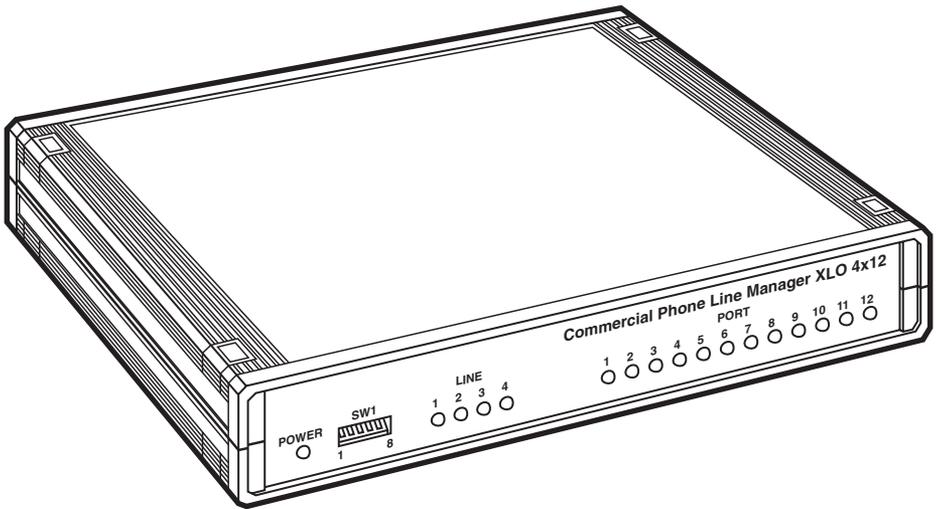




# Plug and Play Commercial Phone Line Manager XLO (Outgoing Only): 4 x 12; 8 x 24; 12 x 36; 16 x 48



**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  
Web site: [www.blackbox.com](http://www.blackbox.com) • E-mail: [info@blackbox.com](mailto:info@blackbox.com)

**FEDERAL COMMUNICATIONS COMMISSION  
AND  
INDUSTRY CANADA  
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 J 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 Industry Canada.*

*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 Industrie Canada.*

## FCC REQUIREMENTS FOR TELEPHONE-LINE EQUIPMENT

1. The Federal Communications Commission (FCC) has established rules which permit this device to be directly connected to the telephone network with standardized jacks. This equipment should not be used on party lines or coin lines.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until the repair has been made. If this is not done, the telephone company may temporarily disconnect service.
3. If you have problems with your telephone equipment after installing this device, disconnect this device from the line to see if it is causing the problem. If it is, contact Black Box or an authorized agent.
4. The telephone company may make changes in its technical operations and procedures. If any such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes.
5. If the telephone company requests information on what equipment is connected to their lines, inform them of:
  - a. The telephone number that this unit is connected to.
  - b. The ringer equivalence number.
  - c. The USOC jack required: RJ-11C.
  - d. The FCC registration number.

Items (b) and (d) can be found on the unit's FCC label. The ringer equivalence number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

6. In the event of an equipment malfunction, all repairs should be performed by Black Box or an authorized agent. It is the responsibility of users requiring service to report the need for service to the supplier or to an authorized agent.

## **CERTIFICATION NOTICE FOR EQUIPMENT USED IN CANADA**

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications-network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly (extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility—in this case, Black Box. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

### **CAUTION:**

**Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.**

The LOAD NUMBER (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices, subject only to the requirement that the total of the load numbers of all the devices does not exceed 100.

**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. Servicio—El 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 connectado 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 fisica 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 pellizados 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 lineas de energia.
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 liquidos 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.

### **TRADEMARKS**

The trademarks mentioned in this manual are the sole property of their owners.

