

**IMPORTANT! READ ALL THE SAFETY INFORMATION
BEFORE INSTALLING THE HARDWARE**

Product Documentation and Compliance Information for the Cisco ISA 3000 Industrial Security Appliance

- [Cisco Information](#)
- [Related Documentation](#)
- [Installing the ISA 3000](#)
- [Hazardous Locations Standards and Marking Strings](#)
- [EMC Information](#)



Cisco Information

Table 1 Cisco Company Name and Address Details

Company Name	Cisco Address
Cisco Systems, Inc.	170 West Tasman Drive, San Jose, CA 95134-1706, United States.

Related Documentation

For basic installation and configuration information, refer to the installation and configuration guide:

- ISA 3000 product page
<http://www.cisco.com/c/en/us/support/security/industrial-security-appliance-3000/model.html>
- ASDM documentation
<http://www.cisco.com/c/en/us/td/docs/security/asa/compatibility/asamatrix.html>
<http://www.cisco.com/c/en/us/td/docs/security/asa/roadmap/asaroadmap.html>
- CSM Documentation
<http://www.cisco.com/c/en/us/support/security/security-manager/products-documentation-roadmaps-list.html>
- FireSIGHT Documentation
- <http://www.cisco.com/c/en/us/td/docs/security/firesight/roadmap/firesight-roadmap.html>
- Cisco.com: www.cisco.com
- Warranty Information: www.cisco-warrantyfinder.com
- Cisco Information Packet, consisting of Cisco Limited Warranty, Disclaimer of Warranty, End User License Agreement, and United States Federal Communications Commission Notice:
www.cisco.com/en/US/docs/general/warranty/English/SL3DEN_.html
- Cisco Marketplace: www.cisco.com/pcgi-bin/marketplace/welcome.pl
- Cisco Product Documentation: www.cisco.com/go/techdocs
- Cisco Support: www.cisco.com/cisco/web/support/index.html

Installing the ISA 3000

These sections explain how to install the device. See the *Cisco ISA 3000 Hardware Installation Guide* for more information.

Items Shipped with your Cisco ISA 3000

Unpack the box and verify that all items listed on the invoice were shipped with the Cisco ISA 3000.

The following items are shipped with your device:

- This document, Part Number 78-100733-01

Equipment that You Supply

- For power and alarm connections, use UL- and CSA-rated style 1007 or 1569 twisted-pair copper appliance wiring material (AWM) wire
- ESD-preventive cord and wrist strap.
- Wire crimper for chassis grounding.
- Wire for connecting the chassis to an earth ground.
- Ethernet cables for connecting to the Gigabit Ethernet ports.
- Ratcheting torque flathead screwdriver that exerts up to 15 in-lb (1.69 N-m) of pressure.
- A number-2 Phillips screwdriver.
- Wire-stripping tool

Installation Warning and Caution Statements



IMPORTANT SAFETY INSTRUCTIONS

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device.
Statement 1071



Read the installation instructions before connecting the system to the power source. Statement 1004



Exposure to some chemicals could degrade the sealing properties of materials used in the sealed relay device. Statement 381



This product relies on the building's installation for short-circuit (over-current) protection. Ensure that the protective device is rated not greater than: 2 A Statement 1005



This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security.
Statement 1017



This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024



Only trained and qualified personnel should be allowed to install, replace, or service this equipment.
Statement 1030



Ultimate disposal of this product should be handled according to all national laws and regulations.
Statement 1040

**Warning**

To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: **158°F (60°C)** Statement 1047

**Warning**

Installation of the equipment must comply with local and national electric codes. Statement 1074

**Warning**

Explosion Hazard—The area must be known to be nonhazardous before installing, servicing, or replacing the unit. Statement 1082

**Warning**

Use twisted-pair supply wires suitable for 86°F (30°C) above surrounding ambient temperature outside the enclosure. Statement 1067

**Warning**

Avoid using or servicing any equipment that has outdoor connections during an electrical storm. There may be a risk of electric shock from lightning. Statement 1088

**Caution**

Airflow around the device must be unrestricted. To prevent the device from overheating, ensure these minimum clearances:

- Top and bottom: 1.0 inches (25 mm)
- Exposed side (not connected to the module): 1.0 inches (25 mm)
- Front: 1.0 inches (25 mm)

Contact your Cisco Technical Assistance Centre (TAC) if tighter spacings are required.

