Installing an Enterasys 7100G-Series Switch
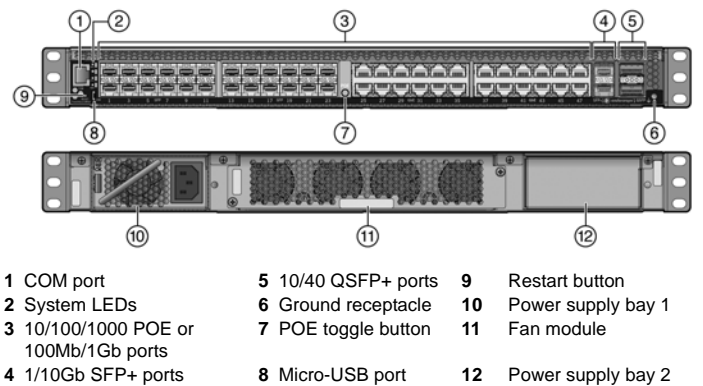
⚡ **Electrical Hazard:** Only qualified personnel should perform installation procedures.

For complete installation instructions and information about the 7100G-Series switch, see the *Enterasys 7100G-Series Hardware Installation Guide* at https://extranet.enterasys.com/downloads/.

Hardware Components

Figure 1 displays the panel ports, LEDs and hardware components on a 71G21K2L2-24P24 7100G-Series switch. With the exception of the number, type and LED layout of switch ports, the I/O port side and power supply side panel component layouts are the same for all 7100G-Series switch models. See the 7100-Series Hardware Installation Guide for port details.

Figure 1   7100G-Series I/O Port and Power Supply Panels

1	COM port	**5**	10/40 QSFP+ ports	**9** Restart button
2	System LEDs	**6**	Ground receptacle	**10** Power supply bay 1
3	10/100/1000 POE or 100Mb/1Gb ports	**7**	POE toggle button	**11** Fan module
4	1/10Gb SFP+ ports	**8**	Micro-USB port	**12** Power supply bay 2

Pre-Installation Tasks

Installation Site Requirements

You need to have 3–4 inches of clearance on the I/O port side of the 7100G-Series switch depending upon the cabling used.

See "Appendix D, Environmental Guidelines" of the *Enterasys 7100G-Series Hardware Installation Guide* for environmental guidelines relating to the 7100G-Series switch installation.

The installation site must be within reach of the network cabling and meet the requirements listed below:

• Appropriate grounded power receptacles must be located within 7 feet of the site.

• A temperature of between 5°C (41°F) and 40°C (104°F) must be maintained at the installation site with fluctuations of less than 10°C (18°F) per hour.

⚠ **Caution:** To ensure proper ventilation and prevent overheating, leave a minimum clearance space of 5.1 cm (2.0 in.) on both sides of the device.

Unpacking the 7100G-Series Switch

To unpack the 7100G-Series switch:

1. Open the box and remove the packing material protecting the 7100G-Series switch. Save the shipping box and materials in the event the unit must be reshipped.

2. Remove and set aside the RJ45-to-DB9 converter, anti-static wrist strap, adhesive feet (for flat surface placement), and power cord retention clips. The 7100G-Series switch does not include screws for attaching the 7100G-Series switch to rack posts.

3. Verify the contents of the carton as listed in Table 1.

Table 1   Contents of 7100G-Series Switch

Quantity	Item
1	7100G-Series chassis
1	RJ45 management cable
1	RJ45-to-DB9 converter
1	Anti-static wrist strap
4	Adhesive rubber feet (4)
2	Power cord retention clips (2)
1	7100G-Series Quick Reference

4. Inspect the 7100G-Series switch for any signs of physical damage. If there are any signs of damage, DO NOT install the 7100G-Series switch; instead, contact Enterasys Networks (see "Getting Help").

Unpack the Power Supply

The ordered power supply module(s) are shipped in boxes separate from the 7100G-Series switch. To unpack a power supply:

1. Remove the power supply from the shipping box. Save the shipping box and materials in the event the unit must be reshipped.

