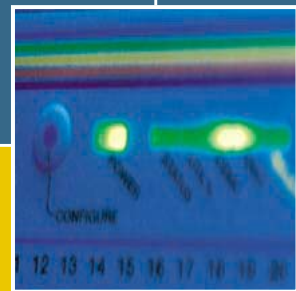
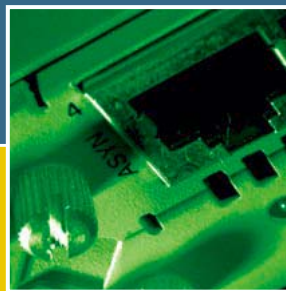
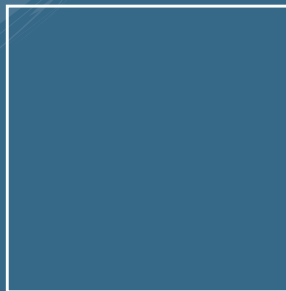


AR800 SERIES MODULAR SWITCHING ROUTER

QUICK INSTALL GUIDE



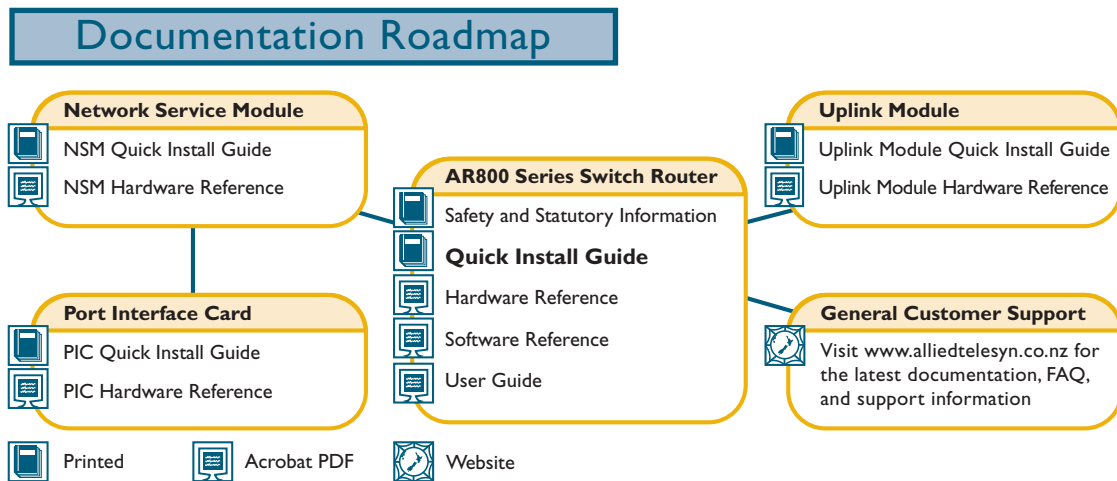
AR800 Series Switch Router Quick Install Guide
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Models Covered By This Guide

This Quick Install Guide includes information on the following models:

- AR816F-FX/MT-RJ
- AR816F-FX/SC
- AR824

Quick Install Guide updates can be downloaded from www.alliedtelesyn.co.nz/support/ar800/.

Package Contents

The following items are included with each AR800 Series Switching Router. Contact your sales representative if any items are damaged or missing.

- One AR800 Series Switching Router.
- One AC power cord (AC models only).
- One serial cable for connecting the switch to a terminal or PC.
- One 19 inch rack-mount kit.
- One AR800 Series Switch Router Quick Install Guide.
- One Safety and Statutory Information booklet.
- One AR800 Series Switch Router Documentation and Tools CD-ROM (which includes the complete AR800 Series Document Set and utilities).
- One warranty card.

Selecting a Site

The switch can be installed in a standard 19-inch rack or on a level surface such as a desktop or bench. When installing the switch, choose a site that:

- Allows adequate airflow around the switch and its vents.
- Is free of dust and moisture.
- Will allow the switch to operate within a temperature range of 0 to 40° C (32 to 104° F) and a humidity range of 5 to 95% non-condensing.
- Has a reliable and earthed (grounded), preferably dedicated and filtered, power supply circuit.
- Does not expose cabling to sources of electrical noise, such as radios, transmitters, broadband amplifiers, power lines, electric motors, and fluorescent fixtures.
- Allows easy access to the switch's power and cable connections.
- Will allow all related network devices to be connected to the switch without exceeding maximum cable length limitations. See the *AR800 Series Modular Switching Router Hardware Reference* for cable length specifications.

