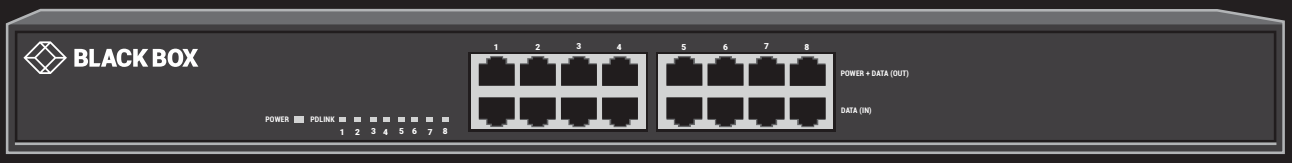
USER MANUAL

LPJ008A-T-R2, LPJ016A-T-R2

8- OR 16-PORT 10/100/1000 POE INJECTOR

24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT BLACKBOX.COM



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CHAPTER 1: SPECIFICATIONS

TABLE 1-1. SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Standards	IEEE 802.3af, IEEE 802.3at, IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T
Number of Ports	LPJ008A-T-R2: (8) 10/100/1000BASE-T data-in ports, (8) 10/100/1000BASE-T data-out and power-out ports; LPJ016A-T-R2: (16) 10/100/1000BASE-T data-in ports, (16) 10/100/1000BASE-T data-out and power-out ports
LED Indicators	Per Port: PD Link, Link ACT/Speed, Per Unit: Power
L2 Features	Auto-negotiation, Auto MDI/MDI-X, Flow Control (duplex): 802.3x (Full), Backpressure (Half)
Power	Input: 100 to 240 VAC, 50 to 60 Hz; Output: 56 VDC per port output, 30 W maximum per port, 8 or 16 ports at full 30 W; Consumption: LPJ008A-T-R2: 250 Watts (max.), LPJ016A-T-R2: 500 Watts (max.), PoE standards: IEEE 802.3af/at
Environmental	Operating Temperature: 32 to 104° F (0 to 40° C); Storage Temperature: -4 to +194° F (-20 to +90° C); Relative Humidity: 10 to 90% relative humidity, noncondensing;
Dimensions	1.7" H x 17.3" W x 8.7" D (4.4 x 44 x 22 cm)
Weight	LPJ008A-T-R2: 5.9 lb. (2.7 kg), LPJ016A-T-R2: 7.0 lb. (3.2 kg)
Certifications	FCC Class A, CE

CHAPTER 2: OVERVIEW

2.1 INTRODUCTION

The 10/100/1000 PoE Injector has 8 or 16 Ethernet data input ports and 8 or 16 Ethernet data output ports equipped with 48-V power, The injector complies with the IEEE 802.3af PoE standard. Any Ethernet "Data" cable can directly connect to the input port and then come out "Data + Power" from the output port. The injector is smart plug-and-play and very easy to install in any existing networking system, to provide PoE features without any new reconfiguration.

The rackmount size was specifically designed for medium to large workgroups. The PoE Injector can be installed where space is limited; moreover, it provides smooth network migration and easy upgrade to network capacity. It mounts in a 19-inch rack or cabinet.

2.2 FEATURES

- Has 8 or 16 data input ports that comply with IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX and IEEE 802.3ab 1000BASE-T
- Has 8 or 16 data + power PSE/PoE output ports that comply with IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab, 1000BASE-T and IEEE 802.3at PoE
- Supports a maximum of 30 W power for each PSE/PoE port
- Fits in a 19-inch rack or cabinet
- Each output port has output current limited, short-circuit protection, complete Powered Device (PD) detection and classification
- Smart plug-and-play
- Front-panel LEDs indicate power and status

2.3 WHAT'S INCLUDED

Before you install this switch, verify that your package contains the following items:

- (1) 8- or 16-Port 10/100/1000 PoE Injector
- (1) Rackmount kit ([2] brackets and [8] screws)
- (1) Power cord

If anything is missing or damaged, contact Black Box Technical Support at 877-877-2269 or info@blackbox.com.

2.4 HARDWARE DESCRIPTION

2.4.1 LPJ008A-T-R2

Figures 2-1 and 2-2 show the front and back panels of the LPJ008A-T-R2. Table 2-1 describes its components.

