



Switch Installation

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- [Installing the Power Cord Retainer, page 63](#)
- [10/100 Port Connections, page 67](#)

Safety Warnings

This section includes the warning statements relating to basic installation. Read this section before you start the installation procedure.



Warning

Do not work on the system or connect or disconnect cables during periods of lightning activity. **Statement 1001**



Warning

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

**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**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**

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

**Warning**

Do not use this product near water; for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool. **Statement 1035**

**Warning**

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

**Warning**

This product requires short-circuit (overcurrent) protection, to be provided as part of the building installation. Install only in accordance with national and local wiring regulations. **Statement 1045**

**Warning**

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

**Warning**

To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: <113°F (45°C) up to 10,000 ft and <122°F(50°C) up to 5000 ft. **Statement 1047**

**Warning**

Do not disconnect connections to this equipment unless power has been removed or you have verified that the area is nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. **Statement 1062**

**Warning**

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**

**Warning**

Voltages that present a shock hazard may exist on Power over Ethernet (PoE) circuits if interconnections are made using uninsulated exposed metal contacts, conductors, or terminals. Avoid using such interconnection methods, unless the exposed metal parts are located within a restricted access location and users and service people who are authorized within the restricted access location are made aware of the hazard. A restricted access area can be accessed only through the use of a special tool, lock and key or other means of security. **Statement 1072**

**Warning**

No user-serviceable parts inside. Do not open. **Statement 1073**

**Warning**

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

**Warning**

Hot surface. **Statement 1079**

**Warning**

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

Box Contents

You will receive a Cisco Catalyst Digital Building UPOE (CDB-8U) or a PoE+ (CDB-8P) Switch. Each switch is shipped in a separate box.

To install the switch, you will require one of the mounting accessories listed below. You can order them when you order your switch, or you can order them later from your Cisco representative.

- Flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14)
- Flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) — **Plenum-rated**
- 5RU 19" rack mount chassis for up to 5 switches (CDB-MNT-RACK5-C14)

**Note**

Only flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) is plenum-rated and is suitable for installation in plenum space. CDB-MNT-FLEX-DIR is compliant with **IEC 60950-1** standard.

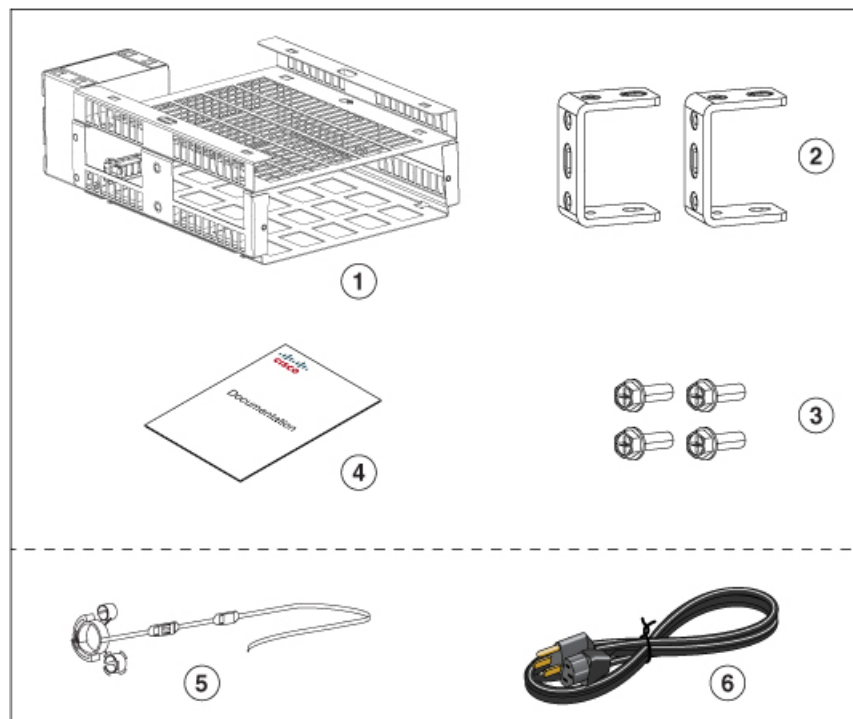
IEC 60950-1 Standard for Plenum Space Installation

English	French
Suitable for use in environmental air space in accordance with Section 300-22(C) of the National Electrical Code, and Sections 2-128, 12-010(3) and 12-100 of the Canadian Electrical Code, Part 1, CSA C22.1.	Peut être utilisé dans des gaines transportant de l'air traité, conformément à la Section 300-22(C) du National Electrical Code et aux articles 2-128, 12-010(3) et 12-100 du Code Canadien de l'électricité, Première partie, CSA C22.1.

Mounting Accessories

This section lists the contents of the shipping box for mounting accessories.

Figure 1: Box Contents - Flexible mount with IEC C14 power junction box



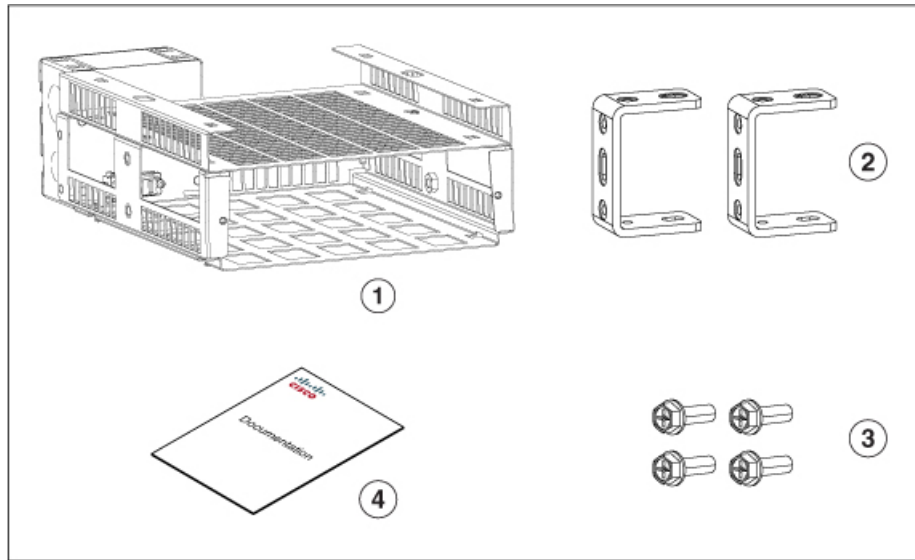
1	CDB-MNT-FLEX-C14	4	Compliance documentation (78-17985-01)
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2	Two U-shaped mounting brackets (700-112420-01)	5	(Optional) Power cord retainer (700-33972-01)
3	Four 1/4" mounting screws (48-101572-01)	6	(Optional) Country-specific power cord



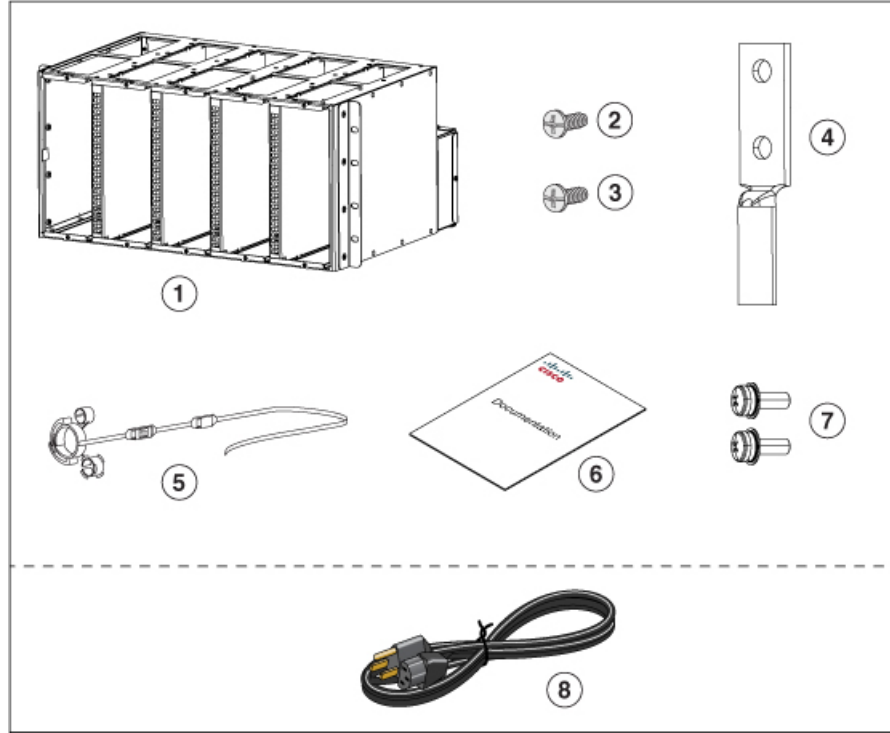
Note Power cord retainer and country-specific power cord are supplied in a separate accessory kit, if ordered.

Figure 2: Box Contents - Flexible mount with direct-wired junction box



1	CDB-MNT-FLEX-DIR	3	Four 1/4" mounting screws (48-101572-01)
2	Two U-shaped mounting brackets (700-112420-01)	4	Compliance documentation (78-17985-01)

Figure 3: Box Contents - 5RU 19" Rack mount chassis



1	CDB-MNT-RACK5-C14	5	Five power cord retainers (700-33972-01)
2	Eight number-12 Phillips pan-head screws (48-0523-01)	6	Compliance documentation (78-17985-01)
3	Eight number-10 Phillips pan-head screws (48-0627-01)	7	Two ground screws (48-0828-01)
4	Dual-hole ground lug (32-0619-01)	8	(Optional) Country-specific power cord



Note Country-specific power cord can be ordered separately, if required.

Installation Guidelines

Supported Hardware

- Bluetooth dongles with the following chipset are supported :

Chipset	Chipset Manufacturer	Bluetooth Version
CSR8510	Qualcomm/Cambridge Silicon Radio (CSR)	Bluetooth 4.0 and above Dual-Mode Dongle
BCM20702	Broadcom	

- USB flash drives with capacities from 128MB to 8GB are supported.
- Up to 2GB of Cisco SD memory card is supported.

General Guidelines

When determining where to install the switch, verify that these guidelines are met:

- The operating environment is within the ranges listed in [Technical Specifications](#).
- Clearance to the switch front and rear panel meets these conditions:
 - Front-panel LEDs can be easily read.
 - Access to ports is sufficient for unrestricted cabling.
 - AC power cord can reach from the AC power outlet to the connector on the switch mount.
 - At least 3" clearance above cooling fins is provided.
- Cabling is away from sources of electrical noise, such as radios, power lines, and fluorescent lighting fixtures. Make sure that the cabling is safely away from other devices that might damage the cables.
- Airflow around the switch is unrestricted.
- For 10/100 and 1-Gigabit Ethernet ports, the cable length from a switch to a connected device cannot exceed 328 feet (100 meters).

Rack Mounting Guidelines

- 5RU 19" rack mount chassis (CDB-MNT-RACK5-C14) can only be installed in standard 19-inch racks.
- 19" rack mount chassis can be installed with wiring box up or down for cable routing.
- A gap of 2 RU must be provided between each rack unit for ventilation unless forced air is provided top to bottom in the rack.
- The rack mount chassis can have a mix of CDB-8P and CDB-8U units, as long as power cords are plugged into a power source with sufficient ampacity.
- Switches will power up on insertion. Remove and re-insert to power cycle when direct wired, or cycle at breaker.
- Switches can be hot-swapped.

Flexible Mounting Guidelines

- Flexible mounting requires a strut channel for mounting the assembly. Strut channel is a structural system used by electricians, HVAC professionals, plumbers, etc. to mount mechanical and electrical components in buildings.
- Bolts and screws to attach the mount to the strut channel are not supplied in the accessory kit. You need to obtain these from the manufacturer of the strut channel. The bolt used to attach the mount to the strut channel must match the strut nut.
- One flexible mount is required per switch.
- See [Prohibited Mounting Orientations](#) section for unsupported mounting orientations. Following is a list of prohibited mounting orientations. These will cause overheating.
 - Horizontal stacking
 - Port facing down
 - Ports facing up
- Wall Mounting - The complete assembly of the flexible mount, mounting brackets and the switch weighs 15 lbs for the wall mount case. When mounted directly on a surface, care must be taken to choose fasteners that can safely hold the switch and mounting hardware, which weighs 15 lbs (6.8 kg), under all use conditions.
- Maintain 3-inch of space to any surface above the flexible mount to allow proper cooling.
- Only a trained and qualified electrician should be allowed to complete the wiring of the direct-wired junction box (CDB-MNT-FLEX-DIR).
- All power connection wiring should conform to the rules and regulations in the National Electrical Code (NEC), as well as local codes.
- Switches will power up on insertion. Remove and re-insert to power cycle when direct wired, or cycle at breaker.
- Switches can be hot-swapped.

Mounting the Switch

Flexible Mounting

The Catalyst Digital Building Series Switch offers multiple flexible mounting options. Installing the switch in a flexible mount requires either of the following :

- Flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14)
- Flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) — **Plenum-rated**

Flexible Mount with IEC C14 power junction box

Figure 4: Flexible mount with IEC C14 power junction box - Front view

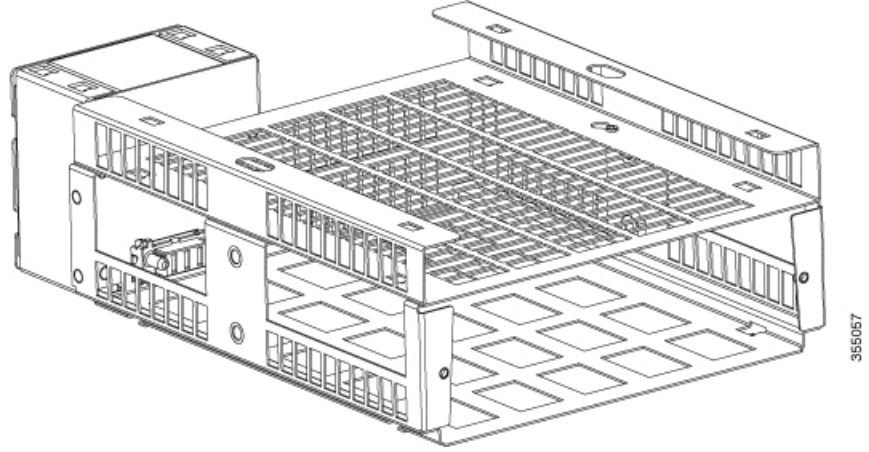
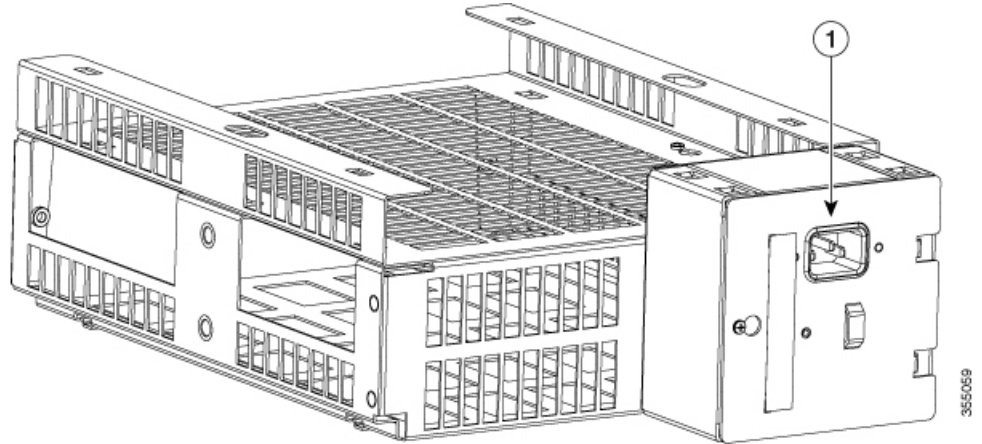


Figure 5: Flexible mount with IEC C14 power junction box - Rear view



1	IEC C14 power connector
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Flexible mount with direct-wired junction box

Figure 6: Flexible mount with direct-wired junction box - Front view

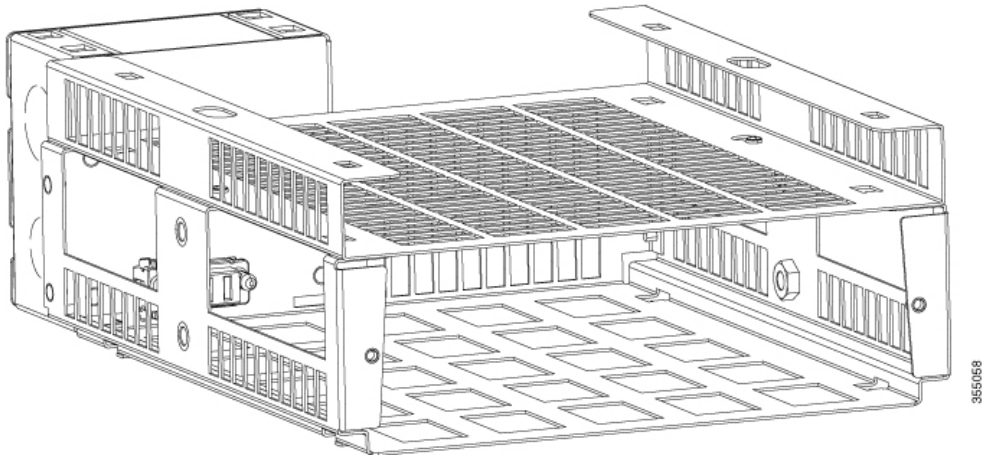
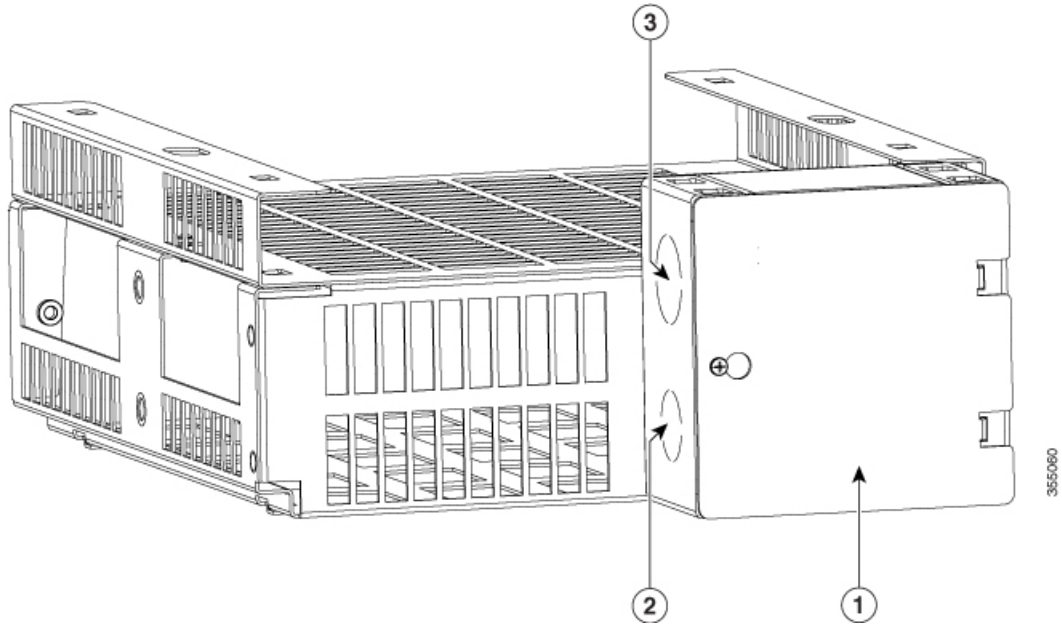


