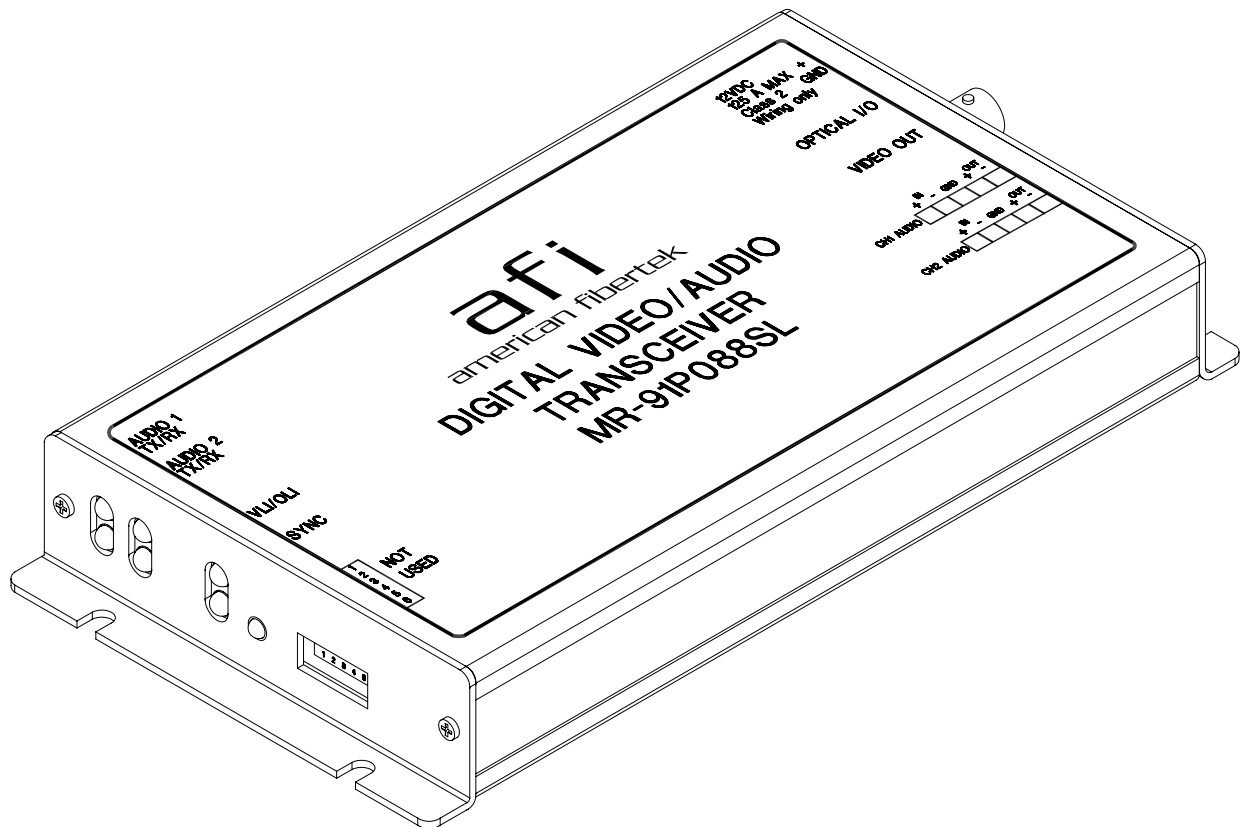


afi

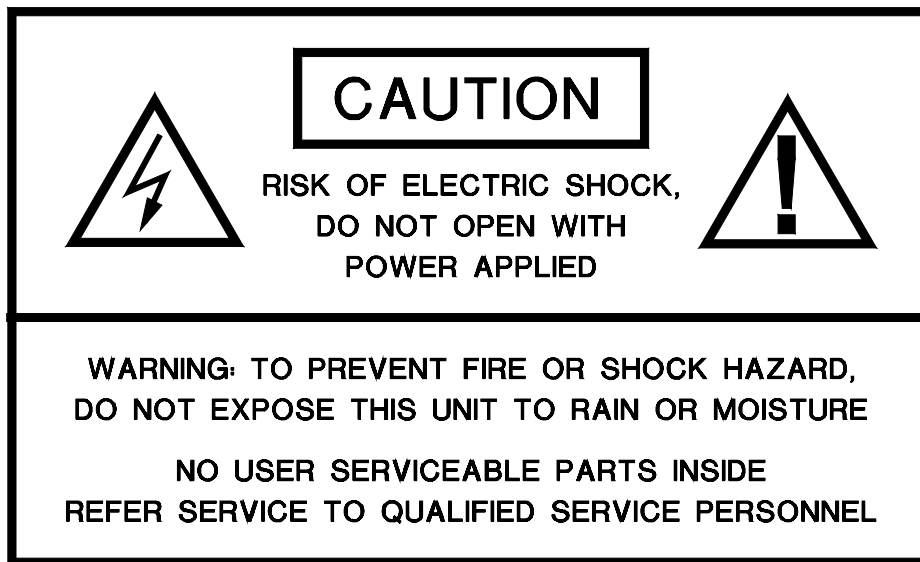
120 Belmont Drive
Somerset, NJ 08873-1204

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Instruction Manual

MR-91P088SL Video Receiver With Two Channels of Bi-directional Audio



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek MR-91P088SL singlemode video receiver with two channels of bi-directional audio. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

FUNCTIONAL DESCRIPTION

The MR-91P088SL operates as half of a transmitter / receiver pair for the transmission of high performance 10 bit digital NTSC, PAL, RS170, or RS343 video signals. The MR-91P088SL also supports two bi-directional channels of four wire audio. The MR-91P088SL is designed to operate with the MT-91P088SL or RT-91P088SL video transmitter with bi-directional data and audio over one singlemode fiber optic cable.

