IDAHO POWER®

How to Choose the Right Surge Suppressor

Why Do I Need a Surge Suppressor?

All homes and businesses experience electrical disturbances, such as voltage transients or surges, voltage sags and swells, and electrical interference or "noise."

Modern electronic appliances and equipment, including kitchen appliances, heating and cooling systems, lighting systems, and office and entertainment equipment can be damaged by these electrical disturbances.

The damage may occur suddenly, during a lightning storm for example, or it can occur gradually due to the smaller voltage transients that regularly occur as other nearby equipment switches on and off. Surge suppressors can reduce the likelihood of damage.

Where Do Surges Come From?

Most voltage surges start inside your home or business and are due to equipment cycling on and off. Outside your home or businesses, lightning, animals, traffic accidents, switching on the power system, equipment breakdowns, and other events can also cause voltage surges that may affect your equipment.

What's the Solution?

Plugging sensitive equipment into a high-quality surge suppressor is an inexpensive way to help protect equipment from voltage surges and may help extend the life of your equipment.

Select a high-quality surge suppressor and avoid simple outlet strips that provide no protection for your equipment.

What Features Should I Look For?

- UL Listed: These surge suppressors meet the Underwriters Laboratories (UL) standard 1449 4th or 5th edition.
- A joule rating of 500 joules or more.
- An outlet space for each piece of equipment on the surge suppressor.
- Room to plug in AC and DC adapters.
- If you're protecting a television, computer, modem, or similar equipment with coaxial cable, network and/or phone jacks, get a surge suppressor with connections for these communication lines to protect your equipment from surges on these other systems.
- Status or indicator lights to show the device is functioning properly (not just that it's on).
- Protection for electromagnetic interference (EMI).
- Protection for radio-frequency interference (RFI).
- Warranty and insurance: Five years on the suppressor and coverage for your connected equipment.

Other Things to Consider:

- Expect to pay about $25 or more for a good surge suppressor.
- A surge suppressor works only when plugged into a properly grounded three-prong outlet.
- If your house is older and has two-prong outlets or improperly grounded three-prong outlets, have a licensed electrician upgrade your outlets.
- You might find third-party reviews and evaluations of high-quality surge suppressors helpful.

What a Surge Suppressor Can't Protect You From:

- **Power outages or power sags**
- **Nearby lightning strikes**
- **Sustained overvoltage events**

Minimum Specifications

Look for surge suppressors with these specifications:

- **Underwriter Laboratories (UL) 1449**
  The UL listing is required for safety.

- **39,000 Amp or Higher**
  This number refers to the Peak Surge Current, so a higher amp rating is better.

- **500 Joules or Higher**
  The higher the Energy Rating (Joules), the better.

- **330 Volts or Less**
  When it comes to voltage ratings, a higher rating provides less protection.

Is My Old Surge Suppressor Adequate?

- The UL 1449 standard was updated in 2021. Surge suppressors that meet older UL 1449 standards could be less effective or offer less protection.
- Replace your surge suppressor if it's discolored, overheats, or shows signs of melting.
- Surge suppressors gradually wear out. If yours doesn't have lights indicating it is functioning properly, it should be replaced.

How can I Protect My Whole House?

- Surge protection at your electric service panel helps protect your home or business from surges originating outside the building.
- Electrical panel surge protection also helps prevent surges on one circuit from affecting equipment on other circuits served from that panel.
- The best way to protect electronic equipment is to plug it directly into surge suppressors.
- A licensed electrician can assist you with "hard wired" solutions on the load side of the meter for your home or business.

Contact Us

Email one of our Idaho Power customer solutions advisors at **solutions@idahopower.com**, or call 1-800-632-6605.

IDAHO POWER®