



No-Puncture Roof Moisture Monitoring System (RMMS)
Long Reach Sensor Installation Spec
For Single Ply Membrane Only (TPO, EPDM, PVC):

Visit <https://www.no-puncture.com/documents> for installation videos:



Table of Contents

1.0) Long Reach Sensor Install Information: 1
2.0) Included Items:2
 2.1) No-Puncture RMMS for Single Ply Membrane Roofs (TPO, EPDM, PVC):2
3.0) Required Accessories and Tools:2
 3.1) Required No-Puncture Accessory Install Kit (Sold Separately):2
 3.2) Required Accessories (Supplied by Installer):2
 3.3) Required Tools (Supplied by Installer):2
4.0) No-Puncture Installation Requirements:3
5.0) No-Puncture Roof Moisture System Installation:3
 5.1) No-Puncture Trigger:3
 5.2) No-Puncture Indicator:6

1.0) Long Reach Sensor Install Information:

- **No-Puncture RMMS Long Reach Sensor** is to be installed on roof systems with at least 1” (25mm) of total insulation including the coverboard with a max of 7” (175mm) of total insulation.
- Use the **No-Puncture RMMS Short Reach Sensor** for roof systems installed with only a ½” (12mm) coverboard directly over the roof deck system.
- Visit <https://www.no-puncture.com/documents> for more info on the **No-Puncture RMMS Short Reach Sensor**.

2.0) Included Items:

2.1) No-Puncture RMMS for Single Ply Membrane Roofs (TPO, EPDM, PVC):

- a) **No-Puncture Sensor (Has Two Parts)**
 - **No-Puncture Trigger** (View *Figure 1)
 - **No-Puncture Indicator** (View Figure 2)
- b) No-Puncture Instruction Manual



*Figure 1



Figure 2

*Figure 1 not to scale and shown at a truncated length.

3.0) Required Accessories and Tools:

3.1) Required No-Puncture Accessory Install Kit (Sold Separately):

- a) 7/8" (22mm) Drill Bit
- b) 7/8" (22mm) Coring Tube, with Turning and Plunging Rods
- c) Cutting Tool

3.2) Required Accessories (Supplied by Installer):

- a) Primer for Single Ply Membranes (To Install the **No-Puncture Indicator**)

3.3) Required Tools (Supplied by Installer):

- a) Tape Measure
- b) Scissors
- c) Marking pens or Marking Crayons
- d) Cordless Drill

4.0) No-Puncture Installation Requirements:

- a) No-Puncture Sensor should be installed near roof top projections including:
 - Walls or Parapet Walls
 - Drains or Drain Sumps
 - Curbs
 - Sleepers
 - Scuppers
 - Flanged vents
 - Roof pipe stacks
- b) Install minimum 6-8" (150mm – 200mm) from roof top projections.
- c) Avoid installing the **No-Puncture Sensor** under roof top projection membrane stripping.
- d) Avoid installing the **No-Puncture Sensor** under walkway pads and concrete pavers.
- e) **No-Puncture Trigger** must be installed after the topmost layer of insulation and/or coverboard has been installed (Top of the **No-Puncture Trigger** is directly below the roofing membrane).
- f) **No-Puncture Trigger** must be installed before the roofing membrane is installed.
- g) **The No-Puncture Trigger MUST BE INSTALLED IN DRY INSULATION** Ensuring that the insulation and/or coverboard and vapour barrier is completely dry.
- h) **No-Puncture Indicator** will be installed after the roofing membrane is installed.
- i) When installing over a steel deck, install the **No-Puncture sensor** directly over the top of the steel deck flutes or a few inches away from a fastener plate in the direction the steel deck flutes.

5.0) No-Puncture Roof Moisture System Installation:

5.1) No-Puncture Trigger:

- Install the **No-Puncture sensors** based on the roof plan drawing or if no drawing is provided install near any roof top projections.

Step 1) Start by drilling an $\frac{7}{8}$ " hole in the topmost layer of the insulation and/or coverboard substrate. Avoid drilling the entire depth to avoid damaging the vapour barrier, using the coring tube to remove remaining insulation and debris (View Figure 3 below).

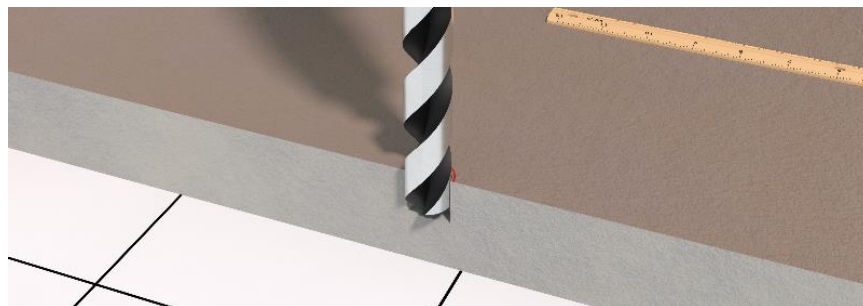


Figure 3

Step 2) Use the 7/8” Coring Tube (provided in the **No-Puncture accessory install kit**) to core through the remaining insulation down to the vapour barrier without damaging the vapour barrier (use the open end of coring tube and rod to turn the coring tube, use the plunging rod to remove the cored material after removing it from the hole) (View Figure 4 below).

