



## SOIL GAS MAT

# Installation Instructions

### Preparing Subgrade for RadonAway Soil Gas Mat Installation

- Subgrade should be raked clean and cleared of any loose rocks, roots, or other debris that could impede the proper installation and performance of RadonAway Soil Gas Mat system.
- Subgrade should be sloped in a way that does not create any valleys or low sections where water may be able to pool and accumulate. Water accumulation could reduce or close off air or soil gas flow in the system.

*2 Standard methods of RadonAway Soil Gas Mat Installation. The method used to create any radon mitigation system is the responsibility of the engineer and/or the radon mitigation specialist.*

1. Method A places RadonAway Soil Gas Mat along the inside of the walls perimeter and kept away from the footing (a minimum of one foot).
2. Method B is installing RadonAway Soil Gas Mat in a crawl space.

### Method A Installation: Slab-on-Grade Foundations & Basements

1. Unroll RadonAway Soil Gas Mat.
2. RadonAway Soil Gas Mat can be installed in either a branch layout or a looped layout. The looped layout helps to ensure that no sections of the mat become isolated, which could hinder or prevent the escape of radon gases.
3. Place the outer edge of RadonAway Soil Gas Mat 8 to 20 inches from the perimeter of the wall. This distance will be dependent on the system that has been designed by the engineer or radon mitigation specialist.
4. One or more sections of RadonAway Soil Gas Mat should be laid through the center of the sub slab and parallel to the longest wall or can be laid cross ways perpendicular to the longest wall. (>5000 square foot) multiple lengths of RadonAway Soil Gas Mat should be run with a maximum spacing of 20 feet on center.
5. To create a free-flowing channel and continuous ventilation system RadonAway Soil Gas Mat should be held in place with staples (RadonAway P/N 66107), stakes, or pins.
6. A vapor barrier should laid down and should cover the entire subgrade and then brought up and sealed at the perimeter walls. Separate pieces of vapor barrier should be overlapped at least 12 inches and sealed and should cover the entire floor area. Pipe penetrations and any other penetrations should also be sealed.



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### Method B Installation: Crawlspace Foundations

1. Unroll RadonAway Soil Gas Mat.
2. RadonAway Soil Gas Mat can be installed in either a branch layout or a looped layout. The looped layout helps to ensure that no sections of the mat become isolated, which could hinder or prevent the escape of radon gases. A vapor barrier should be laid down and should cover the entire subgrade and then brought up and sealed at the perimeter walls.
3. To create a free-flowing channel and continuous ventilation system RadonAway Soil Gas Mat should be held in place with staples (RadonAway P/N 66107), stakes, or pins.
4. Separate pieces of vapor barrier should be overlapped at least 12 inches and sealed and should cover the entire floor area. Pipe penetrations and any other penetrations should also be sealed.

### Vent Riser Pipe (applies to all layouts and methods)

1. Radon Systems require a vent riser pipe. The vent can be capped on the interior side of the floor slab in a radon ready system. For the system to be considered a complete radon system the pipe is extended through the structure and roof and typically would require an inline fan.
2. For vent riser(s) installation a hole should be cut to allow a 3- or 4-inch diameter PVC flange fitting to be placed directly on top of the RadonAway Soil Gas Mat with the flange facing down. Keep in mind that the female part of the fitting goes all the way through the hole in the vapor barrier. Then cement a pipe stub to the fitting while making sure it is long enough to extend all the way through the concrete slab. Apply tape around the pipe fitting and the hole in the vapor barrier. A recommended suction pit can be created under the RadonAway Soil Gas Mat at the vent riser location(s) using aggregate.

**Note:** Connecting RadonAway Soil Gas Mat to Radon-T – The RadonAway Radon-T (RadonAway P/N 28353 or 28354 – Contractor Pack) replaces the above referenced flange as a stable vent riser pipe base. The Radon-T provides better air flow, prevents blockage by construction debris, and is ideal for use with RadonAway Soil Gas Mat.