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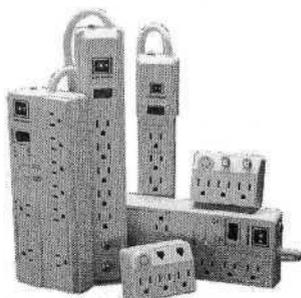
Surge Protection



CHSP (Cutler-Hammer Home Surge Protector)

Stage 1: Primary Protection for Service Entrance

The best place to install surge protection is at the electrical entrance point to your home. The service entrance (loadcenter or breaker panel) is often where AC power, telephone lines and cable lines are located. Applying a CHSP product to your service entrance (stage 1) will reduce a voltage surge to an acceptable level for appliances and surge strips. For added protection, it is recommended that you install surge protection for your cable and telephone lines (see accessories) at the service entrance. The benefit of installing these products is that your AC, cable and telephone lines will all have the same ground potential, in one common location, for passing the surge away from your equipment.



SurgeTrap™ Family

Stage 2: Secondary Protection for Point of Use

A quality Cutler-Hammer SurgeTrap surge strip is recommended for sensitive electronic loads like computers or entertainment centers. Using a SurgeTrap surge strip (stage 2) reduces any voltage remnant down to an acceptable level.

For more information, see surge Section 10.

Table 3-36. Residential Surge Products

Product		Catalog Number	Price U.S. \$
<b>Stage 1</b>			
CHSP Micro™		CHSPMICRO CHSPMICRO230INT	130.00 130.00
CHSP Max™		CHSPMAX CHSPMAX230INT	225.00 235.00
CHSP 3-Way™		CHSPCHSR4P	466.00
CHSP Ultra™		CHSPULTRA	414.00
<b>Accessories</b>			
SurgeTel™		DHW4PT	207.00
SurgeCable™		DCXCAB2	145.00
SurgeEthernet™		DRJ45D30R	228.00
Flushmount Kit™		CHSPFMKIT	52.00
<b>Stage 2</b>			
SurgeTrap™ Micro		SGXMICROAC ①	47.25
		SGXMICRONET ②	58.00
		SGXMICROTV ③	62.50
SurgeTrap™ Max		SGXMAXAC ①	102.00
		SGXMAXNET ②	116.00
		SGXMAXTV ③	116.00
SurgeTrap™ Ultra		SGXULTAC ①	198.00
		SGXULTNET ②	214.00
		SGXULTTV ③	225.00
		SGXULT3WAY ④	207.00
SurgeTrap™ ValueLine		SGXVAL6 ⑥	64.50
		SGXVAL15 ⑦	89.50

- ① AC Power
- ② AC + Telephone/Modem
- ③ AC + Cable
- ④ AC + Telephone/Modem + Cable
- ⑤ AC Power and Coaxial Cable
- ⑥ 6 Foot Cord
- ⑦ 15 Foot Cord

Discount Symbol ..... 22-CD

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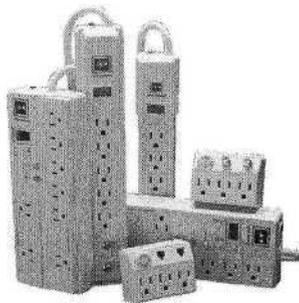
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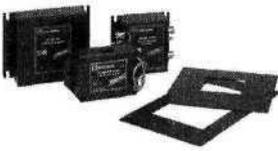
SurgeTrap™ Family

Stage 2: Secondary Protection for Point of Use

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For more information, see Surge Section 10.

Table 3-111. Residential Surge Products

Product		Catalog Number	Price U.S. \$
<b>Stage 1</b>			
CHSP Micro™		CHSPMICRO CHSPMICRO230INT	130.00 130.00
CHSP Max™		CHSPMAX CHSPMAX230INT	225.00 235.00
CHSP 3-Way™		CHSPCHSR4P	466.00
CHSP Ultra™		CHSPULTRA	414.00
<b>Accessories</b>			
SurgeTel™		DHW4PT	207.00
SurgeCable™		DCXCAB2	145.00
SurgeEthernet™		DRJ45D30R	228.00
Flushmount Kit™		CHSPFMKIT	52.00
<b>Stage 2</b>			
SurgeTrap™ Micro		SGXMICROAC ①	47.25
		SGXMICRONET ②	58.00
		SGXMICROTV ③	62.50
SurgeTrap™ Max		SGXMAXAC ①	102.00
		SGXMAXNET ②	116.00
		SGXMAXTV ③	116.00
SurgeTrap™ Ultra		SGXULTAC ①	198.00
		SGXULTNET ②	214.00
		SGXULTTV ③	225.00
		SGXULT3WAY ④	207.00
SurgeTrap™ ValueLine		SGXVAL6 ⑥	64.50
		SGXVAL15 ⑦	89.50