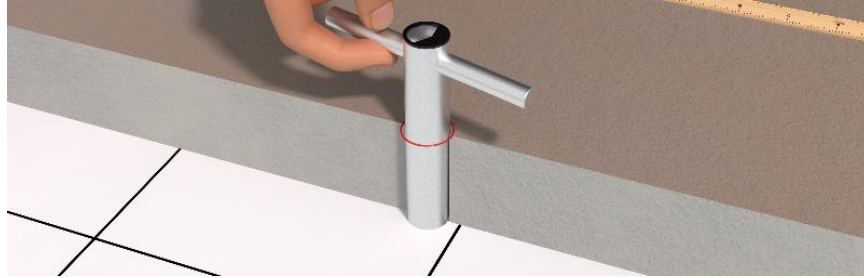


Figure 4

Step 3) Remove debris from the hole with a vacuum cleaner or using the opposite end of the coring tube. The opposite end of the coring tube is inserted and rotated by hand to accumulate the small bits of debris on the scoop side that is then removed. Do this 3-4 times until the larger bits of debris are removed (View Figure 5 below).

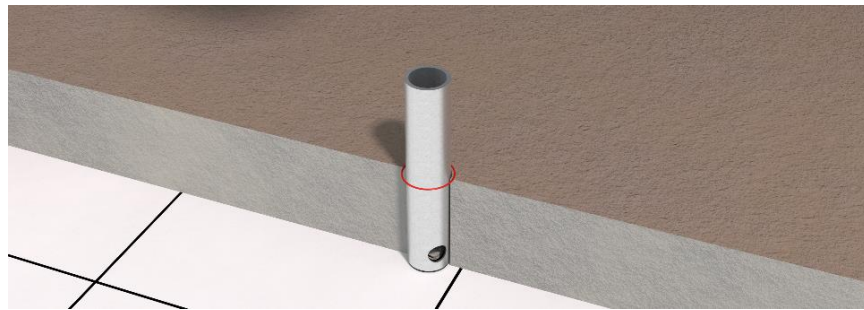


Figure 5

Step 4) Measure the depth of the hole from hole in the topmost layer of the insulation and/or coverboard substrate to the vapour barrier (View Figure 6 below).

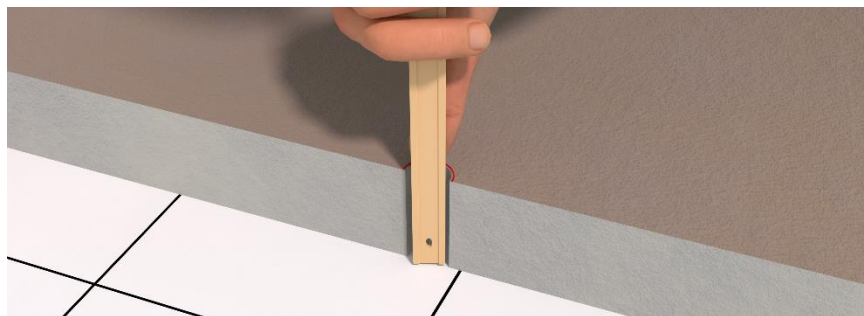


Figure 6

Step 5) Cut the **No-Puncture Sensor** to $\frac{1}{8}$ " to $\frac{1}{4}$ " (3mm to 6 mm) longer than the hole depth and discard the cut of end piece (View Figure 7 below).



Figure 7

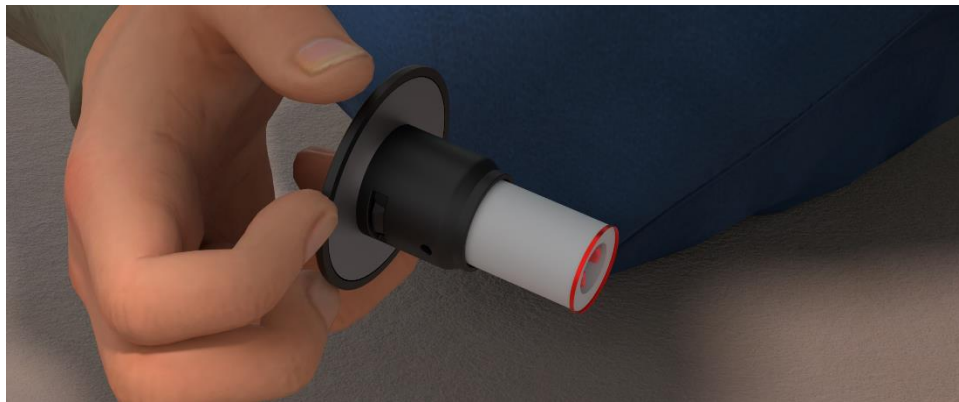


Figure 8

Step 6) Lightly pull out the two end pink strips and flare them off to each side (View Figure 9 below).



