



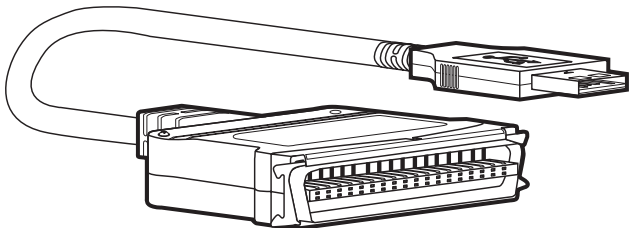
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1000 Park Drive • Lawrence, PA 15055-1018 • 724-746-5500 • Fax 724-746-0746



# IEEE 1284 to USB Printer Cable Bridge



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## 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  
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## FEDERAL COMMUNICATIONS COMMISSION AND CANADIAN DEPARTMENT OF COMMUNICATIONS 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 the Canadian Department of Communications.*

*Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par le ministère des Communications du Canada.*

## 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 conectado 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 física 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 líneas de energía.
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 líquidos 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 USED IN THIS MANUAL**

All trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

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### NOTE

Throughout this manual and in the software, the IEEE 1284 to USB Printer Cable Bridge is sometimes called the UC-1284 Printer Cable. Both names refer to the EQN500-0006.



# 1. Specifications

**System Requirements**—Hardware: PC with 486 (or higher) processor, USB connector, printer or other peripheral device conforming to IEEE Standard 1284; Software: 16 MB RAM, Windows 98 or Windows 95 version 4.00.950b with the USB supplement (QFE 1214), also known as OSR2.1 (NOTE: No upgrade path is available from previous versions of Windows 95 version 4.00.950 to OSR2.1: Windows 95 version 4.00.950B [OSR2.0] must first be installed, and then the system can be upgraded to OSR2.1. The file usb supp.exe is needed for upgrading to OSR2.1 with QFE [QFE 1214].)

**Enclosure**—Plastic

**Cable Length**—6-ft. (1.8-m) AWG 28/24

**Connectors**—Input: USB type A plug; Output: Centronics 36-pin male

**Temperature**—Operating: 41 to 104 °F (5 to 40 °C); Storage: -4 to 140 °F (-20 to 60 °C)

**Humidity**—20 to 80% relative humidity, non-condensing

## IEEE 1284 TO USB PRINTER CABLE BRIDGE

**Power Supply**—Bus powered from USB cable

**Voltage**—+5 V

**Current**—80 mA (max.)

**Size**—4.3"H x 5.3"W x 1.9"D (10.9 x 13.5 x 4.9 cm)

**Weight**—0.2 lb. (0.1 kg)

## 2. Introduction

### 2.1 General

The IEEE 1284 to USB Printer Cable Bridge is a bridge that links the traditional IEEE 1284 parallel interface to the Universal Serial Bus (USB) interface. It's easy to install and compatible with most printers from major manufacturers. The UC-1284 is bus powered and does not need an external power supply.

The enclosed CD-ROM contains the following files:

- Read.me
- UC-1284.SYS
- UC-1284MN.DLL
- UC-1284.INF
- UC-1284CI.DLL
- ADBOXSUP.EXE
- UCREMOVE.INF
- UCREMOVE.EXE

### 2.2 Features

The IEEE 1284 to USB Printer Cable Bridge offers the following features:

- Full compliance with the USB specification 1.0.
- Low power consumption—powered from the USB connection.
- Fully compatible USB host device drivers available.
- Transparent automatic support for true bi-directional communication.
- Hardware initiates and manages automatic negotiation for the fastest protocol available.
- Uses standard PC parallel-port registers.
- Support of multiple logical channels.
- Maximum throughput: 1.216 Mbps (ECP mode).
- Allows current Microsoft Windows printer drivers to print seamlessly to USB.
- Plug-and-Play compatible.

### 3. Installation and Operation

Remember that you need Windows 98 or Windows 95 OSR 2.1 to support USB. See the Specifications in **Chapter 1** for more information.

1. Connect the IEEE 1284 to USB Printer Cable Bridge to a printer or other IEEE Standard 1284 peripheral that is powered on.
2. Plug the USB end of the IEEE 1284 to USB Printer Cable Bridge into the USB Hub or PC's USB port.

A “New Hardware Found” box will appear stating that an Unknown Device has been found.



**Figure 3-1.** New Hardware Found box.

Then the “Insert Disk” dialog box will appear instructing you to insert the IEEE 1284 to USB Printer Cable Bridge install disk. After you insert the disk and click OK, the “Copying File...” dialog box appears. Change the path to “A:\,” then click OK.

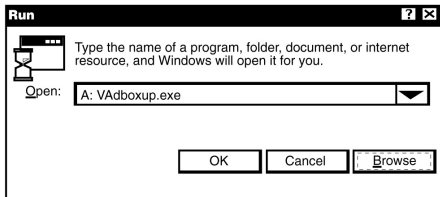
At this point, the files should automatically be copied from the diskette. The installation process is now complete.

