

ARISTA

QUICK START GUIDE

7700R4 Series Data Center Switches

DCS-DS-7720R4-128PE

DCS-DS-7720R4-38PE



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Contents

Chapter 1: Overview.....	1
1.1 Scope.....	1
1.2 Receiving and Inspecting the Equipment.....	1
1.3 Installation Process.....	1
1.4 Safety Information.....	2
1.5 Obtaining Technical Assistance.....	2
1.6 Specifications.....	3
 Chapter 2: Preparation.....	 5
2.1 Site Selection.....	5
2.2 Tools and Parts Required for Installation.....	7
2.3 Electrostatic Discharge (ESD) Precautions.....	7
 Chapter 3: Rack Mounting the Switch.....	 8
3.1 Two-Post Rack Mount (19" rack).....	8
3.2 Four-Post Rack Mount (19" rack).....	8
3.2.1 Extracting the Brackets and the Rails.....	8
3.2.2 Attaching Mounting Brackets to the Chassis.....	9
3.2.3 Expanding the Rails.....	10
3.2.4 Assembling the Rails onto the Equipment Rack.....	10
3.2.5 Attaching the Switch to the Rack.....	11
3.3 Rack Mounting the DCS-7720R4-128PE for Four-posts.....	12
3.3.1 Attaching Mounting Brackets to the DCS-DS-7720R4-128PE for a Four-post Mount.....	12
3.3.2 Inserting and Securing the Cradle to the Racks for the Four-post DCS-DS-7720R4-128PE Mount.....	12
3.3.3 Inserting and Securing the Switch into the Rack for the Four-post DCS-DS-7720R4-128PE Mount.....	15
 Chapter 4: Cabling the Switch.....	 16
4.1 Grounding the Switch.....	16
4.2 Grounding Adapter Assembly (2RU).....	16
4.3 Connecting Power Cables.....	17
4.3.1 AC Power Supplies.....	18
4.3.2 DC Power Supplies.....	19
4.3.3 Connecting a DC Power Supply to a Power Source.....	20
4.4 Connecting Serial and Management Cables.....	20
 Chapter 5: Configuring the Switch.....	 22
 Appendix A: Status Indicators.....	 24
A.1 Front Indicators.....	24
A.1.1 Switch Indicators.....	24
A.1.2 Port Indicators.....	27
A.2 Rear Status Indicators.....	27

Appendix B: Parts List.....	30
B.1 Accessory Kits.....	30
B.2 Cables.....	32
B.3 Ground Extender Kit (Optional).....	32
 Appendix C: Front Panel.....	 34
 Appendix D: Rear Panel.....	 36
 Appendix E: Maintenance and Field Replacement.....	 38
E.1 Considerations.....	38
E.2 Supervisor Card.....	38
E.2.1 Removing and Installing a Supervisor Card.....	38
E.3 Power Supplies.....	39
E.3.1 Removing a Power Supply.....	39
E.3.2 Installing a Power Supply.....	40
E.4 Fan Modules.....	40
E.4.1 Removing a Fan Module.....	40
E.4.2 Installing a Fan Module.....	41
 Appendix F: Regulatory Model Numbers.....	 42
 Appendix G: Taiwan RoHS Information.....	 43

Overview

This guide is for properly trained service personnel and technicians who need to install selected Arista Networks Data Center Switches.

This section discusses the following topics:

- [Scope](#)
- [Receiving and Inspecting the Equipment](#)
- [Installation Process](#)
- [Safety Information](#)
- [Obtaining Technical Assistance](#)
- [Specifications](#)

1.1 Scope

This guide covers the following devices:

DCS-DS-7720R4-128PE

DCS-DL-7700R4-38PE

Important:



Only qualified personnel should install, service, or replace this equipment.

Seul le personnel qualifié doit installer, service, ou remplacer cet équipement.

1.2 Receiving and Inspecting the Equipment

Upon receiving the switch, inspect the shipping boxes and record any external damage. Retain packing materials if you suspect that part of the shipment is damaged; the carrier may need to inspect them.

If the boxes were not damaged in transit, unpack them carefully. Ensure you do not discard any accessories packaged in the same box as the main unit.

Inspect the packing list and confirm that you received all listed items. Compare the packing list with your purchase order. The [Parts List](#) provides a list of components included with the switch.

1.3 Installation Process

This section discusses the task required to install and use the switch.

1. Select and prepare the installation site ([Site Selection](#)).
2. Assemble the installation tools ([Tools and Parts Required for Installation](#)).
3. Attach the mounting brackets and install the switch in an equipment rack ([Rack Mounting the Switch](#)).
4. Connect the switch to the power source and network devices ([Cabling the Switch](#)).
5. Configure the switch ([Configuring the Switch](#)).

1.4 Safety Information

Refer to the Arista Networks document Safety Information and Translated Safety Warnings at <https://www.arista.com/en/support/product-documentation>.

Important:

Class 1 Laser Product: This product has provisions to install Class 1 laser transceivers which provide optical coupling to the communication network. Once a Class 1 laser product is installed, the equipment is a Class 1 Laser Product. The customer is responsible for selecting and installing the Class 1 laser transceiver and for insuring that the Class 1 AEL (Allowable Emission Limit) per EN/IEC 60825, CSA E60825-1, and Code of Federal Regulations 21 CFR 1040 is not exceeded after the laser transceiver have been installed. Do not install laser products whose class rating is greater than 1. Refer to all safety instructions that accompanied the transceiver prior to installation. Only Class 1 laser devices, certified for use in the country of installation by the cognizant agency are to be utilized in this product.



Produit laser de classe 1: Ce produit est prévu pour l'installation d'émetteurs-récepteurs laser de classe 1, qui assurent un couplage optique au réseau de communication. Une fois qu'un produit laser de classe 1 est installé, l'équipement est un produit laser de classe 1. Le client est responsable de la sélection et de l'installation de l'émetteur-récepteur laser de classe 1 et de s'assurer que la classe 1 AEL (limite d'émission admissible) selon EN/IEC 60825, CSA E60825-1 et Code of Federal Regulations 21 CFR 1040 n'est pas dépassée après l'installation de l'émetteur-récepteur laser de classe 1. un émetteur-récepteur laser a été installé. N'installez pas de produits laser dont la classe est supérieure à 1. Reportez-vous à toutes les instructions de sécurité qui accompagnent l'émetteur-récepteur avant l'installation. Seuls les appareils laser de classe 1, certifiés pour une utilisation dans le pays d'installation par l'agence compétente, doivent être utilisés dans ce produit.

Important:

Ultimate disposal of this product should be handled in accordance with all national laws and regulations.



L'élimination finale de ce produit doit être effectuée conformément à toutes les lois et réglementations nationales.

1.5 Obtaining Technical Assistance

Any customer, partner, reseller, or distributor holding a valid Arista Service Contract can obtain technical support in the following ways.

- **Email:** support@arista.com. This is the easiest way to create a new service request. Include a detailed description of the problem and the “show tech-support” output.

- **Web:** <https://www.arista.com/en/support>.

You can create a support case through the support portal on our website. You may also download the most current software and documentation and view FAQs, Knowledge Base articles, Security Advisories, and Field Notices.

- **Phone:** +1 866-476-0000 or +1 408-547-5502.

Important:



There are no user-serviceable parts inside. Refer all servicing to qualified service personnel.

Il n'y a aucune pièce réparable par l'utilisateur à l'intérieur. Confiez tout entretien à un personnel de service qualifié.

1.6 Specifications

List of specifications of Arista data center modular switches and components covered by this guide.

Table 1: Switch Specifications (Dimensions and Weights)

Switch	Size (W x H x D)	Weight
DCS-DS-7720R4-128PE	44.0 x 30.8 x 56.0 cm (17.3 x 12.1 x 22.1 inches)	50 kg (110.3 lbs.)
DCS-DL-7700R4-38PE	44.0 x 8.8 x 58.6 cm (19 x 3.50 x 23.1 inches)	21.4 kg (47.2 lbs.)

Table 2: Switch Specifications (Operational and Storage)

Switch	Operating Temperature	Storage Temperature	Operating Altitude	Relative Humidity
All	0° to 40°C (32° to 104°F)	-25° to 70°C (-13° to 158°F)	0 to 3,000 meters (0 to 10,000 feet)	5 to 90% (non-condensing)

Table 3: Switch Specifications (Power Input)

Power Source	PSU Models	Ratings
<i>Power Input: AC</i>		
	PWR-2421 HV	200 to 277 VAC 13.5 A (at 200 V) 50/60 Hz
<i>Power Input: DC</i>		
	PWR-2421 HV	240 to 380 VDC
	PWR-2411-MC	-48 to -60 VDC, 60.0 to 50.0 A



Note: Use only the PSU models supported by the switch. Some switches described in this guide could use power supplies that may no longer be available. Contact your local Arista representative for more information.

Table 4: Switch Specifications (Power Draw)

Switch	Power Draw (Typical / Maximum)	Supported Power Supply
DCS-DS-7720R4-128PE	1032 W / 3848 W	PWR-2421 HV PWR-2411-MC
DCS-DL-7700R4-38PE	593 W / 1840 W	PWR-2421 HV PWR-2411-MC

Preparation

This section discusses the following topics:

- [Site Selection](#)
- [Tools and Parts Required for Installation](#)
- [Electrostatic Discharge \(ESD\) Precautions](#)

2.1 Site Selection

It would help to consider the following criteria when selecting a site to install the switch.

- **Temperature and Ventilation:** For proper ventilation, install the switch with ample airflow to the front and back of the switch. The ambient temperature should not go below 0°C or exceed 40°C.

Important:



To prevent the switch from overheating, do not operate it in an area where the ambient temperature exceeds 40°C (104°F).

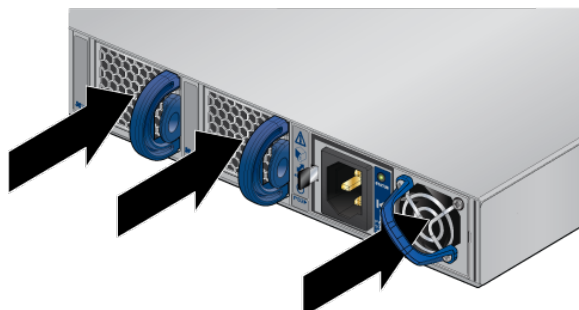
Pour empêcher l'interrupteur de surchauffer, ne pas utiliser il dans une zone où la température ambiante est supérieure à 40°C (104°F).

- **Airflow Orientation:** The fans and PSUs determine the airflow direction through the switch. The color of the visible handles or labels indicates the airflow direction.

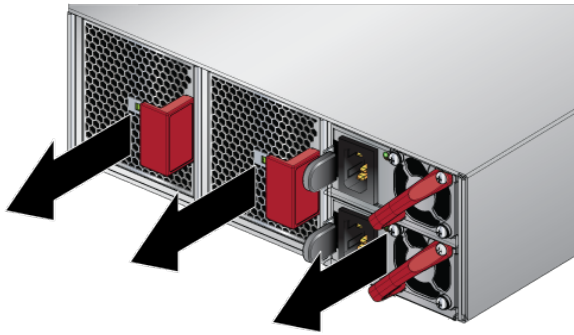


Note: The figures shown use representative Arista switches to illustrate airflow directions.

