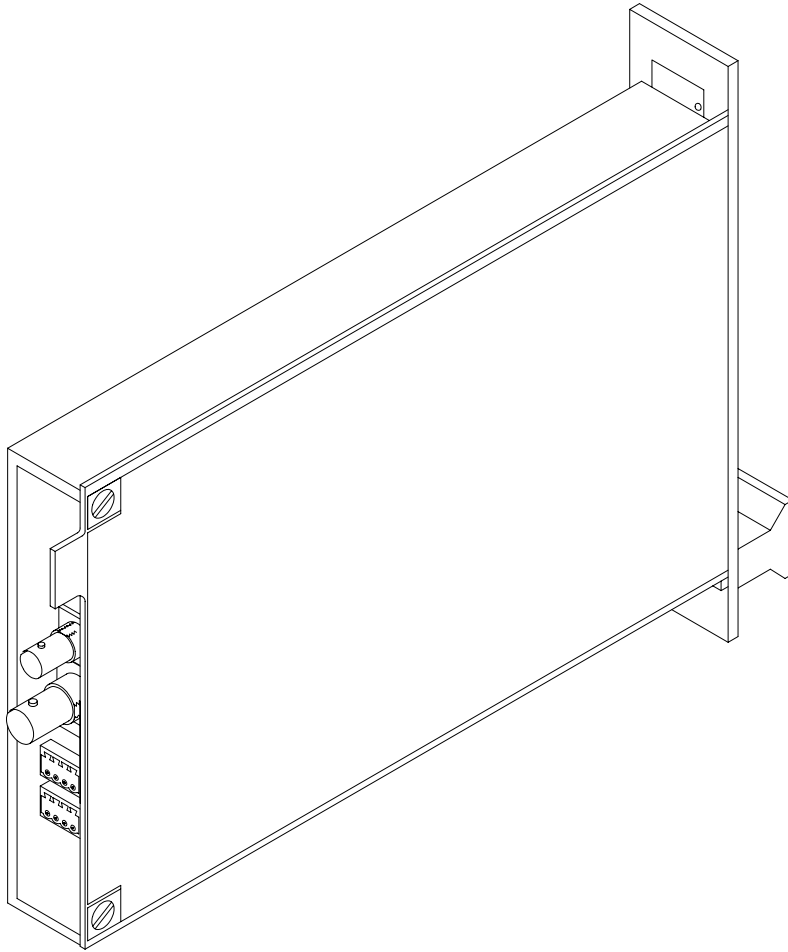


afi

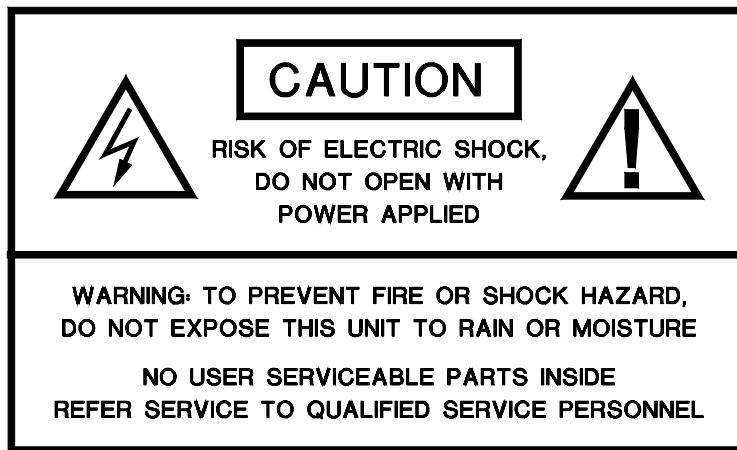
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Instruction Manual

RR-91P089 Video Receiver With Bi-directional Audio And Contact Closure



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek RR-91P089 multimode video receiver with bi-directional audio and bi-directional contact closure. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

FUNCTIONAL DESCRIPTION

The RR-91P089 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 RR-91P089 also supports one bi-directional channel of four wire audio and one bi-directional channel of contact closure. The RR-91P089 is designed to operate with the MT-91P089 or RT-91P089 video receiver over one multimode fiber optic cable.

The RR-91P089 multiplexes one audio signal and one contact closure signal into a high speed serial data stream. This serial data stream modulates a laser at 1550 nm wavelength. The RR-91P089 also detects and demultiplexes a return optical serial data stream signal containing a single video output signal along with one audio signal and one contact closure signal at 1310 nm wavelength. The 91P089 Series product is designed to operate over an optical loss budget range of 0 to 12 dB with a maximum distance of 4Km. Refer to the data sheet for detailed performance specifications.

This unit is designed for rack mounting in either of two American Fibertek subracks available. The subrack model numbers are SR-20/2 or SR-20D/2. Slide in rack mounting, detachable terminal blocks, and LED indicators provide for easy installation and monitoring of video, audio, contact closure, and optical power. The RR-91P089 is designed for rack mounting. For a modular stand alone version please see the MR-91P089.

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.

The unit slides into any open slot in the SR-20 or SR-20D subrack. Use a small screwdriver to push and lock the two ¼ turn fasteners into place.

POWER SOURCE

Power to the unit is supplied by the subrack. Please refer to the SR-20/SR-20D and PSR-2 instructions for further details.

