areca®

# ARC-9200 RAID Head

# Quick Installation Guide

ARC-9200 SAS RAID head kit

Item list:
- ※ SAS RAID head
- ※ Rack mounting kit
- ※ Power cords
- ※ RJ11 to DB9 serial communications null-modem cable
- ※ Quick installation guide

Rack mounting kit

Item list:
- ※ One pair of mounting-bracket rail
- ※ One pair of length rail
- ※ One pair of slide rail
- ※ A pack of screws and washers

9200-SAS 9200-Fibre 9200-iSCSI

Thank you for purchasing the ARC-9200 series RAID head as your data storage subsystem. This quick installation guide gives simple step-by-step instructions for installing and configuring the RAID head.

To install the ARECA® 12Gb/s SAS RAID head, follow these steps:

## STEP 1: Installing RAID Rack

To install the ARC-9200 Series RAID head into a rack with the supplied mounting rails:

1. Using supplied screws to secure the mounting-bracket rail and length rail and then secure them on the vertical rails, as shown below.

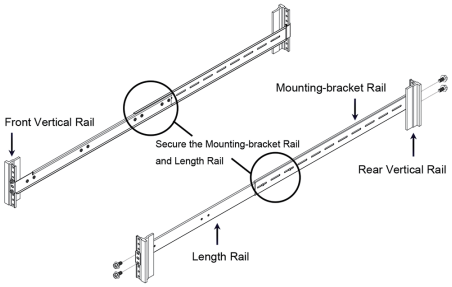



Figure 1, Attaching the Mounting Rails to the Cabinet

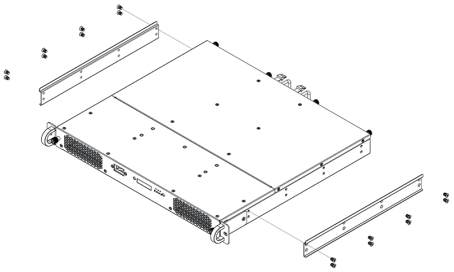


Figure 2, Secure the Slide Rails onto the Enclosure

2. Slide the rear side of RAID head fully onto the rack until the RAID head front panel touched the front vertical rails. Align the mounting holes of the RAID head on the front vertical rail holes.

3. Secure the RAID head to the front vertical rail and mounting bracket rail on both sides.

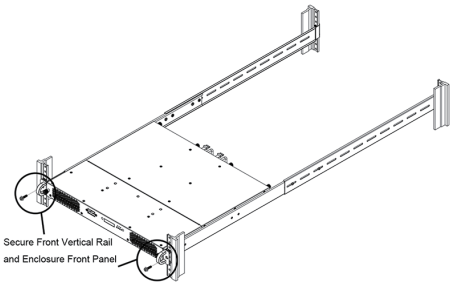



Figure 3, Attaching the Front of the RAID Head

## STEP 2: Installing Power Cable

ARC-9200 series RAID head are equipped with two power supplies for each unit. Using the included power cords, connect each power supply to a suitable AC power source.

The power cord should through the handle before plugging in the power supply module for the purpose of preventing the power cord from being accidentally unplugged.

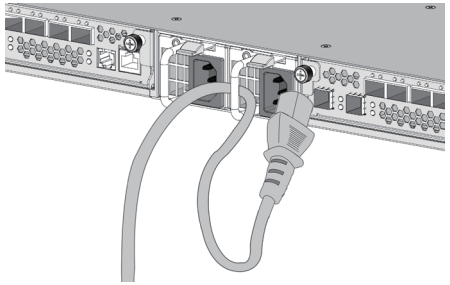


Figure 4, Power cord should through the handle before plugging in

## STEP 3: Host Connection

The external host connector is provided on the back of the ARC-9200 RAID head for connecting the array to server host adapter or switch.

