ATEN®

Simply Better Connections™

USB 2.0 Peripheral Switch

USER MANUAL

US221A / US421A

FCC Information

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT: This equipment has been tested and found to comply with the limits for a Class B digital service, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, may cause harmful 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 to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

KCC Statement

유선 제품용 / B 급 기기 (가정용 방송 통신 기기)
이 기기는 가정용 (B 급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며 , 모든 지역에서 사용할 수 있습니다 .

RoHS

This product is RoHS compliant.

Online Registration

You can register your product at our online support center:

International	http://support.aten.com

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

For telephone support, call this number:

International	886-2-8692-6959
China	86-400-810-0-810
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988
	1-949-428-1111

North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	http://www.aten-usa.com/support
Telephone Support		1-888-999-ATEN ext 4988 1-949-428-1111

Package Contents

The US221A / US421A USB 2.0 Peripheral Switch package contains the following items:

- 1 2-port (US221A) or 4-port (US421A) USB 2.0 Peripheral Switch
- 1 1.8 m USB Type A to USB Type B Cable
- 1 User Instructions*

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 US221A / US421A since this manual was printed. Please visit our website to download the most up-to-date version of the manual.

Overview

The US221A / US421A is a 2/4-port USB 2.0 Peripheral Switch that allows up to 2/4 computers to share the use of a single USB peripheral device (such as a printer, scanner, mass storage drive, etc.*) on a one-at-a-time basis.

The peripheral focus can be given to a computer manually by using pushbuttons on the switch or by using the software-based configuration utility. In addition, the US221A / US421A has a new Auto Switch function that stores commands sent to the USB peripheral device to be processed on a first-come, first-served basis, meaning that a print server is not required.

Compatible with both Windows and Mac, and with multifunction printer support, the US221A / US421A is the ideal way to share the latest USB 2.0 peripherals in a multimedia SOHO environment.

Note: The US221A / US421A does not support a USB hub peripheral device.

Features

- Enables two (US221A) or four (US421A) computers to share a single USB peripheral device
- Simple port selection via pushbuttons or easy-to-use configuration utility
- Auto Switch function – no need for a separate print server
- USB 2.0 compliant
- Supports transfer rates up to 480 Mbps
- Multiplatform support – Windows and Mac
- LED indicators display port focus
- Overcurrent protection
- Bus-powered
- Hot pluggable
- Buzzer indicates switching between computers
- Supports multifunction printers

System Requirements

Computers

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

- USB host controller

Cables

- USB to USB cables to connect the computers to the peripheral device.

> **Note:** Only one USB Type A to USB Type B cable is provided in the US221A / US421A package. You will need to purchase an additional USB Type A to USB Type B cables for each computer you wish to connect to the US221A / US421A.

Operating Systems

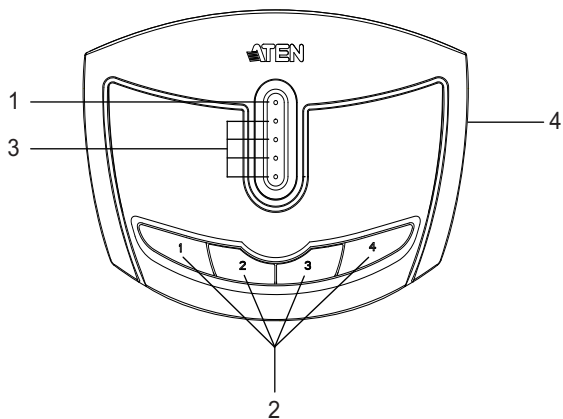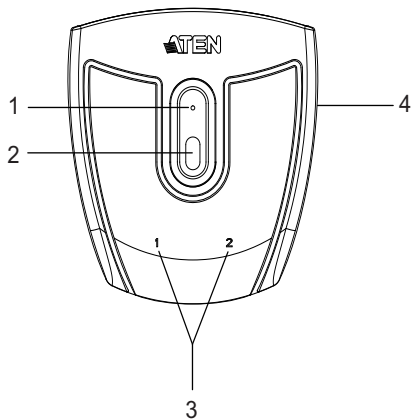Supported operating systems are shown in the table, below:

OS	Version
Windows	2000, XP, 2003, 2008, Vista
Mac	OS X 10.4.5, 10.5

Components

Top View

Rear View
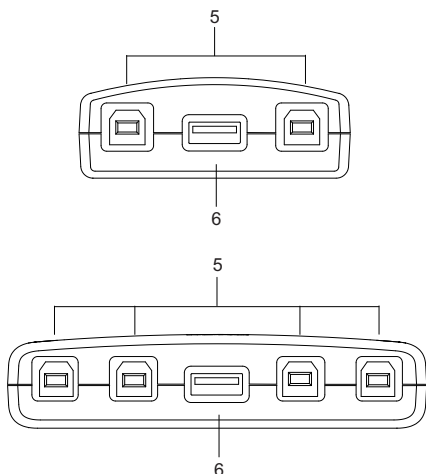
No.	Component	Description
1	Lock LED	Lights orange to show that the US221A / US421A is locked.
2	Port Selection Pushbutton(s)	Pressing a Port Selection Pushbutton brings control to the computer attached to its corresponding port. See *Manual Operation – Pushbutton*, page 13 for further details.
3	Port Selected LEDs	Lights green to show that the computer attached to its corresponding port has control.
4	Beeper On/Off Switch (on side)	Use this recessed switch to turn the US221A / US421A's beeper on or off.
5	USB Type B Computer Port	Your computers plug into these ports. See *Installation*, page 11 for further details.
6	USB Type A Peripheral Port	Your USB 2.0 peripheral device plugs into this port.

Installation

⚠️ 1. Make sure that the power to any device that you connect to the installation has been turned off and that all devices are properly grounded.

The US221A / US421A USB 2.0 Peripheral Switch provides 2/4 USB Type B ports for computers to connect to, and one USB Type A port for the peripheral device (multifunction printer, scanner, mass storage device, etc.) that the computers will share.

To install the US221A / US421A, do the following:

1. Use your USB device's USB cable to connect it to the US221A / US421A's USB Type A port.

2. Plug the USB Type B connector of the USB Type A to USB Type B cable provided with the US221A / US421A package into any available port on the US221A / US421A.

3. Plug the Type A connector into the computer's USB host port.

Repeat steps 2 and 3 for any other computers you are installing.

Note: Only one USB Type A to USB Type B cable is provided in the US221A / US421A package. You will need to purchase an additional USB Type A to USB Type B cables for each computer you wish to connect to the US221A / US421A.
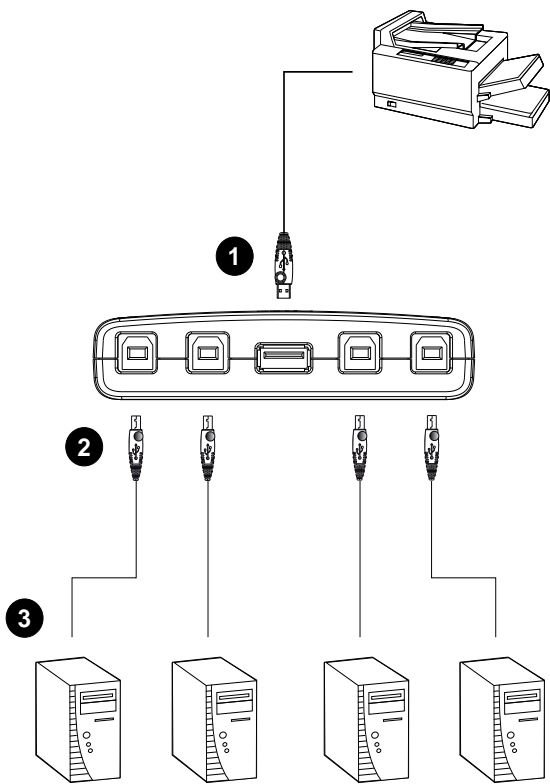
Manual Operation – Pushbutton

Note: Manual operation and the software-based configuration utility operate independently; commands from one will not override the other.

US221A

To toggle the USB peripheral focus between the two computers, press the port selection pushbutton (located on the top of the unit). The selected port LED flashes and the unit beeps. When the flashing stops and the LED becomes steady (in about four seconds), that port has the peripheral focus.

