



Product Overview

The Cisco 837 and SOHO 97 routers are asymmetric digital subscriber line (ADSL)-over-plain old telephone service (POTS) routing devices. They have an integrated 4-port Ethernet switch for the LAN and an ADSL physical interface for the WAN, allowing the routers to connect a corporate telecommuter or small office to corporate LANs and the Internet.

The routers support high-speed encryption, the 10/100BASE-T switch, and dial backup functionality via the auxiliary console port. The autosensing function in these routers eliminates the need for a crossover cable and allows the router to detect medium dependent interface in normal mode (MDI) or medium dependent interface in crossover mode (MDIX) in any other PC or hub with a straight-through cable or a crossover cable. The routers are capable of bridging and multiprotocol routing between LAN and WAN ports.

The dial backup feature allows the user to connect an analog modem to the console port as a backup link to the WAN in case the ADSL service goes down. This feature gives the Cisco 837 and SOHO 97 routers a high level of performance and security.

The Cisco 837 router is designed with both hardware-based and software-based encryption, while the SOHO 97 router supports only software-based encryption. The Cisco 837 routers support the addition of Flash memory or DRAM, either as a factory upgrade or a field-installed option. SOHO 97 routers have a fixed memory configuration.

Features

Table 1-1 summarizes the features of the Cisco 837 and SOHO 97 routers.

Table 1-1 Feature Summary for Cisco 837 and SOHO 97 Routers

Feature	Description
10/100BASE-T Ethernet switch	Provides connection to 10BASE-T (10-Mbps) or 100BASE-T (100-Mbps) Ethernet networks. Compatible with 10/100-Mbps devices.
ADSL port	Provides connection to ADSL network. Does not support auto-switch function.
Flash memory	8 MB of Flash memory; up to 16 MB of expandable Flash memory on the Flash module.
Synchronous dynamic RAM (SDRAM)	32 MB of SDRAM on board.
Ease of installation	Color-coded ports and cables reduce the chance of error.
Cisco IOS software	Supports Cisco IOS software.
LAN interface	Fully compliant with IEEE 802.3 and IEEE 802.3u. Automatic MDI/MDIX crossover function eliminates the need for crossover cables.
Cisco Router Web Setup	Provides a web-based software tool for basic configurations.
Console port	Provides connection to terminal or PC for troubleshooting and for software configuration using a command-line interface. This port is configured as a data communication equipment (DCE) port with the hardware handshake.
Dying gasp	Provides dying gasp function. If the router is about to lose power, this function detects the situation and sends a signal to warn the digital subscriber line access multiplexers (DSLAM) about the impending line drop.

Table 1-1 Feature Summary for Cisco 837 and SOHO 97 Routers (continued)

Feature	Description
Wall-mounting feature	Brackets on the router bottom provide for mounting the router on a wall or vertical surface.
IPSec Hardware Accelerator	Only the Cisco 837 router supports this feature. The Hifn 7902 security processor implements symmetric key encryption, public key encryption, authentication, and data compression in hardware. Algorithms implemented by the processor include Data Encryption Standard (DES) and Triple DES (3DES); Secure Hash Algorithm (SHA-1), Message Digest 5 (MD5), Hash-based Message Authentication Code (HMAC); and Lempel-Ziv-Stac (LZS) compression and Microsoft Point-to-Point Compression (MPPC).

Router Overview

The following section shows the front and back panels of the Cisco 837 router and the SOHO 97 router. The Cisco 837 router and the SOHO 97 router each have four Ethernet ports.

Front Panels

Figure 1-1 and Figure 1-2 show the front panels of the Cisco 837 and SOHO 97 routers.

