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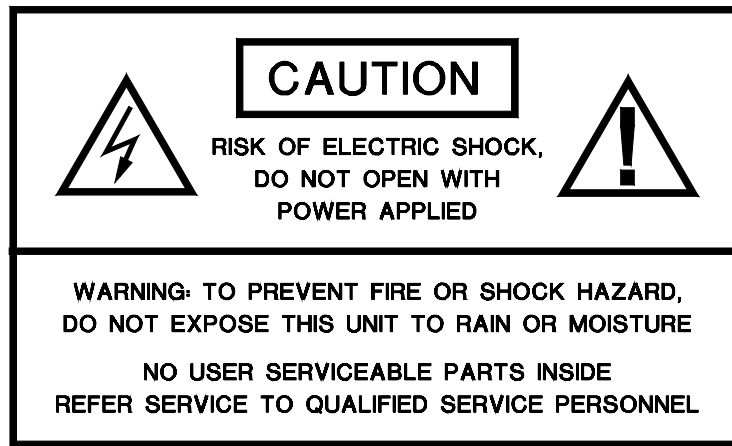
**American Fibertek**

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## Instruction Manual

# MT-89A-L Audio Transceiver For Aiphone LEF Series Intercom



## INSTALLATION AND OPERATION INSTRUCTIONS

### INTRODUCTION

Thank you for purchasing your American Fibertek MT-89A-L multimode audio / contact closure transceiver. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

### FUNCTIONAL DESCRIPTION

The MT-89A-L operates as half of a transceiver pair for the transmission of bi-directional Aiphone LEF Series intercom signals. It is designed to operate with the MR-89A-L or RR-89A-L audio transceiver over a single multimode fiber optic cable. In addition, the MT-89A-L can receive one independent dry contact closure from the MR-89A-L or RR-89A-L.

The MT-89A-L converts an audio input signal along with a call button input into an optical output using a 1310nm wavelength source. The MT-89A-L also converts an optical input signal returning on the same fiber into an audio output and a contact closure output using an 850nm wavelength detector. The 89A-L Series product is designed to operate over an optical loss budget range of 0dB to 12dB. The MT-89A-L operates on 50um or 62.5um 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 blocks and LED indicator provide for easy installation and monitoring of optical and ac power.

The MT-89A-L is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RT-89A-L.

