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USB-to-Serial RS-232 Hub USB-to-Serial RS-422/485 Hub

USER MANUAL

UC2322 / UC2324 / UC4852 / UC4854

FCC INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Reorient or relocate the receiving antenna;
- ◆ Increase the separation between the equipment and receiver;
- ◆ Connect the equipment into an outlet on a circuit different from that which the receiver is connected;
- ◆ Consult the dealer or an experienced radio/television technician for help.

ROHS

This product is RoHS compliant.

SJ/T 11364-2006

The following contains information that relates to China.

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
电器部件	●	○	○	○	○	○
机构部件	○	○	○	○	○	○

○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006规定的限量要求之下。

●: 表示符合欧盟的豁免条款, 但该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。

×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。



ATEN USB-TO-SERIAL HUB USER MANUAL

ONLINE REGISTRATION

You can register your product at our online support center:

International	http://support.aten.com
North America	http://www.aten-usa.com/product_registration

ONLINE SUPPORT

INTERNATIONAL

Email Support		support@aten.com
Online Support	Technical Support	http://support.aten.com
	Troubleshooting Documentation Software Updates	http://www.aten.com
Telephone Support		886-2-8692-6959

NORTH AMERICA

Email Support		ATEN TECH	support@aten-usa.com
		ATEN NJ	sales@aten.com
Online Support	Technical Support	ATEN TECH	http://www.aten-usa.com/support
		ATEN NJ	http://support.aten.com
	Troubleshooting Documentation SW Updates	ATEN TECH	http://www.aten-usa.com
		ATEN NJ	http://www.aten.com
Telephone Support		ATEN TECH	1-888-999-ATEN
		ATEN NJ	1-732-356-1703

PACKAGE CONTENTS

The ATEN USB-to-Serial Hub package contains the following items:

- ◆ 1 UC2322 / UC2324 / UC4852 / UC4854 USB-to-Serial Hub
- ◆ 1 USB Cable
- ◆ 1 Installation Disk
- ◆ 1 User Manual*
- ◆ 1 Quick Start Guide

Check to make sure that all the components are present and that nothing got damaged in shipping. If you encounter a problem, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

* Features may have been added to the ATEN USB-to-Serial Hub since this manual was printed. Please visit our website to download the most up-to-date version of the manual.

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OVERVIEW

The ATEN USB-to-Serial Hub provides an external plug-and-play RS-232/RS-422/RS-485 serial connection for computers, notebooks, laptops, and handheld computing devices that support the USB specification. It comes with 2 or 4 standard DB-9 male connectors for peripherals to plug into, and a USB cable for connecting to the computer's USB port, or to a USB hub.

There are four models in the ATEN USB-to-Serial Hub series:

- ◆ UC2322 – 2-Port USB-to-Serial RS-232 Hub
- ◆ UC2324 – 4-Port USB-to-Serial RS-232 Hub
- ◆ UC4852 – 2-Port USB-to-Serial RS-422/485 Hub
- ◆ UC4854 – 4-Port USB-to-Serial RS-422/485 Hub

The ATEN USB-to-Serial Hub provides mobile phones, PDAs, digital cameras, modems and ISDN terminal adapters with high quality serial connections at a data transfer rate of up to 115.2 Kbps. It makes the USB interface transparent to the peripherals, allowing them to easily interface with the USB, eliminating the setup hassle found with traditional serial port connections. As a USB specification compliant device, the ATEN USB-to-Serial Hub also supports energy-saving suspend and resume operations.

The ATEN USB-to-Serial Hub provides a quick, simple, and cost-effective solution and is ideal for various kinds of communication and automation applications.

Note: The ATEN USB-to-Serial Hub does not support devices such as serial mice that require an IRQ number or I/O address.

