



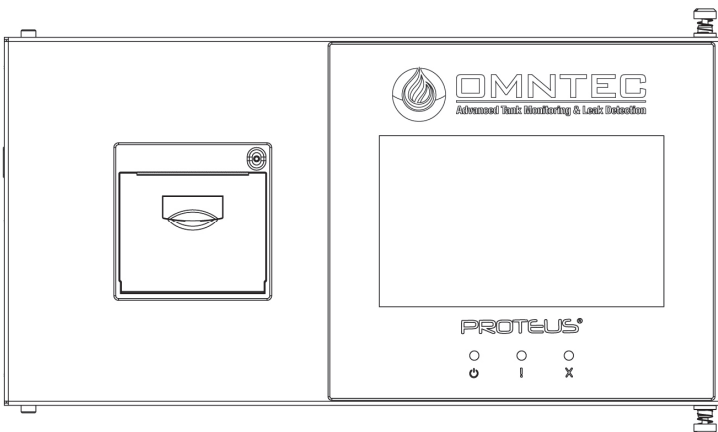
OMNTEC
Advanced Tank Monitoring & Leak Detection



1. Open the camera app
2. Focus the camera on the QR code by gently tapping the code
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OEL8000III-K/X

OIL/WATER SEPARATOR TANKS INSTALLATION & PROGRAMMING MANUAL



PROTEUS® Series TANK GAUGING SYSTEM Gen IV

Revision 2617

Document No. 500208

OMNTEC Mfg., Inc. has been certified
by DQS Inc. to ISO 9001:2015

The PROTEUS® Gen IV (K or X model) automatic tank-gauging and leak-detection systems for oil/water separator (OWS) tanks provide complete visibility on the status of your oil/water separator. It features both internal and external tank monitoring, which is easily read on its 7-inch color touchscreen display. The PROTEUS Gen IV Series can simultaneously monitor product levels, water levels, temperature, for each OWS. It is easy to understand and track multiple OWS from one simple console.

The OEL8000IIK4 ATG can provide level monitoring and leak detection for up to 4 OWS, and up to 8 OWS on the OEL8000IIK8, and up 40 OWS on the OEL8000IIIX.

Alarm Points

High Liquid (Water & Oil) Alarm:	Alarm on a point higher than the Invert Pipe/Outlet Downcomer (OD), normally a few inches above top of the Invert Pipe/Outlet Downcomer.
Low Liquid (Water & Oil) Alarm:	Alarm on a point below the Invert Pipe/Outlet Downcomer, normally 4 inches below the Invert Pipe/Outlet Downcomer opening.
High-High Oil Level (Maximum Allowable Oil Level):	Second high oil measurement (product height minus the water height). Normally set to 43% of the height below the Invert Pipe/OD. Oil is getting close to the input of the Invert Pipe/OD. (Invert Pipe/OD height x .43). See Figure 1.0.
High Oil Alarm:	High oil measurement (product height minus the water height). Normally set to 20% of the height below the Invert Pipe/Outlet Downcomer. (Invert Pipe/Outlet Downcomer height x .20). See Figure 1.0.
Leak Alarm:	Monitors one or more BX-PDS sensors located in the interstitial space for fluid.
Low Water Alarm:	Alarms when the water nears the bottom of the Invert Pipe/Outlet Downcomer opening.

ALL ALARMS ARE PROGRAMMABLE AND SET IN HEIGHT (Inches)