- **Blue Handle:** Air Inlet module. The following figure shows the airflow through the switch with air inlet modules:



- **Red Handle:** Air Exit module. The following figure shows the airflow through the switch with air exit modules:



The [Rear Panel](#) shows the fan and power supply module locations on the rear panel. Verify that each module has the same airflow direction. Base the switch orientation on the airflow direction of the modules to ensure the air inlet is always oriented toward the cool aisle:

- **Air Exit modules:** Orient the rear panel toward the hot aisle.
- **Air Inlet modules:** Orient the rear panel toward the cool aisle.

Most Arista switches are available in configurations to support airflow in either '-R' (Rear-to-Front, port-side air exhaust) or '-F' (Front-to-Rear, port-side air intake). For proper function, ensure that the installation direction matches the airflow configuration of the switch. If the switch's airflow direction is incompatible with the installation site, check the switch datasheet or contact your Arista representative for applicable options.

- **Rack Space:** Install the switch in a 19" rack or cabinet. The switches covered by this guide may also be installed in Open Rack version 3 (ORv3) or Open Rack version 3 Networking (ORv3n).

When mounting the switch in a partially filled rack, load the rack from bottom to top, with the heaviest equipment at the bottom. Load the switch at the bottom if it is the only item in the rack.

- **Power Requirements:** Power requirements vary by switch and power supply model. [Table 3: Switch Specifications \(Power Input\)](#) and [Table 4: Switch Specifications \(Power Draw\)](#) provide information regarding your specific system.

For redundancy, power supplies should be connected to different circuits. [Cabling the Switch](#) describes power cable requirements.

Important:



The power input plug-socket combination must be accessible at all times; it provides the primary method of disconnecting power from the system.

La combinaison de la puissance-prise d'entrée doit être accessible en tout temps ; Il fournit le principal moyen de coupure d'alimentation du système.

- **Other Requirements:** Select a site where liquids or objects cannot fall onto the equipment and foreign objects are not drawn into the ventilation holes. Verify these guidelines are met:
 - Clearance areas to the front and rear panels allow for unrestricted cabling.
 - All front and rear panel indicators can be easily read.
 - Power cords can reach from the power outlet to the connector on the rear panel.

Important:



All power connections must be removed to de-energize the unit.

Toutes les connexions d'alimentation doivent être enlevées pour hors tension l'appareil.

2.2 Tools and Parts Required for Installation

Each switch provides an accessory kit containing the parts required to install the switch.

In addition to the accessory kit, the following tools and equipment are required to install the switch:

Two-Post Rack

- Screws or rack mounting nuts and bolts.
- Screwdriver

Four-Post Rack (Tool-less)

No additional equipment is required.

Four-Post Rack (Conventional)

- Screws or rack mounting nuts and bolts.
- Screwdriver

The accessory kit does not include screws for attaching the switch to the equipment rack. When installing the switch into an equipment rack with unthreaded post holes, nuts are also required to secure the switch to the rack posts.

2.3 Electrostatic Discharge (ESD) Precautions

Observe these guidelines to avoid ESD damage when installing or servicing the switch.

- Assemble or disassemble equipment only in a static-free work area.
- A conductive work surface (such as an anti-static mat) dissipates static charge
- Wear a conductive wrist strap to dissipate static charge accumulation.
- Minimize handling of assemblies and components.
- Keep replacement parts in their original static-free packaging.
- Remove all plastic, foam, vinyl, paper, and other static-generating materials from the work area.
- Select tools that do not create ESD.

Rack Mounting the Switch

This section discusses the following rack mounting topics:

- [Two-Post Rack Mount \(19" rack\)](#)
- [Four-Post Rack Mount \(19" rack\)](#)

After completing the instructions for your rack type, proceed to [Cabling the Switch](#).

3.1 Two-Post Rack Mount (19" rack)

The switches covered in this guide do not support two-post rack mounting. The accessory kit contains the parts required for the mounting kit ordered. Contact your local Arista Networks account representative for further information if you require other mounting types.

3.2 Four-Post Rack Mount (19" rack)

Perform the following tasks to mount the switch onto a four-post rack.

The installation kit provides two bracket-rail assemblies. The following four-post mounting parts are extracted from each assembly:

- Mounting bracket
- Rail

Each chassis side has attachment pins that align with bracket holes; the number of pins varies by switch model. Pin orientation is symmetric and central, with supporting bracket placement where the flange is either flush with the front and rear panels or not flush with the panels. Each bracket hole includes a key opening for placing the bracket flush with the chassis and then locking it into place.

Important:

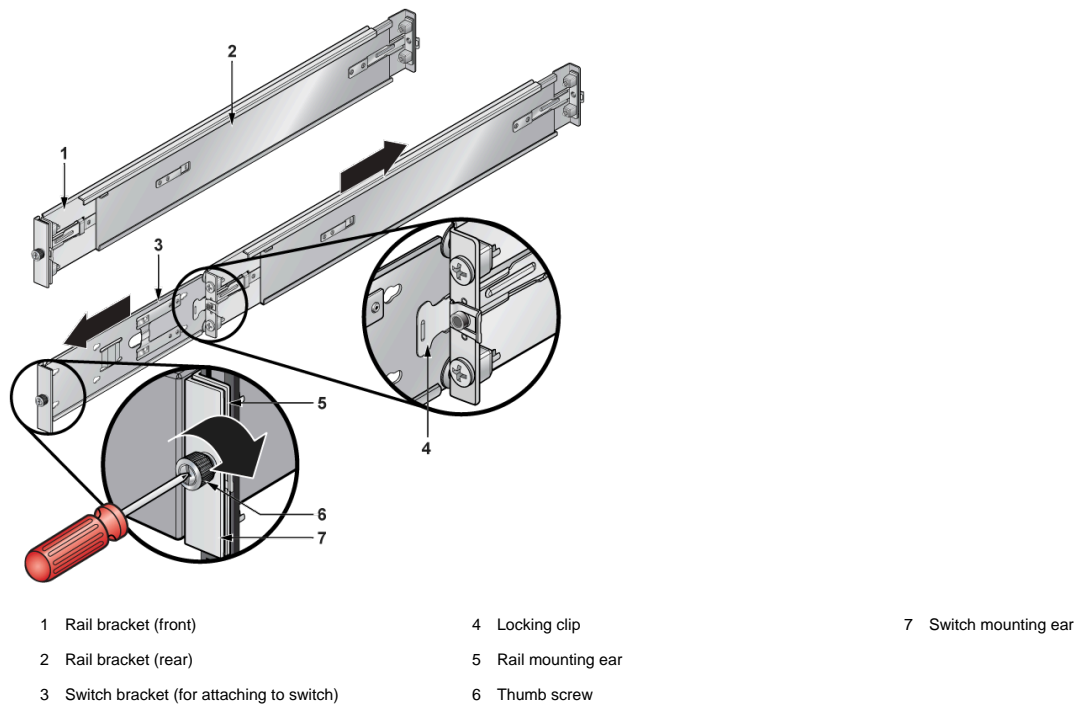


Attachment pins must engage all bracket holes.

Goupilles de fixation doivent s'engager tous les trous de support.

3.2.1 Extracting the Brackets and the Rails

The following figure displays a bracket-rail assembly and the components (bracket and rail) extracted from the assembly kit. Each assembly must be separated into components before mounting the switch into a four-post rack. The two assemblies supplied with the switch are identical.

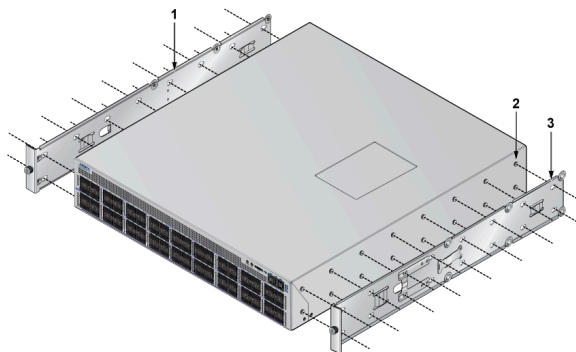
Figure 3-1: Accessory Kit Components

This procedure separates a bracket-rail assembly into its component pieces.

1. Grip the rail with one hand.
2. Pull the bracket flange away from the rail flange with your other hand until the bracket clip catches on the rail.
If the bracket flange resists initially, verify the thumb screw on the bracket flange is not attached to the rail flange.
3. While pressing the locking clip on the bracket, resume pulling the bracket from the rail until the separation is complete.
4. Repeat the procedure for the other assembly.

3.2.2 Attaching Mounting Brackets to the Chassis

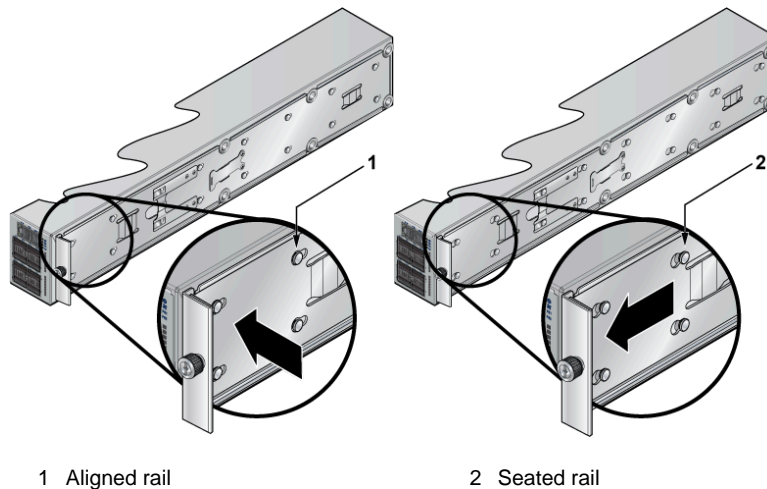
The following figure displays the switch bracket alignment for mounting the switch into a four-post rack.

Figure 3-2: Front Bracket Alignment

This procedure attaches mounting brackets to the switch chassis, as the following figure depicts.

1. Align the mounting brackets with the attachment pins.
2. Place the bracket flush on the chassis with attachment pins protruding through key openings.
3. Slide the bracket toward the front flange until the rail locks with an audible click.

Figure 3-3: Attaching the Mounting Brackets to the Switch Chassis



To remove the mounting bracket from the chassis, lift the front edge of the mounting bracket clip with a flathead screwdriver and slide the bracket away from the front flange (opposite from the installation direction).

3.2.3 Expanding the Rails

The rail is a two-piece mechanism. The rail length is adjusted by sliding the rail rod inside the rail slide. The rail clip prevents the extension of the rail beyond the maximum supported distance between the front and rear rack posts. The rail clip is closest to the slide end when the rail is contracted.

The rail is initially contracted and must be expanded to attach onto the rack. This procedure expands the rails from their contracted state:

1. Grip the slide end with your left hand and the rod end with your right hand.
2. Pull the ends apart until the rail clip makes an audible click.

