Dell Networking
W-7030 Controller
Installation Guide

Contents

Preface

This document describes the hardware features of the Dell Networking W-7030 Controller. It provides a detailed overview of the physical and performance characteristics the controller, and explains how to install the controller and its accessories.

Guide Overview

- Chapter 1, "W-7030 Controller" on page 15 provides a detailed hardware overview of the W-7030 controller and each of its components.
- Chapter 2, "Installation" on page 7 describes how to install the W-7030 controller and each its components.
- Chapter 2, "Specifications, Safety, and Compliance" on page 23 lists the technical specifications, and safety and regulatory compliance information for the W-7030 controller.

Related Documentation

Refer to the latest Dell Networking W-Series ArubaOS User Guide and Dell Networking W-Series ArubaOS CLI Reference Guide for complete management of the controller. The documents are available at dell.com/support/manuals.

Contacting Dell

Table 1 Support Information

Web Site Support	
Main Website	dell.com
Contact Information	dell.com/contactdell
Support Website	dell.com/support
Documentation Website	dell.com/support/manuals

W-7030 Controller

The Dell Networking W-7030 Controller is a wireless LAN controller that connects, controls, and intelligently integrates wireless Access Points (APs) and Air Monitors (AMs) into a wired LAN system.

There are two models of the W-7030 controller, that do not differ physically or functionally from each other.

- W-7030-US: For the United States of America
- W-7030-RW: For the rest of the world

Package Checklist

NOTE: Inform your supplier if there are any incorrect, missing, or damaged parts. If possible, retain the carton, including the original packing materials (see Table 2). Use these materials to repack and return the unit to the supplier if needed.

Table 2 Package Contents

Item	Quantity
W-7030 Controller	1
Mounting Brackets	2
M6 x 15 mm Phillips Pan Head Screws	4
M3 x 6.5 mm Phillips Flat Head Screws	8
M6 x 7 mm Grounding Screws	2
M6 Cage Nut	4
M6 Clip Nut	4
AC Power Cord Retaining Clip	1
Power Cable	1
USB Console Cable	1
Rubber Feet	4
Installation Guide (this document, printed)	1
Quick Start Guide (printed)	1
Dell Software License Agreement (printed)	1
Dell Safety, Environment, and Regulatory Information (printed)	1
Dell Warranty and Support Information (printed)	

NOTE: Optional accessories are available for use with the W-7030 controller and are sold separately. Contact your Dell sales representative for details and assistance.

W-7030 Components

This section introduces the different components of the W-7030 controller, and specifies their locations in the controller.

Figure 8 shows the front panel of the W-7030 controller and Figure 9 shows the back panel of the W-7030 controller.

Figure 8 Front Panel of the W-7030 Controller
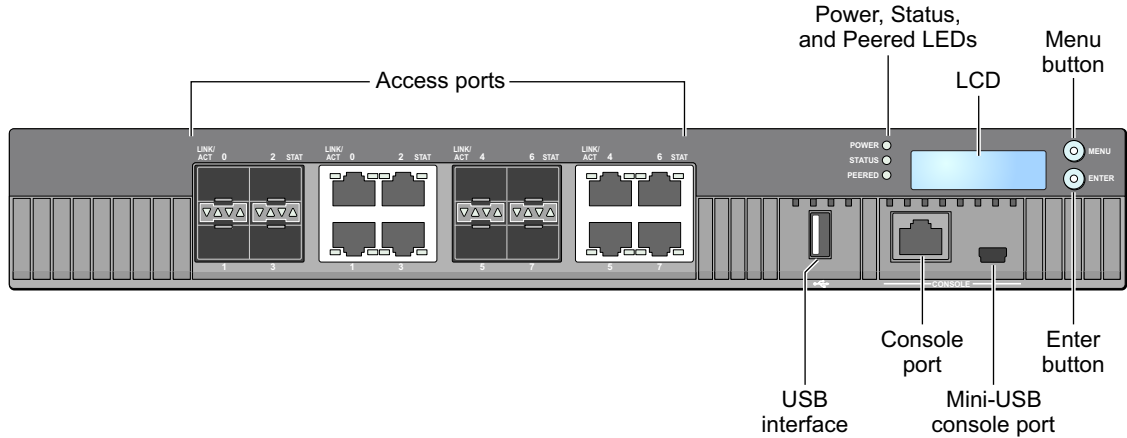
Figure 9 Back Panel of the W-7030 Controller

The following table lists the different components of the W-7030 controller:

Table 3 W-7030 Controller Components

Component	Description
Access Ports	8 x dual media ports (10/100/1000BASE-T and 1000BASE-X)
Power, Status, and Peered LEDs	Provides basic monitoring of the controller
LCD	Allows configuration of LED behavior and other basic operations
Menu Button	Allows selection of the LCD screen menu
Enter Button	Allows execution of actions on the LCD Screen
USB Interface	1 x USB 2.0, USB storage device can be used to save and upload configurations
Console Port	RJ-45 serial console access port
Mini-USB Console Port	Provides console access for direct local access
AC in	AC power connector
Kensington lock	Kensington lock security port

Table 3 W-7030 Controller Components (Continued)

Component	Description
Grounding point	Grounding point

Access Ports

The W-7030 controller is equipped with 8 dual-media ports (ports 0 through 7). These ports can utilize either the 1000Base-X or 10/100/1000Base-T connections provided. However, the 1000Base-X fiber connection has priority over the 10/100/1000Base-T copper connection. If a link is detected on the 1000Base-X interface, the 10/100/1000Base-T connection will be disabled.