Figure 7: Flexible mount with direct-wired junction box - Rear view



1	Direct-wired junction box
2	1/2" knockout
3	3/4" knockout

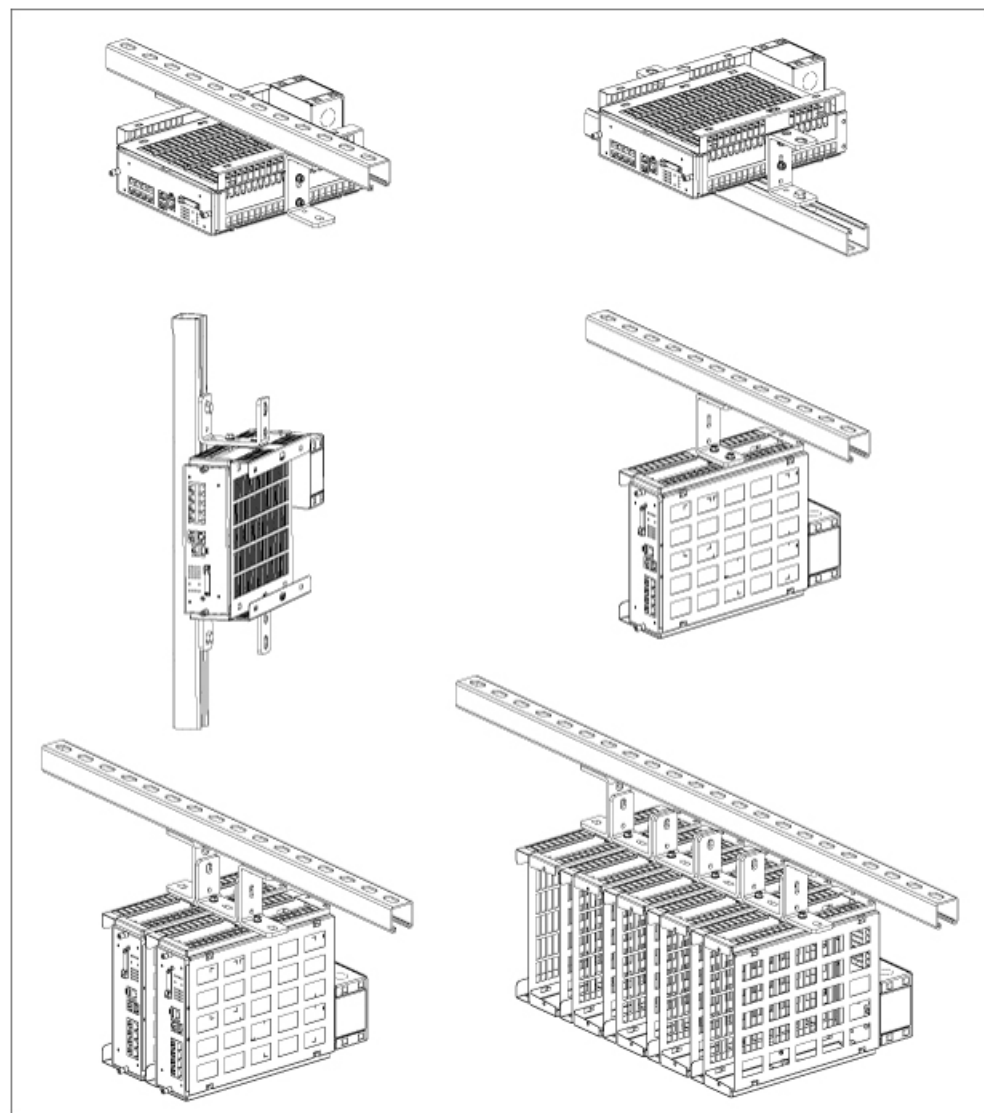
The mounting procedure includes two types of installations :

- Physical Installation - Includes horizontal mounting, vertical mounting and wall mounting
- Electrical Installation - Includes connecting the switch to a power source

The different types of mounting are described in detail in the sections below. You can use these mounting positions to install the switch in a flexible mount.

- [Horizontal Mounting](#)
- [Vertical Mounting](#)
- [Wall Mount](#)

Figure 8: Mounting Orientations for Cisco Catalyst Digital Building Series Switch



Horizontal Mounting

Horizontal Mounting can be done in two different positions :

Horizontal Mounting - Undermount

To install the Catalyst Digital Building Series Switch in a flexible mount in horizontal undermount orientation, follow these steps :



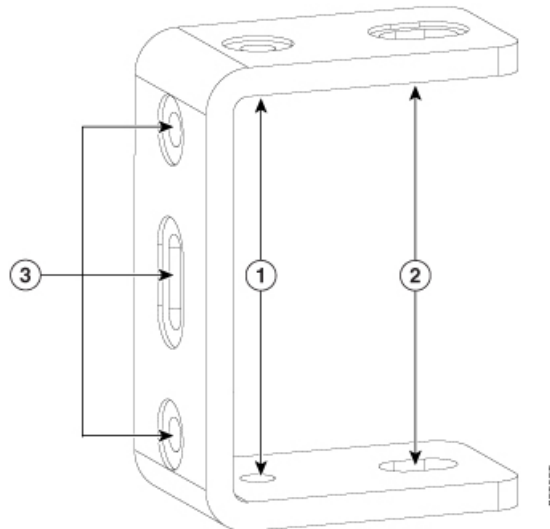
Note

If you are using the flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR), refer to the [Electrical Installation](#) section before you start the installation procedure.

Before You Begin

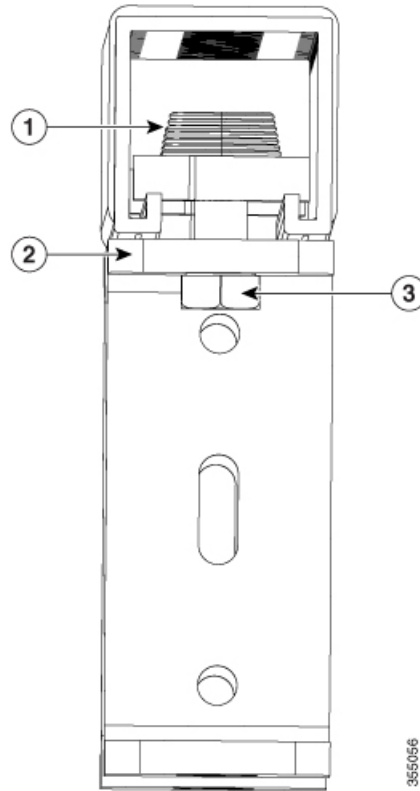
- Refer to [Installation Guidelines](#) section.
- Refer to [Electrical Installation](#) section if you are using the flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR).
- Review the following illustrations and tables.

Figure 9: Mounting Bracket Detail



1	1/4" hole for attaching to strut channel
2	3/8" hole for attaching to strut channel
3	Mounting screw holes

Figure 10: Strut Channel Nut Attachment Detail



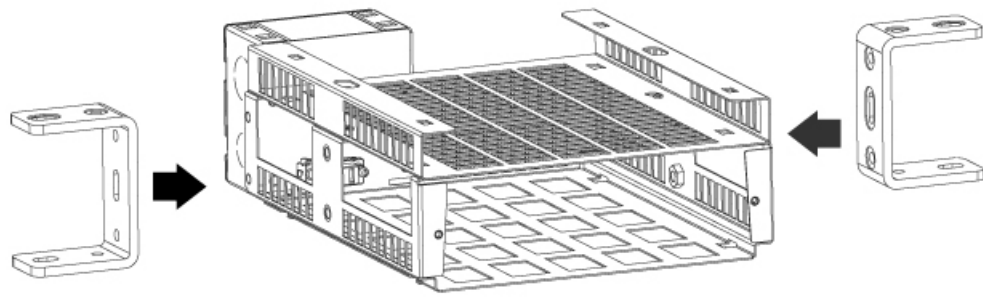
1	Strut channel nut
2	U-shaped mounting bracket
3	Bolt matching the strut nut

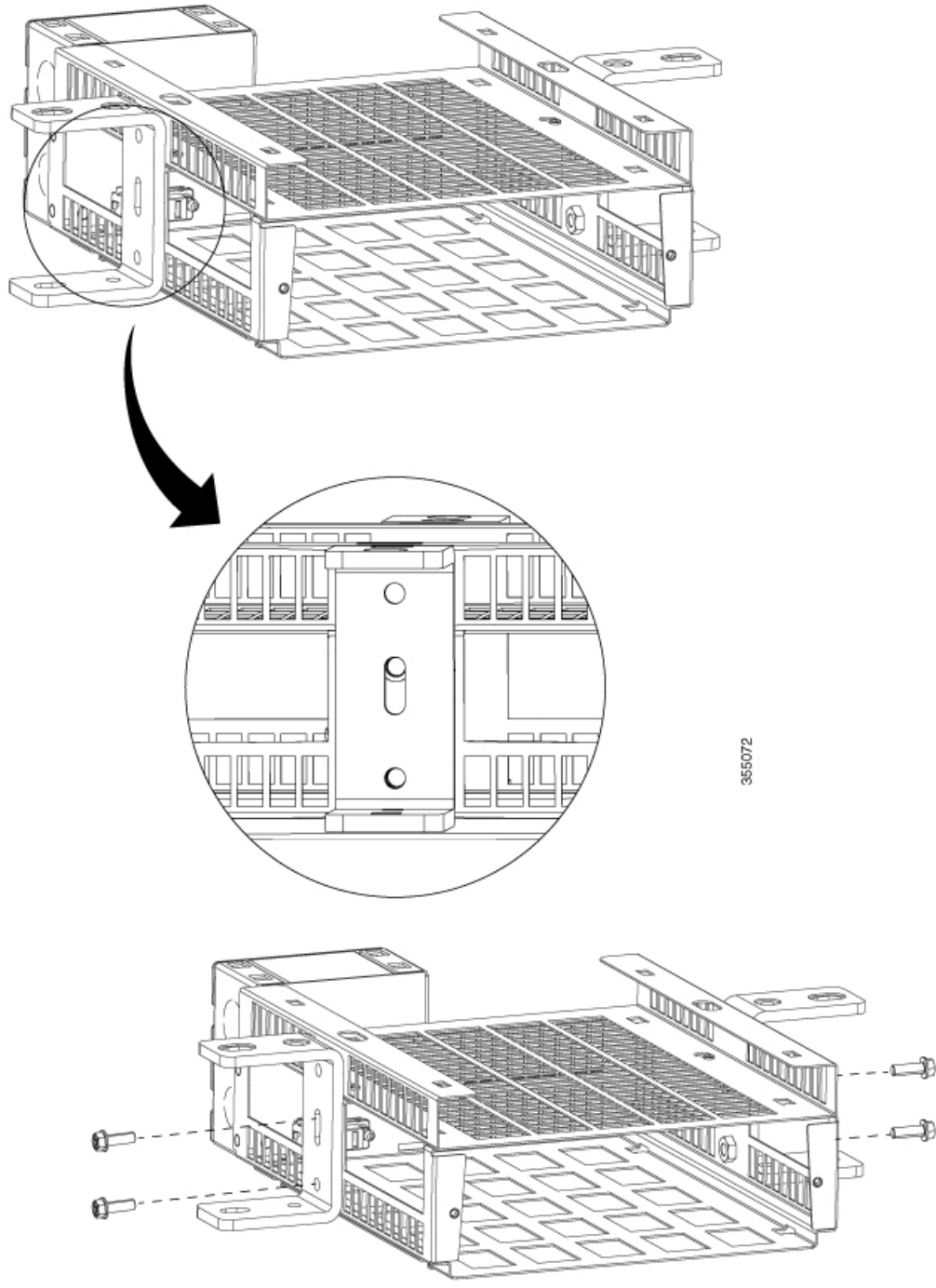
- Strut channel nut slides is inserted into the channel and held by a spring or a plastic cone.
- The bracket acts as an integrated washer. So, strut washer is not required.
- Matching bolt is fed from below into the strut channel nut.

Procedure

- Step 1** Place the flexible mount horizontally on a flat surface.
- Step 2** Align the mounting holes on the bracket to the holes on the flexible mount and attach them to the mount with the 1/4" mounting screws supplied.

Figure 11: Attaching mounting brackets to the flexible mount





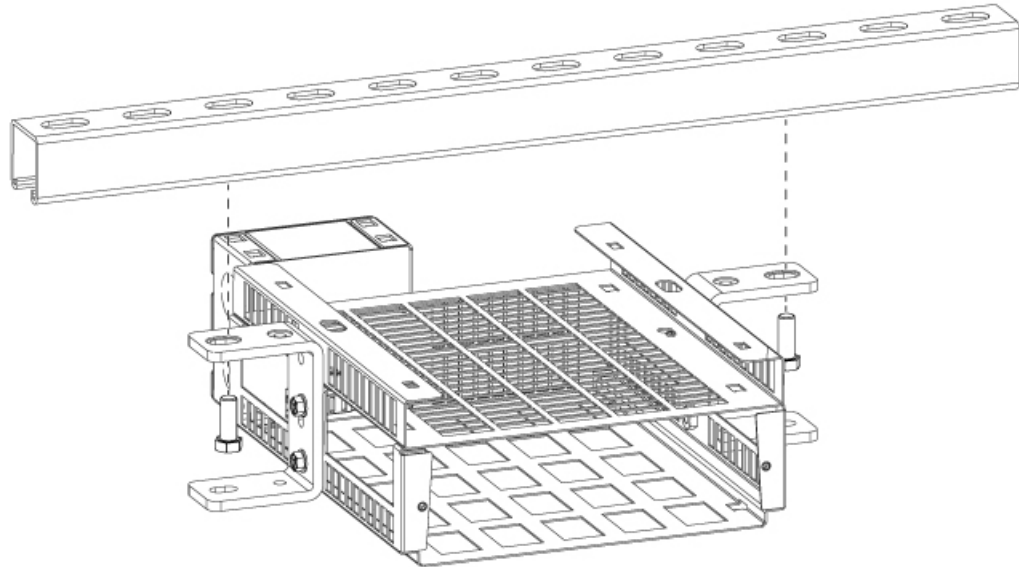
Step 3 Position the assembly as shown in the figure. Align one of the screw holes — 1/4" or 3/8" — of the mounting bracket to the strut nut hole on the strut channel and secure the bracket to the strut channel using a bolt matching to the strut nut.

Note The bolt must match the strut nut.

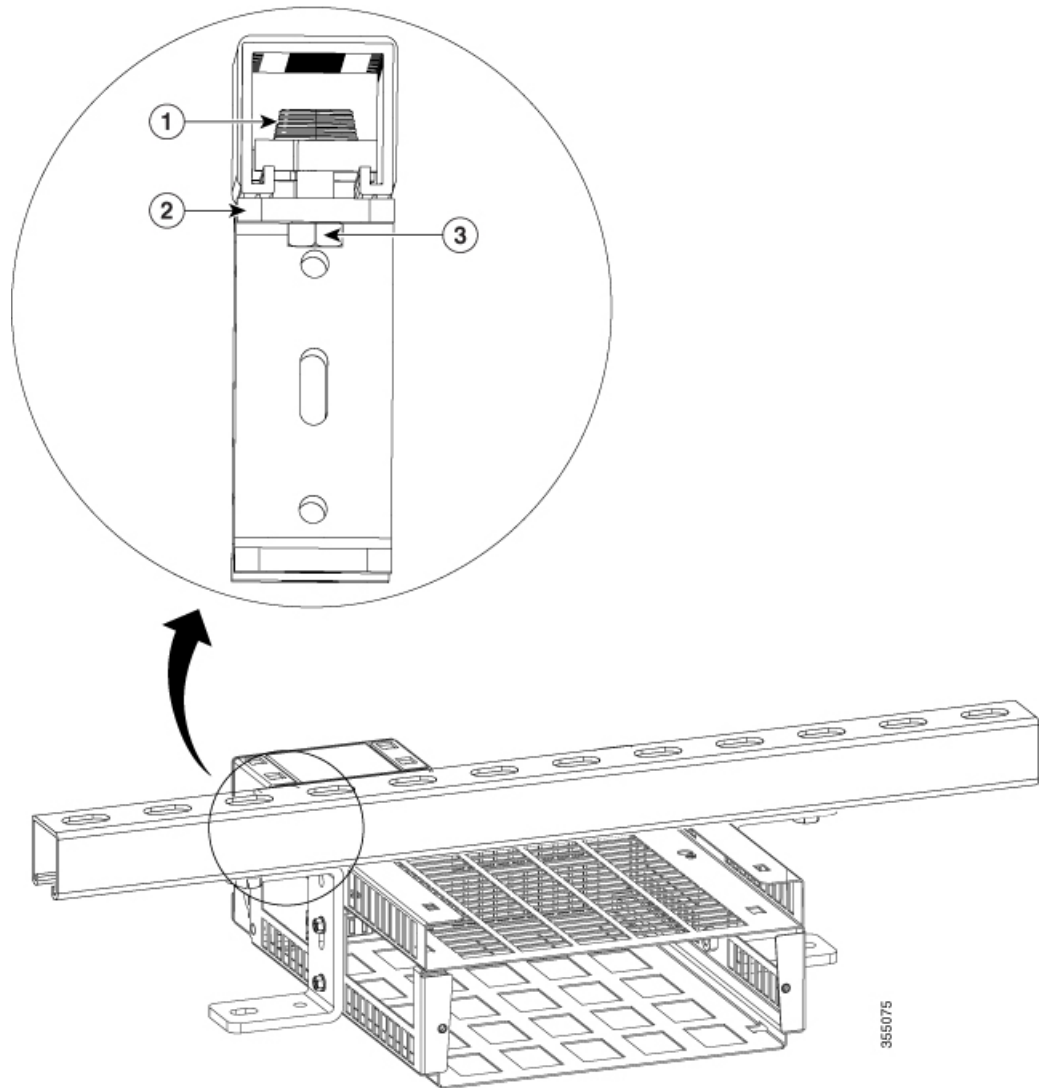
Repeat the step to attach the other bracket to the strut channel.

Figure 12: Attaching flexible mount assembly to strut channel

Note In the following figure, 3/8" hole is used to attach the assembly to the strut channel. You can also use 1/4" hole to attach the assembly to the strut channel.



355007



1	Strut channel nut
2	U-shaped mounting bracket
3	Bolt matching the strut nut

Step 4 Connect to a power source.

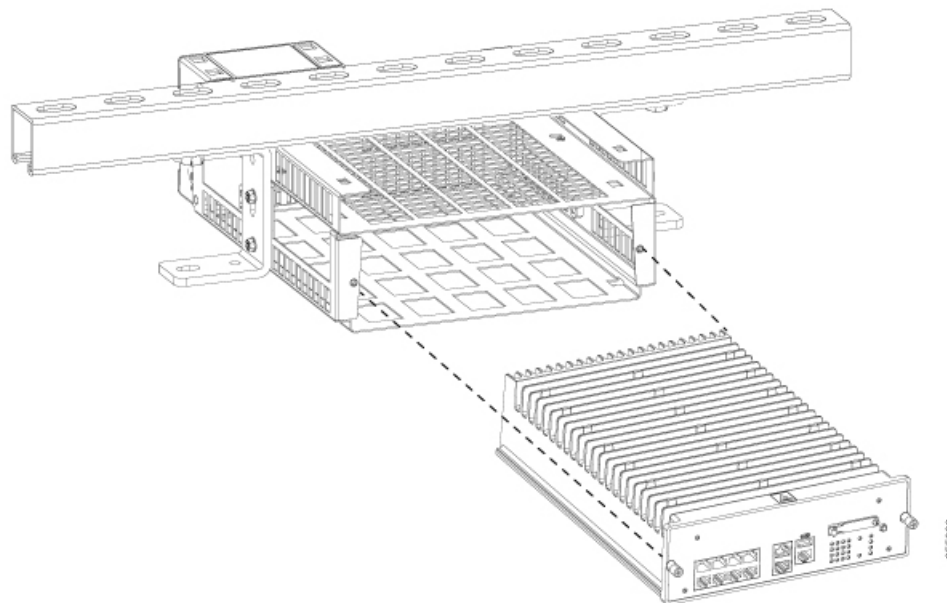
- To connect the assembly which uses flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) to a power source, use an armored cable. See [Electrical Installation](#) section. CDB-MNT-FLEX-DIR accepts 100V – 277V AC Input.
- To connect the assembly which uses flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14) to a power source, use country-specific power cord.

CDB-MNT-FLEX-C14 accepts 100V – 240V AC Input.

Step 5 Slide the switch into the flexible mount in a front mounting position as shown in the figure and tighten thumb screws to secure the switch to flexible mount.

Warning Switches require at least 3 inches of space above the heatsink fins for proper cooling. Do not stack multiple switches on top of each other in horizontal mounting orientation. To collocate multiple switches, use top vertical mounting orientation as described in [Top Vertical Mount](#).

