



EFI Part #8276-0002A

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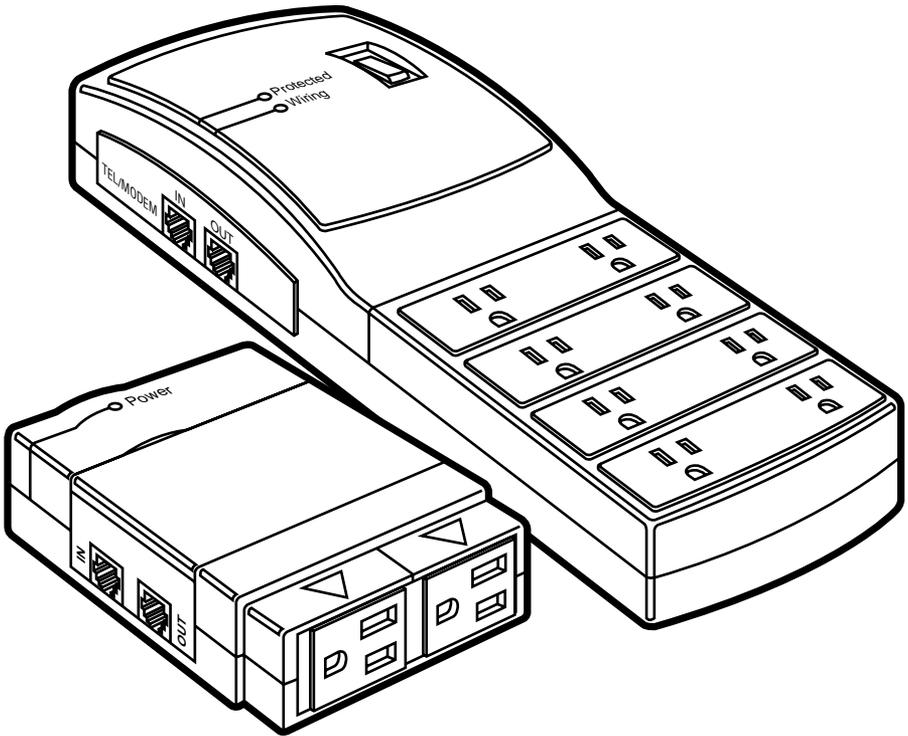
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MAY 1998

SP410A	SP415A
SP411A	SP416A
SP412A	SP417A
SP413A	SP418A
SP414A	SP419A

## Plugstrip and Wallmount Surge Protectors



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# PLUGSTRIP AND WALLMOUNT SURGE PROTECTORS

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# 1. Specifications

	<b>SP410A</b>	<b>SP411A</b>	<b>SP412A</b>	<b>SP413A</b>	<b>SP414A</b>
<b>Phone-Line Protection</b>	No	Yes	No	Yes	No
<b>Joule Rating</b>	360	360	480	480	720
<b>Number of Outlets</b>	6	6	8	8	8
<b>Let-Through Voltage</b>	<150 V	<150 V	<140 V	<140 V	<10 V
<b>Peak Surge Current (Amps)</b>	27,000	27,000	36,000	36,000	54,000
<b>EMI/RFI Filtration</b>	0 to 25 dB	0 to 25 dB	20 to 40 dB	20 to 40 dB	40 to 60 dB
<b>Initial Clamping Voltage</b>	200 V				
<b>Line Voltage</b>	120	120	120	120	120
<b>Load Rating (Amps)</b>	15	15	15	15	15
<b>Circuit Breaker</b>	15A	15A	15A	15A	15A

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SP415A	SP416A	SP417A	SP418A	SP419A	
Yes	No	No	Yes	Yes	<b>Phone-Line Protection</b>
720	480	420	720	420	<b>Joule Rating</b>
8	6	2	6	2	<b>Number of Outlets</b>
<10 V	<140 V	130 V	<10 V	130 V	<b>Let-Through Voltage</b>
54,000	36,000	36,000	54,000	36,000	<b>Peak Surge Current (Amps)</b>
20 to 40 dB	20 to 40 dB	30 to 50 dB	40 to 60 dB	30 to 50 dB	<b>EMI/RFI Filtration</b>
200 V	330 V	330 V	330 V	330 V	<b>Initial Clamping Voltage</b>
120	120	120	120	120	<b>Line Voltage</b>
15	15	15	15	15	<b>Load Rating (Amps)</b>
15A	15A	15A	15A	15A	<b>Circuit Breaker</b>

# 2. Introduction

## 2.1 General

The Surge Protectors protect your equipment from surges, spikes, and over-voltages.

