

Windows and Doors

If your windows are in generally good shape, it will probably be more cost-effective to caulk, weatherstrip, and fit with storm panels than to replace them.

Your quickest and least expensive action is to caulk all cracks and gaps and weatherstrip all edges. For wintertime, you may use a rope caulk to seal cracks where window parts move. Come summer, you can remove the rope caulk, store it in foil, and use it two or three more seasons. A temporary clear caulk is available that can be applied with a gun and peeled off later for opening the window.

Installing weatherstripping is a little more time-consuming than caulking, and a little more expensive, but it needs to be done only once. The type of weatherstripping to use depends on the window.

Compression and V-strip types are both widely available in hardware and building supply stores. Compression types are mounted on the sash frame so that it is squeezed together when the window closes. The center rail can be sealed with a self-adhesive vinyl or metal V-strip. If you don't need to open the upper sash of a double-hung window, you can caulk it closed.

As with caulking, top-quality weatherstripping products are recommended over cheaper products.

To top off your work, you can install a plastic film that tapes to the inside of the window frame. These kits are readily available in hardware stores, cost from \$3 to \$8 per window, and typically last one to three years. Some are made of a shrink-tight plastic that you heat with a blow dryer after installation to pull out the wrinkles.

You also can enhance the energy efficiency of your windows by installing insulating shades, curtains, or drapes. Closing them at night can significantly cut down on heat loss. (Closing them in summer can cut down on heat gain.) Look for shades or drapes that fit into tracks to keep air from passing around the edges and possibly causing condensation problems behind them.

Yet another way to boost the efficiency of your windows is installing a storm window. If you have single-pane glazed windows, storm windows will double their efficiency.

Storm windows with glass or rigid acrylic panes are recommended if you plan to keep your home for more than a few years. Most people choose combination storm/screen windows, which generally are easy to use. Aluminum

frames are more common, but wooden frames are more energy efficient. For maximum effectiveness, the frame should fit snugly into the sash.

Storm windows typically cost from \$50 to \$120, depending on size, quality and the cost of labor. That's far less than replacement windows.

But if your window sashes have rotted and have damaged wood, cracked glass that has lost its seal, or poorly fitting sashes, you might be better off getting new ones. That can cost \$400 to \$1,000 a piece.

If you do decide on new windows, it is worth the extra cost to buy high-performance windows with low-E glass (low-emissivity) and an argon gas fill between two or more panes.

Look for windows that have non-metallic spacers between panes to hold them in place. Metallic spacers conduct cold at the edges of the window. Carefully compare the U-values of windows when you're shopping. Some manufacturers list just the U-value at the center of the window. U-values that take into account the whole window, from center to edges, most accurately reflect a window's performance. Typical unit U-values of high-efficiency windows are .30–.35, although some triple pane windows are available with U-values less than .24 (remember, the lower the U-value the better the performance).

You also can compare air leakage, which is listed in cubic feet per minute per foot. The lower the number, the more airtight the window.

Now for your doors.

If your doors are in generally good shape, tighten them up. If they're not, you'll save by replacing them.

If you're keeping your doors, but you spotted leakage, weatherstrip around the whole perimeter to ensure a good seal when the door is closed. Installation can be tricky because weatherstripping must be tacked into place.

Spring-metal weatherstripping comes in several shapes and is durable.

Silicone-bulb weatherstripping is long-lasting and can withstand sub-zero temperatures. The bulb comes on a metal strip that is caulked and then nailed into place.

Other types are flaps or foam and vinyl and vinyl foam tubular strips. These might not last as long or work as effectively as the other, more expensive types.

Back when you had your detective hat on and were investigating your home for leaks, you should have paid close attention to the bottoms of your doors. It is important to have quality door sweeps. Sweeps usually are made of a vinyl flap, which is attached to a piece of aluminum. The sweep attaches to the bottom of the door so that the flap seals against the floor or threshold.

We recommend a multi-level sweep, one that meets the threshold and floor in several places.

Check your thresholds, too. They can deteriorate. Replacement thresholds with a vinyl bulb running down the center are available.

If you have a door in such poor condition that you just can't fix the leaks, it may be worth your while to invest in a new, pre-hung insulated door. These can cost from \$400–\$800. New, technically advanced doors have foam cores and R-values from 6–12. They can dramatically reduce heat loss. Your savings can run up to \$40 a year.

Adding a storm door is another way to increase energy efficiency. Costs range from \$130 to \$250. Storm doors, installed properly with a snug fit, provide dead air space between the outdoors and your primary doors.

And now, with your home's leaks caulked, weatherstripped, sealed, and stuffed with insulation—you've buttoned up your overcoat!

Checklist

Windows

- Caulk interior trim with siliconized acrylic
- Seal pulley openings
- Weatherstrip loose windows
- Secure and caulk upper sash
- Install sash locks to hold windows tightly together
- Install plastic
- Replace putty and/or caulk loose glass

Doors

- Caulk interior trim with siliconized acrylic
- Weatherstrip
- Install door bottom sweep
- Replace threshold

Other trouble spots

- Caulk baseboards at wall and floor
- Install foam gaskets behind outlet and switch faceplates
- Seal fireplace opening with glass doors or, if the fireplace isn't used, with an airtight cover
- Seal air leaks through foundation walls
- Seal heat leaks in attic