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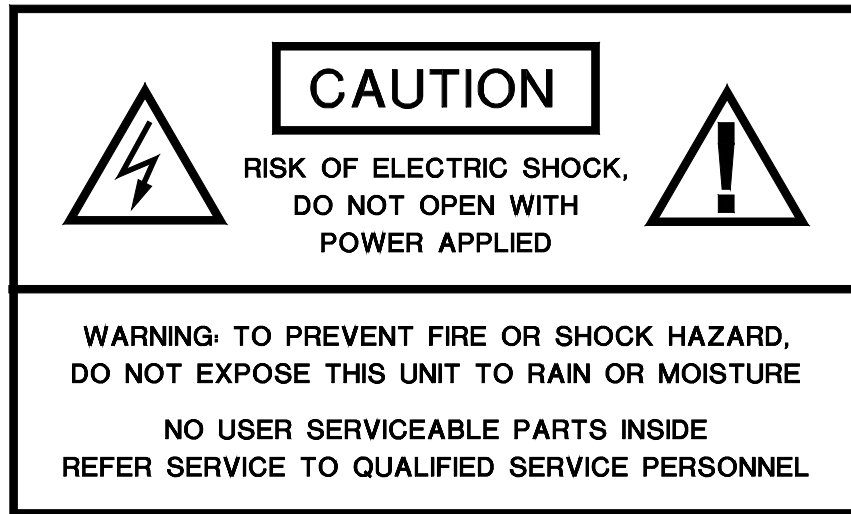
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Instruction Manual

MT-05E-S Audio Transmitter



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek MT-05E-S singlemode 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-05E-S operates as half of a transmitter / receiver pair for the transmission of balanced or unbalanced audio signals over a single singlemode fiber optic cable. It is designed to operate with the MR-05E-S audio receiver.

The MT-05E-S converts a single audio input into a single FM modulated optical output using an 1310 nm wavelength source. The MT-05E-S operates on 9 um singlemode 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-05E-S is designed for mounting as a modular stand alone unit.

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.

The unit requires a +12VDC power source for proper operation. The DC input is diode protected. In the USA and in Canada an American Fibertek PS-12 is supplied with this unit. The negative side of the power input is directly connected to ground. ANSI/NFPA 70 Class 2 wiring is recommended.

POWER CONNECTION

Power is supplied to the unit via a two pin terminal connector. Follow the label on the unit for proper orientation of +12 volt dc and ground.

FIBER CONNECTION

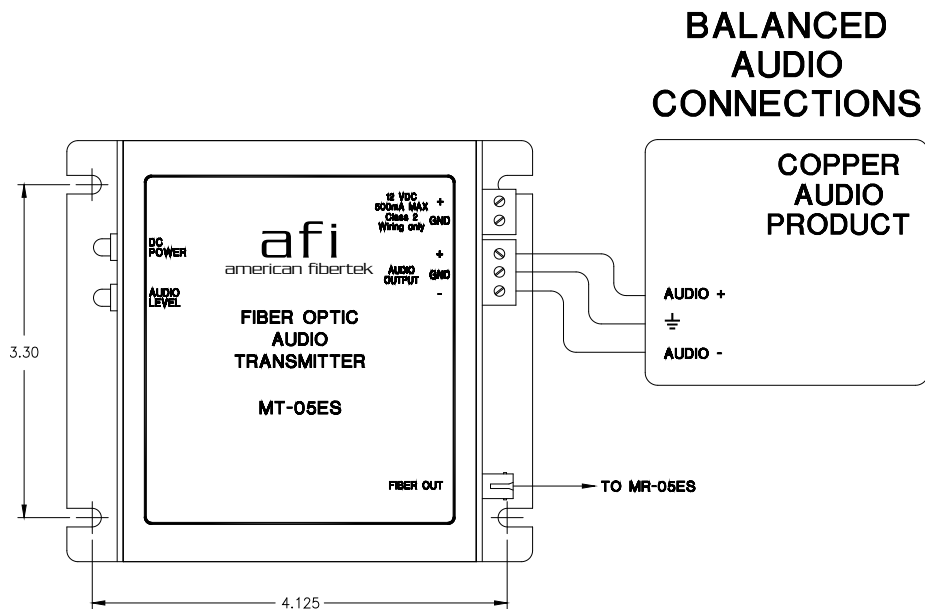
The fiber optic connection is made via a ST connector located on the side of the unit.

AUDIO INPUT LEVELS

The ideal audio input level is 0dBm_{600} . (This is 1mW into the $600\ \Omega$ input impedance.) On a voltage basis, this is equal to $\sim 2.2\ \text{Vp-p}$. Input levels up to $+15\ \text{dBm}$ may be accommodated with low distortion. 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 $600\ \Omega$.

BALANCED AUDIO INPUT CONNECTIONS

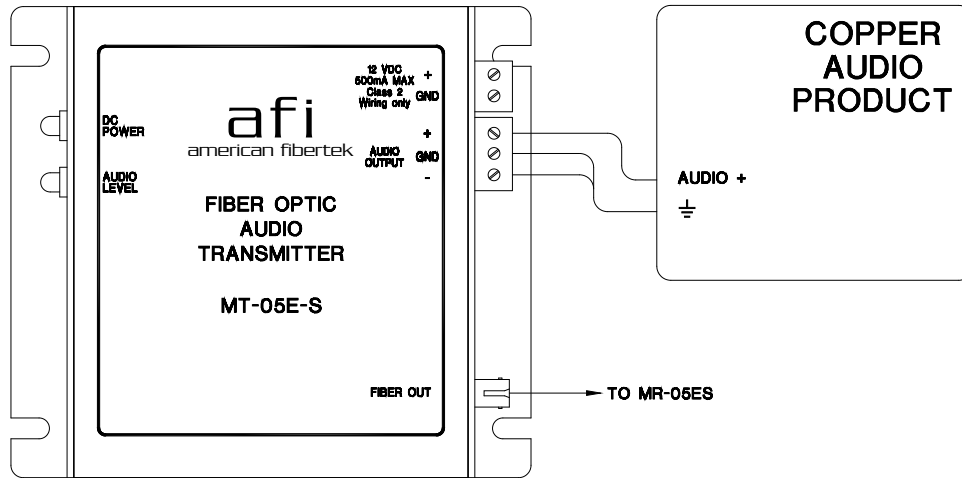
The audio input connections are made via a three pin terminal connector on the side of the unit. A balanced audio input is directly connected to the plus and minus inputs. The shield or earth ground wire is connected to the ground terminal. See the drawing below for proper orientation of the audio input 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 return (shield or ground) wire is connected to both the minus and the ground terminals. 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.

UNBALANCED AUDIO CONNECTIONS



LED INDICATORS:

DC POWER INDICATOR:

Indicates as to whether or not +12Vdc is present

Power Indicator	DC Power Status
Green	Voltage Present
Off	Voltage Not Present

AUDIO LEVEL INDICATOR:

Indicates when proper audio signal is present.

Audio Indicator	Audio Input Level Status
Green	Audio Present
Off	Audio Low or 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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