

Properly Sized Room Air Conditioners

Many people buy an air conditioner that is too large, thinking it will provide better cooling. However, an oversized air conditioner is actually less effective — and wastes energy at the same time. Air conditioners remove both heat and humidity from the air. If the unit is too large, it will cool the room quickly, but only remove some of the humidity. This leaves the room with a damp, clammy feeling. A properly sized unit will remove humidity effectively as it cools.

To figure out which size unit is best for your cooling needs:

1. Determine the square footage of the area to be cooled using the following formulas:
 - For square and rectangular rooms, multiply the length of the area by its width
 - For a triangular area, multiply the length of the area by the width and divide by 2Most rooms can be further divided into these basic shapes to determine the square footage.



If the shape of your room is other than square or rectangular, ask your sales associate to help you determine the square footage.

2. Using the square footage and the chart below, determine the correct cooling capacity. Cooling capacity is measured in British thermal units (BTUs) per hour.

| Area To Be Cooled (square feet) | Capacity Needed (BTUs per hour) |
|---------------------------------|---------------------------------|
| 100 up to 150 | 5,000 |
| 150 up to 250 | 6,000 |
| 250 up to 300 | 7,000 |
| 300 up to 350 | 8,000 |

| | |
|-------------------|--------|
| 350 up to 400 | 9,000 |
| 400 up to 450 | 10,000 |
| 450 up to 550 | 12,000 |
| 550 up to 700 | 14,000 |
| 700 up to 1,000 | 18,000 |
| 1,000 up to 1,200 | 21,000 |
| 1,200 up to 1,400 | 23,000 |
| 1,400 up to 1,500 | 24,000 |
| 1,500 up to 2,000 | 30,000 |
| 2,000 up to 2,500 | 34,000 |

3. Make any adjustments for the following circumstances:

- If the room is heavily shaded, reduce capacity by 10 percent.
- If the room is very sunny, increase capacity by 10 percent.
- If more than two people regularly occupy the room, add 600 BTUs for each additional person.
- If the unit is used in a kitchen, increase capacity by 4,000 BTUs.
- Consider where you install the unit. If you are mounting an air conditioner near the corner of a room, look for a unit that can send the airflow in the right direction.