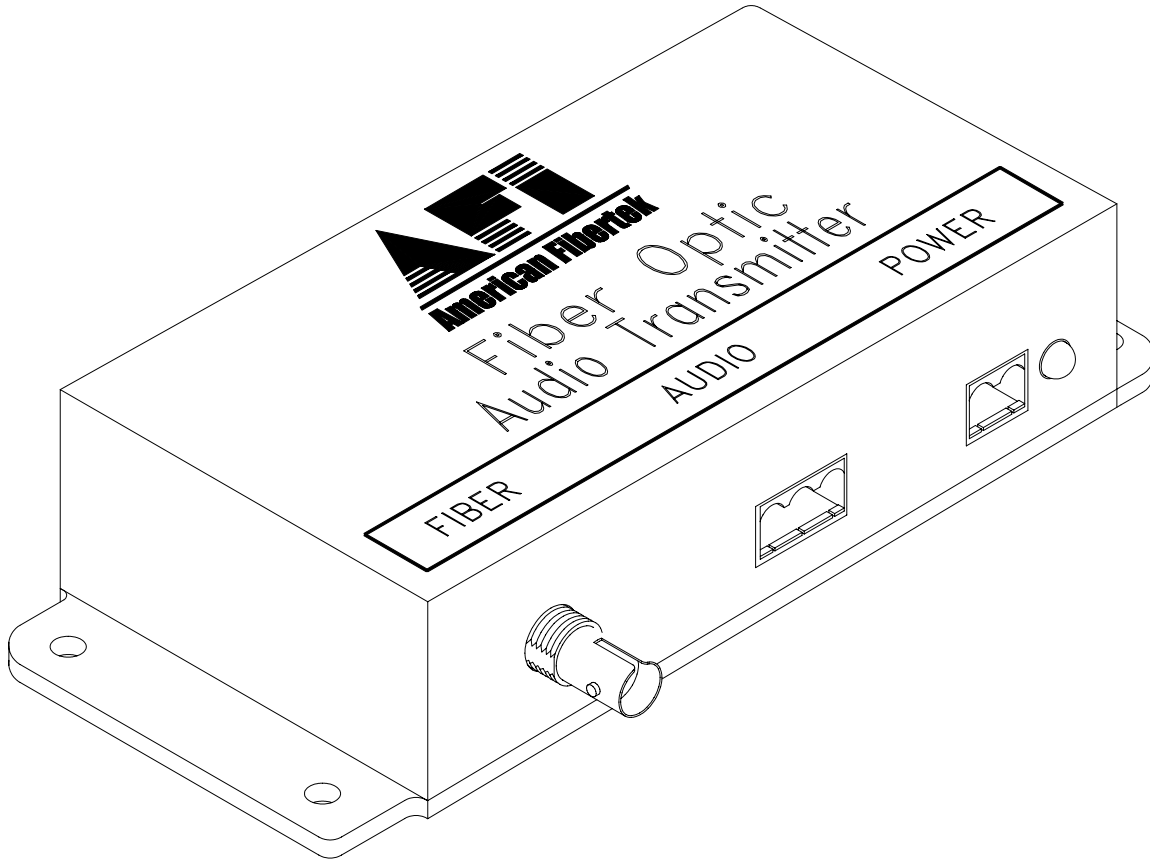




120 Belmont Drive
Somerset, NJ 08873-1204

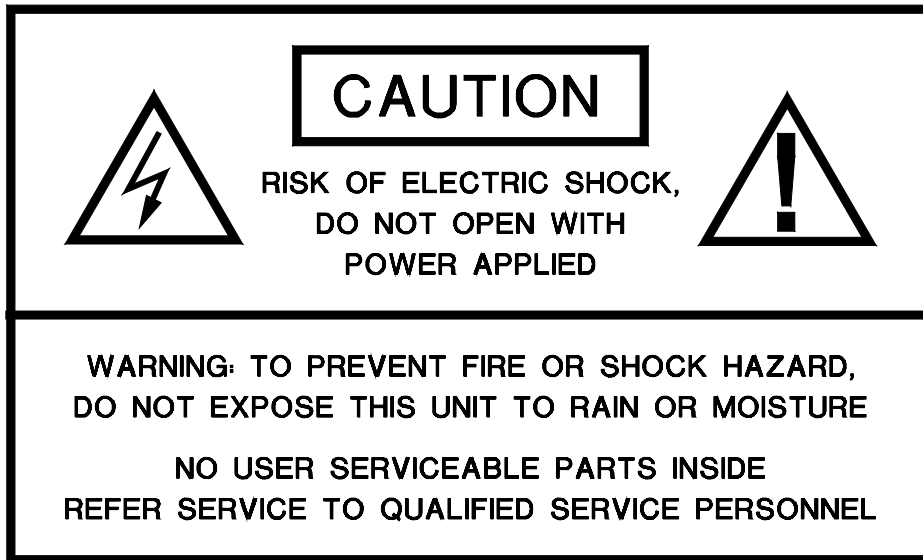
American Fibertek

Phone: 732.302.0660 Fax: 732.302.0667



Instruction Manual

MT-05B Audio Transmitter



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

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

FUNCTIONAL DESCRIPTION

The MT-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 MR-05B or RR-05B audio receiver.