NOTE: Dell tests and supports Dell optics within Dell controller systems. Third party optics are not tested or supported; therefore, Dell does not guarantee proper functionality of third party optics when used in a Dell system.

Table 4 W-7030 Controller Port Configuration

Model	Access Port	Number of APs Supported
W-7030	8 x dual media ports (10/100/1000BASE-T and 1000BASE-X)	64

10/100/1000Base-T (RJ-45) Ports

The W-7030 controller is equipped with eight 10/100/1000Base-T copper (Gigabit Ethernet) ports, as part of dual media ports. Gigabit Ethernet uses all eight wires and each pair is used in a bi-directional fashion, meaning the same pairs are used for both data transmission and reception. Figure 3 illustrates the CAT-5 pin-out found on an RJ-45 connector. The CAT-5 pin-out pairs the following pins on a 10/100/1000Base-T Gigabit Ethernet port: 1/2, 3/6, 4/5, and 7/8.

Figure 10 10/100/1000Base-T Management Port Pin Out
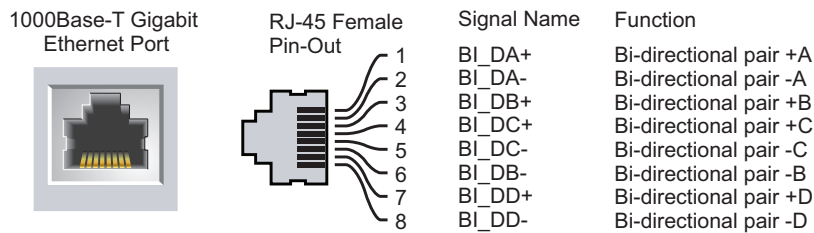
1000Base-X (SFP) Ports

The W-7030 controller is equipped with eight 1000Base-X ports, as part of dual media ports. The 1000Base-X ports are for fiber connectivity only, and intended for use with SFPs (mini-GBICs).

NOTE: Dell tests and supports Dell optics within Dell controller systems. Third party optics are not tested or supported; therefore, Dell does not guarantee proper functionality of third party optics when used in a Dell system.

10/100/1000Base-T Port LEDs

Each 10/100/1000Base-T port is equipped with two LEDs that allow basic monitoring of status, activity, and configuration of the port.

- **LINK/ACT**: Placed on the left side of the port, this LED displays the link status and activity of the port.

* **STATUS**: Placed on the right side of the port, this LED displays the status of the port. The information displayed by this LED changes based on the LCD mode. The LED behavior for each mode is describe in Table 5 and Table 6.

Table 5 10/100/1000Base-T Port LEDs

LED	Function	LCD Mode	Indicator	Status
LINK/ACT	Link status	N/A	Green (Solid)	Link has been established
			Green (Blinking)	Port is transmitting or receiving data
			Off	No link
STATUS	Port status	Administrative	Green (Solid)	Port Enabled
			Off	Port Administratively Disabled
		Duplex	Green (Solid)	Full-duplex
			Off	Half-duplex
		Speed	Green (Solid)	1000 Mbps
			Off	10/100 Mbps

1000Base-X Port LEDs

Each 1000Base-X port is equipped with two LEDs that allow basic monitoring of status, activity, and configuration of the port.

* **LINK/ACT**: Placed above/below the port, this LED displays the link status and activity of the port.
* **STATUS**: Placed above/below the port, this LED displays the status of the port. The information displayed by this LED changes based on the LCD mode. The LED behavior for each mode is described in Table 6

Table 6 1000Base-X Port LEDs

LED	Function	LCD Mode	Indicator	Status
LINK/ACT	Link status	N/A	Green (Solid)	Link has been established
			Green (Blinking)	Port is transmitting or receiving data
			Off	No link
STATUS	Port status	Administrative	Green (Solid)	Port Enabled
			Off	Port Administratively Disabled
		Duplex	Green (Solid)	Full-duplex
			Off	N/A
		Speed	Green (Solid)	1 Gbps
			Off	N/A

Figure 11 Ports, LEDs, and LCD Panel
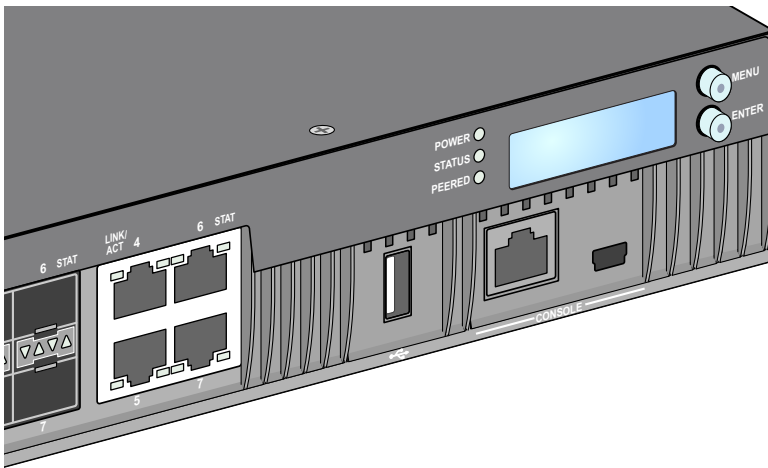
Power, Status, and Peered LEDs

The front panel also includes Power, Status, and Peered LEDs that provide basic monitoring of the overall status of the W-7030 controller. See Figure 11.