Installing the Switch



All AC and DC versions of this equipment must be earthed.

Follow these steps to install the switch:

1. Read the safety information

For safety information, see the *Safety and Statutory Information booklet*. A copy of this booklet is supplied with each switch, and can also be found on the Documentation and Tools CD-ROM or at www.alliedtelesyn.co.nz/support/ar800/.

2. Gather the tools and equipment you will need

To install the switch in a rack you will need a screwdriver, screws to attach the rack-mount brackets to the rack, and cage nuts.

If installing a DC version of the switch, you will need a DC power source, DC supply cable, and wire strippers (see step 8).

If the switch is to be connected to a redundant power supply, you will need a redundant power supply unit and cable (see step 10).

3. Choose a suitable site for the switch

Either a flat surface or 19 inch rack.

4. Unpack the switch

Verify the package contents. If any items are damaged or missing, contact your sales representative.

5. Install expansion options

If you purchased optional Uplink Modules, a Network Service Module (NSM), or Port Interface Cards (PICs), install them now by following their individual installation guides. These guides can be found on the Documentation and Tools CD-ROM.

Installation instructions for PACs can be found in the *AR800 Series Modular Switching Router Hardware Reference*.

6. Place the switch in its operating location

See the previous “Selecting a Site” section for guidelines on choosing a suitable location.

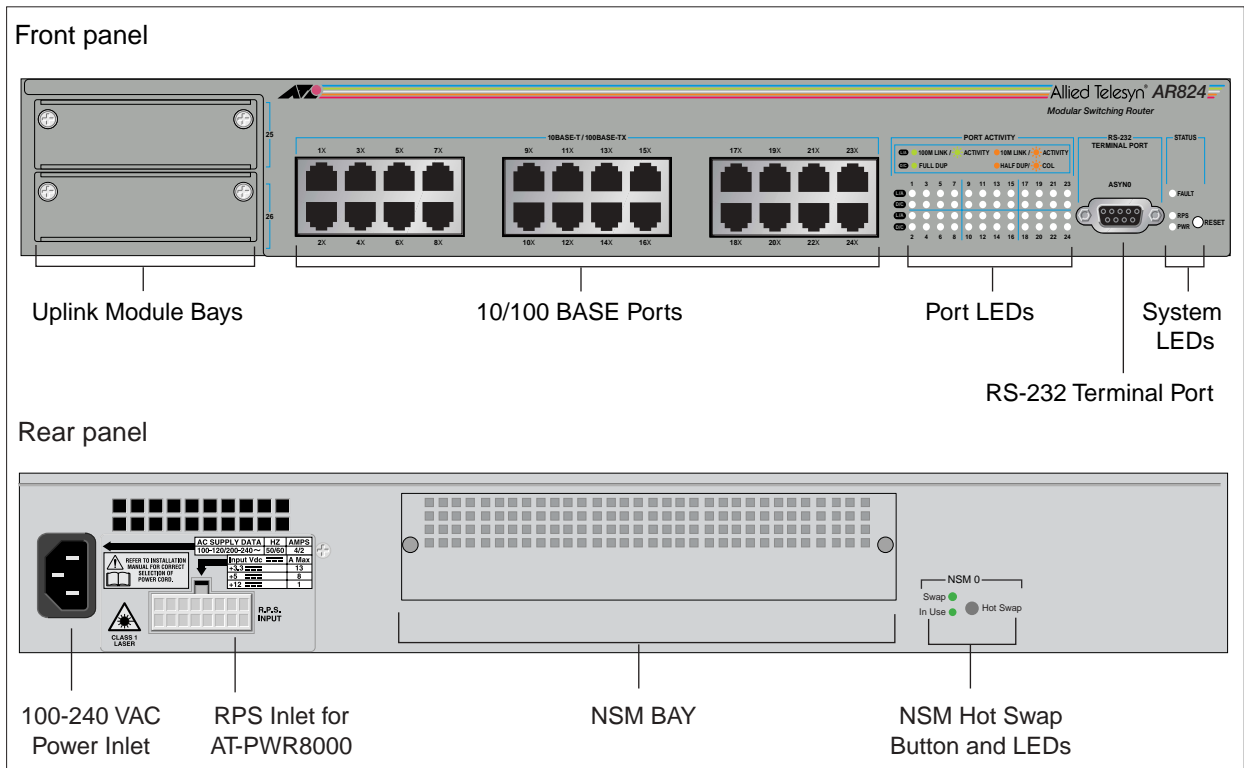
If installing the switch in a rack:

- Remove the rubber feet.
- Attach the rack-mounting brackets.
- Mount the switch in the rack.

