



**Market Central<sup>®</sup>**

[www.secureswitch.com](http://www.secureswitch.com)

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**Data DeadBolt<sup>®</sup>  
Non-latching Fiber Optic  
A/B Switch**

*The ORIGINAL fiber optic switch with micro-mirror optical movement  
Two decades of reliable service and ready for the future  
Still available exclusively from the leader in fiber optic switches*



**Model 5100610**

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## 1. Specifications

**Connectors** - (4 pairs) ST, (1) 3.5-mm power input **Also available with SC connectors**

**Data Rates** - Transparent to signal rates, wavelengths, & formats

**Switching Speed** - less than 1 sec typical

**Sensitivity** - 750 to 1450 nanometers

**Optical Loss** - less than 3.0 dB typical per FOTP-171 method B1

**Compatibility** - 62.5/125  $\mu\text{m}$  multimode fiber

**Crosstalk** – less than -45 dB typical per FOTP-42

**Grounding** - None required

**Approvals** - UL and CE (power supply)

**Operating Temperature** - 14 to 149°F (-10 to +65°C)

**Relative Humidity Tolerance** -  
10 to 95%, noncondensing

**Mean Time Between Failures** -  
100,000 hours or 1,000,000 cycles

**Power** - 120 VAC, 60 Hz wallmount power supply,  
9 VDC output.

**Size** - 2.5”H x 8”W x 6.3”D (6.4 x 20.3 x 16 cm)

**Weight** - 4 lb. (1.8 kg)

## 2. Introduction

The Non-latching Fiber Optic A/B Switch is a full-duplex optical switch. It's used to connect one workstation between two networks or remote devices.

The switch uses an internal mirror to switch between ports. The mirror directs a light beam from Port C to Port A or Port B. There's no optical-to-electrical conversion between the fiber optic connections. The mirror movements DO NOT latch mechanically into the selected position and fall back to the C-to-A connection when power is lost or removed. The C-to-A

optical paths will continue to pass data when power is absent. A second power supply is optional for redundancy.

### **3. Installation**

Place the switch in a location relatively free from vibration and mechanical disturbances.

Connect the workstation to Port C. Connect one remote device to Port A another to Port B and third to Port C. You can leave one port unconnected and use it as an OFF position if your application does not presently require a third connection that may be planned. Note that the switch supports separate transmit and receive paths, so you must be consistent when connecting the fiber pairs to the switch.

### **4. Operation**

Operation is easy. Simply turn the knob on the switch front panel to route the signals.

Turning the knob to “A” will route signals from the workstation to the first remote device or network (Port A). Selecting “B” routes the signals from the workstation to the Port B.

The switch uses an internal mirror to switch between ports. The mirror directs a light beam from Port C to Port A, or Port C to Port B. There’s no optical-to-electrical conversion between the fiber optic connections. The mirror movement latches mechanically into the selected position and holds it without a need for continuous electrical power, though the power supply is designed for continuous operation. A second power supply is optional for redundancy.

### **5. Troubleshooting**

#### **5.1 Calling Your Supplier**

If you determine that your Secure Fiber Optic A/B/C Switch with OFF

Position is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts.

Contact Market Central, Inc. at (412) 494-2800

Before you do, make a record of the history of the problem. Your supplier will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular applications that, when used, appears to create the problem or make it worse.

## **5.2 Shipping and Packaging**

If you need to transport or ship your switch:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the switch for repair, make sure you include everything that came in the original package. Before you ship, contact Market Central, Inc. to get a Return Materials Authorization (RMA) number.

### **MARKET CENTRAL, INC.**

#### **WARRANTY AND LIMITATION OF LIABILITY**

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