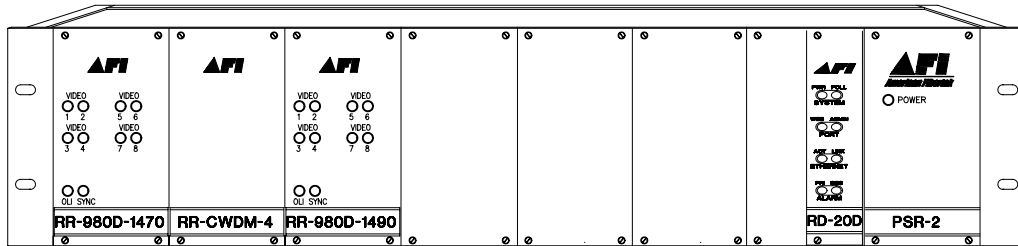
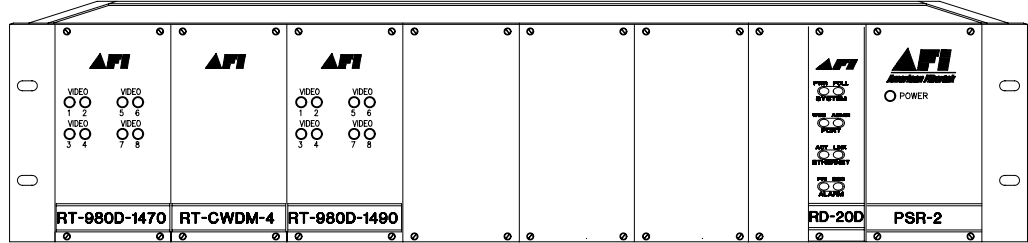




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Instruction Manual

RT-91600D-SL

RR-91600D-SL

Sixteen Channel Video Multiplexer
With Remote Diagnostic Interface

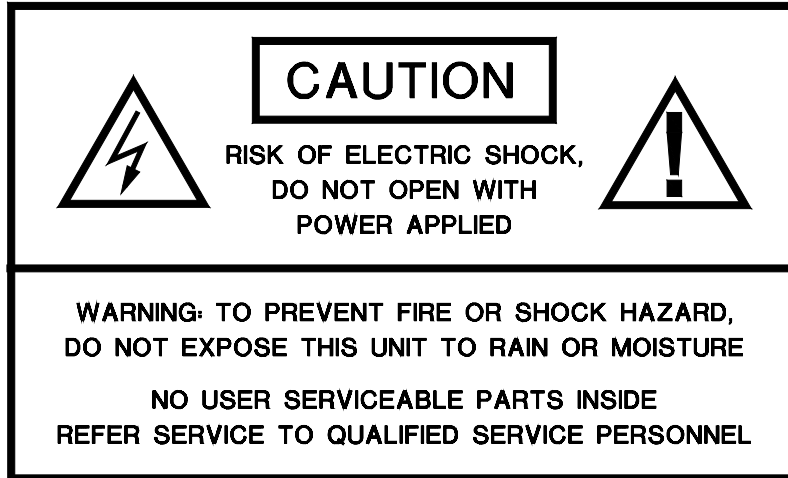


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INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek Series 91600D-SL singlemode sixteen channel video multiplexer with remote diagnostic interface. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

FUNCTIONAL DESCRIPTION

The 91600D-SL Series units operate as a transmitter / receiver pair for the transmission of sixteen high performance 10 bit digital NTSC, PAL, RS170, or RS343 video signals over one singlemode fiber optic cable.

The RT-91600D-SL transmitter accepts sixteen video inputs and multiplexes these signals onto a single optical output port for connection to the fiber transmission system. Correspondingly, the RR-91600D-SL receiver converts the optical signal to sixteen independent video output signals.

The 91600D-SL Series units operate on 9 um singlemode fiber. Refer to the data sheets for detailed performance specifications.

