

## ARUBA R8N86A

# Aruba 6000 48G 4SFP Switch User Manual

Model: R8N86A

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Aruba 6000 48G 4SFP Switch. Please read this manual thoroughly before using the device and retain it for future reference.

The Aruba CX 6000 Switch Series is designed for reliable, secure, and easy-to-use access layer connectivity. It offers a convenient and cost-effective wired access solution for networks supporting IoT, mobile, and cloud applications.

## 2. SAFETY INFORMATION

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Observe the following safety precautions to prevent injury and damage to the device:

- Ensure proper grounding of the device.
- Do not operate the switch in wet or damp conditions.
- Ensure adequate ventilation to prevent overheating.
- Use only the power cord supplied with the device or a suitable replacement.
- Disconnect power before cleaning or servicing the switch.
- Do not attempt to open or repair the switch yourself. Refer all servicing to qualified personnel.

## 3. PACKAGE CONTENTS

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Verify that your package contains the following items:

- Aruba 6000 48G 4SFP Switch (Model R8N86A)
- Power Cord
- Rack-mount Kit (if applicable)
- Console Cable (USB-C to USB-A)
- Documentation (Quick Start Guide, Safety and Regulatory Information)

If any items are missing or damaged, contact your vendor immediately.

## 4. PHYSICAL DESCRIPTION

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### 4.1 Front Panel



Figure 1: Front Panel of Aruba 6000 48G 4SFP Switch

The front panel of the Aruba 6000 48G 4SFP Switch features:

- **48 x 10/100/1000BASE-T Ports:** Standard Gigabit Ethernet ports for network connectivity.
- **4 x 1G SFP Ports:** Uplink ports for fiber optic connections or additional copper connections using SFP transceivers.
- **LED Indicators:** Status LEDs for power, system health, and port activity.
- **USB-C Console Port:** For local management and configuration via a terminal emulator.
- **USB Type-A Host Port:** For firmware updates or configuration backup/restore.

### 4.2 Rear Panel



Figure 2: Rear Panel of Aruba 6000 48G 4SFP Switch

The rear panel includes:

- **AC Power Inlet:** Connector for the power cord.
- **Grounding Screw:** For connecting an earth ground wire.
- **Fixed Fans:** Integrated cooling fans for thermal management.

## 5. SETUP

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### 5.1 Mounting the Switch

The Aruba 6000 48G 4SFP Switch can be deployed on a desktop or mounted in a standard 19-inch equipment rack.

- **Desktop Placement:** Place the switch on a flat, stable surface, ensuring adequate space around the device for ventilation.
- **Rack Mounting:** Attach the provided rack-mount brackets to the sides of the switch using the included screws. Secure the switch into the rack using appropriate rack screws. Ensure the rack is stable and properly grounded.

### 5.2 Connecting Power

1. Ensure the power source matches the switch's input voltage requirements (100-127 VAC / 200-240 VAC).
2. Connect the power cord to the AC power inlet on the rear panel of the switch.
3. Plug the other end of the power cord into a grounded electrical outlet.
4. The switch will power on automatically. Observe the system status LEDs on the front panel.

### 5.3 Connecting Network Cables

- Connect Ethernet cables from your network devices (computers, servers, access points) to the 10/100/1000BASE-T ports on the front panel.
- For uplink connections, insert 1G SFP transceivers into the SFP ports and connect appropriate fiber optic or copper cables.
- Verify port link/activity LEDs illuminate for active connections.

### 5.4 Initial Configuration Access

You can access the switch for initial configuration using the following methods:

- **Console Port:** Connect a USB-C to USB-A console cable from your computer to the USB-C console port on the switch. Use a terminal emulation program (e.g., PuTTY, Tera Term) with settings: 115200 baud, 8 data bits, no parity, 1 stop bit, no flow control.
- **Web GUI:** Once the switch obtains an IP address (via DHCP or default static IP), you can access the web-based graphical user interface (GUI) from a web browser. Refer to the Quick Start Guide for default IP address information.
- **Aruba Central:** For cloud-based management, register the device with Aruba Central.

