Mount the Chassis

• Unpack and Inspect the Chassis, on page 1
• Rack-Mount the Chassis Using Brackets, on page 2
• Rack-Mount the Chassis Using Slide Rails, on page 4
• Install the FIPS Opacity Shield in a Two-Post Rack, on page 10
• Install the FIPS Opacity Shield in a Four-Post Rack, on page 13
• Ground the Chassis, on page 16

Unpack and Inspect the Chassis

Tip
Keep the shipping container in case the chassis requires shipping in the future.

Note
The chassis is thoroughly inspected before shipment. If any damage occurred during transportation or any items are missing, contact your customer service representative immediately.

See Package Contents for a list of what shipped with the chassis.

Step 1
Remove the chassis from its cardboard container and save all packaging material.

Step 2
Compare the shipment to the equipment list provided by your customer service representative. Verify that you have all items.

Step 3
Check for damage and report any discrepancies or damage to your customer service representative. Have the following information ready:

• Invoice number of shipper (see the packing slip)
• Model and serial number of the damaged unit
• Description of damage
• Effect of damage on the installation
Rack-Mount the Chassis Using Brackets

This procedure describes how to install the Firepower 2100 in a rack using the rack-mount brackets. It also describes how to install the optional cable management brackets. See Product ID Numbers for a list of the PIDs associated with rack-mounting the chassis.

Before you begin

You need the following to install the Firepower 2100 in a rack (4-post EIA-310-D rack):

- Phillips head screwdriver
- Two rack-mount brackets with six 8-32, 0.81-in. screws (ships with the Firepower 2110/2120, orderable for the Firepower 2130/2140)
- Rack-mount screws (ships with the Firepower 2110/2120, orderable for the Firepower 2130/2140)
  - Four 12-24, 0.75 in.
  - Four 10-32, 0.75 in.
  - Four M6, 19 mm
- Two cable management brackets with four 8-32 x 0.375-in. screws (optional)

Step 1

Attach a rack-mount bracket to each side of the chassis using the six 8-32 x .375-in. countersink Phillips head screws (three per side).
Step 2  (Optional) Attach the cable management bracket to the rack-mount bracket:

a) Install the cable management studs into the rack-mount bracket.
b) Install two 8-32-in. screws through the inside of the rack-mount bracket to secure the cable management bracket to the rack-mount bracket.

**Step 3**
Attach the chassis with the installed rack-mount bracket to the rack using the screws that work for your rack.

---

**What to do next**
- See *Ground the Chassis, on page 16* for the procedure to ground the Firepower 2100.
- Install the cables according to your default software configuration as described in the *quick start guide* for your version.

---

**Rack-Mount the Chassis Using Slide Rails**

Take note of the following warnings:

---

**Warning**

**Statement 1006**—Chassis Warning for Rack-Mounting and Servicing

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.
Warning Statement 1024—Ground Conductor
This equipment must be grounded. To reduce the risk of electric shock, 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.

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

Warning Statement 1073—No User-Serviceable Parts
No serviceable parts inside. To avoid risk of electric shock, do not open.

Warning Statement 1047—Overheating Prevention
To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 40°C.

This procedure describes how to install the Firepower 2100 series in a rack using slide rails. It applies to all models of the 2100 series. It ships with the Firepower 2130 and 2140 chassis; it is optional for the 2110 and 2120. For the 2110 and 2120, you install three screws on the chassis to secure the slide rail. For the 2130 and 2140, you use the pegs on the chassis to secure the slide rail. See Product ID Numbers for a list of the PIDs associated with racking the chassis.

You can install the optional cable management bracket on all models of the 2100 series. The optional cable management bracket kit comes with two cable management brackets and four 8-32 x 0.375-in. screws.

Before you begin
You need the following to install the Firepower 2100 in a rack (4-post EIA-310-D rack) using slide rails:

- Phillips head screwdriver
- One slide rail kit that contains the following:
  - Left and right slides rails with two M3x6 mm wafer-head screws
  - Two slide rail locking brackets with six 8-32 x .25-in. screws
  - (Optional) Two cable management brackets with four 8-32 x 0.375-in. screws
Slide rail assemblies work with four-post racks and cabinets with square slots, round 7.1mm holes, #10-32 threaded holes, and #12-24 threaded holes on the rack post front. The slide rail works with front to back spacing of rack posts from 24 to 36 inches. The rack-mounting posts need to be 2 to 3.5 mm thick to work with the slide rail rack mounting.