US421A

To switch the peripheral focus to another port, press the pushbutton that corresponds to that port. The selected port LED flashes and the unit beeps. When the flashing stops and the LED becomes steady (in about four seconds), that port has the peripheral focus.

Lock/Unlock Peripheral Focus

To lock the peripheral focus on a certain computer, press and hold the pushbutton that corresponds to that port for two seconds, or until the orange LED lights up.

To unlock the peripheral focus, press and hold the pushbutton that corresponds to that port for one second, or until the orange LED turns off.

Software Operation

Installing the Configuration Utility

The US221A / US421A has a software-based configuration utility that can be used to configure the US221A / US421A's settings, such as the Auto Switch function, Manual Switch and Release reminder, and sound effects. The utility can also be used to lock and unlock control of the US221A / US421A.

Note: Microsoft Windows users should login as an administrator to install and launch the US221A / US421A software.

To install the configuration utility, do the following:

**Note:** 1. Below examples are based on a Windows 10 operating system.

2. The screens shown in this section are for reference only. The wording and layout of the actual screens put up by the Software Installation Utility may vary slightly from these examples.

1. From a computer that is connected to the US221A / US421A using USB Type A to USB Type B cable, go to our Aten Support & Download → Downloads site and choose the model name that relates to your device (US221A / US421A) to get a list of available Software Installation Packages.

2. Choose the Software Installation Package you want to install (usually the most recent), and download it to your computer.
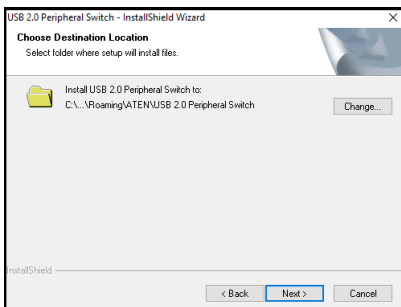
3. Extract and open the downloaded software installation package file, right click on the Setup icon, and select **Run as administrator** as shown in the picture below.
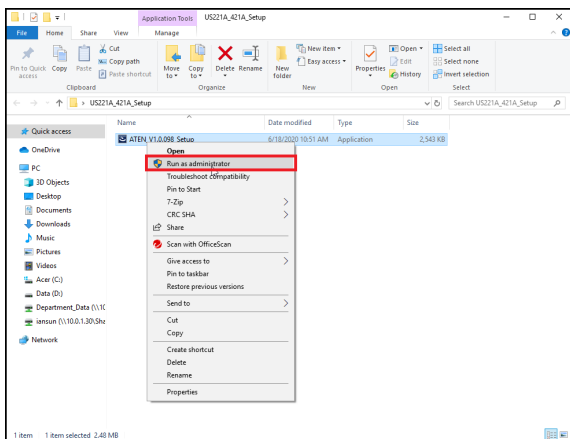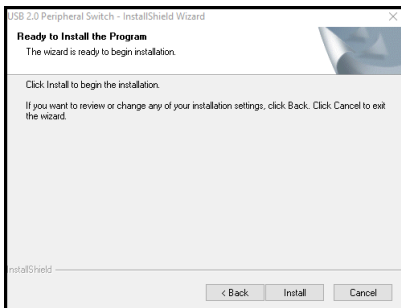

4. The *Software Installation Utility* welcome screen appears, and select **Next**.
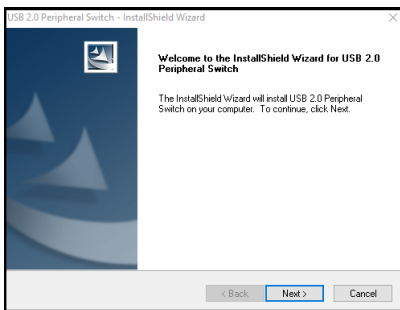
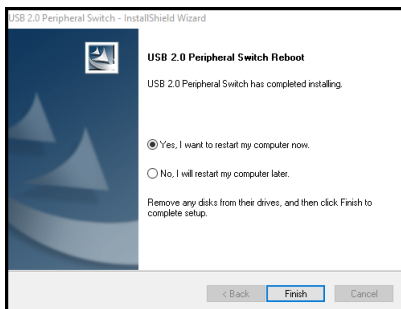5. To choose a destination location, click **Change**, or click **Next** to continue.