### NOTE

If you’re using a plug-and-play printer, then a plug-and-play prompt may appear to install the printer drivers.

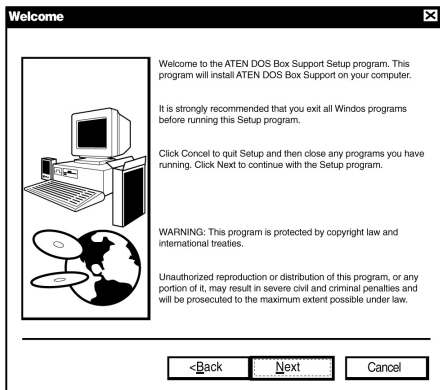
3. To install the DOS BOX support utility for operation with standard PC parallel-port registers—for example, printing—insert the accompanying 3.5" disk into drive A.

Press the Start button and choose Run. Execute ADBOXSUP.EXE from the following screen.



**Figure 3-2. Run screen.**

4. Use the Wizard to complete the installation of the Unknown Device (the IEEE 1284 to USB Printer Cable Bridge).
  - Insert the diskette into the floppy-disk drive.
  - Click on the Next button in the Update Device Driver Wizard box. Windows will find the driver for the IEEE 1284 to USB Printer Cable Bridge.



**Figure 3-3. Welcome screen.**

5. To verify that the IEEE 1284 to USB Printer Cable Bridge has been correctly installed, right-click on My Computer, and then left-click on Properties to access the System Properties box.
6. Choose the Device Manager tab in the box. The IEEE 1284 to USB Printer Cable Bridge should appear in the list under Computer.



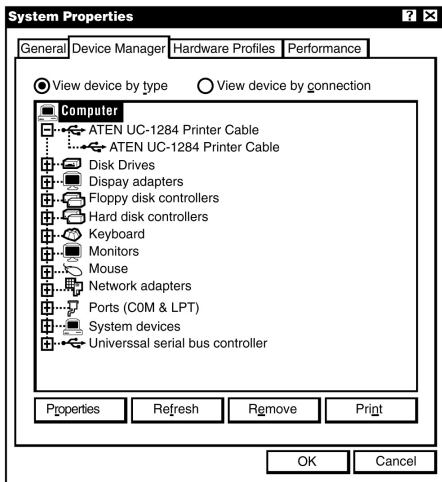
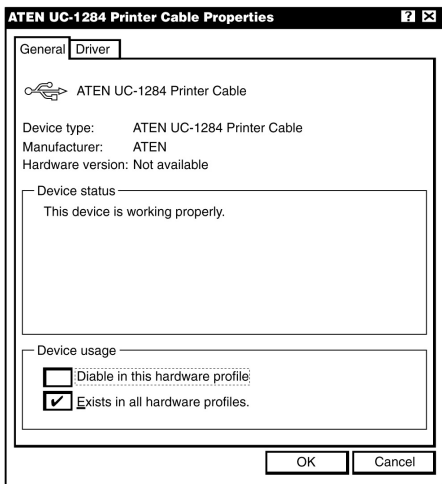


Figure 3-4. System Properties screen.

7. Now double-click on IEEE 1284 to USB Printer Cable Bridge (UC1284USBx). If the installation was successful, an IEEE 1284 to USB Printer Cable Bridge Properties box will appear, and the device status will state that the device is working properly.



**Figure 3-5. Printer Cable Properties box.**

8. If the installation was not successful, use the UCREMOVE.EXE file on the diskette to first uninstall the software, then return to step 2.

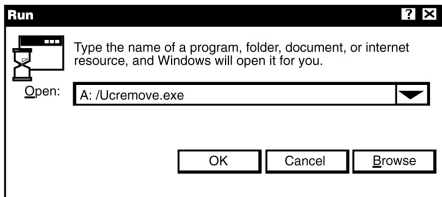


Figure 3-6. Run screen.

9. If the installation was successful and a printer was attached to the IEEE 1284 to USB Printer Cable Bridge in step 1, a test page can now be printed:
  - Click on Start/Settings/Printers.
  - Right-click on the icon for the printer connected to the IEEE 1284 to USB Printer Cable Bridge, then left-click on Properties.
  - Choose the Details tab. Select the UC1284USBx port “Print to the following port.” Under “Print using the following driver,” select the driver that corresponds to the correct printer. Click on the “Apply” button and then select the “General” tab of the box.
  - To begin the printing process, click on the “Print Test Page” button.

## **4. Troubleshooting**

Please refer to your Windows 95 or Windows 98 Troubleshooting guide for further assistance. If you have problems, call Black Box Technical Support at 724-746-5500.