



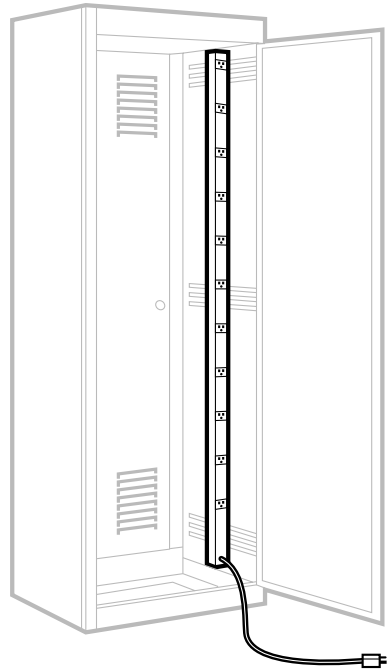
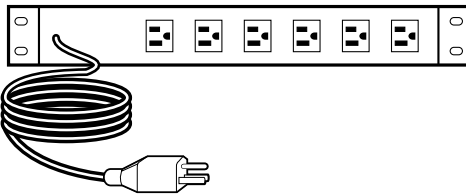
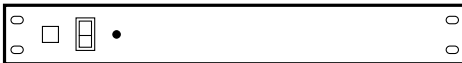
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PS186A	SP197A
PS187A-R2	SP198A
PS188A	SP199A
PS189A	SP211A
SP187A	SP215A

19" Rack Mount Power Strips and Surge Suppressors 48", 70", 77" Vertical Power Strips and Surge Suppressors



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FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

The PS187A-R2 is UL listed, CSA certified, and can be used in any normal power-strip application. All of the other products described in this manual are CSA certified and are recognized under the UL components program as suitable for permanent mounting in UL listed enclosures or racks only.

NORMAS OFICIALES MEXICANAS (NOM) ELECTRICAL SAFETY STATEMENT

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.

12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

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1. Specifications

PS186A (19" Rack Power Strip):

Compliance —	FCC Class A, IC Class/classe A, UR recognized, CSA certified
Power —	120 VAC
Rated Current —	15 amps (has front-mounted resettable breaker)
Control —	(1) Front-mounted ON/OFF switch (lights when ON)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	(6) Front-mounted NEMA 5-15Rs
Size —	1.8"H x 19"W x 2.8"D (4.4 x 48.3 x 7 cm)
Weight —	2.5 lb. (1.1 kg)

PS187A-R2 (70" Vertical Power Strip):

Compliance —	FCC Class A, DOC Class/MDC classe A, UL listed, CSA certified, UR recognized
Power —	120 VAC
Rated Current —	15 amps (has side-mounted resettable breaker)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	(11) Front-mounted NEMA 5-15Rs
Size —	70"H x 1.5"W x 1.2"D (177.8 x 3.8 x 3 cm)
Weight —	3.5 lb. (1.6 kg)

RACK MOUNT POWER STRIPS AND SURGE SUPPRESSORS

PS188A (Rack Mount Power Strip, Switchless):

Compliance —	FCC Class A, IC Class/classe A, UR recognized, CSA certified
Power —	120 VAC
Rated Current —	15 amps (has front-mounted resettable breaker)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	(6) Rear-mounted NEMA 5-15Rs
Size —	1.8"H x 19"W x 2.8"D (4.4 x 48.3 x 7 cm)
Weight —	2.5 lb. (1.1 kg)

PS189A (Rack Mount Power Strip, Front Access):

Compliance —	FCC Class A, IC Class/classe A, UR recognized, CSA certified
Power —	120 VAC
Rated Current —	15 amps (has front-mounted resettable breaker)
Control —	(1) Front-mounted ON/OFF switch (lights when ON)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	(6) Front-mounted NEMA 5-15Rs, rotated 90° from normal in order to support wallmount transformers
Size —	1.8"H x 19"W x 2.8"D (4.4 x 48.3 x 7 cm)
Weight —	2.5 lb. (1.1 kg)

SP187A (19" Rack Surge Power Strip):

