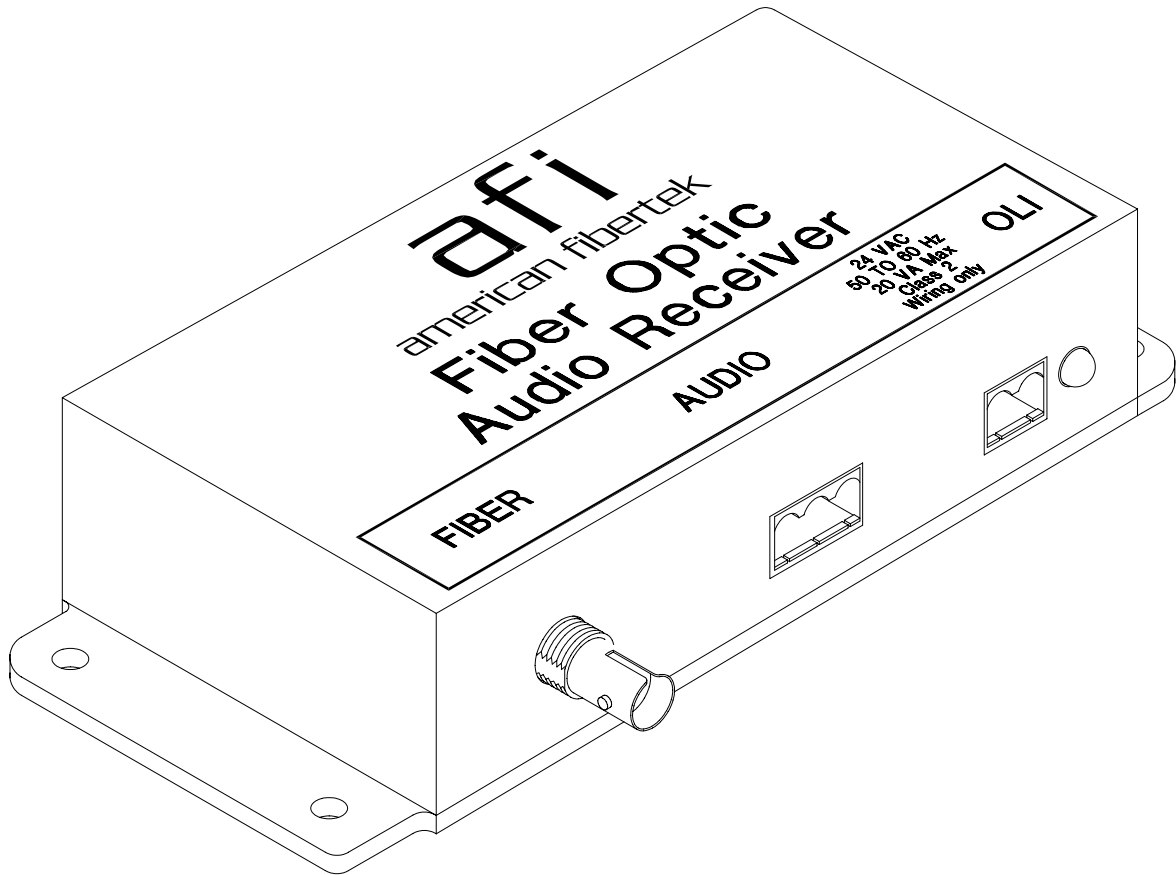


afi

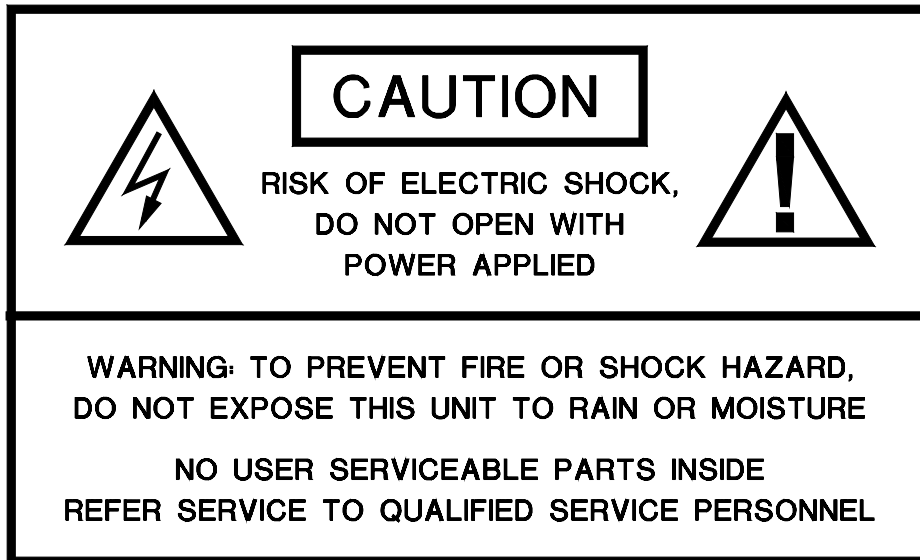
120 Belmont Drive
Somerset, NJ 08873-1204

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Instruction Manual

MR-05B Audio Receiver



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek MR-05B multimode audio receiver. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

FUNCTIONAL DESCRIPTION

The MR-05B operates as half of a transmitter / receiver pair for the transmission of balanced or unbalanced audio signals over a single multimode fiber optic cable. It is designed to operate with either the MT-05B or RT-05B audio transmitter.

The MR-05B converts a single FM modulated optical input into a single audio output using an 850 nm wavelength detector. The 05B Series product is designed to operate over an optical loss budget range of 0 to 16 dB. The MR-05B operates on 50 um or 62.5 um multimode fiber. Refer to the data sheets for detailed performance specifications.

This unit is contained in a compact and rugged aluminum housing with internal dc voltage regulation. The detachable terminal block and LED indicator provide for easy installation and monitoring of audio and dc power.

The MR-05B is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RR-05B.

INSTALLATION

THIS INSTALLATION SHOULD BE MADE BY A QUALIFIED SERVICE PERSON AND SHOULD CONFORM TO THE NATIONAL ELECTRICAL CODE, ANSI/NFPA 70 AND LOCAL CODES.

Mount the unit to a secure surface using #8 (3mm) hardware in four places. See the drawing on the next page for mounting dimensions. Be sure to allow sufficient room for the required minimum bend radius of the fiber cable used.

POWER SOURCE

THIS PRODUCT SHALL BE POWERED BY A LISTED CLASS 2 POWER SUPPLY ONLY.

This unit requires a 24 VAC power source with an isolated output for proper operation. Current draw is approximately 2.5 VA maximum. In the USA and in Canada an American Fibertek PS-24 is supplied with this unit. ANSI/NFPA 70 Class 2 wiring is recommended.

POWER CONNECTION

Power is supplied to the unit via a two pin terminal connector. See the drawing at the bottom of this page for proper location of the 24 volt ac input.

