

Frequently Asked Questions about Installation and Calibration

What is the difference between the FS-245-B and the FS-245-C models of the FILTERSCAN WiFi Air Filter Monitor?

The FS-245-B is battery operated. Four AA batteries are provided with your monitor. This model can also be powered from a wall outlet by using an optional (Model CA-360) 6VDC wall adaptor.

The FS-245-C is powered by a 15-24V AC/DC power source, usually from the heating or cooling system's auxiliary power. This model should only be installed by a licensed electrician or HVAC contractor using electrical conduit.

I have the FS 245B battery-powered unit. Do I have to install batteries if I power the monitor using the optional 6VDC wall adapter?

No.

I am considering the FS 245B battery-powered unit. How often will I need to change the batteries?

A good rule of thumb for battery life expectancy is six months, up to one year. The good news is that with your subscription to the AirFilterSenty Notification System, the FILTERSCAN unit will alert you by text or e-mail when its batteries should be replaced.

Can I utilize both the 6VDC wall Adapter and batteries for backup?

Yes, you can install batteries even though you also have an AC adapter installed. Such "backup" is unnecessary, however, because the FILTERSCAN stores all operating parameters in the event of a power failure. When power is restored, the monitor continues operation where automatically.

How does the hard-wired version of the FILTERSCAN WiFi Air Filter Monitor mechanically connect to the HVAC auxiliary power supply?

There is a connector knock-out located on the lower side of the monitor housing. The power cable is inserted through this hole and attached to terminal screws on the inside.

What voltage is acceptable to power the FILTERSCAN WiFi Air Filter Monitor via the conduit?

Typically 24V AC/DC, although an input voltage as low as 15V DC is acceptable.

How far can the FILTERSCAN WiFi Air Filter Monitor be mounted from the wireless router?

The range of the WiFi signal is similar to the range of your wireless devices (laptop, smartphone, etc.). However, obstacles such as walls between the router and monitor could decrease the device's effective range. We recommend that you test whether the FILTERSCAN monitor is within operable range of the router before you attach it to your heating or cooling system.

Can a FILTERSCAN WiFi Air Filter Monitor be connected to a WiFi Internet router or access point that does not have a WPS button?

Yes. The Installation Guide provides instructions for setting up your router so that the FILTERSCAN WiFi Air Filter Monitor can connect to it without using the WPS pairing procedure. You will need to know the SID and the password of the WiFi network you want to connect the FILTERSCAN to. You can find the

SID and password in the user manual for your WiFi router. You will also need a smartphone or tablet to use a wireless bridge during the connection process.

What can I do if I need to install the monitor out of range of my wireless router?

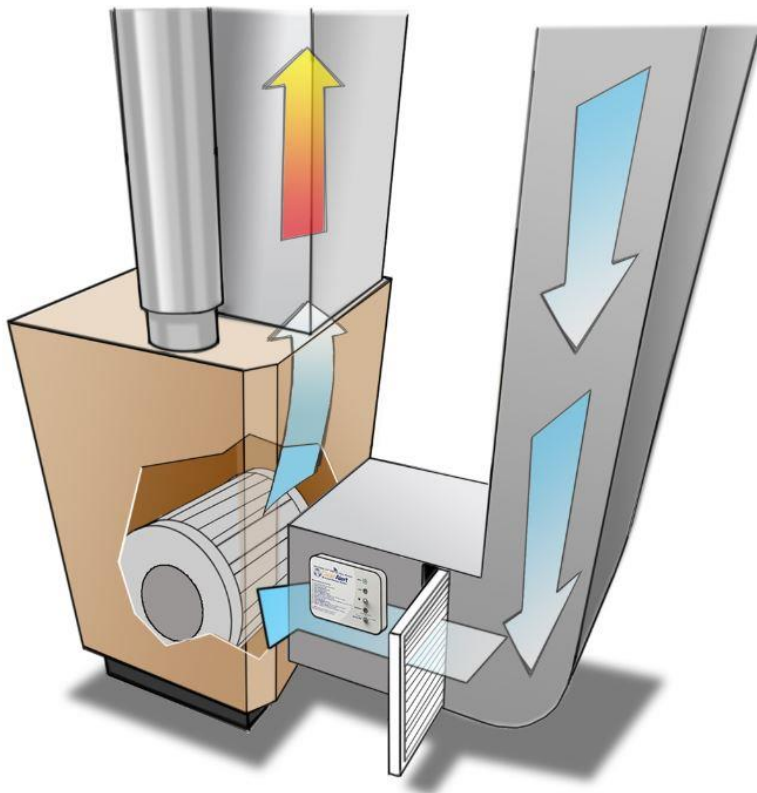
Your router manufacturer probably sells “repeaters” or “extenders”. These are small boxes that typically plug into an outlet and, essentially, become a new router antenna and extend the range of the router signal. By placing the repeater between the router and the FILTERSCAN, you may be able to bring the monitor within range of the router WiFi signal.