Figure 13: Inserting switch into flexible mount assembly



Horizontal Mounting - Overmount

To install the Catalyst Digital Building Series Switch in a flexible mount in horizontal overmount orientation, follow these steps :



Note

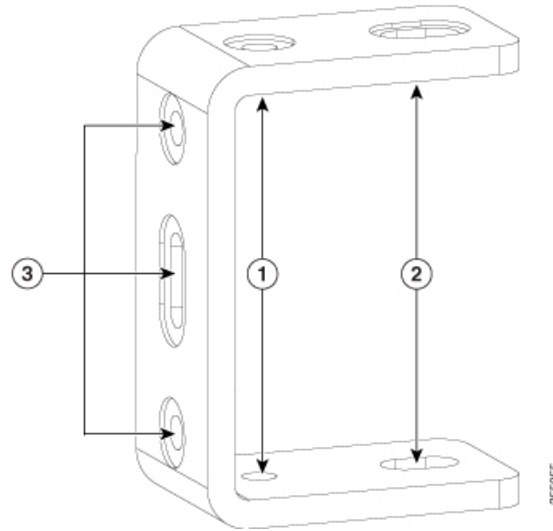
If you are using the flexible mount with a direct-wired junction box (CDB-MNT-FLEX-DIR), refer to the [Electrical Installation](#) section before you start the installation procedure.

Before You Begin

- Refer to [Installation Guidelines](#) section.
- Refer to [Electrical Installation](#) section if you are using the flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR).

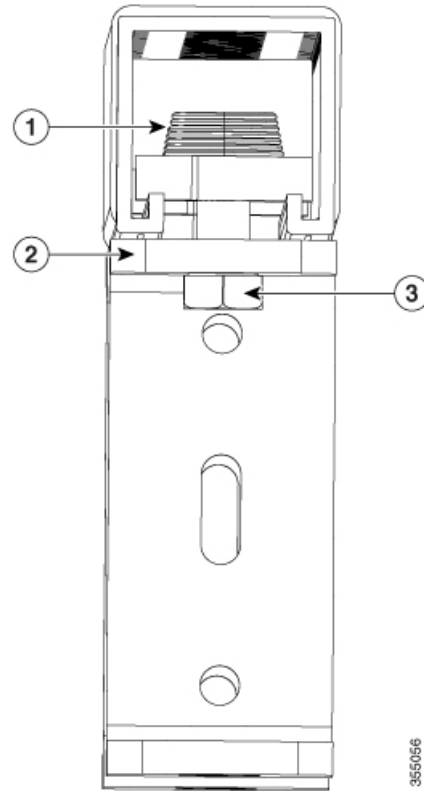
- Review the following illustrations and tables.

Figure 14: Mounting Bracket Detail



1	1/4" hole for attaching to strut channel
2	3/8" hole for attaching to strut channel
3	Mounting screw holes

Figure 15: Strut Channel Nut Attachment Detail



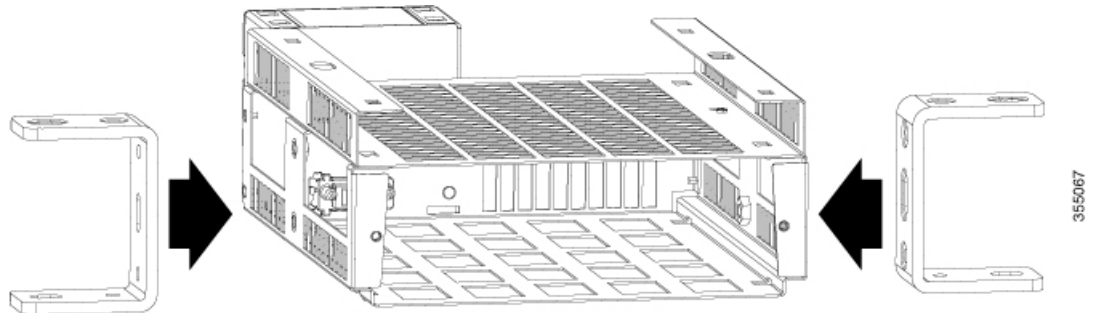
1	Strut channel nut
2	U-shaped mounting bracket
3	Bolt matching the strut nut

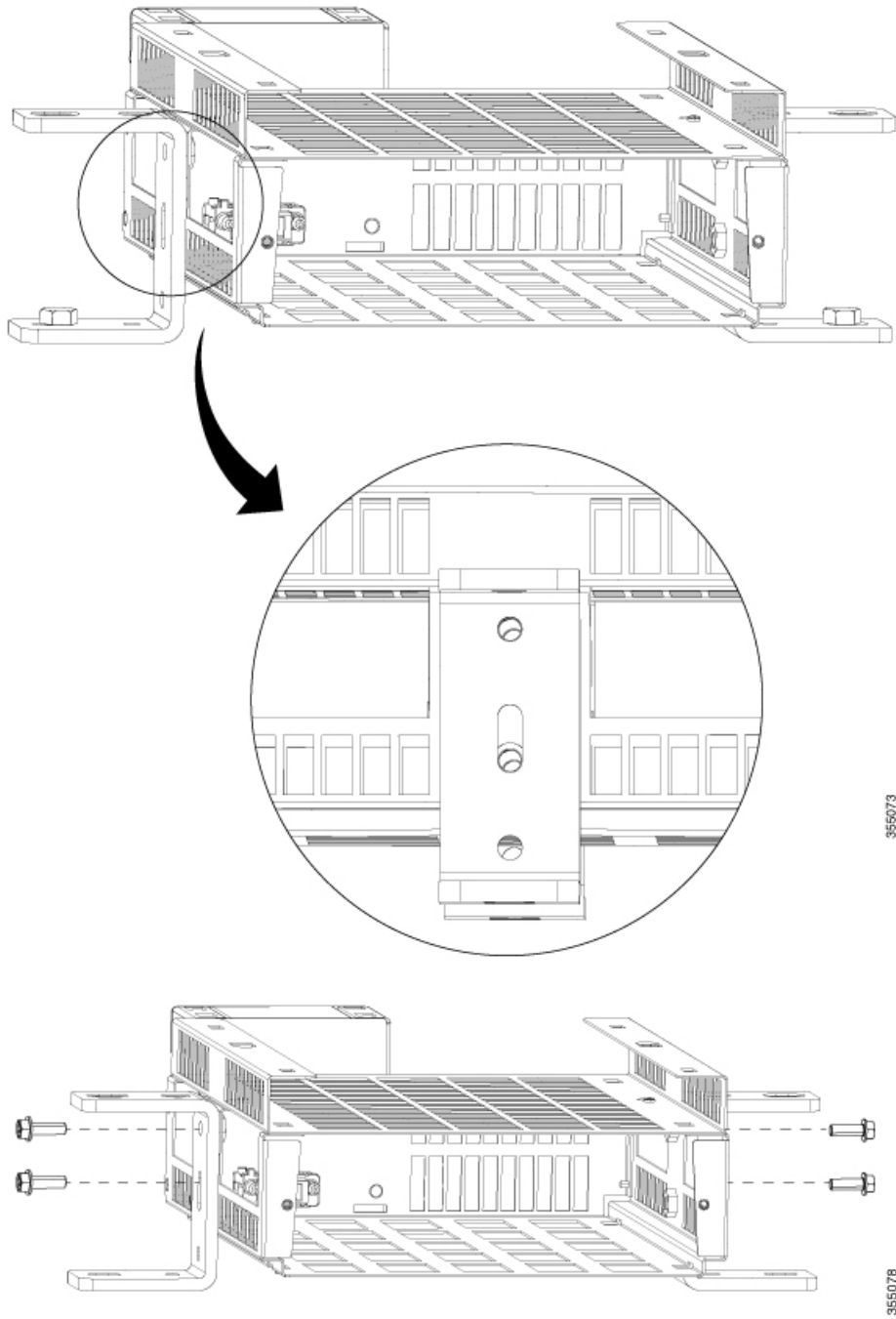
- Strut channel nut slides is inserted into the channel and held by a spring or a plastic cone.
- The bracket acts as an integrated washer. So, strut washer is not required.
- Matching bolt is fed from below into the strut channel nut.

Procedure

- Step 1** Place the flexible mount horizontally on a flat surface.
- Step 2** Align the mounting holes on the bracket to the holes on the flexible mount and attach them to the mount with the 1/4" mounting screws supplied.

Figure 16: Attaching mounting brackets to the flexible mount





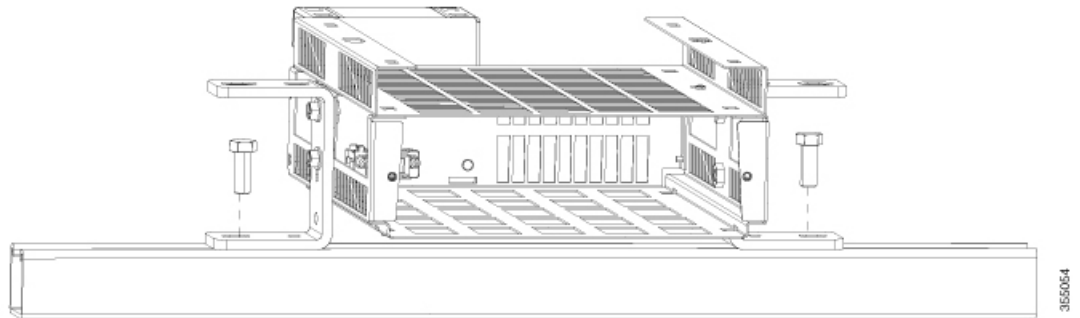
Step 3 Position the assembly as shown in the figure. Align one of the screw holes — 1/4" or 3/8" — of the mounting bracket to the strut nut hole on the strut channel and secure the bracket to the strut channel using a bolt matching to the strut nut.

Note The bolt must match the strut nut.

Repeat the step to attach the other bracket to the strut channel.

Figure 17: Attaching flexible mount assembly to strut channel

Note In the following figure, 3/8" hole is used to attach the assembly to the strut channel. You can also use 1/4" hole to attach the assembly to the strut channel.



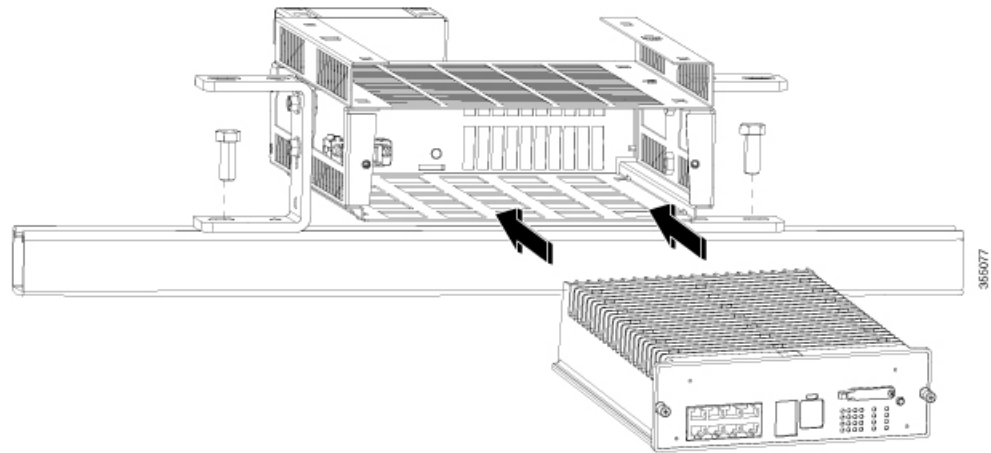
Step 4 Connect to a power source.

- To connect the assembly which uses flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) to a power source, use an armored cable. See [Electrical Installation](#) section. CDB-MNT-FLEX-DIR accepts 100V – 277V AC Input.
- To connect the assembly which uses flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14) to a power source, use country-specific power cord. CDB-MNT-FLEX-C14 accepts 100V – 240V AC Input.

Step 5 Slide the switch into the flexible mount in a front mounting position as shown in the figure and tighten thumb screws to secure the switch to flexible mount.

Warning Switches require at least 3 inches of space above the heatsink fins for proper cooling. Do not stack multiple switches on top of each other in horizontal mounting orientation. To collocate multiple switches, use top vertical mounting orientation as described in [Top Vertical Mount](#).

Figure 18: Inserting switch into flexible mount assembly



Vertical Mounting

Vertical Mounting can be done in two different positions:

Fixed Vertical Mount

To install a Catalyst Digital Building Series Switch in a flexible mount in fixed vertical mounting orientation, follow these steps :



Note

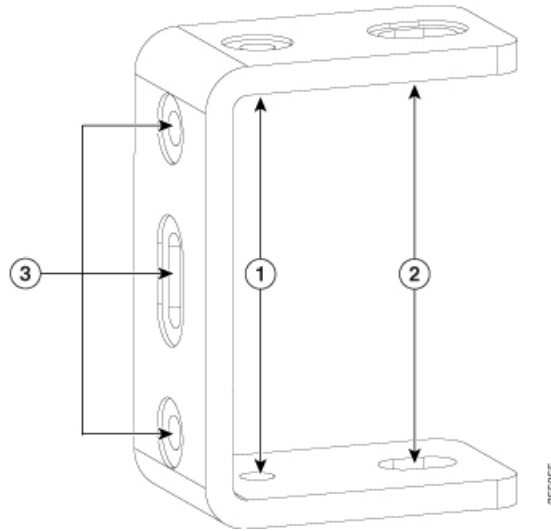
If you are using the flexible mount with a direct-wired junction box (CDB-MNT-FLEX-DIR), refer to the [Electrical Installation](#) section before you start the installation procedure.

Before You Begin

- Refer to [Installation Guidelines](#) section.
- Refer to [Electrical Installation](#) section if you are using the flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR).

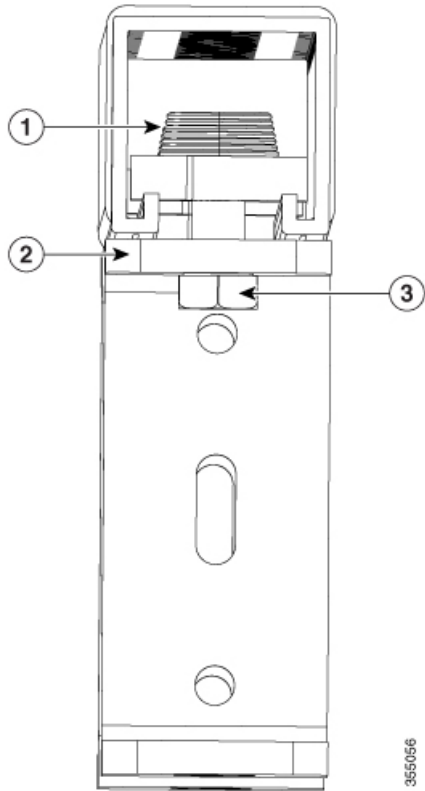
- Review the following illustrations and tables.

Figure 19: Mounting Bracket Detail



1	1/4" hole for attaching to strut
2	3/8" hole for attaching to strut
3	Mounting screw holes

Figure 20: Strut Channel Nut Attachment Detail



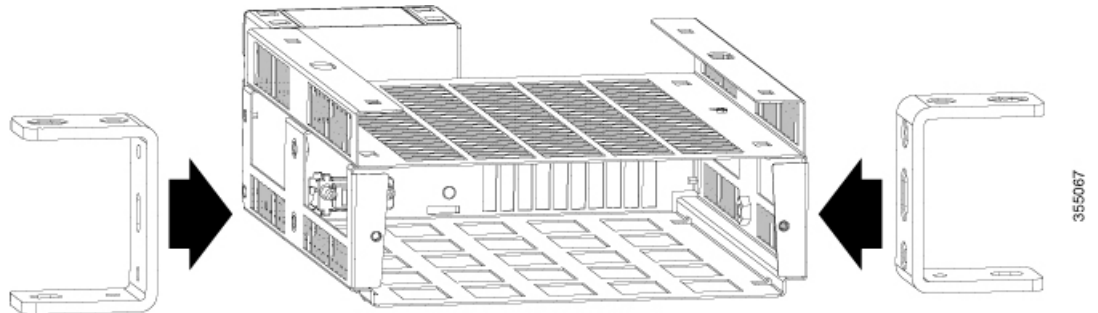
1	Strut channel nut
2	U-shaped mounting bracket
3	Bolt matching the strut nut

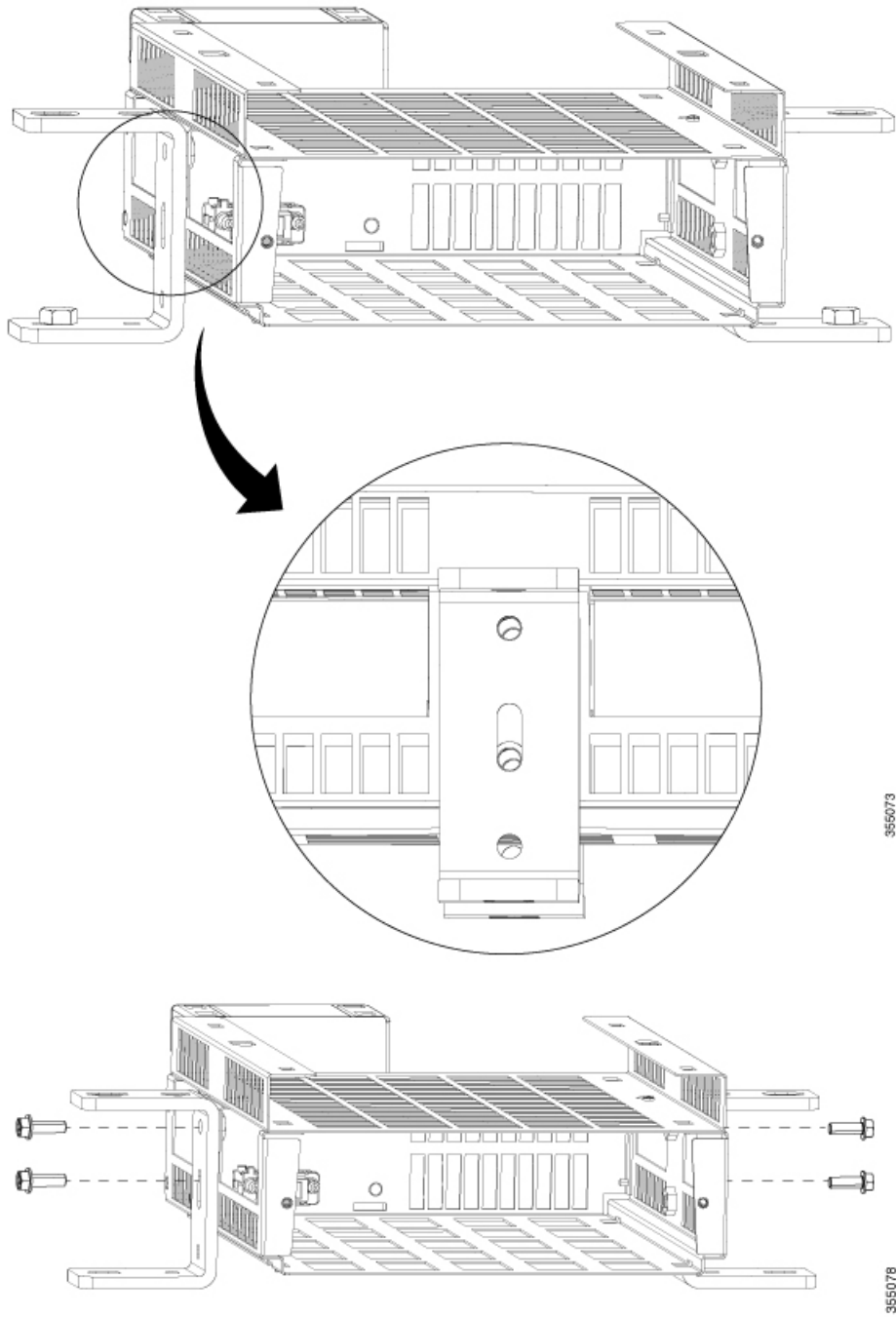
- Strut channel nut slides is inserted into the channel and held by a spring or a plastic cone.
- The bracket acts as an integrated washer. So, strut washer is not required.
- Matching bolt is fed from below into the strut channel nut.

Procedure

- Step 1** Place the flexible mount horizontally on a flat surface.
- Step 2** Align mounting brackets to both sides of the flexible mount and attach them to the mount with the 1/4" mounting screws supplied.