3.2.4 Assembling the Rails onto the Equipment Rack

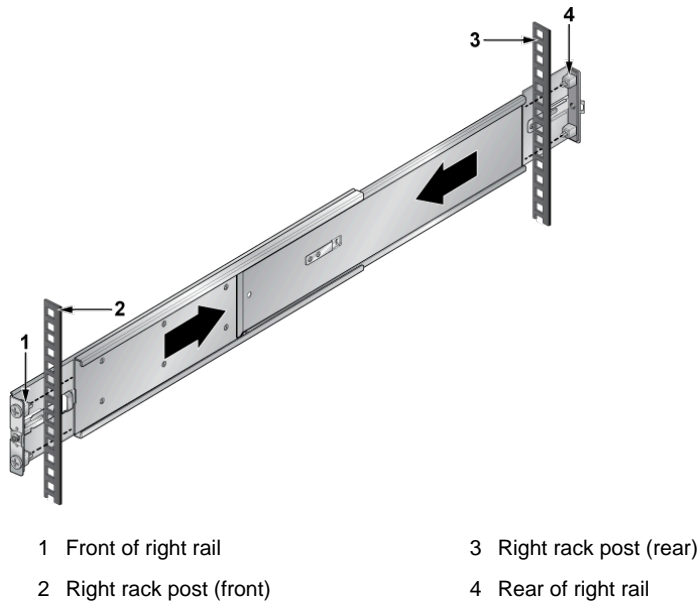
A rail attaches to the front and rear posts. Each end of the rail has two rack plugs. Rails are installed into a rack by inserting the plugs into rack slots. To install rails into posts with threaded or rounded holes, remove all plugs on both sides of the rails, then install the rails with bolts that fit the rack. This procedure attaches the rails to a four-post rack:

1. Attach the rail to the right rear rack post by inserting rod-end rack plugs into post slots. The slide assembly must be inside the right posts relative to the left rack posts ([Figure 3-4: Attaching the Rails](#)).

If the rack plugs were previously removed, use bolts to attach the rail to the rack.

2. Attach the slide end of the rail to the front post by extending the rail end past the post, then contracting the rail while guiding the rack plugs into the post.
3. Repeat **Step 1** through **Step 2** for the left posts. Ensure the rails are on the same horizontal level.

Figure 3-4: Attaching the Rails



3.2.5 Attaching the Switch to the Rack

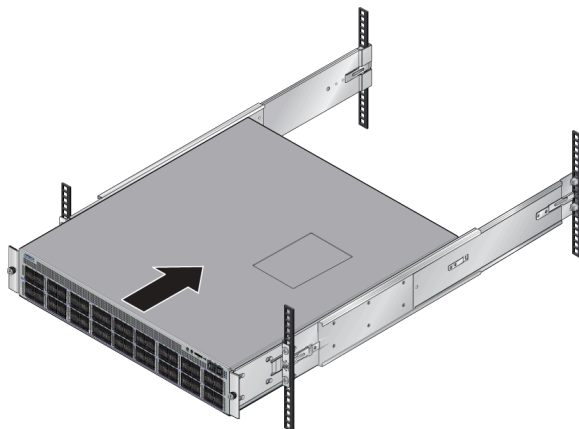
After the rails are installed, the switch slides on the rails into the rack. Each bracket includes a thumb screw that attaches the switch to the rail.



Note: The illustrations shown may differ from those in your accessory kit.

1. Lift the switch into the rack and insert the mounting brackets into the slide rails.
2. Slide the switch on the rails toward the rear posts until the mounting bracket flanges are flush with the rail flanges attached to the rack posts.

Figure 3-5: Inserting the Switch onto the Rails

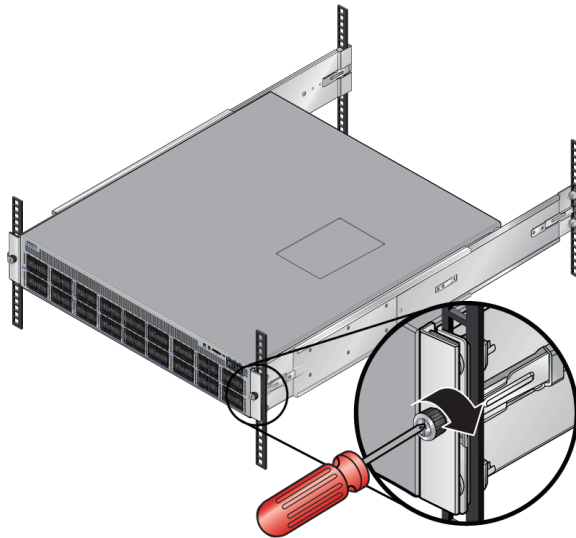


3. Attach the bracket flanges to the rack post using the quick-release thumb screws supplied with the brackets. Hand-tighten the thumb screws or use a Phillips #2 screwdriver.



Note: Do not exceed a maximum torque of 20 in-lb, nor use powered impact drivers to secure the thumb screws.

Figure 3-6: Attaching the Switch to the Rack Posts



After completing the four-post rack mount, proceed to [Cabling the Switch](#).

3.3 Rack Mounting the DCS-7720R4-128PE for Four-posts

To mount the switch to the rack, perform the following tasks.

- Insert and secure the four-post cradle to the rack [Inserting and Securing the Cradle to the Racks for the Four-post DCS-DS-7720R4-128PE Mount](#).
- Insert and secure the switch into the rack [Inserting and Securing the Switch into the Rack for the Four-post DCS-DS-7720R4-128PE Mount](#).

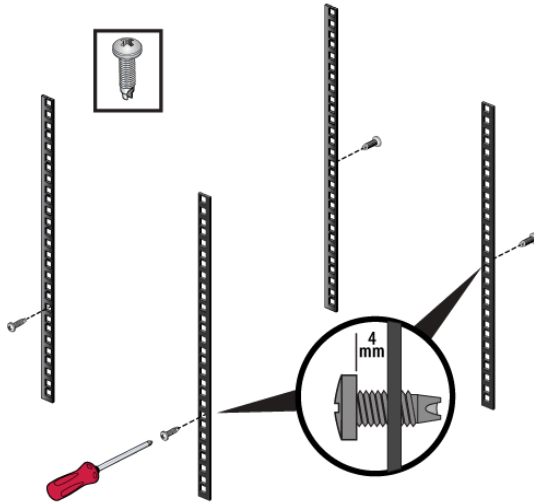
3.3.1 Attaching Mounting Brackets to the DCS-DS-7720R4-128PE for a Four-post Mount

The chassis includes the rack ears for mounting. The illustrations use a representative chassis.

3.3.2 Inserting and Securing the Cradle to the Racks for the Four-post DCS-DS-7720R4-128PE Mount

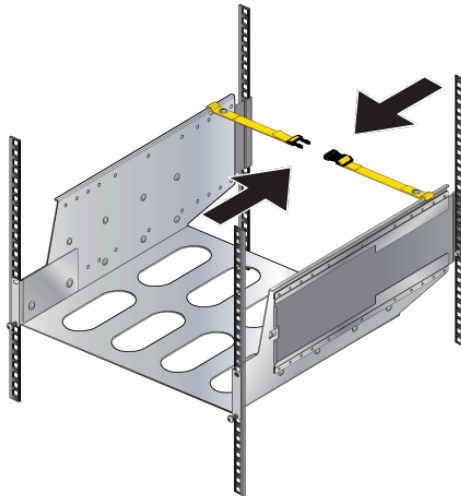
1. Insert two screws loosely in the two front rack posts and two in the back two rack posts at the same level for the figure below.

Figure 3-7: Attaching Mounting Screws to the Rack Posts



2. Buckle the straps on the cradle together prior to installation so the left and right sides are angled slightly inwards, as shown in the figure below.

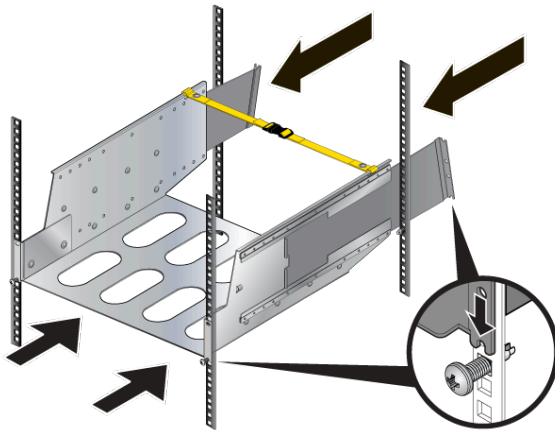
Figure 3-8: Buckling the Straps



3. Pull out the rear sliding rails slightly beyond the back rack posts.
4. Insert the cradle so that the notches in the cradle engage behind the loosely mounted front screws for the figure below.

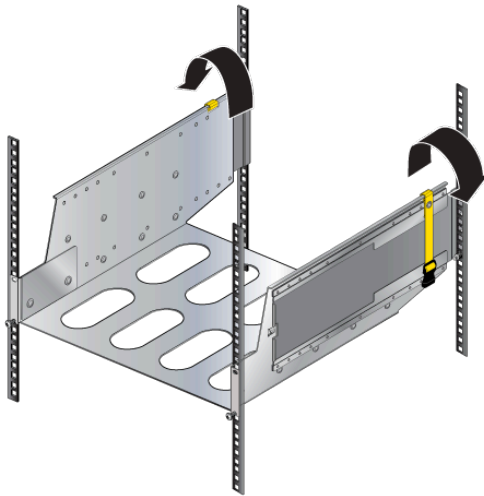
-
5. Slide the rear sliding rails back in so that they are flush with the back rack posts, the notches in the cradle engage behind the loosely mounted screws, and the bottom of the cradle is horizontal and level, for the figure below.

Figure 3-9: Inserting the Cradle



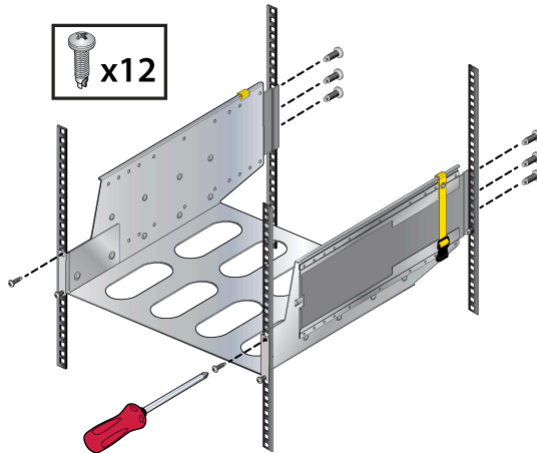
6. Release the clasp on the connector to rotate the left and right sides so they are vertical for the figure below.

Figure 3-10: Aligning the Cradle in the Rack



- Secure the cradle to the rack posts using the remaining screws, and tighten the loosely mounted screws for the figure below.

Figure 3-11: Securing the Cradle in the Rack



3.3.3 Inserting and Securing the Switch into the Rack for the Four-post DCS-DS-7720R4-128PE Mount

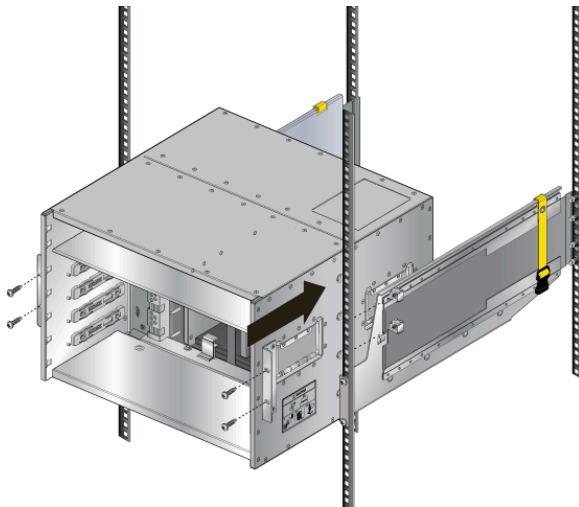
- Move the chassis to the rack using a mechanical lift.



