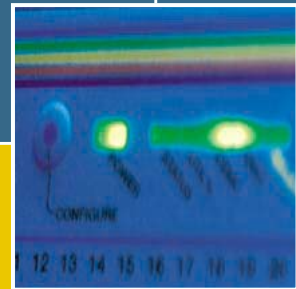
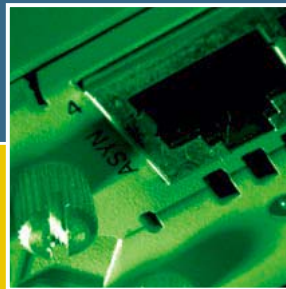
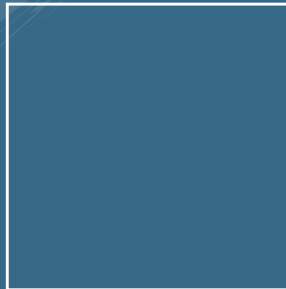


# RAPIER SWITCH

## QUICK INSTALL GUIDE



Rapier Switch Quick Install Guide  
Document Number C613-04017-01 REV F.

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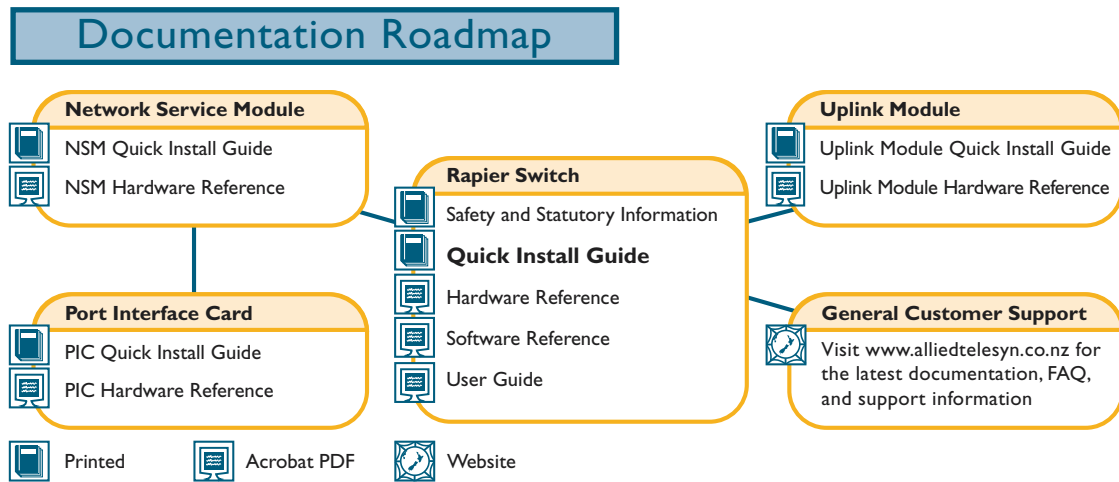
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This implementation of IPsec has been certified to meet ICSA Labs IPsec security standards. For more information see <http://www.icsalabs.com>



## Models Covered By This Guide

This Quick Install Guide includes information on the following models:

- Rapier G6
- Rapier G6F-LX/SC
- Rapier G6F-SX/SC
- Rapier G6F-SX/MT-RJ
- Rapier 8/8MT
- Rapier 8/8SC
- Rapier 16F-FX/MT
- Rapier 16Fi-FX/MT
- Rapier 16F-FX/SC
- Rapier 16Fi-FX/SC
- Rapier 24
- Rapier 24i
- Rapier 48
- Rapier 48i

Quick Install Guide updates can be downloaded from [www.alliedtelesyn.co.nz/support/rapier/](http://www.alliedtelesyn.co.nz/support/rapier/).

## Package Contents

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The following items are included with each Rapier Switch. Contact your sales representative if any items are damaged or missing.

- One Rapier Switch.
- 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 Rapier Switch Quick Install Guide.
- One Safety and Statutory Information booklet.
- One Rapier Switch Documentation and Tools CD-ROM (which includes the complete Rapier Document Set and utilities).
- One warranty card.

## Selecting a Site

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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 maintain an ambient 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) power supply circuit, preferably dedicated and filtered.
- 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 *Rapier Switch Hardware Reference* for cable length specifications.

# Installing the Switch

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

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## Follow these steps to install the switch:

### 1. Before installing the switch, 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/rapier/](http://www.alliedtelesyn.co.nz/support/rapier/).

### 2. Gather the tools and equipment you will need

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.