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# 1. Specifications

**User Connections** — All models: Mini jack for power supply;  
FX6412OA: (4) RJ-11 modular jacks for telephone lines, (12) RJ-11 modular jacks for industry-standard telephone devices;  
FX6824OA: (8) RJ-11 modular jacks for telephone lines, (24) RJ-11 modular jacks for industry-standard telephone devices;  
FX1236OA: (12) RJ-11 modular jacks for telephone lines, (36) RJ-11 modular jacks for industry-standard telephone devices;  
FX1648OA: (16) RJ-11 modular jacks for telephone lines, (48) RJ-11 modular jacks for industry-standard telephone devices

**Indicators** — FX6412OA: (4) telephone line-in-use LEDs, (12) industry-standard telephone device-in-use LEDs, (1) Power-on LED; FX6824OA: (8) telephone line-in-use LEDs, (24) industry-standard telephone device-in-use LEDs, (1) Power-on LED; FX1236OA: (12) telephone line-in-use LEDs, (36) IST device-in-use LEDs, (2) Power-on LEDs; FX1648OA: (16) telephone line-in-use LEDs, (48) IST device-in-use LEDs, (2) Power-on LEDs

**Compliance** — FCC Part 68 registered; FCC Part 15 registered; Ringer Equivalence 0.7B; UL listed 81J1, E81356, CSA power supply

**Power** — Wallmount AC adapter; 9V, 1 A, 115 VAC, 60 Hz; UL® and CSA

## NOTE

**12 x 36 and 16 x 48 Phone Line Manager models use two power supplies.**

**Size** — FX6412OA: 2.45"H x 11.45"W x 10.2"D (6.2 x 29.1 x 25.9 cm);  
FX6824OA: 4.25"H x 11.45"W x 10.2"D (10.8 x 29.1 x 25.9 cm);  
FX1236OA: 5.25"H x 19"W x 10.2"D (13.3 x 48.3 x 25.9 cm);  
FX1648OA: 7"H x 19"W x 10.2"D (17.8 x 48.3 x 25.9 cm)

**Weight** — FX6412OA: 5 lb. (2.3 kg);  
FX6824OA: 8 lb. (3.6 kg);  
FX1236OA: 11 lb. (4.9 kg);  
FX1648OA: 14 lb. (6.4 kg)

## 2. Introduction

### 2.1 Description

The Plug and Play Phone Line Manager XLO is designed to allow a company to use the smallest number of outgoing telephone lines required to support the maximum number of industry-standard telephone (IST) devices. An IST is any type of telecommunications device that works on a standard telephone-company telephone line, such as modems, fax machines, fax/modems, credit-card terminals, etc. The Plug and Play Phone Line Manager XLO can save a company hundreds to thousands of dollars per year in telephone line installation costs and recurring monthly line charges.

The Plug and Play Phone Line Manager XLO can work with any type of standard telephone line—POTS (Plain Old Telephone Service), Centrex, touch-tone or rotary. Any industry-standard telephone device can function on the Phone Line Manager as if it were on its own dedicated line. The Phone Line Manager can connect directly to dedicated telephone lines, use a minimum number of outgoing telephone lines with any type of telephone system, or share industry-standard telephone extensions on any telephone system.

The Plug and Play Phone Line Manager XLO 4 x 12 can support up to twelve (12) IST devices and four (4) telephone lines. The Plug and Play Phone Line Manager XLO 8 x 24 can support up to twenty-four (24) IST devices and eight (8) telephone lines. The Plug and Play Phone Line Manager XLO 12 x 36 can support up to thirty-six (36) IST devices and twelve (12) telephone lines. The Plug and Play Phone Line Manager XLO 16 x 48 can support up to forty-eight (48) IST devices and sixteen (16) telephone lines.

The Plug and Play Phone Line Manager XLO is an electronic switch and has been designed for durability and ease of maintenance, but some care should be taken when handling it. Do not expose the Phone Line Manager to high humidity or extreme electrical fields. As with all electronic devices, you should take precautions against static electricity.

The Plug and Play Phone Line Manager XLO is designed for analog telephone line switching in the U.S. and Canada only. The switching is accomplished using metallic contacts to ensure no degradation of the signal, for any suitable application. You can be sure that any device that works directly with an analog phone line will work equally well through the Plug and Play Phone Line Manager XLO.