Figure 1-1 Cisco 837 Front Panel

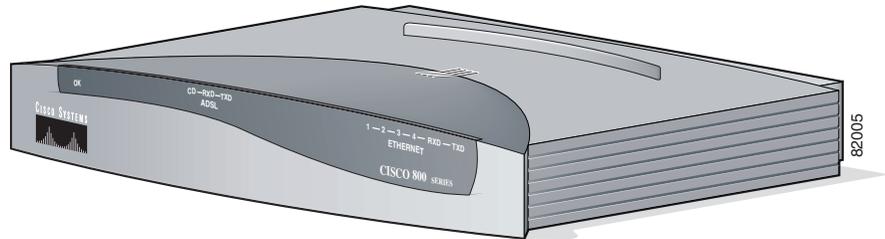
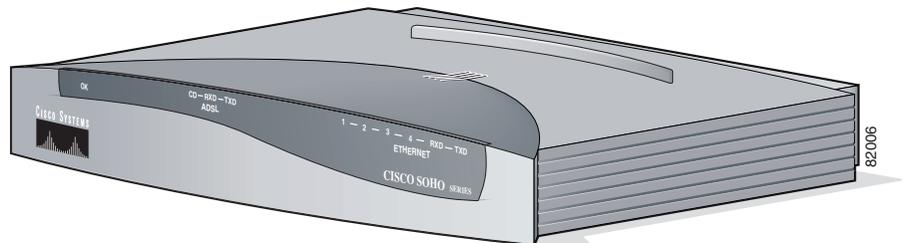


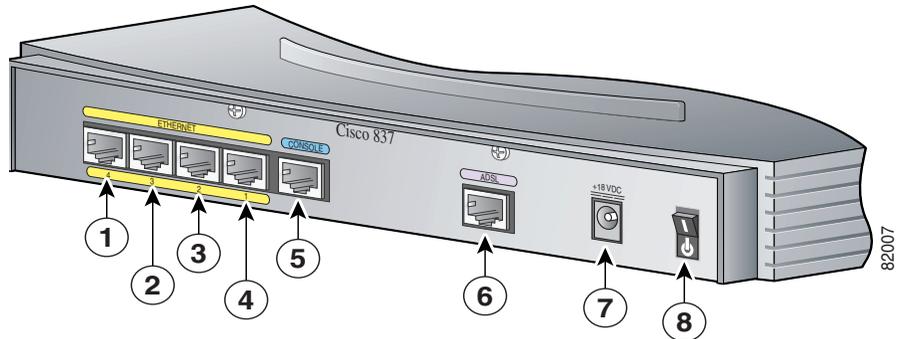
Figure 1-2 SOHO 97 Front Panel



Back Panel

Figure 1-3 shows the back panel of the Cisco 837 router. The back panel of the SOHO 97 router looks the same as the back panel of the Cisco 837 router.

Figure 1-3 Cisco 837 Back Panel



1	Ethernet port 4 connects to Ethernet network device	5	Console port connects to PC or terminal
2	Ethernet port 3 connects to Ethernet network device	6	ADSL port connects to external wall jack
3	Ethernet port 2 connects to Ethernet network device	7	Input jack connects to desktop power supply
4	Ethernet port 1 connects to Ethernet network device	8	Power on/off button

LED Functions

Table 1-2 summarizes the functions of the LEDs on the Cisco 837 router and the SOHO 97 router.

Table 1-2 Functions of LEDs on the Cisco 837 Router and SOHO 97 Router

LED	Color	Function
PWR_OK	Green	On when DC power is being supplied to the router. The light blinks if an error occurs during boot-up.
ADSL_CD	Green	On when the ADSL carrier detects status and connects to Digital Subscriber Line Access Multiplexer (DSLAM) successfully.
ADSL_RxD	Green	Blinks when the ADSL receives data.
ADSL_TxD	Green	Blinks when the ADSL transmits data. Off when no data is being uploaded.
E1 Status	Green	On when Ethernet 1 connects to the Ethernet interface successfully. Blinks when Ethernet 1 receives or sends data, or when data passes through Ethernet 1.
E2 Status	Green	On when Ethernet 2 connects to the Ethernet interface successfully. Blinks when Ethernet 2 receives or sends data, or when data passes through Ethernet 2.
E3 Status	Green	On when Ethernet 3 connects to the Ethernet interface successfully. Blinks when Ethernet 3 receives or sends data, or when data passes through Ethernet 3.
E4 Status	Green	On when Ethernet 4 connects to the Ethernet interface successfully. Blinks when Ethernet 4 receives or sends data, or when data passes through Ethernet 4.
LAN_RxD	Green	Blinks when the LAN port receives data from the WAN port.
LAN_TxD	Green	Blinks when the LAN port transmits data to the WAN port.