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Overview

1.1 Scope
This guide is intended for properly trained service personnel and technicians who need to install the following Arista Networks Data Center Switches:

- DCS-7804
- DCS-7808
- DCS-7816

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 that you do not discard any accessories that may be 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 7800 Series Modular Switches purchase order. Appendix B provides a list of components included with the switch.

1.3 Installation Process
The following tasks are required to install and use the switch:

**Step 1** Select and prepare the installation site (Section 2.1).
**Step 2** Assemble the installation tools listed (Section 2.2).
**Step 3** Attach the mounting brackets and install the switch in an equipment rack (Chapter 3).
**Step 4** Connect the switch to the power source and network devices (Chapter 4).
**Step 5** Configure the switch (Chapter 5).
Important! Class 1 Laser Product: This product has provisions to install Class 1 laser transceivers that provides optical coupling to the communication network. Once a Class 1 laser product is installed, the equipment is a Class 1 Laser Product (Appareil à Laser de Classe 1). 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 a des dispositions pour installer des émetteurs-récepteurs de laser de classe 1 qui offre de couplage au réseau de communication optique. Une fois un produit laser de classe 1 est installé, l'équipement est un produit Laser de classe 1 (Appareil à Laser de Classe 1). Le client est responsable pour sélectionner et installer l'émetteur/récepteur de laser de classe 1 et pour assurer que la classe 1 AEL (limite d'émission admissible) par EN/IEC 60825, CSA E60825-1, et Code des règlements fédéraux 21 CFR 1040 ne soit pas dépassée après avoir installé l'émetteur/récepteur de laser. Ne pas installer des appareils à laser dont la cote de classe est supérieure à 1. Voir toutes les consignes de sécurité qui ont accompagné l'émetteur-récepteur avant l'installation. Seuls appareils laser de classe 1 certifiés pour une utilisation dans le pays d'installation par l'organisme compétent doivent être utilisées dans ce produit.

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

Aucune pièce réparable par l'utilisateur à l'intérieur. Confiez toute réparation à un technicien qualifié.

1.4 Safety Information
Refer to the Arista Networks document Safety Information and Translated Safety Warnings available at:

1.5 Obtaining Technical Assistance
Any customer, partner, reseller or distributor holding a valid Arista Service Contract can obtain technical support in any of 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 output of “show tech-support”.

- **Web:** [https://www.arista.com/en/support](https://www.arista.com/en/support)
  A support case may be created through the support portal on our website. You may also download the most current software and documentation, as well as view FAQs, Knowledge Base articles, Security Advisories, and Field Notices.

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

Important! No user serviceable parts inside. Refer all servicing to qualified service personnel.

Aucune pièce réparable par l'utilisateur à l'intérieur. Confiez toute réparation à un technicien qualifié.
### 1.6 Specifications

Table 1-1 lists the specifications of Arista Data Center modular switches covered by this guide.

**Table 1-1 Modular switch specifications**

<table>
<thead>
<tr>
<th></th>
<th>DCS-7804</th>
<th>DCS-7808</th>
<th>DCS-7816</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Height</strong></td>
<td>10 RU: 439 mm (17.28 inches)</td>
<td>16 RU: 702 mm (27.64 inches)</td>
<td>32 RU: 1422 mm (55.98 inches)</td>
</tr>
<tr>
<td><strong>Width</strong></td>
<td>441 mm (17.36 inches)</td>
<td>441 mm (17.36 inches)</td>
<td>441 mm (17.36 inches)</td>
</tr>
<tr>
<td><strong>Depths</strong></td>
<td>940 mm (37.01 inches)</td>
<td>940 mm (37.01 inches)</td>
<td>940 mm (37.01 inches)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>209.1 kg (460 lbs) fully loaded</td>
<td>338.6 kg (745 lbs) fully loaded</td>
<td>636.4 kg (1400 lbs) fully loaded</td>
</tr>
<tr>
<td><strong>DC Input (per PSU)</strong></td>
<td>2x -48 to -60 V DC 70 A to 55 A</td>
<td>2x -48 to -60 V DC 70 A to 55 A</td>
<td>2x -48 to -60 V DC 70 A to 55 A</td>
</tr>
<tr>
<td><strong>DC Branch Circuit Protection</strong></td>
<td>2x 90 A</td>
<td>2x 90 A</td>
<td>2x 90 A</td>
</tr>
<tr>
<td><strong>AC Input Voltage (per PSU)</strong></td>
<td>2x 200-240 V</td>
<td>2x 200-240 V</td>
<td>2x 200-240 V</td>
</tr>
<tr>
<td><strong>AC Branch Circuit Protection</strong></td>
<td>2x 20 A</td>
<td>2x 20 A</td>
<td>2x 20 A</td>
</tr>
<tr>
<td><strong>Input Power Circuits</strong></td>
<td>6 to 8 circuits(1)</td>
<td>8 to 12 circuits(2)</td>
<td>24 to 48 circuits(3)</td>
</tr>
<tr>
<td><strong>Ambient Temperature</strong></td>
<td>0° to 40°C (32° to 104°F)</td>
<td>0° to 40°C (32° to 104°F)</td>
<td>0° to 40°C (32° to 104°F)</td>
</tr>
<tr>
<td><strong>Storage Temperature</strong></td>
<td>-40° to 70°C (-40° to 158°F)</td>
<td>-40° to 70°C (-40° to 158°F)</td>
<td>-40° to 70°C (-40° to 158°F)</td>
</tr>
<tr>
<td><strong>Relative Humidity</strong></td>
<td>5 to 90%</td>
<td>5 to 90%</td>
<td>5 to 90%</td>
</tr>
<tr>
<td><strong>Altitude</strong></td>
<td>0 to 3,000 meters (0 to 10,000 feet)</td>
<td>0 to 3,000 meters (0 to 10,000 feet)</td>
<td>0 to 3,000 meters (0 to 10,000 feet)</td>
</tr>
<tr>
<td><strong>Cooling</strong></td>
<td>See Power draw configurations in Table 1-2</td>
<td>See Power draw configurations in Table 1-2</td>
<td>See Power draw configurations in Table 1-2</td>
</tr>
</tbody>
</table>

1. For non-redundant power feeds, 12 to 16 for redundant power feeds.
2. For non-redundant power feeds, 16 to 24 for redundant power feeds.
3. For non-redundant power feeds, 24 to 48 for redundant power feeds.
Table 1-2 lists power specifications of modular switch components.