**Step 1**
Attach the slide-rail locking brackets to each side of the chassis using the six 8-32 x .375-in. countersink Phillips head screws (three per side).

*Figure 3: Attach the Slide-Rail Locking Bracket to the Side of the Chassis*

<table>
<thead>
<tr>
<th></th>
<th>Chassis</th>
<th>Slide-rail locking bracket</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>8-32 x 0.25-in. countersink Phillips head screws (3 per side)</td>
<td></td>
</tr>
</tbody>
</table>

**Step 2**  
(Optional) Attach the cable management bracket to the slide-rail locking bracket:

a) Install the cable management studs into the slide-rail locking bracket.
b) Install two 8-32-in. screws through the inside of the slide-rail locking bracket to secure the cable management bracket to slide-rail locking bracket.

**Step 3**  Attach the inner rails to the sides of the chassis:

a) Remove the inner rails from the slide rail assemblies.

b) Align an inner rail with each side of the chassis:

- (2110/2120) Install the three 8-32-in. screws into each side of the chassis, and align the inner rail so that the three slots on the rail line up with the screws on the chassis.
• (2130/2140) Align the inner rail so that the three slots on the rail line up with the three pegs on the side of the chassis.

![Figure 6: Line up the Inner Rail with the Pegs on the 2130/2140 Chassis](image)

<table>
<thead>
<tr>
<th></th>
<th>Mounting peg on the chassis for the keyed slot</th>
<th>Inner rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>M3x6mm screw (one per side)</td>
<td></td>
</tr>
</tbody>
</table>

c) Set the keyed slots over the screws/pegs, and then slide the rail toward the front to lock it in place on the screw/pegs. The rear key slot has a metal clip that locks over the screw/peg.
d) Using one M3x6mm screw, secure the inner rail to the side of the chassis to prevent sliding.
e) Install the second inner rail to the opposite side of the chassis and secure with the other M3x6mm screw.

**Step 4**

Open the front securing plate on both slide-rail assemblies. The front end of the slide-rail assembly has a spring-loaded securing plate that must be open before you can insert the mounting pegs into the rack-post holes.

On the outside of the assembly, push the green arrow button toward the rear to open the securing plate.

![Figure 7: Front Securing Mechanism Inside the Front End](image)

<table>
<thead>
<tr>
<th></th>
<th>Front mounting pegs</th>
<th>Securing plate shown pulled back to open position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Note: Works with square slots, 7.1 mm holes, and 10-32 threaded holes.</td>
<td></td>
</tr>
</tbody>
</table>
**Step 5**

Install the slide rails into the rack:

a) Align one slide-rail assembly front end with the front rack-post holes that you want to use.

   The slide rail front-end wraps around the outside of the rack post and the mounting pegs enter the rack-post holes from the outside-front.

   **Note** The rack post must be between the mounting pegs and the open securing plate.

   b) Push the mounting pegs into the rack-post holes from the outside-front.

   c) Press the securing plate release button marked 'PUSH.' The spring-loaded securing plate closes to lock the pegs in place.

   d) Adjust the slide-rail length, and then push the rear mounting pegs into the corresponding rear rack-post holes. The slide rail must be level front-to-rear.

   The rear mounting pegs enter the rear rack-post holes from the inside of the rack post.

   e) Attach the second slide-rail assembly to the opposite side of the rack. Make sure that the two slide-rail assemblies are at the same height with each other and are level front-to-back.

   f) Pull the inner slide rails on each assembly out toward the rack front until they hit the internal stops and lock in place.

**Step 6**

Insert the chassis into the slide rails.

a) Align the rear of the inner rails that are attached to the chassis sides with the front ends of the empty slide rails on the rack.

b) Push the inner rails into the slide rails on the rack until they stop at the internal stops.

c) Slide the release clip toward the rear on both inner rails, and then continue pushing the chassis into the rack until the mounting brackets meet the front of the slide rail.

*Figure 8: Inner Rail Release Clip*
Step 7  Use the captive screws on the front of the mounting brackets to fully secure the chassis to the rack.

What to do next

- See Ground the Chassis, on page 16 for the procedure to ground the Firepower 2100.
- Install the cables according to your default software configuration as described in the quick start guide for your version.

Install the FIPS Opacity Shield in a Two-Post Rack

Caution

This procedure should be performed only by the Crypto Officer (CO).

Note

Because the FIPS opacity shield covers the serial number on the chassis, the CO should copy the serial number and store it in a secure place. The serial number is needed when you call Cisco TAC.

