**Black Box 724-746-5500**

# Black Box 724-746-5500 10/100 Base-TX to 100 Base-FX Media Converter Instruction Manual

Model: 724-746-5500

## 1. INTRODUCTION

This manual provides detailed instructions for the Black Box 724-746-5500 10/100 Base-TX to 100 Base-FX Media Converter. This device is designed to facilitate network connectivity by converting electrical Ethernet signals (10/100Base-TX) to optical fiber signals (100Base-FX) and vice versa, allowing for extended network distances and improved immunity to electromagnetic interference.

Please read this manual thoroughly before installation and operation to ensure proper use and to maximize the lifespan of your device.

## 2. PRODUCT OVERVIEW

The Black Box 724-746-5500 is a compact and robust media converter, essential for integrating copper-based Ethernet networks with fiber optic infrastructure. It features standard RJ45 ports for Ethernet connectivity and fiber optic ports for FX connections.

Figure 1: Black Box 724-746-5500 Media Converter. The image shows the black rectangular device with two fiber optic cables connected to the left side. The top surface displays the text "100BASE-TX to 100BASE-FX Media Converter" and the Black Box logo with part number "724-746-5500". Several small indicator lights are visible on the front panel.

Key features include:

- Converts 10/100Base-TX Ethernet to 100Base-FX fiber optic signals.
- Compact design for easy deployment.
- LED indicators for status monitoring.
- Surface mountable for flexible installation.

# 3. SETUP AND INSTALLATION

Follow these steps to set up your Black Box Media Converter:

1. **Unpack the Device:** Carefully remove the media converter from its packaging. Verify that all components are present and undamaged.

2. **Prepare the Environment:** Ensure the installation location is clean, dry, and within the recommended operating temperature range. The device is designed for surface mounting.

3. **Connect Ethernet Cable:** Connect a standard RJ45 Ethernet cable from your 10/100Base-TX network device (e.g., switch, router, computer) to the RJ45 port on the media converter.

4. **Connect Fiber Optic Cables:** Connect the appropriate 100Base-FX fiber optic cables to the fiber ports on the media converter. Ensure proper polarity (transmit to receive, receive to transmit) if using duplex fiber.

5. **Connect Power:** Connect the power adapter (if included and required for your model) to the media converter's power input and then to a suitable power outlet. The device will power on automatically.

6. **Verify Connections:** Check the LED indicators on the front panel to confirm successful link establishment for both Ethernet and fiber connections.

# 4. OPERATION

Once properly installed and powered on, the Black Box 724-746-5500 Media Converter operates automatically. It transparently converts data packets between the Ethernet and fiber optic interfaces.

## LED Indicators

The front panel of the media converter features several LED indicators that provide real-time status information:

- **Power LED:** Indicates that the device is receiving power.
- **TX Link/Act LED:** Illuminates when a valid 10/100Base-TX link is established and blinks to indicate data activity.
- **FX Link/Act LED:** Illuminates when a valid 100Base-FX fiber link is established and blinks to indicate data activity.

Refer to the specific LED pattern for detailed diagnostics if issues arise.

# 5. MAINTENANCE

The Black Box Media Converter is designed for reliable, low-maintenance operation. To ensure optimal performance and longevity:

- **Cleaning:** Keep the device and its ports clean. Use a soft, dry cloth to wipe the exterior. Avoid liquid cleaners. For fiber optic ports, use specialized fiber cleaning tools and solutions to prevent signal degradation.
- **Environment:** Ensure the device is operated within its specified temperature and humidity ranges. Avoid exposing it to direct sunlight, excessive dust, or moisture.
- **Cable Management:** Ensure all connected cables are properly routed and secured to prevent accidental disconnections or damage.

# 6. TROUBLESHOOTING

If you encounter issues with your media converter, try the following troubleshooting steps:

- **No Power:**

  - Check if the power adapter is securely connected to the device and the power outlet.
  - Verify the power outlet is functional.