## 2.2 Features

Two general styles of surge protectors are available: the plug-strip models and the wallmount models.

The plug-strip Surge Protectors come in three different levels of protection: standard, advanced, and maximum. The standard and advanced models comply with safety standard UL1449-1997. The maximum models are UL listed to standard 1449, second edition. The plug-strip Surge Protectors also offer the following features:

- Fax/Modem protection (selected models only)—Some models are available with built-in telephone line suppression.
- Sine-Wave Tracking—A patented sine-wave tracking technology protects against surges by providing a tight let-through (clamping) voltage around the power-line sine wave.
- Low Let-Through Voltage—A lower let-through voltage provides superior performance and more protection for your connected equipment.
- EMI/RFI Noise Filtration—Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) are disruptions on the smooth AC power-line sine wave. This noise on the power line can be caused by lightning, generators, radio transmitters, or even household appliances. This noise shows up as glitches or errors on computer systems or “snow” on a TV. The Surge Protectors eliminate up to 99.99% of EMI/RFI noise.
- Thermal Fuse—The thermal fuse offers fail-safe shutoff, which safely stops power in case of a sustained overvoltage or suppressor failure. This prevents destructive surges from passing through to your connected equipment.

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The wallmount Surge Protectors offer the following features:

- **Unmatched let-through voltage**—The Surge Protectors maximize protection by letting as few as 10 volts of a 6000-volt surge pass through to your connected equipment.
- **UL 1449 330V Clamping Voltage rating**—The wallmount models were given a 330-volt clamping rating across all three lines by UL, the best rating possible.
- **EMI/RFI Noise Filtration**—The Surge Protectors eliminate up to 99.7% of EMI/RFI noise that can damage electronic components, and can cause costly data errors and expensive downtime.
- **Sine-Wave Tracking**—Patented sine-wave tracking technology provides unparalleled protection against surges by providing a tight let-through (clamping) voltage envelope around the power-line sine wave.
- **Triple-mode protection**—Patented multi-stage design combines the best features of several electrical components, including Metal Oxide Varistors (MOVs), Capacitors, and Coils to provide the maximum surge protection possible.
- **Diagnostic LEDs**—These LEDs let you know if there's a problem with the protection circuit of the Surge Protector.
- **Fail-safe Thermal Fuse**—In the case of a sustained overvoltage or suppressor failure, the thermal fuse provides fail-safe shutoff to safely stop power at the suppressor. This prevents surges from passing through to and damaging connected equipment.

## PLUGSTRIP AND WALLMOUNT SURGE PROTECTORS

### 2.3 Available Models

#### 2.3.1 STANDARD MODELS

The standard plug-strip models include the SP410A and SP411A. These models are identical to each other, except that the SP411A offers telephone line protection for fax/modem connections. Both models feature a convenient plug-strip design that fits easily into your installation space.

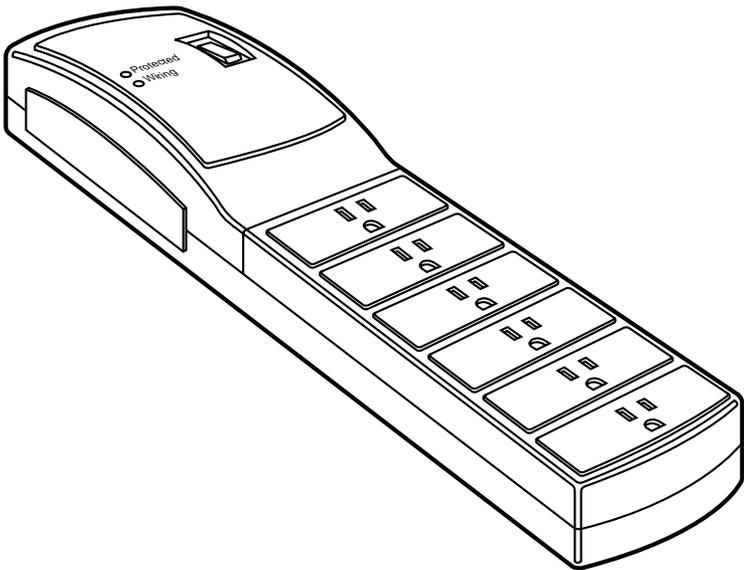


Figure 2-1. SP410A Standard Model.

