Aruba 7008 Controller

Installation Guide

The Aruba 7008 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. The 7008 controller includes eight PoE/PoE+ Ethernet ports, one Console port, one USB 2.0 port, and one USB 3.0 port. This device supports up to 16 APs and 1024 users.

NOTE

The 7008 controller requires ArubaOS 6.5.0.0 or later.

Package Contents

- Aruba 7008 Controller
- 7008 Controller Power Adapter
- Installation Guide (this document, printed)
- Quick Start Guide (Printed)
- End User License Agreement (Printed)

NOTE

Optional accessories are available for use with the Aruba 7008 controller and are sold separately. Contact your Aruba sales representative for details and assistance.

7008 Components

This section introduces the different components and their location in the Aruba 7008 controller.

Figure 1 show the front panel of the 7008 controller and Figure 2 shows the back panel of the 7008 controller.

Figure 1 *Front Panel of the 7008 Controller*

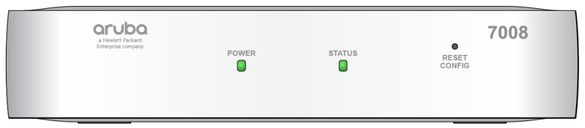
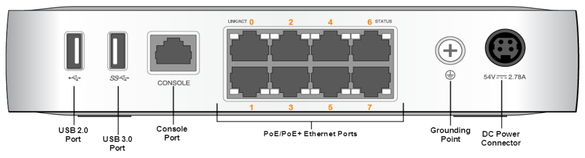


Figure 2 *Back Panel of the 7008 Controller*



Power and Status LEDs

The front panel includes power and status LEDs that provide basic monitoring of the overall status of the 7008 controller. The following table describes the power and status LEDs behavior:

Table 1 *Power and Status LEDs*

LED	Function	Indicator	Status
Power	System powers	Green (Solid)	Powered from DC adapter
		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

Reset Config

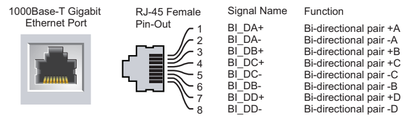
The front panel of the 7008 controller also includes a recessed button for resetting the 7008 controller configuration. Insert a pin into the **Reset Config** hole until you feel the pin is touching a surface. Push and hold the pin for two seconds to reset the controller configuration.

PoE/PoE+ Ethernet Ports

The back panel of the 7008 controller is equipped with eight 10/100/1000BASE-T Gigabit Ethernet ports (0 to 7). The orange numbering on all ports indicate that these are PoE/PoE+ ports.

Gigabit Ethernet uses all eight wires and each pair is bi-directional, which means, the same pair is used for both data transmission and data reception. Figure 3 illustrates the Gigabit Ethernet port pin-out for an RJ-45 connector. The pins paired on a 10/100/1000BASE-T Gigabit Ethernet port are: 1/2, 3/6, 4/5, and 7/8.

Figure 3 *Gigabit Ethernet Port Pin-Out*



Ethernet Port LEDs

Each 10/100/1000BASE-T Ethernet port is equipped with two LEDs that allow basic monitoring of link/port status and activity.

- **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 based on the speed.

The following table describes the LED behavior for each mode:

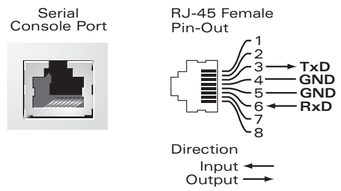
Table 2 *10/100/1000BASE-T Ethernet Port LEDs*

LED	Function	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 on port
STATUS	Port status	Speed	Green (Solid)	1000 Mbps
			Off	10/100 Mbps

Console Port

The back panel of the 7008 controller includes a serial console port that allows connecting the controller to a serial terminal or a laptop for direct local management. This port is an RJ-45 female connector with the pinouts described in Figure 4. Connect it directly to a terminal or terminal server using an Ethernet cable.