FEATURES

- ◆ Easy way to add 2 or 4 RS-232/RS-422/RS-485 serial ports
- ◆ Fully compliant with USB 1.1; USB 2.0 compatible
- ◆ Supports RS-232 (UC2322 / UC2324) or RS-422/485 (UC4852 / UC4854) serial interface
- ◆ Each port can independently switch between RS-422 and RS-485 (UC4852 / UC4854)
- ◆ Supports automatic handshake mode
- ◆ Up to 115.2 Kbps data transfer rate for each serial port
- ◆ Dual data buffers for each upstream and downstream data transfer
- ◆ No IRQ, DMA, I/O address resources required
- ◆ Supports hot-swapping and plug-and-play
- ◆ Built-in 16KV ESD protection
- ◆ Supports both bus power and external power
- ◆ Works with cellular phones, PDAs, digital cameras, modems and ISDN terminal adapters

REGULATORY APPROVALS

Hardware	CE, FCC (Class B)
Driver	Microsoft WHQL

SYSTEM REQUIREMENTS

COMPUTERS

The following equipment must be installed on each computer that is to be connected to the system:

- ◆ USB Host Controller

OPERATING SYSTEMS

Supported operating systems are shown in the table, below:

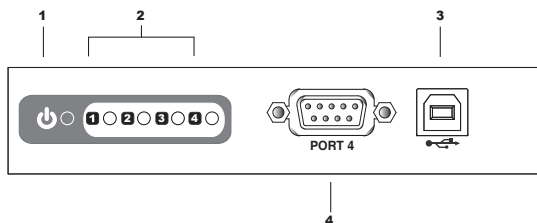
OS		Version
Windows		2000 and higher
Linux	RedHat	2.6.x and higher
	SuSE	8.2 and higher
	Mandriva (Mandrake)	9.0 and higher

USB-TO-SERIAL HUB FRONT VIEW

UC2322 / UC4852



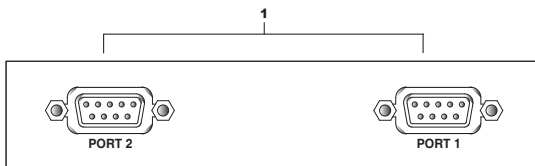
UC2324 / UC4854



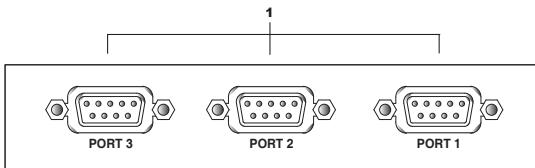
No.	Component	Description
1	Power LED	Lights to indicate that the USB-to-Serial Hub is receiving power and is up and running.
2	Port Link LED	Lights to indicate that there is a working RS-232/RS-422/RS-485 connection to the corresponding port.
3	USB Port	The USB cable from your computer or USB hub plugs in here.
4	RS-232/RS-422/RS-485 Serial Port	Your peripheral devices, such as digital cameras, scanners, PDAs, etc., plug in here.

USB-TO-SERIAL HUB REAR VIEW

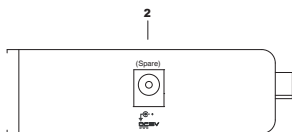
UC2322 / UC4852



UC2324 / UC4854



SIDE VIEW



No.	Component	Description
1	RS-232/RS-422/RS485 Serial Port	Your peripheral devices, such as modems, scanners, PDAs, etc., plug in here.
2	Power Jack	The power adapter cable plugs in here. Note that the USB-to-Serial Hub is bus-powered so use of a power adapter is optional.

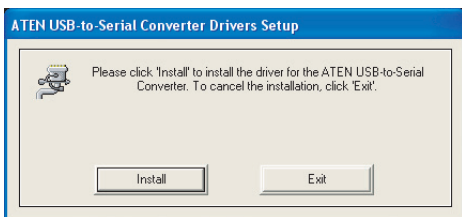
WINDOWS INSTALLATION



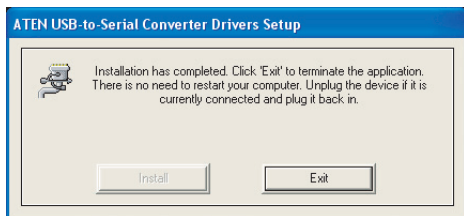
Make sure that all devices you will be installing are properly grounded.

INSTALLING THE DRIVERS

1. Insert the installation disk into your CD-ROM drive and unzip the file named *ATEN_Drivers for Windows.zip*.
2. Open the *Win32/Win64* folder. Click on *MSSetup.exe*. A dialog box will appear.