2. Verify the contents of the box using Table 2.

Table 2   Power Supply Box Contents

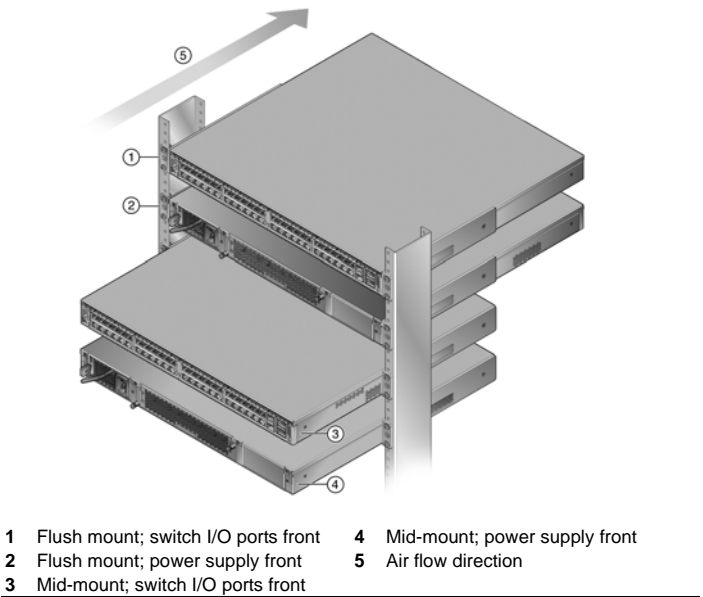| Quantity	Item
1	Power supply (71A-POE-A or 71A-POE-B)
1	For USA shipments: NEMA Power Cord 5-15,C13
	Type of power cord is dependent on country of installation.
1	Important Air Flow Notice

3. Remove the power supply from its protective plastic bag.

4. Examine the power supply carefully, checking for damage. If there are any signs of damage, DO NOT install the power supply; instead, contact Enterasys Networks. Refer to "Getting Help" for details.

Installing the 7100G-Series Switch

You can install a 7100G-Series switch on a flat surface or in a rack. For more information about flat surface installation, see "Flat Surface Installation". There are four possible rack mounting configurations as shown in Figure 2, based upon whether:

• The switch I/O ports or the power supply side of the device face front

• The device is mounted flush with the rack posts or mid-mounted

Figure 2   7100G-Series Switch Rack Configurations

1	Flush mount; switch I/O ports front	**4**	Mid-mount; power supply front
2	Flush mount; power supply front	**5**	Air flow direction
3	Mid-mount; switch I/O ports front		

Required Tools

This installation requires the following tools:

• Anti-static wrist strap

• Phillips screwdriver

Verify Fan Module and Power Supply Air Flow

The power supply and fan module air flow must agree in order to properly cool the installed 7100G-Series system. Air flow direction is always from the perspective of the cool air intake aisle (front of rack) to the hot air exhaust aisle (rear of rack). Air flow can be either from:

• The switch I/O port side to the power supply side as shown in Figure 2, callouts **1** and **3** (fan labels are visible)

• The power supply side to the switch I/O port side as shown in Figure 2, callouts **2** and **4** (fan labels are not visible)

📋 **Note:** The power supply air flow direction is specified when ordering the unit. Power supply air flow is fixed and can not be manually changed.

The 7100G-Series switch ships with fan module air flow from the power supply side to the switch I/O port side of the device. Fan module air flow is manually reversible. Therefore, if you ordered power supplies with air flow from switch I/O port side to power supply side (model number 71A-POE-B), you will need to change the air flow direction of the fan module.

Determine air flow direction by visually inspecting the fan module and power supplies. If a white label is visible on the fan unit for the fan module and power supplies, air flow direction is from the switch I/O ports side to the power supply side. If a fan blade is visible on the fan unit for the fan module and power supplies, air flow direction is from the power supply side to the switch I/O ports side.

The power supply air flow can also be verified based upon the power supply manufacturer's part number located on the power supply bottom label. See the Important Air Flow Notice card that comes with the power supply for air flow direction to manufacturer's part number cross-reference information.

Before installing the power supply into the 7100G-Series switch, perform a visual verification that both power supply and fan module air flow agree with the intended configuration. If the 7100G-Series switch configuration requires the air flow to be from the switch I/O port side to the power supply side, the fan module air flow must be reversed from the default configuration for the fan module 2. See the "Reversing the Fan Module Air Flow" section of the *Enterasys 7100G-Series Hardware Installation Guide* for details.

Rack Mount Ear Positioning

📋 **Note:** The 7100G-Series switch comes with integrated mounting ears that are adequate for most installations. For slide-in mounting, high vibration, or high shock installations, an optional rack mount kit (71A-RACK-U) is available. When using the rack mount kit, refer to "Appendix C, Optional Rack Mount Rail Kit Installation" of the *Enterasys 7100G-Series Hardware Installation Guide* for optional mounting kit installation details.

