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BLACK BOX
NETWORK SERVICES

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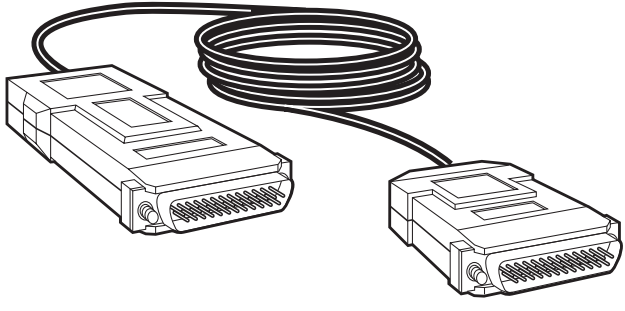
PI047A

Line-Powered Parallel to Serial Interface Converter



CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S. 24 hours, 7 A.M. Monday to midnight Friday: **877-877-BBOX**
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TRADEMARKS USED IN THIS MANUAL

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1. Specifications

Data Format —	IBM® PC Parallel or compatible parallel to async serial
Data Rate —	300, 600, 1200, 2400, 4800, and 9600 bps, selected by internal strap
Asynchronous Characters —	7 or 8 data bits, one stop bit
Parity —	Even, odd, or no parity
Connectors —	(2) DB25 male
Cable Length —	6.6 feet (2 m)
Operating Temperature —	32 to 122°F (0 to 50°C)
Relative Humidity Tolerance —	10 to 95%, noncondensing
Power —	No AC power supply required; uses ultra-low power derived from the RS-232-C/V.24 data and control signals
Size —	0.9"H x 2.1"W x 4.3"D (2.3 x 5.3 x 10.9 cm)
Weight —	0.9 lb. (0.4 kg), including cable and connector

2. Introduction

2.1 Description

The Line-Powered Parallel to Serial Interface Converter enables an IBM PC or compatible to use a high-quality serial printer and eliminates the need for adding a card and using a slot in the PC.

Data from the PC is strobed to the Converter and is internally converted to async serial form. The printer can halt the PC by signaling OFF to pin 20, pin 11, or pin 5 (selectable via an internal strap).

The Converter is compatible with all async character formats using 7 or 8 data bits and one stop bit, and operating with or without parity.

The Converter operates without AC power, deriving ultra-low power from the standard EIA RS-232-C/ V.24 data and control signals.

2.2 Features

- Enables connection of serial printer to the parallel port of a PC.
- Selectable data rates from 300 to 9600 bps.
- No AC power supply required.
- Complete with cable and connectors.
- Easy to install.
- Miniature size, lightweight.

3. Installation

Installing the Converter is straightforward and simple. First, check to make sure the unit's factory setting (Table 3-1 and Figure 3-1) meets your requirements. If it does, go straight to Step 8. If not, go through the whole installation.

Table 3-1. Strap Selection

Strap Identity	Function	Position	Factory Setting
Parity	Determines parity or no parity.	E or D	D
Data Bits	Matches number of bits to the printer.	7 or 8	8
Select Parity	Even or odd parity.	E or O	O
Data Rate	Matches speed of Converter to the printer.	300 bps, 600 bps, 1.2 Kbps, 2.4 Kbps, 4.8 Kbps, 9.6 Kbps	1.2 Kbps
Wait Pin (flow control)	Controls data flow from PC to printer.	Pin 11, 20, or 5	Pin 11
Printer	Determines if Converter supports a single PC (PRINTER).	PRINTER	PRINTER

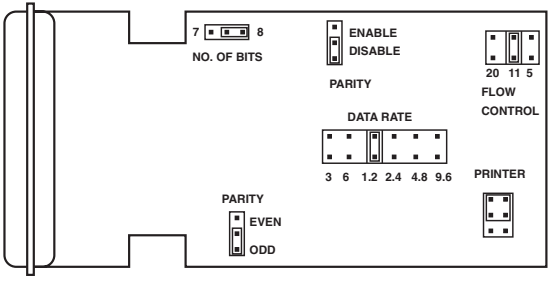

Figure 3-1. Strap Layout.

Note that the X-ON/X-OFF protocol is not supported. Most printers that support X-ON/X-OFF also support WAIT signalling through a special pin, but this has to be selected using the printer DIP switches or straps.

1) The Converter is installed between your computer and printer. Separate the two parts of the plastic cover by firmly pressing the marked places on the sides, starting at the cable end.

2) Select the parity enable or disable by strapping PARITY ENABLE to E or D.

3) Select the number of data bits (7 or 8) to suit the printer. Note that the printer should also be strapped for one stop bit. See the printer manual.

4) Select the parity (even or odd) and strap SELECT PARITY to the appropriate position. When using no parity, it can be either even or odd.

5) Select the correct data rate by strapping the required data rate to match the printer rate (see Table 3-1).

6) Select the correct pin for WAIT command from the printer (pin 11, 20, or 5). Use the printer manual to identify which pin you need. Strap the Converter accordingly. Note that some serial printers use other pins for the WAIT indication. If this is the case, change the wiring inside the 25-pin connector hood, using a soldering gun.

7) Close the unit by pressing the two plastic covers together.

8) Plug the Converter directly into the PC and the cable connector into the printer.