- **No Link (Ethernet):**

  - Ensure the Ethernet cable is securely connected to both the media converter and the network device.
  - Test the Ethernet cable with another device to confirm it is not faulty.
  - Verify the network device (e.g., switch port) is active and configured correctly.

- **No Link (Fiber):**

- Ensure fiber optic cables are securely connected and not bent or damaged.
- Verify proper fiber polarity (TX to RX, RX to TX).
- Check the fiber optic transceivers on both ends for cleanliness and proper insertion.
- Confirm the fiber optic cable type matches the media converter's specifications (e.g., multimode).

- **Slow Connection/Intermittent Connectivity:**

  - Check for excessive cable length or poor quality cables.
  - Ensure there is no electromagnetic interference near the device or cables.
  - Verify that both connected devices are operating at compatible speeds (100Mbps).

If problems persist after attempting these steps, please contact Black Box technical support.
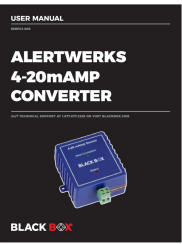
# 7. SPECIFICATIONS
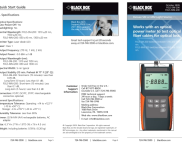
| Attribute | Value |
| --- | --- |
| Manufacturer | BLACK BOX |
| Part Number | 724-746-5500 |
| Item Model Number | 724-746-5500 |
| Item Weight | 2.67 pounds |
| Product Dimensions | 0.39 x 0.39 x 0.08 inches |
| Item Package Quantity | 1 |
| Mounting Type | Surface Mount |
| Switch Style | Pushbutton Switch (*Note: This may refer to internal component, not user-facing switch*) |
| ASIN | B00BL3B4DM |
| Date First Available | February 25, 2013 |

# 8. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or service, please refer to the official Black Box website or contact their customer service directly. Keep your purchase receipt for warranty claims.

**Black Box Contact Information:** Please visit www.blackbox.com for the most up-to-date support resources and contact details.

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| | [Black Box PoE Media Converter 15W/25.5W/30W User Manual](#)<br>User manual for the Black Box PoE Media Converter series (LPS602A-MM850, LPS603A-SM1310), detailing its features, specifications, installation, and regulatory compliance. |
| | [Black Box LGC Series Miniature Media Converter 10/100/1000 Switching - Ethernet to Fiber Optic](#)<br>Comprehensive guide to the Black Box LGC Series Miniature Media Converter (10/100/1000 Mbps). Covers specifications, part numbers, installation, operation, LED indicators, cleaning, ESD precautions, regulatory compliance, and contact information for connecting Ethernet copper ports to fiber optic cables. |
| | [AlertWerks 4-20mAmp Converter User Manual](#)<br>User manual for the Black Box AlertWerks EME1C1-005 4-20mAmp Converter. Learn about its features, specifications, and configuration for integrating analog sensors with gateways. |
| | [Black Box LB320A Industrial Ethernet Extender Quick Start Guide](#)<br>Quick Start Guide for the Black Box LB320A Industrial Ethernet Extender, detailing setup, connections, power, DIP switch configuration, and status LEDs for industrial network applications. |
| | [Black Box FOLS-SM-200 and FOLS-MM-200 Deluxe Light Source Quick Start Guide](#)<br>Quick start guide for the Black Box FOLS-SM-200 and FOLS-MM-200 Deluxe Light Sources, detailing specifications, keypad functions, LCD functions, and battery status. |
| | [Black Box AVX-DVI-FO-MINI Series: DVI-D and Stereo Audio over Fiber Extender Kit - User Manual](#)<br>Comprehensive user manual for the Black Box AVX-DVI-FO-MINI series of DVI-D and stereo audio over fiber extenders. Covers specifications, features, hardware description, system configurations, installation, troubleshooting, and regulatory information for extending video and audio signals up to 1.5 km. |