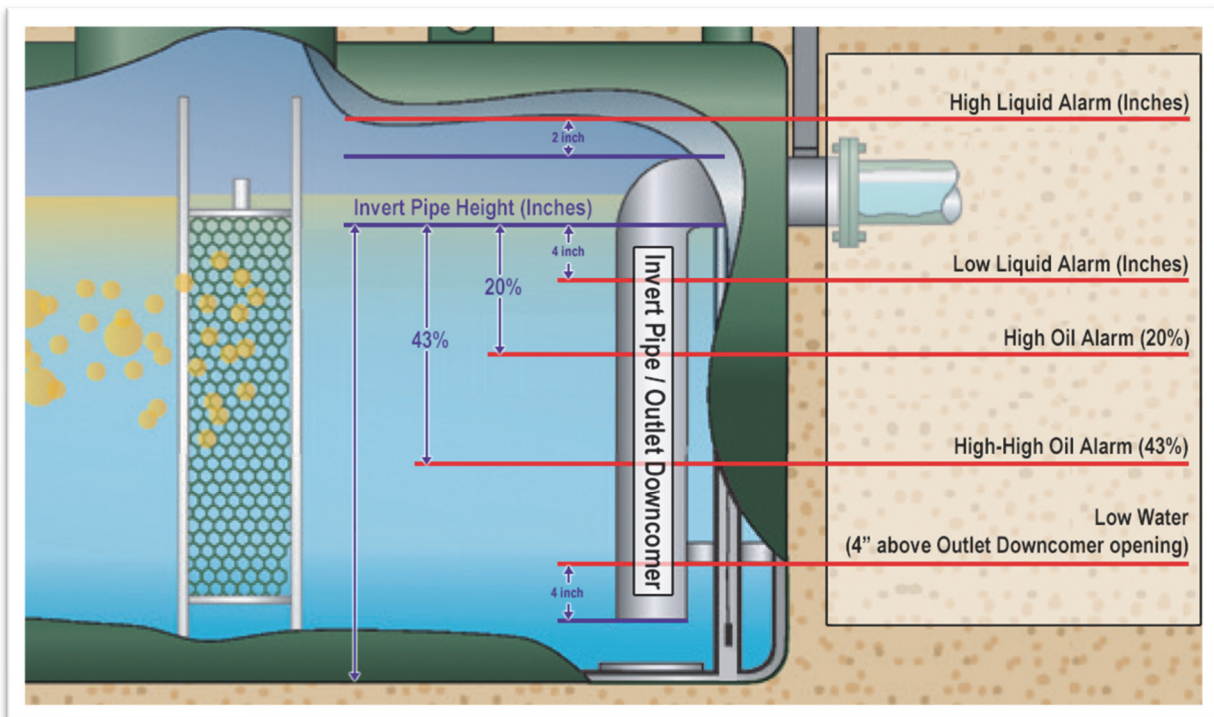


Figure 1.0

Set Up

Program the tank to OWS mode.

From UTILITIES > SETUP MENU > PASSWORD (default 000000) > TANK COLORS & ORIENTATION.

Select the OIL/WATER SEPARATOR icon under SELECT TANK PROFILE (third from left) to set the tank in OWS Mode.

Press the yellow SAVE button after making this selection. See Figure 2.0 (red oval).



Figure 2.0

Program the tank and probe parameters. (See the PROTEUS Gen IV programming manual for definitions of the tank parameters page).

The product and water nulls are programmed later in this document under the Calibration section (page 5).

From UTILITIES > SETUP MENU > PASSWORD (default 000000) > TANK PARAMETERS. Set the tank and probe parameters. See Figure 3.0. Note; values in image are examples and may vary for your application.

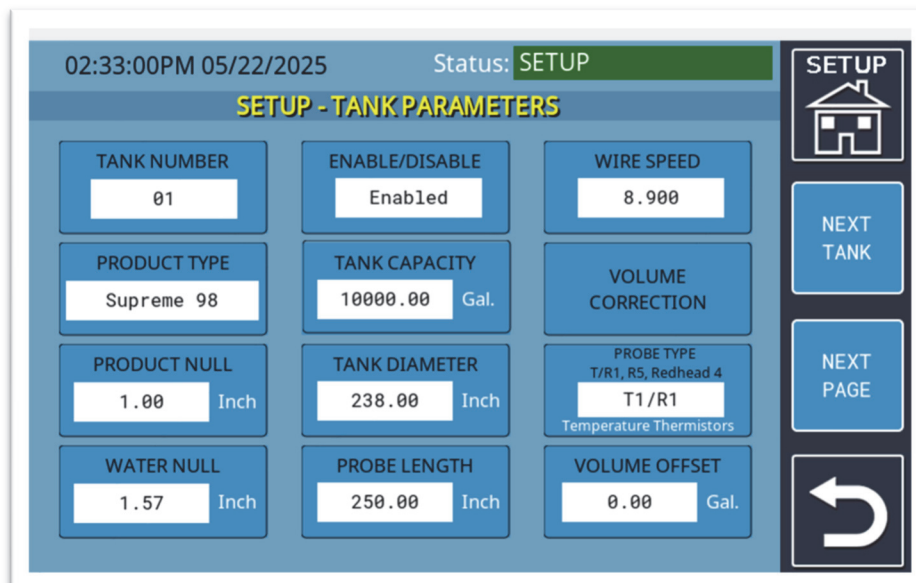


Figure 3.0

Program the tank alarm and set points.

Press NEXT PAGE from the (previous) SETUP-TANK PARAMETERS page.

See Figure 4.0. Note; values in image are examples and may vary for your application.