### Table 1-2 7800 Series power specifications

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Part Number</th>
<th>Power Draw (Typical / Maximum)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supervisor Modules</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCS-7800-SUP</td>
<td>61 W / 72 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800-SUP1A</td>
<td>61 W / 72 W</td>
<td></td>
</tr>
<tr>
<td><strong>Line Card Modules</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3-48CQ-LC</td>
<td>398 W / 462 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3K-48CQ-LC</td>
<td>398 W / 462 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3-48CM-LC</td>
<td>620 W / 684 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3-48CQ2-LC</td>
<td>443 W / 507 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3-48CQ2M2-LC</td>
<td>602 W / 711 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3-48CQMS-LC</td>
<td>531 W / 648 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3-36P-LC</td>
<td>807 W / 1083 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3-36D-LC</td>
<td>839 W / 1149 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7800R3K-36DM-LC</td>
<td>1416 W / 1823 W</td>
<td></td>
</tr>
<tr>
<td><strong>Fabric Modules</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCS-7804R3-FM</td>
<td>180 W / 248 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7808R3-FM</td>
<td>510 W / 778 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7808R3-FM2</td>
<td>370 W / 518 W</td>
<td></td>
</tr>
<tr>
<td>DCS-7816R3-FM</td>
<td>510 W / 778 W</td>
<td></td>
</tr>
<tr>
<td><strong>Power Supply (AC)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PWR-D1-3041-AC-BLUE</td>
<td>3 W / 10 W</td>
<td></td>
</tr>
<tr>
<td><strong>Power Supply (DC)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PWR-D2-3041-DC-BLUE</td>
<td>3 W / 10 W</td>
<td></td>
</tr>
<tr>
<td><strong>7804 Series System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full chassis loaded with 2 DCS-7800-SUP1A</td>
<td>3310 W / 4397 W</td>
<td></td>
</tr>
<tr>
<td>6 DCS-7804R3-FM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 DCS-7800R3-48CQ-LC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 PWR-D1-3041-AC-BLUE</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7808 Series System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full chassis loaded with 2 DCS-7800-SUP1A</td>
<td>6390 W / 8540 W</td>
<td></td>
</tr>
<tr>
<td>6 DCS-7808R3-FM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 DCS-7800R3-48CQ-LC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 PWR-D1-3041-AC-BLUE</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7816 Series System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full chassis loaded with 2 DCS-7816-SUP1A</td>
<td>12881 W / 17150 W</td>
<td></td>
</tr>
<tr>
<td>12 DCS-7816R3-FM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 DCS-7800R3-48CQ-LC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 PWR-D1-3041-AC-BLUE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. With no input power.

Note 1: Includes typical power supply conversion inefficiency. Contact your local Sales Engineer for 7800 power calculator details.

Note 2: Power numbers given as Typical/Maximum or Typical/Hot/Maximum where Hot is defined as 40°C Sea Level.

* Not N+N redundant power at worst case Temp/Elevation.
# Preparation

## 2.1 Site Selection

The following criteria should be considered when selecting a site to install the switch:

- **Floor Space**: Install the switch in an area that provides adequate clearance for removing front and rear components.

  Figure 2-1 displays the dimensions and footprint of the switch clearance requirements for the switches.

![Figure 2-1: Clearance requirements and footprint for switches](image)

Table 2-1 shows the dimensions for each of the modular switches.

<table>
<thead>
<tr>
<th>Switch</th>
<th>Clearance Requirements Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7804</td>
<td>38.4 cm (15.1 in.) 102.1 cm (40.2 in.) 58.9 cm (23.2 in.)</td>
</tr>
<tr>
<td>DCS-7808</td>
<td>38.4 cm (15.1 in.) 102.1 cm (40.2 in.) 58.9 cm (23.2 in.)</td>
</tr>
<tr>
<td>DCS-7816</td>
<td>38.4 cm (15.1 in.) 102.1 cm (40.2 in.) 58.9 cm (23.2 in.)</td>
</tr>
</tbody>
</table>

**Note**

The PSU removal clearance (Front) is 62.5 cm (24.6 in.)
Site Selection Chapter 2: Preparation

• **Temperature and Ventilation:** For proper ventilation, install the switch where there is ample airflow to the front and back of the switch. The temperature should not go below 0° 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 direct air from the front panel to the rear panel. Orient the front panel toward the cool aisle.

• **Rack Space Requirements:** Table 2-2 shows the rack space requirements for each of the modular switches.

### Table 2-2 Rack space requirements

<table>
<thead>
<tr>
<th>Switch</th>
<th>Rack or cabinet (standard 19&quot; EIA)</th>
<th>2-post</th>
<th>4-post</th>
<th>Switch Height (RU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7804</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>DCS-7808</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>DCS-7816</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

**Note** The accessory kit provides the required mounting hardware for each switch.

• **Power Requirements:** Arista switches require a minimum number of operating power supplies in all chassis, AC or DC, and for each power domain of switches with multiple power domains. Refer to Chapter 4 for more details regarding your switch.

**Important!** DC cables should be protected with circuit over-current protection devices and circuit disconnect means. To power off a unit, power must be disconnected from ALL power cables.

DC câbles doivent être protégés avec dispositifs de protection de surintensité circuit et moyens de déconnexion du circuit. Pour alimenter un appareil hors tension, l'alimentation doit être débranchée de tous les câbles d'alimentation.

• **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.
  - AC power cords can reach from the AC power outlet to the input connectors.
  - DC power cables can reach from the DC power distribution unit to the input connectors.
2.2 Tools and Parts Required for Installation

Note
Switches come with a template to assist with the rack mounting.

The following tools are required to install a modular switch:

- Mechanical device capable of lifting chassis being installed (Table 1-1 on page 3).
- Torque reading nut driver (for DC power supplies)
- #2 Phillips head screwdriver

Rack mount: Table 2-3 shows the rack components required for each of the modular switches.

Table 2-3 Rack component requirements

<table>
<thead>
<tr>
<th>Switch</th>
<th>Rack screws(1)</th>
<th>Rack nuts(2)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7804</td>
<td>21(3)</td>
<td>21(3)</td>
<td>4-post installation</td>
</tr>
<tr>
<td>DCS-7808</td>
<td>21(3)</td>
<td>21(3)</td>
<td>4-post installation</td>
</tr>
<tr>
<td>DCS-7816</td>
<td>35(3)</td>
<td>35(3)</td>
<td>4-post installation</td>
</tr>
</tbody>
</table>

1 The accessory kit includes screws that fit many common equipment racks.
2 Rack nuts are only for racks with unthreaded, rack-post holes.
3 These are in addition to the rack-mount kit screws required for the cradle.

2.3 Unpacking and Moving the Switch

The DCS-7816 accessory kit includes bolts and lifting brackets (Figure 2-2) that must be attached to the top of the chassis with the bolts supplied for lifting the chassis from the pallet onto the transport lift. You can use any appropriate lifting mechanism/tool to unload the switch. A platform lift is recommended for transportation and installation of the switch. The rack mounting cradle is shipped nested upside down over the top of the chassis for all switches (Figure 2-3). There is a protective film on the top and sides to keep the cradle from scratching the chassis during transport.

