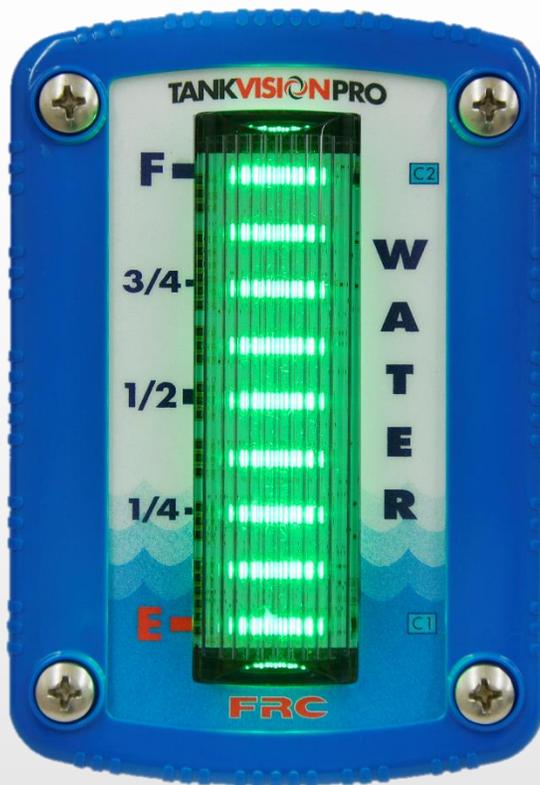


# UBEC 1AT TANK LEVEL DISPLAY

## Customization and Troubleshooting Guide



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## PROGRAMMING CODES

### Code Entry

Swipe the magnet across C1 or C2 to input calibration codes. C1 for first digit and C2 for the second. For example, to enter Code 32 swipe the magnet at C1 three times, and then swipe the magnet at C2 twice. If the code is accepted, the display will flash with the corresponding number of top and bottom LEDs as the entered count; three bottom row and two top row.

1. Swipe the magnet at C1. Each of the bottom row of LEDs turns on one at a time.
2. Swipe the magnet at C2. Each of the top row of LEDs turns on one at a time.
3. The process times out after 6 seconds of inactivity, or if no additional codes are entered (except for the non-linear calibration).
4. Save the new setting or enable new data entry by holding the magnet at C2 for 5 seconds.

## COLOR PATTERN SELECTION

Pattern 1 (Code 11) – One solid color. 4 green / 3 blue / 2 orange / 1 red (Default)

Pattern 2 (Code 12) – All red

Pattern 3 (Code 13) – Top 1/8 level is green and all others are red

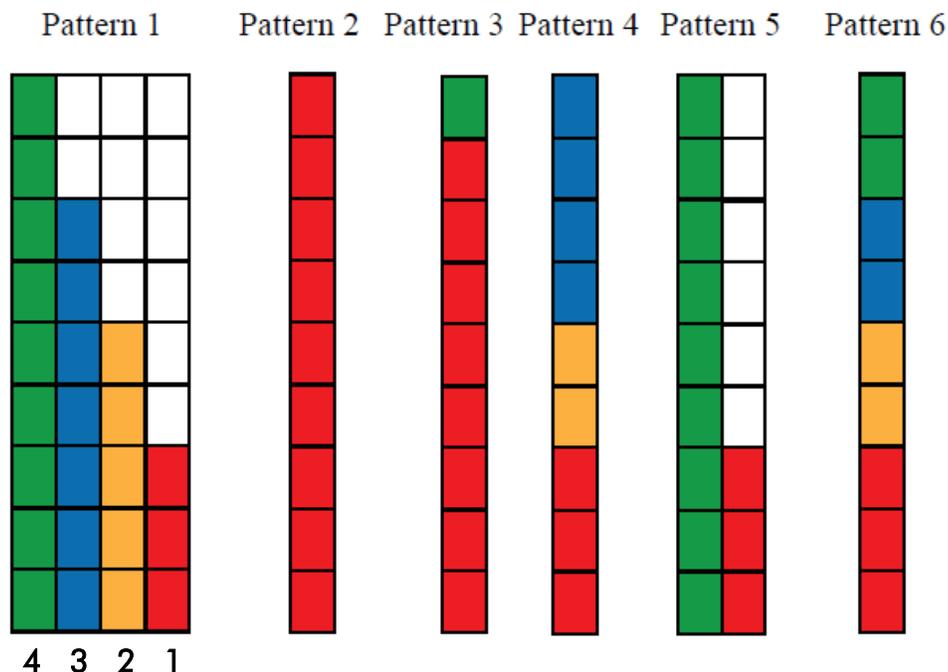
Pattern 4 (Code 14) – Three colors: blue/orange/red

Pattern 5 (Code 15) – All green, and turns red when the WARNING is active

(When tank level is at or below 1/4 full)

Pattern 6 (Code 16) – Four fixed colors for each 1/4 level: green/blue/orange/red

Once a pattern has been selected wait 5 seconds, and then save the new setting by holding the magnet at C2 for 5 seconds.