Compliance —	FCC Class A, IC Class/classe A, UR recognized, CSA certified
Power —	120 VAC
Rated Current —	15 amps (has front-mounted resettable breaker)
Protection —	Surge suppression: Type: Single-stage; UL 1449 clamping category: 400 volts peak transient voltage; Actual clamp voltage: 336 volts peak; Maximum surge-energy resistance: 13,000 amps; EMI/RFI resistance: Up to 40 dB
Control —	(1) Front-mounted ON/OFF switch (lights when ON)
Indicator —	(1) Front-mounted Protection LED (goes dark when unit's protection circuitry has absorbed surge and been destroyed)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	(6) Rear-mounted NEMA 5-15Rs
Size —	1.8"H x 19"W x 2.8"D (4.4 x 48.3 x 7 cm)
Weight —	2.5 lb. (1.1 kg)

RACK MOUNT POWER STRIPS AND SURGE SUPPRESSORS

SP211A (400 Volt Rack Mount Surge Suppressor, Switchless):

Compliance —	FCC Class A, IC Class/classe A, UR recognized, CSA certified
Power —	120 VAC
Rated Current —	15 amps (has front-mounted resettable breaker)
Protection —	Surge suppression: Type: Single-stage; UL 1449 clamping category: 400 volts peak transient voltage; Actual clamp voltage: 336 volts peak; Maximum surge-energy resistance: 13,000 amps; Fail safety: Unit automatically shuts OFF power to its outlets if surge suppression fails; EMI/RFI resistance: Up to 40 dB
Indicator —	(1) Front-mounted Protection LED (goes dark when unit's protection circuitry has absorbed surge and been destroyed)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	(6) Rear-mounted NEMA 5-15Rs
Size —	1.8"H x 19"W x 2.8"D (4.4 x 48.3 x 7 cm)
Weight —	2.5 lb. (1.1 kg)

SP215A (Premium Rack Mount Surge Suppressor):

Compliance —	FCC Class A, IC Class/classe A, UR recognized, CSA certified
Power —	120 VAC
Rated Current —	15 amps (has front-mounted resettable breaker)
Protection —	Surge suppression: Type: Four-element, four-stage hybrid; UL 1449 clamping category: 330 volts peak transient voltage; Actual clamp voltage: 260 volts peak; Maximum surge-energy resistance: 33,000 amps; EMI/RFI resistance: Up to 60 dB
Indicator —	(1) Front-mounted Protection LED (goes dark when unit's protection circuitry has absorbed surge and been destroyed)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	(6) Rear-mounted NEMA 5-15Rs
Size —	1.8"H x 19"W x 2.8"D (4.4 x 48.3 x 7 cm)
Weight —	2.5 lb. (1.1 kg)

RACK MOUNT POWER STRIPS AND SURGE SUPPRESSORS

SP197A (48" Vertical Surge Suppressor Strip), SP198A (70" Vertical Surge Suppressor Strip), and SP199A (77" Vertical Surge Suppressor Strip):

Compliance —	FCC Class A, DOC Class/MDC classe A, UL listed, CSA certified
Power —	120 VAC
Rated Current —	15 amps (has front-mounted resettable breaker)
Protection —	Surge suppression: Type: Single-stage; UL 1449 clamping category: 330 volts peak transient voltage; Actual clamp voltage: 312 volts peak; Maximum surge-energy resistance: 13,000 amps; EMI/RFI resistance: Up to 40 dB
Indicator —	(1) Front-mounted Protection LED (goes dark when unit's protection circuitry has absorbed surge and been destroyed)
Input —	(1) 6-ft. (1.8-m) 14/3 (14-AWG, 3-conductor) cord with NEMA 5-15P plug
Outlets —	SP197A: (10) Front-mounted NEMA 5-15Rs; SP198A: (11) Front-mounted NEMA 5-15Rs; SP199A: (12) Front-mounted NEMA 5-15Rs
Size —	SP197A: 48"L x 1.5"W x 1.2"D (121.9 x 3.8 x 3.1 cm); SP198A: 70"L x 1.5"W x 1.2"D (177.8 x 3.8 x 3.1 cm); SP199A: 77"L x 1.5"W x 1.2"D (195.6 x 3.8 x 3.1 cm)
Weight —	SP197A: 3.46 lb. (1.57 kg); SP198A: 4.42 lb. (2.00 kg); SP199A: 4.96 lb. (2.25 kg)

2. Introduction

WARNING!