Figure 21: Attaching mounting brackets to the flexible mount





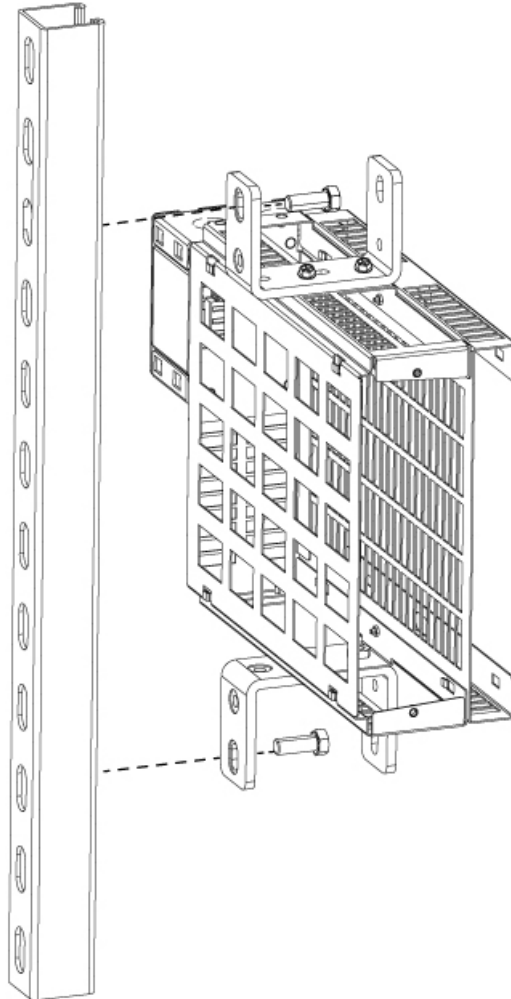
Step 3 Position the assembly vertically as shown in the figure. Align one of the screw holes — 1/4" or 3/8" — of the mounting bracket to the strut nut hole on the strut channel and secure the bracket to the strut channel using a bolt matching to the strut nut.

Note The bolt must match the strut nut.

Repeat the step to attach the other bracket to the strut channel.

Figure 22: Attaching flexible mount assembly to strut channel

Note In the following figure, 3/8" hole is used to attach the assembly to the strut channel. You can also use 1/4" hole to attach the assembly to the strut channel.



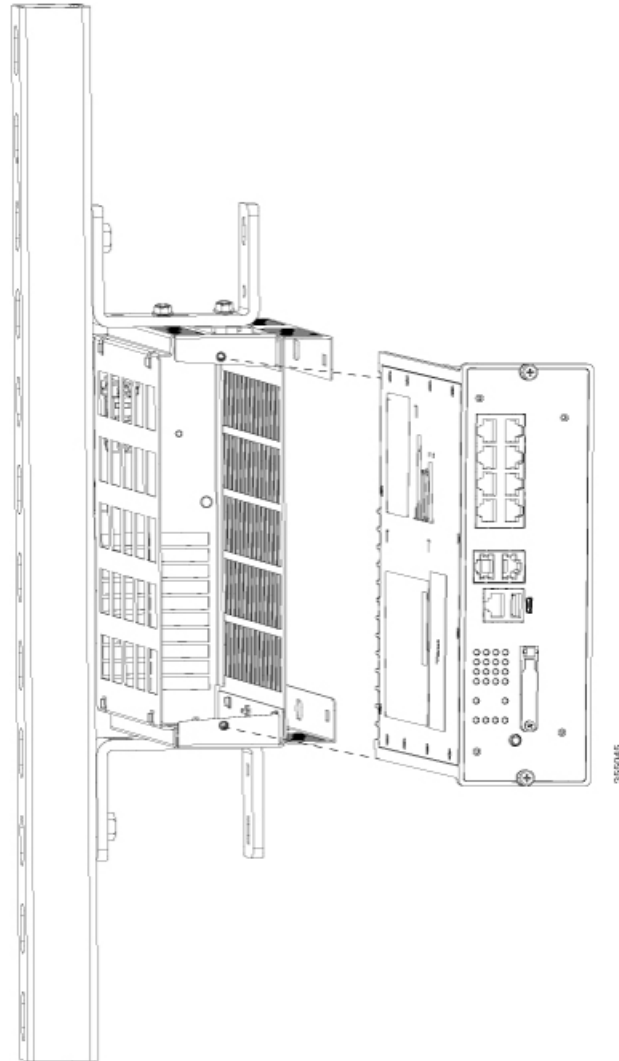
Step 4 Connect to a power source.

- To connect the assembly which uses flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) to a power source, use an armored cable. See [Electrical Installation](#) section.
CDB-MNT-FLEX-DIR accepts 100V – 277V AC Input.
- To connect the assembly which uses flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14) to a power source, use country-specific power cord.
CDB-MNT-FLEX-C14 accepts 100V – 240V AC Input.

Step 5 Slide the switch into the flexible mount in a front mounting position as shown in the figure and tighten thumb screws to secure the switch to flexible mount.

Warning Maintain 3-inch clearance from top of the flex mount to nearest surface to ensure proper cooling. Do not stack multiple switches on top of each other in the fixed vertical mounting orientation. To collocate multiple switches, use top vertical mounting orientation as described in [Top Vertical Mount](#).

Figure 23: Inserting switch into flexible mount assembly



Top Vertical Mount

To install a single Catalyst Digital Building Series Switch in a flexible mount in top vertical mounting orientation, follow these steps :



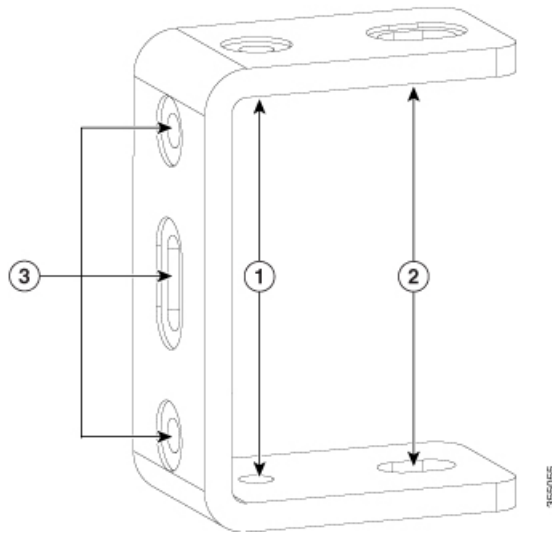
Note

If you are using the flexible mount with a direct-wired junction box (CDB-MNT-FLEX-DIR), refer to the [Electrical Installation](#) section before you start the installation procedure.

Before You Begin

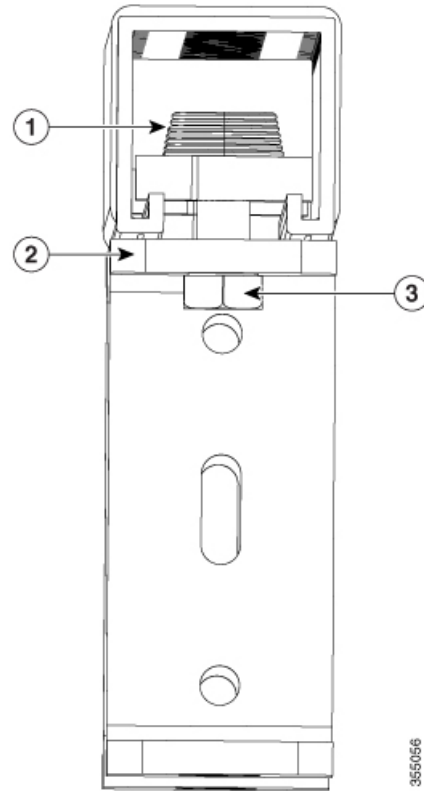
- Refer to [Installation Guidelines](#) section.
- Refer to [Electrical Installation](#) section if you are using the flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR).
- Review the following illustrations and tables.

Figure 24: Mounting Bracket Detail



1	1/4" hole for attaching to strut
2	3/8" hole for attaching to strut
3	Mounting screw holes

Figure 25: Strut Channel Nut Attachment Detail



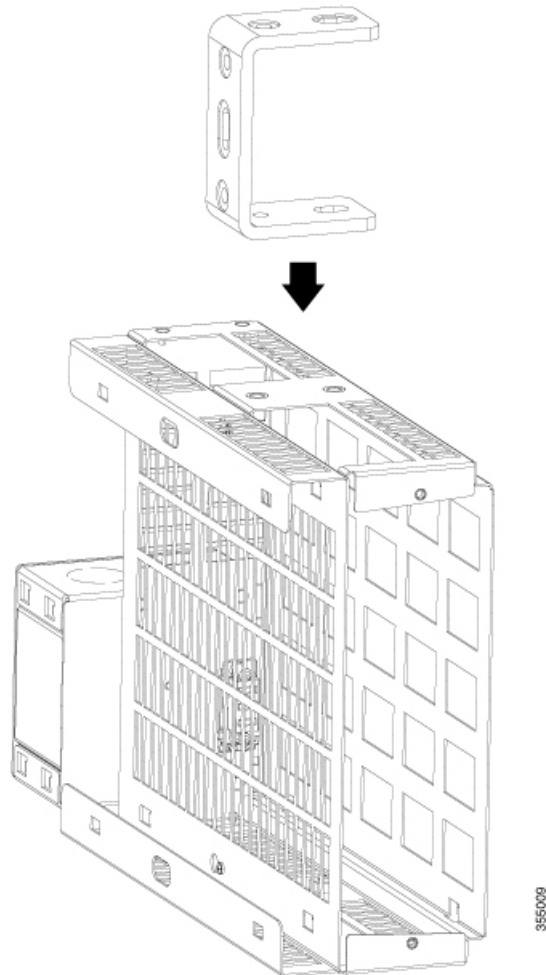
1	Strut channel nut
2	U-shaped mounting bracket
3	Bolt matching the strut nut

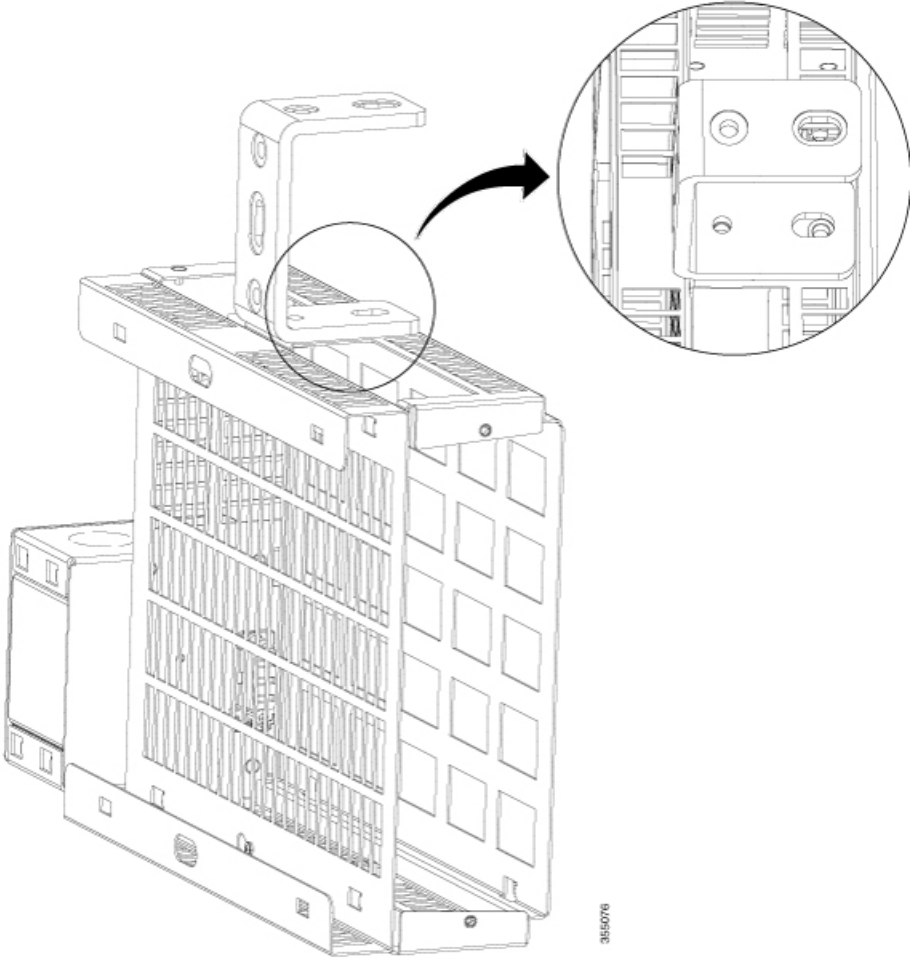
- Strut channel nut slides is inserted into the channel and held by a spring or a plastic cone.
- The bracket acts as an integrated washer. So, strut washer is not required.
- Matching bolt is fed from below into the strut channel nut.

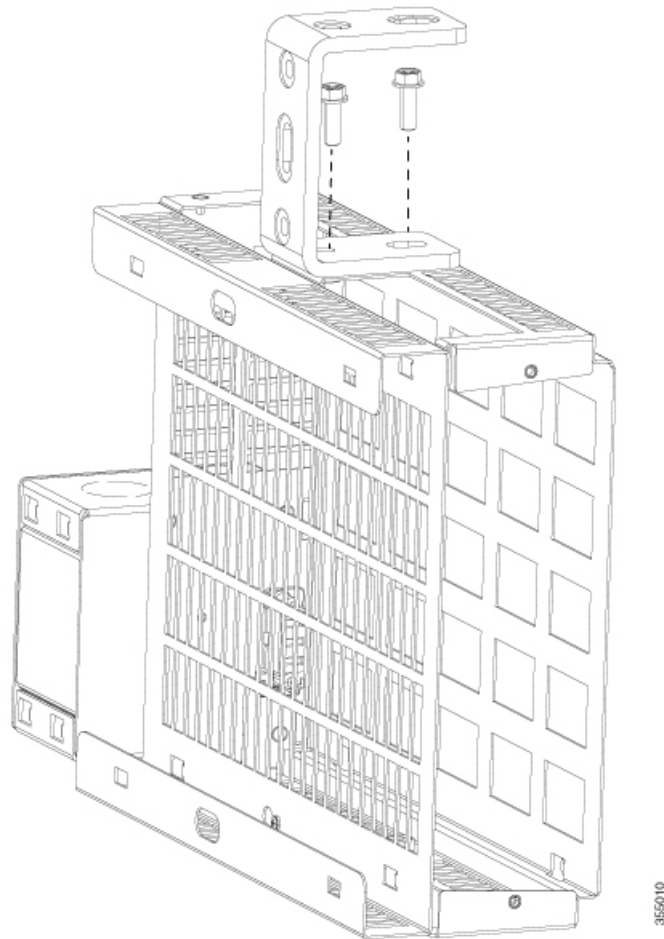
Procedure

- Step 1** Place the flexible mount vertically on a flat surface.
- Step 2** Align the mounting bracket to one side of the flexible mount and attach it to the mount with the 1/4" mounting screws supplied.

Figure 26: Attaching mounting brackets to the flexible mount







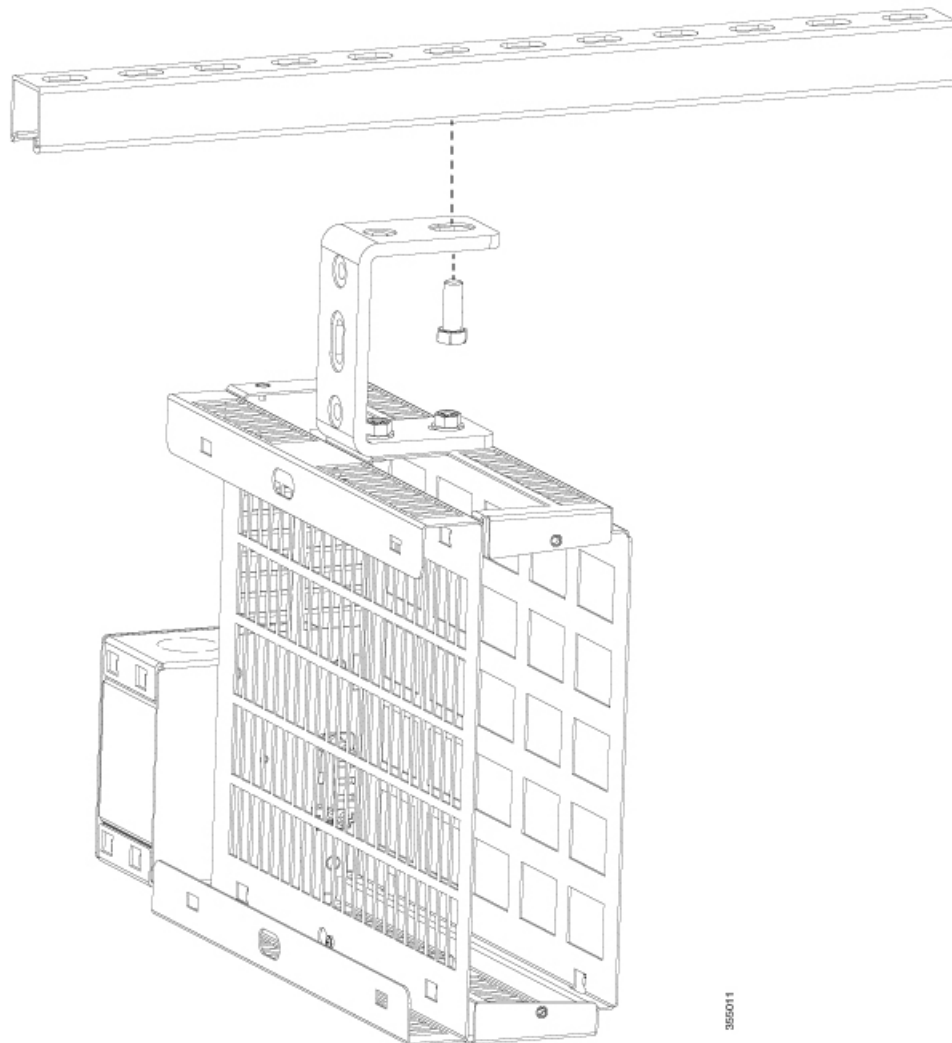
Step 3 Position the assembly vertically as shown in the figure. Align one of the screw holes — 1/4" or 3/8" — of the mounting bracket to the strut nut hole on the strut channel and secure the bracket to the strut channel using a bolt matching to the strut nut.

Note The bolt must match the strut nut.

Repeat the step to attach the other bracket to the strut channel.

Figure 27: Attaching flexible mount assembly to strut channel

Note In the following figure, 3/8" hole is used to attach the assembly to the strut channel. You can also use 1/4" hole to attach the assembly to the strut channel.



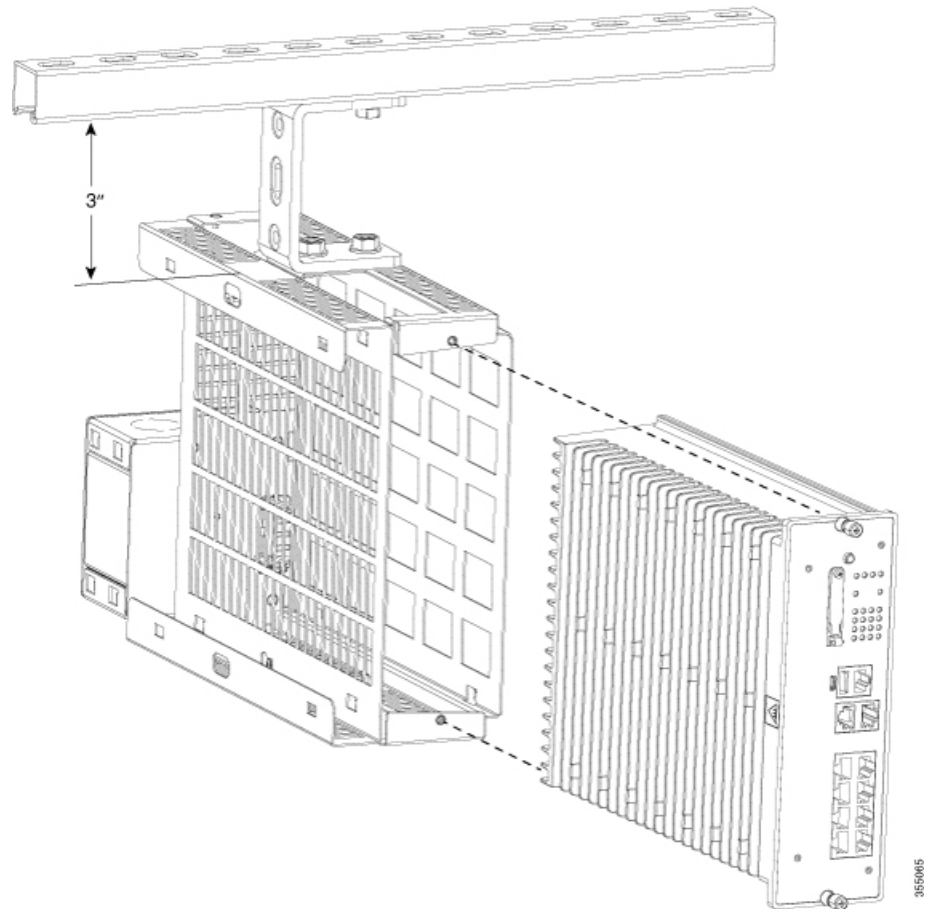
Step 4 Connect to a power source.

