



CHAPTER 4

Installing the Appliance

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This chapter describes how to unpack and install any Cisco Security Monitoring, Analysis, and Response System Appliance (MARS Appliance). It describes requisite safety information, environmental requirements, how to install in a rack, and how to cable the appliance. It contains the following sections:

- [Installation Quick Reference, page 4-1](#)
- [Installing the MARS Appliance in a Rack, page 4-2](#)
- [Connecting to the AC Power Source, page 4-7](#)
- [Connecting Cables, page 4-8](#)
- [Powering on the Appliance and Verifying Hardware Operation, page 4-8](#)

Installation Quick Reference

[Table 4-1](#) provides an overview of the installation and initial configuration process. Following installation and initial configuration, see the following publications for information on how to use a browser and the HTML interface to fully configure your MARS Appliance to provide the security threat mitigation (STM) services you want from this installation:

- *User Guide for Cisco Security MARS Local Controller*
- *User Guide for Cisco Security MARS Global Controller*

Table 4-1 *Quick Reference*

Task	References
Use the rack mount kit to install the MARS Appliance in a rack.	Installing the MARS Appliance in a Rack, page 4-2
Connect the MARS Appliance to an AC power source.	Connecting to the AC Power Source, page 4-7
Connect network and console cables.	Connecting Cables, page 4-8
Power on the appliance and Verify Operation	Powering on the Appliance and Verifying Hardware Operation, page 4-8

Table 4-1 Quick Reference (continued)

Task	References
Perform initial configuration of the MARS Appliance.	Initial MARS Appliance Configuration, page 5-1
Configure the MARS Appliance to monitor reporting devices.	Next Steps, page 5-18

Installing the MARS Appliance in a Rack

This section provides instructions for installing the MARS Appliance on a rack in the following subsection:

- [Rack-Mounting MARS Appliances 110R, 110, 210, GC2R, and GC2, page 4-4](#)

The rack must be properly secured to the floor, ceiling, or upper wall, and where applicable, to adjacent racks. The rack should be secured using floor and wall fasteners and bracing specified by industry standards.

Before installing the MARS Appliance in a rack, read [Preparing Your Site for Installation, page 3-5](#), to familiarize yourself with the proper site and environmental conditions. Failure to read and follow these guidelines could lead to an unsuccessful installation and possibly damage the system and components. Perform the steps below when installing and servicing the MARS Appliance.

The following rack installation procedures are for the rack rails included with the appliance on a typical rack unit. Because a variety of rack units exist, this is a general guide to connecting the appliance to the rack

When installing and servicing the MARS Appliance:

- Disconnect all power and external cables before installing the system.
- Install the system in compliance with your local and national electrical codes:
 - United States: National Fire Protection Association (NFPA) 70; United States National Electrical Code.
 - Canada: Canadian Electrical Code, Part, I, CSA C22.1.
 - Other countries: If local and national electrical codes are not available, see IEC 364, Part 1 through Part 7.
- Do not work alone under potentially hazardous conditions.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- Do not install the MARS Appliance in a rack that has not been securely anchored in place. Damage to the system and personal injury may result.
- Due to the size and weight of the computer system, never install the computer system by yourself.

See [Precautions for Rack-Mounting, page 3-8](#), for additional safety information on rack installation.

**Warning**

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack. Statement 1006

A rack is measured in rack units (RUs). An RU is equal to 44 mm or 1.75 inches. MARS Appliances require the following rack space:

Table 4-2 *Appliance Dimensions in Rack Units*

Model	Dimensions ¹
MARS 110R, 110, 210, GC2R, and GC2	2RU x 27.75 in (704.8 mm)

1. A rack unit (RU) is a standardized measure for the height of rack-mountable equipment. One RU is 44.45 mm (1.75 in) high, 482.6 mm (19 in.) wide.

Rack-Mounting MARS Appliances 110R, 110, 210, GC2R, and GC2

Your Cisco Security MARS 110R, 110, 210, GC2R or GC2 appliances can be mounted on a 19-inch rack. There are three methods for mounting the appliance on a rack. Instructions for installing your chassis on a rack are included in the rail kit, part number CS-MARS-X10-RAIL=.

