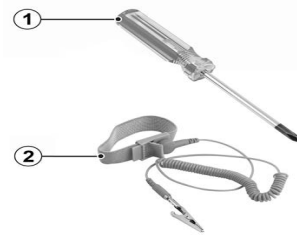


Industrial Switch Series Quick Reference

Follow these steps to get the switch ready for use.

For complete installation instructions see the *ISW Hardware Installation & User Guide* at www.extremenetworks.com/documentation

Necessary Tools

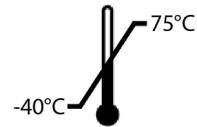


- 1 #2 Phillips screwdriver (magnetic screwdriver recommended)
- 2 ESD-protective wrist strap

1 Prepare the Site

The installation site must meet the following requirements:

- Appropriately grounded power receptacles located within 1.8 m (6 ft.).
- A readily accessible device for disconnecting power, such as a breaker or primary switch.
- Network cabling within reach.
- Up to at least 7.6 cm (3.0 in.) on all sides, for proper ventilation.
- Temperature between -40°C (-40°F) and 75°C (167°F) -- or as noted in "Operating Temperature:"-- with fluctuations of less than 10°C (18°F) per hour.



2 Unpack the Box

Remove the packing material, and verify that all of the following components are included:

	DIN-Rail/Wall Mount	Rack Mount
Management Ethernet switch	1	1
Wall-mount plates	2	n/a
DIN-RAIL clip	1	n/a
19" Rack mount brackets	n/a	2
M3 Screws (for the wall mount plates & DIN-RAIL clip or rack mount)	4	8
DC power terminal block	1	1
Console cable	1	1
QRG (this document)	1	1

	RJ45 Ethernet port Dust Cover	SFP Ethernet port Dust Cover	Earth Ground Screw
ISW-4W-4WS-4X	8	8	M4
ISW-24W-4X	24	4	M4
16801	3	2	M3
16802	4	4	M3
16803	3	2	M3
16804	4	4	M3

If the switch appears to be damaged, contact Extreme Networks. See "Getting Help" for more information.

Extreme Networks does not include power input cords with this product. To purchase the correct power cord for your country, refer to <http://www.extremenetworks.com/product/powercords/>.

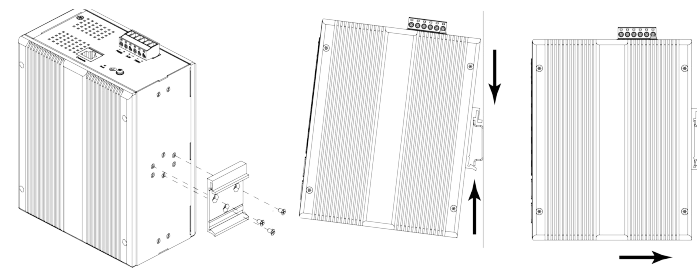
3 Install the Industrial Switch Series switch

The 8-port and 12-port switch models can only be DIN-Rail mounted or wall mounted.

Note: The ISW-24W-4X switch can be installed in a standard two-post equipment rack. It does not support Din Rail or Wall Mount options.

DIN-Rail Mount

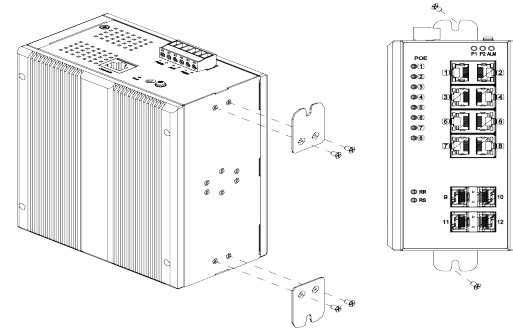
- 1 Screw the DIN-Rail bracket on with the bracket and screws in the accessory kit.
- 2 Hook the unit over the DIN rail.
- 3 Push the bottom of the unit towards the DIN Rail until it snaps into place.



Wall Mount

Attach the wall-mounting plates with the screws provided in the accessory kit.

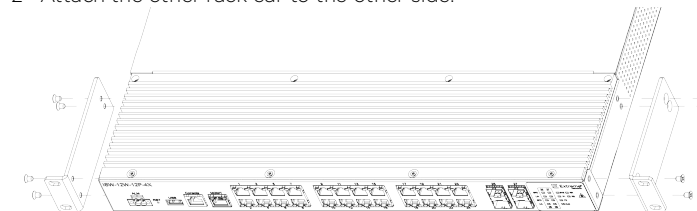
Note: Wall anchors and wood screws are not provided.