**NOTE:** The above is an example of a programmed LED color pattern.

## CONTROL LEVEL ADJUSTMENT

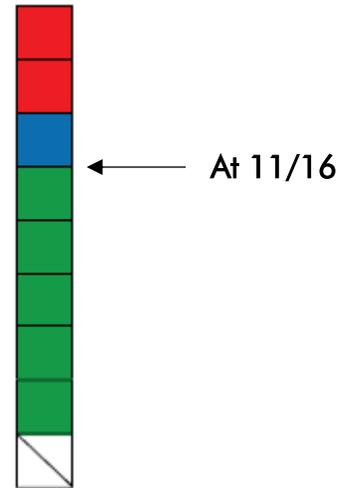
**Code 24** To set the Valve OPEN activation level. Default – 1/2

**Code 25** To set the Valve CLOSE activation level. Default – 7/8

1. Enable the data entry by holding the magnet at C2 for five (5) seconds. This sets the desired level for either Warnings or Valve Control setting activation.
2. Wait five (5) seconds.
3. Save the new setting by holding the magnet at C2 for five (5) seconds.

### Level Adjustment Setting Pattern

1. Every magnet swipe at C1 will incrementally increase/decrease the activation value by 1/16.
2. Every Green LED is 1/8.
3. Every Blue LED is 1/16.
4. LEDs are all red when activated, and show the default or previously set value.



## BRIGHTNESS ADJUSTMENT

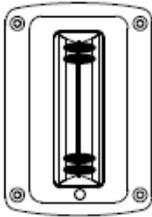
**Code 31** Day time brightness level. Default: 8

**Code 32** Night time brightness level. Default: 2

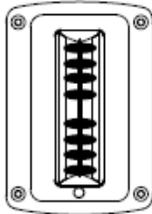
1. Every magnet swipe at C1 will incrementally increase/decrease the brightness for 10 various levels.
2. Starting from the lowest level, repeat the process from number 1.
3. Enable the data entry by holding the magnet at C2 for 5 seconds.
4. Adjust the brightness to the desired level.
5. Save the new setting by holding the magnet at C2 for 5 seconds.

## DIAGNOSTICS

There are diagnostic codes built into the Tank VisionPro. These diagnostic codes can help in the troubleshooting process. If there is no input on pin 2 of the remote light driver, remote lights remain off. The following FAULTS are displayed as long as the fault exists.

Display	Problem	Probable Cause
<p>Top 2 and bottom 2 LEDs alternately flash.</p> 	<ul style="list-style-type: none"> <li>• Pressure sensor not detected at Primary Display (voltage &lt; 0.3V)</li> <li>• Datalink not detected at Remote Display</li> </ul>	<ul style="list-style-type: none"> <li>• Sensor cable not connected</li> <li>• Broken wire / bad connector on sensor cable</li> <li>• Defective sensor</li> <li>• Datalink cable not connected</li> <li>• Broken wire / bad connector on datalink cable</li> </ul>

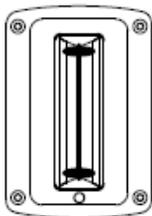
Top 4 and bottom 4 LEDs alternately flash.



• Pressure sensor high output voltage (voltage > 4.6 V)

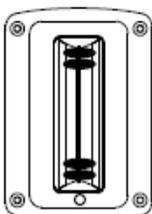
• Shorted wire on sensor cable  
• Pressure sensor or Primary Display failure

The display cycles between normal and the following WARNINGS when a warning condition exists.

Display	Problem	Probable Cause
<p>Top and bottom LEDs blink ON and OFF.</p> 	<p>• The difference in voltage from the Pressure Sensor between tank empty and tank full is too small. (non-linear 3-swipes volt change less than 0.16V) (linear 4-swipes volt change less than 0.66V)</p>	<ul style="list-style-type: none"> <li>• Illegal calibration procedure</li> <li>• Sensor cable not connected</li> <li>• Broken wire / bad connector on sensor cable</li> <li>• Tank height less than 6"</li> <li>• Defective sensor</li> </ul>

### **CODE 66**

Top 2 and bottom 2 LEDs blink ON and OFF



• If the voltage from the Pressure Sensor is more than 4.6 volts, then it is above normal range.

• Apparatus at incline (parked on a hill)  
• Not calibrated correctly  
• Shorted wire / bad connector on sensor cable

This high voltage warning can be enabled or disabled by swiping the C1 and C2 sensors six times.  
(Factory default setting: disabled)

When **ENABLED**: Top 2 and Bottom 2 LEDs blink

When **DISABLED**: Top 6 LEDs blink

To change the setting, swipe the C1 and C2 sensors six times again. Then hold the magnet at C2 for five seconds to set the calibration into memory. To leave the setting as it is, let the processor time out and go back to normal display.



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