TVMSDBWK-001 TVMSDBWK-002

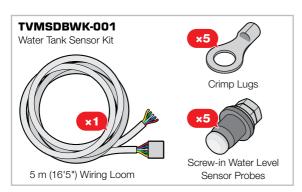




The TVMSDBWK range allows the RedVision Total Vehicle Management System (TVMS) distribution box to measure the water level in an RV/motor home clean water tank. If installing this kit for a gray or black water tank, refer to the TVMS1280 Instruction Manual for further information.

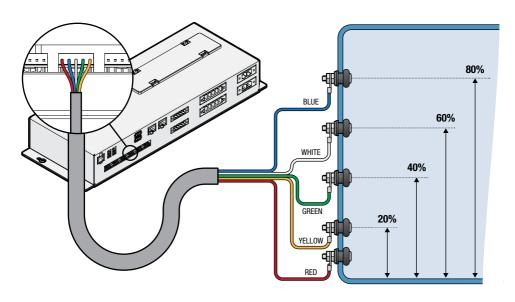
The TVMS can report five states: empty, one-quarter, one-half, three-quarters, and full. The TVMS can measure the level of up to six tanks. A separate TVMSDBWK-001 is required for each tank. For more information, refer to the RedVision Instruction Manual available on the REDARC website.

TVMSDBWK-001 includes all parts. TVMSDBWK-002 contains only the Wiring Loom.





WIRING & INSTALLATION DIAGRAM

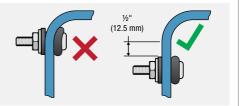


INSTALLATION

1. MEASURE AND MARK (TVMSDBWK-001 Only)

A CAUTION

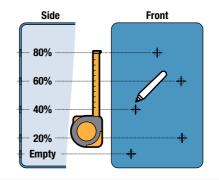
Any Sensors positioned close to corners of the tank must be at least $\frac{1}{2}$ " (12.5 mm) away from the curvature of the tank, i.e. The centre of the probe must have a radius of at least at $\frac{1}{2}$ " (12.5 mm) of flat surface to mount on



On the side of the tank, measure out the Sensor positions, starting with the top Sensor at the 80% mark, then 60%, 40%, and 20%. Position the bottom Sensor as close to the bottom of the tanks as possible — Note that this means that the spacing between the Sensors may not all be equal.

Note: the Sensors do not have to be mounted in-line. The example shown ('Front' view) is acceptable.

Before drilling, check each marked location for good access and confirm face is flat both outside and inside at least 1" (25 mm) around each position.

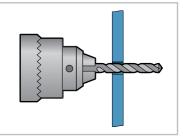


2. DRILL (TVMSDBWK-001 Only)

Ensure tank is empty of liquid before drilling holes.

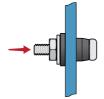
Using a sharp 3/8" (or 9.5 mm) drill bit, drill each marked location at slow speed. Ensure the cut is clean (de-burr inside and out) as any irregularities will prevent a good seal.

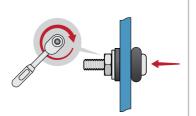
Note: Using a drill bit greater than 3%" (or 9.5 mm) in diameter may prevent the Sensors from sealing properly, resulting in leaking.



3. INSERT SENSORS (TVMSDBWK-001 Only)







For each Sensor, remove the top nut.

At each location, gently push the Sensor through the drilled hole until the rubber stopper is flush with the outer tank surface.

Tighten the nut to form a waterproof seal (the rubber is squeezed against the inner wall). Torque to 0.5 lbf-ft (0.7 Nm)

4. WIRING

Connect the supplied Wiring Loom to your TVMS system (as detailed in the product user manual), and run the cable to the tank.

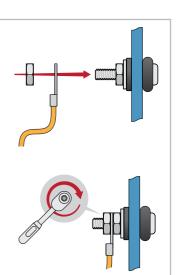
Optionally, the cable length can be reduced if required. Terminate each wire using the supplied Crimp Lugs. Crimps can be soldered after crimping for a more reliable connection but is not required.

To reduce strain from vibration on the wires and to avoid accidental shorting, we recommend applying heatshrink (not supplied) to the crimped wires/lugs.

For each Sensor, slide on the crimped Lug and secure with the second nut. Torque to 0.5 lbf-ft (0.7 Nm) while preventing the nut closest to the tank from rotating.

Wire colours:

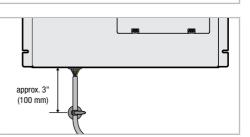
- 80% (top) BLUE wire
- 60% WHITE wire
- 40% GREEN wire
- 20% YELLOW wire
- Empty (bottom) RED wire



5. SECURE THE LOOM

Secure the Wiring Loom to the TVMS mounting surface approximately 3" (100 mm) from the connector. Suitable options include a P-clip or cable tie fastened to the mounting surface.

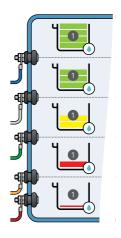
This is to reduce vibration on the connector to prevent damage to the connector and unit.



CLEAN WATER LEVEL REPORTING

The approximate tank level is reported by the RedVision App (Smartphone app or TVMS Display).

Reported Level	RedVision Indicator	Range (approximate)
Full		100 to 80%
3/4	4	80 to 60%
1/2	4	60 to 40%
1/4	1	40 to 20%
Empty	10	20 to 0%



LIMITED WARRANTY

For full warranty terms and conditions, visit the Warranty page of the REDARC website. Refer to the web address and contact details applicable to your region.

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