Table 7 Power, Status, and Peered LEDs

LED	Function	Indicator	Status
Power	System Power	Green (Solid)	Power On
		Off	Power Off
Status	System Status	Green (Solid)	Operational
		Green (Blinking)	Device is loading software
		Amber (Blinking)	Major Alarm
		Amber (Solid)	Critical Alarm
		Off	No power
Peered	Reserved for future use	N/A	N/A

LCD Panel

The W-7030 controller is equipped with an LCD panel (see Figure 11) that displays information about the controller's status, and provides a menu that allows basic operations such as initial setup and reboot. The LCD panel displays two lines of text with a maximum of 16 characters per line. When using the LCD panel, the active line is indicated by an arrow next to the first letter.

The LCD panel is operated using the two navigation buttons to the right of the screen.

- **Menu**: Allows navigation through the menus of the LCD panel.
- **Enter**: Confirms and executes the action currently displayed on the LCD panel.

LCD Mode Menu

The LCD mode menu includes four modes as shown in the following table.

Table 8 LCD Panel Mode

LCD Mode	Function	Display	Description
Boot	Displays the boot status of the controller.	"Booting ArubaOS…	Boot status.
LED	Displays the mode of the port STATUS LED. The LED mode menu allows choice of what information is communicated by the STATUS LEDs on each port. See Table 5 on page 18 for descriptions of the LED behavior of each mode.	LED mode: ADM	Administrative– Displays whether the port is administratively enabled or disabled.
		LED mode: DPX	Duplex– Displays the duplex mode of the port.
		LED mode: SPD	Speed– Displays the speed of the port.
		Exit	Exit LED menu.
Status	Displays the ArubaOS version.	OS Version	ArubaOS version.
		Exit	Exit Status menu.
Maintenance	Allows execution of some basic operations such as uploading an image or rebooting the controller.	Upgrade Image [Partition 0 [Y|N]	Partiion 1 [Y|N]]	Upgrade the software image on the selected partition from a predefined location on an attached USB flash device.
		Upload config [Y	N]	Upload the controller's current configuration to a predefined location on the attached USB flash device.
		Factory Default [Y|N]	Reset the device to factory default settings.
		Media Eject [Y| N]	Complete the reading or writing of the attached USB device.
		Reload system [Y|N]	Reboot the device.
		Halt system [Y|N]	Halt the device.
		Exit	Exit Maintenance menu.

Disabling the LCD Screen

By default, the LCD screen is enabled. However, if the W-7030 controller is deployed in a location without physical security, the LCD screen can be disabled through the CLI. When disabled, pushing one of the navigation buttons will only illuminate the LCD screen and display the slot, role, device name, and any alarms.

Additionally, it is possible to disable only the maintenance menu. This allows you to change the LED behavior and view the device status but prevent upgrades and configuration changes.

To disable the LCD screen, enter the Enable mode and use the following CLI commands:

```
(host) #configure terminal
(host) (config) #lcd-menu
(host) (lcd-menu) #disable menu
```

To disable only the Maintenance menu or one of its sub-menus, enter the Enable mode and use the following CLI commands:

```
(host) #configure terminal
(host) (config) #lcd
(host) (lcd-menu) #disable menu maintenance ?
   factory-default
   halt-system
   media-eject
```

```
   reload-system
   upgrade-image
   upload-config
(host) (lcd-menu) #disable menu maintenance upgrade-image ?
   partition0
   partition1
```

USB Interface

The W-7030 controller is equipped with a USB 2.0 interface. See Figure 11 on page 19. A USB storage device can be used to save and upload configurations to the controller. USB functions are controlled through the LCD panel on the front of the controller. For more information on the LCD panel and its functions, see "LCD Panel" on page 19.

Mini-USB Console Connector

The W-7030 controller is equipped with one Mini-USB (type B) connector that provides console access for direct local access. See Figure 11 on page 19. If both Mini-USB and RJ-45 Console ports are connected, the Mini-USB connection takes precedence over the RJ-45 Console connection.

Mini-USB Driver

To use the Mini-USB console port, install the Dell Mini-USB driver on the computer that will manage the controller. The driver is available for on download.dell-pcw.com under Tools & Resources..

Console Port

Use the serial Console port to allow direct local management. See Figure 11 on page 19. This port is an RJ-45 female connector that accepts an RS-232 serial cable with a male connector.

Figure 12 Serial Console Port Pin-Out
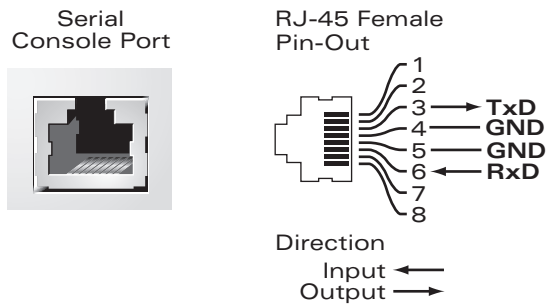
The communication settings for the Console port are shown in the following table:

Table 9 Console Terminal Settings

Baud Rate	Data Bits	Parity	Stop Bits	Flow Control
9600	8	None	1	None

CAUTION: The CONSOLE port is compatible only with RS-232 devices. Non-RS-232 devices, such as APs, are not supported.

