SUMMER'S STEAMIEST DAYS can keep even the most intrepid among us shuttered indoors seeking the sublime relief of air conditioning. And with temperatures predicted to be above average for much of the country, you'll want to make sure your A/C is in good working order.

Once upon a time, window air conditioners were the norm, but today about 90 percent of newly built homes come with central air. If you already have it, bear in mind that systems tend to last no more than 15 years, and if yours is at least 10 years old, it probably no longer meets today's energy efficiency standards. By upgrading to a new system, you could cut your cooling costs by 20 to 30 percent.

The appeal of central air is pretty obvious; the seasonal ritual of installing and uninstalling window units every summer and fall can be tiresome and difficult. But switching to central air can be disruptive and expensive. To assess whether it's a good investment, consider two factors: the length of the cooling season where you live and whether most nearby homes have central air. If you live far south or west in the country, home buyers probably expect it, so if you don't have central air, it could lower your home's value. In the Northeast, it isn't as critical because the cooling season is shorter, and many older homes don't have it.

The messiest part of installing central air in an older home without a forced-air heating system is creating the duct system. Another option is a split ductless system. It cools more uniformly, like central air, but instead of using ductwork, the systems have multiple indoor units (called air handlers) mounted high on the wall, as well as an outside condenser. The mechanicals between the two parts are carried by thin tubing through a small hole in the wall behind each unit. You'll need one air handler for each room, and you can turn them on all at once or just cool the rooms you're using. Professional installation is recommended.

LEARN

Go to **ConsumerReports.org/air-conditioners** to learn how to size an air conditioner.

THE ABCs OF CENTRAL A/C

The cost of installing central air depends on whether you have ductwork. Installing a system in an average home with ducts may cost up to $5,000–but twice that if you need ducts, too.

Wherever you live, if you are putting in a central air system, you'll want to pay attention to energy efficiency. For the first time, the federal standards differ by region, with central air conditioning systems in the hotter South and Southwest required to meet stricter standards than those installed in the cooler North. A system's yellow Energy Guide label now includes a map of the U.S. that shows where the equipment can be installed. More efficient setups might cost more, but you'll save on utility costs over the life of the system. But to get that savings you'll need to replace the exterior unit, or compressor, and the interior unit, or air handler, and make sure your ductwork is insulated.

EXPERT TIP If your furnace is more than 15 years old, consider replacing both the furnace and air conditioner because a new A/C system won't work as efficiently if it's connected to the blower motor of an old furnace.

Assuming you've decided to take the plunge, you'll want to choose a dependable central air conditioning system. To estimate the reliability of major brands, 16,247 of our readers told us about their experience with their system.

There are two types: conventional, which are more common in areas with wide temperature swings, and heat pump, which are usually used in areas with more moderate cooling and heating needs. Heat-pump systems, used for cooling and heating, move warm air from your cool house outside when it's hot out and do the opposite when it's cold.

In addition to the most and least reliable brands shown in the chart below, we learned which parts of the systems are most likely to break. By the fifth year of ownership, the most repair-prone parts on both types of systems are the evaporator coils and the controls. Owners of heat-pump systems also reported damaged compressors.

Rheem was the most expensive conventional system to repair; Ruud heat-pump repairs were the most costly.

RELIABILITY SURVEY

COOLING SYSTEMS BUILT TO LAST

In our survey, 6,761 owners of conventional central air conditioning systems and 9,486 owners of systems with heat pumps told us about the brands they purchased new between 2008 and 2015.

PERCENT LIKELY TO BREAK BY 5TH YEAR

HEAT PUMPS		*CONVENTIONAL*	
York	50%	Amana	30%
Goodman	48%	Goodman	29%
Rheem	44%	York	28%
Amana	43%	Rheem	27%
Ruud	43%	Carrier	24%
Lennox	38%	Bryant	23%
Carrier	38%	Trane	21%
Trane	37%	Lennox	21%
Bryant	34%	American Standard	20%
American Standard	31%		

Results are based on Consumer Reports' 2015 Fall Product Reliability Survey. Differences of fewer than 7 points aren't meaningful for conventional systems; differences of fewer than 8 points aren't meaningful for heat pumps. Our statistical model estimates failure rates (repairs or serious breakages) for 5-year-old systems that receive annual professional maintenance but are not covered by a service contract. We adjust for the average number of months of use over a 12-month period. The median number of months that conventional systems are used is five; for heat-pump systems it's seven.

Scan this page using the Blippar app for an air conditioner buying guide and to see us test a DIY version *(see page 7 for details).*