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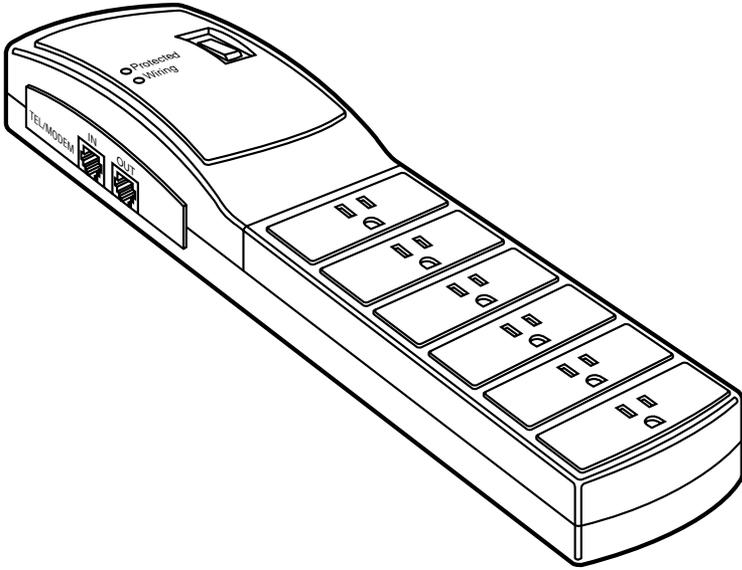


Figure 2-2. SP411A Standard Model.

## PLUGSTRIP AND WALLMOUNT SURGE PROTECTORS

### 2.3.2 ADVANCED MODELS

The advanced plug-strip models include the SP412A, SP413A, and SP416A. The SP412A and SP413A models are identical to each other, except that the SP413A offers telephone line protection for fax/modem connections. Both models feature a convenient plug-strip design that fits easily into your installation space. The SP416A is a wallmount version of the advanced surge protector.

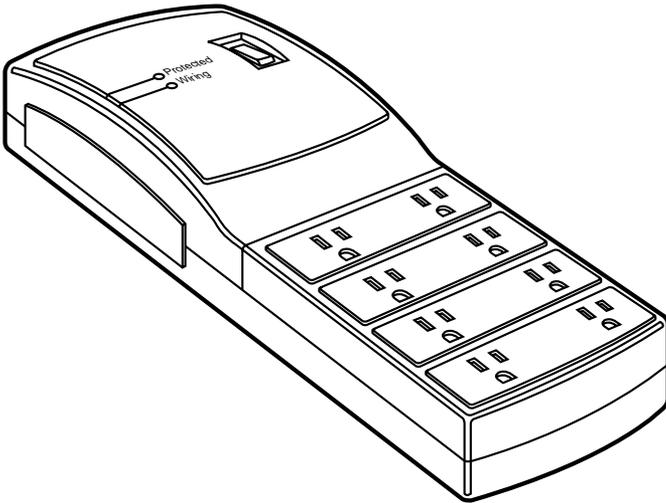


Figure 2-3. SP412A Advanced Model.

## PLUGSTRIP AND WALLMOUNT SURGE PROTECTORS

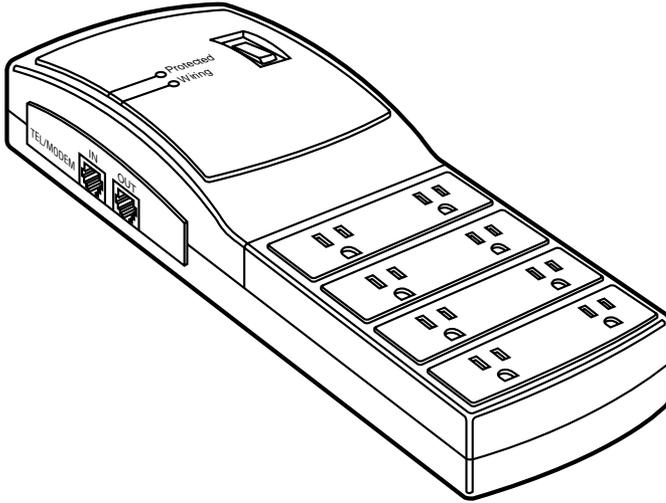


Figure 2-4. SP413A Advanced Model.