ARC-9200 RAID head has two (2) 12Gb/s SASIN Port，(2) 10Gb/s iSCSI Port or (2/4) 16Gb/s Fibre Channel connectors.

To install host adapter/switch and RAID head using the correct external cable:

1. Attach one end of a data cable to the HBA card in the host system or switch.

2. Attach the other end of the data cable to one of the host ports on the ARC-9200 RAID head.

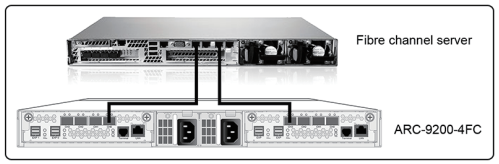



Figure 5, Direct Attached Storage (DAS)

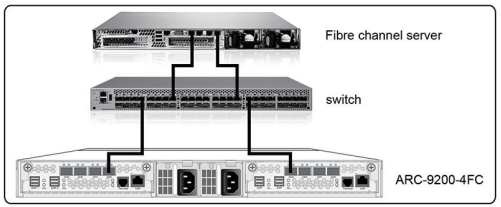



Figure 6, Storage Area Network (SAN)

## STEP 4: Expansion Connection

ARC-9200 RAID head is a device that contains two expansion ports on each controller. Expansion port supports being attached to JBOD. The maximum drive no. is 512 through this RAID head with JBOD enclosures. Enclosures installed with SAS disks or SATA disks can be included in the same daisy-chain. The following figure shows how to connect the SFF-8644 cable from the SAS RAID head to the JBOD.

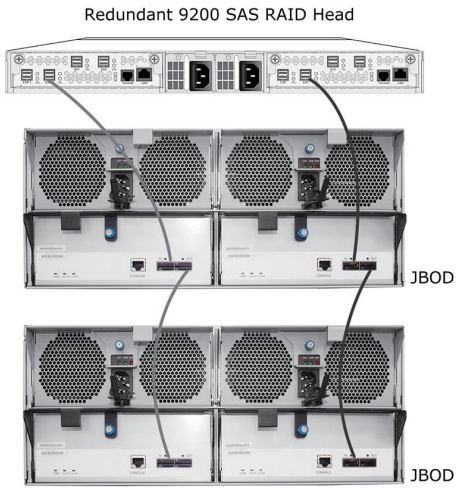



Figure 7, Dual Controller Daisy-chain

## STEP 5: Connecting Monitor Port

This section describes how to establish a management connection to the ARC-9200 RAID head. The RAID head is normally delivered with LCD pre-installed. Your RAID head can be configured by using the LCD with keypad, a serial device (terminal emulation) or LAN port.

### ※ RS232C Port Connection

ARC-9200 RAID head uses the RJ11 port as the serial port interface. The serial port on the RAID head's backside can be used in VT100 mode. The provided interface cable converts the RS232 signal of the 6-pin RJ11 connector on the RAID head into a 9-pin D-Sub female connector. You can attach a serial (Character-Based) terminal or server com port to the SAS RAID head "RJ11 Connector" for access to the text-based setup menu.

Please configure the SW1(4) settings on the RAID head to define the Terminal connector function: VT-100 for RAID debug port and VT-100 for RAID manager.

| SW1-4 | RJ11 Terminal Connector (J1) Function |
|---|---|
| ON | Controller RAID Manager |
| OFF | Controller Debug Port |

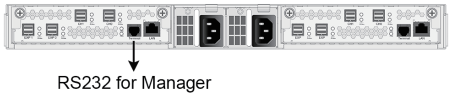



Figure 8, Establishing the Connection for the RS-232 Port

### ※ LAN Port Connection

ARC-9200 RAID head has embedded the TCP/IP & web browser-based RAID manager in the firmware. User can remote manage the RAID head via standard web browsers directly connected to the Gigabit Ethernet RJ45 LAN port. Connect Ethernet port (LAN Port) of the SAS RAID head using the included LAN cable and then to a LAN port or LAN switch.