CAUTION: Do not connect the Console port to an Ethernet switch or a PoE power source. This may damage the controller.

Serial Console Port Adaptor

A modular adaptor can be used to convert the female RJ-45 connector to a male DB9 connector. See Figure 13 for complete details.

Figure 13 RJ-45 (Female) to DB9 (Male) Modular Adapter Conversion

Power Supply

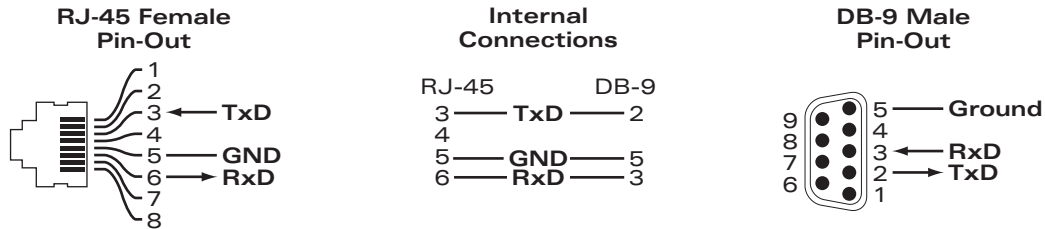The W-7030 controller is equipped with an integrated AC power supply of 80W.

Grounding Point

To meet safety and electromagnetic interference (EMI) requirements and to ensure proper operation, the controller must be adequately grounded before power is connected. Connect a grounding cable to earth ground and then attach it to the chassis grounding point using two screws.

Comply with electrical grounding standards during all phases of installation and operation of the product. Do not allow the controller's chassis, network ports, power supply, or mounting brackets to contact any device, cable, object, or person attached to a different electrical ground. Also, never connect the device to external storm grounding sources.

Kensington Lock

The W-7030 controller is equipped with a Kensington security slot for additional security.

SFP Modules

SFP Modules, also known as mini-GBICs, are hot-swappable Gigabit Ethernet transceivers that provide optical or copper connections to other devices.

NOTE: Dell tests and supports Dell approved optics within Dell controller devices. Non-approved third party optics are not tested or supported; therefore, Dell does not guarantee proper functionality of non-approved third party optics when used in a Dell system. For a complete list of Dell approved optics, contact a Dell sales representative.

Table 10 Supported SFPs

SFP	Description
SFP-SX	Dell SFP, 1000BASE-SX, LC Connector; 850nm pluggable GbE optic; up to 300 meters over multi-mode fiber (Type OM2)
SFP-LX	Dell SFP, 1000BASE-LX, LC Connector; 310nm pluggable GbE optic; up to 10,000 meters over single-mode fiber

⚠   CAUTION: Installation of the device should be performed by a trained installation professional.

This chapter describes how to install a W-7030 controller using the different mounting options available. The W-7030 controller ships with an accessory kit that includes the equipment needed to install the controller in standard, 19-inch telco rack or on a wall.

CAUTION: Only use the included or Dell specified cables, power cords, AC power supplies, and batteries. The power cord should not be used with other electric equipment than what is specified by Dell.

⚠

CAUTION: 接続ケーブル、電源コード、**AC** アダプタ、バッテリーなどの部品は、必ず添付品または指定品をご使用ください。また、電源ケーブルは弊社が指定する製品以外の電気機器には使用できないためご注意ください。

Precautions

- Ensure that the rack is correctly and securely installed to prevent it from falling or becoming unstable.
- Dangerous voltage above 240VAC is always present while the Dell Power Supply Module is plugged into an electrical outlet. Remove all rings, jewelry, and other potentially conductive material before working with this device.
- Never insert foreign objects into the chassis, power supply, or any other component, even when the power supply is turned Off, unplugged, or removed.
- Ensure that the main power is fully disconnected from the controller by unplugging all power cords from their outlets. For safety, verify that the power outlets and plugs are easily reachable by the operator.
- Do not handle electrical cables which are not insulated. This also includes network cables.
- Keep water and other fluids away from the controller to minimize electrical hazards.
- Comply with electrical grounding standards during all phases of installation and operation of the product. Do not allow the controller's chassis, network ports, power supply, or mounting brackets to contact any device, cable, object, or person attached to a different electrical ground. Also, never connect the device to external storm grounding sources.
- Perform installation or removal of the chassis or any module in a static-free environment. Proper use of anti-static body straps and mats is strongly recommended.
- Modules must be kept in anti-static packaging when not installed in the chassis.

- Do not ship or store this product near strong electromagnetic, electrostatic, magnetic, or radioactive fields.
- Do not disassemble the chassis.

Selecting a Location

The W-7030 controller, like other network and computing devices, requires the following "electronic-friendly" environment:

- **Reliable power:** Verify that the electrical outlet is compatible with the W-7030 controller power supply.
- **Cool, non-condensing ventilation:** For proper operation, the W-7030 controller requires an environment with an ambient air temperature between 0º C and 40º C (32º F and 104º F). Humidity must be kept at non-condensing levels, between 5% and 95%.

  Where a large number of electrical devices are working in the same area, additional air conditioning or air circulation equipment may be required.
- **Ample space:** For proper air circulation, leave at least 10 cm (4 inches) clearance all around the chassis.