Figure 4 *Serial Console Port Pin-Out*



The communication settings for the Console port is shown in the following table:

Table 3 *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.

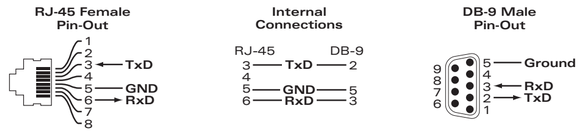
CAUTION

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

Serial Console Port Adapter

A modular adapter can be used to convert the female RJ-45 connector to a male DB9 connector. See Figure 5 for complete details.

Figure 5 *RJ-45 (Female) to DB9 (Male) Modular Adapter Conversion*



USB 2.0 and USB 3.0 Interface

The back panel of the 7008 controller is equipped with one USB 2.0 and one USB 3.0 interface. A USB storage device can be used to save and upload configurations to the controller.

Grounding Point

The back panel of the 7008 controller is equipped with grounding points. 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 a grounding screw.

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.

DC Power Socket

The back panel of the 7008 controller is equipped with AC-DC adapter kit with 54V/ 2.78A power interface is used to power the controller.

Kensington Security Slot

The 7008 controller is equipped with a Kensington security slot for device security on the right side while looking from the front.

Installing the 7008 Controller

NOTE

Service to all Aruba, a Hewlett Packard Enterprise company products should be performed by trained service personnel only.

Installation Recommendations

- For proper air circulation, leave at least 10 cm (4 inches) clearance on the left, right, front, and rear side of the controller.
- Leave additional space in front and rear side of the controller to access power cords, network cables, and indicator LEDs.
- Avoid placing anything on top of the controller because it can lead to overheating of the controller.
- Avoid placing this controller on any other device because the heat dissipated from the other device may overheat the controller.

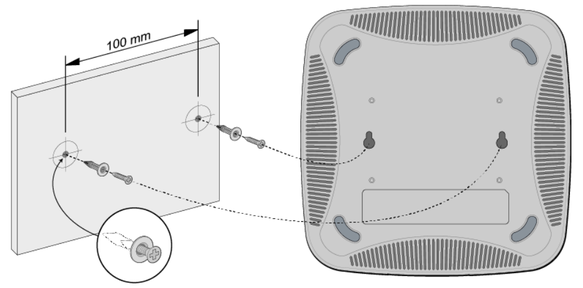
Installation Using the Integrated Wall-Mounting Slots

The keyhole-shaped slots on the bottom of the controller can be used to attach the device upright (back panel facing downwards) to an indoor wall or shelf.

Since the ports are on the back of the device, make sure to mount the controller in such a way that there is a clear path to the Ethernet port, such as a predrilled hole in the mounting surface.

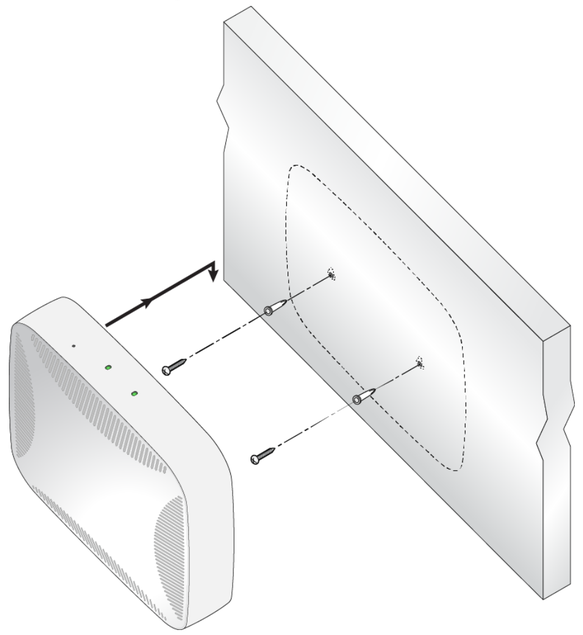
1. At the mounting location, install two screws on the wall or shelf, 100 mm apart. If you are attaching the device to drywall, it is recommended that you use appropriate wall anchors (not included). See Figure 6.