What is the difference between an “upstream” and a “downstream” installation?

The monitor is “upstream” if it is located before the air filter and fan blower. It is “downstream” if it is located between the air filter and the fan blower.

Example of upstream installation

It is “downstream” if it is located between the air filter and the fan

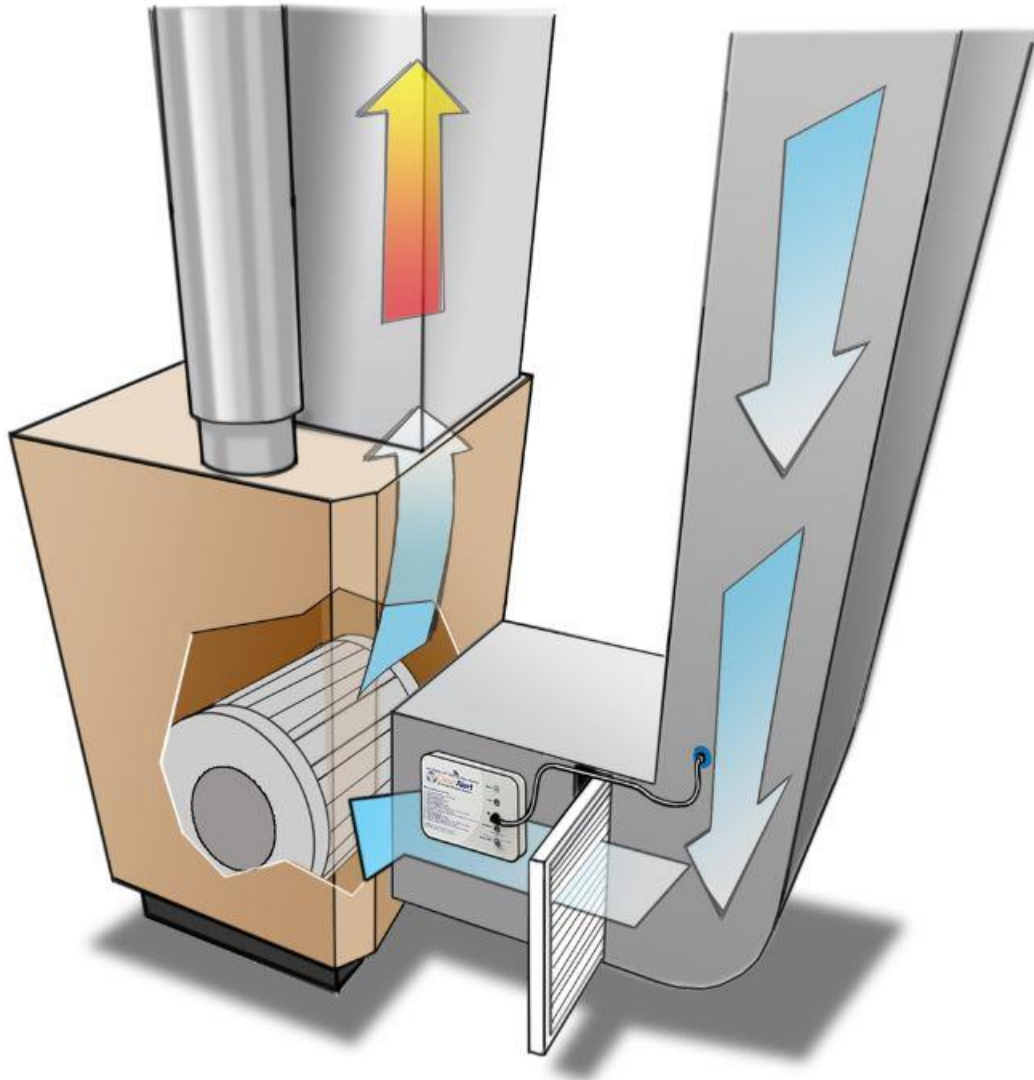


blower.

Example of ***downstream*** installation.

What does it mean to install the FILTERSCAN “differentially” across the air filter?

Such an installation requires the use of the optional Tubing Kit, which consists of a plastic tube and mounting hardware. One end of the tube is inserted over the sensor tube that protrudes from the front of the monitor. Two sets of holes are drilled in the air