## 2.2 Unpacking

Verify that your package includes the following items:

- Plug and Play Phone Line Manager XLO 4 x 12, 8 x 24, 12 x 36 (includes one 4 x 12 and one 8 x 24), or 16 x 48 (includes two 8 x 24 units)
- Wallmount AC adapter (12 x 36 and 16 x 48 models supplied with two adapters)
- Rubber feet and hook & loop fastener
- This user manual

FX1236OA and FX1648OA will also include:

- One 11.45" x 10.2" black finished steel 0.090" shelf
- One 19" W black finished steel 0.125" shelf faceplate
- Four truss-head screws, 10-32,  $\frac{3}{8}$ " long
- Six truss-head screws, 10-32,  $\frac{1}{2}$ " long
- Four nylon insert nuts, 10-32
- Shelf assembly instructions

If anything is missing, please contact Black Box immediately.

## 3. Installation

Before installing the Plug and Play Phone Line Manager XLO, select an appropriate location away from direct sources of heat or cold. The Plug and Play Phone Line Manager XLO can be stacked on a desk or table, or mounted vertically on a wall. Typically, the Plug and Play Phone Line Manager XLO is located in the same area as other computer network or telephone equipment. All device and power connections are made in the rear of the unit. ***Do not connect lines to or disconnect them from the Plug and Play Phone Line Manager XLO while power is on.***

The 12 x 36 Phone Line Manager and 16 x 48 Phone Line Manager units mount in a 19" rack. First, locate the four pre-drilled holes in the bottom of the faceplate and front of the shelf. Align the faceplate holes with the shelf holes and then insert the screws through the holes. Place the nylon insert nuts onto the back of the screws. Tighten the screws until hand-tight. You can now mount the shelf in a standard 19" rack using the supplied 10-32, ½" long truss-head screws. Once the shelf is mounted, you can place the Phone Line Manager units onto the shelf with front panel LEDs facing forward or with the RJ-11 connectors facing forward for patch-panel applications.

We have included both self-adhesive feet and an adhesive-backed hook & loop fastener. The feet are useful when the unit will be resting on a flat surface. The hook & loop fastener is useful when mounting the unit to a wall or other vertical surface. You can also use the hook & loop fasteners to provide rackmount stability between the two units in the 12 x 36 and 16 x 48 models. To use the hook & loop fastener, keep the hook and loop halves together while peeling the plastic backing from one side and stick it to one of the bottom corners of the unit. Repeat the process for all four corners. Now peel the remaining plastic backing from the hook and loop halves. Carefully line the Plug and Play Phone Line Manager XLO up where you want to mount it and press the unit firmly to the mounting surface. Once installed using the hook & loop fastener, the unit may be removed from the mounting surface by grasping the unit and pulling firmly away from the mounting surface. To remount, align the hook & loop halves together and press firmly together.

**3.1 Connecting the Telephone Lines and IST Devices****NOTE**

In the following description and throughout this manual, the first number listed refers to the LINE and IST Ports available on the Plug and Play Phone Line Manager XLO 4 x 12. The second number (listed in parentheses) refers to the LINE and IST Ports available on the Plug and Play Phone Line Manager XLO 8 x 24. The 12 x 36 model is actually a 4 x 12 Phone Line Manager and an 8 x 24 Phone Line Manager. The 16 x 48 model is actually two 8 x 24 Phone Line Managers. The 12 x 36 and 16 x 48 models can be used as two separate Phone Line Manager units or networked together as explained in Section 3.1.1, *Networking Multiple Phone Line Manager Units Together*.

Connect your telephone lines to the LINE Ports numbered 1 through 4 (8), starting with LINE Port 1. If connecting fewer than 4 (8) lines, leave the higher-numbered LINE Ports unconnected. Similarly, connect the RJ-11 modular line cords from your IST devices to the desired IST Ports, starting with IST Port 1. If connecting fewer than 12 (24) IST devices, leave the higher-numbered IST Ports unconnected.