Note: If modules are inserted in the chassis, use the lift carefully to avoid damaging any components.

- Lift the chassis into the rack and slide it into the cradle for the figure below.

Figure 3-12: Inserting the Chassis (Forward-Front)



- Secure the chassis by tightening additional screws on the front flanges into the rack posts for the figure below.

After completing the Four-Post Installation, proceed to [Cabling the Switch](#).

Cabling the Switch

This section discusses the following topics:

- [Grounding the Switch](#)
- [Grounding Adapter Assembly \(2RU\)](#)
- [Connecting Power Cables](#)
 - [AC Power Supplies](#)
 - [DC Power Supplies](#)
- [Connecting Serial and Management Cables](#)



Note: Arista fixed switches take approximately 5 to 10 minutes to boot completely.

4.1 Grounding the Switch

After mounting the switch into the rack, connect the switch to the data center ground.



Note: NEBS-compliant deployments require chassis grounding. Use the grounding point(s) on the switch directly or with the appropriate ground adapter kit to ground the chassis. Grounding on the hot-swappable power supplies cannot ensure continuous grounding to the chassis when a power supply is removed.

For the 2RU switches, the grounding location is at the rear panel of the switches or on the side using the KIT-GND-EXT-2RU grounding kit.

Important:

Grounding wires and grounding lugs (M4 x 0.7) are not supplied. Wire size should meet local and national installation requirements. Commercially available 6 AWG wire is recommended for installations in the US.



À la terre et de mise à la terre fils cosses (M4 x 0.7) ne sont pas fournis. Calibre des fils doit satisfaire des exigences de l'installation locale et nationale. Disponible dans le commerce 6 fils AWG est recommandé pour les installations aux États-Unis.

4.2 Grounding Adapter Assembly (2RU)

The following steps attach a grounding assembly KIT-GND-EXT-2RU to the side of the supported 2RU chassis before mounting it into the rack.

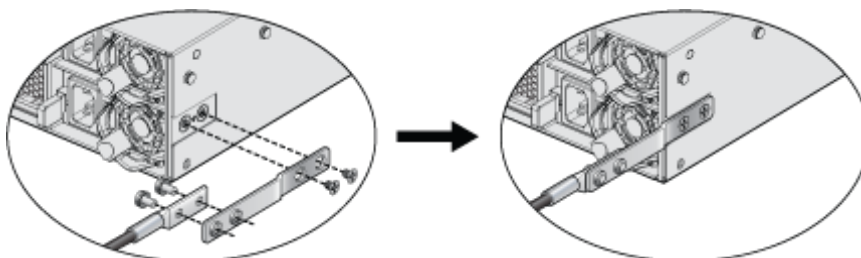
Identify where the adapter or lug should be attached. As shown in the following example, the attachment point is on the side of the chassis for the switches that support the KIT-GND-EXT-2RU grounding kit. The grounding location is on the back for those supporting direct attach and the KIT-GND-EXT-2RU grounding kit.

Table 5: Grounding Kit Adapter Support (2RU)

Switch	Grounding Kit Adapter
DCS-DL-7700R4-38PE	Attach directly - right angle lug recommended

The following figure shows the exploded and assembled views of using the KIT-GND-EXT-2RU grounding kit.

Figure 4-1: Earth Grounding Adapter for side attach



1. Identify all the components to be assembled:
 - 1x Grounding adapter
 - 1x Grounding bracket
 - 2x Flat-head screws (Phillips, M4 x 5.00 long, stainless steel)
 - 2x Hex nuts (#10-32, Serrated Flange, stainless steel)
 - 1x Grounding lug (Copper, 2-hole, 6 AWG, straight barrel)
2. Insert the grounding adapter through the holes in the grounding bracket.
3. Insert the ground lug onto the grounding adapter studs and fasten using the hex nuts to form the grounding assembly.
4. With the chassis on a flat surface, attach the grounding assembly to the chassis using the flat head screws.

4.3 Connecting Power Cables

You must use an approved power cord compliant with local and national electrical codes or order one from Arista for use with the switch. Some power cords are shipped with each switch as part of the accessory kit.

Important:



Installation of this equipment must comply with local and national electrical codes. Consult with the appropriate regulatory agencies and inspection authorities to ensure compliance if necessary.

L'installation de cet équipement doit être conforme aux codes électriques locaux et nationaux. Consultez les agences de réglementation et les autorités d'inspection appropriées pour garantir la conformité si nécessaire.

The switch operates with two installed power supplies. At least one power supply must connect to a power source. Two circuits provide redundancy protection. The [Rear Panel](#) displays the location of the power supplies on the switch's rear panel.

Important:



Read all installation instructions before connecting the system to the power source.

Lire toutes les instructions d'installation avant de brancher le système à la source d'alimentation.

- **Non-Redundant Configuration:** Connect power to either of the two power supplies.
- **Redundant Power Supply Configuration:** Connect power to both power supplies.
- **Power down the Switch:** Remove all power cords and wires from the power supplies.

Important:



This equipment must be grounded. Never defeat the ground conductor.

Cet équipement doit être mis à la terre. Ne jamais modifier le conducteur de terre.

Important:



This unit requires overcurrent protection.

Cet appareil requiert une protection contre les surintensités.

4.3.1 AC Power Supplies

The following AC power supplies are supported.

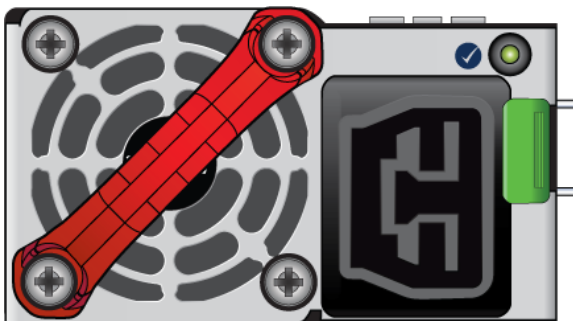
PWR-2421 HV

The [Figure 4-2: AC Power Supply Example](#) displays an AC power supply connecting to a circuit that provides the required power, as the [Table 4: Switch Specifications \(Power Draw\)](#) specify.



Note: Several PSUs support both forward and reverse airflow directions.

Figure 4-2: AC Power Supply Example



The accessory kit provides power cables for some switches.

4.3.2 DC Power Supplies

The following DC power supplies are supported.



Note: Several PSUs support both forward and reverse airflow directions.

PWR-2411-MC

The following image displays an example of a DC power supply.

Figure 4-3: DC Power Supply Examples



Important:



A disconnect device must be provided as part of the installation.

Un dispositif de sectionnement doit être fourni dans le cadre de l'installation.

Important:



Ensure power is removed from DC circuits before performing any installation actions. Locate the disconnect device, circuit breakers, or fuses on DC power lines servicing the circuits. Turn off the power line circuits or remove the fuses.

Pouvoir assurer qu'il est retiré de circuits DC avant d'effectuer des actions d'installation . Localiser les disjoncteurs ou des fusibles sur les lignes de courant continu desservant les circuits. Coupez les circuits de lignes d'alimentation ou retirer les fusibles.

Important:



Wire size must comply with local and national requirements and electrical codes. Use only copper wire.

Le calibre du fil doit être conforme aux exigences locales et nationales et les codes électriques. Utiliser du fil de cuivre.

Important:



Apply ground connection to the switch first during installation and remove last when removing power.

Appliquer connexion à la terre à l'interrupteur premier lors de l'installation et de supprimer la dernière alimentation lors du débranchement.

4.3.3 Connecting a DC Power Supply to a Power Source



Note: The following section applies only to DC power supplies with terminals. Power supplies with edge connectors require mating connectors and or cables.

1. Prepare the stranded wiring.
2. Attach the appropriate lugs to the source DC wires.
3. Connect the DC-input wires to the appropriate terminals using the specified torque ([Table 4: Switch Specifications \(Power Draw\)](#)) in the following order.



Note: Remove terminal covers as needed.

- a. Ground wire to the Protective Earth (PE \oplus) terminal.
 - b. Negative source DC cable to the negative (- / -48V) terminal.
 - c. Positive (+) source DC cable to the positive (+ / Rtn) terminal.
4. Replace the terminal covers as required.

4.4 Connecting Serial and Management Cables

The accessory kit includes the following cables:

- RJ-45 to DB-9 serial adapter cable.
- RJ-45 Ethernet cable.

[Table 6: RJ-45 to DB-9 Connections](#) lists the pin connections of the RJ-45 to DB-9 adapter cable.

Table 6: RJ-45 to DB-9 Connections

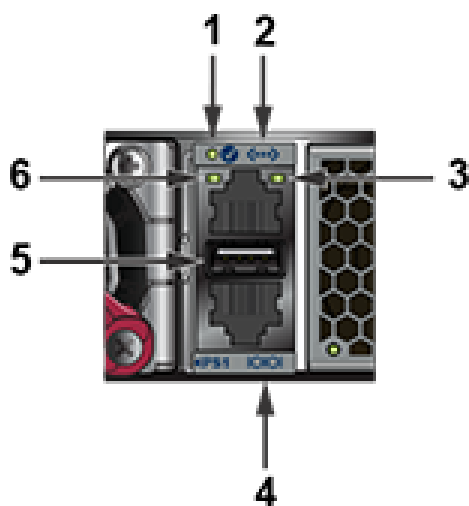
RJ-45		DB-9			RJ-45		DB-9	
RTS	1	8	CTS		GND	5	5	GND
DTR	2	6	DSR		RXD	6	3	TXD
TXD	3	2	RXD		DSR	7	4	DTR
GND	4	5	GND		CTS	8	7	RTS



Note: RJ-45 to DB-9 connections: For models with a console management port on the rear panel, RJ-45 pin 1 (RTS) is connected to RJ-45 pin 8 (CTS); RJ-45 pin 2 (DTR) and RJ-45 pin 7 (DSR) are not electrically connected to any signal.

The console, management, and USB ports are either on the switch's front panel or rear panel. The system status LED could be at a different location on the switch than the one shown below. Some switches have optical management ports.

Figure 4-4: Management Ports and LEDs



- | | | |
|----------------------------|-----------------------|-------------------|
| 1 System status LED | 3 Activity status LED | 5 USB port |
| 2 Ethernet management port | 4 Console serial port | 6 Link status LED |

Connect the ports as follows:

- **Console (Serial) Port:** Connect to a PC with the RJ-45 to DB-9 serial adapter cable. The switch uses the following default settings:
 - 9600 baud
 - No flow control
 - 1 stop bit
 - No parity bits
 - 8 data bits
- **Ethernet Management Port:** Connect to 10/100/1000 management network with RJ-45 Ethernet cable.
- **USB Port:** The USB port may be used for software or configuration updates.

CAUTION:



Excessive bending can damage interface cables, especially optical cables.

Flexion excessive peut endommager les câbles d'interface, notamment des câbles optiques.

Configuring the Switch

Arista switches ship from the factory in Zero Touch Provisioning (ZTP) mode. ZTP configures the switch without user intervention by downloading a startup configuration file or a boot script from a location specified by a DHCP server.

To manually configure a switch, ZTP is bypassed. The initial configuration provides one username (admin) that is accessible only through the console port because it has no password.