## 6. OPERATING

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### 6.1 Powering On/Off

- **Power On:** The switch powers on automatically when connected to a power source.
- **Power Off:** To power off, disconnect the power cord from the electrical outlet. It is recommended to gracefully shut down the switch via the management interface if possible before disconnecting power.

### 6.2 LED Indicators

The front panel LEDs provide status information:

- **Power LED:** Indicates power status (e.g., solid green for normal operation).
- **System Status LED:** Indicates overall system health (e.g., solid green for healthy, amber for warning, red for critical error).
- **Port LEDs:** Indicate link status and activity for each network port (e.g., solid green for link, blinking for activity).

### 6.3 Management Options

The Aruba 6000 series offers flexible management choices:

- **Web GUI:** An intuitive web-based interface for configuration and monitoring.
- **CLI (Command Line Interface):** For advanced configuration and scripting via the console port or SSH/Telnet.
- **Aruba Central:** Cloud-based management for centralized control and monitoring of multiple Aruba devices.

## 7. MAINTENANCE

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### 7.1 Cleaning

To maintain optimal performance, periodically clean the exterior of the switch:

- Ensure the switch is powered off and disconnected from the power source.
- Use a soft, dry cloth to wipe down the exterior surfaces.
- Do not use liquid or aerosol cleaners directly on the switch.
- Keep ventilation openings clear of dust and debris.

## 7.2 Firmware Updates

Regularly check the Aruba support website for the latest firmware updates. Keeping your switch's firmware up-to-date ensures optimal performance, security, and access to new features. Follow the instructions provided with the firmware release for the update process.

## 7.3 Environmental Considerations

Ensure the switch operates within its specified environmental ranges (temperature, humidity) to prevent damage and ensure longevity. Avoid placing the switch near heat sources or in direct sunlight.

# 8. TROUBLESHOOTING

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## 8.1 Common Issues and Solutions

- **No Power:**
  - Verify the power cord is securely connected to both the switch and the electrical outlet.
  - Check the power outlet with another device to ensure it is functional.
- **No Link on Port:**
  - Ensure the Ethernet cable is properly connected at both ends.
  - Check the cable for damage and try a different cable.
  - Verify the connected device is powered on and functioning correctly.
  - Check port configuration on the switch (speed, duplex, VLAN).
- **Network Connectivity Issues:**
  - Confirm IP address settings on the switch and connected devices.
  - Check for IP address conflicts.
  - Verify routing configurations if devices are on different subnets.
  - Restart the switch and connected devices.

## 8.2 Resetting the Switch

Refer to the official Aruba documentation for procedures on performing a factory reset or rebooting the switch, as these actions can impact network operation.

# 9. SPECIFICATIONS

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Feature	Description
Model Number	R8N86A
Ports	48x 10/100/1000BASE-T ports, 4x 1G SFP ports
Console Port	1x USB-C Console Port

Host Port	1x USB Type-A Host port
Power Consumption (Max)	44.2W
Input Voltage	100-127 VAC / 200-240 VAC
Latency (1 Gbps)	1.9 $\mu$ Sec
Routing Capabilities	Static
Switching Capacity	104 Gbps
Throughput	77.3 Mpps
Memory and Processor	Dual Core ARM Cortex A9 @ 1016 Mhz, 8 GB DDR3, 16 GB eMMC
PoE Capability	Non-PoE model
Power Supplies	Fixed power supply
Fans	Fixed fans
Item Weight	3.7 Kilograms
Case Material Type	Metal

## 10. WARRANTY AND SUPPORT

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For information regarding product warranty, technical support, and additional resources, please refer to the official Aruba website or contact your authorized Aruba reseller.

Online resources typically include:

- Product documentation and guides
- Firmware downloads
- Knowledge base and FAQs
- Support contact information