Figure 9

Step 7) Install the **No-Puncture Trigger** into the hole and push the sensor all the way into the hole where the bottom of the **No-Puncture Trigger** upper lip is firmly flush with the topmost layer of the insulation and/or coverboard substrate (View Figure 10 below).



Figure 10

Step 8) Install the field membrane as specified, but when coming across a **No-Puncture Sensor**, crayon on the roof membrane around the general location of the sensor (The roof plan drawing should include the locations of the **No-Puncture Sensors**, but if missing or not included, record the locations to install the **No-Puncture Indicators** later).

5.2) No-Puncture Indicator:

- The **No-Puncture Indicator** should be installed after **all** other field membranes are completed in that area.

Step 1) Find location of the **No-Puncture Trigger** using the **No-Puncture Indicator** in the previously marked locations, then align the **No-Puncture Indicator** with **No-Puncture Trigger** so the magnet is centered (View Figure 11 below).

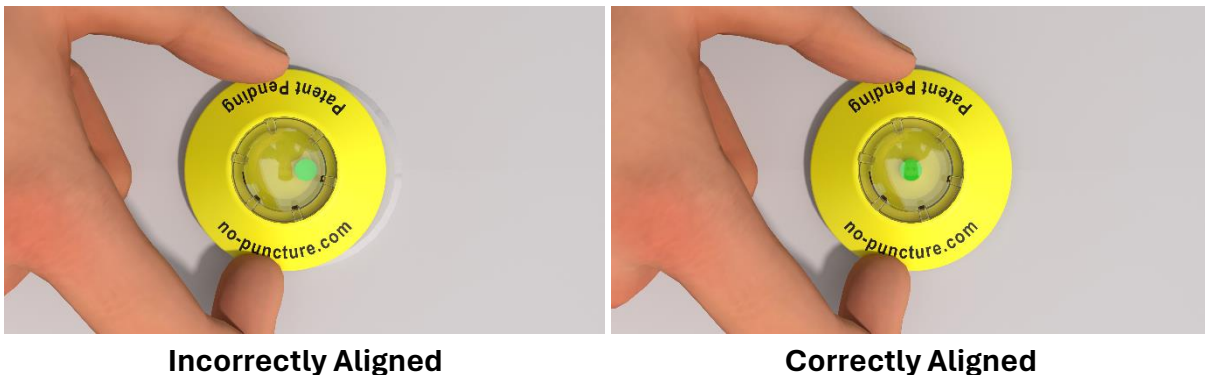


Figure 11

Step 2) Mark the outline of the aligned **No-Puncture Indicator** on the roof membrane. Then temporarily remove the **No-Puncture Indicator** and place it in a safe place (View Figure 12 below).

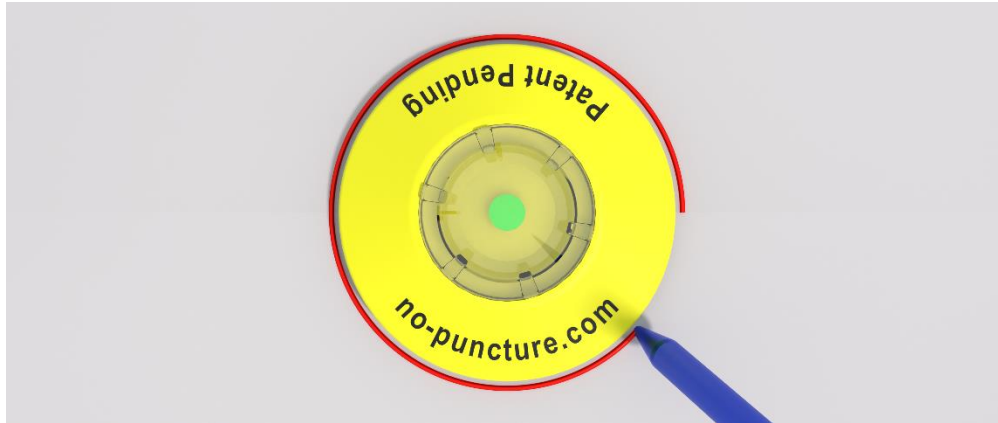


Figure 12

Step 3) The roofing contractor shall use the required roofing manufacturers primer for Single Ply Membranes to prime the surface of the roof membrane and 1” (25mm) outside of the marked outline (Let flash off) (View Figure 13 below).



Figure 13

Step 4) Remove the wax paper on the No-Puncture Indicator then install the No-Puncture Indicator on the marked outline (View Figure 14 below).



Figure 14

End of No-Puncture installation.