When bypassing ZTP, initial switch access requires logging in as admin, with no password, through the console port. Then, you can configure an admin password and other password-protected usernames.

This manual configuration procedure cancels ZTP mode, logs into the switch, assigns a password to the admin, assigns an IP address to the management port, and defines a default route to a network gateway.

As the switch boots without a startup-config file, it displays the following through the console:

```
The device is in Zero Touch Provisioning mode and is attempting to
download the startup-config from a remote system. The device will not
be fully functional until either a valid startup-config is downloaded
from a remote system or Zero Touch Provisioning is cancelled. To cancel
Zero Touch Provisioning, login as admin and type 'zerotouch cancel'
at the CLI.
```

```
localhost login:
```

1. Provide power to the switch ([Cabling the Switch](#)).
2. Connect the console port to a PC ([Connecting Serial and Management Cables](#)).
3. Log into the switch by typing **admin** at the login prompt.

```
localhost login: admin
```

4. Cancel ZTP mode by typing **zerotouch cancel**.



Important: This step initiates a switch reboot.

```
localhost> zerotouch cancel
```

5. After the switch boots, log into the switch again by typing **admin** at the login prompt.

```
Arista EOS
localhost login: admin
Last login: Fri Mar 15 13:17:13 on console
```

6. Enter global configuration mode.

```
localhost> enable
localhost# config
```

7. Assign a password to the admin username with the **username secret** command.

```
localhost(config)# username admin secret pxq123
```

8. Configure a default route to the network gateway.

```
localhost(config)# ip route 0.0.0.0/0 192.0.2.1
```

9. Assign an IP address (**192.0.2.8/24** in this example) to an Ethernet management port.

```
localhost(config)# interface management 1  
localhost(config-if-Ma1/1)# ip address 192.0.2.8/24
```

10. Save the configuration by typing **write memory** or **copy running-config startup-config**.

```
localhost# copy running-config startup-config
```

11. When configuring the management port IP address, use this command to access the switch from a host using the address configured in **Step 9**.

```
ssh admin@192.0.2.8
```

Refer to the *Arista Networks User Manual* for complete switch configuration information.

Status Indicators

This section discusses the following topics:

- [Front Indicators](#)
 - [Switch Indicators](#)
 - [Port Indicators](#)
- [Rear Status Indicators](#)

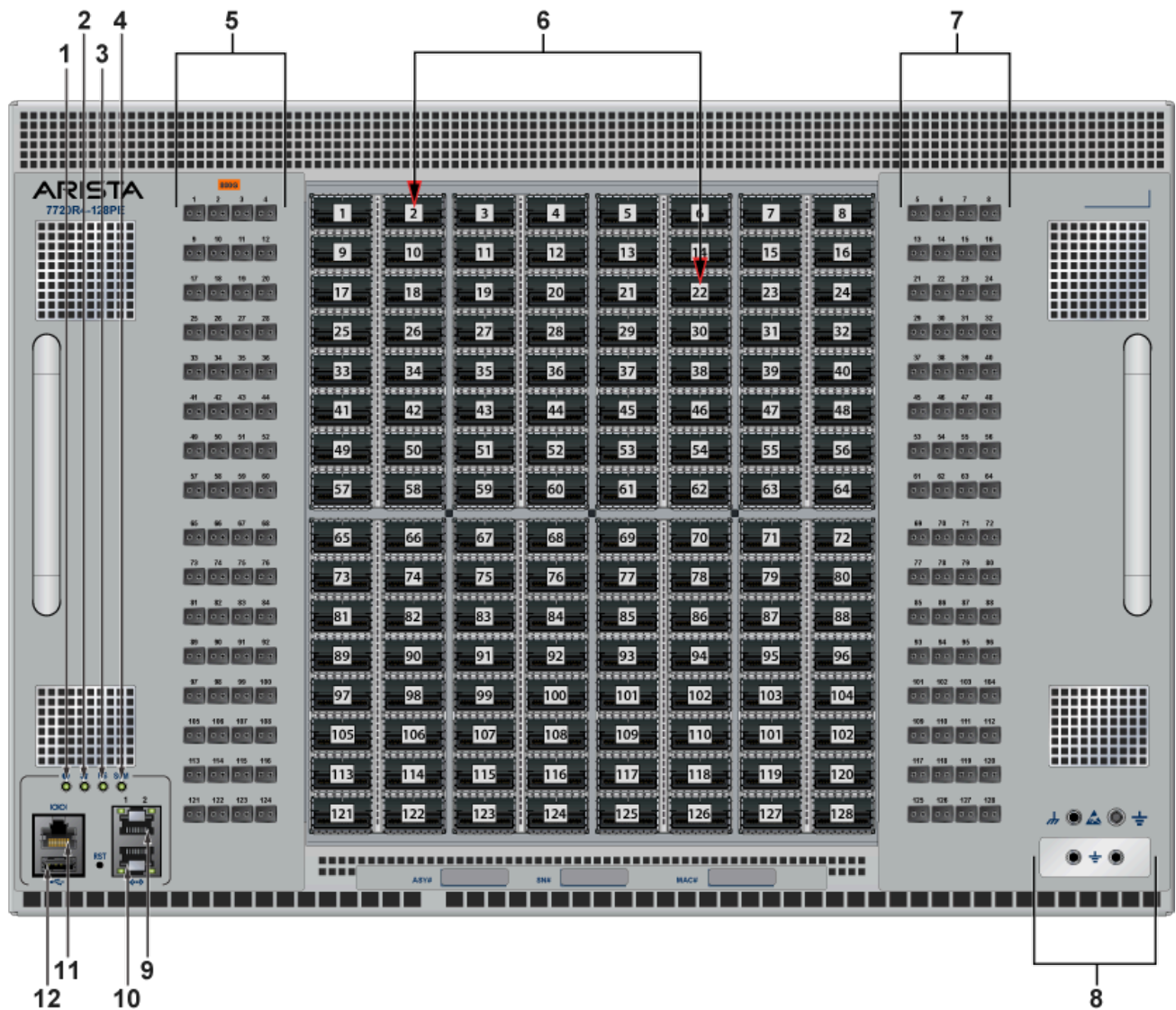
A.1 Front Indicators

A.1.1 Switch Indicators

The front panel LEDs, fan, and power supply status are on the chassis display system.

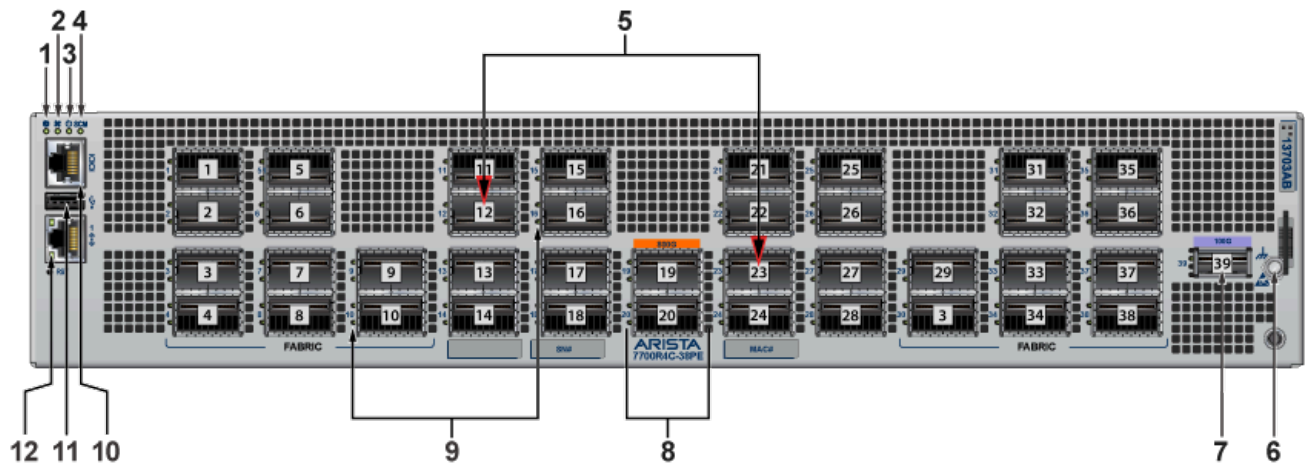
The front panel LEDs are labeled, as shown in the following figure.

Figure A-1: DCS-DS-7720R4-128PE



- | | | |
|-------------------------------------|-------------------|------------------------------------|
| 1 System status LED | 5 Port status LED | 9 Ethernet management port (RJ45) |
| 2 Fan status LED | 6 Port numbers | 10 Ethernet management port (RJ45) |
| 3 Power supply status LED | 7 Port status LED | 11 Console (serial) port |
| 4 Supervisor card module status LED | 8 Grounding | 12 USB port |

Figure A-2: DCS-DL-7700R4-38PE



- | | | |
|-------------------------------------|--------------------|------------------------------------|
| 1 System status LED | 5 Port numbers | 9 Port status LEDs |
| 2 Fan status LED | 6 Port numbers | 10 Ethernet management port (RJ45) |
| 3 Power supply status LED | 7 100G Port number | 11 USB port |
| 4 Supervisor card module status LED | 8 Port status LEDs | 12 Ethernet management port (RJ45) |



Note: The LED behavior is controlled by software and could be different from those described below.

Table 7: Switch Status Indicators LED States

LED Name	LED State	Device Status
System Status LED	Blinking Green	System is powering up.
	Green	Normal operations. Due to power supply and fan redundancy, this LED will remain green if a single fan or power supply is missing or in a failed state.
	Blue	The beacon (locator) function is active.
	Amber	Two or more fans (any combination of fan modules or PSU fans) are disconnected or malfunctioning. The switch will automatically execute a "graceful shutdown" shortly.
Fan Status LED	Green	All fan and power modules are operating normally.
	Amber	Single fan module is removed or malfunctioning. It is also amber when a PSU is completely removed or has a stuck fan rotor.
	Red	Two or more fans (any combination of fan modules or PSU fans) are disconnected or malfunctioning. The switch will automatically execute a "graceful shutdown" shortly.
Supervisor Active LED	Green	PSU is functioning and fully operational. AC is present, Aux output is ON, and Main output is ON.
	Off	PSU has been removed or is not operating properly due to the AC cord being unplugged, its fan rotor being stuck, or an internal fault.
Port Status LED	Flashing dim purple	System booting.
	Off	Default/System not powered up.

A.1.2 Port Indicators

Port LEDs near their corresponding ports provide a link and operational status.

The following figure displays the Port LED location on the switch.

[Table 8: Port LED States \(Front\)](#) provides status conditions that correspond to port LED states.

Table 8: Port LED States (Front)

LED State	Status
Off	No signal for enabled interfaces.
Green	Any enabled interface is connected, AND no link is bad.
Yellow (amber/orange)	All interfaces are software disabled, or a link is bad.
Flashing Yellow (amber/orange)	Port failed diagnostics.

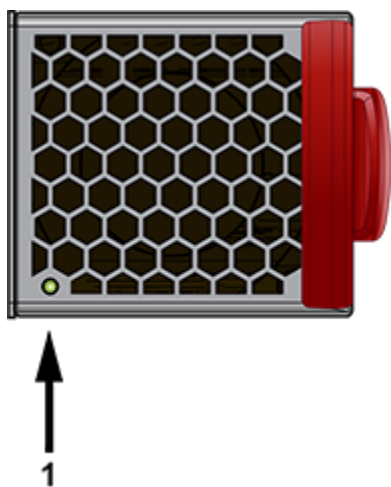
A.2 Rear Status Indicators

You can access the fan and power supply modules are accessed from the rear panel.