- To connect the assembly which uses flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) to a power source, use an armored cable. See [Electrical Installation](#) section. CDB-MNT-FLEX-DIR accepts 100V – 277V AC Input.
- To connect the assembly which uses flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14) to a power source, use country-specific power cord. CDB-MNT-FLEX-C14 accepts 100V – 240V AC Input.

Step 5 Slide the switch into the flexible mount in a front mounting position.

Warning Maintain 3-inch of space to any surface above the flex mount to allow proper cooling.

Figure 28: Inserting switch into flexible mount assembly



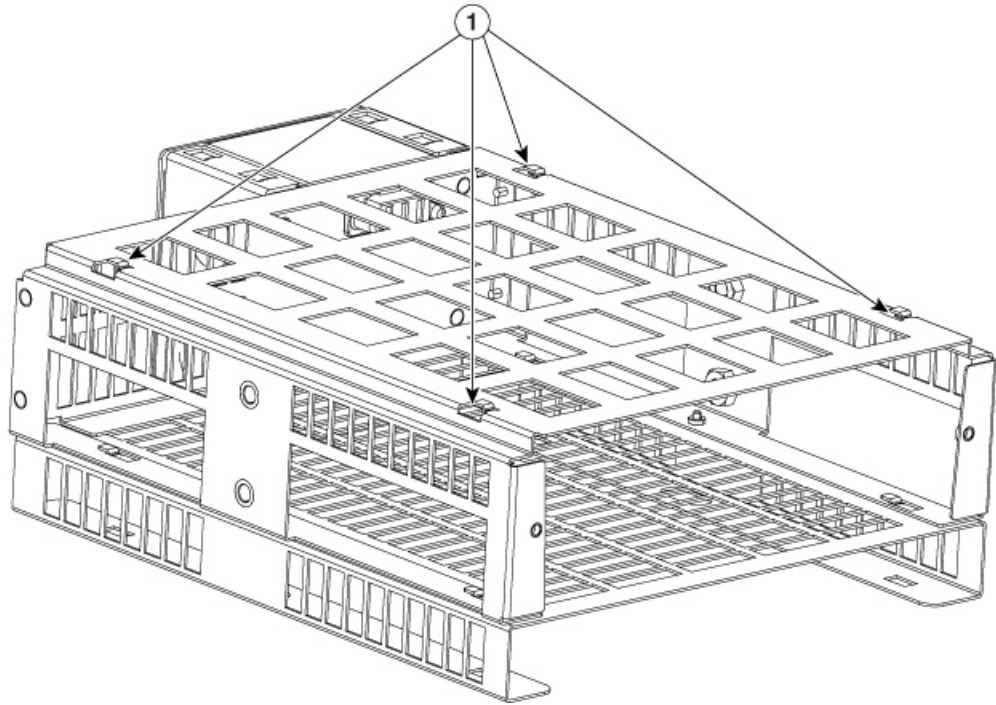
Top Vertical Mount with two Flexible Mounts

Use the following procedure to attach two flexible mounts together.

Procedure

Step 1 Place the flexible mounts on a flat surface. Slide the four tabs at the bottom of the flexible mount into the corresponding four slots of the other flexible mount at once. Following figures show the location of tabs and slots on the flexible mount.

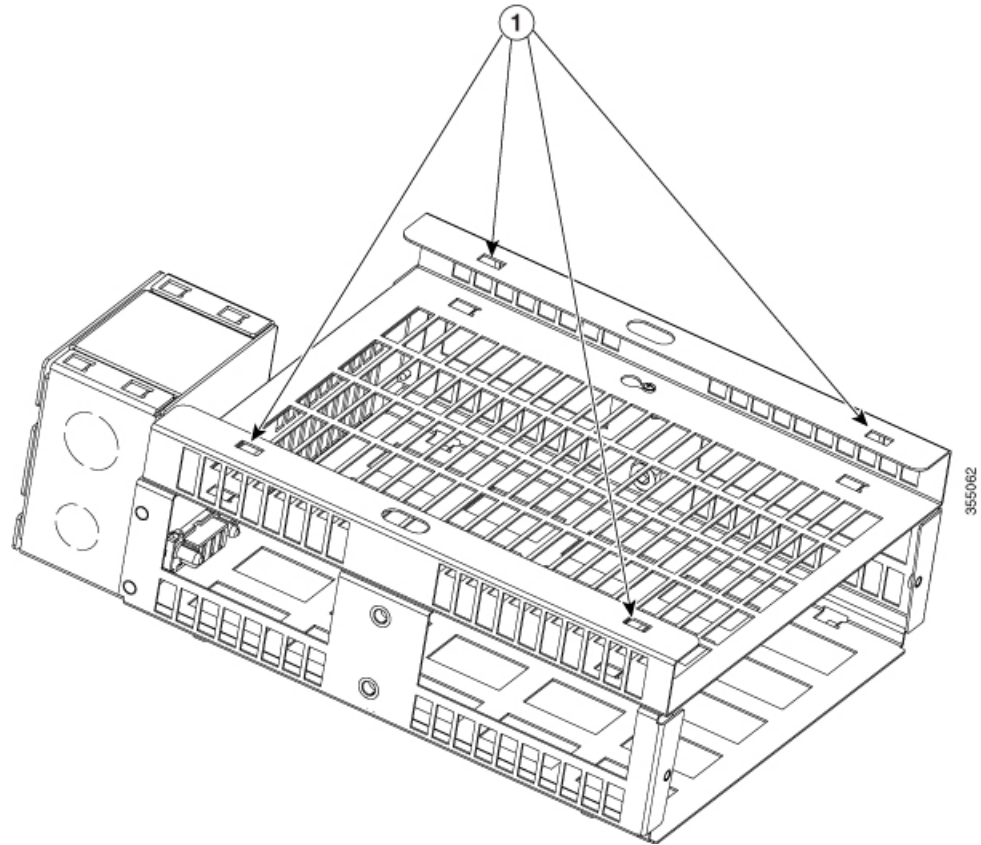
Figure 29: Tabs at the bottom of the flexible mount



355061

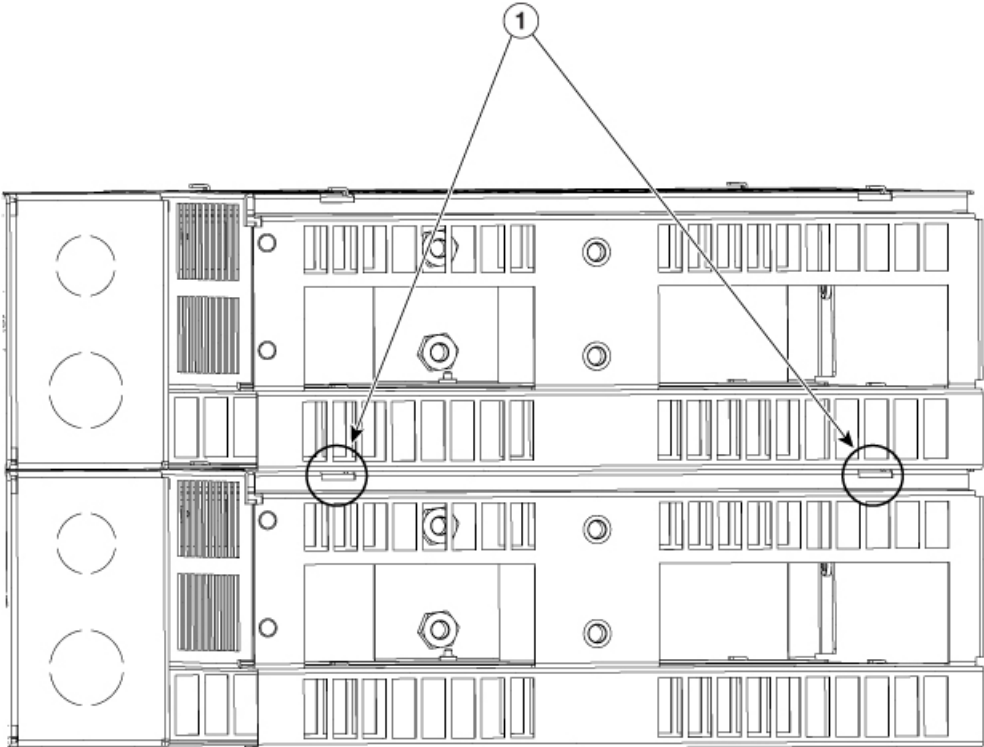
1	Tabs
---	------

Figure 30: Slots at the top of the flexible mount



1	Slots
---	-------

Figure 31: Joining two flexible mounts

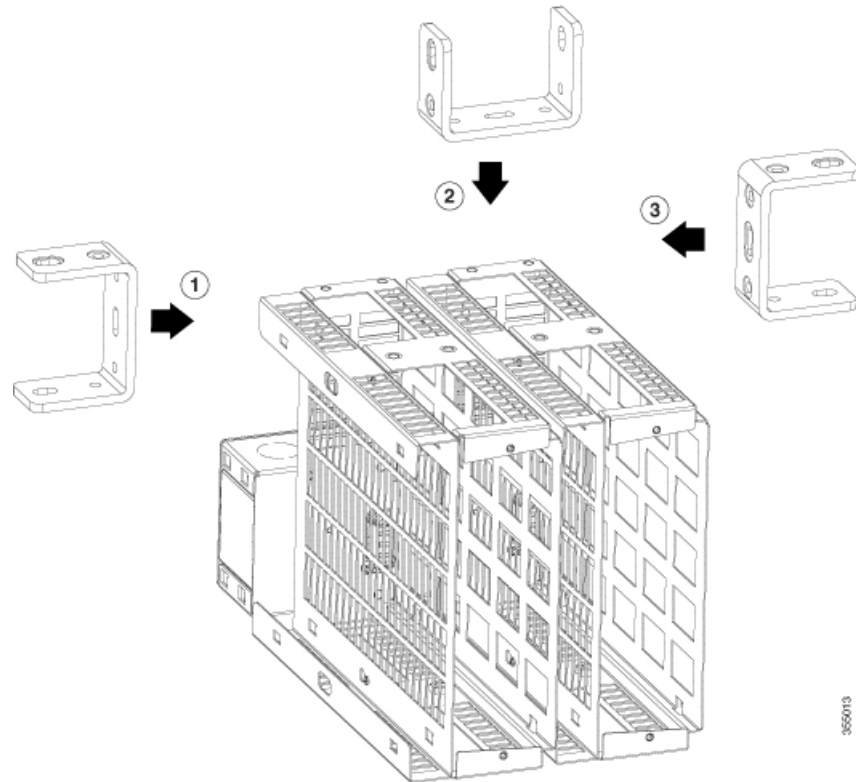


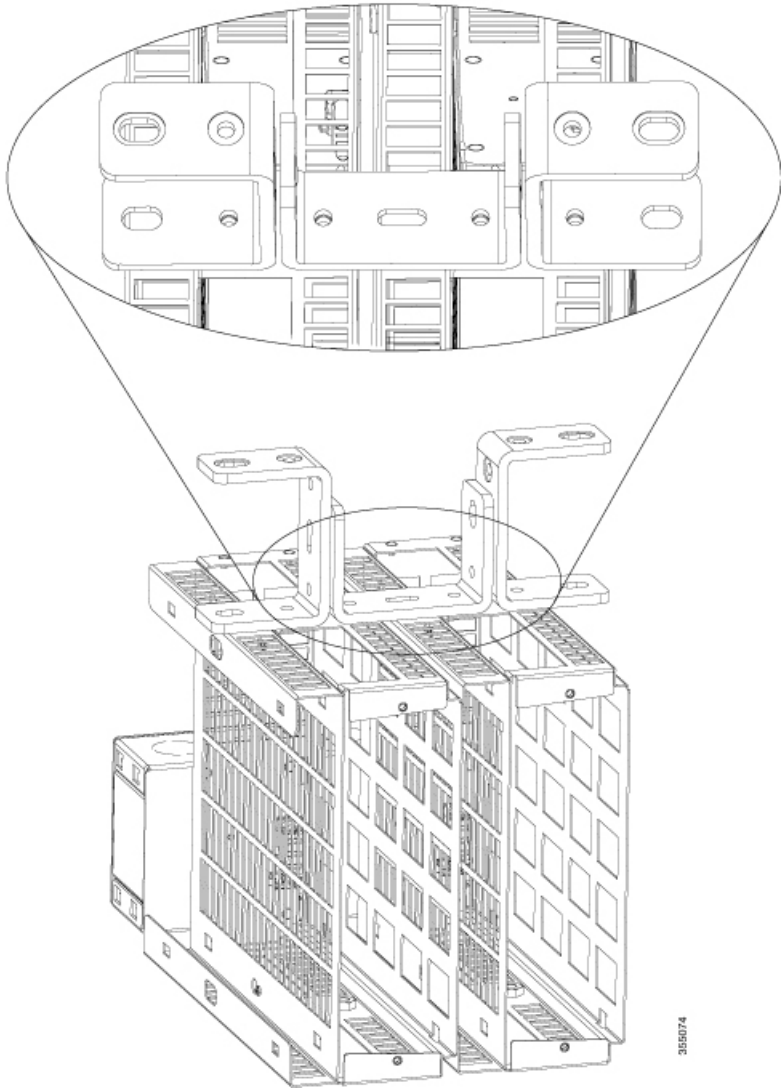
385063

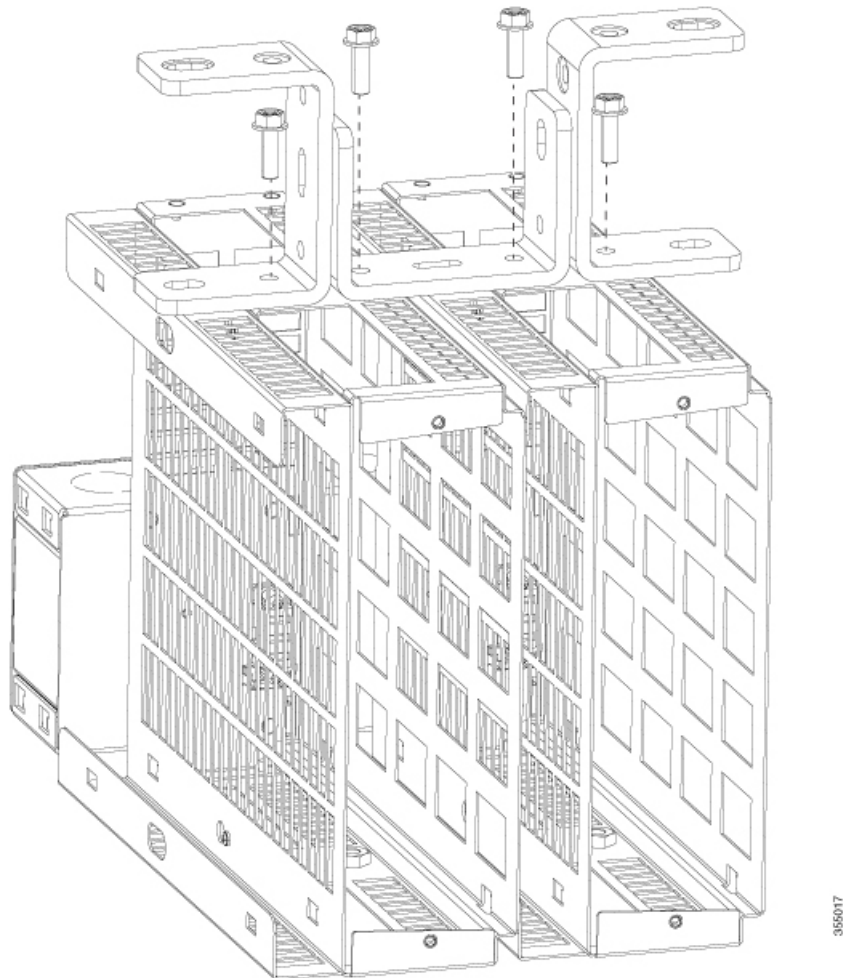
1	Tabs and slots locked together
---	--------------------------------

Step 2 Align the brackets and attach them to the flexible mount using the 1/4" mounting screws.

Figure 32: Attaching two flexible mounts







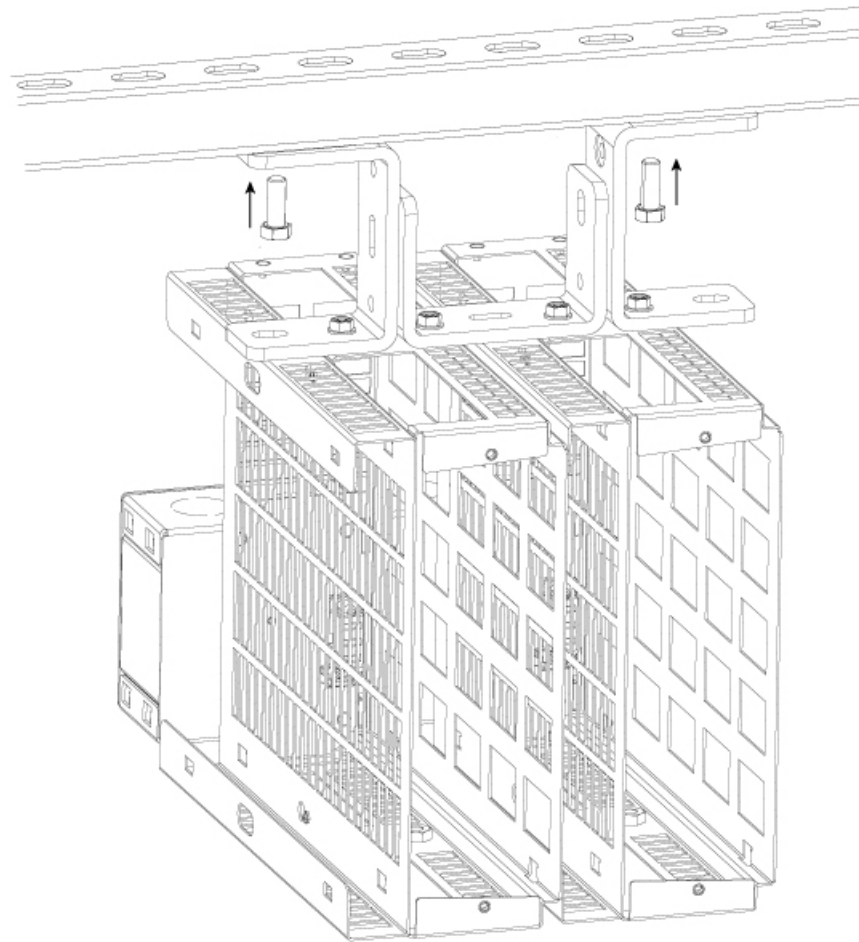
Step 3 Position the assembly as shown in the figure. Align one of the screw holes — 1/4" or 3/8" — of the mounting bracket to the strut nut hole on the strut channel and secure the bracket to the strut channel using a bolt matching to the strut nut.

Note The bolt must match the strut nut.

Repeat the step to attach the other bracket to the strut channel.

Figure 33: Attaching combined flexible mount assembly to strut

Note In the following figure, 3/8" hole is used to attach the assembly to the strut channel. You can also use 1/4" hole to attach the assembly to the strut channel.



