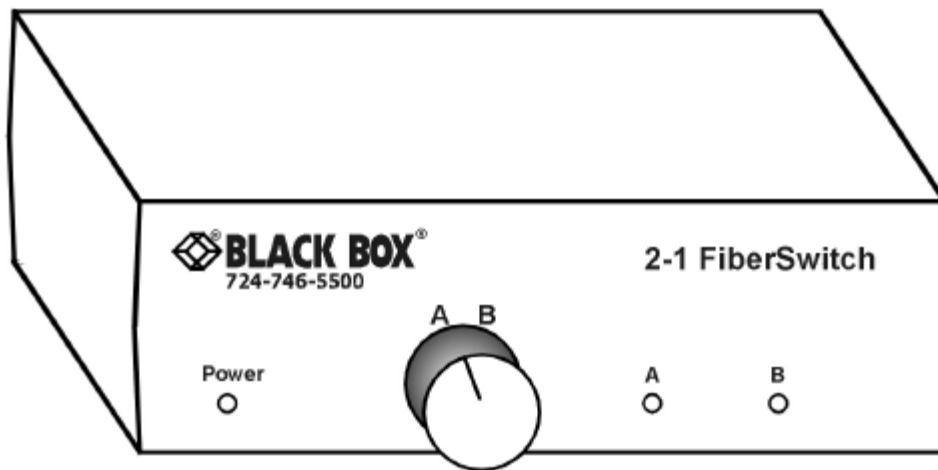




SEPTEMBER 2002
SW459A-ST
SW459A-SC

2-1 FiberSwitch



CUSTOMER SUPPORT INFORMATION Order toll-free in the U.S. 24 hours, 7 A.M. Monday to midnight Friday: **877-877-BBOX**
FREE technical support, 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**
Mail order: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018
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**FEDERAL COMMUNICATIONS COMMISSION
AND
CANADIAN DEPARTMENT OF COMMUNICATIONS
RADIO FREQUENCY INTERFERENCE STATEMENTS**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par le ministère des Communications du Canada.

**NORMAS OFICIALES MEXICANAS (NOM)
ELECTRICAL SAFETY STATEMENT**

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua. Por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. ServicioCEI usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.

17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

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1. Specifications

Compliance	FCC Part 15 Subpart J Class A Entela Certified to UL Safety Standard 60950
Interfaces	Comply with FDDI PMD and LCF-PMD Standards Comply with ATM 100Mbps Physical Layer Comply with 100 Base-FX Version of IEEE 802.3u Choice of Duplex ST or Duplex SC Connectors
Controls	Rotating Knob to manually select Segments A or B
Indicators	Green LED for DC Power LED, Yellow LED for each Segment A and B
Power	Requires use of +5VDC 2.4Amp external supply provided with unit. Connect to earth grounded 100-240VAC 47-63Hz outlet. Consumption: ~3 Watts
Size	6.5"W x 5.0"D x 2.25"H
Weight	1.25 lbs.
Temp.	0 ^N to 70 ^N C (32 ^N to 158 ^N F)
Humidity	20% to 80% non-condensing

2. Introduction

The 2-1 FiberSwitch is a manual switching device that enables a fiber-based network resource to be alternately connected to two separate 10/100Mbps multimode 1300nm fiber optic segments. It can be used, for example, to attach a workstation to different LAN segments, to manually engage backup resources, reroute traffic, or physically isolate selected links. With its integral fiber optic transceivers, the FiberSwitch can also serve as a common repeater for increasing transmission distances beyond 2000 meters.

NOTE

Ensure that any applicable repeater rules are followed when configuring networks with the 2-1 FiberSwitch.

The 2-1 FiberSwitch is available in two models for cable segments using ST or SC style fiber connectors. Supported network protocols include ATM, Fast Ethernet 100 Base-FX and FDDI. A traditional rotary style switch with LED indicators is used to select and confirm the desired segment pairing.

3. Installation & Operation

The 2-1FiberSwitch is to be used only with the 5.0 Volt DC power supply provided with the unit. (Condor Model DSA-0151D-05). This power supply satisfies the applicable UL safety standard 60950 that requires isolation from the AC power source as well as proper grounding. To install the 2-1 FiberSwitch, simply insert the small barrel connector from the DC supply into the mating receptacle on the rear panel and then connect the power supply to AC power using the provided cord.

There are three multimode fiber duplex connectors on the rear panel of the 2-1 FiberSwitch labeled as follows: [TXA RXA], [TXB RXB], and [TXC RXC]. The connector types will be either ST or SC style depending on the particular model purchased. [TXC RXC] is always used for the common device that will be alternately attached to either the AA@ or AB@ segments. The knob on the front panel is used to select which of these two segments, A or B, will be connected to C.

NOTE

In a duplex fiber networking system, one element is used for transmitting data and the other for receiving data. Make sure that the element carrying data transmitted FROM the remote device TO the FiberSwitch is connected to the ARX@ side of each duplex connector. The other element would then connect to the ATX@ side of the duplex connector.

4. Troubleshooting

4.1 Calling Black Box

If you determine that your 2-1 FiberSwitch is malfunctioning, do not attempt to alter or repair the unit. It has no user-serviceable parts. Contact Black Box Technical Support at 724-746-5500.

Before you do, make a record of the history of the problem. We 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 equipment involved in the problem;
- any particular application that, when used, appears to create the problem or make it worse; and
- the results of any testing you've already done.

4.2 Shipping and Packaging

If you need to transport or ship your 2-1 FiberSwitch:

- Package it carefully. We recommend that you use the original container.
- If you are returning the unit, include everything you received with it. Before you ship the unit back to Black Box for repair or return, contact us to get a Return Materials Authorization (RMA) number.



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