Each fan and power supply module contains an LED that reports the module status. The illustrations are for a typical fan module and PSU.

Fan Status LEDs are on the fan modules, as displayed in [Figure A-3: Fan Status LED](#).

Figure A-3: Fan Status LED



1 Fan module status LED

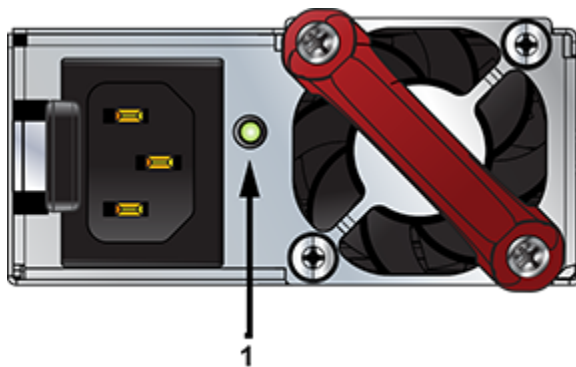
[Table 9: Fan Status LED States \(Rear\)](#) provide conditions corresponding to fan status LED states.

Table 9: Fan Status LED States (Rear)

LED State	Status
Off	The fan module is not detected. If it is inserted, it may not be seated properly.
Green	The fan is operating normally. This LED state is exclusive to its fan module and independent of the states of its neighboring fans and power supplies.
Red	The fan has failed.

The AC Power Supply Status LEDs are on the power supply modules, as displayed in [Figure A-4: AC Power Supply Status LED](#).

Figure A-4: AC Power Supply Status LED



1 Power supply status LED

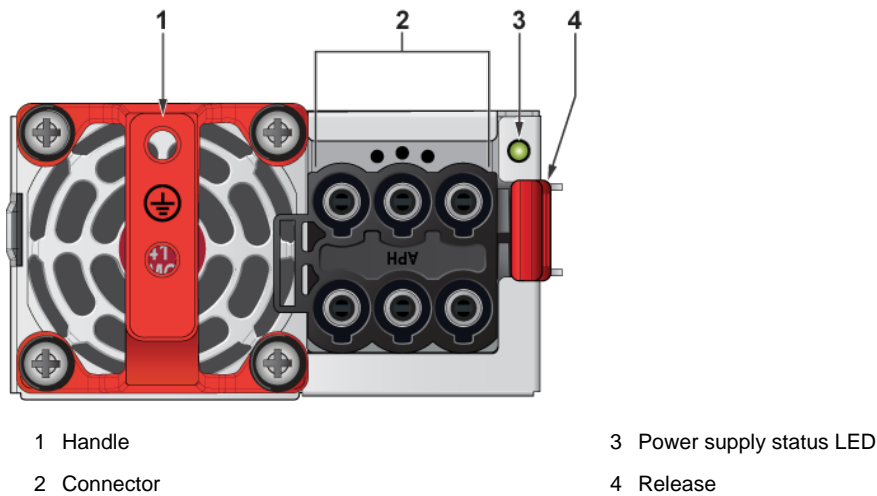
[Table 10: AC Power Supply Status LED States \(Rear\)](#) provides conditions corresponding to the AC power supply status LED states.

Table 10: AC Power Supply Status LED States (Rear)

Power Supply State	PWR-2421 HV
Input power present Normal operation	Green
Input power present Power Supply fault	Yellow
No Input power Supply installed in chassis	Off
Input power present Supply not installed in chassis	Green

The DC Power Supply Status LEDs are on the power supply modules, as displayed in [Figure A-5: DC Power Supply Status LED](#). Depending on the power supply, the LED could be in a different location on the PSU.

Figure A-5: DC Power Supply Status LED



[Table 11: DC Power Supply Status LED States \(Rear\)](#) provides conditions corresponding to the DC power supply status LED states.

Table 11: DC Power Supply Status LED States (Rear)

Power Supply State	PWR-2411-MC
Input power present Normal operation	Green
Input power present Power Supply fault	Blinking Amber/Yellow
No Input power Supply installed in chassis	Off
Input power present Supply not installed in chassis	Blinking Amber/Yellow



Note: You can narrow the error condition by logging in to the switch to view the specific device state. Refer to the *Arista User Manual's Switch Environment Control* chapter under *Viewing Environment Status* for further information on the `show environment` commands.

Parts List

This section lists the installation parts of the switch accessory kit.

Each switch provides an accessory kit containing the parts required to install the switch. A four-post rack mount is recommended for all switches. Use the rack-mount parts included with your switch for mounting. Depending on the PSU, C13/14, C19/20, or SAF-D type or other types of power cables are included in the accessory kit.



Note: Use only the components shipped with the switch or compatible replacement parts.

This section discusses the following topics:

- [Accessory Kits](#)
- [Cables](#)
- [Ground Extender Kit \(Optional\)](#)

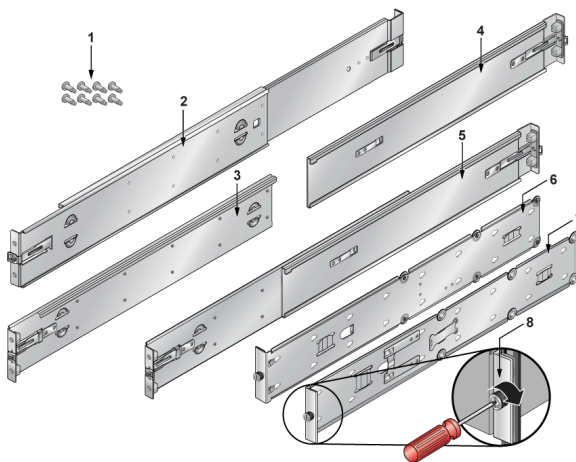
B.1 Accessory Kits

This section discusses the components included with the accessory kits available with the switches. Not all kits are shipped with all switches. Use only the parts shipped with the switch or optional, compatible kits. Do not mix parts from incompatible kits such as KIT-7001/2 and KIT-7101/2.

KIT-7201

The kit supports rack depths of twenty-two to thirty-two inches for four-post rack mounting of 2RU switches.

Figure B-1: Four-Post 2RU Rack Mount Kit Components



- | | | |
|------------------------------------|-------------------------------------------|-------------------------------------|
| 1 UNC 12-24 screws (pre-assembled) | 4 Rear sliding rack rail with guide block | 7 Rack ear with captive thumb screw |
| 2 Rack Rail (assembled) | 5 Rack Rail (assembled) | 8 Thumb screw (detail) |
| 3 Front rack rail with guide block | 6 Rack ear with captive thumb screw | |

Assembly Part Number	Description	Quantity
	IEC-320/C13-C14, 13 A, 250 V, 2 meter	2
	RJ45 Patch Panel Cable, 2 meter	1
	RJ45 to DB9 Adapter Cable, 2 meter	1
	Identity tag	1
ASY-06132	Rack ear with captive thumb screw	2
ASY-03765	Front rack rail with guide block	2
ASY-03767	Rear sliding rack rail with guide block	2

KIT-7202

The kit supports rack depths of twenty-two to thirty-two inches for four-post rack mounting of 2RU switches.

Assembly Part Number	Description	Quantity
	IEC-320/C19-C20, 16 A, 250 V, 2 meter	2
	RJ45 Patch Panel Cable, 2 meter	1
	RJ45 to DB9 Adapter Cable, 2 meter	1
	Identity tag	1
ASY-06132	Rack ear with captive thumb screw	2
ASY-03765	Front rack rail with guide block	2
ASY-03767	Rear sliding rack rail with guide block	2

KIT-7203

The kit supports rack depths of twenty-two to thirty-two inches for four-post rack mounting of 2RU switches.

Assembly Part Number	Description	Quantity
	SAF-D GRID - IEC-320/C20, 16 A, 250 V, 2 meter	2
	RJ45 Patch Panel Cable, 2 meter	1
	RJ45 to DB9 Adapter Cable, 2 meter	1
	Identity tag	1
ASY-06132	Rack ear with captive thumb screw	2
ASY-03765	Front rack rail with guide block	2
ASY-03767	Rear sliding rack rail with guide block	2

ORv3N Rack Kit (Kit-7101-RK , KIT-ADJ-RLR & Ground Ears)

Assembly Part Number	Description	Quantity
ASY-05705-05	Rack rails (ears) with captive thumb screw	2
ASY-05576-04	Rail rollers	2
MTL-05603-02	Grounding ears	2
FAS-00532	Fasteners for grounding ears	4
	Y-Power cable	1

ORv3 Rack Kit

Assembly Part Number	Description	Quantity
	Tray	1
	Tray rails	2
	Y-Power cable	1

B.2 Cables

Lists the cables required for installation of the switches.



Note: Use only the power cables shipped with your switch.

Quantity	Description
2	Power cables: IEC-320/C13-C14, 13 A, 250 V, 2 m
2	Power cables: SAF-D GRID - IEC-320/C20, 16 A, 250 V, 2 m
1	RJ-45 Patch Panel Cable, 2 m
1	RJ-45 to DB9 Adapter Cable, 2 m

Warning:

All provided power cables are for use only with Arista products.



警告
すべての電源コードは提供する製品で使用するためだけを目的としている。

電源コードの他の製品での使用の禁止
Aristaが提供するすべての電源コードは、Aristaの製品でのみ使用してください。

B.3 Ground Extender Kit (Optional)

Lists the cables required for the device's installation.

