

# owner should know

## Surges can enter your home in three ways:

### 1 The Electrical System

Surges can enter your home's electrical system or can be generated within the home.

External surges are a result of lightning or utility disturbances and switching. Without proper protection, these surges produce overvoltage conditions that can overwhelm point-of-use protection like surge strips. Diverting surges to ground at the service entrance load center is the most effective way to eliminate the damage caused by externally generated surges.

Internally created surges are even more common than externally generated surges. Without proper protection, these surges can be distributed throughout the home.

Electrical surges can damage connected equipment and slowly destroy the insulation on the wiring in your home.

### 2 The Telephone System

Computer modems are among the most vulnerable electrical appliances in the home because they connect directly into telephone lines which carry surges generated by lightning activity. These surges can also damage answering machines and telephones.

### 3 Coaxial Cable or Satellite TV System

The coaxial cable TV system is similar to the phone system. Local lightning activity can cause surges into the coaxial cable, causing damage to connected equipment. TV receivers and satellite TV systems are also subject to damage.

## Ask Your Builder Or Contractor For Square D® Whole House Surge Protection

If you're building a new home, ask your builder to include whole house surge protection. Combined with surge strips, Square D products protect your electronics, appliances and systems from immediate damage caused by surges, while also prolonging the life of connected equipment by preventing the gradual degradation of performance that results from surges.

For existing homes, talk to your electrical contractor about installing whole house surge protection at your service entrance. Square D products can be easily added to installed panels. For homes over 20 years old, an electrical professional should review the grounding system prior to installation of surge devices.

### Ordering Information

#### Surgebreaker® Plus Whole House Surge Protector

Catalog No.	UPC-A
SDSB1175C (Indoor Version)	7-85901-30713-6

#### Surgebreaker Secondary Surge Arrester

Catalog No.	UPC-A
QQ2175SB (Plugs in QO Load Center)	7-85901-21089-4
HOM2175SB (Plugs in Homeline Load Center)	7-85901-21090-0

#### Hard-Wired Secondary Surge Arrester

Catalog No.	UPC-A
SDSA1175 (Single Phase System)	7-85901-21088-7

# Protecting your home from power surges



**A surge strip is not enough to protect your home electronics and appliances**



# What every home

From televisions and VCRs to refrigerators and ranges, today's electronics and appliances are smarter – and more sensitive – than ever. They contain computer chips that can be damaged by even a minor electrical surge.

Surges not only overload and destroy sensitive electronics. They can shorten equipment life over time.

Point-of-use surge strips provide only partial protection. They provide limited protection for the equipment plugged into them, and no protection at all for appliances and systems that aren't connected to them.

Surge strips are intended to suppress typical surges seen on branch circuits of residences and offices – this capacity is usually insufficient to stop a large surge originating from the service entrance from reaching connected equipment. Plus, most only suppress surges coming through the electrical system. Surges also travel through coaxial cable TV and phone lines, damaging the electronics in televisions, VCRs, home computers and cordless phones.

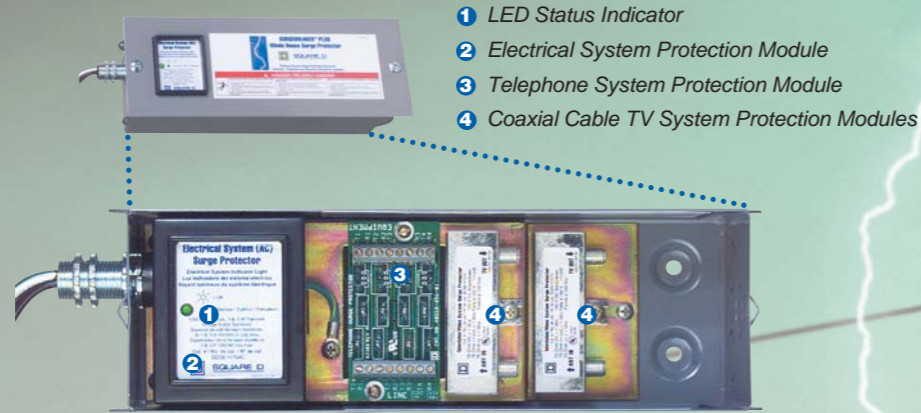
When sensitive equipment, such as a computer, is connected to multiple sources (AC power and telephone connections), the electronics can be destroyed by surges that transition from the electrical line to the telephone line or vice versa.



# What Can I Do To Protect My Investment?

Protecting your valuable appliances and home electronics requires a two-stage, whole house approach to surge protection that addresses the electrical, telephone and TV systems.

The first stage of protection should take place at the service entrance, using a whole house surge device that can stop damaging surges from entering the home.



The modular design of the Surgebreaker® Plus Whole House Surge Protector simplifies maintenance and protects against damage.

The Square D® Surgebreaker® Plus Whole House Surge Protector provides Multi-Path Surge Protection<sup>SM</sup> that meets UL 1449 Second Edition Standards and can be easily installed in both new and existing homes.

The Surgebreaker Plus Whole House Surge Protector is rated for protection up to 60,000 amps. Its solid state design protects 120/240V circuits, as well as up to four telephone lines and two coaxial television lines for cable or satellite TV. So you don't have to worry about outgrowing Surgebreaker Plus Whole House Surge Protector as your protection needs grow.

Surgebreaker Plus Whole House Surge Protector prevents the damage surges cause when they jump between sources by providing a common, low impedance path to ground for the electrical, telephone, and coaxial cable TV systems.