FIBER CONNECTION

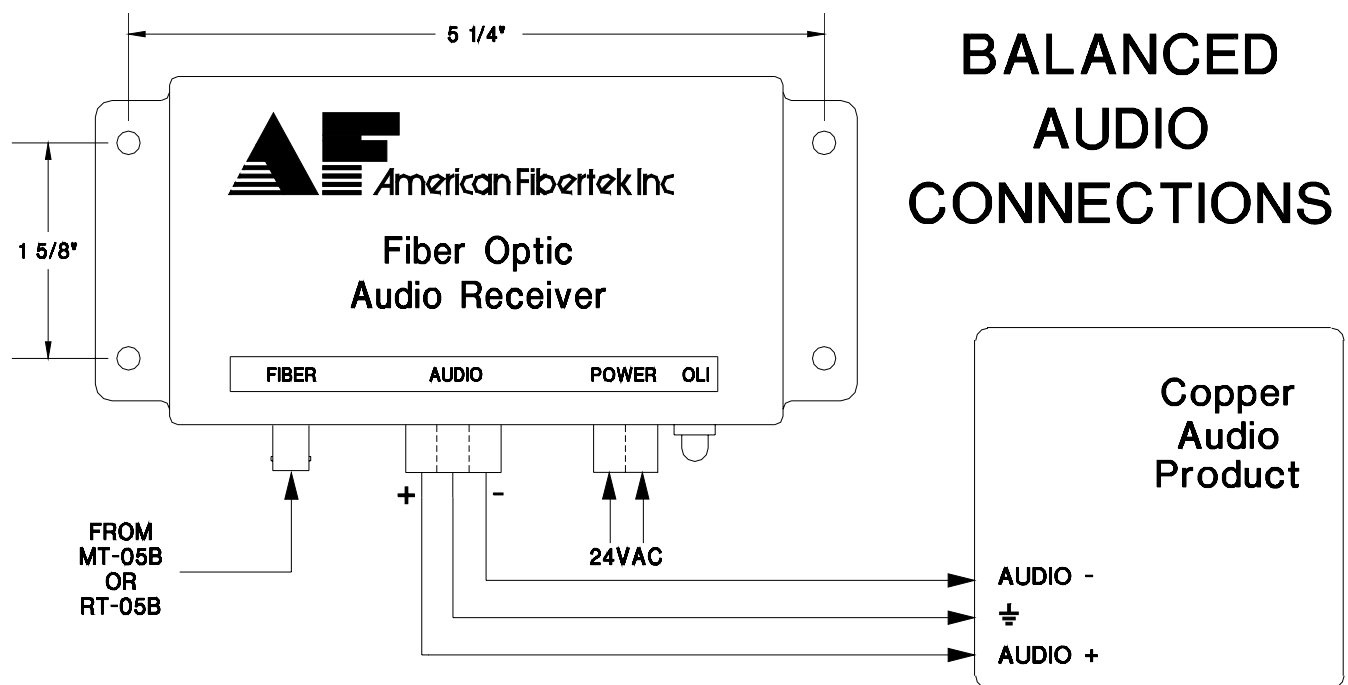
The fiber optic connection is made via a ST connector located on the side of the unit.

AUDIO OUTPUT LEVELS

The audio output signal appears on both the plus and minus terminals of this unit. Half of the signal appears on each output terminal. The two outputs are 180° out of phase. In a balanced audio configuration, the output connection is made across both the plus and the minus terminals. The balanced output impedance is 600 Ohms. To connect unbalanced, the plus output is used for the audio connection, along with the ground terminal. The output signal level will be half of the input level (-6dB) in this configuration. The unbalanced output impedance is 300 Ohms.

