TSM1000 Tank Monitor with Range Extender Setup Instructions
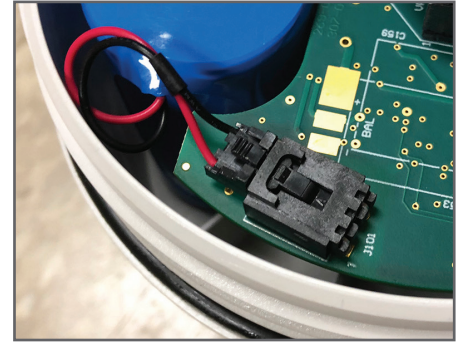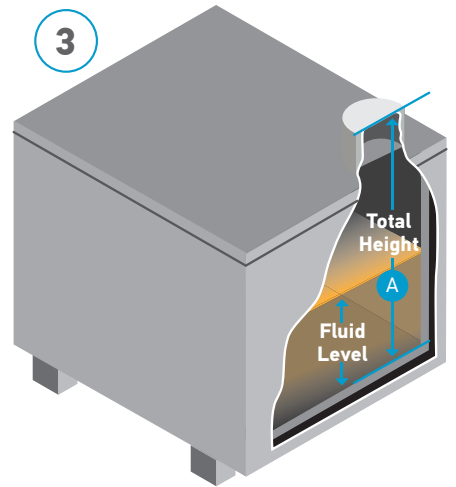
Equipment Needed:

- Tape measure
- Scissors or cutting tool
- Permanent marker

Connect Battery and Test Connection

1 For tank farm systems with a gateway, set up gateway before connecting battery. Select a spot near tank you are installing. To power up TankScan Monitor unscrew enclosure cover. Connect battery cable to connector on circuit board as shown. Reinstall cover and hand tighten firmly. Monitor will wake up and sound 1 beep. Then a second single beep will follow, with a third single beep for data transmission. 3 single beeps indicates a good connection was made.

If more than 3 single beeps were heard, please contact technical support at 877-847-7226. If 3 single beeps are confirmed, then proceed as follows.

Take Measurements

2 Remove any equipment from tank port to be used by monitor, if present. TSM monitor can be connected directly to tanks with a 1.5" or 2" NPT threaded opening.

3 Measure tank height Ⓐ from inside bottom of tank to top of tank port and to top of fluid level in tank. Record and report these measurements to CCT.

Total Height: _____

Determine probe wire length using Probe Length Calculation diagram on right and record for use in step 4.

Probe Length: _____

Total Height

A

Fluid Level

Probe Length Calculation

Using 1.5" Thread:
Probe Length = A - 1

Using 2" Thread:
Probe Length = A - 1.5

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Adjust Range Extender

4 Using Probe Length measurement from step 3, measure down from where wire exits TankScan monitor housing and mark Probe Length location on wire using permanent marker.

5 Remove end of probe wire from slot at top of Range Extender. This is necessary to adjust the wire to appropriate length.

6 While holding onto metal of Extender, pull on end of probe wire to feed wire through Extender until marked location on probe wire is at very bottom of Extender, as portrayed in picture 6.

7 Leave about 3 inches of probe wire coming out top of Extender and cut off excess. Make sure not to cut probe wire that is between Extender and TankScan monitor.

8 Insert end of probe wire into slot next to where wire comes out top of Extender. Pull wire's end outside of Extender, see picture 8, until tight bend is formed at Extender top.
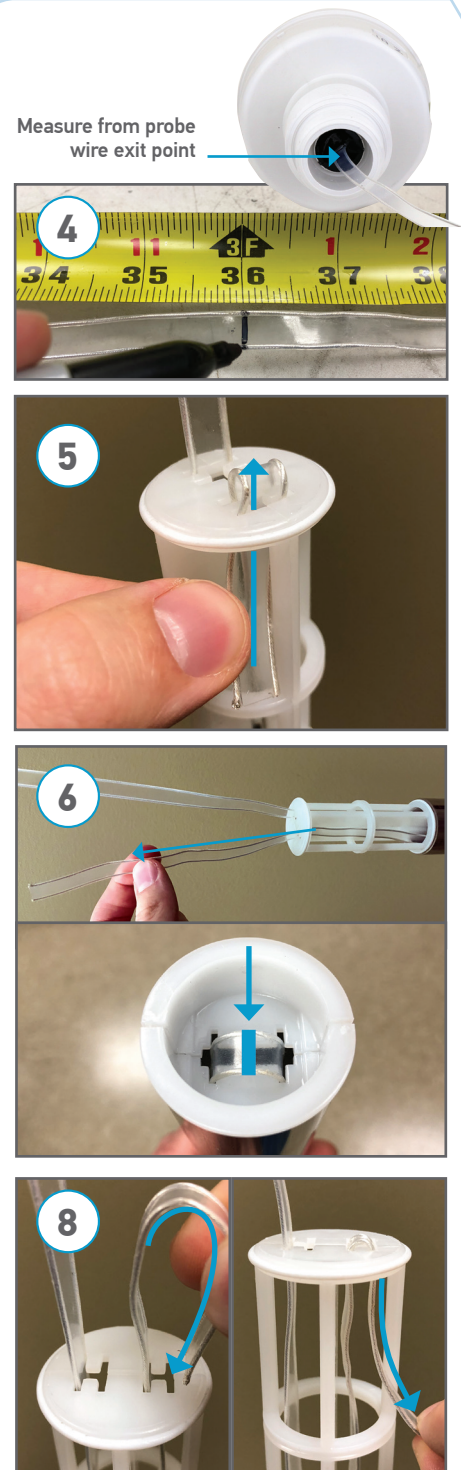
Measure from probe wire exit point

Determine if Probe Wire Guard (PWG) is Needed

9 For monitors installed on risers greater than 3 inches long, a PWG is required to prevent probe wire from contacting riser. Refer to included **TankScan Probe Wire Guard Installation Guide** or visit tankscan.com/support.

▶ **NOTE:** Complete installation from **TankScan Probe Wire Guard Installation Guide.**

If PWG is required but not provided as a field-installable kit, contact TankScan Technical Support to order PWG Field Install Kit before proceeding.

If PWG is not required, then proceed to step 10.

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Connect Remote Cellular Antenna (if provided)

10 Connect remote cellular antenna cable to connector on outside of TSM1000 monitor. Position remote antenna away from monitor at a location that is unobstructed from obtaining a cellular signal.

Remote Antenna

Mount TSM Monitor to Tank

11 Lower probe wire with weight **gently** through tank port into tank. Position monitor over tank port and hand tighten until secure.

12 Seal pipe threads of monitor using product appropriate for this application prior to tightening into tank port.

Test Setup

13 Test monitor by swiping magnet end of supplied screwdriver along cover's rim above triangle indicator on housing base until a beep is heard. Monitor will take a level reading and then report to ATEK Intelligence Platform (AIP). A second single beep will occur once monitor has finished reporting its level measurement.

14 If the monitor have been pre-provisioned, then confirm the reading is correct on AIP or optionally you can call TankScan Technical Support, 877-847-7226, to finish or confirm the reading.

▶ **NOTE:** Step 14 must be completed for monitor to function properly.

Cellular
Contains FCC ID: MCQ-XB3M1
Contains IC: 1846A-XB3M1
Rf
Contains FCC ID: MCQ-XBEE3
Contains IC: MCQ-XBEE3

Operation is subject to the following 2 conditions:
1. This device may not cause harmful interference and
2. This device must accept any interference received, including interference that may cause undesirable operation.

TankScan Technical Support
877-847-7226

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

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