The 7100G-Series chassis ships with the rack mount ears attached in a flush mount, power supply to switch I/O ports air flow configuration (callout **2** of Figure 2). The other three rack mount configurations require you to reposition the rack mount ears. See the "Rack Mount Ear Positioning" section of the *Enterasys 7100G-Series Hardware Installation Guide* for details.

Securing the 7100G-Series Switch to the Rack

⚠ **Warning:** Before rack-mounting the device, ensure that the rack can support it without compromising stability. Otherwise, personal injury and/or equipment damage may result.

📋 **Note:** The rack mounting ear provides three holes for securing the 7100G-Series switch to the rack, see Figure 1 callout 5. Use at least two screws or fasteners appropriate to your rack on each side when securing the 7100-Series switch to the rack.

It is recommended that power supplies be installed after the 7100G-Series switch has been secured to the rack to minimize weight that must be supported when installing rack screws.

To secure the 7100G-Series switch to the rack:

1. Align the rack mount ear holes with the front rack post holes.

2. Secure the 7100G-Series switch to each rack post with at least two screws or fasteners appropriate to the rack.

Flat Surface Installation

For flat surface installation, optionally attach the adhesive rubber feet to the bottom of the 7100G-Series switch. To attach the rubber feet to the bottom of the 7100G-Series switch:

1. Place the 7100G-Series switch upside down on a sturdy, flat surface.

2. Remove the adhesive backing from the four rubber feet.

3. Adhere the rubber feet to the round, recessed areas on the bottom of the 7100G-Series switch.

Installing the Power Supplies

Do not install a power supply in the 7100G-Series chassis without first assuring that the power supply and fan module air flow agree (see "Verify Fan Module and Power Supply Air Flow".

If you are installing only one power supply, you must put the power supply in the left power supply bay (labeled PS1). The 7100-Series switch ships without a coverplate for the PS1 bay. To install the power supplies in the 7100-Series switch:

1. Use appropriate antistatic protection when handling power supplies.

2. Holding the power supply by the handle and bottom, align the power supply with the left power supply bay (labeled PS1).

3. Slide the power supply forward until it is plugged into the chassis connector and the lock tab clicks to the right. Pull on the power supply handle to ensure that the power supply is firmly in place.

4. If you are installing a second power supply, remove the coverplate from the right power supply bay by unscrewing the screw that attaches the coverplate to the 7100G-Series switch (see Figure 1 callout **12**) and rotating the coverplate out of its position from right to left before disengaging it from the chassis. Reinstall the screw once the cover plate is removed. Keep the coverplate in the event you need to revert to a single power supply configuration.

5. Repeat steps 2 and 3 to install the second power supply.

Installing SFP+ or QSFP+ Pluggable Transceivers

⚠ **Warning:** Fiber-optic SFP+ and QSFP+ ports use Class 1 lasers. Do not use optical instruments to view the laser output. The use of optical instruments to view laser output increases eye hazard. When viewing the output optical port, power must be removed from the network adapter.

This installation procedure applies to all SFP+ and QSFP+ transceivers. To install an SFP+ or QSFP+ transceiver in an 7100G-Series switch:

1. Attach the anti-static wrist strap. Refer to the instructions on the anti-static wrist strap package.

2. Remove the SFP+ or QSFP+ from the packaging.

3. Hold the SFP+ or QSFP+ so that the connector will seat properly.

4. Carefully align the SFP+ or QSFP+ with the port slot.

5. Push the SFP+ or QSFP+ into the port slot until the transceiver clicks and locks into place.

Completing the Installation

To complete the installation, see the *Enterasys 7100G-Series Hardware Installation Guide* for details on:

• Powering up the 7100G-Series switch

• Optionally installing the power cord retention clip assembly

• Connecting category 6 UTP Ethernet cables to the BASE-T ports

• Connecting two 7100-Series Chassis for Virtual Switch Bonding

• Connecting to the COM port for local management

• Initial login instructions

LEDs

The 7100G-Series switch provides system and port LEDs. See "LEDs" section of the *Enterasys 7100G-Series Hardware Installation Guide* for details.

Port Configuration CLI Commands

For port configuration CLI commands, refer to the *Enterasys 7100-Series CLI Reference* or the *Enterasys 7100-Series Configuration Guide* at https://extranet.enterasys.com/downloads/.