- ① AC Power
- ② AC + Telephone/Modem
- ③ AC + Cable
- ④ AC + Telephone/Modem + Cable
- ⑤ AC Power and Coaxial Cable
- ⑥ 6 Foot Cord
- ⑦ 15 Foot Cord

CHSP

Product Selection

Table 4-20. Residential Surge Products

Product	Protection Levels and Application	Features	Warranty	Installation/Enclosure	Catalog Number	Price U.S. \$
<b>Stage 1</b>						
CHSP Micro™	Basic surge protection for appliances	<ul style="list-style-type: none"> <li>■ Surge current rating 20 kA</li> <li>■ Metal enclosure</li> <li>■ Easy to install mounting</li> </ul>	2 year product warranty ①	Indoor/Outdoor enclosure	CHSPMICRO CHSPMICRO230INT	130.00 130.00
CHSP Max™	Standard surge protection for major appliances and home electronics	<ul style="list-style-type: none"> <li>■ Surge current rating 50 kA</li> <li>■ Thermal fusing</li> <li>■ Compact, small footprint</li> <li>■ Status monitor</li> </ul>	5 year product warranty ① \$10,000 connected equipment	Indoor/Outdoor enclosure Flushmount kit available	CHSPMAX CHSPMAX230INT	225.00 235.00
CHSP 3-Way™	Standard 3-way protection (AC power, phone, cable) for all home electronic equipment	<ul style="list-style-type: none"> <li>■ Surge current rating 40 kA</li> <li>■ 4 telephone lines</li> <li>■ 1 cable/satellite line</li> </ul>	5 year product warranty ① \$10,000 connected equipment	Indoor/Flushmount enclosure	CHSPCHSR4P	492.00
CHSP Ultra™	Ultimate surge protection for major appliances, home electronics, computers/home office and entertainment systems	<ul style="list-style-type: none"> <li>■ Surge current rating 70 kA</li> <li>■ Audible alarm</li> <li>■ Thermal fusing</li> </ul>	Lifetime product warranty ① \$50,000 connected equipment	Indoor/Outdoor enclosure Flushmount kit available	CHSPULTRA	425.00

Accessories

SurgeTel™	Telephone/Modems	■ 4 Telephone Lines	—	—	DHW4PT	207.00
SurgeCable™	Cable/Satellite TV	■ 2 Cable/Satellite Lines	—	—	DCXCAB2	145.00
SurgeEthernet™	Ethernet	■ Protection for High Speed Internet	—	—	DRJ45D30R	228.00
Flushmount Kit™	Cover for CHSP Max or Ultra when used on finished wall	—	—	—	CHSPFMKIT	52.00

Stage 2

SurgeTrap™ Micro	Appliances	■ 3 Outlets; Wallmount	5 year product warranty \$1,500 connected equipment	—	SGXMICROAC ② SGXMICRONET ③ SGXMICROTV ④	47.25 58.00 62.50
SurgeTrap™ Max	Less critical electronic equipment	■ 7 Outlets; Angled plug-in	Lifetime product warranty \$5,000 connected equipment	—	SGXMAXAC ② SGXMAXNET ③ SGXMAXTV ⑥	102.00 116.00 116.00
SurgeTrap™ Ultra	Home entertainment systems and computer/home office	<ul style="list-style-type: none"> <li>■ 8 Outlets; Angled plug-in</li> <li>■ Transformer spacing</li> <li>■ Series filter and TCO fuses</li> </ul>	Lifetime product warranty \$25,000 connected equipment	—	SGXULTAC ② SGXULTNET ③ SGXULTTV ④ SGXULT3WAY ④	198.00 214.00 225.00 290.00
SurgeTrap™ ValueLine	Basic surge protection	■ 6 outlets	5 year product warranty	—	SGXVAL6 ⑦ SGXVAL15 ⑧	64.50 89.50

① Warranty coverage applicable when CHSP products are used in conjunction with SurgeTrap point of use strips and appropriate cable and telephone protectors (see accessories).

