

TRIPP LITE B097-016

TRIPP LITE B097-016 Serial Console Server Instruction Manual

Model: B097-016

1. INTRODUCTION

The TRIPP LITE B097-016 Serial Console Server provides secure in-band and out-of-band remote access to serial and network-connected devices. This includes routers, network switches, firewalls, PBX systems, UPS systems, and other critical equipment. Designed for reliable network connectivity, it features dual Gigabit Ethernet ports and dual power supplies, making it suitable for various applications such as wiring closets, branch offices, kiosks, and remote sites where quick identification and resolution of network issues are essential.

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your B097-016 Serial Console Server.



Figure 1: Front view of the B097-016 Serial Console Server, showing USB and console ports, and status indicators.

2. SAFETY INFORMATION

Please read and follow all safety instructions before installing or operating this equipment. Failure to do so may result in injury or damage to the equipment.

- Ensure the power source meets the voltage and current requirements specified for the device.
- Do not operate the device in excessively hot, cold, humid, or dusty environments.
- Ensure proper ventilation to prevent overheating.
- Only use accessories and cables approved by TRIPP LITE.
- Do not attempt to open or service the device yourself. Refer all servicing to qualified personnel.

3. PACKAGE CONTENTS

Verify that all items are present in your package. If any items are missing or damaged, contact TRIPP LITE support.

- B097-016 16-Port Serial Console Server
- (2) C13 to NEMA 5-15P power cords, 6 ft.
- (2) Cat5e patch cables, 6 ft.
- Straight-through serial adapter, DB9 to RJ45 (F/F)
- Crossover serial adapter, DB9 to RJ45 (F/F)
- Modular serial adapter, DB9 to RJ45 (M/F)
- Rack-mounting hardware
- (6) Rubber feet
- Quick Start Guide



Figure 2: All components included with the B097-016 Serial Console Server.

4. SETUP

4.1 Physical Installation

The B097-016 is designed for flexible deployment, supporting both rack-mounting and desktop use.

- **Rack-Mounting:** Use the included rack-mounting hardware for 1U installation in an EIA-standard 19-inch rack.
- **Desktop Deployment:** For desktop use, attach the included rubber feet to the bottom of the unit to prevent sliding and ensure stability.



Figure 3: Side view of the B097-016, illustrating rack-mounting bracket attachment.

4.2 Connections

Connect your devices and power to the console server as described below.



Figure 4: Rear view of the B097-016, highlighting connection ports.

1. **Serial Console Ports:** Connect up to 16 serial devices (e.g., routers, switches) to the RJ45 console ports. These ports are configured for use with standard Cat5e/6 patch cables when connecting to Cisco devices. Use the included serial adapters as needed.
2. **USB Console Ports:** Two USB 2.0 console ports are available for connecting to newer devices with USB console ports, such as TRIPP LITE PDU and UPS systems equipped with WEBCARDLX or other LX Platform remote management cards.
3. **Ethernet Ports (NET1, NET2):** Connect your primary network to one of the dual Gigabit Ethernet ports. The second port can be used for redundancy and automatic failover, ensuring continuous network connectivity.
4. **Power Inputs:** Connect the two included C13 to NEMA 5-15P power cords to the dual power inputs on the rear of the unit and to separate power sources for redundancy.
5. **Out-of-Band Access (Optional):** For alternate channel access during network outages, connect one of the 16 RJ45 ports to an external Multitech MT9234MU-CDC-XR or US Robotics USR5637 USB modem (not included).

5. OPERATING INSTRUCTIONS

5.1 Remote Access

The B097-016 allows secure remote access to your connected devices:

- **In-Band Access:** Access devices over your primary network connection.
- **Out-of-Band Access:** In case of a primary network failure, access devices via an alternate channel, such as a connected external modem.

5.2 Security Features

The console server incorporates robust security features to protect sensitive data:

- Supports PCI DSS 3.2, FIPS 140-2, SSD, and SSH.
- Includes a built-in stateful firewall.
- Offers OpenVPN and IPsec VPN support.
- Features an embedded FIPS 140-2 OpenSSL cryptographic module (Certificate #2473).
- Integrates with industry-standard directory servers using TACACS+, RADIUS, LDAP, and Kerberos authentication.

5.3 Management Features

- **Router/Gateway:** Each gateway can port forward to an unlimited number of locally networked hosts.
- **DHCP Server:** Includes an embedded DHCP server to host a separate management LAN for critical traffic.
- **PDU and UPS Support:** Uses PowerMan for PDU and RPC management and Network UPS Tools for UPS system monitoring. Supports TRIPP LITE and other power products for remote power management.
- **Internal Storage:** Equipped with 4 GB of internal NAND flash memory for log storage and file storage.

6. MAINTENANCE

To ensure optimal performance and longevity of your B097-016 Serial Console Server, follow these general maintenance guidelines:

- **Cleaning:** Periodically clean the exterior of the unit with a soft, dry cloth. Do not use liquid or aerosol cleaners.
- **Ventilation:** Ensure that the ventilation openings are not obstructed to allow for proper airflow and prevent overheating.
- **Cable Management:** Keep all cables neatly organized and securely connected to prevent accidental disconnections or damage.
- **Firmware Updates:** Regularly check the TRIPP LITE website for available firmware updates to ensure your device has the latest features and security enhancements.

7. TROUBLESHOOTING

If you encounter issues with your B097-016 Serial Console Server, consider the following troubleshooting steps:

- **No Power:** Verify that both power cords are securely connected to the unit and to active power outlets. Check the power indicators on the front panel.
- **No Network Connectivity:** Ensure Ethernet cables are properly connected to the NET1/NET2 ports and to your network infrastructure. Check network status indicators. Confirm network settings (IP address, gateway, DNS).
- **Cannot Access Serial Devices:** Verify that serial cables and adapters are correctly connected between the console server and your serial devices. Ensure the serial port settings (baud rate, data bits, parity, stop bits) match those of the connected device.
- **Remote Access Issues:** Check firewall settings on both the console server and your network. Ensure proper authentication credentials are being used. Verify VPN configurations if applicable.
- **Software/Firmware Related Issues:** Ensure the device is running the latest firmware. Consult the TRIPP LITE support website for known issues or updated documentation.

If problems persist after attempting these steps, contact TRIPP LITE technical support for further assistance.

8. SPECIFICATIONS

Feature	Specification
Model	B097-016
Brand	TRIPP LITE
Number of Serial Ports	16 (RJ45)
USB Ports	2 (USB 2.0 Console)
Ethernet Ports	Dual Gigabit Ethernet (GbE)
Internal Flash Memory	4 GB NAND
Material	Alloy Steel
Color	Black

Feature	Specification
Item Dimensions (L x W x H)	19.3 x 10.6 x 3.3 inches
Item Weight	7.6 Pounds
Mounting Type	Embedded (Rack-mountable)
Connectivity Protocol	Ethernet
Control Method	Remote
Specification Met	EIA
UPC	037332218025

9. WARRANTY INFORMATION

The TRIPP LITE B097-016 Serial Console Server is covered by a **4-year limited warranty**. This warranty covers defects in material and workmanship under normal use and service. For specific terms and conditions, please refer to the warranty documentation included with your product or visit the TRIPP LITE official website.

10. TECHNICAL SUPPORT

For technical assistance, product information, or warranty inquiries, please contact TRIPP LITE customer support. You can find contact information, FAQs, and additional resources on the official TRIPP LITE website.

TRIPP LITE Website: www.tripplite.com

Please have your product model number (B097-016) and serial number ready when contacting support.