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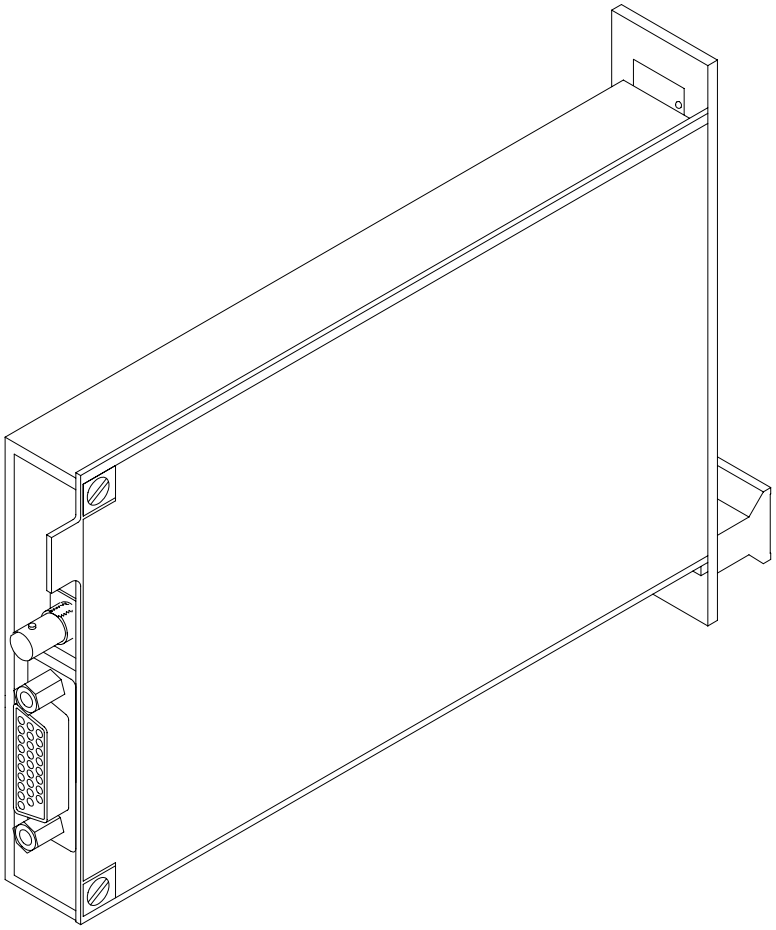
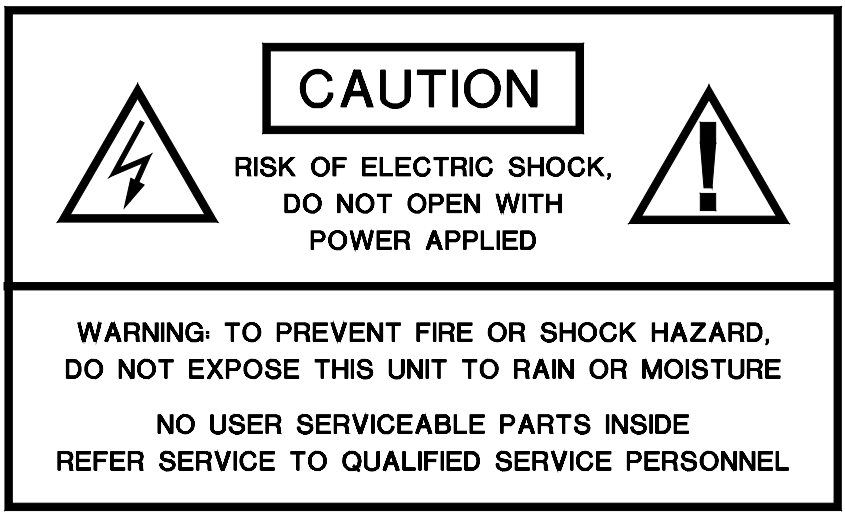


Instruction Manual

RR-81
Eight Channel
Contact Closure Receiver



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek RR-81 multimode contact closure receiver. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

FUNCTIONAL DESCRIPTION

The RR-81 operates as half of a transmitter/receiver pair for the transmission of eight dry latching contact closure signals. It is designed to operate with the MT-81 or RT-81 contact closure transmitter over one multimode fiber optic cable. The 81 series receiver has a user selectable switch that allows the contact status sent by the MT-81 or RT-81 to be maintained unchanged through loss of optical or electrical power at the receiver. Both the transmitter and receiver include a recessed button to clear all contacts to a default state.

The RR-81 converts an optical input into eight contact closure outputs using a 1310 nm wavelength detector. The 81 Series product is designed to operate over an optical loss budget range of 0 to 12 dB on 62.5 um fiber. The RT-81 operates on 50 um or 62.5 um multimode fiber. Refer to the data sheets 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 data and optical power.

The RR-81 is designed for mounting as a rack mounted unit. For a modular stand alone version please see the MR-81.