Figure 2-2: Lifting Brackets
2.4 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.
- Use a conductive work surfaces (such as an anti-static mat) to dissipate static charge.
- Wear an ESD 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.
- Use tools that do not create ESD.
Chapter 3

Rack Mounting the Switch

3.1 7804, 7808 and 7816 Rack Mounting

The accessory kit provides components for installing the switch in four-post racks. The accessory kit includes the following four-post mounting parts:

- Cradle assembly
- M6 pan-head Phillips screws
- M6 rack cage nuts (optional)
- Template for non-threaded racks requiring rack nuts

Note

2-post rack mount is not supported.

Illustrations in this chapter depict the mounting of an unpopulated 8-slot chassis.

After completing the instructions for your rack type, proceed to Chapter 4.

Rack mounting the switch in a 4-post rack requires the following tasks:

- Inserting rack nuts (for racks requiring them) at appropriate locations. (Section 3.1.1).
- Inserting and securing the cradle assembly into the rack (Section 3.1.2).
- Inserting the switch into the rack (Section 3.1.3).

3.1.1 Inserting rack nuts using the template

Note

Required only for non-threaded racks that use rack nuts. Installation is referenced with the bottom screw located at 1RU location. For a different starting point for the bottom screw, always start at an RU location, and ensure there is enough room for your device in the rack.

Step 1 Attach the template supplied with your switch to the front left post such that the top and bottom locations for the rack nuts line up with RU locations required by your device.

Step 2 Insert rack-mount nuts required by the switch (Table 3-1) at the locations identified by Figure 3-1 using the template.

Note

The number of rack nuts required for the front left and the front right rack posts are different. The rear posts require the same number (4 each).
Figure 3-1: Rack nut locations

1. Rear post locations are indicated by the template and are used for securing the cradle.

Step 3 Move the template to the right front post and repeat step 2 taking care that the top and bottom rack nut locations are aligned with the left front post.

Step 4 Move the template to the rear posts one at a time, and insert rack nuts at the locations indicated by the template.

Table 3-1 Rack mount locations and screws required by switch

<table>
<thead>
<tr>
<th>Mounting Location</th>
<th>DCS-7804</th>
<th>DCS 7808</th>
<th>DCS-7816</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Front (Left)</td>
<td>Front (Right)</td>
<td>Front (Left)</td>
</tr>
<tr>
<td>A</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>C</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Rear post locations are indicated by the template and are used for securing the cradle.
**Step 5** Proceed to Inserting and securing the cradle assembly into the rack (Section 3.1.2) once rack nuts have been inserted in all the posts.

### 3.1.2 Inserting and securing the cradle assembly

To insert and secure the cradle assembly to the rack use the following steps.

**Note**

The rack mounting cradle is shipped nested upside down over the top of the chassis for all switches. There is a protective film on the top and sides to keep the cradle from scratching the chassis during transport.

**Step 1** Insert two screws loosely in the two front rack posts at the same level and two in the back two rack posts 3 RU above the front screws (Figure 3-2). Use the template for racks requiring rack nuts (Figure 3-3). The front locations are marked with single dots and the rear locations with two dots.

**Figure 3-2: Attaching mounting screws to the rack posts**
Figure 3-3: Mounting (starting screws) locations for cradle (Front and Rear)

Step 2 Buckle the straps on the cradle together, prior to installation, so the left and right sides are angled slightly inwards (Figure 3-4).

Figure 3-4: Buckling the straps

Step 3 Pull out the rear sliding rails slightly beyond the back rack posts.
Step 4  Insert the cradle so that the notches in the cradle engage behind the loosely mounted front screws (Figure 3-5).

Step 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 (Figure 3-5).

Figure 3-5: Inserting the cradle

Step 6  Release the clasp on the connector to rotate the left and right sides so they are vertical. (Figure 3-6).
Figure 3-6: Aligning the cradle in the rack

**Step 7** Secure the cradle to the rack posts using the eight remaining screws, two more in the front and 6 more in the back for a total of twelve screws. *(Figure 3-7).*
3.1.3 Inserting the Switch into the Rack

The switch is mounted onto a four-post rack by assembling a rack-mount cradle into the rack (Section 3.1.1), then placing the switch on the cradle and securing it to the rack.

**Step 1** Move the chassis to the rack using a mechanical lift (Figure 3-8).

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

**Step 2** Lift the chassis and insert it into the rack. For the DCS-7816 chassis, remove the lifting brackets required to lift the chassis from the pallet onto a transport lift, from the top of the chassis before insertion.

**Note** A platform lift is recommended for transportation and installation.

**Note** Rack space permitting, it is recommended to leave the lifting brackets attached to the switch after securing it in the rack.
Figure 3-8: Lifting the chassis

Step 3  Secure the chassis by tightening additional M6 screws on the front flanges into the rack posts (Figure 3-9).

Note  Additional screws depend on the device. The 7804 and 7808 chassis require nine.

Figure 3-9: Secure the switch to the rack shelf

Step 4  After completing the Four-Post Installation, proceed to Chapter 4.
4.1 Cabling the Power Supplies


Important! Power down the switch: Remove all power cords from the power inlets.

Mettez le commutateur: Retirez tous les cordons d'alimentation des prises d'alimentation.

Important! Installation of this equipment must comply with local and national electrical codes. If necessary, consult with the appropriate regulatory agencies and inspection authorities to ensure compliance.

Installation de cet équipement doit être conformes aux codes électriques locaux et nationaux. Si nécessaire, consulter les organismes de réglementation appropriés et des autorités de contrôle pour assurer la conformité.

Note Many configurations will require additional power supplies.

Nombreuses configurations exigera des alimentations supplémentaires.

Important! All power supply slots must be filled with either a power supply or blank to ensure proper air flow.

Tous les emplacements d'approvisionnement de puissance doivent être remplis avec une alimentation ou vide pour assurer un débit d'air appropriée.

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.

Table 4-2 shows the minimum number of operating power supplies that must be connected to active circuits for each switch to operate.

Each power supply includes a fan that maintains proper power supply temperature. The appendices display the location of components for all switches described in this guide.
4.2 Cabling Chassis Ground

Figure 4-1, Figure 4-2 and Figure 4-3 display the location of the chassis grounding locations on the front panel of the switches. Chassis ground locations are also located on the rear panel of the switch chassis. After mounting the switch into the rack, connect at least one of the chassis grounds to the data center ground using two-hole ground lugs with 16 mm (5/8 in.) spacing, and two M4 x 0.7 screws. After the switch is grounded, ESD wrist straps can be grounded by connecting them to one of the attach points.

**Important!**

Grounding wires and grounding lugs are not supplied. Wire size should meet local and national installation requirements. Commercially available 2 or 4 AWG wire is recommended for installations in the U.S.

À la terre et de mise à la terre fils cosses ne sont pas fournis. Calibre des fils doit satisfaire des exigences de l'installation locale et nationale. Disponible dans le commerce 2 ou 4 AWG fil est recommandé pour les installations aux États-Unis.

**Important!**

This equipment must be grounded. Never defeat the ground conductor. This unit requires over-current protection.

Cet équipement doit être mis à la terre. Ne jamais modifier le conducteur de terre. Cet appareil nécessite de protection contre les surintensités.

