a dedicated 100 to 240 VAC at 47 to 63 Hz, GFCI service.  
Do Not Turn Power On.
8. Go to source that spills into the interceptor and turn on cold water.
9. Turn the water supply off once the sensor is fully engulfed in water. Watch for leaks, both from the interceptor and the electrical enclosure around the sensor.



10. Replace cover on the interceptor and enclosure cover of the sensor box. If all steps were completed to this point, turn the power on.
11. If all functions are normal, a green light will be displayed.
12. The unit is now operational.

Note: All oil level sensors come preset from the factory. There should be no need for adjustment of the sensor in the field.

### Testing Sensor

1. To test sensor, drain water from interceptor until water level is below sensor.
2. Wait approximately 20 minutes. The red light should start to blink and alarm should activate.
3. To reset sensor, follow instructions below. If alarm does not activate after 30 minutes, contact Zurn Industries at the number below.

### Daily Operation and Maintenance

1. The interceptor must be cleaned on a regular basis. Volume of debris entering unit will determine the cleaning schedule.
2. The unit should be opened, checked, cleaned of debris and the sensor wiped off on a monthly basis.
3. Caution - If substances other than oil have entered the unit, noxious odor may be present.
4. Once the red light and audible alarm have been activated, the service power should be turned OFF to the unit, the interceptor cover removed, and the accumulated oil removed.
5. Caution - There are regulations in all areas regarding the proper disposal of oil and oil products. It is illegal to dispose of this oil in any other manner.
6. Once all the oil has been removed, turn water on to the interceptor, and raise the static water level inside the interceptor up over the oil sensor.
7. Once the interceptor has been filled with clean water, replace the cover and turn the service power on.
8. If all these steps were followed properly, the light on the display should be green and the alarm off.

For other problems or concerns feel free to contact Zurn Industries at (814) 455-0921, or contact your local Zurn Representative.