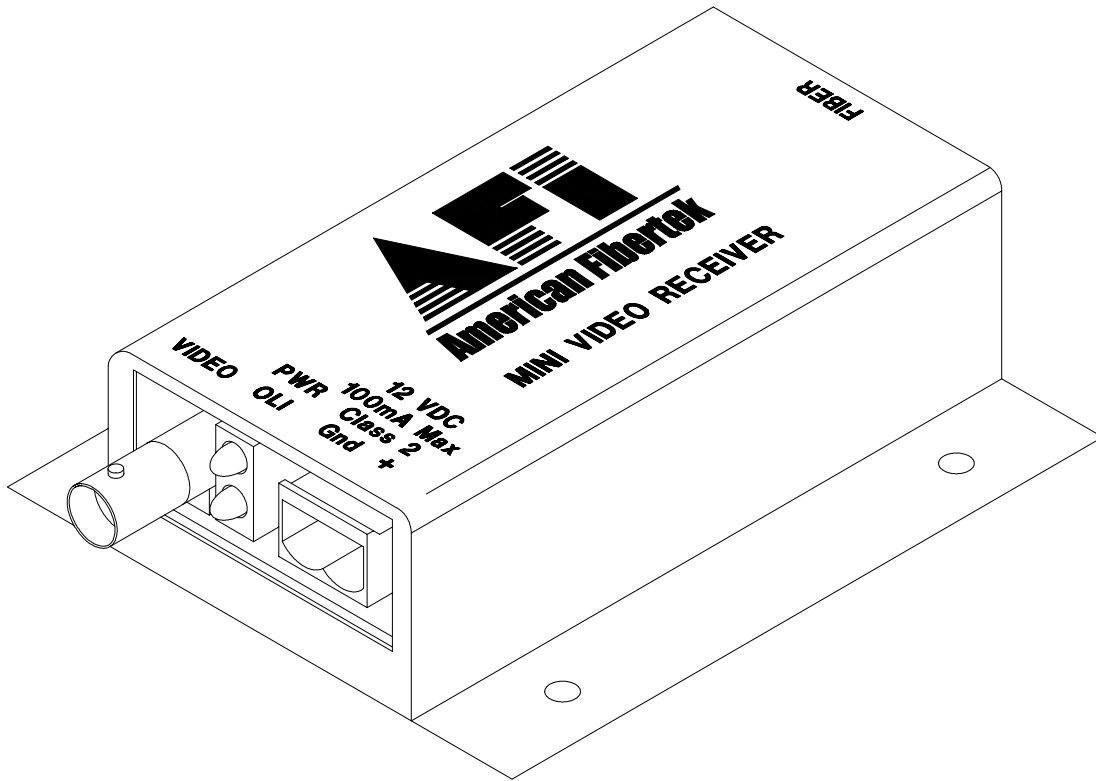




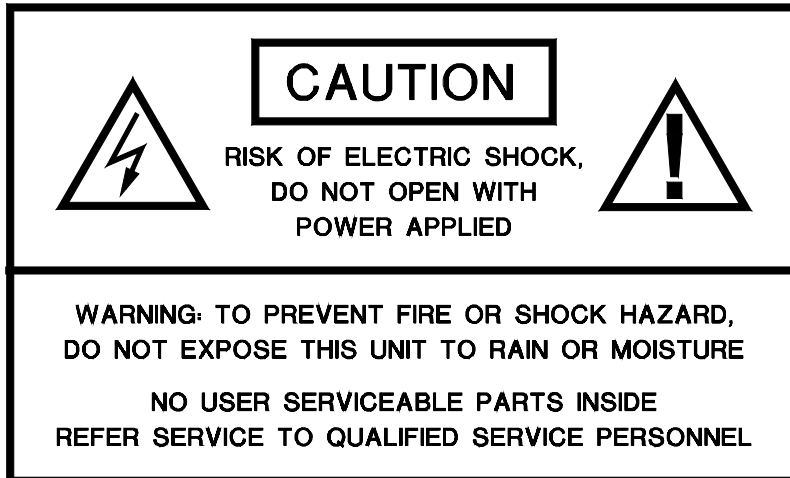
120 Belmont Drive  
Somerset, NJ 08873-1204