Please read all instructions carefully before attempting to install or operate your Rack Mount Power Strip or Surge Suppressor. If you don't, you might be injured or your equipment might be damaged.

For your safety, plug the 3-prong grounding plug of the unit's power cord into a 3-prong grounded receptacle only. You could be shocked if you modify or bypass the grounding pin for use in a non-grounded receptacle. All the units conform to, and should be installed and grounded in compliance with requirements of, the current National Electric Code® or codes administered by local authorities.

The PS187A-R2 is UL® listed and CSA certified. All other models are UR recognized (as permanently mounted component fixtures) and CSA certified. Use your unit in interior, dry locations only. Do not use near water, baths, or washing systems.

Do not attempt to take the unit apart. It contains no user-serviceable parts; you will void the warranty; and you could very easily hurt yourself and/or damage the unit. If the unit is defective, call your supplier as described in Chapter 4.

When you unpack the unit, inspect it carefully for any damage that might occur during transit. If anything is damaged, return the unit immediately, but call your supplier first as described in Chapter 4.

2.1 About Your Power Strip (PS186A, PS187A-R2, PS188A, or PS189A)

The Power Strips are designed to provide extra outlets wherever you need them. Each unit is 100% tested before packaging.

NOTE

The Power Strip units are electrically rated at 15 amps, 120 VAC, 60 Hz. 15 amps is the maximum current for the entire unit, not individual outlets.

2.1.1 19" RACK POWER STRIP (PS186A)

The PS186A is a rackmountable power strip for standard 19" racks. It has 6 outlets on its rear panel, as well as these features:

- Electrical and mechanical grounding.
- Protective circuit breaker with front-panel reset button (but no other surge protection).
- Lighted power switch.

2.1.2 70" VERTICAL POWER STRIP (PS187A-R2)

The PS187A-R2 is a rackmountable power strip that mounts from top to bottom in the rear of standard 19" racks. It has 11 outlets on its front panel, as well as these features:

- Electrical and mechanical grounding.
- Protective circuit breaker with front-panel reset button (but no other surge protection).
- No power switch; devices plugged into the strip can't be accidentally turned off.

2.1.3 RACK POWER STRIP, SWITCHLESS (PS188A)

The PS188A is a rackmountable power strip for standard 19" racks. It has 6 outlets on its rear panel, as well as these features:

- Electrical and mechanical grounding.
- Protective circuit breaker with front-panel reset button (but no other surge protection).
- No power switch; devices plugged into the strip can't be accidentally turned off.

2.1.4 RACK POWER STRIP, FRONT ACCESS (PS189A)

The PS189A is a rackmountable power strip that fits in a standard 19" rack. It has 6 outlets on its front panel; these outlets are rotated 90° to accommodate wallmount transformers and large power supplies. It also has these features:

- Electrical and mechanical grounding.
- Protective circuit breaker with front-panel reset button (but no other surge protection).
- Lighted power switch.

2.2 About Your Surge Power Strip (SP187A) or Surge Suppressor (SP211A or SP215A)

The Surge Power Strip and the Surge Suppressors are designed to protect equipment that is sensitive to the destructive effects of power-line transients and noise on electronic and electrical circuitry. However, they are not lightning arrestors and do not protect equipment in the rare instance that lightning actually strikes the site's service entrance or antenna.

Each unit is 100% tested before packaging.

NOTE

The Surge Power Strip and Surge Suppressor units are electrically rated at 15 amps, 120 VAC, 60 Hz. 15 amps is the maximum current for the entire unit, not individual outlets.

