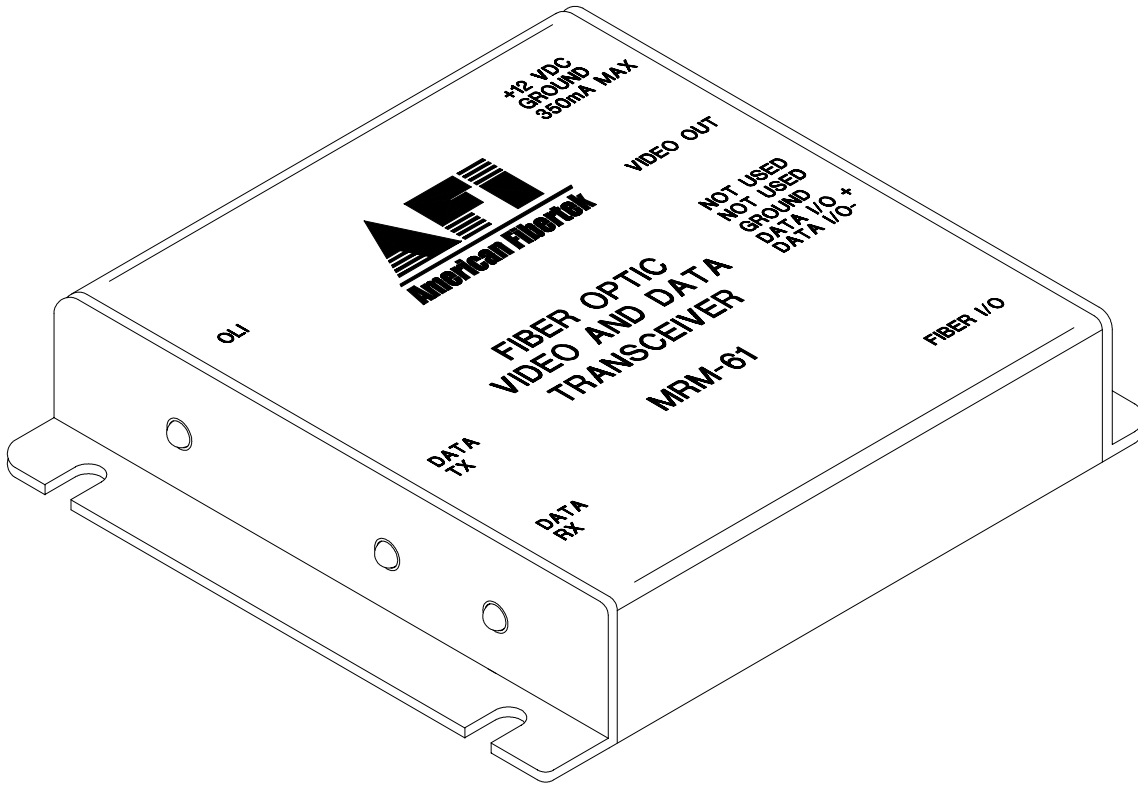




120 Belmont Drive
Somerset, NJ 08873-1204

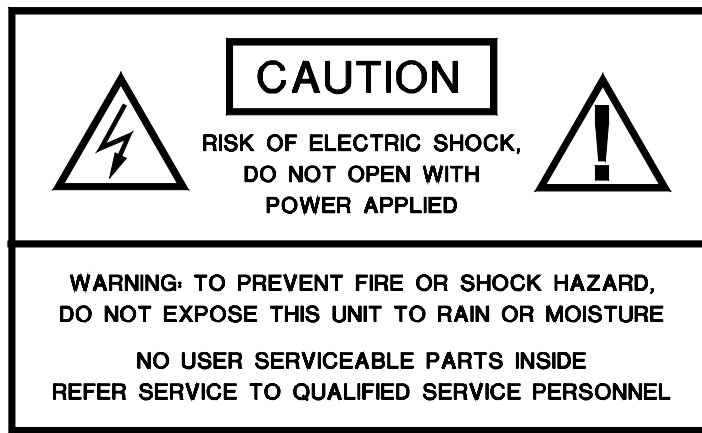
American Fibertek

Phone: 732.302.0660 Fax: 732.302.0667



Instruction Manual

MRM-61 Video Receiver With Bi-directional Sensornet Data



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek MRM-61 multimode 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-61 operates as half of a transmitter / receiver pair for the transmission of baseband NTSC, PAL, RS170, or RS343 video signals and bi-directional Sensornet data. It is designed to operate with the MTM-61 or RTM-61 video transmitter over a single multimode fiber optic cable.

The MRM-61 converts an optical fiber input into a single video output and a single Sensornet output using a 1300 nm wavelength detector. The MRM-61 also converts an electrical Sensornet input signal into an optical Sensornet output returning