**Important!**

Secondary Grounding wires, lugs, and screws (M4 x 0.7) are not supplied.

Secondaire à la terre, câbles, cosses et vis (M4 x 0.7) ne sont pas fournis.
Figure 4-2: Rear panel (DCS-7808)
To power down the switch, remove all power cords from the power inlets.
4.3 Cabling the AC Power Supplies

The switches use PWR-D1-3041-AC-BLUE (Figure 4-4) power supplies with SAF-D connectors on the PSU inputs. Power cables are included with the accessory kit (Table B-1). To power the switch, insert the other side of the cable into the main power providing circuit.

Note

The power supply, handle color, orientation, etc. may be different in your device from the one shown in Figure 4-4.

Figure 4-4: AC power supply

Appendix C displays the front panel location of the power supplies.

Note

The LEDs on a PSU remain lit for a period of time even after you disconnect the power and remove the PSU from the chassis. They will eventually turn off in a short while.

Note

The PWR-D1-3041-AC-BLUE PSU uses 2x 220 V supply inputs and uses 2 APP Saf-D-Grid 400 connectors.

4.4 Cabling the DC Power Supply

Note

The -48V and Battery-Return leads are a pair and should run adjacent to each other and be approximately the same length.

Le -48V et câbles de batterie-retour sont une paire courir à côté de l’autre et doivent être à peu près la même longueur.

4.4.1 DC Power Supplies

The switches support the PWR-D2-3041-DC-BLUE DC power supply displayed in Figure 4-5.
4.4.2 Wire and Lug Preparation

Before performing any installation actions, ensure power is removed from DC circuits by turning off the power line servicing the circuits. Prepare the stranded wiring before you begin a DC power installation.

**Step 1** Stranded copper wiring is required.
- Commercially available 1 to 2 AWG wire is recommended for installations in the U.S.
- Wire size should meet local and national installation requirements.
- Grounding wires and grounding lugs are not supplied.
- Strip the wires to the appropriate length for the lugs.

The wires connecting the DC power supply to the power source must meet the following requirements:
- DC Input Wire Size: 1–2 AWG.
- Primary Ground Wire Size: 1–2 AWG per power supply.
- The conductors are copper.

**Step 2** Use agency-approved compression (pressure) lugs for wiring terminations (2x - Two M6 studs with 5/8" spacing).

**Step 3** Slip on heat-shrink tubing on the wire ends before assembling the lugs on to the wire.
- The lugs must be crimped with the proper tool.
- The tubing should extend over the lug’s barrel and the wire’s insulator.

**Step 4** Shrink the tubing with a heat gun.

4.5 Power Supply Specifications

Table 4-1 shows the power supply specifications for each of the PSUs supported.
Table 4-1 Power supply specifications (each PSU)

<table>
<thead>
<tr>
<th>Power Supply</th>
<th>Maximum output power rating (DC)</th>
<th>Input voltage and frequency</th>
<th>Maximum input current</th>
<th>Input branch circuit protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR-D1-3041-AC-BLUE</td>
<td>3000 W</td>
<td>200 to 240 VAC(nominal) 50/60 Hz (nominal)</td>
<td>2x 16 A</td>
<td>2x 20 A</td>
</tr>
<tr>
<td>PWR-D2-3041-DC-BLUE</td>
<td>3000 W</td>
<td>-48 V to -60 VDC, 70 A to 55A</td>
<td>2x 70 A</td>
<td>2x 90 A</td>
</tr>
</tbody>
</table>

**Important!** Each power supply requires input branch circuit protection in compliance with AHJ requirements.

Chaque alimentation nécessite une protection du circuit de la branche d’entrée conformément aux exigences de l’AHJ.
4.6 **Power Supply Configurations**

Table 4-2 shows the power supply configurations for the modular switches.

<table>
<thead>
<tr>
<th>Modular switch</th>
<th>Recommended number of PSUs (for redundancy)</th>
<th>Number of PSUs shipped in bundle</th>
<th>Minimum number of PSUs required</th>
<th>Maximum number of PSUs supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7804</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>DCS-7808</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>DCS-7816</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>24</td>
</tr>
</tbody>
</table>

### 4.6.1 Recommendations for power supply usage

- Use separate circuits (A & B) with required protection for each power supply.
- Use the same PSU model when replacing a failed PSU. Any suitable alternative must be approved before using if the original model is no longer supported or available.
- Unless your switch allows for mixing power supplies, do not mix power supply types.
- To minimize distribution power loss, use an equal number of supplies in each row: (e.g. 4 PSUs in slots 1-4 and 4 PSUs in slots 7-10 for a configuration with 8 PSUs for the 7808 switch).

**Note**

PSUs can be housed in either of two rows for the 7808 switch. The LEDs for PSUs in each row indicate correct status only after at least one of the PSUs in that row (PSU1 to PSU6 or PSU7 to PSU12) is energized from a power source. For the 7816, as long as 1 PSU is powered, all PSU LEDs will report status correctly.

- All power supply slots must be filled with a powered supply, or a blank (X), or a non-powered power supply.
- Valid redundancy configurations for each domain are described in Power Supply Redundancy section.

4.7 **Power Supply Redundancy**

**Important!**

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

Installation de cet équipement doit être conformes aux codes électriques locaux et nationaux. Si nécessaire, consulter les organismes de réglementation appropriés et des autorités de contrôle pour assurer la conformité.

**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.

Most installations will have redundant, dual, independent power feeds. Each independent power feed will be referenced as A and B.

- The recommended installation is to wire input_A and input_B of each supply to independent power feed (A or B).
Chapter 4: Cabling the Modular Switch

Connecting Supervisor Cables

**Note**
When powered cables are connected to both A and B inputs of the PSU, the AC PSU will draw current from the A input. The B input is held in standby. The DC PSU will share power based on the input voltage.

Each power supply includes a fan that maintains proper power supply temperature. The following appendices display the location of the following component on all switches described in this guide. **Appendix C** displays the front panel location of the supervisor modules, line cards and PSUs. **Appendix D** displays the rear panel location of fabric modules.

**Important!**
This unit requires over-current protection.

*Cet appareil nécessite de protection contre les surintensités.*

**Important!**
Unused slots must be occupied or covered with a blank to ensure proper airflow through the chassis.

*Les emplacements inutilisés doivent être occupés ou recouvert d'un blanc pour assurer la bonne circulation d'air dans le châssis.*

### 4.8 Connecting Supervisor Cables

Supervisor modules contain console, management, and USB ports. **Figure 4-6** displays port and status LED locations on the supervisors. Refer to the chassis specification in **Table 4-3** for additional information about the serial port.