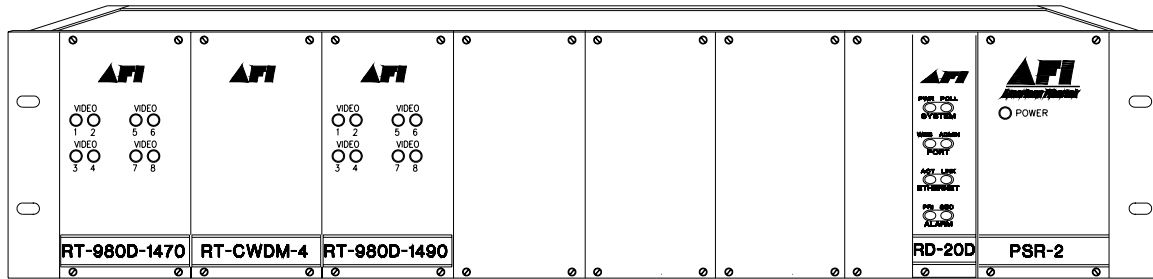
The individual components that make up the 91600D-SL series units are combined in a rack mount configuration using the SR-20D subrack. The RT-91600D-SL consists of a RT-980D-1470, a RT-980D-1490, and a RT-CWDM-4 installed in a SR-20D subrack powered by a PSR-2 supply and monitored by a RD-20D diagnostic interface module. Each 980D unit multiplexes eight video inputs onto one distinct singlemode wavelength. The CWDM-4 unit multiplexes these distinct wavelengths onto one singlemode fiber. The RR-91600D-SL consists of a RR-980D-1470, a RR-980D-1490, and a RR-CWDM-4 installed in a second SR-20D subrack powered by a PSR-2 supply and monitored by a RD-20D diagnostic interface module. Blank plates are supplied for all unused card slots.

The RD-20D diagnostic card in each subrack enables the status of the RT-91600D-SL and the RR-91600D-SL components to be monitored locally or via a remote PC. Please refer to the RD-20D installation manual for set up and operating instructions for remote status monitoring.

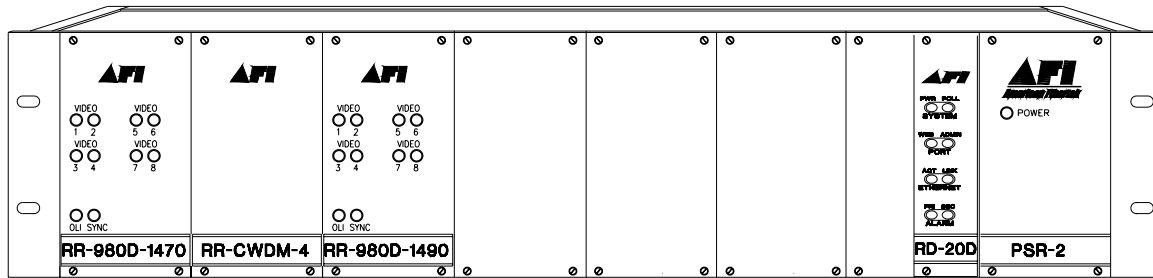
INSTALLATION

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 individual rack cards slide into any of the open slots in the SR-20D subrack. The recommended configurations are shown below. Use a small screwdriver to push and lock the ¼ turn fasteners into place.