  Leave additional space in front and rear side of the chassis to access power cords, network cables, and indicator LEDs.
- **Limited electromagnetic interference:** For best operation, keep the W-7030 controller and all cords and cables at least 0.7 meters (2 feet) from fluorescent lighting fixtures, and 2 meters (6 feet) from photocopiers, radio transmitters, electric generators, and other sources of strong electromagnetic interference.

Rack Mounting- Standard

This mounting option allows mounting the W-7030 controller in a two-post 19-inch Telco rack.

⚠ CAUTION: Each W-7030 controller must have its own mounting equipment. Do not place other networking equipment directly on top of a mounted W-7030 controller. Failure to do so can damage the device.

Required Tools and Equipment

The following tools and equipment are required for installing a W-7030 controller:

- Mounting bracket (x2) Do not use for table or shelf installation
- Screws for mounting bracket (x8): M3 x 6.5 mm Phillips Flat Head Screws
- Screws for system rack mount (4x): M6 x 15 mm Phillips Pan Head Screws
- M6 cage nut (x4): Optional
- M6 clip nut (x4): Optional
- Suitable screwdrivers for all screw types provided in the box (not included in the package)

📝 NOTE: Some racks require screws that differ from those included with the W-7030 controller. Ensure to have the correct screws before installing the W-7030 controller.
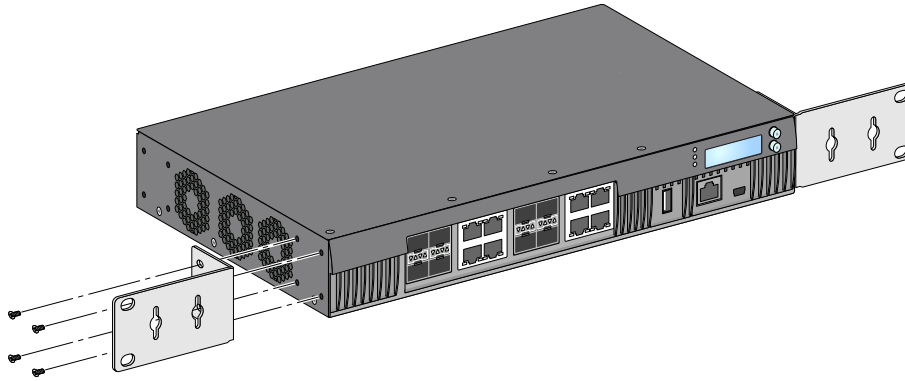
Installation Steps

To install a W-7030 controller into a two-post 19-inch Telco rack:

1. Place the mounting bracket over the mounting holes on the controller (see Figure 1).
2. Secure the bracket to the controller using the eight screws for the mount bracket (four per bracket) and a suitable screwdriver.

Figure 1 Rack Mount Brackets

3. If the rack requires cage nut or clip nut, insert it on the front rails (two per rail, aligned horizontally).

4. Mount the controller in the rack using the four screws for system rack mount (two per bracket) and a suitable screwdriver (see Figure 2).

Figure 2 Rack Mount Installation
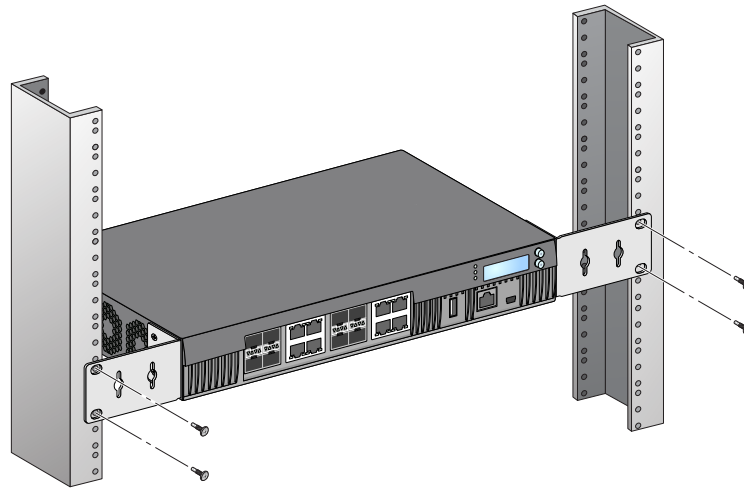
NOTE: Leave a minimum of 10 cm (4 inches) of space on the left and right side of the controller for proper air flow and ventilation. Leave additional space in the front and the back of the controller to access network cables, LED status indicators, and power cord.

Table or Shelf Installation

Required Tools and Equipment

- Rubber Feet (included in the package)

Installation Steps

1. Attach the rubber feet to the bottom of the controller (see Figure 3).

Figure 3 Attaching Rubber Feet
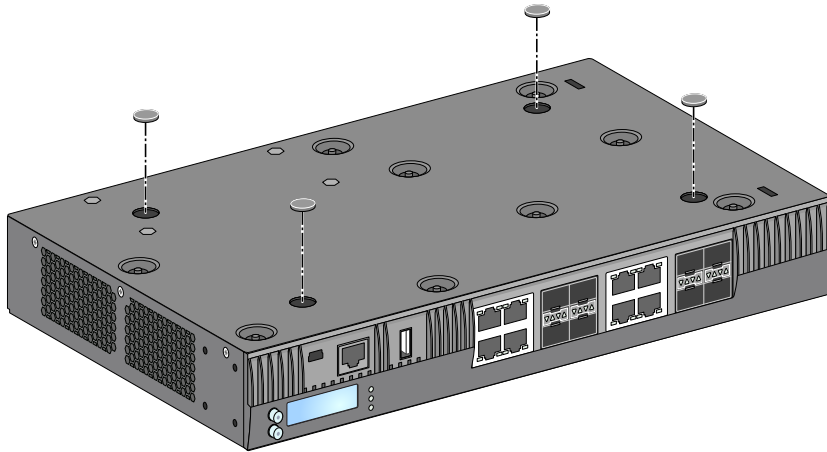
2. Place the controller in the desired location.

