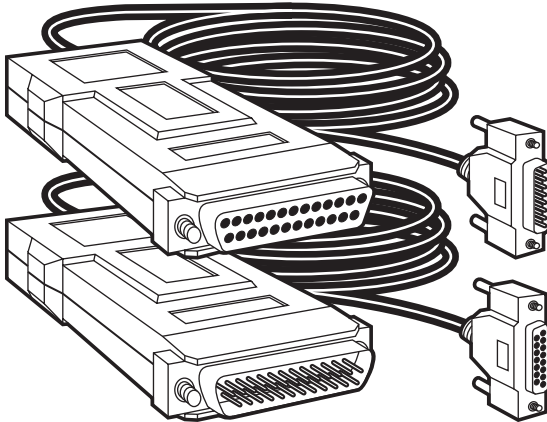




V.24/X.21 Interface Converter

X.21/V.24 Interface Converter



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 • E-mail: info@blackbox.com

1. Specifications

Speed —	Up to 200 Kbps
Length —	6.5 feet (2 m)
Operation —	Synchronous, full- or half-duplex
Interfaces —	RS-232C/V.24, X.21
Connectors —	IC933A: (1) DB25 (male) DTE, (1) DB15 (male) DCE; IC944A: (1) DB25 (male) DCE, (1) DB15 (female) DTE
Power —	6.3 volts DC (35 mw) from pin 2, 4, or 20 of the RS-232 interface
Size —	0.9"H x 2.1"W x 4.3"D (2.2 x 5.5 x 9 cm)
Weight —	0.8 lb. (0.4 kg)

2. Features

- Converts RS-232/V.24 to X.21 interface and vice versa.
- Equipped with cable and connectors.
- Transparent to protocol.
- Installs immediately.
- Operates without AC power.
- Compact and lightweight.
- Bidirectional data transfer.

3. General

The V.24/X.21 Interface Converter Model IC933A connects and converts from V.24 DTE to X.21 DCE. Model IC944A connects and converts from X.21 DTE to V.24 DCE. Users can take advantage of high-speed trunk lines with X.21 interfaces and still use existing V.24 multiplexers, modems, and terminals. The compact, lightweight conversion unit provides complete electrical and mechanical conversion. It operates without mains power supply by using ultra low power from the standard RS-232C/V.24 data and control signal voltages.

4. Applications

Model IC933A installs between a V.24 terminal or multiplexor and an X.21 modem and Model IC944A installs between an X.21 terminal or multiplexor and a V.24 modem. Figures 4-1 and 4-2 illustrate these applications.

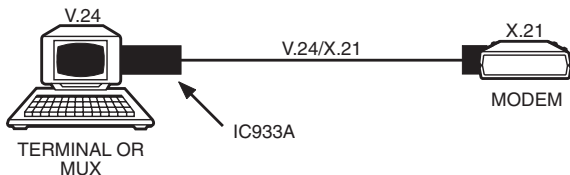


Figure 4-1. Typical Application of the IC933A.

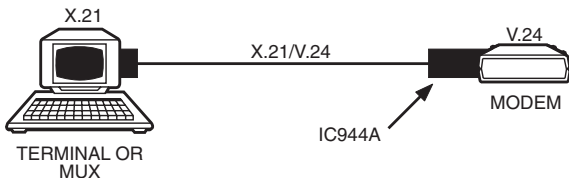


Figure 4-2. Typical Application of the IC944A.

5. Installation

5.1 Installing the V.24 DTE/X.21 DCE (IC933A) Model

To install the unit, simply plug its DB25 (male) connector directly into the DB25 (female) connector on the RS-232/V.24 device (DTE). Attach the unit's DB15 (male) connector to the DB15 (female) connector on the X.21 device (DCE).*

5.2 Installing the X.21 DTE/V.24 DCE (IC944A) Model

To install the unit, simply plug its DB15 (female) connector into the DB15 (male) connector on the X.21 device (DTE). Attach the unit's DB25 (male) connector to the DB25 (female) connector on the V.24 device (DCE).*

***NOTE**

If you need to change the gender of the unit's connectors, use gender changers or *short* cables. Do not use extreme lengths of cable. Since the unit operates at low power, using cables that are too long will affect the unit's operation.

6. Pinning Diagrams

Figures 6-1 and 6-2 show the pinning of each unit.

V.24/X.21 AND X.21/V.24 INTERFACE CONVERTERS

V.24 DTE/X.21 DCE
Schematic Diagram

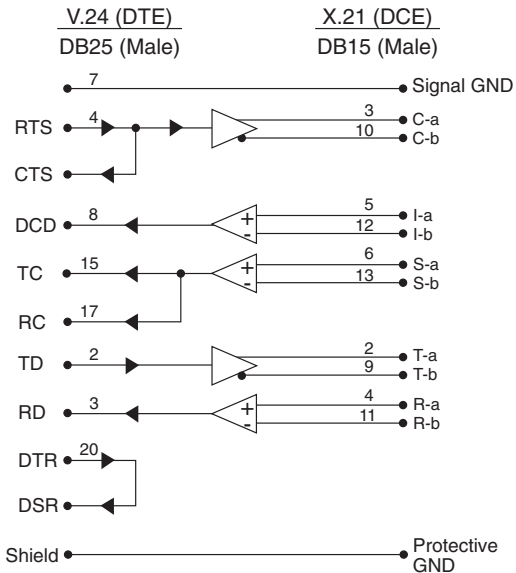


Figure 6-1. IC933A Pinning.

V.24/X.21 AND X.21/V.24 INTERFACE CONVERTERS

X.21 DTE/V.24 DCE Schematic Diagram

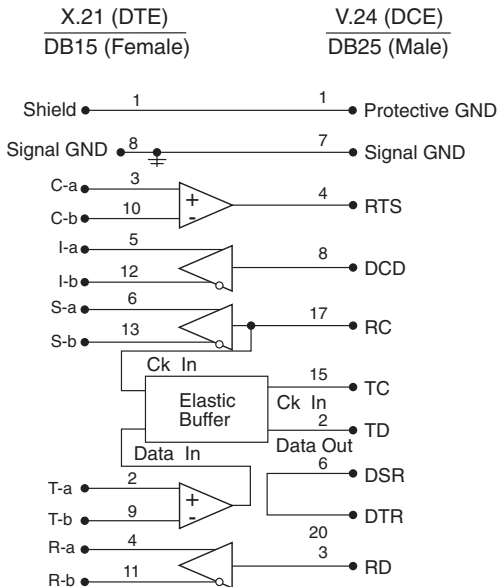


Figure 6-2. IC944A Pinning.