7. Apply AC power to the switch (for AC models)

Plug the power cord into the AC power connector on the switch’s rear panel. The Fault LED should flash for approximately 10 seconds as the switch runs internal tests. If the LED continues to flash or remains lit, refer to the *AR800 Series Modular Switching Router Hardware Reference* for troubleshooting information.

Figure 1: Front panel and rear panel with AC power inlet (AR824).



8. Apply DC power to the switch (for DC models)

Read the *Safety and Statutory Information* booklet before connecting a DC power supply. A copy of this booklet is included with each switch. It is also included on the Documentation and Tools CD-ROM, or can be downloaded from www.alliedtelesyn.co.nz/support/ar800/.

Only trained and qualified personnel should connect a DC power supply. Due to exposed terminals, DC powered switches should only be installed in Restricted Access Areas.

DC supply cable specifications:

- Number of wires (cores): 3
- Minimum size: 2.1mm² (14 AWG)
- Minimum cable rating: 600V, 90 degrees Celsius

DC power supply specifications:

- 48 V DC (39-60 V DC is acceptable)
- Either positive grounded or negative grounded

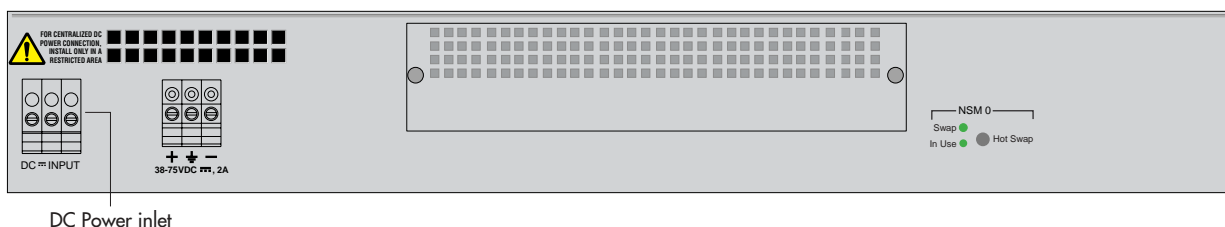
Circuit protection:

- Use a 10 Amp circuit breaker

To connect the DC supply:

- Ensure that the supply cable is not live
- Strip the supply cable wires to expose 8mm (0.31 in.) of bare conductor
- At the switch, connect the ground wire to the ground terminal. (The terminals can be identified by the diagram on the switch's rear panel, see Figure 2.) Tighten the terminal to between 0.6 and 0.8 Nm (0.041 to 0.055 pound-force per foot)
- At the switch, connect the positive feed to the + (positive) terminal and the negative feed to the - (negative) terminal. Tighten the terminals to between 0.6 and 0.8 Nm (0.041 to 0.055 pound-force per foot)
- Ensure that there are no exposed conductor strands
- Secure the supply cable (to the rack framework or similar object) so that the connections are isolated from any forces applied to the cable
- Ensure that the circuit breaker is in the Off position
- Connect the supply-cable wires to the circuit breaker
- Energise the circuit breaker

Figure 2: DC Power inlet terminals.



DC Power inlet

The Fault LED should flash for approximately 10 seconds as the switch runs internal tests. If the LED continues to flash or remains lit, refer to the *AR800 Series Modular Switching Router Hardware Reference* for troubleshooting information.

9. Check that the Power LED on the switch's front panel lights green

If the LED fails to light, refer to the *AR800 Series Modular Switching Router Hardware Reference* for troubleshooting information.

10. Connect the Redundant Power Supply (Optional)

AC models of AR800 Series Switching Routers have a Redundant Power Supply (RPS) connector on their rear panel. These models are designed to operate with the AT-PWR8000 RPS, which must be purchased separately. Contact your authorised Allied Telesyn distributor or reseller for more information.

11. Connect the data cables

Make sure that each cable connection is secure. The switch will now perform basic Layer 2 switching functions.

12. Configure the switch for local management

Some configuration is necessary if you wish to enable the switch's advanced switching and WAN routing capabilities.

Using the supplied RS-232 DB9 straight-through cable, connect your terminal or PC to the RS-232 Terminal Port on the switch's front panel.