Before you begin

You need the following to install the FIPS opacity shield:

- #1 Phillips head screwdriver
- The following items from the FIPS kit:
  - One FIPS opacity shield
  - Four 8-32 x .375-in. countersink screws used to attach the FIPS opacity shield to the cable management brackets
  - Seven Tamper Evidence Labels (TEL)

Note

The TELs are made of a special thin gauge vinyl with self-adhesive backing. Once the CO attaches them on the chassis, any attempt to open the chassis damages the TELs or the chassis cover. Because the TELs have nonrepeated serial numbers, the CO can inspect them for damage and compare them against the applied serial numbers to verify whether the chassis has been tampered with. TELs with curled corners, rips, and slices indicate tampering. The word “FIPS” or “OPEN” may appear if the label has been peeled back.

Step 1  Copy the serial number and store it in a secure place. To find the serial number, see Serial Number Location.
Step 2 Perform the steps described in Rack-Mount the Chassis Using Brackets including installing the cable management bracket (Step 2).

Step 3 Connect the cables to the ports. Make sure that the cables have enough slack to route them through the cable mounting brackets.

Note If you are installing the FIPS opacity shield after the initial product installation, the cables are connected. If the attached cables do not have enough slack to route them through the cable mounting brackets (as shown in the figure below), you will have to turn the power off on the appliance, remove the cables, route the cables through the cable mounting brackets, reattach the cables, and continue with step 5 below.

Note When you toggle the power switch from ON to OFF, it takes several seconds for the system to power down. Do not remove the power cable until the power LED is off. After removing power from the chassis either by moving the power switch to OFF or unplugging the power cord, wait at least 10 seconds before turning power back ON.

Step 4 Route the cables through the openings in the cable management brackets as shown in the figure below.

Step 5 Attach the FIPS opacity shield to the cable management brackets using the four 8-32 x .375-in. countersink Phillips head screws provided in the FIPS kit as shown in the figure below.

*Figure 9: Route the Cables and Attach the Screws*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FIPS opacity shield</td>
</tr>
<tr>
<td>2</td>
<td>8-32 x .375-in. countersink Phillips head screws (two per side)</td>
</tr>
<tr>
<td>3</td>
<td>Cable management bracket</td>
</tr>
</tbody>
</table>

Step 6 Before you attach the TELs, clean the chassis of any grease, dirt, or oil with alcohol-based cleaning pads.

Step 7 Attach the 7 TELs. See the figure below for the correct placement. Allow the TELs to cure for a minimum of 12 hours.

Caution Any deviation in the placement of the TELs means the chassis is not in FIPS mode.
Step 8 Attach the power cable to the chassis and connect it to an electrical outlet.

Step 9 Press the power switch on the rear panel.

Step 10 Check the power LED on the front panel. See Front Panel LEDs for a description of the power LED. Solid green indicates that the chassis is powered on.

Step 11 Place the chassis in FIPS mode.

See the following procedures for how to place the chassis in FIPS mode:

- ASA in Platform Mode
- ASA in Appliance mode
- FTD managed by FMC

What to do next

See the quick start guide for your operating system for further configuration information.
Install the FIPS Opacity Shield in a Four-Post Rack

Caution
This procedure should be performed only by the Crypto Officer.

Note
Because the FIPS opacity shield covers the serial number on the chassis, the CO should copy the serial number and store it in a secure place. The serial number is needed when you call Cisco TAC.

Before you begin
You need the following to install the FIPS opacity shield:

- #1 Phillips head screwdriver
- The following items from the FIPS kit:
  - One FIPS opacity shield
  - Four 8-32 x .375-in. countersink screws used to attach the FIPS opacity shield to the cable management brackets
  - Seven Tamper Evidence Labels (TEL)

Note
The TELs are made of a special thin gauge vinyl with self-adhesive backing. Once the CO attaches them on the chassis, any attempt to open the chassis damages the TELs or the chassis cover. Because the TELs have nonrepeated serial numbers, the CO can inspect them for damage and compare them against the applied serial numbers to verify whether the chassis has been tampered with. TELs with curled corners, rips, and slices indicate tampering. The word “FIPS” or “OPEN” may appear if the label has been peeled back.

Step 1
Copy the serial number and store it in a secure place. To find the serial number, see Serial Number Location.

Step 2
Perform the steps described in Rack-Mount the Chassis Using Slide Rails.