RT-91600D-SL



RR-91600D-SL

POWER SOURCE

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

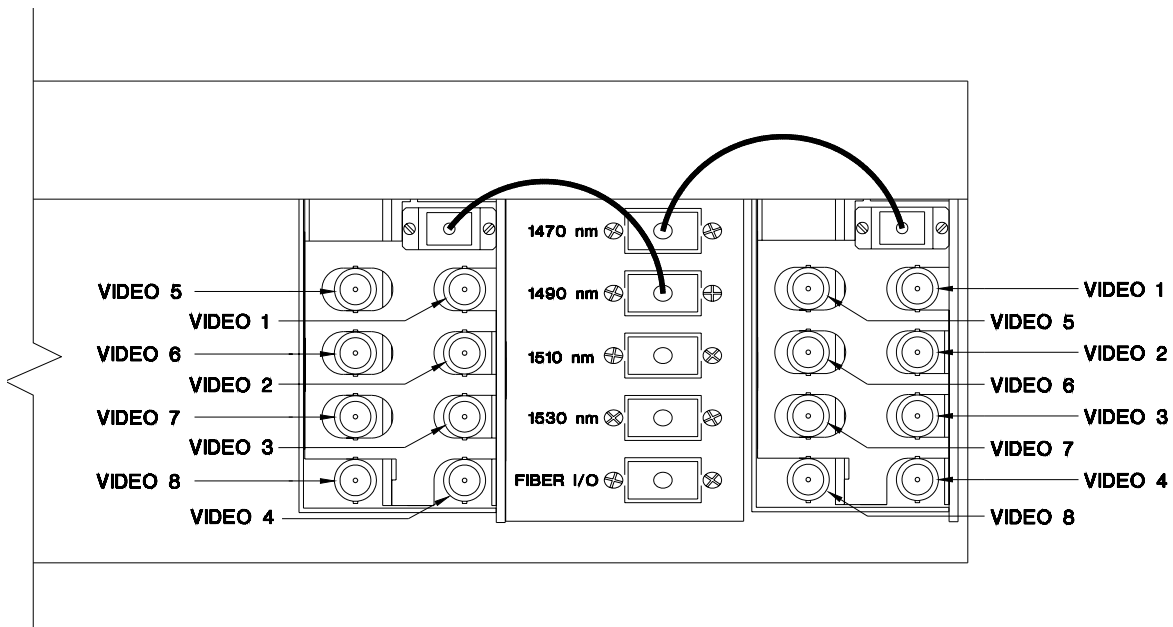
POWER CONNECTION

Power is supplied to the individual units via a four finger backplane connector. The individual components can be inserted into the subrack or removed from the subrack with power applied to the backplane.

FIBER CONNECTIONS

The RT-91600D-SL consists of two independent RT-980D series eight channel units that transmit at different wavelengths. Each eight channel transmitter has an SC fiber connector on the back of the unit. A short patchcord (supplied) connects this fiber port to the correspondingly labeled fiber port on the RT-CWDM-4 fiber multiplexer. The fiber optic connection to the site infrastructure is made via a SC connector located on the bottom of the RT-CWDM-4. Be sure to allow sufficient room for the required minimum bend radius of the fiber cable used.

Connections to the RR-91600D-SL mirror that of the RT-91600D-SL. See the drawing below for both the RT-91600D-SL and the RR-91600D-SL connections.