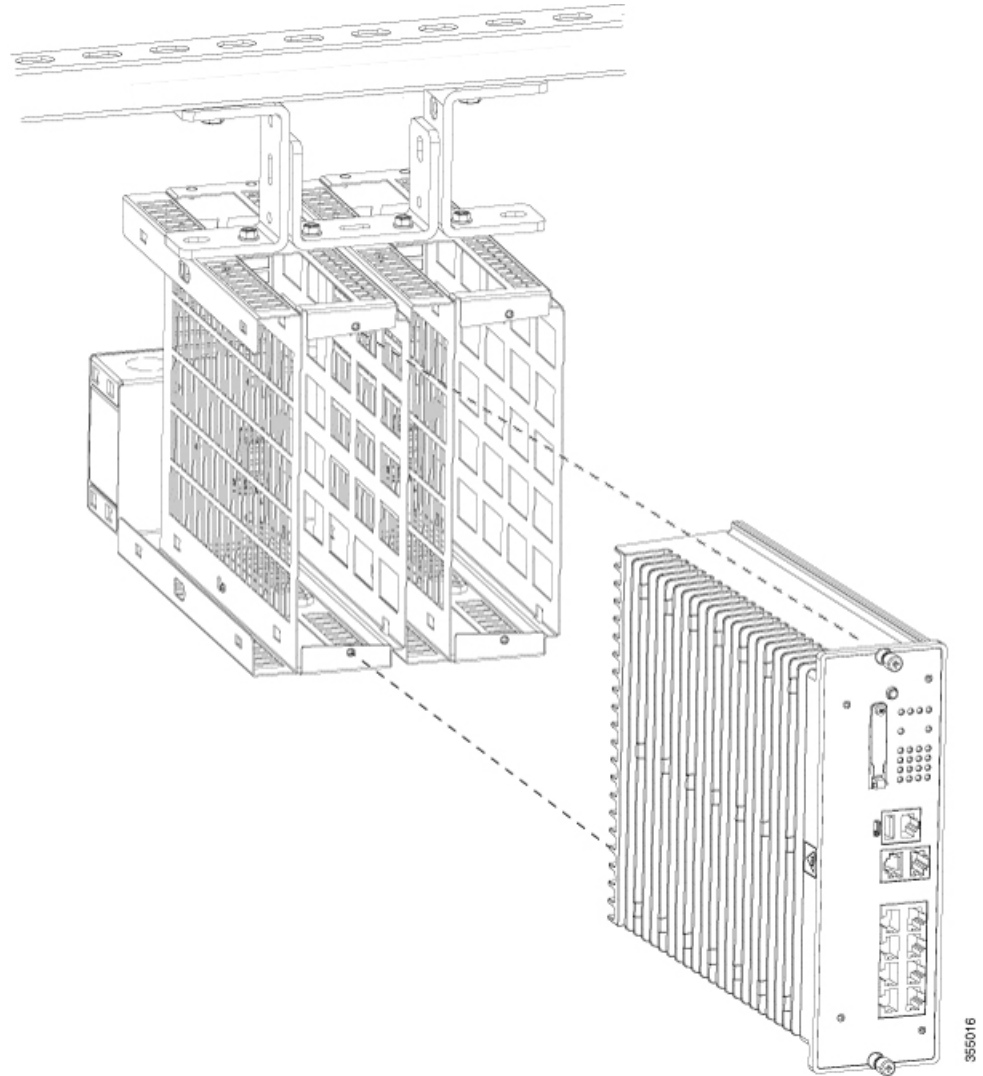
Step 4 Connect to a power source.

- To connect the assembly which uses flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) to a power source, use an armored cable. See [Electrical Installation](#) section. CDB-MNT-FLEX-DIR accepts 100V – 277V AC Input.
- To connect the assembly which uses flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14) to a power source, use country-specific power cord. CDB-MNT-FLEX-C14 accepts 100V – 240V AC Input.

Step 5 Slide the switch into the flexible mount in a front mounting position as shown in the figure and tighten thumb screws to secure the switch to flexible mount.

Warning Maintain 3-inch of space to any surface above the flex mount to allow proper cooling.

Figure 34: Inserting switch into flexible mount assembly



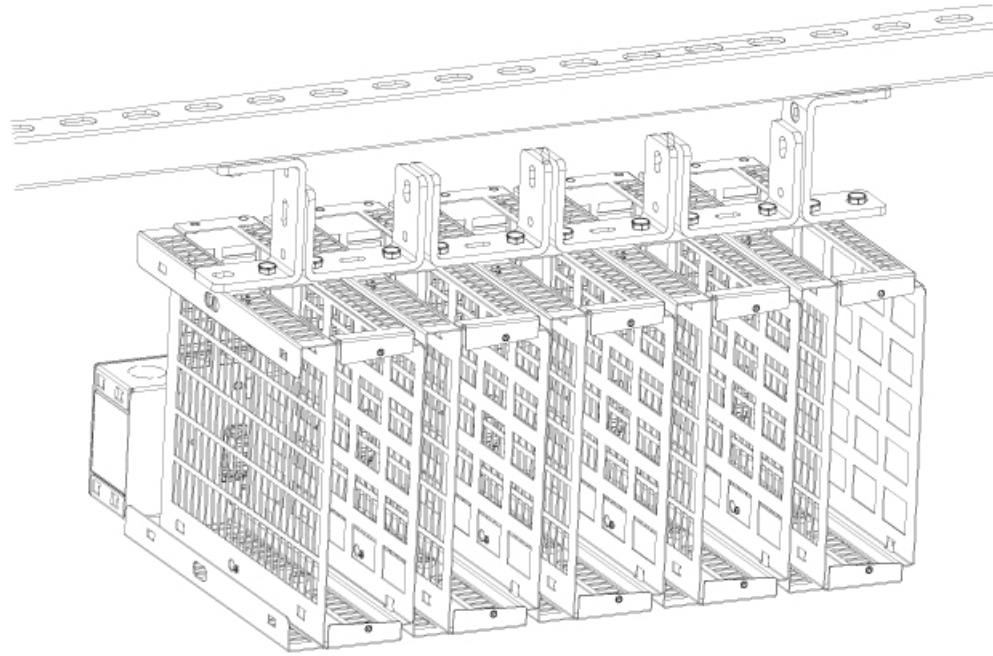
You can combine multiple flexible mounts together using the above procedure.



Note

Maximum recommended number of flexible mounts that you can combine together is five.

Top Vertical Mount with five Flexible Mounts



355027

Wall Mount

To install the Catalyst Digital Building Series Switch in a flexible mount on to a wall, follow these steps :



Note

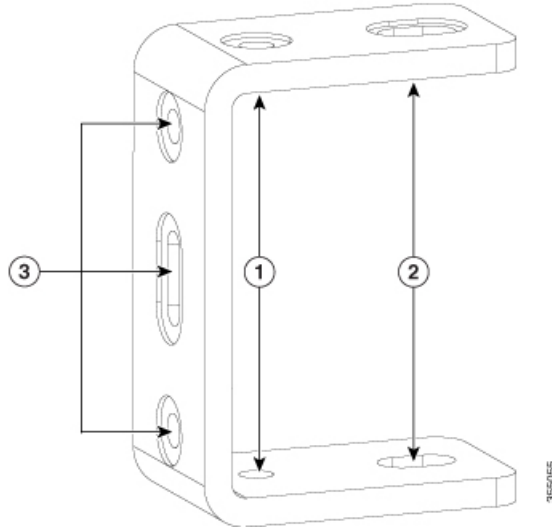
If you are using the flexible mount with a direct-wired junction box (CDB-MNT-FLEX-DIR), refer to the [Electrical Installation](#) section before you start the installation procedure.

Before You Begin

- Refer to [Installation Guidelines](#) section.
- Refer to [Electrical Installation](#) section if you are using the flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR).

- Review the following illustrations and tables.

Figure 35: Mounting Bracket Detail

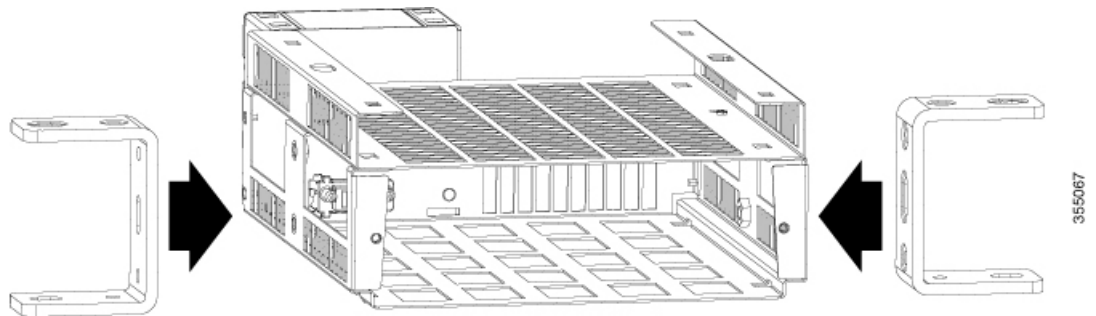


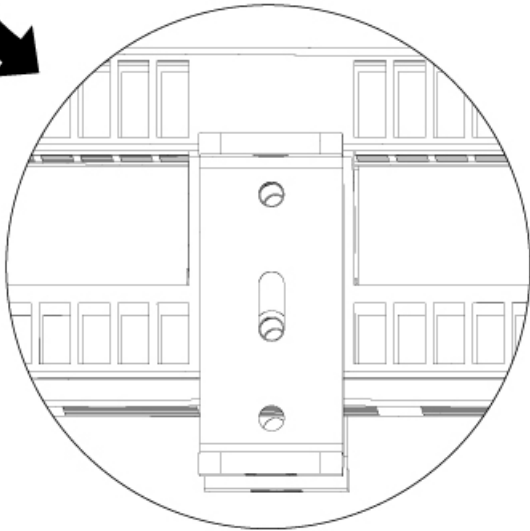
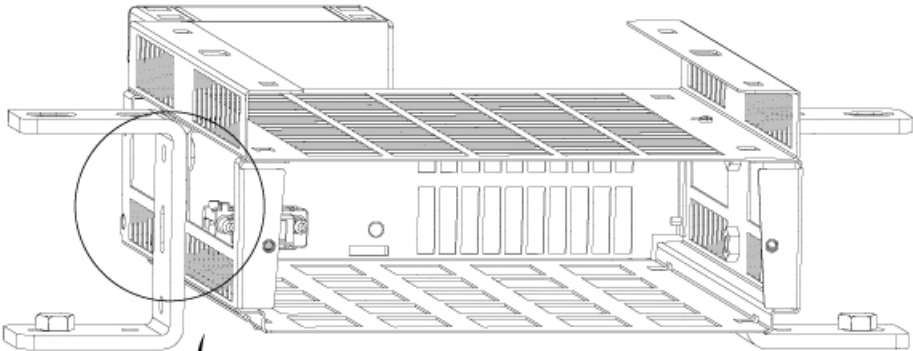
1	1/4" hole for attaching to strut channel or to a wall
2	3/8" hole for attaching to strut channel or to a wall
3	Mounting screw holes

Procedure

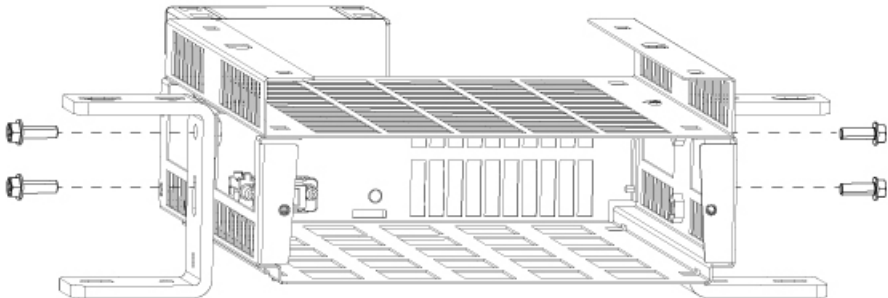
- Step 1** Place the flexible mount horizontally on a flat surface.
- Step 2** Align mounting brackets to both sides of the flexible mount and attach them to the mount with the 1/4" mounting screws supplied.

Figure 36: Attaching mounting brackets to the flexible mount





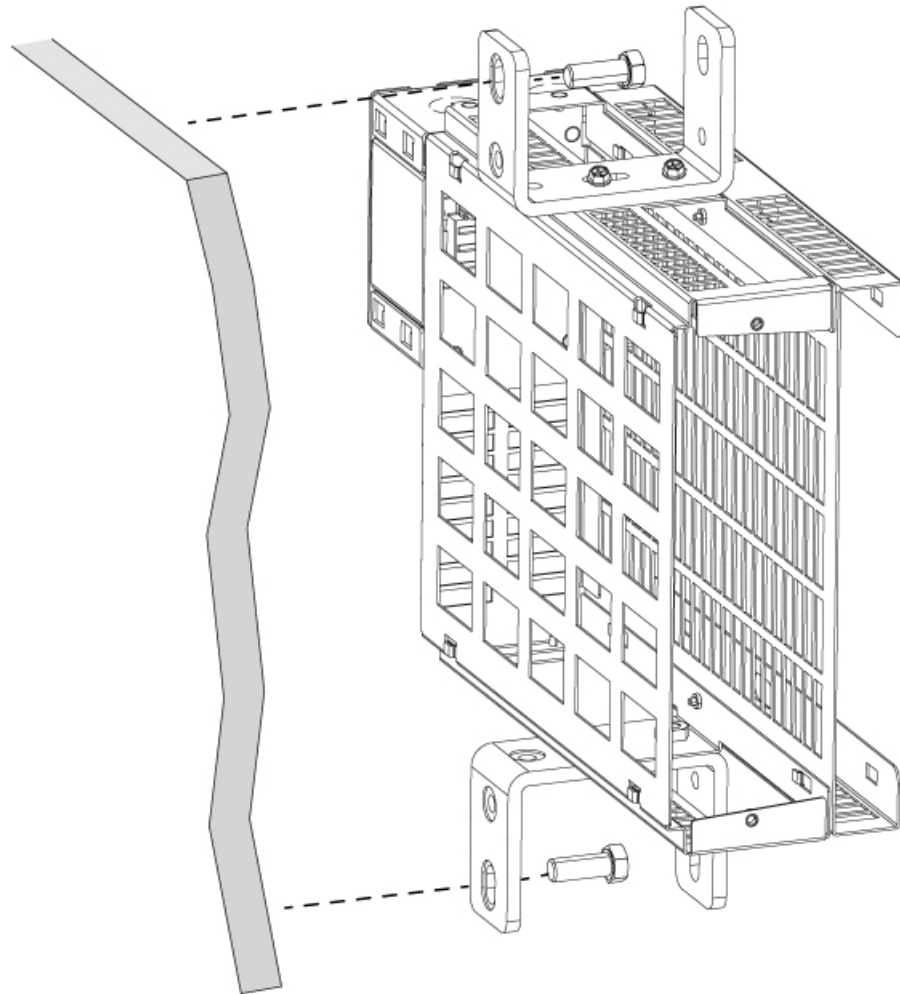
355073



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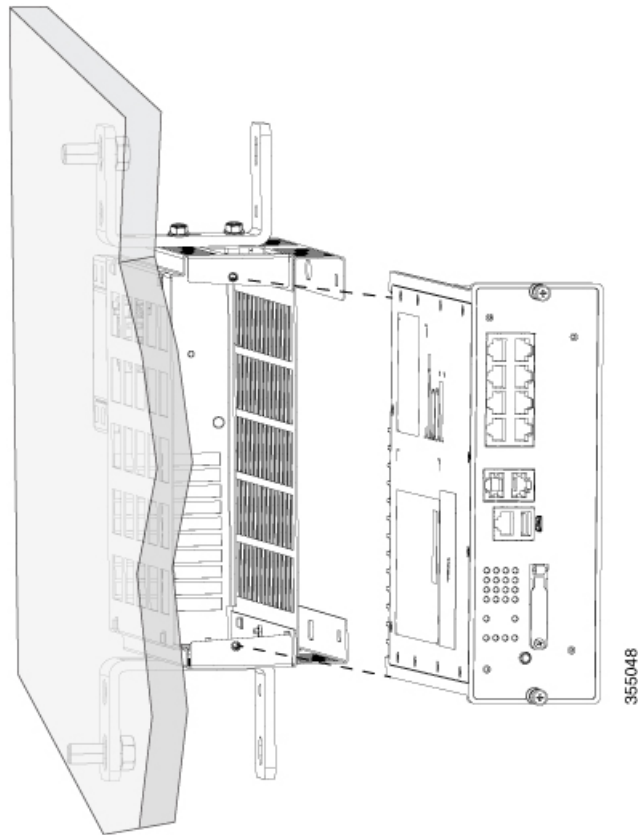
- Step 3** Drill two holes in the wall and insert mounting screws into the holes.
- Step 4** Position the assembly vertically as shown in the figure. Insert screws through the 3/8" or 1/4" hole of mounting bracket into the wall and secure the assembly against the wall.

Figure 37: Attaching flexible mount assembly to the wall



355020

- Step 5** Connect to a power source.
- To connect the assembly which uses flexible mount with direct-wired junction box (CDB-MNT-FLEX-DIR) to a power source, use an armored cable. See [Electrical Installation](#) section. CDB-MNT-FLEX-DIR accepts 100V – 277V AC Input.
 - To connect the assembly which uses flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14) to a power source, use country-specific power cord. CDB-MNT-FLEX-C14 accepts 100V – 240V AC Input.
- Step 6** Slide the switch into the flexible mount in a front mounting position as shown in the figure and tighten thumb screws to secure the switch to flexible mount.

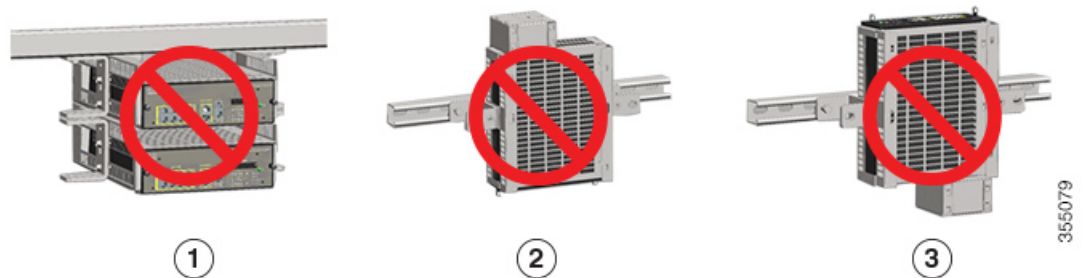


Note The complete assembly of the flexible mount, mounting brackets and the switch weighs 15 lbs for the wall mount case. When mounted directly on a surface, care must be taken to choose fasteners that can safely hold the switch and mounting hardware, which weighs 15 lbs (6.8 kg), under all use conditions.

Prohibited Mounting Orientations

Following mounting orientations are not allowed. These mounting orientations will cause overheating.

Figure 38: Prohibited Mounting Orientations



1	Horizontal stacking
2	Ports facing down
3	Ports facing up

Electrical Installation

Electrical installation requires connecting the switch to a power source. Each type of flexible mount has a different procedure for completing electrical connections. These are explained below.



Warning

All power connection wiring should conform to the rules and regulations in the National Electrical Code (NEC), as well as any local codes.

Flexible Mount with Direct-Wired Junction Box

To complete wiring of the direct-wired junction box and to connect to a power source, follow these steps:



Note

Only a trained and qualified electrician should be allowed to perform the procedure explained below.

Procedure

- Step 1** Ensure that supply wiring is not energized prior to installing the flexible mount.
- Step 2** Remove screw from the direct-wired junction box to open the cover.
- Step 3** Determine mounting orientation and identify the desired wiring entry and exit points from the flexible mount's integrated junction box.
- Step 4** Remove the appropriate knockout(s), either 1/2" or 3/4" from the top or bottom, based on the connector type employed in the installation.
- Step 5** Prepare an armored cable by stripping conductor ends approximately 1/2" or 3/4".
- Step 6** After preparing the cable for connection, attach the cable to an approved connector and install the connector in the appropriate knockout. Ensure that you leave a sufficient working length of wire inside the junction box.
- Step 7** Strip supply wires. Remove pre-stripped insulation from wires supplied inside the flexible mount.
- Step 8** Twist stripped ends of wires and secure the wires with a wire nut or other approved junction device. Supply wires are color coded: Hot-black, Neutral-white, Ground-green/yellow. Verify that connections are made with the appropriate supply wires as color codes may vary.
 - If you are combining multiple flexible mounts to form a single wiring raceway, remove the metal divider plates that separate adjoining junction boxes. Ensure that you leave the divider plates in place on either end of the raceway.
 - When you join two or more flexible mounts with direct-wired junction box, join the Hot, Neutral and Ground supply wires of one wiring box to the corresponding Hot, Neutral and Ground supply wires of

the adjacent wiring box. This allows wiring multiple units to the same circuit with only a single supply wire entry point.