Step 3
Connect the cables to the ports. Make sure the cables have enough slack to route them through the cable mounting brackets.

Note
If you are installing the FIPS opacity shield after the initial product installation, the cables are connected. If the attached cables do not have enough slack to route them through the cable mounting brackets (as shown below), you will have to turn the power off on the appliance, remove the cables, route the cables through the cable mounting brackets, reattach the cables, and continue with Step 5 below.
When you toggle the power switch from ON to OFF, it takes several seconds for the system to power down. Do not remove the power cable until the power LED is off. After removing power from the chassis either by moving the power switch to OFF or unplugging the power cord, wait at least 10 seconds before turning power back ON.

**Note**

---

**Step 4**

Route the cables through the openings in the cable management brackets (see figure below).

**Step 5**

Attach the FIPS opacity shield to the cable management brackets using the four 8-32 x .375-in. countersink Phillips head screws provided in the FIPS kit.

*Figure 11: Route the Cables and Attach the Screws*

---

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FIPS opacity shield</td>
</tr>
<tr>
<td>2</td>
<td>8-32 x .375-in. countersink Phillips head screws (two per side)</td>
</tr>
<tr>
<td>3</td>
<td>Cable management bracket</td>
</tr>
</tbody>
</table>

**Step 6**

Before you attach the TELs, clean the chassis of any grease, dirt, or oil with alcohol-based cleaning pads.

**Step 7**

Attach the 7 TELs. See the figure below for the correct placement. Allow the TELs to cure for a minimum of 12 hours.

*Caution* Any deviation in the placement of the TELs means the chassis is not in FIPS mode.
Figure 12: TELs Placement on the Chassis

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TEL</td>
<td>2</td>
<td>TEL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TEL</td>
<td>4</td>
<td>TEL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>TEL</td>
<td>6</td>
<td>TEL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>TEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Step 8**
Attach the power cable to the chassis and connect it to an electrical outlet.

**Step 9**
Press the power switch on the rear panel.

**Step 10**
Check the power LED on the front panel. See Front Panel LEDs for a description of the power LED. Solid green indicates that the chassis is powered on.

**Step 11**
Place the chassis in FIPS mode.

See the following procedures for how to place the chassis in FIPS mode:
- ASA in Platform Mode
- ASA in Appliance mode
- FTD managed by FMC

**What to do next**
See the quick start guide for your operating system for further configuration information.
Ground the Chassis

Take note of the following warnings:

⚠️ **Warning**
**Statement 1024—Ground Conductor**
This equipment must be grounded. To reduce the risk of electric shock, 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.

⚠️ **Warning**
**Statement 1046—Installing or Replacing the Unit**
To reduce risk of electric shock, when installing or replacing the unit, the ground connection must always be made first and disconnected last.

⚠️ **Warning**
**Statement 1025—Use Copper Conductors Only**
To reduce risk of fire, use copper conductors only.

⚠️ **Caution**
Grounding the chassis is required, even if the rack is already grounded. A grounding pad with 2 threaded M4 holes is provided on the chassis for attaching a grounding lug. The ground lug must be NRTL-listed. In addition, a copper conductor (wires) must be used and the copper conductor must comply with NEC code for ampacity.

**Before you begin**

- You need the following items that you provide:
  - Wire-stripping tool
  - Crimping tool
  - Grounding cable
  - Two star lock washers for the 10-32 x .375-in. screws used to secure the ground lug

- You need the following items from the accessory kit:
  - Ground lug #6 AWG, 90 degree, #10 post
  - Two 10-32 x .375-in. screws used to secure the ground lug

**Step 1**
Use a wire-stripping tool to remove approximately 0.75 in. (19 mm) of the covering from the end of the grounding cable.
Step 2  Insert the stripped end of the grounding cable into the open end of the grounding lug.

*Figure 13: Insert the Cable into the Grounding Lug*

Step 3  Use the crimping tool to secure the grounding cable in the grounding lug.

Step 4  Remove the adhesive label from the grounding pad on the chassis.

Step 5  Place the grounding lug against the grounding pad so that there is solid metal-to-metal contact, and insert the 2 screws with washers through the holes in the grounding lug and into the grounding pad.

*Figure 14: Attach the Grounding Lug*

Step 6  Make sure that the lug and cable do not interfere with other equipment.

Step 7  Prepare the other end of the grounding cable and connect it to an appropriate grounding point in your site to ensure adequate earth ground.
What to do next

Install the cables according to your default software configuration as described in the quick start guide for your version.