### 6. Place the switch in its operating location

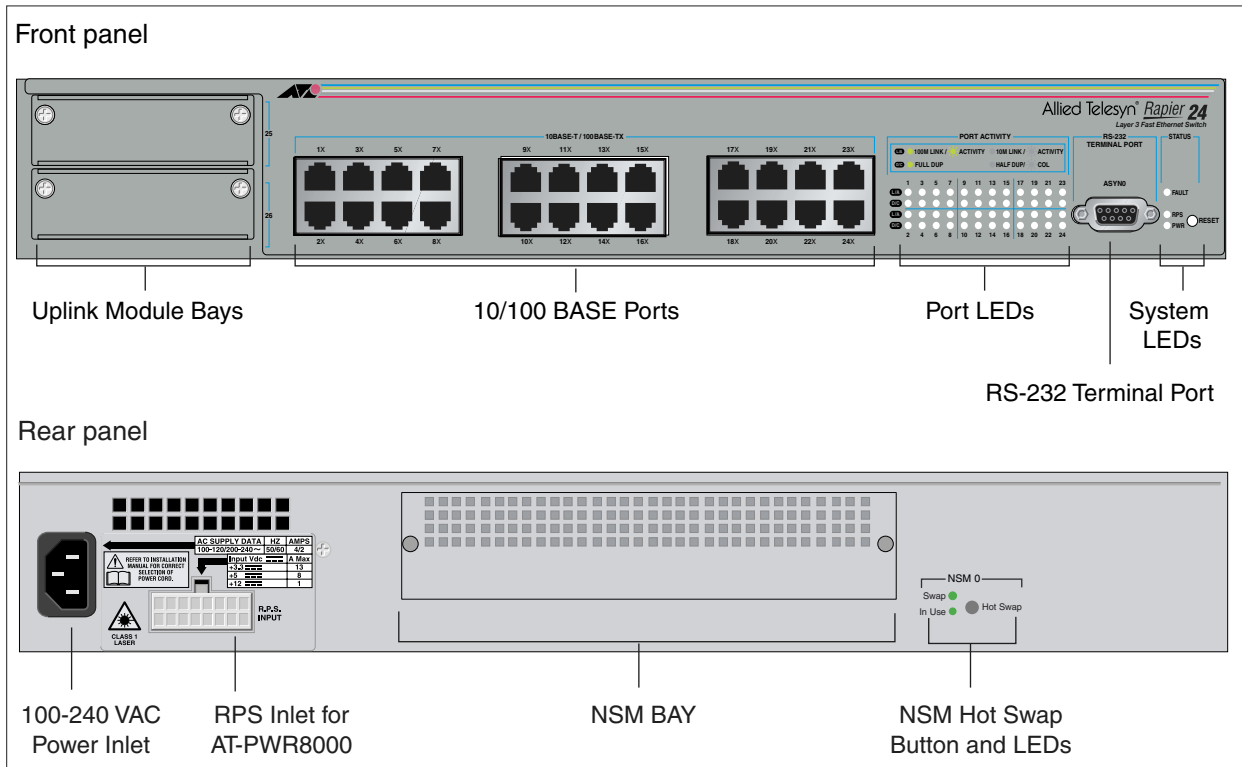
If installing the switch in a rack:

- 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 *Rapier Switch Hardware Reference* for troubleshooting information.

Figure 1: Rapier front panel and rear panel with AC power inlet.



## 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/rapier/](http://www.alliedtelesyn.co.nz/support/rapier/).



**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: 2.1mm<sup>2</sup> (14 AWG)
- Minimum cable rating: 600V, 90 degrees Celsius

DC power supply specifications:

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

Circuit protection:

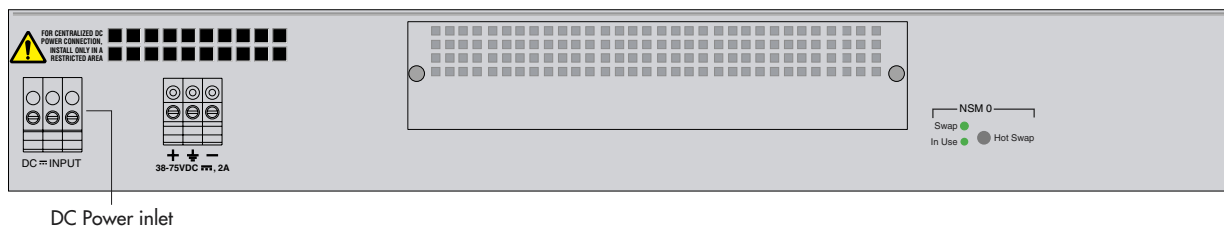
- Use a 10 Amp circuit breaker

To connect the DC supply:

- Ensure 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)

- d) 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)
- e) Ensure there are no exposed conductor strands
- f) Secure the supply cable (to the rack framework or similar object) so the connections are isolated from any forces applied to the cable
- g) Ensure the circuit breaker is in the Off position
- h) Connect the supply-cable wires to the circuit breaker
- i) Energise the circuit breaker

Figure 2: DC Power inlet terminals on a Rapier 24.