Wall Mounting

The mounting brackets can also be used for wall mounting the W-7030 controller.

Required Tools and Equipment

The following tools and equipment are required for installing a W-7030 controller on a wall:

- Mounting Brackets (2x)
- Screws for mounting bracket (x8): M3 x 6.5 mm Phillips Flat Head Screws
- Wall Anchors: Optional accessory (not included in the package)
- Wall Mounting Screws: The type of screw depends on the installation surface (not included in the package)
- Suitable Screwdrivers for all screw types (not included in the package)

Installation Steps

To install a W-7030 controller on a wall:

NOTE: Ensure that the Ethernet ports are facing down when installing the W-7030 controller on a wall.

1. Fasten the mounting brackets over the mounting holes on the sides of the W-7030 controller using the eight screws for mounting bracket (four per bracket) and a suitable screwdriver (see Figure 4).

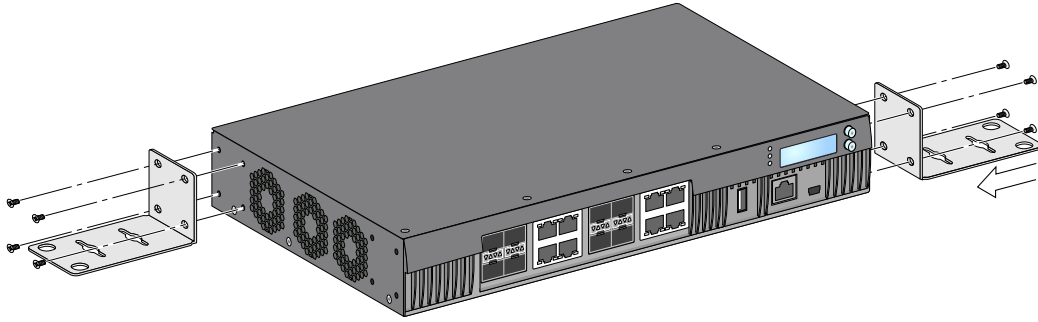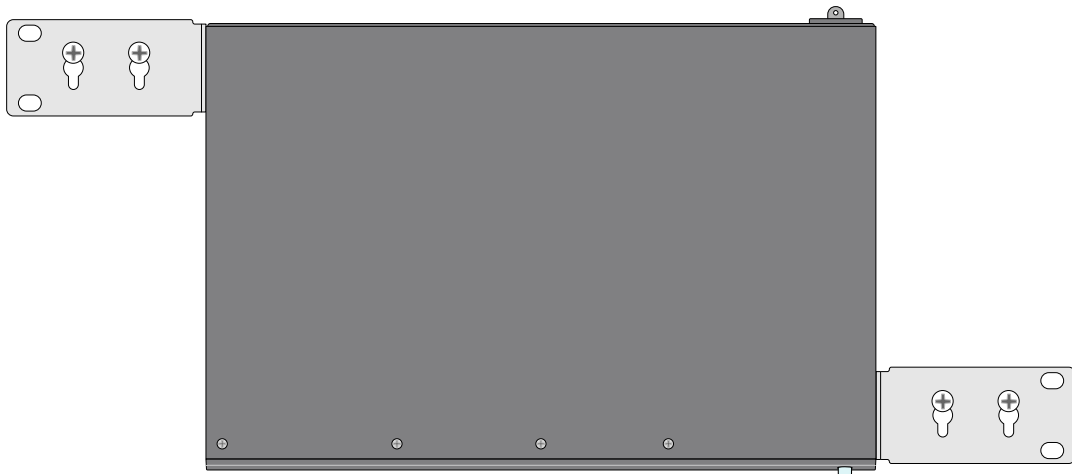**Figure 4** Attaching the Wall Mount Brackets

2. After choosing a mounting location, mark the locations on the wall for the mounting holes.

3. Create the holes and insert wall anchors if the installation requires them.

4. Align the mounting bracket holes with the holes created in the wall (see Figure 5).

Figure 5 Wall Mounting

5. Use appropriate screws to secure the W-7030 controller.

Connecting and Disconnecting the AC Power Cord

Once the controller is installed, it is ready to be powered on. The W-7030 controller is not equipped with an on/off switch. The device will power on when the AC power cord is connected to the AC inlet and an AC power outlet.

Connecting the AC Power Cord

To connect the AC power cord to the W-7030 controller:

1. Lift the power cord retaining clip so that it is not blocking the AC power connector.

2. Insert the coupler end of the AC power cord into the AC power connector on the AC inlet.

3. Lower the power cord retaining clip over the AC power cord.

The W-7030 controller should now be receiving power.

