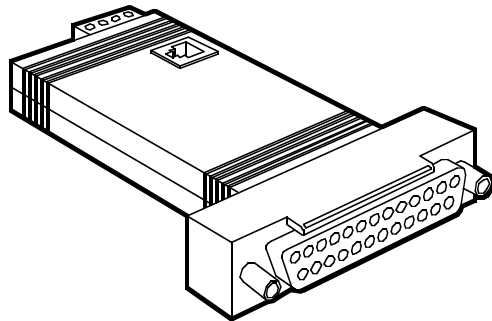


# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

*PC Parallel Distance Extender III  
Serial Distance Extender II  
Universal I/O Distance Extender*



*Reach a high-speed printer up to 4000 feet (1.2 km) away from your PC, mainframe, or LAN printer server.*

*Parallel (PI320A-R3) and Serial (PI325A-R2) Distance Extenders are available as sets. Or mix components for complete flexibility: Parallel Input (PI321A-R3) to Serial Output (PI324A-R2) for parallel-to-serial connection, or Serial Input (PI323A-R2) to Parallel Output (PI322A-R3) for serial-to-parallel connection. Or choose either Parallel (PI326A) or Serial (PI327A) Universal Extenders—they're switch-selectable to be either input or output devices.*

### Key Features

- ▶ *Mix serial and parallel equipment.*
- ▶ *Interchange units easily with RJ-11 connectors or screw-down terminal block.*
- ▶ *Wallmount power supply.*
- ▶ *Speeds of up to 115.2 Kbps.*
- ▶ *Universal Extenders let you switch from an input to an output device.*

Move noisy printers out of your quiet zone. No matter what type of printer you have—serial or parallel—you can put it where it won't interrupt your concentration on important tasks.

You can send data from a serial PC to a parallel printer or a parallel PC to a serial printer, without sacrificing speed or data integrity.

To pick the right combination of Extenders for your needs, see the diagrams on the next page.

You can also take your choice of connections between Extenders: RJ-11 or hard-wire block termination. This versatility in connections means you can use any existing twisted-pair cable you already have installed.

Whatever combination you choose, you can get up to 4000 feet (1.2 km) away from your printers. That's 500 times farther away from your PC than the

normal 20-foot distance for parallel printers, and 200 times the normal 50-foot serial-printer distance. And suddenly you can think again.

*NOTE: Not compatible with RISC System/6000<sup>®</sup> workstations.*

### Typical Applications

*Use the Extenders to send information from the billing office to the loading dock. Shipping and Receiving can get exact information on what to load in each trailer.*

*Connect the Extender to the MIS mainframe, and monitor security and system messages from the computer room while you stay in your own office.*

*Connect your LAN printer with Extenders and locate the printer in the middle of the office area—convenient for everyone who needs to use it.*

*Use existing twisted-pair wiring to connect your PC to a parallel or serial printer anywhere within 4000 feet (1219.2 m).*

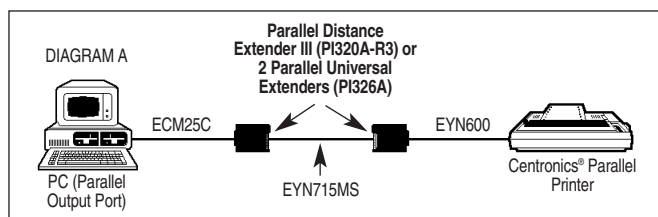


Diagram A — Parallel Distance Extenders are available as a set (PI320A-R3) for parallel-to-parallel connections. You could also use two Parallel Universal Extenders (PI326A). All the cables will need male connectors.

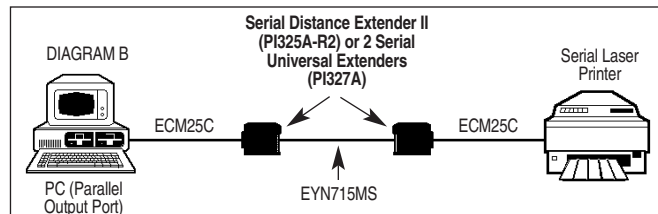


Diagram B — Serial Distance Extenders are available as a set (PI325A-R2) for serial-to-serial connections. You could also use two Serial Universal Extenders (PI327A). All the cables will need male connectors.