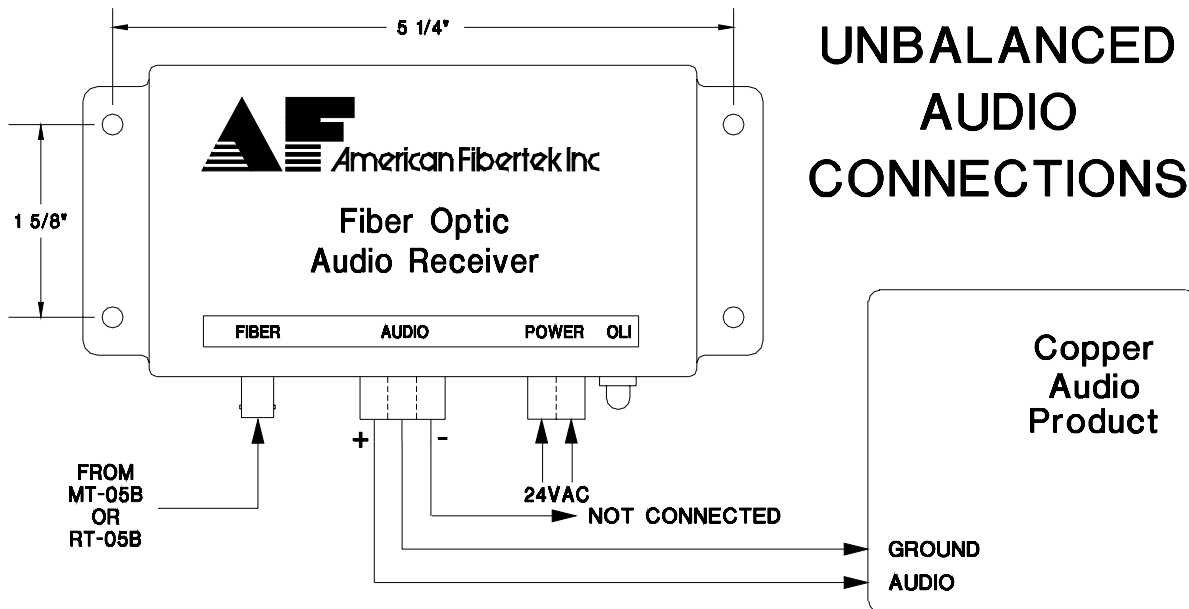
BALANCED AUDIO OUTPUT CONNECTIONS

The audio output connections are made via a three pin terminal connector on the side of the unit. A balanced audio product is connected directly to the plus and minus terminals. The shield or earth wire is connected to the ground terminal. See the drawing below for proper orientation of the audio output wires. For optimum performance the audio wires should be the shortest length practical.



UNBALANCED AUDIO OUTPUT CONNECTIONS

The audio output connections are made via a three pin terminal connector on the side of the unit. To obtain an unbalanced output signal, only the audio out plus terminal and the ground terminal are used. The audio out minus terminal is not connected. When used in the unbalanced configuration, there will be a loss of -6dB relative to the audio signal input at the corresponding fiber transmitter. See the drawing on the next page for proper orientation of the audio output wires. For optimum performance the audio wires should be the shortest length practical.



MR-05B STATUS INDICATOR

The MR-05B transmitter provides the following LED status indicator to aid in installation and troubleshooting:

OLI

A bi-color LED indicator monitors the optical input power of the audio signal that is being received at the MR-05B from the MT-05B or the RT-05B. AC power and optical input status associated with this LED are summarized below.

Optical Level Indicator	AC Power Status	Optical Status
Green	On	Proper Optical Input Power Present
Red	On	Optical Input Not Detected
Off	Off	Check Power Supply Input

LIFETIME WARRANTY INFORMATION

American Fibertek, Inc warrants that at the time of delivery the products delivered will be free of defects in materials and workmanship. Defective products will be repaired or replaced at the exclusive option of American Fibertek. A Return Material Authorization (RMA) number is required to send the products back in case of return. All returns must be shipped prepaid. This warranty is void if the products have been tampered with. This warranty shall be construed in accordance with New Jersey law and the courts of New Jersey shall have exclusive jurisdiction over this contract. **EXCEPT FOR THE FOREGOING WARRANTY, THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, EXPRESSED OR IMPLIED, WHICH EXTENDS BEYOND THE WARRANTY SET FORTH IN THIS AGREEMENT.** In any event, American Fibertek will not be responsible or liable for contingent, consequential, or incidental damages. No agreement or understanding, expressed or implied, except as set forth in this warranty, will be binding upon American Fibertek unless in writing, signed by a duly authorized officer of American Fibertek.

SERVICE INFORMATION

There are no user serviceable parts inside the unit.

In the event that service is required to this unit, please direct all inquiries to:

American Fibertek, Inc.
120 Belmont Drive
Somerset, NJ 08873

Phone: (877) 234-7200

Phone: (732) 302-0660

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