duct or air handler. One set is upstream of the air filter, and the other set is downstream of the air filter (see the previous questions). The monitor, along with the tubing kit, is installed over one of the sets of holes. The other end of the tubing is mounted over the other set of holes.



Example of installation *differentially across the air filter*.

What is the difference between the “return side” and “supply side” air ducts?

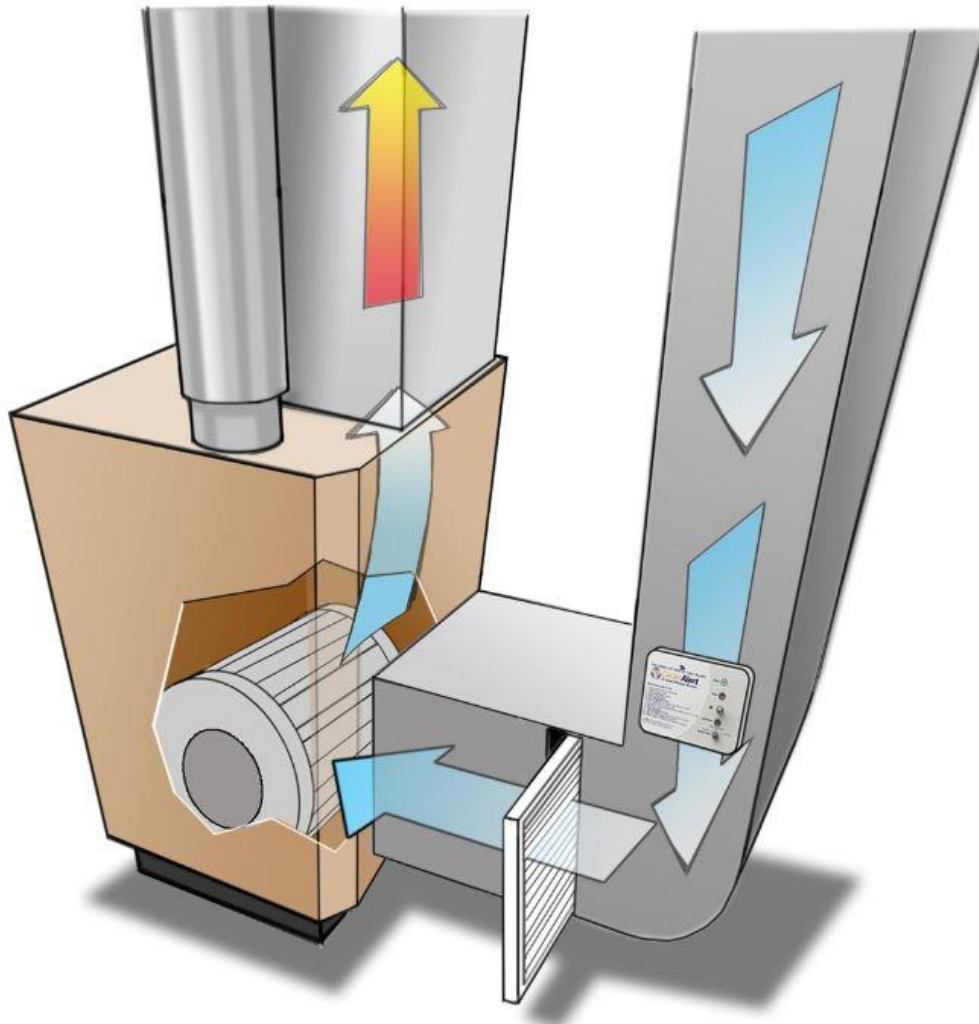
The “return side” consists of the air ducts that bring in air from the home to the heating or cooling system in order to be heated or cooled. The “supply side” consists of the ducts that deliver air to the home after it has been heated or cooled in order to keep the temperature in the home comfortable.