**Table 3-1. Primary Outgoing Connections.**

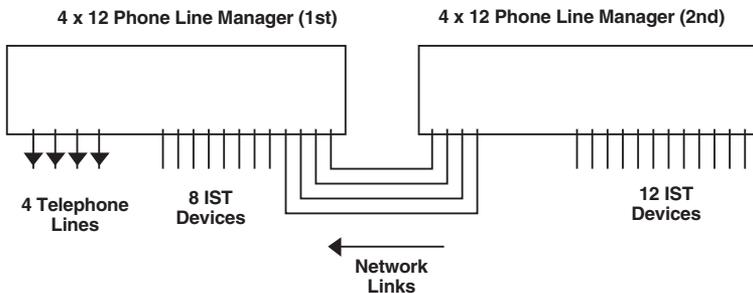
<b>4 x 12 Model LINE Port</b>	<b>IST Port</b>	<b>8 x 24 Model LINE Port</b>	<b>IST Port</b>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
		5	13
		6	14
		7	15
		8	16

### 3.1.1 NETWORKING MULTIPLE LINESHARE UNITS TOGETHER

The Phone Line Managers can be networked together to provide additional IST device ports, telephone line ports, or both. The networking method you choose will depend on the quantity of IST devices, the telephone line use, and the application. Please note that the following examples use 4 x 12 units. The same connections apply to 4 x 12 or 8 x 24 units. If you have further questions about a networking application or need assistance in setting the DIP switches on the Phone Line Manager in a networked application, please contact Black Box Technical Support at 724-746-5500.

#### *Example #1: Providing Additional IST Device Ports*

When an application requires more IST ports than one Phone Line Manager can provide, two or more Phone Line Manager units can be networked together, by connecting IST ports on the first Phone Line Manager to the line ports on the second Phone Line Manager. Providing more than one networking connection between the two Phone Line Manager units will permit more than one IST device on the second Phone Line Manager to simultaneously access the telephone lines on the first Phone Line Manager. A 3 to 1 ratio of devices to lines is typical. Your particular application may be different. The goal is to be able to provide dial tone and outbound call capability to all outbound IST devices. Networking two 4 x 12 units together in this manner will effectively create a 4 x 20 Phone Line Manager. Networking two 8 x 24 Phone Line Managers together will create an 8 x 40 Phone Line Manager, while networking three 8 x 24 Phone Line Managers together will create an 8 x 56 Phone Line Manager.



**Figure 3-1. 4 x 20 Network Application.**

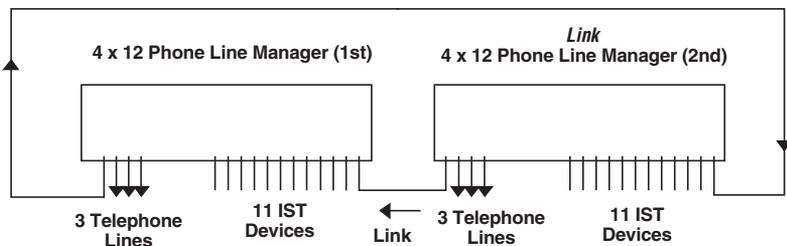
## PLUG AND PLAY PHONE LINE MANAGER XLO (OUTGOING ONLY)

In the previous example, IST devices on the first and the second Phone Line Manager will have equal outbound access to the four telephone lines since four network links have been provided.

### *Example #2: Providing Additional Line Ports and Device Ports*

If the quantity of telephone lines and IST devices that are required for your application exceeds the capacity of one Phone Line Manager, then two or more Phone Line Manager units can be “networked” together. In this application, to increase the Phone Line Manager capacity to handle the quantity of lines and device ports you need, connect one half of the telephone lines to the first Phone Line Manager and the other half of the telephone lines to the second Phone Line Manager while leaving at least one Line port and one IST port open on each Phone Line Manager for networking. By connecting Line Port #1 on the first Phone Line Manager to the last IST port on the second Phone Line Manager and by connecting Line Port #1 on the second Phone Line Manager to the last IST port on the first Phone Line Manager, an outgoing call from any IST port can access the telephone lines on any networked Phone Line Manager.

Networking two Phone Line Manager units together in this manner will allow an IST device to search and gain access to an available telephone line connected to either Phone Line Manager. Networking two 4 x 12 units together will effectively create a 6 line x 22 IST port Phone Line Manager. Networking two 8 x 24 Phone Line Managers together will create a 14 x 46 Phone Line Manager, while networking three 8 x 24 units will create a 21 x 69 Phone Line Manager.



**Figure 3-2. 6 x 22 Networked Application.**

In the previous example, IST devices on the first and the second Phone Line Manager will have equal outbound access to the three telephone lines on their own Phone Line Manager. The fourth outbound call will be networked to the other Phone Line Manager and have access to those three telephone lines over the network link that is provided.