**Figure 4-6: Supervisor DCS-7800-SUP, DCS-7800-SUP1A, and DCS-7816-SUP**

1 Locking mechanism  5 Line card status LED  9 RJ-45 Serial management port
2 Supervisor status LED  6 Fabric Module status LED  10 USB Ports
3 Supervisor active status LED  7 Fan status LED  11 RJ-45 Ethernet management port
4 PSU status LED  8 Clock In  12 SFP Ethernet management port
- **Console (Serial) Port:** Connect to a PC with RJ-45 to DB-9 serial adapter cable. Default switch settings include:
  - 9600 baud
  - No flow control
  - 1 stop bit
  - No parity bits
  - 8 data bits

The appropriate supervisor cards must be installed in one of the two slots designated for them. They are shown in **Figure 4-7** for the DCS-7808 switch. For the DCS-7816 switch, the supervisor slots are in the middle of the chassis.

**Figure 4-7: DCS 7808 Supervisor Slots**
Table 4-3 RJ-45 to DB-9 Connections

<table>
<thead>
<tr>
<th>RJ-45</th>
<th>DB-9</th>
<th>RJ-45</th>
<th>DB-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTS</td>
<td>1</td>
<td>8</td>
<td>CTS</td>
</tr>
<tr>
<td>DTR</td>
<td>2</td>
<td>6</td>
<td>DSR</td>
</tr>
<tr>
<td>TXD</td>
<td>3</td>
<td>2</td>
<td>RXD</td>
</tr>
<tr>
<td>GND</td>
<td>4</td>
<td>5</td>
<td>GND</td>
</tr>
</tbody>
</table>

- **Ethernet management port**: Connect to 10/100/1000 management network with RJ-45 cable.
- **USB Port**: May be used for software or configuration updates.
- **Clock Input Port**: Port type is MCX connector, 2-5.5V, 50 ohm termination.

4.9 **Connecting Line Card Modules and Cables**

Install required SFP, SFP+, QSFP+, QSFP100, OSFP, and QSFP-DD optic modules in line card module ports (Figure 4-8).

Figure 4-8: SFP or SFP+ ports

Connect cables as required to line card module ports. Supervisor and line card module ejectors on the front of the chassis assist with cable management.

---

**Caution**

Excessive bending can damage interface cables, especially optical cables.

Flexion excessive peut endommager les câbles d'interface, en particulier les câbles optiques.

---

**Note**

You must ensure that any open slots for modules, power supplies, etc. are covered by the appropriate “blank” plates. Check with your local Arista Networks representative if you have questions.
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) 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 admin, assigns an IP address to the management port, and defines a default route to a network gateway.

Step 1 Provide power to the switch (Chapter 4).

Step 2 Connect the console port to a PC.

As the switch boots without a startup-config file, it displays this message 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:

Step 3 Log into the switch by typing admin at the login prompt.

localhost login:admin

Step 4 Cancel ZTP mode by typing zerotouch cancel. IMPORTANT: This step initiates a switch reboot.

localhost>zerotouch cancel

Step 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

Step 6 Enter global configuration mode.

localhost>enable
localhost#config
Step 7  Assign a password to the *admin* username with the `username secret` command.

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

Step 8  Configure a default route to the network gateway.

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

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

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

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

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

Step 11 When the management port IP address is configured, use this command to access the switch from a host, using the address configured in step 9:

```bash
ssh admin@192.0.2.8
```

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

A.1 Supervisor Module

While the front panel of each switch can house two supervisors, switch operations require only one. Supervisors display switch status and contain Ethernet management and console ports. The supervisor provides:

- one serial console port
- two Ethernet management ports (one RJ-45, one optical)
- two USB ports
- one clock input port, and
- several system level status indicator LEDs (Section A.1.1).

A.1.1 System Level Status Indicator LEDs: 7800-SUP-D

The system status indicator LEDs are shown in Figure A-1.

Figure A-1: Supervisor 7800-SUP-D
### Supervisor Status LEDs

Table A-1 interprets the states of the supervisor status LEDs for both the active and the redundant supervisor module.

<table>
<thead>
<tr>
<th>Supervisor and System Condition(1)</th>
<th>Status</th>
<th>Active</th>
<th>Power Supply (PSU)</th>
<th>Line Card (LC)</th>
<th>Fabric Module (FM)</th>
<th>Fan Module</th>
<th>Ethernet Port</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Link (Left)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Activity (Right)</td>
</tr>
<tr>
<td>No power, failed, or improperly inserted.</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>Booting</td>
<td>Blinking Green</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>Beacon Request Locate</td>
<td>Blue</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>Normal Active Operation (Master Supervisor) System Status: Good</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>(2) (2)</td>
</tr>
<tr>
<td>Redundant Supervisor (Active Standby) Status: Good</td>
<td>Green</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>Forced fail-over to redundant supervisor (Not active) Status: Bad</td>
<td>Red</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>Supervisor active and operating normally; No PSUs, LCs, FMs or Fan Modules present or powered</td>
<td>Green</td>
<td>Green</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>Supervisor active, Status: PSU failure (one or more) - no AC input, DC output, Over current or not enough PSUs present</td>
<td>Green</td>
<td>Green</td>
<td>Red</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>(2) (2)</td>
</tr>
<tr>
<td>Supervisor active, Status: LC failure (one or more)</td>
<td>Green</td>
<td>Green</td>
<td>(3)</td>
<td>Red</td>
<td>(3)</td>
<td>(3)</td>
<td>(2) (2)</td>
</tr>
<tr>
<td>Supervisor active, Status: FM failure (one or more)</td>
<td>Green</td>
<td>Green</td>
<td>(3)</td>
<td>(3)</td>
<td>Red</td>
<td>(3)</td>
<td>(2) (2)</td>
</tr>
</tbody>
</table>
Table A-1 Supervisor status LED states (Continued)

<table>
<thead>
<tr>
<th>Supervisor and System Condition(1)</th>
<th>Status</th>
<th>Active</th>
<th>Power Supply (PSU)</th>
<th>Line Card (LC)</th>
<th>Fabric Module (FM)</th>
<th>Fan Module</th>
<th>Ethernet Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor active, Status: Fan Module failure (one or more) or not present</td>
<td>Green</td>
<td>Green</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>Red</td>
<td>(2)</td>
</tr>
<tr>
<td>Supervisor active, Ethernet port linked with activity</td>
<td>Green</td>
<td>Green</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>Green</td>
</tr>
<tr>
<td>Supervisor active, Ethernet port linked with no activity</td>
<td>Green</td>
<td>Green</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>Green</td>
</tr>
<tr>
<td>Supervisor active, Ethernet port not linked</td>
<td>Green</td>
<td>Green</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>(3)</td>
<td>Off</td>
</tr>
</tbody>
</table>

1. Assumes redundant supervisor is present.
2. Depends on port operation.
3. Green for normal operation, red if no corresponding component is powered or present.

Note
Arista modular switches take 15 to 30 minutes to boot completely.

A.2 Line Card Module Indicators
Each line card module provides one status LED plus LEDs for each port on the card. Figure A-2 shows a representative line card. The figures in Appendix E indicate the location of the LEDs on each line card.