Set the communication parameters on your terminal or terminal emulation program to:

- Baud rate: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: Hardware

See the *AR800 Series Modular Switching Router Hardware Reference* for more information on configuring emulation software.

After the switch has booted, the log in prompt appears. If the log in prompt doesn't appear, press [Enter] two or three times.

When the switch boots for the first time it automatically creates an account with manager privileges. The account has the log in name "manager" and the password is "friend".

At the log in prompt, enter the log in name and password.

```
Log in: manager
```

```
Password: friend
```

The switch's command prompt appears and you can now configure the switch using the command line interface.



Change the password as soon as possible. Leaving the manager account with the default password is a serious security risk. Make sure that you remember the new password as there is no way to retrieve it if it is lost.

Use the following command to change the account password:

```
set password
```

13. To access help, enter:

```
set help=help-filename
```

where *help-filename* is the name of a help file stored in flash.

To see a list of files stored in flash, enter:

```
show file
```

Help files have an HLP extension.

To display a list of help topics, enter:

```
help
```

To display help on a specific topic, enter:

```
help topic
```

Alternatively, type a question mark (?) at the end of a partially completed command to see a list of valid options.

See your switch's *Software Reference* for information on configuring the switch.

System LEDs and What They Mean

System LEDs on its front panel indicate the switch's operational status.

System LEDs

| LED | State | Function |
|---|-----------|--|
| Power | Green | The switch is receiving power and the voltage is within the acceptable range |
| Fault | Red | The switch or management software is malfunctioning |
| | 1 flash | A switch fan has failed. (The LEDs will not indicate an RPS fan failure.) |
| | 3 flashes | If an RPS is connected, the switch's PSU has failed |
| | 4 flashes | If RPS monitoring is enabled, the RPS PSU has failed |
| | 5 flashes | If RPS monitoring is enabled, an RPS is not connected or is not operational |
| RPS ¹ (Redundant Power Supply) | Green | An RPS is connected to the switch |
| In use (Rear panel) | Green | An NSM is installed, is receiving power, and is operational. The NSM and its PICs are not ready for hot swap |
| | Off | No NSM is installed, or the NSM is not installed correctly (the switch unit has not recognised the NSM) |

System LEDs (Continued)

| LED | State | Function |
|-------------------|-------|---|
| Swap (Rear panel) | Green | The NSM and its PICs are ready to be hot swapped |
| | Off | The Hot Swap button must be pressed before the NSM or PICs can be hot swapped, or the software release does not support hot swapping ² |

1. DC models of the AR800 Series Switching Router do not have an RPS connector and the RPS LED will not function.

2. Hot swapping is supported by Software Release 2.3.1 or later. AT-AR021 (S) BRI-S/T, AT-AR021 (U) BRI-U, AT-AR022 ETH, AT-AR023 SYN, and AT-AR026 4ETH PICs can be hot swapped.

The *AR800 Series Modular Switching Router Hardware Reference* has further troubleshooting information, including information on Switch Port and Uplink Module LEDs.

Documentation and Tools CD-ROM

The Documentation and Tools CD-ROM bundled with each AR800 Series Switch Router contains the complete Documentation Set for your Switch and its expansion options, as well as tools for managing the switch. This includes:

- The *AR800 Series Modular Switching Router Safety Booklet*, which provides safety and statutory information.
- The *AR800 Series Modular Switching Router Hardware Reference*, which provides detailed information on the switch and its hardware features.
- This Quick Install Guide.
- The *AR800 Series Switch Router Software Reference*, which provides detailed information on configuring the switch and its software.
- The *AR800 Series Modular Switching Router User Guide*, which provides an introduction to the switch's Graphical User Interface and its Layer 2 switching features.
- The *Network Service Module Quick Install Guide*, which outlines the procedure for installing an NSM; and the *Network Service Module Hardware Reference*, which provides detailed information on NSMs.
- The *Port Interface Card Quick Install Guide*, which outlines the procedure for installing PICs; and the *Port Interface Card Hardware Reference*, which provides detailed information on PICs.
- The *Uplink Module Quick Install Guide*, which outlines the procedure for installing an Uplink Module; and the *Uplink Module Hardware Reference*, which provides detailed information on Uplink Modules.
- AT-TFTP Server for Windows, for downloading software releases.
- Adobe Acrobat Reader, for viewing online documentation.
- Netscape Communicator.
- Microsoft Internet Explorer.