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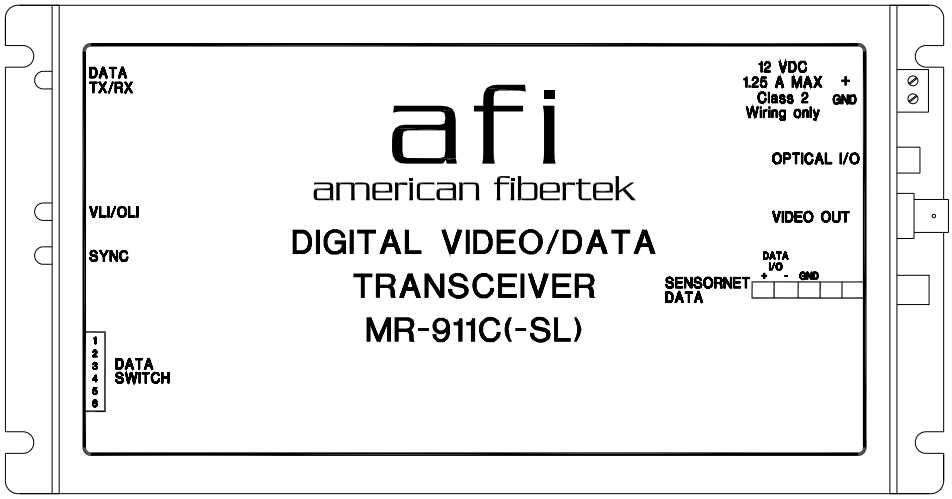

Instruction Manual

MR-911C-SL
Video Receiver With
Bi-directional Sensornet Data

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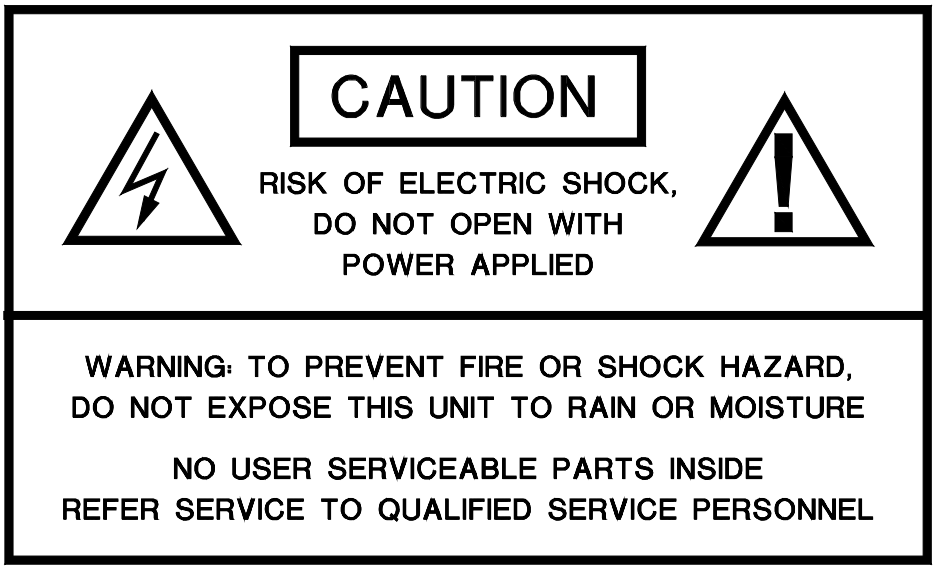

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INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek MR-911C-SL singlemode 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 MR-911C-SL operates as half of a transmitter / receiver pair for the transmission of high performance 10 bit digital NTSC, PAL, RS170A, or RS343A video signals and bi-directional Sensornet data. It's designed to operate with the MT-911C-SL or RT-911C-SL video transmitter over a single singlemode fiber optic cable.

The MR-911C-SL converts an optical fiber input into a single video output and a single Sensornet output using 1310nm wavelength detector. The MR-911C-SL also converts an electrical Sensornet input signal into an optical Sensornet output returning on the same fiber using an 1550 nm wavelength source. The M911C-SL series product is designed to operate over an optical budget range of 0 to 21 dB. The MR-911C-SL operates on 9 um singlemode fiber. Refer to the data sheets for detailed performance specifications.

This unit contained in compact and rugged aluminum housing with internal dc voltage regulation. The detachable terminal blocks and LED indicators provide for easy installation and monitoring of video, data, and optical power.

The MR-911C-SL is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RR-911C-SL.

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.

This unit requires a +12VDC power source with for proper operation. The DC input is diode protected. 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 on the right side of the unit. Follow the label on unit for proper orientation of +12 volt dc and ground.