SKU	Description
KIT-GND-EXT-2RU ¹	Ground extender kit for NEBS compliance

1. Compatible with specific devices.

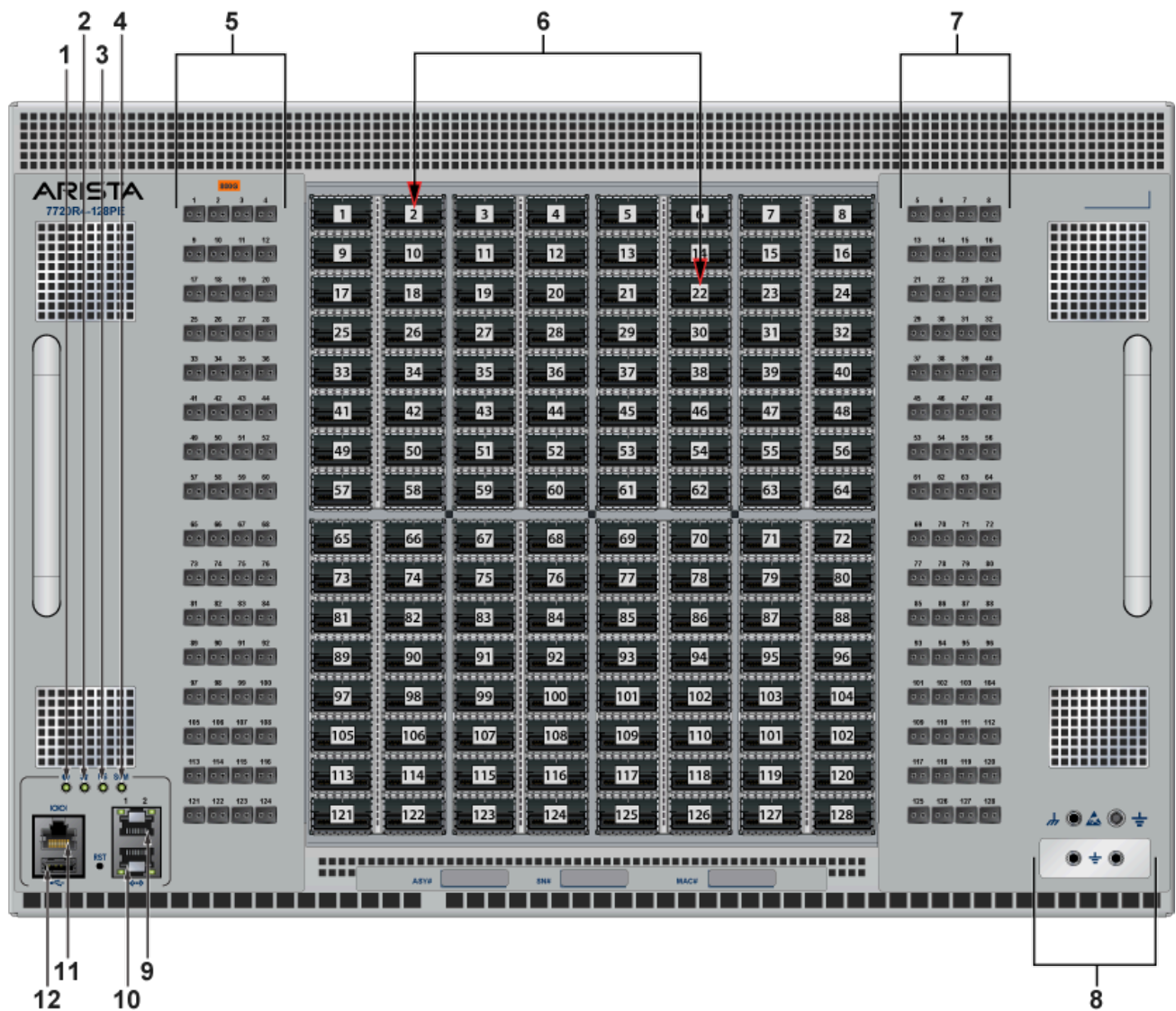
Front Panel

This section displays the front panel of all switches this guide covers.



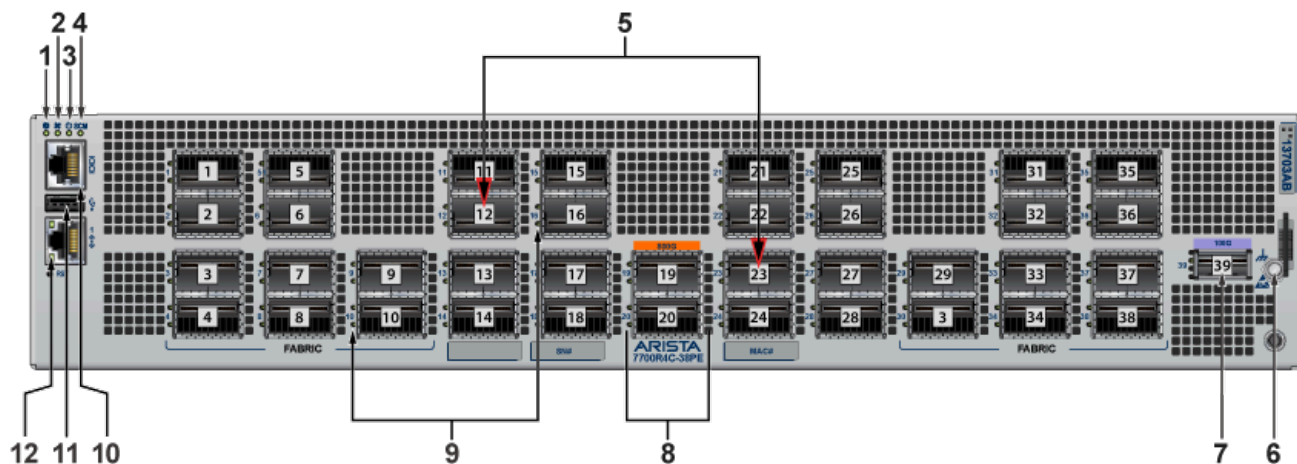
Note: All devices are designed to fit into a 19", ORV3 or ORV3n rack.

Figure C-1: DCS-DS-7720R4-128PE



- | | | |
|-------------------------------------|-------------------|----------------------------------------------|
| 1 System status LED | 5 Port status LED | 9 Primary Ethernet management port (RJ45) |
| 2 Fan status LED | 6 Port numbers | 10 Secondary Ethernet management port (RJ45) |
| 3 Power supply status LED | 7 Port status LED | 11 Console (serial) port |
| 4 Supervisor card module status LED | 8 Grounding | 12 USB port |

Figure C-2: DCS-DL-7700R4-38PE



- | | | |
|-------------------------------------|--------------------|------------------------------------|
| 1 System status LED | 5 Port numbers | 9 Port status LEDs |
| 2 Fan status LED | 6 Port numbers | 10 Ethernet management port (RJ45) |
| 3 Power supply status LED | 7 100G Port number | 11 USB port |
| 4 Supervisor card module status LED | 8 Port status LEDs | 12 Ethernet management port (RJ45) |



Note: Ports 1 to 10 and 29 to 38 are fabric ports.

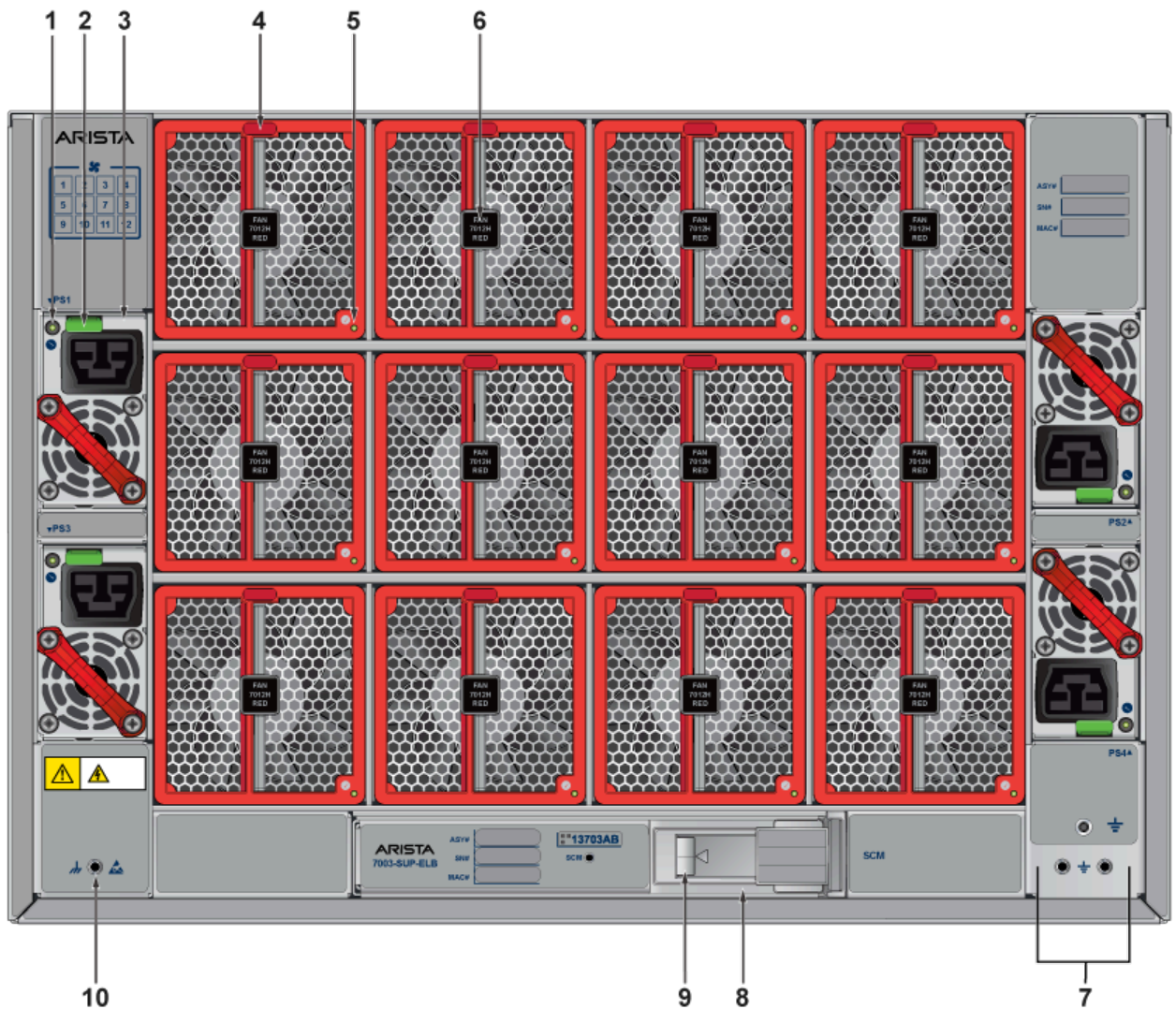
Rear Panel

All switches covered by this guide use one of the rear panels shown below. Depending on the installed power supply module, the appearance could differ from those shown. Some of the PSUs have a velcro strap for cable management.



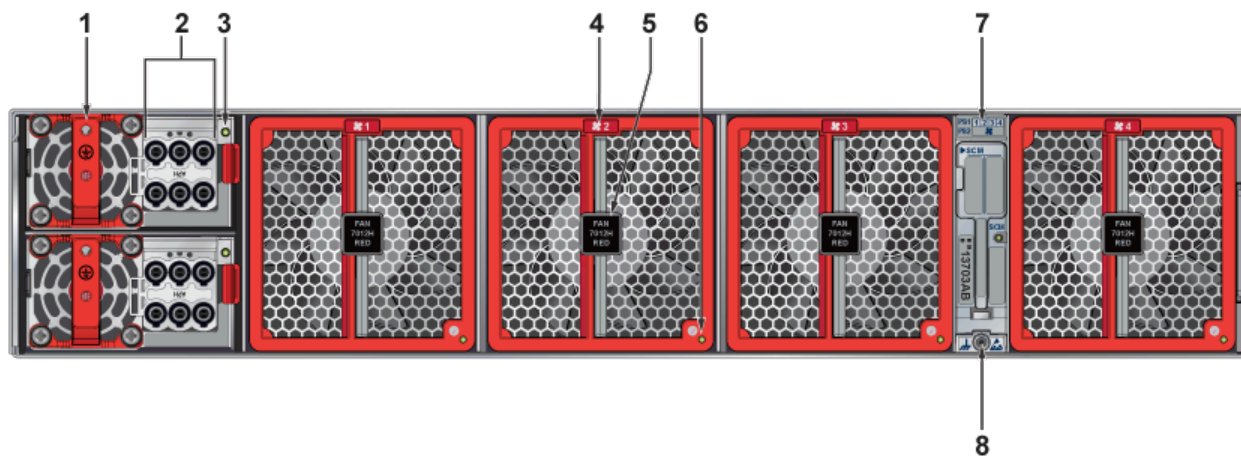
Note: Handle or bezel color indicates airflow direction.

