

ATTIC FANS

A good attic ventilation system is designed for the summer, preventing hot air build up by ensuring air exchange in the space. Attic fans work well in attics that are not insulated and should be used when there are no passive ventilation systems in the attic.

A whole house fan works better when the intent is to use it to improve air circulation in the house instead of air conditioning.

ADVANTAGES

- It moves the hot air out of the way, making space for the cooler air to come in through the vents.
- A regulator (temperature control switch) installed with an attic fan controls the operation of the fan and saves energy by automatically turning it off when the temperature drops.

Tools Required: Screw driver, screws, nails,

Materials Required: Wood studs for horizontal blocking

Estimated time required: 2-3 hours

INSTALLATION

Sizing

Depends on area of the un-insulated attic and manufacturers specifications.

To find the area of the un-insulated attic space, multiply the length of the house by its breadth.

If a large fan is difficult to mount, try two smaller fans with enough fresh air inlets.

Location

Fans can either be mounted on the roof or on the gable ends of roofs on existing roof vents.

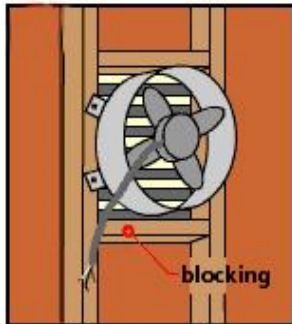
It is simpler to install one on the gable end of the roof between the studs, to prevent any structural modifications.

Fresh air vents

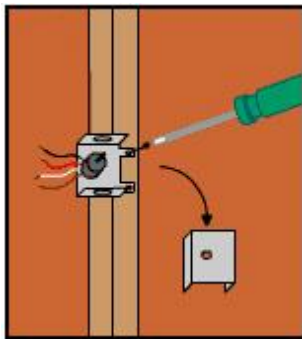
A good thumb rule is having two equal sized openings to the size of the fan installed to serve as intake vents.

HOW TO

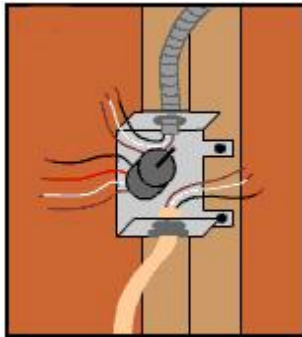
Step 1: Turn off electrical circuit in the area that you are working in and make sure it stays off until the installation is finished and the fan is ready to be in operation.

Step 2:

To install a fan on the existing roof vents, use a fan with mounting brackets to mount it across the studs, over the vents. Add horizontal blocking (by nailing) between the studs above and below the fan to direct the flow of air out.

Step 3 :

When the fan is installed, remove the regulator cover and fasten the regulator to a nearby stud or rafter.

Step 4:

To install the wires, remove knockout (a circle that is stamped that can be taken out to thread wires through). The image shows it being taken out and wires coming through) for the power supply cable. Install a cable clamp in the hole, thread the cable through the clamp and tighten the clamp.

Remove the sheathing on the wires and strip the wires.

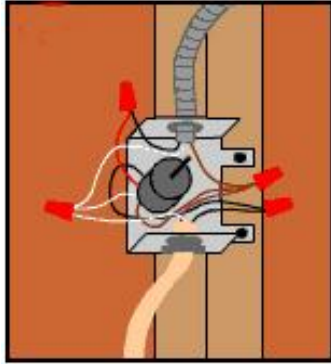
Step 5 :

Repeat the procedure for the fan cable as necessary.

Step 6 :

Follow manufacturer's instructions and attach the fan wires to the regulator wires.

Step 7 :



When all the connections have been made, reinstall the regulator cover and set the temperature control to about 95°F. This will be good compromise between energy efficiency and cooling.

If the fan does not start immediately, the attic might not be hot enough. Turn the thermostat down to test, or wait until the attic gets hot enough.

ADDITIONAL RECOMMENDATIONS

Use a solar powered attic fan to save energy used to run the fan.

Source:

http://www.easy2diy.com/cm/easy/diy_ht_index.asp?page_id=35720167