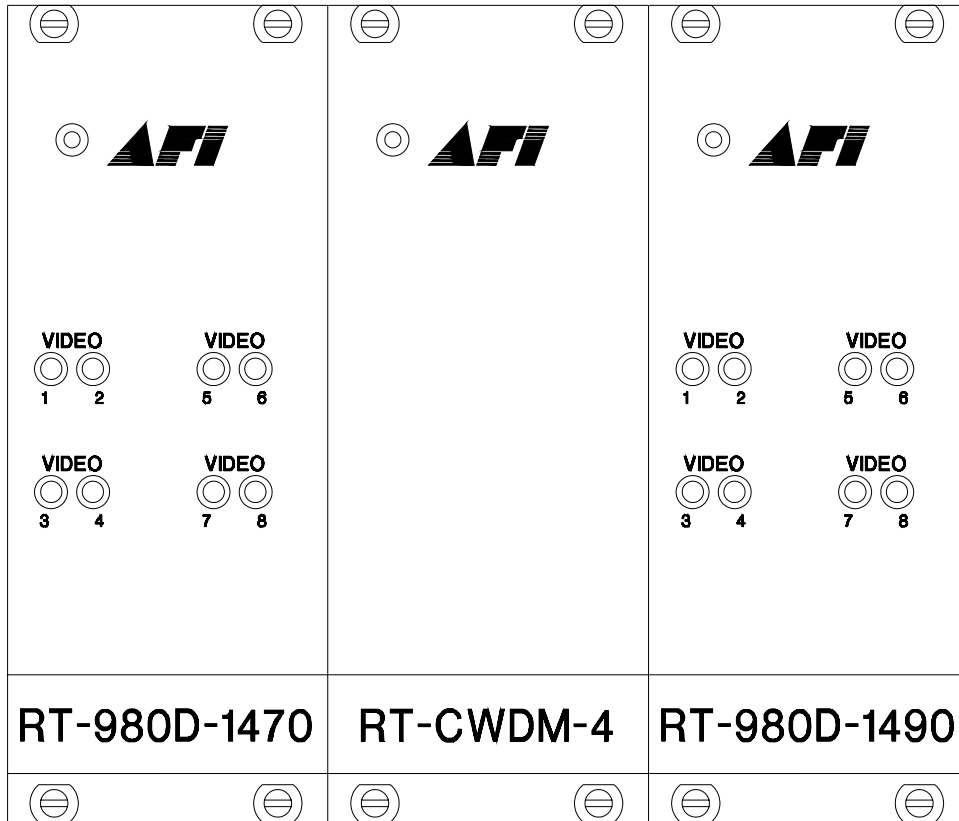
Rear View RT-91600D-SL or RR-91600D-SL

VIDEO INPUT / OUTPUT CONNECTIONS

Video input and output connections are located on the rear of the unit. A BNC connector is provided for each channel. The video inputs are connected to an appropriate 75Ω baseband video source such as a camera or a video recorder output. The 75Ω video outputs can be looped through typical baseband video inputs of switchers, recorders and other equipment as required. For proper operation, the outputs must be terminated with 75Ω . For optimum performance the video cables should be the shortest length of coax practical.

RT-91600D-SL STATUS INDICATORS

Each of the RT-980D units that comprise the RT-91600D-SL transmitter provides the following front panel LED status indicators to aid in installation and troubleshooting:



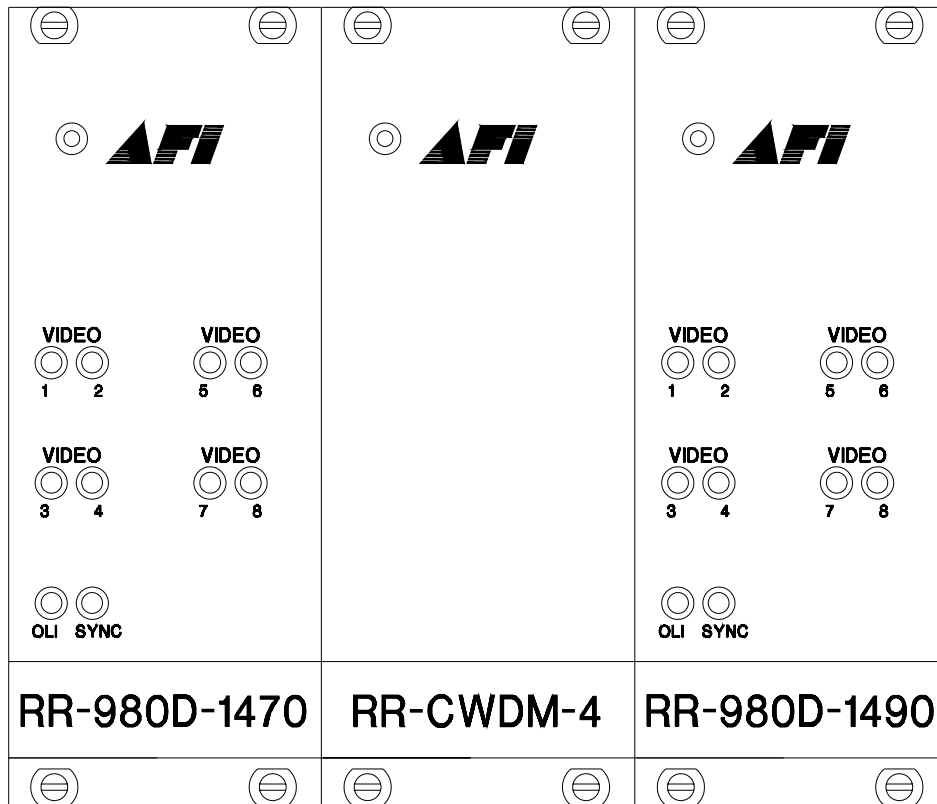
VIDEO 1 THROUGH VIDEO 8

A bi-color LED indicator is provided for each of the eight video channel inputs. DC power and video status associated with each of these LEDs are 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 Rack Card Seating

RR-91600D-SL STATUS INDICATORS

Each of the RR-980D units that comprise the RR-91600D-SL receiver provides the following front panel LED status indicators to aid in installation and troubleshooting:



VIDEO 1 THROUGH VIDEO 8

A bi-color LED indicator is provided for each of the eight video channel inputs. DC power and video status associated with each of these LEDs are 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 Rack Card Seating

OLI

A bi-color LED indicator monitors the power of the optical input signal that is being received at the RR-980D from the corresponding RT-980D of the RT-91600D-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 Rack Card Seating

SYNC

A bi-color LED indicator is provided to monitor the proper serialization of the optical data stream through the RR-980D and out onto the electronic 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 Rack Card Seating

**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

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