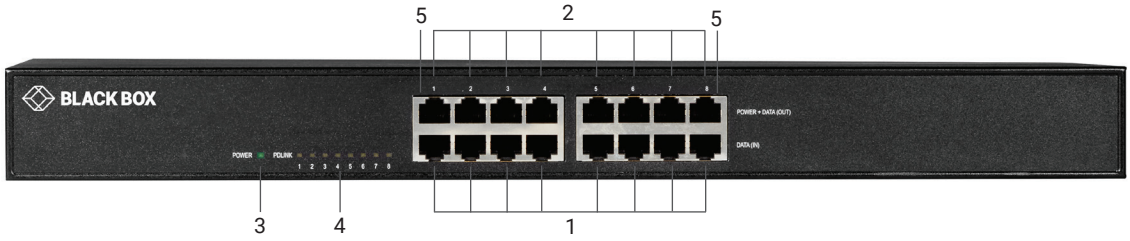

FIGURE 2-1. FRONT PANEL OF THE LPJ008A-T-R2

FIGURE 2-2. BACK PANEL OF THE LPJ008A-T-R2

TABLE 2-1. LPJ008A-T-R2 COMPONENTS

NUMBER IN FIGURES 2-1 AND 2-2	COMPONENT	DESCRIPTION
1	(8) RJ-45 ports	Data input ports
2	(8) RJ-45 PoE ports	Data and power output ports
3	(1) Power LED	ON when power to the unit is on, OFF when power to the unit is off
4	(8) PD Link LEDs	ON when providing PoE power to a device; OFF when not providing PoE Power
5	(16) Link/ACT LEDs/(16) Speed LEDs	Link/Activity indicator: Blinking – There is activity on this port Off – No link is established Speed indicator: Amber on – Operating as a Gigabit connection (1000 Mbps) Green on – Operating as a 100-Mbps connection Off – Operating as a 10-Mbps connection
6	(1) fan	Prevents the switch from overheating
7	(1) power ON/OFF switch	Press to switch the unit on or off (I or O)
8	(1) power connector	Links to 90 to 260 VAC power

2.4.2 LPJ016A-T-R2

Figures 2-3 and 2-4 show the front and back panels of the LPJ016A-T-R2. Table 2-2 describes its components.

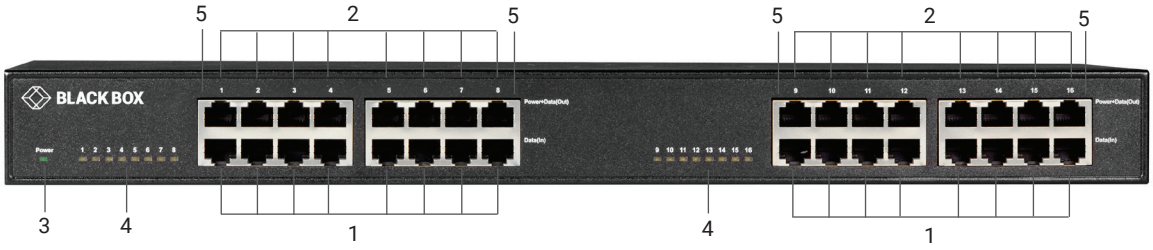

FIGURE 2-3. FRONT PANEL OF THE LPJ016A-T-R2

FIGURE 2-4. BACK PANEL OF THE LPJ016A-T-R2

TABLE 2-2. LPJ016A-T-R2 COMPONENTS

NUMBER IN FIGURES 2-3 AND 2-4	COMPONENT	DESCRIPTION
1	(16) RJ-45 ports	Data input ports
2	(16) RJ-45 PoE ports	Data and power output ports
3	(1) Power LED	ON when power to the unit is on, OFF when power to the unit is off
4	(16) PD Link LEDs	ON when providing PoE power to a device; OFF when not providing PoE Power
5	(32) Link/ACT LEDs/(32) Speed LEDs	Link/Activity indicator: Blinking – There is activity on this port Off – No link is established Speed indicator: Amber on – Operating as a Gigabit connection (1000 Mbps) Green on – Operating as a 100-Mbps connection Off – Operating as a 10-Mbps connection
6	(1) fan	Prevents the switch from overheating
7	(1) power ON/OFF switch	Press to switch the unit on or off (I or O)
8	(1) power connector	Links to 90 to 260 VAC power

2.4.3 LED INDICATORS

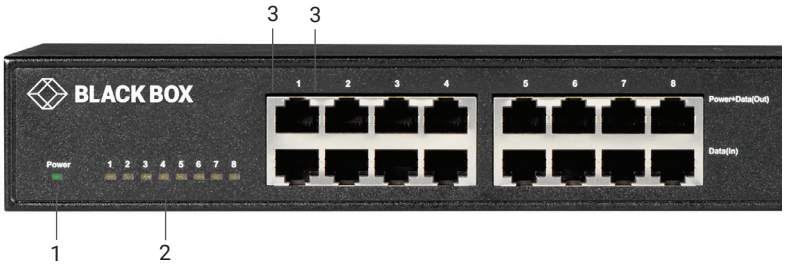

FIGURE 2-5. LEDS ON THE INJECTOR

TABLE 2-3. LED INDICATORS

NUMBER IN FIGURE 2-5	COMPONENT	DESCRIPTION
1	(1) Power LED	ON when power to the unit is on, OFF when power to the unit is off
2	(8) or (16) PD Link LEDs	ON when providing PoE power to a device; OFF when not providing PoE Power
3	(16) or (32) Link/ACT LEDs/(16) or (32) Speed LEDs	Link/Activity indicator: Blinking – There is activity on this port Off – No link is established Speed indicator: Amber on – Operating as a Gigabit connection (1000 Mbps) Green on – Operating as a 100-Mbps connection Off – Operating as a 10-Mbps connection

CHAPTER 3: CONNECTIONS

CONNECTING A POWERED DEVICE/EXISTING SWITCH TO A POWER INJECTOR

Use CAT5 twisted-pair cable from the existing switch to the "Data" input port of the power injector, and then connect the "Data + Power" output port to the Powered Device, such as Wireless AP, another switch with PD function, etc.