Specifications

Temperature and Humidity

Operating: 5°C to 40°C (41°F to 104°F)

Storage: -30° to 73°C (-22° to 164°F)

Operating relative humidity: 5% to 90%(non-condensing)

Power Supplies (71A-POE-A or 71A-POE-B)

Input Frequency: 50 to 60 Hz

Input (Voltage/Current): 100 to 240 V AC: 10 - 5A at 800 watts

Approximate Weight: 0.86 kg (1.90 lb)

Switch Dimensions and Weight

Dimensions: 4.37 cm (1.72") H x 44.73cm (17.61") W x 43.40cm (17.086") D

Approximate Weight: Gross: 7.12 kg (15.7 lb)

Interfaces

For SFP+ and QSFP+ transceiver specifications, refer to the datasheet at the following URL:

http://www.enterasys.com/products/transceivers-ds.pdf

Getting Help

For additional support related to 7100G-Series switch or this document, contact Enterasys Networks using one of the following methods:

World Wide Web	http://www.enterasys.com/support/
Phone	1-800-872-8440 (toll-free in U.S. and Canada) or 1-603-952-5000 For the Enterasys Networks Support toll-free number in your country: http://www.enterasys.com/support/
Internet mail	support@enterasys.com To expedite your message, type **[7100-Series]** in the subject field of your message.
The latest image and release notes	https://extranet.enterasys.com/downloads/

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Part Number: 9034782-01 January 2013

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Regulatory Compliance Information

Federal Communications Commission (FCC) Notice

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment uses, generates, and can radiate radio frequency energy and if not installed in accordance with the operator's manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case the user will be required to correct the interference at his own expense.

WARNING: Changes or modifications made to this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada Notice

This digital apparatus does not exceed the class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Class A ITE Notice

WARNING: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Clase A. Aviso de ITE

ADVERTENCIA: Este es un producto de Clase A. En un ambiente doméstico este producto puede causar interferencia de radio en cuyo caso puede ser requerido tomar medidas adecuadas.

Product Safety

This product complies with the following: UL 60950, CSA C22.2 No. 60950, 2006/95/EC, EN 60950, IEC 60950, EN 60825, 21 CFR 1040.10.

Seguridad del Producto

El producto de Enterasys cumple con lo siguiente: UL 60950, CSA C22.2 No. 60950, 2006/95/EC, EN 60950, IEC 60950, EN 60825, 21 CFR 1040.10.

Produktsicherheit

Dieses Produkt entspricht den folgenden Richtlinien: UL 60950, CSA C22.2 No. 60950, 2006/95/EC, EN 60950, IEC 60950, EN 60825, 21 CFR 1040.10.

Electromagnetic Compatibility (EMC)

This product complies with the following: 47 CFR Parts 2 and 15, CSA C108.8, 2004/108/EC, EN 55022, EN 61000-3-2, EN 61000-3-3, EN 55024, AS/NZS CISPR 22, and VCCI V-3.

Compatibilidad Electromágnetica (EMC)

Este producto de Enterasys cumple con lo siguiente: 47 CFR Partes 2 y 15, CSA C108.8, 2004/108/EC, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, VCCI V-3.

Elektro-magnetische Kompatibilität (EMC)

Dieses Produkt entspricht den folgenden Richtlinien: 47 CFR Parts 2 and 15, CSA C108.8, 2004/108/EC, EN 55022, EN 61000-3-2, EN 61000-3-3, EN 55024, AS/NZS CISPR 22, VCCI V-3.

VCCI Notice

This is a class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

この装置は，情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

BSMI EMC Statement — Taiwan

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種請況下，使用者會被要求採取某些適當的對策。

产品说明书附件
Supplement to Product Instructions

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	×	○	○	×	○	○
电路模块 (Circuit Modules)	×	○	○	×	○	○
电缆及电缆组件 (Cables & Cable Assemblies)	×	○	○	×	○	○
塑料和聚合物部件 (Plastic and Polymeric parts)	○	○	○	○	○	×
电路开关 (Circuit Breakers)	○	○	×	×	○	○

○： 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。
Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T 11363-2006 standard.

×： 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006 标准规定的限量要求。
Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T 11363-2006 standard.

对销售之日的所售产品，本表显示，
凯创供应链的电子信息产品可能包含这些物质。注意：在所售产品中可能会也可能不会含有所有所列的部件。
This table shows where these substances may be found in the supply chain of Enterasys' electronic information products, as of the date of sale of the enclosed product. Note that some of the component types listed above may or may not be a part of the enclosed product.