The RJ-11 jacks on the back panel labeled DATA are for field service and diagnostic use only, and should be left unconnected in the Plug and Play Phone Line Manager XLO setup.

### 3.2 Setting the Switches

**Table 3-2. SW1 Configuration**

	<b>Ln 1 SW1-1</b>	<b>Ln 2 SW1-2</b>	<b>Ln 3 SW1-3</b>	<b>Ln 4 SW1-4</b>	<b>Ln 1 SW1-5</b>	<b>Ln 2 SW1-6</b>	<b>Ln 3 SW1-7</b>	<b>Ln 4 SW1-8</b>
Line Present	ON	ON	ON	ON				
Ln Not Present	OFF	OFF	OFF	OFF				

**Table 3-3. SW2 Configuration**

	<b>Ln 5 SW2-1</b>	<b>Ln 6 SW2-2</b>	<b>Ln 7 SW2-3</b>	<b>Ln 8 SW2-4</b>	<b>Ln 5 SW2-5</b>	<b>Ln 6 SW2-6</b>	<b>Ln 7 SW2-7</b>	<b>Ln 8 SW2-8</b>
Line Present	ON	ON	ON	ON				
Ln Not Present	OFF	OFF	OFF	OFF				

## PLUG AND PLAY PHONE LINE MANAGER XLO (OUTGOING ONLY)

The Line Present/Not Present settings determine which of the lines are checked for purposes of outgoing line access. When a device connected to an IST Port goes off-hook, the Plug and Play Phone Line Manager XLO will search for an available line. The Line Present/Not Present settings determine which of the lines are checked for purposes of outgoing line access. When a device connected to an IST Port goes off-hook, the Plug and Play Phone Line Manager XLO will search for an available line. The Phone Line Manager always searches the higher-numbered LINE Ports first. Example: If four (4) lines are connected to the Phone Line Manager, the Phone Line Manager will check LINE Port 4 first, then LINE Port 3, then LINE Port 2, etc. The only exception to this is the first IST Ports (those IST Ports that have a corresponding line connected to them). These IST Ports check their “own” line first. Example: IST Port 2 checks for line availability (dial tone) on LINE Port 2 first. If LINE Port 2 is not available (another device is using it), the Phone Line Manager will check LINE Port 4, then LINE Port 3, etc. If all lines are in use, then the requesting IST Port will get no dial tone to indicate no line available.

If a telephone line is connected to a LINE Port, the corresponding switch should be in the “ON” position. Each “line present” switch is factory-set initially in the “ON” position. If a LINE Port has no line connected to it, the “line present” switch should be set to the “OFF” position.

### 3.3 Connecting the AC Adapter

Lastly, plug the supplied wall-mount AC adapter into a suitable electrical receptacle, and plug the mini-plug into the power outlet receptacle on the back of the Plug and Play Phone Line Manager XLO. To protect the Plug and Play Phone Line Manager XLO from electrical surges and brownouts, we recommend that you use an electrical surge protector.

The Plug and Play Phone Line Manager XLO will illuminate all the front-panel LEDs to indicate a self-test, and will then leave the POWER LED illuminated if the self-test is successful. If the POWER LED does not stay on (all the LEDs turn on and then back off), remove power, check all your connections and re-apply power. If the problem repeats, see the troubleshooting information at the end of this document.

# 4. Operation

## 4.1 Incoming Calls

The Outgoing only units (FX6412OA, FX6824OA, FX1236OA, and FX1648OA) do not support incoming call applications. The units were designed for outbound calling only.

## 4.2 Outgoing Calls

Any IST device connected to a port on the Plug and Play Phone Line Manager XLO can access dial tone to make an outbound call. The number of IST devices that can be in use simultaneously is equal to the number of telephone lines connected to the Plug and Play Phone Line Manager XLO. See the chart in **Section 3.1** for primary IST to Line Port connections.