The MT-05B converts a single audio input into a single FM modulated optical output using an 850 nm wavelength source. The 05B Series product is designed to operate over an optical loss budget range of 0 to 16 dB. The MT-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 MT-05B is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RT-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

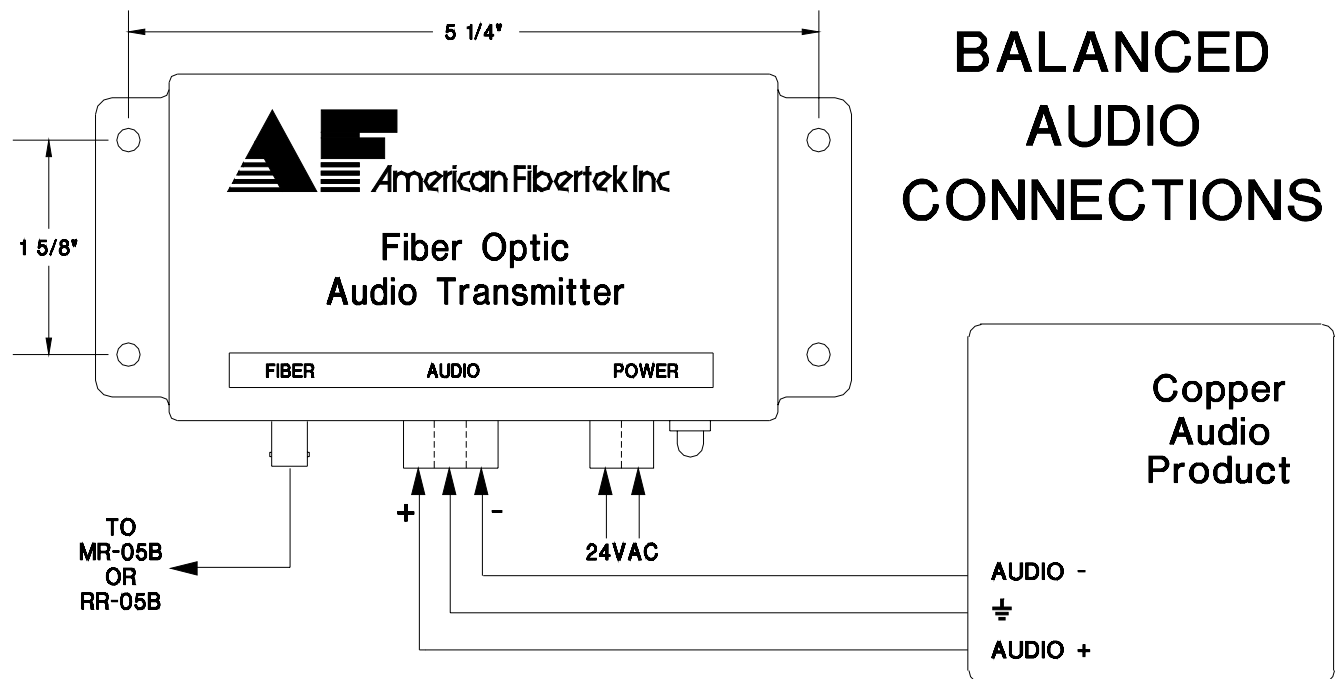
The fiber optic connection is made via a ST connector located on the side of the unit.