### INSTALLATION

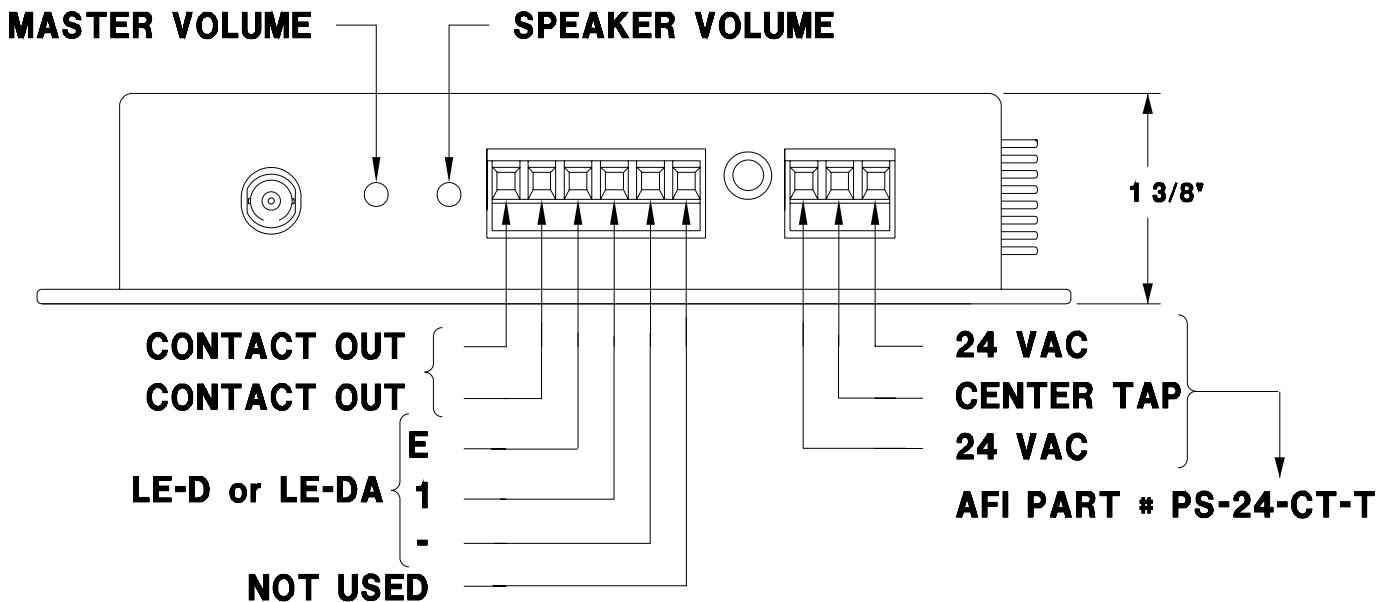
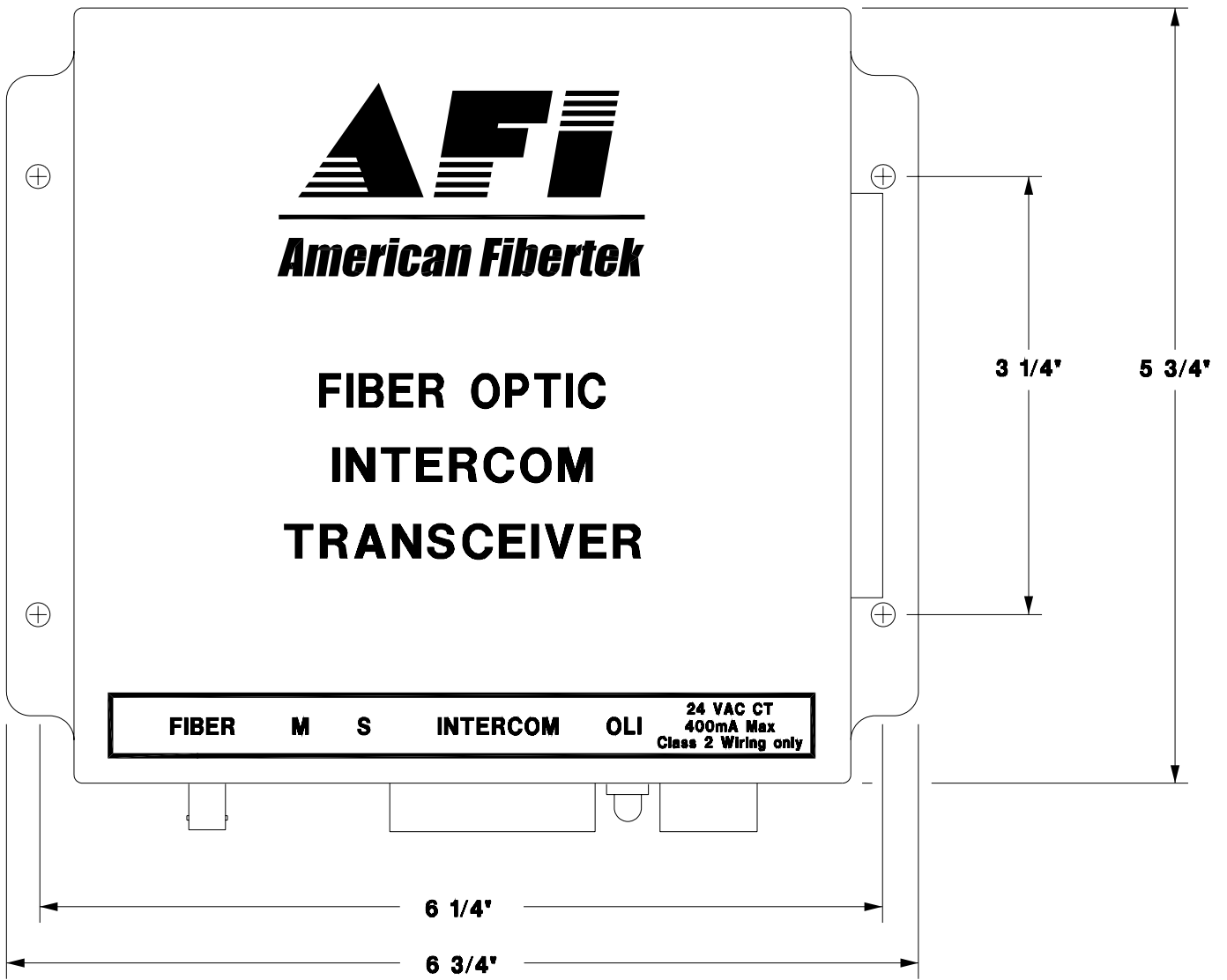
THIS INSTALLATION SHOULD BE MADE BY A QUALIFIED SERVICE PERSON AND SHOULD CONFORM TO THE NATIONAL ELECTRICAL CODE, ANSI/NFPA 70 AND LOCAL CODES.

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 an isolated 24VAC center tap power source for proper operation. In the USA and in Canada an American Fibertek PS-24CT-T 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 on the side of the unit. See drawing on the previous page for proper location of input power.

## FIBER CONNECTION

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

## AIPHONE INPUT / OUTPUT CONNECTIONS

AiPhone input and output connections are made via a terminal block on the side of the unit. See the drawing at the bottom of the last page for the three copper wire connections to the AiPhone LED style intercom station. Please note this unit requires three separate wires to be run between the MT-89A-L and the substation. Also, the shorting bar between 'E' and '-' must be removed from the LED unit.

## CONTACT OUTPUT CONNECTIONS

Contact closure output connections are made via a terminal block on the side of the unit. See the drawing at the bottom of the last page for the location of the two contact output wire connections.

## MASTER / SUBSTATION VOLUME COTROLS

Speaker volume controls for both the LEF master and the LED style substation are located on the side of the MT-89A-L. Turning the volume control knob clockwise increases the respective speaker output.

## MT-89A-L STATUS INDICATOR

The MT-89A-L 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/contact closure signal that is being received at the MT-89A-L from the MR-89A-L or the RR-89A-L. Internal AC power and optical input status associated with this LED are summarized below.

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

## 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.  
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