Figure 6 *Mounting Using the Integrated Wall-Mounting Slots*



2. Align the mounting slots on the bottom of the controller over the screws and slide the unit into place. See Figure 7

Figure 7 *Wall Mounting Aruba 7008*



Product Specifications

Physical

- Device Dimensions (HxWxD): 4.2 cm x 20.32 cm x 20.32 cm
- Device Weight: 2.204 lbs (1 kg)

Electrical

- Ethernet:
  - 8 x 10/100/1000BASE-T auto-sensing Ethernet RJ-45 Interfaces
  - MDI/MDX
  - PoE support on ports 0 to 7 (IEEE 802.3af or IEEE 802.3at compliant), 54 V DC (maximum)/ 550 mA (see Figure 3 for pin configuration)
- Power:
  - 54V DC power interface, supports powering through an 54V DC, 2.78A AC-to-DC power adapter

Environmental

- Operating:
  - Temperature: 0° C to +40° C (+32° F to +104° F)
  - Humidity: 10% to 90% (RH) non-condensing
- Storage and transportation:
  - Temperature: -40° C to +70° C (-40° F to +158° F)

For additional specifications on this product, please refer to the data sheet. The data sheet can be found at www.arubanetworks.com.

Regulatory Model Name

The regulatory model name for the 7008 controller is ARCN7008.

Safety and Regulatory Compliance

Aruba, a Hewlett Packard Enterprise company provides a multi-language document that contains country-specific restrictions and additional safety and regulatory information for all Aruba controllers. This document can be viewed or downloaded from the following location:
http://www.arubanetworks.com/pdf/0510272-01.pdf

FCC United States

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 required to correct the interference at his own expense.

Industry Canada

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

EU Regulatory Conformance

CE This product is CE marked according to the provisions of the EMC Directive (2004/108/EC) - CE. Aruba, a Hewlett Packard Enterprise company, hereby declares that 7008 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 at the following location in the EU community.

CAUTION

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

CAUTION

Although this controller has been tested up to 1kV per CE immunity requirements, it 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.

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.

Japan VCCI

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. In a domestic environment this product may cause radio interference in which case the user may be required to take corrective actions.

Proper Disposal of Aruba Equipment

Waste of Electrical and Electronic Equipment

Aruba 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 2012/19/EU on Waste of Electrical and Electronic Equipment (WEEE).

European Union RoHS

RoHS Aruba products also comply with the EU Restriction of Hazardous Substances Directive 2011/65/EC (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 Aruba 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

Aruba products also comply with China environmental declaration requirements and are labeled with the "EFUP 10" 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 Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr^{+6})	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路板 (PCA Boards)	×	○	○	○	○	○
机械组件 (Mechanical Sub-Assemblies)	×	○	○	○	○	○

○： 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。
Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

×： 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。
Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 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.

Aruba 7008 Controller

Installation Guide

aruba
a Hewlett Packard Enterprise company

Contacting Aruba

Web Support	
Main Site	http://www.arubanetworks.com
Support Site	https://support.arubanetworks.com
Airheads Social Forums and Knowledge Base	community.arubanetworks.com
North American Telephone	1-800-943-4526 (Toll Free) 1-408-754-1200
International Telephones	arubanetworks.com/support-services/aruba-support-program/contact-support/
Software Licensing Site	licensing.arubanetworks.com/
End-of-life Information	arubanetworks.com/support-services/end-of-life/
Security Incident Response Team (SIRT)	Site: arubanetworks.com/support-services/security-bulletins/ Email: sirt@arubanetworks.com

aruba
a Hewlett Packard Enterprise company

www.arubanetworks.com
1344 Crossman Avenue
Sunnyvale, California 94089
Phone: 408.227.4500
Fax 408.227.4550

Aruba 7008 Controller | Installation Guide
Part Number 0511882-01 | February 2016

0511882-01