The following procedures are provided for your reference:

- [Installing the Chassis Handles, page 4-4](#)
- [Fixed Bracket Rack-Mount Installation, page 4-5](#)
- [Fixed Bracket Rack Mount Removal, page 4-7](#)
- [Step 3Remove and service the system., page 4-7](#)
- [Basic Rail Rack-Mount Removal, page 4-5](#)
- [Tool-less Rail Rack-Mount Servicing, page 4-7](#)



Caution

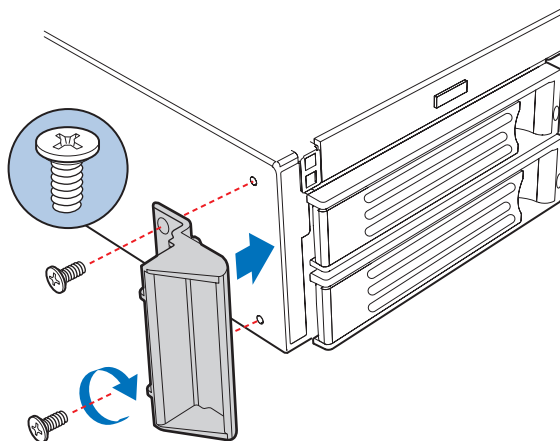
When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.

Installing the Chassis Handles

The chassis handles enable you to easily push and pull the chassis on the rack rails. To install the chassis handles do the following:

- Step 1 Remove the front bezel.
- Step 2 Align the chassis handle with the two holes on the side of the MARS Appliance, as shown in [Figure 1](#).

Figure 1 Installing a Chassis Handle on a MARS 110R, 110, 210, GC2R or GC2



- Step 3 Attach the chassis handle to the MARS Appliance with two screws as shown in [Figure 1](#).
- Step 4 Install the chassis handle on the other side of the MARS Appliance.
- Step 5 Replace the front bezel.

End of Procedure

Basic Rail Rack-Mount Installation

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- Step 1** Extend the inner rail until it locks.
 - Step 2** Depress the spring safety lock to release the inner rail.
 - Step 3** Remove the inner rail from the rail assembly.
 - Step 4** Attach the outer rail slides to the rack posts using two #10-32 x 1/2 screws at the front posts, and two #10-32 x 1/2 screws at the rear posts.



Note The rail flanges mount to the inside of each post.

- Step 5** Insert the inner rails over the server chassis sidewall studs.
- Step 6** Slide the inner rails toward the front of the server chassis.
- Step 7** Secure the inner rails with one #6-32 x 1/4 screw for each rail.
- Step 8** Align the inner rails (attached to the server chassis) with the outer rail assemblies (attached to the rack).
- Step 9** Engage the matching rails and slide the server chassis into the rack until the two safety stops lock into position.
- Step 10** Depress the two safety locks (one on each side).
- Step 11** Slide the server chassis all the way into the rack.
- Step 12** Use the rack screws (#10-32 x 3/4) to secure the chassis and rack handles into the rack.

End of Procedure

Basic Rail Rack-Mount Removal

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- Step 1** Disconnect all cables from the back of the system.



Tip You can use the system LED to properly identify the system you are servicing.

- Step 2** Pull the appliance from rack until brackets are fully extended.
- Step 3** Push in both clips on the brackets and slide the system forward until the inner rail separates from the outer rail.

End of Procedure

Fixed Bracket Rack-Mount Installation

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- Step 1** Fully extend a rail assembly; the finger tab for the extension lock is revealed.
 - Step 2** Press the finger tab and slide the inside rail from the middle rail until it completely separates.



Note The middle rail and outer rail cannot be separated.

- Step 3** Position an inside rail along one side of the chassis with the finger tab facing outward and located closer to the rear of the chassis.
- Step 4** Align the holes in the rail with the tabs on the chassis and place the rail against the chassis.
- Step 5** Slide the rail as far as it will go toward the front of the chassis to engage the tabs.
- Step 6** Fasten the rail to the chassis using one screw at the front of the chassis.
- Step 7** In the same manner, attach the other inside rail to the other side of the chassis.
- Step 8** Using two screws, attach one nut bar to the inside of the rack post. Do not completely tighten the screws; leave them loose enough to allow insertion of the brackets in the next step.
- Step 9** Insert the slotted foot of a rail bracket between each nut bar and post.
- Step 10** Align the face of the bracket foot with the inside edge of the rack post and firmly tighten the screws.
- Step 11** Repeat steps 8 to 10 above to install the other 3 brackets (2 front & 2 back). Ensure all brackets are at the same height on the rack.
- Step 12** Position a rail assembly (middle and outer rails) with its black plastic end caps toward the rear of the rack and its outer rail closest to the brackets.
- Step 13** Align the front screw hole in the outer rail with the threaded hole nearest the front of the front bracket and fit the rail assembly into the front and rear brackets.
- Step 14** Slide the middle rail toward the front until the access hole in the middle rail is aligned with the front screw hole in the outer rail.
- Step 15** Insert screw through the access hole and loosely attach the outer rail to the front bracket.
- Step 16** In a similar manner to steps 13 through 15, install a screw through a slot in the outer rail and into the rear-most threaded hole in the front bracket. Firmly tighten this screw.
- Step 17** Firmly tighten the front screw installed loosely in step 15.
- Step 18** In the same manner, attach the other rail assembly to the other side.
- Step 19** Slide the middle rail toward the front until the rear bracket area is accessible.
- Step 20** Attach the rear end of the outer rail to the rear bracket with at least one screw. If possible, attach at two places.
- Step 21** Similarly, attach the other rail assembly to the other side.
- Step 22** Fully extend the left and right rails until the extension locks have engaged and the rails will not push back in. The rail system is now ready to receive the chassis.