POWER CONNECTION

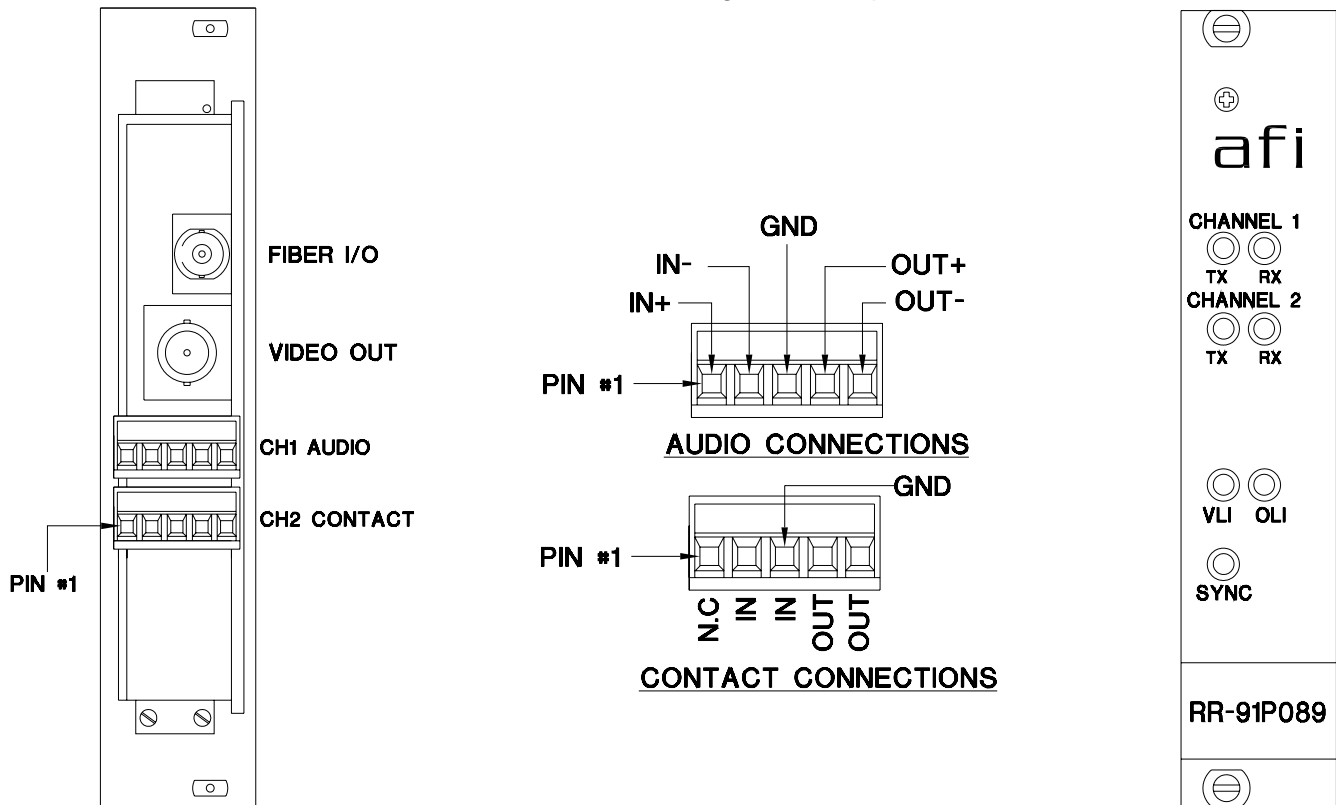
Power is supplied to the unit via a four finger backplane connector. The RR-91P089 can be inserted into the subrack or removed from the subrack with power applied to the backplane.

FIBER CONNECTION

The fiber optic connection is made via a ST connector located on the back of the unit. Be sure to allow sufficient room for the required minimum bend radius of the fiber cable used.

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 AND CONTACT INPUT / OUTPUT CONNECTIONS

Audio and contact closure input and output connections are made via terminal blocks on the back of the unit. See the drawing above for proper orientation of these connections.

RR-91P089 STATUS INDICATORS

The RR-91P089 transmitter provides the following LED status indicators to aid in installation and troubleshooting:

AUDIO/CONTACT TX

A green LED indicator is provided to monitor the audio / contact closure coming in from the electrical interface, through the RR-91P089, 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 / contact closure transmission status associated with this LED is summarized below.

AUDIO/CONTACT TX LED	Audio/Contact Closure Status
Green	Audio Present at Proper Signal Level/Contact Closed
Off	Audio Signal Not Detected/Contact Open

AUDIO/CONTACT RX

A green LED indicator is provided to monitor the audio / contact closure coming in from the fiber, through the RR-91P089, 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 / contact closure received status associated with this LED is summarized below.

AUDIO/CONTACT RX LED	Audio/Contact Closure Status
Green	Audio Present at Proper Signal Level/Contact Closed
Off	Audio Signal Not Detected/Contact Open

VLI

A bi-color LED indicator is provided for the video output from the RR-91P089. DC power and video status associated with this LED is summarized below.

Video Presence LED	DC Power Status	Video Status
Green	On	Proper Input Video Present
Red	On	Input 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 RR-91P089 from the MT-91P089 or the RT-91P089. 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 RR-91P089 and out onto the fiber. DC power and sync status associated with this LED are 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:

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120 Belmont Drive
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