TankScan Probe Wire Guard Installation Guide – **Part 1**

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Any TankScan MIR monitor mounted to a tank riser greater than three inches tall must utilize a Probe Wire Guard (PWG) to prevent its probe wire from contacting interior walls of that riser. PWGs are made of HDPE and O-rings used to hold it together are made of PTFE which are both suitable for use in fuels, oils, and many chemicals. PWGs are designed to fit inside 1.5" NPT pipe fittings and larger.

IMPORTANT: Before proceeding, first identify which accessory is included with monitor.

Range Extender

Probe Wire Weight

If Probe Wire Weight is included, then skip Part 2 of document.

Equipment Needed:
- Hole punch tool (provided)
- Scissors, snips, or another cutting tool
- Tape measure

PWG Parts:
- 2 Probe Wire Guard halves
- 2 O-rings

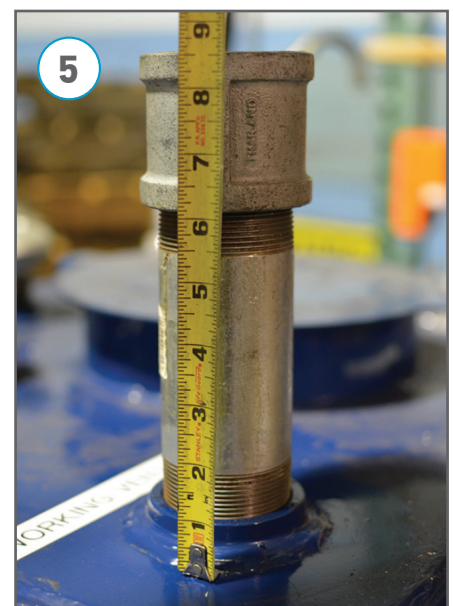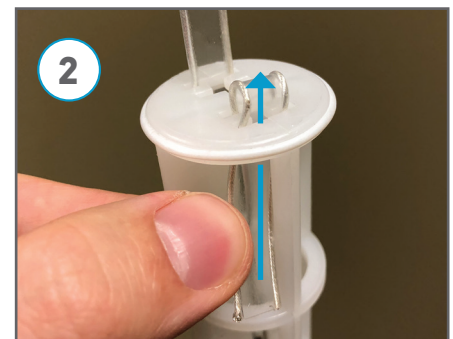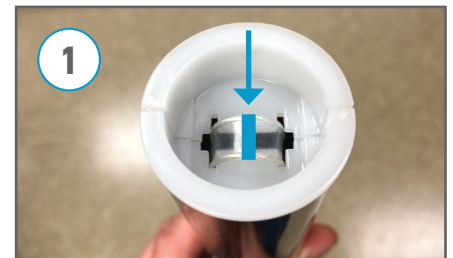**Probe Wire Guard**

Remove Range Extender (if included)

1 If monitor has never been installed and probe wire never cut to length then skip step 1. Clean off and dry probe wire exposed at bottom of Range Extender. Mark bottom center of probe wire with a marker, as shown in figure 1. Marked location ensures Range Extender is returned to original position on probe wire.

2 Remove end of probe wire from slot at top of Extender.

3 Pull probe wire completely through Extender and set aside for installation later.

Install Probe Wire Guard

4 Before installing a PWG read these instructions thoroughly. Two 5/64" diameter holes need to be made in center of probe wire to use as PWG mounting holes. A hole punch tool is included with PWG kit and a hole pattern template and dimensional drawing is provided at end of this guide. For questions contact TankScan Technical Support at 877-847-7226.