Figure A-2: Line card Status LED

1. Line card status LED
2. Port status LED
Table A-2 interprets the states of the status LED.

### Table A-2  Linecard status LED states

<table>
<thead>
<tr>
<th>LED State</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Linecard not inserted.</td>
</tr>
<tr>
<td>Green</td>
<td>Linecard operating normally.</td>
</tr>
<tr>
<td>Yellow (amber/orange)</td>
<td>Linecard administratively shut down or booting up.</td>
</tr>
<tr>
<td>Red</td>
<td>Linecard has failed.</td>
</tr>
<tr>
<td>Red (blinking)</td>
<td>Locator function is enabled.</td>
</tr>
</tbody>
</table>

The line card provides LEDs for each port module socket:
- Each LED corresponds to a module.
- A set of four LEDs correspond to each module. When the module is programmed as a 40G port, the first LED in the set reports status. When the module is programmed as four 10G or 100G ports, each port is assigned to an LED within the set.

Table A-4 interprets the port LED states.

### Table A-3  Linecard Port LED States

<table>
<thead>
<tr>
<th>LED State</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Port link is down.</td>
</tr>
<tr>
<td>Green</td>
<td>Port link is up.</td>
</tr>
<tr>
<td>Yellow (amber/orange)</td>
<td>Port is disabled in software.</td>
</tr>
</tbody>
</table>

- For linecards that support OSFP and QSFP-DD ports with one LED per port, Table A-4 interprets the port LED states.

### Table A-4  Line card Port LED States

<table>
<thead>
<tr>
<th>LED State</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Port link is down for all enabled interfaces.</td>
</tr>
<tr>
<td>Green</td>
<td>Port link is up for any enabled interface.</td>
</tr>
<tr>
<td>Yellow (amber/orange)</td>
<td>Port is disabled in software.</td>
</tr>
<tr>
<td>Flashing yellow (amber/orange)</td>
<td>Locator function is enabled on an interface.</td>
</tr>
</tbody>
</table>

### A.3 Fabric Module Status Indicators

Fabric Status LEDs are on fan-fabric modules. Appendix D displays the position of these modules on the rear of each switch. Figure A-3 displays fan status and fabric status LEDs on the 7804 switch. Figure A-4 displays fan status and fabric status LEDs on the 7808 and 7816 switches.
Figure A-3: 7804R3-FM Fabric module and fan status LEDs

1 Fabric module status LED
2 Fan module 1 status LED
3 Fan module 2 status LED
4 Fan module 3 status LED
5 Fan module 4 status LED

Figure A-4: 7808R3-FM and DCS-7816R3-FM Fabric module and fan status LEDs
For the 7816 switch, the lower fabric module fan modules are numbered 9 through 16.

Table A-5 interprets the states of the fan and fabric status LED.

### Table A-5  Fan status and fabric status LEDs on rear panel

<table>
<thead>
<tr>
<th>LED State</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Module inserted, but status is unknown.</td>
</tr>
<tr>
<td>Green</td>
<td>Module operating normally.</td>
</tr>
<tr>
<td>Red</td>
<td>Module failed.</td>
</tr>
</tbody>
</table>

### A.4  Power Supply Status Indicators

#### A.4.1  PWR-D1-3041-AC-BLUE

The power supply status LEDs are on the power supply modules. Figure A-5 displays all the LEDs on the PWR-D1-3041-AC-BLUE AC power supply.

**Figure A-5: PWR-D1-3041-AC-BLUE power supplies**

Note: Handle color indicates airflow direction.

Table A-6 interprets the AC power supply setup for LED status indicators.

### Table A-6  AC Power Supply Status LED states

<table>
<thead>
<tr>
<th>Power Supply Status</th>
<th>AC_A</th>
<th>AC_B</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Operation&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Green</td>
<td>Off</td>
<td>Green</td>
</tr>
<tr>
<td>No AC Input - Single PSU</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
</tbody>
</table>

---

<sup>(1)</sup> Indicates different status LED states for normal operation.
### Table A-6 AC Power Supply Status LED states (Continued)

<table>
<thead>
<tr>
<th>Power Supply Status</th>
<th>AC_A</th>
<th>AC_B</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>No AC Input - Parallel PSUs</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Off</td>
</tr>
<tr>
<td>Standby Mode</td>
<td>Green</td>
<td>Off</td>
<td>Blinking Green(2)</td>
</tr>
<tr>
<td>AC_A Fail</td>
<td>Yellow</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>AC_B Fail</td>
<td>Green</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Power Supply Fault</td>
<td>Green</td>
<td>Off</td>
<td>Yellow</td>
</tr>
<tr>
<td>Boot Loader</td>
<td>Off</td>
<td>Off</td>
<td>Blinking(3)</td>
</tr>
</tbody>
</table>

1. AC_A is the primary input.
2. 1 Hz, 50% Duty Cycle.
3. 1 Hz, 50% Green, 50% Yellow.

### A.4.2 PWR-D2-3041-DC-BLUE

The power supply status LEDs are on the power supply modules. Figure A-6 displays all the LEDs on the PWR-D2-3041-DC-BLUE DC power supply.

**Figure A-6: PWR-D2-3041-DC-BLUE power supplies**

![PWR-D2-3041-DC-BLUE power supplies diagram]

1. Status LED (Output)  4. Input_A LED  7. Battery return terminal
3. GND terminal         6. Input_B LED

**Note**

Release lever color indicates airflow direction.
Table A-7 interprets the DC power supply setup for LED status indicators.

### Table A-7  DC Power Supply Status LED states

<table>
<thead>
<tr>
<th>Power Supply Status</th>
<th>Input_A</th>
<th>Input_B</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Operation</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>No DC Input - Single PSU</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>No DC Input - Parallel PSUs (Standby Mode 2)</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Off</td>
</tr>
<tr>
<td>Standby Mode 1</td>
<td>Green</td>
<td>Green</td>
<td>Blinking Green¹</td>
</tr>
<tr>
<td>Input_A Fail</td>
<td>Yellow</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Input_B Fail</td>
<td>Green</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Power Supply Fault</td>
<td>Green</td>
<td>Green</td>
<td>Yellow</td>
</tr>
<tr>
<td>Boot Loader</td>
<td>Off</td>
<td>Off</td>
<td>Blinking²</td>
</tr>
</tbody>
</table>

1. 1 Hz, 50% Duty Cycle.
2. 1 Hz, 50% Green, 50% Yellow.
3. States can be combined.
Each switch has an accessory kit that contains parts required to install the switch. Table B-1 provides further details on the accessory kit for each switch. The following sections in the chapter list the installation parts provided by the accessory kit in more details.