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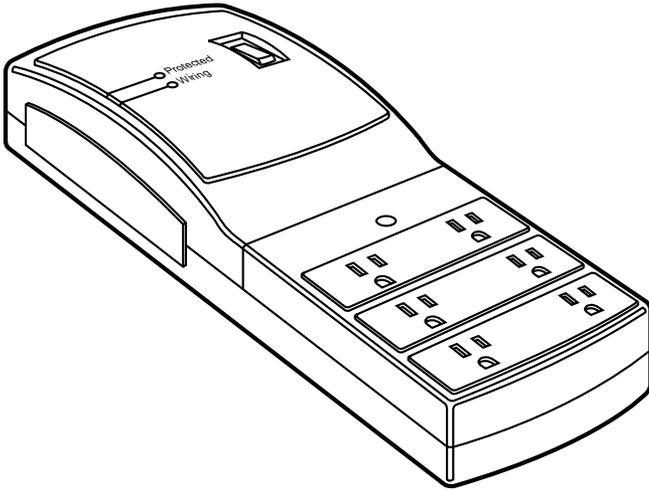


Figure 2-5. SP416A Advanced Model.

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### 2.3.3 MAXIMUM MODELS

The advanced plug-strip models include the SP414A and SP415A. These models are identical to each other, except that the SP415A offers telephone line protection for fax/modem connections. Both models feature a convenient plug-strip design that fits easily into your installation space. The SP418A is a wallmount version of the maximum protector that also offers fax/modem protection.

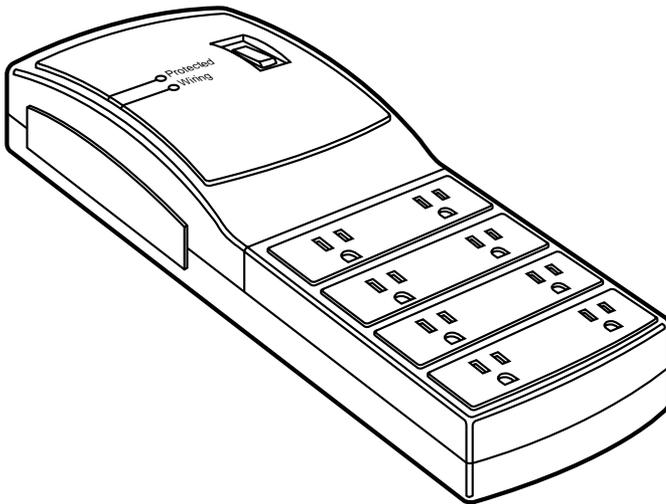


Figure 2-6. SP414A Maximum Model.

## PLUGSTRIP AND WALLMOUNT SURGE PROTECTORS

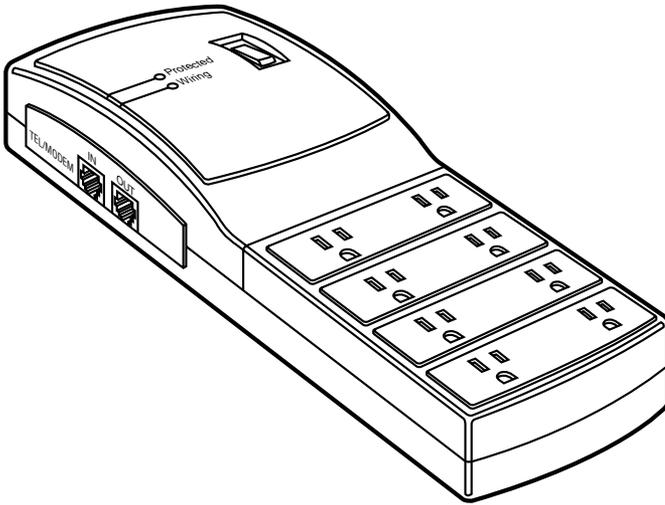


Figure 2-7. SP415A Maximum Model.