6. A confirmation screen appears, click **Next** to begin the upgrade.

7. After the upgrade has completed, you will be asked to restart the PC. Click **Yes** to restart the PC now, or click **No** to restart the PC later, then click **Finish** to exit the *Software Installation Utility*.

8. When the installation completes, an icon labeled *USB 2.0 Peripheral Switch Utility* appears on your desktop and another icon appears in your system tray.
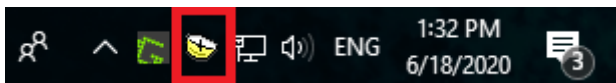
The icon on your system tray displays in four colors to indicate the US221A / US421A's status, as shown in the following table:

Color	Status
Green	Locked on local computer
Yellow	Connected to local computer
Red	Peripheral device not connected
Grey	Disconnected or busy

Basic Operation

When you click on the icon in your system tray, a menu bar of shortcuts appears. The first item at the top of the menu is one of four shortcuts, depending on the current status of the US221A / US421A. Shortcut options are *Lock Connection*, *Unlock Connection*, *Switch to Local Computer*, and *Cancel Switch Request*.

Lock / Unlock Connection

To lock the connection from your computer to the USB peripheral, click on the icon in the system tray and select **Lock Connection**.

This method is a toggle between Lock and Unlock, so to unlock the connection, do the same but click **Unlock Connection**.

Switch to Local Computer

To bring the control of the USB peripheral device to your computer, click on the icon in the system tray and select **Switch to Local Computer**.

Cancel Switch Request

If you have sent a request to the USB peripheral device and the USB peripheral device is busy, your request is queued. To cancel a sent request, click on the icon in the system tray and select **Cancel Switch Request**.

Advanced Operation and Settings

To use the Configuration Utility to view and change the US221A / US421A's settings, click on the icon in your system tray and select **Settings**. The following dialog box appears:
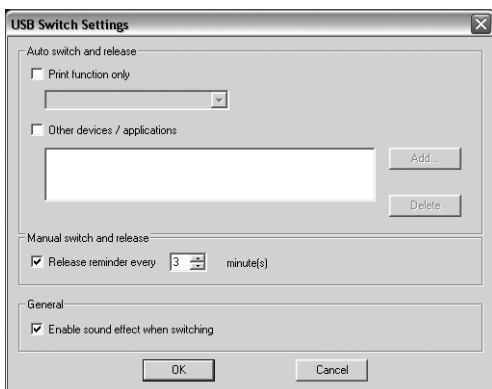
Auto Switch and Release

Enable these buttons to activate the US221A / US421A's Auto Switch function for a printer or other devices.

When *Auto Switch and Release* is enabled, commands sent to the USB peripheral device are stored to be processed on a first-come, first-served basis. Control of the US221A / US421A and the USB peripheral device is locked on the computer currently performing the action and then automatically released after the action is completed.

Printers

If your USB device is a printer or MFP (multifunction printer) and you wish to use its print function, enable the *Print Function Only* button and select the printer from the drop-down menu.

Note: 1. If the USB peripheral device is a printer, you do not need a separate print server.

2. If you cannot find your printer in the drop-down menu, the printer may need to be reinstalled. See *Troubleshooting*, page 23 for further details.

3. If your printer is a multifunction printer and you want to use its scan function, you must also enable the *Other Devices/Applications* button if these functions have dedicated applications. See *Multifunction Printers*, page 21 for further details.

Other Devices

To add another device (such as a scanner) and associate its application with the Auto Switch function, enable the *Other Devices/Applications* button and click **Add**. In the dialog box that appears, click **Browse** to search for the application program.* (In Microsoft Windows only, you can also key in the device name for easy reference).

Note: Be sure to search for the full application path. A desktop shortcut, for example, does not work.

Once a device and application has been associated with the Auto Switch function, the US221A / US421A automatically takes control of the attached USB 2.0 peripheral when the application is opened. Control is released when the application is closed.

Multifunction Printers

If your USB 2.0 peripheral device is a multifunction printer and you wish to use its **scan** function, there are three ways to do this:

- If the multifunction printer's scan function have dedicated applications, enable both the *Print Function Only* and the *Other Devices/Applications* buttons and click **Add**. In the dialog box that appears, click **Browse** to search for the application program. (In Microsoft Windows only, you can also key in the device name for easy reference).