Two-Post Mount

This procedure uses the two-post mounting kit.

- 1 Attach a rack ear to one side of the switch, screwing it into the holes so that the flange (ear) is flush with the front of the switch.
- 2 Attach the other rack ear to the other side.



- 3 Attach the rack ears to the front rack posts, using the screws (rack post screws not provided).

4 Connect Power

Extreme Networks Industrial Switches support dual DC power input. Extreme Networks also offers power supplies that accept AC input and provide DC output for use by the switches. Refer to the Hardware Install & User Guide for more information on DC input rating of the Switches, and the AC Input and DC Output rating of the power supplies.

Note: Installing the system as described in this guide meets the protective earth grounding requirements of the National Electrical Code (NEC), UL/CSA/IEC/EN 60950-1/UL/CSA/IEC/EN -62368-1 standards. Ensure that the provided earth ground screw (either M4 or M3) on the system is used to connect to an earth ground using the green-and-yellow 16 AWG ground wire.

Connect to the primary power source

Note: The power supplies must be installed by qualified personnel such as licensed electricians, in accordance with local electrical codes, and connected to a well fused power source.

To attach your switch to a power source, do the following:

- 1 Verify that the power source circuit is de-energized.
- 2 Connect the DC outlets on the power supply to the DC power inlets on the rear or the top of the switch.
- 3 Connect the AC power inlets on the power supply to the AC power source.
- 4 Energize the circuit.
- 5 When power is connected, verify that the switch's PWR LED turns green. If the PWR LED does not turn green, refer to *ISW Series Hardware Installation Guide* for troubleshooting information.

5 Update and Configure the Switch

Upgrade to a generally available (GA) version of the software before you use this unit. For more information, see *ISW Hardware Installation & User Guide*.

Safety Notices

Caution! Shock hazard! Disconnect all power inputs before servicing.

Electrical Hazard: Only qualified instructed or skilled personnel should perform installation, repair, or disassembly procedures.
Risques d'électrocution: Seul un personnel qualifié ou expérimenté peut effectuer les procédures d'installation, de réparation ou de démontage.
Warning: Extreme Networks power supplies do not have switches for turning the unit on and off. Before servicing, disconnect all power cords to remove power from the device. Make sure that these connections are easily accessible.
Avvertimento: Les alimentations d'Extreme Networks n'ont pas d'interrupteurs pour allumer ou éteindre l'appareil. Avant l'entretien, débranchez tous les cordons d'alimentation pour couper l'alimentation de l'appareil. Assurez-vous que ces connexions sont facilement accessibles.

Warning: This equipment is designed for installation in restricted access locations and suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75, not suitable for use in locations where children are likely to be present.
Avvertimento: Cet équipement est conçu pour être installé dans des endroits à accès restreint et peut être installé dans des salles informatiques conformément à l'article 645 du Code national de l'électricité et à la norme NFPA 75, et ne peut être installé dans des endroits où des enfants sont susceptibles d'être présents.

Warning: A dedicated Listed circuit breaker rated at 15A is to be used for each power supply connection.
Avvertimento: Un disjoncteur certifié 15A et dédié à l'installation doit être utilisé pour chaque connexion d'alimentation.

Caution: Before mounting the device, ensure that the rack can support it without compromising stability. Otherwise, personal injury or equipment damage may result.
Caution: Follow appropriate ESD procedures when unpacking and handling the switch. These include unpacking the switch in an ESD-safe environment and wearing appropriate ESD protective gear, such as ESD-safe footwear and ESD wrist straps where appropriate.

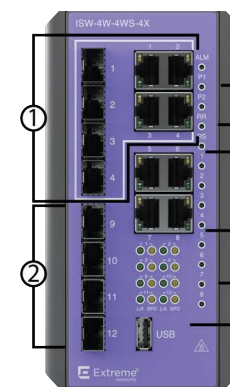
Caution: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Warning: Do not use optical instruments to view the laser output. The use of optical instruments to view laser output increases eye hazard. Use only UL/CSA, IEC/EN60825-1/-2 recognized pluggable modules.