09:11:03AM 05/23/2025 Status: **SETUP**

TANK ALARMS AND SET POINTS

TANK NUMBER 01	LOW LIQUID 15.00 Inch	PROBE HIGH TEMP 302.00 F
HIGH LIQUID 90.00 Inch	LOW WATER 0.00 Inch	PROBE LOW TEMP -40.00 F
HIGH OIL 90.00 Inch	NOT USED	
HIGH HIGH OIL 85.00 Inch	INVERT OFFSET 50.00	

--- Default to 25 (0-50).

Navigation buttons: SETUP, NEXT TANK, NEXT PAGE, and a back arrow.

Figure 4.0

High-High Oil: Maximum allowable oil level. Second high oil measurement (product height minus the water height). Normally set to 43% of the height below the Invert Pipe/Outlet Downcomer.

High Oil: High oil measurement (product height minus the water height). Normally set to 20% of the height below the Invert Pipe/Outlet Downcomer.

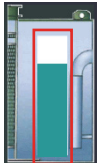
High Liquid: Alarm on a point higher than the invert pipe (normally a few inches above Invert Pipe/Outlet Downcomer).

Low Liquid: Alarm on a point below the invert pipe (normally 4 inches below the Invert Pipe/Outlet Downcomer opening).

Low Water: Alarms when the water nears the bottom of invert pipe. Normally set to 4" above the bottom of the Invert Pipe/Outlet Downcomer's height.

Invert Ht Offset: Set value to adjust the height of the OWS level that appears on the Inventory page graphic (red rectangle >).

Refer to Figure 1.0



Acknowledging (silencing) the audible alarm.

When an alarm is triggered, such as a HIGH OIL ALARM, you can acknowledge, or silence, that audible alarm by pressing the ALARM ACK button that will appear to the right of the screen. The STATUS of the system will remain in alarm until that alarm issue is resolved.

See Figure 4.1. Note; values in image are examples and may vary for your application.

03:35:13PM 06/17/2025 Status: **ALARM**

Gross Vol 68.69%

Oil Water Separator

HIGH OIL ALARM

GROSS VOL:	6,795 G
HEIGHT:	44.73 In
OIL VOL:	1,448 G
HEIGHT:	8.93 In
TEMP:	72.4 F

Capacity 8,000 G

TANK : 1 **HIGH OIL**

Navigation buttons: SETUP, ALARM ACK, and a back arrow.

Figure 4.1

See Figure 5.0 below. **The numbers illustrated are based off OMNTEC default values; your numbers may vary.**
 Note; when the bottom float drops below a reading of 3.5 inches, the probe will go into a TIMEOUT. The bottom of the float (magnet) will not read the “dead spot” at the end of the probe, resulting in this TIMEOUT.

Parameter settings example for a 32" OWS tank with Invert Pipe/Outlet Downcomer height set at 27"

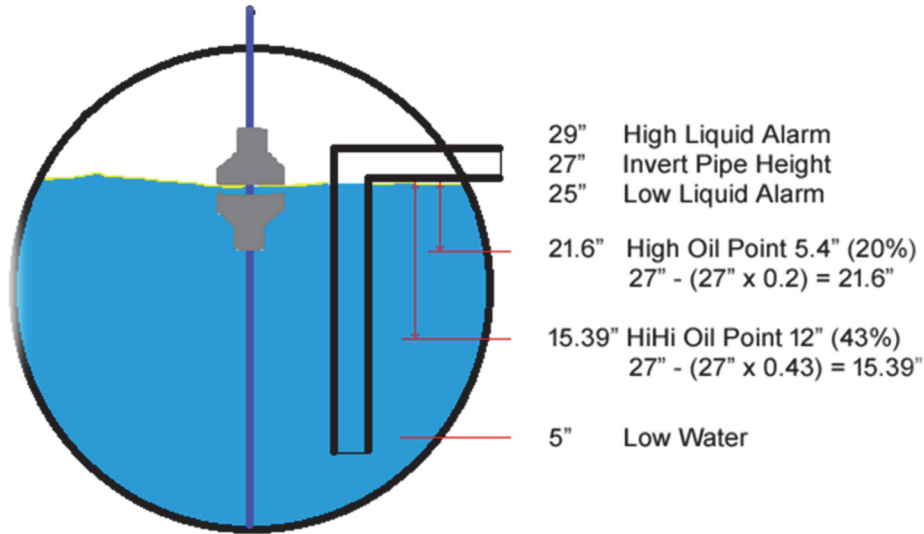


Figure 5.0

Relays

Program relay card events. (All OWS alarms can be used to trip the system’s dry contact relays).

