

HOME ~~SWEET~~ HOME Safe



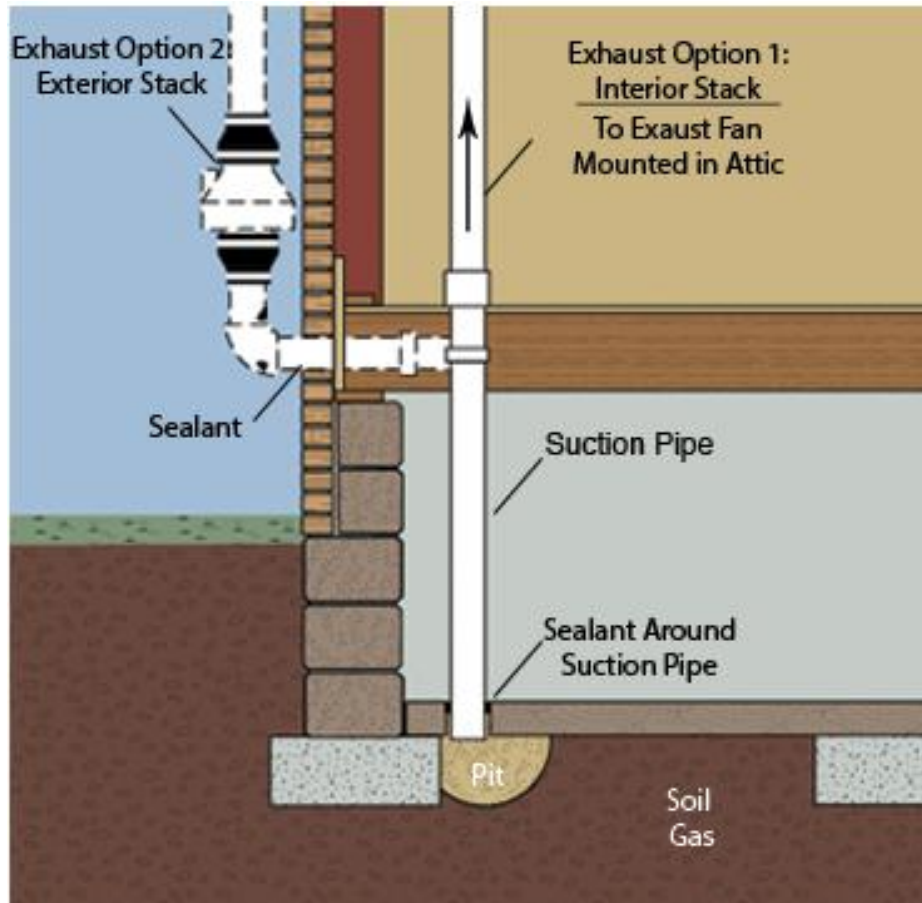
User Guide to Your Radon Mitigation System

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Radon System Piping Options



Radon System design and pipe routing specifications may change from home to home depending on the home or buildings structure.

Testing Your Home for Radon

Conducting Your Post Test

Where does the test come from?

S.W.A.T. Environmental will leave a minimum of 1 test kit behind with each installation performed. This test kit can be performed by virtually anyone at the home. S.W.A.T. Environmental currently provides AirChek charcoal test kits to customers. Postage and analysis cost are included with the test kit. AirChek is the number one provider of radon test kits in the United States. AirChek can be reached at: 800-AIR-CHEK between 8:30 AM and 5:30 PM Eastern Time, Monday through Friday or via website at: www.radon.com

How long do I wait to conduct my radon test?

Radon can be affected by diurnal cycles, the change in temperature and atmospheric pressure that occurs from day to day, radon test normally cannot be conducted in less than 48 hours. Most short term charcoal radon test kits require an exposure period of 72 hours to 168 hours. A short term radon test is usually an acceptable radon test for a home between 7 day and 30 days after your radon system has begun working. The reason for the gap in time between testing is because radon Rn222 has a half life of 3.8 days; this means that the pCi/L reduces by half approximately every four days. If your home has a high radon level above or close to 10 or higher, you will want to give your house enough time to have the radon clear. **REMEMBER: The radon system we install stops new radon from entering the home's living space, but a good radon system should not interfere with the breathable air of the home.** So while your home naturally vents itself and radon naturally decays, the existing radon in your home, your radon mitigation system will be preventing the entry of new radon.

What is my ideal test result?

The EPA recognizes the radon level 4.0 Picocuries per Liter as the official "action" level Any building that has a level of 4 pCi/L or more should be effectively "mitigated"; however most people do not know or remember where their radon levels should be. The AirChecks test kit states that there is not a "safe" level of radon but has a few recommendations. Ideally you want your radon level to be as close to 0 pCi/L as possible but in reality the average indoor radon level in the U.S. is 1.3 pCi/L and 0.4 pCi/L outdoors.

When and where to conduct your test?

When conducting your radon test please keep in mind that you should avoid testing during heavy rain storms and closed house conditions. During a heavy rain storm your radon test can be skewed because of differences in atmospheric pressure and humidity. Ideally you want to test on a day where there is little humidity and under closed house conditions. Closed house conditions mean that you should make a conscious effort to keep doors and windows closed in the house, but that does not mean you cannot enter in and out of the home. Closed conditions should be kept for up to 12 hours before the test is started. The test should be conducted at least 36 inches from the floor, 12 inches away from exterior walls and frequently used doors. Remember that test should not be conducted in the crawl space of the house, either in the room above or beside it.