Avvertimento: Ne pas utiliser d'instruments optiques pour mesurer la puissance laser. L'utilisation d'instruments optiques pour mesurer la puissance laser peut augmenter les risques de dommages oculaires. Utilisez uniquement des modules certifiés UL/CSA, IEC/EN60825-1/-2.

Hardware Components

Figure 1 Industrial Series: 12-Port PoE Series Front Panel



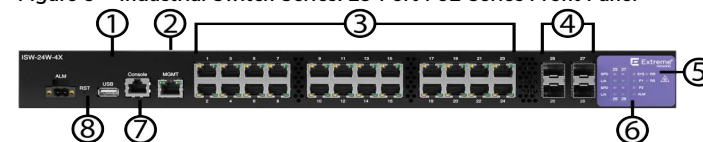
- 1 Combo ports: 10/100/1000BASE-T 90W 802.3bt PoE ports or 1000BASE-X (SFP) ports
- 2 10GBASE-X SFP+ ports
- 3 System status LEDs
- 4 Device info/status
- 5 10/100/1000BASE-T 90W PoE 802.3bt ports
- 6 Port LEDs
- 7 USB Type A port

Figure 2 Industrial Series: 12-Port PoE Series Top Panel



- 1 Dual power input (6p terminal block)
- 2 RJ45 serial console port
- 3 Reset
- 4 Grounding lug

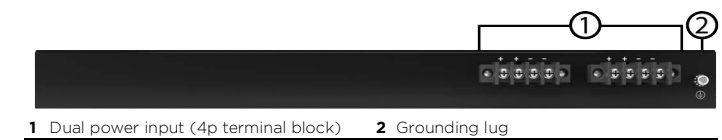
Figure 3 Industrial Switch Series: 28-Port PoE Series Front Panel



- 1 USB Type A port
- 2 10/100/1000BASE-T OOB management port
- 3 Device info/status
- 4 System status LEDs
- 5 Device info/status
- 6 System status LEDs

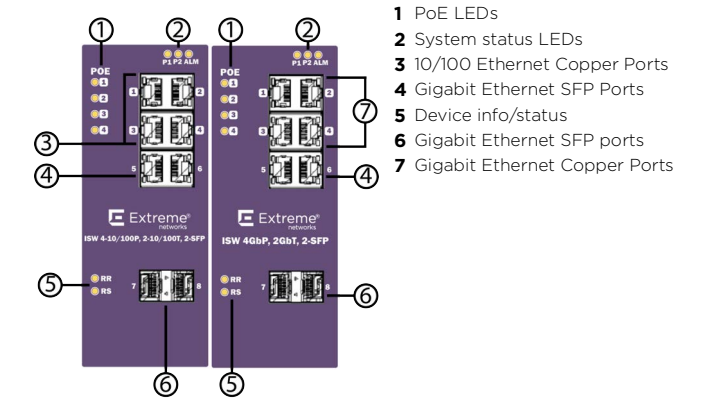
- 3 10/100/1000Base-T PoE 802.3bt ports
- 7 RJ-45 serial console port
- 4 SFP+ ports (1/2.5/10G)
- 8 Reset

Figure 4 Industrial Series: 28-Port PoE Series Rear Panel



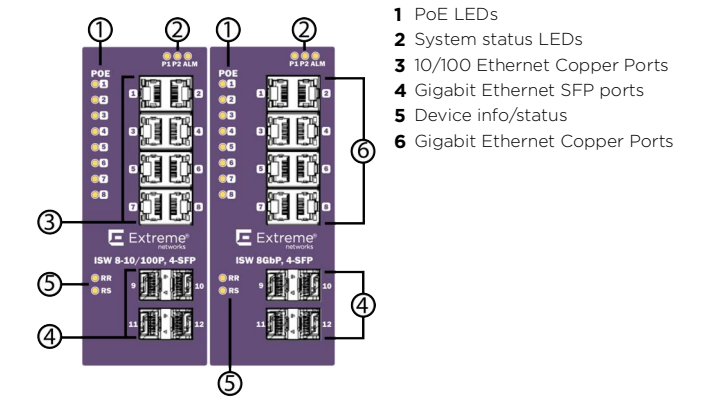
- 1 Dual power input (4p terminal block)
- 2 Grounding lug