Disconnecting the AC Power Cord

To disconnect the AC power cord from the W-7030 controller:

1. Lift the power cord retaining clip off the AC power cord.

2. Pull the AC power cord from the power supply module.

3. The W-7030 controller is now turned Off.

Installing an SFP

✎ NOTE: Use standard ESD precautions when installing or removing an SFP.

To install an SFP module in the W-7030 controller:

1. Slide the SFP module into a dual media port until a connection is made and an audible click is heard (see Figure 6).

Figure 6 Installing an SFP
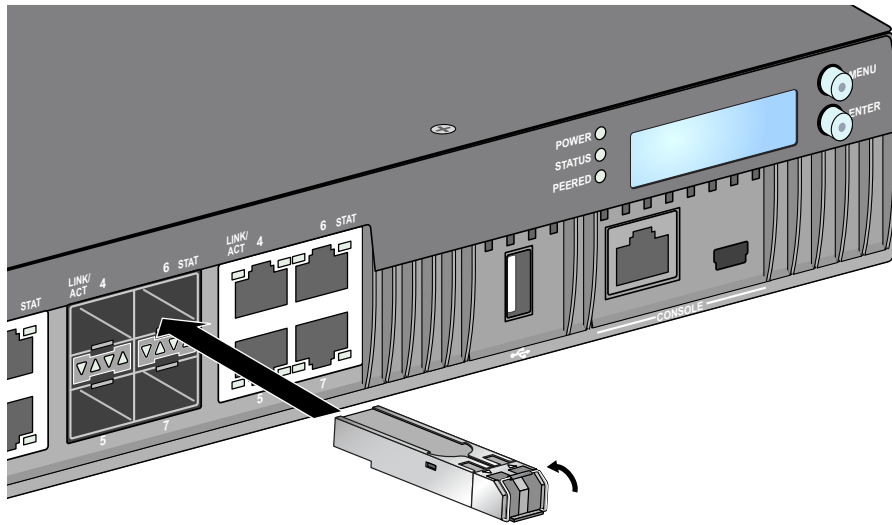
Removing an SFP

To remove an SFP module from the W-7030 controller:

1. Open and release the latch on the SFP module.

2. Pull and remove the module from the port.

Connecting an LC Fiber Optic Cable

To connect an LC fiber optic cable to an SFP module:

1. Clean the fiber optic cable connector before inserting it into the SFP module.

2. Insert the fiber optic cable into the SFP module. Ensure that the latch on the cable faces the top of the SFP module.

3. Slide the cable into place until a connection is made and an audible click is heard.

Disconnecting an LC Fiber Optic Cable

To disconnect an LC fiber optic cable from an SFP module:

1. Depress the transceiver handle to release the latch on the cable and simultaneously pull the cable out of the port.

Figure 7 Connecting an LC Fiber Optic Cable
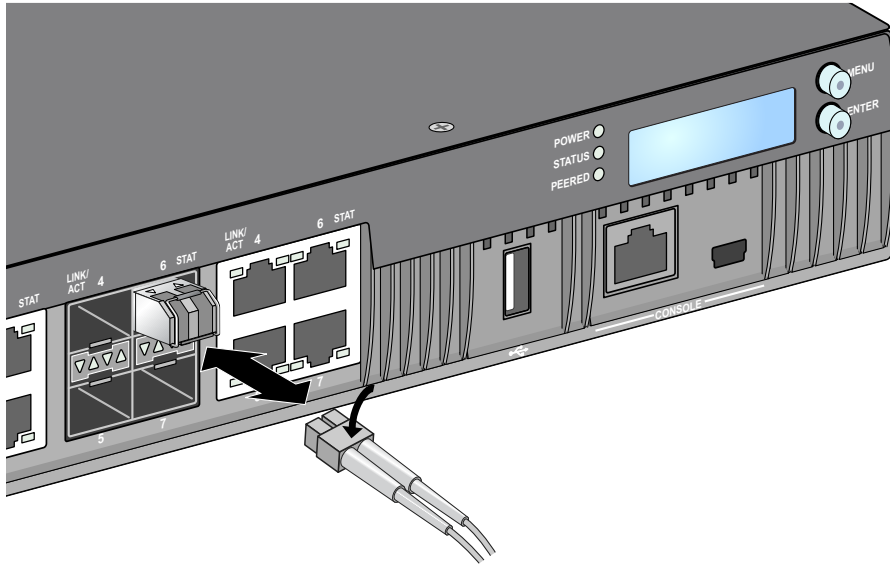
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W-7030 Specifications

Physical
- Device Dimensions (without mounting brackets) (HxWxD): 1.72" x 12.0" x 8.3" (4.37 cm x 30.48 cm x 21.08 cm)
- Device Weight: 4.54 lbs (2.06 kg)

Power Supply Specifications
- 80W AC Power Supply
  - AC Input Voltage: 100 VAC to 240 VAC
  - AC Input Current: 2A
  - AC Input Frequency: 50 to 60 Hz

Operating Specifications
- Operating Temperature Range: 0 °C to 40 °C (32 °F to 104 °F)
- Operating Humidity Range: 5% to 95% (RH), non-condensing

Storage Specifications
- Storage Temperature Range: 0 °C to 50 °C (32 °F to 122 °F)
- Storage Humidity Range: 5% to 95% (RH), non-condensing

Safety and Regulatory Compliance

⚠ CAUTION: The Dell controllers must be installed by a professional installer. The professional installer is responsible for ensuring that grounding is available and it meets applicable local and national electrical codes.