FIBER CONNECTION

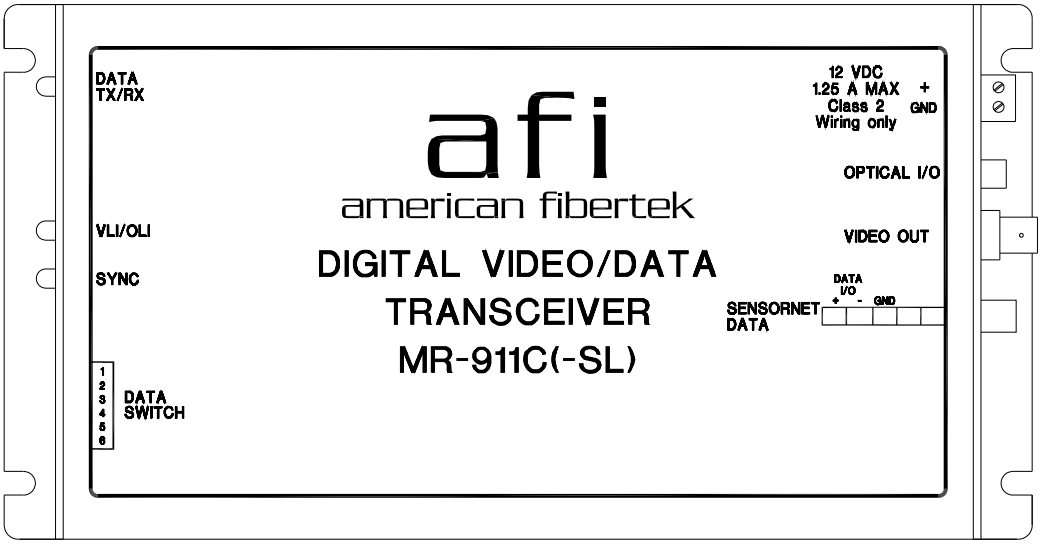
The fiber optic connection is made via a FC/PC connector.

VIDEO INPUT CONNECTION

The video input connection is made via a BNC connector. The video input should be connected to an appropriate 75Ω baseband video source such as a camera or a video recorder output. For optimum performance the video cables should be the shortest length of coax practical.

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 MR-911C-SL for proper orientation of Sensornet data input/output wires.



MR-911C-SL STATUS INDICATORS

The MR-911C-SL transmitter provides the following LED status indicators to aid in installation and troubleshooting:

DATA TX

A green LED indicator is provided to monitor the data coming in from the electrical interface, through the MR-911C-SL, and out onto the fiber. The intensity of this indicator will vary with input data patterns. However, in typical applications it will cycle on and off as data is transmitted. Data transmitted status associated with this LED is summarized below.

DATA TX LED	Data Status
Green	Data Flow Present
Off	Data Flow Not Detected

DATA RX

A green LED indicator is provided to monitor the data coming in from the fiber, through the MR-911C-SL, and out onto the electrical interface. The intensity of this indicator will vary with input data patterns. However, in typical applications it will cycle on and off as data is received. Data received status associated with this LED is summarized below.

DATA RX LED	Data Status
Green	Data Flow Present
Off	Data Flow Not Detected

VLI

A bi-color LED indicator is provided for the video output of the MR-911C-SL. DC power and video status associated with this LED is summarized below.

Video Presence LED	DC Power Status	Video Status
Green	On	Proper Output Video Present
Red	On	Output Video Not Detected
Off	Off	Check Power Supply

OLI

A bi-color LED indicator monitors the optical input power that is being received at the MR-911C-SL from the MT-911C-SL or the RT-911C-SL. 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

SYNC

A bi-color LED indicator is provided to monitor the proper serialization of the electrical data stream through the MR-911C-SL and out onto the fiber. DC power and sync status associated with this LED is summarized below.

Sync LED	DC Power Status	Sync Status
Green	On	Proper Data Stream Serialization Present
Red	On	Data Stream Serialization Not Detected
Off	Off	Check Power Supply

SENSORNET DATA SWITCH SETTINGS

DATA SWITCH SETTINGS: ON IS DOWN						DATA CHANNEL CONFIGURATION
1	2	3	4	5	6	
OFF	ON	OFF	OFF	OFF	OFF	SENSORNET (FACTORY SHIPPED)

This unit complies with 21 CFR 1040.10 and 1040.11

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
Somerset, NJ 08873

Phone: (877) 234-7200
Phone: (732) 302-0660
FAX (732) 302-0667

E-mail: techinfo@americanfibertek.com