5 Measure height of tank riser from top of tank to top of riser, see figure 5.
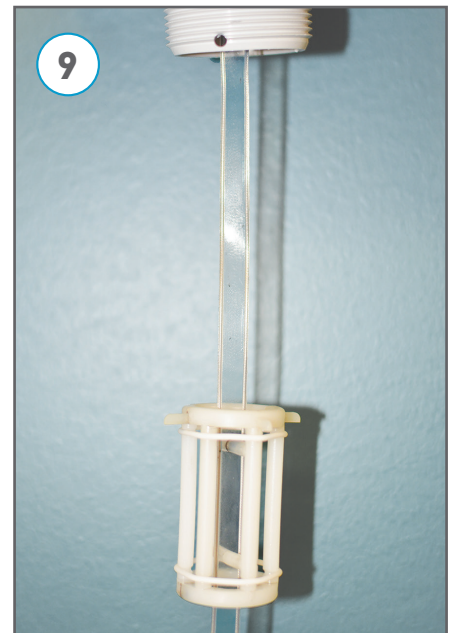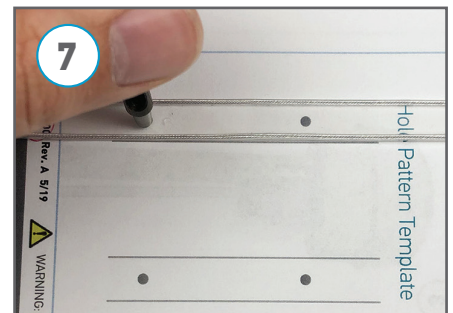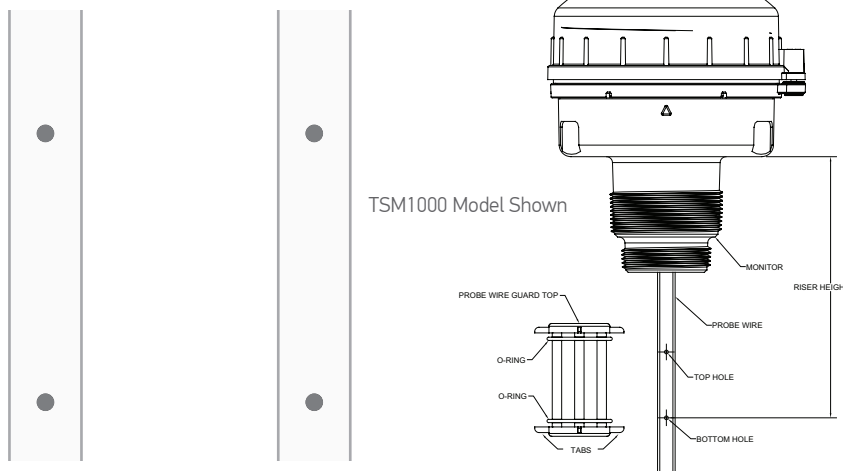
Install Probe Wire Guard (cont.)

6 From bottom of MIR Monitor, measure distance obtained in Step 5 along monitor base's pipe threads and probe wire to locate bottom PWG mounting hole, see figure 6 and model drawing below.

7 Place probe wire on top of hole pattern template (shown below) while supported underneath by firm flat surface. Using hole punch tool make two PWG mounting holes at locations provided by template's dots. Press hole punch tool firmly and twist to make holes in wire, see figure 7 and Hole Pattern Template at bottom of page.

Caution: Do not nick wire strands along edges of probe wire or remove insulation covering them. Holes are to be centered in web material between wire strands.

8 Press together both PWG halves through mounting holes from step 7 making PWG end with tabs closest to monitor, see figure 9.

9 Slide O-rings along probe wire and over PWG until seated in indents at both ends of PWG, see figure 9.

10 For 1.5" NPT risers only, remove PWG tabs with a cutting tool, see model drawing below.

11 Probe Wire Guard is now installed. If monitor is provided with Range Extender, continue with Range Extender Installation in **Part 2** of document.
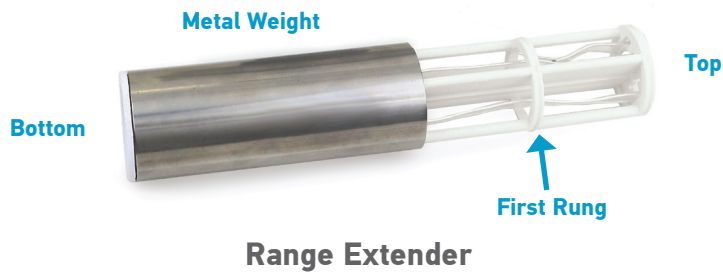
Hole Pattern Template

TSM1000 Model Shown

PROBE WIRE GUARD TOP
O-RING
O-RING
TABS
MONITOR
RISER HEIGHT
PROBE WIRE
TOP HOLE
BOTTOM HOLE

Hole Pattern Template

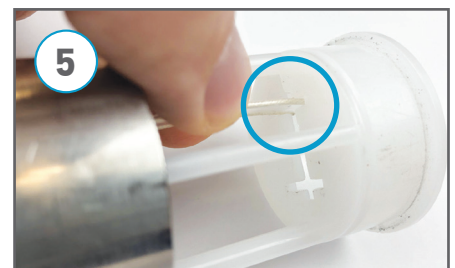# TankScan Probe Wire Guard Installation Guide – **Part 2**

If TankScan Range Extender was removed in Part 1, the following must be performed to reinstall Extender.

Metal Weight

Top

Bottom

First Rung

Range Extender

Install Range Extender

1 On Range Extender, remove O-ring just above metal weight from its groove.

2 Reposition O-ring into O-ring groove on first rung so metal weight can slide freely.

3 Insert probe wire into outermost slot on top of Extender. As shown in figure 3.

4 Feed probe wire into Extender until it reaches bottom of Extender.

5 Slide metal weight up Extender for better access, then using your fingers to pinch sides of probe wire, insert end of wire into slot at bottom of Extender. Make sure there are no twists in wire.