Figure 5 Industrial Switch Series: 8-Port PoE Series Front Panels



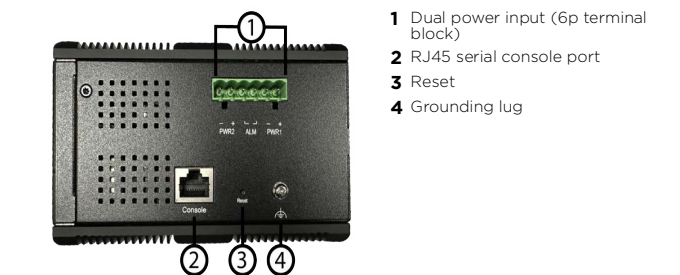
- 1 PoE LEDs
- 2 System status LEDs
- 3 10/100 Ethernet Copper Ports
- 4 Gigabit Ethernet SFP Ports
- 5 Device info/status
- 6 Gigabit Ethernet SFP ports
- 7 Gigabit Ethernet Copper Ports

Figure 6 Industrial Switch Series: 12-Port PoE Series Front Panels



- 1 PoE LEDs
- 2 System status LEDs
- 3 10/100 Ethernet Copper Ports
- 4 Gigabit Ethernet SFP ports
- 5 Device info/status
- 6 Gigabit Ethernet Copper Ports

Figure 7 Industrial Switch Series: Top Panel of All 8-Port and 12-Port Models



- 1 Dual power input (6p terminal block)
- 2 RJ45 serial console port
- 3 Reset
- 4 Grounding lug

For component details, see *ISW Hardware Installation & User Guide*.

Operating Conditions

Operating Temperature:

-40°C (-40°F) to 75°C (167°F)

Note: The operating temperature range is -40°C (-40°F) to 59°C (138°F) when using the IS AC-DC PS 240W power supply with the ISW-4W-4WS-4X and ISW-24W-4X switch models.

Temperature restrictions might apply. See *ISW Series Hardware Installation Guide* for details.

Storage Temperature:

-40°C to 85°C (-40°F to 185°F)

Operating Relative Humidity:

5% to 95% (non-condensing)

Interfaces

Each Industrial Switch Series switch includes an RJ-45 serial console port, dual DC power inputs for redundancy and reverse power protection, fanless cooling, and PoE ports that are 802.3af, 802.3at and 802.bt compliant with support for up to 90W.

The following table lists the specific interfaces for each switch.

ISW-12 802.3bt 4Gbp 4 Combo 4 SFP+ (ISW-4W-4WS-4X)	(12-Port model): 4 10/100/1000Base-T 90W 802.3bt ports, 4 combo ports supporting either 4 10/100/1000Base-T 90W PoE OR 4 1000Base-X (SFP), plus 4 10GBase-X SFP+ ports dual DC power inputs, fanless
ISW-28 802.3bt 24Gbp 4 SFP+ IRU (ISW-24W-4X)	(28-Port model): ISW Industrial Ethernet Switch 24 10/100/1000Base-T 90W PoE 802.3bt ports, plus 4 10GBase-X SFP+ ports dual DC power inputs, fanless, IRU
ISW 4-10/100P, 2-10/100T, 2-SFP (16801)	(8-Port model): 4-Port PoE+ 10/100 2-Port 10/100 w/ 2-Port SFP dual DC power inputs, fanless
ISW 8-10/100P, 4-SFP (16802)	(12-Port model): 8-Port PoE+ 10/100 w/ 4-Port SFP dual DC power inputs, fanless
ISW 4Gbp, 2Gbt, 2-SFP (16803)	(8-Port model): 4-Port PoE + Gigabit, 2-Port Gigabit w/ 2-Port SFP dual DC power inputs, fanless
ISW 8 Gbp, 4-SFP (16804)	(12-Port model): 8-Port PoE+ Gigabit w/ 4-Port SFP dual DC power inputs, fanless

Power Supply and Rail-Kit Options

IS AC-DC PS 240W (16807)	IS AC-DC Power Supply 240W Output DIN Rail
IS AC-DC PS 480W (16920)	IS AC-DC Power Supply 480W Output DIN Rail
ISW AC-DC PS 960W DIN Rail (ISW-AC-DC-PS-960W)	ISW AC-DC Power Supply 960W Output DIN Rail

Getting Help

For additional support related to Industrial Switch Series switches or this document, contact Extreme Networks using one of the following methods:

Product Documentation	View hardware and software documentation for products on the website at: https://www.extremenetworks.com/documentation/ From this page, you can view and download hardware installation guides, software release notes, compatibility matrices, software license information, and other documents.
Global Technical Assistance Center (GTAC)	Phone: 1-800-998-2408 (toll-free in U.S. and Canada) or +1-408-579-2826. For the support phone number in your country, visit: http://www.extremenetworks.com/support/contact/
GTAC Knowledge	Get on-demand and tested resolutions from the GTAC Knowledgebase, or create a help case if you need more guidance. Visit: https://gtacknowledge.extremenetworks.com/
The Hub	A forum for Extreme customers to connect with one another, get questions answered, share ideas and feedback, and get problems solved. The community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC. Visit: https://community.extremenetworks.com
Support Portal	Manage cases, downloads, service contracts, product licensing, and training and certifications. Visit: http://support.extremenetworks.com/ To request an Extreme Portal account, use the Log in or Sign Up link at the top right corner of the Extreme Portal home page and click Create a new Extreme Portal account .

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Warranty

Warranty information for Industrial Switch Series is located online at:

<https://www.extremenetworks.com/support/policies/>

Regulatory and 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 CAN ICES-3 (A)/NMB-3(A)

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 dicté par le Ministère des Communications du Canada.

Class A ITE Notice

WARNING: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

Product Safety

This product complies with the following international safety standards:

- UL 62368-1
- UL 60950-1
- CAN/CSA C22.2 No. 62368-1-14
- CAN/CSA C22.2 No. 60950-1-07
- IEC 62368-1
- IEC 60950-1
- EN 62368-1
- EN 60950-1
- 2014/35/EU
- CNS 14336-1
- GB 4943.1

Optical Module Compliance

Extreme Networks pluggable optical modules and direct-attach cables meet the following regulatory requirements:

- UL and/or CSA registered component for North America
- Class 1 or Class 1M Laser Product
- FCC 21 CFR Chapter 1, Sub-chapter J in accordance with FDA & CDRH requirements
- IEC/EN 60825-1, IEC/EN 60825-2 or later, European Standard

Korea EMC Statement

이 기기는 업무용 환경에서 사용할 목적으로 적

합성평가를 받은 기기로서 가정용 환경에서 사

용하는 경우 전파간섭의 우려가 있습니다.

Australia (RCM)/European Union (CE)/United Kingdom (UKCA)

WARNING: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

Electromagnetic Compatibility (EMC)

This product complies with the following: FCC 47 CFR Part 15 Subpart B Class A (US), ICES-003 (Canada), EN 55032 (ITE Emissions), EN 55035 (ITE Immunity), EN 61000-3-2 (Harmonics), EN 61000-3-3 (Flicker), 2014/30/EU (EMC Directive), Electromagnetic Compatibility Regulations 2016 (S.I. 2016/1091), EN 300 386 (Telecom), EN 55011 (ISM), EN 61000-6-2 (Ind. Immunity), EN 61000-6-4 (Ind. Emissions), RCM (Australia), VCCI (Japan), MSIP KCC (Korea), BSMI (Taiwan), ANATEL (Brazil), and CCC (China).

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、クラスA機器です。この装置を住宅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。	VCCI – A
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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.

Taiwan BSMI 報關義務人

申請人:愛爾蘭商極進網絡技術行動有限公司台灣分公司

地址:臺北市松山區南京東路四段126號5樓

警告使用者:

此為甲類資訊技術設備，於居住環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对干扰采取切实可行的措施。

Hazardous Substances- China and Taiwan BSMI RoHS

Guidance concerning the China and Taiwan BSMI RoHS (Restriction of Hazardous Substances) directive for this Extreme Networks® product can be found on the following web page:

<https://www.extremenetworks.com/support/documentation/restriction-hazardous-substances/>

The page contains tables detailing the presence of 10 substances defined by the RoHS directive.

Hazardous Substances - EU

This product complies with the requirements of Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

European Waste Electrical and Electronic Equipment (WEEE) Notice



In accordance with Directive 2012/19/EU of the European Parliament on waste electrical and electronic equipment (WEEE):

- The symbol above indicates that separate collection of electrical and electronic equipment is required.
- 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.
- 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.
- 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 Extreme Customer Support at +353 61 705500 (Ireland).

Extreme Networks

Industrial Switch Series

Quick Reference

ISW-4W-4WS-4X

ISW-24W-4X

16801

16802

16803

16804