2.2.1 19" RACK SURGE POWER STRIP (SP187A)

The SP187A is a rackmountable power strip for standard 19" racks. It has 6 outlets on its rear panel, as well as these features:

- Electrical and mechanical grounding.
- Protective circuit breaker with front-panel reset button.
- UL 1449 400-volt clamping category (actually clamps at 336 volts).
- Resists EMI/RFI up to 40 dB.
- LED goes dark to show that the unit has done its job—it has taken a major surge, sparing the attached devices—and should be replaced.
- Lighted power switch.

2.2.2 400 VOLT RACK MOUNT SURGE SUPPRESSOR, SWITCHLESS (SP211A)

The SP211A is a rackmountable power strip for standard 19" racks. It has 6 outlets on its rear panel, as well as these features:

- Electrical and mechanical grounding.
- Protective circuit breaker with front-panel reset button.
- UL 1449 400-volt clamping category (actually clamps at 336 volts).
- Resists EMI/RFI up to 40 dB.
- Automatically cuts off power if its surge-protection components fail.
- LED goes dark to show that the unit has done its job—it has taken a major surge, sparing the attached devices—and should be replaced.
- No power switch; devices plugged into the strip can't be accidentally turned off.

2.2.3 PREMIUM RACK MOUNT SURGE SUPPRESSOR (SP215A)

The SP211A is a rackmountable power strip for standard 19" racks. It has 6 outlets on its rear panel, as well as these features:

- Electrical and mechanical grounding.
- Protective circuit breaker with front-panel reset button.
- UL 1449 330-volt clamping category (actually clamps at 260 volts).
- Resists EMI/RFI up to 60 dB.
- LED goes dark to show that the unit has done its job—it has taken a major surge, sparing the attached devices—and should be replaced.
- No power switch; devices plugged into the strip can't be accidentally turned off.

2.3 Vertical Surge Suppressor Strip (SP197A, SP198A, or SP199A)

The SP197A is a 48" rack mountable power strip that mounts from top to bottom in the rear of standard 19" racks. It has 10 outlets on its front panel.

The SP198A is a 70" rack mountable power strip that mounts from top to bottom in the rear of standard 19" racks. It has 11 outlets on its front panel.

The SP199A is a 77" rack mountable power strip that mounts from top to bottom in the rear of standard 19" racks. It has 12 outlets on its front panel.

Vertical Surge Suppressor Strips SP197A, SP198A, and SP199A all have the following features:

- Electrical and mechanical grounding.
- UL 1449 400-volt clamping category (actually clamps at 336 volts).
- Resists EMI/RFI up to 40 dB.
- LED goes dark to show that the unit has done its job—it has taken a major surge, sparing the attached devices—and should be replaced.
- No power switch; devices plugged into the strip can't be accidentally turned off.

3. Installation

3.1 Installing Most Models

Follow these instructions to install your 19" Rack Mount Power Strip, Surge Power Strip, or Surge Suppressor:

1. Bolt it to the cabinet rails.
2. Plug your devices' transformers into the outlets on the unit.
3. Plug the unit into an AC power source.
4. If the unit has a power switch, turn it ON.

Your unit is now installed and ready to operate.

3.2 Installing the PS187A-R2, SP197A, SP198A, or SP199A

Follow these instructions to install your 70" Vertical Power Strip or Vertical Surge Suppressor Strip.

1. Screw the mounting clips into the mounting surface.
2. Place the Power Strip on the mounting clips and snap it into position so that the unit is flush with the mounting surface. The unit should now be secure.
3. Plug your devices' transformers into the outlets on the unit.
4. Plug the Power Strip into an AC power source.

Your unit is now installed and ready to operate.

4. Troubleshooting

4.1 Calling BLACK BOX

If you determine that your Power Strip, Surge Power Strip, or Surge Suppressor is malfunctioning, *do not attempt to alter or repair the unit*. It contains no user-serviceable parts. Contact Black Box Technical Support at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

4.2 Shipping and Packaging

If you need to transport or ship your Power Strip, Surge Power Strip, or Surge Suppressor:

- Package it carefully. We recommend that you use the original container.
- If you are returning the unit, make sure you include everything you received with it. Before you ship for return or repair, contact Black Box to get a Return Materials Authorization (RMA) number.

TRADEMARKS

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NOTES