

Save Energy With DIY Door Upgrades



Replaceable vinyl weatherstripping seals well on the hinge side of the door because it gets compressed with little rubbing and wear.

Photo by Pemko Manufacturing



The threshold under the door can be raised or lowered with a screwdriver so the door bottom weatherstripping seals tightly.



To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, OH, 45244, or go to www.dulley.com.

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Q. Our doors are old, inefficient and drafty. One is made of solid wood and one is metal. What inexpensive improvements can I make myself to increase their efficiency?

A. People often do not realize how leaky an old door can be.

Check doors for leaks by moving a stick of lighted incense around the edge on a windy day. Observe the smoke trail for signs of leaky spots. If you cannot find leaky spots by watching the smoke trail, have someone shine a light from the outside. Leaky spots also allow more road noise to come through, so listen for the noisiest spots around the edge.

Leaky doors cost money in two ways. First, the cold air leaking in makes your heating system run longer to keep your house warm. Second, the draft—even if you do not notice it—makes you feel chilly. When feeling chilly, people often set the thermostat higher, which wastes energy.

There are ways to improve the efficiency of old doors, but don't immediately eliminate the possibility of installing a new one. Prices for some well-insulated steel and fiberglass doors—especially those without glass—are reasonable. They are efficient and easy to install.

Check for rotten wood by probing bad-looking spots on a wood door with a screwdriver. If a spot is more than a quarter-inch deep, it will be difficult to repair with wood filler. Place a long straight edge on the door to check for warpage. If the warpage is more than one-half inch across the door, installing new weatherstripping probably won't seal it.

Most metal doors have steel skins, so rust is a common problem. But it can be repaired. Rainwater often gets trapped at the bottom by the weatherstripping. Small rust holes can be filled with auto body compound. Drill several one-eighth-inch drain holes in the weatherstripping so no more water gets trapped.

On the wood door, the weatherstripping may compress over time. Push the

door tightly closed to see if this helps. Install closed-cell foam weatherstripping if it must be replaced.

Metal doors use magnetic weatherstripping, so compression is not often a problem.

To fix leaks for a wood door, reposition the latch plate. Remove some wood in the door frame and move the plate back up to one-quarter-inch maximum. Drill out the old screw holes and fill them with a dowel rod. Drill new screw holes to secure the latch plate in its new position. Installing a stepped latch plate is another option to better compress the weatherstripping.

Check the condition of the hinges. Replace them if needed. If the hinges and pins get worn, the door will not hang square in the opening, which means it will not seal well.

There are many sizes of hinges, so take an old one along to the store and get an exact match. Don't just buy the cheapest hinge. A good-quality spring hinge is a good choice, but each may cost \$15 or more.

It is almost certain the seal on the bottom of the doors against the floor threshold is worn. If it is not torn, adjust the floor threshold higher. There are several height adjustment screws across the threshold. They may be filled in with dirt from years of use, so poke around to find them. If the seal is bad, there are many generic replacement seals you can install.

Another option is an add-on retractable threshold seal, which is effective with carpeting by the door. It is mounted on the inside surface of the lower door edge. When the door starts to open, a pin against the door frame is released and the seal automatically lifts to clear the carpeting. It is easy to install and adjust. ■

The following companies offer door improvement products: Duck Brand, 800-321-0253, www.duckbrand.com; M-D Building Products, 800-654-8454, www.mdteam.com; Pemko Manufacturing, 800-283-9988, www.pemko.com; and Thermwell, 800-526-5265, www.frostking.com.