**Caution**

This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D, or only nonhazardous locations.

**Caution**

The equipment shall only be used in an area of not more than pollution degree 2 as defined by EN 60664-1. In addition, the equipment shall be installed in an ATEX certified enclosure that provides a degree of protection not less than IP 54 in accordance with EN 60079-15.

**Note**

This equipment is rated as follows:

- DC Input Voltage: Maximum Operating Range: 9.6VDC to 60VDC; Nominal: 12VDC to 48VDC

**Note**

The maximum ambient operating temperature range is –40 to 140°F (–40 to 60°C).

Grounding the ISA 3000

Make sure to follow any grounding requirements at your site. The device must be connected to a reliable earth ground. Install the ground wire in accordance with local electrical safety standards.



Note

The ground lug is not supplied with the device. You can use either a single ring terminal, two single ring terminals, or a double ring terminal.



Warning

This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024



Warning

This equipment is intended to be grounded to comply with emission and immunity requirements. Ensure that the device functional ground lug is connected to earth ground during normal use. Statement 1064



Warning

This equipment needs to be grounded. Use a green and yellow 14 to 16 AWG ground wire to connect the host to earth ground during normal use. Statement 242



Warning

This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

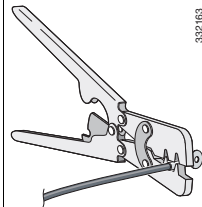


Warning

When installing or replacing the unit, the ground connection must always be made first and disconnected last. Statement 1046

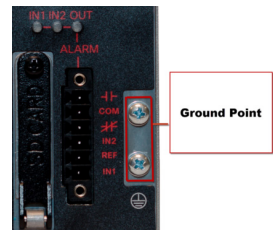
To ground the ISA 3000 to earth ground, follow these steps:

- Step 1** Use a standard Phillips screwdriver or a ratcheting torque screwdriver with a Phillips head to remove the ground screw from the front panel of the device.
- Step 2** Use a wire stripping tool to strip the 14-to-16 AWG grounding wire to 0.22 in. (5.56 mm).
- Step 3** Insert the ground wire into the ring terminal lug, and using a crimping tool, crimp the terminal to the wire.




- Step 4** Slide the ground screw through the terminal.

Step 5 Insert the ground screw into the functional ground screw opening on the front panel.
Attach the ring terminal to the chassis using the screw set aside in step 1.
The graphic to the right shows the proper ground connection points.





Step 6 Use a ratcheting torque screwdriver to tighten the ground screw and ring terminal to the ISA 3000 front panel to 3.5 in-lb (0.4 N-m). The torque should not exceed 3.5 in-lb (0.4 N-m).
Step 7 Attach the other end of the ground wire to a grounded bare metal surface, such as a ground bus, a grounded DIN rail, or a grounded bare rack.

Connecting DC Power


Warning  **When you connect or disconnect the power and/or alarm connector with power applied, an electrical arc can occur. This could cause an explosion in hazardous area installations. Be sure that all power is removed from the device and any other circuits. Be sure that power cannot be accidentally turned on or verify that the area is nonhazardous before proceeding.** Statement 1058

Warning  **Explosion Hazard—Substitution of components may impair suitability for Class I, Division 2/Zone 2.** Statement 1083

Warning  **In device installations in a hazardous location, the DC power source could be located away from the vicinity of the device. Before performing any of the following procedures, locate the DC circuit to ensure that the power is removed and cannot be turned on accidentally, or verify that the area is nonhazardous before proceeding.** Statement 1059

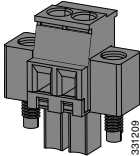

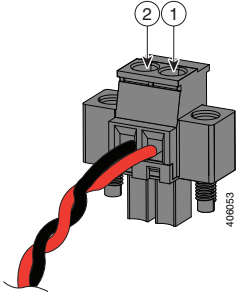
Warning  **Installation of the equipment must comply with local and national electrical codes.** Statement 1074