6 Pull approximately 10 inches of probe wire through bottom of Extender or until location marked in step 1 from Part 1 becomes visible (if mark was made.)

Continue to next page.

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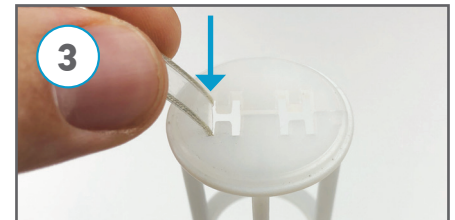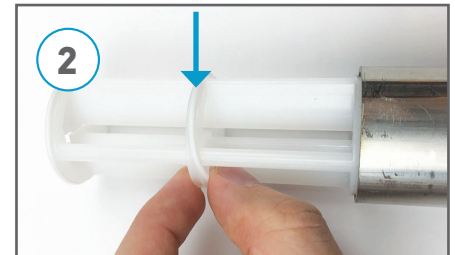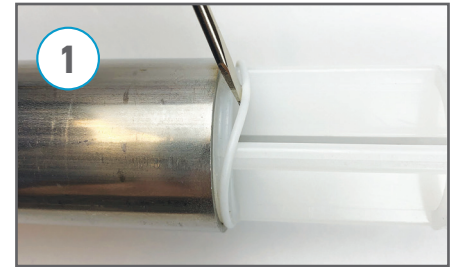
# TankScan Probe Wire Guard Installation Guide – **Part 2**

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Install Range Extender (cont.)

7 Insert end of probe wire into other slot on bottom of Extender and feed wire through until wire's end reaches top of Extender. Insert end of probe wire through innermost slot at top of Extender. Make sure there are no twists in wire.

8 Slide metal weight back to bottom and reposition O-ring back to O-ring groove just above metal weight to lock weight in place.

NOTE: If monitor has never been installed and probe wire never cut to length proceed with step 4 of TankScan Monitor with Range Extender Setup Instructions **and skip remainder of this document.**

9 Pull wire through slot at top until marked location is tightly centered with no loop at the bottom as shown in figure 9. Adjust as needed.

10 Insert end of probe wire into outermost slot. Pull wire's end outside of Extender, see figure 10, until tight bend is formed at Extender top being careful to make sure marked location remains as shown in figure 9.

11 Make sure wire is taut throughout Extender.

12 Monitor is now ready to be re-installed on tank. Remember to lower probe wire with Extender **gently** through tank port into tank.
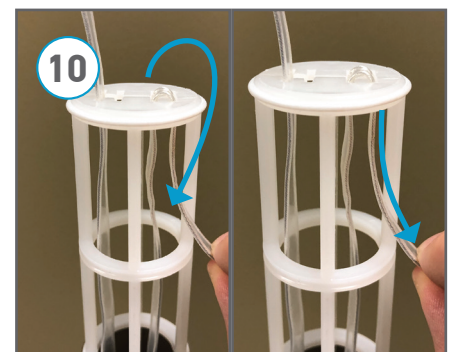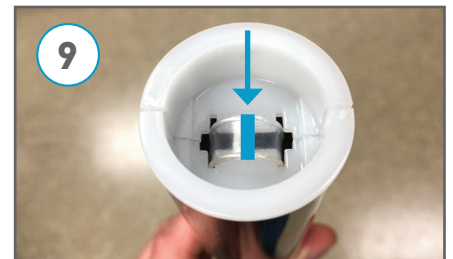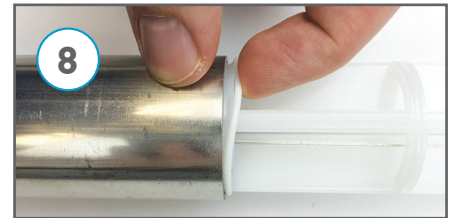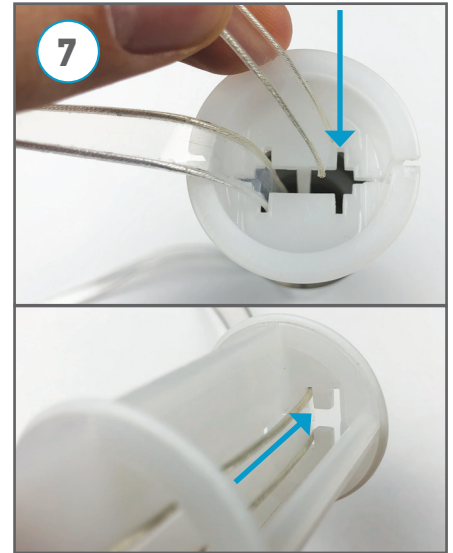
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