
TANK LEVEL SENSOR INSTRUCTION SHEET

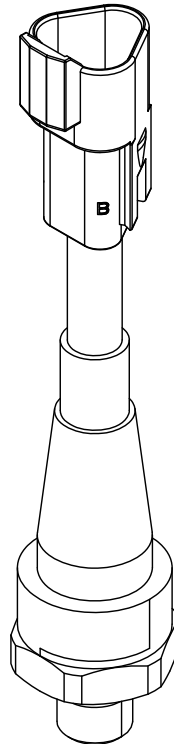
TANK LEVEL SENSOR INSTALLATION

NOTE: Prior to installing the tank level sensor, ensure the liquid system has been rinsed and drained to avoid contact with chemicals. Wear proper Personal Protective Gear (PPE) when working on sprayer plumbing.

1. Install the tank level sensor onto the bottom of the tank, placing the sensor as close to the bottom-middle as possible.

NOTE: The accuracy of the tank level sensor directly correlates to the placement of the tank level sensor in relation to the tank and plumbing design. The lowest, most center point of the tank will provide the best resolution for inflow tank volume accumulations. Avoid installing directly into the main fill, sparge, or agitation plumbing. It's important to understand that tank fill conditions may vary, depending on machine orientation while filling. Attempt to keep the machine level side-to-side and front-to-back for the best results.

FIGURE 1. Tank Level Sensor (P/N 422-0000-126P)



NOTE: The tank level sensor utilizes a 1/4" NPT thread type.

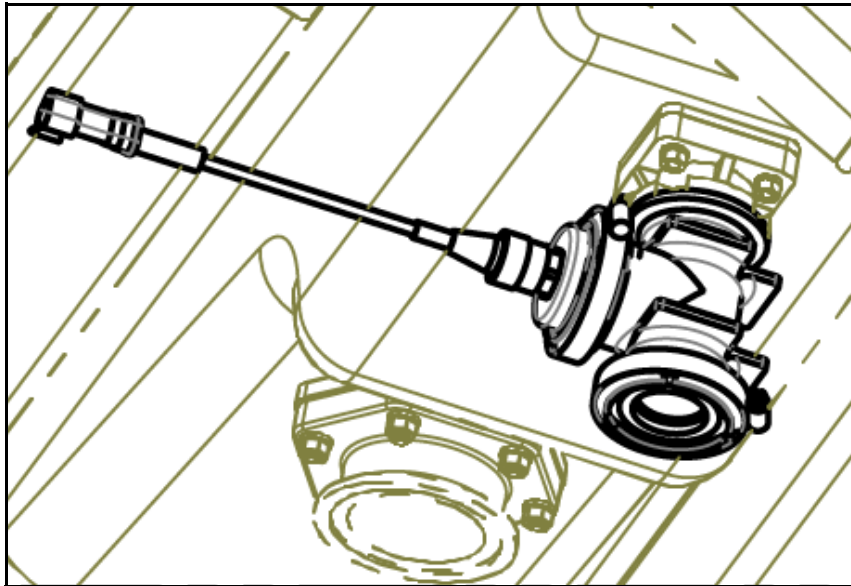


2. Ensure that thread sealant is used on the threads and that the sensor is installed in such a way that it will drain when the tank is emptied and sediment isn't allowed to build up on the sensor face.

NOTE: All liquid must be drained from the sensor to prevent any damage from freezing or erosion.

If a liquid sealant is used on the threads of the tank level sensor, ensure no sealant is allowed into the open end of the tank level sensor.