Regulatory Model Names

The regulatory model name for the W-7030 is **ARCN7030**.

✎ NOTE: For country specific restrictions and additional safety and regulatory information, refer to the multi-language Dell Networking W-Series Safety, Environmental, and Regulatory Information document included with this product.

Class 1 Laser Product

CLASS 1
LASER PRODUCT

⚠ CAUTION: Use of controls or adjustments of performance or procedures other than those specified in this manual may result in hazardous radiation exposure.

This product complies with 21 CFR Chapter 1, Subchapter J, Part 1040.10, and IEC 60825-1: 1993, A1: 1997, A2: 2001, IEC 60825-2: 2000.

For continued compliance with the above laser safety standards, only approved Class 1 modules from our approved vendors should be installed in the product.

⚠ CAUTION: Although this controller has been tested up to 1kV per CE immunity requirements, this product requires surge protection to be provided as part of the building installation to protect against unidirectional surges resulting from electrical switching and lightning strikes.
For protection against these surges in an outdoor installation, any exposed wiring must be shielded, and the shield for the wiring must be grounded at both ends.

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be require to correct the interference at their own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le ministère des Communications.

CE ⓘ EU Regulatory Conformance

This product is CE marked according to the provisions of the EMC Directive (2004/108/EC) - CE. Dell hereby declares that W-7030 controller device models are in compliance with the essential requirements and other relevant provisions of Directive (2004/108/EC). CE The Declaration of Conformity made under Directive 1999/5/EC is available for viewing on **dell.com.**

Japan

VCCI - Class A

この装置は、クラスA 情報技術装置です。この装置を家庭環境で使用すると
電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を
講ずるよう要求されることがあります。   VCCI- A

This is a Class A product based on the standard of the Voluntary Control Council for Interference (VCCI). If this equipment is used in a domestic environment, radio interference may occur, in which case the user may be required to take corrective actions.

Europe

⚠ WARNING: This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

This product complies with EN55022 Class A and EN55024 standards.

South Korea

Class A:

이 기기는 업무용(A급) 전자파 적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며,

가정외의 지역에서 사용하는 것을 목적으로 합니다.

Taiwan (BSMI)

警告使用者：
這是甲類的資訊產品，在居住的環境中使用
時，可能會造成射頻干擾，在這種情況下，
使用者會被要求採取某些適當的對策。

Battery Statements

⚠ CAUTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.
Remplacer uniquement avec une batterie due même type ou d'un équivalent recommandé par le constructeur.
Mettre au rebut les batteries usagées conformément aux unstruction du fabricant.

⚠ CAUTION: The battery supplied with this product may contain perchlorate material. Special handling may apply in California and other certain states. See www.dtsc.ca.gov/hazardouswaste/perchlorate for more information.

⚠ WARNING: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Proper Disposal of Dell Equipment

Waste of Electrical and Electronic Equipment
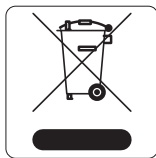
Dell products at end of life are subject to separate collection and treatment in the EU Member States, Norway, and Switzerland and therefore are marked with the symbol shown at the left (crossed-out wheelie bin). The treatment applied at end of life of these products in these countries shall comply with the applicable national laws of countries implementing Directive 2002/96EC on Waste of Electrical and Electronic Equipment (WEEE).

European Union RoHS

Dell products also comply with the EU Restriction of Hazardous Substances Directive 2011/65/EU (RoHS). EU RoHS restricts the use of specific hazardous materials in the manufacture of electrical and electronic equipment. Specifically, restricted materials under the RoHS Directive are Lead (including Solder used in printed circuit assemblies), Cadmium, Mercury, Hexavalent Chromium, and Bromine. Some Dell products are subject to the exemptions listed in RoHS Directive Annex 7 (Lead in solder used in printed circuit assemblies). Products and packaging will be marked with the "RoHS" label shown at the left indicating conformance to this Directive.

India RoHS

This product complies with RoHS requirements as prescribed by E-Waste (Management & Handling) Rules, governed by the Ministry of Environment & Forests, Government of India.

China RoHS

Dell products also comply with China environmental declaration requirements and are labeled with the "EFUP 50" label shown at the left.

有毒有害物质声明
Hazardous Materials Declaration

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substances)					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Chromium VI Compounds (Cr^{6+})	多溴联苯 Polybrominated Biphenyls (PBB)	多溴二苯醚 Polybrominated Diphenyl Ether (PBDE)
电路板 PCA Board	X	O	O	O	O	O
机械组件 Mechanical Subassembly	X	O	O	O	O	O
电源适配器 Power Adaptor	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。
This component does not contain this hazardous substance above the maximum concentration values in homogeneous materials specified in the SJ/T11363-2006 Industry Standard.

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。
This component does contain this hazardous substance above the maximum concentration values in homogeneous materials specified in the SJ/T11363-2006 Industry Standard.

对销售之日的所售产品，本表显示，供应链的电子信息产品可能包含这些物质。
This table shows where these substances may be found in the supply chain of electronic information products, as of the date of sale of the enclosed product.

此标志为针对所涉及产品的环保使用期标志.
某些零部件会有一个不同的环保使用期(例如, 电池单元模块)贴在其产品上.
此环保使用期限只适用于产品是在产品手册中所规定的条件下工作.
The Environment- Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here. The Environment- Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.

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