除非另外特别的标注,此标志为针对所涉及产品的环保使用期标志. 某些零部件会有一个不同的环保使用期(例如,电池单元模块)贴在其产品上.
此环保使用期限只适用于产品是在产品手册中所规定的条件下工作.
The Environmentally Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain parts may have a different EFUP (for example, battery modules) and so are marked to reflect such. The Environmentally Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.

AS/NZS CISPR 22

Hazardous Substances

This product complies with the requirements of European Directive, 2002/95/EC, Restriction of Hazardous Substances (RoHS) in Electrical and Electronic Equipment.

European Waste Electrical and Electronic Equipment (WEEE) Notice

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In accordance with Directive 2002/96/EC of the European Parliament on waste electrical and electronic equipment (WEEE):

1. The symbol above indicates that separate collection of electrical and electronic equipment is required and that this product was placed on the European market after August 13, 2005, the date of enforcement for Directive 2002/96/EC.
2. When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.
3. It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.
4. It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated.
For information about the available collection system, please contact Enterasys Customer Support at +353 61 705500 (Ireland).

Safety Information
Class 1 Laser Transceivers

The single mode interface modules use Class 1 laser transceivers.
Read the following safety information before installing or operating these modules.

The Class 1 laser transceivers use an optical feedback loop to maintain Class 1 operation limits. This control loop eliminates the need for maintenance checks or adjustments. The output is factory set, and does not allow any user adjustment. Class 1 Laser transceivers comply with the following safety standards:

- 21 CFR 1040.10 and 1040.11 U.S. Department of Health and Human Services (FDA).
- IEC Publication 825 (International Electrotechnical Commission).
- CENELEC EN 60825 (European Committee for Electrotechnical Standardization).

When operating within their performance limitations, laser transceiver output meets the Class 1 accessible emission limit of all three standards. Class 1 levels of laser radiation are not considered hazardous.

When the connector is in place, all laser radiation remains within the fiber. The maximum amount of radiant power exiting the fiber (under normal conditions) is -12.6 dBm or 55 x 10^{-6} watts.

Removing the optical connector from the transceiver allows laser radiation to emit directly from the optical port. The maximum radiance from the optical port (under worst case conditions) is 0.8 W cm^{-2} or 8 x 10^3 W m^2 sr-1.

Do not use optical instruments to view the laser output. The use of optical instruments to view laser output increases eye hazard. When viewing the output optical port, power must be removed from the network adapter.

Safety Compliance

Warning: Fiber Optic Port Safety

CLASS I LASER DEVICE

When using a fiber optic media expansion module, never look at the transmit laser while it is powered on. Also, never look directly at the fiber TX port and fiber cable ends when they are powered on.

Avertissment: Ports pour fibres optiques - sécurité sur le plan optique

DISPOSITIF LASER DE CLASSE I

Ne regardez jamais le laser tant qu'il est sous tension. Ne regardez jamais directement le port TX (Transmission) à fibres optiques et les embouts de câbles à fibres optiques tant qu'ils sont sous tension.

Warnhinweis: Faseroptikanschlüsse - Optische Sicherheit

LASERGERÄT DER KLASSE I

Niemals ein Übertragungslaser betrachten, während dieses eingeschaltet ist. Niemals direkt auf den Faser-TX-Anschluß und auf die Faserkabelenden schauen, während diese eingeschaltet sind.

Declaration of Conformity

Application of Council Directive(s):	**2004/108/EC** **2006/95/EC**
Manufacturer's Name:	**Enterasys Networks, Inc.**
Manufacturer's Address:	**50 Minuteman Road** **Andover, MA 01810** **USA**
European Representative Name:	**Enterasys Networks Limited**
European Representative Address:	**Nexus House, Newbury Business Park** **London Road, Newbury** **Berkshire RG14 2PZ, England**
Conformance to Directive(s)/Product Standards:	**EC Directive 2004/108/EC** **EN55022:2006** **EN 55024:1998** A1:2001 A2:2003 **EN 61000-3-2:2006** **EN 61000-3-3:1995** A1:2001 A2:2005 **EC Directive 2006/95/EC** **EN 60950-1:2006** A11:2009 A1:2010 **EN 60825-1:2007** EN 60825-2:2004 A1:2007
Equipment Type/Environment:	**Information Technology Equipment,** **for use in a Commercial** **or Light Industrial Environment.**

Enterasys Networks, Inc. declares that the equipment packaged with this notice conforms to the above directives.

Enterasys®
7100G-Series
Switch

Quick Reference

71G21K2L2-48P
71G21K2L2-24P24

P/N 9034782-01