CISCO DESIGNED ISR4221/K9

Cisco ISR4221/K9 Integrated Services Router User Manual

Model: ISR4221/K9

1. Introduction

This manual provides essential information for the setup, operation, and maintenance of your Cisco ISR4221/K9 Integrated Services Router. The ISR4221/K9 is a high-performance networking device designed for secure and reliable network connectivity. This particular unit is a professionally inspected and tested renewed product, ensuring it functions and appears like new.



Figure 1: Cisco ISR4221/K9 Integrated Services Router and its power adapter.

2. Setup

2.1 Unpacking and Inspection

Carefully remove the router and its accessories from the packaging. Inspect all components for any signs of damage. If any damage is found, contact your supplier immediately.

2.2 Placement

Place the router on a stable, flat surface in a well-ventilated area. Ensure there is adequate space around the device for proper airflow to prevent overheating. Avoid placing the router near heat sources or in direct sunlight.

2.3 Connecting Power

1. Connect the power adapter cable to the power input port on the router.
2. Plug the power adapter into a suitable electrical outlet.
3. Ensure the power indicator light (PWR) on the front panel illuminates, indicating the device is receiving power.

2.4 Network Connections

The ISR4221/K9 features RJ45, SFP, and SFP+ interface types for network connectivity. Connect your network cables (Ethernet, fiber optic) to the appropriate ports based on your network infrastructure requirements.

- **RJ45 Ports:** Use standard Ethernet cables for connecting to LAN devices or WAN connections.
- **SFP/SFP+ Ports:** Insert compatible SFP or SFP+ transceivers for fiber optic connections, then connect the appropriate fiber cables.

2.5 Initial Configuration Access

For initial configuration, connect a console cable from your computer to the console port on the router. Use a terminal emulation program (e.g., PuTTY, Tera Term) with appropriate serial port settings (typically 9600 baud, 8 data bits, no parity, 1 stop bit, no flow control) to access the Cisco IOS command-line interface (CLI).

3. Operating the Router

3.1 Powering On/Off

Once the power adapter is connected, the router will automatically power on. To power off, simply disconnect the power adapter from the electrical outlet. For controlled shutdowns, it is recommended to use the appropriate Cisco IOS commands (e.g., reload) to prevent data corruption.

3.2 Indicator Lights

The front panel of the ISR4221/K9 features several indicator lights that provide status information:

- **FLASH:** Indicates activity related to the router's flash memory.
- **FAN:** Indicates the status of the internal cooling fan. A steady green light typically means the fan is operating normally.
- **TEMP:** Indicates the internal temperature status. A warning or critical temperature might be indicated by a specific color or blinking pattern.
- **STAT:** General system status indicator. Its behavior can vary depending on the router's operational state.
- **PWR:** Power indicator. A steady green light indicates the router is receiving power.

Refer to the Cisco IOS documentation for detailed interpretations of specific light behaviors.

3.3 Basic Operation

The Cisco ISR4221/K9 operates as an Integrated Services Router, providing routing, switching, security, and voice services. Configuration and management are primarily performed via the Cisco IOS command-line interface (CLI) or through network management systems. Consult Cisco's official documentation for advanced configuration and feature utilization.

4. Maintenance

4.1 Cleaning

To ensure optimal performance and longevity, periodically clean the exterior of the router with a soft, dry, lint-free cloth. Do not use liquid cleaners or aerosol sprays. Ensure the ventilation openings are free from dust and obstructions.

4.2 Firmware Updates

Regularly check for and apply the latest Cisco IOS software updates. Firmware updates often include performance enhancements, security patches, and new features. Always follow Cisco's recommended procedures for software upgrades to avoid system instability.

4.3 Environmental Considerations

Maintain the router within its specified operating temperature and humidity ranges. Extreme conditions can affect performance and reliability. Ensure proper ventilation to prevent heat buildup, especially in rack-mounted environments.

5. Troubleshooting

This section provides basic troubleshooting steps for common issues. For complex problems, consult Cisco's official documentation or seek professional technical support.

5.1 No Power

- Verify the power adapter is securely connected to both the router and a working electrical outlet.
- Check the power outlet with another device to ensure it is functional.
- Ensure the PWR indicator light on the front panel is illuminated.

5.2 No Network Connectivity

- Check all network cable connections (RJ45, SFP/SFP+) to ensure they are secure.
- Verify that the link/activity lights on the connected ports are active.
- Confirm that the network configuration (IP addresses, routing protocols) is correct.
- Test connectivity from connected devices.

5.3 System Status Indicators

Observe the FLASH, FAN, TEMP, and STAT indicator lights. Refer to Section 3.2 for their general meaning. If any indicator suggests an issue (e.g., red TEMP light, non-operating FAN), investigate the cause immediately.

5.4 Factory Reset

In some cases, a factory reset may be necessary to restore the router to its default configuration. This process typically involves specific commands via the console port. **Warning:** A factory reset will erase all current configurations. Back up your configuration before proceeding.

6. Specifications

Feature	Detail

Feature	Detail
Product Type	Networking Router
Model Number	ISR4221/K9
Brand	CISCO DESIGNED
Manufacturer	Cisco Systems, Inc
Interface Types	RJ45, SFP, SFP+
Number of Ports	2 (Onboard GE)
Switch Type	Managed
Color	Black
Case Material	Plastic
Product Dimensions	18.5 x 13.39 x 4.72 inches
Item Weight	7.1 pounds
Flash Memory	4GB
DRAM	4GB
UPC	683193448332

7. Warranty and Support

As a renewed product, this Cisco ISR4221/K9 router is covered by the Amazon Renewed Guarantee. This guarantee ensures that if you are not satisfied with your purchase, renewed products are eligible for replacement or refund.
For technical support related to Cisco IOS or advanced router configurations, please refer to Cisco's official documentation and support resources. For issues related to the renewed product's condition or functionality under the Amazon Renewed Guarantee, please contact the seller or Amazon customer service.

© 2024 Cisco Systems, Inc. All rights reserved. This document is for informational purposes only.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question