FIGURE 2. Tee Fitting - Sold Separately



3. When being used with RCM, connect the tank level sensor to the Tank Fill Meter Connection or Tank Level Connection.

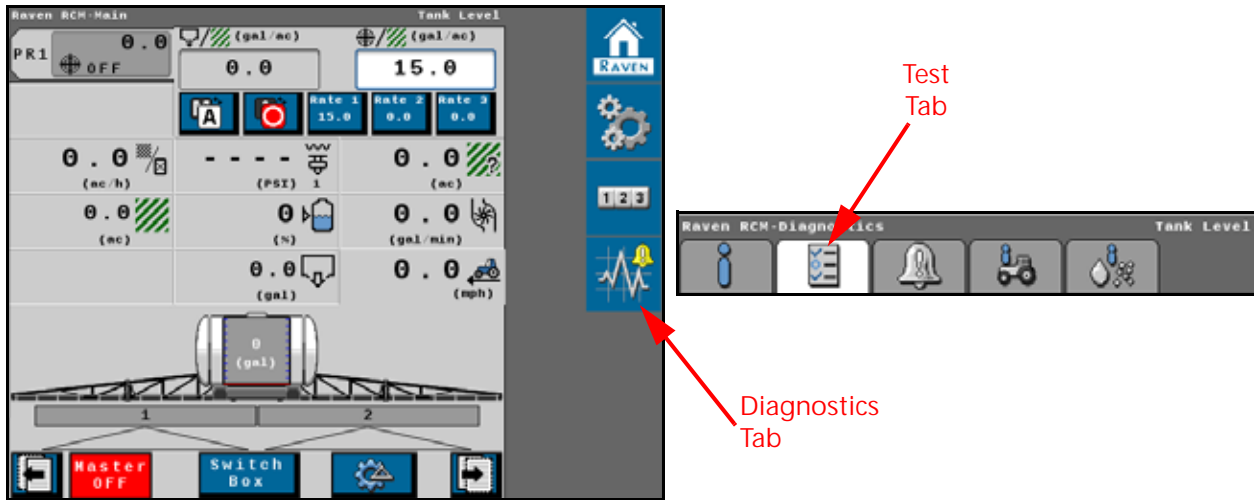
KIT COMPONENTS

QTY	PART #	DESCRIPTION
1	422-0000-126P	TRANSDUCER, PRESSURE, 1-5V, 0 TO 5 PSI
1	333-0001-040	FITTING, 1/2" NPT, TANK FITTING
1	333-0002-170	ELBOW, 90 DEG. STREET, 3/8" NPT, BLACK POLYPROPYLENE
1	333-0003-032	FITTING, PIPE BUSHING, POLYPROPYLENE, BLACK, 3/8 - 1/4
1	333-0003-034	FITTING, PIPE BUSHING, POLYPROPYLENE, BLACK, 1/2 - 3/8
1	333-0003-035	FITTING, PIPE BUSHING, POLYPROPYLENE, BLACK, 1/2 - 1/4

TANK FILL CALIBRATION

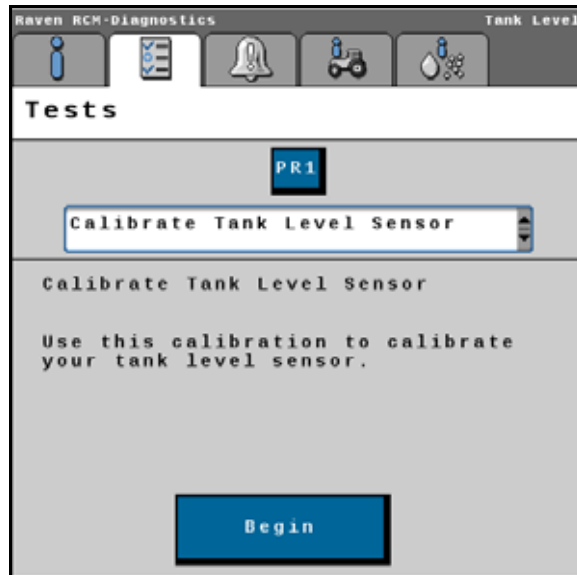
1. Fill the tank with a known volume of liquid so that the tank is full.
2. Navigate to the Diagnostics tab on the UT.

FIGURE 3. Home Screen and Diagnostics Tab Location



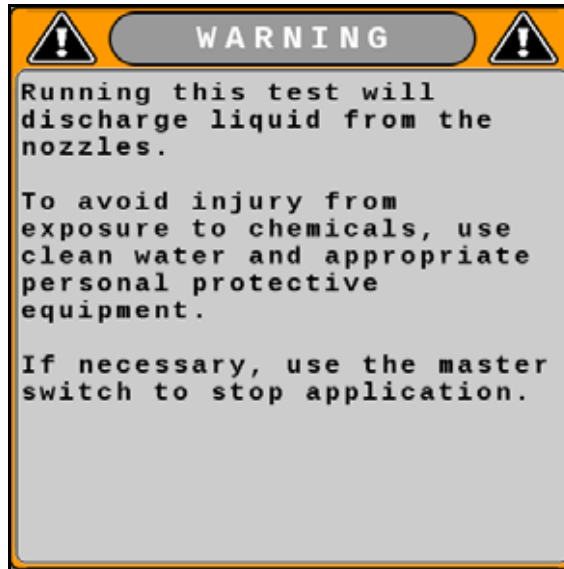
3. Select the "Test" tab on the top ribbon.
4. Select "Calibrate Tank Level Sensor" from the drop down list.
5. Press "Begin" to start the calibration test.