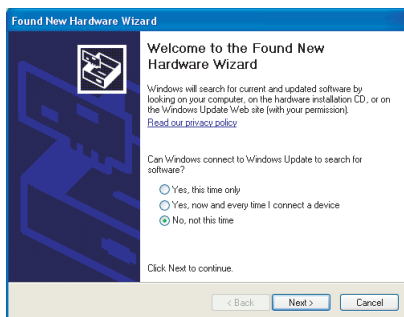
3. Click **Install** to install the driver for the USB-to-Serial Hub. To cancel the installation, click **Exit**.
4. When the installation has completed, the following dialog box appears:



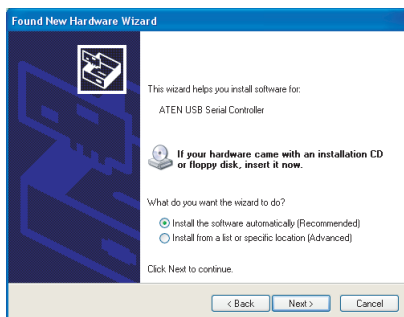
5. Click **Exit** to close the wizard. You have successfully installed the driver.

CONNECTING THE ATEN USB-TO-SERIAL HUB

1. Connect the ATEN USB-to-Serial Hub to a USB port on your computer. The *New Hardware Wizard* appears:

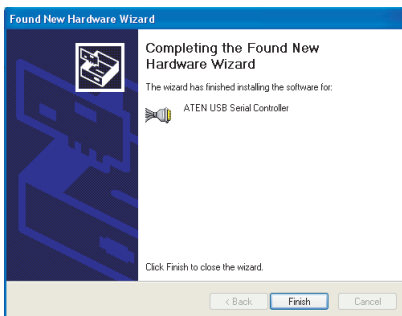


2. Select, *No, not this time*, and then click **Next** to continue. The following dialog box appears:



3. Leave the default choice (*Install from the software automatically*), and then click **Next** to continue.

4. When the installation is complete, the following dialog box appears:



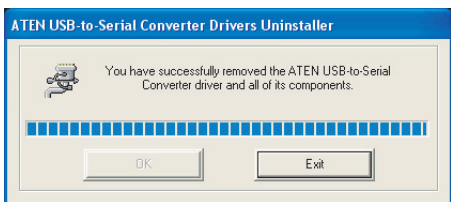
5. Click **Finish** to close the wizard. You have successfully installed the USB-to-Serial Hub.

UNINSTALLING THE DRIVERS

1. Insert the installation disk into your CD-ROM drive and unzip the file named *ATEN_Drivers for Windows.zip*.
2. Open the *Win32/Win64* folder. Click on the uninstall utility. The following dialog box appears:



3. Click **OK** to begin the uninstall process. The following dialog box appears:



4. Click **Exit**. You have successfully uninstalled the driver.

LINUX INSTALLATION

INSTALLING THE DRIVER(S)

1. Copy the ATEN driver zip file (*ATEN2011.V1.1.tar.gz*) onto your desktop.

2. Untar the file using the command:

```
tar -xzvf ATEN2011_V1.1.tar.gz
```

3. In the ATEN directory, compile the driver using the command:

```
make
```

4. When this has completed, load the driver using the command:

```
make load
```

5. Connect the ATEN USB-to-Serial Hub to a USB port on your computer and confirm the installation using:

```
dmesg
```

The serial ports will be recognized as “ttyUSBx” as in the following message:

```
USB 2-2: ATENINTLUSBSerial Adapter converter now  
attached to ttyUSBx
```

Note: Fedora Core 5 Source can be downloaded from the following site: <http://download.fedora.redhat.com/pub/fedora/linux/core/5/source/SRPMS/>