- Simply operate the US221A / US421A manually. See *Manual Operation – Pushbutton*, page 13.

- Use the shortcut in the system tray. See *Basic Operation*, page 18.

To use the **fax** function of a multifunction printer, operate the US221A / US421A manually. See *Manual Operation – Pushbutton*, page 13.

⚠ If your printer is a multifunction printer and you want to use its print and scan functions, you must enable **both** the *Print Function Only* and the *Other Devices/Applications* buttons, if these functions have dedicated applications.

Manual Switch and Release

If the US221A / US421A is operating under manual control (with a USB 2.0 peripheral such as a storage device, for example), enable this button to set the time for a reminder to release control of the US221A / US421A. The reminder will appear as a dialog box on screen of the PC currently in control of the US221A / US421A.

General

Enable this button to turn the US221A / US421A's configuration utility beeper on.

Note: 1. This enables the software beeper. To enable/disable the hardware beeper, use the On/Off switch located on the side of the US221A / US421A unit.

2. Default settings are *Enabled*.

Troubleshooting

First, make sure that all cables are securely attached and seated completely in their sockets.

Problem	Possible Cause	Action
Unit operates erratically	Static electricity may cause the unit to operate erratically.	Disconnect the appropriate USB cable from the US221A / US421A port, then reconnect it.
Printer does not appear in configuration utility.	Printer was not installed correctly.	Re-install the printer; the configuration utility will now find the printer.
Monitor program of a printer does not respond / Print error messages are generated	The printer's USB port is configured for a PC; the US221A / US421A is in Auto Switch mode.	Disable the Auto Switch function and operate the US221A / US421A manually.
The Lock / Unlock function does not respond	The too rapid or continuous connecting / disconnecting of a USB connector from a locked port can cause the status of the lock to be misread.	Disconnect all USB cables from the US221A / US421A, then reconnect them.
Auto Switch print function does not respond.	OS printer settings not sent / not set correctly.	Reboot your PC to re-establish settings, or re-install the Configuration Utility. See *Software Operation*, page 14.
Auto Switch function for other devices does not release control after application closes.	OS failed to close the application.	Manual close the application in your OS.

Specifications

Function		US221A	US421A
Computer Connections		2	4
Computer Selection		Pushbuttons, Software, Auto Switch	
Connectors	Computer	2 x USB Type B	4 x USB Type B
	Device	1 x USB Type A	
LEDs	Device	1 (Orange)	
	Selected	2 (Green)	4 (Green)
Switches		2 x Pushbutton	4 x Pushbutton
Power Supply		USB Bus Powered	
Power Consumption		DC5V, 2.5W	
Environment	Humidity	0–80% RH, Non-condensing	
	Storage Temp.	-20–60ºC	
	Operating Temp.	5–40ºC	
Physical Properties	Housing	Plastic	
	Weight	54 g	97 g
	Dimensions (L x W x H)	7.20 x 6.60 x 2.50 cm	10.20 x 7.60 x 2.30 cm

Limited Warranty

ATEN warrants its hardware in the country of purchase against flaws in materials and workmanship for a Warranty Period of two [2] years (warranty period may vary in certain regions/countries) commencing on the date of original purchase. This warranty period includes the LCD panel of ATEN LCD KVM switches. Select products are warranted for an additional year (see *A+ Warranty* for further details). Cables and accessories are not covered by the Standard Warranty.

What is covered by the Limited Hardware Warranty
ATEN will provide a repair service, without charge, during the Warranty Period. If a product is detective, ATEN will, at its discretion, have the option to (1) repair said product with new or repaired components, or (2) replace the entire product with an identical product or with a similar product which fulfills the same function as the defective product. Replaced products assume the warranty of the original product for the remaining period or a period of 90 days, whichever is longer. When the products or components are replaced, the replacing articles shall become customer property and the replaced articles shall become the property of ATEN.

To learn more about our warranty policies, please visit our website:
http://www.aten.com/global/en/legal/policies/warranty-policy

MEMO

<u>MEMO</u>

MEMO