on the same fiber using an 850 nm wavelength source. The M61 Series product is designed to operate over an optical loss budget range of 0 to 12 dB. The MRM-61 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, data, and dc power.

The MRM-61 is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RRM-61.

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 +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 label on unit for proper orientation of +12 volt dc and ground.

VIDEO OUTPUT CONNECTION

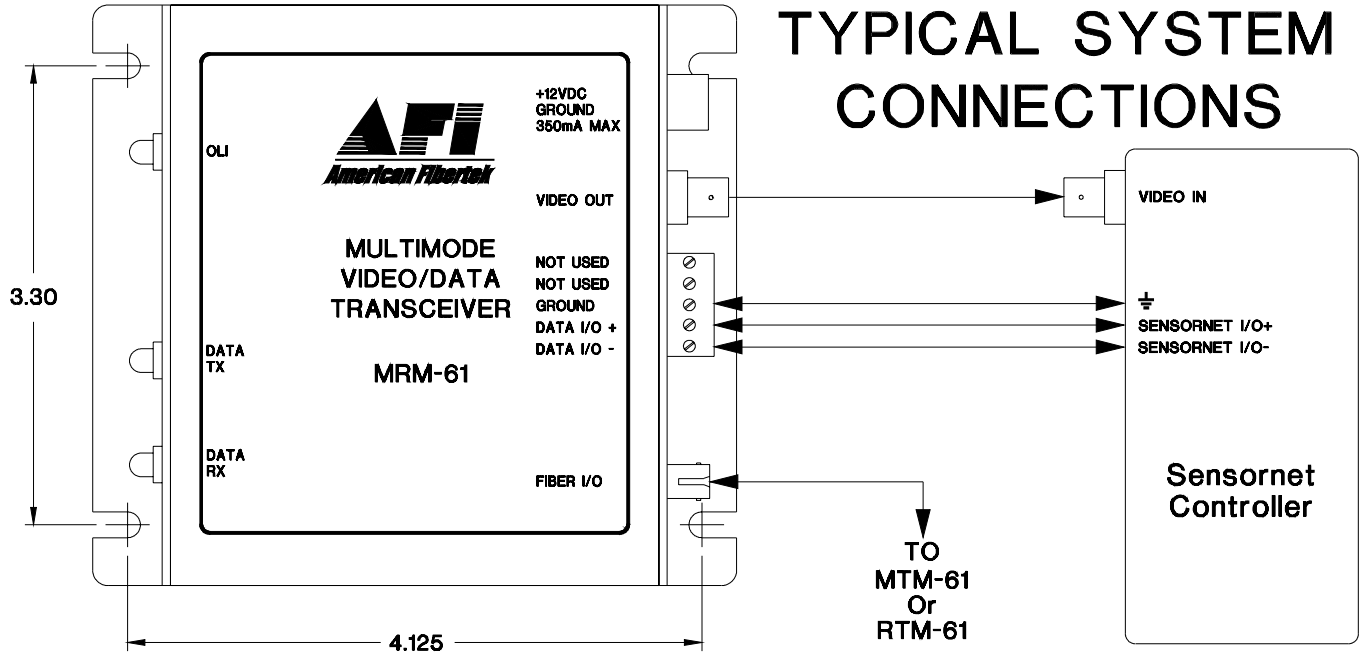
The video output connection is made via a BNC connector on the right side of the unit. The 75Ω video output can be looped through typical baseband video inputs of switchers, recorders and other equipment as required. For proper operation, the output must be terminated with 75Ω. For optimum performance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