Which is the best preferred location for installing the device – Upstream or downstream or Differential?

We state downstream in the manual, only because it is typically easier to install there. Upstream and differentially across the air filter work just as well.

Can it be installed in the supply duct?

No, we have never tested the FILTERSCAN on the supply side.



Can I install a FILTERSCAN WiFi Air Filter Monitor on a Variable Air Volume (VAV) heating or cooling system?

The FILTERSCAN Air Filter Monitor will operate with most residential VAV systems in production.

NOTE: the monitor must be mounted downstream of the air filter if the VAV system is set to operate in *constant torque mode*.

Can I mount the FILTERSCAN WiFi Air Filter Monitor on the outside of my home?

No. The FILTERSCAN Air Filter Monitor should not be directly exposed to the weather.

Can the FILTERSCAN WiFi Air Filter Monitor be used on an HVAC system where the filters are behind the air return grills in the walls?

Yes, as long as all of the return air ducts merge together before entering the air handler. On many systems, the return ducts all feed into a box called a “plenum,” which is attached to the air handler. In this case, you would mount the FILTERSCAN monitor anywhere on the plenum. On other systems, the return ducts merge in twos or threes until there is just one duct that is attached to the air handler. In this case, you would mount the monitor on this last return duct. In both cases, the monitor is downstream of the filters, so the Upstream/Downstream switch must be ON. The FILTERSCAN would be monitoring all of the air filters simultaneously. When you initially calibrate the monitor all of the air filters must be clean, and when it issues a clog alarm you need to change all of the filters.

Will the blower speed affect the mechanism of this device?

Not at all, since the FILTERSCAN is solid state with no moving parts. The monitor works on pressure up to 4.0” w.c. and compensates for changes in blower speeds in multi-speed systems.

What happens if the coil is blocked, will it also trigger the alarm in filter scan?

When the coil becomes blocked, less air can travel out of the supply side, and the pressure in the return plenum actually decreases. If the FILTERSCAN is mounted “upstream” of the air filter (looking for a decrease in pressure), normal triggering should occur. If the FILTERSCAN is mounted “downstream” of the air filter (looking for an increase in pressure), triggering would not occur.

What effect, if any, does opening or closing air vent registers have on the FILTERSCAN WiFi Air Filter Monitor performance after it has been calibrated to a new air filter?

Any significant changes in system pressure caused by register changes or other factors will change the point at which the clog alert will occur. The greater the number of system registers, the less effect on the system’s pressure when one or two registers are changed and therefore the less effect on when the clog alert will occur. Regular changes to system registers could make the performance unpredictable.