**American Fibertek**

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Instruction Manual  
MRM-100  
Mini Video Receiver



## INSTALLATION AND OPERATION INSTRUCTIONS

### INTRODUCTION

Thank you for purchasing your American Fibertek MRM-100 multimode mini video receiver. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

### FUNCTIONAL DESCRIPTION

The MRM-100 operates as half of a transmitter / receiver pair for the transmission of baseband NTSC, PAL, RS170, or RS343 video signals over a single multimode fiber optic cable. It is designed to operate with the MTM-100, RTM-100, or RTM-30 video transmitter. The RTM-30 contains the electronics and optics of three RTM-100 units mounted on one printed circuit board to save space and reduce cost.

The MRM-100 converts a single FM modulated optical input into a single video output using an 850 nm wavelength detector. The M100 Series product is designed to operate over an optical loss budget range of 0 to 12 dB with a maximum distance of up to 2.5 km. The MRM-100 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 indicators provide for easy installation and monitoring of video and dc power.

The MRM-100 is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RRM-100 or the RRM-30.

## 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 at the bottom of this 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. Current draw is approximately 100mA maximum. 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.

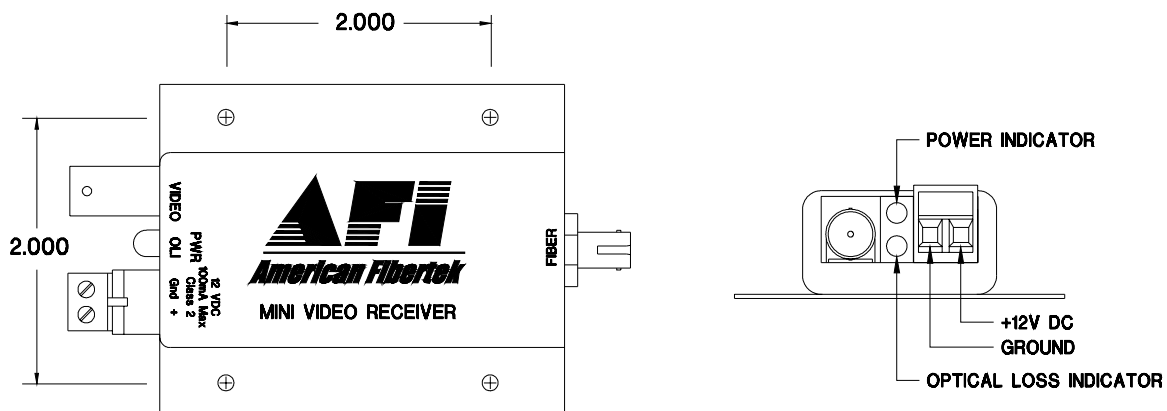
## POWER CONNECTION

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

## INPUT / OUTPUT CONNECTIONS

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

The video output connection is made via a BNC connector on the left side of the unit. The 75Ω video output can be looped through typical baseband video inputs of switchers, recorders and other equipment as required. For proper operation, the output must be terminated with 75Ω. For optimum performance the video cables should be the shortest length of coax practical.



## MRM-100 STATUS INDICATORS

The MRM-100 receiver provides the following LED status indicators to aid in installation and troubleshooting:

### POWER

A green LED indicator monitors the internal dc voltage created within the MRM-100. Power status associated with this LED is summarized below.

Power Indicator	Power Status
Green	Voltage Present
Off	Voltage Not Present

### OLI

A green LED indicator monitors the power of the optical signal that is being received at the MRM-100 from the MTM-100, RTM-100, or RTM-30. Optical input status associated with this LED is summarized below.

Optical Level Indicator	Optical Status
Green	Proper Optical Input Power Present
Off	Optical Input Not Detected

## 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  
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