WARRANTY

All fiber optic transmission systems, products and accessories manufactured by Liteway, Inc. and it's subsidiaries are fully tested prior to shipment and are warranted against defective materials and workmanship for a period of five full years from the date of the original shipment. Should a problem occur, a Return Material Authorization Number (RMA) must be obtained from Liteway Inc. at (516) 931-2800 and the item returned to Liteway, Inc. 166 Haverford Road, Hicksville, NY 11801, USA, prepaid. Liteway Inc. will then, at its option repair or replace the defective item.

Liteway, Inc. maximum liability under this warranty is limited to the cost of the defective item only. No contingent liabilities of any kind are either assumed or implied.

Any items returned to Liteway, Inc. that have been misused, abused, damaged, modified, connected or adjusted in any way contrary to the instructions furnished by Liteway, Inc. or repaired by unauthorized personnel will not be covered by this warranty. Any non-warranty repairs required will be quoted at the current rate for such services.

Important Notices

CAUTION ! AVOID DIRECT EXPOSURE TO BEAM.

All –5, -7, -8, and -9 Models use laser diodes. These solid-state laser diodes are located in the optical ports of these units. Laser diodes produce invisible radiation that may be harmful to human eyes. Never look directly into the optical port of any fiber optic unit designed to operate with single-mode optical fiber.

NOT FOR LIFE SUPPORT SYSTEMS

Liteway, Inc. does not authorize or warrant any of its products or accessories for use in critical life support systems or applications of any kind.

110458 Rev Q

OPERATING INSTRUCTIONS

LuxLink®
Optical Bypass Switch

Single Channel Model
OS-3121

Dual Channel Model
OS-3221

The OS-3121 is a "fiber optic relay" that can be remotely controlled. The optical path through the units is purely optical. There is no optical to electrical to optical conversion. As a result, there is no data rate limitation or bandwidth limit on the fiber optic path. In addition, since the optical signal is not demodulated the optical data is totally secure. The optical path can be select via a front panel switch or via contact closure input. In event of loss of power, the unit has a fail safe mode that opens the switch. Common applications for this device are optical routing, system bypass, ring network restoration, and loop-back testing.

Technical Specifications

Switching Time	< 10 ms
Back Reflection	< -50 dB
Insertion Loss	< 1.3 dB
Cross-talk	< -50 dB
Mechanical Life	> 1 Million cycles
Electrical Connector	5 pin removable terminal block
Temperature Range	0º to +70ºC
Operating Power Requirements	11-24 VAC/DC @150 mA -48 VDC (+/-2) for OS-1202, OS-2202
Physical Size (mm) single	5.0"(127)L x 1.0" (25.4)W x 3.0"(7)D
Physical Size (mm) dual	5.0"(127)L x 2.2" (56.6)W x 3.0"(7)D

Models, wavelength, connector

-3 = 850/1310nm Multimode ST/PC, -35=50 micron fiber (mm)	-4 = 850/1310nm Multimode-SC/PC
-5 = 850/1310nm Single-mode SC/PC	-7 = 1310/1550nm Single-mode FC/PC

Specifications are subject to change without prior notice.

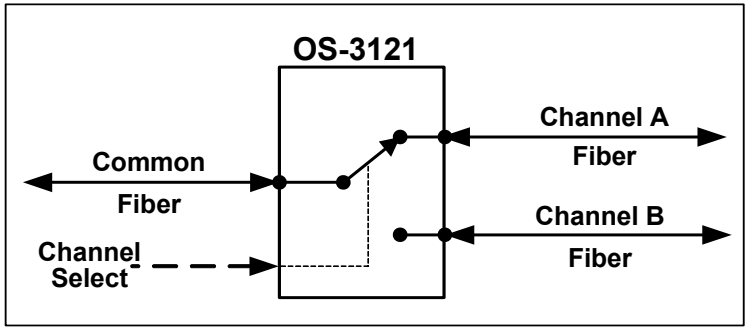
LuxLink®
Fiber Optic Transmission Systems

www.LuxLink.com
USA 516-931-2800

Installation Instructions

Common applications for this device are optical routing, system bypass, ring network restoration, and loop-back testing.

The diagram below shows the typical application of the OS-3121. Note that the OS-3221 is essentially two OS-3121 units in parallel and in one housing.



The OS-3121 switch will go into the B=C state under any of the following conditions:

1) There is a loss of electrical power
2) The front panel mode switch is put into the B=C position and there is electrical power present.
3) The rear panel control signal is grounded, there is electrical power present and the front panel mode selector switch is in the A=C position or the center position of versions with a three position mode selector switch.

Power Signal Terminal Block Connections

Pin	Label	Function
1	Pwr+	Power + (see below for voltage)
2	Pwr-	Power – (see below for voltage)
3	Ctl	Control Signal (Connected to ground to place switch in bypass state)
4	Alm	Alarm* = Gnd when optical switch is in a B=C state = Open when optical switch is in A=C state
5	Gnd	Ground

* Note that the Alarm signal can be used with a *Liteway Inc.* ALM-1000 unit to provide an audible alarm and external dry contacts for remote monitoring.

Power Pins Voltages

Pin	Models OS-1002 OS-2002	Models OS-1202 OS-2202
Pwr +	+11-24 Volts AC/DC	Ground
Pwr -	Ground	-48 Volts DC (+/- 2.0 Volts)

Indicator Lights

Indicator	Lights when
Power	Proper power is present
A=C	Optical Port A is routed to optical port C.
B=C	Optical Port B is routed to optical port C.

Front Panel Mode Selector Switch

Position	Function
A=C	Optical port A is routed to optical port C
B=C	Optical Port B is routed to optical port C

To use the remote control signal feature the front panel mode selector switch should be put into the A=C position. When this is done, connecting pin 3 of the power signal terminal block to pin 5 will force the unit to revert to the B=C state as long as the connection is maintained.

Note that some versions of these optical switches have a 3-position front panel mode selector switch. If this is present then the remote control feature will only operate when the front panel mode selector switch is in the center ("AUTO" or 'RMT") position.

Optical Connector Considerations

Note that for all dual channel models output connector C is the common fiber for each channel, output connector A is the channel A fiber for each channel and output connector B is the channel B fiber for each channel. For LC versions connector D is not used.

Also note that the -35 suffix in the part number, when used, signifies that the unit is intended for use with 50 micron multimode fiber and ST optical connectors.