<table>
<thead>
<tr>
<th></th>
<th>7804</th>
<th>7808</th>
<th>7816</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common cables and accessories (See Section B.1)</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Four-post rack mount kit (See Section B.2)</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Number of Power cords included</td>
<td>12</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>Lifting kit</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>4x brackets 16x bolts</td>
</tr>
</tbody>
</table>

**Warning**

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

Câbles d’alimentation doivent être utilisés uniquement avec des produits de Arista

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.1 Parts Used in All Rack Mount Configurations

B.1.1 Cables

Table B-2 Cables Provided in Accessory Kit

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>RJ-45 Patch Panel Cables, 2 meters.</td>
</tr>
<tr>
<td>2</td>
<td>RJ-45 to DB9 Adapter Cable, 2 meters.</td>
</tr>
</tbody>
</table>

B.1.2 Getting-Started Booklet

One 2-page document

B.2 Four-Post Rack Mount Parts

The following sections list the parts provided in the accessory kit for four-post rack mount installations.

Table B-3 Four-Post rack mount parts

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cradle assembly.</td>
</tr>
<tr>
<td>12</td>
<td>Rack mounting screws.</td>
</tr>
<tr>
<td>1</td>
<td>Template for rack mounting (used only for racks requiring mounting nuts)</td>
</tr>
</tbody>
</table>

Figure B-1: Four-Post rack mount parts
Figure B-2: Lifting Bracket and Bolts

1  Lifting bracket
2  Bolts
Appendix C

Front Panel

This appendix displays the front panel of all switches covered by this guide.

Note

All switches are designed to fit in 19-inch racks.

Figure C-1: DCS-7804 front panel (fully populated)

1. Power supplies
2. Linecard and Supervisor extraction tool tether
3. Extraction tool
4. Linecards
5. Linecard lock
6. Supervisor modules
7. Supervisor lock
8. Grounding locations
9. ESD attach point
Figure C-2: DCS-7808 front panel (fully populated)

1. Power supplies
2. Linecard and Supervisor extraction tool tether
3. Extraction tool
4. Linecards
5. Linecard lock
6. Supervisor modules
7. Supervisor lock
8. Grounding locations
9. ESD attach point
Figure C-3: DCS-7816 front panel (fully populated)

1 Power supplies
2 Linecard and Supervisor extraction tool tether
3 Extraction tool
4 Linecards
5 Linecard lock
6 Supervisor modules
7 Supervisor lock
8 Linecards
9 Linecard lock
10 Linecard and Supervisor extraction tool tether
11 Extraction tool
12 Grounding locations
13 ESD attach point
Appendix D

Rear Panel

This appendix displays the rear panel of all switches covered by this guide.

Figure D-1: DCS-7804 rear panel (fully populated)

1 ESD attachment point
2 Chassis ground
3 Fabric modules
4 Fabric module screw
5 Fabric module release
1 Fabric module screw  
2 Fabric module release  
3 Chassis ground  
4 ESD attachment point
Figure D-3: DCS-7816 rear panel (fully populated)

1. Fabric module screw
2. Fabric module release
3. Fabric module screw
4. Fabric module
5. ESD attachment point
6. Fabric module screw
7. Fabric module release
8. Fabric module screw
9. Fabric module
This appendix displays the line cards supported by modular switches covered by this guide.

**Figure E-1:** DCS-7800R3-48CQ-LC, DCS-7800R3K-48CQ-LC, DCS-7800R3-48CQM-LC, DCS-7800R3-48CQ2-LC, DCS-7800R3-48CQMS-LC, and DCS-7800R3-48CQM2-LC

1. Line card status LED  
2. Port numbers  
3. Port status LEDs

**Figure E-2:** DCS-7800R3-36P-LC

1. Line card status LED  
2. Port numbers  
3. Port status LEDs
Figure E-3: DCS-7800R3-36D-LC and DCS-7800R3K-36DM-LC

1 Line card status LED  
2 Port numbers  
3 Port status LEDs
Maintenance and Field Replacement

This appendix describes the process for replacing switch components. You must ensure that at least one of the secondary grounding pads located on the front panel of the chassis is connected to the data center ground. While working on the switches, use grounded, anti-static wrist straps connected to one of the attach points on the switch for grounding yourself and preventing ESD damage to the switch.

Note
Illustrations in this appendix are examples for a representative switch and component(s). Procedures must be applied to component(s) supported by the specific device. You must use component(s) and the appropriate slots for those component(s) when replacing or adding them.

F.1 Linecard and Supervisor Extraction Tools
Extraction tools are provided for removing and inserting linecards and supervisor modules into the chassis. Assemble and tether these to the chassis.

Note
Appendix C shows the locations for tethering and storing the extraction tools.

F.1.1 Assembling and Storing the Extraction Tools
The extraction tools come with a lanyard and tethering plug as shown in Figure F-1.

Figure F-1: Linecard and supervisor module extraction tool and tether assembly

Use the following steps to attach the tethering mechanism to the extraction tool.

Step 1 Extend and slip the lanyard thread through the slot in the plastic tether.
Step 2 Attach the ring to the extraction tool.
Step 3  Plug the plastic tether into one of the slots (Figure C-2).
Step 4  Repeat for the other tools as appropriate.

F.2  Power Supplies

The switches support AC or DC Power supplies. The switches ship with a number of populated slots depending on the switch model. Empty slots are covered with a blank. For adding a new power supply in one of the available slots, remove the blank covering the slot before inserting a new power supply. The following steps are required for ESD protection when adding or replacing power supplies.

Note  Appendix C shows the locations of power supplies for your device.

Step 1  Connect at least one of the chassis grounding pads located on the front and rear panels of the chassis to the data center ground as needed to ensure that the switch is grounded.
Step 2  Put on an anti-static ESD wrist strap and connect it to one of the attach points on the switch.
Step 3  Remove the power supply to be replaced (Removing AC Power Supply, Removing DC Power Supply) or the blank for the slot (Removing Power Supply Blank) in which the new power supply is to be added.

F.2.1  Removing AC Power Supply

Perform the following steps to remove an AC power supply.
Step 1  Put on a grounded, anti-static ESD strap.
Step 2  Unplug the cable(s) by squeezing the cable release. Up to two cables could be powering each PSU.
Step 3  Squeeze the latch release.
Step 4  Remove the power supply from the switch using the power supply latch release and handle.

F.2.2  Removing DC Power Supply

Before performing any of the steps, ensure power is removed from DC circuits by turning off the power line servicing the circuits.
Make sure to remove the ground connection last when removing power.
Step 1  Put on a grounded, anti-static ESD strap.
Step 2  Disconnect the power cable from the DC power source.
Step 3  Squeeze the latch release.
Step 4  Remove the power supply from the switch using the power supply latch release and handle.
Step 5  Remove each power cable lug to the terminal studs with the flange locking nuts.
Step 6  Remove the flange locking nuts to each of the terminal studs.
Step 7  Disconnect the power cable lug from the terminal studs.

F.2.3  Removing Power Supply Blank

The power supply blank is held in place by friction.
Step 1  Put on a grounded, anti-static ESD strap.
Step 2  Remove the blank from the power supply slot you are going to populate.

You may want to save the blank for future use as needed. The blank is needed for the switch to operate normally if a power supply slot is not populated.