Figure D-1: DCS-DS-7720R4-128PE Rear Panel



- | | | |
|-------------------------|---------------------------------|----------------------------------|
| 1 PSU 1 status LED | 5 Fan module 1 status LED | 9 Supervisor card module release |
| 2 PSU1 release | 6 Fan module 2 release | 10 ESD attach point |
| 3 Power supply module 1 | 7 Grounding | |
| 4 Fan module 1 | 8 Supervisor card module access | |

Figure D-2: DCS-DL-7700R4-38PE Rear Panel



- | | | |
|-------------------------|---------------------------|---------------------------------|
| 1 Power supply module 1 | 4 Fan module 2 | 7 Supervisor card module access |
| 2 PSU 1 connector | 5 Fan module 2 release | 8 ESD attach point |
| 3 PSU 1 status LED | 6 Fan module 2 status LED | |

Maintenance and Field Replacement

This section discusses the following topics:

- [Considerations](#)
- [Power Supplies](#)
 - [Removing a Power Supply](#)
 - [Installing a Power Supply](#)
- [Fan Modules](#)
 - [Removing a Fan Module](#)
 - [Installing a Fan Module](#)

E.1 Considerations

Review the following considerations when installing the device.

- The supervisor card is field-replaceable.
- All fans and power supplies are hot swappable.
- The switch can be running while a power supply is being installed or removed, but the power supply being replaced must not be connected to a power source.
- All slots must be filled or covered with a blank for operation (even though the power supply or fans may not be functional).
- Before you begin, refer to the *Arista Networks document Safety Information and Translated Safety Warnings*: <https://www.arista.com/en/support/product-documentation>.



Note: Descriptions for removing and replacing power supplies and fans are for a representative power supply or fan. Locations of status indicator LEDs may differ. Refer to your device's front and rear panel illustrations to locate the appropriate LED.

E.2 Supervisor Card

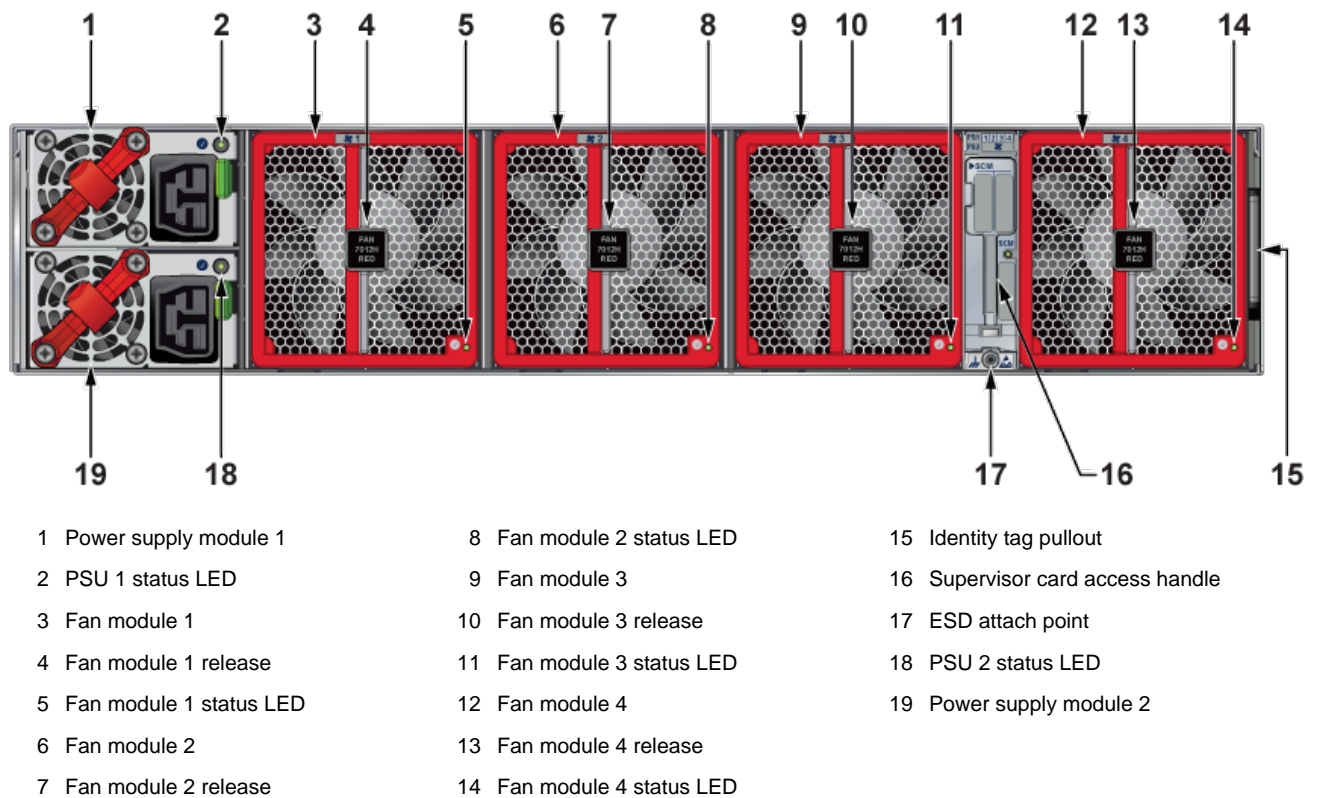
The following steps are required when removing the supervisor card from a switch.

E.2.1 Removing and Installing a Supervisor Card

1. Ground yourself with an ESD wrist strap.
2. Power down the switch and disconnect all power cables.
3. Push the supervisor card release lever and remove fans 3 and 4.
4. Slide out the supervisor card module.
5. Remove and replace the supervisor card.
6. Slide in the supervisor card module.

7. Reinstall fans 3 and 4.
8. Connect all power cables and restart the switch.

Figure E-1: Supervisor Card Access



E.3 Power Supplies

The following steps are required when removing power supplies from a switch.

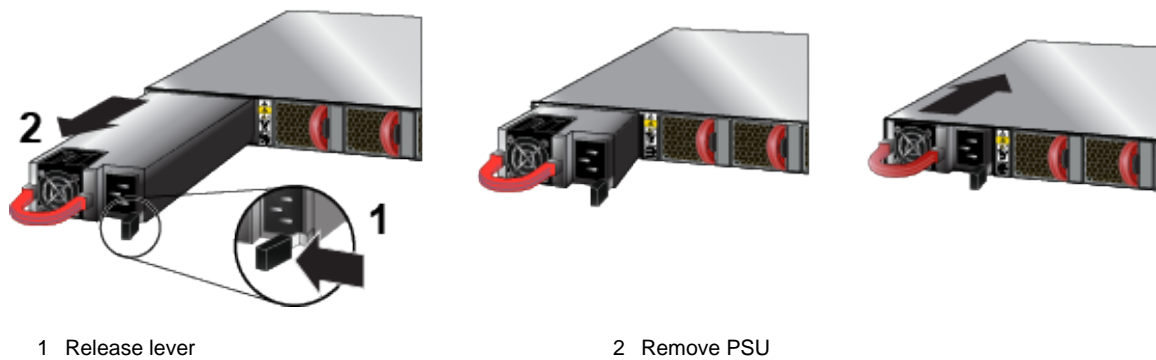


Note: Only a representative power supply module is shown in [Figure E-2: Removing and Installing Power Supply](#). For the location of the power supply on your switch, refer to [Rear Panel](#).

E.3.1 Removing a Power Supply

1. Ground yourself with an ESD wrist strap.
2. Power down the power supply, which will be removed by disconnecting the AC power cable.
3. Push the power supply release lever and remove the power supply [Figure E-2: Removing and Installing Power Supply](#).

Figure E-2: Removing and Installing Power Supply



E.3.2 Installing a Power Supply

You must make space for installing the power supply by removing an existing one and [Removing a Power Supply](#).

1. Remove the replacement power supply from its packaging.
2. Slide the new power supply into the empty slot.
3. Slide the new power supply into the switch until the power supply is fully seated and the release lever snaps into place. [Figure E-2: Removing and Installing Power Supply](#).
4. Connect the power cord to the power supply.
5. Verify the LEDs on the power supply.



Note: The Power Supply status LED should be a steady green for normal operation.

6. Verify the new power supply operation by issuing the show environment power command.

```
switch# show environment power
```

7. The command output lists the power supplies in operation and should include the one you replaced.

E.4 Fan Modules



Note: Hot-swap fans should be used within 30 seconds to prevent the switch from overheating. Ensure that the module you replace matches those already installed in the switch.

E.4.1 Removing a Fan Module

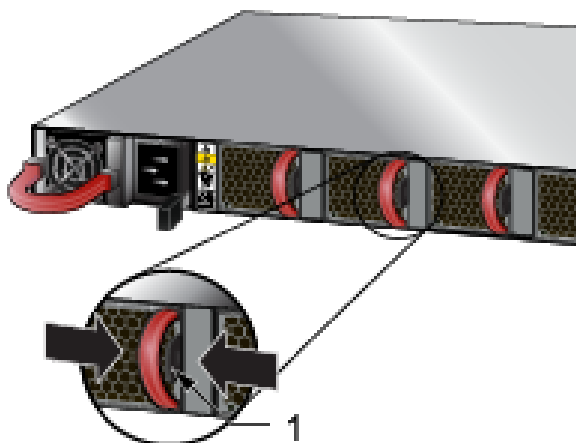
The following steps are required when removing or replacing fans from a switch.



Note: Only a representative fan module is shown in [Figure E-3: Removing Fan Module](#). Refer to the rear panel for the location of the fan modules on your switch.

1. Ground yourself with an ESD wrist strap.
2. Push the fan module release lever and slide the fan module out of the switch.

Figure E-3: Removing Fan Module



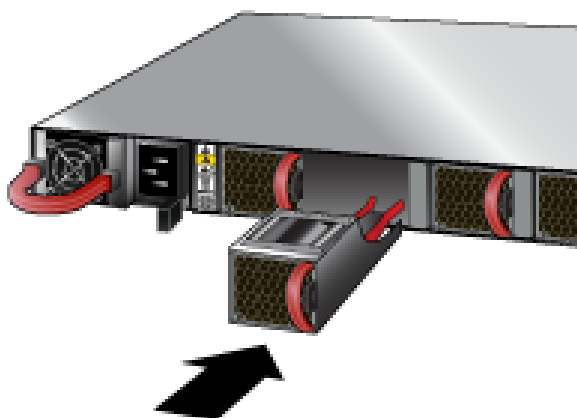
1 Release lever

E.4.2 Installing a Fan Module

You must make space for installing the fan module by removing an existing one.

1. Remove the replacement fan from its packaging.
2. Slide the new fan module into the switch until the module is fully seated, and the release lever snaps into place ([Figure E-4: Inserting Fan Module](#)).

Figure E-4: Inserting Fan Module



3. Verify that the fan module is working normally.



Note: The fan module status LED should be a steady green for normal operation.

Regulatory Model Numbers

This section lists the Regulatory Model Numbers (RMNs), where applicable, for the product models for the switches described in this document.

Table 12: Regulatory Model Numbers and Product Numbers

Regulatory Model Number (RMN)	Product Number(s)
AN2226	DCS-DS-7720R4-128PE
AN2227	DCS-DL-7700R4-38PE

Taiwan RoHS Information

This section provides the Taiwan RoHS information for switches this guide covers.

台灣RoHS相關資訊請參考下列網址

<https://www.arista.com/assets/data/pdf/AristaBSMIRoHS.pdf>.