Caution Lifting and placing the chassis in the rails is a two-person task. If required, use a lifting device.

- Step 23** With the chassis front facing you, lift the chassis and carefully insert the rails attached to the chassis in the extended rails.
- Step 24** Slide the chassis toward the rear of the cabinet until the rails lock together.
- Step 25** Depress and hold down the finger tabs on both extension locks while sliding the chassis toward the rear.
- Step 26** Slide the chassis all the way into the rack until the chassis handles are against the front posts.

End of Procedure

Fixed Bracket Rack Mount Removal

Step 1 Disconnect all cables from the back of the system.



Tip You can use the system LED to properly identify the system you are servicing.

Step 2 Remove screws from the brackets and remove the system from the rack.

Step 3 Remove and service the system.

End of Procedure

Tool-less Rail Rack-Mount Servicing

Step 1 To service the system, pull the system out from the rack.

Step 2 Disconnect the power cable(s) and proceed with servicing the system.

Step 3 When the servicing is completed, reconnect the power cable(s).

Step 4 Pull up on the green tabs on each rail and slide the system back into the rack.



Caution Be careful not to dislodge any cables when moving the appliance.

End of Procedure

Connecting to the AC Power Source



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

Connect the AC power receptacle to the AC power source with the provided power cable. Some units have two power cables, one for each AC power receptacle in the appliance.

Connecting Cables

Use unshielded twisted pair (UTP) copper wire Ethernet cable, with standard RJ-45 compatible plugs, to connect the MARS Appliance to the network. Your MARS Appliance comes with one or two standard computer power cords, a Cat 5 crossover cable, [Inline Filter for the Modem, page 3-7](#), and a telephone cable. The telephone jack is required to enable pager- and SMS-based alerts from MARS Appliance.



Warning

Do not work on the system or connect or disconnect cables during periods of lightning activity.

Statement 1001

To connect the cables:

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- Step 1** Plug the network connection into the Ethernet 0 port. See the appropriate back panel diagram in [Hardware Descriptions—MARS 110R, 110, 210, GC2R, and GC2, page 1-4](#), for the location of the Ethernet 0 port.
- Step 2** Insert the male RJ-11 connector of the inline impedance matching filter into the line-in socket of the MARS modem. Insert the local telephone cable into the RJ-11 socket of the filter.
- See the appropriate back panel diagram in [Hardware Descriptions—MARS 110R, 110, 210, GC2R, and GC2, page 1-4](#), for the location of the modem sockets. The line-in socket is labeled with a socket icon, the external telephone socket is labeled with a telephone icon. See the [“Inline Filter for the Modem” section on page 3-7](#) for a list of countries that require the filter.
- Step 3** Connect a console to the console/serial port using the one of the options described in [Establishing a Console Connection, page 5-4](#). You can also establish more than one console connection.
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Powering on the Appliance and Verifying Hardware Operation

Before powering on the appliance, verify that all the cables and cords are firmly seated in their jacks and sockets. Make sure that the vents for the appliance’s fans have sufficient clearance and that the appliance’s air intakes are not blocked.



Caution

If you hear a loud beeping sound after turning on the appliance, check the rear panel and make sure that all appliance power supply switches are fully clicked into the ON position. If all switches are locked into the ON position, and you continue to hear the beeping, a power supply might not be functioning. Turn off the appliance’s power and contact Cisco Support.

MARS Appliances 110R, 110, 210, GC2R, and GC2

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- Step 1** Verify that the power cables are connected to the power supplies and to a live AC power source.
- Step 2** Press the Power button on the control panel.
- The System Status LED flashes alternately amber and green for approximately 15 to 20 seconds, then glows steady green when the system is operational. See the section, [“Control Panel LED Descriptions”](#) for further information on determining the operational status.
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When the appliance is operational, start the software configuration. See [Chapter 5, “Initial MARS Appliance Configuration,”](#) for more information on its default configuration settings.