We recommend that you retest your home every two years.

How Your System Works

Always Protecting

Your S.W.A.T. Environmental Radon Mitigation System is designed to run continuously 24/7 to maintain a balance of negative pressure and suction beneath your home. As the system continues to run, you can rest assured that the radon in your home will continue to remain low.

Manometer

The pressure gauge on your radon mitigation pipe should be located inline with the piping and be located between the fan and the lowest suction point. This pressure gauge is designed to keep you alert to activity within the radon mitigation system piping. The pressure gauge uses red dye inside of a "U" shaped clear plastic tube acts on the same physics of a straw in your drink; when the fan is sucking or moving air, the pressure gauge should be higher on one side. If the fan ever stopped running the pressure gauge would "zero out" and be even on both sides.

***IF YOUR PRESSURE GAUGE EVER READS ZERO OR BOTH SIDES ARE EVEN, THE FOLLOWING SHOULD BE CHECKED:**

- 1) Check the on/off switch power plug for the Radon Mitigation System. This is important because of the nature of system installations and designs, power supplies are almost never consistently located in the same locations at every house.
- 2) Go outside and check to see if there is a switch on the fan, if it is in the off position, turn it on.
- 3) Go around your home and check all of your GFCI outlets. There is a strong chance that a GFCI outlet has tripped in a location other than the power supply of the radon system.
- 4) Make sure that the plastic tube to the pressure gauge is plugged into the pipe. If the plastic tube is not fed into the pipe the pressure gauge will not have access to the interior of the tube. (This usually what happens when your gauge is zero and your fan seems to be running.)
- 5) If none of the previous methods causes your fan to turn back on, then please give our office a call and we will further assist you.

***IF YOU DISCOVER THAT YOUR RADON FAN IS NOT RUNNING, DO NOT PANIC. STUDIES HAVE SUGGESTED THAT RADON GAS IS MOST HARMFUL OVER LONG PERIODS OF EXPOSURE. CHANCES OF HAVING IMMEDIATE ADVERSE HEALTH PROBLEMS FROM RADON ARE MINIMAL.**

Radon Mitigation Piping

This component of the radon mitigation system is nearly maintenance free but there are a few commonly asked questions that you may be thinking of.

1) S.W.A.T. Environmental's radon mitigation systems do not have covers or bends at the tops of the discharge stack. This is because over the years we have found that the amount of force from the air flow coming from inside of the pipe is enough to keep 99% of debris and foreign objects out of the system.

2) You may notice that your piping is starting to fade a little. Do not worry this is a natural part of the PVC pipe and plastic. One good way to prevent this is to paint the radon piping. S.W.A.T. offers this service.

3) Condensation and moisture. There is a large difference between the temperature under your home and the air inside your home. If you see that there are water droplets on the piping in your basement or in your attic, please continue to monitor this closely. Excessive moisture can do damage to carpet and drywall and should this moisture get excessive, turn your system off and call the S.W.A.T. service department.

Sump Cover

Here at S.W.A.T. Environmental, we see many types of homes and about 50% of all homes that we install radon mitigation systems in, have sump pumps. Sump pumps are very important to every home, as they help protect it from another threat, water. There are a couple of things to remember about the relationship between your sump pit and your radon mitigation system.

1) Your radon mitigation system does not affect the performance of your sump pump. It is a common concern among customers that the amount of pressure beneath the sump cover can manipulate the functionality of the sump pump. This is not true. Remember that your radon mitigation fan is strong, but it is not that strong, so if you test your sump pump and it does not work; please remember to call a plumber for assistance.

2) The sump cover is clear so you can see through it and it is removable in case you ever have to change the sump pump. The caulking on the seal is sturdy but easy to remove with a putty knife. The material is a flexible thick plastic called Lexan.

3) If you have a pedestal sump pump, we highly recommend switching to a Submersible Sump Pump. In order to adequately seal your sump pump, a pedestal sump pump just does not compare to a submersible sump pump. Pedestal sump pumps also pose dangers of having their float get stuck on the clear cover over the sump pump.

4) If you see your sump crock filling up with water please test your sump pump and try to pump the water out of the crock. If the sump does not turn on, please call your plumber.

5) There are virtually no parts of the radon system that need to be maintained by you but the only part that may need some up keep is your sump cover. Sometimes the cover may shift or water can eat away at the caulking on the seal. Since it is against EPA Radon Mitigation Standards to use a permanent seal on the cover, you will be required to replace caulk should this happen.

*S.W.A.T. Environmental releases all responsibility to the homeowner for the protection of their home due to water damage.

The Radon Fan

Your radon mitigation fan is meant to run continuously and should if avoidable, never to be turned off. If you turn off your fan for a significant length of time, you may see an immediate increase in your radon levels. It is very difficult to predict how long it may take for this to occurs, so please leave the system on at all times.

Through S.W.A.T. Environmental you have an extended 5 year manufacturer's warranty on the radon mitigation fan.

DISCLAIMER

The content of this User's Manual is based upon ASTM E2121-13 and radon industry best practices. Please note that while every effort was made to provide accurate information in a concise and understandable format, variations in State or Local regulations or ordinances may impose additional design, operation, measurement, or inspection requirements which lie outside of the general scope of this content.

If you have questions regarding the specific regulations governing radon mitigation in your State, please contact your State Radon Program. Contact information for State Radon Programs can be found on the EPA Website at: <http://www.epa.gov/radon/whereyoulive.html>