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

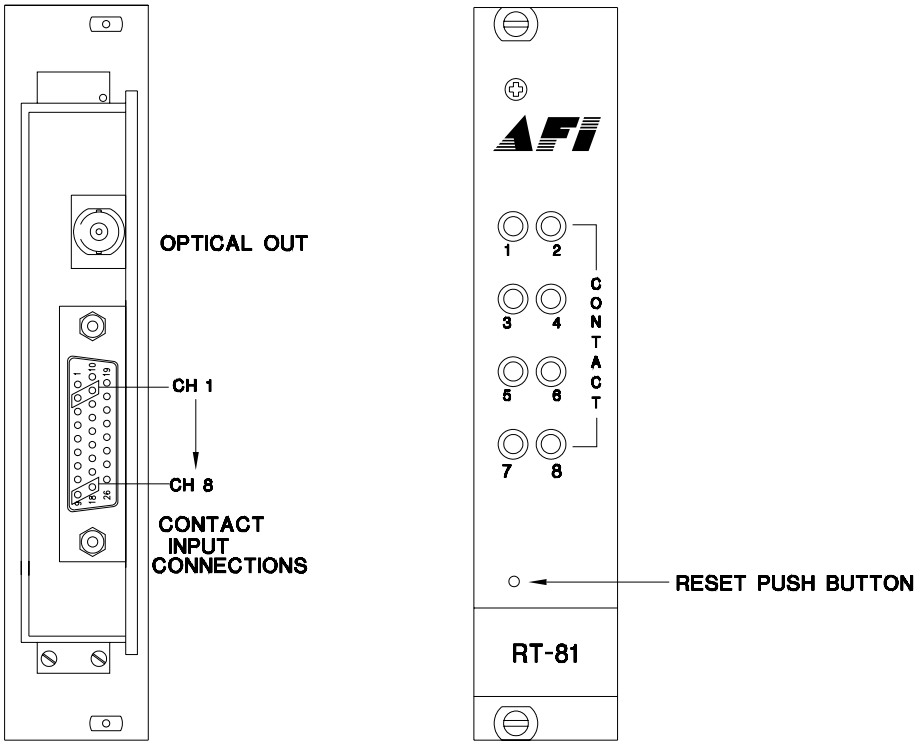
Power to the unit is supplied by the subrack. Please refer to the SR-20/SR-20D and PSR-2 instructions for further details.

POWER CONNECTION

Power is supplied to the unit via a four finger backplane connector. The RT-81 can be inserted into the subrack or removed from the subrack with power applied to the backplane.

FIBER OUTPUT CONNECTION

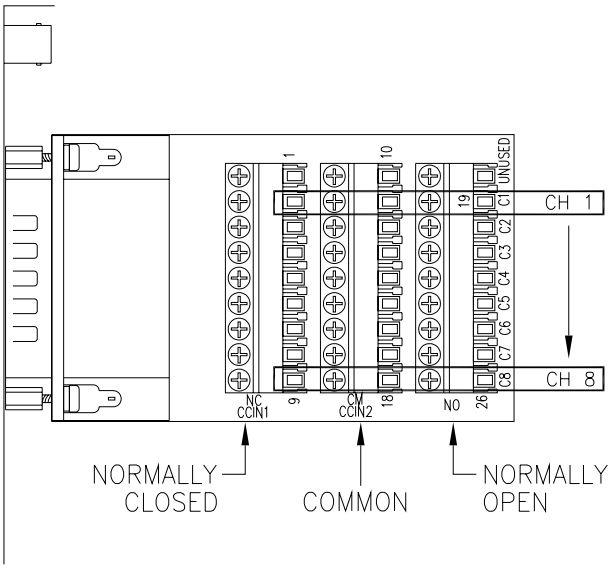
The fiber optic connection is made via a ST connector located on the back of the unit. Be sure to allow sufficient room for the required minimum bend radius of the fiber cable used.



FIBER OUTPUT CONNECTION

The optical output connection is made via a ST connector located on the back of the unit.

CONTACT CLOSURE INPUT CONNECTIONS



Contact closure output connections are made via terminal blocks attached to the right side of the unit. Please note that the three Channel 1 output connections begin at the second terminal screw closest to the fiber connection on each of the three nine pin terminal strips. Channels 2 through 8 connections continue down the terminal strip. Each channel has one common output connection that can be used with a normally closed connection or a normally open connection. For optimum performance the copper cables carrying the contact closure signal should be the shortest length of wire practical.

RESET PUSH BUTTON

A recessed momentary contact push button is located on the front of the card near the LED indicators. Pushing this button causes the RR-81 outputs to be reset to their default states.

RR-81 STATUS INDICATORS

The RR-81 provides the following LED status indicators to aid in installation and troubleshooting:

CC1 THROUGH CC8

A green LED indicator is provided for each of the contact closure inputs to the RT-81. Contact closure status associated with these LED's is summarized below.

Contact Closure LED	Contact Closure Input Status
Green	Contact Input Terminals Closed (Shorted)
Off	Contact Input Terminals Open

OLI/DC PWR

A bicolor LED indicator monitors the power of the optical signal that is being received at the RR-81 from the MT-81 or RT-81. 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

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.
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