QO® and Homeline® Circuit Breakers with Surgebreaker

In homes where the telephone and coaxial cable TV lines cannot be routed to the load center, the Square D Surgebreaker Secondary Surge Arrester or Hard-Wired Secondary Surge Arrester is recommended to protect against externally generated surges.

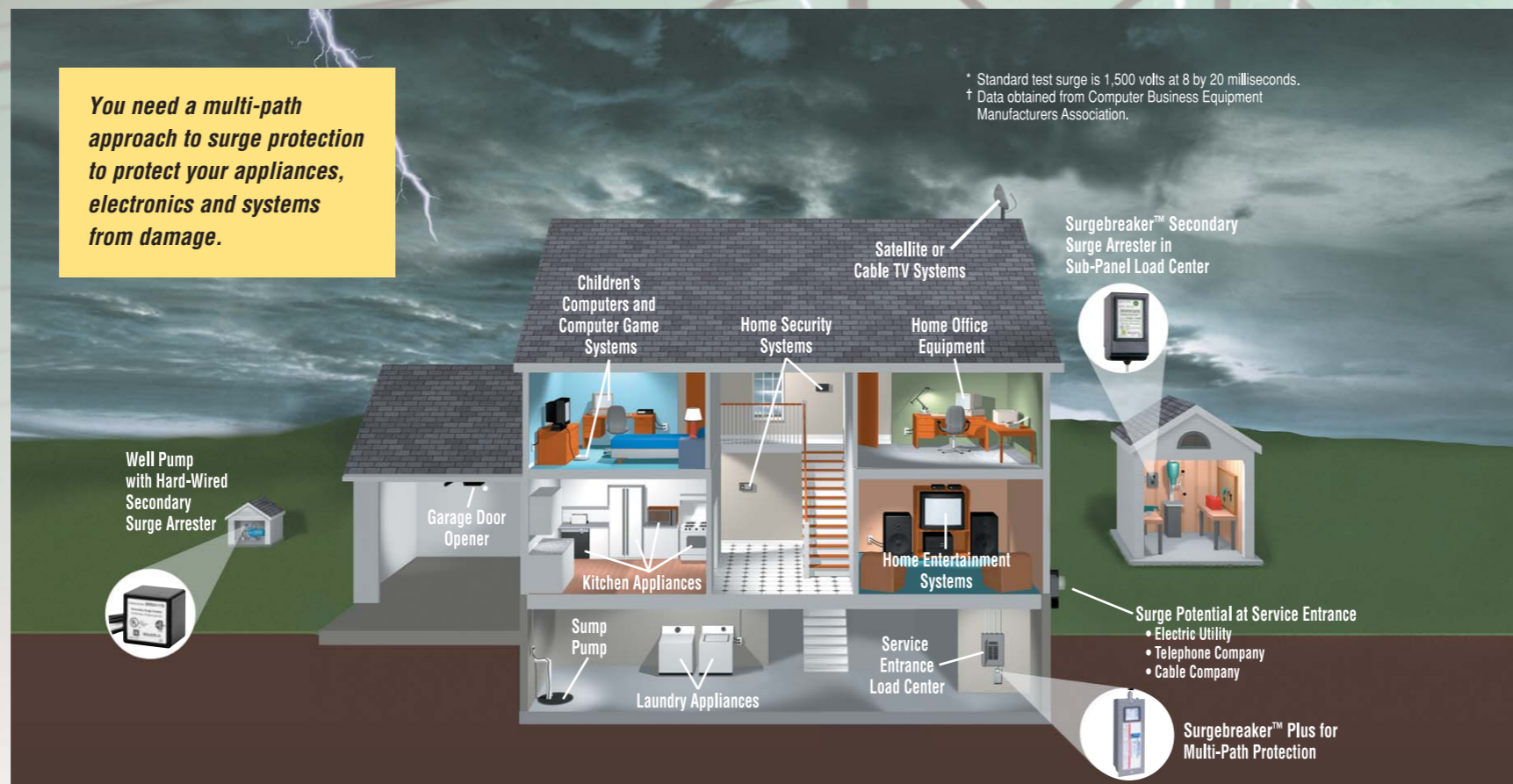
Large homes with more than one load center may use the Surgebreaker Plus Whole House Surge Protector on the service entrance panel to provide multi-path protection, and the Surgebreaker Secondary Surge Arrester or Hard-Wired Secondary Surge Arrester to provide downstream electrical surge protection.

The second stage, point-of-use protection, can be provided by plug-in surge protectors or electrical outlets with built-in surge suppression capabilities. While these devices do not provide complete protection by themselves, they do supplement the protection provided by Surgebreaker Plus Whole House Surge Protector, Surgebreaker Secondary Surge Arrester, and Hard-Wired Secondary Surge Arresters.

The cost of whole house, multi-path surge protection is minimal when compared to the replacement cost of connected equipment. Often just one piece of damaged equipment costs more to replace than your entire investment in whole house protection.



Hard-Wired Secondary Surge Arrester



**You need a multi-path approach to surge protection to protect your appliances, electronics and systems from damage.**

\* Standard test surge is 1,500 volts at 8 by 20 milliseconds.  
† Data obtained from Computer Business Equipment Manufacturers Association.

**Don't trust your home to surge strips alone.**

## The \$50,000 Warranty

The industry-leading Square D warranty provides 5-year, \$50,000 protection for surge damage to appliances and electronics in homes that use Surgebreaker Plus Whole House Surge Protector in conjunction with point-of-use protection and a Square D QO® or Homeline® Load Center.