FIGURE 4. Diagnostics Tab



NOTE: A warning window will appear. The warning must be accepted to continue.

FIGURE 5. Warning



6. Manually enter the known tank volume that was added to the tank, a test speed, and application rate.

7. Proceed to the next page by pressing the "next" button.



FIGURE 6. Tank Level Sensor Calibration Menu



IMPORTANT: Liquid will be discharged from the nozzles.

Liquid must flow through the main flow meter to calculate the ratio of voltage to tank volume.

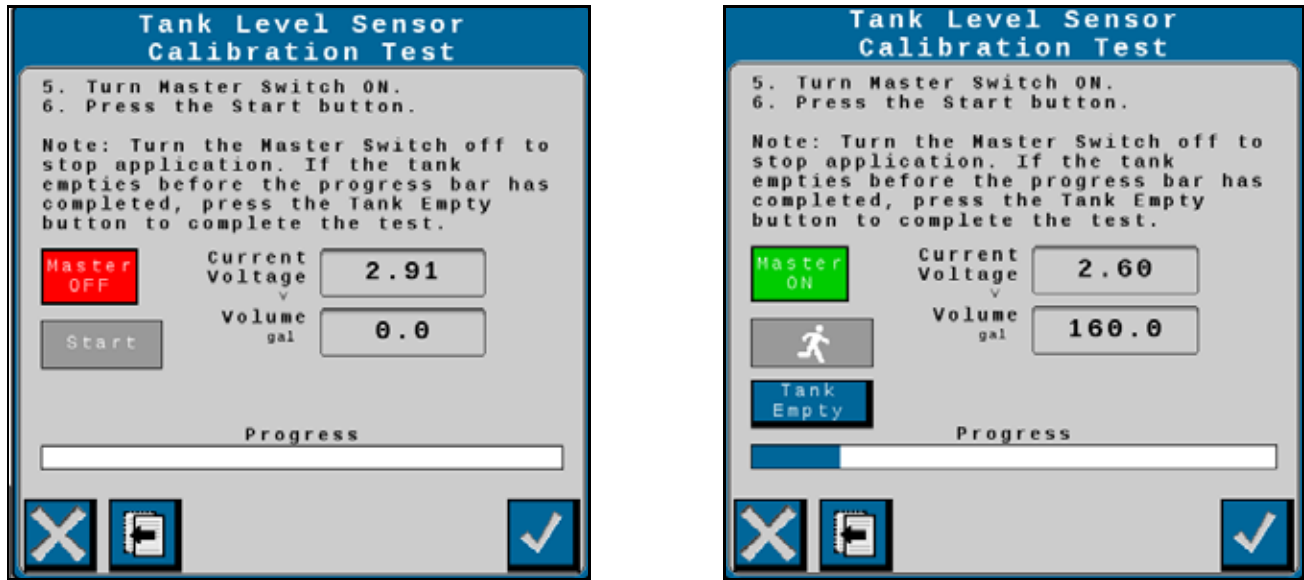
8. Turn on the master switch and press start.

9. Wait for the tank to empty as the diagnostics test begins.

10. Supervise the test and observe the results.

NOTE: If the tank empties before the progress bar completes, press the “Tank Empty” button to complete the calibration. Ensure this feature is only used when the liquid in the tank is at its lowest point and the product pump can no longer discharge the liquid.