UNINSTALLING THE DRIVERS

1. The following command will remove the driver:

```
make unload
```

2. To check whether the driver has been successfully removed, use the command:

```
dmesg
```

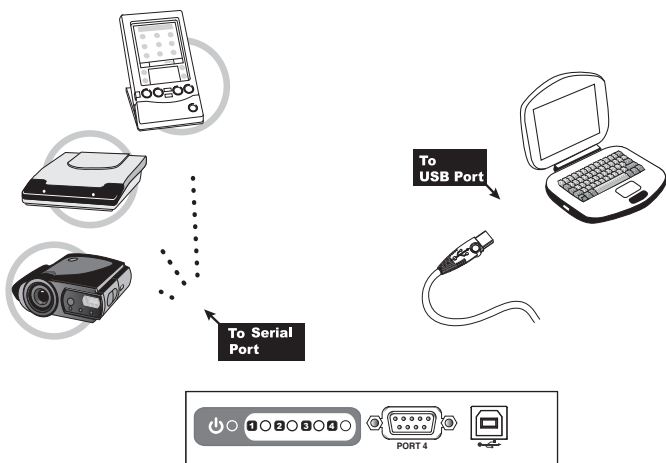
3. If the driver has been successfully removed, you will see the following message:

```
ATENUSBSerial adapter converter now disconnected  
from ttyUSBx
```

PERIPHERALS INSTALLATION

1. After you have finished the software installation procedures for your operating system and have connected the ATEN USB-to-Serial Hub to your computer, connect the peripheral device to the ATEN USB-to-Serial Hub and then turn the peripheral on.
2. Follow the Installation Wizard's on-screen instructions to complete the installation.

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- Note:** 1. This procedure only occurs the first time you connect the peripheral. If your peripheral was previously connected and configured for the COM port, after you perform the adapter installation and click **Finish**, the driver will connect it and install it automatically. However, some peripheral devices, such as older PDAs, require that you install the software for the peripheral device before it will work properly.
2. Under Windows 2000, if you connect a modem, you must specify it as a *Standard Modem*.
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SPECIFICATIONS

Function		UC2322	UC2324	UC4852	UC4854
Device Connections		2	4	2	4
Connectors	USB	1 x USB Type B Female (White)			
	Serial	2 x DB-9 Male (Black)	4 x DB-9 Male (Black)	2 x DB-9 Male (Black)	4 x DB-9 Male (Black)
	Power	1 x DC Jack (Black)			
LEDs	Port	2 (Green)	4 (Green)	2 (Green)	4 (Green)
	Power	1 (Orange)			
Data Transfer Rate		115.2 Kbps (max.)			
FIFO		16 byte Hardware FIFO			
USB Specification		USB 1.1 Compliant; USB 2.0 Compatible			
RS-422/RS-485 Selection		N/A		Auto-detect and Switch	
RS-232 Signal		TxD, RXD, RTS, CTS, DTR, DSR, DCD, RI, GND		N/A	
RS-422 Signal		N/A		TxD+/-, RxD+/-, RTS+/-, CTS+/-, GND	
RS-485 Signal		N/A		Data+/-, GND	
Data Bit		5, 6, 7, 8			
Stop Bit		1, 1.5, 2			
Power Mode		Bus Powered; use of Power Adapter is optional			
Power Consumption		0.5W	0.6W	0.9W	1.0W
Environment	Operating Temp.	0–50°C			
	Storage Temp.	-20–60°C			
	Humidity	0–80% RH, Non-condensing			
Physical Properties	Housing	Metal			
	Weight	0.30 kg	0.32 kg	0.30 kg	0.32 kg
	Dimensions (L x W x H)	12.50 x 8.15 x 2.50 cm			

DB-9 PIN ASSIGNMENTS

Pin	RS-232	RS-422	RS-485
1	DCD	TxD-(A)	Data-(A)
2	RXD	TxD+(B)	Data+(B)
3	TXD	RxD+(B)	-
4	DTR	RxD-(A)	-
5	GND	GND	GND
6	DSR	RTS-(A)	-
7	RTS	RTS+(B)	-
8	CTS	CTS+(B)	-
9	RI	CTS-(A)	-

TROUBLESHOOTING

Problem	Possible Cause	Action
Cannot install serial device.	Advanced settings need to be configured.	Contact ATEN Technical Support for advice about your specific serial device.

LIMITED WARRANTY

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM THE DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK OR ITS DOCUMENTATION.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and specially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or update. For further inquires please contact your direct vendor.