- ② AC Power
- ③ AC + Telephone/Modem
- ④ AC + Cable
- ⑤ AC + Telephone/Modem + Cable
- ⑥ AC Power and Coaxial Cable
- ⑦ 6 Foot (1.83 m) Cord
- ⑧ 15 Foot (4.57 m) Cord

## Surge Protector (CHSP)

## Product Description

## Cutler-Hammer Surge Protector (CHSP)

The Cutler-Hammer Surge Protector (CHSP) is an externally mounted unit that provides industrial level surge protection in a residential design. The CHSP is available in four models and provides protection for all residential electrical equipment by reducing power surges, often caused by lightning, to an acceptable level for appliances and electronics. These units can be mounted into any manufacturer's breaker panel.

## Cutler-Hammer Surge Protectors for Telephone and Cable

Cutler-Hammer also offers a full range of accessory products for telephone and cable, including SurgeTel which protects up to four telephone/modem lines; SurgeCable which protects up to two cable/satellite lines; and SurgeEthernet featuring protection for high-speed Internet hookups.

## SurgeTrap™

Cutler-Hammer's SurgeTrap, plug-in surge protectors offer exceptional protection for electrical and electronic devices. Each of the SurgeTrap Ultra, Max and Micro are available in AC only, AC plus telephone/modem and AC plus cable. The SurgeTrap ULTRA 3-Way, in addition to having the above options, is available in AC plus telephone/modem and cable. SurgeTrap ValueLine products are also available.

## Application Description

## Two-Stage Protection

The Institute of Electrical and Electronic Engineers (IEEE) recommends two stages of surge suppression to provide the best protection for electronic equipment. Two-stage surge suppression should be provided for all cables entering a home, including power, Internet, coaxial and telephone.

## Stage 1: Primary Protection for Service Entrance

The best place to install surge protection is at the electrical entrance point to your home. The service entrance (loadcenter or breaker panel) is often where AC power, telephone lines and cable lines are located. Applying a CHSP product to your service entrance (stage 1) will reduce a voltage surge to an acceptable level for appliances and surge strips. For added protection, it is recommended that you install surge protection for your cable and telephone lines (see accessories) at the service entrance. The benefit of installing these products is that your AC, cable and telephone lines will all have the same ground potential, in one common location, for passing the surge away from your equipment.

## Stage 2: Secondary Protection for Point of Use

A quality Cutler-Hammer SurgeTrap surge strip is recommended for sensitive electronic loads like computers or entertainment centers. Using a SurgeTrap surge strip (stage 2) reduces any voltage remnant down to an acceptable level.