AUDIO INPUT LEVELS

The ideal audio input level is 0dBm₆₀₀. (This is 1mW across the 600Ohm input impedance.) On a voltage basis, this is equal to 0dBV or 2.19 Vp-p. Higher input levels will cause increased distortion. Up to +3dBm, the distortion will increase a small amount. Above this level the distortion will increase rapidly. Lower input signal levels will reduce the signal to noise ratio. In either balanced or unbalanced input configuration, the input impedance is 600 Ohms.

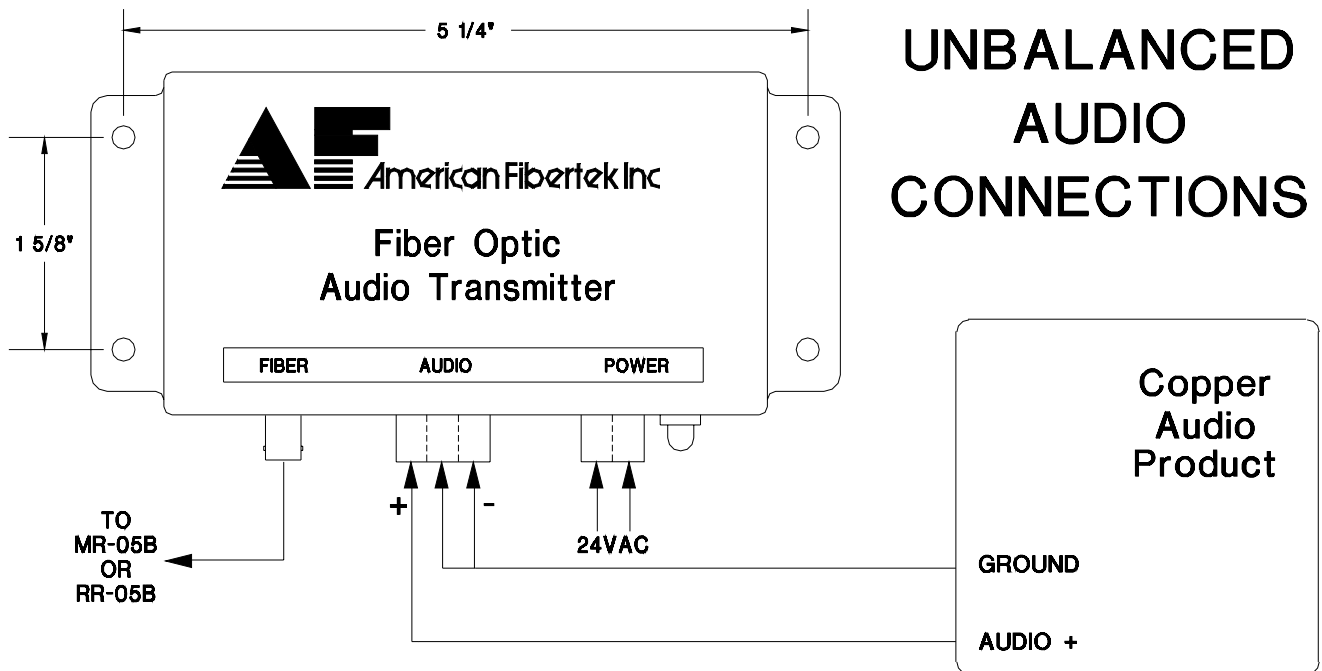
BALANCED AUDIO INPUT CONNECTIONS

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



UNBALANCED AUDIO INPUT CONNECTIONS

The audio input connections are made via a three pin terminal connector on the side of the unit. To connect an unbalanced signal to the input, the audio signal is connected to the plus input. The shield or ground wire is connected to both the minus and the ground terminals. When used in the unbalanced configuration, there will be a loss of -6dB at the output of the corresponding fiber receiver. See the drawing on the next page for proper orientation of the audio input wires. For optimum performance the audio wires should be the shortest length practical.



MT-05B STATUS INDICATOR

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

POWER

A green LED indicator monitors the internal dc voltage created within the MT-05B. Power status associated with this LED is summarized below.

Power Indicator	Power Status
Green	Voltage Present
Off	Voltage Not Present

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:

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120 Belmont Drive
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