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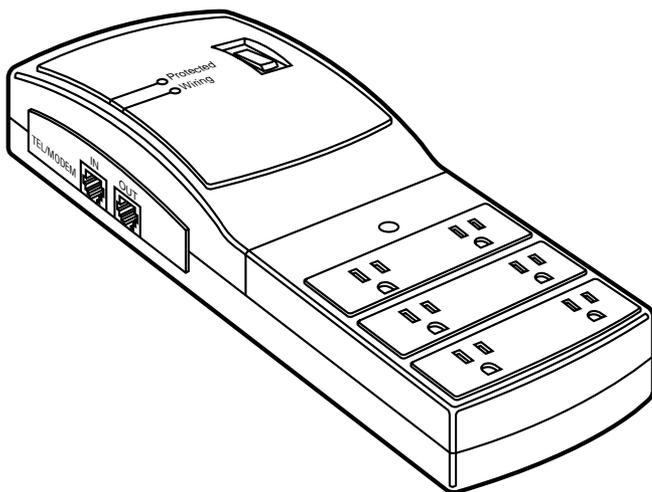


Figure 2-8. SP418A Maximum Model.

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### 2.3.4 SP417A

The SP417A is a convenient, rectangular wallmount surge protector that offers line protection for copiers.

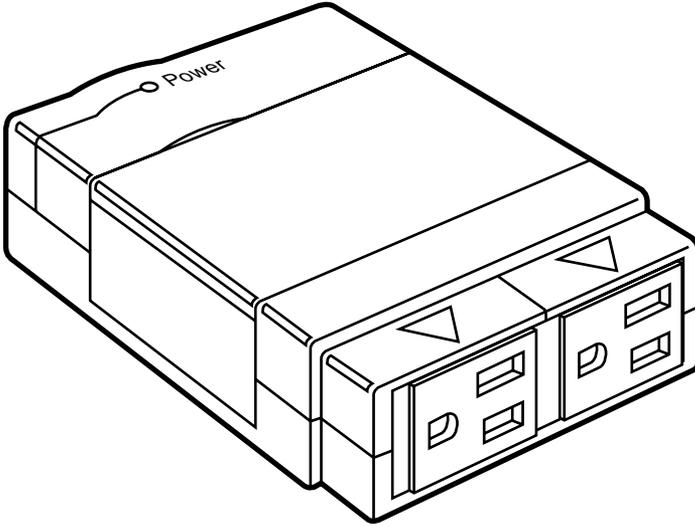


Figure 2-9. SP417A Model.

## PLUGSTRIP AND WALLMOUNT SURGE PROTECTORS

### 2.3.5 SP419A

This convenient, rectangular wallmount surge protector offers telephone-line protection for fax/modem connections.

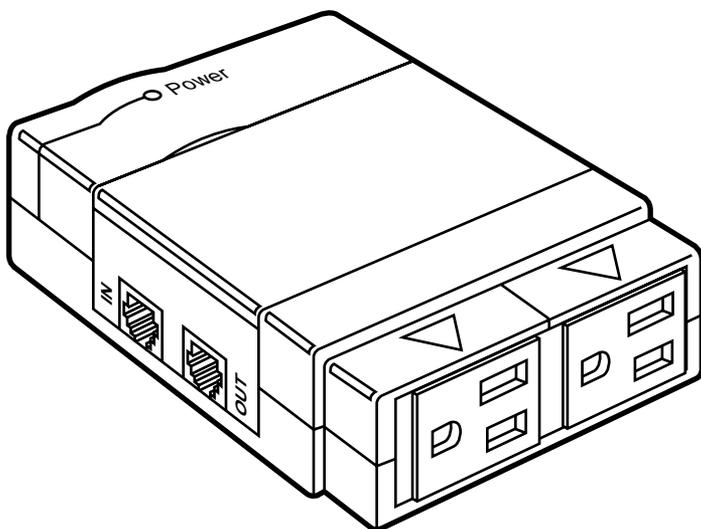


Figure 2-10. SP419A Model.

## 3. Installation

All of the Surge Protectors are easy to install and use. For the power-strip models, simply plug in the Surge Protector's AC power plug into a 120-VAC wall outlet. For the wallmount models, plug the NEMA 5-15 standard plug into a 120-VAC wall outlet. Then plug your equipment's AC power plugs into the receptacles on the Surge Protector. Your installation is complete.