Outgoing calls will cause the IST Port LED and the Line Port LED to light solid. If none of the line ports are available (busy on another call with another IST port), then the originating outgoing IST Port LED will flash until an outgoing line port does become available. If any of the line ports have line present switch (SW1 and/or SW2) set to on, and there is no line attached, the Line Port LED will flash and then pass the call to the next line port. When an available line port is accessed, both the IST Port and the Line Port LEDs will light solid and remain on throughout the duration of the call.

When an IST device hangs up (goes on-hook) and terminates the outgoing call, the IST Port LED will go out first and the Line Port LED will flash for 3 seconds (to allow the line to stabilize) before another IST Port can access the line for dial tone and outgoing calls.

## 4.3 Data-Transmission Speed

The Plug and Play Phone Line Manager XLO is transparent to speed. It has been designed to transmit data at the highest level of speed allowable on a business telephone line.

## 4.4 Power Failure Transfer

The Plug and Play Phone Line Manager XLO provides straight-through connections of all lines on power-off. The following outlines the power-failure connections.

**Table 4-1. Power-Failure Connections.**

<b>LINE Port</b>	<b>IST Port</b>
1	1
2	2
3	3
4	4
5	13
6	14
7	15
8	16

The number of telephone lines connected to the Plug and Play Phone Line Manager XLO determines the number of straight-through power failure connections available.

## 4.5 Non-Volatile Memory

The Plug and Play Phone Line Manager XLO retains its programming during power outages and while the Plug and Play Phone Line Manager XLO is electrically unplugged. When the electrical power comes on, the Plug and Play Phone Line Manager XLO is ready to go.

# 5. Troubleshooting

If you encounter a problem when you install or operate the Plug and Play Phone Line Manager XLO unit, please review this section for likely causes and what to do if you eliminate these possibilities, and the problem continues to occur.

## 5.1 Common Problems and Solutions

**Problem 1**—Power LED does not light.

Check whether the power supply is properly connected to the power receptacle on the back panel of the Plug and Play Phone Line Manager XLO. Also, check whether the power supply is connected to a live power outlet. Verify that the power supply connected to the Plug and Play Phone Line Manager XLO is the original power supply provided with the Plug and Play Phone Line Manager XLO.

**Problem 2**—IST Port receives no dial tone when going “OFF Hook.”

First, determine whether a LINE Port is available (not being used by another IST Port). Second, check the switch settings on the front panel of the Plug and Play Phone Line Manager XLO. All switch settings corresponding to the Line Present/Not Present switches should be in the “ON” position for each LINE Port that a live telephone line is connected to. The Line Present/Not Present switches should be in the “OFF” position for each LINE Port that does not have a live telephone line connected to it. Third, check the telephone line before it is connected to the Plug and Play Phone Line Manager XLO for dial tone. Fourth, verify that the telephone line cords connected to the LINE Ports and IST Ports are working properly.

**Problem 3**—Modem or other IST device does not access dial tone on outgoing calls. Check all connections for proper installation. Determine whether the IST Port that the modem is connected to is operating properly. Do this by connecting a standard telephone to that port. If you receive dial tone when going “OFF Hook” with the telephone, the Plug and Play Phone Line Manager XLO is operating properly. Check the Operations/User’s Manual of the modem or other IST device for proper operating procedures for that device. Try all of the troubleshooting solutions listed in Problem 2.

### 5.2 Calling Black Box

If you determine that your Plug and Play Phone Line Manager XLO is malfunctioning, ***do not attempt to alter or repair the unit.*** It contains no user-serviceable parts. Contact Black Box 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 components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

### 5.3 Shipping and Packaging

If you need to transport or ship your Plug and Play Phone Line Manager XLO:

- Package it carefully. We recommend that you use the original container.
- Please wrap the original box or similar-sized carton in bubble-wrap and place in a second box for return shipping to prevent damage.
- If you are shipping the Plug and Play Phone Line Manager XLO for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Materials Authorization (RMA) number.

# Appendix: Connection Log

<b>IST Deyice Name/ Location</b>	<b>Line Manager IST Port #</b>	<b>Line Manager Line Port # and Power Fail conn.</b>	<b>Telephone Line #</b>
	1	1	
	2	2	
	3	3	
	4	4	
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13	5	
	14	6	
	15	7	
	16	8	
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	19		
	20		
	21		
	22		
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