Warning When combining multiple switches on a single circuit, refer to the switch ampacity tables below to verify that the number of switches is appropriate, given the circuit's voltage and ampacity. The switch ampacity table provides number of units that fit on a single circuit (after derating to 80% of capacity), i.e. 15A circuit gives number of units possible when only 12A (80% of 15A) is used.

Table 1: Switch Ampacity Rating for Catalyst Digital Building Series PoE/PoE+ Switch

CDB-8P		Circuit Breaker Rating:	15A	20A	30A
Nominal Input Voltage	Maximum Current Consumption	Circuit Breaker Derating (80%):	12A	16A	24A
115VAC	2.68A	Units / Circuit	4	6	9
230VAC	1.34A	Units / Circuit	9	12	18
277VAC	1.16A	Units / Circuit	10	14	21

Table 2: Switch Ampacity Rating for Catalyst Digital Building Series UPOE Switch

CDB-8U		Circuit Breaker Rating:	15A	20A	30A
Nominal Input Voltage	Maximum Current Consumption	Circuit Breaker Derating (80%):	12A	16A	24A
115VAC	5.18A	Units / Circuit	2	3	4
230VAC	2.59A	Units / Circuit	4	6	9
277VAC	2.18A	Units / Circuit	5	7	11

- Step 9** Secure all excess wire in the raceway. Ensure that no exposed conductors are present.
 - Step 10** Secure junction box cover with screws.
 - Step 11** Once all wiring is complete, re-energize the supply circuit.
 - Step 12** Install switches into the mounts and check for proper operation.
-

Flexible Mount with IEC C14 Power Junction Box

To connect to a power source, follow these steps:

Procedure

- Step 1** Plug the IEC C14 power cord into the power connector on the flexible mount.
 - Step 2** Plug the other end of the power cord into a power source.
-

Rack Mounting

Installing the switch in a rack requires 5RU high 19-inch rack mount chassis (CDB-MNT-RACK5-C14).

Figure 39: Front View of Rack Mount Chassis

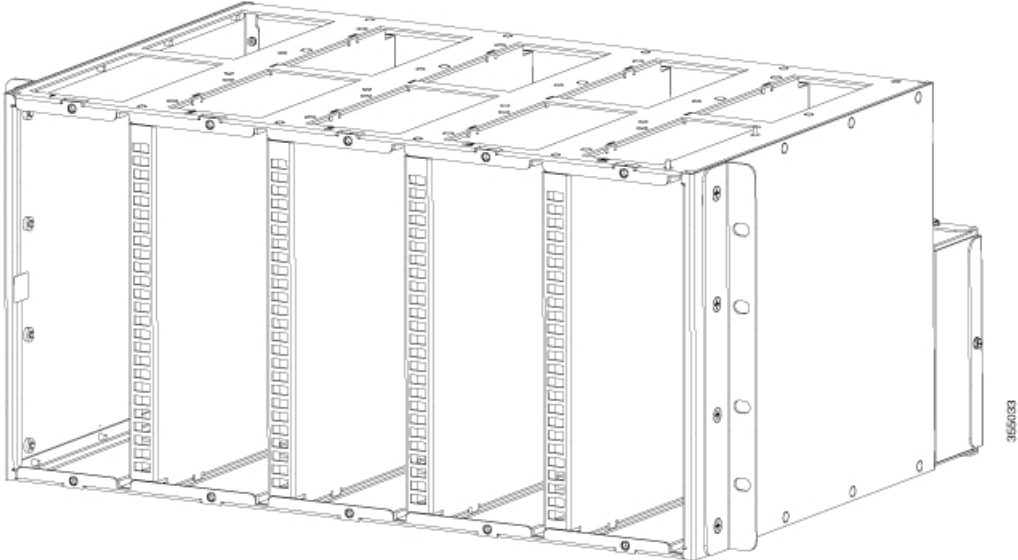
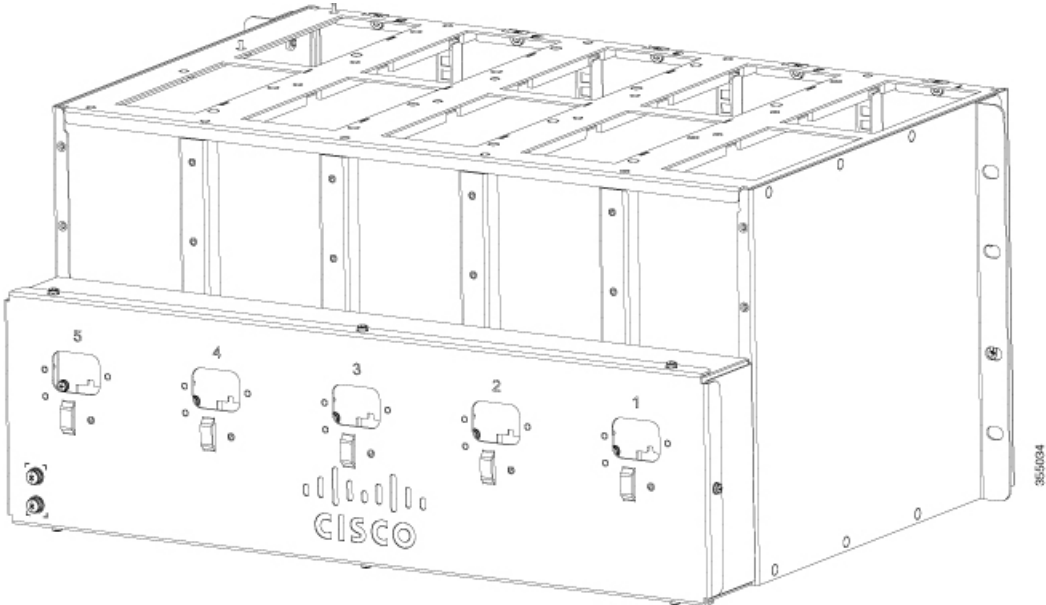


Figure 40: Rear View of Rack Mount Chassis



**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

**Note**

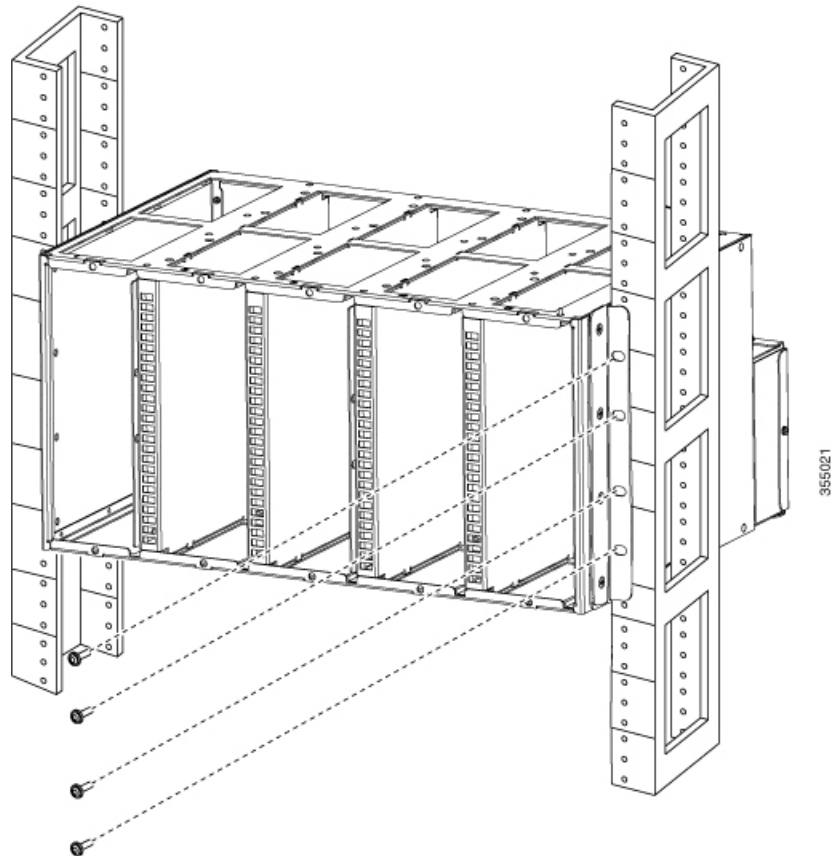
Unit in the above warning statement refers to the rack mount chassis (CDB-MNT-RACK5-C14).

Use the following procedure to install a Catalyst Digital Building Series Switch in a rack.

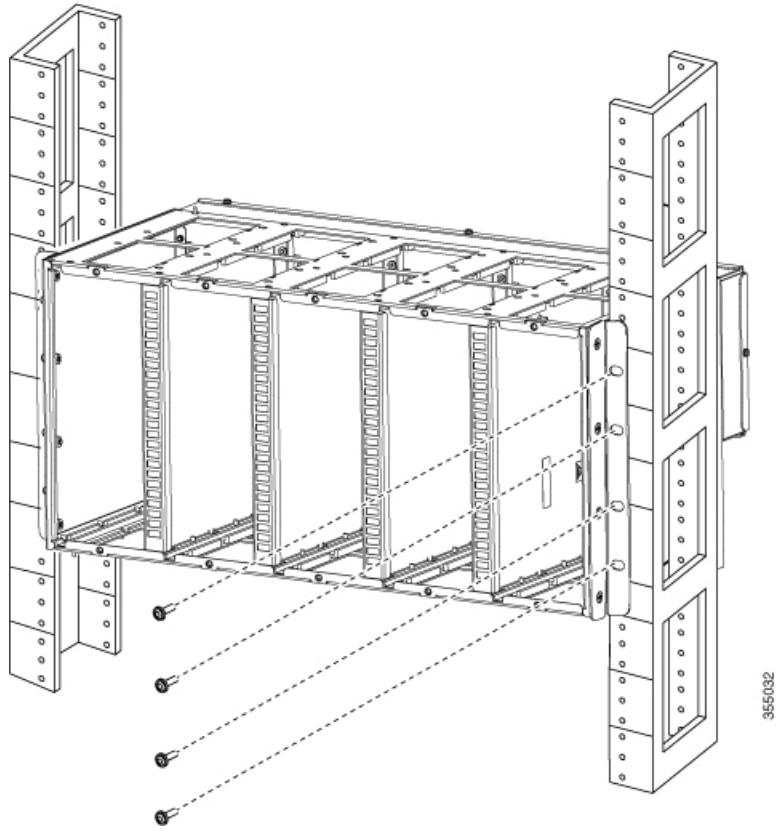
Procedure

- Step 1** Position the 19-inch 5RU rack mount chassis in the rack and align the mounting holes in the chassis with the mounting holes in the rack. Secure the chassis using eight 10-32 or 12-24 screws to the rack post.

Figure 41: Installation of Rack Mount Chassis on a 19-inch Rack

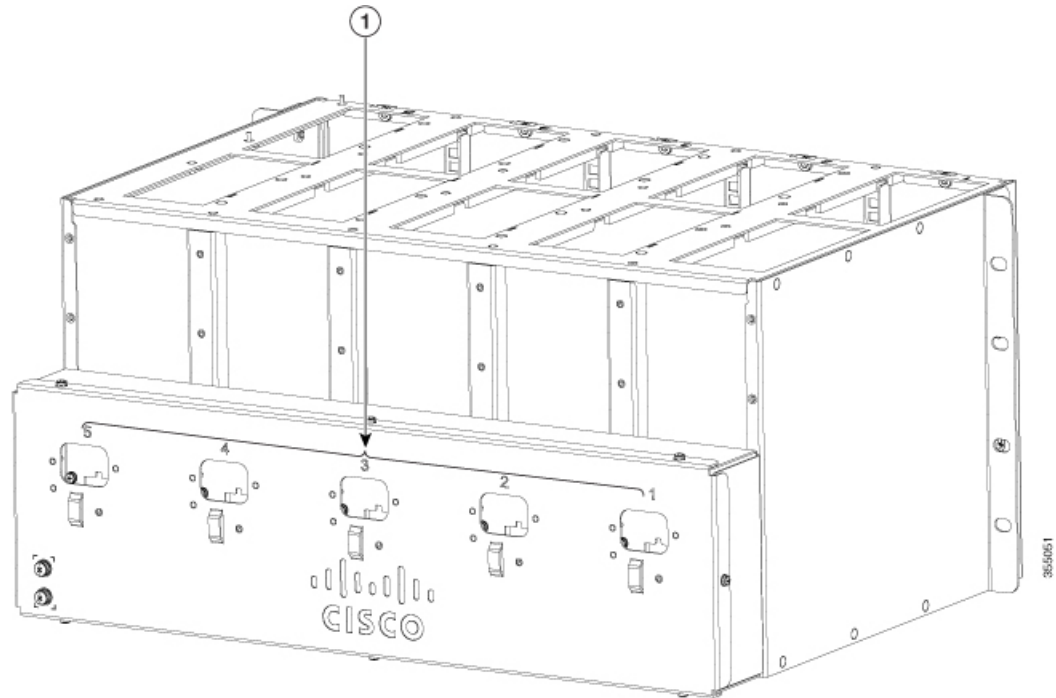


You can also install the rack mount chassis upside down if required for cable routing.



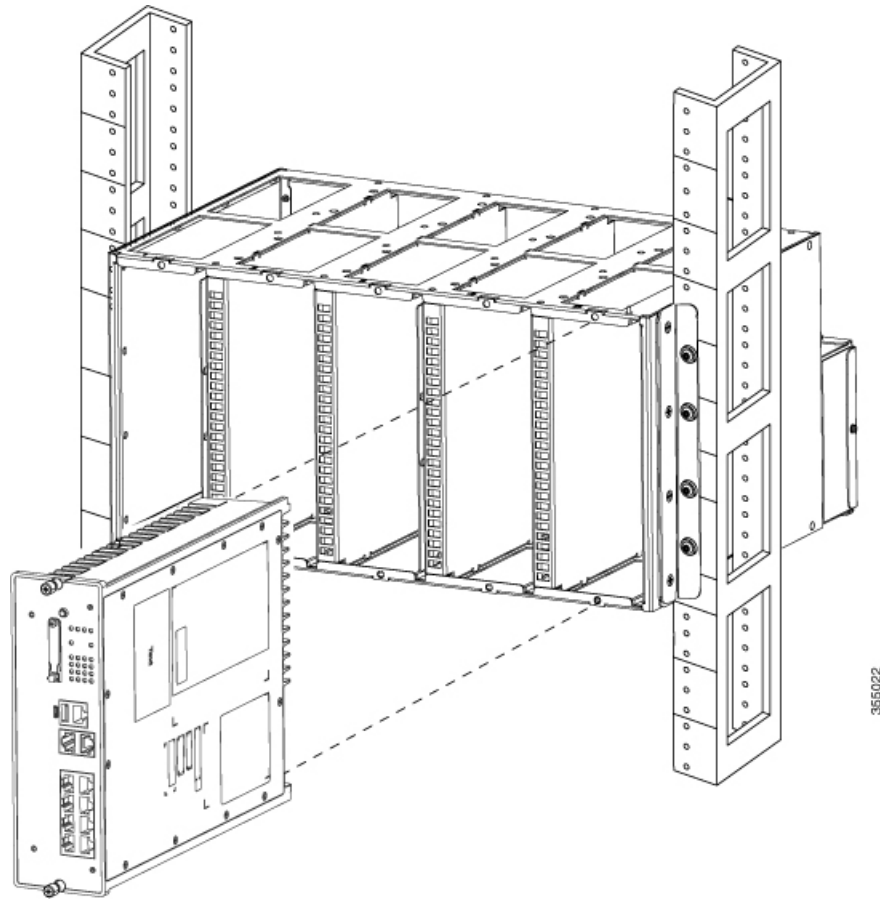
- Step 2** Plug country-specific power cords to power connectors on the rack mount chassis. Plug the other ends of the power cords to a power source.

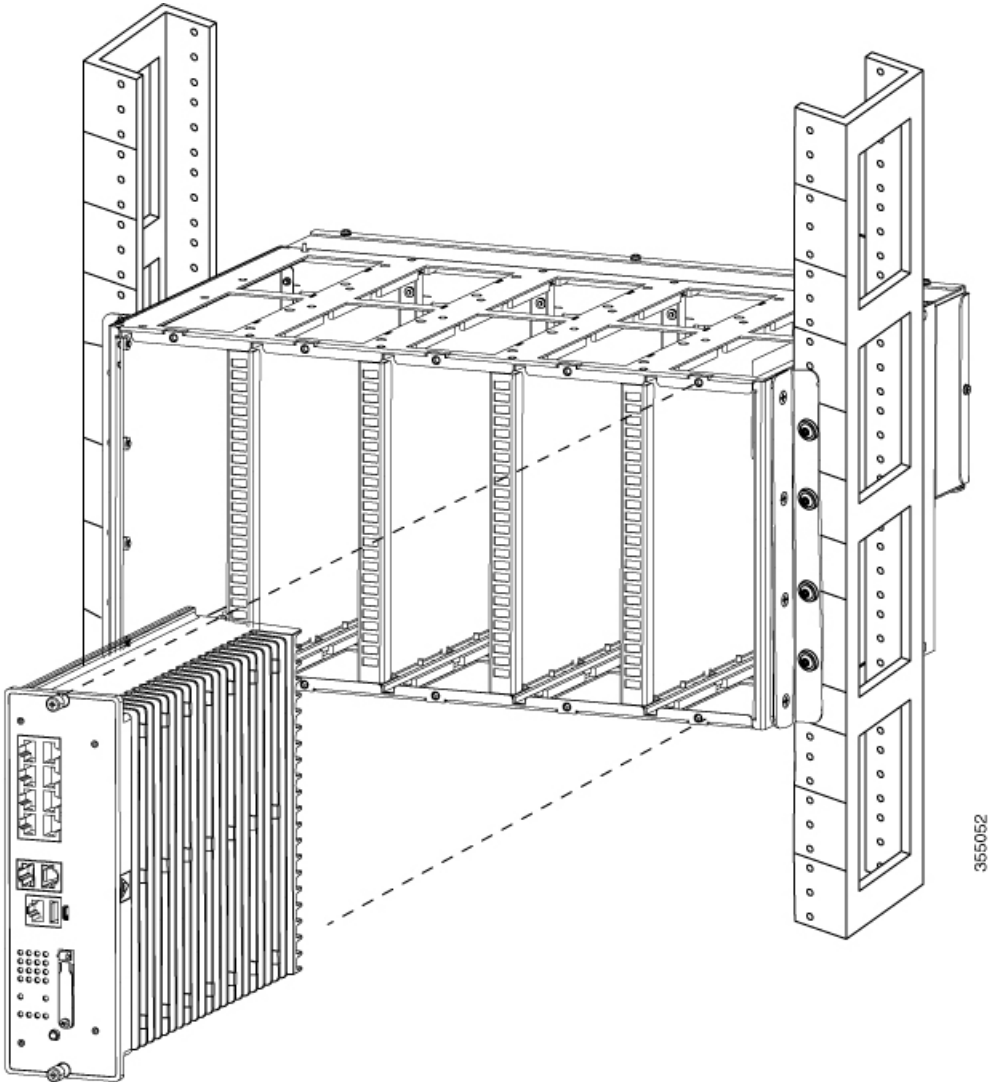
Figure 42:



1	IEC C14 power connector
---	-------------------------

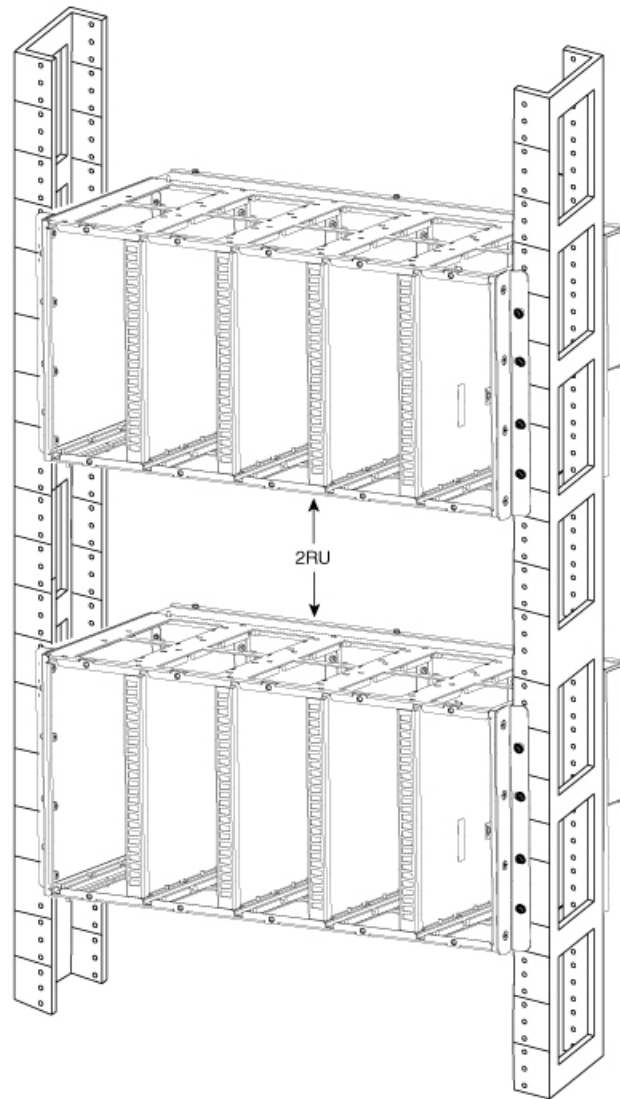
- Step 3** Slide the switches into each of the rack unit slots in a front-mounting position and secure them to the rack using the supplied screws as shown in the figure.