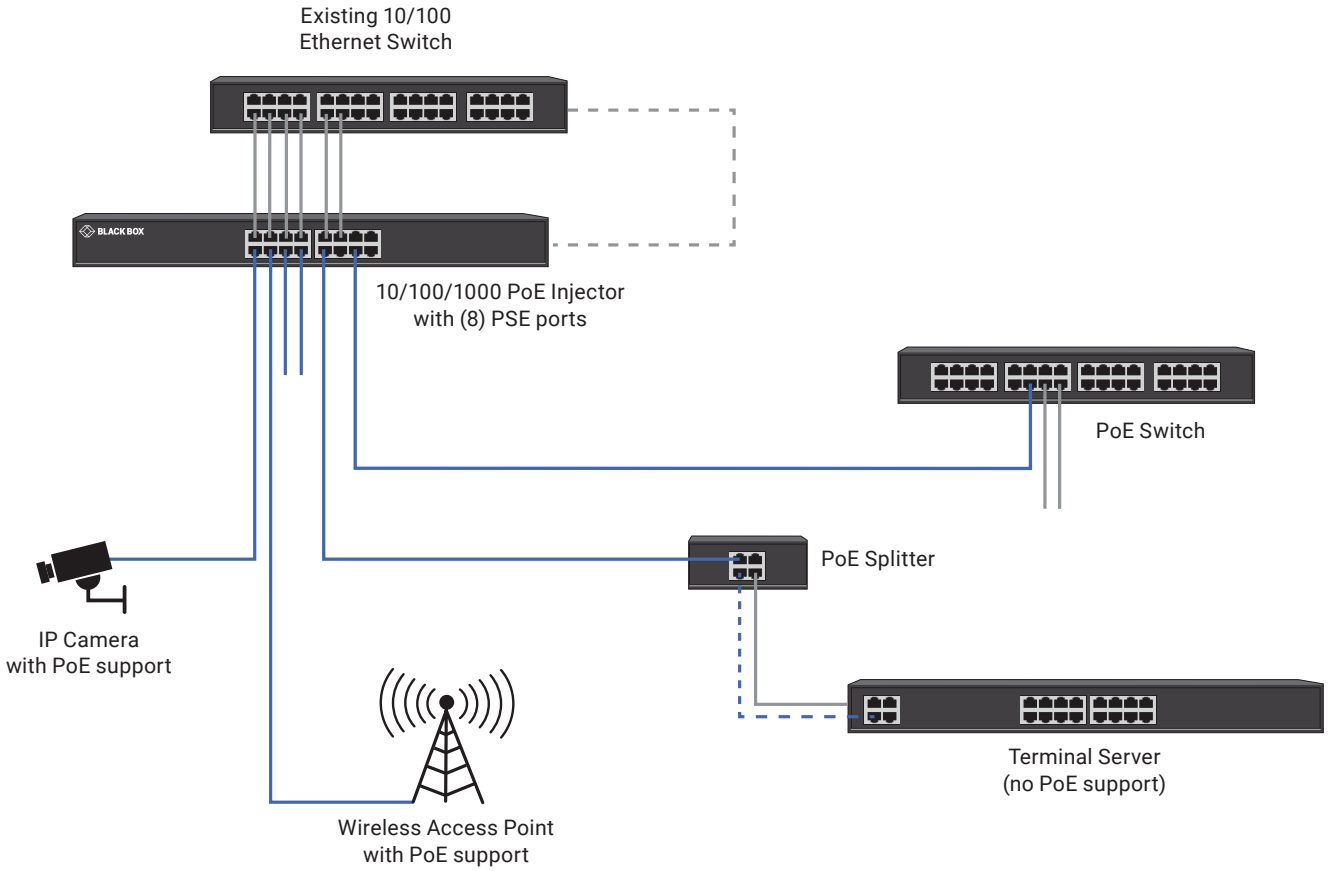

FIGURE 3-1. CONNECTION DIAGRAM-

APPENDIX A: REGULATORY INFORMATION

A.1 FCC CLASS A STATEMENT

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 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.

APPENDIX A: REGULATORY INFORMATION

A.2 NOM STATEMENT

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 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 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 objectos 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: Objectos 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.

APPENDIX B: DISCLAIMER/TRADEMARKS

B.1 DISCLAIMER

Black Box Corporation shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Corporation may revise this document at any time without notice.

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