FIGURE 7. Tank Level Sensor Calibration Progress and Results



SPECIFIC GRAVITY

1. Once the tank level sensor is calibrated, navigate to the "Setup Tank/Bin" menu.

FIGURE 8. System Settings and Setup Tank/Bin Tab Location

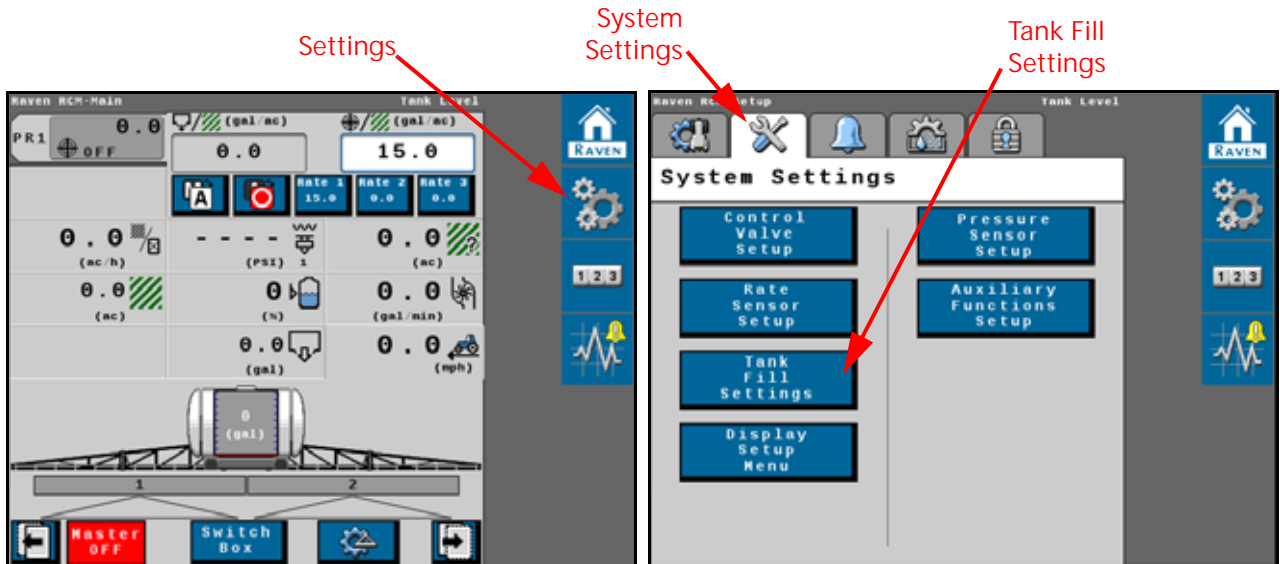
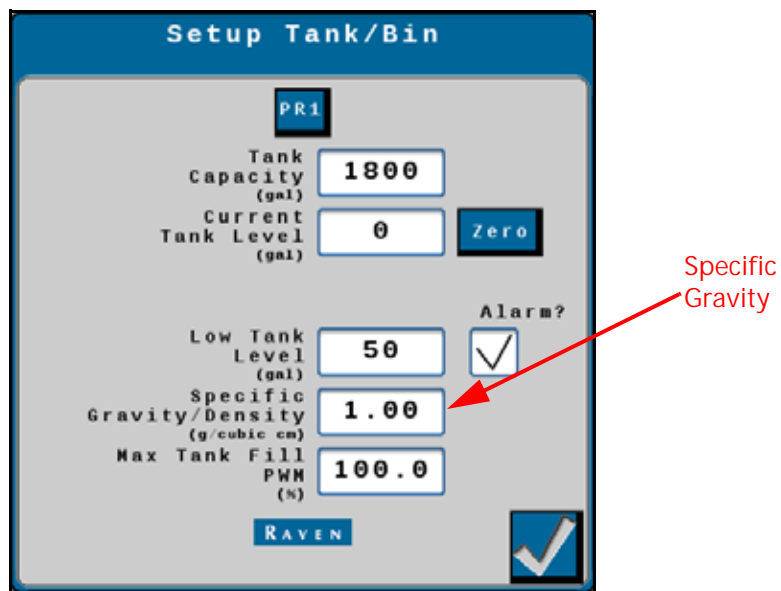


FIGURE 9. Specific Gravity Screen



2. Enter the specific gravity value for the product that will be measured in the tank. Utilize the specific gravity chart below as a guide to make a selection.

TABLE 1. Specific Gravity Values

Product	lb/gal	Specific Gravity
Water	8.35	1.00
28-0-0	10.67	1.28
32-0-0	11.06	1.32
10-34-0	11.65	1.40
12-0-0-26S	11.04	1.32
10-0-0-10Zn	10.4	1.25
7-21-7	11.2	1.34
4-10-10	10.3	1.23
8-21-4-3S-0.5Zn	11.3	1.35
9-18-4-6S-0.5Zn	11.3	1.35
9-20-2-7S-0.5Zn	11.4	1.37
10-13-0-7S	11.3	1.35
10-30-0-3S	11.7	1.40

NOTE: The values shown above in Table 1 are typical values for the most common fertilizers; however, the actual values could differ. Please refer to the following equation to verify the specific gravity value:

$$\text{Specific Gravity} = (\text{lb/gallon})/8.35$$



