

Ceiling Fan (with Lights)



Equipment Description

Ceiling fans are high-volume, low-speed air circulators, moving an average of 6,000 cubic feet of air per minute. In winter months the fans rotate clockwise to return the warmer air at the ceiling down to the floor level, reducing the heating costs up to 10 percent.

During the summer months, fans can be set to rotate counter-clockwise to project a breeze downward. The breeze causes a “wind chill” effect which makes the environment feel cooler, but does not lower the actual temperature. Therefore, ceiling fans used for cooling should be turned off when areas are unoccupied. The comfort of the air movement can reduce reliance on air conditioning system costs by as much as 40 percent.

Loss Scenario

Pull-cord speed control switch systems on ceiling fans are common points of failure. Motor failure of these small, 3-speed, 110-volt ceiling fans can be caused by low voltage (sometimes occurring during peak air conditioning season).

Physical damage to the fans can result in an “unbalanced” condition, which may cost more to repair than it would cost to simply replace the fan.

Size and Carbon Footprint

Fan sizes start at approximately 29 inches and are usually not more than 54 inches for residential units. A 50-inch fan is usually sufficient. These are low energy consumers and if used 1,000 hours per year (41 days) the approximate power use would be 166 kilowatt-hours (kWh), which equates to approximately 250 pounds of carbon dioxide (CO₂).

Maintenance Tips

- Dust off the top surfaces of fan blades to avoid dust accumulation, which could lead to an unbalanced condition.
- Shut ceiling fans off when leaving the room to extend the life of the fan and reduce wasted energy.

Loss Prevention Tips

- Use light pressure when pulling down on the speed cord.
- Be aware of ceiling fans when doing housework or engaging in activities in rooms that have them. Avoid swinging or lifting of objects such as brooms that may contact the fan blades and cause damage.