F.2.4 Installing AC Power Supply

You must make space for installing the power supply by removing an existing one (Removing AC Power Supply, Removing DC Power Supply) or removing a blank (Removing Power Supply Blank) from a power supply slot available on the switch. Perform the following steps to install an AC power supply.

Step 1  Put on a grounded, anti-static ESD strap.
Step 2  Unpack the new power supply.
Step 3  Insert the new power supply into the empty power supply slot.
Step 4  After you insert the power supply, push gently on the power supply until the power supply is fully seated.
Step 5  Connect the power cord(s) to the power supply. Up to two cables can power each PSU.
Step 6  Connect to the power source.
Step 7  Verify normal operation using the LED indicators for your switch Table A-6 on page 36.

F.2.5 Installing DC Power Supply

You must make space for installing the power supply by removing an existing one (Removing AC Power Supply, Removing DC Power Supply) or removing a blank (Removing Power Supply Blank) from a power supply slot available on the switch. Perform the following steps to install a DC power supply.

Step 1  Put on a grounded ESD strap.
Step 2  Unbox the new power supply.
Step 3  Connect the cables for your power supply as explained in the guide (Section 4.4).
Step 4  Insert the new power supply into the empty power supply slot.
Step 5  After you insert the power supply, push gently on the power supply until the power supply is fully seated.
Step 6  Connect to the power source.
Step 7  Verify normal operation using the LED indicators for your switch Table A-7 on page 38.

F.3 Fabric and Fan Module (Fabric Module)

The fabric and fan modules are hot-swappable. They are accessible from the rear of the switch (Appendix D). You must take into account that the module you are inserting is compatible with the switch and the module that you are replacing. Perform the following steps to remove and replace a fabric and fan module, or a fan-only module, if your switch supports one.

Note  The DCS-7816 switch has twelve fabric modules, each of half height.

F.3.1 Removing Fabric Module

Step 1  Put on a grounded, anti-static ESD strap.
Step 2  Loosen the two Phillips screws on fabric module.
Supervisor Module  Appendix F: Maintenance and Field Replacement

**Step 3**  Pull out the ejector handle on the fabric module.

**Step 4**  Pull the ejector handles outwards by 90 degrees to disengage the fabric module.

**Step 5**  Pull on the ejector handles to remove the fabric module from the slot.

---

**Note**  Fabric modules can be heavier than 25 lbs. Provide adequate support while handling them to prevent injury or damage.

---

**F.3.2 Installing Fabric Module**

You must make space for installing the module by removing an existing one (Removing Fabric Module) from a fabric module slot available on the switch. Perform the following steps to install the module.

**Step 1**  Put on a grounded, anti-static ESD strap.

**Step 2**  Unpack the module to be installed.

**Step 3**  Open the ejector handles and carefully slide the module into the open slot.

**Step 4**  Seat the module with the ejector handles open at 90 degrees.

**Step 5**  Close the ejector handles.

**Step 6**  Screw in the two Phillips screws.

**Step 7**  Verify that the module is operating normally (Table A-5 on page 36).

**Step 8**  Use the `show environment cooling` command to further verify normal operation.

---

**F.4 Supervisor Module**

The supervisor modules are hot-swappable. They are accessible from the front of the switch. You must take into account that the module you are inserting is compatible with the switch and the module that you are replacing. Use the following procedure to remove and replace a supervisor module. For the supervisor module locations for your device, refer to Appendix C.

**F.4.1 Removing Supervisor Module**

Perform the following steps to remove the module.

**Step 1**  Put on a grounded ESD strap.

**Step 2**  Use the extraction tool supplied (Appendix C) to unlock the Supervisor card

**Step 3**  Pull the supervisor module out.

**Step 4**  Slide supervisor module out of the slot.

**F.4.2 Removing Supervisor Module Blank**

The supervisor module blank has plastic latches.

**Step 1**  Put on a grounded, anti-static ESD strap.

**Step 2**  Grip the plastic handles to release the latch and remove the blank from the supervisor module slot you are going to populate.

You may want to save the blank for future use as needed. The blank is needed for the switch to operate normally if a supervisor module slot is not populated.
F.4.3 Installing Supervisor Module

You must make space for installing the module by removing an existing one (Removing Supervisor Module) or removing a blank (Removing Supervisor Module Blank) from a supervisor module slot available on the switch. Perform the following steps to install the module.

Step 1 Put on a grounded, anti-static ESD strap.
Step 2 Unpack the supervisor module to be installed.
Step 3 Slide supervisor module into slot.
Step 4 Lock the supervisor module in place using the tool supplied (Appendix C).
Step 5 Verify that the module is operating normally (Table A-1 on page 32).

F.5 Linecards

The linecards are hot-swappable. They are accessible from the front of the switch. You must take into account that the linecard you are inserting is compatible with the switch and the linecard that you are replacing. Use the following procedure to remove and replace a linecard. If you are adding a new linecard, remove the blank from the linecard slot and install the new linecard. For the linecard locations on your switch, refer to Appendix C.

F.5.1 Removing Linecard

Perform the following steps to remove a linecard.

Step 1 Put on a grounded, anti-static ESD strap.
Step 2 Use the tools supplied (Appendix C) simultaneously on each end of the linecard.
Step 3 Pull the linecard out gently once released.
Step 4 Slide linecard out of the slot.

F.5.2 Removing Linecard Blank

The linecard blank has plastic latches.

Step 1 Put on a grounded, anti-static ESD strap.
Step 2 Grip the plastic handles to release the latch and remove the blank from the linecard slot you are going to populate.

You may want to save the blank for future use as needed. The blank is needed for the switch to operate normally if a linecard slot is not populated.

F.5.3 Installing Linecard

You must make space for installing the linecard by removing an existing one (Removing Linecard) or removing a blank (Removing Linecard Blank) from a linecard slot available on the switch.

Step 1 Put on a grounded, anti-static ESD strap.
Step 2 Unpack the linecard to be installed.
Step 3 Slide the linecard into the slot.
Step 4 Use the tools supplied (Appendix C) simultaneously on each end of the linecard to lock it in place.
Step 5 Verify that the linecard is operating normally (Table A-2 on page 34).
This appendix lists the regulatory model numbers (RMNs), where applicable, for the product models for the switches described in this document.

### Table G-1  Regulatory Model Numbers and Product Numbers

<table>
<thead>
<tr>
<th>Regulatory Model Number (RMN)</th>
<th>Product Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7804</td>
<td>DCS-7804</td>
</tr>
<tr>
<td>DCS-7808</td>
<td>DCS-7808</td>
</tr>
<tr>
<td>DCS-7816</td>
<td>DCS-7816</td>
</tr>
</tbody>
</table>
Taiwan RoHS Information

This appendix provides Taiwan RoHS information for switches covered by this guide.
For Taiwan BSMI RoHS Table, go to https://www.arista.com/assets/data/pdf/AristaBSMIRoHS.pdf.