FIBER CONNECTION

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

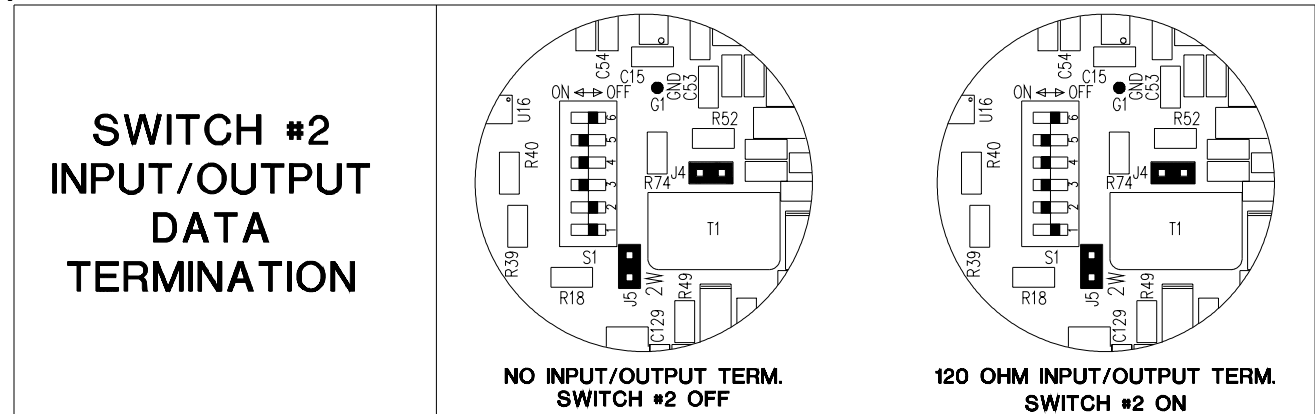
SENSORNET INPUT / OUTPUT CONNECTIONS

Data input and output connections are made via a terminal block on the right side of the unit. Follow the label on the MRM-61 for proper orientation of Sensornet data input/output wires.



DATA TERMINATION REQUIRMENTS

The MRM-61 is shipped from the factory with internal data input/output 120 ohm termination switched on. In order to remove the internal termination, the unit needs to be opened up and switch setting #2 needs to be modified using the internal switch/jumper settings shown below. There are several other switches on the same switch bank with the data termination switch. These switches must not be changed. The drawing below indicates their original positions.



To open the MRM-61, remove the screw on the bottom of the module. Also remove two screws holding the end panel to the chassis on the side with the video and data connections. Slide PCB assembly out of chassis to access the switch and jumper locations.

MRM-61 STATUS INDICATORS

The MRM-61 receiver provides the following LED status indicators to aid in installation and troubleshooting:

OLI

A bi-color LED indicator monitors the power of the optical input signal that is being received at the MRM-61 from the MTM-61 or the RTM-61. DC 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

DATA TX

A red LED indicator is provided to monitor the Sensornet input data from the electrical interface, through the MRM-61, and out onto the fiber.

DATA RX

A red LED indicator is provided to monitor the Sensornet data coming in from the fiber, through the MRM-61, and out onto the electrical interface.

The intensity of these data indicators will vary, however in typical applications they will cycle on and off as data is transmitted/received. Data status associated with each of these LEDs is summarized below.

DATA TX / RX LED	Sensornet Status
Red	Data Flow Present
Off	Data Flow 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 unit. In the event that service is required, please direct all inquiries to:
American Fibertek, Inc. Phone: (877) 234-7200
120 Belmont Drive Phone: (732) 302-0660
Somerset, NJ 08873 FAX (732) 302-0667

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