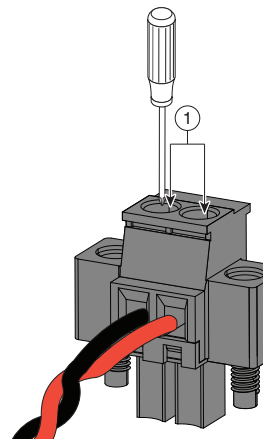
Warning  **Before performing any of the following procedures, ensure that power is removed from the DC circuit.** Statement 1003

Warning  **Only trained and qualified personnel should be allowed to install, replace, or service this equipment.** Statement 1030

Warning  **A readily accessible two-poled disconnect device must be incorporated in the fixed wiring.** Statement 1022

To connect DC power:

Step 1	Locate the power connector on the ISA 3000 front panel.	
Step 2	Identify the connector positive and return DC power connections. The connections are: <ul style="list-style-type: none">• + — Positive DC power connection• - —Return DC power connection	
Step 3	Measure two strands of twisted-pair copper wire (18-to-20 AWG) (2.6mm) long enough to connect to the DC power source.	
Step 4	Using an 18-gauge (1.02mm) wire-stripping tool, strip each of the two twisted pair wires coming from each DC-input power source to 0.25 inch (6.3 mm) ± 0.02 inch (0.5 mm). Do not strip more than 0.27 inch (6.8 mm) of insulation from the wire. Stripping more than the recommended amount of wire can leave exposed wire from the power connector after installation.	
Step 5	Remove the two captive screws that attach the power connector to the ISA 3000, and remove the connector.	
Step 6	On the power connector, insert the exposed part of the positive wire into the connection labeled “+” and the exposed part of the return wire into the connection labeled “-”. Make sure that you cannot see any wire lead. Only wire with insulation should extend from the connector.	 <p>1 - Power source positive connection. 2 - Power source return connection.</p>

<p>Step 7</p>	<p>Use a ratcheting torque flathead screwdriver to torque the power connector captive screws (above the installed wire leads) to 2 in-lb (0.23 N-m).</p>	 <p>1 - Power connector captive screws</p>
<p>Step 8</p>	<p>Connect the other end of the positive wire to the positive terminal on the DC power source, and connect the other end of the return wire to the return terminal on the DC power source. When you are testing the device, one power connection is sufficient. If you are installing the device and are using a second power source, repeat steps 4 through 8 using the second power connector.</p>	

Attaching the DC Power Connectors



Warning

This product relies on the building's installation for short-circuit (over-current) protection. Ensure that the protective device is rated not greater than: 2 A
Statement 1005

To attach the power connectors:

<p>Step 1</p>	<p>Insert the power connector into the receptacle on the ISA 3000 front panel.</p>
<p>Step 2</p>	<p>Use a ratcheting torque flathead screwdriver to tighten the captive screws on both sides of the power connector to 2 in-lb (0.23 N-m).</p> <p>When you are testing the device, one power source is sufficient. If you are installing the device and are using a second power source, repeat this procedure for the second power connector (DC-B), which installs just below the primary power connector (DC-A).</p> <p>When you are installing the device, secure the wires coming from the power connector so that they cannot be disturbed by casual contact. For example, use tie wraps to secure the wires to the rack.</p>



Warning

Failure to securely tighten the captive screws can result in an electrical arc if the connector is accidentally removed. Statement 397

**Warning**

When you connect or disconnect the power and/or alarm connector with power applied, an electrical arc can occur. This could cause an explosion in hazardous area installations. Be sure that all power is removed from the device and any other circuits. Be sure that power cannot be accidentally turned on or verify that the area is nonhazardous before proceeding. Statement 1058

Connecting to the ISA 3000 Ports

For hazardous location environments, follow these warnings when connecting to the destination ports (Gigabit Ethernet and console ports).