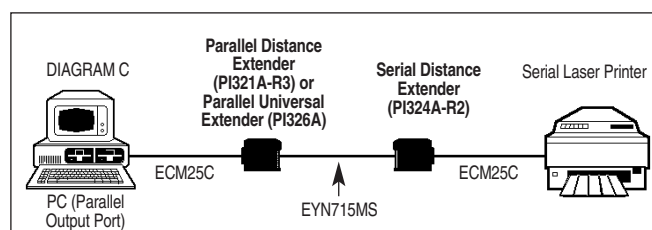


Diagram C — To connect a PC parallel port to a serial printer, use a Parallel Input Extender (PI321A-R3) or a Parallel Universal Extender (PI326A) on the PC side and a Serial Output (PI324A-R2) Extender on the printer side. All the cables will need male connectors.

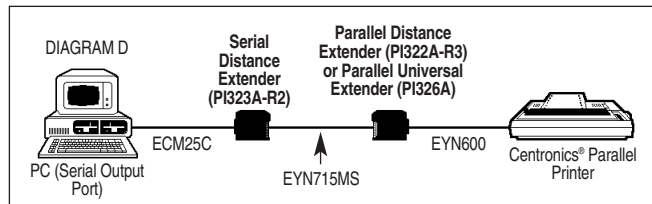


Diagram D — To connect a PC serial port to a parallel printer, use a Serial Input Extender (PI323A-R2) on the PC side and a Parallel Output Extender (PI322A-R3) or a Parallel Universal Extender (PI326A) on the printer side. The cable connecting the PC and the Extender needs male-female connectors.

### Technically Speaking

#### A comparison of serial and parallel transmission modes:

- Serial is the most common transmission mode in use. In this mode, information bits are sent sequentially over a single data channel.
- Serial transmissions can go greater distances than parallel.
- In parallel transmission, eight bits are sent simultaneously over eight separate lines.
- Parallel transmission is usually unidirectional. Transmission speeds are faster than serial.

#### Additional equipment you may need

- Category 4 Cable, RJ-11, 4-wire
- RS-232 Cable, DB25 Parallel or Serial Extension.
- PC Parallel Printer Cable.

## Ordering Information

This information will help you place your order quickly.

Specifications	Centronics® or IBM® PC parallel compatible; Serial: RS-232 async ASCII (DCE)
<b>Data Format</b> — Serial: 7 or 8 data bits, even or odd parity; Parallel: 8 data bits	<b>Connectors</b> — (1) DB25 female, (1) RJ-11, or (1) 4-screw terminal block
<b>Flow Control</b> — RS-232: X-ON/X-OFF; Parallel: Hardware	<b>Power</b> — 115 VAC, 60 Hz, 3 watts wallmount; 230-VAC version available on request
<b>Speed</b> — 9.6, 14.4, 19.2, 28.8, 38.4, 57.6, 76.8, or 115.2 Kbps	<b>Size</b> — 2.5H x 5.8W x 9.4D cm
<b>Transmission Distance</b> — Up to 1219.2 m at 115.2 Kbps	<b>Weight</b> — 0.6 kg
<b>Interface</b> — Parallel:	

For these and other components...  
Call our expert Technical Support Staff on 0118 965 6000 for all your Printing needs. They'll help you find the best equipment for your application.

\*Please note: Not IEEE1284 Bi-Tronic

PRODUCT NAME	ORDER CODE
Parallel and Serial Sets	
PC Parallel Extender III (a set) for parallel' parallel.....	PI320AE-R3
Serial Distance Extender II (a set) for serial' serial .....	PI325AE-R2
<b>Individual components for mixed configurations</b>	
Parallel (Input) .....	PI321AE-R3
Parallel (Output).....	PI322AE-R3
Serial (Input).....	PI323AE-R2
Serial (Output) .....	PI324AE-R2
Parallel and Serial Universal I/O Extenders	
Parallel .....	PI326AE
Serial.....	PI327AE
<b>You may also need:</b>	
Category 4 Cable, RJ-11, 4-wire.....	EYN715MS
PC Parallel Printer Cable .....	EYN600
RS-232 Cable, DB25 parallel or serial .....	ECM25C