The MR-91P088SL multiplexes two audio signals into a high speed serial data stream. This serial data stream modulates a laser at 1550 nm wavelength. The MR-91P088SL also detects and demultiplexes a return optical serial data stream signal containing a single video input signal along with two audio channels at 1310 nm wavelength. The 91P088SL Series product is designed to operate over an optical loss budget range of 0 to 21dB. Refer to the data sheet for detailed performance specifications.

This unit is contained in a rugged aluminum housing with internal dc voltage regulation. The detachable terminal blocks and LED indicators provide for easy installation and monitoring of video, audio, and optical power. The MR-91P088SL is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RR-91P088SL.

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 with a current rating of 1.25 amps for proper operation. The DC input is diode protected. In the USA and in Canada an American Fibertek PS-12D 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

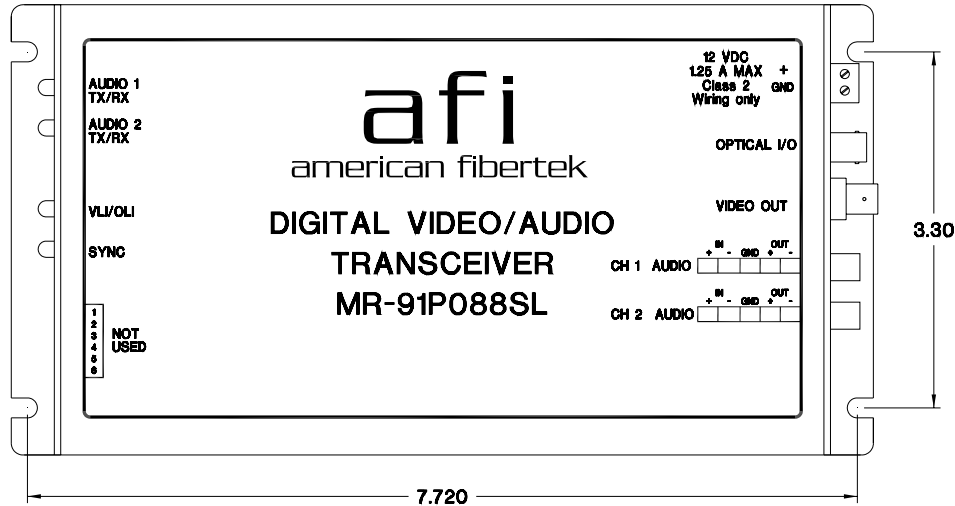
Power is supplied to the unit via a two pin terminal connector on the right side of the unit. Follow the label on unit for proper orientation of +12 volt dc and ground.

FIBER INPUT / OUTPUT CONNECTION

The fiber optic input / output connection is made via a FC/PC connector located on the right side of the unit.

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.



AUDIO INPUT / OUTPUT CONNECTIONS

Audio input and output connections are made via a terminal block on the right side of the unit. Follow the label on unit for proper orientation of input and output connections. Please note that the far right pin on the label (DATA OUT-) corresponds with the terminal block pin located closest to the base of the unit.

MR-91P088SL STATUS INDICATORS

The MR-91P088SL receiver provides the following LED status indicators to aid in installation and troubleshooting:

AUDIO TX

A green LED indicator is provided to monitor the audio coming in from the electrical interface, through the MR-91P088SL, and out onto the fiber. The intensity of this indicator will vary with input audio levels, however in typical applications it will cycle on and off as audio is transmitted. Audio transmission status associated with this LED is summarized below.

| AUDIO TX LED | Audio Status |
|--------------|--------------------------------------|
| Green | Audio Present at Proper Signal Level |
| Off | Audio Signal Not Detected |

AUDIO RX

A green LED indicator is provided to monitor the audio coming in from the fiber, through the MR-91P088SL, and out onto the electrical interface. The intensity of this indicator will vary with input audio levels, however in typical applications it will cycle on and off as audio is received. Audio received status associated with this LED is summarized below.

| AUDIO RX LED | Audio Status |
|--------------|--------------------------------------|
| Green | Audio Present at Proper Signal Level |
| Off | Audio Signal Not Detected |

VLI

A bi-color LED indicator is provided for the video output from the MR-91P088SL. 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 of the data signal that is being received at the MR-91P088SL from the MT-91P088SL or the RT-91P088SL. 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 optical data stream through the MR-91P088SL and out onto the electrical interface. 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 |

**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