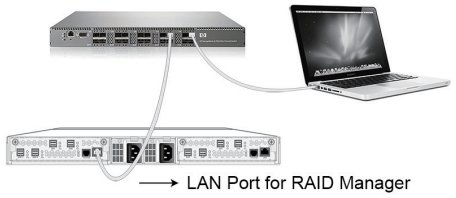



Figure 9, ARC-9200 Lan Management Connection

## STEP 6: Power On

With the power supplies connected, the RAID head can now be powered on. There is one main power on/off switch located on the front side of the RAID head. This on/off power switch is used to apply or remove power from the dual power supply to the RAID head. Turning off RAID head power with this switch removes the main power but keeps standby power supplied to the RAID head. Therefore, you must unplug the power cord before RAID head servicing.

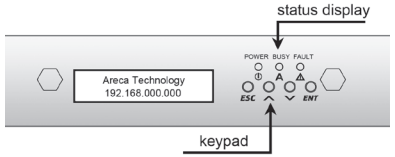

Figure 10, Use On/Off Switch to Power Up the RAID Head

## STEP 7: Configuring Volume

Your ARC-9200 RAID head can be configured by using the LCD with keypad, a serial device (terminal emulation) or LAN port.

### ※ Method 1: LCD Panel Management

You can use LCD front panel and keypad function to simply create the RAID volume. The LCD status panel also informs you of the disk array's current operating status at a glance. The LCD provides a system of screens with areas for information, status indication, or menus. The manufacture default password is set to 0000. The initial screen is as following:




For additional information on using the LCD to configure the RAID head see the Chapter 4 of LCD Configuration Menu.

### ※ Method 2: RS-232 Port Management

You can attach a serial (Character-Based) terminal or server com port to the RAID head for access to the text-based setup menu via a VT-100 compatible terminal or a PC running a VT-100 terminal emulation program to configure RAID sets and volume sets. The firmware-based terminal array management interface can access the array through this RS232 port. The manufacture default password is set to 0000. To ensure proper communications between the RAID head and the VT-100 Terminal Emulation, please configure the VT-100 terminal emulation settings to the values shown below:

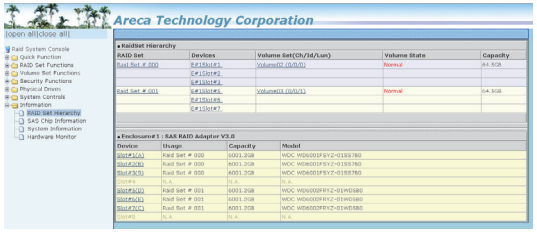
| Terminal Requirement | |
|---|---|
| **Connection** | Null-modern cable |
| **Baud Rate** | 115,200 |
| **Data bits** | 8 |
| **Stop** | 1 |
| **Flow Control** | None |

For additional information on using the RS232 port to configure the RAID head see the Chapter 5 of VT-100 Utility Configuration.

### ※ Method 3: LAN Port Management

User can remote manage the ARC-9200 series RAID head without adding any user specific software (platform independent) via standard web browsers directly connected to the Gigabit Ethernet RJ45 LAN port. The IP address default shows in the LCD screen. Launch the Web Browser-based RAID manager by entering http://[IP Address] in the web browser.


Type the User Name and Password. The RAID controller default User Name is "admin" and the Password is "0000". After entering the user name and password, click the button to access the McRAID storage manager.




See the chapter 6 of Web Browser-based Configuration on the user manual detailing the McRAID Storage Manager to customize your RAID configuration.

If you need more detail information, please download ARC-9200 user manual from the website below:
http://www.areca.com.tw/support/main.htm
http://www.areca.com.tw/products/sas_to_sas_12_9200.htm
http://www.areca.com.tw/products/fibre_to_sas_12_9200.htm
http://www.areca.com.tw/products/iscsi_to_sas_12_9200.htm