**Warning**

If you connect or disconnect the console cable with power applied to the device or any device on the network, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

Statement 1080

**Warning**

Do not connect or disconnect cables to the ports while power is applied to the device or any device on the network because an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed from the device and cannot be accidentally be turned on, or verify that the area is nonhazardous before proceeding.

Statement 1070

Connecting to the USB Ports

**Note**

If you are connecting to the USB ports:

- a connection (to the USB ports) can only be made in a non-hazardous environment
 - the USB port covers must be reinstalled before the ISA 3000 can be deployed in a hazardous environment
-

For more information about connecting to the USB port, see the *Cisco ISA 3000 Hardware Installation Guide* on Cisco.com.

Optional Procedures

For detailed instructions on installing the device in a hazardous environment, see the *Cisco ISA 3000 Hardware Installation Guide* on Cisco.com.

For hazardous locations environments, if you are installing or removing the flash card or alarm wiring, follow these warnings:

**Caution**

Use a ratcheting torque flathead screwdriver to torque the power connector captive screws to 2in-lb (0.226 N-m), the maximum recommended torque.

**Warning**

When you connect or disconnect the power and/or alarm connector with power applied, an electrical arc can occur. This could cause an explosion in hazardous area installations. Be sure that all power is removed from the device and any other circuits. Be sure that power cannot be accidentally turned on or verify that the area is nonhazardous before proceeding. Statement 1058



Warning

Do not insert or remove the flash card while power is on; an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. Statement 379

Hazardous Locations Standards and Marking Strings

The following standards were used for the hazardous locations approvals and certifications:

ANSI/ASA 12.12.01-2013

CAN/CSA C22.2 No. 60079-0-11 Ed. 2

CAN/CSA C22.2 No. 60079-15-12 Ed. 1

CSA C22.2 No. 213-M1987

EN 60079-0:2012+A11:2013

EN 60079-15:2010

IEC 60079-0 6th Edition

IEC 60079-15 4th Edition



UL 60079-0, 5th Ed, 2009-10-21

UL 60079-15, 3rd Ed, 2009-7-17

The following hazardous locations strings are provided on the ISA 3000:

Class 1, Div 2, Groups A B C D

Class I, Zone 2, Ex nA nC IIC T4 Gc X

  II 3G, Ex nA nC IIC T4 Gc

DEMKO 15ATEX 1523X

Class I, Zone 2, AEx nA nC IIC T4 Gc

EMC Information

EMC Class A Notices and Warnings

Statement 340—Class A Warning for CISPR22

Warning Dies ist ein Produkt der Klasse A. Bei der Verwendung dieses Produkts im Haus- oder Wohnbereich kann es zu Funkstörungen kommen. In diesem Fall muss der Benutzer u. U. angemessene Maßnahmen ergreifen.

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产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
金属部件 (包括紧固件)	✘	○	○	○	○	○
印刷电路板组件和元件	✘	○	○	○	○	○
接线和接线组件	✘	○	○	○	○	○
塑料和聚合物部件	○	○	○	○	○	○
显示器, 包含灯泡	✘	✘	○	○	○	○
除印刷版电路板外的其他电子组件	✘	○	○	○	○	○
光学玻璃材料	✘	○	✘	○	○	○
干电池	○	○	○	○	○	○

○ : 代表此种部件的所有均质材料中所含的该种有毒有害物质均低于中华人民共和国信息产业部所颁布的《电子信息产品中有毒有害物质的限量要求》(SJ/T 11363-2006) 规定的限量。

✘ : 代表此种部件所用的均质材料中, 至少有一类材料其所含的有毒有害物质高于中华人民共和国信息产业部所颁布的《电子信息产品中有毒有害物质的限量要求》(SJ/T 11363-2006) 规定的限量。

以销售日期为准, 此表显示在“思科系统公司”的电子产品信息部件中何处存在这些有毒有害物质, 请注意, 并非上列所有部件都包含在内装产品中。

除非产品上另有标记, 所有内附产品及其部件的“环保使用期限”均由此显示的符号表示。此环保使用期限只适用于产品手册中所规定的使用条件。




Note

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