## Features, Benefits and Functions

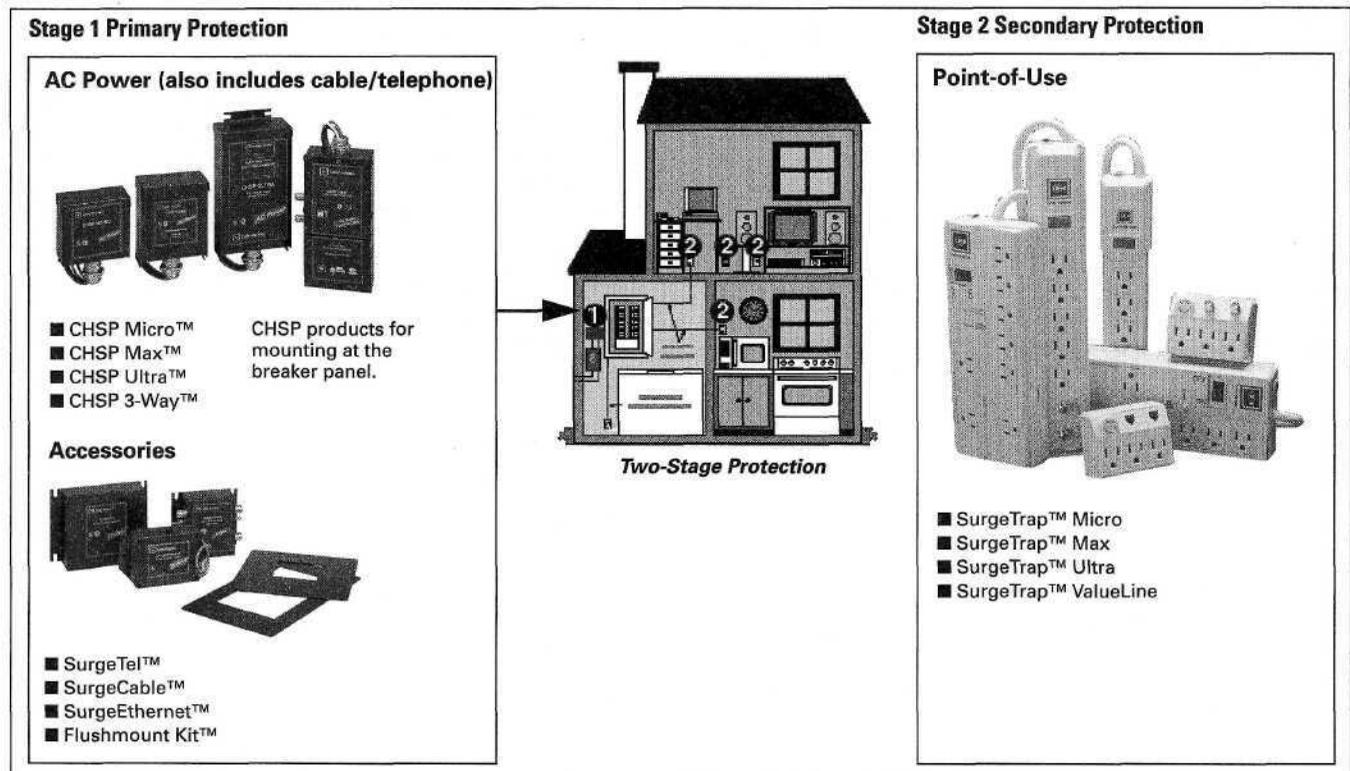


Figure 10-2. Surge Protection Home Solutions

Surge Protector (CHSP)

Product Selection

Table 10-2. Residential Surge Products

Product	Protection Levels and Application	Features	Warranty	Installation/Enclosure	Catalog Number	Price U.S. \$
<b>Stage 1</b>						
CHSP Micro™	Basic surge protection for appliances	<ul style="list-style-type: none"> <li>■ Surge current rating 20 kA</li> <li>■ Metal enclosure</li> <li>■ Easy to install mounting</li> </ul>	2 year product warranty ①	Indoor/Outdoor enclosure	CHSPMICRO CHSPMICRO230INT	130.00 130.00
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Accessories

SurgeTel™	Telephone/Modems	■ 4 Telephone Lines	—	—	DHW4PT	207.00
SurgeCable™	Cable/Satellite TV	■ 2 Cable/Satellite Lines	—	—	DCXCAB2	145.00
SurgeEthernet™	Ethernet	■ Protection for High Speed Internet	—	—	DRJ45D30R	228.00
Flushmount Kit™	Cover for CHSP Max or Ultra when used on finished wall	—	—	—	CHSPFMKIT	52.00

Stage 2

SurgeTrap™ Micro	Appliances	■ 3 Outlets; Wallmount	5 year product warranty \$1,500 connected equipment	— — —	SGXMICROAC ② SGXMICRONET ③ SGXMICROTV ④	47.25 58.00 62.50
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SurgeTrap™ Ultra	Home entertainment systems and computer/home office	<ul style="list-style-type: none"> <li>■ 8 Outlets; Angled plug-in</li> <li>■ Transformer spacing</li> <li>■ Series filter and TCO fuses</li> </ul>	Lifetime product warranty \$25,000 connected equipment	— — —	SGXULTAC ② SGXULTNET ③ SGXULTTV ④ SGXULT3WAY ⑤	198.00 214.00 225.00 290.00
SurgeTrap™ ValueLine	Basic surge protection	■ 6 outlets	5 year product warranty	— —	SGXVAL6 ⑦ SGXVAL15 ⑧	64.50 89.50

① Warranty coverage applicable when CHSP products are used in conjunction with SurgeTrap point of use strips and appropriate cable and telephone protectors (see accessories).

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