From UTILITIES > SETUP MENU > PASSWORD (default 000000) > ARROW DOWN ICON (Setup page 2) > INTERFACE BOARD RELAYS. Select the applicable and available interface board or MCU events relay, depending on your specific application. See the PROTEUS Gen IV ATG manual for more details regarding programming relays.

See Figure 6.0. Note; events and relays in the image are examples and may vary for your application.

Slot#4 XB-4IO

SETUP









EVENT #	S/TANK #	EVENT TYPE	ENABLED RELAYS							
			1	2	3	4	5	6	7	8
01	T#01	HIGH LIQUID ALARM	X	-	-	-				
02	T#01	LOW LIQUID ALARM	X	-	X	-				
03	T#01	HIGH OIL	X	-	-	-				
04	T#02	HIGH-HIGH OIL	-	X	-	-				
05	T#02	HIGH PRODUCT ALARM	-	X	X	-				
06	T#02	LOW PRODUCT ALARM	-	X	-	-				
07		EMPTY EVENT								

Relay Boards (XB-4IO, XB-RB8): Press the event to program the Relays.
MCU Board: Press the event to program the Relays and Email events.

Figure 6.0

Calibration

Program the calibration of the floats.

The tank must contain **ONLY** water.

Note; the top float is the product float, and the bottom float is the water float. The water float has a metal ring ballast and is labeled “WD”. See Figure 7.0 (2” floats pictured to the left, 4” floats pictured to the right).

1. Stick the tank. Acquire an accurate reading of the liquid (water) in the tank used for this calibration.
2. Go to UTILITIES > SETUP MENU > PASSWORD (default 000000) > TANK PARAMETERS
 - a. Program the product null to the liquid height.
 - b. Program the water null to 0.1” less than the liquid height used on the product null.

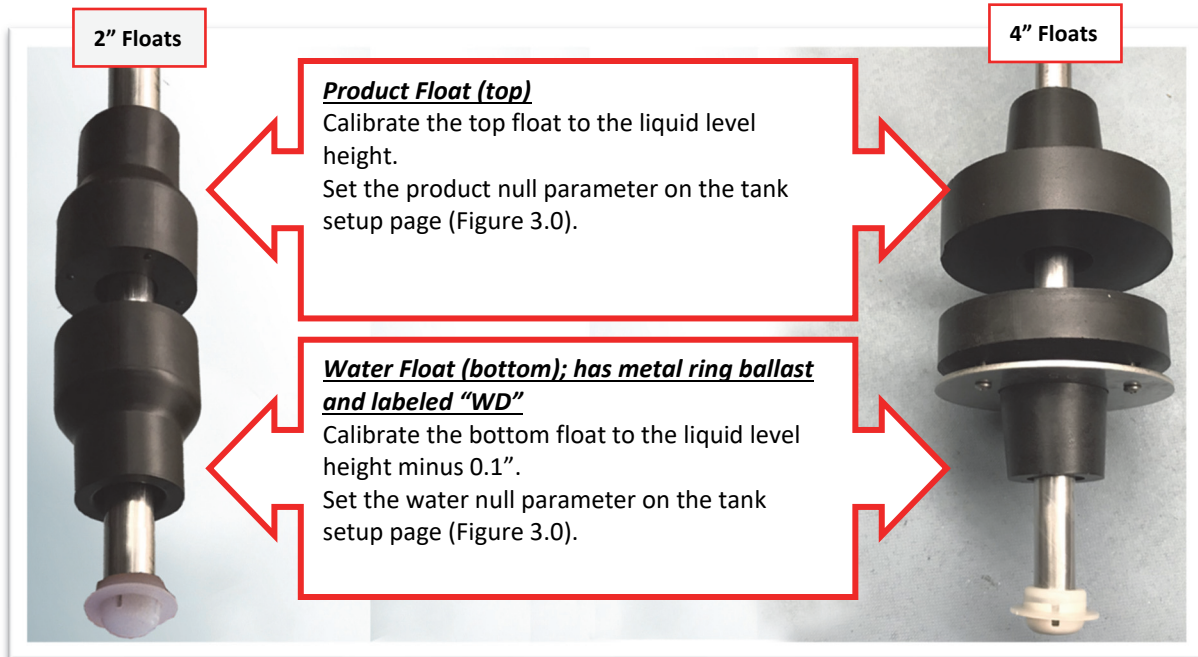


Figure 7.0