Warning

You must leave 2RU gap between each rack unit for ventilation unless forced air is provided top to bottom in the rack.



What to Do Next

After installing the switch in the chassis, complete the installation process by grounding the chassis. See [Establishing the System Ground](#).

Establishing the System Ground

This section describes how to connect a system ground to the switch.

The system ground provides additional grounding for EMI shielding requirements and grounding for the low voltage supplies.

**Note**

In all situations, grounding practices must comply with Section 250 of the National Electric Code (NEC) requirements or local laws and regulations.

Required Tools and Equipment

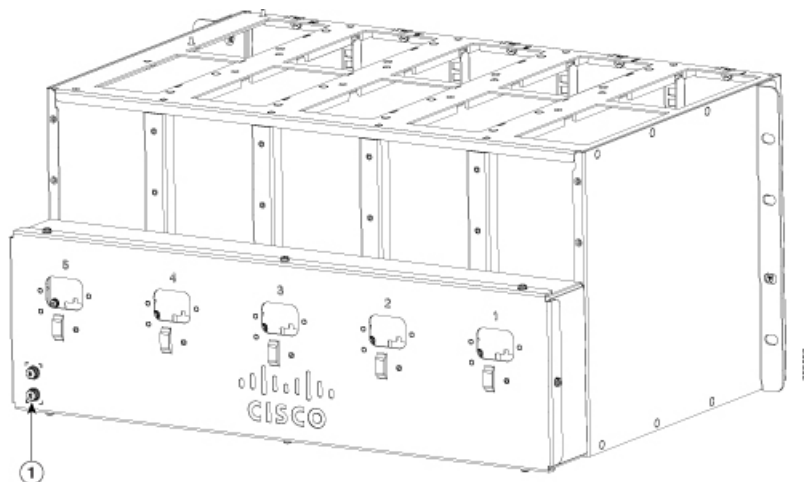
To connect the system ground, you need the following tools and materials:

- Grounding lug—A two-hole standard barrel lug. Supports 6 AWG wire. Supplied as part of accessory kit.
- Grounding screws—Two 8 mm pan-head screws. Supplied as part of the accessory kit.
- Grounding wire—Not supplied as part of accessory kit. The grounding wire should be sized according to local and national installation requirements. The length of the grounding wire depends on the proximity of the chassis to proper grounding facilities.
- No. 1 Phillips screwdriver.
- Crimping tool to crimp the grounding wire to the grounding lug.
- Wire-stripping tool to remove the insulation from the grounding wire.

Connecting the System Ground

To establish an earth ground for the chassis, you must attach a grounding cable from the chassis' grounding lug to the rack.

Figure 43: Connecting the System Ground



1

Location of system ground lug

Procedure

- Step 1** Use a wire-stripping tool to remove approximately 0.5 inch (12.7 mm) \pm 0.02 inch (0.5 mm) of the covering from the end of the grounding wire.
 - Step 2** Insert the stripped end of the grounding wire into the open end of the grounding lug.
 - Step 3** Crimp the grounding wire in the barrel of the grounding lug. Verify that the ground wire is securely attached to the ground lug.
 - Step 4** Place the grounding wire lug against the grounding pad, making sure that there is solid metal-to-metal contact.
 - Step 5** Secure the grounding lug to the chassis with two grounding screws. Ensure that the grounding lug and the grounding wire will not interfere with other switch hardware or rack equipment.
 - Step 6** Connect the other end of the grounding wire to an appropriate grounding point at your site or to the rack.
-

Installing the Power Cord Retainer

The power cord retainer (PWR-CLP=) is optionally supplied as part of accessory kit with the 5RU 19" rack mount chassis (CDB-MNT-RACK5-C14) and flexible mount with IEC C14 power junction box (CDB-MNT-FLEX-C14).

Procedure

- Step 1** Choose the sleeve size of the power cord retainer based on the thickness of the cord. The smaller sleeve can be snapped off and used for thin cords.
- Step 2** Slide the retainer around the AC power cord, and pass it around the loop on the switch.

Figure 44: Inserting the Retainer through the Lanced Loop (5RU 19" Rack Mount Chassis)

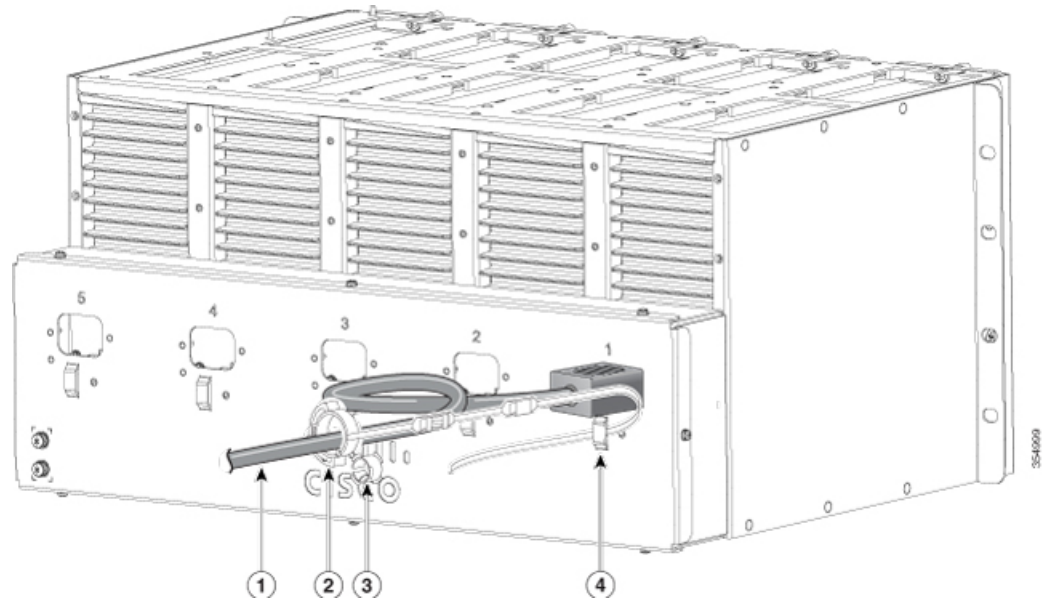
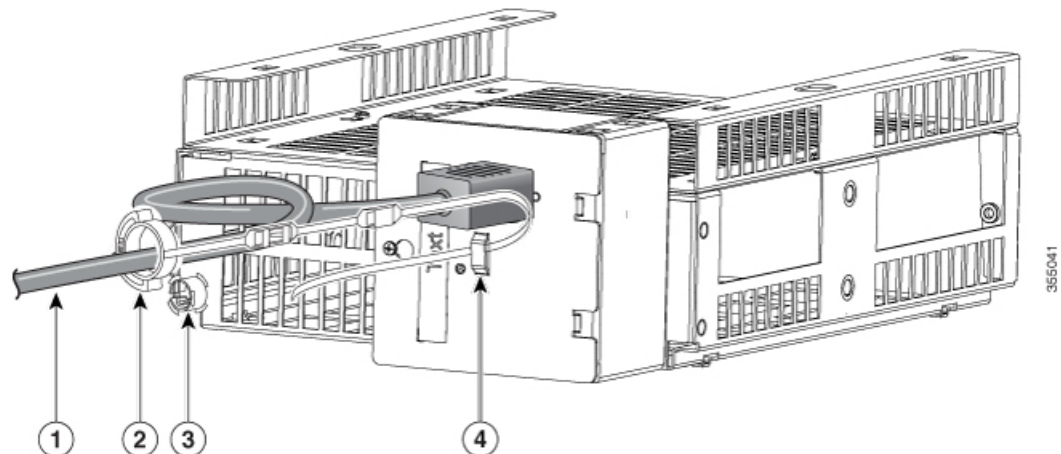


Figure 45: Inserting the Retainer through the Lanced Loop (Flexible mount with IEC C14 power junction box)



1	AC power cord	3	Sleeve for thinner power cords
2	Power cord retainer	4	Loop

Step 3 Slide the retainer through the first latch.

Figure 46: Sliding the Retainer Through the Latch (5RU 19" Rack Mount Chassis)

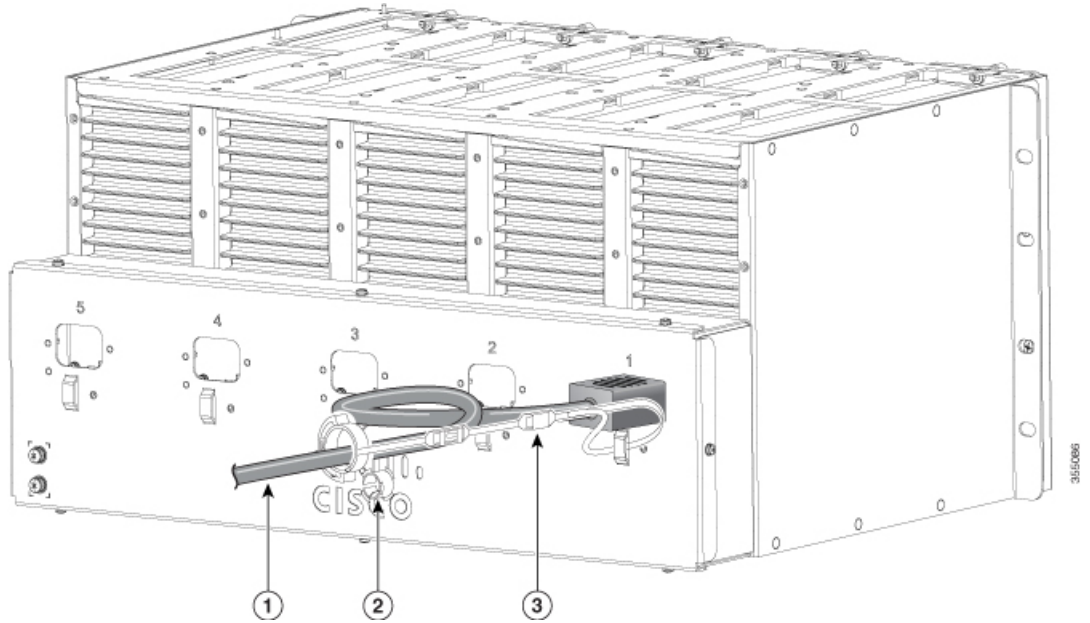
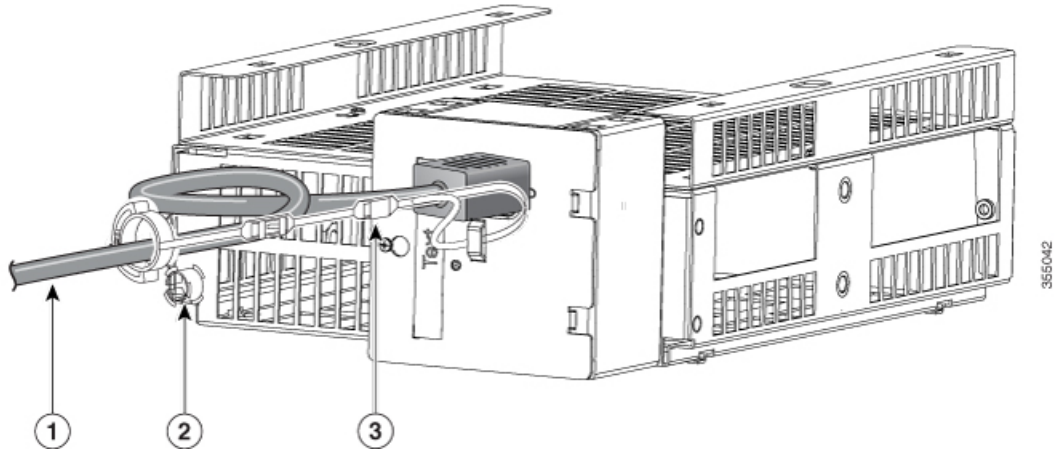


Figure 47: Sliding the Retainer Through the Latch (Flexible mount with IEC C14 power junction box)



1	AC power cord	3	Latch
2	Smaller sleeve for thin power cords		

Step 4 Slide the retainer through the other latches to lock it.

Figure 48: Locking the Retainer (5RU 19" Rack Mount Chassis)

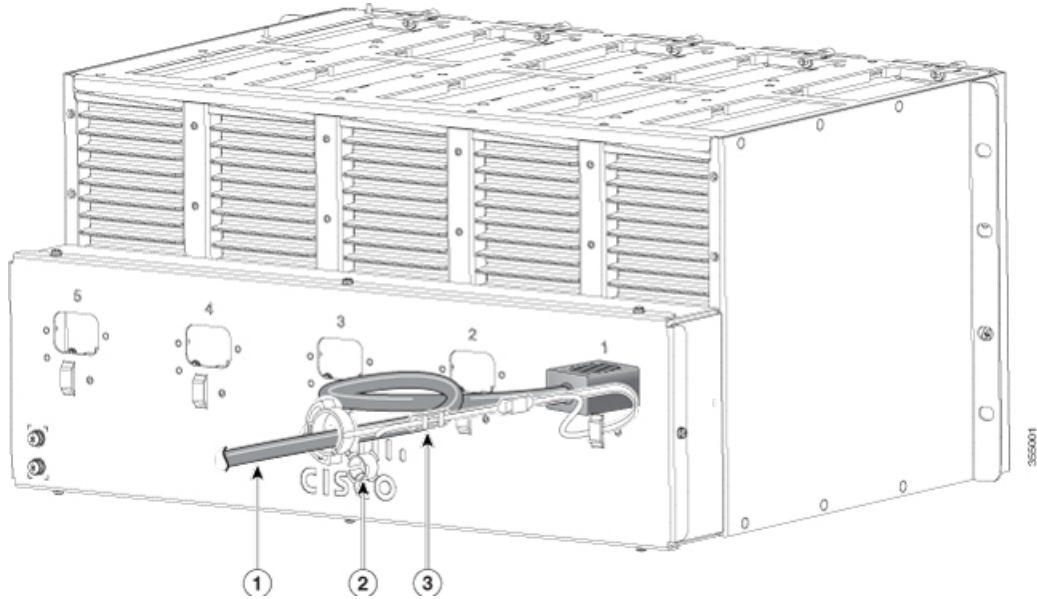
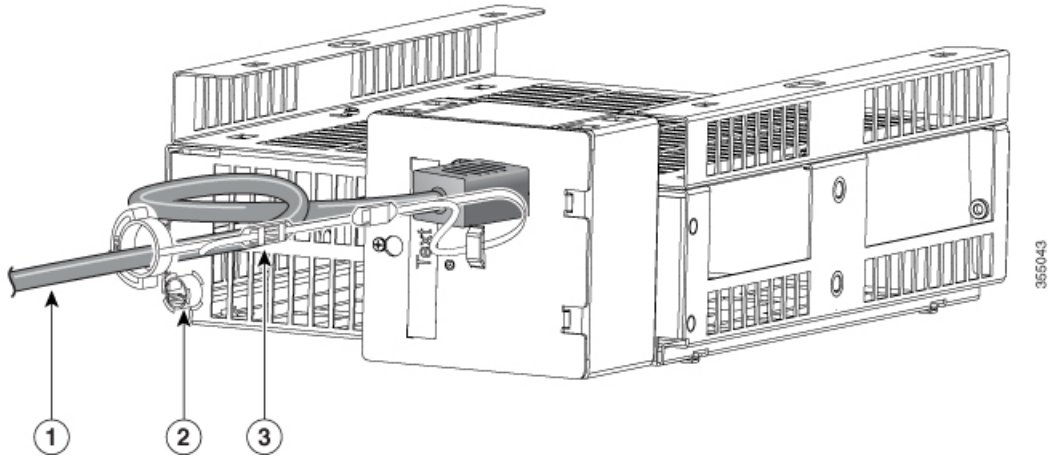


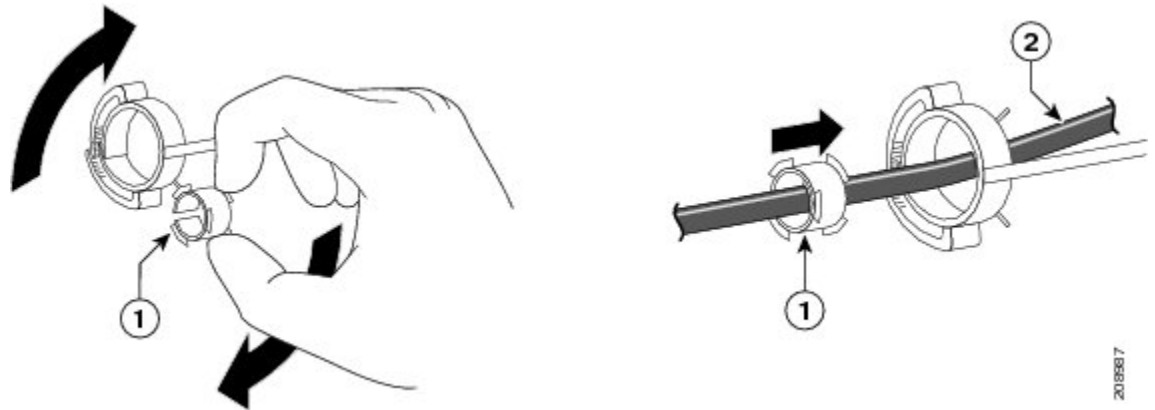
Figure 49: Locking the Retainer (Flexible mount with IEC C14 power junction box)



1	AC power cord	3	Latch
2	Smaller sleeve for thin power cords		

- Step 5** (Optional) Use the small sleeve for thin power cords. Use the small sleeve to provide greater stability for thin cords. Detach the sleeve, and slide it over the power cord.

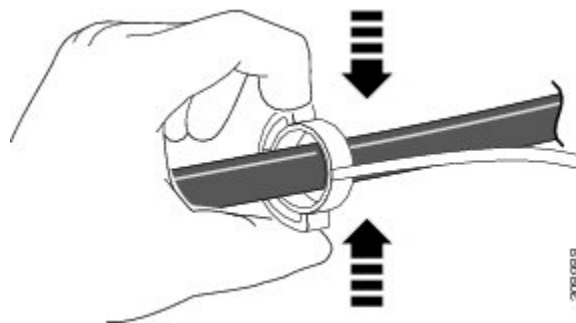
Figure 50: Sleeve Around the Power Cord



1	Smaller sleeve for thin power cords	2	AC power cord
---	-------------------------------------	---	---------------

- Step 6** Secure the AC power cord by pressing on the retainer.

Figure 51: Securing the Power Cord in the Retainer



10/100 Port Connections

The switch 10/100 port configuration changes to operate at the speed of the attached device. If the attached ports do not support autonegotiation, you can manually set the speed and duplex parameters. Connecting devices that do not autonegotiate or that have the speed and duplex parameters manually set can reduce performance or result in no linkage.

To maximize performance, choose one of these methods for configuring the Ethernet ports:

- Let the ports autonegotiate both speed and duplex.
- Set the interface speed and duplex parameters on both ends of the connection.