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 *Rapier Switch 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 *Rapier Switch Hardware Reference* for troubleshooting information.

**10. Connect the Redundant Power Supply (Optional)**

AC models of Rapier Switches have a Redundant Power Supply (RPS) connector on their rear panel.

The Switch is designed to operate with the AT-RPS8000 RPS, which can be purchased separately. Contact your authorised Allied Telesyn distributor or reseller for more information.

**11. Connect the data cables**

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

## Configuring the Switch

Some configuration is necessary if you wish to enable the switch's advanced switching capabilities. The switch can be configured via the Command Line Interface (CLI) or Graphical User Interface (GUI).

### Using the CLI to configure a switch

**1. Connect a terminal or PC to the Terminal Port (ASYN0)**

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.

## 2. Set the communication parameters

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

## 3. Log in

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.

```
Login: manager
```

```
Password: friend
```

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



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

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Use the following command to change the account password:

```
set password
```

## 4. Load command line interface help files

To access CLI 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 the *Rapier Switch Software Reference* for more information on configuring the switch.



## Using the GUI to configure a switch

The GUI can be accessed through the switch's default VLAN (VLAN1). To set-up the GUI the first time it is used, you must first access the CLI.

### 1. Access the CLI

Follow the instructions in the previous section: "Using the CLI to configure a switch".

### 2. Enable IP

At the CLI, enter the command:

```
ENABLE IP
```

### 3. Assign an IP address to VLAN1

Assign the VLAN1 interface an IP address in the required subnet, using the command:

```
ADD IP INTERFACE=vlan1 IP=ipaddress MASK=mask
```

### 4. Define a route (if required)

If the PC from which you will access the GUI is on a different subnet to the switch, add a route from the PC to the switch. Enter:

```
ADD IP ROUTE=PC-ipaddress INTERFACE=vlan1  
NEXTHOP=switch-ipaddress
```

### 5. Connect the PC to a switch port

The PC can be connected directly or through a LAN.

The PC should be running Internet Explorer 5.x or Netscape 6.2.2, with JavaScript enabled. Internet Explorer can be found on the Documentation and Tools CD-ROM that is bundled with your switch.

If you access the Internet through a proxy server, set your browser to bypass the proxy for the IP address you just assigned to the VLAN1 interface.

Point your web browser at the IP address of the VLAN interface.

### 6. Log in

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

```
User Name: manager
```

```
Password: friend
```

The system status page appears and you can now use the GUI to configure the switch.



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*To ensure configuration settings are saved correctly, use the GUI pages' menus and buttons to navigate, not your browser's buttons.*

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*As a security precaution, change the password as soon as possible.*

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To change the password, select Management > Users from the sidebar menu. Select the Manager account and click Modify.

### 7. To access context-sensitive help

Click on the Help button [Help] on each page.

## System LEDs

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 (Power Supply Unit) 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 <sup>1</sup> (Redundant Power Supply)	Green	An RPS is connected to the switch
In use <sup>2</sup> (Rear panel)	Green	An NSM is installed, is receiving power, and is operational. The NSM and its PICs are not ready to be hot swapped
	Off	No NSM is installed, or the NSM is not installed correctly (the switch unit has not recognised the NSM)
Swap <sup>2</sup> (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 <sup>3</sup>

1. DC models of the Rapier Switch do not have an RPS connector and the RPS LED will not function.
2. Not included on the Rapier 48, G6, G6F-SX/SC, G6F-LX/SC, or G6F-SX/MT-RJ.
3. Hot swapping is supported by Software Release 2.3.1 or later. AT-AR021 (S) BRI-S/T, AT-AR021 (U) BRI-U, and AT-AR023 SYN PICs can be hot swapped.

The *Rapier Switch Hardware Reference* has further troubleshooting information, including information on Switch Port and Uplink Module LEDs.

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## Documentation and Tools CD-ROM

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

- The *Rapier Switch Safety* booklet, which provides safety and statutory information for the Rapier Switch and its expansion options.
- The *Rapier Switch Hardware Reference*, which provides detailed information on the hardware features of Rapier Switches.
- This Quick Install guide.
- The *Rapier Switch Software Reference*, which provides detailed information on configuring the switch and its software.
- The *Rapier Switch 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.
- Microsoft Internet Explorer.